

**ATTACHMENT M:**

**VOLUME 13 –  
BALFOUR BEATTY CONSTRUCTION –  
STATEMENT OF QUALIFICATIONS**

# **CHILDREN AND FAMILY JUSTICE CENTER**

**Contract 00863C13**

**Volume 13 of 14**

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**Balfour Beatty Construction – Statement of Qualifications**

**Including Reference Check Forms**

**December 2014**



**King County**

Department of Executive Services  
Facilities Management Division



**TABLE OF CONTENTS  
CHILDREN AND FAMILY JUSTICE CENTER  
CONTRACT C00863C13**

**VOLUME 1 – DESIGN-BUILD AGREEMENT, EXHIBITS AND ATTACHMENTS**

INSURANCE  
PERFORMANCE AND PAYMENT BOND  
W-9 REQUEST FOR TAXPAYER IDENTIFICATION NUMBER  
FINANCIAL CAPACITY VERIFICATION  
CONFIRMATION MEMORANDUM OF UNDERSTANDING

**VOLUME 2 - BALFOUR BEATTY DESIGN BUILD TEAM – BEST AND FINAL OFFER**

VOLUME 1 OF 2 – BEST AND FINAL OFFER,  
INCLUDING OUTLINE SPECIFICATIONS

**VOLUME 3 - BALFOUR BEATTY DESIGN BUILD TEAM – BEST AND FINAL OFFER**

VOLUME 2 OF 2 – BAFO DESIGN DRAWINGS

**VOLUME 4 – REQUEST FOR BEST AND FINAL OFFER**

INCLUDING ADDENDA 12 – 14

**VOLUME 5 - BALFOUR BEATTY DESIGN BUILD TEAM – PROPOSAL**

VOLUME 1 OF 2 – PROPOSAL

**VOLUME 6 - BALFOUR BEATTY DESIGN BUILD TEAM – PROPOSAL**

VOLUME 2 OF 2 – PROPOSAL DESIGN DRAWINGS

**VOLUME 7 – REQUEST FOR PROPOSAL – ADDENDA 1 - 11**

**VOLUME 8 - REQUEST FOR PROPOSAL**

PART A – REQUEST FOR PROPOSAL

**VOLUME 9 - REQUEST FOR PROPOSAL**

PART B – FACILITY PERFORMANCE STANDARDS

**VOLUME 10 - REQUEST FOR PROPOSAL**

PART C – FACILITY PROGRAM

**VOLUME 11 - REQUEST FOR PROPOSAL**

PART D – ROOM DATA SHEETS

**VOLUME 12 - REQUEST FOR PROPOSAL**

PART E – REFERENCE DOCUMENTS - *NOT USED*  
PART F - FINANCIAL CAPABILITY – *SEE VOLUME 1 FOR VERIFICATION FORM*  
PART G - DRAFT DESIGN BUILD CONTRACT - *SEE VOLUME 1 FOR SIGNED AGREEMENT*  
PART H - DIVISION 1 – GENERAL REQUIREMENTS

**VOLUME 13 - BALFOUR BEATTY CONSTRUCTION – STATEMENT OF QUALIFICATIONS**

**VOLUME 14 – REQUEST FOR QUALIFICATIONS**

INCLUDING RFQ ADDENDA 1 – 3





# CHILDREN AND FAMILY JUSTICE CENTER DESIGN-BUILD CONTRACT

Contract C00863C13

**Balfour Beatty Construction  
(Howard S. Wright, A Balfour Beatty Company)**

*An Integrated Team with Local Experience and Global Expertise*



**Balfour Beatty**  
Construction Services US



**Howard S. Wright**  
a Balfour Beatty company



**integrus**  
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King County



*An Integrated Team with Local Experience and Global Expertise*



**Balfour Beatty**  
Construction Services US



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a Balfour Beatty company



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**King County**

## TABLE OF CONTENTS

<b>Section I:</b> Letter of Interest	<b>i</b>
<b>Section II:</b> Statement of Qualifications Certification	<b>iii</b>
<b>Section III: Factor 1</b> – Lead Designer Technical Approach	<b>1</b>
<b>Section IV: Factor 2</b> – Project and Team Experience	<b>21</b>
<b>Section V: Factor 3</b> – Team Organization and Key Personnel	<b>33</b>
<b>Section VII:</b> Attachments	<b>47</b>









Darren R. Chernick, Contract Specialist  
King County Finance and Business Operations Division  
Procurement & Contract Services Section  
401 Fifth Avenue, 3rd Floor, Chinook Building  
Seattle, Washington 98104

September 25th, 2013

**Re: Children and Family Justice Center Design-Build Contract - C00863C13**

Dear Mr. Chernick,

King County's Children and Family Justice Center is a very unique project and will require an top notch integrated delivery team. The team we have assembled is carefully tailored to meet the needs of this unique and challenging assignment. The Balfour Beatty, Howard S. Wright, HOK, and Integrus team has a proven history of collaboration, design-build delivery, and understands how everyone at the table must have an equal voice. You will benefit from our team's unparalleled security, judicial, and detention center experience. With of over 45 major Juvenile Justice projects, the team assembled by Balfour Beatty Construction is eager, highly motivated and ready to partner with King County. Our executive leadership team of Mike Ryan and Paul Snorsky offer you the experience of having completed dozens of judicial and detention facilities across the nation along with the local experience to understand our market in King County, specifically in Seattle, to maximize our diversity, small business contracting, apprenticeship and accident prevention goals.

- **Senior Project Manager, John Parker**, is a proven seasoned veteran who works closely with **Mike Ryan, Paul Snorsky and King County** to lead the team utilizing LEAN principles, integrated delivery, and innovative technologies for planning and performing the tasks at hand.
- **Alan Bright (HOK) and Larry Hurlbert (Integrus)** will provide leadership for our design team and King County to realize cutting edge architectural and functional excellence. The team will be supported by both national and local design expertise for the different components of the project (specifically the courts and the detention facilities) so that design experience and expertise is laser focused for these distinctly different elements of the program.
- **AHBL Civil Engineers and HBB Landscape Design and Urban Planning** will assist us in creating the infrastructure to support the facility as well as the environment to integrate the CFJC into the community.
- **Glumac (mechanical & electrical) and Justice Systems (security, communications, and audio-visual) will be the life blood of the CFJC project.** Senior MEP coordinator Colin Moar will provide thoughtful, functional, sustainable, and innovative systems that will be fully coordinated with all detention and court program elements for simple, smooth, efficient operations.
- **Our General Superintendent, Mike Levison, is one of a few people that have exhibited our ability to work on a complex King County design-build project**, on a critical occupied operational campus (Harborview Medical Center) with no impact to operations. No one can offer you this confidence in a team that knows how to work on the CFJC campus without impacting your operations.

This team has the expertise and leadership to accomplish King Counties' goals of:

- **Providing highly predictable cost and schedule control**
- **Promote Owner-Focused Team Collaboration**
- **Supporting a Fast Flexible Schedule**

This letter serves to demonstrate our unwavering interest in partnering with King County to efficiently and effectively design and deliver King County's Children and Family Justice Center. We believe you will discover that our enclosed Statement of Qualifications demonstrates our superior ability to meet King County's project goals and requirements.

*Continued on following page.*





**King County**

*a. RFQ Title and Number;*

**RFQ Title: Children and Family Justice Center Design-Build Contract**

**Contract Number: C00863C13**

*b. Applicant's name, mailing address, single point of contact person, telephone and e-mail address where inquiries or notices should be directed;*

**Applicant's Name**

Balfour Beatty Construction (Operating locally as Howard S. Wright)

**Address**

501 Eastlake Avenue East, Suite 100  
Seattle, WA 98109

**Single Point of Contact Person**

Paul Snorsky  
Vice President - Major Projects  
Phone: 206.447.7654  
Email: snorskyp@hswc.com

*c. A statement that the Applicant will comply with the County's policy on Small Contractors and Suppliers, Apprenticeship, Equal Benefits and non-discriminatory policy for the Contract, and enter into a Project Labor Agreement with the local trade unions for this Contract;*

Balfour Beatty Construction (Operating Locally as Howard S. Wright) will comply with the County's policy on Small Contractors and Suppliers, Apprenticeship, Equal Benefits and non-discriminatory policy for the Contract, and enter into a Project Labor Agreement with the local trade unions for this Contract.

*d. A statement from the Applicant indicating that the information requested by the County within this SOQ is true and complete and the Applicant's acknowledgment that any failure to disclose the required information or the submittal of false or misleading information may result in the rejection of the Applicant's SOQ.*

Balfour Beatty Construction (Operating Locally as Howard S. Wright) hereby certifies, to the best of its knowledge and belief, that the information provided herein is true and correct, and sufficiently complete so as not to be misleading. We understand that any failure to disclose the required information or the submittal of false or misleading information may result in the rejection of the SOQ.

*e. A statement committing to maintain the evaluated design team Key Personnel and Key Subcontractors intact through completion of the design process. Howard S. Wright commits to maintain the evaluated design team Key Personnel and Key Subcontractors intact through completion of the design process.*

Balfour Beatty Construction (Operating Locally as Howard S. Wright) ensures that all design drawings and/or construction documents will be prepared by professional architects and engineers licensed or registered in the State of Washington.

*f. A statement that all design drawings and/or construction documents will be prepared by professional architects and engineers licensed or registered in the State of Washington.*

Balfour Beatty Construction (Operating Locally as Howard S. Wright) agrees to in-person presentations and attendance at all Owner briefings during the RFP process as requested by King County.

Our commitment to this project runs from the highest level of the company to the last carpenter on-site. Thank you for the opportunity to propose on the CFJC project, we look forward to being your Design-Build partner.

Sincerely,

Paul Snorsky  
Balfour Beatty Construction (Operating locally as Howard S. Wright)





**CHILDREN AND FAMILY JUSTICE CENTER DESIGN-BUILD CONTRACT  
C00863C13**

**STATEMENT OF QUALIFICATIONS CERTIFICATION FORM**

**APPLICANT'S DECLARATION AND STATEMENTS OF UNDERSTANDING**

The undersigned, (hereinafter called the "Applicant") declares that we have read and understood the Request for Qualifications, RFQ C00863C13, "Children and Family Justice Center". On behalf of, and with the full authority from all of the Applicant's team for this Contract, the Applicant submits the enclosed Statement of Qualifications. The Applicant certifies that it and the proposed team shall meet all of the requirements contained in the Request for Qualifications.

The Applicant agrees that, in addition to this Certification Form, the information submitted in response to this RFQ shall constitute our Statement of Qualifications.

The Applicant certifies that all the information and statements contained in the Statement of Qualifications are current, correct and complete, and are made with full knowledge that the County will rely on such information and statements in determining whether the Applicant will proceed to the next phase of the procurement.

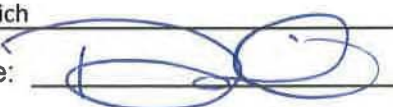
The Applicant certifies no member of the team is currently suspended or debarred from doing business with any government entity.

The Applicant certifies that, in preparing this response, we have not been assisted by any current or former employee of King County whose duties relate (or did relate) to this RFQ and who was assisting in other than his or her official public capacity; nor does such a current or former employee or any member of his or her immediate family have any financial interest in the outcome of this RFQ. Any exceptions to these assurances are described in full detail on a separate page and attached to this Certification Form.

The Applicant certifies that the Statement of Qualifications has been prepared and is submitted without collusion, fraud or any other action taken in restraint of free and open competition for the services contemplated by the RFQ.

The Applicant hereby acknowledges that Addenda Numbers 1 through 2 have been delivered to us and have been taken into account as part of our Statement of Qualifications. We agree that all addenda issued are hereby made part of our Statement of Qualifications.

The principal contact person who will serve as the interface between the County and the Applicant for all communication is:

PRINCIPAL CONTACT PERSON	APPLICANT
Name: <u>Paul Snorsky</u>	Name of Applicant: <u>Balfour Beatty Construction</u>
Title: <u>Vice President - Major Projects</u>	Name of Designated Signatory: <u>Dan Peyovich</u>
Address: <u>501 Eastlake Ave E. Suite 100</u>	Signature: 
Phone: <u>206.447.7614</u>	Print Name: <u>Dan Peyovich</u>
Fax: <u>206.447.7727</u>	Title: <u>Washington Division President</u>
E-mail: <u>snorskyp@hswc.com</u>	Dated this <u>25th</u> day of <u>September</u> , <u>2013</u>









### ALLAN BRIGHT, AIA LEED AP

#### Education:

University of Oregon  
Bachelor of Architecture

Southern California  
Institute of Architecture

#### Registration and Accreditations:

Registered Architect in California,  
Registration in Washington Pending  
LEED® Accredited Professional

#### Professional Affiliations:

American Institute of Architects  
(AIA)  
Academy of Architecture for  
Justice  
University of Oregon Board  
Member. Board of Visitors.  
Executive Committee member  
and Council Chair; School of  
Architecture and Allied Arts (2009-  
2012)

#### Additional References:

Lt. Deborah Bazan  
San Mateo County, CA  
650.508.6721

Sean Carolan  
Hensel Phelps Construction  
415.419.5010

**Sub-factor 1.A (1): Lead Designer Profile and Portfolio Description.** *Biographical sketch of the Lead Designer, including education, professional experience, recognition for design efforts inclusive of the portfolio examples. Identify and describe areas of responsibility and commitment to each project.*

#### PROFESSIONAL EXPERIENCE

Alan Bright, AIA, LEED AP BD+C, is a senior vice president and design principal for HOK's San Francisco and Seattle offices. Through his projects and design leadership, Alan has played a key role in guiding the architectural profession toward sustainability and low energy consumption through the use of an integrated design process. The result of his distinct philosophy is a prodigious and diverse catalog of justice architecture that enhances and elevates the human experience in the built environment. Alan strips away pretense and cliché, with a sole purpose of satisfying users without sacrificing design excellence and respect for the environment.

#### JUSTICE EXPERIENCE

In the entire nation there are only a handful of architectural design leaders who have focused their careers on courthouses, juvenile facilities and related justice facilities. None have more experience, awards, national recognition, peer admiration and genuine personal and professional respect than Alan Bright.

**Alan has been the lead designer on several children and juvenile courthouses and detention centers. He is highly aware of the unique nature of these facilities and just how different they are from their adult counterparts.** His projects are repeatedly cited and published as examples of advanced courthouses and justice center design and planning. For example, over the past 20 years in their publication *Retrospective of Courthouse Design and Planning* the National Center for State Courts have selected his courthouses as examples to the nation of functional and design excellence more often than those of any other designer and HOK court houses were recognized three times more than those of any other firm.

**Alan's Arnason Courthouse in California received the highest point score of any general jurisdiction courthouse in the nation during the past decade.** In addition to his expertise in justice facility design, Alan is equally recognized for his leadership in sustainable building design. With 30 years of experience in the United States and Asia, Alan is also experienced with laboratory, corporate,

healthcare and government buildings. He has been responsible for some of HOK's most complex and internationally acclaimed buildings. Not only are his designs embraced by the community and users, but they always are completed within budget and schedule.

Alan's personal reputation is on an even higher plane than his professional. Known to all as a respectful, trustworthy, thoughtful and genuine person, Alan represents the very antithesis of the stereotype, self-centered, I-know-what's-best, prima Dona designer. Clients and colleagues alike gravitate to him as the kind of person and architect we all would like to be. **His steady, collaborative, honest, open and even handed approach allows him to work simultaneously and effectively with multiple stakeholders** – judges, court managers, detention officials, public works agencies, community interest groups, etc. - who can sometimes present conflicting agendas.

#### PIONEER OF THE INTEGRATED APPROACH

Alan has led the early adoption of an integrated team process to achieve efficiencies and outcomes not possible within a conventional design process. His innovative approach creates a client-centric dialog among engineers, consultants, and contractors. The process involves a dynamic exchange where Alan challenges clients and stakeholders to refine and fully articulate their goals around a framework of core needs, aspirations, and outcomes. Integrating the entire design, engineering, and construction team in these early discussions allows clients to make fully informed decisions that reinforce and drive overall project vision.

**Through this process of innovative creativity, Alan's projects more consistently address the entirety of project outcomes from human experience, resource conservation and sustainability, life-cycle value, and aesthetics.** By ensuring that energy analysis, engineering solutions, and other performance-based considerations inform the design, teams can optimize building size, land use, mechanical and structural systems, energy and water use, and operating costs.





**Balfour Beatty**  
Construction Services US



**Howard S. Wright**  
a Balfour Beatty company



**integrus**  
ARCHITECTURE

## King County



Richard E. Arnason Justice Center



Franchise State Tax Board



Phoenix Municipal Courthouse



San Mateo County Sheriff's Forensics Laboratory and Coroner's Office

### ADVANCING THE INDUSTRY TO NET-ZERO

Alan and HOK launched the **Net Zero Court** project. Alan's integrated team, including a developer, engineers, and a daylighting consultant, created a market-rate, zero-emissions design for a Class A, 150,000 sq. ft. building in St. Louis. The design is 73 percent more energy efficient than an ASHRAE 90.1-2004 benchmark office building and features photovoltaic panels, daylighting, and solar hot water.

Using Net Zero Court as a basis, Alan and the team created 123 Zero Build, a free app downloadable via iTunes, which allows users to calculate the performance of a market-ready carbon-neutral building design in any US location using an integrated design process. The app has been downloaded numerous times by architects, engineers, and students over the last three years. Alan has shared Net Zero Court widely through presentations, lectures, and web seminars with participants from around the country, including the Pacific Gas & Electric (PG&E) Lecture Series in winter 2011 and the Fall 2011 Regenerative Network Forum.

### HOK INTERNATIONAL DESIGN BOARD

Alan serves on HOK's firm-wide international design board, promoting excellence in sustainable and fully integrated design. One of the many innovations Alan has introduced is a teaming concept where HOK architects engineers, planners and sustainability leaders are organized into project-centric teaming clusters, making integrated design a standard practice. This process has led to consistently higher performing sustainable projects that achieve the AIA's 2030 challenge and push toward net zero. This process has most recently shown its success in the design and energy strategies implemented on the Oregon State Hospitals, the highly acclaimed Richard E. Arnason Courthouse and the San Mateo County replacement justice center.

### SERVICE TO THE COMMUNITY

Alan is a member of the Courts Committee of the AIA Academy of Architecture for Justice and has been a contributor to publications on sustainable justice design. He also lectures at numerous AIA sponsored forums on advanced justice planning and design apron and the importance of the integrated design process to justice facility architectural and functional excellence. Alan is a mentor in AIA San Francisco's student mentorship program.

Since 2009, Alan has served on the University of Oregon's Board of Visitors, the School of Architecture and Allied Arts' volunteer

organization. Alan attends the School of Architecture and Allied Arts' annual career symposiums, providing practical mentorship for students entering the working world. He is currently the chair of the Student Outreach and Mentorship Committee.

Through his involvement with the University of Oregon, Alan serves as a guest lecturer and teacher. In the spring 2013 he spoke on the subject of "The Future of Architecture, an Integrated Solution to Sustainability."

### RECENT SIGNIFICANT PROJECTS

The following is an overview of major projects that Alan has been directly involved in as designer, developing the space program and functional concepts and collaborating with the design team.

#### Richard Arnason Justice Center, Pittsburg, CA (2010) Role: Lead Designer

71,600 SF stately and open civic courthouse designed to allow the lobby and jury assembly room to be used by the community after hours while maintaining security for the facility. Includes juvenile and family courts.

LEED Silver; AIA/AAJ Justice Facilities Review, Award of Excellence; Citation, 2013; National Center for State Courts, Retrospective of Courthouse Design, Citation for Design Excellence, 2010; AIA Academy of Architecture for Justice, Justice Facilities Review, Design Award, 2009

#### Alameda County Juvenile Justice Center, San Leandro, CA (2008), Role: Lead Designer

379,000 SF juvenile facility that includes a juvenile hall, family courts and administrative space. The space was designed to be a calming and hospitable environment for the children and families going through the legal process.

LEED Gold; National Center for State Courts (NCSC) Retrospective, 2010; State of California, Governor's Environmental and Economic Leadership Award, Sustainable Practices or Facilities, 2009; Environmental Design + Construction, Excellence in Design Award, 2008; AIA Committee of Architecture for Justice, Design Award, 2008; Precast/Prestressed Concrete Institute (PCI), Design Award, 2008; CMAA Northern California Chapter, Project of the Year Award, 2008; Cemex US Building Awards, Sustainability and Institutional/Industrial Award, 2008; California Construction, "Best of 2007", Merit Award, 2007; Design-Build Institute of America, Excellence Award, 2007

#### Oregon State Psychiatric Institution, Salem, OR (2012), Role: Lead Designer

850,000 SF restoration and addition to Oregon's primary state mental health institution. This high security facility contains court functions, high and medium security housing and extensive therapeutic and rehabilitation programs.



Scott M. Matheson Courthouse

LEED Gold Equivalent; AIA Portland, 2030 Design Award, Honorable Mention, 2012; Construction Management Association of America, Project Achievement Award, New Construction over \$100 million, 2012; Masonry & Ceramic Tile Institute, Hammurabi Award of Honor, 2012

### King County Regional Justice Center, Kent, WA Role: Lead Designer

810,000 sq. ft.; 23 courtrooms; 1300 beds; \$108 million. Contains courts, a major regional intake/release facility, detention space and related community services.

### Franchise Tax Board, Sacramento, CA (2005) Role: Lead Designer

1,000,000 SF campus expansion. With staff spread throughout Sacramento, the location's proximity to a light rail station prompted the expansion and consolidation to one location to save resources. LEED Gold & Silver; AIA San Francisco, Merit Award for Sustainable Design, 2007; AIA Central Valley, Citation Award for Design, 2006; AIA California Chapter, Savings By Design Award for Highly Integrated Team Approach, Citation Award, 2006; Gold Nugget Awards, Grand Award for Best Sustainable Commercial Project, 2006

### Phoenix Municipal Courthouse, Phoenix, AZ (2000) Role: Lead Designer

380,000 SF, six-story, downtown courthouse contains 40 courts and public counters opening into a six-story atrium connecting all court floors. National Center for State Courts (NCSC) Retrospective, 2001; AIA, Design Award, 2001; AIA/ACA Architecture for Justice Exhibition, 1997; AIA/AAJ Justice Facilities Review, 1997

### Forensics Laboratory and Coroner's Office, San Mateo County, CA (2003), Role: Lead Designer

29,000 SF highly technical and highly sustainable lab that provides a bright, open work environment while meeting stringent security requirements. Top 10 COTE; LEED Certified; AIA San Francisco, Energy & Sustainability, Honor Award, 2007; AIA California Council, Savings by Design, Grand Award, 2006; Sustainable Buildings Industry Council, Exemplary Sustainable Building Award, Honorable Mention, 2005; R&D Magazine, Lab of the Year, Special Mention, 2004; AIA San Mateo County, Certificate of Special Congressional Recognition, Green Building Award, 2004; Environmental Design + Construction, Special Mention, 2004 AIA Committee on the Environment, Top Ten Green Projects Award, 2003; AIA San Mateo County, Excellence in Design Award, 2003; ARC, Design Excellence in Architecture and Engineering, 2003; AIA Committee on Architecture for Justice, Citation Award in Excellence, 2002/2003

### San Mateo County Replacement Justice Facility Redwood City, CA (Est. 2014), Role: Lead Designer

260,000 SF highly advanced transitional facility. Designed to fit in with the surrounding urban context and to establish a new paradigm for local

detention facilities. The facility maximizes the use of natural light to aid in the rehabilitation process. LEED Gold (anticipated)

### Scott M. Matheson Courthouse, Salt Lake City, UT (2001), Role: Lead Designer

685,000 SF downtown courthouse included State Supreme Court and Appellate Court; 200 holding cells; CM; Design-build; Fast-track NCSC Retrospective, 2001; Western States Building of the Year, 1998; AIA/AAJ Justice Facilities Review, 1995

### LECTURES | PUBLIC SPEAKING

In the past 10 years Alan had 16 speaking engagements mostly on the National/Regional level with heavy emphasis on advanced justice design and planning. Representative examples include:

#### AIA Academy of Architecture for Justice Conference, 2010

Courthouse of the Future

#### State of California, Administrative Office of the Courts, 2010

Design Excellence in New Courthouses

#### AIA Academy of Architecture for Justice Conference, 2013

Sustainable Justice Principles in Practice

#### State of California, Administrative Office of the Courts, 2005, 2009

Courthouse Design

#### AIA San Francisco, 2013

Reaching for New Standards in California Detention Facilities

#### Stanford University College of Environmental Design Lecture, 2003 - 2005

### WRITTEN WORK

Alan served as a contributing author to a variety of publications—15 in just the past 10 years. Representative examples include:

#### "Courthouse Design on the Drawing Board," Courts Today, June 2012

#### "Achieving and Sustaining the Green Court," National Association for Court Management, 2009

#### California Trial Court Facilities Standards, Judicial Council of California, 2006 & 2011

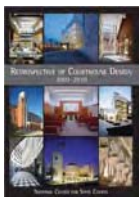
#### The HOK Guidebook to Sustainable Design, 2005



123 Zero Build



The HOK Guidebook to Sustainable Design



Retrospective of Courthouse Design





*Sub-factor 1.A (2): Lead Designer's portfolio of no more than three (3) projects of Similar Scope and Complexity, completed in the last ten (10) years, with particular focus on sustainable design building and technical innovation.*

## **PROJECT 1: RICHARD E. ARNASON JUSTICE CENTER PITTSBURG, CALIFORNIA**



*The court's monumental limestone facade presents a sense of dignity, while welcoming visitors with transparent public spaces.*

### **LEED® SILVER**

#### **Size**

71,600 sq. ft.  
7 courtrooms

#### **Completion**

2010

#### **Project Narrative:**

As the first funded full-service courthouse as part of the State of California's newly developed Trial Court Facility Standards, the Richard E. Arnason Justice Center's limestone facade and transparent entry lobby, jury assembly pavilion and open galleries inspire a sense of dignified stateliness combined with natural beauty and friendly openness. The client's goal was to provide a contemporary yet enduring civic edifice appropriate to a satellite suburban courthouse, achieved in a three-level, 73,500-square-foot building with traffic, family, juvenile, and criminal trial and arraignment courtrooms.

Inside, the environment invokes a sense of calm. The design was inspired by the site's adjacent rolling foothills and surrounding river delta, with simple and natural materials selected for longevity, ease of maintenance, and sustainability, and include limestone, terrazzo, redwood veneers from salvaged logs, Trespa and glass. The artwork at the main entry echoes the shadows and colors of the nearby hills and mountains, casting soft, water like shadows into the second story hallway.



### PROJECT 1: RICHARD E. ARNASON JUSTICE CENTER PITTSBURG, CALIFORNIA



**SITE LOCATION**  
As the gateway to the growing eastern portion of Contra Costa County, Pittsburg, California was growing rapidly and required a stronger court presence and the replacement of existing, outdated court facilities. In response to a solicitation for sites, the AOC received site offers in Pittsburg (adjacent to the existing courthouse), Antioch, and Oakley. Taking important local considerations into account, including population, mass transit systems, highway growth, land development costs, and the proximity of court-related county agencies, the AOC selected the Pittsburg location.



*Right Top: The site is intended to be a civic complex. Currently housing both the courthouse and the civic center, it will eventually include other civic functions and mixed-use development.*

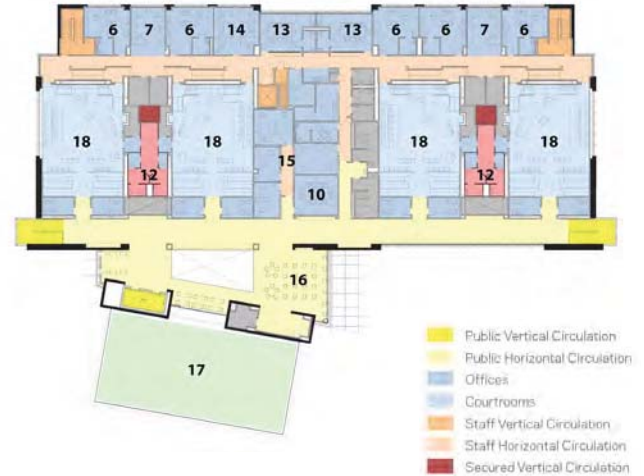
*Left Top: Even first floor spaces are able to utilize the natural California sunlight, and windows offer stunning views of Mount Diablo.*

*Left Middle The design was inspired by the site’s natural beauty and the materials, textures, and colors evoke adjacent foothills and surrounding river delta.*





**PROJECT 1: RICHARD E. ARNASON JUSTICE CENTER  
PITTSBURG, CALIFORNIA**



The program included 7 courthouses with the ability to expand to the east to 10 in the future.



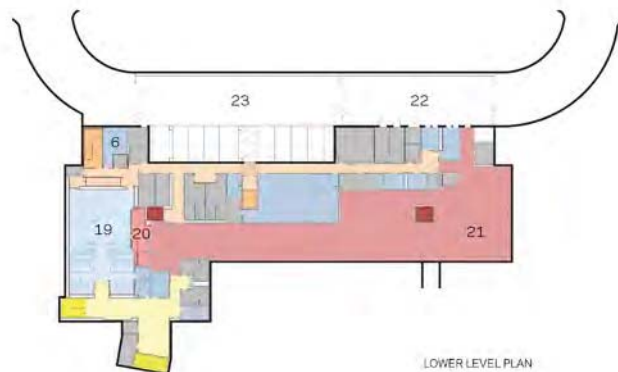
The jury assembly, traffic court, and entry lobby portion are carefully planned to be isolated from the rest of the facility for after-hours use for night court or the community.

The circulation is easy and clear for the public and efficient for staff. Currently housing seven courts, it is designed for future expansion to 10. All courtrooms incorporate advanced courtroom technology. The jury assembly, traffic court, and entry lobby are elegantly designed to be isolated from the rest of the facility for after-hours night court or community use without compromising the overall building security.

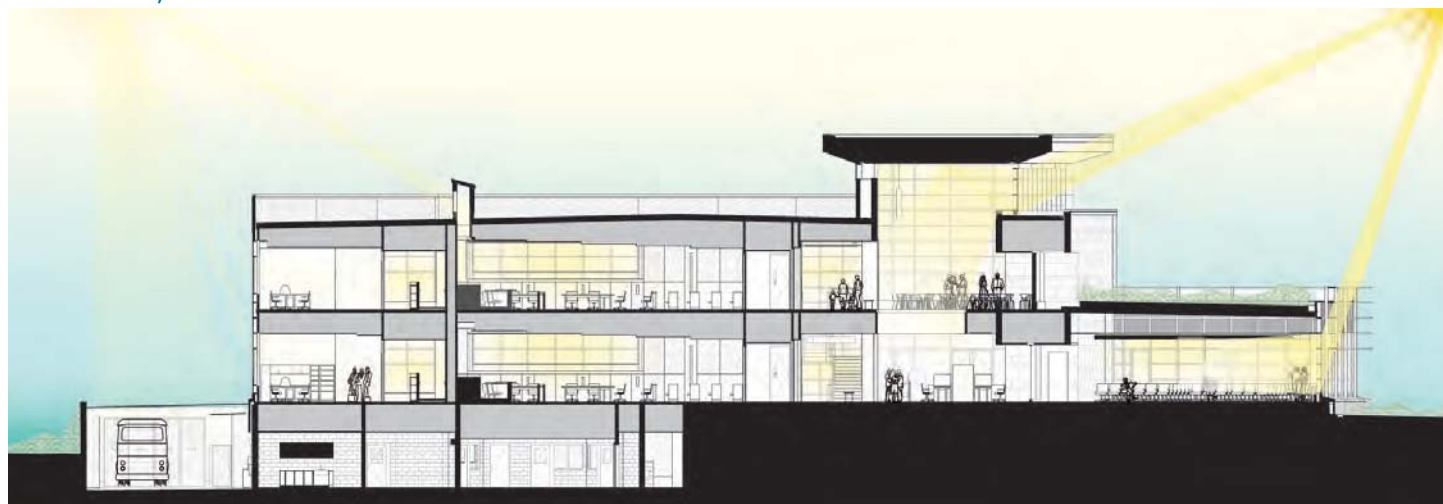
The entry plaza recalls the “courthouse square” of the past, using decomposed granite steps and ramps up to the elevated entry. The site is landscaped with native and drought resistant plants and trees. A network of bioswales provide the required security standoff while minimizing stormwater runoff. A green roof over the jury pavilion adds life and natural beauty while reducing energy loads and slowing stormwater runoff. The project will receive LEED Silver certification.



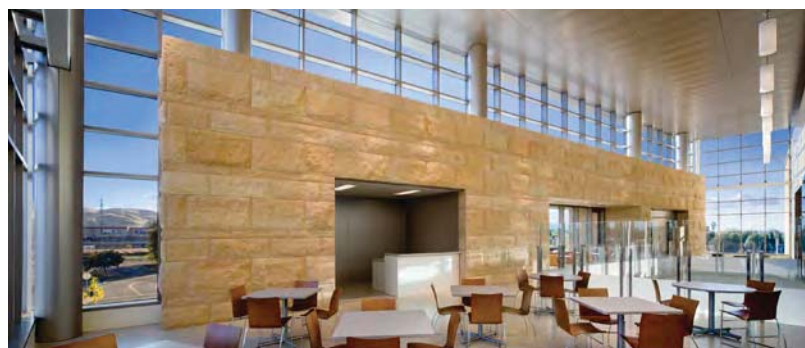
The design features daylight and the public spaces, staff work areas and courtrooms benefit from abundant natural light.



## PROJECT 1: RICHARD E. ARNASON JUSTICE CENTER PITTSBURG, CALIFORNIA



*The Courthouse attained LEED Silver certification utilizing strategies such as water mitigation through the installation of bioswales and a vegetated roof. The courthouse also maximized the use of daylighting throughout the building wherever possible, including traffic courtrooms that did not require as many security measures.*



*Public spaces maximize the use of natural daylight, requiring significantly fewer light fixtures than in a typical space of this size.*



*The clear and efficient circulation system contributes to the ease of use by the public, and the efficient operation by staff.*

### SUSTAINABLE FEATURES

- Oriented to minimize heat gain and optimize daylight.
- Facility exceeds Title 24 energy use by 22.5 percent.
- Efficient fixtures reduced interior water use by 40 percent.
- 50 percent reduction in exterior water use with drought-resistant foliage.
- Green roof protects the roof, slows drainage and provides a view.
- Bioswales treat stormwater to reduce burden on municipal sewage system.
- Building materials selected for high recycled and renewable content and durability.
- Half of the wood used in the building is certified as sustainably forested by the Forest Stewardship Council.
- Contractor diverted more than 85 percent of construction waste from landfills.

### DESIGN FEATURES

- Contemporary yet enduring civic edifice
- Design inspired by the site's adjacent rolling foothills and surrounding river delta
- The jury assembly, traffic court, and entry lobby designed to be isolated from the rest of the facility for after-hours use.
- Circulation is easy and clear for the public and efficient for staff.





## PROJECT 1: RICHARD E. ARNASON JUSTICE CENTER PITTSBURG, CALIFORNIA



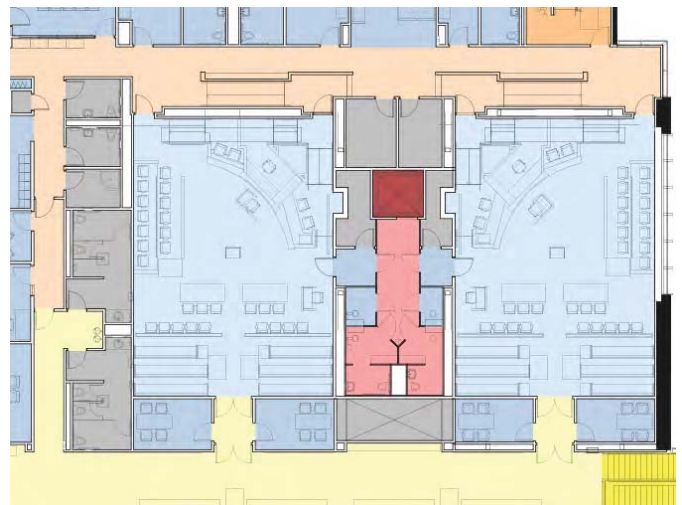
*The courtrooms maximize the use of daylighting, while meeting all security requirements.*

### Awards

- AIA/AAJ Justice Facilities Review, Award of Excellence Citation, 2013
- National Center for State Courts, Retrospective of Courthouse Design, Citation for Design Excellence, 2010
- AIA Academy of Architecture for Justice, Justice Facilities Review, Design Award, 2009

### Reference

Pearl Freeman  
California Administrative Office of the Courts  
415.865.4060  
pearl.freeman@jud.ca.gov



## PROJECT 2: ALAMEDA COUNTY JUVENILE JUSTICE CENTER SAN LEANDRO, CALIFORNIA



*Entry to the Alameda Juvenile Justice Center*

### LEED® NC GOLD

#### Size

379,000 sq. ft.  
360 beds  
5 juvenile/family courts

#### Cost

\$135 million

#### Completion

2007

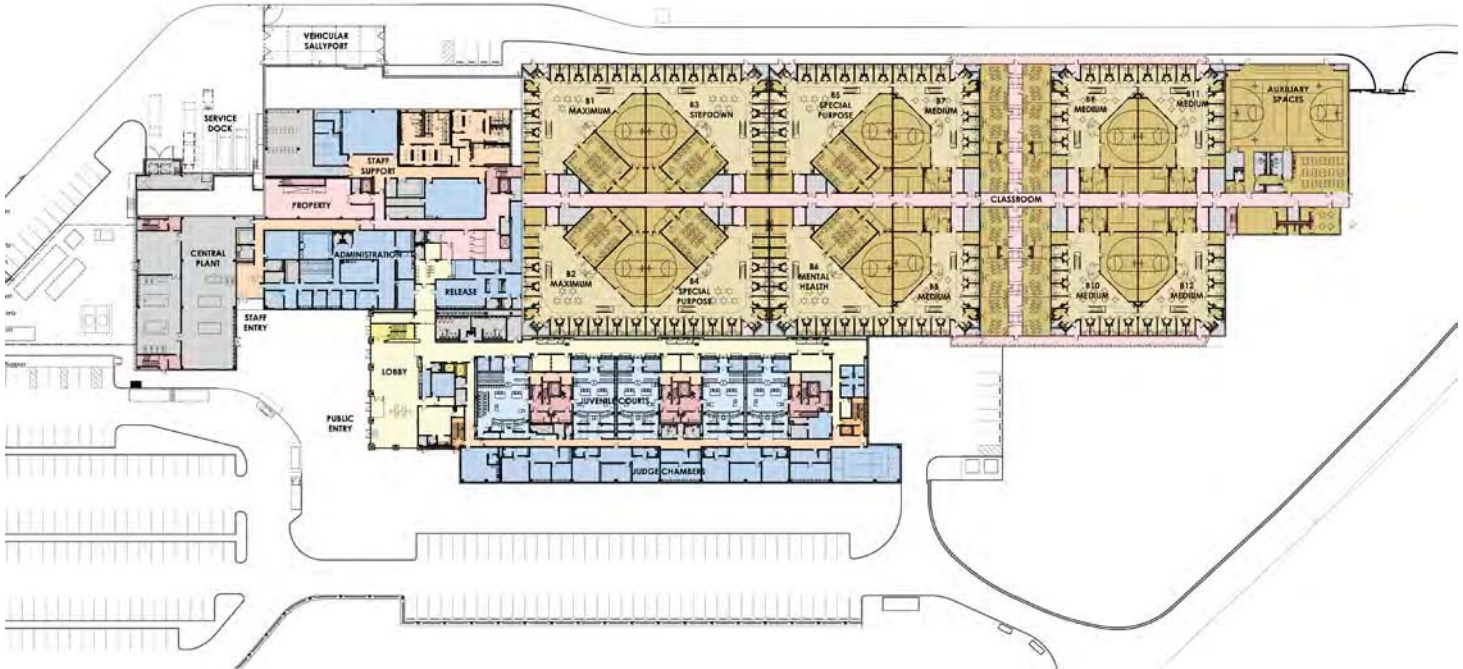
#### Project Narrative:

The Alameda County Juvenile Justice Center consolidates and integrates juvenile and family courts, a 360-bed, high security juvenile detention facility and related justice and social service agencies. The planning and design reflects a desire for an affirmative, reduced stress environment for staff, residents and their families during all aspects and phases of case resolution. The court wing includes five courtrooms, hearing rooms, and self help areas with extensive administrative and public support areas. To facilitate a more calming, hospitable effective and therapeutic environment for the children and families during all phases of the process, related justice agencies are collocated with the courts. Courtrooms have advanced presentation and remote telecommunication technologies. Universal access is provided for the disabled throughout the facility. The juveniles can be moved between housing areas and the courts via a circulation path that does not cross any public or staff areas; public, staff and secure circulation paths remained completely separate until they reach the courtroom. Adults incarcerated elsewhere (family members, witnesses, or victims) can be brought to the courtroom via a secure entry, circulation path and holding area that is totally separate from that of the children.





## PROJECT 2: ALAMEDA COUNTY JUVENILE JUSTICE CENTER SAN LEANDRO, CALIFORNIA



*The Alameda Juvenile Justice Center consolidates and integrates juvenile and family courts, a 360-bed high security juvenile detention facility and related justice and social service agencies*



*The planning and design reflects a desire for an affirmative, reduced stress environment for staff, residents and their families during all aspects and phases of case resolution.*

This facility consolidates and integrates juvenile services, including juvenile and family court, probation, detention, education, vocational training, life skills, recreation, etc.

An art program that integrates the best efforts of the young “resident” artists with the experience of professional artists. This “joint venture” effort continues as a facility learning program.

At the outset of this assignment the design-build team was provided a space program and bridging documents that were estimated to cost nearly twice that of the county’s maximum budget limit. Therefore, the project needed to be completely redesigned by Alan and the design build team without compromising programmatic requirements to bring it into compliance.

The project was constructed on a small, oddly shaped, steeply sloping hillside location with apprehensive neighbors and over a presumed active seismic fault line which required extraordinary engineering precautions. In addition, the site contains wetland areas and other environmental challenges. Nevertheless, the complex is carefully integrated with the land and provides extraordinary 180°, 40-mile views. Extensive sustainable design elements are incorporated into the design; and, despite the obstacles inherent with this building type, the facility received LEED Gold level certification. **This is the first LEED Gold Level juvenile justice center in the nation.**

## PROJECT 2: ALAMEDA COUNTY JUVENILE JUSTICE CENTER SAN LEANDRO, CALIFORNIA



*Each single occupancy 30 person living unit is flooded with sunlight from skylights and adjacent recreation yards. Supplemental services are provided both at the unit and on a decentralized basis. Secure paths are provided from the living units directly to the consolidated juvenile/family courtrooms.*

### Awards:

- 2009 State of California, Governor's Environmental and Economic Leadership Award, Sustainable Practices or Facilities
- Environmental Design + Construction, 2008 Excellence in Design competition, Government Building Category Winner
- California Construction magazine "Best of 2007" Merit Award winner
- Design-Build Institute of America (DBIA) 2007 Excellence Award winner
- AIA Justice Facilities 2008 Review Award
- First detention center in the United States to achieve LEED Gold certification

### Reference:

James Kachik  
Deputy Director  
County of Alameda  
General Services Agency  
510.208.9515 tel  
jim.kachik@acgov.org

The project was completed on an extremely accelerated schedule pressured by the impending expiration of a substantial state funding grant. The resulting fast track delivery schedule had construction starting just five months after award of the D-B commission and the facility opened within 28 months after that award.

Fortunately for this project, the entire county (including the nine agencies directly involved) had been advocate and sponsor of sustainable design for years. In addition, the architect and project designer have been committed to sustainable design for decades – long before development of the USGBC or any other sustainable rating system.

Therefore, complete integration of the efforts of these three partners was accomplished from the very start. There was no learning curve, which not only saved time but also allowed the team to reach a new benchmark. This high degree of integration was critical because time was of the essence: In order to attain significant state funding grants, the schedule had to be condensed to nearly half that of normal schedules. Working in unison, and sometimes around the clock, the team quickly developed a new, operationally efficient master plan and design for all components of the facility that inherently incorporated all basics—and advanced principles of sustainable design.

To better facilitate team efforts, the team used frequent face-to-face workshops, common tools and communication techniques, advanced but familiar hardware and software systems and a shared interactive website that assisted with coordination from early programming through project completion. The result was a fast moving, effective, collaborative, collegial and very well integrated team.





## PROJECT 2: ALAMEDA COUNTY JUVENILE JUSTICE CENTER SAN LEANDRO, CALIFORNIA



*Courtrooms have advanced presentation and remote telecommunication technologies. Universal access is provided for the disabled throughout the facility.*



*The court wing includes five courtrooms, hearing rooms, and self help areas with extensive administrative and public support areas. To facilitate a more calming, effective and therapeutic juvenile justice system, related justice agencies are collocated with the courts.*

### Sustainable Features:

- Water-efficient irrigation technology reduced site water consumption by more than 50% saving over 5,000,000 gallons annually.
- Waterless urinals & water-efficient plumbing fixtures reduced water consumption by 41% saving more than 2,000,000 gallons annually.
- The building complies with Title 24 requirements, which are more stringent than national standards, but is nearly 66% more efficient than the baseline saving 500 kW annually.
- An 850 kW solar panel array on the rooftop provides over 60% of the building energy demands, over 1000 MWh annually.
- The project contracted to purchase 100% of the building energy needs equivalent to 2,629 MWh from wind generation.
- 93% of construction waste was recycled and diverted from landfill disposal.
- 23,800 gallons of bio-diesel fuel were used in the site grading equipment saving 200 tons of CO<sub>2</sub>.

## PROJECT 3 OREGON STATE PSYCHIATRIC INSTITUTION SALEM, OREGON



*Main entryway to the new portion of the Oregon State Psychiatric Institution*

### LEED® GOLD EQUIVALENT

#### Size

850,000 sq. ft.  
620 beds

#### Cost

\$311 million

#### Completion

2011

#### Project Narrative:

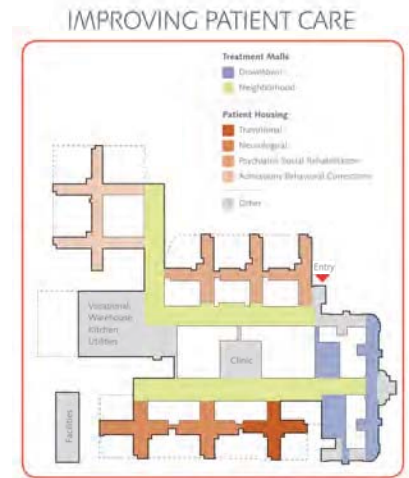
The replacement of the existing Oregon State Psychiatric Institution is the state's largest-ever capital project. Two new facilities – an 850,000 sq. ft. Salem site with 620 beds and a 260,000 sq. ft. Junction City site with 175 beds – will replace all psychiatric beds in the State of Oregon. The Salem facility presented here replaces a 130-year-old institution on the adjoining 100 acres. It was famously known for serving as the setting of the film "One Flew Over the Cuckoo's Nest."

This project is a secure facility that includes housing for low, medium and maximum security "residents". It also includes court facilities, educational facilities, food and laundry units, vocational training, recreation, life skills center, family visiting, major medical and mental health treatment clinics and substantial staff services and amenities. It is, in effect, a secure, miniature, full service, self-sufficient community.





## PROJECT 3 OREGON STATE PSYCHIATRIC INSTITUTION SALEM, OREGON



Phase one showing both new and existing facilities



Guiding the planning and design of the new Oregon State Psychiatric Institution was the State's goal to transition from a unit-based holding facility to a recovery-based treatment concept. This model places greater emphasis on developing individualized attention that contributes to successful long-term rehabilitation and focuses on simulating the life of someone who lives outside the facility.



## PROJECT 3 OREGON STATE PSYCHIATRIC INSTITUTION SALEM, OREGON

### *Journey to Recovery:*

From the first visioning session, the design team, Oregon State staff, and all key stakeholders set an ambitious goal for a wholly new secure rehabilitative environment, one that would aid staff, doctors, and resident in a successful “Journey to Recovery.” The idea was to create an integrated town and campus embracing the existing hospital’s 80-acre park and century old Kirkbride Building.



*Typical courtyard used by both staff and residents*



*The architecture complements the historic buildings that were preserved, creates a complex that is linked visually and physically to outdoor courtyards and open spaces*

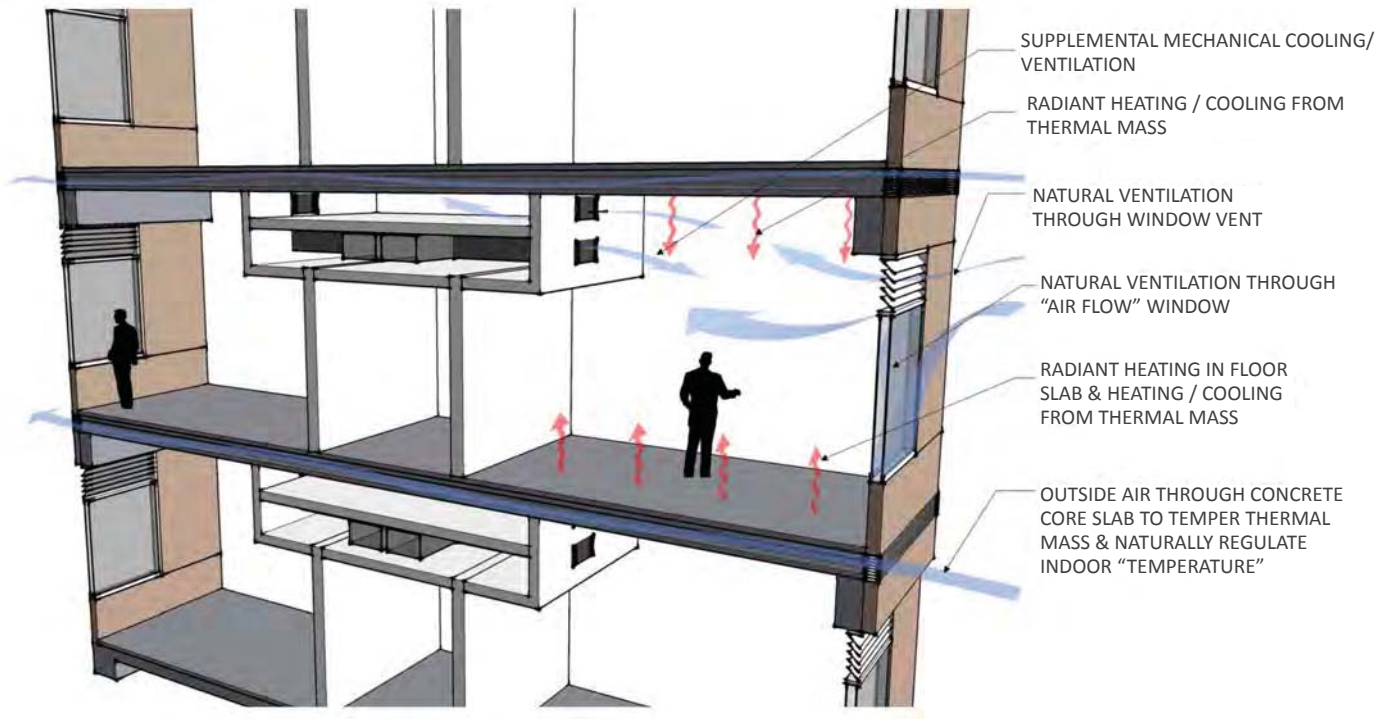
The client’s and stakeholders’ primary goal was to create a secure rehabilitative environment which included the complete merging of treatment, safety, nature and the built environment. From the very first visioning session the design team, user groups and all key stakeholders set an ambitious goal for a wholly new secure rehabilitative model that would aid all staff and residents, male and female, young and old, on a successful “Journey to Recovery”. Alan led and coordinated a fully integrated team that led to an exemplary project in psychiatric facility design.

The complex consists of a matrix of courtyards that allow residents and staff to freely move between indoors and outdoors while maintaining full facility security. The entire institution is arranged into housing “neighborhoods” focused around 20 internally located (no razor wire) courtyards with “downtown” support and treatment areas. Guiding the planning and design was the state’s goal to transition from a unit-based incarceration model toward a recovery-based treatment concept. This model places greater emphasis on developing more individualized programs that contribute to successful long term rehabilitation.

The facility is designed to simulate the life of someone who lives outside of this facility. The design allows staff to operate portions of the facility in various modes that gradually prepare residents to transition back into society - completing the “Journey to Recovery”.



## PROJECT 3 OREGON STATE PSYCHIATRIC INSTITUTION SALEM, OREGON



Main public corridor leading to sallyport and the main facility

### Sustainable Features:

- Natural light is abundant significantly lowering energy use.
- Courtyards feature native plants that minimize irrigation needs.
- Bioswales treat stormwater to reduce burden on municipal sewage system.
- Operable windows in staff areas allow for natural ventilation.
- Use of locally manufactured materials.
- Generates 58 percent less carbon dioxide emissions than comparable buildings for an overall carbon reduction of 15,628 tons of carbon dioxide.
- Meets AIA 2020 challenge of 60 percent carbon dioxide reduction.



PROJECT 3 OREGON STATE PSYCHIATRIC INSTITUTION  
SALEM, OREGON



*The HOK design team was challenged to create a hierarchy of spaces and prioritize them based on activities that happen in each space, creating a functional pathway based on the needs of residents and staff.*

Reference:  
Linda Hammond  
Deputy Chief Operating  
Officer  
Oregon Health Authority  
503.945.6331  
Linda.HAMMOND@state.or.us



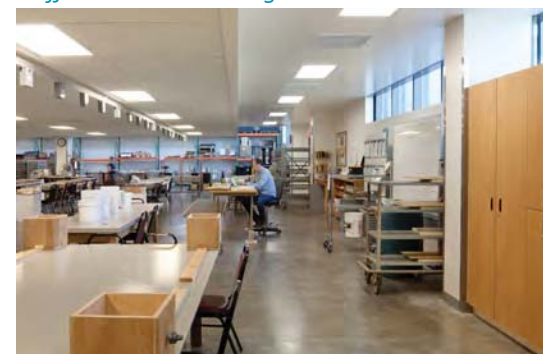
*Housing observation post*



*Staff and resident dining*



*Typical hearing room*



*Resident rehabilitative work program*



## An Integrated Team with Local Experience and Global Expertise



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**Sub-factor 1.B (1):** Applicant shall submit a statement in the Lead Designer's own words regarding the parameters of an overall design philosophy; his/her approach to the challenge of public architecture, and collaborative design processes; approach to unique aspects of each project; parameters that may apply in creating high performance, environmentally sustainable workplace environments; and a commitment to integrated and sustainable design.



#### **ALAN BRIGHT:**

This particular project will sit astride, and perhaps anchor in many ways, the vibrant and ever renewing Twelfth Avenue Corridor. It will also exert a strong influence on the adjoining property developments and surrounding community. As such **CFJC will need to be designed from the "neighborhood in" as an urban design critical to Seattle's future.**

But even more critical is the impact that this project will have on the Seattle's children and families. My design team is highly experienced with similar assignments and attuned to the needs of those county staff who attend to at-risk children and families. I am familiar with the nuanced architectural, planning and interior design solutions that can facilitate positive outcomes for both staff and those in need.

As lead designer, I see my role as one who assists clients through a process that creates buildings that are striking in their social and environmental responsibility, affordability, and beauty. At the root of great architecture is honesty, simplicity and clarity. Through a passionate, inspired process we elevate the simplicity of problem solving to an elegant art form. Seeking solutions firmly grounded in the here and now, yet bridging both the past and future to meet the needs of each user group and the individual community. **Simply put, civic and community buildings such as this complex ought to reflect when and where they occur, benefit their purpose, and lend a vivid sense of permanence, continuity and openness to the communities they serve.**

**Challenges of a New Era:** Today justice centers and other public structures are entering a new era and encountering unique and unexpected challenges. Both public and private sectors have entered a time of extended, perhaps permanent, austerity that challenges both operational and construction budgets. New technologies will likely change not only how the court administers justice, but also the design and planning for courthouse projects rapidly adapting to a tsunami of change. Finally, sustainable, energy efficient, net zero carbon emission buildings may soon become the norm.

**Integrated Design:** I have led the industry in the early adoption of an integrated team process to achieve efficiencies and outcomes not possible within a conventional design process. I foster an innovative approach that creates a client-centric dialog among engineers, consultants, and contractors. The process involves a dynamic exchange where we challenge clients and stakeholders to refine and fully articulate their goals around a framework of core needs, aspirations, and outcomes. **Integrating the entire design, engineering, and construction team in these early discussions (sometimes referred to as "the big room" approach) allows clients to make fully informed decisions that reinforce and drive overall project vision.**

Through this process of innovative creativity, projects more consistently address the entirety of project outcomes from human experience, resource conservation and sustainability, life-cycle value, and aesthetics. By ensuring that

energy analysis, engineering solutions, and other performance-based considerations inform the design, teams can optimize building size, land use, mechanical and structural systems, energy and water use, and operating costs.

**Regionalism:** I believe that great architecture tends to be rooted in regional influence. Climate, topography, cultural values and traditions, building materials, vocabulary and regional artisans will make the design for a courthouse in one region unique and noticeably different from the same building designed for another. For example, the courthouses for Salt Lake City and Phoenix represent two very different solutions for two very different regions. Even though I led the design of both, these strikingly different and individualized projects are in large part the result of regional influences. **Seattle's climate, unique culture, local demographics, values and other distinguishing regional factors will command a design unique to Seattle and tailored to the local neighborhood.**

**National Expertise:** In addition to personal experience and expertise, I always embrace the opinions and expertise of others. On a project of this complexity I will seek out HOK's and Integrus' national justice thought leaders. This collaborative, consensus-based approach to design seeks to integrate the experience, concerns, ideals, and expertise of the contractor, major stakeholders, and specialty consultants. I listen to others and have found that this inclusive approach works extremely well and produces an optimal design solution both quickly and effortlessly.







## SAN DIEGO WOMEN'S DETENTION FACILITY

**Owner:** San Diego County

**Location:** Santee, California

**LEED® Rating:** LEED Gold

**Prime Contractor:** Balfour Beatty Construction

**A/E Firm:** KMD/HMC

**Project Manager:** John Parker

**Reference:**

Andrew Bohnert

Project Manager

San Diego County – Department of

Community Services

Phone: 858.437.1176

Email: Andrew.bohnert@sdcounty.ca.gov



**Project Description/Narrative:** Balfour Beatty Construction is providing the County of San Diego design build services for the first phase of a two-phase contract to construct the new \$221.5-million San Diego County Women's Detention Facility in Santee, California. Comprising 28 buildings across 45 acres, the 1,216-bed facility replaces the 1960s-era Las Colinas Detention Facility, the primary point of intake for women prisoners in San Diego County. The project is built on existing and adjacent Las Colinas properties and as new facilities are constructed the old buildings are demolished.

The new complex incorporates a number of design innovations including clusters of smaller-scale housing units that are grouped according to detention levels that support the varying security classifications of the inmate population. The layout combines generous use of open space and landscaping amenities to create a campus like environment. The development includes dining, medical, administrative and security facilities, buildings for inmate industries, a rehabilitation and learning resource center, and a new entrance with expanded parking for staff and visitors.

The project is using green building techniques and materials to target LEED® Gold certification from the U.S. Green Building Council. Significant energy cost savings will be achieved with on-site renewable energy from various design and construction techniques.

The construction project directly creates an estimated 700 jobs and requires the services of more than 60 local subcontractors.

**Type of Facility:** Women's Detention Facility

**Contract Type:** Contractor Led Design-Build

**Contract Amount:** \$221,500,000

**Contract Pricing Structure:** Cost Plus GMP

**Building Square Footage:** 480,000 sf

**Number of Stories:** 1 - 2 stories

**Height (in feet):** 34 feet

**Courthouse SF:** N/A

**Detention SF:** 480,000 sf

**Number of Courtrooms:** n/a

**Number of Detention Sleeping Cells:** 1,216 Sleeping Cells

**Phased Construction:** Phases include 1A, 1B, 2A, 2B, 2C, 2D, 2E

**Construction on an Occupied Site:** Yes

**Co-Located Courts and Detention (Yes/No):** No

**Juvenile Courthouse:** No

**Juvenile Detention Center:** No

**Located within a City Downtown or City Neighborhood:** Yes



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**Identify the Prime Contractor’s proposed Key Personnel that worked on this project and their role:**

John Parker, Senior Project Manager | Mike Ryan, Project Executive

**Identify the Architectural Firm’s proposed Key Personnel that worked on this project and their role:** n/a

**Facility Awards:** 2013 AIA/AAJ Justice Facilities Review Awards for a project under construction

Identify the MEP subcontractors of Prime Contractor that will be working on the CFJC project.

**Identify the MEP sub-consultants of Lead Architectural Firm that will be working on the CFJC project:** n/a

**Identify salient Green Building Characteristics:**

- Solar hot water
- Building envelope
- Clerestory windows
- Direct and/or indirect evaporative cooling air handling units
- Passive chilled beams
- Laundry energy recovery
- Natural ventilation
- Modular design
- Construction waste—delivery 90 percent waste construction by diverting construction excess to upcycling or recycling
- Low carbon materials—material selection is scrutinized to ensure the lowest carbon footprint by selecting regional materials
- Low flow fixtures
- Composting
- Recycling
- Native and locally adaptive plants requiring minimal water
- Use of reclaimed water for irrigation

**Provide a narrative explaining the working relationship and communication between the Contractor Team and A/E Team:** The Pursuit Team (Design and Construction) was developed prior to the project to develop a long term relationship not just for this project. With this both entities identified key individuals that would coordinate on a daily basis. Additionally we ensured that the skill sets and personalities of each were able to be productive together. From this we integrated both cohabitation as well as key meetings at specific locations to ensure clear communication and quality design document control. Prior to the Owner Contract being executed we integrated the Owner into this process as well. Working with the Owner, Design and Contractor we were able to flush out potential challenges and address all prior to commencement of construction. While there are always challenges on a project of this size the Team (Owner, Design and Construction) has been able to effectively and efficiently overcome all because of the initial relationship and trust.

<b>ITEM</b>	<b>ANSWER</b>
<b>Contract Award Date</b>	09/15/2011
<b>Notice to Proceed Date</b>	09/15/2011
<b>Contract Date of Substantial Completion</b>	01/07/2015
<b>Actual Date of Substantial Completion</b>	Phases still under construction and on time
<b>Original Schedule Completion Time at Contract Award in Calendar Days</b>	1,471 days
<b>Actual Completion Time in Calendar Days</b>	Phases still under construction and on time
<b>Contract Cost Amount at Award</b>	\$221,500,000
<b>Contract Cost Amount at Final Completion</b>	Phases still under construction and within budget
<b>Total Number of all Change Orders (COs)</b>	1 CO to date for a deduct of \$21,600
<b>Total Amount of all Change Orders (COs)</b>	\$21,600 to date
<b>% of Total COs attributable to Unforeseen Conditions</b>	0% to date
<b>% of Total COs attributable to Owner Requests</b>	0% to date
<b>% of Total COs attributable to E&amp;O</b>	0% to date
<b>% of Total COs attributable to Jurisdictional Requirements</b>	0% to date
<b>% of Total COs attributable to Other</b>	0% to date
<b>Total Recordable Injuries for Project (so far)</b>	ZERO
<b>Total Lost Time Injuries for Project (so far)</b>	ZERO



# ORANGE COUNTY CORRECTIONS EXPANSION PHASE II

**Owner:** Orange County Corrections

**Location:** Orlando, FL

**LEED® Rating:** n/a

**Prime Contractor:** Balfour Beatty Construction

**A/E Firm:** Strollo Architects, Inc

**Project Managers:** Jim Murphy, John Parker, Amy Kennedy

**Reference (Name, Phone, Email):**  
Richard J. McAfee  
Managing Principal - PMA Consultants  
Phone: 407.758.0800



**Project Description:** This project consists of a new 300,000 SF Booking and Release Center (BRC) that includes spaces for the judiciary, state attorney, public defender, clerk of the court, court administration, corrections health services, and numerous internal Corrections Department units. The BRC also adds three courtrooms and 592 inmate beds to the jail, distributed among 12 dormitories separated for women and men. In addition to the regular inmate population, this facility will also provide mental health and medical care services to special-needs inmates. Also included is workspace for the Corrections Transportation, Classification, Inmate Property, Inmate Affairs, Master Count, Inmate Records and Community Corrections Divisions. This facility contains many features that will make the jail staff safer and more efficient. A few of these include an 18-vehicle sally port, a traffic light, and internal drive allowing vehicles to safely enter and exit the BRC, and cameras that constantly monitor high-liability areas.

**Dental Facility description:** Located within the building’s second floor medical clinic, the dental facility contains one dental chair in a 64 sf room as well as x-ray rooms. There are also several workstations and an office for the dental staff. This facility has water, suction, a drain line, and electricity.

**Type of Facility:** Courthouse / Courtrooms

**Contract Type:** CM at Risk

**Contract Amount (Combined):** \$60,250,419

**Contract Pricing Structure:** Cost Plus GMP

**Building Square Footage:** 310,000 SF

**Number of Stories:** 5

**Height (in feet):** 65 feet

**Detention SF:** 310,000 sf

**Number of Courtrooms:** 3

**Number of Detention Sleeping Cells:** 12 cells (592 Beds)

**Phased Construction:** No

**Construction on an Occupied Site:** Yes

**Co-Located Courts and Detention:** Yes

**Juvenile Courthouse:** No

**Juvenile Detention Center:** No

**Located within a City Downtown or Neighborhood:** Yes



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**Identify the Prime Contractor’s proposed Key Personnel that worked on this project and their role:** John Parker – Project Manager

**Identify the Architectural Firm’s proposed Key Personnel that worked on this project and their role:** n/a

**Facility Awards:** Construction Owners Association of America Inc., Project Leadership Award (teamwork/collaboration); Correctional News, Project of the Month (7/2006); Associated Builders and Contractors National Excellence in Construction Commendation; Associated Builders and Contractors Florida Chapter Excellence in Construction Regional Eagle Award; Southeast Construction Magazine, Best of 2006 Merit Award.

**Identify the MEP subcontractors of Prime Contractor that will be working on the CFJC project:** n/a

**Identify the MEP sub-consultants of Lead Architectural Firm that will be working on the CFJC project:** n/a

**Identify salient Green Building Characteristics:** To help secure LEED Silver certification, the new Justice Center was designed, constructed and eventually operated with several environmentally friendly features, including erosion-control practices, basic pollution prevention, water efficiency with all systems, refrigerant management, storage and collection of recyclables, improved indoor air quality, safer building construction materials and products, use of natural daylight versus powered light, use of recycled storm water for irrigation, bike racks and digitally controlled thermostats.

**Provide a narrative explaining the working relationship and communication between the Contractor Team and A/E Team:**

Balfour Beatty worked directly with the design team and owner’s group to provide preconstruction services including site logistics, scheduling, value engineering and estimating throughout the project.

ITEM	ANSWER
Contract Award Date	04/07/2003
Notice to Proceed Date	04/07/2003
Contract Date of Substantial Completion	7/3/2006
Actual Date of Substantial Completion	6/28/2006
Original Schedule Completion Time at Contract Award in Calendar Days	1,170 days
Actual Completion Time in Calendar Days	1,170 days
Contract Cost Amount at Award	\$60,238,656.76
Contract Cost Amount at Final Completion	\$60,250,419.76
Total Number of all Change Orders (COs)	45
Total Amount of all Change Orders (COs)	\$11,763
% of Total COs attributable to Unforeseen Conditions	0%
% of Total COs attributable to Owner Requests	0%
% of Total COs attributable to E&O	0%
% of Total COs attributable to Jurisdictional Requirements	0%
% of Total COs attributable to Other	0%
Total Recordable Injuries for Project	5
Total Lost Time Injuries for Project	1 day

## WAKE COUNTY JUSTICE CENTER

**Owner:** Wake County

**Location:** Raleigh North Carolina

**LEED® Rating:** LEED Certified with aspirations of Silver

**Prime Contractor:** Balfour Beatty Construction

**A/E Firm:** HOK

**Project Manager:**

Jeff Beam – Project Executive, and Dan Smith, Project Manager

**Reference:**

Mark Forestier

Project Manager, Wake County

Phone: 919.623.8385

Email: mforestier@wakegov.com

**Project Description/Narrative:** The 577,000 sf Wake County Justice Center project included the construction of 20 new courtrooms equipped with state-of-the-art technology, as well as more space for court support, such as the clerk of court and public defender. The justice center increased facilities and access to public records, including the register of deeds, geographic information services mapping, and revenue.

The project also consisted of two levels of below-grade parking for 164 vehicles, a central energy plant that includes two (2) 480 volt generators supporting county-owned downtown facilities, and a connection to the existing courthouse tunnel.

The project also consisted of two levels of below-grade parking for 164 vehicles, a central energy plant that includes two (2) 480 volt generators supporting county-owned downtown facilities, and a connection to the existing courthouse tunnel.

The Wake County Justice Center included significant upgrades in both technology and security. Security features included: secure corridors under constant control, metal detectors, trained staff on post, camera systems monitoring the building, weapons checks, emergency duress buttons, and key-card control. To help secure LEED Silver certification, the new Justice Center was designed, constructed and eventually operated with several environmentally friendly features, including erosion-control practices, basic pollution prevention, water efficiency with all systems, refrigerant management, storage and collection of recyclables, improved indoor air quality, safer building construction materials and products, use of natural daylight versus powered light, use of recycled storm water for irrigation, bike racks and digitally controlled thermostats.

**Type of Facility:** Courthouse / Courtrooms

**Contract Type:** CM at Risk

**Contract Amount:** \$148,403,358

**Contract Pricing Structure:** Cost Plus GMP

**Building Square Footage:** 577,000

**Number of Stories:** 11 stories

**Height (in feet):** 202 feet

**Courthouse SF:** 577,000

**Number of Courtrooms:** 20

**Phased Construction:** Originally, Yes but we ended up ahead of schedule and delivered complete building at one time

**Construction on an Occupied Site:** No, except for the tunnel which connected under an existing public safety center

**Juvenile Courthouse:** No

**Juvenile Detention Center:** No

**Located within a City Downtown or City Neighborhood:** Yes







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Identify the Prime Contractor’s proposed Key Personnel that worked on this project and their role: n/a

Identify the Architectural Firm’s proposed Key Personnel that worked on this project and their role: n/a

Facility Awards: Liberty Mutual Safety Commendation Award

Identify the MEP subcontractors of Prime Contractor that will be working on the CFJC project: n/a

Identify the MEP sub-consultants of Lead Architectural Firm that will be working on the CFJC project: n/a

**Identify salient Green Building Characteristics:**

- Erosion-control practices
- Basic pollution prevention
- Water efficiency with all systems
- Refrigerant management, storage / collection of recyclables
- Improved indoor air quality
- Safer building construction materials and products
- Use of natural daylight versus powered light
- Use of recycled storm water for irrigation
- Bike racks and digitally controlled thermostats
- 45% water savings - 15% more than required for LEED credit
- Public Transportation Access
- Native and locally adaptive plants requiring minimal water
- Landscape beds high quality engineered planting mix
- 100% high efficiency drip irrigation to minimize loss to runoff
- CO2 monitoring devices

**Provide a narrative explaining the working relationship and communication between the Contractor Team and A/E Team:**

Our team worked closely with the design team throughout the design phases bringing in specialty trade subcontractors to assist with detailing, constructability, and sequencing issues. This enabled the team to proceed with the confidence that efficient and cost effective construction methods could be employed during the construction phase. This is reflected in the high quality of the Wake County Justice Center that will serve the citizens of Wake County well for a very long time.

ITEM	ANSWER
Contract Award Date	9/15/2008
Notice to Proceed Date	3/1/2013
Contract Date of Substantial Completion	10/31/2013
Actual Date of Substantial Completion	5/1/2013
Original Schedule Completion Time at Contract Award in Calendar Days	1,320 days
Actual Completion Time in Calendar Days	1,140 days
Contract Cost Amount at Award	\$148,403,358
Contract Cost Amount at Final Completion (Owner Initiated Changes)	\$150,737,249
Total Number of all Change Orders (COs)	1 Owner Initiated Change Order
Total Amount of all Change Orders (COs)	\$00.00
% of Total COs attributable to Unforeseen Conditions	0%
% of Total COs attributable to Owner Requests	0%
% of Total COs attributable to E&O	0%
% of Total COs attributable to Jurisdictional Requirements	0%
% of Total COs attributable to Other	0%
Total Recordable Injuries for Project	19
Total Lost Time Injuries for Project	5 days

### RONALD T.Y. MOON JUDICIARY COMPLEX HALE HO'OMALU JUVENILE DETENTION FACILITY

**Owner:** State of Hawaii

**Location:** Kapolei, Hawaii

**LEED® Rating:** n/a

**Prime Contractor:** Unlimited Construction Services

**A/E Firm:** Integrus Architecture as A/E of Record & Designer for Detention Center; Security Designer for the Court Facility

**Project Manager:** Rich Siddons - Security Designer; Gerald Winkler - Detention Architect

**Reference:**

Dennis Y.K. Chen,  
Phone: 808.539.4748



**Project Description/Narrative:** This new court complex, developed on 10.97 acres, is shaped by the Hawaiian culture and the community's commitment to the safety, well-being and fair treatment of children and families. The mission of this centralized court complex is to provide a complement of Family Court services appropriate to a major urban area in a safer, more secure, and operationally conducive and efficient facility. The Complex includes a new courts building and a new juvenile detention facility.

The Hale Ho`omaluu Juvenile Detention Facility contains housing sufficient for 66 juveniles and includes education, treatment, housing, administration, food service, laundry, hearing room, and visiting, as well as an independent living area for transition programs. The new center also contains areas for administration, juvenile court, staff facilities, admissions, public entry and visiting, and support services.

**Type of Facility:** Courts & Juvenile Detention Facility

**Contract Type:** Design-Bid-Build

**Contract Amount:** \$109,700,000

**Contract Pricing Structure:**

**Building Square Footage:** 178,521

**Number of Stories:** 3-4

**Height:** 88 feet

**Courthouse SF:** 126,215 sf

**Detention SF:** 52,306 sf

**Number of Courtrooms:** 12

**Number of Detention Sleeping Cells (if applicable):** 66

**Phased Construction:** No

**Construction on an Occupied Site:** No

**Co-Located Courts and Detention:** Yes

**Juvenile Courthouse:** Yes

**Juvenile Detention Center:** Yes

**Located within City Downtown or Neighborhood:** Yes



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**Identify the Prime Contractor’s proposed Key Personnel that worked on this project and their role:** n/a

**Identify the Architectural Firm’s proposed Key Personnel that worked on this project and their role:** Jerry Winkler, Architect of Record for Juvenile Detention Center; Rich Siddons, Detention Project Manager / Project Security Design / Operational Training

**Facility Awards:** Citation Award, Justice Review (Juried selection for annual publication); •GCA Build Hawaii Honorable Mention Award for Building Construction more than \$100 million

**Identify the MEP subcontractors of Prime Contractor that will be working on the CFJC project:** n/a

**Identify the MEP sub-consultants of Lead Architectural Firm that will be working on the CFJC project:** n/a

**Identify salient Green Building Characteristics:** **Site selection:** Appropriate land use, stormwater management, heat island mitigation, light pollution reduction; **Water efficiency:** Water efficient landscaping, water use reduction; **Energy and atmosphere:** Energy use reduction, no HCFCs, measurement & verification; **Materials:** Construction waste management, recycled and local content; **Indoor environmental quality:** Construction IAQ plan, low-emitting materials, daylight and views, thermal comfort monitoring and control

**Provide a narrative explaining the working relationship and communication between the Contractor Team and A/E Team:** Hawaii is unique because the State of Hawaii’s Department of Accounting & General Services (DAGS) acts as the project manager for capital projects. The required communication structure is for the contractor and architects to communicate through DAGS. On those occasions where DAGS does not have the appropriate background or expertise to address specialized security issues, the contractor and architect have direct contact to confirm scope and action needed through construction. The typical RFIs and clarifications still occur, processed through DAGS.

The design team also participated in weekly coordination meetings with DAGS and the contractor, and participated in reviewing pay requests, schedule and project status.

ITEM	ANSWER
Contract Award Date	04/28/2005
Notice to Proceed Date	06/18/2007
Contract Date of Substantial Completion	10/29/2009
Actual Date of Substantial Completion	03/1/2010
Original Schedule Completion Time at Contract Award in Calendar Days	850 days
Actual Completion Time in Calendar Days	853 days
Contract Cost Amount at Award	\$ 109,611,321.00
Contract Cost Amount at Final Completion	\$ 119,774,190.00
Total Number of all Change Orders (COs)	unavailable
Total Amount of all Change Orders (COs)	\$ 10,162,869.00
% of Total COs attributable to Unforeseen Conditions	1.2
% of Total COs attributable to Owner Requests	89.72
% of Total COs attributable to E&O	0.08
% of Total COs attributable to Jurisdictional Requirements	4
% of Total COs attributable to Other	5
Total Recordable Injuries for Project	unavailable
Total Lost Time Injuries for Project	None

## MIAMI-DADE COUNTY CHILDREN'S COURTHOUSE

**Owner:** Miami-Dade County ISD

**Location:** Miami, Florida

**LEED® Rating:** LEED Gold anticipated

**Prime Contractor:** Suffolk Construction

**A/E Firm:** HOK

**Project Manager:**

Humberto Conteras, Owner Project Manager

**Reference:**

Rick Martinez, Director

Phone: 305.349.7425

Email: Rmartinez@jud11.flcourts.org

**Project Description/Narrative:** The Miami-Dade Children's and Family Courthouse was conceived as a facility specifically designed to create an appropriate environment for at risk children and their families. This highly

advanced complex consolidates the operations of existing, separated facilities. It finally allows the full integration of all the judicial and social service components required to comprehensively meet the needs of all at risk families and children. Combining the courts and ALL the support justice and social service agencies under one roof is extremely beneficial to the children and families involved - although it meant the plans have to be approved by 16 agencies as well as the Courts. From early programming decisions to the choice of building materials, the process has been one that reflects the importance of value-driven justice and care. The planning and design for children and families in a judicial environment are impacted by socioeconomic demographics, the range of legal issues and the spatial requirements. The design solution gave considerable attention to sustaining the multi-cultural values surrounding children in the justice system in Dade County and to carry that attention through all aspects of design. Sustainable design in our view extends to sustaining basic values regarding the care of children that find themselves participants in the justice system either as dependents or delinquents. The design of a non-threatening judicial environment for children needs to be vastly different than one for adults. Sustaining family values through the complexity of proceedings in juvenile court is more than "lip service" and if properly considered impacts the size, type, and configuration of spaces as well as scale and choice of materials and furnishings.

**Type of Facility:** Courthouse

**Contract Type:** Design-Bid-Build

**Contract Amount:** \$92.5 million (budget: \$134 million)

**Contract Pricing Structure:** Hard Bid

**Building Square Footage:** 371,500 sf

**Number of Stories:** 14 stories

**Height:** 230 feet

**Courthouse SF:** 83,400 sf

**Detention SF:** 19,800 sf

**Number of Courtrooms:** 18 courtrooms

**Phased Construction:** No

**Construction on an Occupied Site:** No

**Co-Located Courts and Detention:** Yes

**Juvenile Courthouse:** Yes

**Juvenile Detention Center:** No

**Located within a City Downtown or City Neighborhood:** Yes







**King County**

**Identify the Prime Contractor’s proposed Key Personnel that worked on this project and their role:** n/a

**Identify the Architectural Firm’s proposed Key Personnel that worked on this project and their role:**

Duncan Broyd, Principal-in-Charge

**Facility Awards:** (2010) 2001-2010 Retrospective Citation Award, National Center for State Courts (NCSC); (2009) Justice Facility Review - Citation Recipient, AIA, AAJ

**Identify the MEP subcontractors of Prime Contractor that will be working on the CFJC project:** n/a

**Identify the MEP sub-consultants of Lead Architectural Firm that will be working on the CFJC project:** n/a

**Identify salient Green Building Characteristics:** The LEED strategy for this project is supportive of Miami-Dade County’s commitment to increase sustainability. Gold level certification is being targeted and the design team has worked very closely with County facilities engineers to achieve this without any significant first cost impact on the project. Long term savings will however be significant.

**Provide a narrative explaining the working relationship and communication between the Contractor Team and A/E Team:** The fully integrated team process led to the project being a prime example of program and energy efficiency, cost efficient design, and has been the recipient of numerous awards.

ITEM	ANSWER
Contract Award Date	02/10/2011
Notice to Proceed Date	03/02/2011
Contract Date of Substantial Completion	11/12/2013
Actual Date of Substantial Completion	1/20/2014 (estimated)
Original Schedule Completion Time at Contract Award in Calendar Days	1,075 days
Actual Completion Time in Calendar Days	1,134 days
Contract Cost Amount at Award	\$92.5 million*
Contract Cost Amount at Final Completion	\$95.3 million (estimated)
Total Number of all Change Orders (COs)	66
Total Amount of all Change Orders (COs)	\$2.8 million
% of Total COs attributable to Unforeseen Conditions	27%
% of Total COs attributable to Owner Requests	48%
% of Total COs attributable to E&O	15%
% of Total COs attributable to Jurisdictional Requirements	7%
% of Total COs attributable to Other	3%
Total Recordable Injuries for Project	Zero
Total Lost Time Injuries for Project	Zero

\*includes FFE, art and security electronics

## ALAMEDA COUNTY JUVENILE JUSTICE CENTER

**Owner:** Alameda County

**Location:** San Leandro, California

**LEED® Rating:** LEED Gold

**Prime Contractor:** Hensel Phelps

**A/E Firm:** HOK

**Project Manager:** Steve Slosek

**Reference:** James Kachik, Deputy Director, County of Alameda GSA, 510.208.9515, jim.kachik@acgov.org

**Project Description/Narrative:** The Alameda County Juvenile Justice Center consolidates and integrates juvenile and family courts, a 360-bed, high security juvenile detention facility and related justice and social service agencies. The planning and design reflects a desire for an affirmative, reduced stress environment for staff, residents and their families during all aspects and phases of case resolution. The court wing includes five courtrooms, hearing rooms, and self help areas with extensive administrative and public support areas. To facilitate a more calming, hospitable effective and therapeutic environment for the children and families during all phases of the process, related justice and social service agencies are collocated with the courts.

**Type of Facility:** Courthouse/Detention Facility

**Contract Type:** Design-Build

**Contract Amount:** \$135 million

**Contract Pricing Structure:** Stipulated Lump Sum

**Building Square Footage:** 379,000 sq. ft.

**Number of Stories:** 3 stories

**Height (in feet):** 75 feet

**Courthouse SF (if applicable):** 75,000 sq. ft.

**Detention SF (if applicable):** 235,000 sq. ft.



**Number of Courtrooms:** 5 courtrooms

**Number of Detention Sleeping Cells (if applicable):** 360 beds

**Phased Construction (Yes/No):** Yes

**Construction on an Occupied Site (Yes/No):** Yes

**Co-Located Courts and Detention (Yes/No):** Yes

**Juvenile Courthouse (Yes/No):** Yes

**Juvenile Detention Center (Yes/No):** Yes

**Located within a City Downtown or City Neighborhood:** No, but in a tight, impacted neighborhood



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**Identify the Prime Contractor’s proposed Key Personnel that worked on this project and their role:** Not applicable

**Identify the Architectural Firm’s proposed Key Personnel that worked on this project and their role:** Alan Bright, Chuck Oraftik, Steve Slosek, Craig Menn, Joe O’Neill

**Facility Awards:** 13 awards at last count (please see Lead Designer’s Portfolio for complete list)

**Identify the MEP subcontractors of Prime Contractor that will be working on the CFJC project.** Not Applicable

**Identify the MEP sub-consultants of Lead Architectural Firm that will be working on the CFJC project.** Not Applicable

**Identify salient Green Building Characteristics:**

- Oriented to minimize heat gain and optimize daylight.
- Facility exceeds Title 24 energy use by 22.5 percent.
- Efficient fixtures reduced interior water use by 40 percent.
- 50 percent reduction in exterior water use with drought-resistant foliage.
- Green roof protects the roof, slows drainage and provides a view.
- Bioswales treat stormwater to reduce burden on municipal sewage system.
- Building materials selected for high recycled and renewable content and durability.
- Half of the wood used in the building is certified as sustainably forested by the Forest Stewardship Council.
- Contractor diverted more than 85 percent of construction waste from landfills.

**Provide a narrative explaining the working relationship and communication between the Contractor Team and A/E Team:** The fully integrated team process led to the project being a prime example of program and energy efficiency, cost efficient design, and has been the recipient of numerous awards.

ITEM	ANSWER
Contract Award Date	06/21/2004
Notice to Proceed Date	06/25/2004
Contract Date of Substantial Completion	11/21/2006
Actual Date of Substantial Completion	11/17/2006
Original Schedule Completion Time at Contract Award in Calendar Days	828 days
Actual Completion Time in Calendar Days	876 days
Contract Cost Amount at Award	\$135 million
Contract Cost Amount at Final Completion	\$142 million
Total Number of all Change Orders (COs)	10
Total Amount of all Change Orders (COs)	\$7.2 million
% of Total COs attributable to Unforeseen Conditions	20%
% of Total COs attributable to Owner Requests	60%
% of Total COs attributable to E&O	0%
% of Total COs attributable to Jurisdictional Requirements	0%
% of Total COs attributable to Other	20%
Total Recordable Injuries for Project	14
Total Lost Time Injuries for Project	0







*Provide a narrative on the project organization. It should define the roles, responsibilities and authority to be delegated to the incumbent of each position, and discuss how work flows through the organization. Describe how the Applicant's Design-Build Team will be fully integrated and perform as a cohesive unit working closely with the County's project team.*



*Project Solutions eliminates traditional feedback loops. No re-design, no schedule slip, collaborative and coordinated delivery that saves money in design and construction.*



*Our team advocates the "Big Room" where extended team, including King County, all sit for at least one day per week during design to enhance collaboration and streamline delivery.*

### **AN INTEGRATED TEAM APPROACH, FROM DAY ONE TO DAY DONE**

Instead of diving into traditional preconstruction, we take the time to complete the often missed step of defining the **process** of delivery. Before pen hits paper we lead the team in defining the process before designing the project. **When we say "team", we include all stakeholders from King County, from the operations and maintenance team to the Judges and staff.** Process definition creates team alignment in the objectives, goals and, most importantly, the responsibilities from project inception to final completion. Our experience in integrated and design-build project delivery combined with our unique approach transform preconstruction into Project Solutions.

**Project Solutions** is a holistic and proactive management approach that defines and leads both process and project delivery capitalizing on expertise and innovation to integrate design, construction, facility operation, and functionality ensuring the best value to King County. **Best value in design, cost, speed of delivery and overall project experience – Balfour Beatty's Project Solutions delivers tangible results.**

Defining the process first often shifts the design away from the typical SD, DD, CD model to prioritize design of critical scopes. Each and every scope of work has a series of dependent and affected activities. These activities are not bound to design or preconstruction or construction as we know them- they span across phases and responsibilities each on a unique path as part of the entire project. Activities are interdependent: each must be considered as one part of a complex system, each influencing the whole.

Balfour Beatty's team captures the network of activities and interrelationships through our unique Design Mapping process creating a truly integrated schedule. Waste is removed

in both design and construction from the outset and the entire team is aligned on priorities and responsibilities required to deliver your projects successfully. Only by leading these efforts before design begins can we truly influence the path of the project.

Our effectiveness during preconstruction begins with having the right expertise. Our team's experience on similar projects provides the ingredients needed to optimize design and planning. Project Solutions creates the recipe for success by removing waste and continuously looking for improvements. **We know it takes the entire team to deliver your projects on time and under budget while exceeding expectations on quality. Balfour Beatty brings the leadership to drive the team forward from day one to day done.**

With a clear vision of the construction approach, our integrated teams work together in tailoring construction documents to meet specific project needs on a just in time basis. The focus during construction becomes one of implementation where the complexities of the project still require an integrated approach for success. **Rapid response to issues ensures the schedule and budget are maintained because King County, and all our design build team members are integrated throughout the construction process.**

Project Solutions guides how the team collaborates throughout the design and construction process. Duncan Broyd, Bob Schwartz, and Mike Levison provide leadership for our courts planning, design, and construction team. They will work closely with Gay Boyce and King County's court team decision makers. Jerry Winkler, Rich Siddons, and Jeremiah Sizer provide leadership for our detention planning, design and construction team. They will work closely with Art Greene and King County's detention team decision makers.



