



Five Star, Inc.

Mechanical Contractors

833 Lincoln Avenue, Unit 8

West Chester, PA 19380

September 20, 2022

Commonwealth of Pennsylvania

Department of General Services

Bureau of Professional Selections and Administrative Services

18<sup>th</sup> and Herr Streets

Harrisburg, PA 19380

Reference: DGS C-1101-0054 Phase 1 HVAC Construction  
Lincoln University – Cresson Hall Renovations

In reference to the above project, please contact MaryEllen Strubilla with any questions or if you need further information at 610-719-6415 x20. Email address is [maryellen@fivestarmechanical.com](mailto:maryellen@fivestarmechanical.com)

Thank you for the opportunity to submit this proposal.

Sincerely,

  
Robert Gaffney

President



**Five Star Inc  
Technical Submittal**

**Renovations to Cresson Hall**

**Lincoln University**

**DGS C-1101-0054 Phase 1 HVAC Construction**

**Section 1: Project Team Qualifications, Experience and Past Performance**

- T-1A Introduction to the Project Team  
Project Organizational Chart
- T-1B Prime Contractor: Qualification, Experience and Past Performance
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**Section 2: Project Management Plan**

- T-2A Project Management Team
- T-2B Work Plan and Schedule
- T-2C Safety Plan
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**Section 3: Staffing Plan**

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- T-3C Workforce Safety

**Section 4: Supporting Documentation**

- T-4A Proposal Signature Page
- T-4B Non-Collusion Affidavit

Proposed by: Five Star Inc  
833 Lincoln Avenue Unit 8  
West Chester PA 19380  
Phone 610-719-6415  
Fax 610-719-6416  
Email: [maryellen@fivestarmechanical.com](mailto:maryellen@fivestarmechanical.com)

Phone: 610-719-6415 ~ Fax: 610-719-6416

[general@fivestarmechanical.com](mailto:general@fivestarmechanical.com)

## **T-1A Introduction to the Project Team**

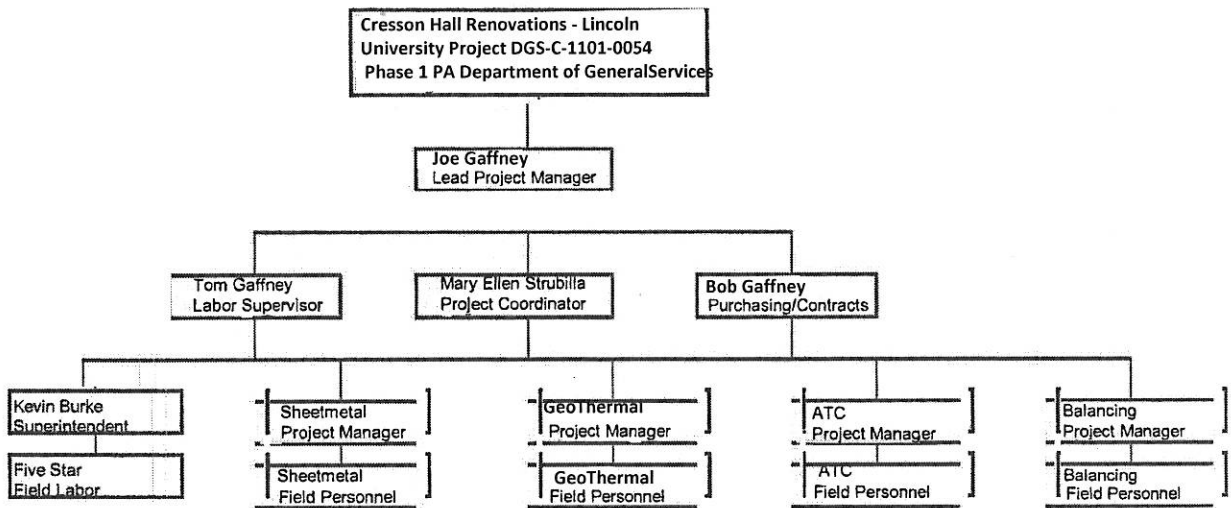
- Five Star's owners have been installing HVAC and Plumbing systems in school districts, universities, municipalities, and healthcare facilities for a combined total of more than 100 years.
- Five Star performs the majority of their contract work in a Multi Prime environment. Five Star has experience as both the Mechanical/HVAC Prime as well as the Plumbing Prime.
- Five Star completed mechanical contract projects for The School District of Philadelphia, Lincoln University, West Chester University, Reading School District and Lower Merion School District, all of which involved renovations and additions.
- In addition, Five Star is also experienced with all types of underground utilities, earthwork, and has utilized independent Quality Control firms for all types of testing including underground piping and utilities.
- Five Star is highly experienced with staging, coordination, and scheduling several concurrent projects either at the same or different locations.
- Five Star provides and installs all of their own HVAC equipment, and piping systems. Our subcontractors will provide and install: sheetmetal, insulation, testing and balancing, and ATC.