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### SUSTAINABILITY

Within Project Solutions we dive deep into sustainability. For our teams, sustainability goes far beyond LEED points and goals. **It is about approaching a building and its users in a holistic manner, not only during design and construction but also during 100 plus years of operation.**

Our team offers King County state-of-the-art sustainable approaches of today and the ability to create new and improved solutions for tomorrow. From best practices and lessons learned on other projects worldwide, we bring knowledge of cutting-edge solutions. We view sustainability as a whole system of interdependent components to enable green solutions without increasing costs.

We think locally, the Children and Family Justice Center is a big deal for Seattle. Combining our local sustainability leadership with nationwide support and innovation, King County is guaranteed comprehensive assessment of LEED goals, first costs, lifecycle costs, energy use and long-term maintainability. With our teams' recently completed LEED Gold and Platinum buildings—we bring lessons learned to help you analyze all aspects of sustainability to make informed decisions.

### EXECUTIVE MANAGEMENT

At the core of our Integrated Design-Build Team is collaborative and productive leadership spanning design and construction. Our Executive Management Team of Mike Ryan and Paul Snorsky provide leadership and continuity for our team and are directly responsible to King County. We believe pairing Mike's national corrections expertise with Paul's local experience provides best value to King County and ensures consistency from design inception through closeout.

Responsible for day to day project management are John Parker and Larry Hurlbert, working together for all scheduling, staffing, budgeting, and quality control. Alan Bright is responsible for the overall design development and accomplishment of program goals. Our management team works closely with King County's Project Management Team, in a collaborative manner, providing the most efficient process to design, build, and operate your Children and Family Justice Center.

### BUILDING SYSTEM DEVELOPMENT

Curtis Cox, our senior estimator and preconstruction manager, works with our design leadership in the development of building systems. Ongoing estimating and value analysis are integrated into the process to drive best-value into the project. This helps the designers move forward quickly with the best knowledge. And, it assures King County that they are receiving the highest quality throughout design and construction.

We believe in cross-disciplinary teams from design through construction. Bringing the superintendents into the game early informs the design to save time and money in the field. Our Project Solutions approach provides the opportunity for strong preconstruction planning, more timely and informed understanding of the design, anticipation and resolution of design issues, visualized construction sequencing prior to construction start, and improved cost control and budget management.

In addition to being highly collaborative and seeking input from the team at the onset of the project, Project Solutions allows members of the team to leverage Building Information Modeling (BIM) by creating a virtual design of every element of a construction project's process. The use of integrated practices and BIM allow the Balfour Beatty team to achieve high-quality outcomes in the construction process.

**Perhaps the single most important benefit throughout design /construction is that the team establishes common goals with roots at the inception of the project. An Integrated Team Approach, From Day One to Day Done**

**360+** LEED Accredited  
Professionals Nationwide

**\$8.4 billion**  
in LEED Certified Construction

Currently, Balfour Beatty and Howard S. Wright have over **360** LEED Accredited Professionals. We support a program to accredit additional employees each month.



412 Broadway, a  
Platinum Certified LEED  
for Homes Project, a  
first in Washington

**EXECUTIVE MANAGEMENT****Mike Ryan – PIC / Project Executive**

Mike will utilize his 42 years construction experience and 15 years with courts and detention projects to provide insight to the design and construction team to ensure cohesiveness and collaboration from start to finish. Mike has completed multiple justice projects with zero claims and within schedule. Mike's number one priority is to complete your project on time and within budget.

**Paul Snorsky – Local leadership**

Paul's years of local experience brings a solid leadership structure to the team that will be Howard S. Wright's thread of continuity from day one until well after the building is occupied. One of Paul's main focuses will be to create an environment of teamwork, whereby each person at the table has an equal voice. Combined with his local experience, Paul's leadership ensures smart and efficient delivery with no learning curve.

**PROJECT LEADERSHIP****John Parker – Senior Project Manager**

John will be responsible for all contract and project administration. He will also expedite design and construction activities to guarantee timely delivery of material and equipment for field operations. John will bring his current and recent experience to create a field environment using lean construction, team integration, sustainability, safety, and providing innovative project solutions.

**Alan Bright – Lead Designer**

Alan's focus will be on bringing team members together and creating the collaborative environment to solve problems and work toward design solutions that will enable the team to create an appropriate high performing courthouse that meets the County's programmatic needs.

**Larry Hurlbert – A/E Project Manager**

Larry will be responsible for project oversight and ensuring that resources are available and that tasks are fully staffed with personnel, equipment, and other required support. Larry will provide business, technical, and personnel management and coordination.

**COURTS PLANNING & CONSTRUCTION****Mike Levison – General Superintendent**

Mike will be your local field leader for the overall project with a focus on site logistics and construction of the court facilities. Mike is an expert in construction sequencing and finding opportunities to reduce project schedule and he understands how to work effectively while minimizing disruption to neighboring facilities.

**Duncan Broyd – Lead Court Architect**

Duncan will serve as the primary responsibility for court planning and courtroom design. He brings experience with multi-faceted clients, extensive consultant coordination, and the complex planning and construction process required for both large and small projects.

**Bob Schwartz – Court Planner**

Bob Schwartz will be involved with all court planning, including the details and nuances of courtroom planning, including integration of security, communications, technology, accessibility, casework, sightlines and ergonomics. He developed Court Technology and IT Standards for Courthouse with Infocomm and published last month.

**Jeremiah Sizer – Superintendent**

Jeremiah Sizer will be your field leader for the detention project. Jeremiah's ten year career building detention facilities spans from North Carolina to San Diego. He is currently building the San Diego Women's Detention Facility and will be ready to hit the ground running in preconstruction on the CFJC project.

**Jerry Winkler – Lead Detention Architect**

Detention Architect Jerry Winkler's primary responsibility includes design development and coordination of documents for the juvenile detention center. He will coordinate activities concerned with architectural developments, scheduling, and integrating engineering designs and test problems.

**Rich Siddons – Physical Security Designer**

Rich will have a leadership responsibility for security programming and design, and specialized construction administration. During planning, Rich will lead security workshops with the County and users to understand operational goals and needs. During the development and design of the security systems, he will work with the County, designers, project architects, and engineering sub-consultants to ensure these systems are integrated and coordinated into the facility design.

**BUILDING SYSTEMS****Curtis Cox – Senior Estimator / Preconstruction manager**

Curtis will be provide leadership and management throughout the preconstruction period.

**Colin Moar – Senior MEP Coordinator**

Colin lead the commissioning process by advising the design, contracting, and facility operations teams on the project's commissioning needs.

**Scott Vollmoeller – Lead Mechanical Engineer**

Scott will serve as Glumac's corporate representative to the project, utilizing his personal delivery experience to facilitate the MEP scope execution.

**Rick Rubie – Lead Electrical Engineer**

Rick will provide leadership and guidance in the project's electrical design and programming needs.

**Paul Allyn - Physical Security Designer**

Paul will be the engineer-of-record and designer for the electronic security systems and court audiovisual systems for CFJC. Paul most recently designed the security and court audiovisual systems on the Ronald T.Y. Moon Judiciary Complex and Hale Ho'omaluu Juvenile Detention Facility in Kapolei, Hawaii.

**Tom Hudgings – Parking Garage / Structural**

Tom Hudgings will lead the structural design of the project with an emphasis on delivering innovative and efficient solutions that are coordinated with other design disciplines and the contractor's construction plan.



An Integrated Team with Local Experience and Global Expertise



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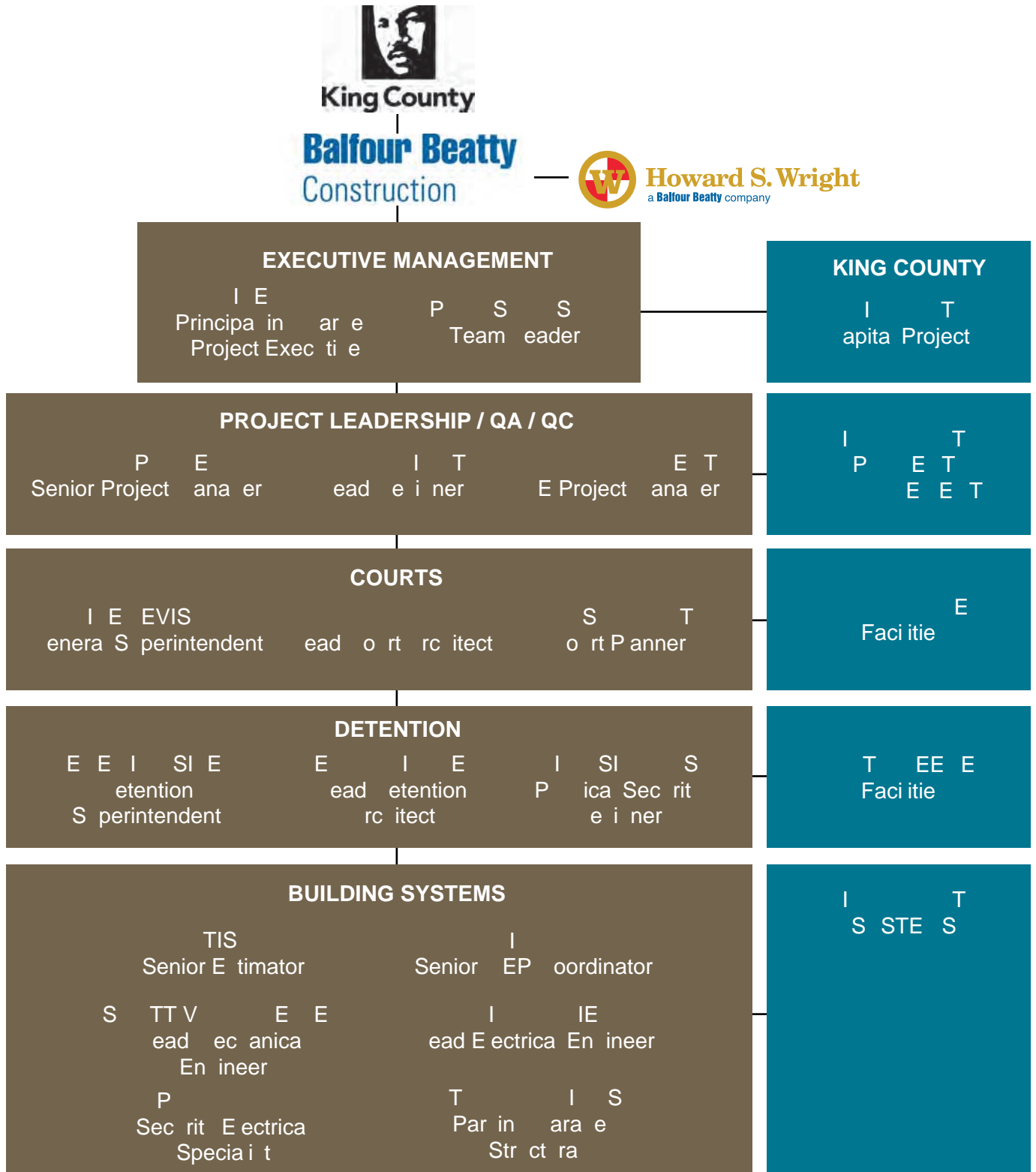
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Provide a project Design Build Team chart identifying how the design-builder will organize and staff the project from project award and inception of design through construction completion.





# MIKE RYAN

## Principal-in-Charge / Project Executive

20 years of Experience | 20 years in a professional construction  
Percent of initiation – Preconstruction: 20% on construction: 20%

Mike will support Paul and the design team throughout the life of the project. Lending his vast experience to the designers and builders, he will ensure collaboration from start to finish.

### EDUCATION

Two years at Nova University Leadership Development

### AFFILIATIONS

Member of ACA, AJA, CMI

### AWARDS

Eagle Award @ Associated Builders in Construction for Orange County Corrections 2006 / Leadership Lake County Member 2003-2013 / Project of the Quarter, Lowell Correctional Florida Dept of Corrections / Project of the Quarter, Mayo Correctional Florida Dept of Corrections / 2012 CMI keynote speaker

## SELECT PROJECT EXPERIENCE

### San Diego Women’s Detention Facility – San Diego, CA

Principal-in-Charge. 34 buildings, 1,216-bed facility including dining, medical, administrative and secure facilities, and a rehabilitation and learning resource center.

480,000 sf | \$221.5 million | LEED Silver Target

- ✓ Detention
- ✓ Design-build
- ✓ Restricted budget

- ✓ Multi-story
- ✓ Early subcontractor involvement

### Lowell Women’s Correctional Institute – Ocala, FL

Principal-in-Charge. Two open-bay dorm and one secure housing unit addition. Expansion included compound security, demolition of existing structures and construction of a visitor center and food service building.

195,000 sf | \$17.8 million

- ✓ Detention
- ✓ High security

- ✓ Occupied site

### Mayo Correctional Institution Annex & Main Unit Expansion – Mayo, FL

Principal-in-Charge. Construction of new annex compound with two secure housing units, six dorms, a front and rear support building, and two generator buildings.

232,411 sf | \$70.8 million

- ✓ Detention

- ✓ High security

### North Carolina Department of Corrections Facilities – Various Locations

Principal-in-Charge. Six facilities including 1,000-cell close security prison. Includes 992 inmate cells, 26 day rooms, 11 control rooms, and recreational facilities.

500,000 sf

- ✓ Detention
- ✓ High security

- ✓ Sustainable

### North Carolina Central Prison Medical and Mental Facility – Raleigh, NC

Principal-in-Charge. Expansion and as the demolition of ten existing buildings. New area will be completely re-graded and re-developed for two new parking lots and six new buildings.

339,201 sf | \$140 million

- ✓ Detention

- ✓ High security



San Diego Women’s Detention Facility



Lowell Women’s Correctional Institute



Mayo Correctional Institution Annex



North Carolina Dept of Corrections Facility



North Carolina Dept of Corrections Facility



# JOHN PARKER

## Senior Project Manager

15+ years of Experience | 10+ years in a leadership role in construction  
Percent of time spent on Preconstruction: 20% | Construction: 80%

John has years of expertise managing court and detention facility projects. He is experienced with leading successful teams through complex projects, and works collaboratively with owners, architects, and subcontractors to ensure a timely and quality product.

### EDUCATION

B.S., Building Construction, University of Florida

## SELECT PROJECT EXPERIENCE

### San Diego Women’s Detention Facility – San Diego, CA

Senior Project Manager. 34 buildings, 1,216-bed facility including dining, medical, administrative and secure facilities, and a rehabilitation and learning resource center.  
480,000 sf | \$221.5 million | LEED Silver Target

- ✓ Detention
- ✓ Design-build
- ✓ Restricted budget

- ✓ Multi-story
- ✓ Early subcontractor involvement

### Orange County Corrections Expansion Phase II – Orlando, FL

Project Manager. New Booking and Release Center including three courtrooms and 592 inmate beds distributed among 12 dormitories. Added space for internal Corrections Dept units.  
300,000 sf | \$60.3 million

- ✓ Detention
- ✓ Urban site

- ✓ High security

### Mayo Correctional Institution Annex & Main Unit Expansion – Mayo, FL

Senior Project Manager. Construction of new Annex Compound with two secure housing units, six dorms, a front and rear support building, and two generator buildings.  
232,411 sf | \$70.8 million

- ✓ Detention

- ✓ High security

### Lowell Correctional Annex Phase 1 – Ocala, FL

Project Manager. Expansion and renovation supplements facility capacity and functions. Includes support services, two open-bay dormitory buildings with 172 beds, secure housing unit with 240 beds, and Compound security.  
58,000 sf | \$17.8 million

- ✓ Detention
- ✓ High security

- ✓ Occupied site

### Gaylord Texan Resort & Convention Center – Grapevine, TX

Project Engineer. 9-story hotel with 1,511 rooms, convention center, retail space, five restaurants, spa and salon, and parking garage. Sprawling concrete and steel complex.  
2,100,000 sf | \$340 million

- ✓ Restricted budget

- ✓ Multi-story



San Diego Women’s Detention Facility



Orange County Corrections Expansion



Mayo Correctional Institution Annex



Lowell Women’s Correctional Institute



Gaylord Texan Resort & Convention Center



# MIKE LEVISON

## General Superintendent

15 years of Experience | 20 years in the construction industry  
Percent of Construction – Preconstruction: 20% | Construction: 80%

Mike is one of the top builders in Seattle. He knows every facet of every trade, and as important, knows how to lead large teams in complex projects. Mike manages subcontractors extremely well and gets the absolute maximum performance from them.

### EDUCATION

Drafting Certification, Renton Vocational Institute, AGC Courses

### REGISTRATIONS/CERTIFICATIONS

OSHA 10 & 30 Hour

### AFFILIATIONS

ASHE Member

## SELECT PROJECT EXPERIENCE

**Washington State Department of Information Services – Olympia, WA**  
General Superintendent. 6-story office building with two levels of underground parking. Cast-in-place exterior walls and steel floor systems, a 2-level structure steel utility building.  
508,206 sf | \$175 million | LEED Platinum

- ✓ Operational facility
- ✓ Sustainable

- ✓ High tech facility
- ✓ Urban site
- ✓ Multi-story

**RiverPark Office Building, Podium, & Garage – Redmond, WA**  
General Superintendent. Brownfield development of a 7-acre site. Included 207,000 sf parking garage and podium, 110,000 sf shell office building, and 28,000 sf tenant improvement.  
345,000 sf | \$100 million

- ✓ Multi-story

- ✓ Sustainable

**US Navy Bachelor Enlisted Quarters, Puget Sound Naval Shipyard – Bremerton, WA**  
General Superintendent. 196-room, 12-story residence tower. Post-tensioned concrete structure over 300-stall cast-in-place parking garage.  
168,000 sf | \$13.2 million

- ✓ Dormitories

- ✓ Multi-story

**1800 Ninth Avenue – Seattle, WA**  
General Superintendent. 15-story structural steel frame building. Five levels of below-grade parking and concrete on metal deck floor system enclosed by granite precast concrete and glass.  
307,110 sf | \$30 million

- ✓ High rise
- ✓ High tech facility

- ✓ Urban Site

**Carillon Point – Kirkland, WA**  
General Superintendent. 4-story structural steel buildings, 4-story, 100-room, concrete hotel, 800-stall cast-in-place underground and freestanding parking structures.  
579,000 sf | \$28.7 million

- ✓ Multi-story

- ✓ Urban site



Washington State Dept of Information Services



RiverPark Office Building



US Navy Bachelor Enlisted Quarters



1800 Ninth Avenue



Carillon Point





# CURTIS COX

## Senior Estimator

20+ Years of Experience | Senior Estimator | 100% Satisfaction – Preconstruction: 100% | Construction: 100%

**Curtis is a preconstruction leader with an instinct for efficient design and planning. He brings on-the-spot guidance for immediate decisions in meetings. No waiting and no round numbers – accuracy and conviction based on three decades of hands-on experience.**

### EDUCATION

B.S., Construction Management, Washington State University

## SELECT PROJECT EXPERIENCE

### Washington State Department of Information Services – Olympia, WA

Senior Estimator. 6-story office building with two levels of underground parking. Cast-in-place exterior walls and steel floor systems, a 2-level structure steel utility building.

508,206 sf | \$175 million | LEED Platinum

- ✓ Operational facility
- ✓ Sustainable

- ✓ High tech facility
- ✓ Urban site
- ✓ Multi-story

### US Coast Guard Shore Ops & Admin Building – Seattle, WA

Senior Estimator. 4-story structural steel frame command center for the USCG. Exterior cladding system is a combination of metal panels, glazing and precast concrete or CMU.

56,000 sf | \$15.1 million | LEED Silver

- ✓ Operational Facility
- ✓ High security
- ✓ Sustainable

- ✓ High tech facility
- ✓ Multiple awards
- ✓ Urban site
- ✓ Design-build

### RiverPark Office Building, Podium, & Garage – Redmond, WA

Senior Estimator. Brownfield development of a 7-acre site. Included 207,000 sf parking garage and podium, 110,000 sf shell office building, and 28,000 sf tenant improvement.

345,000 sf | \$100 million

- ✓ Multi-story

- ✓ Sustainable

### Jackson Federal Building Modernization – Seattle, WA

Senior Estimator. 36-story building. Phased project including seismic upgrades and repairing and replacing the casing and masonry of a one-square-block exterior. The building was fully-occupied and operational during our work.

854,000 sf | \$29 million | LEED Silver

- ✓ High rise
- ✓ Sustainable

- ✓ Design-build
- ✓ Urban site

### City Center Plaza Shell & Core and TI – Bellevue, WA

Senior Estimator. 26-story Class A office building. Typical floors are approximately 22,000 sf with a 30,000 sf mixed-use area at ground level, which includes an atrium lobby, retail tenants, and a restaurant.

561,000 sf | \$141 million | LEED Gold

- ✓ High rise
- ✓ Urban site

- ✓ Sustainable



Washington State Dept of Information Services



US Coast Guard Shore Ops & Admin Building



RiverPark Office Building



Jackson Federal Building



City Center Plaza



# COLIN MOAR

## Senior MEP Coordinator

15 years of Experience | 15 years in the field of MEP  
Percent of time spent on MEP – Preconstruction: 100% on construction:

**Colin's ability to quickly and accurately identify and resolve potential design and installation issues will benefit your project.**

### EDUCATION

Britannia Royal Naval College Dartmouth, Executive and Engineering Officers Course, 1981-1983 / Lieutenant RN (Retired), 1978-1989

### REGISTRATIONS/ CERTIFICATIONS

City & Guilds Marine Electro-Technology, 1980 / Commissioning Specialists Association (CSA) Grade 6 (UK equivalent to CCP), 1995 / Associate Member Chartered Institute of Building Services Engineers (CIBSE) (equivalent to PE), 1997 / Department of Energy, Data Center-Certified Energy Practitioner (DC-CEP), 2010 / Building Commissioning Association, Certified Commissioning Professional (CCP), 2012 / OSHA 10 Hour Construction, 2012

### AFFILIATIONS

Local Chapter Member, Columbia / Region Health Engineers (CRHE) / Member of the American Society Hospital Engineers (ASHE) / National Technical Committee Member Institute of Industrial Managers (IIM) / Department of Energy Steering Group Member, Data Center-Qualified Professional Certification Program / Oregon Chapter Member, Institute of Facilities Managers Association (IFMA)

## SELECT PROJECT EXPERIENCE

### GSA Pioneer Courthouse Building – Portland, OR

Project Director and Contract Executive. Complete re-commissioning study to identify performance deficiencies, opportunities for energy savings, and potential efficiency improvements. 61,000 sf

✓ Courts

✓ Urban site

### GSA Eugene Federal Courthouse Chiller Addition – Eugene, OR

Project Director and Contract Executive. Developing commissioning procedures, and witnessing of functional testing and providing as-built documentation and customer training.

✓ Courts

✓ Urban site

### Deer Ridge Corrections Facility – Madras, OR

Senior Commissioning Agent. 856-bed minimum security prison and 1,240 bed medium security prison including food service, medical, operations/program services, religious, maintenance, and recreation areas. 167,000 sf | \$191 million

✓ Detention

✓ Sustainable

✓ Medium security

✓ Operational facility

### Warner Creek Corrections Facility – Lakeview, OR

Senior Commissioning Agent. 400-bed minimum security men's work camp facility that involved planning and commissioning features including utilizing geothermal heat source. Award for commissioning and energy efficiency. 117,000 sf

✓ Detention

✓ Sustainable

✓ Multiple awards

### West Palm County Jail – Belle Glade and West Palm Beach, FL

Senior Commissioning Agent. Commissioning services in support of new housing with dormitory and cell units. Included administration staff support, intake and releases, and emergency preparedness. 450,000 sf

✓ Detention

✓ High security

✓ Operational facility



GSA Pioneer Courthouse Building



GSA Eugene Federal Courthouse



Deer Ridge Corrections Facility



Warner Creek Corrections Facility



West Palm County Jail



# LARRY HURLBERT

## A/E Project Manager

Year of Experience | Year of Inter  
Percent of Utilization – Preconstruction: Construction:

Larry has experience in all levels of justice architecture, including phased, fast-track, and DB projects. He has worked on siting and programming for dozens of correctional and juvenile facilities.

### EDUCATION

M.Arch., Montana State University

### REGISTRATIONS/ CERTIFICATIONS

Licensed Architect: WA, CA

### AFFILIATIONS

Member, American Institute of Architects / Member, International Code Council Member, American Correctional Association / Chairman, AEA Committee Washington Council AIA / Past President and Committee Chairman, MSU School of Architecture Advisory Council / President, Northwest Regional, Design Build Institute of America / Member, National Leadership Committee, Design Build Institute of America / Member, National Membership Committee, Design Build Institute of America

### ARTICLES/ PRESENTATIONS

A Lean Prison (Hurlbert/Herron) –Correctional News (November 2013)  
AAJ 2013 Conference Presentation – Alternative Delivery Methods Lessons Learned Washington State DOC

## SELECT PROJECT EXPERIENCE

### Washington Corrections Center for Women – Gig Harbor, WA

A/E Project Manager. Renovation and expansion. Multi-phased project including three minimum security housing units, and renovation of special needs housing. Creation of a Special Needs Unit. \$60 million

- ✓ Corrections Facility
- ✓ Occupied site

- ✓ Alternative delivery

### King County Corrections Facility, ISP/ Security Upgrade – Seattle, WA

A/E Project Manager. Design and security services. Series of renovations phased through scope additions. Security Upgrades, Jail Health Services & Special Needs Housing, and Intake & Release Renovation. 212,000 sf | \$30.1 million

- ✓ Detention
- ✓ Alternate delivery
- ✓ Urban site

- ✓ Multi-story
- ✓ Occupied Site
- ✓ Alternate delivery

### King Co. Dept. of Youth Services Detention Facility – Seattle, WA

A/E Project Manager. Includes housing, program and support areas. Sleeping rooms are clustered in modules adjacent to common living spaces. Each cluster has ten sleeping rooms. 92,000 sf | \$12 million

- ✓ Detention: juvenile

- ✓ Urban site

### Washington State DOC Reception Center Predesign & Siting - Washington State

A/E Project Manager. New facility provides 1,024 reception beds, 64 segregation beds, and program areas for intake, classification, visitation, food and health services, and administration services. 356,000 sf | \$191.8 million

- ✓ High security

- ✓ Urban Site

### Northwest Detention Center – Tacoma, WA

A/E Project Manager. Administration and detention complex expansion and addition. Design-build project included the site master planning to add a low rise Class A office space in conjunction with a 700-bed and associated support space expansion. 108,000 sf | \$37.5 million

- ✓ Detention
- ✓ Urban Site
- ✓ Multi-Story

- ✓ Design-build
- ✓ Occupied site



Washington Corrections Center for Women



King County Corrections Facility



King County Dept of Youth Services



WA State DOC Reception Center



Northwest Detention Center





# DUNCAN BROYD, RIBA, LEED BD+C

## Lead Court Architect

20+ years of Experience | 20+ years in the Court Architect  
Percent of Construction – Preconstruction: 20% | Construction: 20%

**Duncan specializes in the planning and programming of justice facilities. He has dealt with multi-faceted clients, extensive consultant coordination and the complex planning and construction process required for both large and small justice projects.**

### EDUCATION

Liverpool University School of Architecture, Bachelor of Arts (honours), 1977, Bachelor of Architecture (honours), 1980

### REGISTRATIONS / CERTIFICATIONS

Registered Architect UK (ARB), 1982 / Chartered Architect UK (RIBA), 1982 / Architect: Washington (pending) / LEED® Accredited Professional, 2007

### AFFILIATIONS

Royal Institute of British Architects Associate AIA Leadership Tampa, 1995 / Earth Charter, U.S. Board Member 2005-08 / Alpha House Board of Directors 2000 -Current

### AWARDS

Sam M. Gibbons U.S. Courthouse / U.S. Department of Energy National Award / Unbuilt Design Excellence in Architecture AIA, Florida

## SELECT PROJECT EXPERIENCE

### Miami-Dade County Children’s Courthouse – Miami, FL

Lead Court Planner. Advanced facility with 18 courtrooms. Sustaining environment extends to sustaining basic values regarding care of children that find themselves participants in the justice system. 371,500 sf | \$134 million | LEED Gold Target

- ✓ Courts: juvenile/ family
- ✓ Urban site
- ✓ Restricted budget
- ✓ Multiple awards
- ✓ High rise
- ✓ Sustainable
- ✓ High tech facility
- ✓ WMBE

### Tarrant County Civil Courts Facility – Fort Worth, TX

Lead Court Planner. New facility in downtown Fort Worth. Program for the facilities calls for 13 civil district courts, a mega-courtroom for larger multi-litigant trials, jury services assembly area, and secure underground parking for judges. 225,000 sf | \$59 million | LEED Gold Target

- ✓ Court
- ✓ Urban site
- ✓ High rise
- ✓ High security
- ✓ Sustainable
- ✓ High tech facility

### Manatee County Judicial Center – Bradenton, FL

Lead Court Designer. New 9-story Judicial Center with 19 courtrooms, judges chambers, and support space. Included program and feasibility studies for historic courthouse and office renovations. 225,000 sf | \$159 million | LEED Gold Target

- ✓ Courts: juvenile, family, and teen
- ✓ Detention
- ✓ Urban site
- ✓ Multi-story
- ✓ Restricted budget
- ✓ Sustainable
- ✓ High security

### Gloucester County Justice Complex Additions / Renovations – Woodbury, NJ

Lead Court Planner. Addition and renovation. Includes new addition housing 13 courtrooms for Family and Criminal courts along with judges chambers, clerk offices, and support space. 200,000 sf | \$71.8 million | 3-stories + basement

- ✓ Courts: family
- ✓ Detention
- ✓ Multi-story
- ✓ Sustainable
- ✓ MWBE

### Broward County Civil/Family Courthouse – Fort Lauderdale, FL

Owner’s Representative and Court Planning Consultant. New facility with 74 courtrooms and additional administrative spaces for supporting agencies. 700,000 sf | \$211 million

- ✓ Courts: juvenile
- ✓ Detention: juvenile
- ✓ Urban site
- ✓ High rise
- ✓ Restricted budget
- ✓ High security



Miami-Dade County Children’s Courthouse



Tarrant County Civil Courts Facility



Manatee County Judicial Center



Gloucester County Justice Complex



Broward County Civil/Family Courthouse



# DUNCAN BROYD, RIBA, LEED BD+C

## Lead Court Architect

AIA AAJ Annual Awards  
Niagara Falls Municipal  
Complex, NY / Miami-Dade  
Children's Courthouse  
(Citation), FL / Wilkie D.  
Ferguson, Jr. US Courthouse, FL  
Kent County Courthouse, RI /  
Hialeah Branch Courthouse,  
FL / Greenville County  
Courthouse, SC / Polk Youth  
Development Center, FL / Sam  
M. Gibbons U.S. Courthouse,  
FL / Pinellas County Criminal  
Courts (Citation), FL

### PUBLICATIONS

Vulnerability Assessment of  
Federal Facilities report, 1995,  
Consultant to US Marshals  
Service

Retrospective of Courthouse  
Design, National Center for  
State Courts (NCSC) 1981-1990  
Pinellas County Criminal  
Courts Complex – Design

Retrospective of  
Courthouse Design (NCSC)  
1991-2001  
Pinellas County Criminal  
Courts Complex - Citation

Retrospective of Courthouse  
Design  
(NCSC) 2001-2010  
Miami-Dade Children's  
Courthouse -Citation

### SPEAKING ENGAGEMENTS

2010-NACM, "The Ceiling is  
Falling Down-What Do I Do  
Now?"

2009-AIA AAJ, "Beyond the  
Horizon: The Next Generation  
of Justice "

2007-AIA AAJ, "Sustainable  
Justice" -Miami-Dade  
Children's Courthouse.

2006-AIA AAJ, "Courthouse  
Cost Escalation—What do we  
do now?"

## ADDITIONAL PROJECT EXPERIENCE

### Hillsborough County (Plant City) East County Court Complex – Plant City, FL

Team Leader, Courts and Security Planner. 2-story  
courthouse with four courtrooms and judges  
chambers on the second floor and office space on  
the ground floor.

60,000 sf | \$13.5 million

- ✓ Courts
- ✓ Multi-story

- ✓ Urban site

### Marion County Judicial Center Addition – Ocala, FL

Team Leader, Courts and Security Planner.  
Expansion of the 5-story, 5-courtroom facility which  
continues the contemporary design of the existing  
building, including new main entrance and security  
checkpoint.

150,000 sf | \$38 million

- ✓ Courts
- ✓ Urban site
- ✓ Sustainable
- ✓ Restricted  
budget

- ✓ Multi-story
- ✓ High tech facility
- ✓ High security

### Kent County Courthouse – Warwick, RI

Courts and Security Planner. Superior, District, Family  
Courts, and multiple support agencies and parking  
garage for 500 cars, 15 courtrooms (4 shelled).

200,000 sf | \$48 million

- ✓ Courts: family
- ✓ Urban site
- ✓ Multi-story
- ✓ High security

- ✓ Multiple awards
- ✓ Sustainable
- ✓ Accelerated  
schedule

### Administrative Office of the Courts - California Trial Court Facilities Standards - State of California

Assisted with development of new court planning  
and design standards and prototypes.

- ✓ Courts
- ✓ Detention

- ✓ High security
- ✓ High tech facility



# JERRY WINKLER

## Lead Detention Architect

20+ Years of Experience | 20+ Years of Detention Architecture  
Percent of Construction – Preconstruction: 20% | Construction: 20%

**Jerry's understanding of facility operations, knowledge regarding justice facility will be instrumental in many success of the project.**

### EDUCATION

B.A., Architecture,  
Washington State University

### REGISTRATIONS/ CERTIFICATIONS

Licensed Architect: WA, ID,  
MT, HI, OR, PA, WV, WY

### AFFILIATIONS

Member, American Institute of Architects / Member, American Correctional Association / Member, American Jail Association / Member, AIA Academy of Architecture for Justice (co-chair 2013 AAJ Conference) / Washington Council, American Institute of Architects, Past-President / Member, College of Engineering and Architecture Executive Leadership Board, Washington State University / Washington State University Foundation, Board of Trustees / Chairman and Trustee – Inland Northwest Architectural Foundation

## SELECT PROJECT EXPERIENCE

### Ronald T.Y. Moon Judiciary Complex, Hale Ho'omalua Juvenile Detention Facility – Kapolei, HI

Detention Architect. The complex includes a new courts building and a new juvenile detention facility. 126,215 sf (courts), 52,306 sf (juvenile) | \$110 million

- ✓ Courts: juvenile
- ✓ Detention: juvenile

- ✓ Urban site
- ✓ Multi-story

### Hawaii Youth Correctional Center – Honolulu, HI

Detention Architect. This 30-bed facility houses medium/maximum security youths in three modules. The project includes all support spaces; education, food service, administration.

- ✓ Courts: juvenile
- ✓ Detention: juvenile

- ✓ Urban site
- ✓ Multi-story

### King County Corrections Facility, ISP / Security Upgrade – Seattle, WA

Detention Architect. Design and security services. Series of renovations phased through scope additions. Security Upgrades, Jail Health Services & Special Needs Housing, and Intake & Release Renovation. 212,000 sf | \$30.1 million

- ✓ Detention
- ✓ Alternative delivery

- ✓ Urban site
- ✓ Multi-story
- ✓ Occupied site

### Thomas S. Foley US Federal Courthouse Renovation / US Marshall's Area Relocation – Spokane, WA

Principal-in-Charge. Major system upgrades. Design and construct expansion and relocation of the US Marshals Services, including Basement Vehicle Sallyport and Prisoner Elevator. 202,500 sf | \$38.5 million | LEED -EB OM Silver

- ✓ Design-build
- ✓ Detention
- ✓ Urban site

- ✓ Multi-story
- ✓ Sustainable
- ✓ Occupied site

### King County Department of Youth Services Detention Facility – Seattle, WA

Detention Programming. Youth Detention Facility which includes housing, program and support areas. The DYS facility has a capacity for over 150 individuals. 92,000 sf | \$12 million

- ✓ Detention: juvenile

- ✓ Urban site



Ronald T.Y. Moon Judiciary Complex



Hawaii Youth Correctional Center



King County Corrections Facility



Thomas S. Foley US Federal Courthouse



King County Dept of Youth Services

# JERRY WINKLER

## Lead Detention Architect

### PUBLICATIONS

2008 DBIA Conference & Expo: "Case Study: Coyote Ridge Corrections Center" Correctional News, January/February 2011

"Project Delivery Methods – A Best-Fit Perspective" Correctional News, May/June 2009

"Monroe Revisited. Architects Break Down Facility's LEED Points" Correctional News, May/June 2008

"Under Construction," American Jails, May/June 2007

"Long-Term Budgeting for Operations in Construction and Design Planning for Jails," American Jails, Sept/October 2006

"The World in 2030, Planners Look to the Future to Solve Problems" Correctional News, May/June 2006

"Jump Starting Your Upgrade," American Jails, January/February 2004

"Sending Them to Prison," Corrections Today, April 1999

### PRESENTER

2008 DBIA Conference & Expo: Coyote Ridge Corrections Expansion – Anatomy of a Successful Design-Build Project  
2006 ACA Winter Conference: Planning of New Institutions – Jails & Prisons  
2008 Delivery Methods: What is the Best Approach?  
2008 AAJ Integrating Sustainable Designs & Operation in a Major Corrections Expansion Program



# SCOTT VOLLMOELLER, PE, LEED AP

## Lead Mechanical Engineer

20 years of Experience | 15 years in Mechanical  
Percent of Utilization – Preconstruction: 20% | Construction: 20%

Scott has years of varied mechanical design experience, specializing in institutional projects. He will utilize his senior management position and personal delivery experience to facilitate the project scope execution.

### EDUCATION

B.S. Mechanical Engineering,  
Arizona State University

### REGISTRATIONS/ CERTIFICATIONS

Registered Professional  
Engineer: WA, NV, OR, AZ, AK

## SELECT PROJECT EXPERIENCE

### Pendleton Correction Institution HVAC Remodel – Pendleton, OR

Mechanical Designer. Provided mechanical design services for an HVAC remodel for the “F” appendage. 12,000 sf | 2002

- ✓ Detention: adult
- ✓ Restricted budget

- ✓ Operational facility

### South Correctional Entity (SCORE) Jail – Des Moines, WA

QA/QC Review. Glumac provided mechanical and plumbing design for a 678-bed correctional facility including an alternate 822-bed design. 163,830 sf | \$90 million | 2011

- ✓ Detention
- ✓ High tech facility

- ✓ Low, medium, and high security

### Multnomah County Detention Facilities, Portland, OR

Peer Review. Glumac provided MEP engineering services for several facilities including a 150,000 sf Juvenile Justice Center with new courtrooms, County Detention Center with five dorms, Courthouse involving energy design analysis and efficiency measures, and Inverness Jail (Phases I-III).

- ✓ Detention: juvenile

- ✓ Urban site
- ✓ Sustainable

### Bonney Lake Interim Justice Center Office Building – Bonney Lake, WA

Principal-in-Charge. Glumac provided mechanical, electrical and plumbing design for a 32,000 sf justice center building. 32,000 sf | \$64 million | 2010

- ✓ Detention
- ✓ Sustainable
- ✓ Operational facility

- ✓ Restricted budget
- ✓ Urban site

### San Diego Women’s Detention Center – San Diego, CA

Principal-in-Charge. Glumac provided full MEP, energy modeling and lighting design. Worked with Howard S. Wright / Balfour Beatty team on detention housing, food services, vocational & industrial training, infirmary, psychiatric unit, library, and administration building. 480,000 sf | \$221.5 million | LEED Gold

- ✓ Detention
- ✓ Design-build
- ✓ Restricted budget

- ✓ Multi-story
- ✓ Early subcontractor involvement



Pendleton Correction Institution



South Correction Entity Jail (SCORE)



Multnomah County Detention Facility



Bonney Lake Interim Justice Center



San Diego Women’s Detention Center





# RICK RUBIE

## Lead Electrical Engineer

15 years of Experience | 15 years in the field  
Percent of time spent on site – Preconstruction: 20% | Construction: 20%

Rick has years of electrical design experience, including multiple courthouses and high security facilities. He will bring his expertise to the table to ensure a successful and quality project.

### EDUCATION

B.S. Business Administration, University of Montana

## SELECT PROJECT EXPERIENCE

### Bonney Lake Courtrooms and Offices – Bonney Lake, WA

Electrical Lead Designer. Core and shell, and tenant improvement for a courtroom, temporary holding cells, secured lawyer/detainee meeting room, offices and Sally Port for detainee transportation. 24,000 sf | \$64 million

- ✓ Detention
- ✓ Sustainable
- ✓ Operational facility

- ✓ Restricted budget
- ✓ Urban site

### Othello Public Safety Building – Othello, WA

Electrical Lead Designer. Facility to house the City of Othello administration and police station. This included four temporary holding cells, a Sally Port and detainee/lawyer secure meeting room. 15,600 sf

- ✓ Detention
- ✓ Urban site

- ✓ High security

### GSA Laredo Border Patrol Gantry Building – Laredo, TX

Electrical Lead Designer. Bringing power, communications and a road to an existing building housing X-ray equipment for processing long-haul tractor/trailers. Scope includes electrical panels, connectivity pathways from the Main building to the Gantry, access road lighting, and CCTV system.

- ✓ Detention
- ✓ High security

- ✓ Accelerated schedule

### GSA Laredo Border Patrol POV & Bus – Laredo, TX

Electrical Lead Designer. Renovation of the existing Juarez-Lincoln Border Crossing facility. 5,000 sf building, inspection canopies, detention facilities, Sally Port for detainee transportation, vehicle inspection buildings, labs and offices. Generator sized to 150% of the design load with 72 hours of operation.

- ✓ Detention
- ✓ High security

- ✓ Accelerated schedule

### Valley Communications – Seattle, WA

Electrical Lead Designer. Facility dedicated to the South King County 911 Call center. This included an 80-foot radio tower and 72-hour emergency generator. The call center dispatches emergency resources such as police officers, firefighters and paramedics. 16,000 sf

- ✓ High security
- ✓ Urban site

- ✓ High tech facility



Bonney Lake Interim Justice Center





*Demonstration of Mandatory Requirements*

*(1) Statement of Applicants Ability to Provide Performance and Payment Bond. (Letter of Assurance from Surety).*

**HOWARD S. WRIGHT, A BALFOUR BEATTY COMPANY, SURETY INFORMATION**

Balfour Beatty Construction US (operating locally as Howard S. Wright) Bonding Capacity and Insurance information is below. In addition to the details below, please find on the following pages, statements from our surety company.

**BONDING CAPACITY**

Single Project – \$300,000,000

Aggregate – \$6,250,000,000

**SURETY COMPANIES**

**TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA**

One Tower Square

Hartford, CT 06183

Phone Number – 860-277-9355

Contact – Stan Halliday

AM Best Rating – A+ XIV

**FIDELITY AND DEPOSIT COMPANY OF MARYLAND**

1400 American Lane

Schaumburg, IL 60196-1056

Phone Number – 404-851-3262

Contact – Dave McVicker

AM Best Rating – A+ XV

**LIBERTY MUTUAL INSURANCE COMPANY**

450 Plymouth Road, Suite 400

Plymouth Meeting, PA 19462

Phone Number – 770-916-7280

Contact – Alex Haas

AM Best Rating – A XV

**FEDERAL INSURANCE COMPANY**

15 Mountain View Rd.

Warren, NJ 07059

Phone Number – 404-266-4034

Contact – Doug Hite

AM Best Rating – A++ XV

**SURETY BROKER**

Willis of North Carolina, Inc.

PO Box 31817, Charlotte, NC 28231

301 S. Tryon St. Suite 2600

Two Wells Fargo Center

Charlotte, NC 28282-0001

Contact - Matt Varner 704-344-4857

Email – Matthew.Varner@Willis.com





**Balfour Beatty**  
Construction Services US



**Howard S. Wright**  
a Balfour Beatty company



**integrus**  
ARCHITECTURE

**King County**

(2) Documentary verification of Prime Contractors current Washington State Contractors License. (RCW 18.27).

Balfour Beatty Construction (operating locally as Howard S. Wright) is licensed in the State of Washington as Howard S. Wright Constructors LP.

Department of Labor and Industries  
PO Box 44450  
Olympia, WA 98504-4450

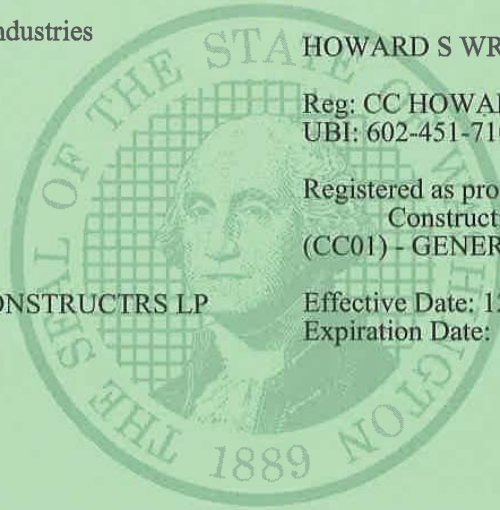
HOWARD S WRIGHT CONSTRUCTRS LP  
PO BOX 34449  
SEATTLE WA 98124

HOWARD S WRIGHT CONSTRUCTRS LP

Reg: CC HOWARSW960R2  
UBI: 602-451-710

Registered as provided by Law as:  
Construction Contractor  
(CC01) - GENERAL

Effective Date: 12/22/2004  
Expiration Date: 12/22/2014



*(3) Documentary verification of Industrial Insurance coverage. (Title 51 RCW).*

Balfour Beatty Construction (operating locally as Howard S. Wright) is self-insured in the State of Washington. Below is the verification of this from the Washington Department of Labor and Industries website:



© Washington State Department of Labor and Industries.

## **Self-Insured Employer Claim Contact Information**

### **HOWARD S WRIGHT CONSTRUCTORS LP**

**Self-insured**

December 29, 2008 to Present.

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#### **Claim contact**

**Phone number**

253-854-6323

**Fax number**

253-854-6404

**Mailing address**

EBERLE VIVIAN  
206 RAILROAD AVE N  
KENT WA 98032-4533



**Balfour Beatty**  
Construction Services US



**Howard S. Wright**  
a Balfour Beatty company



**integrus**  
ARCHITECTURE

King County

(4) Documentary verification of Employment Security number. (Title 50 RCW).

Balfour Beatty Construction (operating locally as Howard S. Wright), Employment Security Number is: **283421 00 4**

3304

UNIFIED BUSINESS ENTIFIER  
602 451 716 .00

STATE OF WASHINGTON  
EMPLOYMENT SECURITY DEPARTMENT

**TAX RATE NOTICE**

A

VP  
12-28-12  
WAA

<b>HOWARD S WRIGHT CONSTRUCTORS LP</b>	
PO BOX 3764 SEATTLE WA 98124-2264	

ES REFERENCE #	MAILING DATE
283421 00 4	12/07/12

**IMPORTANT NOTICE:** IF YOU WANT US TO REVIEW YOUR TAX RATE, THE LAW SAYS YOU MUST SEND US A REQUEST IN WRITING NO LATER THAN 30 DAYS FROM THE MAILING DATE ABOVE.

2013 ANNUAL TAXABLE WAGE BASE FOR EACH EMPLOYEE	TAX RATE	YOUR TAX RATE FOR 2013
\$39,800	5.82% 0.02% 5.84%	UNEMPLOYMENT INSURANCE TAX RATE EMPLOYMENT ADMINISTRATION FUND (EAF) COMBINED TOTAL TAX RATE

RATE FROM YOUR EXPERIENCE	5.40%
RATE FROM SOCIAL COSTS	0.42%
NO SOLVENCY SURCHARGE FOR 2013	N/A
<b>TOTAL OF UNEMPLOYMENT INSURANCE TAX RATES</b>	<b>5.82%</b>

YOUR TAX RATE IS BASED UPON AN EXPERIENCE RATE CALCULATION FOR A REGULAR TAXABLE EMPLOYER.

THE FOLLOWING BENEFIT CHARGES AND TAXABLE WAGES WERE USED TO DETERMINE YOUR TAX RATE FOR 2013:

EXPERIENCE YEAR	BENEFIT CHARGES \$ AMOUNT	TAXABLE WAGES \$ AMOUNT	TAXES PAID (INFO. ONLY) \$ AMOUNT
7/1/11-6/30/12	658,981.88	9,176,244.29	484,424.10
7/1/10-6/30/11	900,065.08	9,419,041.05	331,568.12
7/1/09-6/30/10	608,464.72	9,292,664.84	121,563.39
7/1/08-6/30/09	25,898.86	9,341,710.91	76,191.41
<b>TOTAL</b>	<b>\$2,193,410.54</b>	<b>\$37,229,661.09</b>	<b>\$1,013,747.02</b>

BENEFIT RATIO FOR 2013	BENEFIT CHARGES \$2,193,410.54	+	DIVIDED BY TAXABLE WAGES \$37,229,661.09	=	BENEFIT RATIO .058915
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A BENEFIT RATIO OF .058915 QUALIFIES FOR A TAX RATE CLASS OF 40 FOR 2013

FOR QUESTIONS OR CORRECTIONS ABOUT THIS NOTICE, CONTACT:  
EMPLOYMENT SECURITY DEPARTMENT  
EXPERIENCE RATING UNIT  
P O BOX 9046  
OLYMPIA WA 98507-9046  
(360) 902-9670  
(360) 902-9202 - FAX

FOR QUESTIONS ABOUT THIS NOTICE, SEE WEBSITE:  
[WWW.ESD.WA.GOV/TAX-RATES](http://WWW.ESD.WA.GOV/TAX-RATES)

FOR QUESTIONS ABOUT YOUR ACCOUNT, CONTACT:  
EMPLOYMENT SECURITY DEPARTMENT  
SOUTH SOUND TAX OFFICE  
1301 TACOMA AV S  
TACOMA WA 98402-1903  
(253) 593-7380  
(253) 593-7314 - FAX

EMS 174 (REV. 11/10) -888- 3

(5) Documentary verification of State Excise Tax Registration number (Title 82 RCW).

Balfour Beatty Construction's (operating locally as Howard S. Wright Constructors, LP) Employment Security Number is: 283421 00 4

UNITED STATES OF AMERICA

**The State of**  **Washington**

Secretary of State

I, **SAM REED**, Secretary of State of the State of Washington and custodian of its seal, hereby issue this

**CERTIFICATE OF EXISTENCE/AUTHORIZATION**

**OF**

**HOWARD S. WRIGHT CONSTRUCTORS LP**

I **FURTHER CERTIFY** that the records on file in this office show that the above named Limited Partnership was formed under the laws of the State of WA and was issued a Certificate Of Limited Partnership in Washington on 12/7/2004.

I **FURTHER CERTIFY** that as of the date of this certificate, **HOWARD S. WRIGHT CONSTRUCTORS LP** remains active and has complied with the filing requirements of this office.

Date: December 17, 2004

UBI: 602-451-710

Given under my hand and the Seal of the State of Washington at Olympia, the State Capital



Sam Reed, Secretary of State







**King County**

*(6) Letter of Assurance that the Prime Contractor of the Applicant is not currently disqualified from bidding on public works contract (39.06.010 or 39.12.065(3)).*

**LETTER OF ASSURANCE - PUBLIC WORKS CONTRACT**

I, Dan Peyovich, Washington Division President, hereby certify that Balfour Beatty Construction (operating locally as Howard S. Wright), is not currently disqualified from bidding on public works contract (39.06.010 or 39.12.065(3)).

\_\_\_\_\_  
(Signed)

\_\_\_\_\_  
**Washington Division President**

(Title)

\_\_\_\_\_  
**September 25th, 2013**

(Date)



**Balfour Beatty**  
Construction Services US



**Howard S. Wright**  
a Balfour Beatty company



**integrus**  
ARCHITECTURE

**King County**

*(7) Letter of Assurance that the Prime Contractor of the Applicant has not violated 39.04.370 more than one time as determined by Labor and Industries over the last five years.*

**LETTER OF ASSURANCE – LABOR & INDUSTRIES 39.04.370**

I, Dan Peyovich, Washington Division President, hereby certify that Balfour Beatty Construction (operating locally as Howard S. Wright), has not violated 39.04.370 more than one time as determined by Labor and Industries over the last five years.

(Signed) \_\_\_\_\_

**Washington Division President**

(Title) \_\_\_\_\_

**September 25th, 2013**

(Date) \_\_\_\_\_



**Balfour Beatty**  
Construction Services US



**Howard S. Wright**  
a Balfour Beatty company



**integrus**  
ARCHITECTURE

**King County**

*(8) Statement from the Prime Contractor of the Applicant that it has not been found out of compliance with the Apprenticeship Utilization requirements of RCW 39.04.320 over the last five years.*

**LETTER OF ASSURANCE - PUBLIC WORKS CONTRACT**

I, Dan Peyovich, Washington Division President, hereby certify that Balfour Beatty Construction (operating locally as Howard S. Wright), has not been found out of compliance with the Apprenticeship Utilization requirements of RCW 39.04.320 over the last five years

(Signed)

**Washington Division President**

(Title)

**September 25th, 2013**

(Date)

# **SAFETY RESOURCE MANUAL**





**SECTION A – SAFETY POLICY**

<b>A-1</b>	<b>HSWC Accident Prevention Program</b>	5/02
<b>A-2</b>	<b>Subcontractor Accident Prevention Requirements</b>	5/02

**SECTION B – ADMINISTRATION**

<b>B-1</b>	<b>Job Start-up</b>	5/02
	Form B-1-a Job Start-up Checklist AWS	12/08
<b>B-2</b>	<b>Phased Safety Planning AWS</b>	12/08
	Form B-2-a JSA Assignment Form	5/02
	Form B-2-b Job Hazard Analysis AWS	12/08
<b>B-3</b>	<b>Record Keeping</b>	5/02
	Form B-3-a Weekly Safety Job Walk CH	7/09
	Form B-3-b Weekly Project Safety Meeting CH	7/09
<b>B-4</b>	<b>Training Programs</b>	5/02
	Form B-4-a Safety Training Report	5/02
	Form B-4-b Safety Training Attendance	5/02
<b>B-5</b>	<b>New Worker Orientation</b>	
	Form B-5-a HSW Jobsite Orientation Training CH	7/09
	Form B-5-b Subcontractor Jobsite Orientation Training CH	7/09
<b>B-6</b>	<b>Emergency Action Plan</b>	5/02
	Form B-6-a Emergency Action Plan Worksheet	5/02
	Form B-6-b Emergency Number Poster	5/02
<b>B-7</b>	<b>Incident/Accident Investigation</b>	5/02
	Form B-7-a Daily First Aid Log	5/02
	Form B-7-b Incident Alert CH	3/09
	Form B-7-c Incident Review / Investigation – Washington CH	7/09
	Form B-7-d Witness Report	5/02
<b>B-8</b>	<b>Injured Worker Management CH</b>	1/09
	Form B-8-a Physician’s Initial Report CH	1/09
	Form B-8-b Doctor’s Estimate of Physical Capabilities CH	1/09
	Form B-8-c Test Authorization & Fax Form CH	1/09
	Form B-8-d Self Insurer Accident Report (SIF-2) CH	1/09
	Form B-8-e Transitional Work Agreement CH	1/09
	Form B-8-f Light Duty Program Guidelines - Supervisor CH	1/09

\*\* There are ongoing revisions to this document as revisions take place the author will place their initials next to the section or article under their revision. The author will also indicate the date of revision or any other change in the date column.

	Form B-8-g Light Duty Worker Return To Work Orientation CH	1/09
	Form B-8-h Light Duty Return To Work Discipline Program CH	1/09
<b>B-9</b>	<b>Disciplinary Guidelines</b>	5/02
	Form B-9-a Discipline Report	5/02
<b>B-10</b>	<b>Safety Committee</b>	5/02
	Form B-10-a Safety Committee Meeting Notice	5/02
	Form B-10-b Safety Committee Agenda/Minutes	5/02

### **SECTION C – PERSONAL PROTECTIVE EQUIPMENT**

<b>C-1</b>	<b>General PPE Guidelines</b>	5/02
<b>C-2</b>	<b>Eye and Face Protection</b>	5/02
<b>C-3</b>	<b>Hearing Protection</b>	5/02
<b>C-4</b>	<b>Respiratory Protection AWS</b>	10/08
	Form C-4-a Respiratory Program Medical Questionnaire AWS	10/08
	Form C-4-b Respiratory Training / Fit Test Record AWS	10/08
	C-4-c Voluntary respiratory protection Washington state AWS	10/08

### **SECTION D – FALL PROTECTION**

<b>D-1</b>	<b>General Fall Protection Guidelines AWS</b>	11/08
<b>D-2</b>	<b>Fall Protection Work Plans AWS</b>	11/08
	Form D-2-a Fall Protection Competent Person	5/02
	Form D-2-b Fall Protection Work Plan	5/02
<b>D-3</b>	<b>Personal Fall Protection Equipment</b>	5/02
<b>D-4</b>	<b>Positioning Systems</b>	5/02
<b>D-5</b>	<b>Horizontal and Vertical Lifelines</b>	5/02
<b>D-6</b>	<b>Standard Guardrails</b>	5/02
<b>D-7</b>	<b>Warning Line Systems AWS</b>	12/08
<b>D-8</b>	<b>Safety Monitor Systems AWS</b>	12/08
	Form D-8-a Safety Monitor Record	5/02
<b>D-9</b>	<b>Skylight and Floor Hole Protection</b>	5/02
<b>D-10</b>	<b>Portable Ladders</b>	5/02
<b>D-11</b>	<b>Scaffolding &amp; Stilts AWS</b>	5/02
	Form D-11-a Scaffolding Competent Person	5/02
<b>D-12</b>	<b>Mobile Elevated Work Platforms</b>	5/02

\*\* There are ongoing revisions to this document as revisions take place the author will place their initials next to the section or article under their revision. The author will also indicate the date of revision or any other change in the date column.

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Form D-12-a Manlift Checklist	5/02
Form D-12-b Scissor Lift Checklist	5/02

**SECTION E – TOOLS**

<b>E-1</b>	<b>Hand and Portable Power Tools AWS</b>	01/09
<b>E-2</b>	<b>Assured Equipment Grounding</b>	5/02
<b>E-3</b>	<b>Abrasive Wheel Machinery</b>	5/02
<b>E-4</b>	<b>Explosive Actuated Tools AWS</b>	1/09

**SECTION F – VEHICLES, CRANES, HEAVY EQUIPMENT  
AND MATERIAL HANDLING**

<b>F-1</b>	<b>Motor Vehicle Guidelines</b>	5/02
<b>F-2</b>	<b>Signs, Flagging and Barricades</b>	5/02
<b>F-3</b>	<b>Forklift Guidelines</b>	5/02
	Form F-3-a Forklift Inspection Record	5/02
	Form F-3-b Forklift Evaluation	5/02
<b>F-4</b>	<b>Materials Handling Guidelines</b>	5/02
<b>F-5</b>	<b>Rigging Guidelines</b>	5/02
<b>F-6</b>	<b>Mobile Cranes Safety Guidelines</b>	5/02
	Form F-6-a Crane Pick Plan	5/02
<b>F-7</b>	<b>Tower Crane Guidelines</b>	5/02

**SECTION G – INDUSTRIAL HYGIENE AND ENVIRONMENTAL**

<b>G-1</b>	<b>Hazardous Materials Communication Program</b>	5/02
<b>G-2</b>	<b>Asbestos Exposure</b>	5/02
<b>G-3</b>	<b>Lead Exposure</b>	5/02
<b>G-4</b>	<b>Silica</b>	5/02
<b>G-5</b>	<b>Bloodborne Pathogens Control Program</b>	5/02

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**SECTION H – MISCELLANEOUS SAFETY GUIDELINES**

<b>H-1</b>	<b>Excavation and Trenching, Soils Testing and Classification</b> AWS	1/09
<b>H-2</b>	<b>Housekeeping</b> AWS	1/09
<b>H-3</b>	<b>Welding and Burning</b>	5/02
	Form H-3-a Hot Work Permit	5/02
<b>H-4</b>	<b>Lockout / Tagout</b>	5/02
<b>H-5</b>	<b>Fire Protection and Prevention</b>	5/02
<b>H-6</b>	<b>Confined Space Entry</b>	5/02
	Form H-6-a Confined Space Entry Plan	5/02
	Form H-6-b Confined Space Permit	5/02
<b>H-7</b>	<b>Barricades</b>	5/02
<b>H-8</b>	<b>Overhead Work</b>	5/02
<b>H-9</b>	<b>Heat and Cold Stress</b>	5/02
<b>H-10</b>	<b>Elevator Guidelines</b>	5/02
<b>H-11</b>	<b>Construction Lighting Guidelines</b>	5/02
<b>H-12</b>	<b>Energized Electrical Work Guidelines</b>	5/02
<b>H-13</b>	<b>Office Trailer Safety</b>	5/02

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**INTRODUCTION - ACCIDENT PREVENTION PROGRAM (Safety Resource Manual)**

Howard S. Wright Constructors (HSWC) has developed and implemented this written Accident Prevention Program (Safety Resource Manual) as part of our health and safety program. The work performed by HSWC personnel and our subcontractors is varied, both in nature and location. Under all circumstances, it is the goal of HSWC to comply with the requirements and/or intent of federal and state rules and regulations and to provide a safe and healthful work environment for all workers on our jobsites. HSWC expects and requires all employees and subcontract workers to follow the requirements set forth in this Accident Prevention Program.

**ROLES AND RESPONSIBILITIES****Corporate Officer**

Corporate Officers will promote and periodically evaluate the overall HSWC Accident Prevention Program (Safety Resource Manual). The Corporate Officers will report any known deficiencies or necessary changes in the Accident Prevention Program to the Regional Operations Manager, Regional Safety Manager or Corporate Safety Director. Corporate Officers may be involved in coaching and advising all levels of supervision under their direction as to the importance of Safety and Health Practices as outlined and described in the HSWC Accident Prevention Program.

**Regional Manager**

The Regional Manager will administer, implement, promote and periodically evaluate the HSWC Accident Prevention Program as it applies in his region and to the company. The Regional Manager will report any known deficiencies, or necessary changes in the Accident Prevention Program to the Regional Operations Manager, Regional Safety Manager or Corporate Safety Director.

**Regional Operations Manager**

The Regional Operations Manager's responsibilities include:

- Implementing and promoting the HSWC Accident Prevention Program within their region, and for the operations they manage.
- Coaching and advising all levels of supervision under his direction as to the importance of Safety and Health Practices as outlined and described in the HSWC Accident Prevention Program.
- Conducting periodic job visits to monitor the conditions and enforcement of the Accident Prevention Program.
- Encouraging the project managers and superintendents to conduct pre-job planning as outlined in the HSWC Phased Safety Program



**Corporate Safety Director**

The Corporate Safety Director will be responsible for the following:

- Serving as an advisor to the Regional Managers and Corporate Officers.
- Coordinating, standardizing and maintaining the HSWC safety program and policy development.
- Monitoring the implementation and enforcement of the Accident Prevention Program.
- Coordinating, standardizing and maintaining the HSWC workers' compensation claims administration and Early Return-To-Work Program.
- Representing HSWC in the promulgation, changing or amending of regulations that govern construction safety and health, or workers compensation.
- Assisting the Regional Safety Manager during OSHA/DOSH hearings, resolving OSHA/DOSH fines, etc.
- Training Regional Safety Managers and project teams, or other company staff regarding safety or workers compensation related issues.

**Regional Safety Manager**

In his assigned region(s), the Regional Safety Manager will be responsible for the following:

- Technical and resource assistance for job site safety and health compliance issues.
- Conducting periodic project visits to assist project supervision in the identification of unsafe work practices or unsafe conditions.
- Developing and conducting training programs for craft and staff employees.
- Providing technical and resource assistance for the Phased Safety Planning Program.
- Providing technical and resource assistance for the procurement of necessary safety equipment and materials for the project.
- Coordinating safety and health issues with other regional and project personnel.
- Communicating with customers, clients and other authorities on safety related matters.
- Assisting with the development of project emergency and injured worker care procedures.
- Coordinating workers' compensation claims and the Return-to-Work program for his region.
- Assisting project management and supervision with the investigation of near misses and accidents
- Participating as an industry representative in the promulgation, changing or amending of regulations that govern construction safety or workman's compensation programs for his region.
- Preparing and maintaining records and reports as required by corporate policy, construction contracts and State and Federal Agencies.
- Representing the company in OSHA/DOSH-related hearings or fine reduction negotiations.

**Project Managers**

Project Managers are responsible for the following:

- Training, coaching and counseling project engineers, superintendents and supervisors to reinforce the necessity of safe operations.
- Providing appropriate contract language to address anticipated safety issues for each subcontracted phase of work.
- Initiating the Phased Safety Planning process to potential and awarded subcontractors during the pre-bid and pre-job phases.
- Initiating Phased Safety Planning for appropriate phases of jobsite activities.
- Enforcing the provisions of the Accident Prevention Program and any other rules established for their particular operation.
- Administering, implementing, promoting and periodically evaluating the HSWC Accident Prevention Program as it applies to his project(s). Project Managers will report any deficiencies, or necessary changes in the Accident Prevention Program to the Regional Operations Manager.
- Ensuring compliance of HSWC Accident Prevention Program including site visits to evaluate compliance by HSWC and the subcontractors.

**Project Superintendent**

The Project Superintendent is responsible for the following:

- Training, coaching and counseling supervisors and foremen to reinforce the necessity of safe operations.
- Supervising the job site orientation, safety and health training and inspection programs as required by the HSWC Accident Prevention Program.
- Supervising and approving any accident investigations and project safety and health inspections conducted by the supervisors and foremen under his authority.
- Participating in the development and coordination of the project Phase Safety Planning Program, assign Job Hazard Analysis responsibilities, and assist in the development and review of the job hazard analysis for each safety critical phase of work.
- Reviewing all Subcontractor Site Safety Plans before work commences on any site work.
- Correcting any observed unsafe act or condition performed or created by any HSWC employee or subcontractor employee.
- At his discretion halt the work of any subcontractor who fails to respond to a request to correct any unsafe condition or unsafe act in a prompt and effective manner.
- Maintaining the HSWC Hazard Communication Program through training, proper product labeling systems and by reviewing and maintaining project material safety data sheets.

**Field Supervisors and Foremen**

The foreman's responsibilities include:

- Training, coaching and counseling workers in his charge, to reinforce the necessity of safe operations.
- Conducting periodic inspections of his work areas and operations to identify and initiate action to correct unsafe work practices or unsafe conditions.
- Coordinating weekly safety meetings and training programs for his employees.
- Conducting weekly project walk-around inspections.
- Participating in the Phased Safety Planning for the project and for the assigned tasks.
- Documenting and responding to employees' reports of unsafe conditions or unsafe work practices.
- Assist in investigating accidents and near misses
- Instructing employees new to the crew or assigned a new task in the recognition and avoidance of hazards.
- Conducting and participating in orientation and safety training as directed by the superintendent.

**Employees**

Employees' responsibilities include the following:

- Following the safe work procedures established to protect them
- Coordinating and cooperating with all other employees in an attempt to eliminate accidents.
- Complying with all safety standards governing their work.
- Applying the principles of accident prevention in their daily work and use proper safety devices and protective equipment as required by their supervision.
- Properly caring for all personal protective equipment.
- Reporting to their immediate supervisor, any industrial injury or occupational illness, regardless of the degree of severity, on the same day of an incident.
- Be familiar with and follow specific instructions given in the HSWC Hazard Communication Program.
- Be familiar with any Job Hazard Analysis, Phased Safety Plan or other site-specific safety requirements that pertains to their part of the work.

The responsibilities listed above are an integral part of a successful construction project. These responsibilities are not intended to supersede any local, state or federal regulations. The employees of Howard S. Wright Constructors must realize that safety is a critical element in the overall operations of the company. It is the Company's philosophy to exemplify this behavior to our employees, subcontractors and clients through education and awareness at all levels.

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### **EMPLOYEE COMPLIANCE/DISCIPLINARY ACTION**

The HSWC Accident Prevention Program requires that all employees follow company safety policies and operating procedures. When needed, employees will be provided with additional training and information to maintain their knowledge.

The discipline procedure of HSWC is intended to encourage employee compliance with the HSWC Accident Prevention Program.

Although HSWC reserves the right to discharge “at will.” Employees found performing work in an unsafe manner that would endanger the employee or another employee may be subject to discipline or termination by management.

The jobsite superintendent will determine the course of action best suited to the circumstances. The steps to be taken, at a minimum, shall include the following:

- **Step One - Verbal Warning** – As the first step in correcting unacceptable behavior, the superintendent shall review the pertinent facts with the employee. The superintendent will consider the severity of the problem and the employee’s past performance. A verbal warning may be issued to the employee. This warning and the name of the direct supervisor will be documented and placed in the employee’s personnel file. If necessary, the employee will be placed on probation. Violations will be removed from the employee’s record after a six-month period.
- **Step Two - Written Warning** – If the unacceptable behavior continues, the next step will be a written warning. The written warning will clearly state the safety policy that was violated and steps the employee must take to correct the behavior. Probation will be a part of the written warning. It may also include time off without pay. At the completion of the probationary period, the supervisor will meet with the employee to determine if the employee has achieved the required level of performance. This written warning, which will include the name of the direct supervisor, will be documented and placed in the employee’s personnel file. Violations will be removed from the employee’s record after a six-month period.
- **Step Three - Termination** – The employee may be terminated if he does not improve his behavior while on probation, or has violated another company safety policy within a twelve months period.

**Note:** *In cases where the safety violation is serious or life threatening in nature, the HSWC Superintendent reserves the right to immediately terminate the employee without prior written warning.*

#### **Foreman Discipline**

A copy of all discipline actions for employees under his supervision will be kept in each foreman’s personnel file. If a foreman has accumulated over five disciplinary actions that were initiated by other HSWC supervisors in a six-month period, the foreman will be disciplined as directed by the HSWC superintendent.

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### **COMMUNICATION OF SAFETY AND HEALTH MATTERS**

The elements of the HSWC Accident Prevention Program and all aspects of its safety and health program shall be communicated in a readily understandable manner to all employees. Each new employee will receive a new-hire orientation that will cover the basic elements of the safety program. All jobsite employees will participate in weekly toolbox safety meetings as well as special training on specific safety issues.

It is the policy of HSWC to encourage all employees to report hazards existing at their jobsite to their supervisors so that corrective action can be taken in a timely manner. Employees who report such conditions will not be disciplined nor will they suffer any reprisals due to their actions.

Employees shall be kept informed of the requirements of the HSWC Accident Prevention Program through the use of weekly toolbox safety meetings, special training sessions and day-to-day employee/supervisor interaction. The jobsite superintendent will coordinate these safety activities.

### **IDENTIFYING AND EVALUATING WORKPLACE HAZARDS**

The goal of this Accident Prevention Program is to identify and evaluate unsafe work conditions and practices so accidents, injuries and job-related illnesses are minimized, if not completely eliminated. To this end, HSWC has instituted the procedures described in this section of the Accident Prevention Program.

The principle approach to reducing accidents at HSWC is through periodic scheduled and unscheduled inspections. Inspections will be conducted as follows:

- The superintendent or his designee will conduct weekly safety inspections. The Regional Operations Manager and the Regional Safety Manager will also conduct periodic inspections.
- Inspections will be conducted when conditions at the jobsite change to represent a new occupational safety and health hazard or whenever HSWC is made aware of a new or previously unrecognized hazard.
- The following approaches may be used periodically to further evaluate the workplace:
  - Checklists utilized by any HSWC employee.
  - Periodic jobsite inspection conducted by the Corporate Safety Director or an annual inspection by a consulting firm.
  - Records Review (including workers' compensation summaries, accident reports, injury reports, hazardous materials communication program, air contaminant/noise monitoring data, purchase orders).



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**ACCIDENT PREVENTION PROGRAM****ACCIDENT, INJURY AND ILLNESS INVESTIGATIONS**

When accidents, injuries, or illnesses occur on the job that requires medical care, the superintendent, the Regional Operations Manager and/or the Regional Safety Manager, will investigate them.

The investigator will complete the HSWC Accident Investigation Form. The investigation will determine at least the following:

- Who and What were directly involved in the accident.
- Who and What were indirectly involved in the accident.
- Where and when the accident occurred.
- The Cause of the accident, if known.
- Steps and procedures to take to prevent re-occurrence, if known.

**METHODS AND PROCEDURES FOR CORRECTING UNSAFE OR UNHEALTHY CONDITIONS OR WORK PRACTICES**

Unsafe or unhealthy work conditions or work practices will be corrected in a timely manner as determined by the severity of the hazard. Under no conditions will HSWC personnel be required to, or permitted to, work under conditions that pose a clear or imminent hazard.

Problems that cannot be corrected immediately will be assigned to the Superintendent or his designee to ensure completion of the corrective action

When an imminent hazard exists that cannot be immediately corrected without endangering employees and/or property, the following steps will be followed:

- Remove all potentially endangered employees.
- Provide employees responsible to correct the condition with the necessary safeguards.
- Correct the problem.

Engineering controls will be used first to eliminate or minimize unsafe or unhealthy work conditions. If engineering controls are impractical or infeasible, administrative controls will be used. If engineering controls alone, or in combination with administrative controls cannot adequately minimize the hazard, personal protective equipment shall be used

Unsafe work practices will be immediately corrected by providing the affected employees with re-training provided by the Superintendent or his designee.

All Operating Procedures will be reviewed at least annually and whenever new chemicals or equipment are introduced into the jobsite, or when there is a process change. When changes are made, affected employees will receive additional instruction.

**TRAINING AND INSTRUCTION**

All employees shall receive training and instruction in the following areas: \*Training is required by DOSH

- General safety and health work practices.
- Specific instruction with respect to hazards unique to the job assignment.

Training of employees at HSWC as to this Accident Prevention Program (Safety Resource Manual) shall occur:

- To all new employees.
- When a new program is first established.
- To all employees given a new job assignment for which training has not previously been received.
- Whenever new substances, processes, procedures or equipment are introduced to the workplace and represent a new hazard, and whenever HSWC is made aware of new or previously unrecognized hazards.

In accordance with this Accident Prevention Program, a HSWC supervisor shall provide training during the new-hire orientation, weekly toolbox training meetings or special training sessions.

This Accident Prevention Program shall be made an integral part of existing occupational safety and health training programs at HSWC.

Additional training shall be provided to supervisors to familiarize them with the safety and health hazards to which employees under their immediate direction and control may be exposed.

**MAINTENANCE OF RECORDS**

HSWC will keep records of the actions taken to implement and maintain this Accident Prevention Program. The records will be maintained on file for a minimum of three years.

Records of scheduled and unscheduled periodic inspections as well as other records including methods used to identify and evaluate workplace conditions and work practices shall also be retained.

Records relating to the Accident Prevention Program shall include at a minimum, person(s) conducting the inspection or evaluation, the unsafe conditions and work practices that have been identified, and actions taken to correct the identified condition or work practice.

Records and documentation of safety and health training shall include at a minimum, the name of employee and/or employee number, date of training, training topic(s), training format, and instructor.

Records of employees who have worked for less than one year for HSWC may be turned over to the employee upon termination as long as the terminated employee signs an acknowledgement letter documenting the records which have been turned over to him or her.

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**ADDITIONAL SAFETY REQUIREMENTS**

It is the goal of HSWC to comply with the requirements and/or intent of federal and state rules and regulations and to provide a safe and healthful work environment for all workers on our jobsites. The HSWC Superintendent and all subcontractors are required to maintain current regulation documents on the jobsite. Some documents and records may be maintained on a data base that may be retrieved upon request.

In addition to the requirement for complying with federal and state regulations, the following are requirements for all workers on HSWC jobsites:

**Alcohol and Drug Testing**

HSWC and its subcontractors are required to assure that all employees performing work on all HSWC jobsites are free from alcohol and other drug impairment.

All subcontractor Alcohol and Drug Testing programs must meet or exceed the HSWC Alcohol and Drug Testing Program.

**Eye/Face Protection**

Employees are required to wear HSWC approved eye protection at all times.

Personal prescription eyewear that does not meet American National Standards Institute, ANSI Z87.1 requirements may be worn without additional protection unless the employee is in proximity to or performing an activity that is hazardous to the eyes. Hazardous activities include, but not limited to:

- Chipping.
- Grinding.
- Striking.
- Sawing.
- Handling hazardous materials.
- Using compressed air for cleaning.
- Performing activities where the manufacturer of a tool, machine, or equipment recommends eye protection.

Coverall goggles may be worn over non-ANSI approved prescription eyewear to meet HSWC approval.

When needed, approved eye protection plus a face shield will be worn for double eye protection. All non-prescription eye protection including spectacles, goggles, & face shields will be ANSI approved and provided by HSWC. Sub Contractors and employees other than HSWC employees must provide and wear their own PPE as required by this policy.

Sunglasses that are not ANSI approved shall not be worn as eye protection. Reading spectacles that do not fully cover the eyes are not approved.

**Electrical Equipment Inspection**

Employees shall comply with the guidelines of electrical equipment inspection as defined in Chapter E-2.

Electrical equipment should be visually inspected according to the manufactures recommendations, when in use daily or according to the requirements of DOSH/OSHA..

At least a quarterly inspection will be conducted on all portable electrical equipment, All electrical tools and equipment are to be protected by ground fault circuit interrupters. Inspections may be conducted by the warehouse facility personal.

**Fire Protection**

The individual contractors shall supply and maintain fire extinguishers adequate to suppress any fires within their immediate work area. \* Minimum of 10 lbs ABC Fire Extinguisher.

Any flammable liquid container over 5 gallons or combustible liquid container over 50 gallons shall be stored in a designated area.

All fuel gas cans must meet DOSH/OSHA's requirements and be stored in a designated area while on site.

**Footwear**

Footwear worn by all exposed personnel on HSWC jobsites must:

- Be made of leather or other substantial material.
- Provide ankle support.
- Have adequate traction.
- Have toe and metatarsal protection when required by state and federal requirements.

**Footwear must meet the requirements established by OSHA/DOSH and/or ANSI**

**Firearms**

Employees are strictly forbidden to bring firearms on to any HSWC jobsite, parking lot or facility.

**Fires**

Employees are strictly forbidden to build any fires on any HSWC jobsite, parking lot or facility.

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## **SUBCONTRACTOR ACCIDENT PREVENTION REQUIREMENTS**

### **INTRODUCTION**

Howard S. Wright Constructors (HSWC) has developed and implemented these written Subcontractor Accident Prevention Requirements. The work performed by HSWC personnel and our subcontractors is varied, both in nature and location. Under all circumstances, it is the goal of HSWC to comply with the requirements and/or intent of federal and state rules and regulations and to provide a safe and healthful work environment for all workers on our jobsites. HSWC expects and requires all employees and subcontract workers to follow the requirements set forth in these Subcontractor Accident Prevention Requirements.

### **SUBCONTRACTOR RESPONSIBILITIES**

Subcontractor responsibilities include, as a minimum, at least the following:

- Understand it is their legal responsibility to comply with all statutory safety and health requirements.
- Prepare a written safety program with details commensurate with the work to be performed.
- Designate a competent supervisor to carry out the subcontractor's safety and health obligations and to administer the onsite safety program.
- Maintain accurate accident and injury reports and make those reports available upon request to HSWC project management.
- Report all fatal injuries, possible fatal injuries, serious injuries or occupational illnesses to the HSWC project management staff immediately upon their knowledge.
- Be responsible for compliance by their employees with the project safety requirements.
- Have in place and use a disciplinary action plan for the enforcement of job rules and safety and health requirements.
- Provide safe working conditions and procedures for their employees.
- Inform Howard S. Wright Constructors of any hazardous conditions created by their operations.
- Provide a copy of an onsite chemical list and Material Safety Data Sheet for all materials to be used on the job site to HSWC jobsite staff.
- Participate in supervisory and craft safety meetings held by Howard S. Wright Constructors when work within the scope of their subcontract is in progress, or as contract requirements specify.
- Comply with jobsite-specific issues and exposures that may require more strict requirements.
- Notification of the HSWC project management if any work is to be performed at a time other than the normal working hours as established by the HSWC Superintendent.



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**ROLES AND RESPONSIBILITIES****Designated Safety Representative**

Each subcontractor must identify, in writing, a Designated Safety Representative. The Designated Safety Representative is the person responsible for the jobsite safety program. He/she must be located on the jobsite and be responsible for coordinating the subcontractor's jobsite safety program. He/she must have the authority to implement change within the subcontractor's jobsite operations and must also have the authority to discipline and/or remove employees from the jobsite. The subcontractor Designated Safety Representative is responsible for safe work procedures and the safety of everyone within his/her scope of authority.

The Designated Safety Representative's jobsite accident prevention responsibilities include the following:

- Reviewing and approving, at least weekly, the accident investigations and jobsite inspection reports conducted by the supervisors and foremen. A copy of these reports must be furnished to HSWC.
- Ensuring subcontractor compliance with safety and health work practices.
- Ensuring that subcontractor employees receive training on general and specific safety and health practices for each of their job assignments.
- Coordinating of the writing of Job Safety Analyses as required to perform subcontractor's work.
- Coaching, counseling and disciplining subcontractor supervisors and employees to reinforce the importance of safe operations.
- Enforcing the provisions of the HSWC Subcontractor Accident Prevention Program and any other rules established for their particular operation.
- Reviewing and reporting near misses, incidents and injuries. A copy of this report must be furnished to HSWC.
- Coordinating the jobsite orientation and other jobsite safety training programs for subcontractor employees.

**Subcontractor Foreman/Superintendent**

The subcontractor Foremen/Superintendent is responsible for safe work procedures within their scope of authority. Supervisors' responsibilities include, but are not limited to the following:

- Conducting daily inspections of their work areas and operations to identify and initiate action to correct unsafe work practices or unsafe conditions.
- Conducting weekly safety meetings and training programs for their employees.
- Writing Job Safety Analyses as required to perform subcontractor's work.
- Encouraging employees to report any unsafe conditions or unsafe work practices.
- Investigating accidents and near misses, regardless of severity, to determine cause and corrective measures.
- Instructing new employees in the recognition and avoidance of hazards.
- Enforcing the provisions of this Subcontractor Accident Prevention Program and any other rules established for their particular operation.
- Conducting and participating in orientation and safety training as directed by the HSWC Superintendent.

**Subcontractor Employees**

Subcontractor Employees are responsible for following the safe work procedures established to protect them. Subcontractor Employees' responsibilities include at least the following:

- Obeying safety regulations, instructions and policies.
- Being familiar with any Job Hazard Analysis that pertains to their part of the work.
- Using personal protective equipment and safety devices provided or required.
- Reporting any unsafe condition or unsafe work practices to their supervisor and/or HSWC.
- Actively participating in the weekly and special safety meetings.
- Offering suggestions for improvement to our program.

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**SUBCONTRACTOR COMPLIANCE/DISCIPLINARY POLICY**

Under HSWC policy, all subcontractor employees are required to follow subcontractor and HSWC safety policies and operating procedures. The discipline policy of HSWC is intended to encourage subcontractor employee compliance with the HSWC Accident Prevention Program. When needed, the subcontractor shall provide their employees with additional training and information, or re-training to maintain their knowledge.

HSWC reserves the right to remove subcontractor employees from the jobsite “at will.” Any subcontractor employee(s) found performing work in an unsafe manner that could endanger the employee or any other worker may be subject to the HSWC discipline policy.

HSWC recognizes the subcontractor has the responsibility of ensuring those workers under their employ and supervision follows governmental regulations and HSWC safety policies. The preferable method of action is for the subcontractors to implement their own discipline policy. However, HSWC reserves the right to immediately take the appropriate action to eliminate subcontractor safety and health exposures.

The HSWC Superintendent will determine the course of action best suited to the circumstances. The subcontractor’s Designated Safety Representative will be informed of the violation and will enact the subcontractor discipline procedure as determined by the HSWC Superintendent.

If the HSWC Jobsite Superintendent determines that the disciplinary action taken by the subcontractor is not appropriate, he/she may elect to enact the HSWC subcontractor discipline plan. The steps to be taken at a minimum shall include the following:

- **Step One - Verbal Warning** – As the first step in correcting unacceptable behavior, a representative of HSWC will document the violation and notify the subcontractor that action is needed. The subcontractor Designated Safety Representative shall review the pertinent facts with the subcontractor employee. A verbal warning will be issued to the subcontractor employee. This action will be documented along with the name of the subcontractor employee’s direct supervisor. A copy of this documentation will be provided to the HSWC Superintendent. If necessary, the subcontractor employee will be placed on probation. Each violation will be kept on file in the HSWC Safety Office for a period of six months.
- **Step Two - Written Warning** – If the unacceptable behavior continues the next step will be a written warning. The written warning issued by HSWC will clearly state the safety policy that was violated and steps the subcontractor employee must take if it is to be corrected. Probation will be a part of the written warning. It may also include time that the subcontractor employee will not be allowed on the jobsite as determined by the HSWC Superintendent. At the completion of the probationary period, the HSWC Superintendent and the subcontractor Designated Safety Representative will meet with the subcontractor employee to determine if the employee has achieved the required level of performance. Each violation will be kept on file in by HSWC Regional Safety Manager for a period of six months.
- **Step Three – Removal From the Jobsite** – The subcontractor employee may be removed from the jobsite as determined by the HSWC Superintendent if he/she does not improve

his/her behavior while on probation, or has violated another company safety policy within twelve months.

**Note:** *In cases where the safety violation is serious or life threatening in nature, the HSWC Superintendent reserves the right to immediately remove the subcontractor employee without prior written warning.*

### **Subcontractor Foreman Discipline**

The HSWC Superintendent will keep a copy of all discipline actions for subcontractor employees. If a subcontractor foreman has accumulated over five disciplinary actions initiated by HSWC for employees under the subcontractor foreman's supervision within a six-month period, the subcontractor foreman may be disciplined as directed by the HSWC Superintendent.

## **COMMUNICATION OF SAFETY AND HEALTH MATTERS**

The elements of the HSWC Subcontractor Accident Prevention Program and all aspects of its safety and health program shall be communicated in a readily understandable manner to all subcontractor employees. Each new subcontractor employee will receive a new-hire orientation that will cover the basic elements of the safety program. This orientation will either be conducted by the subcontractor or HSWC as determined by the HSWC Superintendent.

All subcontractor employees will participate in weekly toolbox safety meetings as well as special training on specific safety issues. Subcontractor employees shall be kept informed of the requirements of the HSWC Subcontractor Accident Prevention Program through the use of weekly toolbox safety meetings, special training sessions, and day-to-day employee/supervisor interaction. The Designated Safety Representative will coordinate these safety activities.

At the discretion of the HSWC Superintendent, the subcontractor may hold a separate toolbox safety meeting. If a subcontractor chooses to hold a separate weekly toolbox safety meeting, a copy of the meeting minutes and attendance sheet must be provided to the HSWC Superintendent. At least one or more subcontractor employees, at the HSWC Superintendent's discretion, must attend the HSWC weekly toolbox safety meeting so that information announced at that meeting could be relayed to subcontractor employees. Periodic job-wide safety meetings, attended by all subcontractor personnel, may be held at the discretion of the HSWC Superintendent.

It is the policy of HSWC to encourage all subcontractor employees to report hazards existing at their jobsite to their supervisors so that corrective action can be taken in a timely manner. Subcontractor employees who report such conditions will not be disciplined nor will they suffer any reprisals due to their actions.

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**METHODS AND PROCEDURES FOR CORRECTING UNSAFE OR UNHEALTHY CONDITIONS OR WORK PRACTICES**

All unsafe or unhealthy work conditions or work practices identified will be evaluated and corrected.

Unsafe or unhealthy work conditions or work practices will be corrected in a timely manner, as determined by the severity of the hazard. Under no conditions will subcontractor employees be required to, or permitted to, work under conditions that pose a clear or imminent hazard.

Problems that cannot be corrected immediately will be assigned to the Designated Safety Representative to ensure completion of the corrective action. Once corrected, written documentation shall be furnished to the HSWC Superintendent.

When an imminent hazard exists which cannot be immediately corrected without endangering employees and/or property, the following steps will be followed:

- Remove all potentially endangered workers from the dangerous work area.
- Provide employees responsible to correct the condition with necessary safeguards.
- Correct the problem.
- Document the corrective action and date corrected in accordance with this Section. The documentation is to be completed by the Designated Safety Representative or her/his designee. The HSWC Superintendent will be provided with a copy of this documentation.

Engineering controls will be used first to eliminate or minimize unsafe or unhealthy work conditions. If engineering controls are impractical or infeasible, administrative controls will be used. If engineering controls alone, or in combination with administrative controls cannot adequately minimize the hazard, personal protective equipment shall be used.

Unsafe work practices will be immediately corrected by providing the affected subcontractor employees with re-training to be provided by the Designated Safety Representative or her/his designee.



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### **TRAINING AND INSTRUCTION**

Subcontractors shall ensure that their employees receive training and instruction in the following areas:

- General safety and health work practices.
- Specific instruction with respect to hazards unique to the job assignment.

Training of subcontractor employees as to this Subcontractor Accident Prevention Program shall be given:

- When the program is first established.
- To all new employees.
- To all employees given a new job assignment for which training has not previously been received.
- Whenever new substances, processes, procedures or equipment are introduced to the workplace and represent a new hazard, and whenever HSWC is made aware of new or previously unrecognized hazards.

In accordance with this Subcontractor Accident Prevention Program, the Designated Safety Representative or his/her designee shall provide training during the new-hire orientation, weekly toolbox training meetings or special training sessions.

Additional training shall be provided to subcontractor supervisors to familiarize them with the safety and health hazards to which employees under their immediate direction and control may be exposed.

### **SUBMITTAL OF RECORDS**

The Designated Representative shall provide the following documentation at the discretion of the HSWC Superintendent:

- Safety training records.
- Job Safety Analyses.
- Incident and injury reports.
- Disciplinary Actions.
- Safety inspection reports.
- Material Safety Data Sheet for materials on site.
- Other documentation as required by the HSWC Superintendent.

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### **ADDITIONAL SAFETY REQUIREMENTS**

It is the goal of HSWC to comply with the requirements and/or intent of federal and state rules and regulations and to provide a safe and healthful work environment for all workers on our jobsites. The HSWC Superintendent and all subcontractors are required to maintain current regulation documents on the jobsite.

In addition to the requirement for complying with federal and state regulations, the following are requirements for all workers on HSWC jobsites:

#### **Alcohol and Drug Testing**

HSWC and its subcontractors are required to assure that all employees performing work on all HSWC jobsites are free from alcohol and other drug impairment.

All subcontractor Alcohol and Drug Testing programs must meet or exceed the HSWC Alcohol and Drug Testing Program.

#### **Eye/Face Protection**

Subcontractor employees are required to wear HSWC approved eye protection at all times.

Personal prescription eyewear that does not meet American National Standards Institute, ANSI Z87.1 requirements may be worn without additional protection unless the employee is in proximity to or performing an activity that is hazardous to the eyes. Hazardous activities include, but not limited to:

- Chipping.
- Grinding.
- Striking.
- Sawing.
- Handling hazardous materials.
- Using compressed air for cleaning.
- Performing activities where the manufacturer of a tool, machine or equipment recommends eye protection.

Coverall goggles may be worn over non-ANSI approved prescription eyewear to meet HSWC approval.

When needed, approved eye protection plus a face shield will be worn for double eye protection. All non-prescription eye protection including spectacles, goggles, & face shields will be ANSI approved and provided by the subcontractor.

Sunglasses that are not ANSI approved shall not be worn as eye protection. Reading spectacles that do not fully cover the eyes are not approved.

**Electrical Equipment Inspection**

Electrical equipment must be visually inspected daily while in use.

All electrical equipment and cord sets are to be protected with Ground Fault Circuit Interrupters (GFCI's)

**Fire Protection**

The individual contractors shall supply and maintain fire extinguishers adequate to suppress any fires within their immediate work area.

Any flammable liquid container over 5 gallons or combustible liquid container over 50 gallons shall be stored in a designated area.

**Footwear**

Footwear worn by all exposed personnel on HSWC jobsites must:

- Be made of leather or other substantial material.
- Provide ankle support.
- Have adequate traction.
- Have toe protection when required by state and federal requirements.

**Footwear must meet the requirements established by OSHA/DOSH or ANSI**

**Housekeeping**

All subcontractors are required to ensure that at all times work areas are kept clean of construction debris in accordance with jobsite housekeeping requirements. Costs incurred by HSWC for clean-up of subcontractor materials can be charged to the subcontractor at the HSWC Project Managers discretion.

**Firearms**

Subcontractor employees are strictly forbidden to bring firearms on to any HSWC jobsite, parking lot or facility.

**Fires**

Subcontractor employees are strictly forbidden to build any fires on any HSWC jobsite, parking lot or facility.

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## JOB START-UP

Before and during mobilization on a new jobsite, project staff should collect the information and data needed to comply with the HSWC Accident Prevention Program and applicable state and federal regulations.

The following information should be obtained regarding the jobsite location and phone numbers

- Jobsite phone number.
- Jobsite fax number.
- Jobsite address.
- Jobsite supervisor's cellular and home phone numbers.

The following information should be obtained to comply with employer posting requirements:

- **State and federal compliance posters.** An up-to-date set of compliance posters can be obtained from Seattle office 206 447-7508 Ask for both the federal and state posters.
- In Washington only, obtain and post a Washington State Department of Labor and Industries (LNI) **Self-Insured Notice**.
- Fill out and post an **Emergency Number Poster** as outlined in Form B-5-b. This form should be revised at least monthly and posted near all first aid kits and jobsite telephones. This information should also be covered in the new-hire orientation.
  - Designate a preferred occupational medical clinic and collect the phone numbers, address, clinic hours and map to the facility. This clinic should be capable of handling non-serious injuries and be willing to comply with the HSWC Early Return-to-Work Program.
  - Find the nearest hospital that can provide 24-hour medical coverage for after-hours care.
- Post Assured Grounding Program requirements (Chapter E-2).
- The OSHA-300 Log for the previous year must be posted during the time period of February 1<sup>st</sup> through April 30<sup>th</sup> of the following year covered on the form. A current job-specific OSHA-300 log is not maintained on the jobsite. The Corporate Safety Director is responsible for maintaining the OSHA-300 log, and a copy of this log can be obtained from the Safety Office if requested from a regulatory agency.

The following forms should be available and kept up to date on the jobsite:

- Daily First Aid Log. Note: This log is considered confidential medical information. It should be kept current and filed, but not posted, on the jobsite.
- Training records. These include weekly toolbox safety meetings, new-hire orientation training, and specialized training should be maintained on the jobsite.
- Weekly Safety Job Walk report. A copy of this report should be kept on file at the jobsite and should also be faxed or scanned to the Regional Safety Director on a weekly basis. This report informs the Safety Office as to the safety activities and injuries that occur on the job.
- Phased Safety Planning The superintendent and/or project manager should go over the job schedule and determine the phases considered to be "safety critical" and designate the


activities that will need to have either a Job Hazard Analyses, a Fall Protection Work Plan or a Critical Crane Lift plans written for that activity. It is recommended that due dates for these assignments be added as a predecessor to the activities on the actual CPM schedule.

- Job-Specific Material Safety Data Sheets. As the job is mobilized, an inventory of all hazardous materials located on the job and in any storage/office trailer must be kept. An index of all hazardous materials must be maintained, and an MSDS obtained for all materials on the index. A copy should be maintained at the jobsite and the original should be sent to the Regional Safety Director. An electronic data base for MSDS's will comply
- Incident Reports – A lockable file drawer or other secure means should be set up to maintain confidential medical information such as claim forms, doctors reports and return-to-work information.

The following resource manuals should be maintained on all jobsites:

- The HSWC Safety Resource Manual. This manual should be kept up-to-date as new revisions are received from the Regional Safety Director.
- The HSWC Crisis Manual. This manual should be kept up to date as revised by the Corporate Safety Director
- MSDS Notebook. It is a requirement that the index and MSDS in this notebook be kept current.
- DOSH Regulations are available on line at [WWW.LNI.WA.GOV](http://WWW.LNI.WA.GOV) . Applicable to Washington State only. Where other Agencies such as OSHA have jurisdiction the regulations must be available to the applicable job site. ([WWW.OSHA.GOV](http://WWW.OSHA.GOV))



	<h3 style="margin: 0;">JOB START-UP CHECKLIST</h3> <p style="margin: 5px 0;">JOB NAME: _____ JOB NO: _____</p> <p style="margin: 5px 0;">SUPERINTENDENT: _____</p> <p style="margin: 5px 0;">DATE: _____</p>
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<b>JOBSITE INFO</b>	<p>JOBSITE PHONE NUMBER: _____ FAX: _____</p> <p>JOBSITE ADDRESS: _____</p> <p>JOBSITE PERSONNEL: _____ <u>CELL</u> _____ <u>PAGER</u> _____ <u>HOME</u></p>
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<b>POSTINGS</b>	<input type="checkbox"/> STATE / FEDERAL COMPLIANCE POSTERS <input type="checkbox"/> WA ONLY – SELF-INSURED POSTER <input type="checkbox"/> EMERGENCY POSTERS (Forms B-5-a & B-5-b)	<input type="checkbox"/> MAP TO DESIGNATED MEDICAL CLINIC <input type="checkbox"/> ALL ELECTRICAL EQUIPMEWNT AND CORD SETS MUST BE GFCI'd
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<b>DOCUMENTATION</b>	<input type="checkbox"/> DAILY FIRST AID LOG (Form B-6-a) <input type="checkbox"/> TRAINING RECORDS <input type="checkbox"/> SAFETY TRAINING REPORT (Form B-4-a) <input type="checkbox"/> ORIENTATION TRAINING (Form B-4-c or B-4-d)	<input type="checkbox"/> WEEKLY PROJECT SAFETY REPORT (Form B-3-a) <input type="checkbox"/> PHASED SAFETY PLANNING / JSA'S / FALL PROTECTION WORK PLANS <input type="checkbox"/> JOB-SPECIFIC MSDS <input type="checkbox"/> INCIDENT REPORTS <input type="checkbox"/> EMERGENCY ACTION PLAN
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<b>RESOURCES</b>	<input type="checkbox"/> HSWC CRISIS MANUAL <input type="checkbox"/> HSWC SAFETY RESOURCE MANUAL	<input type="checkbox"/> MSDS NOTEBOOK <input type="checkbox"/> DOSH REGULATIONS
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**Definition**

**Phased Safety Planning;** involves planning of safety critical tasks during the different phases of work.

**Steps of Phased Safety Planning**


- ❑ HSWC Project Management identifies items on the schedule that are “safety critical”.
- ❑ The jobsite superintendent issues a Job Hazard Analysis (JHA) Assignment for the critical phases of the project.
- ❑ The craft foreman for identified phases of work writes a JHA.
- ❑ The plan is turned in prior to the work starting, on a date specified by HSWC Project Management.
- ❑ Prior to that phase of work starting, the craft workers are given a copy of the plan and receive training on the provisions of the plan.
- ❑ The plan is observed and revised as needed during work completion.

**Advantages of Phased Safety Planning**

- ❑ The Craft Foreman who is actually running the work “owns” the plan. He/she is familiar with the plan and is accountable for its implementation.
- ❑ The people who are the “experts” in each phase of work write plans.
- ❑ The concept is simple, requires very little paperwork and is easy to implement.
- ❑ Plans are written as the work progresses, rather than at the start of the job.

**Important Points**

- ❑ The on-site Foreman must be involved in writing the plan.
- ❑ Workers must be trained.
- ❑ If there needs to be changes in the plan as the work progresses, HSWC personnel must be involved.
- ❑ The subcontractor personnel are the recognized experts in each phase of the work. The list of concerns on the HSWC assignment sheet should not be considered a complete list of all of the safety concerns. Subcontractors should use their expertise to list any additional items that they feel need to be addressed.

	<b>JSA ASSIGNMENT SHEET</b>
	<b>JOB NAME:</b> <b>SUPERINTENDENT:</b>

<b>TASK INFORMATION</b>	<p>CONSTRUCTION PHASE: _____ SCHEDULE ACTIVITY ID NO: _____</p> <p>WORK START DATE: _____ PLAN DUE DATE: _____</p> <p><input type="checkbox"/> HSWC   <input type="checkbox"/> SUBCONTRACTOR: _____</p> <p>CRAFT FORMAN: _____</p> <p>PERSON ASSIGNED TO WRITE PLAN: _____</p>
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<b>SUPERINTENDENT CONCERNS</b>	
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<b>CONCERNS OF OTHERS</b>	
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<b>COMMENTS</b>	
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**JOB HAZARD ANALYSIS**

(formerly job safety analysis)

**JOB NAME:**

**CONSTRUCTION PHASE:**

**START DATE:**

PAGE 1 OF

OPERATION	HAZARD	ACTION TO BE TAKEN

OPERATION	HAZARD	ACTION TO BE TAKEN

TRAINING REQUIREMENTS	<input type="checkbox"/> Haz-Com <input type="checkbox"/> Confined Space <input type="checkbox"/> PPE <input type="checkbox"/> Forklift <input type="checkbox"/> Respiratory <input type="checkbox"/> Fall Protection <input type="checkbox"/> HAZWOPR	<input type="checkbox"/> Other:
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OTHER PLANS	<input type="checkbox"/> Fall Protection Work Plan <input type="checkbox"/> Critical Crane Pick Plan <input type="checkbox"/> Confined Space Entry Permit <input type="checkbox"/> Hot Work Permit	<input type="checkbox"/> Other:
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Submitted by:	Company:	Date:
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### Record Keeping

As a company, Howard S. Wright Constructors must keep certain “safety” records. Field personnel must develop and maintain many of these required safety records. This means that they must be on the job-site for the duration of the project. At the end of the project these “site” records must be sent to the regional office for storage. The following records should be maintained at the jobsite:

- **Weekly Safety Job Walk.** The Weekly Safety Job Walk when properly filled out, acts as a record the required weekly safety inspection. These records are kept on site (in a binder or file) until the end of the project and then are sent (with the rest of the job files) to the Regional Office for storage.


**Training Records.** Training records such as the Safety Training Reports (Form B-4-a), Safety Training Attendance (Form B-4-b) and the Jobsite Orientation Training Record (Form B-4-c) should be kept on file in the jobsite office


**Material Safety Data Sheets (MSDS).** Jobsite staff should maintain only MSDSs for materials used or are using on each specific site. Start a new MSDS binder for each project; do not accumulate MSDSs as you go from project to project. If the MSDS for any particular product is over 18 months old, the supplier and/or manufacturer should be contacted to collect the most current MSDS is on file.

- **Daily First Aid Log.** The Daily First Aid Log (Form B-6-a) must be filled out for any injury, even if only minor in nature. The log shall be filled out properly and timely and maintained on site for the duration of the project. This log is considered a confidential medical record and should not be posted.
- **Claims Records and Accident Reports.** Jobsite staff should send the *original* records regarding workers compensation claims and accident investigations to the Regional Safety Office or designated recipient within 24 hours. A *copy* of these records should be maintained in a locked file in the jobsite office.
- **Emergency Action Plan.** A current Emergency Action Plan Worksheet (Form B-5-a) should be maintained on the jobsite. This plan should be updated at least monthly or whenever the jobsite configuration substantially changes. A current Emergency Number Poster should be posted at each jobsite telephone.
- **Jobsite Planning Documentation.** Documents regarding all jobsite-planning activities including Phased Safety Planning, Fall Protection Work Plans and Critical Crane Pick Planning forms should be kept at the jobsite.

### Archive Procedure

Upon completion of any project, the jobsite staff will send **all** safety records to the Regional Safety Office. The Regional Safety Office will archive all jobsite training and incident records for a period of seven years. Records involving hazardous material exposure such as MSDS, air monitoring records, and medical evaluations will be archived for thirty years.

	<b>WEEKLY SAFETY JOB WALK</b>				
	PROJECT JOB #/NAME: _____				
	PROJECT LOCATION: _____				
	SUPERINTENDENT/FOREMAN: _____				
	DATE: _____ AUDIT BY: _____				
	NUMBER OF EMPLOYEES: _____ WEATHER: _____				
Jobsite Information	Inspected	Corrective Action Required	Corrective Action Taken: i.e. remove, repair	N/A	Corrected
<b>PPE:</b>					
Hard hats					
Eye and face protection					
Hearing protection					
Respiratory protection					
Fall protection					
<b>TOOLS &amp; EQUIPMENT:</b>					
Used correctly					
In safe condition					
Equipment inspections					
GFCI/Assured grounding					
Crane & Rigging					
Man lift					
Other					
<b>GENERAL SITE CONDITIONS:</b>					
Safety meetings/ orientation					
Access & Egress					
Fire prevention					
Guarding (fall hazards)					
Safety Rails					
Toe boards					
Floor holes/openings					
Concrete chipping					
Compressed gas/fuel storage					
Excavation/trenching					
Ladders					
Scaffold systems					
Housekeeping					
Sanitation					
Drinking water					
Rebar protection					
Lighting					
Electric cord protection					
LO-TO					
Confined spaces					
<b>OTHER COMMENTS:</b>					

	<h3>WEEKLY PROJECT SAFETY MEETING</h3>
JOB NAME: _____ JOB NO: _____ SUPERINTENDENT: _____ DATE: _____ MEETING FACILITATED BY: _____	
WEEK OF: _____ TO: _____	
<b>TOOL BOX SAFETY TALK</b>	<b>WEEKLY SAFETY WALK</b>
<ul style="list-style-type: none"> <li>• Review of Weekly Safety Walk since Last Meeting: <input type="checkbox"/> Yes <input type="checkbox"/> No</li> <li>• Evaluation of any Injury / Incidents / Near Misses? _____</li> </ul>	
<p>TOPICS DISCUSSED</p> <p>1. _____ _____</p> <p>2. _____ _____</p> <p>3. _____ _____</p> <p>4. _____ _____</p> <p>5. _____ _____</p> <p>6. _____ _____</p> <p>Comments:</p>	<p>1. Persons Performing Safety Walk</p> <p>Management Rep: HSW staff employees, JST member</p> <p><b>Areas for Improvement:</b></p> <p>_____</p> <p>_____</p> <p>_____</p> <p><b>Areas to be commended upon:</b></p> <p>_____</p> <p>_____</p> <p>_____</p>
WISHA Inspection <input type="checkbox"/> Yes <input type="checkbox"/> No	HSWC Safety Violation Written: _____
<b>ACCIDENTS / INJURY / NEAR MISS THIS WEEK:</b>	

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### **Training Policy**

The elements of the HSWC Accident Prevention Program and all aspects of its safety and health program shall be communicated in a readily understandable manner to all employees. Each new employee will receive a new-hire orientation that will cover the basic elements of the safety program. All jobsite employees will participate in weekly toolbox safety meetings as well as special training on specific safety issues.

Employees shall be kept informed of the requirements of the HSWC Accident Prevention Program through the use of weekly toolbox safety meetings, special training sessions and day-to-day employee/supervisor interaction. The jobsite superintendent or their designee will coordinate these safety activities.

The HSWC Accident Prevention Program requires that all employees follow company safety policies and operating procedures. When needed, employees will be provided with additional training and information to maintain their knowledge.

All employees shall receive training and instruction in the following areas:

- General safety and health work practices.
- Specific instruction with respect to hazards unique to the job assignment.

Training of employees at HSWC as to this Accident Prevention Program shall occur:

- To all new employees.
- When a new program is first established.
- To all employees given a new job assignment for which training has not previously been received.
- Whenever new substances, processes, procedures or equipment are introduced to the workplace and represent a new hazard, and whenever HSWC is made aware of new or previously unrecognized hazards.

In accordance with this Accident Prevention Program, a HSWC supervisor shall provide training during the new-hire orientation, weekly toolbox training meetings or special training sessions.

This Accident Prevention Program shall be made an integral part of existing occupational safety and health training programs at HSWC.

Additional training shall be provided to supervisors to familiarize them with the safety and health hazards to which employees under their immediate direction and control may be exposed.

**Special Training**


In addition to the regular new-hire orientation training and weekly toolbox training, some tasks may require specialized training. Special training may involve the following topics:

- Hazard Communications
- Forklift Operation
- Flagging
- Crane Operation
- Rigging
- Fall Protection
- Confined Space
- Scaffolding
- Ladders
- Aerial or Boom Lift and Scissor Lift
- First Aid / CPR
- Bloodborne Pathogens
- Respiratory Protection
- Lockout / Tagout
- Personal Protective Equipment

**Record Keeping**

Records and documentation of safety and health training shall include at a minimum, the name of employee and/or employee number, date of training, training topic(s), training format, and instructor. Record keeping practices should be followed as described in Chapter B-3.



	<b>SAFETY TRAINING REPORT</b>	
	JOB NAME: _____	JOB _____
	NO: _____	
	SUPERINTENDENT: _____	
<input type="checkbox"/> Weekly Tool Box Meeting <input type="checkbox"/> Phased Safety Training <input type="checkbox"/> Special Training		

DATE: _____	DAY: _____	TIME: _____
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<b>MAIN TOPIC</b>	
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<b>MISC TOPICS</b>	
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<b>SUGGESTIONS</b>	
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REPORT BY: _____	DATE: _____
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### **New Worker Orientation**

All workers will attend a site specific safety orientation given by HSWC staff at the beginning of their first day on site. This is to include HSWC employees and Subcontractor employees.

Attendees will have an understanding of the information conveyed to them from the orientation form and sign off on the form acknowledging that understanding.

#### **The Process**


All workers on site, including Howard S. Wright Constructors and any Subcontractors are to attend an orientation provided by either a HSWC staff member or Subcontractor supervisor. The HSW JOBSITE ORIENTATION TRAINING (B-4-c-1) or SUBCONTRACTOR JOBSITE ORIENTATION TRAINING (B-4-c-2) form is to be used to document attendance and record information covered during the training. All forms must be completely filled out prior to the worker being released to work.

#### **Consistent Information**

The HSWC Staff is to use the Orientation documents as a guide to ensure each topic on the Orientation form is properly addressed. These orientation documents should not be read from as much as the issues should be discussed as they pertain to the specific job site. Orientations should be personal and begin to develop a rapport between the worker and HSWC Supervision.

#### **Visual Confirmation of Attendance**

Each worker completing the orientation process will receive a HSWC Orientation hard hat sticker for that project. This will aid HSWC Management in identifying workers on site who have completed the New Worker Orientation.

	<h2 style="margin: 0;">HSW JOBSITE ORIENTATION TRAINING</h2> <p>JOB NAME: _____</p> <p>HSW REPRESENTATIVE: _____</p>
---	--

<b>EMPLOYEE</b>	<p>NAME: _____ DATE: _____</p> <p>COMPANY: _____ CRAFT: _____</p> <p>HOME ADDRESS: _____</p> <p>CITY, ST, ZIP: _____ HOME PHONE: _____</p> <p>EMERGENCY CONTACT NAME: _____ PHONE: _____</p>
-----------------	--


<b>INTRO</b>	<input type="checkbox"/> <b>JOBSITE INFORMATION</b> Name of Jobsite Scope of Work Jobsite Phone Number _____ <input type="checkbox"/> <b>CORRECT OR REPORT ALL SAFETY CONCERNS IMMEDIATELY</b>	<input type="checkbox"/> <b>LOCATION OF FACILITIES</b> Parking Lunch Room Rest Rooms / Wash Station HSW First Aid Fire Extinguishers <input type="checkbox"/> <b>TIME OF SAFETY MEETINGS</b>
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<b>TRAINING</b>	<input type="checkbox"/> <b>PERSONAL PROTECTIVE EQUIPMENT (PPE)</b> Hard Hat Safety Glasses Required Footwear Sleeved Shirt As Needed Gloves Hearing Protection Face Shields Respiratory Protection	<input type="checkbox"/> <b>HAZARDOUS MATERIALS COMMUNICATION</b> MSDS Location If you bring materials on site, give HSW the MSDS If any questions or concerns, contact your supervisor <input type="checkbox"/> <b>EMERGENCY RESPONSE PLAN</b> Emergency Evacuation Routes Emergency Meeting Locations Shut-off valve locations HSW First Aid Kit Location Report all Incidents – no matter how minor Small Injuries Near Misses Equipment and Property Damage Major Injuries
-----------------	--	---

<b>ORIENTATION</b>	<p><b>HSW SAFETY ORIENTATION</b></p> <p>I acknowledge that I have received HSW's Site Specific Safety Orientation. I understand that it is my obligation as an employee on this jobsite to be an active participant in construction safety performance, and that <u>working safely will be my number one priority</u>. I have been instructed as to many HSW Safety Procedures and will abide by these rules and regulations and safe work practices set forth. I understand that this orientation includes the issue of a <b>verbal warning</b> and that any violation in these rules may result in the issue of a written warning and that a third infraction may result in removal from this jobsite.</p> <p>Employee Signature: _____ Date: _____</p>
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<b>ORIENTATION</b>	<b>ADDITIONAL ITEMS OF REVIEW</b>  <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____
<b>HSW REPRESENTATIVE</b>	<b>Yes No (Check One)</b>  <input type="checkbox"/> <input type="checkbox"/> Employee is a New Hire to HSW and has completed New Hire Orientation. <input type="checkbox"/> <input type="checkbox"/> Employee is a HSW transfer and has completed Site Specific Safety Orientation. <input type="checkbox"/> <input type="checkbox"/> Employee has received HSW Orientation Sticker..  Date of Orientation: _____ Company: _____ HSW Representative Signature : _____



	<h2 style="margin: 0;">SUBCONTRACTOR JOBSITE ORIENTATION TRAINING</h2> <p>JOB NAME: _____</p> <p>HSW REPRESENTATIVE: _____</p>
---	--

<b>EMPLOYEE</b>	<p>NAME: _____ DATE: _____</p> <p>COMPANY: _____ CRAFT: _____</p> <p>HOME ADDRESS: _____</p> <p>CITY, ST, ZIP: _____ HOME PHONE: _____</p> <p>EMERGENCY CONTACT NAME: _____ PHONE: _____</p>
-----------------	--

<b>INTRO</b>	<input type="checkbox"/> <b>JOBSITE INFORMATION</b> Name of Jobsite Scope of Work Jobsite Phone Number _____ <input type="checkbox"/> <b>CORRECT OR REPORT ALL SAFETY CONCERNS IMMEDIATELY</b>	<input type="checkbox"/> <b>LOCATION OF FACILITIES</b> Parking Lunch Room Rest Rooms / Wash Station HSW First Aid Fire Extinguishers <input type="checkbox"/> <b>TIME OF SAFETY MEETINGS</b>
--------------	--	--

<b>TRAINING</b>	<input type="checkbox"/> <b>PERSONAL PROTECTIVE EQUIPMENT (PPE)</b> Hard Hat Safety Glasses Required Footwear Sleeved Shirt As Needed Gloves Hearing Protection Face Shields Respiratory Protection	<input type="checkbox"/> <b>HAZARDOUS MATERIALS COMMUNICATION</b> MSDS Location If you bring materials on site, give HSW the MSDS If any questions or concerns, contact your supervisor <input type="checkbox"/> <b>EMERGENCY RESPONSE PLAN</b> Emergency Evacuation Routes Emergency Meeting Locations Shut-off valve locations HSW First Aid Kit Location Report all Incidents – no matter how minor Small Injuries Near Misses Equipment and Property Damage Major Injuries
-----------------	--	---

<b>ORIENTATION</b>	<p><b>SUBCONTRACTOR SAFETY ORIENTATION</b></p> <p>I acknowledge that I have received HSW's Site Specific Safety Orientation. I understand that it is my obligation as an employee on this jobsite to be an active participant in construction safety performance, and that <u>working safely will be my number one priority</u>. I have been instructed as to many HSW Safety Procedures and will abide by these rules and regulations and safe work practices set forth. I understand that this orientation includes the issue of a <b>verbal warning</b> and that any violation in these rules may result in the issue of a written warning and that a third infraction may result in removal from this jobsite.</p> <p>Employee Signature: _____ Date: _____</p>
--------------------	---

<b>ORIENTATION</b>	<b>ADDITIONAL ITEMS OF REVIEW</b>  <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____
<b>HSW REPRESENTATIVE</b>	<b>Yes No (Check One)</b>  <input type="checkbox"/> <input type="checkbox"/> Employee has provided proof of completing Subcontractor's company orientation. <input type="checkbox"/> <input type="checkbox"/> Employee has provided proof of completing Subcontractor's company site specific orientation. <input type="checkbox"/> <input type="checkbox"/> Employee has received HSW Orientation Sticker..  Date of Orientation: _____ Company: _____ HSW Representative Signature : _____

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## EMERGENCY ACTION PLAN

This section provides guidelines for assisting jobsite staff in writing an Emergency Action Plan (EAP). It includes general information on actions to be taken by HSWC jobsite management and employees in the event of an injury, fire or other emergency.

When dealing with minor injuries, the guidelines outlined in the Injured Worker Management section (Chapter B-7) of this manual should be followed.

For a major injury or incident HSWC personnel should implement the provisions in the EAP outlined in this section as well as the **HSWC Crisis Management Plan** that is contained in a separate manual. There should be at least one copy of a current **HSWC Crisis Management Plan** at each jobsite.

The objectives of an EAP should be to:

- Promote a fast, effective reaction in dealing with emergencies.
- Reduce injury severity, save lives and avoid additional injuries and panic.
- Restore order and conditions back to normal levels with a minimum of confusion and as promptly as possible.

### EAP Preparation

Each HSWC jobsite should develop an EAP tailored to its specific situation. While preparing this plan, jobsite staff should check with property owner, the building manager or landlord regarding evacuation procedures that they may have in place, and incorporate these procedures into the EAP. The project EAP must comply with client requirements and specifications. The EAP Worksheet Form B-5-a can be used to obtain the following information:

- Jobsite information including address, phone/fax number, and nearest cross street.
- List potential types of emergencies that can occur.
- Collect agency names, emergency numbers and non-emergency phone numbers for emergency medical services (EMS), police and utility companies.
- Choose a site EAP team leader and list him/her on the worksheet.
- List all First Aid Team members. All first aid team members must have a current First Aid/CPR certification card.
- Identify the best route(s) for access, egress, and victim removal.
- Identify all potential directions where EMS will be arriving, and designate personnel who will be responsible for directing the EMS personnel to the victim.
- Identify fire extinguisher locations and assure that these locations meet state and federal rules and regulations.
- Identify and post signs at the emergency telephone locations.
- Designate responsibilities for the Emergency Response Team as outlined in the EAP worksheet.
- List the current names and contact numbers of the Corporate Crisis Team.
- Determine which facilities will be used for medical providers. A designated medical clinic should be identified which can treat non-emergency injuries. This clinic should be

compatible with the HSWC Early Return-to-Work program as outlined in the Injured Worker Management section (B-7) of this manual.

- If the designated clinic does not operate 24 hours a day, identify a secondary facility that can be used after hours.
- List any other special conditions that pertain to the jobsite.

### **Evacuation Procedures**

Describe the emergency alarm system for the building/site as applicable. Include the description and location of fire alarm pull boxes, and visual and audible alarms. If a public address (PA) system is used to notify occupants of emergencies, include the procedures to activate the PA system, such as calling the receptionist or building manager office, and a description of the announcements that will be made.

A map or description should be made that defines evacuation routes and emergency exits to be used. A description of the building emergency lighting system and exit signs may also be included. Evacuation route maps may be posted in the offices. There should be a primary and alternate evacuation route and exit from each work area.

Describe procedures regarding the use of elevators, if applicable. In most cases elevator use is prohibited during an emergency. The building owner or manager should be consulted for these procedures.

Describe the provisions that have been made for notifying and assisting personnel with disabilities during an emergency. Such provisions are to accommodate personnel in wheelchairs or those who are temporarily disabled, such as personnel or public on crutches.

Include procedures to determine that no employees have been inadvertently left behind. Designate a primary and alternate assembly area for personnel who are evacuating. Require sufficient distance so that personnel will not be exposed to fire or debris hazards, or traffic, nor interfere with emergency responders. Designate an individual and an alternate with the assigned responsibility for taking a headcount in the assembly area and reporting missing personnel to emergency responders.

Define the procedures on how employees will be informed that it is safe to re-enter the building or to leave for home.

**Rescue and First Aid**

Only properly equipped and trained emergency responders should perform rescue and first aid activities.

**Posting**

The following information should be posted:

- The Emergency Action Plan where it is available to all employees.
- Evacuation maps at all exits and points of egress.
- The Emergency Number Poster (Form B-5-b) at all telephones.


**Training**

Train all employees regarding the requirements of the Emergency Action Plan. This training should occur during the new-hire orientation, at weekly safety meetings, and any time that the EAP significantly changes.

The Emergency Response Team should be trained and rehearse the EAP.

**Investigation**

The scene should be secured, and an accident investigation should be started as soon as possible.

	<h2 style="margin: 0;">EMERGENCY ACTION PLAN WORKSHEET</h2> <p style="margin: 5px 0;">JOB NAME: _____ JOB NO: _____</p> <p style="margin: 5px 0;">SUPERINTENDENT: _____</p>
---	---

<b>JOBSITE INFO</b>	ADDRESS: _____ CITY: _____ JOBSITE PHONE NUMBER _____ NEAREST CROSS STREET(S): _____
-------------------------	--

<b>POTENTIAL EMERGENCIES</b>	<input type="checkbox"/> WORKER INJURY <input type="checkbox"/> PEDESTRIAN INJURY <input type="checkbox"/> TRAFFIC MISHAP <input type="checkbox"/> UTILITY CONTACT <input type="checkbox"/> CHEMICAL SPILL <input type="checkbox"/> STRUCTURAL FAILURE <input type="checkbox"/> EXPLOSION	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
----------------------------------	---	--

<b>EMERGENCY NUMBERS</b>	AGENCY NAME _____ EMERGENCY PHONE NO _____ BUS PHONE NO. _____ POLICE _____ FIRE _____ AMBULANCE _____ UTILITIES _____ POWER _____ WATER _____ NATURAL GAS _____ SEWER _____ CABLE TV _____ OTHER _____
--------------------------	---

<b>SITE EMERGENCY RESPONSE TEAM</b>	TEAM LEADER: _____ OTHER: _____	FIRST AID TEAM MEMBERS: _____
---	------------------------------------	-------------------------------



<b>PRE-EMERGENCY CONSIDERATIONS</b>	<input type="checkbox"/> ACCESS, EGRESS AND VICTIM REMOVAL ROUTE MAINTAINED AT ALL AREAS OF JOB SITE <input type="checkbox"/> FIRE EXTINGUISHER LOCATIONS: <input type="checkbox"/> EYE WASH STATION LOCATIONS: <input type="checkbox"/> TELEPHONE LOCATION: <input type="checkbox"/>
<b>NOTE – ATTACH MAP OF JOBSITE PROVISIONS</b>	

<b>DESIGNATED RESPONSIBILITIES</b>	<b>DUTY</b>	<b>RESPONSIBLE PERSON</b>
	CALLS 9-1-1 SECURES THE SITE FLAGS DOWN THE AMBULANCE LOCATION(S) OF AMBULANCE ARRIVAL DETAINS THE WORKERS LOCATION OF MEETING AREA CALLS THE REGIONAL SAFETY DIRECTOR CALLS THE CORPORATE CRISIS TEAM STARTS THE INVESTIGATION	


<b>HSWC CONTACT NUMBERS</b>	<b>TITLE</b>	<b>NAME</b>	<b>OFFICE</b>	<b>CELL</b>	<b>HOME</b>	<b>OTHER</b>
	SUPERINTENDENT					
	PROJECT MANAGER					
	PROJECT ENGINEER					
	REGIONAL OPERATIONS MANAGER					
	REGIONAL MANAGER					
	REGIONAL SAFETY DIRECTOR					
	CORPORATE CRISIS TEAM					
	TEAM LEADER					
	BACKUP TEAM LEADER					
	SPOKESPERSON					
	BACKUP SPOKESPERSON					
	OTHER					

<b>MEDICAL PROVIDERS</b>	<b>DESIGNATED MEDICAL CLINIC (Non-Emergency)</b>	
	NAME	PHONE NUMBER
	ADDRESS DIRECTIONS	
	<b>AFTER-HOURS MEDICAL CLINIC (Non-Emergency)</b>	
	NAME	PHONE NUMBER
	ADDRESS DIRECTIONS	
	<b>NEAREST HOSPITAL</b>	
	NAME	PHONE NUMBER
	ADDRESS DIRECTIONS	
<b>NOTE : ATTACH MAP TO ALL MEDICAL PROVIDERS</b>		

<b>OTHER CONSIDERATIONS</b>	
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<b>PLAN BY</b>	NAME:	TITLE:
	SIGNATURE:	DATE:

ROUTING: Regional Safety Director

	<h2 style="margin: 0;">EMERGENCY NUMBER POSTER</h2> <p style="margin: 5px 0;">JOB NAME: _____ JOB NO: _____</p> <p style="margin: 5px 0;">SUPERINTENDENT: _____</p>
---	---

<b>EMERGENCY NUMBERS</b>	<p><u>EMERGENCY NUMBER</u></p> <p><u>BUSINESS NUMBER</u></p> <p><b>MEDICAL</b></p> <p><b>FIRE</b></p> <p><b>POLICE</b></p>
------------------------------	--

<b>NEAREST HOSPITAL</b>	<p>PHONE NUMBER:</p> <p>ADDRESS:</p> <p>DIRECTIONS FROM JOBSITE:</p>
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<b>DESIGNATED MEDICAL CLINIC</b>	<p>PHONE NUMBER:</p> <p>ADDRESS:</p> <p>DIRECTIONS FROM JOBSITE:</p>
--------------------------------------	--

<b>AFTER-HOURS MEDICAL CLINIC</b>	<p>PHONE NUMBER:</p> <p>ADDRESS:</p> <p>DIRECTIONS FROM JOBSITE:</p>
---------------------------------------	--

<b>CORPORATE CRISIS TEAM</b>	<p><u>NAME</u></p> <p><u>PHONE NUMBER</u></p>
	<p>CRISIS TEAM LEADER:</p> <p>SPOKESPERSON:</p> <p>REGIONAL SAFETY DIRECTOR:</p>

NOTE – ALSO POST MAP TO MEDICAL PROVIDERS

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### **Incident/Accident Investigation**

Accidents or unintentional incidents may or may not result in an injury or property damage. Effective accident prevention depends on the complete investigation of all accidents/incidents, even if there is no injury or damage to property (near misses), in order to identify potentially serious losses. Whenever possible photographs of the accident scene should be taken as part of the investigation.

#### **Property Damage and Other Incidents**

A Non-injury Incident Report (Form B-6-b) is to be completed for any incident that involves property damage, fire, theft or other loss or potential claim. A copy of this report will be sent to the Regional Safety Manager or designee within 24 hours of the incident.

#### **Injuries to Employees or Subcontractor Employees**

All employees and subcontractor employees will be instructed and required to report any work connected injury or illness to their supervisor immediately.

All on-the-job and non-work related injuries and illnesses will be recorded on the Daily First Aid Log (Form B-6-a). This log will be maintained in accordance with provisions in Chapter B-3.

#### **Accident, Illness and Injury Investigations**

When accidents, injuries, or illnesses occur on the job that requires medical care, the superintendent, the Regional Operations Manager and/or the Regional Safety Manager, will investigate them.

The investigator will complete the HSWC Report of Injury or Illness (Form B-6-c). The investigation will determine at least the following:

- Who and what were directly involved in the accident.
- Who and what were indirectly involved in the accident.
- Where and when the accident occurred.
- The cause of the accident, if known.
- Steps and procedures to take to prevent re-occurrence, if known.

#### **Serious Injury, Illness or Fatality**

Any case involving serious injury, illness or death must be immediately reported by telephone to the Regional Safety Manager or designee. The jobsite Emergency Action Plan and the HSWC **Crisis Management Plan** should be implemented as needed.

Serious injury or illness, for reporting purposes, includes any injury or illness which requires hospitalization in excess of 24 hours for other than observation, or which results in the loss of any member of the body, or causes any serious degree of permanent disfigurement. If in doubt, call the Regional Safety Manager.

The scene of any such serious accident should not be disturbed, except for rescue or emergency purposes, until released by the Regional Safety Manager.

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**The OSHA-300 Log**

The Regional Safety Manager and Corporate Safety Director will determine the recordability of an injury as defined in the Federal-OSHA recording guidelines.

The Log of Occupational Injuries and Illness (OSHA Form 300), is to be maintained by the Corporate Safety Director, in accordance with the recording guidelines. These records are to be preserved for at least five years.

**Accident Investigation Kit**

All jobsites should maintain an accident investigation kit. The kit should be sealed to preserve the contents until the investigation takes place.

The recommended items contained in the Accident Investigation Kit are as follows:

- Non-Injury Incident Reports (Form B-6-b) (4 each)
- Report of Injury or Illness (Form B-6-c) (4 each)
- Witness Reports (Form B-6-d) (10 each)
- Graph paper for scene sketches (10 each)
- Tape Recorder
- Flashlight
- Red danger tape (1 roll) Only to be used to prevent exposure to danger
- Yellow Caution tape
- Clipboards (2 each)
- Duct Tape (1 roll)
- 12" Ruler
- 25'-30' Tape Measure
- 100' Tape Measure
- Camera
- Rolls Film (1 each)
- Photo Log
- Compass
- Plastic bags and envelopes for samples
- Sample log
- Tags and Labels
- Bloodborne Pathogens Kit
- Rubber gloves
- Magnifying Glass
- Sticks of chalk

	<h2 style="margin: 0;">First Aid Log</h2>	<b>JOB NAME:</b> <b>JOB NUMBER:</b> <b>SUPERINTENDENT:</b>	<b>FA – First Aid</b> <b>DR – Doctor</b> <b>IND – Industrial</b> <b>NI – Non-Industrial</b>
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DATE	TIME	NAME	CRAFT	COMPANY	FA	DR	IND	IN





**INITIAL INCIDENT ALERT**  
**(INCIDENT REVIEW / INVESTIGATION TO FOLLOW)**

JOB NAME: \_\_\_\_\_ JOB NO: \_\_\_\_\_

SUPERINTENDENT: \_\_\_\_\_

**INCIDENT INFO**

- DIRECT LABOR                       SUBCONTRACTOR
- INJURY / ILLNESS                       NON-INJURY
- NEAR-MISS    PROPERTY DAMAGE    EQUIPMENT DAMAGE    OTHER: \_\_\_\_\_

DATE OF INCIDENT: \_\_\_\_\_ TIME OF INCIDENT: \_\_\_\_\_  AM    PM

DATE REPORTED: \_\_\_\_\_ REPORTED TO: \_\_\_\_\_ TIME: \_\_\_\_\_

WRITTEN BY: \_\_\_\_\_

**INITIAL INFORMATION**



# INCIDENT REVIEW / INVESTIGATION

## Washington

**INSTRUCTIONS:** The PM, Supt. and Foreman are responsible for the investigation and completion of this report. The report should be sent to Ernie Emmert, Alan Sutherland, Allan Wakeling, and Carol Hart within 24 hrs of the incident. Should you require additional time, please contact Ernie Emmert immediately.

Whenever possible, document with photographs. Include pictures of the surrounding area and include a brief description/caption for each photo.

HSWC       Subcontractor      Company Name \_\_\_\_\_

EMPLOYEE NAME:

Trade:

How long in Trade:

How long with HSWC or Subcontractor:

Post-accident drug screen completed? If not, why?

REPORT WRITTEN BY:

REPORTED TO: \_\_\_\_\_ TIME: \_\_\_\_\_

SUPERVISOR NAME:

DATE OF INCIDENT:

TIME OF INCIDENT:

Job Name & Number:

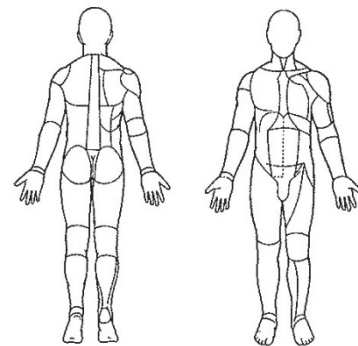
Location / Area:

Weather conditions:

INJURY/INCIDENT TYPE:

BODY PART/AREA:

*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 by a line.*



UPDATED STATUS:

INTRODUCTION & EXPLANATION OF PROCESS:

SEQUENCE OF EVENTS:

CONTRIBUTING FACTORS:

ROOT CAUSE:

CORRECTIVE ACTION:

MEANS OF COMMUNICATION/REPORTING:

WITNESS STATEMENTS ATTACHED

**PHOTO LOG**

PHOTO	COMMENTS
1)	
2)	
3)	
4)	

**REVIEWED BY (signatures):**

Project Manager Signature

Superintendent Signature

Foreman Signature

### EQUIPMENT

	YES	NO	COMMENT (causal factor)	POSSIBLE CORRECTIVE ACTION
• Was there a Job Hazard Analysis performed prior to starting the work?				
• Was equipment, tools, material involved?				
• Any defects in equipment, tools, materials?				
• Was there a hazardous condition?				
• Was hazard recognized earlier, were corrections made?				
• Was there a pre-shift work place inspection by supervisor?				
• Was employee instructed in the correct use of the tools/ equipment?				
• Were employees informed on how to inspect equipment and what to do with defective tools/equipment				
• Was correct tool/equipment used for the task?				
• Was the correct tool/equipment available?				
• List any substitute tool/equipment used.				

Additional comments or causal factors:

**ENVIRONMENT**

	YES	NO	COMMENT (causal factor)	POSSIBLE CORRECTIVE ACTION
• Was the Work Area heavily trafficked?				
• Was employee supposed to be in that area?				
• Was there sufficient work space?				
• Was there sufficient lighting?				
• Was there excessive noise?				
• Weather – hot/cold? Wet?				
• In the case of an excessively hot/cold environment, was the employee given the guidance to deal with this condition?				
• Was work area clean?				

Additional comments or causal factors:

**PEOPLE**

	YES	NO	COMMENT (causal factor)	POSSIBLE CORRECTIVE ACTION
• Were job procedures in place? Written or known?				
• Was a JHA developed (has injured reviewed JHA?)				
• Was training required? (has injured completed training?)				
• Was employee mentally/physically capable of performing task?				
• Was task difficult? To physical for this employee, or too complicated?				
• Other trades or workers in the immediate area?				
• Did Foreman satisfy himself that employee was comfortable with job task?				

Additional comments or causal factors:



**PPE**


	YES	NO	COMMENT (causal factor)	POSSIBLE CORRECTIVE ACTION
• Was proper PPE used?				
• Was proper PPE available?				
• Was training required, i.e. respiratory, fall protection, etc.				

Additional comments or causal factors:

### SUPERVISION

	YES	NO	COMMENT (causal factor)	POSSIBLE CORRECTIVE ACTION
• Was there failure to detect hazardous conditions?				
• Were there deviations from known safe practices? ie: OSHA, WISHA, or HSWCC				
• Were the Supervisor's responsibilities clear/understood?				
• Was the Supervisor trained in accident prevention?				
• Was there a failure to correct known hazard?				
• Was task being completed out of sequence?				
• Did the Supervisor convey clear instructions to the employee?				
• Had the Supervisor performed this or similar tasks in the past?				

Additional comments or causal factors:

	<h2 style="margin: 0;">WITNESS REPORT</h2> <p>JOB NAME: _____ JOB NO: _____  SUPERINTENDENT: _____</p>
---	--

<b>WITNESS INFORMATION</b>	<p>WITNESS NAME: _____</p> <p>ADDRESS: _____</p> <p>STATE, CITY, ZIP: _____</p> <p>HOME PHONE NUMBER: _____ HIRE DATE: _____</p> <p>EMPLOYER: <input type="checkbox"/> HSWC <input type="checkbox"/> (OTHER) _____</p> <p>CRAFT: _____ YEARS IN CRAFT: _____</p>
----------------------------	--

<b>INCIDENT INFO</b>	<p>VICTIM'S NAME: _____</p> <p>DATE OF INCIDENT: _____ TIME OF INCIDENT: _____ <input type="checkbox"/> AM <input type="checkbox"/> PM</p> <p>DATE REPORTED: _____ REPORTED TO: _____</p> <p><input type="checkbox"/> SUDDEN ONSET <input type="checkbox"/> OCCURRED OVER TIME (HOW LONG) _____</p>
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<b>EXACT LOCATION OF INCIDENT</b>	<div style="height: 250px; border: 1px solid black;"></div>
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<b>OBSERVATIONS BEFORE THE INCIDENT</b>	
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<b>OBSERVATIONS DURING THE INCIDENT</b>	
---	--

<b>OBSERVATIONS AFTER THE INCIDENT</b>	
--	--

<b>OTHER COMMENTS</b>	
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WITNESS SIGNATURE:	DATE:
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ROUTING:     Regional Safety Manager

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## **INJURED WORKER MANAGEMENT**

### **PURPOSE AND PROCEDURE**

The Company's goal is to send everyone home at the end of the work day in the same condition as he or she arrived at the beginning of their shift. If an injury does occur on the jobsite, swift and responsible action is required. Initial steps include:

- Assess the injury and apply first-aid treatment, if appropriate.
- If the injury requires medical treatment beyond first aid, escort the worker to the nearest medical clinic and bring the Physician's Initial Report (B-7-a) and the Doctor's Estimate of Physical Capabilities (B-7-b) for the physician to complete.
- Ensure the worker performs a post-accident drug screen. The Test Authorization & Fax Form (B-7-c) must accompany the worker to the clinic.
- Complete the Self-Insured Incident Report – SIF2 (B-7-d). The worker completes the worker's section and the supervisor completes the employer section.
- Report the incident to the Regional Safety Manager.
- Perform an incident investigation and complete the Incident Review / Investigation (B-7-c). Send report to the Regional Safety Manager, Vice President of Construction, and the Major Projects Administrative Assistant.
- Based on the information from the physician, identify whether or not the worker's injury requires physical restrictions. If there are restrictions, determine whether or not HSWC will be able to accommodate those restrictions with a light duty assignment. If the medical release is unclear, please contact the Major Projects Administrative Assistant.

### **Light Duty Program**

The purpose of the HSWC Light Duty Program is to assist our injured employees in early rehabilitation of their injury and faster return to the full duty work force without jeopardizing medical recuperation.

The following procedures provide for an effective and efficient return to work that meets State laws in Workers' Compensation, as well as discrimination laws for accommodation of handicapped persons.

Light duty assignments are designed for injured employees only. They are *temporary alternatives* for full duty work. An evaluation of the employee's medical condition shall be performed on a biweekly basis and extension of the light duty assignment will be on a case-by-case basis. If the employee cannot be released to full duty status, the light duty assignment is re-evaluated and a determination made regarding the need to refer the employee to rehabilitation services.

### **General Return-to-Work Procedures**

Each jobsite is responsible for implementing the Light Duty Program within company safety policies and procedures. Work that is assigned to an injured employee must be within the physical restrictions specified by the physician. If a Light Duty Assignment is to be offered to

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the worker, the following documents must be executed and forwarded on to the Major Project Administrative Assistant:

1. Transitional Work Agreement (B-7-e) – Should HSW choose to offer the injured worker a light duty assignment, this offer must be documented in writing. This form is used for this purpose. The supervisor completes this form and reviews this with the injured worker. If the injured worker accepts the assignment, he/she must sign and date this form, as well as a witness signature. Send the completed form to the Major Projects Administrative Assistant who will forward to the physician for review and signature.
2. Light Duty Program Guidelines – Supervisor (B-7-f) This information outlines the supervisor’s responsibilities for an injured worker on a light duty assignment.
3. Light Duty Worker Return To Work Orientation (B-7-g) The supervisor goes over this information with the injured worker. The injured worker must initial each section, then sign and date the document. The supervisor must also sign and date the document.
4. Light Duty Return To Work Discipline Program (B-7-h) The intent of this document is to reaffirm that the HSWC disciplinary procedures are still in effect during this temporary work assignment. Both the injured worker and supervisor sign and date this document.

#### **Upgrading a Modified Duty Release to Full Duty Status**

If the injured employee has gradually taken on an increasing workload with his/her physician's permission and is now doing regular duty work, employee obtains a signed regular duty work release from the physician.

A copy of the work release is to be given to the Major Project Administrative Assistant.

After six weeks of restricted or modified duty, the Third Party Administrator will determine the need for consultation services to facilitate additional claim activity.



(Circle one) English Spanish Russian Korean Chinese  
Language Vietnamese Laotian Cambodian Other \_\_\_\_\_  
Preference

# PHYSICIANS INITIAL REPORT

1. CLAIM NUMBER

## MAIL TO SELF INSURED COMPANY

Instructions on reverse side

1. NAME OF SELF-INSURED EMPLOYER  
**Howard S. Wright Constructors**

ADDRESS  
**501 Eastlake Avenue East Suite 100-A**

CITY STATE ZIP  
**Seattle WA 98109**

2. NAME OF SELF-INSURED EMPLOYER'S SERVICE REPRESENTATIVE  
**BRAC**

ADDRESS  
**P.O. BOX 88842**

CITY STATE ZIP  
**Seattle WA 98138**

EMPLOYER'S TELEPHONE NO. EMPLOYER'S SERVICE REP PHONE  
**206 447 7654 206 575 2303**

### PATIENT INFORMATION

2. NAME OF INJURED WORKER: FIRST MIDDLE LAST 3. WORKER'S TELEPHONE NO.

4. MAILING ADDRESS 5. SOCIAL SECURITY NUMBER

6. CITY STATE ZIP CODE 7. DATE OF BIRTH

8. INJURY DATE 9. TIME 10. Have you missed work due to your injury?  
If so, what dates were you off?  
From: To:

11. SEX 12. MARITAL STATUS - NUMBER OF DEPENDENTS

13. Describe in detail how your injury or exposure occurred:

### Physician -- START HERE

3. Date patient first seen by you for this injury/condition / /

a. ICDM-9 CODE b. Diagnosis - Specify Right / Left

4. Are there objective findings to support this diagnosis  
 No  Yes, Specify

5. Referred for Diagnostic Studies  
 No  Yes, Specify

6. Treatment Recommendations

14. MEDICAL RELEASE AUTHORIZATION: I HEREBY AUTHORIZE MY PHYSICIAN, HOSPITAL, AGENCY OR ORGANIZATION TO DISCLOSE TO MY EMPLOYER OR MY EMPLOYER'S REPRESENTATIVE OR THE DEPARTMENT OF LABOR & INDUSTRIES ANY MEDICAL RECORDS OR OTHER INFORMATION REGARDING TREATMENT WHICH HAS PREVIOUSLY BEEN FURNISHED TO ME.  
Worker's Signature \_\_\_\_\_ Date \_\_\_\_\_

15. I have read this statement of Responsibility and the Legal Notice on the reverse side of this form.  
Worker's Signature \_\_\_\_\_ Date \_\_\_\_\_

8. a. Has the worker ever been treated for the same or similar condition?  
Select one. If YES, describe briefly or attach report.  
 No  Yes

b. Is there any pre-existing impairment of the injured area?  
Select one. If YES, describe briefly or attach report.  
 No  Yes

c. Are there any conditions that will prevent or retard recovery?  
Select one. If YES, describe briefly or attach report.  
 No  Yes

d. Was the diagnosed condition caused by this injury or exposure on a more probable than not basis?  No  Yes

9. a. Have you released this worker to return to regular work?  
 No  Yes effective date \_\_\_\_\_

b. Have you released this worker to return to light duty?  
 No  Yes effective date \_\_\_\_\_

c. What restrictions are placed on light duty return to work?  
Lifting \_\_\_\_\_ Bending \_\_\_\_\_  
Standing \_\_\_\_\_ Sitting \_\_\_\_\_  
Other \_\_\_\_\_

d. If not released for work, estimate number of days of time loss: \_\_\_\_\_

**Licensed Physician must sign before report is accepted**

10. Signature

11. Phone 12. Date

13. Physician Name (print or type)

14. Address

City State ZIP

15. Payee L&I Account Number / NPI 16. IRS Account #

**DO NOT SEND THIS FORM TO LABOR & INDUSTRIES**

Distribution: White - Employer, Canary - Worker, Pink - Physician

F207-028-000 Physician Initial Report 02-2007



**DOCTOR'S ESTIMATE OF PHYSICAL CAPABILITIES**

Patient: \_\_\_\_\_

Claim Number: \_\_\_\_\_

Physician: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Nature of Injury: \_\_\_\_\_

Date of Injury: \_\_\_\_\_

Location where Injury occurred:  
\_\_\_\_\_

Superintendent: \_\_\_\_\_

*Dear Doctor: Please complete this form in order to assist in managing this injured worker's industrial insurance claim. Please return this form to the above address. Thank you.*

1. In your opinion, can the patient return to the job at the time of injury? Yes  No
2.  No restriction, exercise care.
3. Can the patient's activities be modified to facilitate our Return to Work Program? Yes  No   
If yes, when? \_\_\_\_\_
4. If there are significant restrictions or if special equipment is needed, please indicate:  
Prognosis: \_\_\_\_\_ Restriction: \_\_\_\_\_  
How long do you anticipate these restrictions? \_\_\_\_\_

**Limitations:**

Sitting:	Duration:
Standing:	Duration:
Walking:	Duration:
Operate Motor Vehicle:	Duration:
Bending/squatting:	Duration:
Kneeling/crawling:	Duration:
Overhead reaching/handling:	Duration:
Rotating/twisting	Duration:
Lifting/carrying	Duration:
Climbing:	Duration:
Exposure: dust, fumes, etc.	Duration:
Cognitive (head injury):	
Other (please explain):	

5. Is further medical treatment indicated? Yes  No   
If yes, what kind of treatment? \_\_\_\_\_  
Estimated completion date: \_\_\_\_\_
6. Do you recommend physical therapy or a performance based PCE? Yes  No
7. The above information is based on examination of this patient on: \_\_\_\_\_

\_\_\_\_\_  
Physician's signature Date



POST-ACCIDENT/REASONABLE SUSPICION TESTING & DOCUMENTATION  
FORM  
WASHINGTON CONSTRUCTION INDUSTRY SUBSTANCE ABUSE PROGRAM

Employee's Name \_\_\_\_\_ Social Security No. \_\_\_\_\_ Date \_\_\_\_\_

**Type of Test:**     Post-Accident  
                           Reasonable Suspicion

- Accident causing a fatality
- Accident causing an injury requiring off-site medical attention
- Accident causing significant property damage
- Observed drug/alcohol use
- Difficulty maintaining balance
- Slurred speech
- Abnormal/erratic behavior
- Apparent inability to safely perform assigned work
- Additional observed behavior (Describe in detail)

**Comments** *(Describe the rationale for requesting testing, including observed facts and circumstances, any sources of information, date and time of observation or accident, other witnesses, actions taken, etc.)*

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Requester's Printed Name & Signature \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_

Reviewer's Printed Name & Signature \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_

I acknowledge that I have been informed of the company's reasons for requesting this drug and alcohol test and consent to the testing. Signing this form does not necessarily signify agreement with the above statements.

Employee's Signature \_\_\_\_\_ Date \_\_\_\_\_



# Worker Start Here



# SELF INSURER ACCIDENT REPORT (SIF-2)

(circle one) English Spanish Russian Korean Chinese Vietnamese  
Language Preference Laotian Cambodian Other

UBI

Risk class

CLAIM NUMBER

SD90692

Business name of self insured employer C/O BRAC		Name of injured employee (First-middle-last)		Employee's home phone ( )	
Employer's address P.O. BOX 88842		Mailing address		Employer's phone # ( )	
City Seattle	State WA	ZIP 98138	City	State	ZIP
Dependent Children include unborn, estimate birthdate. Benefits will be based, in part, on number of legally dependent children. Please indicate custody status of each child.		Marital status select one Married Widowed Separated Divorced Single		Sex M F	Date of birth
Name		Relationship	Legal custody select one Yes No	Date of birth	Height
			Yes No	/ /	Weight
			Yes No	/ /	
			Yes No	/ /	
Name of children's legal guardian, if other than self.		Phone # ( )		Job title when injured	
Address		Date of injury/exposure		Date of hire	Shift hrs
City		State		ZIP	
		When did you last work? / /		When did you return to work? / /	
		Part of body injured or exposed		Right Left	
		Where did the injury or exposure occur? Employer premises Jobsite Parking Lot Other		Were you doing your regular job? Yes No	
		Was this incident caused by failure of a machine or product OR someone who is not a co-worker?		Select one Yes No Possibly	

Describe in detail how your injury or exposure occurred:  
(Include tools, machinery, chemicals or fumes that may have been involved)

Did you report the incident to your employer? Yes No  
Name/title of person reported to: Date reported: / /

If reporting of incident was delayed, why?

Business name and address where injury or exposure occurred

Address County  
City State ZIP code

List any witnesses

Was your employer contributing to your and/or your family's medical, dental and/or vision insurance on the date you were injured? Yes No

Do you consistently work overtime? Yes No

Do you have more than one rate of pay? Yes No

Do you have more than one employer? Yes No

Have you ever been treated for same or similar condition before? Yes No If so, When?

Rate of pay at this job Write amount, select one Hour Week Days/week  
\$ /hr /wk /day

Additional earnings (daily average) Write amount, select one  
\$ /day

Tips Piecework Commission

Did you receive a bonus within the last 12 months? Yes No \$

Name of attending physician  
Address  
City State ZIP

Medical Release authorization: I hereby authorize my physician, hospital, agency or organization to disclose to my employer or their representative or the Dept. of Labor & Industries any medical records or other information regarding treatment which has previously been furnished to me.  
Today's date: / /  
Worker's signature: X

I have read the legal notice on the reverse side of employee's copy. I declare that these statements are true to the best of my knowledge and belief.  
Today's date: / /  
Worker's signature: X

**Employer Start here**

Hourly rates of pay \$ /hr hrs/dy days/wk  
\$ /hr hrs/dy days/wk

Will you pay this employee full salary or wages during period of disability? select one Yes No

Date returned to work / / Was employee engaged in the regular course of employment when injured? select one Yes No

Monthly Salary \$

Average monthly value of all bonuses paid 12 months prior to injury \$

Other, explain:

Do you agree with employee's description of the accident? If not, explain.

Average hrs including O/T worked Day Mo  
Hrs: / /

Average daily earnings from piecework, tips and commissions as reported to IRS \$

If seasonal part time or intermittent, provide 12 months gross wages \$

Fatality Yes No Date reported to employer / / 3rd party involved? Yes No

Were you contributing to this worker's and/or family's medical, dental and/or vision insurance on date of injury? Yes No

If so, how much did you pay? Per Mo. Yes No

Was this medical insurance in effect on the day of injury? Yes No

When will coverage end? / /

Worker's copy mailed Yes No

Treatment only Yes No date closure mailed

Treatment only ROR: Lt. duty provided Yes No Associated costs \$

**I declare that the foregoing statements are true to the best of my knowledge and belief.**

Date / / Signature

F207-002-000 self insurer accident report - employer (sif-2) 11-03

LABOR & INDUSTRIES COPY

# TRANSITIONAL WORK AGREEMENT

Dear: \_\_\_\_\_ Today's Date: \_\_\_\_\_  
Date of Injury: \_\_\_\_\_

**Your doctor has released you for transitional work with the following restrictions:**

At this time, Howard S. Wright Construction Co., is offering you a **transitional work assignment**. This transitional assignment consists of the following duties that are within the restrictions specified by your treating doctor:

\_\_\_\_\_  
\_\_\_\_\_  
You are to report to work on \_\_\_\_\_ . You are to report to: \_\_\_\_\_  
who will be your supervisor.

Your hours of work are from \_\_\_\_\_ a.m./p.m to \_\_\_\_\_ a.m./p.m Monday through Friday (you are allowed to work no more than 40 hours per week).

Your wage will be : \$ \_\_\_\_\_ per hour / same rate during this transitional assignment.

**This transitional assignment is usually available to you for a period of up to 60 days. We will review your restrictions periodically during the 60-day period and make whatever changes are necessary to your transitional assignment. During this 60-day period, we will also be reviewing your situation and determining whether you are able to return to Full Duty, or whether you will begin receiving Time Loss Benefits. In that case we will work with your physician on your medical case management and review possible rehabilitation options.**

If you choose not to accept this transitional duty job offer, your workers compensation benefits may be adversely affected. **You will be expected to follow all existing job site rules while in your transitional assignment.**  
**Sincerely,**

\_\_\_\_\_  
**Authorized Supervisor** **Date**

Copy sent to worker via Certified mail with Return Receipt Required. Date Sent : \_\_\_\_\_

**I have read and understand the above and . . . accept, . . . reject the transitional duty job as offered.**

(I understand that if I do not accept this transitional duty assignment, my workers' compensation benefits may be adversely affected.)

\_\_\_\_\_  
Doctor's Signature Date Employee Signature Date

\_\_\_\_\_  
Witness Signature Date

\_\_\_\_\_  
Print Witness Name



## **Supervisor**

### **LIGHT DUTY PROGRAM GUIDELINES**

While the employee is on Light Duty, you as the Supervisor will monitor the employee and will keep your Supervisor and the Safety Department informed if the employee is not adhering to the Program. If you or your Superintendent needs to revise the employee's tasks, you will notify the Regional Safety Manager ahead of time in order for a new Transitional Work Agreement to be written and approved by the injured employee's attending physician.

As the Light Duty Supervisor you will be responsible for this employee in every way a supervisor is responsible for uninjured employees. You will make sure the injured employee follows all doctor's restrictions as outlined in the Transitional Work Agreement and the Doctor's Estimate of Physical Capabilities.

Any attendance problems that may occur are to be reported to the Howard S. Wright Safety Manager or the Major Projects Administrative Assistant.

The employee is considered in non-compliance with the Light Duty Program by not attending medical appointments, aggravating an injury by working outside of their medical restrictions, not performing within the doctors restrictions, not performing within specified duties of the Transitional Work Agreement, late to work and no call/no show. At the first offense, the employee shall be given a verbal warning. Each time after that the employee will be given a written warning. Company policy states that upon receiving the third warning the employee is to be terminated. Send a copy of each written warning to the Major Projects Administrative Assistant. Coordinate with your Superintendent and the Regional Safety Manager prior to termination.

## LIGHT DUTY WORKER RETURN TO WORK ORIENTATION

The purpose of our Light Duty Program is to assist you, our injured employee in rehabilitation of the injury and a faster return to the full duty work force.

Light Duty Jobs are temporary assignments.

Any questions or comments by you regarding your Light Duty status will be documented by each of us.

\_\_\_\_\_ While you are assigned to the Light Duty Program, you will be expected to abide (Intl.) by the rules and policies set forth by the Program. You can direct any questions to your supervisor, the Regional Safety Manager and/or our Third Party Administrator (TPA), Eberle Vivian.

\_\_\_\_\_ Your doctor's restrictions will be monitored. We will go over all of your (Intl.) restrictions during this orientation and you will be expected to remain within these restrictions. These restrictions are required by your physician and aid in your healing process.

Failure to follow the restrictions required by your physician will be considered noncompliance.

The first time you do not follow your restrictions you will receive a verbal warning. The second time you will receive a written warning. Company policy states upon receiving the third warning you will be terminated. These warnings will be reported to the Department of Labor & Industries and our TPA, and could jeopardize your benefits.

\_\_\_\_\_ During your light duty period, your performance will be monitored by your Light (Intl.) Duty Supervisor. The Light Duty Program is a transition to full duty. You will be expected to follow all safety rules enforced at your light duty area. If you have any questions, please ask your Supervisor.

\_\_\_\_\_ You will be expected to dress ready for work. Work Boots, Hard Hats, Safety (Intl.) Glasses and Hearing Protection are required while in this area \_\_\_\_\_.

\_\_\_\_\_ Reporting for work is mandatory. The first time you do not show for work and do not call, (Intl.) you will receive a verbal warning. Each time after that you will receive a written warning. Company policy states upon receiving the third warning, you will be terminated. These warnings will be reported to the Department of Labor & Industries and our TPA, and could jeopardize your benefits.

\_\_\_\_\_ You will be expected to keep regular company hours as you would prior to your injury. (Intl.) Your time is monitored and reported to the Department of Labor & Industries. Failure to report to work is considered non-compliance with the Light Duty Program and can jeopardize your benefits.

Return to work - page 2

\_\_\_\_ In the case of illness you are required to call your Supervisor. It is important (Intl.) that you know the Department of Labor & Industries will not pay time loss for time due to an illness which is not related to your injury. If questions arise about your wellness, Howard S. Wright and Labor & Industries have the right to send you to a doctor of their choice to determine legitimacy of your time loss.

\_\_\_\_ Scheduling of any Medical or Therapy Appointments must be made on your own time. (Intl.) Medical appointments are to be attended to during your time off. Medical Appointments which must be made during work hours must be pre-approved by your Supervisor.

\_\_\_\_ You will find your light duty Job Analysis signed by your attending physician (Intl.) attached to this orientation. The Job Analysis explains your restrictions required by your attending physician and the duties you will be expected to perform.

\_\_\_\_ To sustain compliance with the Light Duty Program you have a responsibility to (Intl.) attend your medical appointments and follow the doctors curative treatment plan, and abiding the doctor's curative treatment plan. Missed appointments, working outside your restrictions, or otherwise adversely affecting the curative treatment plan will be considered non-compliance with the Light Duty Program and could jeopardize your benefits.

---

Light Duty Employee \_\_\_\_\_ Date \_\_\_\_\_

---

Supervisor \_\_\_\_\_ Date \_\_\_\_\_

## Light Duty Return to Work Discipline Program

**First Offense** Verbal warning. Supervisor & injured worker to call/meet with injured worker to review and determine if the cause is injury related. Howard S. Wright will make any necessary accommodations, within reason, to assist the injured worker in his/her return to work. All conversations and meetings will be documented.

**Second Offense** Written warning and call/meet between Supervisor, Superintendent, and injured worker to review and determine if the cause is injury related. Howard S. Wright will make any necessary accommodations, within reason, to assist the injured worker in his/her return to work. All conversations and meetings will be documented.

**Third Offense** Written warning and terminate employment. All documentation will be copied to Berkley Risk Administrators and a request will be made by Howard S. Wright to terminate all time loss benefits.

**Supervisor's  
Signature**

I explained all items in this program to the injured worker.

Name (sign) \_\_\_\_\_ Name (print) \_\_\_\_\_

Date \_\_\_\_\_

**Injured Worker's  
Signature**

All information in this orientation checklist was explained to me.

Name (sign) \_\_\_\_\_ Name (print) \_\_\_\_\_

Date \_\_\_\_\_

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## Disciplinary Guidelines

### DISCIPLINE ACTION FOR DIRECT-HIRE EMPLOYEES

*The following is an excerpt from the Howard S. Wright Constructors Accident Prevention Program (Section A-1) in this manual:*

The HSWC Accident Prevention Program requires that all employees follow company safety policies and operating procedures. When needed, employees will be provided with additional training and information to maintain their knowledge.

The discipline procedure of HSWC is intended to encourage employee compliance with the HSWC Accident Prevention Program.

Although HSWC reserves the right to discharge “at will.” Employees found performing work in an unsafe manner that would endanger the employee or another employee may be subject to discipline or termination by management.

The jobsite superintendent will determine the course of action best suited to the circumstances. The steps to be taken, at a minimum, shall include the following:

- **Step One - Verbal Warning** – As the first step in correcting unacceptable behavior, the superintendent shall review the pertinent facts with the employee. The superintendent will consider the severity of the problem and the employee’s past performance. A verbal warning may be issued to the employee. This warning and the name of the direct supervisor will be documented and placed in the employee’s personnel file. If necessary, the employee will be placed on probation. Violations will be removed from the employee’s record after a six-month period.
- **Step Two - Written Warning** – If the unacceptable behavior continues, the next step will be a written warning. The written warning will clearly state the safety policy that was violated and steps the employee must take to correct the behavior. Probation will be a part of the written warning. It may also include time off without pay. At the completion of the probationary period, the supervisor will meet with the employee to determine if the employee has achieved the required level of performance. This written warning, which will include the name of the direct supervisor, will be documented and placed in the employee’s personnel file. Violations will be removed from the employee’s record after a six-month period.
- **Step Three - Termination** – The employee may be terminated if he does not improve his behavior while on probation, or has violated another company safety policy within a twelve months period.

**Note:** *In cases where the safety violation is serious or life threatening in nature, the HSWC Superintendent reserves the right to immediately terminate the employee without prior written warning.*

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**DISCIPLINE ACTION FOR SUBCONTRACTORS**

Under HSWC policy, all subcontractor employees are required to follow subcontractor and HSWC safety policies and operating procedures. The discipline policy of HSWC is intended to encourage subcontractor employee compliance with the HSWC, Site Specific Safety Plan and HSWC Safety Resource Manual. When needed, the subcontractor shall provide their employees with additional training and information, or re-training to maintain their knowledge. In some cases re-training may be required by Washington Administrative Code (WAC) 296-155 or other applicable standards.

HSWC reserves the right to remove subcontractor employees from the jobsite “at will.” Any subcontractor employee(s) found performing work in an unsafe manner that could endanger the employee or any other worker may be subject to the HSWC discipline policy as described in this section (B-8).

HSWC recognizes the subcontractor has the responsibility of ensuring those workers under their employ and supervision follows governmental regulations and HSWC safety policies. The preferable method of action is for the subcontractors to implement their own discipline policy. However, HSWC reserves the right to immediately take the appropriate action to eliminate subcontractor safety and health exposures.

The HSWC Superintendent, Regional Safety Manager and/or Site Safety Manager will determine the course of action best suited to the circumstances. The subcontractor’s Designated Safety Representative will be informed of the violation and will enact the subcontractor discipline procedure as determined by the HSWC Superintendent, Regional Safety Manager and/or Site Safety Manager.

If the HSWC Jobsite Superintendent, Regional Safety Manager and/or Site Safety Manager determines that the disciplinary action taken by the subcontractor is not appropriate, he/she may elect to enact the HSWC subcontractor discipline plan. The steps to be taken at a minimum shall include the following:

- **Step One - Verbal Warning** – As the first step in correcting unacceptable behavior, a representative of HSWC will write a violation notice. The subcontractor Designated Safety Representative shall review the pertinent facts with the subcontractor employee. A verbal warning will be issued to the subcontractor employee. This action will be documented along with the name of the subcontractor employee’s direct supervisor. A copy of this documentation will be provided to the HSWC Superintendent, Regional Safety Manager and/or Site Safety Manager. If necessary, the subcontractor employee will be placed on probation. Each violation will be kept on file in the HSWC Safety Office for a period of at least 12 months.
- **Step Two - Written Warning** – If the unacceptable behavior continues the next step will be a written warning. The written warning issued by HSWC will clearly state the safety policy that was violated and steps the subcontractor employee must take if it is to be corrected. Probation will be a part of the written warning. It may also include time that the subcontractor employee will not be allowed on the jobsite as determined by the HSWC Superintendent. At the completion of the probationary period, the HSWC Superintendent and the subcontractor Designated Safety Representative will meet with the subcontractor employee to determine if the employee has achieved the required level




of performance. Each violation will be kept on file in by HSWC Regional Safety Manager for a period of six months.

- Step Three – Removal From the Jobsite – The subcontractor employee may be removed from the jobsite as determined by the HSWC Superintendent if he/she does not improve his/her behavior while on probation, or has violated another company safety policy within twelve months.

**Note:** *In cases where the safety violation is serious or life threatening in nature, the HSWC Superintendent reserves the right to immediately remove the subcontractor employee without prior written warning.*

### **Subcontractor Foreman Discipline**

The HSWC Superintendent will keep a copy of all discipline actions for subcontractor employees. If a subcontractor foreman has accumulated over five disciplinary actions initiated by HSWC for employees under the subcontractor foreman's supervision within a six-month period, the subcontractor foreman may be disciplined as directed by the HSWC Superintendent.

	<h2 style="margin: 0;">DISCIPLINE REPORT</h2> <p style="margin: 5px 0;">JOB NAME: _____ JOB NO: _____</p> <p style="margin: 5px 0;">SUPERINTENDENT: _____</p>
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<b>INFO</b>	<p>Worker Name: _____</p> <p>Foreman Name: _____</p> <p>Company: <input type="checkbox"/> HSWC <input type="checkbox"/> OTHER: _____ Craft: _____</p>
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<b>STEP 1 – VERBAL WARNING</b>	<p>Description of safety issue observed: _____ Date: _____ Time: _____</p> <p>Safety is the responsibility of every person on the jobsite.</p> <p>Violations of established safety rules are not acceptable conduct on this jobsite. They endanger you, fellow workers, property, and the reputation and profitability of HSWC and the subcontractors on site</p> <p>A copy of this notice will be given to your foreman and placed in your employee file. The second notice will be in writing. <b>On serious safety issues, the issuance of a second notice to you may be grounds for your immediate dismissal or removal from this jobsite.</b></p> <p>Worker (or Witness) Signature: _____ Date: _____</p> <p>Foreman Signature: _____ Date: _____</p> <p>Subcontractor Designated Safety Representative Signature</p> <p style="margin-left: 20px;"><input type="checkbox"/> NA <input type="checkbox"/> _____ Date: _____</p> <p>Person Giving Warning: _____ Date: _____</p>
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<b>STEP 2 – WRITTEN WARNING</b>	<p>Description of safety issue observed: _____ Date: _____ Time: _____</p> <p>Employee Signature: _____ Date: _____</p> <p>Supervisor Signature: _____ Date: _____</p> <p>Subcontractor Designated Safety Representative Signature</p> <p style="margin-left: 20px;"><input type="checkbox"/> NA <input type="checkbox"/> _____ Date: _____</p> <p>Person Giving Warning: _____ Date: _____</p> <p>Business Agent Notified: <input type="checkbox"/> No <input type="checkbox"/> Yes: Name: _____</p>
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<b>TERMINATION/REMOVAL FROM JOBSITE</b>	Description of safety issue observed: _____	Date: _____	Time: _____
	Employee Signature: _____	Date: _____	
	Foreman Signature: _____	Date: _____	
	Subcontractor Designated Safety Representative Signature:		
	<input type="checkbox"/> NA <input type="checkbox"/> _____	Date: _____	
	Person Giving Warning _____	Date: _____	
Business Agent Notified: <input type="checkbox"/> No <input type="checkbox"/> Yes: Name: _____			

<b>ACTION TAKEN</b>	
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<b>COMMENTS</b>	
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ROUTING:      Jobsite Superintendent  
                 Subcontractor Regional  
                 Safety Manager

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## **SAFETY COMMITTEE**

### **Purpose**

A company safety and health committee is established to provide a means for utilizing available employee skills, talents, and expertise in the development, implementation, and audit of company safety activities. A further objective of the committee is to provide a mechanism to enhance communication and coordination of all safety activities throughout the company.

### **Policy**

The committee organization, size, and activity will conform to applicable federal, state, or local regulations. The membership of the committee will be appropriate to the interests they are intended to serve and representative of all facets of the company.

### **Responsibility**

The responsibilities and scope of the committee's duties will be defined at the time the committee is formed. The duties include, but are not limited to, the following:

- Establish safety rules, which are given to all employees and posted on company bulletin boards.
- Establish procedures for investigation of safety-related job incidents such as injuries and near misses.
- Establish and implement a schedule of workplace safety inspections on at least a quarterly basis, to identify hazards needing control and to submit suggestions for establishing such control.
- Evaluate the safety program and make recommendations for improvement.
- Evaluate safety suggestions made by employees.
- Promote safety and employee awareness to loss prevention.
- Hold meetings as scheduled by the Regional Safety Manager and record minutes of the same. Minutes of each meeting will be distributed to all participants and posted on all company bulletin boards.


The committee will act in an advisory position to management. The Regional Safety Manager retains the minutes of all safety committee meetings, the workplace inspection reports, and the documented activity relating to loss control.

	<p style="text-align: center;"><b>SAFETY COMMITTEE MEETING NOTICE</b></p> <p>FROM: PHONE NUMBER: DATE:</p>
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<b>NEXT MEETING</b>	<p>THE NEXT MEETING FOR THE HSWC SAFETY COMMITTEE IS SCHEDULED AS FOLLOWS:</p> <p>DATE: TIME: LOCATION: DIRECTIONS:</p>
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<b>SAFETY COMMITTEE MEMBERS</b>	<p>THE FOLLOWING EMPLOYEES WILL ATTEND:</p>
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<b>TOPICS</b>	<p>IN ADDITION TO THE NORMAL ADGENDA ITEMS AND DISCUSSION, PLEASE BE PREPARED TO DISCUSS THE FOLLOWING ISSUES:</p>
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	<b>SAFETY COMMITTEE AGENDA / MINUTES</b>	
	CHAIRPERSON: LOCATION OF MEETING: DATE:	

<b>ATTENDANCE</b>	Members Present:	Members Absent:

<b>PRIOR MEETING</b>	READ MINUTES OF PREVIOUS MEETING:
	COMMENTS:

<b>OLD BUSINESS</b>	Recommendations Not Completed:
	Recommendations Completed:



<b>NEW BUSINESS</b>	Discussion:
	Recommendations:

<b>INCIDENT REVIEW</b>	DATE	INJURY	CAUSE
	Recommendations:		

<b>PROGRESS REPORT</b>	
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<b>MISC. DISCUSSION</b>		<b>NEXT MEETING</b>	DATE TIME: LOCATION:
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Report by:	Meeting Adjourned: Time:	Date:
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**GENERAL PPE GUIDELINES****Head/Scalp**

- ❑ Hard-hats are to be worn on all HSWC jobsites unless otherwise communicated or posted. Hard-hats shall meet ANSI Z89.1 - 1986 and shall be Class A or B. No class C hard-hats are allowed on HSWC jobsites.
- ❑ Metallic hard-hats are prohibited.
- ❑ Bump caps are prohibited as head protection.
- ❑ Before each use, hard-hats should be inspected for cracks, signs of impact or rough treatment and wear that might reduce the degree of safety originally provided. If signs of excess wear exist, it should be discarded.
- ❑ Hard-hat suspensions shall never be altered.
- ❑ Hard-hats are to be worn with the bill to the front or as provided by the manufacturer; hard-hats shall not be worn backwards or otherwise on the head.
- ❑ If face protection (face shields) are required to be worn in addition to head protection, face shields shall be provided that can be worn with the employee's hard-hat.

**Eye & Face Protection**

See Chapter C-2 Eye and Face Protection

**Body Protection**

- ❑ Where chemical hazards (corrosives, etc.) are present, appropriate protection shall be provided to all personnel. The protection provided shall be chosen to be resistant to the hazards and chemical properties as presented by the work. Reusable clothing must be decontaminated prior to storage.
- ❑ For hazard specific protection, such as for protection for electrical hazards, refer to the appropriate procedure/guideline as provided in this manual.
- ❑ When welding, the neck and face shall be suitably protected from arc burns.
- ❑ Workers shall be required to wear long pants and shirts with long sleeves. Project management shall approve exceptions.

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**Hand Protection**

Gloves will be carried by all Craft persons while on jobsite.

Hand Protection is Mandatory in the following situations.

- ❑ Handling or working around sheet metal siding, roofing, etc.
  - ❑ Metal unistrut materials and all thread rods.
  - ❑ Handling or working around tie-wire.
  - ❑ Handling metal floor grating.
  - ❑ Handling wire rope during rigging operations.
  - ❑ Handling or working around metal studs.
  - ❑ Handling of metal ductwork.
- ❑ Cutting operations involving hand held, non-power operated cutters.
- ❑ Using hand held tubing cutters for cutting metal and hard plastic type piping.
- ❑ Handling rough and unfinished wood materials.
- ❑ Concrete operations where hands are exposed.
- ❑ While pulling wire in or around electrical panels.
- ❑ While performing Energized Electrical Work (EEW) operations.
- ❑ During use of impact type tools.
  - ❑ Using impact hammers to chip concrete.
  - ❑ Using jack hammers on concrete and similar operations.
  - ❑ Using fence post drivers for driving posts and/or stakes.
- ❑ During welding operations.
- ❑ While operating a grinder. The grinding helper shall also utilize gloves to prevent impalement by flying debris.
- ❑ Working on or near materials affected by extreme temperatures.
  - ❑ Mechanics working on or around hot parts.
  - ❑ Workers performing operations around refrigerant or argon lines.
- ❑ Handling hazardous materials which require the use of hand protection to avoid skin contact, as indicated on the Material Safety Data Sheet (MSDS) for the material, to include but not limited to:
  - ❑ Paints, solvents, adhesives, caustics or corrosives.
  - ❑ Petroleum products such as gasoline, diesel, hydraulic fluids and used motor oil.
- ❑ Working with glass materials where the edges are exposed and present a hazard.
- ❑ Personnel involved in the removal and handling of trash.

**Different exposures require the use of different types of gloves. Evaluate each situation to ensure which is the appropriate type of hand protection to use**

**Legs, Thighs, Knees, Shins, & Ankles**

- ❑ Overalls or pants must not have loose, torn or dragging fabric.
- ❑ Pointed tools shall not be carried in pockets.
- ❑ A canvas or leather tool sheath hung from the belt is acceptable - Tools should be carried all points down.

**Feet & Toes**

- ❑ Sturdy, leather work shoes/boots shall be worn by all personnel unless otherwise documented and/or posted.
- ❑ For personnel required to repetitively handle loads in excess of 35 pounds, steel-toed safety boots/shoes are required.
- ❑ All personnel conducting tamping and air hammering processes shall wear metatarsal and steel-toed guards.

**Hearing Protection**

See Chapter C-3 – Hearing Protection

**Respirators**

See Chapter C-4 – Respiratory Protection

## **EYE AND FACE PROTECTION SAFETY GUIDELINES**

### **Introduction**

Every day in the United States, there are about 1,000 eye injuries occurring in the workplace. Over 100,000 disabling eye injuries occur annually; that means that a disabling eye injury occurs every five minutes. At least 9 out of 10 can be prevented.

Eye injuries account for the most frequent type of injury on projects where eye protection is not required. On jobsites with mandatory eye protection, eye injuries are almost non-existent. In other words, most eye injuries are preventable.

### **Causes of Eye Injuries**

- Flying Objects – such as sawdust or metal slivers
- Chemicals or other corrosive liquids – such as wet concrete or form oil
- Protruding Objects – such as nails or tie wire
- Dirt or Dust Particles – that scratch or irritate the eye surface
- Molten Metal – from welding or burning
- Poisonous Gas or Fumes

### **The Policy**

All site personnel must wear ANSI Z-87 approved eye protection at all times. The only exception is if it can be indisputably determined that the wearing of eye protection will inherently increase the potential for an injury, then each superintendent may excuse an individual from the requirements of this policy only during the period and for the activity that the increased potential for injury exists. The determination for this exception will be made only by the site superintendent and only with the pre-approval of the Regional Safety Manager. Furthermore, it will be executed on a strict case-by-case basis, fully documented in a thorough JHA (listing the exact danger for wearing the eye protection), and signed by each individual included in the activity. Inconvenience will not be an acceptable reason for the execution of this exemption to our 100% eye protection policy. (i.e. If dust on the lenses is the increased hazard, we should look at controlling the dust rather than waiving the requirement.) As with all other HSWC PPE requirements, even individuals temporarily excused from the eye protection policy must have eye protection with them and available at all times.

ANSI approved over-the-glass (OTG) goggles may be worn over non-ANSI approved prescription eyewear to meet HSWC approval. All non-prescription eye protection including spectacles, goggles, & face shields will be ANSI approved and provided by HSWC.

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When needed, approved eye protection plus a face shield will be worn for double eye protection. Secondary eye protection should be considered when doing the following work activities:

- Chipping.
- Grinding.
- Striking.
- Sawing.
- Handling hazardous materials.
- Using compressed air for cleaning.
- Performing activities where eye protection is recommended by the manufacturer of a tool, machine or equipment.

Sunglasses that are not ANSI approved shall not be worn as eye protection. Reading spectacles that do not fully cover the eyes are not approved.

### **Clarification of OSHA Rules**

**ANSI Z-87 Rating** – This rating assures that the frame and lens will withstand substantial impact. The problem with regular prescription glasses or sunglasses is that the frame will not stand a significant impact. Often during impact, the frame will break and the lens will impact the eye and cause injury. Approved eyewear will be labeled with a Z-87 marking somewhere on the safety glass frame. If a person needs prescription glasses, he/she has an option of wearing Z-87 protection Over the Glasses (OTG) which fit over the prescription glasses or preferably will purchase a set of Z-87 approved prescription glasses.

**Side Shields** – It is also a requirement that Z-87 glasses be equipped with approved side shields. These side shields must also meet certain strength requirements. Make sure that you purchase approved side shields; the thin plastic side shields such as those manufactured by Boutan do not meet the standards.

**Further Protection** – Sometimes regular safety glasses do not provide adequate protection. **Goggles** may be needed to protect the eyes from exposure from airborne dust particles or from liquid splashes. A **face shield** over the safety glasses is needed to protect the entire face from flying debris during grinding, chop saw cutting, or blow-down operations.



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**HEARING PROTECTION GUIDELINES**

Protection against occupational noise exposure is required when sound levels exceed 85 dba.

Wherever it is not feasible to reduce the noise levels or duration of exposures to noise, protective device for hearing conservation shall be used.

Protective devices for hearing conservation inserted in the ear shall be fitted individually. Plain cotton is not an acceptable protective device.

All HSWC employees shall be protected against the effects of exposure to noise, which exceeds the permissible noise exposure shown in the table, listed below.

**Permissible Noise Exposures**

Duration per day - Hours	Sound Level - dba
8	85
6	87
4	90
3	92
2	95
1.5	97
1	100
0.75	102
0.5	105
0.25	110

*Note: For the purpose of this table, the sound levels in decibels are measured on a standard sound level meter operating on the weighing network with slow meter response.*

When employees are subjected to sound exceeding those listed, feasible administrative or engineering controls shall be utilized. If such controls fail to reduce sound levels within the permissible levels, personal protective equipment shall be provided and used to reduce sound levels within the levels of the table. Insert-type ear protectors shall be initially fitted by a person trained in this procedure.