- Five Star will lead the coordination between suppliers and subcontractors. Coordination drawings will be developed as a basis for all installations. Submittals will be carefully reviewed by Five Star prior to submission to the Professional. Once approved, Five Star will carefully orchestrate the release of material and equipment to ensure smooth progress of the Project.
- Five Star owns a warehouse that we are able to utilize to store both material and equipment, and we are in close proximity to the project so daily deliveries can be made.
- Five Star will also have a project site superintendant. His role will be to coordinate all material and labor needs as well as monitor subcontractor progress, and communicate daily with the internal project management team.

Five Star, Inc.  
833 Lincoln Avenue Unit 8  
West Chester PA 19380

Organization Chart

Project Management Plan for Cresson Hall at Lincoln  
University DGS C-1101-0054 Phase 1 HVAC



- As mentioned before Five Star has done many projects at the University since 2001 including its' own historic Vail Hall. We have also done multiple renovations in historical buildings for the City of Philadelphia over our 20 years in business. Engine 37, the oldest continually operated station in the City of Philadelphia, is a recent project example completed September 2022.
- Five Star has done extensive work in a university setting over the years such as Lincoln University, West Chester University, Cheyney University, Penn State University, Delaware County Community College, Reading Community College, Kutztown University, to name a few.
- Three recent examples of GEOTHERMAL Installations include West Chester University - Hollinger Field House, East Goshen Township Building and London Grove Township Building. (Attachment #2)
- Five Star has done work on multiple projects throughout its history when the payroll had over 70 men working in the HVAC and Plumbing industries over the years.

- Five Star has a working relationship with Blanski Sheetmetal for over 20 years doing many large projects such as Coatesville 9-10 Center - \$8 million, Lincoln University Student Union Building - \$2 million project in 2009.
- Five Star has also done some smaller projects at Lincoln University using Delta Controls as the ATC contractor, also \$5million installing the current HVAC in Vail Hall in 2010 using Delta Controls.
- Five Star also did the Lincoln University Physical Plant in 2004 and 2005
- Five Star has used Butler Balancing since 2001 when our business was started.

# APPENDIX F

## PRIME CONTRACTOR QUALIFICATION STATEMENT



**APPENDIX F**  
**PRIME CONTRACTOR**  
**QUALIFICATION STATEMENT**

**COVER SHEET**

DGS Project Name Lincoln University - Cresson Hall Renovations

DGS Project Number C-1101-0054 Phase 1 HVAC

Check One:

Corporation,

Partnership,

Individual,

Joint Venture,

Other \_\_\_\_\_

Name of Firm Five Star, Inc.

Address 833 Lincoln Ave, Unit 8, West Chester, PA 19380

Principal Office same

Owner or Authorized Representative Joseph Gaffney

**SECTION 1 – INFORMATION ON FIRM**

1.1 Background Information

a) How many years has the firm been in business? 21 years

b) How many years has the firm been doing business in proposed contract field? 21 years

Under what former names has the firm conducted business?  
n/a

\_\_\_\_\_  
\_\_\_\_\_

c) Provide an **Attachment 1** to this Qualifications Statement identifying all jurisdictions in which the firm is licensed or otherwise qualified to do business. List and provide copies of any business or trade licenses, certificates or registrations (to the extent that they apply to the Contract Work) held by the firm.

d) If the firm is a corporation, provide the following information:

Date of incorporation May 29, 2001

State of incorporation Pennsylvania

President's name Robert Gaffney

Vice President's name(s) Joseph Gaffney

Secretary's name Thomas Gaffney

Treasurer's name n/a

e) If the firm is a partnership, provide the following information:

Date of formation n/a

Type of partnership n/a

Names of partners n/a

f) If the firm is individually owned, provide the following information:

Date of formation n/a

Name of owner n/a

g) If the form of the firm is other than those listed above, describe it and name the principals:

n/a

\_\_\_\_\_

## SECTION 2 - EXPERIENCE AND PERFORMANCE

### 2.1 General

- a) Provide the annual construction volume in dollars completed by the firm in the past three years:
- Year 2021 \$ 8,700,000
- Year 2020 \$ 11,525,000
- Year 2019 \$ 9,817,000
- b) Identify the percentage of work on similar projects the firm typically performs with its own work force 40%
- c) List the categories of work that the firm normally performs with its own forces on similar projects. Equipment installation, pipe installation, supervision

### 2.2 Project Experience and References

Submit as **Attachment 2** to this Qualifications Statement:

- a) Suggested number of Sheets/Pages:

- 3 sheets/(6 pages)

Three (3) detailed project descriptions for relevant projects that are similar in size and scope to the Contract Work. The project descriptions shall include, at a minimum, the following information presented in the order listed below:

- i. Name of project, type of project and location
- ii. Description of the project and relevance of work to the Contract Work
- iii. Contact information for an owner representative familiar with the firm's work performed on this project. Include name, address, telephone number(s) and e-mail address.
- iv. The original bid/proposal price and the final contract price. If the project is ongoing, project the final price and relation to proposal price. Contract value for which the firm was/is responsible.
- v. The original date for project completion and the actual completion date. If the project is ongoing, project the completion date and relation to original schedule.
- vi. As available, performance ratings of the work evaluated by owner or owner's representative.

### 2.3 Contractor Safety Record

Submit as **Attachment 3** to this Qualifications Statement the information specified herein and verify this information by providing copies of OSHA 300/200 Forms or appropriate documentation from insurance carriers, as applicable. The firm may submit written explanations to comment on or clarify its safety record.

- a) Provide the firm's Workers Compensation Experience Modification Rating for the past three years, beginning with the most recent year available:

Year 1: 2021      0.812

Year 2: 2020      0.833

Year 3: 2019 0.845

- b) Provide the firm's Total Lost Workday Incidence Rate (LWDIR) for the past three years, beginning with the most recent year available:

Year 1: 2021 0

Year 2: 2020 0

Year 3: 2019 0

\*LWDIR Rate = Number of Lost Time Injuries & Illnesses x 200,000 ÷ Total Hours Worked

- c) Provide the firm's Recordable Incidence Rate (RIR) for the past three years:

Year 1: 2021 0

Year 2: 2020 0

Year 3: 2019 0

\*RIR Rate = Number of Injuries x 200,000 ÷ Total Hours Worked

- d) Provide in an **Attachment 4** to this Qualifications Statement a list of any health or safety citations issued by federal or state agencies for serious or willful violations issued in the past 3 years. Include a separate statement for any such violations and include the citation number, a brief description of the violation and the amount of penalty, if any, for each violation and current status of violation.

### **SECTION 3 - REQUIRED DISCLOSURES**

The firm shall answer the following questions with regard to the past three (3) years. If any question is answered in the affirmative, the firm shall submit in an **Attachment 5** to this Qualifications Statement, for each affirmative answer, a written explanation which shall provide details concerning the matter in question, including applicable dates, locations, names of projects/project owners and current status of any such matter.

- 3.1 Has the firm ever been debarred or suspended from doing business with any federal, state or local government agency or private entity?

Yes \_\_\_ No X

- 3.2 Is the firm currently or has the firm been otherwise prohibited from doing business with any federal, state or local government agency or private entity?

Yes \_\_\_ No X

- 3.3 Has the firm been denied prequalification (not including short listing), declared non-responsible, or otherwise declared ineligible to submit bids or proposals for work by any federal, state or local government agency or private entity?

Yes \_\_\_ No X

- 3.4 Has the firm defaulted, been terminated for cause or otherwise failed to complete any project that it was awarded?

Yes \_\_\_ No X

- 3.5 Has the firm been assessed or required to pay liquidated damages in connection with work performed on any project?