In all cases where the sound levels exceed the values shown, it is recommended that employees be provided with an audiometric examination at the time of employment and at reasonable intervals thereafter not exceeding an 18-month period and be informed of the test results by an authorized person.

Any area or operation that exposes employees to noise in excess of 85 dba shall be posted as "High Noise Area" or "Hearing Protection Required."

In areas posted as "Hearing Protection Required" or "High Noise Area", hearing protection shall be provided and worn at all times. For temporary high noise work areas (85 dba), area shall be barricaded and hearing protection provided to anyone requiring access.

HSWC shall ensure that any employee exposed to 85 dba (eight-hour TWA) shall be enrolled in a comprehensive Hearing Conservation Program.

## RESPIRATORY PROTECTION

### Policy

Employee exposure to possible hazards of airborne contaminants and/or oxygen deficient environments must eliminate those hazards by engineering controls such as enclosure of the operation, ventilation or substitution of less toxic material. When that effort is not successful HSWC employees will employ the use of respirators up to and including supplied air systems for personal protection against airborne contaminants (dust, fumes, sprays, gases, etc.) and oxygen deficient environments. Any use of respirators must adhere to the following guidelines.

### Responsibilities

It is the responsibility of the Superintendent and Foreman (1) to identify which areas require the use of respiratory equipment. (2) provide the needed respiratory equipment. (3) To ensure that all personnel under his/her supervision are completely knowledgeable of the respiratory protection requirements for the areas in which they work. (4) Ensure that his/her subordinates comply with all applicable facets of the respiratory program and (5) to ensure that employees follow the procedures and steps provided for in the Job Hazard analysis (JHA) for that phase of construction.

Assistance in determining the need for the appropriate respiratory protection will be provided by the Regional Safety Manager or his/her designee. This should be addressed in the pre job planning process.

Employees are responsible for (1) maintaining an awareness of the respiratory protection requirements for their work area, (2) cleaning and inspecting their own equipment, and (3) wearing the appropriate respiratory equipment as required.

Respirators are to be worn when working with or exposed to gases, fumes, vapors or dust above the OSHA/DOSH (formerly WISHA) permissible exposure limit (PEL). OSHA's PEL are typically identified on the MSDS's.

### Availability of Respirators

Each employee that requires a respirator will be issued at the company's expense with replacement parts, cartridges and filters. Respirators and cartridges shall be available at the jobsite. The type of respirator and cartridges required must be identified in the job Phased Safety Planning process and through the use of MSDS's.

## Use of Respirators

For each task that requires a respirator, the employee shall wear an approved respirator, properly fitted at all times while performing an operation defined as hazardous; or in the immediate area for an extended period of time where another employee is performing a hazardous operation. Hazardous operations will be determined by the Foreman or Superintendent in the Phased Safety Planning process and the Job Hazard Analysis (JHA). Assistance in evaluating operations is available from the Regional Safety Manager or his/her designee.

The following operations are examples that should be considered hazardous:

- Use of chemicals that the MSDS requires or states that respirator protection shall be worn.
- Entrance into a confined space where the air monitor indicates a potential airborne contaminant, oxygen deficiency/enrichment or other atmospheric hazard.
- Appropriate signage requirements, i.e. confined space.

Every attempt to engineer the hazard out of the environment will be taken into consideration before respirators are determined to be used for the protection of the worker.

## Medical Examination

Each employee who is required to wear a respirator shall be given a medical examination to determine if they are medically and physically able to perform the task and use the equipment. A Respirator Medical Evaluation Questionnaire (Form C-4-a) will be completed by the employee prior to the physical. Only Industrial Medical Doctors are eligible to conduct this evaluation. A listing of eligible doctors/facilities is available through the Regional Safety Manager.

Workers may be sent to US Health Works Medical Group for medical evaluation and fit testing. Your Site Specific Safety Plan will have the number of the nearest clinic to the job site for your convenience.

## Selection of Respirators

Only NIOSH approved respirators are to be used in this program. The choice between these respirators is dependent upon the airborne contaminant present, the hazardous operation performed, and on the basis of comfort and ease of obtaining a proper individual fit. HSWC will provide required respirators and maintain a supply on the jobsite. The useful life of each respirator will depend mainly on the employee's job duties, the actual time the unit is in use and manufacturer recommendations.

These respirators are also noted to have the following limitations:

- **Filtration (negative pressure) respirators do not protect employees in low oxygen environments.**
- Negative pressure respirators, with cartages for specific hazards are limited to a concentration of 10 times the Permissible Exposure Limit (PEL).

## Training of Employees

Each respirator user will be shown and trained how to use and maintain the respirator based on that respirator's use, its limitations and maintenance (based on manufacturer's recommendations). This training will be given by a Site Safety Manager, Regional Safety Manager or his/her designee, and documented (C4-c). Training will be repeated annually and when there is a recognized need or change in the environment that warrants the training. (Refer to the WAC 296-842 Respirators)

Employee's training shall consist of the following:

- Instruction on possible airborne contaminants and oxygen deficient atmospheres.
- Fitting instructions (including demonstration in how the respirator should be worn and adjusted).
- The respirator user must read, understand and be able to apply the contents of this respirator program in the daily use, care and safekeeping of the assigned respirator.

Copies of the Respiratory Protection Program will be available at all HSWC projects located in Chapter C of the Resource Safety Manual.

## Fitting of Respirators

Proper fitting of respirators is essential for employees to receive the protection for which this program is designed. Air that passes around the edges of the respirator, rather than through it, is not filtered air.

In order to ensure a good face seal, the following rules must be observed:

- The respirator and straps must be in place and worn, in the appropriate position (manufacturer's procedures). To adjust headbands, pull the free ends tight until a comfortable fit is obtained. All straps shall be secure.
- To adjust face piece properly, simply position chin firmly in the chin cup and manually shift rubber mask until the most comfortable position is located. Make final adjustments in the headband and do not break the nasal seal. Modification to the respirator or straps shall not be made.
- Proper fit must be checked each time that the respirator is worn according to the manufacturer's instructions. Respirators shall not be worn when projections under the face piece prevents a good face seal. *Note: Such conditions may be a growth of beard, sideburns, and temple pieces on glasses or skull cap that projects under the face piece. Wearing of contact lenses in contaminated atmospheres with a respirator shall not be allowed. No employee who is required to wear a respirator may have a beard.*
- The fitted respirator must be tested using the appropriate qualitative fit tests. For example, Isoamyl acetate (also called banana oil) should be used to check respirator fit when using organic vapor respirators by determining if the wearer can detect the banana oil odor. Irritant fume tests can be used with particulate respirators to insure proper fit. This test is to be performed annually, and whenever type of respirator assigned to the employee changes.

In the event an employee is unable to obtain a satisfactory fit with the type of respirator furnished, efforts must be made to correct the problem (i.e. use of different brand of respirator).

## Maintenance of Respirators

Respirators should be cleaned after each day's use, placed in a plastic bag and stored in the container provided for this purpose.

When respirators need to be cleaned and disinfected, the following procedures shall apply:

- Remove the air-purifying elements from the respirator. Air purifying elements must never be washed or disinfected;
- Immerse the respirator in a warm (NIOSH recommends a maximum of 110 degrees F) aqueous solution of a germicidal detergent. The respirator face piece and parts may be scrubbed gently with a cloth or soft brush. Make sure that all foreign matter is removed from all surfaces of the rubber exhalation valve flap and plastic exhalation valve seats;
- After washing and disinfecting the respirator, rinse the same with clean, warm (NIOSH recommends a maximum of 110 degrees F) water and then allow the respirator to dry.
- After the respirator is dry, attach the air-purifying elements.
- Store the respirator in the container provided for that purpose.

Any malfunction on the respirator shall be reported to the jobsite Superintendent. Replacement parts will be made available from the jobsite as needed.

After normal use, respirators shall not be hung on the wall they must be stored in its plastic bag and in a provided container.

In storing the respirator, the face piece and exhalation system must be in a normal position so as to prevent the abnormal set of elastomer parts during storage.

Each worker assigned to use a respirator shall maintain and routinely inspect it before and after each use. Respirators should be inspected routinely by the job site Foreman to assure that it is kept clean and in satisfactory working condition.

Respirator inspection shall include:

- Tightness of connections
- Integrity of face piece
- Integrity of head bands
- Integrity of cartridges
- Integrity of valves
- Pliability of rubber or elastomer
- Deterioration of rubber or elastomer

*NOTE: Stretching and manipulating rubber or elastomer parts with a massaging action will keep them pliable and flexible and prevent them from deforming during storage.*

Worn out, defective or damaged parts are to be replaced immediately.



### **Respirator Program Evaluation**

The Regional Safety Manager or his/her designated representative, and/or Project Safety Manager shall monitor the effectiveness of this program by:

- Frequent unscheduled observation of employee activities throughout the various projects to confirm proper respirator use.
- Periodic observation of and discussion with new employees to confirm proper training has been carried out.
- Periodic discussion with Foremen and Superintendents during safety inspections.

### **Respirator Medical Evaluation Questionnaire**

The following respirator medical evaluation questionnaire is a sample of the questionnaire used by US Health Works and is required to be filled out by the worker. The worker will be provided with this form when visiting the clinic. When the form is completed and evaluated by the Medical Professional, the worker may be directed to get a physical.

### **Qualitative Respirator Fit Test Record**

The following qualitative respirator fit test record (C-4-b) is a sample of the record that US Health Works will fill out during the workers fit test process. A copy of this form or a corresponding copy of a wallet type card indicating the completion of the fit test is required to be available on the job site.



**Occupational Safety and Health Administration (OSHA)  
Respirator Medical Evaluation Questionnaire  
(App. C 1910.134)  
Mandatory**

**TO THE EMPLOYER.** Affirmative answers to questions in Part A Section 2, except question 9, require a medical examination.  
**TO THE EMPLOYEE.** Can you read?  Yes  No Your employer must allow you to answer this questionnaire during normal working hours, or at a time and place that is convenient for 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 that will review it.

**Supplemental Information.** To be provided by the employer regarding the use of respirator and the working conditions.

1. Employer Representative: \_\_\_\_\_ Telephone: \_\_\_\_\_

2. Respirator Type \_\_\_\_\_ Weight \_\_\_\_\_ Duration of Use \_\_\_\_\_ Frequency of Use \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Expected physical effort:  Light Effort (Sitting/standing while writing, performing light assembly work; or controlling machines)  
 Moderate Effort (Sitting/standing/walking using tools, performing assembly work, lifting/pushing moderate loads)  
 Heavy Effort (Lifting heavy loads (>35lbs.); shoveling; walking up an 8° grade, climbing stairs with a load)

Expected use of additional protective clothing and/or equipment while using the respirator.  Yes  No

If yes, describe: \_\_\_\_\_

Expected working conditions: Temperature Extremes Low: \_\_\_\_\_ °F High: \_\_\_\_\_ °F  
 Humidity Extremes Low: \_\_\_\_\_ % High: \_\_\_\_\_ %

**Part A. Section 1.** To be completed by all applicants/employees selected to use any type of respirator. Please print.

Name		Social Security #		Sex <input type="checkbox"/> Male <input type="checkbox"/> Female		Date
Address			City	State	Zip Code	Job Title
Telephone ( )	Best time to reach you at this number	Date of Birth		Age	Height (ft. in.)	Weight (lbs)

1. Has your employer told you how to contact the health care Professional who will review this questionnaire?  Yes  No If \_\_\_\_\_

2. Check the type of respirator you will use. (Check all that apply)  
 N, R, or P disposable respirator  
 Other types (i.e. half or full-facepiece, powered-air purifying, supplied-air, self-contained breathing apparatus). \_\_\_\_\_

3. Have you worn a respirator?  Yes  No  
 If Yes, list what type(s) \_\_\_\_\_

**Part A. Section 2.** To be completed by all applicants/employees selected to use any type of respirator. Please circle Yes or No.

<p>1. Do you currently smoke tobacco, or have you smoked tobacco in the last month? Yes No</p> <p>2. Have you ever had any of the following conditions?                  a. Seizures (fits): Yes No                  b. Diabetes (sugar disease): Yes No                  c. Allergic reactions interfering with your breathing Yes No                  d. Claustrophobia (fear of closed-in places): Yes No                  e. Trouble smelling odors: Yes No</p> <p>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</p>	<p>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. Other lung problems you've been told about? Yes No</p> <p>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</p>
---	--

- |   |   |
|---|---|
| <p>d. Have to stop for breath when working at your own pace on level ground: Yes No</p> <p>e. Shortness of breath when washing or dressing yourself: Yes No</p> <p>f. Shortness of breath interfering with your job: Yes No</p> <p>g. Coughing producing phlegm (thick sputum): Yes No</p> <p>h. Coughing that wakes you early in morning: Yes No</p> <p>i. Coughing that occurs mostly when you are lying down: Yes No</p> <p>j. Coughing up blood in the last month: Yes No</p> <p>k. Wheezing: Yes No</p> <p>l. Wheezing that interferes with your job: Yes No</p> <p>m. Chest pain when you breathe deeply: Yes No</p> <p>n. Any other symptoms that you think may be related to lung problems: Yes No</p> <p>5. Have you ever had any of the following cardiovascular or heart problems?</p> <p>a. Heart attack: Yes No</p> <p>b. Stroke: Yes No</p> <p>c. Angina: Yes No</p> <p>d. Heart failure: Yes No</p> <p>e. Swelling in your legs or feet (not caused by walking): Yes No</p> <p>f. Heart arrhythmia (heart beating irregularly): Yes No</p> <p>g. High blood pressure: Yes No</p> <p>h. Other heart problems you've been told about: Yes No</p> <p>6. Have you ever had any of the following cardiovascular or heart symptoms?</p> <p>a. Frequent pain or tightness in your chest: Yes No</p> | <p>b. Pain or tightness in your chest during physical activity: Yes No</p> <p>c. Pain or tightness in your chest that interferes with your job: Yes No</p> <p>d. In the past two years, have you noticed your heart skipping or missing a beat: Yes No</p> <p>e. Heart burn or indigestion not related to eating: Yes No</p> <p>f. Any other symptoms that you think may be Related to heart or circulation problems: Yes No</p> <p>7. Do you currently take any medication for any of the following problems?</p> <p>a. Breathing or lung problems: Yes No</p> <p>b. Heart problems: Yes No</p> <p>c. Blood pressure: Yes No</p> <p>d. Seizures (fits): Yes No</p> <p>8. Have you ever used a respirator? Yes No</p> <p>If Yes, have you had any of the following problems?</p> <p>a. Eye irritation: Yes No</p> <p>b. Skin allergies or rashes: Yes No</p> <p>c. Anxiety: Yes No</p> <p>d. General weakness or fatigue: Yes No</p> <p>e. Any other problems that interfere with your use of a respirator: Yes No</p> <p>9. Would you like to talk to the health care professional who will review this questionnaire about your answers? Yes No</p> |
|---|---|

**Questions 10 to 15 must be completed by all applicants/employees selected to use either a full-facepiece respirator or a self-contained breathing apparatus (SCBA). For employees selected to use other types of respirators, answering these questions is voluntary. Please circle Yes or No.**

- |   |  |
|---|--|
| <p>10. Have you ever lost vision in either eye (temporarily or permanently)? Yes No</p> <p>11. Do you currently have any of the following vision problems?</p> <p>a. Wear contact lenses: Yes No</p> <p>b. Wear glasses: Yes No</p> <p>c. Color blind: Yes No</p> <p>d. Any other eye or vision problem: Yes No</p> <p>12. Have you ever injured your ears, including a broken ear drum? Yes No</p> <p>13. Do you currently have any of the following hearing problems?</p> <p>a. Difficulty hearing: Yes No</p> <p>b. Wear a hearing aid: Yes No</p> <p>c. Any other hearing or ear problem: Yes No</p> <p>14. Have you ever had a back injury? Yes No</p> | <p>15. Do you currently have any of the following musculoskeletal problems?</p> <p>a. Weakness in any of your arms, hands, legs, or feet: Yes No</p> <p>b. Back pain: Yes No</p> <p>c. Difficulty fully moving your arms and legs: Yes No</p> <p>d. Pain or stiffness when you leaning forward or backward at the waist: Yes No</p> <p>e. Difficulty fully moving your head up or down: Yes No</p> <p>f. Difficulty fully moving your head side to side: Yes No</p> <p>g. Difficulty bending at your knees: Yes No</p> <p>h. Difficulty squatting to the ground: Yes No</p> <p>i. Climbing a flight of stairs or a ladder carrying more than 25 lbs: Yes No</p> <p>k. Any other muscle or skeletal problem that interferes with using a respirator: Yes No</p> |
|---|--|

Patient Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Healthcare Professional**

Name \_\_\_\_\_

Address \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_



**QUALITATIVE RESPIRATOR FIT TEST RECORD**  
(Industrial Hygiene and Safety Consulting)

Employee's Name:
Social Security No.:
Job Title:
Department:

<b>Prescription Glasses Required?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No	<b>Presence of Dentures?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Presence of Facial Hair?</b> (If "Yes", specify) <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Beard <input type="checkbox"/> Mustache <input type="checkbox"/> Other


TEST RECORD			
Respirator Manufacturer	Type	Model	Size
<b>Test Agent:</b> <input type="checkbox"/> Irritant Smoke <input type="checkbox"/> Isoamyl Acetate <input type="checkbox"/> Bitnex™ <input type="checkbox"/> Saccharin Mist			

1. Initial fit OK?
2. Positive Pressure Check
3. Negative Pressure Test Check
4. Exercise Regime
  - a. Normal Breathing (1 Minute)
  - b. Deep Breathing (1 Minute)
  - c. Turning Head Side to Side (1 Minute)
  - d. Moving Head Up and Down (1 Minute)
  - e. Reading (Rainbow Passage, etc.)
  - f. Bend Over or Jog in Place (1 Minute)
  - g. Normal Breathing (1 Minute)
5. Fit Satisfactory     Yes     No

TEST		
1	2	3
P F	P F	P F
P F	P F	P F
P F	P F	P F
P F	P F	P F
P F	P F	P F
P F	P F	P F
P F	P F	P F
P F	P F	P F

<b>Employee:</b> (Signature)	<b>Date:</b>
<b>Fit Test Operator:</b> (Signature)	<b>Date:</b>

ST 1032 (Rev. 2/05)

	<p><b>RESPIRATOR TRAINING, WAC 296-842-160</b></p> <p>EMPLOYER: HOWARD S. WRIGHT CONSTRUCTOR</p> <p>JOB NAME: _____ JOB NO: _____</p> <p>SUPERINTENDENT: _____</p>
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DATE:	DAY:	TIME:
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EMPLOYEE NAME:	EMPLOYEE JOB TITLE:	EMPLOYEE SOCIAL SECURITY NUMBER:
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**TRAINING RECORD**

TRAINING	<ul style="list-style-type: none"> <li><input type="checkbox"/> Possible Exposures             <ul style="list-style-type: none"> <li><input type="checkbox"/> Silica</li> <li><input type="checkbox"/> Lead</li> <li><input type="checkbox"/> Asbestos</li> <li><input type="checkbox"/> Vapors</li> </ul> </li> <li><input type="checkbox"/> Respirator Use             <ul style="list-style-type: none"> <li><input type="checkbox"/> MSDS</li> <li><input type="checkbox"/> Correct Cartridges</li> <li><input type="checkbox"/> Factors That Effect Fit</li> <li><input type="checkbox"/> Cartridge Replacement</li> <li><input type="checkbox"/> Daily Inspection – Valves, straps, mask</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Safe Work Practices             <ul style="list-style-type: none"> <li><input type="checkbox"/> Wash hands before eating</li> <li><input type="checkbox"/> Eat and drink in non-contaminated area</li> <li><input type="checkbox"/> Keep respirator clean</li> <li><input type="checkbox"/> Use the correct respirator and cartridge</li> <li><input type="checkbox"/> Wear protective clothing</li> </ul> </li> <li><input type="checkbox"/> Annual</li> <li><input type="checkbox"/> Refresher, update</li> <li><input type="checkbox"/> Discuss: Why respirator is necessary:             <ul style="list-style-type: none"> <li><input type="checkbox"/> Respirator capabilities and limitations</li> <li><input type="checkbox"/> Proper fit, use and maintenance</li> <li><input type="checkbox"/> How to don/doff, inspect and check seal</li> <li><input type="checkbox"/> How to clean, disinfect, repair and store</li> </ul> </li> </ul>
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## **GENERAL FALL PROTECTION GUIDELINES**

### **Introduction - Workers' Responsibilities**

Fall protection is not just the equipment used to protect us from a fall. Nor, is it the equipment used to protect us during the fall. It is what you do to eliminate hazard that causes the fall. Additionally, the equipment, the system and the Fall Protection Work Plan should ensure that workers who do fall aren't injured.

Employees assigned to work at elevated heights are responsible for properly using the fall protection systems established at the work site.

Employees are also responsible for thoroughly inspecting the personal fall protection system in its entirety before each use.

Each employee is responsible for notifying his/her immediate supervisor of any situations where fall protection systems cannot be used, where fall protection systems are needed, where fall protection systems are being used incorrectly or not at all (even by subcontractors), or where changes in work conditions change the fall protection needs.

Employees must never expose themselves to a fall hazard without the proper fall protection system in place.

Employees are not permitted to use faulty, damaged fall protection equipment or equipment that is not design for use as part of a fall protection system.

### **The "6 Foot Rule" (4 feet for guard rails)**

Without a doubt, one of the most frequent and potentially life threatening hazards found on construction sites is falls. ***All workers on any HSWC jobsite, when exposed to a hazard of falling from a location 6 feet or more, from one level to a lower level, must use fall protection.*** Although DOSH/OSHA allows circumstances where fall protection may not be required until 7 ½ feet, 10 feet, or more, at HSWC we require fall protection at all times with an exposure of 6 feet or more. This rule applies to all subcontractor employees as well. JHA's and Fall Protection Work Plans must be developed to provide a plan and guidance.

### **Zero Tolerance Policy – Fall Protection**

Because the potential for serious injury and death is so great with a fall, HSWC has a zero tolerance policy when it comes to using fall protection. It is very likely that you will be dismissed from employment at HSWC for a violation of this policy and subcontractor employees will be dismissed from HSWC projects. Utilize "Employee Disciplinary Action" in Section A-1 and "Subcontractor Disciplinary Action" in Section A-2 for any compliance / disciplinary proceedings. **Due to the seriousness of this issue, when an exposure is observed, remove the worker from exposure to the hazard and notify their supervision.**



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## PREFERRED METHODS FOR FALL PROTECTION

### References:

- WAC 296-155- Part C-1, Fall Restraint and Fall Arrest Part K, Floor Openings, Wall Openings and Stairways
- OSHA, Code of Federal Register, CFR part 1926 Safety and Health Regulations for Construction, Sub Part M

**Always check the current state or federal codes for any updates**

A Personal Fall Arrest System (PFAS, i.e. harness and lanyard, connectors and anchorage) should be considered a last resort for providing fall protection. The following “passive” methods are preferred over PFAS.

- ❑ Guardrails
- ❑ Scaffolding
- ❑ Fabricating on the ground, processes that eliminate fall hazards.
- ❑ Catch Platforms
- ❑ Aerial lifts and Scissor Lifts
- ❑ Safety Nets.

### Floor Hole and Floor Opening Requirements

Any floor hole (1-12 inches) or opening 12 inches or more in its least dimension must be protected

Floor hole or opening cover must support at least 2 times the intended load

Floor hole or opening cover must be secured or have cleats holding it in place

Covers must be visibly marked “hole” or “cover” or other identifying means that all potentially exposed workers recognize

### Guardrail Requirements

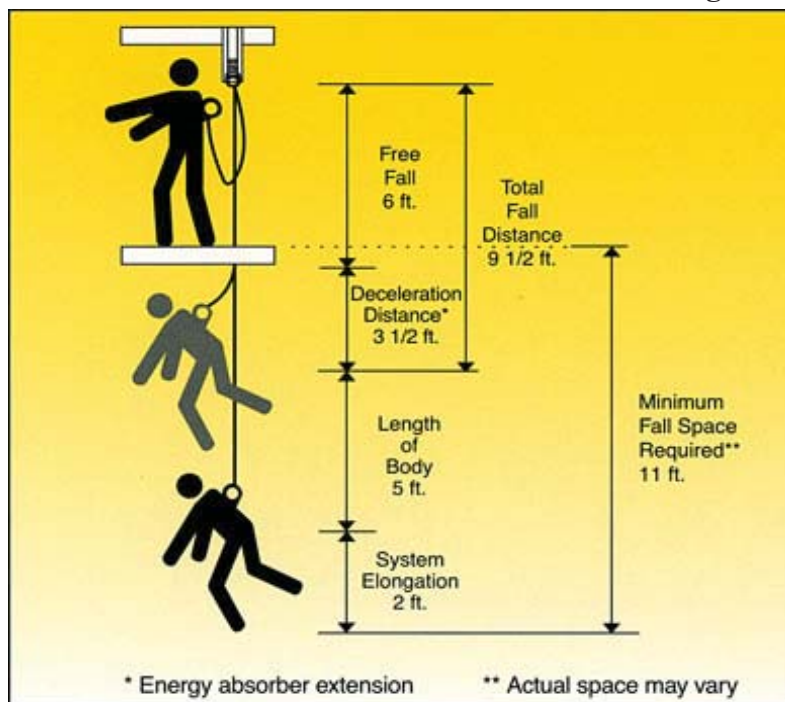
- ❑ Top rail 42 inches – plus or minus 3 inches
- ❑ Mid rail – 19 to 21 inches
- ❑ Top rail must be able to withstand 200 pounds of pressure from any direction.
- ❑ No projection hazard, nails, splinter, saw cuts, etc.
- ❑ If wire rope is used for guard rail system, the sag may not drop to less than 39 inches when 200 pounds of downward pressure is applied to the top rail. The wire rope must be taut, less than 2 degrees sag according to the WAC 296-155-505 (7) (b) (iv)
- ❑ Wire rope must be at least 1/2 inch fibre core wire rope

See Chapter D-6 for more information on guardrails.

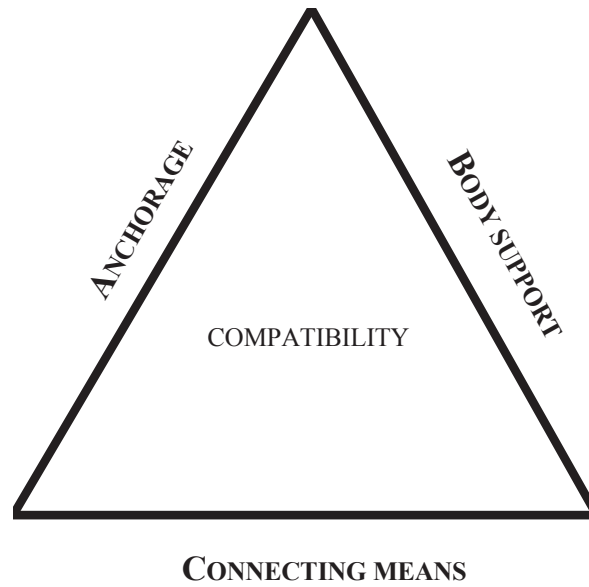
## PERSONAL FALL ARREST SYSTEMS (PFAS)

### PFAS Requirements

- ❑ PFAS includes a Harness, Lanyard, Connector and Anchorage.
- ❑ Maximum arresting force or impact to the worker in the event of a fall is 1800 pounds, according to ANSI guide lines . This is accomplished by using a shock absorbing lanyard (SAL) or a self-retracting lifeline (SRL). **Caution; do not connect a SAL to an SRL unless the manufacturer allows or designs their system to do so.**
- ❑ Free fall distance cannot exceed 6 feet
- ❑ Attachment point (“D ring”) of the harness is at the center of the back
- ❑ Deceleration distance of the shock absorbing mechanism must be less than 3 ½ feet.
- ❑ The system must be sufficient strength to withstand twice the impact energy
- ❑ Always be aware of the location of your anchorage point in conjunction to your total fall distance to ensure there is no contact with the lower level. **See figure below**



**The PFAS Triangle**



## **Anchorage**

### **Anchorage Checklist**

#### **Strength**

- Is the anchorage factory rated or “engineered” for fall protection use?
- Will it support 5000 pounds per worker if it is not an engineered system?

#### **Height**

- Is the anchorage at waist level or higher?
- Does the anchorage height (location) limit the free fall distance to less than 6feet?
- Will the anchorage height prevent contact with a lower surface?

#### **Location**

- Is the anchorage placed to provide minimum swing (pendulum) distance?
- Is the system “continuous by design” to eliminate the need for the worker to unhook while traveling? Double Lanyard required for 100% Fall Protection
- Is the worker exposed to a fall hazard getting to anchorage point?

#### **Shape/Design**

- Is the anchorage compatible with the lanyard snap hook?

#### **Usage**

- More than one worker? Must support 5000 pounds per worker for fall arrest.
- Is fall protection separate from load-bearing anchor?
- If a knot is needed, are the workers trained in proper knots?
- Is the lanyard long enough to reach your work?
- Will the other use (i.e. material stocking) decertify the anchorage? Subcontractors may use anchorage only if engineered or installed per the manufacturer.

#### **Stability**

- Will the Anchorage slip off the end of the attachment?

#### **Independence**

- Are all anchor points independent of each other?

#### **If a horizontal lifeline**

- Is it engineered?
- Will the line sag cause the worker to free fall over 6 feet or contact a lower surface?

**Anchorage Don'ts**

- ❑ Don't use an anchorage device that is not designed for fall protection
- ❑ Don't use systems improvised from construction hardware
- ❑ Don't clip the lanyard hook directly onto a flat flange
- ❑ Don't clip the lanyard back into itself unless designed to do so
- ❑ Don't use a knot to tie to your anchor unless you are trained in how to tie the proper knot

**Body Support**

- ❑ Only Full-body harnesses may be used for fall protection. Body Belts incorporated in a full body harness may be used for positioning only
- ❑ Use only the back "D" ring for the attachment point. Side "D" rings are for work positioning only
- ❑ Keep the harness instructions and train the workers on it's use
- ❑ Inspect the harness daily
- ❑ Take good care of the equipment. Store in a dry and clean location.

**Connecting Means**

- ❑ Only double-action snap hook (double locking) lanyards should be used
- ❑ To comply with the "low 1800 lbs impact" rule, use only a shock absorbing lanyard or a self retracting lifeline
- ❑ Do not connect a shock absorbing lanyard to a self-retracting lifeline, unless retractable life line is designed to do so

**Compatibility**

- ❑ Roll-out prevention rule of thumb – for the connection to be compatible, the lanyard hook in a closed position should be able to pass through the connector.
- ❑ Only use components that are designed for commercial fall protection. Do not use sport equipment or rigging equipment.
- ❑ If forced to use construction hardware, make sure that the manufacturer can provide tabulated data to certify the strength. You may use Rigging equipment ONLY if the rigging equipment is dedicated only to workers fall protection. Once rigging has been used for material handling it may NOT be used for fall protection. Rigging must meet the capacity guide lines for fall protection as specified in the WAC 296 155 Part C-1.

### Special Considerations for Horizontal Lifelines (also called catenary or static lines)

- ❑ Horizontal lifelines should be engineered.
- ❑ Due to the engineering principals involved with horizontal lifelines, if the line is stretched too tight, it will create substantial stress on the anchor and lifeline. Most systems require that a “sag” be put in the line to reduce these forces. Make sure that the system has the required sag and that the free fall is limited to 6 feet.
- ❑ Direct attachment to a single anchor point is preferred over the use of a horizontal lifeline.
- ❑ Note the figure below shows the extreme difference in the in the impact of the worker, in the event of a fall, depending on the sag angle of the horizontal lifeline.
- ❑ Horizontal lifelines must only be installed under the supervision of a qualified individual.



### Anchor Loading Varies with Sag Angle of Horizontal Line





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## FALL PROTECTION WORK PLANS

### Policy

HSWC requires that a **Fall Protection Work Plan** be developed at a fall hazard of 6 feet or greater in addition to the requirements of OSHA/DOSH (WISHA) codes.

In addition to any State or Federal requirements, a **Fall Protection Work Plan** is required by HSWC for any:

- Leading Edge Work
- Work on any Roof


### General Requirements

- ❑ A designated Competent Person will develop the Fall Protection Work Plan.
- ❑ The Competent Person Questionnaire must be completed and signed by the Project Management Representative or their designee on site.
- ❑ The Competent Person will complete the Fall Protection Work Plan using the outline provided in this section.
- ❑ The Fall Protection Work Plan shall contain a minimum of the following:
  - ❑ Identification of all fall hazards in the work area.
  - ❑ The method of fall arrest, restraint or positioning to be used.
  - ❑ The correct procedures for assembly, maintenance, inspection, and disassembly of the fall protection system used.
  - ❑ The correct procedures for handling, storage and securing tools and materials.
  - ❑ The method to protect workers below the elevated work area.
  - ❑ A basic plan for the removal of an injured worker.
- ❑ A copy of the plan and documentation of training shall be available at the site.
- ❑ All employees exposed to any fall hazard will be trained on the type of hazard and the methods to be used to prevent or arrest a fall.
- ❑ A personal fall protection system will be provided by HSWC as needed. At a minimum personal fall protection equipment will consist of a full body harness and compatible lanyard, consistent with current regulation; including the use of shock absorbing devices. The anchorage for the personal fall protection must meet the minimum strength requirements of current regulations.
- ❑ The use of a Warning Line shall be used only for leading edge or work on low pitched roofs and shall be fully defined in the fall protection work plan. Where a Safety Monitor may be used, that system must have prior approval of the Regional Safety Manager or his/her designee.
- ❑ Training shall be provided to all workers before any work is started.

- ❑ The Training shall include as needed:
  - ❑ The nature of fall hazards in the work area.
  - ❑ Acceptable fall protection measures.
  - ❑ Guardrail guidelines for fall hazards.
  - ❑ Equipment use and system limitations.
  - ❑ Proper anchor points and tie off techniques.
  - ❑ Methods of determining fall distance to prevent striking a lower level.
  - ❑ Proper use of personal fall arrest equipment/system
  - ❑ Proper care and storage of personal fall protection equipment.
  - ❑ Personal fall protection equipment inspections.
  - ❑ The effects of knots on ropes.
  - ❑ Dangers from cutting or abrasion.
  - ❑ The effect of the angle or degree of sag of horizontal lines.
  - ❑ Any other unique conditions at the worksite.

**Attachments**

- ❑ Competent Person Questionnaire
- ❑ Written Fall Protection Work Plan outline

	<p><b>FALL PROTECTION COMPETENT PERSON</b> QUESTIONNAIRE ON KNOWLEDGE</p> <p>JOB NAME: _____ JOB NO: _____</p> <p>SUPERINTENDENT: _____</p>
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EMPLOYEE NAME:	TITLE:
DATE OF EVALUATION:	LENGTH OF EXPERIENCE IN FALL PROTECTION

**KNOWLEDGE: DOES THIS CANDIDATE HAVE KNOWLEDGE OF FALL PROTECTION IN THE FOLLOWING AREAS:**


FALL HAZARDS	<input type="checkbox"/> YES <input type="checkbox"/> NO
USE OF PROTECTIVE SYSTEMS	<input type="checkbox"/> YES <input type="checkbox"/> NO
CODES AND STANDARDS	<input type="checkbox"/> YES <input type="checkbox"/> NO
FALL PROTECTION WORK PLANS, including the Fall Protection Competent Person Questionnaire	<input type="checkbox"/> YES <input type="checkbox"/> NO
EMERGENCY PROCEDURES	<input type="checkbox"/> YES <input type="checkbox"/> NO
USES AND LIMITATIONS OF FALL PROTECTION EQUIPMENT	<input type="checkbox"/> YES <input type="checkbox"/> NO

**TRAINING: HAS THIS CANDIDATE FOR COMPETENT PERSON RECEIVED TRAINING AS FOLLOWS:**

USE OF FALL PROTECTION EQUIPMENT	<input type="checkbox"/> YES <input type="checkbox"/> NO
INSPECTION OF FALL PROTECTION EQUIPMENT	<input type="checkbox"/> YES <input type="checkbox"/> NO
MAINTENANCE OF FALL PROTECTION EQUIPMENT	<input type="checkbox"/> YES <input type="checkbox"/> NO
STORAGE OF FALL PROTECTION EQUIPMENT	<input type="checkbox"/> YES <input type="checkbox"/> NO
IDENTIFICATION OF FALL HAZARDS	<input type="checkbox"/> YES <input type="checkbox"/> NO
CODES AND REGULATIONS FOR FALL PROTECTION	<input type="checkbox"/> YES <input type="checkbox"/> NO

<b>AUTHORITY</b>	<p>Based on the evaluation, the candidate named above has been approved as a Competent Person and is given the authority to take prompt and corrective measures to eliminate the existing and predictable hazards.</p> <p>As the designated Competent Person they will have the authority to stop work until hazards are corrected, eliminated, or controlled, and to remove employees from the hazardous areas until proper and safe systems are in place.</p>
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COMPETENT PERSON SIGNATURE:	DATE:
HSWC PROJECT MANAGEMENT SIGNATURE	DATE:

	<h3 style="margin: 0;">FALL PROTECTION WORK PLAN</h3>
JOB NAME: _____ JOB NO: _____ SUPERINTENDENT: _____ DATE PLAN PREPARED: _____ COMPETENT PERSON TO SUPERVISE THIS PLAN: _____	

<b>INSTRUCTIONS</b>	Instructions: This plan document is to be used at the work site identified above. This document has been developed and reviewed by competent persons that have an understanding of the regulations. The person named below, as the Competent Person will conduct the implementation and supervision of this plan. A copy of this plan will be used for the training of all workers covered by this plan and work to be performed at the site identified above. A copy of this plan will be made available at all times at this work site.
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<b>HAZARD</b>	FALL HAZARD IDENTIFIED AND COVERED BY THIS PLAN:
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<b>SYSTEM</b>	DESCRIBE THE TYPE OF FALL PROTECTION SYSTEM TO BE USED FOR THE PROTECTION OF THE WORKERS POTENTIALLY EXPOSED TO THE FALL HAZARDS IDENTIFIED ABOVE. (i.e., fall arrest, fall restraint, positioning system)
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<b>METHOD</b>	GIVE A DESCRIPTION OF THE CORRECT METHODS TO BE USED FOR THE ASSEMBLY, DISASSEMBLY, MAINTENANCE AND INSPECTION OF THE FALL PROTECTION SYSTEMS TO BE USED:  INCORPORATE ANY MANUFACTURERS INFORMATION, INCLUDING RECOMMENDATIONS AND LIMITATIONS.
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<b>TOOLS &amp; MATERIALS HANDLING</b>	DESCRIBE THE CORRECT PROCEDURE FOR HANDLING, STORAGE, AND SECURITY OF TOOLS AND MATERIALS:
---------------------------------------	--

<b>OVERHEAD PROTECTION</b>	DESCRIBE THE METHOD OF PROVIDING ANY NEEDED OVERHEAD PROTECTION FOR WORKERS:
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<b>OTHER</b>	OTHER CONSIDERATIONS:
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PLAN WRITTEN BY:	DATE:
COMPETENT PERSON:	DATE:

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## **PERSONAL FALL PROTECTION EQUIPMENT**

A personal fall protection system will be provided by HSWC as needed and in accordance with any Fall Protection Work Plan. These guidelines do not supersede federal, state or local regulations.

Only a safety harness can be used as a part of the fall arrest system. HSWC strictly prohibits the use of body belts, even in a fall restraint system, unless the body belt is incorporated in the full body harness for the purpose of positioning the worker, i.e.; pole/column climbing .

Guidelines for the use of personal fall protection equipment is as follows:

### **Full Body Harness**

- ❑ A full body harness used for any personal fall protection, as part of a fall protection system shall conform to OSHA/DOSH and current ANSI Standards. They must display a tag that includes the harness type, manufacturer, serial number, date of manufacture and ANSI standard.
- ❑ A lanyard used as part of a fall protection system will be used to support only one person. It shall be attached to the “D” ring of the harness used for fall arrest and the other end shall be properly secured to an appropriate anchorage point or safety line.
- ❑ Body harness systems shall be rigged to minimize free fall distance with a maximum free fall distance allowed of 6 feet, and such that the employee will not contact any lower level with any part of the body.
- ❑ The attachment point of the lanyard to the body harness shall be in the center of the wearer's back between the shoulder blades. The lanyard shall never be attached to the side positioning “D” rings, unless for the purpose of positioning the worker.
- ❑ Full body harness systems (fall protection system) shall be inspected prior to each use for mildew, wear, damage, and other deterioration. If defective components are found the harness, lanyard or other component shall be removed from service.
- ❑ In most cases, when using a full body harness and lanyard system, the lanyard shall be secured to anchorages capable of supporting 5,000 pounds per employee. When self-retracting lifelines or other deceleration devices are used which limit free fall to two feet, anchorages shall be capable of withstanding 3,000 pounds.
- ❑ Body harness systems or components subject to impact loading shall be immediately removed from service and shall not be used again for employee protection. All manufacturers recommendation must be followed. Only Self-Retracting Lifelines can be inspected and determined by the manufacturer or competent person to be undamaged and suitable for reuse.



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**Lanyards and Rope Grabs**

- ❑ All lanyards and rope grab systems must display a legible label or tag stating that the device meets ANSI specifications. Custom made lanyards must have documentation to show minimum requirements equal to the requirement of the specifications of ANSI for a standard fall protection lanyard.
- ❑ All safety lines and lanyards shall be protected against being cut or abraded.
- ❑ When vertical lifelines (drop lines) are used, not more than one employee shall be attached to any one lifeline.
- ❑ All horizontal lifelines systems must be installed per the manufacturers instructions. If a job-built system is installed, a registered professional engineer or other qualified person must design the system.
- ❑ Rope grab devices are prohibited for fall restraint applications unless they are part of a fall restraint system designed specifically for the purpose by the manufacturer, and used in strict accordance with the manufacturer's recommendations and instructions.
- ❑ Components of fall protection systems shall be inspected prior to each use for mildew, wear, damage, and other deterioration, and defective components shall be removed from service if their function or strength have been adversely affected.
- ❑ All snap hooks must be a Double Action (double locking) type.
- ❑ Snap hooks shall not be connected to loops made in webbing type lanyards unless so designed.
- ❑ Snap hooks shall not be connected to each other unless so designed.

**Anchorage Points**

- ❑ All anchor points whose strength is not otherwise specified shall be capable of supporting a minimum fall impact load of 5,000 lbs per person.
- ❑ The Competent person, Qualified person or Registered Professional Engineer will evaluate proper anchorage points.
- ❑ Material handling rigging may not be used for fall protection, unless, it has been originally purchased for that purpose and identified as such. If rigging has ever been used for material handling, it may NOT be used for Fall Protection.
- ❑ Designed fall protection anchor points such as roof anchors or window washing anchor points.
- ❑ Structural columns on intermediate building floors or stub columns on roofs.
- ❑ Roof Structures such as mechanical rooms.
- ❑ Parapet clamps attached to reinforced concrete parapet walls on the other side of the building.

**Workers shall *never* tie off to:**

- ❑ Roof vents.
- ❑ Roof hatches.
- ❑ Metal chimneys.
- ❑ Small pipes or ducts.
- ❑ TV or radio antennas.
- ❑ Sprinkler system piping.
- ❑ Stair or balcony railings.
- ❑ Conduits or electrical equipment.
- ❑ **Material handling rigging. See above Anchorage Point exception.**
- ❑ Any other anchorage that does not provide a 5000-pound strength anchorage point.

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A work **Positioning System** is a body belt system rigged to allow an employee to be supported on an elevated vertical surface, such as a wall, and work with both hands free while leaning.

Guidelines for the use of positioning systems is as follows:

- ❑ Positioning devices shall be rigged such that an employee cannot free fall more than 2 feet.
- ❑ Positioning devices 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.
- ❑ Connecting assemblies shall have a minimum tensile strength of 5,000 pounds.
- ❑ Snap-hooks shall be sized to be compatible with the member they are connected to in order to prevent unintentional disengagement of the snap-hook by depression of the snap-hook keeper by the connected member.
- ❑ Only Double Action (double-locking) type snap-hooks shall be used.
- ❑ Positioning device systems shall be inspected prior to each use for wear, damage, and other deterioration, and defective components shall be removed from service.
- ❑ Fall protection components shall be used only for employee protection (as part of a personal fall arrest system or positioning device system) and not to hoist materials.
- ❑ Material handling rigging may not be used for fall protection, unless, it has been originally purchased for that purpose and identified as such. If rigging has ever been used for material handling, it may NOT be used for Fall Protection.

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**Vertical Lifelines**

A vertical lifeline is a component consisting of a flexible line for connection to an anchorage at one end and to hang vertically. It serves as a means for connecting other components of a personal fall arrest system to the worker.

**Guidelines for the use of vertical lifelines are as follows:**

- ❑ In most cases the anchorage for the vertical lifeline must be capable of supporting 5,000 pounds. In some cases, such as when using self-retracting lifelines, the system can automatically limit free fall to two feet or less, the anchorage must be capable of supporting 3,000 pounds.
- ❑ Manila rope or any other natural fiber material rope shall **not** be used for any lifeline.
- ❑ Synthetic material ropes used for lifelines shall **not** be used in any atmosphere, which will be harmful or weaken the strength of the material.
- ❑ All lifelines shall be protected from heat or sparks from any type of hot work.
- ❑ Any lifeline subject to loading from a fall or other occurrence shall be removed from service
- ❑ Icy or frozen lifelines shall not be used.

**Guidelines for the use of rope grabs are as follows:**

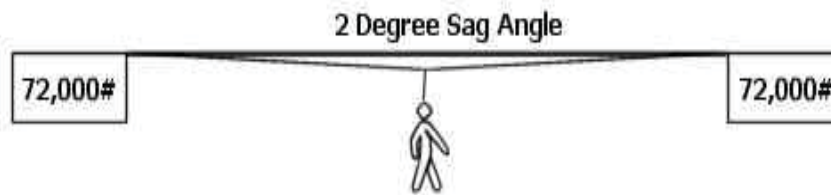
- ❑ Maintain a copy of the manufacturer directions for installation, use and inspection. Use the rope grab only as the manufacturer has prescribed.
- ❑ The fall protection system shall be inspected before each use.
- ❑ Use only the diameter and type of rope approved for use with the rope grab as a lifeline.
- ❑ The lifeline must reach the ground or reach a secure and accessible level above the ground or be knotted, cable clipped or otherwise provided with a positive stop to keep the rope grab from running off the end of the life line.
- ❑ The rope grab and lifeline must be maintained clean and free of debris, dirt, mud or other contaminants that would interfere with the operation of the rope grab.
- ❑ Rope grabs cannot be used as a fall restraint device or used in the horizontal position unless specifically approved by the manufacturer and is part of a complete system of fall restraint.
- ❑ Not more than one lanyard can be used on a rope grab and not more than one person can be on any single vertical lifeline.
- ❑ All snap hooks shall be of the Double Action (double-locking) type.
- ❑ The rope grab shall be attached to the lifeline in a position that assures that any fall distance would be limited to less than six feet. The worker may also shorten the fall distance at each opportunity, to the shortest distance possible.
- ❑ At no time should the workers fall distance allow the worker to strike any object or structure below in the event of a fall.

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- ❑ Rope grabs approved for use on sloped or flat roofs or similar working surfaces should be attached to a life line in a manner that would not allow the worker to fall from the working surface, but would restrain the worker from falling.
  - ❑
  - ❑ In the event that a worker needs to be in fall arrest protection, the lanyard, rope grab and lifeline shall be so installed to restrict the workers fall to less than 6 feet.

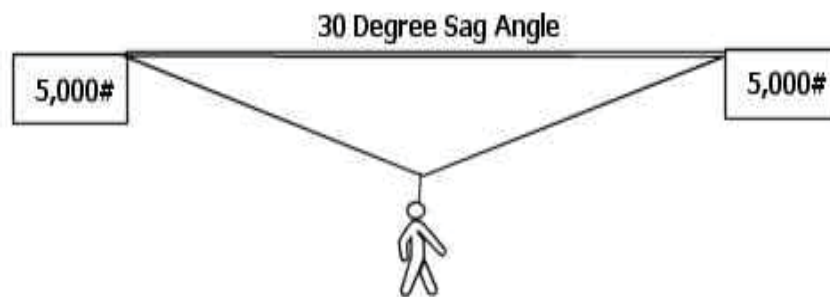
### **Restraint Lines**

- ❑ A restraint line is a line from a fixed anchorage or between two anchorages to which an employee is secured in such a way as to prevent the worker from falling to a lower level.
- ❑ Guidelines for the use of restraint lines are as follows:
- ❑ A restraint line shall be rigged in a way that will prevent the worker from reaching the edge and achieving a free fall.
- ❑ The restraint line system shall be capable of supporting at least four times the intended load.

**Horizontal Lifelines sag angles;**



**Anchor Loading Varies with Sag Angle of Horizontal Line**



**Horizontal Lifelines**

A horizontal lifeline is a component consisting of a line attached to two anchorages in order to stretch horizontally, and which serves as a means for connecting other components of a personal fall arrest system to the anchorage.

**The tendency when installing horizontal lifelines is to stretch the lifeline tight so that there is no sag in the line. The engineering principals that effect this configuration creates increased forces on the system and its anchorages, and has an increased likelihood of failure.**

If the line is stretched tight, it may be necessary to have anchorage and line strength of more than 20,000 pounds or higher, per worker. In order to reduce the loads on the system, engineers often build sag into the line, but the increased sag increases the free fall.

**Horizontal lifeline systems should be designed by a professional engineer or qualified person, or be designed by a fall protection equipment manufacturer.** If this system is used, the installers should strictly adhere to the manufacture installation instructions and tabulated data or the professional engineer's specifications.

**GuardRails (standard)**

The top rail must have a vertical height of 42 inches (plus or minus 3 inches) inches from upper surface of top rail to floor, platform, runway, or ramp level. If the guardrail is installed before pouring the concrete slab, the height of the guardrail should be placed at the upper limits so that the same railing will be in compliance during and after concrete installation. For wire rope



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railings, the top and intermediate railings shall be at least 1/2-inch fiber core wire rope, or the equivalent. The rope shall be stretched taut, so as to present a minimum deflection.

The midrail shall be at a height halfway between the top rail and the floor, platform, runway, or ramp.

A standard toe board shall be 4 inches minimum in vertical height from its top edge to the level of the floor, platform, runway, or ramp. It shall be securely fastened in place and have not more than 1/4-inch clearance above floor level. It may be made of any substantial material, either solid, or with openings not over 1 inch in greatest dimension. 1X4 or 2X4 on edge is acceptable.

Where material is piled to such height that a standard toe board does not provide protection, paneling, or screening from floor to intermediate rail or to top rail shall be provided.

Railings receiving heavy stresses from employees trucking or handling materials shall be provided additional strength by the use of heavier stock, closer spacing of posts, bracing, or by other means.

Each length of lumber shall be smooth-surfaced throughout the length of the railing. The ends of the rails shall not overhang the terminal posts except where such overhang does not constitute a projection hazard.

### **Posts**

Posts shall be installed at eight feet on center for 2X4's. For wire rope, interval that will maintain the guardrail height of at least 39 inches.

The anchoring of posts and framing of members for railings of all types shall be of such construction that the completed structure shall be capable of withstanding a load of at least 200 pounds applied in any direction at any point on the top rail, with a minimum of deflection.

### WARNING LINE SYSTEM INSTALLATION AND USE CHECKLIST

When employees are exposed to a hazard of falling from a location 6 feet or more in height, the supervisor shall promote the use fall restraint, fall arrest systems or positioning systems.

A Warning line system can be used as a form of fall restraint provided the walking working surface does not exceed a 4 in 12 pitch, (low pitched roof or leading edge only).

#### WARNING LINE CHECKLIST

- Complete Enclosure.** The Warning line is to be erected around all open sides of the work area.
- Distance from Fall Exposure.** The Warning line is to be erected at least 6 feet from the edge if no powered equipment is being used. 10 feet if powered equipment is present.
- Mechanical Equipment.** If you are using mechanical equipment in this work area, the Warning lines must be at least 10 feet from the edge, which is perpendicular to the direction of travel of mechanical equipment. (Mechanical equipment Examples: fork lifts powered buggies, power trowels, or crane loads being swung into the area.)
- Access.** Points of access, material handling areas, storage areas and hoisting areas shall be connected to the work area by a path formed by two Warning lines. The path shall have an equivalent to the barricade line across the opening at the work area when the path is not in use.
- Line Strength.** Warning lines shall be made of ropes, wires or chains with a minimum tensile strength of 200 pounds
- Visibility.** The Warning line shall have high-visibility flagging spaced not more that 6 feet apart.
- Height.** The Warning line cannot be higher than 42 inches at any point. The Warning line, including the sag cannot be lower than 36 inches at any point between supports. Attachment to supports must be such that pulling on the Warning line will not affect the barricade line between adjacent supports.
- Stanchion Strength.** The Warning line and its supports must be strong enough, 16 pounds in the direction of the hazard, to effectively warn a person that may be backing up and cannot see the Warning line. The person should be warned of the presence of the Warning line before tipping over the supports.
- Fall Exposure Area.** Employees are not allowed outside the Warning line for any reason without additional fall protection measures including the guidelines of a written **Fall Protection Work Plan.**

All barricade line systems must meet the minimum requirements of this checklist.

## SAFETY MONITOR SYSTEMS

**This System may not be used without the direction and approval of the Regional Safety Manager.** A Safety Monitor System (SMS) may be used in conjunction with a warning line system as a method of guarding against falls during work on **low pitched roofs and leading edge work only**, and where a competent person with no additional duties monitors the proximity of workers to the fall hazard when working between the warning line and the unprotected sides and edges including the leading edge of a low pitched roof or walking / working surface.

### SAFETY MONITOR SYSTEM CHECKLIST

- Fall Protection Work Plan.** A job-specific Fall Protection Work Plan must be written with the Safety Monitor System defined in this plan.
- Competent Person.** The plan must include the name of the Safety Monitor and outline the experience and training the Safety Monitor has in both the Monitor System and Warning Line Systems. Regional Safety Manager approval required.
- Special Conditions.** The special conditions pertaining to the use of the Safety Monitor System must be defined.
- Weather Restrictions.** The Safety Monitor System shall not be used in adverse weather conditions.
- Control Zone.** The Control Zone is the area between the warning line and the fall hazard. Workers in the Control Zone shall be distinguished from other workers by wearing highly visible, distinctive and uniform apparel.

#### **Roles of the Safety Monitor:**

- Competent Person.** Must be a Competent Person as defined by state and federal rules and regulations.
- Control of Work Area.** The Safety Monitor must have control authority over the work as it relates to fall protection.
- Visibility.** The Safety Monitor must be instantly distinguishable over members of the work crew.
- Sole Responsibility.** The Safety Monitor must not engage in any other duties.
- Communication.** The Safety Monitor must be positioned in relation to the crew so as to have clear and unobstructed view of all members of the crew and be able to maintain normal voice communication.
- Limited Crew Size.** The Safety Monitor must not supervise more than eight workers at one time.



### SAFETY MONITOR RECORD

JOB NAME:  
 SUPERINTENDENT:  
 REGIONAL SAFETY MANAGER:  
 AUTHORIZED SAFETY MONITOR(S):

JOB NUMBER:

DATE:

DAY:

TIME:

DESCRIPTION

DESCRIPTION OF THE AREA BEING MONITORED:

AUTHORIZED CREW MEMBERS

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

OTHER COMMENTS

SIGNATURE:

DATE:

### **SKYLIGHT AND FLOOR HOLE PROTECTION**

Wherever there is danger of falling through a skylight opening, and the skylight itself is not capable of sustaining the weight of a two hundred pound person with a safety factor of four, standard guardrails shall be provided on all exposed sides of the skylight.

#### **Guardrails**

When floor openings are protected by guardrails, use the following procedures:

- Floor openings shall be guarded by a standard railing and toe boards (see Chapter D-6).
- The railing shall be provided on all exposed sides, except at entrances to stairways.
- Ladder way floor openings or platforms shall be guarded by standard railings with standard toe boards on all exposed sides, except at entrance to opening, with the passage through the railing either provided with a swinging gate or so offset that a person cannot walk directly into the opening.

#### **Hatchways and Chute Openings**

Hatchways and chute floor openings shall be guarded by one of the following:

- Hinged covers of standard strength and construction and a standard railing with only one exposed side. When the opening is not in use, the cover shall be closed or the exposed side shall be guarded at both top and intermediate positions by removable standard railings.
- A removable standard railing with toe board on not more than two sides of the opening and fixed standard railings with toe boards on all other exposed sides. The removable railing shall be kept in place when the opening is not in use and shall be hinged or otherwise mounted so as to be conveniently replaceable.
- Pits and trap door floor openings shall be guarded by floor opening covers of standard strength and construction. While the cover is not in place, the pit or trap openings shall be protected on all exposed sides by removable standard railings.
- Manhole floor openings shall be guarded by standard covers which need not be hinged in place. While the cover is not in place, the manhole opening shall be protected by standard railings.

**Floor Covers**

When installing floor opening covers, the following procedures should be used:

- Floor holes, into which persons can accidentally walk, shall be guarded by either a standard railing with standard toe board on all exposed sides, or a floor hole cover of standard strength and construction that is secured against accidental displacement. While the cover is not in place, the floor hole shall be protected by a standard railing.
- All floor opening or hole covers shall be capable of supporting the maximum potential load but never less than two hundred pounds (with a safety factor of four).
- All covers shall be secured when installed so as to prevent accidental displacement by the wind, equipment, or employees.
- All covers shall be color coded or they shall be marked with the word "hole" or "cover" to provide warning of the hazard.
- If it becomes necessary to remove the cover, a monitor shall remain at the opening until the cover is replaced. The monitor shall advise persons entering the area of the hazard, shall prevent exposure to the fall hazard and shall perform no other duties.

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**General Ladder Checklist**

- ❑ Choose the right type of ladder for the job
- ❑ Use ladders only for their intended purpose
- ❑ Never tie ladders together to gain additional height
- ❑ Don't use ladders as braces, gangways, or substitutes for planks
- ❑ Metal or wood ladders should never be used for electrical work
- ❑ Make sure you have a stable base – it should be level and stable. Lay down a wood sill if needed. Never set the ladder on boxes, drums, scaffolding or other unstable items.
- ❑ Ask for help when moving heavy or awkward ladders.
- ❑ Protect the base from traffic. Put up barricades or block doors if needed.
- ❑ Store ladders properly when not in use. Prevent them from getting damaged.

**Straight and Extension Ladders**

- ❑ Make sure that it is the proper length. It should extend at least 3 feet (3 rungs) past the working deck
- ❑ Shorter ladders may be needed for short distances
- ❑ Properly installed – feet down and fly section in towards the building
- ❑ Proper slope – distance from building to the base equals  $\frac{1}{4}$  the height of the ladder. To check proper slope, stand with your toes at the base, holding your arms straight out. Your hands should comfortably reach the side rails, and your back should be perpendicular with the ground.
- ❑ The base is more likely to slip out as you near the top of the ladder. If you have any doubt about stability, secure the base or have someone hold it in place while you are climbing.
- ❑ Secure the top of ladder

**Step Ladders**

- ❑ Stepladders should only be used in the full open position with the spreaders locked, and never leaned up against something and used like an extension ladder.
- ❑ Climb only the steps of the ladder, not the back bracing.

**Job-Built Ladders**

- ❑ Side rails of up to 16 feet can be 2x4 lumber, and if longer (maximum of 30') should be 3x6 lumber
- ❑ Rungs should be 2x4 lumber, spaced at 12" intervals, and at least 15" wide.
- ❑ Cleats should be nailed between the rungs at the rails for strength.



**Daily Inspection**

- ❑ Check for damaged rungs or side rails, and loose, broken or bent hardware.
- ❑ Check the conditions of extension ladder ropes and pulleys.
- ❑ **If you think your ladder is defective, do not use it.** Tell your supervisor.
- ❑ Clean the rungs if they are slippery.
- ❑ Ladder repairs should only be done by qualified people using proper replacement parts.

**Climbing and Working on Ladders**

- ❑ Make sure the ladder is secure (see above)
- ❑ If your shoes are muddy or greasy, clean them before climbing.
- ❑ Always face the ladder and use both hands when climbing up or down. Use the 3-point rule: keep at least 2 feet and 1 hand, or two hands and one foot on the ladder at all times.
- ❑ Carry tools in your bags, pocket or belt, or hoist them with a rope.
- ❑ Keep your eyes on the ladder and watch where you put your hands and feet.
- ❑ Stay off the top two rungs on a straight or extension ladder, or the top step and cap a stepladder.
- ❑ Always face the ladder while working on it.
- ❑ Do not leave tools where they could fall on others.
- ❑ Do not drop tools; either carry them in your bags or lower them with a rope. Never lower power tools using the power cord.
- ❑ While working on a ladder, keep your belt buckle within the side rails of the ladder. Never reach out.
- ❑ Never try to move the ladder while you are standing on it.

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## **SCAFFOLDING & STILTS**

This section is reprinted from the Scaffolding Industry Association Code of Safety Practices. These recommendations are intended to be used as guidelines for the use of the following types of scaffolding:

- Frame Scaffolds
- System Scaffolds
- Aluminum Scaffolds
- Tube and Clamp Scaffolds
- Rolling Scaffolds
- Suspended Powered Scaffolds
- Shoring

These guidelines were developed for industry by accordance with recommendation set for by the Scaffold Industry Association, Inc. and the Scaffolding, Shoring and Forming Institute.

### **General Guidelines**

POST THESE SAFETY GUIDELINES in a conspicuous place and be sure that all persons who erect, dismantle or use scaffolding, shoring or suspended powered scaffolding are aware of them.

- ❑ SURVEY THE JOB SITE. A survey shall be made of the job site for hazards, such as uncompacted earth fills, ditches, debris, high tension wires, unguarded edges or openings, exposed electrical wires, potential overload obstacles, possible overhead hazards, and other hazardous conditions created by other trades. These conditions should be corrected or avoided as noted in the following sections.

### **Equipment Inspection**

Inspect all equipment before using. Never use any equipment that is damaged or defective in any way. Mark it or tag it as defective and remove it from the job site.

- ❑ PLAN THE ERECTION SEQUENCE IN ADVANCE and obtain necessary access equipment to safely accomplish the work.
- ❑ SCAFFOLDING, SHORING AND SUSPENDED POWERED SCAFFOLDS, must be erected in accordance with design and/or manufacturers' recommendations, as well as all state, local and federal codes, ordinances and regulations.
- ❑ DO NOT ERECT, DISMANTLE OR ALTER SCAFFOLDING, SHORING OR SUSPENDED POWERED SCAFFOLDING, unless under the supervision of a qualified person.
- ❑ ERECTED SCAFFOLDS SHOULD BE CONTINUALLY INSPECTED by users to be ensured that they are maintained in safe condition. Report any unsafe condition to your supervisor.
- ❑ NEVER TAKE CHANCES. IF IN DOUBT REGARDING THE SAFETY OR USE OF THE SCAFFOLD, SHORING OR SUSPENDED POWERED SCAFFOLD, CONSULT YOUR SUPPLIER.

- ❑ NEVER ABUSE, MISUSE OR USE EQUIPMENT FOR PURPOSES OR IN WAYS FOR WHICH IT WAS NOT INTENDED.
- ❑ DO NOT WORK ON SCAFFOLDING, SHORING OR SUSPENDED POWERED SCAFFOLDING if your physical condition is such that you feel dizzy or unsteady in any way.

**Scaffold Erection and Use**

- ❑ SCAFFOLD AND SHORING BASE MUST BE SET ON AN ADEQUATE SILL OR PAD to prevent slipping or sinking and fixed thereto where required. Any part of a building or structure used to support the scaffold, shoring or suspended powered scaffold, shall be capable of supporting the maximum intended load to be applied.
- ❑ ALWAYS USE BASE PLATES, ADJUSTING SCREWS or other approved methods instead of blocking to distribute the load evenly or adjust uneven grade conditions.
- ❑ USERS MUST BE TRAINED on how to safely operate equipment and how to handle emergency situations. If in doubt, consult a qualified person.
- ❑ CARE MUST BE TAKEN WHEN OPERATING AND STORING EQUIPMENT DURING WINDY CONDITIONS.
- ❑ BRACING, LEVELING & PLUMBING OF SCAFFOLDING AND SHORING -
  - ❑ Plumb, level, AND BRACE all scaffold or shoring as the erection proceeds. Do not force frames or braces to fit; level the scaffold or shoring until proper fit can easily be made.
  - ❑ Each frame or panel shall be braced by horizontal bracing, cross bracing, diagonal bracing or any combination thereof for securing vertical members together laterally. All brace connections shall be made secure, in accordance with the manufacturers' recommendations.
- ❑ GIVE SPECIAL CONSIDERATION TO TEMPORARY LOADING. Areas where material or equipment is to be stored temporarily may need to be strengthened to meet these loads.
- ❑ DO NOT CLIMB CROSS BRACES. Use proper access equipment.
- ❑ LOADS ARE INTENDED TO BE CARRIED BY VERTICAL LEGS. Horizontal loading may require special consideration. Consult your supplier for allowable loads on horizontal members.
- ❑ AVOID ECCENTRIC LOADS on U-Heads, top plates and similar members by centering stringer loads on those members.
- ❑ BRACING, LEVELING & PLUMBING OF TUBE & CLAMP AND SYSTEM SCAFFOLDS
  - POSTS SHALL BE ERECTED PLUMB in all directions, with the first level of runners and bearers positioned as close to the base as feasible. The distance between bearers and runners shall not exceed manufacturer's recommended procedures.
  - FASTEN ALL COUPLERS AND/OR CONNECTIONS securely before assembly of next level.

- VERTICAL AND/OR HORIZONTAL DIAGONAL BRACING MUST BE INSTALLED according to manufacturer's recommendations.
- TIE CONTINUOUS (RUNNING) SCAFFOLDS OR SHORING TO THE WALL OR STRUCTURE at each end and at least every 30 feet of length when scaffold or shoring height exceeds the maximum allowable freestanding dimension.
  - Begin ties or stabilizers when the scaffold or shoring height exceeds that dimension, and repeat at vertical intervals not greater than 26 feet.
  - The top anchor shall be placed no lower than four (4) times the base dimension from the top of the completed scaffold or shoring.
  - Anchors must prevent scaffold or shoring from tipping into or away from wall or structure.
  - Stabilize circular or irregular scaffolds in such a manner that completed scaffold or shoring is secure and restrained from tipping.
  - When scaffolds are partially or fully enclosed or subjected to overturning loads, specific precautions shall be taken to insure the frequency and accuracy of ties to the wall and structure.
  - Due to increased loads resulting from wind or overturning loads, the scaffold component to which ties are subjected shall be checked for additional loads.
- WHEN FREE STANDING SCAFFOLD OR SHORING TOWERS exceed four (4) times their minimum base dimension vertically, they must be restrained from tipping, (CAL/OSHA and some government agencies require stricter ratio of 3 to 1.)
- DO NOT ERECT SCAFFOLD OR SHORING NEAR ELECTRICAL POWER LINES UNLESS PROPER PRECAUTIONS ARE TAKEN. Consult the power service company for advice.
- A MEANS OF ACCESS TO ALL PLATFORMS SHALL BE PROVIDED.
- DO NOT USE ladders or makeshift devices on top of scaffold or shoring to increase the height, unless specifically designed for this use.
- PROVIDE GUARDRAILS AND MID-RAILS AT EACH WORKING PLATFORM LEVEL where open sides and ends exist, and toeboards where required by code.
- BRACKETS AND CANTILEVERED PLATFORMS -
  - Brackets for SYSTEM SCAFFOLDS shall be installed and used in accordance with manufacturer's recommendations,
  - Brackets for FRAME SCAFFOLDS shall be seated correctly with side bracket parallel to the frames and end brackets at 90 degrees to the frames. Brackets shall not be bent or twisted from normal position. Brackets (except mobile brackets designed to carry materials) are to be used as work platforms only and shall not be used for storage of material or equipment.
  - Cantilevered platforms shall be designed, installed and used in accordance with manufacturer's recommendations.

- ❑ ALL SCAFFOLD, SHORING AND SUSPENDED POWERED SCAFFOLDING COMPONENTS shall be installed and used in accordance with the manufacturers recommended procedure. Components shall not be altered without manufacturers authorization. Scaffold or shoring frames and their components manufactured by different companies shall not be intermixed, unless the component parts readily fit together and the resulting scaffold's structural integrity is maintained by the user.
- ❑ PLANKING
  - Working platforms shall cover scaffold bearer as completely as possible. Only scaffold grade wood planking, fabricated planking and decking meeting scaffold use requirements, or specially engineered decking systems shall be used.
  - Check each plank prior to use to be sure plank is not warped, damaged, or otherwise unsafe.
  - Planking shall have at least 12" overlap and extend 6" beyond center of support, or be cleated or restrained at both ends to prevent sliding off supports.
  - Solid sawn lumber, LVL (laminated veneer lumber) or fabricated scaffold planks and platforms (unless cleated or restrained) shall extend over their end supports not less than 6" nor More that 18". This overhang should not be used as a work platform.

FOR "PUTLOGS" AND TRUSSES" THE FOLLOWING ADDITIONAL GUIDELINES APPLY:

- ❑ Do not cantilever or extend putlogs/trusses as side brackets without thorough consideration for loads to be applied.
- ❑ Putlogs/trusses should be extended at least 6" beyond point of support.
- ❑ Place recommended bracing between putlogs/trusses when the span of putlog/truss is more than 12 feet.

FOR ROLLING SCAFFOLDS THE FOLLOWING ADDITIONAL GUIDELINES APPLY:

- RIDING A ROLLING SCAFFOLD IS VERY HAZARDOUS. The Scaffold Industry Association does not recommend nor encourage this practice. However, if you choose to do so, be sure to follow all state, federal or other governmental guidelines.
- Casters with plain stems shall be attached to the panel or adjustment screw by pins or other suitable means,
- No more than 12 inches of the screw jack shall extend between the bottom of the adjusting nut and the top of the caster.
- Wheels or caster shall be provided with a locking means to prevent caster rotation and scaffold movement and kept locked.
- Joints shall be restrained from separation.
- Use horizontal diagonal bracing near the bottom and at 20-foot intervals measured from the rolling surface.
- Do not use brackets or other platform extensions without compensating for the overturning effect.

- The platform height of a Rolling Scaffold must not exceed four (4) times the smallest base dimension (CAL-OSHA and some government agencies require a stricter ratio of 3 to 1).
- Cleat or secure all planks.
- Secure or remove all materials and equipment from platform before moving.
- Do not attempt to move a rolling scaffold without sufficient help - watch out for holes in floor and overhead obstructions - stabilize against tipping.
- **SAFE USE OF SCAFFOLDING AND SHORING -**
  - Prior to use, inspect scaffold to insure it has not been altered and is in safe working condition.
  - Erected scaffold, shoring, and platforms should be inspected continuously by those using them.
  - Exercise caution when entering or leaving a work platform.
  - Do not overload scaffold or shoring. Follow manufacturer's safe working load recommendations.
  - Do not jump onto planks or platforms.
  - Do not use ladders or makeshift devices on top of working platforms to increase the height or provide access from above unless specifically designed for this use.
  - Climb in access areas only and USE BOTH HANDS.

### **Dismantling Scaffolding**

WHEN DISMANTLING SCAFFOLDING OR SHORING THE FOLLOWING ADDITIONAL, GUIDELINES APPLY:

- Do not disassemble or remove any parts until proper authority is given.
- Check to assure scaffolding or shoring has not been structurally altered in a way which would make it unsafe and, if it has, reconstruct where necessary before commencing with dismantling procedures. This includes all ties.
- Visually inspect plank prior to dismantling to be sure they are safe.
- Consideration must be given as to the effect removal of a component will have on the rest of the scaffold prior to that component's removal.
- Do not accumulate excess components or equipment on the level being dismantled.
- Do not remove ties until scaffold above has been removed (dismantled).
- Lower dismantled components in an orderly manner. Do not throw off of scaffolding or shoring.
- Dismantled equipment should be stockpiled in an orderly manner to prevent overloading or unsafe conditions.
- FOLLOW ERECTION PROCEDURES AND USE MANUALS.
- FOR STABILIZING single post shores shall have adequate bracing provided in the longitudinal, transverse and diagonal directions. Bracing shall be installed as the shores are being erected.



- ❑ SINGLE POST SHORES MORE THAN ONE TIER HIGH should not be used. Where greater shore heights are required, consult the shoring supplier.
- ❑ ADJUSTMENT OF SHORING TO RAISE OR LOWER FORMWORK shall NOT be made during concrete placement.
- ❑ IF MOTORIZED CONCRETE EQUIPMENT is to be used, be sure that the shoring layout has been designed for use with this equipment and such fact is noted on the layout. USE SPECIAL PRECAUTIONS when shoring from or to sloped surfaces.
- ❑ USE ADJUSTMENT DEVICE ON TOP OF LEG OR POST to position the false work, not the bottom adjusting screw.
- ❑ INSPECT SHORING
  - Immediately prior to concrete placement
  - During concrete placement
  - While vibrating concrete
  - After concrete placement, until concrete sets.

#### **Rigging Guidelines for Suspended Powered Scaffolds**

WHEN RIGGING ON EXPOSED ROOFS OR FLOORS WEAR FALL PREVENTION EQUIPMENT. WHEN RIGGING FROM OVERHEAD SUPPORTS, SUCH AS BRIDGES, BEAMS, ETC., WEAR FALL ARREST EQUIPMENT.

- ❑ Roof hooks, parapet clamps, outrigger beams, or other supporting devices, including tiebacks and their anchorages, must be capable of supporting the rated load of the hoist with a safety factor of 4.
- ❑ Verify that the building or structure will support the suspended loads with a safety factor of at least 4.
- ❑ Overhead rigging, including counterweights, must be secured from unintentional movement in any direction.
- ❑ Counter-weights used with outrigger beams must be of a non-flowable material and fastened to the beam.
- ❑ Outrigger beams that do not use counterweights must be installed and secured on the roof structure with devices specifically designed for that purpose.
- ❑ Tie back all transportable rigging devices with rope or hardware that has strength equal to the hoist rope.
- ❑ Install tiebacks at right angles to the face of the building and secure without slack to a structurally sound portion of movement.
- ❑ RIG SO THAT SUSPENSION POINTS ARE DIRECTLY ABOVE THE HOISTING MACHINES.
- ❑ The platform must be secured to prevent swaying. Do not tie it to window cleaning anchors.



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**Wire Rope and Hardware Guidelines**

- ❑ Use only wire rope and attachments as specified by the hoisting machine manufacturer. Do not use wire rope that is kinked, birdcaged, corroded, undersized, or damaged in any way.
- ❑ Be sure that wire rope is long enough to reach the lowest possible landing.
- ❑ Clean, lubricate and handle wire rope in accordance with the wire rope or hoist manufacturer's instructions.
- ❑ Coil and uncoil wire rope in accordance with the wire rope or hoist manufacturer's instructions in order to avoid kinks and damage.
- ❑ Use thimbles at all wire rope suspension terminations.
- ❑ Use J-Type clamps or swaged fittings to fasten wire rope. **DO NOT USE U-CLAMPS.**
- ❑ Tighten wire rope clamps in accordance with the clamp manufacturer's instructions.
- ❑ Wire ropes used with traction hoists must have prepared ends in accordance with the manufacturer's recommendation.
- ❑ **INSPECT WIRE ROPE DURING EACH ASCENT AND DESCENT.** Do not expose wire rope to fire, undue heat, corrosive atmosphere, chemicals, or to passage of electrical currents or to damage by tools or handling.

**Power Supply Guidelines**

**BE SURE YOUR POWER SUPPLY CONFORMS TO HOIST MANUFACTURER'S RECOMMENDATIONS.**

- ❑ **GROUND ALL ELECTRICAL POWER SOURCES, POWER CORD CONNECTIONS** and protect with circuit breakers.
- ❑ Use power cords or air hoses of proper size that are long enough for the job.
- ❑ Power cord or air hose connections must be restrained to prevent their separation.
- ❑ Tie off power cords or air hoses to the suspended scaffold to prevent them from falling.
- ❑ Protect power cords or air hoses at sharp edges.
- ❑ Remember, air hoists require clean lubricated air.

**Fall Arrest Equipment Guidelines**

- ❑ Each person on a suspended powered scaffold must be attached to a fall arrest system at all times.
- ❑ Each lifeline must be fastened to a separate anchorage.
- ❑ When wrapping lifelines around structural members, the lines must be protected and a suitable anchorage system must be used.
- ❑ Protect lifelines at sharp comers to prevent chafing.
- ❑ Rig fall arrest systems to prevent free fill in excess of six feet.
- ❑ Lifelines must be suspended freely without contact with structural members or building facade.

- ❑ Use a lifeline size and construction that is compatible with fall arrester and complies with applicable safety codes.
- ❑ **BE SURE FALL ARRESTER IS INSTALLED ON THE LIFELINE IN THE PROPER DIRECTION ABOVE YOUR HEAD** and in accordance with the manufacturer's recommendations.
- ❑ Use a body support device that is property sized and fitted.
- ❑ Be sure body support device has a lanyard attached to the D-ring at the center of the back.

**Additional Guidelines for Suspended Powered Scaffolding**

- ❑ Do not overload, modify, or substitute equipment.
- ❑ Before commencing work operations, pre-load wire rope and equipment with the maximum working load, then re-tighten rigging clamps to manufacturer's recommendations.
- ❑ Be sure platform and cages have a proper guardrail system.
- ❑ Secure stirrups no less than six inches from the end of the platform.
- ❑ All components must be securely fastened to prevent them from falling off the platform.
- ❑ Use roller bumpers or buffers to prevent damage to the structure or equipment.
- ❑ Use care to prevent damage to equipment by corrosive or other damaging substances.
- ❑ Clean and service equipment regularly.
- ❑ **ALWAYS MAINTAIN AT LEAST (4) FOUR WRAPS OF WIRE ROPE ON DRUM-TYPE HOISTS.**
- ❑ Traction hoists must have wire rope that is long enough to reach from the highest point of support to the lowest possible landing, plus reeving lengths.
- ❑ Do not join platforms unless the installation was designed for that purpose.
- ❑ **DO NOT MOVE SUSPENDED SCAFFOLDS HORIZONTALLY WHEN OCCUPIED.**
- ❑ When re-rigging for another drop, be sure sufficient wire rope is available before moving the suspended scaffold system horizontally.
- ❑ **WHEN WELDING FROM SUSPENDED SCAFFOLDS:**
  - Be Sure platform is grounded to structure.
  - Insulate wire rope above and below the platform to protect from damage by the welding torch or electrode.
  - Insulate wire rope at suspension point and be sure wire rope does not contact structure along its entire length.
- ❑ **POWERED PLATFORMS MUST NEVER BE OPERATED NEAR LIVE POWER LINES** unless proper precautions are taken. Consult the power service company for advice.
- ❑ **ALWAYS USE FALL ARREST EQUIPMENT** when using suspended scaffolds.

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**SIA OSHA Regulation Clarification**

This section supplements and clarifies the requirements of Sec. CFR 1926.2 1 (b)(2) (OSHA) as these relate to the hazards of work on scaffolds.

- The employer shall have each employee who performs work while on a scaffold trained by a person qualified in the subject matter to recognize the hazards associated with the type of scaffold being used and to understand the procedures to control or minimize those hazards. The training shall include the following areas, as applicable:
  - The nature of any electrical hazards, fall hazards and falling object hazards in the work area.
  - The correct procedures for dealing with electrical hazards and for erecting, maintaining, and disassembling the fall protection systems and falling object protection systems being used.
  - The proper use of the scaffold, and the proper handling of materials on the scaffold.
  - The maximum intended load and the load-carrying capacities of the scaffolds used.
  - Any other pertinent requirements of the subpart.
- The employer shall have each employee who is involved in erecting, disassembling, moving, operating, repairing, maintaining, or inspecting a scaffold trained by a competent person to recognize any hazards associated with the work in question. The training shall include the following topics, as applicable:
  - The nature of scaffold hazards.
  - The correct procedures for erecting, disassembling, moving, operating, repairing, inspecting, and maintaining the type of scaffold in question.
  - The design criteria, maximum intended load-carrying capacity and intended use of the scaffold.
  - Any other pertinent requirements of the subpart.

These safety guidelines (Codes of Safe Practice) set forth common sense procedures for safely erecting, dismantling and using scaffolding, shoring, and suspended powered scaffolding equipment.

However, equipment, scaffolding and shoring systems differ, and accordingly, reference must always be made to the instructions and procedures of the supplier and/or manufacturer of the equipment.

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**Stilts Use and Guideline**

Stilts are commonly used as a means to elevate a worker in order to install high-work items such as acoustical ceiling, dry wall, mudding, taping and painting.

Follow the manufacturer's inspection procedures prior to use. This applies to both company- or employee-owned stilts. Complete and retain inspection forms.

Always know, understand and follow the recommendations and limitations of the assembly and instruction manual for the stilts prior to use. Manufacturer's often have weight capacities for their stilts, including user, materials or equipment being used. Refer to the manufacturer's instructions for weight capacities.

Training on stilts is required and must be documented. This includes a description of the training and the names of workers attending the training. Retain a copy of the training report on the project.

Develop a detailed JHA (Job Hazard Analysis), signed by all stilt users, regarding safe use of stilts. Retain copy of the JHA on the project.

Pre-use inspection items should include:

- check for loose hardware
- Verify that height adjustment pins are secured
- Inspect foot pads for excessive wear
- Monitor condition of springs, straps, buckles or other fasteners and leg brace for cracks or signs of metal fatigue.

Any deficiencies found during inspections must be corrected and/or repaired prior to use.

Work area inspections need to include:


- Inspect the work area for debris & trip hazards
- Remove all rolling stock, loose material on floor, "globs" of dry wall mud, or liquids, string or wires on the floor.
- Identify fall exposures greater than 4 foot, such as open-sided floors and unprotected holes,
- Areas where guard rails are in place may need to be raised to compensate for the added height of the stilts.
- Identify and mark all obstructions that cannot be removed.

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Stilt-use safety reminders:

- When putting on or taking off stilts, always stand in a way to prevent losing your balance or sit down on an elevated support such as scaffolds, scissor lift or other area that does not create an additional hazard.
- Always attach leg strap first prior to foot straps when putting stilts on.
- Always remove foot straps first when taking stilts off.
- Do not climb stairs or attempt to step over large objects or obstructions.
- When walking, do not over stride or take large steps, take normal and comfortable steps.
- Keep all labels legible.

Unsafe use of stilts or using defective stilts will be considered a serious safety violation.

	<p><b>SCAFFOLDING COMPETENT PERSON</b> QUESTIONNAIRE ON KNOWLEDGE</p> <p>JOB NAME: _____ JOB NO: _____</p> <p>SUPERINTENDENT: _____</p>
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EMPLOYEE NAME:	TITLE:
DATE OF EVALUATION:	LENGTH OF EXPERIENCE IN SCAFFOLDING:

**KNOWLEDGE: DOES THIS CANDIDATE HAVE KNOWLEDGE OF SCAFFOLDING IN THE FOLLOWING AREAS:**

ERECTION AND DISMANTLING PROCEDURES	<input type="checkbox"/> YES <input type="checkbox"/> NO
USE OF SCAFFOLDING COMPONENTS	<input type="checkbox"/> YES <input type="checkbox"/> NO
FALL HAZARDS	<input type="checkbox"/> YES <input type="checkbox"/> NO
USE OF PROTECTIVE SYSTEMS	<input type="checkbox"/> YES <input type="checkbox"/> NO
CODES AND STANDARDS	<input type="checkbox"/> YES <input type="checkbox"/> NO
FALL PROTECTION WORK PLANS	<input type="checkbox"/> YES <input type="checkbox"/> NO
EMERGENCY PROCEDURES	<input type="checkbox"/> YES <input type="checkbox"/> NO
USES AND LIMITATIONS OF SCAFFOLDING	<input type="checkbox"/> YES <input type="checkbox"/> NO

**TRAINING: HAS THIS CANDIDATE FOR COMPETENT PERSON RECEIVED TRAINING AS FOLLOWS:**

USE OF FALL SCAFFOLDING	<input type="checkbox"/> YES <input type="checkbox"/> NO
INSPECTION OF SCAFFOLDING	<input type="checkbox"/> YES <input type="checkbox"/> NO
MAINTENANCE OF SCAFFOLDING	<input type="checkbox"/> YES <input type="checkbox"/> NO
DESIGN SPECIFICATIONS ON TYPE OF SCAFFOLDING TO BE USED	<input type="checkbox"/> YES <input type="checkbox"/> NO
IDENTIFICATION OF FALL HAZARDS	<input type="checkbox"/> YES <input type="checkbox"/> NO
CODES AND REGULATIONS FOR SCAFFOLDING	<input type="checkbox"/> YES <input type="checkbox"/> NO

<b>AUTHORITY</b>	<p>Based on the evaluation, the candidate named above has been approved as a Competent Person and is given the authority to take prompt and corrective measures to eliminate the existing and predictable hazards.</p> <p>As the designated Competent Person they will have the authority to stop work until hazards are corrected, eliminated, or controlled, and to remove employees from the hazardous areas until proper and safe systems are in place.</p>
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<b>COMMENTS</b>	
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COMPETENT PERSON SIGNATURE:	DATE:
HSWC PROJECT MANAGEMENT SIGNATURE	DATE:

---

The following are requirements for the use of mobile elevated work platforms (MEWP):

- Workers shall be trained on the equipment they will be operating. Verification of training must be kept with the operator during lift work.
- Lifts shall be inspected and determined to be in a safe condition prior to use. A Pre-use inspection checklist must be available for review.
- All lifts must have dual activation controls.
- Only the minimal materials, tools, and equipment are allowed to be hoisted in personnel lifts. Lifts shall not be used to raise/position materials.
- All gates/guardrails shall be closed/installed prior to raising the platform.
- Articulating Boom Lifts (lifts which travel up/down and rotate 360 degrees) require personnel to tie-off inside the basket
- Personnel shall not dismount from lifts in an elevated position (unless double-lanyard tie off is possible).
- Appropriate clearances around energized electrical conductors must be maintained.
- Recognized electrical safe work practices shall be observed.





## MANLIFT CHECKLIST

NAME: \_\_\_\_\_

DEPARTMENT: \_\_\_\_\_

DATE: \_\_\_\_\_ TYPE OF LIFT: \_\_\_\_\_

PRE-OPERATION INSPECTION	√
Operators Manual Legible	
Decals and Data Plate Legible	
Fluid Levels	
Engine Oil	
Hydraulic Oil	
Coolant	
Fuel	
Electrical components, wiring and cables	
Fuel and Hydraulic Tanks	
Drive and turntable motors and torque hubs	
Boom wear pads	
Tires and Wheels	
Engine and related components	
Limit Switches, alarms, horns and beacons	
Nuts bolts and other fasteners	
Platform entry and mid-rail gate	
Crack in welds or structural components	
Dents or damage to machine	
Fasteners and pins in place	
Compartment covers in place and latched	

FUNCTION TESTS	√
Ground Controls	
Key	
Emergency Stop	
Boom and Platform Switches	
Tilt Sensor	
Auxiliary Controls	
Control Switch	
Boom and platform switches	
Platform Controls	
Emergency Stop Switch	
Service Horn	
Foot Switch	
Boom and platform controls	
Steering	
Drive and Braking	
Auxiliary Controls	
Lift/Drive Select Switch (if equipped)	
Oscillating Axle (if equipped)	
Drive Enable System	
Limited Drive Speed	
Lift Drive Select Switch (if equipped)	

WORK PLACE INSPECTION	
Drop offs or holes	
Bumps, floor obstructions or debris	
Overhead Obstructions	
High Voltage Lines	
Hazardous Locations	
Surface Support	
Wind and Weather Conditions	
Presence of Unauthorized Personnel	

**COMMENTS:**



### SCISSOR LIFT CHECKLIST

NAME: \_\_\_\_\_

DEPARTMENT: \_\_\_\_\_

DATE: \_\_\_\_\_ TYPE OF LIFT: \_\_\_\_\_

PRE-OPERATION INSPECTION	√
Operators Manual Legible	
Decals and Data Plate Legible	
Fluid Levels	
Hydraulic Oil	
Electrical components, wiring and cables	
Hydraulic Tank	
Tires and Wheels	
Limit Switches, alarms, horns and beacons	
Nuts bolts and other fasteners	
Platform entry and mid-rail gate	
Crack in welds or structural components	
Dents or damage to machine	
Fasteners and pins in place	
Compartment covers in place and latched	

FUNCTION TESTS	√
Ground Controls	
Key	
Emergency Stop	
Platform Switches	
Tilt Sensor	
Auxiliary Controls	
Control Switch	
Platform switches	
Platform Controls	
Emergency Stop Switch	
Service Horn	
Foot Switch	
Platform controls	
Steering	
Drive and Braking	
Auxiliary Controls	
Limited Drive Speed	
Lift Drive Select Switch (if equipped)	

WORK PLACE INSPECTION	
Drop offs or holes	
Bumps, floor obstructions or debris	
Overhead Obstructions	
High Voltage Lines	
Hazardous Locations	
Surface Support	
Wind and Weather Conditions	
Presence of Unauthorized Personnel	

**COMMENTS:**

### General Precautions

- Inspect tools daily to insure they are in proper working order. Damaged or defective tools must be returned to the tool room, your Supervisor or to the Warehouse immediately for repair or replacement.
- Power saws, grinders, and other power tools must have proper guards in place at all times. Removing guards or rendering them inoperable may be grounds for discharge.
- Power tools should be hoisted or lowered by a hand line, never by the cord or hose.
- Cords and hoses must be kept out of walkways and off stairs and ladders. They must be placed so as not to create a tripping hazard for employees or be subjected to damage from equipment or materials.

### Personal Protective Equipment

When using the tools listed below or working near others using such tools, additional personal protective equipment may be required. If you have questions about the protective equipment or safety rules, ask your supervisor. Examples of types of personal protective equipment are as follows:

Equipment Type	PPE
Jackhammers	Eye Protection, Anti-vibration Gloves, Foot Protection, Hard Hat and Hearing Protection
Tampers	Hearing Protection, Eye Protection, Anti-vibration Gloves, Hard Hat and Foot Protection
Chipping Hammers	Double Eye Protection (safety glasses and face shield), Anti-Vibration Gloves, Foot Protection
Impact Wrenches	Hearing Protection and Eye Protection
Reamers	Eye Protection
Cutting Torches	Eye Protection, appropriately filtered
Arc Welders	Hand Protection and Eye Protection, appropriately filtered
Explosive-Actuated Tools	Eye Protection, hearing protection, anti-vibration gloves, hard hat, sleeved shirt
Grinders	Double Eye Protection, hearing protection
Hand-Held Chipping Hammers	Double Eye Protection, hearing protection

## ELECTRICAL

### **All electric tools and equipment must be GFCI'd**

- All portable electrical tools must be grounded (except Underwriters Laboratory approved double-insulated tools).
- All electric cords and cables must be covered or elevated where practical or otherwise maintained in a fashion to protect them from damage and to eliminate tripping hazards.

## PNEUMATIC

- An approved safety check valve must be installed at the manifold outlet to each supply line for hand-held pneumatic tools.
- All pneumatic hose connections must be fastened securely.
- Safety clips or retainers must be installed on all pneumatic tools to prevent the accidental expulsion of the tool from the barrel.

## FUEL POWERED

- All fuel-powered tools must be shut down while being refueled.
- Smoking is prohibited during refueling operations. Refer to Chapter G-6 of this Manual for Washington State laws and HSWC policies governing the issue of Smoking on the job site. Other nearby sources of ignition, such as burning and welding, must also be halted during refueling operations.

## POWDER ACTUATED TOOLS

See Chapter E-4 – Explosive Actuated Tools

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**ASSURED GROUNDING PROGRAM**

We are required to check our electrical equipment on a quarterly basis. The following guidelines should assist supervisors in administering this program:

**Check the Cord Ends**

Check the cord ends to see if they are damaged and for proper function. If the ground prong is missing, replace the cord end.

**Strain Relief**

The outer jacket of the cord should extend fully into the cord end and be supported by the cord end clamp. Strain to the electrical connections on the blade cannot occur. The rubber grommets should be in place.

**Test for Proper Ground on Cords**

On power cords, use a three-light tester or other means to check for proper polarity and to verify if all connections are correct.

**Test Equipment for Ground Continuity**

On grounded power equipment, use a continuity tester to make sure that the ground circuit is in place. Check for continuity between the ground prong of the cord end and the machine casing,

**Inspect the Cord insulation**

If the cord insulation of the extension or power equipment cord is damaged, replace the cord. The most likely place for cord damage is where it enters into the cord end. If the cord is damaged anywhere along the length of the cord, splicing the cord is prohibited except for few exceptions. Cut at damaged area and make it into shorter cords or discard it.

**Double Insulated Equipment**

Since this equipment does not have a ground circuit, it is not possible to check for continuity of the ground circuit. However, it is a requirement to check the cord and equipment for damage. This equipment should also be color coded to designate that it has been tested.

**Color Coding**

Each end of the cord should be marked with the following color codes:

<b>MONTHS</b>	<b>COLOR</b>	<b>HOW TO REMEMBER</b>
January-February-March	White	Winter (Snow)
April-May-June	Green	Spring (Leaves)
July-August-September	Red	Summer (Hot)
October-November-December	Orange	Fall (Leaves)

### **Assured Grounding Log**

It is not a requirement to keep a log if you are using a color coding system. You can either do one or the other. However, some choose to keep a log so they can inventory their tools.

### **Ground Fault Circuit Interrupters (GFCI)**

**All electrical tools, cord sets, appliances etc. on the construction site are required to be protected by GFCI's.** Technically, we are not required to comply with the assured grounding rules if we are using GFCI protected circuits. However, we are required to do periodic inspections for damage to your electrical equipment. The best way to do this is through the same color-coding system and this is recommended on all of our jobsites.

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## **ABRASIVE WHEEL GRINDERS**

Safe work practices for grinding or abrasive wheels will do more than prevent operator injuries; their observance will help to avoid tool and equipment damage and will lengthen grinding wheel life.

### **Pedestal and Bench Grinder**

Grinding wheel safety is emphasized because this familiar piece of equipment accounts for over 24% of personal injuries in machine shops. Most accidents with grinding wheels are attributed to unsafe work practices.

- Always use protective **eye and face protection (face shield and safety glasses)**, even for grinders equipped with eye shields.
- Keep the work rest adjusted properly. It should be clamped securely and within 1/8 inch of the wheel surface. Adjust the work rest only with the wheel stopped.
- Follow correct grinding procedures. Hold the work properly. Grind only on a wheel face (not on its side). Warm up the wheel before heavy use. Take light rather than heavy cuts on the work.
- Hold the work in position with a guide when slot grinding.
- Use only a wheel that is balanced, correctly dressed, and the proper type for the grinding job. Re-balance and dress wheels as necessary.
- Run a grind wheel at speeds within limits recommended by the manufacturer.
- Run a wheel at full operating speed for at least one minute before applying work. Operator should stand clear of grinding wheel during test.

Grinding wheels must be provided with safety guards to protect the user from flying fragments should the wheel burst or explode while running. A guard should cover as much of the wheel, including exposed arbor ends, as the work allows.

For the bench and pedestal grinders, the maximum angular of a wheel (periphery and sides) should not exceed 90 degrees. Exposure should begin at an angle of not more than 65 degrees above the horizontal plane of the spindle. Maximum angular exposures allowed by the guard will differ for other types of grinders.

The safety guard should be adjustable or have an adjustable tongue for correct exposure as wheel wears down with use. A maximum gap of 1/8 inch should be maintained between the wheel face and the tongue.

Correct mounting in accordance with the design can minimize wheel breakage. It is important to inspect all new wheels, giving them the “ring” test before mounting. A properly mounted, defect-free wheel will run safely at its design speed without exploding.



**Portable Abrasive Wheel Grinders**

- Always use the proper personal protective equipment including **eye and face protection** (face shield and safety glasses), gloves, and respiratory protection.
- All guards must be in place when using portable grinders. The guards are designed to protect the user. However they are frequently removed from tools because they seem to get in the way of the work. Guards protect the user from rapidly moving parts such as abrasive wheels and wire brushes. They also protect the user and other in the area from flying fragments and sparks.
- Make sure that the guard is adjusted properly before the grinder is used.
- Do not use loose clothing or jewelry.
- Consider the work environment. Do not use a grinder in the presence of flammable liquids or gases.
- Assure that the equipment is GFCI'd and has a current assured grounding or visual inspection.
- When changing the wheel, unplug the tool.
- Before using the grinder, visually inspect the wheel for cracks or damage.
- Do not force the tool while using.

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### **EXPLOSIVE ACTUATED TOOLS**

Powder actuated tools must be handled with the extreme care and respect. A powder actuated tool uses a steel ram driven by expanding gasses from a powder charge to drive the projectile at high speed.

#### **Preliminary Requirements:**

Powder actuated tool must come supplied with the following items:

- An operator instruction manual.
- Power load chart.
- Tool inspection record.
- Service record and accessories.
- Muzzle shield.

Before operating powder-actuated tools all intended tool operators must:

- Receive training from a qualified instructor.
- Carry a current certification card for the intended tool.
- Know and demonstrate proper operating techniques to the foreman.

Before allowing tool operation the employee must:

- Ensure all adjacent workers are advised that powder-actuated tool will be in service and hearing protection should be used.
- See that the work area around the tool usage is **clearly posted** with appropriate signage. Example below.



- Inspect the tool and ensure that it is in good condition.
- Inspect the proposed target surface and determine what type of load and fastener should be used and the hazards involved.
- Ensure the proper loads are supplied and used.

- Ensure the proper fasteners are supplied and used.
- Periodically check on the operator to ensure that he is performing as instructed.

**Protective Equipment and Procedures:**

All powder-actuated tools must have muzzle shields attached to prevent from spalling, fastener ricochet, and powder burns. Any tool not so equipped must be immediately removed from service until it can be fitted with one.

Each operator must wear at a minimum:

- Hearing protection with a Noise Reduction Rating (NRR) of at least 30.
- Anti-vibration gloves to protect against wrist and forearm injury from recoil.
- Safety glasses and, a face shield.
- A hard hat and long sleeved shirt.

**Certification and Training:**

- Each operator must be trained and receive a certification card from a factory authorized representative who is qualified to give instruction.
- Each card should be updated yearly due to ever changing and improving construction technologies and techniques.
- Certification cards are not transferable. A Hilti Card does not give legal authority to operate a Ramset tool. Each operator must receive training and carry a certification card for each tool, because each tool has its own peculiarities.

**Operation:**

The following operation rules must be followed to the letter. Violation of any one of them could be grounds for termination.

- Never leave a tool unattended.
- Never load a tool unless it is being prepared for immediate use.
- Never attempt to load a fastener or powder charge into a tool not designed for it (i.e. don't put Hilti charges in a Ramset unless they were meant for that tool).
- Never drop power load magazines on the floor or work surfaces. Pick up all magazines. Spent magazines are to be discarded in water-filled containers and partially used magazines returned to the tool cabinet.
- Never attempt to transfer individual loads between several partially used magazines in an attempt to create full magazines.

**The following three rules, if violated, will result in immediate termination.**

- Never point a tool at another person- loaded or not.
- Never alter or override the safety features of a tool.
- Never fire a tool into the air or at any surface unless the muzzle is firmly positioned against that surface per the manufacturer's specifications.

**Maintenance and Storage:**

- All tools, loads and fasteners must be locked in a container or locker and stored in a safe place when not in use and be accessible only to authorized personnel.
- Each tool must be inspected regularly and before each work shift for wear or damaged parts and pulled from service if repair is needed.
- A qualified person using only parts supplied by the tool manufacturer must perform all repair work. A record of this work must be noted and dated on the tool inspection record.

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All cars, pickups, trucks, industrial vehicles, golf carts, all other powered vehicles on HSWC jobsites shall be operated as follows:

- Pedestrians shall have the right of way at all times on the project. Drivers shall yield to pedestrian traffic at all times.
- Seat belts are to be provided in all vehicles designed to transport personnel.
- Driver and all passengers are to wear safety/seat belts at all times.
- Obey all speed limits and other regulatory signs.
- Look to the rear and sound your horn before backing unless vehicle is equipped with audible back up alarms.
- All industrial vehicles shall be equipped with audible back up alarms.
- Shut off engine to fuel--use secondary containment pan while filling to prevent fuel spills to environment.
- Mount or dismount only when vehicle is stopped.
- Keep arms, feet and bodies inside vehicle at all times. All personnel must be seated.
- Personnel may not ride in the bed of any vehicle at any time.
- A flagman shall be used to direct the backing of a vehicle if the driver's view is obstructed or the area is congested.
- No more than three people may ride in the front seat of any vehicle.
- Truck drivers must dismount from the cab and remain clear while truck is being loaded by power equipment.
- Engines shall be shut off and parking brakes shall be applied in all vehicles left unattended (out of sight or more than 25 feet away).

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## Signs

HSWC personnel should make sure that accident prevention signs and tags will be visible at all times. The following guidelines should be followed:

- Post "Danger" signs only if an immediate hazard exists.
- Post "Caution" signs only to warn against potential hazards or to caution employees against unsafe practices.
- Safety instruction signs must convey the principal message to employees.
- Directional signs, as distinct from automotive traffic signals, must clearly direct traffic to a location.
- Traffic signs should be posted in all construction areas at each hazard point.
- When the hazard no longer exists, either remove or cover the signs immediately.

## Flaggers

If signs, signals, and barricades do not provide adequate protection for employees or public during work operations, HSWC should provide flaggers or other means of traffic control. The flagger must make the following provisions:

- The flagger must have appropriate training and have a current flagger training card in their possession while flagging.
- An approved Stop/Slow paddle must be used. If employees signal in the dark, the signs will be reflectorized and the Flagger must be illuminated.
- The flagger must wear a highly visible warning garment. If employees flag during hours of darkness, the warning garment must be reflectorized.
- All flaggers shall stand on the shoulder of the road next to the lane of traffic being controlled, never on the road itself unless they are behind barricades.
- All flaggers should be far enough ahead of the place where work is being conducted so motorists can slow down and stop safely.

## Barricades

Use barricades wherever blocked passage is required, to delineate a hazard. Barricades may take the form of:

- Fences.
- Saw horse and plank structures.
- Other structures that require physical dismemberment or extraordinary effort to pass through.
- Jersey barriers when feasible.

The use of warning tape to barricade an area or hazard is not recommended.

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### **General Requirements**

The following guidelines should be used when operating fork trucks:

- Fork trucks will be equipped with a 10-pound ABC type fire extinguisher, within reach of the operator.
- Fork trucks will be equipped with approved overhead protection at all times, in addition to roll-over protection (ROPS).
- Where possible, fork trucks will be kept off of all city, county, and state roads.
- Fork trucks should not be operated on any city, county, or state roads during hours of darkness.
- When operating on public roads, fork trucks will obey all traffic laws, including riding on the right side of the road, signaling at turns and stops.
- Fork trucks should be equipped with a yellow warning light (operating) and slow moving vehicle sign when operating on city, county, or state roads.
- Fork trucks should never exceed 10 MPH.
- Fork trucks shall be equipped with back-up alarms.
- Telescopic boom forklifts shall be equipped with a 10-inch convex rear-view mirror on the blind side of the machine.

### **Forklift Daily Inspection**

The operator should inspect the forklift at the beginning of each shift as recommended by the manufacturer. Daily inspection requirements can be found in the operator's manual. Daily check should include at least the following:

- All tires for excessive wear, deep cuts, and proper inflation.
- Horns, lights, blinkers, and any other visual warning devices.
- All lift, lower, tilt, and attachment controls for proper operation and for any visual signs of hydraulic leakage.
- Hydraulic hoses.
- The operating and parking brakes.
- The steering for excessive play or binding.
- Forks and fork retaining pins.
- All fluid levels including oil levels, hydraulic fluid, fuel level, battery and radiator coolant.
- A general inspection should be made for any fluid leakage.
- Fire extinguisher for serviceability, charge, and inspection tag.

Any malfunction of the equipment should be reported immediately. The daily check should be documented on the Forklift Inspection Record (Form F-3-a)



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**“Free Rigging”**

**This term is used to define the method of lifting materials with a lift truck (fork lift) by using a chain or other form of rigging to lift material. Achieved by attaching chain or strap to the forks or cargo rack and lifting much like a crane. This procedure is prohibited by the manufacturer and is against HSWC policy. However, there is an attachment that when applied to the lift truck per the manufacturer instructions you can lift with the appropriate rigging to the rating of the lift truck. See the load chart for capacities.**

**This attachment is available from the Maltby warehouse. (Washington only)**

### **Training Requirements**

The following guidelines cover the training requirements for HSWC forklift operators:

- The HSWC Superintendent or his designee shall assure that all forklift operators have been evaluated on proper use of a forklift. If deficiencies are noted during the evaluation, re-training will be required.
- Forklift operators shall receive training at least every three years. If a forklift operator has previously received documented training on forklift operation the superintendent, at his discretion, may accept that training.
- If an operator receives training, a record of completion will be issued at the successful completion of this program and shall be retained on the project. The Regional Safety Manager may assist with arranging training classes on the project, if the demand warrants.

Refresher Training will be required under the following conditions:

- The operator has been observed to operate the vehicle in an unsafe manner.
- The operator has been involved in an accident or near-miss accident.
- The operator has received an evaluation that reveals he/she is not operating the truck safely.
- The operator is assigned to operate a different type of truck.
- A condition in the workplace changes in a manner that could affect safe operation of the truck.
- If the operator has not received documented training in the past three years.

Subcontractor employees may not operate any forklifts that are owned, rented or leased by HSWC. If a subcontractor needs to use a HSWC controlled forklift, an HSWC employee will operate the forklift. At his discretion, the HSWC Superintendent may charge the subcontractor for use and operation of the forklift.

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**Proper Operating Methods**

While operating a fork truck, the general rules for driving an automobile should be followed. These rules include:

- Traveling on the right side of a main traffic aisle.
- Stopping at all intersections.
- Slowing down when approaching corners.
- Starting and stopping smoothly.
- Watching out for pedestrians.
- Seat belt must be worn while in the operators seat.

In addition, the following guidelines should be followed:

- The operator should read and understand the truck operator's manual. This manual should be kept on board the truck.
- Always face the direction of travel.
- When carrying a large or bulky load that obstructs visibility, travel in reverse. Look where you are going.
- Do not drive over objects lying on the ground.
- When negotiating turns, reduce speed to a safe level.
- Sound your horn at blind corners.


(Additional guidelines, continued)

- Keep a safe distance behind other trucks traveling in the same direction and never drive side-by-side.
- Stop completely before backing up. Fork trucks reverse quickly and can cause operators to lose the load or damage the truck. Stop and start smoothly.
- Cross railroad tracks diagonally and never park closer than 8 feet to the center of railroad tracks.
- When parking the truck, place the forks on the floor and tilted forward. Set the parking brake and remove the key.
- Space the forks as wide as possible.
- Travel with the forks close to the floor or ground with or without a load.
- Don't lift unstable loads.
- Don't double up loads.
- Don't add counter weights to the truck.
- All loads should be picked up in the center.
- Be sure forks are all the way under the load.
- Follow the manufacturer's instructions as stated in the truck operator's manual when driving up and down ramps. When carrying a load the forks should be faced uphill. Unloaded trucks should be operated on ramps or grades with the forks downhill. Percentage of grade where this is required is defined in the operator's manual.

- Use low gear, if needed on grades and never make a turn while the truck is still on a ramp.
- Absolutely no riders are allowed on any type of fork truck.
- Keep hands and feet inside the operating compartment of the vehicle.
- Watch out for pedestrians and never allow anyone to stand or walk under a raised upright whether loaded or unloaded.
- If a fork truck is to be used to elevate a work platform, use an approved safety platform with top rail, mid rail, or a toe board and other provisions as defined in the OSHA standards.
- Slow down on wet or slippery floors or ground.
- Don't let unauthorized persons operate any forklift.
- Be sure the floor you operate on, including trailer floors can support the combined weight of your truck and load.
- Note any low clearance such as pipes, sprinklers, or low doorways.
- An operator should not push or carry another disabled fork truck with the fork truck.
- Avoid parking on an incline.
- Trucks should not be allowed to idle for a long period of time in an enclosed area.
- The fork trucks should be used only for its intended purpose, which is to move materials.

When operating on loading docks the operator should:

- Stay away from the edge of the loading docks and never use the fork truck to open or close freight doors.
- Always use a proper dock board. Steel plates can shift and are dangerous. Before traveling over a dock board, check its capacity and be sure it is secured.
- Before entering a truck trailer, or railroad car, its brakes should be set and its wheels chocked. Semi-trailers, not coupled to a tractor, must have, in addition to its landing gear, fixed jacks to prevent upending.

	<h2 style="margin: 0;">FORKLIFT INSPECTION RECORD</h2> <p style="margin: 5px 0;">JOB NAME: _____ JOB NO: _____</p> <p style="margin: 5px 0;">SUPERINTENDENT: _____</p> <p style="margin: 5px 0;">WEEK OF: _____ TO: _____</p>
---	---

<b>EQUIP INFO</b>	EQUIPMENT MAKE: _____  MODEL NO: _____ ID NO: _____
-----------------------	---

		Day	MON	TUES	WED	THURS	FRI	SAT	SUN
		Date							
<b>BRAKES</b>	Emergency Brakes								
	Foot Brake								
<b>LIGHTS</b>	Head Lights								
	Tail Lights								
<b>ALARM SYSTEMS</b>	Horn								
	Backup Alarm								
<b>WINDSHIELD</b>	Clean								
	Unbroken								
	Wipers								
<b>CAB</b>	Clean								
	Seat Belt								
	Rearview Mirror								
<b>LEAKS</b>	Fuel Leaks								
	Hydraulic Leaks								
<b>EXTERIOR</b>	No Excessive Oil / Grease								
	Unobstructed View								
	All Equipment Secure								
<b>PINS &amp; KEEPERS</b>	No Pin Damage								
	Keepers in Place								
<b>TIRES</b>	Proper Inflation Pressure								
<b>FLUID LEVELS</b>	Fuel								
	Engine Oil								
	Hydraulic Fluid								
	Cooling System								
<b>INSPECTOR:</b>									

<b>COMMENTS</b>	
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## FORKLIFT OPERATOR EVALUATION

JOB NAME: \_\_\_\_\_

JOB NO: \_\_\_\_\_

SUPERINTENDENT: \_\_\_\_\_

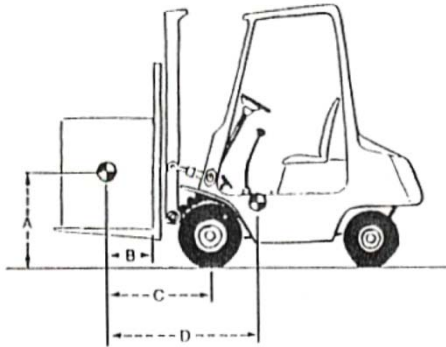
OPERATOR: \_\_\_\_\_ DATE: \_\_\_\_\_

**1. To determine a lift truck's rated capacity, you should:**

- a. Ask a more experienced operator.
- b. Look at the data plate on the truck.
- c. Try lifting the load – if the rear wheels stay on the ground, it is safe.
- d. None of these.

**2. Referring the drawing below, the "Load Center Distance" is:**

- a. Dimension A.
- b. Dimension B.
- c. Dimension C.
- d. Dimension D.



**3. When traveling, the forks should usually be kept:**

- a. Low to the ground.
- b. High enough to see where you are going.
- c. As high as possible.
- d. None of the above.

**4. Forks should be spaced:**

- a. Close together, under the center of the pallet.
- b. As wide apart as the pallet will allow
- c. Neither of the above

**5. If you see that a load is loose or unstable, before you pick it up you should:**

- a. Pick it up gently and move it carefully.
- b. Restack it or tie it together.
- c. Report it to your supervisor.
- d. None of the above.

**6. If you are stacking materials overhead you should:**

- a. Sound the horn to warn passers-by of the overhead load.
- b. Neutralize the controls and stop the engine before allowing people close.
- c. Keep people from walking under the load or even near the lift truck.
- d. Make sure all people who come close have hardhats.

**7. When you cross railroad tracks you should:**

- a. Drive quickly straight across the tracks.
- b. Drive slowly straight across the tracks.
- c. Drive quickly across the tracks at a 45-degree angle.
- d. Drive slowly across the tracks at a 45-degree angle.

**8. If the combined center of gravity of a lift truck and its load moves outside of the stability triangle, the truck could tip over.**

T      F

**9. A safe procedure for carrying loads that are up to 50% over capacity is the securely fasten additional weights to the counterweight of the truck.**

T      F

**10. If you cannot see around large bulky loads you should drive in reverse.**

T      F

**11. A good procedure to use when coming to blind corners is to slow down and sound your horn before entering a cross-aisle.**

T      F

**12. Tilting an elevated load all of the way back will make a lift truck more prone to tipping over.**

T      F

Safe materials handling procedures can increase efficiency and reduce injuries on a jobsite. Use the following guidelines to properly handle materials

- Always use proper ergonomic techniques and tools.
- Scan the path for hazards
  - Pedestrian
  - Equipment presence and movement
  - Vertical clearances
  - Water
  - Oil
  - Empty pallets
  - Packages
- Make eye contact with all operators on powered handling equipment
- Always follow all safety rules/procedures and obey safety signs.
- Do not attempt to catch falling objects.
- Workers stay out of the bite - no short cutting under equipment or racking
- Good housekeeping is a requirement for Safe operations.
- Pallets:
  - Walking on pallets is prohibited.
  - Store empty pallets flat on floor.
  - Stack empty pallets no more than 9 high for a one person lift; stack up to a maximum of 11 high for a two person lift.
- Smoking is allowed ONLY in designated smoking areas.
- Know the location and use of MSDS sheets and evacuation routes.
- Use the powered equipment and all tools as designed.
- Always use appropriate Personal Protective Equipment
- Work boots are always required.
- Hard Hat
- Safety Glasses
- Gloves
- Others as needed
- Report any incidents immediately to your Supervisor (any damage of product, equipment, facility or racking, hazardous condition, or near-miss or injury)



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**GENERAL RULES**

Inspect rigging equipment for material handling prior to use on each shift and as necessary during its use to insure that it is safe. Remove defective rigging equipment from service.

Job made lifting hardware is prohibited, unless designed by a Registered Professional Engineer

When it is not in use, rigging equipment must be stored properly when not in use.

Mark special custom-design grabs, hooks, clamps, or other lifting accessories to indicate the safe working loads.

Proof test prior to use to 125 percent of their rated load.

**ALLOY STEEL CHAINS**

Affix durable identification to welded alloy steel chain slings - stating size, grade, rated capacity, and sling manufacturer.

Assure that hooks, rings, oblong links, pear shaped links, welded or mechanical coupling links, or other attachments, when used with alloy steel chains, have a rated capacity of least equal to that of the chain.

Shop hooks, links, makeshift fasteners formed from bolts, rods, etc., or other such attachments are not to be used.

**WIRE ROPE**

Use the manufacture's tabulated data to determine the safe working loads of various sizes and classifications of improved plow steel wire rope and wire rope slings with various types of terminations. For sizes, classifications, and grades not included in these tables, follow the safe working load recommended by the manufacturer for specific identifiable products, provided a safety factor of not less than 5 can be maintained.

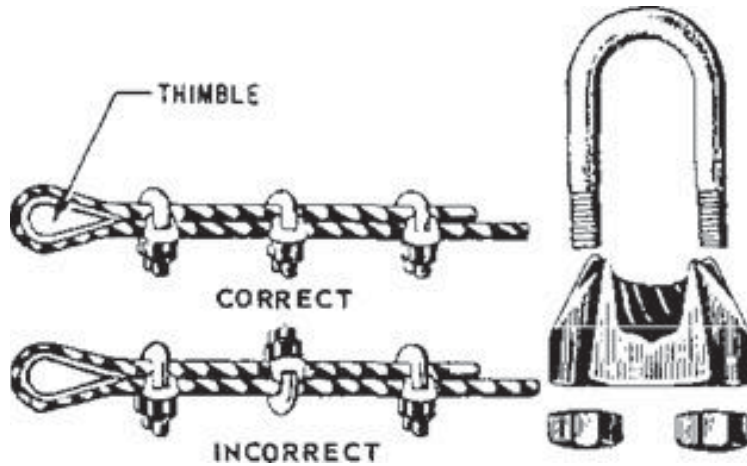
Cover or blunt the protruding ends of strands in splices on slings and bridles. The wire rope shall not be burned off with heat.

Do not secure wire rope knots, except on haul-back lines on scrapers.

The following limitations apply to the use of wire rope:

- An eye splice made in any wire rope shall have not less than three full tucks. However, this requirement shall not operate to preclude the use of another form. Except for eye splices in the ends of wires and for endless rope slings, each wire of splice or connection, which can be shown to be as efficient, and which is not otherwise prohibited.
- Except for eye splices in the ends of wires and for endless rope slings, each wire used in hoisting or lowering, or in pulling loads, shall consist of one continuous piece without knots or splices.
- Eyes in wire rope shall be spliced over thimbles.
- Wire rope shall not be used if, in any length of eight diameters, if the total number of visible broken wires is 10 percent of the total number of wires, or if the rope shows other signs of excessive wear, corrosion or defect

- When U-bolt wire rope slips are used to form eyes, the manufacture's tables shall be used to determine the number of spacing of clips.
- When used for eye splices, the U-bolt shall be applied so that the "U" section is in contact with the dead end of the rope. "Never saddle a dead horse."



Howard S. Wright Construction and their Subcontractors will comply with all manufacturers' specifications and limitations applicable to all cranes or other related hoisting equipment. Any attachments used with cranes or related hoisting equipment cannot exceed the capacity, rating or scope recommended by the manufacturer. In the event manufacturer's specifications are not available, Howard S. Wright Construction will have a qualified engineer document and record the equipment's limits and operational procedures.

All subcontractors shall comply with at least to the minimum requirements of applicable safety standards of State, Federal or Local Regulations. Howard S. Wright Construction will respond to any safety concern expressed by any employee, and will support the decision of any operator who refuses to operate any equipment that is in unsafe condition.

### **General Requirements**

- Project Superintendents shall be responsible for the review and selection of all cranes and other hoisting equipment operators.
- All crane and hoisting equipment operators shall have at least one year experience in the operation of the type of equipment to be assigned.
- All operators must have a full understanding and working knowledge of the load charts, attachments to be used, inspection, maintenance, and the installation or set-up of the equipment assigned.
- All operators must demonstrate proficiency to the satisfaction of the Howard S. Wright Construction. at the beginning of that employee's first work day and before any critical or hazardous lifts are made.
- Crane operators are subject to the Howard S. Wright Construction disciplinary policy and are required to follow all Howard S. Wright Construction rules for safe crane operation.

### **Safe Crane Operation Practices.**

The following Safe Crane Operation Practices are established as Howard S. Wright Construction procedures for the safe operation of all cranes and hoisting equipment. These procedures are not to be used in lieu of any manufacturer's requirements or instructions for the safe operation of a specific piece of equipment. These procedures are to be followed when applicable to the equipment being used, and when they apply to the specific operation.

Exceptions to these procedures may be allowed under the following conditions:

- During set-up operation, without a load hook, with the boom fully retracted for checking swing and counterweight clearance only.
- With the permission of the Project Manager, Superintendent, or Rigging Supervisor.

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**General Crane Safety Procedures.**

- Crane capacity is based on machine operating on firm and level ground.
- Load should not exceed 85% of tipping capacity.
- Proper tire size, inflation, and conditioning must be maintained.
- The operator shall log any and all mechanical or electrical problems on the daily logbook and notify the supervisor of any serious conditions at once.
- The crane shall be fitted with boom angle indicators and other required devices including a load chart inside the cab located at the operator's station for ease of reference by the operator.
- All hoisting equipment shall be operated in compliance with the manufacturer specifications and limitations

**Documentation**

- Operators manual located in cab of crane
- Crane charts located in cab of crane
- Annual inspection record on jobsite
- Daily inspection and maintenance records in cab of crane
- Crane Operator has operators card on person

**Crane Set-up Precautions**

- A proper swing clearance must be maintained.
- All outriggers must be fully extended.
- Pads must be pinned to the outrigger legs and placed on firm footing.
- All tires shall clear the ground.
- The crane must be level.
- Conditions shall be evaluated for stable ground under all outriggers. Outriggers shall not be set on unstable or questionable ground.
- Cranes sitting on steep grades shall be secured by blocking or by other means to assure the crane cannot move.

**Daily Checks**

- At the beginning of each workday, the operator shall perform a test of the load brakes and clutches. Test the load brakes by lifting a load a few inches off the ground and holding it.
- Oiling and greasing shall be done under safe conditions with the machine at rest, except where motion of the machine is necessary to the oiling or greasing.

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**Operating Procedures**

- A minimum clear space of 30 inches shall be maintained between the crane body, the counter weight, and any other moving parts of the crane and fixed objects nearby. This precaution is necessary to prevent crushing injuries to workers that may become trapped by the movements of the crane. The swing radius of the crane must be barricaded at all times.
- The weight of all loads shall be known prior to any lift. The load chart shall be used at all times to determine radius and capacities of the crane. The crane will be operated only within its capacity.
- At no time will a crane be operated with computer systems or limit switches in a non-functioning or override position.
- Loads shall not be dragged or pulled sideways. This practice places stress on the boom and overloads the crane.
- Swinging any load shall be performed slowly. Swinging a load too fast can increase the load radius, causing overloading and the risk of striking workers, equipment or structures.
- The operator shall avoid carrying a load overhead of people. The operator may, at times, need to remind signalmen or workers of this important safety precaution.
- Attachments used with the hoisting equipment shall not exceed the capacity, rating, or scope recommended by the manufacturer.
- Assure the hook is directly over the center of gravity of the load before lifting the load.
- Hand signals for crane operations shall be posted on the jobsite and on the crane visible to the operator. Signalmen shall use only prescribed signals for the type of crane in use.
- Rigging gear must be inspected before each use. Damaged rigging taken immediately out of service.
- Rigging must be rated for safe capacity of that lift.
- The following precautions shall be taken when moving a crane or while traveling with a load:
  - All access roads and operating areas for mobile cranes shall be inspected for adequate ground strength to support the crane and any load. Cranes shall not travel on any road or operating area until adequate ground strength has been determined, or provided.
  - The travel route of any mobile crane shall be checked prior to travel to assure proper clearances from structures, overhead power lines, and consideration for underground utilities.
  - If equipped, the operator shall use all running, warning and signal lights on a mobile crane when traveling.
  - Signalmen will be used to guide and signal the movements of all mobile cranes. Operators shall not operate or travel any crane without constant visual or voice command of the signalman.
- Pick and carry operations shall be allowed only if it is allowed by the crane load chart and only if the load and lift configuration falls within the parameters of the load chart. The following conditions are to be observed during any “on rubber” pick and carry:

**Electrical Clearance Safety**


The operation of any equipment closer to high voltage lines than the distance listed below is positively prohibited. Clearance refers to the way the equipment is located for the job - not how it is operated while working. Clearance is measured from the boom at its closest boom angle to the proximity of the energized lines.

**Mandatory Clearances for High Voltage Lines**

<b>VOLTAGE</b>	<b>MINIMUM REQUIRED CLEARANCE</b>
Under 50,000	10 feet
Over 50,000 - 75,000	11 feet
Over 75,000 - 125,000	13 feet
Over 125,000 - 195,000	15 feet
Over 195,000 - 250,000	19 feet
Over 250,000 - 370,000	21 feet
Over 370,000 - 550,000	27 feet

The above clearances apply in any direction, vertical or horizontal.

Any overhead line shall be considered to be an energized line unless and until the owner of the line, or the electrical utility authorities have provided information showing the line is not energized and that the line has been grounded.

	<h2 style="margin: 0;">CRANE PICK PLAN</h2> <p style="margin: 5px 0;">JOB NAME: _____ JOB NO: _____</p> <p style="margin: 5px 0;">SUPERINTENDENT: _____</p>
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<b>GENERAL</b>	<p>CONTRACTOR IN CHARGE OF CRANE OPERATIONS:</p> <p>DATE OF PICK: _____ TIME OF PICK: _____</p> <p><input type="checkbox"/> HSWC <input type="checkbox"/> OTHER:</p> <p>NAME OF PERSON IN CHARGE OF CRANE OPERATIONS:</p> <p>DESCRIPTION OF LOAD:</p> <p>SPECIFIC WORK AREA:</p>
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<b>PICK CONDITIONS</b>	<p>WEIGHT OF LOAD: _____</p> <p>LOAD HEIGHT: _____</p> <p>BOOM LENGTH: _____ JIB LENGTH: _____ BOOM ANGLE: _____ Degrees</p> <p>LENGTH OF RADIUS NEEDED: _____</p> <p>CAPACITY OF CRANE AT THIS RADIUS: _____</p> <p>OTHER: _____</p>
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<b>WEIGHT OF LOAD</b>	<p>LOAD _____ lbs</p> <p>EFFECTIVE WEIGHT OF JIB _____ lbs</p> <p>EFFECTIVE WEIGHT OF HEADACHE BALL (X2) _____ lbs</p> <p>WEIGHT OF LOAD BLOCK _____ lbs</p> <p>SLING WEIGHTS _____ lbs</p> <p>SHACKLE WEIGHTS _____ lbs</p> <p>SPREADER BAR _____ lbs</p> <p>OTHER: _____ lbs</p> <p>OTHER: _____ lbs</p> <p>OTHER: _____ lbs</p> <hr/> <p><b>TOTAL LOAD WEIGHT</b> _____ <b>lbs</b></p>	<p>Notes:</p>          
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<b>PRE-PICK CHECKLIST</b>	The capacity of the crane is greater than the weight of the load	<input type="checkbox"/> YES <input type="checkbox"/> NO
	Ground Conditions have been inspected and considered safe	<input type="checkbox"/> YES <input type="checkbox"/> NO
	All utilities (both underground and overhead) have been located and protected	<input type="checkbox"/> YES <input type="checkbox"/> NO
	The crane is level and the outriggers fully extended	<input type="checkbox"/> YES <input type="checkbox"/> NO
	Crane has had it's annual inspection	<input type="checkbox"/> YES <input type="checkbox"/> NO
	Crane has been inspected in accordance with the Daily Operations Checklist	<input type="checkbox"/> YES <input type="checkbox"/> NO
	Crane swing radius has been roped off as needed	<input type="checkbox"/> YES <input type="checkbox"/> NO
	Boom angle indicator is visible to the operator	<input type="checkbox"/> YES <input type="checkbox"/> NO
Other:		

<b>OTHER CONSIDERATIONS</b>	
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<b>PICK SUPERVISOR SIGNATURE</b>
<b>SUPERINTENDENT SIGNATURE</b>

ROUTING:     Superintendent  
                   Regional Safety Manager

**Introduction**

Tower Crane selection and sizing should be pre-planned as a function of the Howard S. Wright Construction Phased Safety Planning process. The Superintendent and Regional Safety Manager should be directly involved in this planning meeting. Consideration must be given to local conditions and potential permits required. For critical picks, use the Critical Pick Plan.

A specific Tower Crane erection, jumping, or dismantling Job Safety Analysis should be written and a safety meeting must be held at the job site prior to these work processes.

The following checklist should be used as a guide for issues that must be addressed at this meeting.

**Tower Crane Erection, Jumping, Dismantling Checklist**

- ❑ All tower cranes must be erected, jumped, dismantled and operated in accordance with the manufacturer specifications and procedures. (Operating manual must be provided on site.)
- ❑ The Tower Crane lessor must provide the erector and Howard S. Wright Construction with a list of verified weights of all major component parts.
- ❑ The Tower Crane lessor must provide the erector and Howard S. Wright Construction with written procedures for erecting, jumping (when appropriate) and dismantling each major component. This will include proper torquing specifications and procedures.
- ❑ The Tower Crane lessor must assure that all components of the crane arrive at this jobsite in safe working condition.
- ❑ The Tower Crane lessor, erection contractor, mobile crane operator and/or representative and Howard S. Wright Construction superintendent must make a physical inspection of the erection site to assure adequate set up area and proper radius and load chart capacities.
- ❑ The erector must provide a load chart for the crane to be used in the erection process.
- ❑ The erector must provide a Fall Protection Work Plan for the erection, jumping, or dismantling process.
- ❑ The Tower Crane erector's representative must be on the job site to monitor the erection process.
- ❑ Soils and footings for both the Tower & Mobile Crane must be verified as adequate for the erection process.
- ❑ The Tower Crane erector's representative must inspect, test and certify in writing that the Tower Crane is in safe working condition prior to any work being performed.

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**TOWER CRANE SIGNALING GUIDELINES****Radio Communication**

3C's - The base communication

- Be clear: clearly state the command
- Be concise: keep words to a minimum
- Be Consistent: give the same command for the desired result each time

Incorporate these principles with the specific instructions and you should receive satisfactory results minimizing any danger to people, or damage to property.

Take time to assure proper keying of the radio microphone so operator actually gets the command. Batteries in radios go dead frequently so it's always a good idea for the bellman to carry an extra.

Most cranes have a range of gears to properly match the hoisting capacity to the load. Once you have told the operator approximately how much weight the pick is he/she will choose the appropriate gear.

To start the hoisting or lowering of the load use words like "up easy" or "down easy". This determines the desired speed.

Remember your operating the crane! The operator is only the controls for you. Each operator's preferred radio commands vary, so these signals should only be used as guidelines.

**Radio Commands**

"Up" is divided into four groups:

- "Up easy" or "up for choker" = to engage the load and center
- "Up" = after the load is off the ground
- "Up" "Up" = faster
- "Up highball" = fastest

Additional information must be communicated if you want a small amount of up. "up a bump" "up a dog" "up a bit" can be easily misinterpreted. Specify approximate distance! (i.e. 1', 6" etc.)

Once receiving a load in the air, as the load gets near the desired height, the command "easy" is given to slow down, followed by "Hi" or "load" to stop. The Bellman needs to understand crane gear mechanism so the "easy" signal is given at appropriate time. (i.e. @ 40', 30', 20')

Down is divided into three groups.

- "Down Down" = fastest
- "Down" = slowing up
- "Down Easy" = slow and, then:
- "Hi" or "load" = stop

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Additional information must be communicated if you want a small amount of down: **Again specify approximate distance.**

“Boom” is divided into two directions “up” and “down”. “Trolley” can also be used for the same result and is also divided into directions “In” and “Out”.

- ❑ “Boom Up” or “Trolley In” decreases the radius from the center of the crane.
- ❑ “Boom Down” or “Trolley Out” increases the radius distance from the center of the crane.
- ❑ “Easy” should always precede the command to stop!
- ❑ “Swing” is divided into two directions: “left” and “right”

Note: Command is always from the operator’s view.

Stop commands are as follows:

- ❑ To stop the trolley - trolley (i.e. “trolley out; easy; trolley”)
- ❑ To stop the swing - swing (i.e. “swing right; easy; swing”)
- ❑ To stop the hoisting of the load, up or down, “Hi” or “Load” can be utilized. (i.e. “down, easy, load”)

One other necessary command is that if a period of time the crane operator is not utilized you need to “dog off”. Once you need to again utilize the crane, re-establish line the communication with the operator. Give the operator appropriate time to get back into focus of the task at hand.

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**POLICY**

The Howard S. Wright Constructors, Hazard Communication Program will be used on all Howard S. Wright projects. All employees, Subcontractor and Subcontractor employees will be subject to the provisions of this program.

**PROCEDURE****Hazard Communication Manual**

Each project is to maintain a Hazard Communication Manual. A basic manual will be provided for each project. It will be the responsibility of the project staff to maintain this manual for the duration of the project.

Each manual will contain:

- The Howard S. Wright Hazard Communication Program.
- Classification and Index of Chemicals including those being used on the project.
- Material Safety Data Sheets for each chemical listed.
- Training outlines and records of training.
- Job Hazard Analysis for any chemical usage.
- Terms and definitions used in Hazard Communication

All chemicals to be used by the project will be classified and indexed in the manual using the following alphabetical sequence and titles to classify each chemical product.

- |                               |                                  |
|-------------------------------|----------------------------------|
| ▪ Acidic and Caustic Products | ▪ Office and Copier Chemicals    |
| ▪ Ammonia's                   | ▪ Pesticides                     |
| ▪ Cement and Related Products | ▪ Petroleum Lubricants and Fuels |
| ▪ Cleaners and Detergents     | ▪ Power Loads and Boosters       |
| ▪ Curing Agents               | ▪ Primers Paints and Bisects     |
| ▪ Gases                       | ▪ Roofing Materials              |
| ▪ Glue, Epoxy and Adhesives   | ▪ Sealants                       |
| ▪ Grinding Wheels             | ▪ Solvents                       |
| ▪ Herbicides                  | ▪ Treated Wood Products          |
| ▪ Insulation                  | ▪ Water Treatment Products       |
| ▪ Janitorial Supplies         | ▪ Welding Products               |
| ▪ Metals                      |                                  |

Once the chemical product has been classified, it will be given an index number using the next available number in the Material Safety Data Sheet (MSDS) Index for that classification. Each classification Index is part of the chemical list that is required by State and Federal law to be maintained for each project. The index classification and number is to be written in the upper right hand corner of the MSDS and then placed in the manual in the appropriate location. This manual is to be kept in a location that is available to all employees on all shifts.

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**MATERIAL SAFETY DATA SHEETS**

Material Safety Data Sheets (MSDS) are available from the manufacturer, distributor or supplier of chemical products. Each project is responsible for obtaining the MSDS for the chemical products to be used on the project.

Prior to any issue or use of a chemical product, the MSDS must be reviewed by project management to assure the product is used in a manner that will assure the safe handling, storage, use, clean up and disposal practices. If needed, the project will provide the procedures and equipment to control exposures with local exhaust, engineering controls, special work or administrative controls, and the appropriate personal protective equipment.

The minimum items of information that an MSDS should contain include:

- Product name or chemical identity on the label.
- Manufacturers name, address, and phone number for emergency information.
- Chemical names and common names for all hazardous ingredients.

All hazardous ingredients in concentrations of 1 percent or greater of the total mixture, or ingredients considered carcinogens in concentrations of 0.1 percent or greater must be listed. If there is a potential that ingredients could be released in concentrations that exceed permissible limits, this must also be noted.

- All applicable limits, including OSHA permissible exposure limit (PEL), and American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV).
- The physical and chemical characteristics, such as the vapor pressure and flash point.
- Hazards associated with the chemical, such as the potential for fire, explosion, and reactivity.
- Ways the chemicals are absorbed by the body, such as inhalation, through the skin, and ingestion.
- The acute and chronic health hazards associated with the chemical.
- The signs and symptoms of exposure, and the medical conditions that may be aggravated by exposure.
- Carcinogenic hazard as determined by the National Toxicology Program (NTP), the Annual Report on Carcinogens International Agency for Research on Cancer (IARC) Monographs, or regulated by OSHA. *Note: If a chemical is not carcinogenic, and there is not information pertaining to its potential carcinogenicity, then the information does not need to be listed.*
- Recommended emergency and first aid procedures.
- Methods for safe handling and use, including clean up and disposal practices, repair and maintenance, protective measures, and spill/leak clean up.
- Measures to control exposures such as local exhaust and engineering controls, work practices, and the appropriate personal protective equipment.

- The Company must update all MSDSs within three months from the time the Company, the product manufacturer, or importer learns of significant new information regarding the safety aspects of the product.

The project staff must review each MSDS received with material to assure the latest issue of the Material Safety Data Sheet is being maintained in the Howard S. Wright Hazard Communication manual.

### **Product Labeling**

All chemical products received at each project will be inspected for minimum product labeling which meet the requirements of the Hazard Communication Standards and this program. It is the policy of Howard S. Wright Constructors, that no container be accepted on any project that does not meet the minimum requirements for labeling as described in this plan. Each container label must contain the following information:

- A clear description of the contents.
- Appropriate hazard warnings.
- The name and address of the Manufacturer.

It is the Policy of Howard S. Wright Constructors that no container be released for use until the above has been verified.

Precautions must be made to preserve original labels in legible condition

Secondary containers used for the dispensing or mixing of chemicals must be provided with a label that contains the same required information for the original container, or a clear description of the contents, and appropriate hazard warnings.

### **Employee Training**

All new hire employees will receive training on the contents of this program. Each employee will also receive a copy of the Employee Safety Handbook, which contains important information and guidelines for the employee that may use or be exposed to hazardous substances on the project.

During the new hire orientation the employee will be provided with the following information:

- The content and purpose of Howard S. Wright Hazard communication Program.
- The location of the Howard S. Wright Hazard Communication Manual.
- The location of work areas where hazardous chemical are located.
- All precautions Howard S. Wright has taken to reduce the risk of exposure.
- What health risk may be involved with the chemicals on the project.
- How to detect the presence or release of hazardous chemicals.
- Methods that employees may use to protect themselves from the hazards, such as safe work practices, emergency procedures and the use of personal protective equipment.
- How to obtain and use hazard information, including the use of MSDS.
- The purpose and usefulness of the container labeling system.



Upon completion of the orientation training, each employee will acknowledge the training received and their responsibility to read and understand the Hazard Communication Program by signing the Hazard Communication Training Certificate. A copy of this training Certificate will be maintained on file in the Hazard Communication Manual for the project.

Howard S. Wright does not train only new employees. Each occurrence of change to the project where a new hazardous material is introduced to the work environment, all employees will receive an update to the Hazard Communication Training.

The Orientation to Hazard Communication will be supplemented with training on specific Hazardous or Toxic materials for those employees that will be using these materials.

Specific Training will include at least the following:

- The health hazards associated with the chemical.
- How to determine the presence or release of the hazard into the work area.
- The contents of the Material Safety Data Sheet for the chemical.
- Training on the use of all required Personal Protective Equipment.
- Engineering or Administrative controls to reduce or control exposures.
- How and where to properly store the material when its not in use.
- How to properly apply the Chemical Product, including the use of any tools or equipment associated with its application or use.
- Procedures for clean up and disposal.
- Procedures for an emergency spill or release.

Employee training will be reviewed by periodic assessments to assure employees are being properly trained and they are using the training provided.

### **Hazardous Non-Routine Tasks**

Periodically, employees are required to perform hazardous non-routine tasks. Prior to starting work on such projects, each affected employee will be given information by their supervisor about the hazards to which they may be exposed during the activity. This information will include:

- Specific chemical hazards

Protective gear and safety measures the employee can use

- Measures the company has taken to lessen the exposure
- Safety hazards
- Other data, as relevant
- If another employee is required to be present
- Emergency procedures which apply to the situation.

**Subcontractors Hazard Communication**

Howard S. Wright will communicate to all Subcontractors the following information:

The location of all hazardous materials on the project.

- The location of the Howard S. Wright Hazard Communication Manual, which also contains the Project Chemical List and MSDS.
- The necessary precautions needed to protect the employees of the subcontractor during normal operating conditions and foreseeable emergencies.
- Any special label or warning systems used on the project.

Subcontractors will provide to Howard S. Wright Project Management the following:

A copy of the Subcontractors Hazard Communication Program which meets the minimum requirements of state and federal regulations.

- A copy of the Chemical List and the Material Safety Data Sheets for each chemical on the list.
- **An update to the Chemical List and Material Safety Data Sheets as soon as new chemicals are brought to the project and before these chemicals are used.**

The Howard S. Wright Project Management Staff will periodically monitor all subcontractor hazard communication programs. Subcontractors failing to meet the minimum requirements will be required to halt all hazardous material operations until the requirements are met.

**Record Keeping**

Due to the nature of exposures to Hazardous Materials, it is important to maintain adequate records, and in some cases, a State or Federal requirement to maintain records for as long as thirty years. All documentation completed as a requirement of this program is to be archived with special attention to the fact that strict regulation for record retention may be required.

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**Policy**

It is the policy of HSWC for employees to not directly perform asbestos abatement work or be to exposed to unacceptable levels of asbestos. It is preferred that the owner provide a good faith survey and have any asbestos containing materials abated prior to turning the jobsite over to HSWC.

**Owner Requirements**

The owner is required to conduct an analysis of the facility, using a competent, experienced, professional environmental engineering or consulting firm to determine.

- The location of asbestos and lead-containing materials
- The exposure potential created by those materials
- The quantity of those materials
- The estimated cost for removal and replacement with non-asbestos and nonlead-containing materials
- Specific recommendations as to the logical process for abating and controlling the materials.

The owner shall provide HSWC with a "Good Faith Survey" identifying the location of any and all asbestos on the project. HSWC shall maintain a copy of the survey on site for review and/or inspection.

**Suspect Materials**

Asbestos was used in almost 3000 products with over 2000 commonly found in building construction, serving both exterior and interior functions. Most uses fall into these five major areas.

- Spray-applied acoustical and decorative ceiling finishes
- Spray and trowel-applied fireproofing for structural steel
- Insulation on various mechanical and HVAC equipment
- Cementitious asbestos products
- Miscellaneous building materials

These materials are usually composite materials of mineral wool, gypsum, and other plasters, such as vermiculite and perlite, mixed with varying degrees of asbestos fiber. The asbestos is added for one of two reasons:

- As reinforcement fiber to hold together mixtures of plasters and in forming pipe insulations.
- As heat retardation in mechanical insulation, especially -on high and medium pressure steam lines and boiler heads.

**Worker Training**

All workers shall be informed as to the potential locations of asbestos and shall be trained in the proper procedures to isolate and report any asbestos found.

**Asbestos Discovery**

If asbestos containing material is found the following procedures shall be followed:

- Stop work.
- Secure the scene.
- Contain the asbestos.
- Notify the superintendent immediately.
- Contact the Regional Safety Manager.
- An abatement contractor shall be contacted to abate the area.

**It is the policy of HSWC for employees to not directly perform asbestos abatement work.**

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**Requirements**

The superintendent should determine whether any surface to be disturbed or altered contains lead or has a surface coating that contains lead.

All employees potentially exposed to lead must be in a Medical Surveillance Program for Lead. If lead work is to be performed by HSWC, the Regional Safety Manager will assist in the development of a Medical Surveillance Program and a job-specific Lead Compliance Plan.

**Interim Protection Measures**

Until the initial exposure assessment can be conducted, the following protective measures must be implemented:

- Provide coveralls or other similar full body covering.
- Provide gloves, hats, shoes or disposable shoe coverings.
- Provide face shields, goggles or other appropriate protective equipment.
- Provide change areas and hand washing facilities.

Provide half face respirators with HEPA cartridges where lead coatings or paint is present and any of the following activities will occur:

- Manual demolition of structures.
- Manual scraping.
- Manual sanding.
- Heat gun applications.
- Power tool cleaning with dust collection applications.
- Spray painting with lead paint.

Provide Loose fitting hood or helmet powered air purifying respirator with high efficiency filters, or hood or helmet supplied air respirator operated in a continuous-flow mode when performing tasks involving:

- Lead containing mortar.
- Lead burning.
- Rivet busting.
- Power tool cleaning without dust collection systems.
- Cleanup activities where dry expendable abrasives are used.
- Abrasive blasting enclosure, movement and removal.

Provide full-face piece supplied air respirator operated in pressure demand or other positive-pressure when performing tasks involving:

- Abrasive blasting.
- Welding.
- Cutting.
- Torch burning.

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**Initial Exposure Assessment**

The Competent Person should contact HSWC Regional Safety Manager to determine whether historical air monitoring data is available that accurately represents exposure conditions for the Initial Determination for the project.

In the absence of representative historical data, air monitoring should be conducted.

**Negative Initial Determination**

Exposures to lead below an 8-hour time-weighted average of  $30\mu\text{g}/\text{m}^3$  requires a written record which includes:

- Date of determination.
- Location within the worksite.
- Name of each employee monitored.
- Monitoring results.
- Type of activity conducting during monitoring.

No further action regarding lead is required.

**Exposures to lead above an 8-hour time-weighted average of  $30\mu\text{g}/\text{m}^3$  and below  $50\mu\text{g}/\text{m}^3$** 

All employees potentially exposed to lead must:

- Be in a Medical Surveillance Program for Lead.
- Have received training.
- Utilize the appropriate PPE and personal hygiene procedures as outlined in the project-specific safety plan.

**Exposures above the 8-hour time-weighted average Permissible Exposure Limit of  $50\mu\text{g}/\text{m}^3$** 

In exposures above this level, HSWC supervision should develop a Lead Compliance Plan. The compliance plan must include the following:

- A description of work activities that expose personnel to lead.
- Equipment to be used and procedures to be followed during lead exposure activities.
- Employee job responsibility and crew size during lead exposure activities.
- Maintenance practices to be followed for servicing and cleaning equipment and disposing of waste.
- Specific instructions on how to set up the engineering controls (ventilation; containment; etc.).
- Air monitoring data from the initial assessment.
- A detailed work schedule for the implementation of the plan.
- A description of arrangements made among contractors on multi-contractor sites with respect to informing affected employees of potential exposure to lead.
- The name of the competent person for the site.

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A Competent Person should be appointed who will be responsible for:

- Performing regular inspections of the job site materials and equipment during the job.
- Ordering the PPE specified in the Lead Compliance Plan.
- Providing for the cleaning, laundering, and disposal of protective clothing and equipment.
- Notifying the HSWC Regional Safety Manager whenever there is a change in the lead job that has not been addressed by the Lead Compliance Plan.
- Requiring that Engineering Controls are on site and installed correctly before work begins.
- Implementing the engineering controls specified in the Lead Compliance Plan for the site.
- Providing hygiene facilities which include:
  - A clean change room equipped with separate Lockers for the storage of street clothes and work clothes.
  - A shower and hand washing facilities.
  - A lunch area free from lead contamination.
- Establishing rules that will maintain proper housekeeping in the lead abatement area, specifically:
  - Prohibit contaminated clothing and equipment outside of lead work area.
  - Require lead workers to shower at the end of the shift and wash up before eating and drinking outside the lead area.
  - Segregate dirty or contaminated equipment from clean work areas.
  - HEPA vacuum all lead-contaminated surfaces.
- Labeling lead hazardous areas and equipment.
- Marking lead hazardous areas with boundary tape and signs stating: **WARNING, LEAD WORK AREA, POISON, NO SMOKING OR EATING**
- Marking lead contaminated equipment and debris with labels warning of the lead hazard.
- Notifying contractors and subcontractors before work begins.
- Requiring contractors to know the location of lead in the job site. Even if contract workers are not directly exposed they may need to still perform training required under the hazard communication standard.
- Maintaining requirements of the Lead Compliance Plan throughout the job.
- Directing the appointed Competent Person to inspect the jobsite at least daily for those days when lead operations are performed.



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**Documentation**

These records must be on file on the jobsite:

- Physician's medical clearance for lead workers.
- Proof of blood lead testing for personnel.
- Pre-Job Lead Hazard Initial Assessment.
- Air monitoring results.
- Completed Lead Job Inspection forms.
- Lead Compliance Plan for the job (as necessary).

**Training Requirements for Lead Workers**

HSWC should assure that each employee is trained in the following:

- The content of lead in construction-standard
- The specific nature of the operations that could result in exposure to lead above the action level.
- The purpose, proper selection, fitting, use, and limitations of respirators.
- The purpose and description of the medical surveillance program and the medical removal protection program including information concerning the adverse health effects associated with excessive exposure to lead.
- The engineering controls and work practices associated with the employee's job assignment including training of employees to follow relevant good work practices.
- The content of any lead compliance plan and the location of regulated areas in effect.
- Instructions to employees that chelating agents should not be routinely used.
- The employee's right of access to records.

**Introduction**

It must be recognized, HSWC and all subcontractors are responsible for the safety of their own workers, regardless if they create the hazard or not. Therefore control of silica dust must be a coordinated, joint effort. Worker exposure to silica must be controlled. Failure to protect the worker is not a viable option.

This program is based on the principal of exposure avoidance. With HSWC and all subcontractors involved in the project making an effort to reduce or avoid silica exposure, all contractors can:

- Reduce actual worker exposure to silica, thereby minimizing the likelihood of the worker developing silicosis.
- Simplify, reduce or eliminate the need for medical evaluations, personal protective equipment, and additional worker training.
- Avoid OSHA citations.

The structure owner or contracting entity should also be aware of the silica control program and agree to assist in its successful implementation.

**Pre-Planning**

Prior to the start of the job phase, HSWC and all subcontractors should meet to identify potential silica exposures expected during the project (e.g. rock drilling, concrete grinding or sawing).

Each contractor responsible for tasks that may release silica dust should develop an action plan to avoid worker exposure, for both their own workers and other contractors. The plan should include:

- Specific tasks that could release significant amounts of silica.
- Anticipated location, starting and ending dates for each task.
- Specific controls that will be used to reduce or eliminate silica release (e.g. wet sawing or drilling, misting of dust, use of local exhausted power tools).

These plans will be distributed to all contractors involved on the project.

Each contractor will review the silica action plans in regards to how they may impact workers and incorporate them into their plans to avoid potentially significant exposures. Sometimes this may involve temporarily suspending operations in a specific area during a silica activity, or scheduling the work activity for off hours.

HSWC and all subcontractors should meet to discuss the proposed controls, to ensure maximum avoidance of silica exposure for all workers.

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### Engineering Controls

The supervisor should review the project to determine which, if any, engineering controls are feasible on this particular project. If an employee overexposure exists, OSHA requires all feasible engineering controls be used to reduce exposure below the Permissible Exposure Level (PEL).

Engineering control methods may involve the following:

- Wet sawing.
- Wet drilling.
- Water mist or fog to control dust clouds.
- HEPA filtered local exhaust power tools.
- Enclosed, filtered, air conditioned equipment cabs.
- Non-silica containing abrasives for use in abrasive blasting.
- Housekeeping to minimize accumulation of silica-containing waste (spent abrasive, drilling/grinding dust).
- Clean up and containerize waste as soon as feasible after generation (HEPA vacuum, or wet sweeping only).

### Administrative Controls

Administrative controls can be used in conjunction with engineering controls to further reduce the likelihood of worker exposure or to minimize the number of workers who are over exposed. These administrative controls may include:

- Contractors who anticipate doing silica dust creating work should notify other contractors as far in advance as possible as to the location, date, start time and duration.
- Contractors will to the extent feasible, limit silica generating work to off hours, or coordinate times when other contractors can vacate the immediate work area.
- Contractors will, to the extent feasible, leave the immediate work area while other contractors are conducting silica-generating operations.
- All areas with silica-generating activities will have silica warning signs posted at all access points and the area flagged off if necessary to prevent unauthorized workers from entering during silica generating operations.
- Rotating workers from high silica exposure jobs to low exposure jobs during the day

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**Personal Protective Equipment (PPE)**

If the contractor determines that engineering controls and administrative controls may not adequately protect their workers, personal protective equipment must be utilized. The need for all of the following basic PPE should be evaluated for each project:

- Eye protection
- Face protection (face shield)
- Hearing protection
- Worker protective clothing (either disposable or reusable)
- Foot protection (safety shoes)
- Head protection (hard hat, blast helmet)
- Respiratory Protection

In many cases with engineering and administrative controls, respirator use can be avoided entirely or at least limited to half-mask or full-face negative pressure, air-purifying respirators. Use of respirators will require a functioning respiratory protection program including worker training, fit-testing, and medical evaluation.

A simple medical questionnaire reviewed by a physician and their written medical opinion will often suffice for the medical evaluation. Training and fit testing can be conducted on site using:

- Trained in-house personnel.
- Insurance carrier loss control staff.
- Safety supply house or manufacturer's representatives.
- Private safety & health consultant.
- Trade group Health and safety personnel.

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### Respirator Selection

Respirator selection is best based on air monitoring results obtained on the job site.

Many times, because of the short duration of the job, and obviously for initial respirator selection, this is not practical. Therefore, the chart below can be used for guidance in respirator selection when other data is not available:

<b>Operation</b>	<b>Preliminary Protection</b>
Chipping concrete	Half Face Respirator
Drilling Rock	Full Face Respirator
Drilling Concrete Pavement	Half Face Respirator
Grinding Concrete	Half Face Respirator
Jack Hammer Concrete	Half Face Respirator
Sawing Concrete – Dry	Full Face Respirator
Sawing Concrete – Wet	Half Face Respirator
Sand Blasting	Supplied Air Respirator

If feasible, air monitoring to confirm the appropriateness of the selection should be conducted as soon as possible. All Filter respirators should use HEPA filters per NIOSH recommendations. For other job tasks or situations a certified industrial hygienist or other competent person should be consulted to determine what, if any, respiratory protection may be required.

### Personal Hygiene

All workers exposed to silica dust should wash their face and hands prior to smoking, drinking, eating and at the end of the shift.

Eating, drinking, smoking, use of chewing gum or tobacco is prohibited in all areas contaminated with silica dust.

To the extent feasible, all worker vehicles should be parked away from an anticipated silica dust generating operation

Workers with anticipated exposures at or above the OSHA permissible limit should wear protective clothing (i.e. disposable Tyvek suit or washable work clothing) that stays on site. In some situations thoroughly vacuuming worker clothing with a HEPA filtered vacuum may be sufficient.

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### Employee Training

All workers should be trained to at least a Hazard Communication level awareness of silica. This training should cover the following topics:

- Adverse health effects of silica.
- Tasks, locations, jobs that may generate silica dust.
- Methods, equipment, procedures to be used to minimize dust generation and importance of following procedures.
- Methods used to determine worker exposure.
- Need to avoid silica-generating activities and to vacate the area if feasible when a silica generating task is started.
- Availability of any medical records that may be generated.
- Availability of any air monitoring records that may be generated.

### Air Monitoring

If feasible, air monitoring should be conducted at job sites where there is a potentially significant silica exposure. The purpose of the monitoring is to ensure that the appropriate level of respiratory protection is chosen.

For jobs less than one week in duration, or on remote jobsites, obtaining data for use on that particular job may not be possible. However, the contractor may still wish to conduct air monitoring to:

- Document what the worker exposure was and if respirator selection was adequate.
- Generate historical data to help anticipate future respirator and PPE needs.
- Generate data that could be useful in future workers compensation cases.

Air monitoring should conform to the following parameters:

- Personal sample are preferred over area samples.
- Personal samples should capture the "respirable dust fraction" only.
- Sampling equipment should be calibrated prior to and after sampling.
- Sample data documentation must be maintained.
- A competent person should collect samples.
- A laboratory accredited by the AIHA for silica analysis should analyze the samples.

**Medical Monitoring**

Medical monitoring due to silica exposure is currently not required under OSHA regulations. If medical monitoring of workers is required by contract or desired by the contractor, the examination should include the following:

- The worker's personal medical and occupational history; particularly the past exposure to silica or symptoms of respiratory disease.
- Blood pressure.
- Chest X-ray.
- Pulmonary function test (spirometry).
- Any other text the examining physician feels is needed.

Workers must be notified that the results of these exams are available for their review.



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**Introduction**

All first aid trained personnel who may potentially be in contact with human blood or other bodily fluids during the course of their first aid duties may potentially be exposed to bloodborne pathogens such as Human Immunodeficiency Virus (HIV) or Hepatitis B Virus (HBV). The Occupational Safety and Health Administration (OSHA) has published the Bloodborne Pathogen Standard to prevent contact with and contamination by infected blood or other bodily fluids.

The standard is based upon "universal precautions," or the assumption that all bodily fluids must be treated as contaminated.

The following exposure control plan is being implemented to prevent contamination and potential infection of any associate, and to comply with respective OSHA and state plan regulations.

**Exposure Determination**

All project managers, superintendents, and foremen can potentially be exposed due to their training and intended response as first aiders on each job site. These are the only positions officially designated to respond, and are the only positions potentially exposed. No personnel are constantly exposed to contaminated bodily fluids. In fact, many may never be so exposed. Meanwhile, it is remotely possible that other field employees could be exposed based upon their proximity to a given accident. Any involvement would be a matter of circumstances or personal choice, rather than part of their job duties. Office personnel would have no exposure as a result of official job duties, and would have minimal exposure on an incidental basis.

**Control Plan**

Any potentially exposed associate must be provided free personal protective equipment to be used in a first aid situation. To accommodate this need, a minimum of two sets of the following equipment will be provided and properly stored with each first aid kit: gloves, face shield (with eye protection if desired), lab coat or other disposable protective covering, ventilation device, and plastic resealable container for soiled bandages, etc.

This equipment, or the equivalent, is intended to prevent contact with any bodily fluids. All involved or potentially exposed employees must wear the aforementioned equipment while rendering first aid. Failure to do so may be grounds for disciplinary action.

All used/soiled protective equipment will be destroyed or decontaminated in a proper manner (incineration, cleaning with a disinfectant, etc.), depending upon the item.

Each project manager is responsible for ensuring that all potentially exposed personnel are thoroughly trained in the care, use, location, handling, removal, decontamination, and disposal of all such personal protective equipment.

Soap and water or other cleaning agents must be available on each job site. Moreover, it will be thoroughly used by all responding first aiders after removal and proper disposition of protective equipment. The hands, along with any exposed body areas, will be cleansed.

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**Vaccinations**

Hepatitis B Virus vaccine should be made available to those potentially exposed personnel (vaccinations will be administered by a doctor or medical clinic/hospital). Refusal to use the vaccine will be documented and signed by the refuser. Vaccinations should be given only after employees understand the benefits and exposures associated with the vaccine. The three-shot series should be started on doctor's orders and within 24 hours of a potential exposure. Only full-time medical assistance personnel need shots in advance.

All records associated with vaccinations should be kept confidential. Each employee should sign a form (to be placed in the personnel file) acknowledging receipt of appropriate training and his/her agreement to abide by the controls. Medical records must be kept for the duration of employment, plus 30 years. Thus, these records should be forwarded to the corporate office upon completion of the job.

If exposure should occur, all contaminated clothing should be removed and the area should be washed thoroughly with soap and water if possible. This procedure should be followed by medical attention and testing for infection.

**Training**

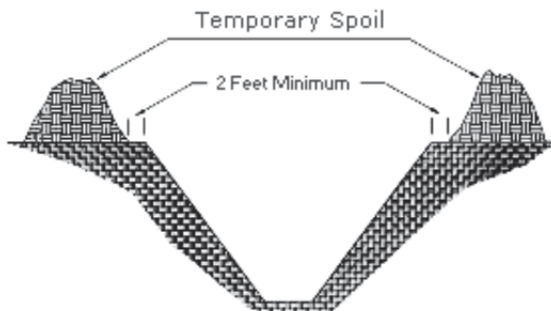
Employees must be trained within 90 days of the effective date of the ruling, initially upon assignment, and annually thereafter. Employees who have been trained within the last year need only receive additional training on items not previously covered.

The training must include making accessible a copy of the Bloodborne Pathogen Standard and an explanation of its contents including:

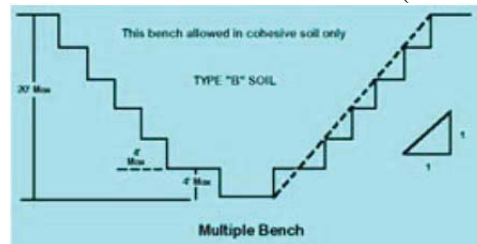
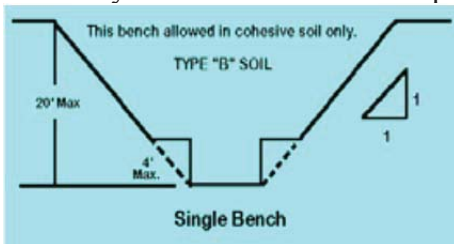
- General discussion of bloodborne diseases and their transmission
- The Exposure Control Plan
- Engineering and work practice controls
- Personal protective equipment
- Hepatitis B vaccine
- Response to emergencies involving blood, how to handle exposure incidents, and the post-exposure evaluation and follow-up program.

Each associate must be given an opportunity to voice questions and receive answers, and the trainer must be knowledgeable in the subject matter.

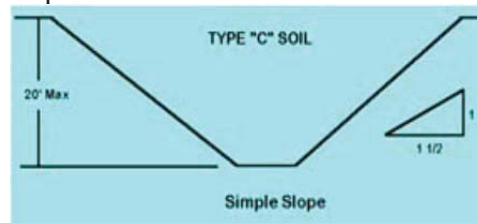
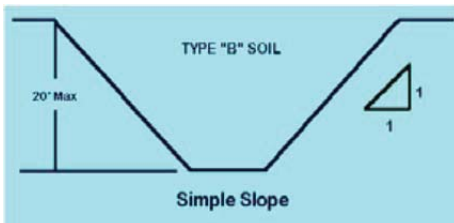
- All excavations or trenches must be sloped, shored or otherwise protected to prevent cave in except where material has been classified as stable rock.
- The soils in which an excavation or trench is to be excavated must be classified by a Competent Person to determine the protective system to be provided to prevent cave in.
- Materials, spoils from the excavation or trench, which is not removed from the area, must be placed, at a minimum of 2 feet or more from the edge of the excavation. This precautions will prevent surcharging of the edge of the excavation or trench and help to prevent cave in.



- Trenches 4 feet (5 feet or more in OSHA jurisdiction) or more in depth must be shored or sloped back to the minimum requirements of Part N, WAC 296-155-650. Where Manufactured shoring systems are used the tabulated data must be available on site for review by the installer and the Department of Labor and Industries DOSH (WISHA).



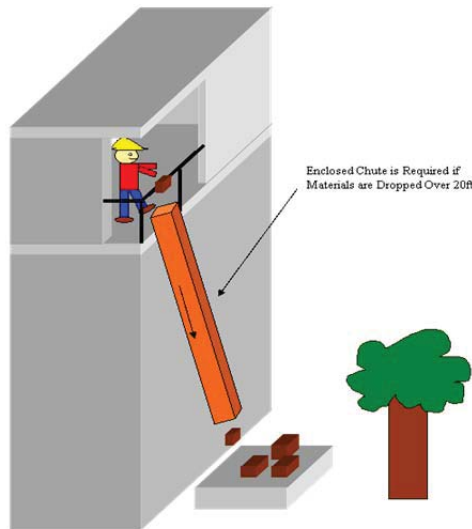
- Examples show some benching and sloping option available for type B and C soils. Refer to WAC 296-155-650 Part N for other options.



- Soils associated with your excavation or trench must be tested to determine the classification of the soils in accordance with WAC 296-155-66401 Appendix A Soil Classification
- Each excavation must be inspected daily by a competent person and after any hazard increasing event. If evidence of potential cave-in or slide is apparent, all work in the excavation or trench must cease until necessary precautions have been taken to safeguard employees.

- Where vehicles or equipment operate near excavations or trenches, the side of the excavation must be shored or braced as necessary to withstand the additional forces exerted by surcharging the the “area of influence” relative to the sides of the excavation or trench. The “area of influence” is the area from the toe of the cut back 45 degrees to the face of the excavation or trench.
- All shoring systems must either be manufactured and/or engineered. The design plans, engineering plans or manufacturers tabulated data must be on site while system is in use and the system must be used according to the accompanying data.
- Safe access must be provided in all Excavations and Trenches 4 feet (5 feet or more in OSHA jurisdiction) or more in depth. Ladders, stairs or ramps must be placed or located so that lateral travel does not exceed 25 feet. Such ladders must extend at least 3 feet above grade. Employees shall not be exposed to unprotected excavation or trench during access and egress.
- Walkways or bridges with standard guardrails must be provided where employees or equipment are required or permitted to cross over excavations or trenches more than 4 feet in depth.
- In locations where oxygen deficiencies or concentrations of hazardous explosive gases or toxic fumes are possible, the atmosphere in the excavation or trench must be tested by a Competent Person prior to the start of work and at intervals, as required. When such conditions exist or may develop, the excavation or trench must be considered a “confined space” and those precautions as described in WAC 296-155-655 (7) Hazardous Atmospheres and WAC 296-809 Confined Spaces.

- ❑ Work areas must be kept clean, free of debris, tripping hazards, etc. at all times.
- ❑ Use a vacuum cleaner/system or other means to immediately remove any debris or dust generated when operating cutting or grinding machines or when carrying out other dirt or particle generating activities.
- ❑ Work areas must not be left unmanned without a full clean up. No materials shall be left that could be a trip hazard or present other hazards.
- ❑ If materials need to be left in a work area it must be stacked raked or appropriately organized to prevent the material from becoming a hazard, appropriate hazard identification systems must be employed (danger tape, caution tape, barricades, etc.).
- ❑ Materials shall never be left loose in racks or unsecured.
- ❑ Enclosed chute must be provided for waste that has to be dropped from heights 20 feet or greater. Reference WAC 296-155-335 “Disposal of Waste Material”



- ❑ Combustible materials must be properly stored.
- ❑ Flammable material must be properly stored in well ventilated area and where required in Flammable Storage lockers.

Welding and burning operations have a high potential for personnel injuries and fires. When doing either, you must follow these precautions:

**General Requirements:**

- ❑ Before starting to burn or weld, inspect your work area to insure that sparks or molten metal will not fall on combustible materials. If you cannot provide the necessary safeguards, check with your supervisor.
- ❑ You must not weld or burn in a hazardous area without obtaining written authorization from the responsible authority.
- ❑ You must ensure that suitable fire-extinguishing equipment is available in your work area.
- ❑ You are responsible for maintaining your burning or welding equipment in safe operating condition.
- ❑ When burning or welding, you must wear approved eye protection with suitable filter lenses.
- ❑ Keep all welding leads and burning hoses up off floors, walkways, and stairways. You are responsible for seeing that your equipment complies with safe practices at all times.
- ❑ Never weld or burn on barrels, tanks, piping, or other systems that may have contained either combustible or unknown products without first obtaining approval from your safety representative or other responsible authority.
- ❑ "Soft cap" or "soft hat" welding is not allowed.

**Welding**

- ❑ If eyes are exposed to flying objects from chipping slag or other weld-cleaning activity, you must wear approved eye protection.
- ❑ When you arc-weld near other workmen, they must be protected from the arc rays by noncombustible screens or must wear adequate eye protection.
- ❑ The frames of all welding machines must be grounded.
- ❑ When rod holders are left unattended, the electrodes shall be removed.
- ❑ When welding and cutting operations are being performed where it is possible for molten slag to contact employees, the employees shall be protected from burn by overhead protection or barricading the impact area.

**Burning**

- ❑ Do not use matches to light torches. Spark igniters must be used. Torches must not be used to light smoking materials.
- ❑ You must wear appropriate gloves.
- ❑ When a crescent or special wrench is required to operate the acetylene cylinder valve, the wrench must be kept in position on the valve.
- ❑ When cracking the valve of the acetylene cylinder the cylinder shall be opened not to exceed one and one half (1 1/2) turns.



**Storage and Handling of Cylinders**

- ❑ The protective caps must be kept on all cylinders not in use. Cylinder caps shall not be used for lifting cylinders.
- ❑ All cylinders must be properly secured to prevent tipping. While in use, a cylinder truck, chain or steadying device shall be used to keep cylinders from being knocked over.
- ❑ Oxygen and acetylene (or other fuel gas) cylinders in storage must be separated from each other by 20 feet or by a 5-foot barrier which has a 1 -hour fire rating.
- ❑ Cylinders must not be taken into confined spaces.
- ❑ When cylinders are hoisted, they shall be secured on a cradle, slingboard, or pallet. They shall not be hoisted or transported by means of magnets or choker slings.

**Ventilation and Protection**

- ❑ Welding, burning and heating performed in confined spaces may require general mechanical or local exhaust ventilation to reduce the concentrations of smoke and fumes to acceptable levels. Your safety representative should be consulted prior to starting these operations.
- ❑ Before welding, cutting, or heating is commenced on any surface covered by a preservative coating whose flammability is not known, a test shall be made by a competent person to determine its flammability. Preservative coatings shall be considered to be highly flammable when scrapings burn with extreme rapidity.
- ❑ Precautions shall be taken to prevent ignition of highly flammable hardened preservative coatings. When coatings are determined to be highly flammable, they shall be stripped from the area to be heated to prevent ignition.
- ❑ Protection against toxic preservative coatings:
  - ❑ In enclosed spaces, all surfaces covered with toxic preservatives shall be stripped of all toxic coatings for a distance of at least 4 inches from the area of heat application, or the employees shall be protected by air line respirators, meeting the requirements set forth in the State Safety Standards for Construction.
  - ❑ In the open air, employees shall be protected by a respirator, in accordance with the requirements set forth in the State Safety Standards for Construction.
  - ❑ The preservative coatings shall be removed a sufficient distance from the area to be heated to ensure that the temperature of the unstrapped metal will not be appreciably raised. Artificial cooling of the metal surrounding the heating area may be used to limit the size of the area required to be cleaned.
  - ❑ When welding or cutting materials with toxic substances inside a building or an enclosed area the fumes shall be removed to the outside by means of mechanical ventilation. (Sucker Fans)
  - ❑ If adequate ventilation cannot be provided, employees must be provided with and required to use air-supplied breathing apparatuses. Oxygen shall not be used for ventilation,
  - ❑ Cooling, blowing dust from clothing, or for cleaning work area.



- ❑ In the open air, when welding, cutting, or heating metals having toxic significance, such as zinc, lead, cadmium, or chromium-bearing metals, you must wear filter-type respirators. Cylinders containing oxygen or Acetylene or other fuel gas shall not be taken into confined spaces.

### **FIRE PROTECTION AND PREVENTION**


- ❑ Read and understand the instructions for reporting fires posted on each bulletin board. In a fire, assure the safety of all personnel, and then use the appropriate fire-fighting equipment until help arrives.
- ❑ If you have been a volunteer fireman or have had fire-fighting experience, tell our job safety department. You may be invited to join the project fire brigade.
- ❑ Familiarize yourself with the location of all fire-fighting equipment in our work area.
- ❑ Tampering with fire-fighting equipment is grounds for discharge.
- ❑ Learn the classifications of fire:
  - ❑ Class A - Ordinary combustible materials, such as wood, coal, paper, or fabrics, where wetting and cooling is the method of extinguishment.
  - ❑ Class B - Flammable petroleum products to other flammable liquids where oxygen must be excluded for extinguishment.
  - ❑ Class C - Fires in or near energized electrical equipment where, because use of water would be hazardous, a "non-conducting" extinguishing agent must be used.
- ❑ Only approved solvents should be used for cleaning and de-greasing. The use of gasoline and similar flammable products for this purpose is prohibited.
- ❑ Keep the work area neat. An orderly jobsite reduces the fire and accident hazard.
- ❑ Where fire hazards are prevalent, get additional fire extinguishers and/or post a fire watch.
- ❑ When you must weld or burn near combustible materials, move them, cover them with fire-resistant fabric, or wet down. When in doubt, consult your supervisor.
- ❑ Flammable and combustible liquids must be handled only in approved, properly labeled safety cans.
- ❑ Place oily rags in approved, covered metal containers.
- ❑ Do not attempt any work involving a source of ignition near a pit, sewer, drain, manhole, trench, or enclosed space where flammable gases may be present. Wait until the safety department has made tests with an approved combustible gas indicator and the area has been declared safe for hot work.
- ❑ Do not weld or cut on a tank or in an enclosure that has contained gasoline or other flammable gas or liquid unless it has been purged, tested by the safety department, and proven to be safe.
- ❑ The use of open fires is prohibited unless specifically authorized by the responsible supervisor.

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**Tanks or Enclosures Used for Storage of Flammable Material**

The following procedures for welding or cutting tanks and/or enclosures that has contained gasoline or other flammable gases shall be used:

- ❑ It shall be the responsibility of the Project Manager/Superintendent to determine the necessity of cutting or welding on the tank or enclosure.
- ❑ A Welding/Burn permit shall be used for all processes that require the cuffing, welding, or introduction of an ignition source on or inside a tank or enclosure where flammable gases have been stored or where the accumulation of flammable vapor or atmosphere is possible.
- ❑ Determine the type of flammable gas the tank or enclosure has contained. Assistance may be obtained from the jobsite safety supervisor.
- ❑ Before cutting or welding on the tank or enclosure, or introducing sparking tools or flame producing equipment, the flammable atmosphere must be purged with a non-flammable medium. (I.e. Dry Ice, Argon, etc.)
- ❑ Several methods of purging the atmosphere are available. The process for producing a non-flammable atmosphere within the tank or enclosure is the sole responsibility of the Project Manager/Superintendent.
- ❑ The tank or enclosure shall be tested with a flammable gas detector to ensure the vapor's have been reduced below the LEL (lower explosive limit) of the stored gases.
- ❑ During the cutting or welding process the atmosphere in the tank or enclosure shall be Continuously monitored
- ❑ The purging of the tank or enclosure shall be continued until the cutting/welding process is completed and the temperature of the tank or vessel has returned to ambient temperature. The purging must maintain the atmosphere below he LEL (Lower Explosive Level).
- ❑ After the welding, burning, or cutting process is complete-the process used to purge the tank or vessel may be discontinued.

	HOT WORK PERMIT
JOB NAME: _____ JOB NO: _____	
SUPERINTENDENT: _____	

WORK INFO	WORK SUPERVISOR: _____ FIRE WATCH PERSONNEL: _____ WORK TO BE DONE: _____ LOCATION: _____ DATE: _____
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KNOWN HAZARDS	
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HOT WORK REQUIREMENTS	REQ.		DATE	TIME	INITIAL	REQ.		DATE	TIME	INITIAL	
			Fire sprinkler system active					<b>Fire Watch Required</b>			
			Water hose available					Fire Procedure Training			
			Fire extinguisher available					Watch Adjoining Areas			
			Flammable liquids, dust, lint, and oily deposits removed					Watch ____ minutes after hot work ends			
			Explosive atmosphere eliminated								
			Floors swept clean								
			Combustible floors wet down, covered with damp sand or fire-resistive sheets					Stop Hot work ____ minutes before end of shift			
			Other combustibles removed, wet down or covered								
			Wall and floor openings covered								
		Fire-resistive tarps suspended beneath work									

COMMENTS		EMERGENCY NUMBERS: HSWC Superintendent: Fire Department: Other:
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AUTHORIZATION	SUPERVISOR SIGNATURE: _____ Date: _____ Phone: _____
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**Application**

These procedures are required for all activities in which the unexpected release or transmission of energy or a material that could cause injury to employees or damage to equipment.

This policy applies to energy sources such as:

- Electrical
- Mechanical
- Hydraulic
- Pneumatic
- Chemical
- Radiation
- Thermal
- Compressed air
- Energy stored in springs
- Potential energy from suspended parts (gravity).

Before beginning work on the machine or equipment notify all affected employees that servicing or maintenance is required and that the machine or equipment must be shut down and locked out to perform the servicing or maintenance.

The authorized employee shall refer to the company procedure to identify the type and magnitude of the energy that the machine or equipment utilizes, shall understand the hazards of the energy, and shall know the methods to control the energy.

Before de-energizing any equipment, machinery, or electrical equipment and applying a "LOCKOUT / TAGOUT" procedure, written permission will be obtained from an authorized owner/client representative specifying the date, inclusive items of lock-out, and specific equipment to be locked out.

An authorized signature, date, and phone number are required prior to commencing the "LOCKOUT/ TAGOUT" procedure.

**Locks**

All persons having the need to enter a locked out area or system will be issued as many locks as necessary to perform the expected tasks of the job. "LOCKOUT" locks will be identified with the individual's clock number and name. One key will be issued with each lock. The remaining keys will be forwarded to the Safety Office.

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**Identification of "LOCK-OUT" Points**

A qualified person, operator, or supervisor who understands how to effectively control the equipment/process through application of hazard isolating devices will identify lock out points.

**Placement of Locks**

The owner/client must be notified and have given approval to lockout the system or equipment before attaching the locks to the isolating devices. A stop button or electrical interlock must never be used as a substitute for "LOCKOUT".

After lockout and prior to commencement of work, one or more of the following actions must be taken with the assistance of the qualified operator. The lockout list must be signed, verifying the start up attempt.

It is the responsibility of each person working within the "LOCK-OUT" area to place his/her own lock on all lockout points. Use of another person's lock (i.e. working in the area under the security of another person's lock) is **STRICTLY FORBIDDEN**. During construction and prior to check out of the system the supervisor in charge of the installation of equipment may attach a single lockout device.

When more than one employee is required to lockout the same system or equipment, one lock with a tag identifying all employees on the crew shall be used. The crew foreman shall sign the tag and be responsible for accounting for all crewmembers prior to removing locks and re-energizing the system. Crewmember's entering the area shall initial the lockout tag and, prior to removing the tag, shall re-initial the lock-out tag.

If a job extends over a change in shifts, the person coming on the job shall put his/her lock on all the lock-out points and the person leaving shall remove his/her locks.

**Removal of Locks-Restoring Equipment to Service**

When the servicing or maintenance is completed and the machine or equipment is ready to return to normal operating condition, the following steps shall be taken.

Check the machine or equipment and the immediate area around the machine or equipment to ensure that nonessential items have been removed and that the machine or equipment components are operationally intact.

- Check the work area to ensure that all employees have been safety positioned or removed from the area.
- Verify that the controls are in neutral.
- Remove the lockout devices and re-energize the machine or equipment. Note: The removal of some forms of blocking may require re-energizing of the machine before safe removal.
- Notify affected employees that the servicing or maintenance is completed and the machine or equipment is ready for use.