- Yes \_\_\_ No X
- 3.6 Has the firm had any business or professional license, registration, certificate or certification suspended or revoked?  
Yes \_\_\_ No X
- 3.7 Have any liens been filed against the firm as a result of its failure to pay subcontractors, suppliers, or workers?  
Yes \_\_\_ No X
- 3.8 Has the firm been denied bonding or insurance coverage or been discontinued by a surety or insurance company?  
Yes \_\_\_ No X
- 3.9 Has the firm been found in violation of any laws, including but not limited to contracting or antitrust laws, tax or licensing laws, labor or employment laws or environmental laws by a final decision of a court or government agency?  
Yes \_\_\_ No X
- \*Note: information regarding health and safety violations is addressed in a previous section.
- 3.10 Has the firm or its owners, officers, directors or managers been the subject of any criminal indictment or criminal investigation concerning any aspect of the firm's business?  
Yes \_\_\_ No X
- 3.11 Has the firm been the subject to any bankruptcy proceeding?  
Yes \_\_\_ No X

#### **SECTION 4 - REQUIRED REPRESENTATIONS**

In submitting this Qualifications Statement, along with the representations and authorizations listed on the Proposal Signature page and in the RFP, the firm also makes the following representations, which it understands are required as a condition of performing the Contract Work and receiving payment for same.

- 4.1 The firm will possess all applicable professional, business and trade licenses required for performing the Contract Work.
- 4.2 The firm satisfies all bonding and insurance requirements as stipulated in the solicitation for the Contract Work.
- 4.3 The firm and all subcontractors it employs in execution of the Contract Work shall be in full compliance with the Commonwealth's requirements for workers' compensation insurance according to all applicable laws, and unemployment insurance according to all applicable laws.
- 4.4 The firm and all subcontractors it employs in execution of the Contract Work shall be in full compliance with all requirements of the Commonwealth's prevailing wage law and Public Works Employment Verification Act.
- 4.5 If awarded the Contract Work, the firm represents that it will not exceed its current bonding limitations when the Contract Work is combined with the total aggregate amount of all unfinished work for which the Contractor is responsible.

- 4.6 The firm represents that it has no conflicts of interests with the Commonwealth of Pennsylvania and, if awarded the Contract Work, any potential conflicts of interest that may arise in the future will be disclosed immediately to the Department of General Services.
- 4.7 The firm represents the price offered in connection with its proposal for the Contract Work was arrived at independently without consultation, communication or agreement with any other Proposer or competitor.
- 4.8 The firm will ensure that employees and applicants for employment are not discriminated against because of their race, color, religion, sex or national origin.



**FIVE STAR, INC.**  
**MECHANICAL CONTRACTORS**  
833 Lincoln Avenue, Unit 8  
West Chester, PA. 19380

September 20, 2022

Attachment #1

Commonwealth of Pennsylvania  
Department of General Services  
Bureau of Professional Selections and Administrative Services  
18<sup>th</sup> & Herr Streets  
Harrisburg, PA 17125

Reference: DGS C-1101-0054 Phase 1 HVAC Construction

Attached please find copies of our current business and trade licenses:

- City of Philadelphia
- City of Reading
- OSHA Training – Robert Gaffney, Thomas Gaffney

Phone: 610-719-6415 ~ Fax: 610-719-6416

[general@fivestarmechnical.com](mailto:general@fivestarmechnical.com)



City of Philadelphia  
Department of  
Licenses & Inspections  
P.O. Box 53310  
Philadelphia, Pa. 19105

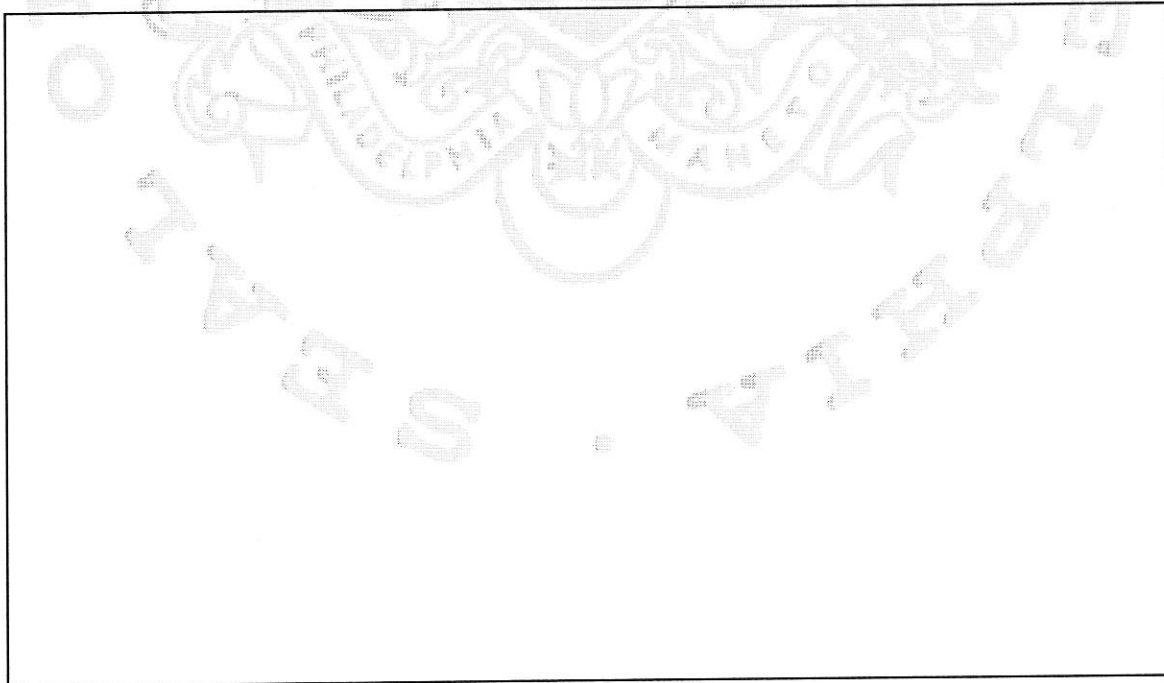
**DISPLAY PROMINENTLY**  
if required by law