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If an employee who has finished a job leaves the work site without removing his/her lock, a department supervisor or, in his/her absence, the Project Superintendent may remove the lock using the following steps in the order shown:

- ❑ Determine whether the employee whose lock remains on the equipment has left the work site by checking his/her time card. If the employee has not left the site, he/she will be called back to complete the job and/or remove the lock.
- ❑ If the employee has left the site, a reasonable attempt to reach him/her will be made to verify why the lock was not removed. The employee will be requested to return to the work site to remove his/her lock.
- ❑ If the employee cannot be reached, a reasonable attempt to contact his/her supervisor will be made to verify why the lock was not removed.
- ❑ If the supervisor does not know if the employee has finished the job, the equipment or system must be thoroughly inspected and determined to be safe for operation. The lock may then be removed and the equipment or systems tested for operation.
- ❑ The locks removed by a supervisor will be retained and sent to the HSWC Regional Safety Manager, along with a brief report explaining why the removal was necessary, the time removed, and by whom.
- ❑ If the equipment or system is of such a size that the operator cannot see all potential hazard points, personnel shall be stationed at the points of access which are not visible to assure that no one enters an exposed area during start up.

### **Definitions**

**Qualified** - A person who is trained in lockout procedures, fully familiar with and authorized to operate all controls for the equipment or system involved.

**Authorized Employee** - A person who locks out or tags out machines or equipment. An affected employee becomes an authorized employee when those employees duties include performing servicing or maintenance covered under this procedure.

**Lockout Device** - A device that utilizes a positive means such as a lock, key type, to hold an energy isolating device in a safe position and prevents the energizing of a machine or equipment. Included are blank flanges and bolted slip blinds.

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**Alternative Methods**

An alternative method of lockout as provided by the State Safety Standards has been approved by OSHA. The lock-box method is available for use in specific applications. Requests to implement this method must be submitted to the Safety Office for review by an authorized Owner/Client representative. The Safety Office and an authorized Company representative, in writing, must grant approval of each specific application before it is put into effect. The Safety Office will maintain a list of approved "lock-box" applications, which will be forwarded to departments and the Project Superintendent.

**Lock Box Method**

This alternative procedure is intended for situation that may involve numerous lock-out points, may involve a large number of employees, will take more than two shifts, or may occur routinely.

- ❑ Required lockout points for the job in question will be established by the qualified department supervisor and listed on the lockout list. A list of the lockout points will be posted at the work site and on the lock box so those employees may physically verify the placement of department locks.
- ❑ A qualified supervisor and a qualified operator will deactivate equipment, place locks and sign the list of lock-out points, verifying that each and every lock is in place and that the keys have been placed in the lock box.
- ❑ The qualified supervisor will then place his/her personal lock on the box.
- ❑ Any employee on the job where the "lock-box" procedure is in use may opt to place his/her lock on the lock-box.
- ❑ After lockout and prior to commencement of work, one or more of the following actions must be taken with the assistance of the qualified operators and the lockout list signed verifying the start up attempt.
- ❑ Operate the equipment/process controls (push buttons, switches, etc.) to verify that energy isolation has been accomplished. Controls must be deactivated or returned to the neutral mode after the test.
- ❑ Check the equipment/process controls by using test instruments and/or visually.
- ❑ All other aspects of the Lock-out Procedure must be met.



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**General Requirements**

While the Superintendent has the overall responsibility for fire protection and prevention, the Project Safety Supervisor will monitor the project fire safety program.

Key elements of fire prevention are:

- ❑ Remove all combustibles and cover with fire resistant fabric when welding or burning near combustible materials. When in doubt, consult your supervisor.
- ❑ Remove all flammable materials from the project when no longer required.
- ❑ Every effort shall be made to contain any source of ignition such as welding slag, torches, or other items of this nature. Do not attempt any work involving a source of ignition near a pit, sewer, drain, manhole, trench, or enclosed space where flammable gases may be present.
- ❑ Only approved solvents should be used for cleaning and de-greasing. The use of gasoline and similar flammable products for this purpose is prohibited.
- ❑ Flammable and combustible liquids must be handled only in approved, properly labeled safety cans.
- ❑ Place oily rags in approved, covered metal containers.
- ❑ Do not weld or cut on a tank or in an enclosure that has contained gasoline or other flammable or combustible material until it has been purged and tested safe.
- ❑ The use of open fires is prohibited unless specifically authorized by the responsible supervisor.

All appropriate first aid and fire equipment shall be properly placed and readily accessible. Project management shall verify that adequate numbers of personnel are qualified to operate the fire-fighting equipment.

Instructions for reporting fires will be posted on each bulletin board. In the event of a fire, assure the safety of all personnel, and then use the appropriate fire-fighting equipment until help arrives.

**Fire Protection and Property Conservation**

The following conditions need to exist throughout the duration of the project.

- ❑ Access to all available fire-fighting equipment.
- ❑ Fire-fighting equipment provided by the project. This should be conspicuously located.
- ❑ All fire-fighting equipment shall be inspected by a competent person and properly maintained.
- ❑ A log of each inspection shall be kept on the project.
- ❑ All equipment shall be maintained in operating condition.
- ❑ Defective equipment shall be immediately replaced.
- ❑ Isolated or potential high risk projects shall assign, train and equip a fire fighting group (fire brigade) to assure adequate protection to life and property.

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**Portable Fire-Fighting Equipment**

A fire extinguisher rated not less than 2A shall be provided for each 3,000 square feet of combustible building area. Travel distance from any point of the protected area to the nearest fire extinguisher shall not exceed a horizontal distance of 100 feet.

One or more fire extinguisher rated not less than 2A shall be provided on each floor in multi-story buildings, at least one fire extinguisher shall be located adjacent to a stairway.

A fire extinguisher, rated not less than 1 AB, shall be provided within 50 feet of:

- ❑ 5 gallons or more of flammable or combustible liquids
- ❑ 5 pounds or more of flammable gas (i.e. propane, etc). This requirement does not apply to the integral fuel tank of motor vehicles.

Carbon tetrachloride and other toxic vaporizing liquid fire extinguisher are prohibited.

Portable fire extinguisher shall be inspected monthly and properly maintained.

Only fire extinguisher, which have been listed or approved by a nationally recognized testing laboratory, shall be used to meet the requirements of this section.

All employees must be familiar with the location of all fire-fighting equipment in their work area.

Tampering with fire-fighting equipment is grounds for discharge.

**Sprinkler Protection**

If the facility being constructed includes the installation of an automatic sprinkler protection, the installation shall closely follow the construction. Sprinkler protection should be placed in service as soon as applicable laws permit following the completion of each story.

During demolition or alterations, existing automatic sprinkler installation shall be retained in service as long as reasonable.

**Standpipes**

In all structures in which standpipes are required, they shall be bought as soon as applicable laws permit. They shall be maintained as construction progresses in such a manner that ensures they are always ready for fire protection uses.

The standpipes shall be provided with Siamese fire department connections on the outside of the structure. The Siamese connections shall be conspicuously located at street level. There shall be at least one standard hose outlet on each floor. It is required that we provide fire hose. The determination of the diameter and length of hose will be mandated by the local fire municipality.

**Fire Hydrants**

Fire hydrants shall be located on the project work site and adjacent area. All fire hydrants on the work site shall be accessible. There shall be no storage of materials or equipment within six feet in all directions from the fire hydrant.

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**Classification of Fire Extinguishers:**

Class A	Ordinary combustible materials, such as wood, coal, paper or fabrics, where wetting and cooling is the method of extinguishment
Class B	Flammable petroleum products to other flammable liquids where oxygen must be excluded from extinguishment
Class C	Fires in or near energized electrical equipment where, because use of water would be hazardous, a "nonconducting" extinguishing agent must be used

**Welding and Burning Operations**

See Chapter H-3 - Welding and Burning

## DEFINITIONS

**Acceptable entry conditions** means the conditions that must exist in a permit space to allow entry and to ensure that employees involved with a permit-required confined space entry can safely enter into and work within the space.

**Attendant** means an individual stationed outside one or more permit spaces who monitors the authorized entrants and who performs all attendant's duties assigned in the employer's permit required, confined space program.

**Authorized entrant** means an employee who is authorized by the employer to enter a permit space.

**Blanking or blinding** means the absolute closure of a pipe, line, or duct by the fastening of a device (such as a spectacle blind, skillet blind or plug) that completely covers the bore and that is capable of withstanding the maximum pressure of the pipe, line, or duct with no leakage beyond the device.

**Confined space** means a space that:

1. Is large enough and so configured that an employee can bodily enter and perform assigned work; and
2. Has limited or restricted means for entry or exit (For example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry); and
3. Is not designed for continuous employee occupancy.

**Double block and bleed** means the closure of a line, duct, or pipe by closing and locking or tagging two in-line valves and by opening and locking or tagging a drain or vent valve in the line between the two closed valves.

**Emergency** means any occurrence (including any failure of hazard control or monitoring equipment) or event internal or external to the permit space that could endanger entrants.

**Engulfment** means the surrounding and effective capture of a person by a liquid or finely divided (flowable) solid substance that can be aspirated to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction, or crushing.

**Entry** means the action by which a person passes through an opening into a permit-required confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.

**Entry permit** (permit) means the written or printed document that is provided by the employer to allow and control entry into a permit space and that contains the information specified in OSHA requirements.

**Entry supervisor** means the person (such as the supervisor, crew leader, or crew chief) responsible for determining if acceptable entry conditions are present at a permit space where entry is planned, for authorizing entry and overseeing entry operations, and for terminating entry.

*Note: An entry supervisor also may serve as an attendant or as an authorized entrant, as long as*

*that person is trained and equipped as required by this section 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 operation*

**Hazardous atmosphere** means an atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue (that is, escape unaided from a permit space), injury, or acute illness from one or more of the following causes:

1. Flammable gas, vapor, or mist in excess of ten percent of its lower flammable limit (LFL).
2. Airborne combustible dust at a concentration that meets or exceeds its LFL; *Note: This concentration may be approximated as a condition in which the dust obscures vision at a distance of five feet (1.52 m) or less.*
3. Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent;
4. Atmospheric concentration of any substance for which a dose or a permissible exposure limit is published in OSHA standards, and which could result in employee exposure in excess of its dose or permissible exposure limit; *Note: An atmospheric concentration of any substance that is not capable of causing death, incapacitation, impairment of ability to self-rescue, injury, or acute illness due to its health effects is not covered by this provision.*
5. Any other atmospheric condition that is immediately dangerous to life or health. *Note: For air contaminants for which OSHA has not determined a dose or permissible exposure limit, other sources of information, such as material safety data sheets that comply with the Hazard Communication Standard published information, and internal documents can provide guidance in establishing acceptable atmospheric conditions.*

**Hot work permit** means the employer's written authorization to perform operations (for example, riveting, welding, cutting, burning, and heating) capable of providing a source of ignition.

**Immediately dangerous to life or health** (IDLH) means any condition that poses an immediate or delayed threat to life or that would cause irreversible adverse health effects or that would interfere with an individual's ability to escape unaided from a permit space. *Note: Some materials - hydrogen fluoride gas and cadmium vapor, for example - may produce immediate transient effects that, even if severe, may pass without medical attention, but are followed by sudden, possibly fatal collapse 12-72 hours after exposure. The victim "feels normal" from recovery from transient effects until collapse. Such materials in hazardous quantities are considered to be "immediately" dangerous to life or health.*

**Inerting** means the displacement of the atmosphere in a permit space by a noncombustible gas (such as nitrogen) to such an extent that the resulting atmosphere is noncombustible. *Note: This procedure produces an IDLH oxygen-deficient atmosphere.*

**Isolation** means the process by which a permit space is removed from service and completely protected against the release of energy and material into the space by such means as: Blanking or blinding; misaligning or removing sections of lines, pipes, or ducts; a double block and bleed system; lockout or tagout of all sources of energy; or blocking or disconnecting all mechanical linkages.

**Line breaking** means the intentional opening of a pipe, line, or duct that is or has been carrying flammable, corrosive, or toxic material, an inert gas, or any fluid at a volume, pressure, or temperature capable of causing injury.

**Non-permit confined space** means a confined space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm.

**Oxygen deficient atmosphere** means an atmosphere containing less than 19.5 percent oxygen by volume.

**Oxygen enriched atmosphere** means an atmosphere containing more than 23.5 percent oxygen by volume.

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

1. Contains or has a potential to contain a hazardous atmosphere;
2. Contains a material that has the potential for engulfing an entrant;
3. Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section; or
4. Contains any other recognized serious safety or health hazard.

**Permit-required confined space program** (permit space program) means the employer's overall program for controlling, and, where appropriate, for protecting employees from, permit space hazards and for regulating employee entry into permit spaces.

**Permit system** means the employer's written procedure for preparing and issuing permits for entry and for returning the permit space to service following termination of entry.

**Prohibited condition** means any condition in a permit space that is not allowed by the permit during the period when entry is authorized.

**Rescue service** means the personnel designated to rescue employees from permit spaces.

**Retrieval system** means the equipment (including a retrieval line, chest or full-body harness, wristlets, if appropriate, and a lifting device or anchor) used for non-entry rescue of persons from permit spaces.

**Standby Person** means a person that is trained in the procedures of confined space entry, and assigned to remain on the outside of the confined space and to be in communication with HSWC employee(s) working in the confined space.

**Testing** means the process by which the hazards that may confront entrants of a permit space are identified and evaluated. Testing includes specifying the tests that are to be performed in the permit space. *Note: Testing enables employers both to devise and implement adequate control measures for the protection of authorized entrants and to determine if acceptable entry conditions are present immediately prior to, and during, entry.*



**CONFINED SPACE ENTRY SAFETY PLAN****Prior to entry into any confined space:**

- ❑ The Superintendent will assure that each confined space is evaluated using the Confined Space Entry Safety Plan (Form H-6-a) to document this evaluation.
- ❑ Upon the completion of the Confined Space Entry Safety Plan, and the Superintendent has determined the space to be free of any recognized hazards, this plan may be used to proceed with entry into the confined space, using the Procedure For Non-Permit Required Space.
- ❑ When the atmospheric testing or further investigation conducted by the Superintendent indicates the presents of recognized hazards associated with confined spaces, entry may only proceed upon completing the requirements of the Procedure For Permit-Required Space.

**PROCEDURE FOR NON-PERMIT REQUIRED SPACE****Entry to Non-Permit Required Confined Space**

- ❑ The Entry Supervisor will review the procedures for entering the confined space with each crewmember entering the confined space. Training will be provided using the HSWC Confined Space Entry Plan for training and discussion. This training will be documented.
- ❑ The review of procedures will be conducted at the beginning of work at each new job site and for each new worker where confined spaces are present. The review of the procedures and training will be repeated as necessary to assure worker safety or as conditions change.
- ❑ The Entry Supervisor shall provide an atmosphere-monitoring instrument for the project and supervise the atmospheric testing before entry and periodically to assure continuous monitoring is being performed.
- ❑ The Entry Supervisor will assign a trained attendant to remain at the entrance to the Confined Space during periods when employee occupying the confined space.
- ❑ Based on the Confined Space Safety Plan, the pre-entry testing must show that the confined space contains no hazardous atmosphere before any work or entry into the space proceeds.
- ❑ If the pre entry test shows any hazardous atmosphere or Oxygen deficiency is present. The work will need to be evaluated and additional precautions taken with a specific written plan developed for entry. (See Permit-Required Procedures for Confined Space Entry included in this program.)



- ❑ With the determination the space contains a safe atmosphere, the Entry Supervisor will evaluate the Confined Space for other hazardous conditions including:
  - Adequate Ventilation
  - No Hazardous Chemicals
  - No Mechanical Hazards
  - No Fire Hazards
  - No Toxic Fumes, Gases or Vapors
  - No Heat or Cold Extremes
  - No Decaying Material
  - No Reactive / Corrosive Residues
  - No Engulfment Hazard
  - No Electrical Hazards
  - No Fumes from Welding, Burning or Grinding
  - No Carbon Monoxide from Space Heaters, Generators or other Equipment in the Space
  - No nearby Hazardous Operations
  - Adequate Lighting
  
- ❑ With pre-entry testing results and the evaluation of other potential or real hazards, the supervisor may determine that the confined space is a non-permit-required space. Any non-atmospheric hazard that may be corrected without entry to the confined space is permitted and the Non-Permit Status of the confined space may be maintained. However, any atmospheric hazard within the confined space will not allow the space to be considered Non-Permit.
- ❑ H<sup>2</sup>S Hydrogen Sulfide (Sewer Gas) may be an atmospheric hazard.
- ❑ Any Space considered being a Permit-Required Space would require a project specific plan to be developed.
- ❑ Workers may enter the Non-Permit-Required Space when the Confined Space Entry Safety Plan has been completed (signed by the Entry Supervisor), and a sign stating “Caution - Non Permit Required Space” is posted at the entrance to the Confined Space.
- ❑ All confined spaces will be ventilated using forced air ventilation prior to entry and during entry. In the event the ventilation system cannot be used, 100%, continuous monitoring will be relied upon for atmospheric safety of the workers in the confined space during these interval when ventilation is not in service.
- ❑ During entry, the air in all confined spaces will be monitored. The air monitor will be kept in close proximity to the worker(s) in the confined space.
- ❑ If the alarm is activated, the monitor malfunctions, or the lighting fails, all occupants shall immediately evacuate the confined space.
- ❑ At the end of each shift, the Entry Supervisor shall account for each employee’s safety.

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**PROCEDURE FOR PERMIT REQUIRED SPACE****Entry to Permit Required Confined Space**

- If the Entry Supervisor has determined, after completing the Confined Space Entry Safety Plan, there are conditions or characteristics which require additional safeguards to prevent exposures to hazardous atmospheres or accidents related specifically to confined spaces, a site specific plan shall be developed to assure safety for HSWC employees entering the confined space.
- If the hazard can be eliminated without entry, the space shall be re-evaluated using the Confined Space Entry Safety Plan. (Note: Ventilation alone is not considered as elimination of the hazard).
- The entry supervisor will provide signs to adequately warn workers that the space is a Permit Required Confined Space, and that only authorized workers are allowed entry. The back of the sign also contains; “Duties of the Authorized Attendant”, Types of Confined Space Hazards to be watchful for, Signs and Symptoms of Toxic Exposure, and Permissible Levels of atmospheric monitoring. A permit required space might require one or more of the following to adequately control the hazards:
  - Additional Monitoring Equipment & Testing
  - Self Rescue Equipment
  - Standby Person
  - Retrieval and or Fall Protection Equipment
  - Additional Ventilation
  - Specific Training for Specific Hazards and Rescue
  - Hot Work Permits
  - Lock out / Tag out Procedures / Blanking or Blinding
  - Specific Fire Protection
  - Respiratory or other Personal Protective Equipment or Clothing
  - Ground Fault Circuit Interrupters for electrical tools
  - Specific Training for Entry Supervisor
  - Specific Training for Entrants
  - Specific Hazard Communication Training.
  - Specific Training for Standby Person
  - Specific Training for Rescue or Retrieval
- Due to the complexity that some hazards present, the checklist provided in the Confined Space Permit Required Entry Safety Plan might need to be supplemented with a Job Safety Analysis (JSA). This JSA will be developed before entry into a Permit Required Confined Space.
- All required training is to be documented using the Safety Training Report (Form B-4-a).
- At the end of each shift, the Entry Supervisor shall account for each employee’s safety. A new log is needed for each shift, each day. The copies of these logs are to be maintained with the project safety files at jobsite.

## CONFINED SPACE PLAN



JOB NAME: \_\_\_\_\_ JOB NO: \_\_\_\_\_  
 SUPERINTENDENT: \_\_\_\_\_

<b>SPACE INFO.</b>	Location: Description: Entry Supervisor: Entry Date(s): _____		Entry Time(s): _____
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<b>WORK TO BE DONE</b>	
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<b>PRE-ENTRY TESTING</b>	Monitor Equipment to be Used: Calibration Date: _____ 1 O <sub>2</sub> 1 LEL      1 H <sub>2</sub> S      1 CO      1 Other: _____
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<b>REQUIRED PRECAUTIONS</b>	CONTINUOUS VENTILATION AIR MONITORING LIFELINE RETRIEVAL SYSTEM COMMUNICATION RADIO VISUAL VOICE LOCKOUT / TAGOUT PROCEDURES FIRE PROTECTION PRECAUTIONS	HOT WORK PERMIT SELF-RESCUE EQUIPMENT ELECTRICAL HAZARD PROTECTION SPECIFIC TRAINING SIGNS AND WARNINGS POSTED ENTRY / EXIT LOG ADDITIONAL MONITORING OR TESTING SPECIAL PERSONAL PROTECTIVE EQUIPMENT
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<b>OTHER PRECAUTIONS</b>	
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ENTRY SUPERVISOR SIGNATURE: _____	DATE: _____
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	CONFINED SPACE ENTRY PERMIT
JOB NAME: _____ JOB NO: _____	
SUPERINTENDENT: _____	

CONFINED SPACE INFO	DESCRIPTION OF SPACE TO BE ENTERED: _____ LOCATION: _____ PURPOSE OF ENTRY: _____ DATE OF ENTRY: _____
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KNOWN HAZARDS	
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ENTRY SUPERVISORS	NAME	TYPE OF CREW	PHONE NUMBER

ENTRY REQUIREMENTS	REQ		DATE	TIME	INITIAL	REQ		DATE	TIME	INITIAL
		Lockout/Tagout/Tryout					Escape Harness			
		Lines Broken – Capped/Blanked					Tripod			
		Purge – Flush & Vent					Lifelines (Attached to worker)			
		Ventilation					Fire Extinguisher			
		Secure Area – Post & Flag					Lighting (Explosive Proof)			
		Breathing Apparatus					Protective Clothing			
		Resuscitator – Inhalator					Respirator			
		Standby Safety Personnel								

TESTS	REQ.		Permissible Levels	Date/ Time	Date/ Time	Date/ Time	Date/ Time	Date/ Time	Date/ Time	Date/ Time	
		Oxygen	19.5 – 23.5								
		Lower Flammability Limit	Under 10% LEL								
		Carbon Monoxide	Under 35ppm								
		Hydrogen Sulfide	Under 10ppm								

PERSONNEL	AUTHORIZED ENTRANTS	TIME IN	TIME OUT	AUTHORIZED ATTENDANTS

RESCUE PLAN	
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AUTHORIZATION		
SUPERVISOR SIGNATURE: _____	Date: _____	Phone: _____

HSWC or its subcontractors shall provide all necessary barricades, safety signs, stanchions, safety cones or safety warning tape/ribbon/banner as required to isolate and protect unsafe work areas from workers, pedestrian or vehicle traffic.

The barricade shall be marked with and post a sign including name, phone or means of contact, duration of project and reasons for barricade (hazard present)

All barricading and signage shall be removed after the work is complete and the hazard is illuminated.

### Barricade Color Coding

<b>Barricade Color</b>	<b>Hazard Class</b>	<b>Action</b>	<b>Example</b>
<b>Yellow</b> (with black writing)	Occupational Hazard	Do not cross until hazard is identified and safe passage and access is assured	Slab-on grade floor opening, overhead work, and trip hazard areas
<b>Red</b> (with black writing)	High Hazard Imminent Hazard Serious Injury or Fatality Prevention	Never cross – if access is required, coordinate with contact person identified on barricade signage.	Electrical energized work in progress, overhead suspended load, critical high pressure test, chemical introduction, fall exposure

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Each project planned to take place should be analyzed to determine how the following procedures and precautions are to be applied in the work:

- Any deviations or exceptions to these procedures must be documented as part of the pre-task plan.
- If area is not currently designated as a hardhat zone, create temporary construction/hard hat zone below work activity.
- Post overhead hazard warning signs and barricades areas to identify the construction zones.
- All personnel entering the construction zone must wear a hard hat.
- All tools or devices not in use or directly over safety/debris netting are to be stored or carried in tool buckets.
- All containers used for capturing and/or transporting liquids shall be equipped with lids. Lids must remain in place when not in immediate use.
- Lay out debris mat where applicable to catch particles, small parts, screws, nuts, etc. The debris mat will be vacuumed and picked up when the work is complete or daily if the work will continue.
- Remove all materials, equipment, signage, and barricades when the work is complete



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**Cold Stress**

- ❑ Workers shall be trained in the signs/symptoms of cold stress. They should also be instructed on the precautionary measures to be taken to prevent cold stress and immediate first aid actions to be taken in the event of overexposure.
- ❑ Pain in the extremities is often the first sign of cold stress and shivering a second and more advanced sign; if either of these signs becomes noticeable seek shelter.
- ❑ Always wear warm dry clothing. If clothing becomes damp, dry clothes shall be changed into immediately.
- ❑ Gloves shall be worn in cold temperatures to prevent loss of manual dexterity, which may contribute to accidents. The combined exposure to cold temperatures and vibrating tools shall be avoided.
- ❑ For work in temperatures below 20' F, heated shelters shall be provided and work/rest regimens established.
- ❑ Cold stress prevention shall be mentioned in toolbox talks and included in pre-task planning.

**Heat Stress**

- ❑ Workers shall be trained in the signs/symptoms of heat stress. They should also be instructed on the precautionary measures to be taken to prevent heat stress and immediate first aid actions to be taken in the event of overexposure.
- ❑ Methods approved by the ACGIH must be used to evaluate and control the heat stress load on workers. Factors include the Wet Bulb Globe Temperature and the worker's workload, clothing, and health.
- ❑ Suitable work/rest regimens shall be implemented. Cool/shaded areas shall be designated as worker rest areas.
- ❑ Cool drinking water and sanitary drinking cups shall be provided to workers.
- ❑ Ventilation in employee work areas shall be evaluated. Portable fans should be considered in "still" areas.
- ❑ Heat stress prevention shall be mentioned in toolbox talks and included in pre-task planning. Labor-intensive tasks shall be planned for early morning and late evening hours when temperatures are lowest.
- ❑ Workers who are unaccustomed to physically demanding work in hot environments shall be monitored closely when starting challenging jobs.

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When using elevators, the following safety precautions should be taken:

- ❑ Personnel without materials shall not ride freight elevators. Freight shall not be transported on personnel elevators.
- ❑ Check the load rating of the elevator before placing freight aboard. Personnel shall not knowingly exceed the occupant load or capacity ratings of personnel elevators
- ❑ No elevator shall be used during a fire or other emergency.
- ❑ Elevators shall not be stopped between floors. Should an elevator fail between floors, calmly activate the elevator alarm or use the emergency phone to summons help.
- ❑ Do not attempt to board an elevator once the doors begin to close.
- ❑ Elevators shall be operated by an elevator operator until a permit is issued by the state

The minimum illumination intensities in foot-candles will be as follows. Light can be provided via permanent, temporary, or spot source:

<b>Area</b>	<b>Foot Candles</b>
General construction areas, concrete placement, excavation and waste areas, access ways, active storage areas, loading platforms, refueling, and field maintenance areas.	3
Indoor: warehouses, corridors, hallways, and exit ways.	5
General construction plant and shops (e.g. sub-fab, fan attic, fab level, batch plants, mechanical and electrical equipment rooms, carpenter shops, store rooms, and indoor toilets and workrooms, break and lunch rooms).	10
First aid stations and offices.	30

This table shows the required foot-candles for a given area.

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**APPLICABLE FORMS AND DOCUMENTS**

Applicable Forms:

- ❑ Energized Electrical Work (EEW) Permit

Applicable Documents:

- ❑ OSHA 1910, Subpart S
- ❑ OSHA 1926
- ❑ National Electrical Code (NEC)
- ❑ ANSI Standards Z89.1 (head protection) and Z87.1 (eye protection)
- ❑ Site Control of Hazardous Energies program
- ❑ National Fire Protection Association Article 70 & 79

**DEFINITIONS**

**Blast Suit** - Properly rated hood, face shield, gloves, hard hat, and Nomex or equivalent outer clothing combination.

**Buddy System** - A safety system used which one person is performing Energized Electrical Work (EEW) and one person is functioning as a dedicated Qualified - (EEW) Buddy. Both individuals must be qualified as per this document. A person may function as an EEW Buddy for two people if they are working on the same system and are both in a single line of sight from a single observation point.

**Compelling Reason** - A situation where greater operational health, safety or environmental hazard exists if equipment is de-energized or if an essential continuity of service is halted. Examples of "compelling reasons" include:

- ❑ Impact to Emergency Alarms
- ❑ Impact to Illumination
- ❑ Impact to Life Support

**Infeasible Shutdown** - will be determined by a senior level management for that organization

**Electrical Hazard** - An electrical condition where the possibility of injury or incident is present due to an exposed energized circuit.

**Energized Electrical Work (EEW)** - Energized Electrical Work, formerly electrical "hot work". Any work requiring- performance of duties on or near an exposed energized circuit with magnitude greater than 50 volts to ground or 240 volt-amps.

**EEW Badge** (or other visible indicator, hereafter referred to as "EEW badge") - A badge authorizing a qualified person to perform trouble shooting, I/R Scanning, and voltage and current measurements for Type 4 classifications without an EEW permit. The badge must be visible when performing the operations. The individual must be qualified per this document.

**EEW Permit** - Document authorizing qualified personnel to perform installations or repairs on energized electrical equipment and/or systems.

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**Hazardous Locations** - Class 1, Division I and 2 Locations as specified in the NEC and NFPA.

**Permit Issuer** - Individual responsible for issuing EEW permits and adhering to the permit system criteria as defined in this document.

**Properly Rated and Tested** - PPE device has a specific purpose and a specific rating. The rating will determine if the PPE will protect the worker. Most PPE requires an inspection as specified, by the manufacturer and appropriate standards of the device, before donning. To include looking for obvious indications of mechanical or functional failure. PPE devices that do not pass this inspection should be returned for repair or discarded. Rubber insulated gloves, sleeves and mats require certification from an approved certifier,

**Qualified EEW Buddy** - A person assigned to monitor the individual performing Type 4 EEW.

**Qualified Person** - A person who is familiar with the construction, operation, and hazards of the specific equipment involved and has had training in avoiding the electrical hazards of working on or near exposed energized parts. This person must also meet the requirements of this document. The qualification applies to specific tools or equipment and cannot be universally applied to all tools or equipment.

**Qualified Person as an EEW Buddy** - A person assigned to monitor the individual performing Type 5 EEW.

**Safe Working Distance** -

**Voltage Range (phase to phase) Minimum Approach Distance**

- ❑ < 300 V Avoid Contact
- ❑ 300 V and < 750 V 1 ft. 0 in. (30.5 cm)
- ❑ 750 V and < 2 kV 1 ft. 6 in. (46 cm)
- ❑ 2 kV and < 15 kV 2 ft. 0 in. (61 cm)
- ❑ 15 kV and < 37 kV 3 ft. 0 in. (91 cm)
- ❑ 37 kV and < 87.5 kV 3 ft. 6 in. (107 cm)
- ❑ 87.5 kV and < 121 kV 4 ft. 0 in. (122 cm)
- ❑ 121 kV and < 140 kV 4 ft. 6 in. (137 cm)

**Avoid Contact**: minimal possibility of bare skin contact to exposed live energized parts.

**Trouble shooting**: Investigation techniques- employed to locate the source of an equipment malfunction.

**Testing & Metering** - Diagnosis and analysis of electrical systems to trace or determine voltage and/or current on circuits.

**Volt-amps** - Circuit voltage [volts] multiplied by current [amperes].PROCEDURE

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**Energized Electrical Work**

- ❑ If feasible, electrical systems shall be worked "cold". In situations where systems must remain energized, proper precautions must be taken. A compelling reason (i.e., de-energization would result in greater overall risks to health, safety, the environment, and plant operation) must exist before energized work can be considered.
- ❑ An EEW permit is necessary for work on energized systems operating at a potential greater than 50 volts to ground.
- ❑ The location of safety critical equipment (fire extinguishers, emergency eyewash, telephone, up line electrical disconnects) shall be identified and communicated prior to conducting EEW.
- ❑ All personnel who perform work on electrical systems must be qualified as defined by this document. Whenever possible, electrical equipment must be worked on in an electrically de-energized state according to documented lockout/tagout procedures. Work on energized electrical equipment will be permitted only when it can be demonstrated that the use of de-energized work practices introduces additional or increased hazards or is not feasible; documented compelling reasons must be provided and approved
- ❑ The scope of work must be communicated and understood by all parties involved.
- ❑ Personnel must not wear conductive items when working on or within the defined safe working distance of energized electrical equipment. These items include, but are not limited to watches, bracelets, rings, conductive framed glasses, earrings, badge clips, and clothing with metal snaps and buttons. IF conductive items cannot be removed they must be covered with a non-conductive material.
- ❑ EEW in hazardous locations (Class 1, Division 1 or 2) should be avoided. This work should only be performed after a thorough analysis has been made to verify the work can be performed safely, and approval has been obtained from the responsible manager. Compelling reason must be documented and approved via an EEW permit. The appropriate safe work practices to be used for a project or task are based upon the rated type of electrical until proven to be a lesser type. See Matrix below.

□

Type	Energy Magnitude	Work Specifics	Testing/Metering Operations	Typical Minimum Safety Equipment Required **	Buddy Req.	FEW Permit Req.
1 ***	Zero Volt Amps	De-energized, locked & tagged out, meter and check out all sources of power before beginning work	Meter only to ensure no power.	Safety glasses as defined by the JHA	No	No
2 ***	Energized with covers in place less than 600 volts	Permanent covers in place designed for metering and testing that will prevent any accidental bodily contact with electrical or RF energies	Meter and test only by means of designed testing points with all covers in place	Safety glasses as defined in the JHA	No	No *
3 ***	Less than 240 Volt Amps and less than 50 volts visual inspection less than 600 Volts	Work involving potential direct physical contact with energized exposed circuits not exceeding 240 Volt Amps and less than 50 Volts	Meter, test, or troubleshoot within voltage and Volt Amp ranges	Safety glasses (non-conductive frames), properly rated and tested rubber insulated gloves and mats, insulated boots, body hook, as defined in the JHA	No	No
4	50 to 600 Volts	Work involving potential direct physical contact with energized exposed circuits not exceeding 240 Volt Amps and less than 50 volts	Metering and testing with any covers removed allowing for direct contact within this voltage range. This is considered EEW.	Safety Glasses (non-conductive frames), properly rated and tested rubber insulated gloves and mats, insulated boots, body hook, as defined by the JHA.	Qualified EEW Buddy	Yes, EEW Badge may be used for testing and metering only *
5	Greater than 600 Volts	Work involving potential direct physical contact with energized exposed circuits greater than 600 Volts. Ensure the area is properly barricaded with non-conductive material.	Metering and testing with any covers removed exposing over 600 Volts. This is considered EEW.	Safety Glasses (non-conductive frames), properly rated and tested rubber gloves and mats, insulated boots, body hook, as defined in the JHA	Qualified Person as EEW Buddy	Yes
<p>* Any energized work (i.e. Types 2-5) done in a hazardous location requires and EEW Permit</p> <p>** Individual tasks must be reviewed for PPE requirements</p> <p>*** Work should be classified at the highest level until testing is complete</p>						



The use of temporary coverings (blankets), insulated tools, mats, and PPE reduces the risk to the employee conducting the work. It should not reduce the energized electrical work to a lower type.

### **GENERAL ELECTRICAL WORK PRACTICES**

- ❑ No EEW may be performed without approved insulated tools. The hand tools must be specified by the risk assessment and be manufactured to meet the requirements of the work.
- ❑ Areas around exposed/energized equipment must be properly barricaded and/or secured to prevent accidental contact and maintain a safe work environment
- ❑ Personnel should not employ practices which provide a current path through any part of their body. Every effort should be made to practice the "one-hand rule" when the task allows.
- ❑ No electrical work will be permitted in areas which are dimly lit.
- ❑ Employee clothing, jewelry, equipment, and work materials shall be rendered nonconductive or used in a manner to prevent contact with energized electrical conductors.
- ❑ Tripped circuit breakers may not be reset (or fuses replaced) until the system which they service has been verified safe.
- ❑ Special tools shall be used to install/remove fuses under load. Panel doors shall be closed prior to re-energizing circuits in which fuses have been replaced.
- ❑ Equipment must be suitable for the environment (e.g., hazardous locations, damp areas) in which it is used.
- ❑ All electrical and protective equipment shall be inspected for damage prior to use. Damaged items shall be tagged and taken out of service.
- ❑ Temporary power cords must be protected from damage. Those run overhead shall be adequately secured (with a non-conductive means) at above 7 feet from floor level. No temporary cords shall be draped over equipment or left where potentially walked or driven upon.
- ❑ Cords used on construction projects shall be of an extra hard use type.
- ❑ Precautions shall be taken to verify the location of underground/inner wall electrical interference prior to beginning excavation/penetration activities. If unsure of the exact location of these interferences, protective equipment shall be worn.
- ❑ No use of metal keyhole saws to penetrate sheet rock walls for electrical installations.
- ❑ Work in wet or damp work locations must not be performed until all efforts to abate the hazard have been exhausted. Ground Fault Circuit Interrupters (GFCI's) must be used when work must be performed in wet or damp locations.
- ❑ Metal fish tape shall never be used for pulling wire into energized panels or where the potentials exist for contact with energized components.
- ❑ Non-metallic pulling socks shall be used when pulling wire into energized panels or where the potential exists for contacting energized components.

**ELECTRICAL WORK IN HAZARDOUS LOCATIONS**

- ❑ Work on equipment that is rated for use in hazardous locations that 'II violate the classified location rating is not permitted. For example, work which requires the opening, of explosion proof enclosures in a classified location must be performed in a de-energized, locked and tagged out state
- ❑ If there is a potential for combustible vapors in a work area a test of the area must be performed with a combustible gas meter prior to and during the duration of any EEW. Work must be halted immediately if any combustible gas or vapor is detected.

**PROCEDURES BY ENERGIZED ELECTRICAL WORK TYPES**

**Note:** *The following procedures should be common to all Electrical Work for the respective types. Additional task specific procedures and equipment should be included when developing the work plan. In all cases the work should be classified at the higher rated level until it has been determined to be a lower one.*

**Type I - De-energized, locked and tagged out**

- ❑ Arrange for required down time of equipment/systems.
- ❑ De-energize all power sources including backup power lockout/tagout and verify all electrical sources are at zero voltage. Ensure that Hazardous Energy Control pro-ram criterion has been met.
- ❑ Verify functionality of test equipment and ensure it is properly rated for maximum potential voltage to be tested, including valid calibration date.
- ❑ After de-energizing, test all circuits for voltage as follows:
  - ❑ Check meter with known voltage.
  - ❑ Check voltage with meter--confirm to be zero.
  - ❑ Check meter with known voltage again, to confirm proper operation of the meter.

**Type 2 - Covered, energized circuits less than 600 volts or any work less than 50 volts**

- ❑ Verify that all covers are in place.
- ❑ Ensure proper safety equipment (per Job Hazard Analysis) is at work site and in good condition.
- ❑ Verify functionality of test equipment and ensure it is properly rated for work to be performed, including valid calibration date.
- Type 3 - Energized work on exposed electrical systems less than 50 volts and less than 240 volt-amps, visual inspections rated between 50 to 600 V.**
- ❑ Obtain approval from area Customer to do work.
- ❑ Verify functionality of test equipment and ensure it is properly rated for work to be performed, including valid calibration date.

- ❑ Determine the voltage, location of shutdown points, and any other associated hazards.
- ❑ Ensure proper tools and test equipment is available for the work to be done and in proper working conditions.

**Type 4** - Energized work on exposed electrical systems greater than 50 volts and less than 600 volts

- ❑ Ensure EEW badge is visible. If work cannot be performed within the EEW badge system, obtain and properly fill out an EEW permit. Review the permit and obtain required signatures before beginning the work.
- ❑ A compelling reason, per the definition in this document, for performing EEW must be provided on the EEW permit. Compelling reasons must be approved by the site's designated approver. An example of the EEW Permit is included in Appendix A.
- ❑ Verify functionality of test equipment and ensure it is properly rated for work to be performed, including valid calibration date.
- ❑ Determine voltage, location of shutdown points, and other potential hazards.
- ❑ Apply warning tags that inform other that work being completed on interrupting breakers/switches. The tag should be placed at the nearest level upstream power source to prevent re-closure and re-energizing of equipment/systems. (Power distribution systems only)
- ❑ Obtain the proper safety equipment to complete the job in a safe manner. The specific safety equipment will vary based on the potential hazard. The correct PPE, insulated tools, and procedures for safe practices should be documented in the job hazard analysis. The safety equipment may include but is not limited to the following:
  - ❑ ANSI approved hard hat
  - ❑ ANSI approved safety glasses with non-conductive frames
  - ❑ Rubber insulated mats or boots
  - ❑ Properly rated and tested rubber gloves
  - ❑ Properly rated and tested rubber sleeves
  - ❑ Body hook
  - ❑ Approved insulated tools
  - ❑ Face shield
  - ❑ Fire extinguisher
  - ❑ Flame retardant clothing (i.e. Nomex or equivalent outer clothing)
  - ❑ Properly rated and tested blast suit
  - ❑ Cotton Clothing

- ❑ PPE should be based on the hazards of the task.
- ❑ Ensure the proper tools and test equipment is available for the work to be done and in proper working condition.
- ❑ Insulated mats and/or boots must be used when working on conductive surfaces for Type 4 and 5 work.
- ❑ Barricade and/or secure the area.
- ❑ Upon completion of job or shift:
- ❑ (Power distribution systems only) Retrieve all upstream warning tags.
- ❑ Return the EEW Permit and (power distribution systems only) upstream warning tags to permit issuer.

### **Type 5 - Greater than 600 volts**

In addition to Type 4 requirements above, all Type 5 energized electrical work must be planned with documentation of sequenced steps, safety precautions, and equipment needed to perform the job safely. The documentation will be approved by an electrical engineer, If this work is routine, procedures should be outlined in PM procedures and on line checklists.

#### **Permit Systems:**

- ❑ Qualified Person must obtain an EEW permit and (for power distribution systems only) an upstream warning tag.
- ❑ Qualified Person must fill out permit, including compelling reason, and sign.
- ❑ Qualified Person must obtain all appropriate signatures on EEW permit.
- ❑ Qualified Person must post EEW permit at work site.
- ❑ Closed permits shall be archived for one year by the issuing department. If changes are made it will be under the direction of the site EHS department.

## **RESPONSIBILITIES**

### **Environmental Health and Safety**

- ❑ Ensure quality of the content of training.
- ❑ Audit to assure that safe electrical work practices are being adhered to.
- ❑ Coordinate or assist the completion of the Job Hazard Analysis
- ❑ Ensure quality of the content of program documentation.
- ❑ Communicate requirements to site senior management. Equipment Owner/ Process Engineer

(The person that has the responsibility for the operation and maintenance of the equipment)

- ❑ Evaluate tasks performed at Types 4 and 5 for engineering controls that would reduce the work to Type three or below and modify the equipment accordingly.
- ❑ Update specs to comply with the requirements of this document.

- 
- ❑ Assist in scheduling to minimize production downtime.
  - ❑ Complete the Job Hazard Analysis
  - ❑ Complete the following training requirements:
  - ❑ Basic Electrical Safety training

**Management**

- ❑ Enforce the requirements of this document
- ❑ Ensure that this program is appropriately audited for compliance on a routine basis.
- ❑ Understand the scope & hazards associated with the work they are approving.
- ❑ Have read and understood this document.
- ❑ Complete the Basic Electrical Safety training

**Qualified EEW Buddy:**

- ❑ Review scope of work with qualified person.
- ❑ Know location of disconnects and how to de-energize.
- ❑ Observe work without interfering with worker and without participating in the work.
- ❑ Determine best emergency procedures prior to work beginning.
- ❑ Review and sign EEW permit.
- ❑ Complete the following training requirements:
  - ❑ CPR/First Aid -Every two years
  - ❑ Basic Electrical Safety Qualified Person as an EEW Buddy:
- ❑ In addition to the responsibilities already listed for an EEW Buddy, the Qualified Person as an EEW Buddy must also have:
  - ❑ Equivalent knowledge of the qualified person and of the equipment.
  - ❑ Understand the scope of work.
- ❑ Complete the following training requirements:
  - ❑ CPR/First Aid -Every two years
  - ❑ Basic Electrical Safety
  - ❑ Intermediate Electrical Safety
  - ❑ Advanced Electrical Safety - Advanced is required annually

**Qualified Person**

- ❑ Understand the scope of work.
- ❑ Comply with all electrical safe work procedures and requirements as described in this document.
- ❑ Ensure that the buddy system is used.

- ❑ Ensure the EEW permit system is followed.
- ❑ Have read and understood this document.
- ❑ Have experience required to perform work on the respective equipment and understand the hazards associated with the work.
- ❑ Complete the following training requirements:
  - ❑ CPR/First Aid -Every two years
  - ❑ Hazardous Energies - annual
  - ❑ Basic Electrical Safety
  - ❑ Intermediate Electrical Safety
  - ❑ Advanced Electrical Safety - Advanced is required annually

**Senior Project/Site Management or designee**

- ❑ Ensure that resources are allocated to support this program.
- ❑ Work to eliminate or reduce the need for electrically energized work.
- ❑ Establish a means to enforce compliance with the requirements of this guideline.
- ❑ Complete the following training requirements:
  - ❑ Basic Electrical Safety training
- ❑ Ensure requirements of document are implemented and current.

**Supervisors and Permit Issuers**

- ❑ Ensure permits are used, filled out correctly, & signed for all EEW.
- ❑ Verify that all employees performing electrical work have current training certifications and skills necessary to perform the work,
- ❑ Supervisors must ensure that there is a sufficient number of personnel trained and available to do the work.
- ❑ Enforce the availability, maintenance, calibration and/or testing, and use of personal protective equipment.
- ❑ Permit Issuers must understand the scope and hazards associated with the work they are approving.
- ❑ Have read and understood this document. Complete the following training requirements:
  - ❑ Basic Electrical Safety training

**Office Trailer Safety Checklist**

- Trailer location does not prohibit access to emergency response and/or construction traffic
- Multiple trailers have adequate separation between themselves
- Trailer is tied down securely for wind & seismic loads
- Trailer has proper stair assemblies including consistent riser heights, tread widths, and handrails
- Trailer power and communication services are supplied from either underground source or from overhead source that is properly secured at safe height. Heights to allow for construction equipment and delivery truck access
- Trailer electrical power is properly grounded
- Trailer electrical power service meets all applicable electrical codes
- Trailer internal wiring meets all applicable electrical codes (amperage/circuits not overloaded with adapters, etc.)
- Office trailer has adequate overhead task lighting for office personnel
- Trailer contains adequate quantity of fire extinguishers
- Trailer contains first aid kit
- Trailer has trash bin / cigarette bin / recycling bin
- Trailer has proper safety signage
- Temporary / space heaters are not allowed in trailer
- Trailer has operational HVAC system with no fresh air or return air intakes obstructed



**Balfour Beatty**  
Construction

INJURY AND ILLNESS  
PREVENTION  
PROGRAM



# Balfour Beatty Construction

## TABLE OF CONTENTS

	<u>TAB #</u>
SOUTHWEST REGION SAFETY POLICY	1
RESPONSIBILITIES	2
TRAINING AND EDUCATION	3
JOBSITE SAFETY INSPECTIONS	4
CODE OF SAFE PRACTICES	5
SAFETY INSTRUCTIONS	6
FIRST AID/EMERGENCY MEDICAL SERVICES	7
INCIDENT REPORTING PROCEDURE	8
REPORT FORMS	9
SAFETY ORIENTATION TRAINING	10
SUBCONTRACTORS REQUIREMENTS	11
HEAT STRESS	12
REFERENCES	13



# **TAB 1**

## SOUTHWEST REGION SAFETY POLICY

It is the policy of Balfour Beatty Construction to establish and maintain an effective INJURY AND ILLNESS PREVENTION PROGRAM on every job site.

Safety education of all workmen from Superintendents down through all journeymen, apprentices and laborers in the recognition, avoidance, and correction of unsafe working conditions and practices shall be conducted. All practical steps shall be taken to maintain safe, healthful places of work for our workers. Approved protective equipment shall be provided and shall be used by all persons, including subcontractors, at work locations requiring such equipment.

Safety will be given primary importance in planning and operating all Company activities in order to protect employees against occupational injuries and illnesses and to protect the Company against unnecessary financial burden and reduced efficiency.

Each member of Management is responsible for the safety, well being, and safe work conduct of all persons who report to or are assigned to him or her.

### PURPOSES

The employees of Balfour Beatty Construction are considered to be our most valuable asset; their safety is of vital concern. Recognizing its need and responsibility for the safety of its employees, the Company considers injury and illness prevention an important and integral part of every operation undertaken.

To carry out this policy, the Company will:

- Maintain safe and healthful working conditions.
- Furnish, within reason, the best available mechanical safeguards and personal protective equipment, where they are needed.
- Maintain an active and aggressive program, in which all members of management will participate, to promote safety awareness among its employees.
- Provide adequate medical and first-aid facilities for work-caused injury and illnesses.
- Maintain a continuous educational program in safe operating procedures.
- Insist that all employees observe established safety regulations and practices and use the safety equipment provided.

  
*Balfour Beatty Construction,*  
*Brian Cahill, President*

*Dated 01/01/2013*

# **TAB 2**





## **RESPONSIBILITIES**

---

Name

---

Title

is fully trained on general safety practices and will be responsible for the implementation of the Injury and Illness Prevention Plan for project

---

Project Name

---

Address

---

City

---

State

---

Zip Code

## **MANAGEMENT**

- Implementation and monitoring of this Injury and Illness Prevention Plan is the direct responsibility of the management of Balfour Beatty Construction. The Division Loss Prevention Manager will be responsible for the program.
- The management will initiate and make policy changes as necessary to enhance the Injury and Illness Prevention Plan.
- The management shall provide safety training for all personnel.
- The management will require all subcontractors to abide by the safety policy.
- The management and the Loss Prevention Department will make periodic unannounced safety inspections and file reports regarding each inspection.
- The management will investigate any and all serious accidents and file full reports on each.

## **SUPERINTENDENTS**

- Superintendents are fully trained on general safety practices and will be responsible for the implementation of the Injury and Illness Prevention Plan on the jobsite.
- The Superintendent will promote and develop attitudes for safe practices in himself and the personnel that he supervises.
- Training and education for all job personnel is a prime responsibility of the Superintendent.
  - Useful, informal “tailgate” safety meetings shall be conducted at the jobsite on a weekly schedule.
  - All “new hire” personnel shall be indoctrinated with regard to on the job rules, code of safe practices and any special or unique conditions concerning the position to which the employee is assigned.
  - A daily jobsite safety walk-through will be performed with key subcontractor foreman.
- Superintendent has the responsibility and authority of job planning not from a schedule standpoint, but planning for potential hazards as the project moves through the construction phases.
- Superintendent shall be responsible and have the authority for correcting any unsafe acts or job condition.
- Superintendent shall review and investigate any accidents occurring on the jobsite.

- The work activity of subcontractors shall be supervised and control will be maintained.
- Superintendent will be familiar with the laws pertaining to safety and their basic requirements.

### **PROJECT MANAGERS**

- Participate in and support jobsite safety activities.
- Inform subcontractors of the Balfour Beatty Construction Injury and Illness Prevention Plan policy requirements.
- Provide management level support for the implementation of the Injury and Illness Prevention Plan policy.

### **FOREMAN**

- All foreman will actively support the safety program. They will plan and supervise work activities around the conditions and the work environment, which are recognized as hazards to the safety and health of the employees.
- Foreman will instruct new employees regarding safety hazards that are specific to their work assignment.
- Foreman will assign specific tasks to personnel based upon their work experience and physical condition.
- Foreman will coordinate the work activities in a manner that the safety of any worker or crew is not jeopardized by the activities of others. When these conditions do exist and are unavoidable, special instructions and safeguards will be given.
- Specific duties of the foreman include, but are not limited to:
  - Train and motivate employees in good safety practices.
  - Observe for unsafe acts and conditions and take action to rectify as required.
  - Assure that employees have suitable personal protection equipment for the work being performed, and that the equipment is being properly used.
  - Work with the Superintendent in an incident investigation. The investigation is for the purpose of taking corrective action and should be made even if no physical injury or significant damage to equipment is evident.
  - Foreman will participate in safety meetings and be informed about the safety program.
  - Foreman will set a positive example for safe working conditions and work activities.

## **EMPLOYEES**

- All employees shall follow the Balfour Beatty Construction Code of Safe Practices.
- Each employee shall develop and maintain a proper attitude toward the safety practices on the jobsite.
- Each employee shall report any unsafe act or condition.
- The *Employee Report of Unsafe Conditions* is for reporting unsafe conditions and will be available at each jobsite. This form is to be delivered to the Southwest Division Office to the attention of the Division Loss Prevention Manager. Identity of persons reporting any unsafe condition is optional.
- The employees have the responsibility of reporting for work with proper attire and safety gear.
- Employees will report all injuries, regardless of the severity, to his or her supervisor.
- All employees are required to take a drug-test as a condition of employment. Any employee who is off work for any reason for a period of 30 days will be required to take a drug test. Management reserves the right to test the entire job if an accident has occurred on the job.
- Post incident drug testing is mandatory.
- The following Disciplinary Action Program will be strictly enforced on the job site.

## DISCIPLINARY ACTION PROGRAM

Safety violations will be categorized as SERIOUS and NONSERIOUS.  
Formal reprimand for Non-serious violations (in the same year) will be as follows:

- First Violation:** Verbal warning documented by supervisor.
- Second Violation:** Formal written warning issued by supervisor (copy to personnel file).
- Third Violation:** Formal written warning issued by supervisor and one day off without pay (copy to personnel file).
- Fourth Violation:** Formal written warning and five (5) days off work without pay (copy to personnel file).
- Fifth Violation:** TERMINATION.

Formal reprimands for serious violations (in the same year) will be as follows:

- First Violation:** One day off without pay.
- Second Violation:** Five days off without pay.
- Third Violation:** TERMINATION.

## CONCLUSION

You will do well to commit these guidelines to your memory and by doing so; you will help assure your position here at Balfour Beatty Construction. Remember that safety always comes first at Balfour Beatty Construction and it is your responsibility to perform your job in a safe and accident-free manner.

Please sign in the space provided below certifying that you have read and fully understand the contents of this document. Upon signing, this letter will become a permanent part of your personnel file.

  
*Balfour Beatty Construction,*  
*Brian Cahill, President*

I have read and I understand the contents of this letter.

\_\_\_\_\_  
Employee

\_\_\_\_\_  
Date

\_\_\_\_\_  
Supervisor

\_\_\_\_\_  
Date





# **TAB 3**



## **TRAINING AND EDUCATION**

- Safety “tail gate” meetings will be conducted once each week. The meeting should be scheduled on the same day and time each week.
  - All job personnel including subcontracting personnel are required to attend. If subcontractors wish to hold meetings of their own, it should be on a weekly schedule and written minutes of the meeting should be submitted to the Balfour Beatty Construction Project Office for the job file. (Appropriate minutes include: date, time, subject discussed and who attended).
  - A Balfour Beatty Construction *Weekly Safety Meeting Sign-in Sheet* will be completed for each safety meeting held.
- Each new hire employee will be provided with an orientation to the job and a description of the work activities. All known job hazards will also be detailed. The *Employee General Safety Training & Orientation* acknowledgement is included in the New Employee Orientation Training section of this manual.
  - Job safety activities will be explained along with the availability of personal protective equipment. The Code of Safe Practices will be provided to each employee along with an explanation. The videos, “Getting the Job Done Safely: Worker Orientation” and “Hazard Communication: The Message is Safety” will be shown by the HR department during the New Hire Orientation. In addition, Superintendents and trade employees will be shown “Thinking About Fall Protection”.
- Superintendent and project management training shall be scheduled as necessary.
- All Superintendents shall be trained in First-Aid and CPR.
- Documentation for Tailgate Safety Meetings and New Employee Orientation Training will be maintained in the Balfour Beatty Construction Project Office.
- Training shall be conducted:
  - When the program is first established
  - To all new employees
  - To all employees given new job assignments for which training has not previously been received
  - Whenever new substances, processes, procedures or equipment are introduced to the workplace and represent a new hazard.
  - Whenever the employer is made aware of a new or previously unrecognized hazard
  - For supervisors to familiarize themselves with the safety and health hazards to which employees under their immediate direction and control may be exposed.

## **QUARTERLY SAFETY AWARD**

- A quarterly safety award program has been established to promote safety on every job site. This award gives recognition to the entire job for safe working conditions and safe results. This award consists of:
  - A plaque and safety sign award to be displayed on and in the winning job's office trailer.
  - A cash award is given to the key personnel in charge of safety on the jobsite that is awarded the quarterly safety award.

# **Tab 4**



## **JOBSITE SAFETY INSPECTION**

- A daily job walk will be conducted with the purpose of observing the conditions and work activities with respect to overall job safety. The jobsite inspection will be documented on the *Daily Jobsite Safety Checklist*. Corrective action that is taken will be explained on this form. Immediate correction shall be initiated for any unsafe acts or conditions. This documentation is to be filed at the project office and scanned to the jobsite file.
- Any conditions or acts noted during the inspections which are the direct responsibility of a subcontractor shall be communicated in writing to that subcontractor on the *Notice of Safety Non-Compliance* form. This documentation is to be filed at the project office and scanned to the jobsite file.
- Any conditions or acts noted during the inspections which are the direct responsibility of a subcontractor and that have previously been communicated in writing to that subcontractor on the *Notice of Safety Non-Compliance* form but have yet to be abated, the *Warning Letter for Safety Non-Compliance* form will be submitted to the main office of the Subcontractor found to be non-compliant. This documentation is to be filed at the project office and scanned to the jobsite file.
- A monthly job walk will be conducted with the purpose of observing the conditions and work activities with respect to overall job safety. The jobsite inspection will be documented on the *Monthly Jobsite Safety Checklist*. Corrective action that is taken will be explained on this form. Immediate correction shall be initiated for any unsafe acts or conditions. This documentation is to be filed at the project office and scanned to the jobsite file.
- During the course of site safety inspections when deficiencies are noted, corrective action shall be taken immediately and training shall be conducted to address the following situations:
  - Whenever new substances, processes, procedures, or equipment are introduced to the workplace that represents a new occupational safety and health hazard.
  - Whenever the employer is made aware of a new or previously unrecognized hazard.
  - When an imminent hazard exists which cannot be immediately abated without endangering employee(s) and/or property, remove all exposed personnel from the area except those necessary to correct the existing condition. Employees necessary to correct the hazardous condition shall be provided the necessary safeguards.





# Tab 5



## **BALFOUR BEATTY CONSTRUCTION CODE OF SAFE PRACTICES**

1. No one under the influence of or with possession of drugs or intoxicating liquor shall be allowed on the job.
2. No horseplay of any kind shall be allowed.
3. No one shall be required or permitted to work in an ill or fatigued state.
4. No loose or frayed clothing, shorts, soft or badly worn shoes shall be worn.
5. A shirt shall be worn at all times. Shirt must have a minimum of a 4 inch sleeve.
6. Hard hats shall be worn at all times.
7. Eye protection shall be worn at all times.
8. Protective equipment, face masks, face shields, goggles, toe guards, ear plugs shall be worn at all times when the task requires.
9. Wear protective gloves and boots when working in concrete.
10. All nails or protruding tie wires shall be bent over or removed.
11. All work areas shall be kept clean and orderly at all times.
12. Replace guard rails or missing floor covers immediately.
13. Report unsanitary conditions to the foreman or superintendent.
14. Do not tamper with electrical equipment, machinery, air or waterlines and report all defective equipment to the foreman or superintendent.
15. Do not descend into an un-shored trench five feet or more in depth.
16. All ladders shall be tied off.
17. Report all injuries promptly to the project superintendent.
18. Keep away from the building perimeter unless necessary to the performance of the work.
19. Do not work above or below other workers.
20. Ask for instruction on proper lifting procedures.
21. Clean up all liquid spills immediately.

22. Report any unsafe conditions to the foreman or superintendent. If possible correct the condition first and then report it.
23. Do not throw materials, tools or other objects from buildings or structures.
24. Report damage to scaffolds, false work or other supporting structures immediately.
25. Know where all fire extinguishers are located and how to use them.
26. Know where all emergency exits are located.
27. Know the location of the first aid kit.
28. No one shall bring any type of music playing device, iPod, MP3 player, or DVD/Television device on to the job.
29. Follow no smoking rules.
30. Immediately report all injuries, illnesses, near misses, or utility strike incidents to the project superintendent.

# **Tab 6**





## **SAFETY INSTRUCTIONS**

### **HOUSEKEEPING**

- Keep work area clear of debris, trash and unused materials.
- Passageways, stairs and aisles shall be kept free of trash and scrap materials.
- Trash accumulated within the buildings or structures shall be removed daily during the course of construction.
- Trash shall be placed in trash bins or trash receptacles.
- Flammable liquids shall be stored only in approved containers and labeled “FLAMMABLE” with the contents identified.

### **HEAD PROTECTION**

- Hard hats must be worn by all personnel and visitors on the jobsite.
- Only approved hard hats are to be worn. No bump caps.
- Hard hats shall not be modified by drilling holes in them or painting them.

### **HEARING PROTECTION**

- Hearing protection shall be worn when the noise levels reach 85 DBA or when a conversation in a normal voice level cannot be carried on in proximity to the noise emitting source.

### **EYE AND FACE PROTECTION**

- 100% eye protection must be worn by all personnel on the jobsite.
- Face protection shall be worn when the nature of the work presents a potential for facial injury.
- Only approved safety glasses shall be worn when operating powder actuated tools.
- When cutting or chipping concrete, safety glasses will be worn.
- Goggles are to be used when working in a dusty atmosphere.

### **FOOT PROTECTION**

- Appropriate footwear will be worn on the job. No sandals, canvas topped shoes (tennis shoes), shoes with thin or badly worn soles will be worn on the jobsite.
- When using a tamper, whacker or chipping gun, metatarsal guards will be worn to protect the top of the feet.

## **CLOTHING**

- Proper clothing shall be worn on the project. This would include a sleeved shirt with a minimum of a 4 inch sleeve, long pants (no shorts) and proper footwear.
- Frayed or tattered clothing shall not be worn. Half shirts are not permitted.

## **INTOXICATION**

- No person will be allowed on the site while under the influence of alcohol or drugs. Consuming alcoholic beverages or drugs during working hours shall be forbidden.

## **ROOF AND FLOOR OPENINGS**

- Roof and floor openings shall be covered or barricaded by guardrails. If covered, the cover must be secured in place and the cover stenciled "HOLE DO NOT REMOVE". Chalk or kiel shall not be used to stencil the warning on the cover.
- If rails are used to protect the floor openings, the top rail should be no less than 42" or no more than 45" high. It shall be made of select lumber, 2" x 4". A 1" x 6" mid-rail is required. A toe board of at least 3 1/2" shall be secured to the base of the guardrail at floor level.

## **SAFETY HARNESS & LANYARDS**

- Approved safety harnesses and lanyards shall be worn and used by those workers whose work exposes them to falling from the perimeter of a structure, roof, shaft way or other openings not adequately guarded.
- The anchor end of the lifeline shall be secured at a level no lower than the workers waist and a horizontal distance not to exceed 6' except where waist level is not possible. Connection at foot level may be permitted provided that adequate risk control procedures are followed.
- Safety harnesses and lanyards will be inspected to make certain that they have not become frayed or worn. This inspection will take place every month and all belts inspected will be permanently marked with the date of the inspection.

## **LADDERS**

- Extension ladders shall not exceed 44' in length.
- The base or foot of all straight ladders shall have safety shoes or some form of nonskid anchorage.
- The two top rungs of the portable ladders shall not be used.
- The top step of a step ladder shall not be used to stand on. Step ladders shall not be used to hold planks to form a work platform.
- Metal and wooden ladders (except ANSI Specified Job Built ladders) are not allowed on Balfour Beatty Construction jobsites.
- Defective ladders of any kind shall be taken out of use immediately and repaired or replaced.
- Ladders used for access to upper floors or the roof shall extend above the upper landing by at least

3'. And the top will be tied off.

## **FORKLIFTS**

- All forklift operators shall be trained in the safe operation of the specific piece of equipment utilized.
- When leaving a forklift unattended, the power shall be shut off, brakes set, the mast brought to a vertical position and the forks left in the down position. When left on an incline, the wheels shall be blocked.
- Forklifts are considered unattended when the operator is 25' or more away from the vehicle which remains in his view or whenever the operator leaves the vehicle and it is not in his view.
- When the operator of a forklift is dismounted and within 25' of the vehicle still in his view the forks shall be fully lowered, controls in neutral and the brakes set.
- No person shall ride on the forks of the vehicle or within the cab other than the certified operator.
- Forks shall always be carried as low as possible consistent with safe operation.
- No passengers will be permitted to ride the vehicle unless seating is provided as standard equipment.
- No operator shall attempt to lift or transport a load which is of a size and weight sufficient to cause the back wheels to raise from the ground. NOTE: Under no circumstances shall another person attempt to counter balance such a load by standing on the vehicle.
- The operator of the forklift will not exceed a speed that is safe for conditions.
- An approved fire extinguisher must be readily available and accessible to the operator.

## **COMPRESSED GAS CYLINDERS**

- All cylinders shall be firmly secured in an upright position around the body of the cylinder by rope or chain.
- Never secure cylinders to piping, conduit or electrical cables.
- Valve protection caps shall be kept on cylinders except when in use.
- Oxygen cylinders shall be separated from fuel-gas cylinders or combustible materials (especially oil or grease). A minimum distance of 20' or a noncombustible barrier five feet high having a fire resistance rating of at least one half hour is required for separating oxygen cylinders from fuel-gas cylinders or combustible materials.
- Always store compressed gas cylinders in a well ventilated area protected from the direct rays of

the sun.

- Regulators and pressure gauges shall be used only with gases for which they were designed.
- When in use, the cylinders should be secured to a cart that will not tip over.

### **PORTABLE ELECTRICAL POWER TOOLS**

- Tools shall be grounded with a ground wire connected to the frame of the tool.
- Double insulated tools do not have to be grounded, but must be identified as double insulated.
- Portable electrical saws shall be equipped with a free moving guard which will cover the blade when the cut is completed.
- Never wedge the guard in an open position.
- No portable electrical tool shall be used if the operator must stand in water.
- Defective electrical tools will be tagged “Out of Service” until they are properly repaired.
- Electrical cords for all power tools will be in good condition with no breaks in the insulation or field modifications to the plugs.
- Tool guards must be installed and in good operating condition.

### **POWDER ACTUATED TOOLS**

- Powder actuated tools shall be used only by operators certified and licensed by the manufacturer or the manufacturer’s authorized representative for the tool specified on such license.
- All powder actuated tools shall be kept in a lockable container. The wording “POWDER ACTUATED TOOL” shall appear in plain sight on the exterior of the container.
- The following notice shall be attached to the inside cover of the container:

**“WARNING-POWDER ACTUATED TOOL TO BE USED ONLY BY QUALIFIED OPERATOR AND TO BE KEPT UNDER LOCK AND KEY WHEN NOT IN USE”.**

- Tools shall never be unattended in a place where they would be available to unauthorized persons.
- Eye or face protection shall be worn by operators and assistants when the tool is in use.
- Any tool found not to be in good condition shall be immediately removed from use, tagged as defective and shall not be used until repaired.

- The powder actuated tool shall be serviced. The date of the last service and who performed it will be indicated in the tool's service records.
- Signs at least 7" X 10" using bold face type shall be conspicuously placed within 50 feet of the area where the tools are being used. The sign shall read "WARNING POWER ACTUATED TOOL IN USE".

### **LASER ALIGNMENT BEACON**

- Only qualified and trained operators shall be assigned to install, adjust and operate laser equipment.
- Proof of training should be maintained by the operator for review upon request.
- When left unattended for a substantial period such as during lunch or overnight, the laser shall be turned off.
- The laser equipment shall bear a label to indicate the maximum output.
- 5. When possible, the laser unit should be set up above the heads of other workers in the area.
- 6. Avoid looking directly into the laser beam.
- 7. Signs at least 7" x 10" using bold face type no less than one inch in height shall be conspicuously placed at all entrances to the area where the laser is being used. The sign should indicate that a laser is being used.

### **WELDING**

- Do not weld or cut in a closed area, closed room or inside of tanks without proper ventilation.
- Welder's hood and/or goggles with suitable lens shall be worn.
- Welders working in hard hat areas shall have welders hood attached to the hard hats.
- Protective clothing such as leather sleeves, leather gloves and leather shoes shall be worn when welding.
- Protective shields shall be used around welding or cutting if other workers in the area will be exposed.
- Welding cables with splices shall not be used unless the splices are of the permanent molded or vulcanized type.

## **CONFINED SPACES**

- All assigned personnel must be trained in the appropriate roles and responsibilities.
- Before entering confined spaces such as manholes, underground vaults, or tanks, determine by approved testing methods that the air is breathable and is free from flammable, toxic gasses or vapors.

## **EXCAVATION AND TRENCHES**

- The walls and faces of all excavations five feet or more in depth in which workers will enter shall be effectively guarded by a shoring system, sloping of the ground, or other equivalent means.
- Do not enter or work in any un-shored trench or excavation where protection from moving or shifting ground is required.
- No employee shall cause or permit a worker to work in or adjacent to any excavation until a reasonable examination has been made to determine that no conditions exist exposing them to injury from moving ground.
- Excavated material shall be prevented from falling back into the area where people are working. This shall be done by locating the excavated material at a distance from the excavation edge, but in no case shall it be placed closer than two feet from the edge.
- If sloping is used, the sides or walls of an excavation may be sloped, provided equivalent protection is afforded. Where sloping is a substitute for shoring that would otherwise be needed, it shall be sloped according to the soil classification.
- Use ladders in the immediate area as a means of access. The ladders must be within 25' of where men are working in long trenches.
- Stay within the shored area and keep alert to changing ground conditions.
- Do not excavate beneath the level of the base of an adjacent foundation, retaining wall or other structures until a qualified person has determined that the earthwork will not create a hazard.
- Do not use existing walls or structures as a retaining wall until it is determined that the wall will safely support expected loads.
- Use diversion ditches, dikes and other effective means to prevent water from entering the excavation and to drain surrounding areas.
- Use additional bracing to strengthen shoring in excavations located near streets, railroads, or other sources of vibration or external loads.

## **CRANES**

- All cranes, derricks and cableways used in lifting service, exceeding three tons rated capacity, and their accessory gear shall not be used until it has been ascertained that the equipment has been certificated as evidenced by current and valid documents that show compliance as required by State Department of Safety and Health.
- Cranes shall not be left unattended with a load suspended.
- Only qualified persons shall give signals to the crane operator.
- No load shall be swung over personnel and no person shall work under suspended load unless the load is effectively blocked to prevent it from falling.
- It is unlawful to operate a crane within 10 feet of a live high voltage line.
- Truck cranes shall have a boom angle indicator located so the operator can see it when he is lifting a load.
- Truck cranes shall have the outriggers firmly and securely set before they attempt to lift a load.
- All crane operators shall be licensed for the specific crane they are operating.

## **HAULING AND EARTH MOVING**

- Equipment shall be under control at all times and shall be kept in gear when descending grades.
- No vehicle shall be driven at a speed greater than reasonable for the work being done.
- Every truck with a body capacity of 2 ½ cubic yards or more, used to haul dirt, rock, concrete or other construction material, all haulage vehicles, self-propelled graders equipped with pneumatic tires, or any vehicle having an obstructed view to the rear shall be equipped with a warning device that operates automatically while vehicle is backing. The warning sound shall be of such magnitude that it will normally be audible from a distance of 200'. Where conditions warrant, a signalman, in clear view of the operator shall direct the backing operation.

## **RAMPS, RUNWAYS, STAIRWELLS AND STAIRS**

- Wheelbarrow ramps and runways over 3' high shall not be less than 2'6" wide and secured at each end to prevent sliding.
- Ramps and runways erected for use of workers shall be not less than 20" in width and shall be secured and supported so as to avoid deflection and spring action.
- Securely fastened cleats shall be used on inclined runways that are sloped 2' in 10' or more; cleats shall be 8" or more in length and not more than 10" apart.

- Handrails when used in connection with stairways shall be 34” to 38” above the tread nosing.
- Uprights shall be not less than 2” x 4” and spaced not more than 8’ apart and properly anchored.
- Standard guardrails shall consist of a top rail not less than 42” or more than 45” in height measured from the upper surface of the top rail to the floor. The mid-rail shall be halfway between.
- Posts shall not be less than 2” by 4” and spaced at 8’ intervals or less.
- All railings, including their connections and anchorage, shall be capable of withstanding without failure, a force of at least 200 pounds applied to the top rail within 2 inches of the top edge, in any outward or downward direction, at any point along the top edge. When the 200 pound test load is applied in a downward direction, the top edge of the guardrail shall not deflect to a height less than 39 inches above the walking/working level.
- Mid-rails, screens, mesh, intermediate vertical members, solid panels, and equivalent members shall be capable of withstanding, without failure, a force of at least 150 pounds (666 N) applied in any downward or outward direction at any point along the mid-rail, screen, mesh, or other intermediate member.

## **SCAFFOLD AND PLATFORMS**

- Railing shall be provided on all open sides and ends of built up scaffolds, rolling scaffolds elevated platforms 6’ or more above the ground level or floor level.
- Toe boards shall be solid and extend not less than 3 1/2” above the platform, and the bottom clearance shall not exceed 1/4”. Toe boards shall be provided on all open sides and ends of railed scaffolds at locations where people are required to work or pass under the scaffold. Also, at all interior floor, roof and shaft openings.
- If material on a railed scaffold is piled higher than the toe board, a barrier of ½ mesh wire, canvas or equivalent shall be provided between the top rail and toe board and secured both top and bottom at locations where persons are required to work or pass under the scaffold. NOTE: When side screens are used, mid-rails may be omitted.
- Mobile scaffold shall be equipped with a positive method of locking the scaffold against movement when being used. Scaffold shall be locked in position when scaffold is being used.
- Rolling scaffold shall not be moved until all workers are off the scaffold.
- An extension platform outside a wall opening on which material can be hoisted for handling shall have standard railings; one side of platform may have removable railings in order to facilitate handling of materials.



## **PNEUMATIC IMPACT TOOLS**

- Safety clips or retainers shall be installed to prevent dies and tools from, being expelled from the barrier.
- Proper personal protective gear shall be worn when using a pneumatic tool (i.e., safety glasses, face shields, hearing protection, etc.).

## **PORTABLE COMPRESSORS**

- When portable compressors on wheels stand unattached to other equipment, they shall be positively locked, blocked or otherwise adequately prevented from rolling.
- Fans and belts shall be completely guarded.
- Compressor safety valve shall be popped weekly.

## **HAND TOOLS**

- Tools having mushroomed heads, split or defective handles, worn parts or other defects that make them unsafe for use, shall be removed from use and shall not be used until replaced or the necessary repairs are made.

## **REINFORCING STEEL**

- No worker shall be permitted to work above vertically protruding reinforcing steel until it has been protected so that it does not become an impalement hazard. This may be accomplished by bending the steel over, or covering it with approved rebar caps or by other approved methods.
- Workers working more than six feet above any adjacent working surface, placing and tying reinforcing steel to walls, piers, columns, etc., shall be required to use a safety harness and lifeline or other device affording equivalent protection from the hazard of falling.
- Reinforcing steel for walls, piers, columns and similar vertical structures shall be guyed and supported to prevent collapse.

## **PRECAST CONCRETE CONSTRUCTION AND TILT UP**

- The lifting attachments in the precast concrete shall provide sufficient strength and be properly designed by a currently registered civil engineer.
- When precast walls or vertical panels are erected, the bracing shall be designed and installed in accordance with the direction of a currently registered civil engineer.
- Prior to panel erection, a detailed lifting plan shall be prepared by a currently registered civil engineer. All panel erection shall be performed in accordance with such plan.

- Lifting methods and procedures shall be conducted in such a manner as to insure that in the event of a lifting attachment failure, workers shall not be exposed to the hazard of being struck by a panel or other supporting equipment.
- Jacking equipment shall not be loaded beyond safe working capacity, and the threaded rods or other members that transmit loads to the jacks shall have a factor of safety of at least 2 1/2.
- Jacks shall be so designed or equipped so that they will not continue to lift when overloaded.
- A safety device shall be provided on each jack so that it will continue to support its load in a raised position, even if a failure should destroy or interfere with its jacking ability.
- When lifting panels, one man should be in charge of the signaling. He should use a method for warning the crew in the event a panel starts to fall (i.e., a whistle or horn).
- No personnel should be on the blind side of the panel when it is being lifted (the side away from the crane).
- No personnel shall work under a panel that is being lifted.

### **FORMWORK AND FALSEWORK**

- Formwork and falsework or shoring for the support of concrete or other materials shall be designed, erected, supported, braced and maintained so as to assure its ability to safely withstand all intended loads during erection, construction, usage and removal.

### **ELECTRICAL**

- All 120 volt A.C. single phase, 15 and 20 ampere receptacle outlets on construction sites which are not part of the permanent wiring of the building or structure and which are in use by workers shall have approved ground fault circuit interrupters for personnel protection.
- Double insulated tools or other similar equipment are not required to be grounded but must be distinctively marked.
- Extension cords to portable electrical tools shall be grounded.
- Electrical cords shall be replaced if insulation is damaged, frayed or spliced or has exposed wiring. Damaged plugs shall be replaced.
- Power plugs shall be of the approved type for the equipment involved and shall match the receptacle or adapter.
- Defective electrical tools shall be tagged out of service and removed from the jobsite.

## **FIRE PREVENTION AND PROTECTION**

### **FIRE PREVENTION**

- A good fire prevention program prevents injuries, keeps insurance costs down and reduces costly loss of property, equipment and materials.
- Fires and injuries due to fires usually occur because of:
  - Poor housekeeping.
  - Lack of adequate protection.
  - Poor control of heat sources.
  - Inadequate quantity and type of fire fighting equipment.
  - Improper storage and handling of combustible material and flammable liquids or gases.
  - Lack of inadequate indoctrination of employees with regard to fire prevention and fire fighting.
  - Faulty electrical installation.
- The following are considered essential to an effective fire prevention plan:
  - Proper site preparation.
  - Availability of private and public fire protection.
  - Safe installation and protection of temporary buildings and other structures.
  - Adequate jobsite fire protection.
  - Minimizing inherent construction fire hazards.
  - Installation of permanent safeguards as construction progresses.
  - Adequate indoctrination of employees.
  - Posting of emergency telephone numbers in a conspicuous location.
  - Periodic inspections of the entire jobsite to determine if there are any fire hazards or excessive accumulation of trash.
  - Proper location of fire extinguishers in conspicuous areas.
  - Proper number and type of fire extinguishers on the project.
  - A safe and unobstructed access to all available fire fighting equipment shall be maintained at all times.
  - All firefighting equipment shall be conspicuously located.
  - All firefighting equipment shall be inspected monthly and serviced annually.

Good housekeeping, proper storage of materials and training will reduce the threat of fire on the job.

### **FIRE PROTECTION**

- Fire Extinguishers
  - Must be kept fully charged, maintained and inspected monthly and serviced annually.
  - Portable fire extinguishers are to be placed within 100' of work

- At least 1 fire extinguisher rated not less than 2A, shall be provided each 3000 sq. ft and travel distance to the nearest extinguisher shall not exceed 75 feet. At least 1 fire extinguisher shall be located adjacent to the stairway at each floor level.

### **FIRE EXTINGUISHER SPECIFICATIONS**

<b><u>FIRE</u></b>	<b><u>MINIMUM SIZE REQUIRED</u></b>
Cranes	5:BC
Temporary heating devices	4A:4OBC
Fueling areas & bottled fuel	20BC
Open yard storage	2A
Explosives (truck cab)	2 each 10:BC
Floors (per 3,000 sf)	2A
Welding	Suitable for the exposure

### **FLAMMABLE AND COMBUSTIBLE LIQUIDS**

#### **Storage of Flammable and Combustible Liquids**

Maximum Allowable Size of Containers and Portable Tanks

Container Type	Flammable Liquids		Combustible Liquids		
	Class 1A	Class 1B	Class 1C	Class II	Class III
Glass	1 pt.	1 qt.	1 gal.	1 gal.	1 gal.
Metal (other than DOT Drums) or approved plastic	1 gal.	5 gal.	5 gal.	5 gal.	5 gal.
Safety cans	2 gal.	5 gal.	5 gal.	5 gal.	5 gal.
Metal Drum (DOT Specific)	60 gal.	60 gal.	60 gal.	60 gal.	60 gal.
Approved Portable Tanks	660 gal.	660 gal.	660 gal.	660 gal.	660 gal.
Polyethylene DOT Spec 34 or as authorized by DOT Exemption	1 gal.	5 gal.	5 gal.	60 gal.	60 gal.

**SI Units: 1 pt. = 0.43 L; 1 qt. = 0.95L; 1 gal. = 3.785L**

- Only approved containers and portable tanks shall be used for storage and handling of flammable combustible liquids.
- No more than 25 gallons of flammable or combustible liquids shall be stored in a room outside of an approved storage cabinet. No more than 60 gallons of flammable or 120 gallons of combustible liquids shall be stored in any one storage cabinet. No more than 3 storage cabinets may be located in a single storage area.
- Inside storage rooms for flammable and combustible liquids shall be of fire-resistant construction, have self-closing fire door at all openings, 4" sills or depressed floors, a ventilation system that provides at least 6 air changes within the room per hour and electrical wiring and equipment approved for Class 1, Division I locations.

- Storage containers outside building shall not exceed 1,000 gallons in any one pile or area. The storage area shall be graded to divert possible spills away from buildings or other exposures, or shall be surrounded by a curb or dike. Storage areas shall be located at least 20' from any building and shall be free from weeds, debris and other combustible materials.
- Flammable liquids shall be kept in closed containers when not actually in use.
- Conspicuous and legible signs prohibiting smoking shall be posted in service and refueling areas. The sign should state:

**“DANGER – FLAMMABLE  
KEEP AWAY FROM HEAT, SPARKS AND OPEN FLAMES  
KEEP CLOSED WHEN NOT IN USE.”**

- When transferring flammable liquids from a 55 gallon drum, an Underwriters Laboratory listed transfer pump should be used.
- The 55 gallon drum should have a static bond wire ground. The bond should be between the metal on the drum and an appropriate ground. It should have the paint or rust removed from the drum so there will be proper metal to metal contact.
- To provide adequate mechanical strength, No. 8 or No. 10 AWG wire should be used. This is a minimum size.
- Flexible conductors (stranded or braided ribbon wire) should be used for bonds that are to be connected and disconnected frequently.
- To ground a drum from which flammable liquid is to be dispensed, one end of the conductor should be attached to the rim of the drum with a screw clamp and the other end of the conductor should be connected to a known ground with a sturdy, bolt-on clamp or other suitable means.
- A fire extinguisher rated for use on flammable and combustible liquids should be located near the storage area. The location of the extinguisher should be indicated by a sign with an arrow pointing to it.

### **EMERGENCY RESPONSE**

- As fire hazards occur, there shall be no delay in providing aid.
- Fight fire ONLY if ALL the following are true:
  - Everyone has left the affected area.
  - The fire department has been notified.
  - The fire is small and confined to immediate area where it started.
  - You can fight the fire with your back to the escape route.
  - Your extinguisher is rated for the fire you are fighting and it is in good working order.
  - You have had training in the use of the extinguisher and are confident that you can operate it effectively.

- If you have the slightest doubt about whether or not to fight the fire – DON'T! Instead, leave the area and proceed to. A head count will be implemented on the jobsite to ensure everyone has been evacuated and accounted for.

## **WELDING GASES**

- All gas cylinders shall be protected against undue absorption of heat.
- Compressed gas cylinders in portable service shall be conveyed by suitable hand trucks to which they are securely fastened, or safely carried when job conditions require. All gas cylinders in service shall be securely held in substantial fixed or portable racks or places so they will not fall or be knocked over.
- Valve protection caps, when provided for, shall be put in place before cylinders are moved, transported or stored.
- Oxygen cylinders in storage shall be separated from fuel-gas cylinders or combustible material (especially oil or grease), a minimum distance of 20' or by a noncombustible barrier at least 5' high having a fire-resistance rating of at least 1/2 hour. Cylinders shall be kept far enough away from the actual welding or cutting operation so that sparks, hot slag, or flame will not reach them. When this is impractical, fire resistant shields shall be provided.
- When using the welding torch, the hoses for the torch shall not be left in a confined space (i.e., gang box). The hoses must be in an open area that will dilute the gas(es) if the hoses leak.

## **SHORING OF TRENCHES**

- The following requirements should be considered minimum standards:
  - Beware of disturbed ground.
  - Take special precautions where moisture is present.
  - Guard against rock-like materials that soften when exposed to air.
  - Guard against caving hazards created by vibrations and load from nearby traffic.
  - Hard compact ground. Trenches 5' or more deep and over 8' long must be braced at intervals of 8' or less.
  - Install upper trench jacks first.
  - Protect all men in trenches.
  - Excavated materials shall be prevented from falling back into the area where men are working. This shall be done by locating the spoil at a distance from the excavation edge consistent with the character of the material and the nature of the operations, but unless otherwise contained, in no case shall the excavated material be placed closer than 2' from the edge of an excavation 5' or more in depth.

## **EXCAVATION AND TRENCHING**

### **GENERAL REQUIREMENTS**

- Excavations and trenches shall be supervised by a person competent in excavation and trenching. A competent person must be on site to do the following:
  - Conduct inspections of the excavations, adjacent areas, and protective systems before the start of work; as needed throughout the shift; and daily for potential cave-ins, failures, hazardous atmospheres, or other hazards.
  - Take prompt corrective action or remove employees from the hazard.
- Prior to opening an excavation or trench, the competent person shall determine the soil classification before proceeding. An effort shall be made to determine whether underground installations; i.e., sewer, water, fuel, electric lines, etc., will be encountered and if so, where such underground installations are located. Utility companies shall be contacted and advised of proposed work prior to the start of the actual excavations or trenching.
- When the excavation or trench approaches the estimated location of such an installation, the exact location shall be determined by careful probing or hand digging, and when it is uncovered, proper supports shall be provided for the existing installation.
- Necessary barricades, posting and lighting shall be provided for the protection of the public and employees at the trench or excavation.
- In locations where oxygen deficiency or gaseous conditions are possible, air in the excavation or trench shall be tested. Controls shall be established to assure acceptable atmospheric conditions. When flammable gases are present, adequate ventilation shall be provided or sources of ignition shall be eliminated. Attended emergency rescue equipment, such as breathing apparatus, a safety harness and line, basket stretcher, etc. should be readily available where adverse atmospheric conditions may exist or develop in an excavation or trench. Log shall be maintained of all test results.
- In excavations and trenches in which employees may be required to enter, excavated or other materials shall be effectively stored and retained at least 2' or more from the edge of the excavation.
- As an alternative to the clearance prescribed in the paragraph above, the employer may use effective barriers or other effective retaining devices in lieu thereof in order to prevent excavated or other material from falling into the excavation.
- Additional precautions by way of shoring and bracing shall be taken to prevent slides or cave-ins when excavations or trenches are made in locations adjacent to backfilled excavations, or where excavations are subject to vibrations from railroad or highway traffic, the operation of machinery or any other source.



- When personnel are required to work in trenches or excavated areas, all slopes should be excavated to at least the angle of repose or otherwise safely supported to prevent cave-ins.
- The determination of the angle of repose and design of the supporting system shall be based on careful evaluation of pertinent factors such as: depth of cut; possible variation in water content of the material while the excavation is open; anticipated changes in materials from exposure to air, sun, water or freezing; loading imposed by structures, equipment overlying materials, or stored material; and vibration from equipment, blasting, traffic or other sources.
- NOTE: Clays, silts, or non-homogeneous soils require shoring and bracing. The presence of ground water requires special treatment.
- Daily inspections of excavations and trenches shall be made by a competent person. If evidence of possible cave-ins or slides is apparent, all work in the excavation or trench shall cease until the necessary precautions have been taken to safeguard the employees.
- Walkways, runways and sidewalks shall be kept clear of excavated materials or other obstructions and no sidewalks should be undermined unless shored to carry a minimum live load of one hundred and twenty-five pounds per square foot.

## **TRENCHING**

- Banks more than 5' high shall be shored, laid back to a stable slope, or other equivalent means of protection shall be provided where employees may be exposed to moving ground or cave-ins. Trenches less than 5' in depth shall also be effectively protected when examination of the ground indicates hazardous ground movement may be expected.
- Side of trenches in unstable or soft material, 5' or more in depth, shall be shored, sheeted, braced, sloped or otherwise supported by means of sufficient strength to protect the employees working within them.
- Portable trench boxes or sliding trench shields may be used for the protection of personnel in lieu of a shoring system or sloping. Where such trench boxes or shields are used, they shall be designed, constructed and maintained in a manner which will provide protection equal to or greater than the sheeting or shoring required for the trench.
- Employees shall be safely spaced out in the trench and shall not be permitted in the immediate area of the excavating equipment.
- When employees are required to be in trenches 4' deep or more, an adequate means of exit, such as a ladder or steps should be provided and located so as to require not more than 25' of lateral travel.
- Bracing or shoring of trenches shall be carried along with the excavation.
- Cross braces or trench jacks shall be placed in true horizontal position, be spaced vertically and be secured to prevent sliding, falling or kick outs.



- Backfilling and removal of trench supports shall progress together from the bottom of the trench. Jack or braces shall be released slowly and in unstable soil, ropes shall be used to pull out the jacks or braces from above after employees have cleared the trench.

## **EXCAVATION**

- The walls and faces of all excavations in which employees are exposed to danger from moving ground shall be guarded by a shoring system, sloping of the ground, or some other equivalent means.
- Sides, slopes and faces of all excavations shall meet accepted engineering requirements by scaling, benching, barricading, rock bolting, wire meshing or other equally effective means. Special attentions shall be given to slopes which may be adversely affected by weather or moisture content.
- Materials used for sheeting, sheet piling, cribbing, bracing, shoring and underpinning shall be in good serviceable condition and timber shall be sound, free from large or loose knots and of proper dimensions.
- If it is necessary to place or operate power shovels, derricks, trucks, materials, or other heavy objects on a level above or near any excavation, the side of the excavations shall be sheet piled, shored and braced as necessary to resist the extra pressure due to such superimposed loads.
- Adequate barrier physical protection shall be provided at all remotely located excavations. All wells, pits, shafts, etc. shall be barricaded or covered. Upon completion of exploration and similar operations, temporary wells, pits, shafts, etc. shall be backfilled or covered.
- Supporting systems, i.e., piling, cribbing, shoring, etc., shall be designed by a qualified person and meet accepted engineering requirements. When tie rods are used to restrain the top of sheeting or other retaining systems, the rods shall be securely anchored well back of the angle of repose. When tight sheeting or sheet piling is used, full loading due to ground water table shall be assumed, unless prevented by weep holes or drains or other means. Additional stringers, ties and bracing shall be provided to allow for any necessary temporary removal of individual supports.

## **TRAFFIC CONTROL**

- As minimum guidelines, the State Department of Transportation's MANUAL OF TRAFFIC CONTROLS will be used.
- Traffic control procedures for each project will include:
  - Proper access into and from the jobsite.
  - Posting of warning signs near the jobsite indicating there is construction activity (when required).
  - Use of traffic cones and delineators.
  - Use of flagmen whenever necessary.
  - Coordination of lane closure with appropriate local authorities.
- Flagmen will wear high visibility vests, jackets or shirts that make them highly visible to motorists. They will use signaling devices that can be read by the motorists (i.e., STOP or SLOW signs). If there is an overcast sky, it is raining or foggy, the flagmen will use illuminated signaling devices.
- When required, written traffic control procedures will be established for the project.
- Traffic control on public streets will be coordinated with the local Police Department and the Department of Traffic Control for the city or county.
- Warning and caution signs will be posted on the streets to warn motorists of construction work ahead. The sign wording and size will conform to the local and/or state requirements.

## WORKPLACE POSTINGS

The following workplace postings must be displayed at each worksite in an area frequented by employees where it may be easily read during the workday. Where there is lack of room, postings may be placed in a single binder clearly marked and accessible to all employees.

**Note:** All-in-one English and/or Spanish posters may be purchased; however, **the items highlighted in yellow must also be posted in addition to the poster.** Posters may be purchased from Labor Law Center ([www.LaborLawCenter.com](http://www.LaborLawCenter.com)) or by calling 1-800-745-9970 (Purchase Item #CA50). Cost is approximately \$30.00.

- California Minimum Wage (MW-2007) – (effective January 1, 2007)
- Federal Minimum Wage (WHD 1088 – Revised July 2009)
- Payday Notice (If using an all-in-one poster, fill in the information).
- Safety and Health Protection on the Job (CalOSHA-November 2012)
- Notice to Employees – Injuries Caused By Work (DWC 7 – 06/10) – (Fill in contact information for nearest Workers’ Compensation Office using attached list)
- Emergency Information (Fill in local hospital address & Cal/OSHA contact information-using attached list)
- Access to Medical and Exposure Records
- Whistleblowers Are Protected
- Discrimination and Harassment in Employment are Prohibited by Law (DFEH-162) (05/06)
- “Notice A” Pregnancy Disability Leave (DFEH-100-20) (Nov 2012)
- “Notice B” Family Care and Medical Leave (CFRA Leave) and Pregnancy Disability Leave (DFEH-00-21) (Nov 2012)
- Employee Rights and Responsibilities under the Family and Medical Leave Act of 1993 (WH 1420 – Jan. 2009)
- Notice to Employees (DE 1857A Rev. 39) 11-08
- Notice to Employees – Unemployment Insurance Benefits (DE 1857D Rev. 16) 9-07
- Notice to Employees – (DE 35 Rev. 12) (1-09)
- Equal Employment Opportunity is the Law (EEOC-P/E-1, Revised 11/09)
- Your Rights Under USERRA (Publication Date – October 2008)
- Notice to Employee Time Off to Vote
- Employee Polygraph Protection Act (WH Publication 1462, June 2003) – English (2 pages)
- “No Smoking” Sign
- Employee Rights Under the National Labor Relations Act (11x17)
- Job Safety and Health – It’s The Law! (OSHA 3165 12-06)**
- Operating Rules for Industrial Trucks – (2 pages)**
- Proposition 65 Warning**
- Hazard Communication Program posting (fill in appropriate lines)**
- BBC Equal Employment Opportunity Policy & Harassment and Discrimination Policy**

- BBC Memorandum – EEO Policy Statement & Policy Prohibiting Harassment
- BBC Notice – Government Contractor
- Balfour Beatty Construction (Southwest Region) Code of Safe Practices
- Balfour Beatty Ethics Helpline Poster
- Zero Harm Poster
- BBC “Our Creed” Poster

**Packets (staple accordingly):**

- Injury / Illness /Near Miss Reporting Policy Memorandum (dated 01/2013) – (2 pages)
- Industrial Welfare Commission (IWC) Wage Order No. 4-2001(*Professional, Technical, Clerical, Mechanical and Similar Occupations*) – (11 pages)
- Industrial Welfare Commission (IWC) Wage Order No. 16-2001 (*Certain On-Site Occupations in the Construction, Drilling, Logging and Mining Industries*) – (9 pages)

**State / Federal Projects:**

- Employee Rights Under the Davis-Bacon Act (WH 1321-Revised April 2009)
- Prevailing Wage Determinations (jobsites with trade positions only) – Obtain from: <http://www.dir.ca.gov/dlsr/DPreWageDetermination.htm>

**Other:**

- OSHA 300 Log (Post: February 1st – April 30th) – *Provided by SHE Department*

**San Francisco Projects:**

- San Francisco Minimum Wage (effective January 1, 2012)
- San Francisco Paid Sick Leave Poster
- San Francisco Health Care Security Ordinance

**Spanish Postings (must be posted if you have Spanish-speaking employees onsite):**

- California Minimum Wage (MW-2007) – (effective January 1, 2007) – Spanish
- Federal Minimum Wage (WH 1088 SP – Revised July 2009) – Spanish
- Safety and Health Protection on the Job (CalOSHA-Nov 2012) – Spanish
- “Notice A” Pregnancy Disability Leave (DFEH-100-20) (Nov 2012) - Spanish
- “Notice B” Family Care and Medical Leave (CFRA Leave) and Pregnancy Disability Leave (DFEH-00-21) (Nov 2012) Spanish
- Job Safety and Health – It’s The Law! – Spanish
- Notice to Employees – Injuries Caused By Work (DWC 7 – 06/10) – Spanish (Fill in contact information for nearest Workers’ Compensation Office using attached list)

- Access to Medical and Exposure Records – Spanish
- Operating Rules for Industrial Trucks – Spanish (2 pages)
- Discrimination and Harassment in Employment are Prohibited by Law (DFEH-162S) (07/06) – Spanish
- Employee Rights and Responsibilities under the Family and Medical Leave Act of 1993 (WH 1420SP – Jan. 2009) – Spanish
- Notice to Employees (DE 1857A/S Rev. 39) 11-08 – Spanish
- Notice to Employees – Unemployment Insurance Benefits (DE 1857D/S Rev. 15) 9-07 – Spanish
- Notice to Employees – (DE 35 Rev. 12) (1-09) - Spanish
- Equal Employment Opportunity is the Law (EEOC-P/E-1, Revised 11/09) – Spanish
- Notice to Employee Time Off to Vote – Spanish
- Employee Polygraph Protection Act (WH Publication 1462, June 2003) – Spanish (2 pages)
- Employee Rights Under the National Labor Relations Act (11x17) - Spanish
- Balfour Beatty Ethics Helpline Poster – Spanish
- Zero Harm Poster – Spanish



# **TAB 7**





# Balfour Beatty Construction

## EMERGENCY MEDICAL SERVICES

- The First Aid Kit will be located in the jobsite trailer and inspected regularly to ensure that expended items are promptly replaced.
- Emergency phone numbers will be prominently displayed.
- Serious injuries/illnesses/incidents shall be reported immediately. The appropriate medical and emergency assistance will be summoned by the supervisor.
- The ill/injured employee should not be moved unless absolutely necessary.
- The individuals trained in First Aid & CPR are:

_____	_____
_____	_____
_____	_____

- The scene of the incident shall not be disturbed or the operation resumed until authorized by the superintendent.
- Notification to the following personnel should be made as necessary:

**Balfour Beatty Construction** (Call numbers below in the order listed until someone is reached.)

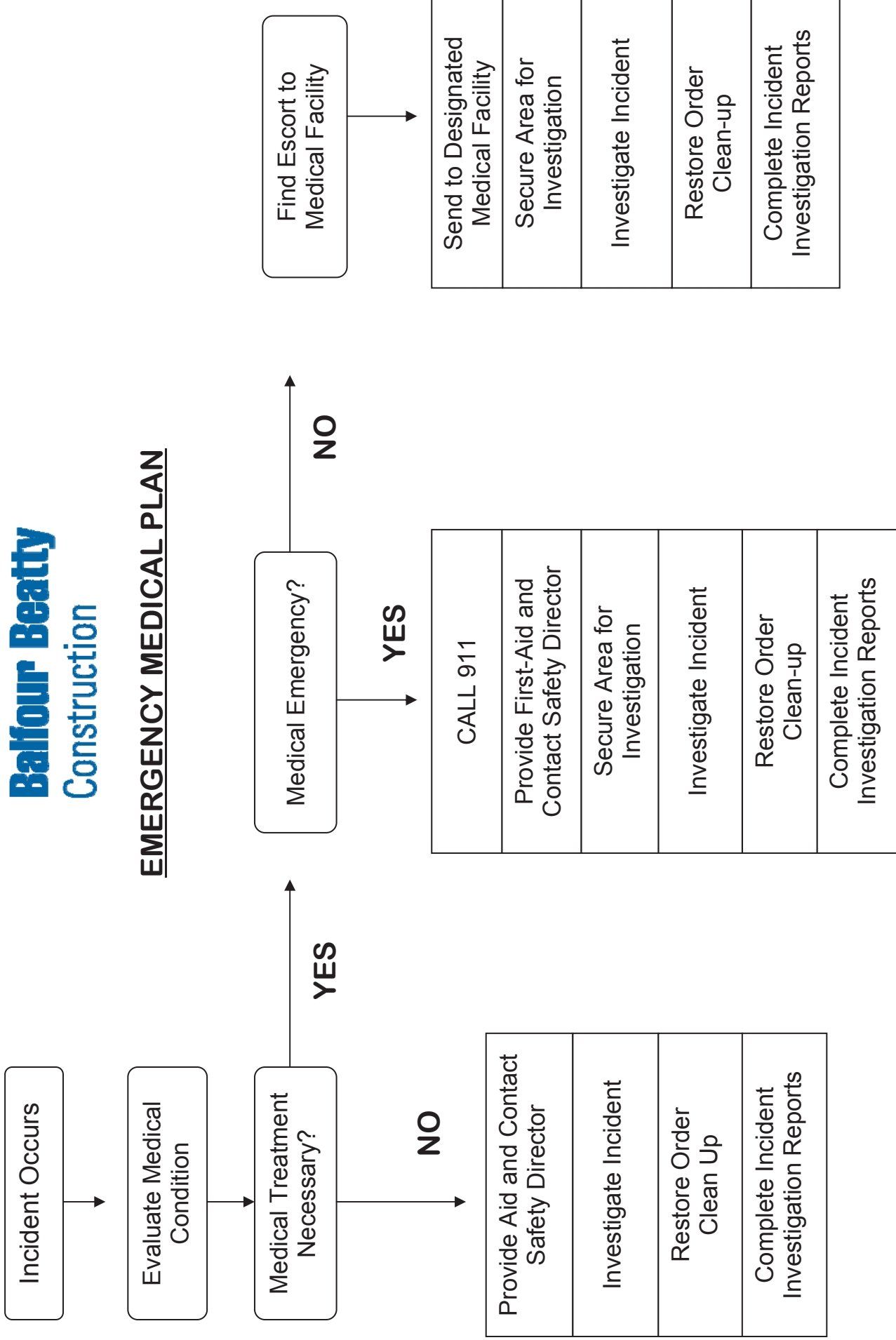
Leary Jones	619-572-8846
Tex Barnhart	858-228-7942
David J. Christensen	858-228-7883
Brian Cahill	858-531-8126

**SAN SHEAlert@balfourbeattyus.com**

Fed/OSHA 1-800-321-OSHA (24 hour Federal Reporting)

- Non-serious incidents shall be reported to the supervisor by the end of the day and immediately if medical assistance is necessary.
- All injuries and illness as well as near miss incidents will be investigated as promptly as possible.

## EMERGENCY MEDICAL PLAN



## **FIRST AID KIT**

Every employer working on or furnishing personnel on a construction project, on line crews and on other short duration or transient jobs shall provide at least one first-aid kit in a weatherproof container. The contents of the first-aid kit shall be inspected regularly to ensure that the expended items are promptly replaced. The contents of the first-aid kit shall be arranged to be quickly found and remain sanitary. First-aid dressings shall be sterile in individually sealed packages for each item. The minimum first-aid supplies have been determined by the employer-authorized, licensed physician.

- 2" x 3" Non-Adherent Sterile Pad
- 3" x 3" Gauze Pads
- 5" x 9" ADB Pad
- Fingertip "T" Woven Bandages
- 1" x 3" Woven Strip Bandages
- Latex Free 1" x 3" Strip Bandages
- Knuckle Woven Bandages
- Flexible Bandage 2" x 5 Yd
- 2" x 4.1 yd Gauze Bandage Roll
- 2" x 5 yd's Tri-Cut Adhesive Tape – Waterproof latex free
- Non-Woven Triangular Bandages w/2 Pins
- Blood stopper Wound & Trauma Dressing
- Antiseptic Wipes
- Triple Biotic
- Alcohol Wipes
- Ammonia Inhalants
- Eyewash
- 6" x 9" Instant Cold Pack
- Vinyl Gloves – 2 pair
- Jar of Q-Tips
- Scissors
- Tweezers
- Pocket Reference Gide / CPR, AED & Basic First Aid

- Additional contents recommended by U.S. HealthWorks:
  - Protective Gloves
  - Instant Ice Packs
  - Sterile Saline (small bottle)
  - Antibiotic Ointment
  - Ammonia Inhalants
  - Antiseptic Wipes
  - Towelettes
- Other supplies and equipment, when provided, shall be in accordance with the documented recommendations of an employer-authorized, licensed physician upon consideration of the extent and type of emergency care to be given based upon the anticipated incidence and nature of injuries and illnesses and availability of transportation to medical care.
- Drugs, antiseptics, eye irrigation solutions, inhalants, medicines, or proprietary preparations shall not be included in first-aid kits unless specifically approved, in writing, by an employer-authorized, licensed physician.



September 11, 2012

Balfour Beatty Construction  
Bryant Campbell  
10620 Treena Street, Suite 300  
San Diego, CA 92131

Per your request, and as your current provider of occupational medicine services, I hereby certify that I have reviewed the list of contents of your first aid kits and that I have found them to be in compliance with Cal/OSHA recommendations. The contents of the kits must be monitored and maintained periodically for compliance.

Be advised that ointments, aerosols, or other similar products utilized for the first aid treatment of minor cuts, burns and bruises, as well as individually wrapped and labeled products for the treatment of symptoms due to colds, sore throat, headache, and upset stomach can only be included in the kit and dispense by an on-site registered nurse.

Sincerely,

  
Dr. Vicky Young  
Medical Director

## **INFORMING EMPLOYEES OF EMERGENCY PROCEDURES**

Each employer shall inform all of his employees of the procedure to follow in case of injury or illness.

## **PROVISION FOR OBTAINING EMERGENCY MEDICAL SERVICES**

Proper equipment for the prompt transportation of the injured or ill person to a physician or hospital where emergency care is provided, or an effective communication system for contacting hospitals or other emergency medical facilities, physicians, ambulance and fire services, shall be provided. The telephone numbers of the following emergency services in the area shall be posted near the job telephone, telephone switchboard, or otherwise made available to the employees where no job site telephone exists:

- A physician and at least one alternate if available
- Hospitals
- Ambulance services
- Fire-protection services

## **EMERGENCY WASHING FACILITIES**

Where the eyes or body of any person may be exposed to injurious or corrosive materials, suitable facilities for drenching the body or flushing the eyes with clean water shall be conspicuously and readily accessible.

## **EMERGENCY CALL SYSTEMS**

A two-way voice emergency communication system shall be installed, for buildings and structures five or more floors or 48 feet or more above or below ground level, to notify persons designated in the emergency medical services plan. The location and condition of the employee shall be able to be communicated over the system. The use of the construction passenger elevators for medical emergencies shall take precedence over all other use.

Exception: Where jobsite conditions prevent or impair the communication of the required information over the system, an alternative system acceptable to the Division shall be used.

## **BASKET LITTER**

At least one basket or equally appropriate litter equipped with straps and two blankets, or other similar warm covering, shall be provided for each building or structure five or more floors or 48 feet or more either above or below ground level.

## **WRITTEN PLAN**

The employer shall have a written plan to provide emergency medical services. The plan shall specify the means of implementing all applicable requirements in this section. When employers form a combined emergency medical services program with appropriately trained persons, one written plan will be considered acceptable to comply with the intent of this subsection.

**Note:** The provisions of this section are not intended to exclude immediate treatment of minor injuries which do not require the services of a physician.



# TAB 8





**INJURY / ILLNESS / UTILITY STRIKE / FIRST AID / NEAR MISS**  
**INVESTIGATION REPORTING**

Investigations are conducted and a *Worker Injury and Initial Investigation Report and HFACS Fact Finding Form* is completed not only for all reported injuries/illnesses/utility strikes/first aid/near misses involving BBC employees, but also for all other contractors' employees working under a BBC contract, i.e. subcontractors (all tiers), suppliers, vendors, visitors, owners' representatives and members of the public.

Instruct all employees to report **all** on-the-job injuries/illnesses/utility strikes/ first aid cases or near misses immediately to their Project Superintendent and immediate supervisor. Reporting all incidents, no matter how minor the employee may think they are, is a condition of continued employment with Balfour Beatty Construction.

**INJURY / ILLNESS / UTILITY STRIKE PROCEDURE**

1. The BBC Project Superintendent or Manager shall report the occurrence of any injury, illness or utility strike **immediately by telephone to the Division Loss Prevention Manager at (619) 572-8846.**
2. It is preferred that you send an e-mail first, followed by the phone call detailed below. If e-mail is not readily available by you or your office staff, go straight to the phone call first.
3. Notify via e-mail (global address book) SAN SHE Alert at:  
[SAN\\_SHEAlert@balfourbeattyus.com](mailto:SAN_SHEAlert@balfourbeattyus.com) of incident immediately. This list will instantly notify all executives, safety, environmental and vice presidents of the event.
4. Notify one of the below listed Division Executives by telephone in the order listed. If you do not reach the first person listed, call the next person listed until you reach a live person. The Division Office Receptionist can assist you if it is during normal working hours (7am – 5pm), otherwise, utilize cell phones.

1.	Leary Jones	(619) 572-8846 / Cell
2.	Tex Barnhart	(858) 228-7942 / Cell
3.	David J. Christensen	(858) 228-7883 / Cell
4.	Brian Cahill	(858) 531-8126 / Cell
5. Continue to call each person listed until you talk to a live person. Leave messages stating time and place of the incident and next call being made.
6. The Vice President/Project Executive should be alerted via these telephone calls and e-mail alerts and should immediately go to the jobsite if at all possible. The appropriate VP shall “reply to all” via e-mail “got it” to alert everyone that they have received the message.
7. The detailed investigation process will then immediately begin. The two key individuals in this investigatory fact finding process are the BBC Project Superintendent/Manager for the work involved or associated with the incident and the BBC Loss Prevention Manager assigned responsibility for the project or location where the incident occurred.

**INJURY / ILLNESS / UTILITY STRIKE / FIRST AID / NEAR MISS**  
**INVESTIGATION REPORTING cont'd.**

**MINOR FIRST AID TYPE INJURY**

i.e. (superficial cut to a finger, etc.) Complete the following forms when an injury is treated by a first aid qualified person on the job:

- ***Worker Injury and Initial Investigation Report and HFACS Fact Finding Form*** This form is used to investigate all injuries, illnesses, utility strikes, first aid cases and also near-miss incidents where no one was injured and/or there was not property damage. The investigation is to be performed by the BBC Project Superintendent coupled with a thorough review from the Loss Prevention Manager on the day of the accident. It is especially important to give details on what has been done to prevent similar type accidents.

**DOCTOR CASES**

i.e. (a foreign body in the eye, etc.) Complete the following when the injured employee is sent to a designated medical facility for treatment:

- ***Worker Injury and Initial Investigation Report and HFACS Fact Finding Form*** This form is used to investigate all injuries, illnesses, utility strikes, first aid cases and also near-miss incidents where no one was injured and/or there was not property damage. The investigation is to be performed by the BBC Project Superintendent coupled with a thorough review from the Loss Prevention Manager on the day of the accident. It is especially important to give details on what has been done to prevent similar type accidents.
- ***Form 5020 - Employer's Report of Occupational Injury or Illness (For injuries to Balfour Beatty Construction Employees ONLY)*** This form is required by the state of California, to report injuries or illnesses that result in lost time beyond the date of the incident OR that require medical treatment beyond first aid. Complete this form for all cases involving *Balfour Beatty Construction employees ONLY*, that are sent to our designated medical facility or in a life-threatening case the nearest hospital. **DO NOT SEND THIS FORM TO OUR COMPENSATION CARRIER OR THE STATE.** It must be sent directly to the Division Loss Prevention Department for processing.

**MOTOR VEHICLE INCIDENT REPORTING**

Any motor vehicle incident involving a company owned vehicle or a personal vehicle being used for business purposes, must be reported to the Division Loss Prevention Department immediately.

**If there are injuries please call 911**, send an email to [SAN SHE Alert@balfourbeattyus.com](mailto:SAN_SHE_Alert@balfourbeattyus.com), contact our insurance carrier and call the Division Loss Prevention Department. This will instantly notify all executives, safety, environmental and vice presidents of the event. If there are no injuries please send an email to [SAN SHE Alert@balfourbeattyus.com](mailto:SAN_SHE_Alert@balfourbeattyus.com), contact our insurance carrier and call the Division Loss Prevention Department. If it is during normal working hours (7am – 5pm) and you cannot reach someone in the Loss Prevention Department, please notify the Division Office Receptionist and they will assist you in reaching someone from the Loss Prevention Department otherwise please call:

Leary Jones

(619) 572-8846 / Cell

Motor vehicle incidents shall be reported on the ***Enterprise Fleet Management Accident Form*** and submitted to the Division Loss Prevention Department for review.

# TAB 9



# **Balfour Beatty**

## **Construction**

### **INJURY AND ILLNESS PREVENTION PROGRAM FORMS**

1. Worker Injury and Initial Investigation Report and HFACS Fact Finding Form
2. DWC-1 / Workers Compensation Form & Notice of Potential Eligibility (State of California)
3. Enterprise Auto Incident Report
4. Daily Jobsite Safety Checklist
5. Monthly Jobsite Safety Checklist
6. Employee Report of Unsafe Conditions
7. Corrective Action Form
8. Weekly Safety Meeting Sign In Sheet
9. Sample Tailgate/Tool Box Topic

# Worker Injury and Initial Investigation Report and HFACS Fact Finding Form

ACCOUNT INFORMATION			
ACCOUNT NAME: Balfour Beatty Construction, LLC		Project Name:	
Division: Southwestern		Project Number:	
CLAIM INFORMATION			
Date/Time of Injury: _____ am pm		Date/Time Reported by Injured Employee: _____ am pm	
Employee's Name:		Social Security Number:	
Home Address: (Street) (City) _____ (State) _____ (Zip) _____			
Home Phone #:		Male <input type="checkbox"/> Female <input type="checkbox"/>	
Date of Birth:		Marital Status: Single <input type="checkbox"/> Married <input type="checkbox"/> Widowed <input type="checkbox"/> Divorced <input type="checkbox"/>	
Hire Date:		Date began on Project: _____ # of Dependents: _____ Dependents under 18: _____	
Occupation:		Years Performing Task: _____ Department Name: _____	
State Hired: _____		Supervisors Name & Phone: _____	
Currently Weekly Wage:		Hourly Wage: _____ Hours Worked per Week: _____	
Days Worked per Week:		Hours Worked per Day: _____ Employment Status: _____	
Employee ID No:		Was Salary Continued: _____ Time Began Work: _____	
Was Employee Paid in Full for Date of Injury: _____		How often is Employee Paid: _____	
Education Level: _____		Prior WC Claims: _____ OSHA Reference No: _____	
EMPLOYER INFORMATION			
Employer Name: _____			
Contact: _____		Title: _____ Number: _____	
Mailing Address: (Street) (City) _____ (State) _____ (Zip) _____			
Employer Location Code: _____			
Nature of Business: _____			
Policy Number: _____			
INCIDENT INFORMATION			
Did the Incident Occur at the Work/Project Location? Yes <input type="checkbox"/> No <input type="checkbox"/>			
Exact Location: (ex. 2 <sup>nd</sup> Floor Hallway) Incident Address: (Street) (City) _____ (State) _____ (Zip) _____			
Nature of Incident: _____			
Full Description of Incident: _____ _____			
Person Incident Initially Reported to: _____		By Whom: _____	
ACCOUNT INFORMATION			
Which Body Part Injured: _____		Nature of Injury: _____	
Part of the Body Location ( <i>Right, Upper</i> )		Is this Claim Work-Related? Yes <input type="checkbox"/> No <input type="checkbox"/>	
Lost Time: Yes <input type="checkbox"/> No <input type="checkbox"/>		If Yes: What was the First Full Day: _____	
Restricted Duty: Yes <input type="checkbox"/> No <input type="checkbox"/>		Full Duty: Yes <input type="checkbox"/> No <input type="checkbox"/>	
Was Drug Screen Performed: Yes <input type="checkbox"/> No <input type="checkbox"/>			
Initial Medical Treatment: ( <i>Circle One</i> ) Hospitalized ER (Treated and Released) Physician/Clinic Minor/On-site No Medical Treatment			
Medical Provider Contact Information Name: _____ Address: (Street) (City) _____ (State) _____ (Zip) _____ Phone: _____			
WITNESS INFORMATION			
Were There Any Witnesses? Yes <input type="checkbox"/> No <input type="checkbox"/>			
If Yes: List Names and Contact Information: _____ _____			

Injured Worker Signature	
Signature:	Date

## Incident Investigation Questions

Incident Information
<p><b>What was the employee doing just before the incident occurred?</b> Provide a brief description of the incident. Include information about the specific job/task the Employee was performing and the goals of the task.</p>
<p><b>What happened?</b> Provide a brief description of the consequences or outcomes of event. Include information about factors that contributed to its severity and/or factors that kept the situation from being worse.</p>
<p><b>Where the event occurred?</b> Provide information about the exact location of the incident. Be as specific as possible. Include photos if possible.</p>
<p><b>What was the injury or illness?</b> In plain language (non-medical terms) state the nature of the injury or illness.</p>
<p><b>What object or substance directly harmed the employee?</b> State the type or kind of object or substance that harmed the employee.</p>
<p><b>What was the appropriate procedure?</b> State what <i>should</i> have happened, that did not happen (not <i>why</i> it didn't happen).</p>

Incident Investigation Questionnaire	Yes	No	N/A
<b>Related to Unsafe Acts</b>			
1. Was the Employee performing a task which they were trained to do? If not, explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Was equipment used in accordance with manufacturer's requirements and/or procedures or training? If not explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Was required Personal Protective Equipment used? If not, explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Was required PPE used properly? If not, explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. 6. How often is the task that the Employee was performing at the time of injury take place? <b>Circle the most appropriate answer:</b> Constant    Multiple times per shift    Once per day    Once per week	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Was the Employee using the tools and equipment required for the task? If not, explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Was "horseplay" involved?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Unsafe Acts			
<b>Related to Unsafe Conditions</b>			
1. Was the Employee in a hurry? If Yes, explain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Was the fatigue an issue? If yes, explain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Were guards in place on equipment? If not, explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Was communication (verbal or other) clear and easily understood? If not explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Was the Employees working surface slip resistant? If not, explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Was the Employee's working surface in good repair?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Was the Employee's footwear in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Did the lighting in the area contribute to the Incident?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Did Housekeeping in the area contribute to the Incident?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Were there additional conditions in the area that contributed to the Incident? (Equipment/Material/Environment/Weather) If yes, explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Was equipment operationally ready per recommended maintenance and manufacturer's guidelines?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Did the design or layout of the work area contribute to the incident? If yes, explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Unsafe Conditions			



Incident Investigation Questionnaire	Yes	No	N/A
<b>Related to Supervision</b>			
1. Was the Employee performing an assigned or scheduled task? If not explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Who assigned the task to the Employee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Was the task being performed, observed by a Supervisor at the time of the incident?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Have other Employees been observed performing the task in the same manner? If yes, explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Are there written procedures for the assigned task?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Were the Supervisors aware of the PPE requirements for the task: If not, explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Was appropriate training provided to accomplish this task? If not, explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Has there been a Safety Walkthrough/Work-site inspection of this work area within the past month? If yes, When:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Did the Supervisor follow appropriate hazard identification and/or follow-up procedures with a known problem?: If not, explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Did the Supervisor follow the required procedures as specified in training or procedures? If not, explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. If chemicals were involved was the MSDS available?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. If chemicals were involved, was the Employee trained in their use? If not, explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Leadership Influences			
<b>Related to the Organization</b>			
➤ Was the required PPE made available at the time of the incident? If not, explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
➤ Was there adequate equipment available at the time of the incident? If not, explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
➤ Was there adequate staffing to perform the required task(s) or operation? If not, explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
➤ Were there adequate Policies, Programs or other written instructions for the required task(s) or operation? If not explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Organizational Influences			

Additional Information			
What was done immediately to correct the hazard(s) related to this incident:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What was done (or should be done) to prevent this incident from occurring again? (Give details)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were photographs taken? If yes, by whom:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
REPORT PREPARED BY			
Name:	Title:		
Signature:	Phone:		

## Additional Information Needed (Traction)

These questions **MUST** be completed

- Name of Vice President over the project: \_\_\_\_\_
- Incident initially reported by: \_\_\_\_\_
- Emergency or planned work: \_\_\_\_\_
- Equipment involved: \_\_\_\_\_
- Weather condition(s): \_\_\_\_\_
- List any external emergency services that were contacted: \_\_\_\_\_
- Skills Card(s) and expiration date(s): \_\_\_\_\_  
\_\_\_\_\_
- Consecutive days worked: \_\_\_\_\_
- If electrical or gas service strike incident, what type? HV\_\_\_\_ LV\_\_\_\_ / HP\_\_\_\_ LP\_\_\_\_

Service Position: \_\_\_\_\_

State of California <b>EMPLOYER'S REPORT OF OCCUPATIONAL INJURY OR ILLNESS</b>		Please complete in triplicate (type if possible) Mail two copies to:		OSHA CASE NO.	
				FATALITY <input type="checkbox"/>	
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.		California law requires employers to report within <b>five days</b> of knowledge every occupational injury or illness which results in lost time beyond the date of the incident <b>OR</b> requires medical treatment beyond first aid. If an employee subsequently dies as a result of a previously reported injury or illness, the employer must file within <b>five days</b> of knowledge an amended report indicating death. In addition, every serious injury, illness, or death must be <b>reported immediately</b> by telephone or telegraph to the nearest office of the California Division of Occupational Safety and Health.			
E M P L O Y E R	1. FIRM NAME		1a. Policy Number		Please do not use this Column
	2. MAILING ADDRESS: (Number, Street, City, Zip)		2a. Phone Number		
	3. LOCATION if different from Mailing Address (Number, Street, City and Zip)		3a. Location Code		OWNERSHIP
	4. NATURE OF BUSINESS; e.g., Painting contractor, wholesale grocer, sawmill, hotel, etc.		5. State unemployment insurance acct. no.		INDUSTRY
6. TYPE OF EMPLOYER: <input type="checkbox"/> Private <input type="checkbox"/> State <input type="checkbox"/> County <input type="checkbox"/> City <input type="checkbox"/> School District <input type="checkbox"/> Other Gov't, Specify: _____					
I N J U R Y	7. DATE OF INJURY / ONSET OF ILLNESS (mm / dd / yy)		8. TIME INJURY/ILLNESS OCCURRED _____ AM _____ PM		OCCUPATION
	9. TIME EMPLOYEE BEGAN WORK _____ AM _____ PM		10. IF EMPLOYEE DIED, DATE OF DEATH (mm / dd / yy)		
	11. UNABLE TO WORK FOR AT LEAST ONE FULL DAY AFTER DATE OF INJURY? <input type="checkbox"/> Yes <input type="checkbox"/> No		12. DATE LAST WORKED (mm / dd / yy)		SEX
	13. DATE RETURNED TO WORK (mm / dd / yy)		14. IF STILL OFF WORK, CHECK THIS BOX: <input type="checkbox"/>		
15. PAID FULL DAY'S WAGES FOR DATE OF INJURY OR LAST DAY WORKED? <input type="checkbox"/> Yes <input type="checkbox"/> No		16. SALARY BEING CONTINUED? <input type="checkbox"/> Yes <input type="checkbox"/> No		AGE	
17. DATE OF EMPLOYER'S KNOWLEDGE (NOTICE OF INJURY/ILLNESS (mm / dd / yy)		18. DATE EMPLOYEE WAS PROVIDED CLAIM FORM (mm / dd / yy)			
19. SPECIFIC INJURY/ILLNESS AND PART OF BODY AFFECTED, MEDICAL DIAGNOSIS if available, e.g., Second degree burns on right arm, tendonitis on left elbow, lead poisoning					
O R I G I N A L S	20. LOCATION WHERE EVENT OR EXPOSURE OCCURRED (Number, Street, City, Zip)		20a. COUNTY		DAILY HOURS
	21. ON EMPLOYER'S PREMISES? <input type="checkbox"/> Yes <input type="checkbox"/> No				DAYS PER WEEK
	22. DEPARTMENT WHERE EVENT OR EXPOSURE OCCURRED, e.g., Shipping department, machine shop.		23. Other Workers Injured/Ill in this event? <input type="checkbox"/> Yes <input type="checkbox"/> No		WEEKLY HOURS
	24. EQUIPMENT, MATERIALS AND CHEMICALS THE EMPLOYEE WAS USING WHEN EVENT OR EXPOSURE OCCURRED, e.g., Acetylene, welding torch, farm tractor, scaffold:				WEEKLY WAGE
25. SPECIFIC ACTIVITY THE EMPLOYEE WAS PERFORMING WHEN EVENT OR EXPOSURE OCCURRED, e.g., Welding seams of metal forms, loading boxes onto truck				COUNTY	
26. HOW INJURY/ILLNESS OCCURRED. DESCRIBE SEQUENCE OF EVENTS. SPECIFY OBJECT OR EXPOSURE WHICH DIRECTLY PRODUCED THE INJURY/ILLNESS. e.g., Worker stepped back to inspect work and slipped on scrap material. As he fell, he brushed against fresh weld, and burned right hand. USE SEPARATE SHEET IF NECESSARY.					
27. NAME AND ADDRESS OF PHYSICIAN (Number, Street, City, Zip)		27a. Phone Number		NATURE OF INJURY	
28. HOSPITALIZED AS AN INPATIENT OVERNIGHT? <input type="checkbox"/> No <input type="checkbox"/> Yes If yes then, NAME AND ADDRESS OF HOSPITAL (Number, Street, City, Zip).		28a. Phone Number		PART OF BODY	
		29. Employee treated in Emergency Room? <input type="checkbox"/> Yes <input type="checkbox"/> No		SOURCE	
ATTENTION: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes. See CCR Title 8 14300.29 (b)(6)-(10) & 14300.35(b)(2)(E)2. Note: Shaded boxes indicate confidential employee information as listed in CCR Title 8 14300.35(b)(2)(E)2.*					
E M P L O Y E E	30. EMPLOYEE NAME		31. SOCIAL SECURITY NUMBER		EVENT
	32. DATE OF BIRTH (mm / dd / yy)				SECONDARY SOURCE
	33. HOME ADDRESS (Number, Street, City, Zip)		33a. PHONE NUMBER		
	34. SEX: <input type="checkbox"/> Male <input type="checkbox"/> Female		35. OCCUPATION (Regular job title, NO initials, abbreviations or numbers)		EXTENT OF INJURY
36. DATE OF HIRE (mm / dd / yy)		37a. EMPLOYMENT STATUS: <input type="checkbox"/> regular, full-time <input type="checkbox"/> part-time <input type="checkbox"/> temporary <input type="checkbox"/> seasonal			
37b. UNDER WHAT CLASS CODE OF YOUR POLICY WERE WAGES ASSIGNED?					
38. GROSS WAGES/SALARY \$ _____ per _____		39. OTHER PAYMENTS NOT REPORTED AS WAGES/SALARY (e.g. tips, meals, overtime, bonuses, etc.)? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Completed By (type or print)		Signature & Title		Date (mm / dd / yy)	
*Confidential information may be disclosed only to the employee, former employee, or their personal representative (CCR Title 8 14300.35), to others for the purpose of processing a workers' compensation or other insurance claim: and under certain circumstances to a public health or law enforcement agency or to a consultant hired by the employer (CCR Title 8 14300.30). CCR Title 8 14300.40 requires provision upon request to certain state and federal workplace safety agencies.					



## Accident Report

Date and Time of Incident:
What street/intersection did the accident happen on?
City/State accident occurred in:
Enterprise Unit# of vehicle (located on Maintenance card):

<b><u>Driver's Info:</u></b>
Driver's Name:
Driver's Home Address:
Driver's Phone Number(s):
Driver's License Number:
Date of Birth:
Were you wearing your seatbelt at the time of the accident?:
Is the vehicle safely drivable?:
If not, call us immediately, or if arrangements have already been made, where is the vehicle being towed to?:
Where is the damage to the vehicle?:
What were the weather conditions at the time of the accident?
Did your airbag deploy?

<b><u>Describe how the accident happened:</u></b>
---

**Claimant's information (The other vehicle/pedestrian involved):**

Name:

Address:

Phone Number(s):

Driver's License Number:

Date of Birth:

Year, Make, &amp; Model:

License Plate Number &amp; State:

Insurance Company and Policy Number:

Insurance Company's Phone Number:

Where is the damage to the vehicle?:

**Was anyone injured?:****If so, please explain:****Witness information:**

Name:

Address:

Phone Number(s):

\*\*If more than two vehicles were involved, or more than one witness was present, please include their information on an additional page.

**Police Report Information:**

Police Department:

Phone:

Report Number:

Was anyone ticketed?:

Please draw a diagram below and include street names, traffic signals, etc. Label your vehicle with #1, the claimant vehicle with the #2, and so on.

**Diagram of Accident:**



This information has is true and correct to the best of my knowledge.

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Date

Signed

# Balfour Beatty Construction

## DAILY JOBSITE SAFETY CHECKLIST

Date: \_\_\_\_\_ Project Name & Number: \_\_\_\_\_

Name(s) of those participating in inspection: \_\_\_\_\_

Indicate Either: A = Acceptable/Yes; U = Unacceptable/No; N/A = Not Applicable

PERSONAL PROTECTIVE EQUIPMENT		EMERGENCY ITEMS	
1. Safety glasses and/or goggles available/being used?		1. Emergency evacuation map posted near work area?	
2. Protective eyewear use specified in writing?		2. Emergency phone numbers posted and known by all?	
3. Face shield available for bulk liquid tasks? Grinding?		3. Emergency eyewash and/or shower units accessible?	
4. Hand protection used/worn as required?		4. First-Aid kit stocked & available at this work site?	
5. Foot protection worn as required?		5. First-Aid/CPR trained competent person available?	
6. Hearing protection worn where required?		6. Fire extinguishers readily available (not blocked)?	
7. Hard hats worn?		7. Fire extinguishers inspected monthly/yearly as needed?	
8. Supplies on hand for incidental chemical spills?			

### ELECTRICAL SAFETY ISSUES

1. GFCIs used for all portable electrical hand tools?		7. Strain relief integrity for cords and plugs intact?	
2. Extension cords rated for hard or extra hard usage? (2-wire ribbon cord is unacceptable for industrial usage)		8. For Extension cords; hard usage cord includes three wire cord marked = S, ST, SO, STO, SJ, SJO, SJT + SJTO	
3. Certified or listed equipment is used per manufacturer?		9. Electrical cords inspected & have all prongs in tact?	
4. Electrical panels are labeled appropriately?		10. Strain relief intact for all flexible cords & plug fittings?	
5. Electrical panel knockouts are in place?		11. Portable generators are grounded per NEC requirements?	
6. Light bulbs for illumination protected from breakage?		12. Electric power tools are double insulated or grounded?	

### CONSTRUCTION SAFETY & HEALTH ISSUES

1. General Housekeeping is neat and orderly?		9. Flammable liquids storage containers labeled properly?	
2. MSDS openly available to all employees?		10. Fire extinguishers available, accessible & inspected?	
3. Concrete work? Silica dust training documented for all?		11. Impact style air tools have safety clips or retainers on them?	
4. All hazardous containers labeled appropriately?		12. Pnuematic power tools have hoses secured?	
5. Lockout/Tagout is being use for appropriate tasks?		13. Compressed air used for cleaning limited to 30 psi?	
6. Hot work permits used for grinding, cutting, welding?		14. Compressed gas cylinders not in use have caps in place?	
7. Confined space entry work? Check permit/training/etc.		15. Compressed gas cylinders stored secure & upright?	
8. Flammable liquids are in OSHA/FM metal safety cans?		16. Oxygen/acetylene torch units have flash back arrestors?	

# DAILY JOBSITE SAFETY CHECKLIST (cont.)

<b>CONSTRUCTION SAFETY &amp; HEALTH ISSUES (cont.)</b>			
17. Grinders (portable & stationary) have guards in place?		30. Stairs or ladder provided for access points $\geq$ 19" high?	
18. Heat illness regulation plan in place?		31. Extension & straight ladders extend 3' beyond landing?	
19. Grinders are inspected, ring tested & free of defects?		32. Stepladder or commercial stepstool used for high access?	
20. Safety glasses & faceshield used for grinding tasks?		33. Stepladders are only used in open position?	
21. Wall openings & floor holes are covered and guarded?		34. Scaffolding = guardrails used? Competent person onsite?	
22. 100% fall protection in place at $\geq$ 6 feet in height?		35. Portable circular saws equipped with protective guards?	
23. Employees operating lifts are trained on the equipment?		36. Unsafe hand tools are prohibited?	
24. Fall Protect. full body harness & lanyard used at all times?		37. Impact tools, hammers kept free of splinters/mushrooms?	
25. Excavation? Ladders used $\geq$ 4 feet deep? Extend 3 feet?		38. Wire rope used for lifting? Deterioration absent?	
26. Excavation? Protection from cav-ins $\geq$ 5 feet deep?		39. Web slings used for lifting? Deterioration is absent?	
27. Rebar caps used for protruding objects?		40. Crane use? Written lift plan on file listing load capacities?	
28. Ladders are safe and inspected as appropriate?		41. Hooks used for lifting have safety latch in place?	
29. Stair rails = req'd at 30" change in elevation or 4 risers?		42. (Other)	

**If marked "U" for unacceptable or No, list the appropriate corrective action below.**

## CORRECTIVE ACTION PLAN

<b>LIST ITEM, THE PERSON RESPONSIBLE AND DATE TO BE COMPLETED</b>			
<b>ACTION ITEM</b>	<b>PERSON(S) RESPONSIBLE</b>	<b>DATE TO BE DONE</b>	<b>STATUS COMPLETED YES/NO</b>

**Printed Name of Superintendent:** \_\_\_\_\_

**Signature of Superintendent:** \_\_\_\_\_



# Balfour Beatty Construction

## MONTHLY JOBSITE SAFETY CHECKLIST

Date: \_\_\_\_\_ Project Name & Number: \_\_\_\_\_

Name(s) of those participating in inspection: \_\_\_\_\_

Indicate Either: **A = Acceptable/Yes; U = Unacceptable/No; N/A = Not Applicable**

1. Emergency evacuation map posted near work area?		9. Portable generators are grounded per NEC requirements?	
2. Emergency phone numbers posted and known by all?		10. JHA's/STA's current?	
3. Emergency eyewash and/or shower units accessible?		11. MSDS openly available to all employees?	
4. First-Aid kit stocked & available at this work site?		12. Heat illness regulation plan in place?	
5. First-Aid/CPR trained competent person available?		13. Ladders are safe and inspected as appropriate?	
6. Fire extinguishers inspected monthly/yearly as needed?		14. Spider box inspections	
7. AED		15. Fall Protection Equipment Inspection	
8. Supplies on hand for incidental chemical spills?			

**If marked "U" for unacceptable or No, list the appropriate corrective action below.**

### CORRECTIVE ACTION PLAN

LIST ITEM, THE PERSON RESPONSIBLE AND DATE TO BE COMPLETED			
ACTION ITEM	PERSON(S) RESPONSIBLE	DATE TO BE DONE	STATUS COMPLETED YES/NO

Printed Name of Superintendent: \_\_\_\_\_

Signature of Superintendent: \_\_\_\_\_



# Balfour Beatty Construction

## Corrective Action Form

Name and Job Title of Personnel:

Name and Job Title of Personnel's Supervisor:

Name of Company:

Date of Incident:

Time of Incident:

Description of Incident:

---

**WAS THIS A REPEAT INCIDENT BY SAME PERSONNEL? NO YES (if yes, give # of times): \_\_\_\_\_**

**CIRCLE THE TYPE OF CORRECTIVE ACTION TAKEN (one or more may apply)**

Training/Retraining

Verbal Warning

Written Warning

Sent Home

Removed From Project

Additional Description of Corrective Action if needed:

---

Plan If Problem Recurs:

---

The above corrective action has been fully explained to me and I had an opportunity to ask questions.

\_\_\_\_\_  
Employee Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Foreman Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Superintendent

\_\_\_\_\_  
Date

# Balfour Beatty Construction

## Weekly Safety Meeting

**Topic:** \_\_\_\_\_

### SIGN IN SHEET

	NAME	SIGNATURE

# **Tab 10**



# **Balfour Beatty** Construction

## **New Employee Orientation Training**

1. Balfour Beatty Construction Code of Safe Practices
2. Training Session on Hazard Communication
3. Safety and Health Orientation Training
4. Employee General Safety Training & Orientation
5. Safety and Health Safety Violation Disciplinary Action Program

The signed *New Employee Orientation Training* documents are maintained in each new employees personnel file at the Southwest Division Office.

## **BALFOUR BEATTY CONSTRUCTION CODE OF SAFE PRACTICES**

2. No one under the influence of or with possession of drugs or intoxicating liquor shall be allowed on the job.
2. No horseplay of any kind shall be allowed.
3. No one shall be required or permitted to work in an ill or fatigued state.
4. No loose or frayed clothing, shorts, soft or badly worn shoes shall be worn.
5. A shirt shall be worn at all times. Shirt must have a minimum of a ¼ sleeve.
6. Hard hats shall be worn at all times.
7. Eye protection shall be worn at all times.
8. Protective equipment, face masks, face shields, goggles, toe guards, ear plugs shall be worn at all times when the task requires.
9. Wear protective gloves and boots when working in concrete.
10. All nails or protruding tie wires shall be bent over or removed.
11. All work areas shall be kept clean and orderly at all times.
12. Replace guard rails or missing floor covers immediately.
13. Report unsanitary conditions to the foreman or superintendent.
14. Do not tamper with electrical equipment, machinery, air or waterlines and report all defective equipment to the foreman or superintendent.
15. Do not descend into an un-shored trench five feet or more in depth.
16. All ladders shall be tied off.
17. Report all injuries promptly to the project superintendent.
18. Keep away from the building perimeter unless necessary to the performance of the work.
19. Do not work above or below other workers.
20. Ask for instruction on proper lifting procedures.
21. Clean up all liquid spills immediately.



22. Report any unsafe conditions to the foreman or superintendent. If possible correct the condition first and then report it.
23. Do not throw materials, tools or other objects from buildings or structures.
24. Report damage to scaffolds, false work or other supporting structures immediately.
25. Know where all fire extinguishers are located and how to use them.
26. Know where all emergency exits are located.
27. Know the location of the first aid kit.
28. No one shall bring any type of music playing device, iPod, MP3 player, or DVD/Television device on to the job.
29. Follow no smoking rules.
30. Immediately report all injuries, illnesses, near misses, or utility strike incidents to the project superintendent.

Signature\_\_\_\_\_

Date\_\_\_\_\_

## TRAINING SESSION ON HAZARD COMMUNICATION

Balfour Beatty Construction has developed a Hazard Communication Program in accordance with Federal OSHA Standard 1926.59.

This program includes an employee health and safety orientation conducted by the project superintendent.

- I know where the Material Safety Data Sheets for my work are kept.
- I understand the safe work procedures and precautions to be taken when working with these products including use of protective equipment and/or apparel.
- I know where emergency supplies are kept.
- I know where the emergency phone number and Hazard Communication Information are posted.
- I am aware that I may review copies of the hazardous chemical list, the company's written program, and MSDS's.

Employee Signature \_\_\_\_\_ Date \_\_\_\_\_

Job Location, Name or Number \_\_\_\_\_

# **SAFETY AND HEALTH ORIENTATION TRAINING**

The goal of Balfour Beatty Construction is to provide a safe and healthful workplace for our employees. Your health and safety must always be the first priority in any situation. Should you encounter any situation that you feel is not safe, or that could be improved in regard to safety, let your supervisor know immediately. At this time I would like you to go over the basic work and safety rules of our company.

## **INJURIES**

- Report all injuries and illnesses, without regard of their severity to your supervisor immediately. At no time are you to leave the project because of illness or injury unless your supervisor is notified. You are to use our designated medical provider for job related injuries or illnesses.

## **SAFETY MEETINGS**

- Safety meetings are held weekly on our projects. You are required to attend, and are expected to actively participate. You are the key to our safety and health program and are responsible for your own safety as well as the safety of others working around you. Your ideas, suggestions and recommendations are always welcome.

## **ALCOHOL/SUBSTANCE ABUSE**

- Illegal drugs, alcohol or other dangerous substances are not allowed on any company project. Employees who report for work while under the influence of drugs or alcohol will be terminated.

## **ABSENCES**

- You must notify your supervisor if you will be absent and for how long. Repeated absenteeism will not be tolerated.

## **CLOTHING**

- You are to report for work, rested and in the proper clothing for the job. The following rules shall apply:
  - Rings, necklaces or other jewelry that may become entangled in machinery or otherwise cause an accident shall not be worn.
  - Long hair shall be worn in a manner that will not impede vision, become entangled or prevent the use of a respirator if required. It is suggested that long hair be tied back and put under your hardhat, or use a hair net.
  - Eye, head, and hearing protection will be issued to you. Do not alter them. Balfour Beatty will replace these items as they become worn or damaged through normal use.
  - Proper footwear is required. Steel toe boots are recommended. Sneakers, sandals, canvas or perforated top shoes are prohibited. Leather shoes or boots with good, heavy soles are required.
  - Long pants and a shirt with a minimum 4 inch sleeve are required. Short pants, cut-offs, tank tops, muscle shirts, etc. are not allowed. You will be sent home if you report for work with inadequate clothing.

## **EYE AND FALL PROTECTION**

- Balfour Beatty Construction requires 100% eye protection at all times. Balfour Beatty requires 100% fall protection from unprotected heights over 6 feet and when a fall from any height may result in an injury. Inspect your fall protection equipment daily. Ensure that what you connect your lanyard to and/or your anchorage point(s) will support you in the event of a fall. On unhooking your harness from an attachment point, unhook from the attachment point, not your belt or harness.

## **LADDER SAFETY**

- Metal ladders are not allowed on Balfour Beatty Construction jobsites.
- Use only wood or fiberglass ladders in or around electrical equipment or conductors.
- Use ladders as they are designed to be used. Do not split or take apart extension ladders.
- Tie off straight or extension ladders at all times. If it is not possible to tie off a ladder, another person must stabilize the ladder at all times. The ladder must extend 3 feet above the top-supporting object.
- Use the 4 to 1 ratio of top to base when using an extension ladder. When using a stepladder, do not go higher than the second step from the top.
- Remove from service any ladder that is damaged or unstable.
- Remember, if you are more than six feet above the floor or ground, even if on a ladder, you must wear fall protection.

## **LASER EQUIPMENT**

- Only qualified and trained operators shall install, adjust and operate laser equipment.
- Lasers should be set-up above the heads of other workers if possible.
- Avoid direct eye contact with the laser beam. Serious eye injury could result.

## **POWDER ACTUATED TOOLS**

- Only qualified operators that have been certified and licensed may operate powder-actuated tools.
- Eyes or face protection shall be worn by operator and assistants when the tool is in use.

## **POWER & HAND TOOLS**

- Check tools daily for frayed or damaged (electrical cords, guards, etc.). Repair or replace damaged tools before use.
- All guards are to be left in place. Do not alter or adjust guards in any way that could reduce their effectiveness.

## **RIGGING**

- All rigging will be inspected by your supervisor or a designated competent person prior to operations. If you don't know how to rig or aren't certain of the procedure, ask your supervisor.

## **SCAFFOLDING**

- Safety railing should be in place before any work is performed from scaffold.
- Mobile scaffold shall be equipped with a positive method of locking the scaffold against movement. Scaffold is to be locked when being used.
- Rolling scaffolds are not to be moved until all workers are off the scaffold.
- Do not work directly under scaffolds.

## **VEHICLES**

- Vehicles are to be inspected periodically to assure they are in safe operating condition.
- Riding on vehicles or other equipment without passenger seats is strictly prohibited. Remain seated with seat belt fastened while in the vehicle.
- Obey the speed limit and fasten your seatbelt.

## **WELDING & BURNING**

- Inspect cylinders and equipment prior to use. Replace any defective parts or equipment.
- Welding and burning will be done only by qualified persons and adequate eye protection (hood or No. 3 density minimum goggles) shall be used by operators, helpers, and any others in the area.
- Fire blankets, fire extinguishers, and/or a fire watch will be used at all times while welding or burning is taking place.
- Compressed gas cylinders will be properly stored (upright and secured to a solid object) at all times. Do not store oxygen and acetylene cylinders together. Reverse flow check valves shall be installed.

## **HAZARDOUS CHEMICALS**

- To insure the safety of our employees we have developed a Hazard Communication Program. The company provides all pertinent safety and health information regarding chemicals used in the workplace.
- The project office trailer contains the program in a white binder with a yellow spine which is accessible to any and all employees, plus an emergency phone number should it be necessary. The program contains the following:
  - Hazard Communication Program
  - Safety and Health Information
  - Material and Safety Data Sheets (MSDS's)
- It is the responsibility of the Project Superintendent to see that all hazardous chemicals are labeled and that employees are trained as to the hazards of the chemical.
- This orientation is not all-inclusive as some situations may require more extensive precautions. If you have any questions or recommendations, contact your supervisor.

**BALFOUR BEATTY CONSTRUCTION**  
**EMPLOYEE GENERAL SAFETY TRAINING & ORIENTATION**

I \_\_\_\_\_, clearly acknowledge that I have received General Safety and Health Training & Orientation, viewed the Safety video(s) and received the corresponding forms for my use in compliance with the existing corporate and governmental resolutions.

I hereby agree to comply with the policies, practices and rules of the Balfour Beatty Construction, Injury, Illness Prevention Plan. I also understand any non-compliance of the Injury, Illness Prevention Plan will result in disciplinary action up to and including termination.

I specifically understand and agree that my employment is at will and for an unspecified period of time, and that either employer or I may terminate employment at any time, with or without reason or notice. I specifically understand and agree that this statement of policy contains all of the terms relative to the termination of employment and that no representations made be made contrary to the foregoing, either express or implied. I understand that this statement of policy is not subject to change.

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

## DISCIPLINARY ACTION PROGRAM

Safety violations will be categorized as SERIOUS and NONSERIOUS.

Formal reprimand for Non-serious violations (in the same year) will be as follows:

**First Violation:** Verbal warning documented by supervisor.

**Second Violation:** Formal written warning issued by supervisor (copy to personnel file).

**Third Violation:** Formal written warning issued by supervisor and one day off without pay (copy to personnel file).

**Fourth Violation:** Formal written warning and five (5) days off work without pay (copy to personnel file).

**Fifth Violation:** TERMINATION.

Formal reprimands for serious violations (in the same year) will be as follows:

**First Violation:** One day off without pay.

**Second Violation:** Five days off without pay.

**Third Violation:** TERMINATION.

## CONCLUSION

You will do well to commit these guidelines to your memory and by doing so; you will help assure your position here at Balfour Beatty Construction. Remember that safety always comes first at Balfour Beatty Construction and it is your responsibility to perform your job in a safe and accident-free manner.

Please sign in the space provided below certifying that you have read and fully understand the contents of this document. Upon signing, this letter will become a permanent part of your personnel file.

*Balfour Beatty Construction,*  
  
*Brian Cahill, President*

I have read and I understand the contents of this letter.

\_\_\_\_\_  
Employee

\_\_\_\_\_  
Date

\_\_\_\_\_  
Supervisor

\_\_\_\_\_  
Date





# **Tab 11**



## **SUBCONTRACTORS REQUIREMENTS**

- Each subcontractor shall comply with the Balfour Beatty Construction Corporate Safety and Health Plan that is included in all contracts between Balfour Beatty Construction and the subcontractor as well as all federal, state and local work rules and standards that are designed to promote the safety, health and welfare of all job personnel. Subcontractors are responsible for prevention of accidents arising from or relating to its work.
- Subcontractors shall provide their employees with adequate personal protective equipment where necessary.
- All subcontracting personnel on the job will attend the Balfour Beatty Construction safety meeting or hold their own meetings on a weekly schedule providing minutes on a timely basis to the project Superintendent.
- Safety Violations will be documented by a Notice of Safety Non-Compliance form and a Warning Letter for Safety Non-Compliance will be forwarded to the subcontractors Corporate Office. Forms are incorporated in Report Forms Section of this plan.
- Subcontractor shall notify Balfour Beatty Construction of any unsafe condition it discovers or observes and shall stop work until informed by Balfour Beatty Construction that it may resume work.
- Subcontractor shall notify Balfour Beatty Construction immediately following an accident and promptly confirm the notice in writing. A detailed written report shall be furnished to Balfour Beatty Construction.
- All MSDS's, IIPP's, submittals or other such documents pertaining to materials or substances used and any procedures during the performance of Subcontractor's work shall be submitted to Balfour Beatty Construction by Subcontractor. All MSDS's, IIPP's, submittals or other such documents obtained by Balfour Beatty Construction from other subcontractors or sources shall be made available to all Subcontractors by Balfour Beatty Construction.



# Tab 12



# **HEAT ILLNESS PREVENTION**

## **SAFETY AND HEALTH PROCEDURE #12**

### **Introduction**

This Procedure has been developed for the employees of Balfour Beatty Construction.

Heat produced stress on the human body must be dissipated in order to allow a person to work safely and efficiently, and to maintain overall good health. Environmental conditions contribute dramatically to the body's ability to efficiently remove this generated heat. Ambient air temperature, humidity, wind and sunshine must all be taken into account when considering work activities to be performed.

Every supervisor must remain constantly mindful of the hazards associated with working in heat, sun, wind and humidity, and ensure that everyone in his or her area(s) of responsibility is in compliance with this procedure.

### **Scope and Application**

This procedure applies to the control of risk of occurrence of heat illness, and shall apply to all outdoor places of employment at those times when the environmental risk factors, as defined in the "Definitions" section are present.

### **Definitions**

"Acclimatization" means temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed to it. Acclimatization peaks in most people within four to fourteen days of regular work for at least two hours per day in the heat.

"Heat Illness" means a group of serious medical conditions resulting from the body's inability to cope with a particular heat load, and includes heat cramps, heat exhaustion, heat syncope and heat stroke.

"Environmental risk factors for heat illness" means working conditions that affect the possibility that heat illness could occur, including air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload severity and duration, protective clothing and personal protective equipment worn by employees.

"Personal risk factors for heat illness" means factors such as an individual's age, degree of acclimatization, health, water consumption, alcohol consumption, caffeine consumption, and use of prescription medications that affect the body's water retention or other physiological responses to heat.

"Recovery Period" means a period of time to recover from the heat in order to prevent heat illness.

"Shade" means blockage of direct sunlight. Canopies, umbrellas and other temporary structures or devices may be used to provide shade. One indicator that blockage is sufficient is when objects do not cast a shadow in the area of blocked shade, which is to allow the body to cool. For example, a car sitting in the sun does not provide acceptable shade to a person inside it, unless the car is running with air conditioning.

## **Procedures for Provision of Water**

- Balfour Beatty Construction field management shall have access to adequate provisions of water located inside the jobsite trailer or offices.
- Each Balfour Beatty Construction trade supervisor will bring adequate amounts of drinking water containers (of 5 to 10 gallons each) to the site, so that at least 2 quarts per employee are available at the start of the shift.
- Each Balfour Beatty Construction trade supervisor will bring adequate quantities of paper cone rims or bags of disposable cups and the necessary cup dispensers to ensure that enough disposable cups are made available for each worker and are kept clean until used.
- As part of Balfour Beatty Construction's Effective Replenishment Procedures, each Balfour Beatty Construction trade supervisor's will check the water level of all containers every 30 minutes, and more frequently when the temperature exceeds 90F. When the water level within a container drops below 50%, water containers will be refilled with cool water.
- To accomplish this task, each Balfour Beatty Construction trade supervisor's will carry 1 to 2 additional water containers (i.e. 5 gallon bottles) to replace water as needed.
- When the temperature exceeds 90°F, each Balfour Beatty Construction trade supervisor will carry ice in separate containers, so that when necessary, it will be added to the drinking water to keep it cool.
- Each Balfour Beatty Construction trade supervisor will check the work site and place the water as close as possible to the workers (i.e. no more than 50 feet from the workers). If field terrain prevents the water from being placed as close as possible to the workers, each Balfour Beatty Construction trade supervisor will bring bottled water or individual containers (in addition to disposable cups and water containers), so that workers can have drinking water readily accessible. (See addendum BBB.HI.1 for location(s) of drinking water)
- Each Balfour Beatty Construction trade supervisor will ensure that the water containers are relocated to follow along as the crew moves, so drinking water will be readily accessible. (See addendum BBB.HI.1 for location(s) of drinking water)
- Each Balfour Beatty Construction trade supervisor will be responsible for cleaning the water containers and ensuring that they are kept in sanitary condition (all necessary cleaning supplies are provided by the company).
- The company will reimburse the supervisors for any cost incurred for them to fill up their water containers as needed on a daily basis or to purchase necessary disposable cups or cleaning supplies.
- Each Balfour Beatty Construction trade supervisor's will point out daily the location of the water coolers to the workers and remind them to drink water frequently. When the temperature exceeds or is expected to exceed 90 °F, each Balfour Beatty Construction trade supervisor's will hold a brief 'tailgate' meeting each morning to review with employees the importance of drinking water, the number and schedule of water and rest breaks and the signs and symptoms of heat illness. (See addendum BBB.HI.1 for location(s) of drinking water)
- Each Balfour Beatty Construction trade supervisor's will use audible devices (such as whistles or air horns) to remind employees to drink water.



- When the temperature equals or exceeds 95°F or during a heat wave, each Balfour Beatty Construction trade supervisor will increase the number of water breaks, and will remind workers throughout the work shift to drink water.
- During employee training, the importance of frequent drinking of water will be stressed.

### **Procedures for Access to Shade**

- Balfour Beatty Construction field management shall have access to adequate shade located inside the jobsite trailer or offices.
- Each Balfour Beatty Construction trade supervisor's will bring a minimum of 1 shade structures to the site, to accommodate at least 25 percent of the employees on the shift and either chairs, benches, sheets, towels or any other items to allow employees to sit and rest without contacting the bare ground. However, chairs, benches, etc. are not required for acceptable sources of shade such as trees. (See addendum BBB.HI.1 for location(s) of shade structure)
- Each Balfour Beatty Construction trade supervisor will ensure that at a minimum 1 shade structure is opened and placed as close as practical to the workers, when the temperature equals or exceeds 85°F. When the temperature is below 85°F, the shade structures will be brought to the site, but will be opened and set in place upon worker(s) request. Note: The interior of a vehicle may not be used to provide shade unless the vehicle is air-conditioned and the air conditioner is on.
- Each Balfour Beatty Construction trade supervisor will point out the daily location of the shade structures to the workers as well as allow and encourage employees to take a 5 minute cool-down rest in the shade, when they feel the need to do so to protect themselves from overheating. (See addendum BBB.HI.1 for location(s) of shade structure)
- Each Balfour Beatty Construction trade supervisor will ensure that the shade structures are relocated to follow along with the crew and double-check that they are as close as practical to the employees, so that access to shade is provided at all times.
- In situations where trees or other vegetation are used to provide shade (in sports fields), each Balfour Beatty Construction trade supervisor's will evaluate the thickness and shape of the shaded area (given the changing angles of the sun during the entire shift), before assuming that sufficient shadow is being cast to protect employees.
- In situations where it is not safe to provide shade (example winds of more than 40 mph), each Balfour Beatty Construction trade supervisor's will document how this determination was made, and what steps will be taken to provide shade upon request. (See addendum BBB.HI.1 for location(s) of shade structure)
- For non-agricultural employers, in situations where it is not safe or feasible to provide shade, each Balfour Beatty Construction trade supervisor's will document how this determination was made, and what steps will be taken to provide shade upon request or other alternative cooling measures with equivalent protection. (See addendum BBB.HI.1 for location(s) of shade structure)

## **Procedures for Monitoring the Weather**

- Daily, the Balfour Beatty Construction Project Superintendent will go on the internet [www.nws.noaa.gov](http://www.nws.noaa.gov) or similar website to view the extended weather forecast in order to plan in advance the work schedule, know whether a heat wave is expected and notify all Balfour Beatty Construction trade supervisor's if additional schedule modifications will be necessary. This type of advance planning should take place all summer long.
- Prior to each workday, the Balfour Beatty Construction Project Superintendent will review the forecasted temperature and humidity for the worksite and compare it against the National Weather service Heat Index to evaluate the risk level for heat illness, for instance whether or not workers will be exposed at a temperature and humidity characterized as either "extreme caution" or "extreme danger" for heat illnesses such as heat stroke. It is important to keep in mind that the temperature at which these warnings occur must be lowered as much as 15 °F if the workers under consideration are in direct sunlight.
- Prior to each workday, the Balfour Beatty Construction Project Superintendent will be responsible for monitoring the weather (using [www.nws.noaa.gov](http://www.nws.noaa.gov) or with the aid of a simple thermometer) at the worksite. This critical weather information will be taken into consideration, to determine when it will be necessary to make modifications to the work schedule (such as stopping work early, rescheduling the job, working at night or during the cooler hours of the day, increasing the number of water and rest breaks).
- The Balfour Beatty Construction Project Superintendent will be responsible for monitoring the weather (using [www.nws.noaa.gov](http://www.nws.noaa.gov) or with the aid of a simple thermometer) at the jobsite and checking the temperature every 60 minutes to monitor for sudden increases in temperature, to ensure that once the temperature exceeds 85 °F, the shade structures are opened and accessible to the workers and to make certain that once the temperature equals or exceeds 95 °F additional preventive measures such as the High Heat Procedures are implemented.

## **Handling a Heat Wave:**

- During a heat wave or heat spike (e.g., a sudden increase in daytime temperature of 9 °F or more), the work day will be cut short (example 12 PM), will be rescheduled (example conducted at night or during cooler hours) or if possible cease for the day.
- If schedule modifications are not possible and workers have to work during a heat wave, each Balfour Beatty Construction trade supervisor's will provide a tailgate meeting to reinforce heat illness prevention with emergency response procedures and review the weather forecast with the workers. In addition, each Balfour Beatty Construction trade supervisor's will institute alternative preventive measures such as provide workers with an increase number of water and rest breaks every hour, supervise workers to ensure that they do stop work and take these breaks, and observe closely all workers for signs and symptoms of heat illness.
- During a heat wave or heat spike (e.g., a sudden increase in daytime temperature of 9 °F or more), and the start of the workday, each Balfour Beatty Construction trade supervisor's will hold a tailgate meeting with the workers to review the company heat illness prevention procedures, the weather forecast and emergency response.

- Each Balfour Beatty Construction trade supervisor's designated supervisor will assign each employee a "buddy" to be on the lookout for signs and symptoms of heat illness and ensure that emergency procedures are initiated when someone displays possible signs or symptoms of heat illness.

### **High Heat Procedures (when the temperature equals or exceeds 95 °F)**

- Each Balfour Beatty Construction trade supervisor's will ensure that effective communication by voice, observation, or electronic means is maintained so that employees at the worksite can contact a supervisor when necessary. If the Balfour Beatty Construction trade supervisor's designated supervisor is unable to be near the workers to observe them or communicate with them, then an electronic device, such as a cell phone or text messaging device, may be used for this purpose only if reception in the area is reliable.
- Each Balfour Beatty Construction trade supervisor's will observe employees for alertness and signs and symptoms of heat illness.
- Each Balfour Beatty Construction trade supervisor's will remind employees throughout the work shift to drink plenty of water.
- Each Balfour Beatty Construction trade supervisor's will closely supervise a new employee, or assign a "buddy" or more experienced coworker for the first 14 days of the employee's employment by the employer, unless the employee indicates at the time of hire that he or she has been doing similar outdoor work for at least 10 of the past 30 days for 4 or more hours per day.

### **Procedures for Acclimatization**

Acclimatization is the temporary and gradual physiological change in the body that occurs when the environmentally induced heat load to which the body is accustomed is significantly and suddenly exceeded by sudden environmental changes. In more common terms, the body needs time to adapt when temperatures rise suddenly, and an employee risks heat illness by not taking it easy when a heat wave strikes or when starting a new job that exposes the employee to heat to which the employee's body hasn't yet adjusted. Inadequate acclimatization can imperil anyone exposed to conditions of heat and physical stress significantly more intense than what they are used to. Employers are responsible for the working conditions of their employees, and they must act effectively when conditions result in sudden exposure to heat their employees are not used to.

- Each Balfour Beatty Construction trade supervisor's will monitor the weather and in particular be on the look out for sudden heat wave(s), or increases in temperatures to which employees haven't been exposed to for several weeks or longer.
- During a heat wave or heat spike (e.g., a sudden increase in daytime temperature of 9 °F or more), the work day will be cut short (example 12 PM), will be rescheduled (example conducted at night or during cooler hours) or if possible cease for the day.
- During the hot summer months, the work shift will start earlier in the day or later in the evening.
- For new employees, each Balfour Beatty Construction trade supervisor's will try to find ways to lessen the intensity of the employees work during a two-week break-in period (such as scheduling slower paced, less physically demanding work during the hot parts of the day and the heaviest work activities during the cooler parts of the day (early-morning or evening). Steps taken to lessen the intensity of the workload for new employees will be documented.

- Each Balfour Beatty Construction trade supervisor's will be extra-vigilant with new employees and stay alert to the presence of heat related symptoms.
- Each Balfour Beatty Construction trade supervisor's will assign new employees a "buddy" or experienced coworker to watch each other closely for discomfort or symptoms of heat illness.
- During a heat wave, each Balfour Beatty Construction trade supervisor's will observe all employees closely (or maintain frequent communication via phone or radio) and be alert for possible symptoms of heat illness.
- Each Balfour Beatty Construction trade supervisor's training for employees and supervisors will include the importance of acclimatization, how it is developed and how these company procedures address it.

### **Procedures for Emergency Response**

- Prior to assigning a crew to a particular worksite, each Balfour Beatty Construction trade supervisor's will provide workers and the foreman a map along with clear and precise directions (such as streets or road names, distinguishing features and distances to major roads) of the site, to avoid a delay of emergency medical services. (See addendum BBB.HI.2 for location emergency medical services)
- Prior to assigning a crew to a particular worksite, each Balfour Beatty Construction trade supervisor's will ensure that a qualified, appropriately trained and equipped person will be available at the site, to render first aid if necessary.
- Prior to the start of the shift, each Balfour Beatty Construction trade supervisor's will determine if a language barrier is present at the site and take steps (such as assigning the responsibility to call emergency medical services to the foreman or an English speaking worker) to ensure that emergency medical services can be immediately called in the event of an emergency.
- Balfour Beatty Construction trade supervisor will carry cell phones or other means of communication, to ensure that emergency medical services can be called and check that these are functional at the worksite prior to each shift.
- When an employee is showing symptoms of possible heat illness, each Balfour Beatty Construction trade supervisor's will take immediate steps to keep the stricken employee cool and comfortable once emergency service responders have been called (to reduce the progression to more serious illness).
- At remote locations such as rural farms, lots or undeveloped areas, each Balfour Beatty Construction trade supervisor's will designate an employee or employees to physically go to the nearest road or highway where emergency responders can see them. If daylight is diminished, the designated employee(s) shall be given reflective vest or flashlights in order to direct emergency personnel to the location of the work- site, which may not be visible from the road or highway.
- During a heat wave or hot temperatures, workers will be reminded and encouraged to immediately report to their supervisor any signs or symptoms they are experiencing.
- Each Balfour Beatty Construction trade supervisor's training for employees and supervisors will include every detail of these written emergency procedures.

## **Handling a Sick Employee**

- When an employee displays possible signs or symptoms of heat illness, a trained first aid worker or supervisor will check the sick employee and determine whether resting in the shade and drinking cool water will suffice or if emergency service providers will need to be called. Do not leave a sick worker alone in the shade, as he or she can take a turn for the worse!
- When an employee displays possible signs or symptoms of heat illness and no trained first aid worker or supervisor is available at the site, call emergency service providers.
- Call emergency service providers immediately if an employee displays signs or symptoms of heat illness (loss of consciousness, incoherent speech, convulsions, red and hot face), does not look OK or does not get better after drinking cool water and resting in the shade. While the ambulance is in route, initiate first aid (cool the worker: place in the shade, remove excess layers of clothing, place ice pack in the armpits and join area and fan the victim). Do not let a sick worker leave the site, as they can get lost or die (when not being transported by ambulance and treatment has not been started by paramedics) before reaching a hospital!
- If an employee does not look OK and displays signs or symptoms of severe heat illness (loss of consciousness, incoherent speech, convulsions, red and hot face), and the worksite is located more than 20 min away from a hospital, call emergency service providers, communicate the signs and symptoms of the victim and request Air Ambulance.

## **Procedures for Employee Training**

- Training in the following topics shall be provided to all supervisory and non-supervisory employees: Balfour Beatty Construction Project Superintendent will ensure that all Balfour Beatty Construction supervisors are trained prior to being assigned to supervise other Balfour Beatty Construction workers. Training will include written procedures and what steps Balfour Beatty Construction supervisors will follow when employees' exhibit symptoms consisted with heat illness.
- Balfour Beatty Construction Project Superintendent will ensure that all Balfour Beatty Construction employees and Balfour Beatty Construction supervisors are trained prior to working outside. Training will include the Balfour Beatty Construction trade supervisor's written prevention procedures.
- The environmental and personal risk factors for heat illness.
- Balfour Beatty Construction's procedures for identifying, evaluating, and controlling exposures to the environmental and personal risk factors for heat illness
- The importance of frequent consumption of small quantities of water, up to 4 cups per hour under extreme conditions of work and heat.
- The importance of acclimatization.
- The different types of heat illness and the common signs and symptoms of heat illness.
- The importance of immediately reporting to a supervisor symptoms of signs of heat illness in themselves, or in co-workers.
- Balfour Beatty Construction's procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary.
- Procedures for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by an emergency medical service provider. Each Balfour Beatty

Construction trade supervisor's will train employees on the steps that will be followed for contacting emergency medical services, including how they are to proceed when there are non-English speaking workers, how clear and precise directions to the site will be provided as well as stress the need to make visual contact with emergency responders at the nearest road or landmark to direct them to their worksite.

- How to provide clear and precise directions to the job site.
- Each Balfour Beatty Construction trade supervisor's will assign new employees a "buddy" or experienced coworker to ensure that they understood the training and follow company procedures.
- When the temperature exceeds 75°F, the Balfour Beatty Construction trade supervisor's will hold short 'tailgate' meetings to review the weather report, reinforce heat illness prevention with all workers and provide reminders to drink water frequently, to be on the lookout for signs and symptoms of heat illness and inform them that shade can be made available upon request.

### **Supervisor Training**

Prior to assignment to supervision of employees working in the heat, training on the following topics shall be provided:

- The information required to be provided in the "Employee Training" section.
- The procedures the supervisor is to follow to implement this procedure with his or her crew(s).
- The procedures the supervisor is to follow when an employee exhibits symptoms consistent with possible heat illness, including emergency response procedures.

### **Supervisor Implementation of this Procedure**

All Balfour Beatty Construction trade supervisor's assigned to the supervision of Balfour Beatty Construction employees working in the heat shall be given a copy of the Balfour Beatty Construction Procedure No. 12 – Heat Illness Prevention and required to read it and learn what is required for them to do in order to make this Procedure works and implement all procedures as outlined within.

Also read and become familiar with the "Cal/OSHA Heat Advisory" bulletin, the "Heat Illness Prevention Guidance for Workers," and the Cal/OSHA Consultation Service article, "Protecting Workers from Heat Stress," the USDOL "OSHA Quick Card Protect Yourself Heat Stress (English and Spanish)", and the "Heat Index Chart". The documents referenced here are incorporated into this Procedure No. 12.

After the Supervisor has trained his/her employees in the required information of this Procedure document this training on the "Employee Safety Meeting Form" attached and have each employee print and sign their names.



# CAL/OSHA HEAT ADVISORY

When employees work in hot conditions, employers must take special precautions in order to prevent heat illness. Heat illness can progress to heat stroke and be fatal, especially when emergency treatment is delayed. An effective approach to heat illness is vital to protecting the lives of California workers.

California law requires employers to identify and evaluate workplace hazards and take the steps necessary to address them. The risk of heat illness can be significantly reduced by consistently following just a few simple steps. Employers of outdoor workers at temporary work locations must be particularly alert and also plan for providing first aid and emergency medical services should they become necessary. All workers should be accounted for during and at the end of the work shift.

Heat illness results from a combination of factors including environmental temperature and humidity, direct radiant heat from the sun or other sources, air speed, and workload. Personal factors, such as age, weight, level of fitness, medical condition, use of medications and alcohol, and acclimatization effect how well the body deals with excess heat.

## HEAT ILLNESS RISK REDUCTION

### 1. Recognize the Hazard.

There is no absolute cut-off below which work in heat is not a risk. With heavy work at high relative humidity or if workers are wearing protective clothing, even work at 70°F can present a risk. In the relative humidity levels often found in hot areas of California (20 to 40 percent) employers need to take some actions to effectively reduce heat illness risk when temperatures approach 80 °F. At temperatures above 90 °F, especially with heavy work, heat risk reduction needs to be a major concern.

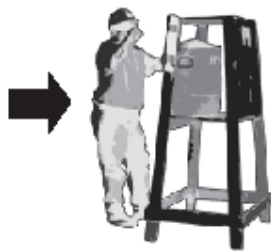
### 2. Water.

There must be an adequate supply of clean, cool, potable water. Employees who are working in the heat need to drink 3-4 glasses of water per hour, including at the start of the shift, in order to replace the water lost to sweat. For an eight-hour day this means employers must provide two or more gallons per person. Thirst is an unreliable indicator of dehydration. Employees often need ongoing encouragement to consume adequate fluids, especially when the workload or process does not encourage breaks.

### DO Not Drink



### Drink Water



### 3. Shade.

The direct heat of the sun can add as much as 15 degrees to the heat index. If possible, work should be performed in the shade. If not, employers where possible, should provide a shaded area for breaks and when employees need relief from the sun. Wide brimmed hats can also decrease the impact of direct heat.

### 4. Acclimatization.

People need time for their bodies to adjust to working in heat. This "acclimatization" is particularly important for employees returning to work after (1) a prolonged absence, (2) recent illness, or (3) recently moving from a cool to a hot climate. For heavy work under very hot conditions, a period of 4 to 10 days of progressively increasing work time starting with about 2 hours work per day under the working conditions is recommended. For less severe conditions at least the first 2 or 3 days of work in the heat should be limited to 2 to 4 hours. Monitor employees closely for signs and symptoms of heat illness, particularly when they have not been working in heat for the last few days, and when a heat wave occurs.

### 5. Rest Breaks.

Rest breaks are important to reduce internal heat load and provide time for cooling. Heat illness occurs due to a combination of environmental and internal heat that cannot be adequately dissipated. Breaks should be taken in cooler, shaded areas. Rest breaks also provide an opportunity to drink water.

### 6. Prompt Medical Attention.

Recognizing the symptoms of heat illness and providing an effective response requires promptly acting on early warning signs. Common early symptoms and signs of heat illness include headache, muscle cramps, and unusual fatigue. However, progression to more serious illness can be rapid and can include unusual behavior, nausea/vomiting, weakness, rapid pulse excessive sweating or hot dry skin, seizures, and fainting or loss of consciousness. **Any of these symptoms require immediate attention.** Even the initial symptoms may indicate serious heat exposure. If medical personnel are not immediately available on-site, and you suspect severe heat illness, you must call 911. Regardless of the worker's protests, no employee with any of the symptoms of possible serious heat illness noted above should be sent home or left unattended without medical assessment and authorization.

### 7. Training.

Supervisors and employees must be trained in the risks of heat illness, and the measures to protect themselves and their co-workers. Training should include:

- Why it is important to prevent heat illness
- Procedures for acclimatization
- The need to drink approximately one quart per hour of water to replace fluids.
- The need to take breaks out of the heat
- How to recognize the symptoms of heat illness
- How to contact emergency services, and how to effectively report the work location to 911.

## Heat Illness Prevention

### Guidance for Workers

Awareness of heat illness symptoms can save your life or the life of a co-worker

- If you are coming back to work from an illness or an extended break or you are just starting a job working in the heat, it is important to be aware that you are more vulnerable to heat stress until your body has time to adjust. Let your employer know you are not used to the heat. It takes about 5 – 7 days for your body to adjust.
- Drinking plenty of water frequently is vital to workers exposed to the heat. An individual may produce as much as 2 to 3 gallons of sweat per day. In order to replenish that fluid the worker should drink 3 to 4 cups of water every hour starting at the beginning of your shift.
- Taking your breaks in a cool shaded area and allowing time for recovery from the heat during the day are effective ways to avoid heat illness.
- Avoid or limit the use of alcohol and caffeine during periods of extreme heat. Both dehydrate the body.
- If you or a co-worker start to feel symptoms such as nausea, dizziness, weakness or unusual fatigue, let your supervisor know and rest in a cool shaded area. If symptoms persist or worsen seek immediate medical attention.
- Whenever possible, wear clothing that provides protection from the sun but allows airflow to the body. Protect your head and shade your eyes if working outdoors.
- When working in the heat be sure to pay extra attention to your co-workers and be sure you know how to call for medical attention.

For more information call Cal/OSHA or visit our Web site at:

[www.dir.ca.gov](http://www.dir.ca.gov)



# Protecting Workers from Heat Stress

CCR, T8 - 3203, 3363, 3380-3390, 3439, 3457

Heat-related illnesses have caused deaths among California workers. Workers in agriculture are especially vulnerable. Farm workers often work in the open heat and may have little opportunity to rest in a cool area. Also, acclimatization (adjustment of the body to heat exposure) is difficult for farm workers due to irregular work schedules, heat waves and not having enough cool water readily available.

## ATTENTION:

- Increase fluids (1 to 2 quarts per hour) and rest breaks during high temperatures, especially when above 100°F and during periods of unusually high humidity.
- Stay alert for early symptoms of excessive exposure to heat in workers and train employees to do the same.
- Ensure proper provisions (such as communication system) are available for contacting a doctor or medical assistance to avoid unnecessary delay of treatment and first aid.
- Consumption of alcohol will add to dehydration and increase the risk of health illness.

What are some of the symptoms and risks of heat stress?

- Loss of concentration and difficulty in focusing on a task.
- Increased irritability and rise in heart rate and body temperature.
- Little or no desire to drink, fatigue and headache - results from loss of fluids.
- Fainting and *possible death* if person is not removed from the source of the heat stress.



How can you reduce the risk of heat stress?

- Provide cool water as close as possible and encourage workers to drink often (this helps to replace fluids lost through sweating).
- Train supervisors and first aid workers to recognize heat stress disorders.
- Encourage supervisors to move workers to a cooler place or reduce the workload and to stop and rest if they become extremely uncomfortable.
- Encourage workers to wear appropriate clothing (cotton garments) and to use sunscreen, hats, and sunglasses.
- Be aware that workers who are obese, pregnant, older, and on certain medications are at greater risk for heat stress.



# Protecting Workers From Heat Stress

There are four environmental factors that can cause heat stress in a hot work area. These are (1) temperature; (2) radiant heat from the sun or a furnace; (3) humidity; and (4) air velocity. The level of heat stress a person encounters depends on his or her age, weight, level of fitness, medical condition, and acclimatization to the heat. Heat stress occurs when body muscles are being used for physical labor and less blood is available to flow to the skin and release the heat. For more detailed information, a 15-page booklet titled *Working in Hot Environments* is available from the National Institute for Occupational Safety and Health (NIOSH), 4676 Columbia Parkway, Cincinnati, Ohio 45226; telephone (800) 356-4674

## What are some of the risks of heat stress?

- Rise in body temperature and heart rate
- Loss of concentration and difficulty in focusing on a task
- Increased irritability or sickness
- Little or no desire to drink
- Fainting and possible death if person is not removed from the source of the heat stress

## How can you reduce the risk of heat stress?

- Provide water and encourage employees to drink (this helps to replace fluids lost through sweating).
- Train and educate workers to recognize heat stress symptoms.
- Train first aid workers to recognize and treat heat stress disorders.
- Ensure that the names of staff trained in first aid are known to all workers.
- Encourage employees to move to a cooler place, find shade, and rest during their breaks.
- Allow employees to slow the work pace or reduce the work load and to stop and rest if they become extremely uncomfortable.
- Encourage employees to wear appropriate clothing (cotton garments) and to use sunscreen, hats, and sunglasses.

- Be aware that older workers, obese employees, and people on medication are at greater risk for heat stress.

## What are some of the symptoms of heat stress?

**HEAT STROKE**, the most serious health problem for workers in a hot environment, is caused by the body's failure to regulate its core temperature. Sweating stops and the body can no longer release excess heat. *Victims of heat stroke usually die unless treated promptly.* Signs include:

- Mental confusion, delirium, loss of consciousness, convulsions, or coma
- Body temperature of 106° F or higher
- Hot, dry skin that may be red, mottled, or bluish

### How can heat stroke be treated?

Prompt first aid can prevent permanent injury to the brain and other vital organs. While awaiting medical help, the victim should be moved to a cool area. The victim's clothing should be soaked with cool water and he or she should be fanned vigorously to increase cooling.

**HEAT EXHAUSTION** results from loss of fluid through sweating and from not drinking enough replacement fluids. The worker still sweats but experiences extreme weakness or fatigue, giddiness, nausea, or headache. The skin is clammy and moist, while body temperatures are normal or slightly elevated.

### How can heat exhaustion be treated?

The victim should rest in a cool place and drink water or an electrolyte solution, such as Gatorade or similar beverages used by athletes to restore potassium and salt. Severe cases, in which the victim vomits or loses consciousness, may require longer treatment under medical supervision.

**HEAT CRAMPS**, painful spasms of the muscles, are caused by the body's loss of salt.

### How can heat cramps be treated?

As in the case of heat exhaustion, a victim of heat cramps should drink an electrolyte solution such as Gatorade. Seek medical attention for the victim in the case of severe cramping.

**FAINTING** can occur when a worker is unacclimatized to a hot environment.

**How can fainting be treated?** At first, allow the victim to lie down on his or her back. When consciousness has been regained, the victim should usually recover after a brief period of walking around slowly.

**HEAT RASH**, also known as prickly heat, can be extensive and can be complicated by infection. Heat rash can be so uncomfortable that sleep is disrupted. It can impede a worker's performance and can even result in a temporary total disability.