ROBERT GAFFNEY  
833 LINCOLN AVE  
STE 8  
WEST CHESTER, PA 19380  
USA

3514 Plumber Master  
FIVE STAR INCORPORATED

THIS LICENSE IS GRANTED TO THE PERSON OR COMPANY FOR THE PURPOSE STATED ABOVE. IT IS SUBJECT TO IMMEDIATE CANCELLATION BY THIS DEPARTMENT FOR VIOLATIONS OF CITY ORDINANCES AND REGULATIONS.

| LICENSE CODE | LICENSE NO. | COMMERCIAL<br>ACTIVITY LIC. | EXPIRES ON | ISSUED ON  |
|--------------|-------------|-----------------------------|------------|------------|
| 3514         | 17420       |                             | 12/30/2022 | 11/17/2021 |



**LICENSE**





City of Philadelphia  
Department of  
Licenses & Inspections  
P.O. Box 53310  
Philadelphia, Pa. 19105

**DISPLAY PROMINENTLY**  
if required by law

FIVE STAR INCORPORATED  
833 LINCOLN AVE UNIT 8  
WEST CHESTER, PA 19380  
USA

3527 Contractor

FIVE STAR INCORPORATED

THIS LICENSE IS GRANTED TO THE PERSON OR COMPANY FOR THE PURPOSE STATED ABOVE. IT IS SUBJECT TO IMMEDIATE CANCELLATION BY THIS DEPARTMENT FOR VIOLATIONS OF CITY ORDINANCES AND REGULATIONS.

| LICENSE CODE | LICENSE NO. | COMMERCIAL<br>ACTIVITY LIC. | EXPIRES ON | ISSUED ON |
|--------------|-------------|-----------------------------|------------|-----------|
| 3527         | 19035       | 144614                      | 3/31/2023  | 3/14/2022 |



**LICENSE**

**Site Safety Managers**

| Name          | Relationship to Company | OSHA 30 Card Number |
|---------------|-------------------------|---------------------|
| Brian Gaffney | Employee                | 360TRAINING CERT    |





**CITY OF READING  
TRADES LICENSE  
NON-TRANSFERRABLE**

**License No: MP201805**

**2022 PLUMBING TRADE LICENSE**  
Expiration Date: 12/31/2022

**GAFFNEY ROBERT P  
28 FOX BROOK LANE  
THORNTON PA 19373**

PAID

\_\_\_\_\_  
LICENSEE'S SIGNATURE

3081

← DETACH THIS LICENSE AND KEEP IT ON RECORD FOR THE DURATION OF THE LICENSE VALIDATION DATES.



**CITY OF READING  
TRADES LICENSE IDENTIFICATION CARD**

**2022 PLUMBING TRADE LICENSE**  
License No: MP201805  
Expiration Date: 12/31/2022

**GAFFNEY ROBERT P  
28 FOX BROOK LANE  
THORNTON PA 19373**

\_\_\_\_\_  
LICENSEE'S SIGNATURE

REMOVE IDENTIFICATION CARD, SIGN IT IN INK. THIS CARD SHOULD BE CARRIED WITH YOU DURING WORK.