**How can heat rash be treated?** Place the victim in a cool place and allow the skin to dry.

Information contained in this fact sheet was obtained from U.S. Department of Labor Fact Sheet No. OSHA 93-16. This fact sheet provides a general description only and does not carry the force of legal opinion.



Make copies or tear out all the pages with this symbol.

CAL/OSHA Consultation Service



# Cómo Proteger a los Trabajadores contra la Insolación

Hay cuatro factores ambientales que pueden causar estrés inducido por calor excesivo en un área de trabajo caliente. Estos factores son (1) la temperatura; (2) el calor radiante proveniente del sol o de un horno; (3) la humedad; y (4) la velocidad del aire. El nivel de insolación al que esté expuesta una persona depende de su edad, su peso, nivel de acondicionamiento físico, estado de salud y aclimatación al calor. La insolación se presenta cuando los músculos del cuerpo están siendo utilizados para trabajo físico y hay menos sangre disponible para fluir a la piel y liberar el calor. Para información más detallada, existe un folleto de 15 páginas titulado *Cómo Trabajar en Ambientes a Temperaturas Elevadas (Working in Hot Environments)* al National Institute for Occupational Safety and Health, (NIOSH), 4676 Columbia Parkway, Cincinnati, Ohio 45226; teléfono (800) 356-4674.

## ¿Cuáles son algunos de los riesgos de la insolación?

- Elevación de la temperatura corporal y la frecuencia cardíaca
- Pérdida de la concentración y dificultad para concentrarse en una tarea
- Mayor irritabilidad o náuseas
- Poco o ningún deseo de beber líquidos
- Desmayo y posiblemente la muerte si la persona no es retirada de la causa del estrés inducido por calor excesivo

## ¿Cómo puede usted reducir el riesgo de la insolación?

- Proporcione agua y aliente a los empleados a beberla (esto ayuda a reponer los líquidos que se pierden al sudar).
- Entrene y eduque a los empleados para que reconozcan los síntomas de la insolación.
- Entrene a los trabajadores de primeros auxilios para que reconozcan y traten los problemas relacionados con la insolación.
- Asegúrese que todos los trabajadores conozcan los nombres del personal entrenado en primeros auxilios.
- Aliente a los empleados para que vayan a un lugar más fresco, encuentren una sombra y reposen durante sus periodos de descanso.
- Deje que los empleados bajen su ritmo de trabajo o reduzcan la carga de trabajo y se detengan y descansen si se sienten extremadamente incómodos.
- Aliente a los empleados a que usen ropa apropiada (prendas de algodón) y que usen bloqueador del sol, gorras o sombreros y anteojos o gafas para el sol.
- Tenga presente que los trabajadores de mayor edad, los empleados obesos y las personas que estén tomando

medicamentos tienen mayor riesgo de insolación.

## ¿Cuáles son algunos de los síntomas de la insolación?

La INSOLACION, el problema de salud más grave para los trabajadores en un ambiente a alta temperatura, es causado por la incapacidad del cuerpo para regular su temperatura básica. Deja de sudar y el cuerpo ya no puede liberarse del calor excesivo. *Las víctimas de la insolación generalmente mueren a menos que sean tratadas inmediatamente.* Entre los signos de la insolación figuran los siguientes:

- Confusión mental, delirio, pérdida del conocimiento, convulsiones o coma
- Temperatura corporal de 106°F (41.1°C) o mayor
- Piel caliente y seca que puede tener apariencia roja, moteada o azulada

## ¿Cómo puede tratarse la insolación?

Los primeros auxilios inmediatos pueden prevenir las lesiones permanentes al cerebro y otros órganos vitales. Mientras aguarda la ayuda médica, la víctima debe ser llevada a un área fresca. Su ropa debe ser mojada con agua fresca y debe ventilarse energicamente para aumentar el enfriamiento.

EL AGOTAMIENTO POR CALOR resulta de la pérdida de líquidos a través del sudor y de no tomar suficientes líquidos de repuesto. El trabajador todavía suda pero experimenta debilidad o fatiga extrema, mareo, náuseas o dolor de cabeza. La piel está húmeda y fría, aunque la temperatura del cuerpo sea normal o se encuentre ligeramente elevada.

¿Cómo puede tratarse el agotamiento causado por el calor? La víctima debe descansar en un lugar fresco y tomar agua o una bebida con electrolitos, tal como Gatorade u otras bebidas semejantes utilizadas por los atletas para reponer el

potasio y la sal. Los casos graves, en donde la víctima vomita o pierde el conocimiento, pueden requerir tratamiento más prolongado bajo supervisión médica.

Los CALAMBRES CAUSADOS POR EL CALOR, espasmos dolorosos de los músculos, son resultado de la pérdida de sal en el cuerpo.

¿Cómo pueden tratarse los calambres causados por el calor? Igual que en el caso del agotamiento por calor, una víctima de los calambres causados por el calor debe tomar una solución electrolítica tal como Gatorade. En caso de calambres intensos, busque atención médica para la víctima.

Un trabajador se puede DESMAYAR cuando no está aclimatado a un medio ambiente cálido.

¿Cómo puede tratarse el desmayo? Al principio, deje que la víctima se acueste boca arriba. Una vez que haya recuperado el conocimiento, la víctima generalmente debe restablecerse después de un breve periodo de caminar lentamente de un lado a otro.

El SALPULLIDO, también conocido como miliaria o sudamina, puede ser extenso y verse complicado por una infección. El salpullido puede ser tan incómodo que resulta imposible dormir. Puede interferir con el desempeño de un trabajador e incluso puede resultar en una incapacidad total temporal.

¿Cómo puede tratarse el salpullido? Coloque a la víctima en un lugar fresco y deje que se seque su piel.

La información contenida en esta hoja de datos fue obtenida de la Hoja de Datos de OSHA No. 93-16 del Departamento del Trabajo de los Estados Unidos. Esta hoja de datos proporciona solamente una descripción general y no tiene la fuerza de una opción legal.



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Servicio de Consulta de la Administración de Seguridad y Salud Ocupacional de California (CAL/OSHA)

# OSHA QUICK CARD™

## Protect Yourself Heat Stress



When the body is unable to cool itself by sweating, several heat-induced illnesses such as heat stress or heat exhaustion and the more severe heat stroke can occur, and can result in death.

### Factors Leading to Heat Stress

High temperature and humidity; direct sun or heat; limited air movement; physical exertion; poor physical condition; some medicines; and inadequate tolerance for hot workplaces.

### Symptoms of Heat Exhaustion

- Headaches, dizziness, lightheadedness or fainting.
- Weakness and moist skin.
- Mood changes such as irritability or confusion.
- Upset stomach or vomiting.

### Symptoms of Heat Stroke

- Dry, hot skin with no sweating.
- Mental confusion or losing consciousness.
- Seizures or fits.

### Preventing Heat Stress

- Know signs/symptoms of heat-related illnesses; monitor yourself and coworkers.
- Block out direct sun or other heat sources.
- Use cooling fans/air-conditioning; rest regularly.
- Drink lots of water; about 1 cup every 15 minutes.
- Wear lightweight, light colored, loose-fitting clothes.
- Avoid alcohol, caffeinated drinks, or heavy meals.

### What to Do for Heat-Related Illness

- Call 911 (or local emergency number) at once.

While waiting for help to arrive:

- Move the worker to a cool, shaded area.
- Loosen or remove heavy clothing.
- Provide cool drinking water.
- Fan and mist the person with water.

For more complete information:



OSHA 3154 (07/08)



# OSHA DATOS RÁPIDOS

## Protéjase del Estrés por calor



Quando el cuerpo no puede bajar su temperatura mediante el sudor, pueden ocurrir varias enfermedades debido al calor, tales como estrés o agotamiento por calor e insolación o golpe de calor, las cuales pueden resultar en la muerte.

### Factores que llevan al estrés por calor

Alta temperatura y humedad, calor o sol directo, movimiento limitado de aire, esfuerzo físico, pobre condición física, algunas medicinas y tolerancia inadecuada para lugares de trabajo calurosos.

### Síntomas de agotamiento por calor

- Dolores de cabeza, mareos, vértigo o desmayo.
- Debilidad y piel húmeda.
- Cambios de humor como irritabilidad o confusión.
- Náuseas o vómitos.

### Síntomas de insolación

- Piel seca y caliente sin sudor.
- Confusión mental o pérdida de conocimiento.
- Convulsiones o ataques.

### Evita el estrés por calor

- Conozca las señales y los síntomas de las enfermedades relacionadas al calor; obsérvese a sí mismo y a sus colegas.
- Bloquee el sol directo u otras fuentes de calor.
- Utilice ventiladores (abanicos) o aire acondicionado; descanse con regularidad.
- Beba mucha agua, como 1 taza cada 15 minutos.
- Vístase con ropa ligera, de colores claros y no ajustada.
- Evite el alcohol, bebidas con cafeína o comidas pesadas.

### Qué hacer en caso de enfermedades relacionadas al calor

- Llame al 911 (u otro número local para emergencias) inmediatamente.

Mientras espera por ayuda:

- Mueva a la persona a un lugar fresco y sombreado.
- Sueltele o quitele la ropa pesada.
- Ofrezcale agua fresca para beber.
- Abanique y rocíe con agua a la persona.

Para información más completa:



## Heat Index (Apparent Temperature) Chart

The Heat Index (HI) is the temperature the body feels when heat and humidity are combined. The chart below shows the HI that corresponds to the actual air temperature and relative humidity. (NOTE: This chart is based upon shady, light wind conditions. **Exposure to direct sunlight can increase the HI by up to 15°F.**) (Due to the nature of the heat index calculation, the values in the tables below have an error of +/- 1.3F.)

Heat Index	General Effect of Heat Index on People in Higher Risk Groups
80 to 89° - Caution	Fatigue possible with prolonged exposure and/or physical activity.
90 to 104° - Extreme Caution	Sunstroke, heat cramps and heat exhaustion possible with prolonged exposure and/or physical activity.
105 to 129° - Danger	Sunstroke, heat cramps or heat exhaustion likely, and heatstroke possible with prolonged exposure and/or physical activity.
130° or higher - Extreme Danger	Heat stroke highly likely with continued exposure

		Relative Humidity (in percent)																					
		0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	
Air Temp (in F)	140	125																					
	135	120	128																				
	130	117	122	131																			
	125	111	116	123	131	143																	
	120	107	111	116	123	130	139	148															
	115	103	107	111	115	120	127	135	143	151													
	110	99	102	105	108	112	117	123	130	137	143	150											
	105	95	97	100	102	105	109	113	118	123	129	135	142	149									
	100	91	93	95	97	99	101	104	107	110	115	120	126	132	138	144							
	95	87	88	90	91	93	94	96	98	101	104	107	110	114	119	124	130	136					
	90	83	84	85	86	87	88	90	91	93	95	96	98	100	102	106	109	113	117	122			
	85	78	79	80	81	82	83	84	85	86	87	88	89	90	91	93	95	97	99	102	105	108	
	80	73	74	75	76	77	77	78	79	79	80	81	81	82	83	85	86	86	87	88	89	91	
	75	69	69	70	71	72	72	73	73	74	74	75	75	76	76	77	77	78	78	79	79	80	
70	64	64	65	65	66	66	67	67	68	68	69	69	70	70	70	70	71	71	71	71	71	72	

		Dew Point (in F)																									
		60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85
Air Temp (in F)	104	110	110	110	110	110	111	112	113	114	115	116	117	118	119	121	123	124	125	127	128	130	132	133	136	137	
	102	108	108	108	108	108	109	110	110	111	111	113	114	116	117	118	119	121	121	124	126	127	129	131	133	136	
	100	106	106	106	106	106	107	108	108	110	111	112	113	114	115	117	118	119	121	123	124	126	128	129	132		
	98	103	103	103	103	103	104	105	105	106	107	108	109	110	111	113	114	115	117	118	120	121	123	125	127	129	
	96	101	101	101	101	101	101	102	103	104	105	106	107	108	109	110	111	112	114	115	117	118	120	122	124	127	
	94	97	98	98	98	98	98	99	100	100	101	102	103	104	105	106	107	108	109	111	112	114	115	117	119	122	124
	92	94	96	96	96	96	96	97	97	98	99	99	100	101	102	103	104	105	106	108	109	110	112	114	116	119	121
	90	94	94	94	94	94	94	95	95	96	97	97	98	99	100	101	102	103	105	105	106	107	109	110	113	116	117
	88	83	83	83	83	83	83	84	84	85	86	86	87	88	89	90	91	92	94	95	97	99	101	103	106	110	114
	86	83	83	83	83	83	83	84	84	85	86	86	87	88	89	90	91	92	94	95	97	99	101	103	106	110	114
	84	84	84	85	85	85	86	86	87	87	88	88	89	90	91	92	93	94	95	97	99	101	103	106	110	114	
	82	82	83	83	83	83	84	84	85	85	86	86	87	87	88	88	89	90	91	92	93	94	95	-	-	-	-
	80	80	81	81	81	82	82	82	82	83	83	83	83	84	84	85	85	86	86	87	87	-	-	-	-	-	-

# Balfour Beatty Construction

## Safety Meeting SIGN IN SHEET

Subject Covered: Heat Illness Prevention

Conducted By: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_

	NAME	SIGNATURE
1		
2		
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# HEAT ILLNESS PREVENTION

## SAFETY AND HEALTH PROCEDURE #12

### Location of shade structures are:

- Jobsite Trailer or Office
- Pop-up
- Other

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### Location of water provisions are:

- Jobsite Trailer or Office
- Pop-up
- Other

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**HEAT ILLNESS PREVENTION**

**SAFETY AND HEALTH PROCEDURE #12**

**EMERGENCY CONTACT INFORMATION**

**AMBULANCE:** (ENTER THE DIRECT NUMBER TO LOCAL AMBULANCE, NOT 911)

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**HOSPITAL:** (ENTER THE DIRECT NUMBER TO LOCAL HOSPITAL, NOT 911)

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**DIRECTIONS TO NEAREST EMERGENCY TREATMENT CENTER or HOSPITAL:**

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(INSERT MAP AND DIRECTIONS TO NEAREST EMERGENCY TREATMENT CENTER or HOSPITAL)

*(This page is intentionally left blank for map to nearest emergency treatment center or hospital)*

# **HEAT ILLNESS PREVENTION**

## **SAFETY AND HEALTH PROCEDURE #12**

### HEAT ILLNESS PREVENTION TEMPERATURE TRIGGERS:

#### **75°F**

- Tailgate Meeting to review weather report, reinforce heat illness prevention with all workers and provide reminders to drink water frequently, to be on the lookout for signs and symptoms of heat illness and inform them that shade can be made available upon request.

#### **85°F**

- Minimum 1 shade structure is opened and placed as close as practical to the workers.

#### **90°F**

- Check the water level of all containers every 30 minutes.
- When the water level within a container drops below 50%, water containers will be refilled with cool water.
- Add ice to the drinking water to keep it cool.
- Hold a brief ‘tailgate’ meeting each morning to review with employees the importance of drinking water, the number and schedule of water and rest breaks and the signs and symptoms of heat illness.

#### **95°F**

- Increase the number of water breaks.
- Remind workers throughout the work shift to drink water.
- Ensure all supervisors have effective means of communication with employees (voice, observation or electronic device that is reliable) so they can easily contact supervisor if necessary.
- Observe employees for alertness and signs and symptoms of heat illness.
- Closely supervise a new employee or assign a “buddy” system.



# Tab 13



CCR Title 8. Industrial Relations, Division 1. DIR, Chapter 4. Division of Industrial Safety Subchapter 7.  
General Industry Safety Orders

§3203. Injury and Illness Prevention Program.

(a) Effective July 1, 1991, every employer shall establish, implement and maintain an effective Injury and Illness Prevention Program (Program). The Program shall be in writing and, shall, at a minimum:

- (1) Identify the person or persons with authority and responsibility for implementing the Program.
- (2) Include a system for ensuring that employees comply with safe and healthy work practices. Substantial compliance with this provision includes recognition of employees who follow safe and healthful work practices, training and retraining programs, disciplinary actions, or any other such means that ensures employee compliance with safe and healthful work practices.
- (3) Include a system for communicating with employees in a form readily understandable by all affected employees on matters relating to occupational safety and health, including provisions designed to encourage employees to inform the employer of hazards at the worksite without fear of reprisal. Substantial compliance with this provision includes meetings, training programs, posting, written communications, a system of anonymous notification by employees about hazards, labor/management safety and health committees, or any other means that ensures communication with employees.

EXCEPTION: Employers having fewer than 10 employees shall be permitted to communicate to and instruct employees orally in general safe work practices with specific instructions with respect to hazards unique to the employees' job assignments as compliance with subsection (a)(3).

(4) Include procedures for identifying and evaluating work place hazards including scheduled periodic inspections to identify unsafe conditions and work practices. Inspections shall be made to identify and evaluate hazards.

(A) When the Program is first established;

EXCEPTION: Those employers having in place on July 1, 1991, a written Injury and Illness Prevention Program complying with previously existing section 3203.

(B) Whenever new substances, processes, procedures, or equipment are introduced to the workplace that represent a new occupational safety and health hazard; and

(C) Whenever the employer is made aware of a new or previously unrecognized hazard.

(5) Include a procedure to investigate occupational injury or occupational illness.

(6) Include methods and/or procedures for correcting unsafe or unhealthy conditions, work practices and work procedures in a timely manner based on the severity of the hazard:

(A) When observed or discovered; and,

(B) When an imminent hazard exists which cannot be immediately abated without endangering employee(s) and/or property, remove all exposed personnel from the area except those necessary to correct the existing condition. Employees necessary to correct the hazardous condition shall be provided the necessary safeguards.

(7) Provide training and instruction:

(A) When the program is first established;

EXCEPTION: Employers having in place on July 1, 1991, a written Injury and Illness Prevention Program complying with the previously existing Accident Prevention Program in Section 3203.

(B) To all new employees;

(C) To all employees given new job assignments for which training has not previously been received;

(D) Whenever new substances, processes, procedures or equipment are introduced to the workplace and represent a new hazard;

(E) Whenever the employer is made aware of a new or previously unrecognized hazard; and,

(F) For supervisors to familiarize themselves with the safety and health hazards to which employees under their immediate direction and control may be exposed.

(b) Records of the steps taken to implement and maintain the Program shall include:

(1) Records of scheduled and periodic inspections required by subsection (a)(4) to identify unsafe conditions and work practices, including person(s) conducting the inspection, the unsafe conditions and work practices that have been identified and action taken to correct the identified unsafe conditions and work practices. These records shall be maintained for at least one (1) year; and

EXCEPTION: Employers with fewer than 10 employees may elect to maintain the inspection records only until the hazard is corrected.

(2) Documentation of safety and health training required by subsection (a)(7) for each employee, including employee name or other identifier, training dates, type(s) of training, and training providers. This documentation shall be maintained for at least one (1) year.

EXCEPTION NO. 1: Employers with fewer than 10 employees can substantially comply with the documentation provision by maintaining a log of instructions provided to the employee with respect to the hazards unique to the employees' job assignment when first hired or assigned new duties.

EXCEPTION NO. 2: Training records of employees who have worked for less than one (1) year for the employer need not be retained beyond the term of employment if they are provided to the employee upon termination of employment.

Exception No. 3: For Employers with fewer than 20 employees who are in industries that are not on a designated list of high-hazard industries established by the Department of Industrial Relations (Department) and who have a Workers' Compensation Experience Modification Rate of 1.1 or less, and for any employers with fewer than 20 employees who are in industries on a designated list of low-hazard industries established by the Department, written documentation of the Program may be limited to the following requirements:

A. Written documentation of the identity of the person or persons with authority and responsibility for implementing the program as required by subsection (a)(1).

B. Written documentation of scheduled periodic inspections to identify unsafe conditions and work practices as required by subsection (a)(4).

C. Written documentation of training and instruction as required by subsection (a)(7).

Exception No. 4: Local governmental entities (any county, city, city and county, or district, or any public or quasi-public corporation or public agency therein, including any public entity, other than a state agency, that is a member of, or created by, a joint powers agreement) are not required to keep records concerning the steps taken to implement and maintain the Program.

Note 1: Employers determined by the Division to have historically utilized seasonal or intermittent employees shall be deemed in compliance with respect to the requirements for a written Program if the employer adopts the Model Program prepared by the Division and complies with the requirements set forth therein.

Note 2: Employers in the construction industry who are required to be licensed under Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code may use records relating to employee training provided to the employer in connection with an occupational safety and health training program approved by the Division, and shall only be required to keep records of those steps taken to implement and maintain the program with respect to hazards specific to the employee's job duties.

(c) Employers who elect to use a labor/management safety and health committee to comply with the communication requirements of subsection (a)(3) of this section shall be presumed to be in substantial compliance with subsection (a)(3) if the committee:

(1) Meets regularly, but not less than quarterly;



(2) Prepares and makes available to the affected employees, written records of the safety and health issues discussed at the committee meetings and, maintained for review by the Division upon request. The committee meeting records shall be maintained for at least one (1) year;

(3) Reviews results of the periodic, scheduled worksite inspections;

(4) Reviews investigations of occupational accidents and causes of incidents resulting in occupational injury, occupational illness, or exposure to hazardous substances and, where appropriate, submits suggestions to management for the prevention of future incidents;

(5) Reviews investigations of alleged hazardous conditions brought to the attention of any committee member. When determined necessary by the committee, the committee may conduct its own inspection and investigation to assist in remedial solutions;

(6) Submits recommendations to assist in the evaluation of employee safety suggestions; and

(7) Upon request from the Division, verifies abatement action taken by the employer to abate citations issued by the Division.

NOTE: Authority cited: Sections 142.3 and 6401.7, Labor Code. Reference: Sections 142.3 and 6401.7, Labor Code.

#### HISTORY

1. New section filed 4-1-77; effective thirtieth day thereafter (Register 77, No. 14). For former history, see Register 74, No. 43.

2. Editorial correction of subsection (a)(1) (Register 77, No. 41).

3. Amendment of subsection (a)(2) filed 4-12-83; effective thirtieth day thereafter (Register 83, No. 16).

4. Amendment filed 1-16-91; operative 2-15-91 (Register 91, No. 8).

5. Editorial correction of subsections (a), (a)(2), (a)(4)(A) and (a)(7) (Register 91, No. 31).

6. Change without regulatory effect amending subsection (a)(7)(F) filed 10-2-92; operative 11-2-92 (Register 92, No. 40).

7. Amendment of subsection (b)(2), Exception No. 1, new Exception No. 3 through Exception No. 4, Note 2, and amendment of subsection (c)(2) filed 9-13-94; operative 9-13-94 pursuant to Government Code section 11346.2 (Register 94, No. 37).

8. Editorial correction of subsections (a)(6)(A) and (a)(7)(A) (Register 95, No. 22).

9. Amendment of subsections (b)(1)-(2) and (c)(2) filed 6-1-95; operative 7-3-95 (Register 95, No. 22).



# **REFERENCE CHECK FORMS**



**Exhibit A: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Prime Contractor of the Applicant**

**Evaluating Organization or Company:** North Carolina Department of Public safety

**Evaluator (Name and Title):** William N. Stovall, PE - Director of Engineering

**Evaluator Phone and e-mail:** (919) 716-3691 bill.stovall@ncdps.gov

**Name of Contractor Being Evaluated:** Balfour Beatty Construction - An affiliate of Howard S. Wright

**Project Title and Brief Description:** Central Prison Regional Medical Center - a maximum-security 120 bed acute care hospital and 200 bed mental health treatment facility. Project cost = \$180 million

**QUALITY OF PRODUCT OR SERVICE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Quality of Workmanship:							X
Adequacy of Quality Assurance & Quality Control Management						X	
Implementation of QA/QC Plan:							X
Quality of QA/QC Documentation:							X
Storage of Materials:						X	
Adequacy of Materials Installed in Project:						X	
Adequacy of Submittals:						X	
Adequacy of Special Testing & Inspections:						X	
Adequacy of As-Builts:						X	
Use of Specified Materials:							X
Identification/Correction of Deficient Work:							X

**Comments for Quality of Products or Service**

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Representation of customer/client interests in negotiating changes with subs:							X
Quality of rationale provided to support costs:						X	
Cost Controls						X	

**Comments for Cost Control**

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Adequacy of Initial Progress Schedule:							X
Quality and implementation of Phasing Plan:							X
Adherence to Approved Schedule:							X
Resolution of Delays:						X	
Submission of Required Documentation:						X	
Satisfactory Completion of Punch List Items:							X
Timely Submission of Updated and Revised Progress Schedules:						X	
Warranty Responsiveness:							X

**Comments for Timeliness of Performance**

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Collaboration with owner and A-E to achieve project goals:							X
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):						X	
Cooperation and Responsiveness:							X
Management of Resources/Personnel:						X	
Management of Traffic Control:						X	
Adequacy of Construction Site Clean-up:							X
Effectiveness of Enforcing Job-Site Regulations:							X
Compliance with Laws, Regulations, Permits and Contract Document:						X	
Professional Conduct:							X
Change Order Activity (By Contractor to Customer/Client):							X
Trained Work Force:							X
O & M Manuals/Instructions:						X	
Timely Spare Parts Delivery:						X	

**Comments for Effectiveness of Management/Business Relations**

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Overall Rating:							X



**Exhibit A: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Prime Contractor of the Applicant**

**Evaluating Organization or Company:** TLC Engineering for Architecture  
**Evaluator (Name and Title):** Thomas Munson  
**Evaluator Phone and e-mail:** 407-487-1401 / tom.munson@tlc-eng.com  
**Name of Contractor Being Evaluated:** Balfour Beatty  
**Project Title and Brief Description:** Orange County Florida, 33rd St. Intake Release Facility

**QUALITY OF PRODUCT OR SERVICE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Quality of Workmanship:							X
Adequacy of Quality Assurance & Quality Control Management							X
Implementation of QA/QC Plan:							X
Quality of QA/QC Documentation:							X
Storage of Materials:							X
Adequacy of Materials Installed in Project:							X
Adequacy of Submittals:							X
Adequacy of Special Testing & Inspections:							X
Adequacy of As-Builts:							X
Use of Specified Materials:							X
Identification/Correction of Deficient Work:							X

**Comments for Quality of Products or Service** provided extreme quality control prior to construction using readi-check method of document QA/QC

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Representation of customer/client interests in negotiating changes with subs:							X
Quality of rationale provided to support costs:							X
Cost Controls							X

**Comments for Cost Control**

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Adequacy of Initial Progress Schedule:							X
Quality and implementation of Phasing Plan:							X
Adherence to Approved Schedule:							X
Resolution of Delays:							X
Submission of Required Documentation:							X
Satisfactory Completion of Punch List Items:							X
Timely Submission of Updated and Revised Progress Schedules:							X
Warranty Responsiveness:							X

**Comments for Timeliness of Performance** All project meetings centered around published schedule

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Collaboration with owner and A-E to achieve project goals:							X
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):							X
Cooperation and Responsiveness:							X
Management of Resources/Personnel:							X
Management of Traffic Control:							X
Adequacy of Construction Site Clean-up:							X
Effectiveness of Enforcing Job-Site Regulations:							X
Compliance with Laws, Regulations, Permits and Contract Document:							X
Professional Conduct:							X
Change Order Activity (By Contractor to Customer/Client):							X
Trained Work Force:							X
O & M Manuals/Instructions:							X
Timely Spare Parts Delivery:							X

**Comments for Effectiveness of Management/Business Relations** Always presented themselves in a professional organized group

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Overall Rating:							X

**Exhibit A: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Prime Contractor of the Applicant**

**Evaluating Organization or Company: Wake County**

**Evaluator: Tim Ashby, Project Manager**

**Evaluator Phone and e-mail: 919.856.6681, roger.ashby@wakegov.com**

**Name of Contractor Being Evaluated: Balfour Beatty Construction**

**Project Title and Brief Description: Wake County Justice Center**

**QUALITY OF PRODUCT OR SERVICE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Quality of Workmanship:						X	
Adequacy of Quality Assurance & Quality Control Management:						X	
Implementation of QA/QC Plan:						X	
Quality of QA/QC Documentation:						X	
Storage of Materials:					X		
Adequacy of Materials Installed in Project:						X	
Adequacy of Submittals:						X	
Adequacy of Special Testing & Inspections:						X	
Adequacy of As-Builts:						X	
Use of Specified Materials:						X	
Identification/Correction of Deficient Work:					X		

**Comments for Quality of Products or Service**

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Representation of customer/client interests in negotiating changes with subs						X	
Quality of rationale provided to support costs:					X		
Cost Controls						X	

**Comments for Cost Control**

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Adequacy of Initial Progress Schedule:							X
Quality and implementation of Phasing Plan:							X
Adherence to Approved Schedule:						X	
Resolution of Delays:						X	
Submission of Required Documentation:							X
Satisfactory Completion of Punch List Items:					X		
Timely Submission of Updated and Revised Progress Schedules:						X	
Warranty Responsiveness:						X	

**Comments for Timeliness of Performance**

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Collaboration with owner and A-E to achieve project goals							X
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):						X	
Cooperation and Responsiveness:							X
Management of Resources/Personnel:							X
Management of Traffic Control:						X	
Adequacy of Construction Site Clean-up:							X
Effectiveness of Enforcing Job-Site Regulations:							X
Compliance with Laws, Regulations, Permits and Contract Document							X
Professional Conduct:						X	
Change Order Activity (By Contractor to Customer/Client):					X		
Trained Work Force:						X	
O & M Manuals/Instructions:					X		
Timely Spare Parts Delivery:						X	

**Comments for Effectiveness of Management/Business Relations**

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Overall Rating:						X	

**Exhibit A: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Prime Contractor of the Applicant**

**Evaluating Organization or Company:** County of San Diego  
**Evaluator (Name and Title):** Andrew Bohnert, Project Manager, Department of General Services  
**Evaluator Phone and e-mail:** (858) 437-1176 andrew.bohnert@sdcounty.ca.gov  
**Name of Contractor Being Evaluated:** Balfour Beatty Construction  
**Project Title and Brief Description:** The San Diego County Women's Detention Facility is a new 1,216 bed county jail facility utilizing Design-Build project delivery. The campus is made up of 26 buildings on 45 acres.

**QUALITY OF PRODUCT OR SERVICE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Quality of Workmanship:						X	
Adequacy of Quality Assurance & Quality Control Management						X	
Implementation of QA/QC Plan:						X	
Quality of QA/QC Documentation:						X	
Storage of Materials:						X	
Adequacy of Materials Installed in Project:							X
Adequacy of Submittals:							X
Adequacy of Special Testing & Inspections:							X
Adequacy of As-Builts:	X						
Use of Specified Materials:						X	
Identification/Correction of Deficient Work:							X

**Comments for Quality of Products or Service** BBC's field personnel are outstanding and have been very proactive in keeping smaller issues from becoming larger problems.

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Representation of customer/client interests in negotiating changes with subs							X
Quality of rationale provided to support costs:						X	
Cost Controls							X

**Comments for Cost Control** BBC has kept the County informed of impacts to cost both + and - during design reviews, AHJ reviews, buyout, and submittals.

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Adequacy of Initial Progress Schedule:						X	
Quality and implementation of Phasing Plan:							X
Adherence to Approved Schedule:							X
Resolution of Delays:							X
Submission of Required Documentation:						X	
Satisfactory Completion of Punch List Items:	X						
Timely Submission of Updated and Revised Progress Schedules:							X
Warranty Responsiveness:	X						

**Comments for Timeliness of Performance** BBC is utilizing pull planning with the subs to coordinate activities and confirm commitments to construction milestones. The process has been extended to include County stakeholders for Cx.

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Collaboration with owner and A-E to achieve project goals							X
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):							X
Cooperation and Responsiveness:							X
Management of Resources/Personnel:							X
Management of Traffic Control:							X
Adequacy of Construction Site Clean-up:							X
Effectiveness of Enforcing Job-Site Regulations:							X
Compliance with Laws, Regulations, Permits and Contract Document							X
Professional Conduct:							X
Change Order Activity (By Contractor to Customer/Client):							X
Trained Work Force:							X
O & M Manuals/Instructions:	X						
Timely Spare Parts Delivery:	X						

**Comments for Effectiveness of Management/Business Relations** BBC's safety program is extremely effective and among the best I have seen. As of 10/8/13, the job is at 373 days and 402,683 man hours without a lost time incident.

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Overall Rating:							X



**Exhibit A: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Prime Contractor of the Applicant**

**Evaluating Organization or Company:** County of San Diego, Department of General Services

**Evaluator (Name and Title):** Thomas Fincher, RA, CFM, LEED AP; Chief, Project Management

**Evaluator Phone and e-mail:** 858.694.2153; thomas.fincher@sdcounty.ca.gov

**Name of Contractor Being Evaluated:** Balfour Beatty Construction

**Project Title and Brief Description:** San Diego County Women's Detention Facility: A new, 1,216-bed women's detention facility, approximately 476,000 sq. ft. total, being constructed in two phases. Phase 1, approximately 350,000 sq. ft., will support transfer of inmates and operations from the existing facility, and its demolition. Phase 2 completes the remaining housing and support facilities on the site of the existing facility.

**QUALITY OF PRODUCT OR SERVICE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Quality of Workmanship:							X
Adequacy of Quality Assurance & Quality Control Management							X
Implementation of QA/QC Plan:							X
Quality of QA/QC Documentation:							X
Storage of Materials:							X
Adequacy of Materials Installed in Project:							X
Adequacy of Submittals:							X
Adequacy of Special Testing & Inspections:							X
Adequacy of As-Builts:							X
Use of Specified Materials:							X
Identification/Correction of Deficient Work:							X

**Comments for Quality of Products or Service** Design execution has been exceptional. Coordination of design and construction progress has been excellent. Project has already been recognized with a AIA AAJ Justice Facilities Review 2013 Citation.

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Representation of customer/client interests in negotiating changes with subs:							X
Quality of rationale provided to support costs:							X
Cost Controls						X	

**Comments for Cost Control** Cost control is very thorough and complete. The issues that have arisen have to do with capturing and resolving quickly the various client, VE and State Fire Marshal modifications to the project that affect cost impact to GMP, with the aggressive project schedule. The project is within budget and on schedule; it's just that GMP is not fully rationalized. Client changes have contributed.

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Adequacy of Initial Progress Schedule:							X
Quality and implementation of Phasing Plan:							X
Adherence to Approved Schedule:							X
Resolution of Delays:							X
Submission of Required Documentation:							X
Satisfactory Completion of Punch List Items:							X
Timely Submission of Updated and Revised Progress Schedules:							X
Warranty Responsiveness:	X						

**Comments for Timeliness of Performance** Project is still in construction, on schedule for Phase 1 occupancy in June 2014. The final phase is to complete January 2016, subject to receipt of AB900 funding.

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Collaboration with owner and A-E to achieve project goals:							X
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):							X
Cooperation and Responsiveness:							X
Management of Resources/Personnel:							X
Management of Traffic Control:							X
Adequacy of Construction Site Clean-up:							X
Effectiveness of Enforcing Job-Site Regulations:							X
Compliance with Laws, Regulations, Permits and Contract Document:							X
Professional Conduct:							X
Change Order Activity (By Contractor to Customer/Client):							X
Trained Work Force:							X
O & M Manuals/Instructions:	X						
Timely Spare Parts Delivery:	X						

**Comments for Effectiveness of Management/Business Relations** The project is still under construction. Commissioning and training planning now well underway gives full confidence in meeting Outstanding measures for O&M & Training and warranty

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding

N/A	0	1	2	3	4	5
						X

Overall Rating:

**Exhibit A: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Prime Contractor of the Applicant**

Evaluating Organization or Company: PMA Consultants, LLC  
 Evaluator (Name and Title): Richard J. McAfee, PE Managing Principal *Richard J. McAfee, PE*  
 Evaluator Phone and e-mail: 407-758-0800 rmcafee@pmaconsultants.com *10/5/2013*  
 Name of Contractor Being Evaluated: Balfour Beatty Construction (operating locally as Howard S. Wright)  
 Project Title and Brief Description: Orange County Corrections Expansion Program PH II

QUALITY OF PRODUCT OR SERVICE	N/A	0	1	2	3	4	5
0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding							
Quality of Workmanship:							X
Adequacy of Quality Assurance & Quality Control Management						X	
Implementation of QA/QC Plan:							X
Quality of QA/QC Documentation:						X	
Storage of Materials:						X	
Adequacy of Materials Installed in Project:							X
Adequacy of Submittals:							X
Adequacy of Special Testing & Inspections:							X
Adequacy of As-Builts:							X
Use of Specified Materials:							X
Identification/Correction of Deficient Work:							X

Comments for Quality of Products or Service: During design the Contractor made numerous excellent suggestions regarding the best materials for use in a Corrections environment.

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Representation of customer/client interests in negotiating changes with subs:							X
Quality of rationale provided to support costs:							X
Cost Controls						X	

Comments for Cost Control: The project completed under the GMP, allowing the County to award the next phase of work that had been unfunded to that point in time.

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Adequacy of Initial Progress Schedule:						X	
Quality and implementation of Phasing Plan:							X
Adherence to Approved Schedule:							X
Resolution of Delays:							X
Submission of Required Documentation:							X
Satisfactory Completion of Punch List Items:						X	
Timely Submission of Updated and Revised Progress Schedules:						X	
Warranty Responsiveness:							X

Comments for Timeliness of Performance: Through extraordinary effort the contractor completed on time despite FEMA pulling away numerous subcontractors to respond to Hurricane Katrina and critical supplies being monopolized for disaster recovery efforts.

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Collaboration with owner and A-E to achieve project goals:						X	
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):							X
Cooperation and Responsiveness:							X
Management of Resources/Personnel:							X
Management of Traffic Control:							X
Adequacy of Construction Site Clean-up:							X
Effectiveness of Enforcing Job-Site Regulations:							X
Compliance with Laws, Regulations, Permits and Contract Document:							X
Professional Conduct:						X	
Change Order Activity (By Contractor to Customer/Client):							X
Trained Work Force:						X	
O & M Manuals/Instructions:							X
Timely Spare Parts Delivery:							X

Comments for Effectiveness of Management/Business Relations: The Contractor helped digitize all as-builts and O&M manuals, allowing them to be replaced twice since 2006 because the Owner lost the hard copies

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Overall Rating:							X



**Exhibit A: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Prime Contractor of the Applicant**

**Evaluating Organization or Company:** North Carolina Department of Public safety

**Evaluator (Name and Title):** William N. Stovall, PE - Director of Engineering

**Evaluator Phone and e-mail:** (919) 716-3691 bill.stovall@ncdps.gov

**Name of Contractor Being Evaluated:** Balfour Beatty Construction - An affiliate of Howard S. Wright

**Project Title and Brief Description:** Central Prison Regional Medical Center - a maximum-security 120 bed acute care hospital and 200 bed mental health treatment facility. Project cost = \$180 million

**QUALITY OF PRODUCT OR SERVICE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Quality of Workmanship:							X
Adequacy of Quality Assurance & Quality Control Management						X	
Implementation of QA/QC Plan:							X
Quality of QA/QC Documentation:							X
Storage of Materials:						X	
Adequacy of Materials Installed in Project:						X	
Adequacy of Submittals:						X	
Adequacy of Special Testing & Inspections:						X	
Adequacy of As-Builts:						X	
Use of Specified Materials:							X
Identification/Correction of Deficient Work:							X

**Comments for Quality of Products or Service**

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Representation of customer/client interests in negotiating changes with subs:							X
Quality of rationale provided to support costs:						X	
Cost Controls						X	

**Comments for Cost Control**

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Adequacy of Initial Progress Schedule:							X
Quality and implementation of Phasing Plan:							X
Adherence to Approved Schedule:							X
Resolution of Delays:						X	
Submission of Required Documentation:						X	
Satisfactory Completion of Punch List Items:							X
Timely Submission of Updated and Revised Progress Schedules:						X	
Warranty Responsiveness:							X

**Comments for Timeliness of Performance**

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Collaboration with owner and A-E to achieve project goals:							X
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):						X	
Cooperation and Responsiveness:							X
Management of Resources/Personnel:						X	
Management of Traffic Control:						X	
Adequacy of Construction Site Clean-up:							X
Effectiveness of Enforcing Job-Site Regulations:							X
Compliance with Laws, Regulations, Permits and Contract Document:						X	
Professional Conduct:							X
Change Order Activity (By Contractor to Customer/Client):							X
Trained Work Force:							X
O & M Manuals/Instructions:						X	
Timely Spare Parts Delivery:						X	

**Comments for Effectiveness of Management/Business Relations**

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Overall Rating:							X



**Exhibit A: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Prime Contractor of the Applicant**

**Evaluating Organization or Company:** TLC Engineering for Architecture  
**Evaluator (Name and Title):** Thomas Munson  
**Evaluator Phone and e-mail:** 407-487-1401 / tom.munson@tlc-eng.com  
**Name of Contractor Being Evaluated:** Balfour Beatty  
**Project Title and Brief Description:** Orange County Florida, 33rd St. Intake Release Facility

**QUALITY OF PRODUCT OR SERVICE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Quality of Workmanship:							X
Adequacy of Quality Assurance & Quality Control Management							X
Implementation of QA/QC Plan:							X
Quality of QA/QC Documentation:							X
Storage of Materials:							X
Adequacy of Materials Installed in Project:							X
Adequacy of Submittals:							X
Adequacy of Special Testing & Inspections:							X
Adequacy of As-Builts:							X
Use of Specified Materials:							X
Identification/Correction of Deficient Work:							X

**Comments for Quality of Products or Service** provided extreme quality control prior to construction using readi-check method of document QA/QC

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Representation of customer/client interests in negotiating changes with subs:							X
Quality of rationale provided to support costs:							X
Cost Controls							X

**Comments for Cost Control**

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Adequacy of Initial Progress Schedule:							X
Quality and implementation of Phasing Plan:							X
Adherence to Approved Schedule:							X
Resolution of Delays:							X
Submission of Required Documentation:							X
Satisfactory Completion of Punch List Items:							X
Timely Submission of Updated and Revised Progress Schedules:							X
Warranty Responsiveness:							X

**Comments for Timeliness of Performance** All project meetings centered around published schedule

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Collaboration with owner and A-E to achieve project goals:							X
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):							X
Cooperation and Responsiveness:							X
Management of Resources/Personnel:							X
Management of Traffic Control:							X
Adequacy of Construction Site Clean-up:							X
Effectiveness of Enforcing Job-Site Regulations:							X
Compliance with Laws, Regulations, Permits and Contract Document:							X
Professional Conduct:							X
Change Order Activity (By Contractor to Customer/Client):							X
Trained Work Force:							X
O & M Manuals/Instructions:							X
Timely Spare Parts Delivery:							X

**Comments for Effectiveness of Management/Business Relations** Always presented themselves in a professional organized group

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Overall Rating:							X

**Exhibit A: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Prime Contractor of the Applicant**

**Evaluating Organization or Company: Wake County**

**Evaluator: Tim Ashby, Project Manager**

**Evaluator Phone and e-mail: 919.856.6681, roger.ashby@wakegov.com**

**Name of Contractor Being Evaluated: Balfour Beatty Construction**

**Project Title and Brief Description: Wake County Justice Center**

**QUALITY OF PRODUCT OR SERVICE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Quality of Workmanship:						X	
Adequacy of Quality Assurance & Quality Control Management:						X	
Implementation of QA/QC Plan:						X	
Quality of QA/QC Documentation:						X	
Storage of Materials:					X		
Adequacy of Materials Installed in Project:						X	
Adequacy of Submittals:						X	
Adequacy of Special Testing & Inspections:						X	
Adequacy of As-Builts:						X	
Use of Specified Materials:						X	
Identification/Correction of Deficient Work:					X		

**Comments for Quality of Products or Service**

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Representation of customer/client interests in negotiating changes with subs						X	
Quality of rationale provided to support costs:					X		
Cost Controls						X	

**Comments for Cost Control**

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Adequacy of Initial Progress Schedule:							X
Quality and implementation of Phasing Plan:							X
Adherence to Approved Schedule:						X	
Resolution of Delays:						X	
Submission of Required Documentation:							X
Satisfactory Completion of Punch List Items:					X		
Timely Submission of Updated and Revised Progress Schedules:						X	
Warranty Responsiveness:						X	

**Comments for Timeliness of Performance**

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Collaboration with owner and A-E to achieve project goals							X
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):						X	
Cooperation and Responsiveness:							X
Management of Resources/Personnel:							X
Management of Traffic Control:						X	
Adequacy of Construction Site Clean-up:							X
Effectiveness of Enforcing Job-Site Regulations:							X
Compliance with Laws, Regulations, Permits and Contract Document							X
Professional Conduct:						X	
Change Order Activity (By Contractor to Customer/Client):					X		
Trained Work Force:						X	
O & M Manuals/Instructions:					X		
Timely Spare Parts Delivery:						X	

**Comments for Effectiveness of Management/Business Relations**

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Overall Rating:						X	

**Exhibit A: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Prime Contractor of the Applicant**

**Evaluating Organization or Company:** County of San Diego  
**Evaluator (Name and Title):** Andrew Bohnert, Project Manager, Department of General Services  
**Evaluator Phone and e-mail:** (858) 437-1176 andrew.bohnert@sdcounty.ca.gov  
**Name of Contractor Being Evaluated:** Balfour Beatty Construction  
**Project Title and Brief Description:** The San Diego County Women's Detention Facility is a new 1,216 bed county jail facility utilizing Design-Build project delivery. The campus is made up of 26 buildings on 45 acres.

**QUALITY OF PRODUCT OR SERVICE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Quality of Workmanship:						X	
Adequacy of Quality Assurance & Quality Control Management						X	
Implementation of QA/QC Plan:						X	
Quality of QA/QC Documentation:						X	
Storage of Materials:						X	
Adequacy of Materials Installed in Project:							X
Adequacy of Submittals:							X
Adequacy of Special Testing & Inspections:							X
Adequacy of As-Builts:	X						
Use of Specified Materials:						X	
Identification/Correction of Deficient Work:							X

**Comments for Quality of Products or Service** BBC's field personnel are outstanding and have been very proactive in keeping smaller issues from becoming larger problems.

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Representation of customer/client interests in negotiating changes with subs							X
Quality of rationale provided to support costs:						X	
Cost Controls							X

**Comments for Cost Control** BBC has kept the County informed of impacts to cost both + and - during design reviews, AHJ reviews, buyout, and submittals.

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Adequacy of Initial Progress Schedule:						X	
Quality and implementation of Phasing Plan:							X
Adherence to Approved Schedule:							X
Resolution of Delays:							X
Submission of Required Documentation:						X	
Satisfactory Completion of Punch List Items:	X						
Timely Submission of Updated and Revised Progress Schedules:							X
Warranty Responsiveness:	X						

**Comments for Timeliness of Performance** BBC is utilizing pull planning with the subs to coordinate activities and confirm commitments to construction milestones. The process has been extended to include County stakeholders for Cx.

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Collaboration with owner and A-E to achieve project goals							X
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):							X
Cooperation and Responsiveness:							X
Management of Resources/Personnel:							X
Management of Traffic Control:							X
Adequacy of Construction Site Clean-up:							X
Effectiveness of Enforcing Job-Site Regulations:							X
Compliance with Laws, Regulations, Permits and Contract Document							X
Professional Conduct:							X
Change Order Activity (By Contractor to Customer/Client):							X
Trained Work Force:							X
O & M Manuals/Instructions:	X						
Timely Spare Parts Delivery:	X						

**Comments for Effectiveness of Management/Business Relations** BBC's safety program is extremely effective and among the best I have seen. As of 10/8/13, the job is at 373 days and 402,683 man hours without a lost time incident.

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Overall Rating:							X

**Exhibit A: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Prime Contractor of the Applicant**

**Evaluating Organization or Company:** County of San Diego, Department of General Services

**Evaluator (Name and Title):** Thomas Fincher, RA, CFM, LEED AP; Chief, Project Management

**Evaluator Phone and e-mail:** 858.694.2153; thomas.fincher@sdcounty.ca.gov

**Name of Contractor Being Evaluated:** Balfour Beatty Construction

**Project Title and Brief Description:** San Diego County Women's Detention Facility: A new, 1,216-bed women's detention facility, approximately 476,000 sq. ft. total, being constructed in two phases. Phase 1, approximately 350,000 sq. ft., will support transfer of inmates and operations from the existing facility, and its demolition. Phase 2 completes the remaining housing and support facilities on the site of the existing facility.

**QUALITY OF PRODUCT OR SERVICE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Quality of Workmanship:							X
Adequacy of Quality Assurance & Quality Control Management							X
Implementation of QA/QC Plan:							X
Quality of QA/QC Documentation:							X
Storage of Materials:							X
Adequacy of Materials Installed in Project:							X
Adequacy of Submittals:							X
Adequacy of Special Testing & Inspections:							X
Adequacy of As-Builts:							X
Use of Specified Materials:							X
Identification/Correction of Deficient Work:							X

**Comments for Quality of Products or Service** Design execution has been exceptional. Coordination of design and construction progress has been excellent. Project has already been recognized with a AIA AAJ Justice Facilities Review 2013 Citation.

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Representation of customer/client interests in negotiating changes with subs:							X
Quality of rationale provided to support costs:							X
Cost Controls						X	

**Comments for Cost Control** Cost control is very thorough and complete. The issues that have arisen have to do with capturing and resolving quickly the various client, VE and State Fire Marshal modifications to the project that affect cost impact to GMP, with the aggressive project schedule. The project is within budget and on schedule; it's just that GMP is not fully rationalized. Client changes have contributed.

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Adequacy of Initial Progress Schedule:							X
Quality and implementation of Phasing Plan:							X
Adherence to Approved Schedule:							X
Resolution of Delays:							X
Submission of Required Documentation:							X
Satisfactory Completion of Punch List Items:							X
Timely Submission of Updated and Revised Progress Schedules:							X
Warranty Responsiveness:	X						

**Comments for Timeliness of Performance** Project is still in construction, on schedule for Phase 1 occupancy in June 2014. The final phase is to complete January 2016, subject to receipt of AB900 funding.

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Collaboration with owner and A-E to achieve project goals:							X
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):							X
Cooperation and Responsiveness:							X
Management of Resources/Personnel:							X
Management of Traffic Control:							X
Adequacy of Construction Site Clean-up:							X
Effectiveness of Enforcing Job-Site Regulations:							X
Compliance with Laws, Regulations, Permits and Contract Document:							X
Professional Conduct:							X
Change Order Activity (By Contractor to Customer/Client):							X
Trained Work Force:							X
O & M Manuals/Instructions:	X						
Timely Spare Parts Delivery:	X						



**Comments for Effectiveness of Management/Business Relations** The proejct is still under construction. Commissioning and training planning now well underway gives full confidence in meeting Outstanding measures for O&M & Training and warranty

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding

N/A	0	1	2	3	4	5
						X

Overall Rating:

**Exhibit A: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Prime Contractor of the Applicant**

Evaluating Organization or Company: PMA Consultants, LLC  
 Evaluator (Name and Title): Richard J. McAfee, PE Managing Principal *Richard J. McAfee, PE*  
 Evaluator Phone and e-mail: 407-758-0800 rmcafee@pmaconsultants.com *10/5/2013*  
 Name of Contractor Being Evaluated: Balfour Beatty Construction (operating locally as Howard S. Wright)  
 Project Title and Brief Description: Orange County Corrections Expansion Program PH II

QUALITY OF PRODUCT OR SERVICE	N/A	0	1	2	3	4	5
0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding							
Quality of Workmanship:							X
Adequacy of Quality Assurance & Quality Control Management						X	
Implementation of QA/QC Plan:							X
Quality of QA/QC Documentation:						X	
Storage of Materials:						X	
Adequacy of Materials Installed in Project:							X
Adequacy of Submittals:							X
Adequacy of Special Testing & Inspections:							X
Adequacy of As-Builts:							X
Use of Specified Materials:							X
Identification/Correction of Deficient Work:							X

Comments for Quality of Products or Service: During design the Contractor made numerous excellent suggestions regarding the best materials for use in a Corrections environment.

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Representation of customer/client interests in negotiating changes with subs:							X
Quality of rationale provided to support costs:							X
Cost Controls						X	

Comments for Cost Control: The project completed under the GMP, allowing the County to award the next phase of work that had been unfunded to that point in time.

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Adequacy of Initial Progress Schedule:						X	
Quality and implementation of Phasing Plan:							X
Adherence to Approved Schedule:							X
Resolution of Delays:							X
Submission of Required Documentation:							X
Satisfactory Completion of Punch List Items:						X	
Timely Submission of Updated and Revised Progress Schedules:						X	
Warranty Responsiveness:							X

Comments for Timeliness of Performance: Through extraordinary effort the contractor completed on time despite FEMA pulling away numerous subcontractors to respond to Hurricane Katrina and critical supplies being monopolized for disaster recovery efforts.

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Collaboration with owner and A-E to achieve project goals:						X	
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):							X
Cooperation and Responsiveness:							X
Management of Resources/Personnel:							X
Management of Traffic Control:							X
Adequacy of Construction Site Clean-up:							X
Effectiveness of Enforcing Job-Site Regulations:							X
Compliance with Laws, Regulations, Permits and Contract Document:							X
Professional Conduct:						X	
Change Order Activity (By Contractor to Customer/Client):							X
Trained Work Force:						X	
O & M Manuals/Instructions:							X
Timely Spare Parts Delivery:							X

Comments for Effectiveness of Management/Business Relations: The Contractor helped digitize all as-builts and O&M manuals, allowing them to be replaced twice since 2006 because the Owner lost the hard copies

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Overall Rating:							X



**Exhibit C: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Key Personnel**

**Evaluating Organization or Company:** Washington State DES and Washington State DOC

**Evaluator (Name and Title):** Jack Olson, Assistant Program Manager

**Evaluator Phone and e-mail:** 360.725.8342 jaolson@DOC1.WA.GOV

**Name of Individual Being Evaluated:** Gerald Winkler

**Project Title and Brief Description:** Coyote Ridge Corrections Center Expansion

**QUALITY OF PRODUCT OR SERVICE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Individual worked collaboratively with company's/agency's QA/QC personnel.							✓
Reasonable and cooperative in resolving customer/client complaints.							✓
Flexible in responding to customer/client requirements.							✓
Individual was knowledgeable and informative when communicating							✓
Individual was courteous and responsive							✓
Individual utilized effective technical and management approaches							✓
Corrected deficiencies in a timely manner.							✓
Completed all work with good workmanship and in conformance with all specs.							✓
Provided well researched and clearly identified submittals per specifications.							✓
Individual was an effective team player.							✓

**Comments for Quality of Products or Service**

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Representation of customer/client interests in negotiating changes with subs:							✓
Controlled costs and provide best value to the customer.							✓
Validated cost proposals prior to submission to the customer/client.							✓

**Comments for Cost Control**

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Identified problems in a timely manner.							✓
Met personal commitments and effectively met deadlines.							✓
Responded to emergency/surge requirements in a timely manner.							✓
Individual showed creative initiative							✓
Individual was helpful							✓
Individual provided timely resolution to punchlist items.							✓
Individual attended meetings							✓
Individual worked to keep the project on schedule.							✓

**Comments for Timeliness of Performance**

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Collaborated with owner and A-E to achieve project goals:							✓
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):							✓
Cooperation and Responsiveness:							✓
Management of Resources/Personnel:							✓
Individual worked effectively with other team members for a common goal							✓
Effectiveness of Job-Site Regulations:							✓
Compliance With Laws and Regulations or Contract Document:							✓
Professional Conduct:							✓
Complied with applicable laws and agency regulations.							✓
Responded appropriately to all safety authorities.							✓
Would you work with this person again (5=yes, 3=maybe, 1=No)							✓

**Comments for Effectiveness of Management/Business Relations**

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Overall Rating:							✓

**Exhibit C: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Key Personnel**

**Evaluating Organization or Company:** Spokane County Jail

**Evaluator (Name and Title):** Lt. Michael Sparber, Custody Lieutenant, Spokane County Detention Services

**Evaluator Phone and e-mail:** 509.477.2101 msparber@spokanecounty.org

**Name of Individual Being Evaluated:** Gerald Winkler

**Project Title and Brief Description:** Spokane County Jail Master Planning, Programming, Site Selection

**QUALITY OF PRODUCT OR SERVICE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Individual worked collaboratively with company's/agency's QA/QC personnel.							x
Reasonable and cooperative in resolving customer/client complaints.							x
Flexible in responding to customer/client requirements.							x
Individual was knowledgeable and informative when communicating						x	
Individual was courteous and responsive							x
Individual utilized effective technical and management approaches						x	
Corrected deficiencies in a timely manner.							x
Completed all work with good workmanship and in conformance with all specs.							x
Provided well researched and clearly identified submittals per specifications.							x
Individual was an effective team player.							x

**Comments for Quality of Products or Service**

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Representation of customer/client interests in negotiating changes with subs:						x	
Controlled costs and provide best value to the customer.						x	
Validated cost proposals prior to submission to the customer/client.							x

**Comments for Cost Control**

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Identified problems in a timely manner.						x	
Met personal commitments and effectively met deadlines.						x	
Responded to emergency/surge requirements in a timely manner.	x						
Individual showed creative initiative						x	
Individual was helpful						x	
Individual provided timely resolution to punchlist items.	x						
Individual attended meetings							x
Individual worked to keep the project on schedule.							x

**Comments for Timeliness of Performance**

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Collaborated with owner and A-E to achieve project goals:		1				x	
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):						x	
Cooperation and Responsiveness:							x
Management of Resources/Personnel:						x	
Individual worked effectively with other team members for a common goal							x
Effectiveness of Job-Site Regulations:	x						
Compliance With Laws and Regulations or Contract Document:	x						
Professional Conduct:							x
Complied with applicable laws and agency regulations.							x
Responded appropriately to all safety authorities.						x	
Would you work with this person again (5=yes, 3=maybe, 1=No)							x
							x

**Comments for Effectiveness of Management/Business Relations**

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Overall Rating:						x	



**Exhibit C: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Key Personnel**

**Evaluating Organization or Company:** North Carolina Department of Public Safety

**Evaluator (Name and Title):** William N. Stovall, PE, Director of Engineering

**Evaluator Phone and e-mail:** (919) 716-3691 bill.stovall@ncdps.gov

**Name of Individual Being Evaluated:** Mike Ryan

**Project Title and Brief Description:** Central Prison Regional Medical Center - a maximum-security 120 bed acute care hospital and 200 bed mental health treatment facility. Project cost = \$180 million

**QUALITY OF PRODUCT OR SERVICE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Individual worked collaboratively with company's/agency's QA/QC personnel.						X	
Reasonable and cooperative in resolving customer/client complaints.						X	
Flexible in responding to customer/client requirements.							X
Individual was knowledgeable and informative when communicating						X	
Individual was courteous and responsive						X	
Individual utilized effective technical and management approaches						X	
Corrected deficiencies in a timely manner.						X	
Completed all work with good workmanship and in conformance with all specs.							X
Provided well researched and clearly identified submittals per specifications.						X	
Individual was an effective team player.						X	

**Comments for Quality of Products or Service**

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Representation of customer/client interests in negotiating changes with subs:						X	
Controlled costs and provide best value to the customer.							X
Validated cost proposals prior to submission to the customer/client.						X	

**Comments for Cost Control**

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Identified problems in a timely manner.						X	
Met personal commitments and effectively met deadlines.						X	
Responded to emergency/surge requirements in a timely manner.						X	
Individual showed creative initiative					X		
Individual was helpful					X		
Individual provided timely resolution to punchlist items.						X	
Individual attended meetings						X	
Individual worked to keep the project on schedule.						X	

**Comments for Timeliness of Performance**

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Collaborated with owner and A-E to achieve project goals:						X	
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):					X		
Cooperation and Responsiveness:						X	
Management of Resources/Personnel:							X
Individual worked effectively with other team members for a common goal						X	
Effectiveness of Job-Site Regulations:							X
Compliance With Laws and Regulations or Contract Document:							X
Professional Conduct:						X	
Complied with applicable laws and agency regulations.						X	
Responded appropriately to all safety authorities.							X
Would you work with this person again (5=yes, 3=maybe, 1=No)							X

**Comments for Effectiveness of Management/Business Relations**

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Overall Rating:						X	

**Exhibit C: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Key Personnel**

**Evaluating Organization or Company:** Spokane County Jail  
**Evaluator (Name and Title):** Lt. Michael Sparber, Custody Lieutenant, Spokane County Detention Services  
**Evaluator Phone and e-mail:** 509.477.2101 msparber@spokanecounty.org  
**Name of Individual Being Evaluated:** Gerald Winkler  
**Project Title and Brief Description:** King County Children and Family Justice Center. 137,000 sf juvenile courthouse and 97,000 sf

**QUALITY OF PRODUCT OR SERVICE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Individual worked collaboratively with company's/agency's QA/QC personnel.							x
Reasonable and cooperative in resolving customer/client complaints.							x
Flexible in responding to customer/client requirements.							x
Individual was knowledgeable and informative when communicating						x	
Individual was courteous and responsive							x
Individual utilized effective technical and management approaches						x	
Corrected deficiencies in a timely manner.							x
Completed all work with good workmanship and in conformance with all specs.							x
Provided well researched and clearly identified submittals per specifications.							x
Individual was an effective team player.							x

**Comments for Quality of Products or Service**

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Representation of customer/client interests in negotiating changes with subs:						x	
Controlled costs and provide best value to the customer.						x	
Validated cost proposals prior to submission to the customer/client.							x

**Comments for Cost Control**

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Identified problems in a timely manner.						x	
Met personal commitments and effectively met deadlines.						x	
Responded to emergency/surge requirements in a timely manner.	x						
Individual showed creative initiative						x	
Individual was helpful						x	
Individual provided timely resolution to punchlist items.	x						
Individual attended meetings							x
Individual worked to keep the project on schedule.							x

**Comments for Timeliness of Performance**

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Collaborated with owner and A-E to achieve project goals:		1				x	
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):						x	
Cooperation and Responsiveness:							x
Management of Resources/Personnel:						x	
Individual worked effectively with other team members for a common goal							x
Effectiveness of Job-Site Regulations:	x						
Compliance With Laws and Regulations or Contract Document:	x						
Professional Conduct:							x
Complied with applicable laws and agency regulations.							x
Responded appropriately to all safety authorities.						x	
Would you work with this person again (5=yes, 3=maybe, 1=No)							x
							x

**Comments for Effectiveness of Management/Business Relations**

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Overall Rating:						x	

**Exhibit C: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Key Personnel**

**Evaluating Organization or Company:** State of Washington, Consolidated Technology Services  
**Evaluator (Name and Title):** Sally R. Alhadeff; Capital Projects Manager, Consolidated Technology Services  
**Evaluator Phone and e-mail:** 360-407-8814; sally.alhadeff@cts.wa.gov  
**Name of Individual Being Evaluated:** Mike Levison  
**Project Title and Brief Description:** Washington State Department of Information Services, Data Center and Office complex in Olympia, Washington.

**QUALITY OF PRODUCT OR SERVICE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Individual worked collaboratively with company's/agency's QA/QC personnel.							X
Reasonable and cooperative in resolving customer/client complaints.							X
Flexible in responding to customer/client requirements.							X
Individual was knowledgeable and informative when communicating							X
Individual was courteous and responsive							X
Individual utilized effective technical and management approaches							X
Corrected deficiencies in a timely manner.							X
Completed all work with good workmanship and in conformance with all specs.							X
Provided well researched and clearly identified submittals per specifications.							X
Individual was an effective team player.							X

**Comments for Quality of Products or Service.** Mike is very knowledgeable and experienced. That inspired confidence in his and his company's abilities. His work is top notch.

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Representation of customer/client interests in negotiating changes with subs:							X
Controlled costs and provide best value to the customer.							X
Validated cost proposals prior to submission to the customer/client.							X

**Comments for Cost Control.** Mike always acted in the state's best interests and controlling costs was paramount. He has the special combination of being likable and straightforward, and at the same time, tough on costs and schedules. His reputation of being fair is well-earned.

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Identified problems in a timely manner.							X
Met personal commitments and effectively met deadlines.							X
Responded to emergency/surge requirements in a timely manner.							X
Individual showed creative initiative							X
Individual was helpful							X
Individual provided timely resolution to punchlist items.							X
Individual attended meetings							X
Individual worked to keep the project on schedule.							X

**Comments for Timeliness of Performance.** Our project was completed on time and under budget. Mike had his finger on the pulse of the project and took personal responsibility for all jobsite activity.

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Collaborated with owner and A-E to achieve project goals:							X
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):							X
Cooperation and Responsiveness:							X
Management of Resources/Personnel:							X
Individual worked effectively with other team members for a common goal							X
Effectiveness of Job-Site Regulations:							X
Compliance With Laws and Regulations or Contract Document:							X
Professional Conduct:							X
Complied with applicable laws and agency regulations.							X
Responded appropriately to all safety authorities.							X
Would you work with this person again (5=yes, 3=maybe, 1=No)							X

**Comments for Effectiveness of Management/Business Relations.** Our project was built next to a residential neighborhood. Mike's team made sure the neighbors were kept well-informed about project activity. In addition, they fostered good will and went out of their way to be considerate and helpful.

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Overall Rating:							X







Comments for Effectiveness of Management/Business Relations: Mike is a seasoned veteran and knows how to work with people. He can appropriately manage communication at all levels from Ownership Execs to junior staff in the field. He was the "quarterback" that lead the team to a successful completion. I would seek to work with him again on any project that he was available for. One of the best I've ever worked with.

OVERALL RATING

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Overall Rating:							X



**Exhibit C: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Key Personnel**

**Evaluating Organization or Company: Wright Runstad & Company**

**Evaluator (Name and Title): Tara Howard, Project Manager**

**Evaluator Phone and e-mail: 206-805-5850, thoward@wrightrunstad.com**

**Name of Individual Being Evaluated: Curtis Cox**

**Project Title and Brief Description: Children and Family Justice Center Design-Build Contract**

**QUALITY OF PRODUCT OR SERVICE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Individual worked collaboratively with company's/agency's QA/QC personnel.							X
Reasonable and cooperative in resolving customer/client complaints.							X
Flexible in responding to customer/client requirements.							X
Individual was knowledgeable and informative when communicating							X
Individual was courteous and responsive							X
Individual utilized effective technical and management approaches							X
Corrected deficiencies in a timely manner.							X
Completed all work with good workmanship and in conformance with all specs.							X
Provided well researched and clearly identified submittals per specifications.							X
Individual was an effective team player.							X
							X

**Comments for Quality of Products or Service**

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Representation of customer/client interests in negotiating changes with subs:							X
Controlled costs and provide best value to the customer.							X
Validated cost proposals prior to submission to the customer/client.							X

**Comments for Cost Control**

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Identified problems in a timely manner.							X
Met personal commitments and effectively met deadlines.							X
Responded to emergency/surge requirements in a timely manner.							X
Individual showed creative initiative							X
Individual was helpful							X
Individual provided timely resolution to punchlist items.						X	
Individual attended meetings							X
Individual worked to keep the project on schedule.							X

**Comments for Timeliness of Performance**

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Collaborated with owner and A-E to achieve project goals:							X
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):							X
Cooperation and Responsiveness:							X
Management of Resources/Personnel:							X
Individual worked effectively with other team members for a common goal							X
Effectiveness of Job-Site Regulations:							X
Compliance With Laws and Regulations or Contract Document:							X
Professional Conduct:							X
Complied with applicable laws and agency regulations.							X
Responded appropriately to all safety authorities.							X
Would you work with this person again (5=yes, 3=maybe, 1=No)							X
							X

**Comments for Effectiveness of Management/Business Relations**

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Overall Rating:							X





**Exhibit C: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Key Personnel**

**Evaluating Organization or Company:** Oregon Dept of Corrections

**Evaluator (Name and Title):** Doug Young, New Construction Administrator

**Evaluator Phone and e-mail:** 503.934.1064 Doug.E.Young@doc.state.or.us

**Name of Individual Being Evaluated:** Colin Moar - Commissioning Manager @ Heery International

**Project Title and Brief Description:** Warner Creek Minimum Correctional Facility

**QUALITY OF PRODUCT OR SERVICE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3
Individual worked collaboratively with company's/agency's QA/QC personnel.					
Reasonable and cooperative in resolving customer/client complaints.					
Flexible in responding to customer/client requirements.					
Individual was knowledgeable and informative when communicating					
Individual was courteous and responsive					
Individual utilized effective technical and management approaches					
Corrected deficiencies in a timely manner.					
Completed all work with good workmanship and in conformance with all specs.					
Provided well researched and clearly identified submittals per specifications.					
Individual was an effective team player.					

**Comments for Quality of Products or Service:** Worked well as the Lead Cx Agent and MEP inspector, kept the Department standards and operational concerns in the forefront of Heery's site Cx activities and project team interactions.

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3
Representation of customer/client interests in negotiating changes with subs:	X				
Controlled costs and provide best value to the customer.					
Validated cost proposals prior to submission to the customer/client.					

**Comments for Cost Control:** The program was in a start stop restart phase whilst funding appropriation was being secured stayed flexible and reworked fee's and presentation of scope with ODoC staff on many occasions, but always ensured proportionate but effective quality Cx service over arbitrary program cost cutting.

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3
Identified problems in a timely manner.					
Met personal commitments and effectively met deadlines.					X
Responded to emergency/surge requirements in a timely manner.					
Individual showed creative initiative					
Individual was helpful					
Individual provided timely resolution to punchlist items.					
Individual attended meetings					
Individual worked to keep the project on schedule.					

**Comments for Timeliness of Performance:** Despite the remoteness of the site and the limitation of the budget, the Cx Heery lead by Colin provided effective and timely involvement to the project. Colin worked non adversarially with the Design Engineers, Contractors and their specialists to verify and validate for ODoC the varied MEP, HVAC & Security systems operational performance was what ODoC expected and received.

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3
Collaborated with owner and A-E to achieve project goals:					
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):					
Cooperation and Responsiveness:					
Management of Resources/Personnel:					X
Individual worked effectively with other team members for a common goal					
Effectiveness of Job-Site Regulations:					
Compliance With Laws and Regulations or Contract Document:					
Professional Conduct:					
Complied with applicable laws and agency regulations.					
Responded appropriately to all safety authorities.					
Would you work with this person again (5=yes, 3=maybe, 1=No)					

**Comments for Effectiveness of Management/Business Relations**

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding

N/A	0	1	2	3

Overall Rating:


4	5
	X
	X
X	
	X
X	
X	
X	
X	
X	X
X	

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4	5
X	
X	

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X	
X	

team at  
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;

4	5
X	
X	
X	
X	
X	
X	
X	
X	
X	
	X

4	5
X	



**Exhibit C: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Key Personnel**

**Evaluating Organization or Company:** Spokane County Jail

**Evaluator (Name and Title):** Lt. Michael Sparber, Custody Lieutenant, Spokane County Detention Services

**Evaluator Phone and e-mail:** 509.477.2101 msparber@spokanecounty.org

**Name of Individual Being Evaluated:** Gerald Winkler

**Project Title and Brief Description:** Washington State DOC Westside Reception Center Predesign & Siting and WADOC Coyote Ridge Corrections Center Expansion

**QUALITY OF PRODUCT OR SERVICE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Individual worked collaboratively with company's/agency's QA/QC personnel.							x
Reasonable and cooperative in resolving customer/client complaints.							x
Flexible in responding to customer/client requirements.							x
Individual was knowledgeable and informative when communicating						x	
Individual was courteous and responsive							x
Individual utilized effective technical and management approaches						x	
Corrected deficiencies in a timely manner.							x
Completed all work with good workmanship and in conformance with all specs.							x
Provided well researched and clearly identified submittals per specifications.							x
Individual was an effective team player.							x

**Comments for Quality of Products or Service**

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Representation of customer/client interests in negotiating changes with subs:						x	
Controlled costs and provide best value to the customer.						x	
Validated cost proposals prior to submission to the customer/client.							x

**Comments for Cost Control**

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Identified problems in a timely manner.						x	
Met personal commitments and effectively met deadlines.						x	
Responded to emergency/surge requirements in a timely manner.	x						
Individual showed creative initiative						x	
Individual was helpful						x	
Individual provided timely resolution to punchlist items.	x						
Individual attended meetings							x
Individual worked to keep the project on schedule.							x

**Comments for Timeliness of Performance**

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Collaborated with owner and A-E to achieve project goals:		1				x	
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):						x	
Cooperation and Responsiveness:							x
Management of Resources/Personnel:						x	
Individual worked effectively with other team members for a common goal							x
Effectiveness of Job-Site Regulations:	x						
Compliance With Laws and Regulations or Contract Document:	x						
Professional Conduct:							x
Complied with applicable laws and agency regulations.							x
Responded appropriately to all safety authorities.						x	
Would you work with this person again (5=yes, 3=maybe, 1=No)							x
							x

**Comments for Effectiveness of Management/Business Relations**

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Overall Rating:						x	

**Exhibit C: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Key Personnel**

**Evaluating Organization or Company:** Spokane County Jail

**Evaluator (Name and Title):** Lt. Michael Sparber, Custody Lieutenant, Spokane County Detention Services

**Evaluator Phone and e-mail:** 509.477.2101 msparber@spokanecounty.org

**Name of Individual Being Evaluated:** Gerald Winkler

**Project Title and Brief Description:** Washington State DOC Westside Reception Center Presdesign & Siting

**QUALITY OF PRODUCT OR SERVICE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Individual worked collaboratively with company's/agency's QA/QC personnel.							x
Reasonable and cooperative in resolving customer/client complaints.							x
Flexible in responding to customer/client requirements.							x
Individual was knowledgeable and informative when communicating						x	
Individual was courteous and responsive							x
Individual utilized effective technical and management approaches						x	
Corrected deficiencies in a timely manner.							x
Completed all work with good workmanship and in conformance with all specs.							x
Provided well researched and clearly identified submittals per specifications.							x
Individual was an effective team player.							x

**Comments for Quality of Products or Service**

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Representation of customer/client interests in negotiating changes with subs:						x	
Controlled costs and provide best value to the customer.						x	
Validated cost proposals prior to submission to the customer/client.							x

**Comments for Cost Control**

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Identified problems in a timely manner.						x	
Met personal commitments and effectively met deadlines.						x	
Responded to emergency/surge requirements in a timely manner.	x						
Individual showed creative initiative						x	
Individual was helpful						x	
Individual provided timely resolution to punchlist items.	x						
Individual attended meetings							x
Individual worked to keep the project on schedule.							x

**Comments for Timeliness of Performance**

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Collaborated with owner and A-E to achieve project goals:		1				x	
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):						x	
Cooperation and Responsiveness:							x
Management of Resources/Personnel:						x	
Individual worked effectively with other team members for a common goal							x
Effectiveness of Job-Site Regulations:	x						
Compliance With Laws and Regulations or Contract Document:	x						
Professional Conduct:							x
Complied with applicable laws and agency regulations.							x
Responded appropriately to all safety authorities.						x	
Would you work with this person again (5=yes, 3=maybe, 1=No)							x
							x

**Comments for Effectiveness of Management/Business Relations**

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Overall Rating:						x	

**Exhibit C: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Key Personnel**

Evaluating Organization or Company: *Glumac Engineers*  
 Evaluator (Name and Title): *Mark Edlen CEO, Garding Edlen*  
 Evaluator Phone and e-mail: *503-299-6000 mark.edlene@gardingedlen.com*  
 Name of Individual Being Evaluated: *Kirk Davis*  
 Project Title and Brief Description: *managing principal*

**QUALITY OF PRODUCT OR SERVICE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Individual worked collaboratively with company's/agency's QA/QC personnel.							X
Reasonable and cooperative in resolving customer/client complaints.							X
Flexible in responding to customer/client requirements.							X
Individual was knowledgeable and informative when communicating							X
Individual was courteous and responsive							X
Individual utilized effective technical and management approaches							X
Corrected deficiencies in a timely manner.							X
Completed all work with good workmanship and in conformance with all specs.							X
Provided well researched and clearly identified submittals per specifications.							X
Individual was an effective team player.							X

**Comments for Quality of Products or Service**  
*Greater Thinker + innovator*

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Representation of customer/client interests in negotiating changes with subs:							X
Controlled costs and provide best value to the customer.							X
Validated cost proposals prior to submission to the customer/client.							X

**Comments for Cost Control**  
*On time + on budget*

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Identified problems in a timely manner.							X
Met personal commitments and effectively met deadlines. <i>exceeded</i>							X
Responded to emergency/surge requirements in a timely manner. <i>24x7</i>							X
Individual showed creative initiative							X
Individual was helpful <i>deep personal interest</i>							X
Individual provided timely resolution to punchlist items.							X
Individual attended meetings							X
Individual worked to keep the project on schedule.							X

**Comments for Timeliness of Performance**

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Collaborated with owner and A-E to achieve project goals:							X
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):							X
Cooperation and Responsiveness: <i>always</i>							X
Management of Resources/Personnel:							X
Individual worked effectively with other team members for a common goal							X
Effectiveness of Job-Site Regulations:							X
Compliance With Laws and Regulations or Contract Document:							X
Professional Conduct:							X
Complied with applicable laws and agency regulations.							X
Responded appropriately to all safety authorities.							X
Would you work with this person again (5=yes, 3=maybe, 1=No) <i>Always</i>							X

**Comments for Effectiveness of Management/Business Relations**  
*great leadership skills, inspires the larger design + construction team*

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Overall Rating:							X



**Exhibit C: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Key Personnel**

Evaluating Organization or Company: OREGON STATE UNIVERSITY  
 Evaluator (Name and Title): JOHN GREMMETS - CAPITAL PLANNING  
 Evaluator Phone and e-mail: 541 737 9692 - john.gremmets@oregonstate.edu  
 Name of Individual Being Evaluated: KIRK DAVES - GLUMAC  
 Project Title and Brief Description: C00863C13

**QUALITY OF PRODUCT OR SERVICE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Individual worked collaboratively with company's/agency's QA/QC personnel.							✓
Reasonable and cooperative in resolving customer/client complaints.							✓
Flexible in responding to customer/client requirements.							✓
Individual was knowledgeable and informative when communicating							✓
Individual was courteous and responsive							✓
Individual utilized effective technical and management approaches							✓
Corrected deficiencies in a timely manner.							✓
Completed all work with good workmanship and in conformance with all specs.							✓
Provided well researched and clearly identified submittals per specifications.							✓
Individual was an effective team player.							✓

Comments for Quality of Products or Service

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Representation of customer/client interests in negotiating changes with subs:							✓
Controlled costs and provide best value to the customer.							✓
Validated cost proposals prior to submission to the customer/client.							✓

Comments for Cost Control

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Identified problems in a timely manner.							✓
Met personal commitments and effectively met deadlines.							✓
Responded to emergency/surge requirements in a timely manner.							✓
Individual showed creative initiative							✓
Individual was helpful							✓
Individual provided timely resolution to punchlist items.							✓
Individual attended meetings							✓
Individual worked to keep the project on schedule.							✓

Comments for Timeliness of Performance

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Collaborated with owner and A-E to achieve project goals:							✓
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):							✓
Cooperation and Responsiveness:							✓
Management of Resources/Personnel:							✓
Individual worked effectively with other team members for a common goal							✓
Effectiveness of Job-Site Regulations:							✓
Compliance With Laws and Regulations or Contract Document:							✓
Professional Conduct:							✓
Complied with applicable laws and agency regulations.							✓
Responded appropriately to all safety authorities.							✓
Would you work with this person again (5=yes, 3=maybe, 1=No)							✓

Comments for Effectiveness of Management/Business Relations

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Overall Rating:							✓

**Exhibit C: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Key Personnel**

Evaluating Organization or Company: *Gerding Edlen*  
 Evaluator (Name and Title): *Renee Louland, Sustainability Manager/Development Manager*  
 Evaluator Phone and e-mail: *503-299-6000; renee.louland@gerdingedlen.com*  
 Name of Individual Being Evaluated: *James Thomas*  
 Project Title and Brief Description: *Mechanical Principal*

**QUALITY OF PRODUCT OR SERVICE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Individual worked collaboratively with company's/agency's QA/QC personnel.						X	
Reasonable and cooperative in resolving customer/client complaints.						X	
Flexible in responding to customer/client requirements.						X	
Individual was knowledgeable and informative when communicating						X	
Individual was courteous and responsive							X
Individual utilized effective technical and management approaches						X	
Corrected deficiencies in a timely manner.	X						
Completed all work with good workmanship and in conformance with all specs.						X	
Provided well researched and clearly identified submittals per specifications.						X	
Individual was an effective team player.						X	

**Comments for Quality of Products or Service**

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Representation of customer/client interests in negotiating changes with subs:	X						
Controlled costs and provide best value to the customer.	X						
Validated cost proposals prior to submission to the customer/client.	X						

**Comments for Cost Control** *I can't speak to these questions...*

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Identified problems in a timely manner.						X	
Met personal commitments and effectively met deadlines.						X	
Responded to emergency/surge requirements in a timely manner.	X						
Individual showed creative initiative							X
Individual was helpful							X
Individual provided timely resolution to punchlist items.	X						
Individual attended meetings						X	
Individual worked to keep the project on schedule.						X	

**Comments for Timeliness of Performance**

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Collaborated with owner and A-E to achieve project goals:						X	
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):	X						
Cooperation and Responsiveness:						X	
Management of Resources/Personnel:						X	
Individual worked effectively with other team members for a common goal						X	
Effectiveness of Job-Site Regulations:	X						
Compliance With Laws and Regulations or Contract Document:						X	
Professional Conduct:							X
Complied with applicable laws and agency regulations.							X
Responded appropriately to all safety authorities.	X						
Would you work with this person again (5=yes, 3=maybe, 1=No)							X

**Comments for Effectiveness of Management/Business Relations**

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Overall Rating:						X	



**Exhibit C: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Key Personnel**

Evaluating Organization or Company: *Standard Insurance Company*  
 Evaluator (Name and Title): *Steve Hoskins*  
 Evaluator Phone and e-mail: *971-321-6956 shoskins@standard.com*  
 Name of Individual Being Evaluated: *James Thomas*

Project Title and Brief Description: *Boiler Replacement and many other projects in Standard Plaza Center high rise buildings.*

**QUALITY OF PRODUCT OR SERVICE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Individual worked collaboratively with company's/agency's QA/QC personnel.						X	
Reasonable and cooperative in resolving customer/client complaints.						X	
Flexible in responding to customer/client requirements.						X	
Individual was knowledgeable and informative when communicating						X	
Individual was courteous and responsive						X	
Individual utilized effective technical and management approaches						X	
Corrected deficiencies in a timely manner.						X	
Completed all work with good workmanship and in conformance with all specs.						X	
Provided well researched and clearly identified submittals per specifications.						X	
Individual was an effective team player.						X	

**Comments for Quality of Products or Service**

*always consistent and reliable*

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Representation of customer/client interests in negotiating changes with subs:						X	
Controlled costs and provide best value to the customer.						X	
Validated cost proposals prior to submission to the customer/client.						X	

**Comments for Cost Control**

*Very good with value engineering*

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Identified problems in a timely manner.						X	
Met personal commitments and effectively met deadlines.						X	
Responded to emergency/surge requirements in a timely manner.						X	
Individual showed creative initiative						X	
Individual was helpful						X	
Individual provided timely resolution to punchlist items.						X	
Individual attended meetings						X	
Individual worked to keep the project on schedule.						X	

**Comments for Timeliness of Performance**

*Keeps projects on time & within budget*

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Collaborated with owner and A-E to achieve project goals:						X	
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):						X	
Cooperation and Responsiveness:						X	
Management of Resources/Personnel:						X	
Individual worked effectively with other team members for a common goal						X	
Effectiveness of Job-Site Regulations:						X	
Compliance With Laws and Regulations or Contract Document:						X	
Professional Conduct:						X	
Complied with applicable laws and agency regulations.						X	
Responded appropriately to all safety authorities.						X	
Would you work with this person again (5=yes, 3=maybe, 1=No)							X

**Comments for Effectiveness of Management/Business Relations**

*Glenn & James are our go to resource. We have a very long standing relationship with Glenn. We can count on them!*

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Overall Rating:						X	

**Exhibit C: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Key Personnel**

**Evaluating Organization or Company:** Spokane County Jail

**Evaluator (Name and Title):** Lt. Michael Sparber, Custody Lieutenant, Spokane County Detention Services

**Evaluator Phone and e-mail:** 509.477.2101 msparber@spokanecounty.org

**Name of Individual Being Evaluated:** Gerald Winkler

**Project Title and Brief Description:** Senior Project Manager - Electrical design

**QUALITY OF PRODUCT OR SERVICE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Individual worked collaboratively with company's/agency's QA/QC personnel.							x
Reasonable and cooperative in resolving customer/client complaints.							x
Flexible in responding to customer/client requirements.							x
Individual was knowledgeable and informative when communicating						x	
Individual was courteous and responsive							x
Individual utilized effective technical and management approaches						x	
Corrected deficiencies in a timely manner.							x
Completed all work with good workmanship and in conformance with all specs.							x
Provided well researched and clearly identified submittals per specifications.							x
Individual was an effective team player.							x

**Comments for Quality of Products or Service**

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Representation of customer/client interests in negotiating changes with subs:						x	
Controlled costs and provide best value to the customer.						x	
Validated cost proposals prior to submission to the customer/client.							x

**Comments for Cost Control**

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Identified problems in a timely manner.						x	
Met personal commitments and effectively met deadlines.						x	
Responded to emergency/surge requirements in a timely manner.	x						
Individual showed creative initiative						x	
Individual was helpful						x	
Individual provided timely resolution to punchlist items.	x						
Individual attended meetings							x
Individual worked to keep the project on schedule.							x

**Comments for Timeliness of Performance**

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Collaborated with owner and A-E to achieve project goals:		1				x	
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):						x	
Cooperation and Responsiveness:							x
Management of Resources/Personnel:						x	
Individual worked effectively with other team members for a common goal							x
Effectiveness of Job-Site Regulations:	x						
Compliance With Laws and Regulations or Contract Document:	x						
Professional Conduct:							x
Complied with applicable laws and agency regulations.							x
Responded appropriately to all safety authorities.						x	
Would you work with this person again (5=yes, 3=maybe, 1=No)							x
							x

**Comments for Effectiveness of Management/Business Relations**

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Overall Rating:						x	

**Exhibit C: PAST PERFORMANCE CUSTOMER SATISFACTION SURVEY for Key Personnel**

**Evaluating Organization or Company:** Spokane County Jail

**Evaluator (Name and Title):** Lt. Michael Sparber, Custody Lieutenant, Spokane County Detention Services

**Evaluator Phone and e-mail:** 509.477.2101 msparber@spokanecounty.org

**Name of Individual Being Evaluated:** Gerald Winkler

**Project Title and Brief Description:** 160,000s.f. office/retail & housing project

**QUALITY OF PRODUCT OR SERVICE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Individual worked collaboratively with company's/agency's QA/QC personnel.							x
Reasonable and cooperative in resolving customer/client complaints.							x
Flexible in responding to customer/client requirements.							x
Individual was knowledgeable and informative when communicating						x	
Individual was courteous and responsive							x
Individual utilized effective technical and management approaches						x	
Corrected deficiencies in a timely manner.							x
Completed all work with good workmanship and in conformance with all specs.							x
Provided well researched and clearly identified submittals per specifications.							x
Individual was an effective team player.							x

**Comments for Quality of Products or Service**

**COST CONTROL**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Representation of customer/client interests in negotiating changes with subs:						x	
Controlled costs and provide best value to the customer.						x	
Validated cost proposals prior to submission to the customer/client.							x

**Comments for Cost Control**

**TIMELINESS OF PERFORMANCE**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Identified problems in a timely manner.						x	
Met personal commitments and effectively met deadlines.						x	
Responded to emergency/surge requirements in a timely manner.	x						
Individual showed creative initiative						x	
Individual was helpful						x	
Individual provided timely resolution to punchlist items.	x						
Individual attended meetings							x
Individual worked to keep the project on schedule.							x

**Comments for Timeliness of Performance**

**EFFECTIVENESS OF MANAGEMENT/BUSINESS RELATIONS**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Collaborated with owner and A-E to achieve project goals:		1				x	
Effectiveness of the interaction with 3rd parties (i.e. tenants, neighborhood, city, vendors, utilities):						x	
Cooperation and Responsiveness:							x
Management of Resources/Personnel:						x	
Individual worked effectively with other team members for a common goal							x
Effectiveness of Job-Site Regulations:	x						
Compliance With Laws and Regulations or Contract Document:	x						
Professional Conduct:							x
Complied with applicable laws and agency regulations.							x
Responded appropriately to all safety authorities.						x	
Would you work with this person again (5=yes, 3=maybe, 1=No)							x
							x

**Comments for Effectiveness of Management/Business Relations**

Very quick & accurate responses to systems alternates.

**OVERALL RATING**

0=Unsatisfactory; 1=Poor; 2=Fair; 3=Good; 4=Excellent; 5=Outstanding	N/A	0	1	2	3	4	5
Overall Rating:						x	