City of Philadelphia  
 Department of  
 Licenses & Inspections  
 P.O. Box 53310  
 Philadelphia, Pa. 19105

OCCUPATIONAL  
 LICENSEE ONLY

PASTE YOUR  
 PHOTOGRAPH HERE

1 1/2" SQUARE

DISPLAY PROMINENTLY

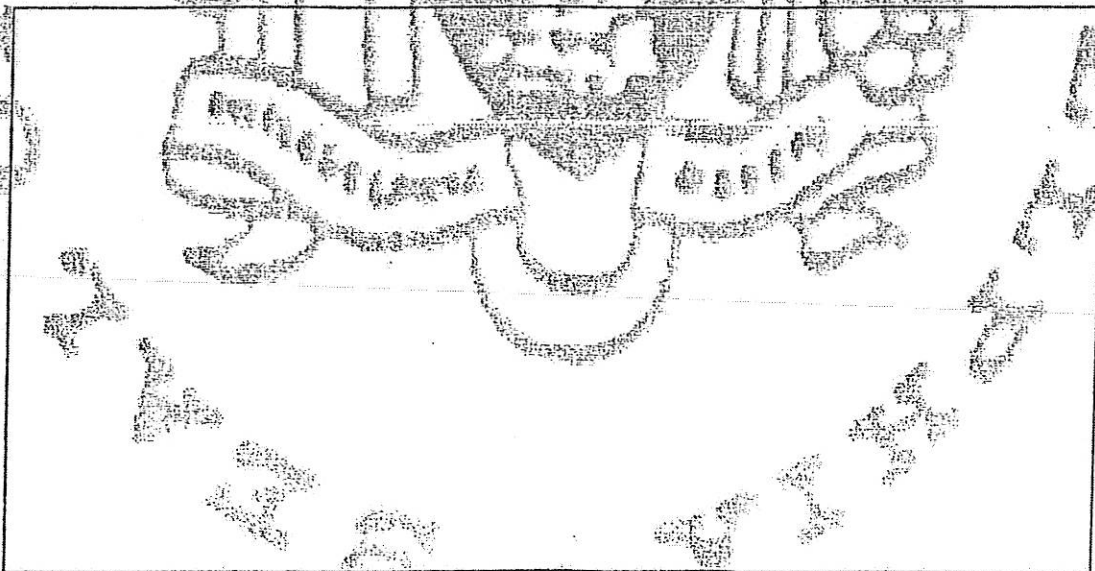
if required by law

FIVESTAR INCORPORATED  
 833 LINCOLN AVE UNIT 8  
 WEST CHESTER PA 19380

3702 BUSINESS PRIVILEGE LICENSE  
 FIVESTAR INCORPORATED

THIS LICENSE IS GRANTED TO THE PERSON AND LOCATION FOR THE PURPOSE STATED ABOVE.  
 IT IS SUBJECT TO IMMEDIATE CANCELLATION BY THIS DEPARTMENT FOR VIOLATIONS OF  
 CITY ORDINANCES AND REGULATIONS. INQUIRIES 311 (215-686-8686)

| LICENSE CODE | LICENSE NO. | BUSINESS TAX NO. | DOES NOT EXPIRE | PAID THIS AMOUNT | ON DATE  |
|--------------|-------------|------------------|-----------------|------------------|----------|
| 3702         | 144614      | 7672645          |                 | 200.00           | 11/20/01 |



LICENSE



**FIVE STAR, INC.**  
**MECHANICAL CONTRACTORS**  
833 Lincoln Avenue, Unit 8  
West Chester, PA. 19380

September 20, 2022

Attachment #2

Commonwealth of Pennsylvania  
Department of General Services  
Bureau of Professional Selections and Administrative Services  
18<sup>th</sup> & Herr Streets  
Harrisburg, PA 17125

Reference: DGS C-1101-0054 Phase 1

Listed below are jobs showing our experience:

- West Chest University - Hollinger Field House GeoThermal Installation  
150 University Ave, West Chester, PA 19383 –Dave Gulick (610-436-2341)  
Contract \$1,821,475 Morrison Geothermal - Subcontractor
- East Goshen Township GeoThermal Installation  
1580 Paoli Pike, West Chester, PA 19380 - Louis Smith (610-692-7171)  
Contract \$408,400 KL Madron Well Drilling - Subcontractor
- London Grove Township Building - GeoThermal Installation  
372 Rose Hill Road, West Grove, PA 19390 Shane Kinsey 610-345-0100  
Contract \$379,000 Rath Geothermal - Subcontractor
- Methacton School District - Methacton High School MEP Project,  
100 Kriebel Mill Road, Eagleville, PA - James Miller (717-625-3433)  
Contract \$1,163,000 –Job Completed 8/2018
- Downingtown Area School District –New Uwchlan Hills Elementary School  
50 Peck Road, Downingtown, PA – Mark Marella (215-368-5806)  
Contract \$3,177,000 – Job Completed 10/2020
- Philadelphia School District - Albert Greenfield Elementary School - HVAC Renovations  
2200 Chestnut Street, Philadelphia, PA – Frank Radka (267-228-8497)  
Contract \$2,296,000 – Job Completed 10/2019

Phone: 610-719-6415 ~ Fax: 610-719-6416

general@fivestarmechanical.com



**FIVE STAR, INC.**  
**MECHANICAL CONTRACTORS**  
833 Lincoln Avenue, Unit 8  
West Chester, PA. 19380

### Completed Contracts

**Owen J. Roberts School District**  
**Owen J. Roberts High School- Chiller**  
Contract \$92,000 Completed 12/2020  
981 Ridge Road  
Pottstown, PA 19465

**Tredyffrin Easttown School District**  
**New Eagle Elementary School- HVAC**  
Contract \$1,188,000 Completed 8/2020  
507 Pugh road  
Wayne, PA 19087

Colm Kelly  
610-240-1651

**Philadelphia School District**  
**Albert M. Greenfield Elementary School**  
**HVAC Renovation**  
Contract \$2,296,000 Completed 10/2019  
2200 Chestnut Street  
Philadelphia, PA 09103

Gerald Thompson  
215-400-4730

**Jacksonwald and Lorane Elementary School**  
**Exeter Township School District**  
Contract \$1,685,000 Completed 10/2020  
200 Elm Street  
Reading, PA 19606

Robert Prezuhy  
610-779-0700

**Reading Area Community College**  
**HVAC Improvements – Various Buildings**  
Contract \$179,1000 October 2019  
10 So. 2<sup>nd</sup> Street  
Reading, PA 19602

Michael Hodowanec  
610-372-4721

**Tredyffrin Easttown School District**  
**Hillside Elementary School**  
HVAC \$1,480,000 October 2019  
507 Howellville Road  
Berwyn, PA 19312

Bennett Colesberry  
610-220-6588

**West Chester University**  
**Sykes Restroom Renovation**  
Contract \$78,000 January 2020  
110 W. Rosedale Ave  
West Chester, PA 19383

Yeda Arscott  
610436-2779

**GAMP – Girard Academic Music**  
**Philadelphia School District**  
Contract \$198,000 May 2020  
\_136 W. Ritner Street  
Philadelphia, PA 19145

George Leone  
215-559-4908

**Parkside Elementary School**  
**Penn Delco School District**  
Contract \$422,000 SC10/2018  
2 E. Forestview Road  
Parkside, PA 19015

Christopher Peters  
717-393-3211

**Reading School District**  
**Middle Schools & Secure Entries**  
Contract \$884,500 November 2019  
800 Washington Street  
Reading, PA 19601

Rick Rohrer  
717-625-3433

**PA Dept of General Services**  
**Reading State Office Building**  
Boiler Replacement  
Contract 586,950 January 2019  
625 Cherry Street  
Reading, PA 19602

Philip Duffy - DGS  
610-378-4163

**Methacton School District**  
**Methacton High School 2018 MEP Project**  
Contract 1,163,000 August 2018  
1005 Kriebel Mill Road  
Eagleville, PA 19403

James Miller - Fidevia  
717-625-3433

**Wayne Junction Boiler Replacement**  
**SEPTA**  
Contract \$1,304,000 SC 10/2017  
4494 Germantown Ave  
Philadelphia, PA 19144

Sheth Jones  
215-580-8428

**Cheltenham High School Renovations**  
**Cheltenham Township School District**  
Contract \$1,048,000 SC 8/2017  
500 Rices Mill Road  
Wyncote, PA 19095  
KCBA Architects

Stacy Thomas  
215-368-5806

**Newtown Public Works Building**  
**Township of Newtown**  
Contract \$422,000 SC10/2018  
209 Bishop Hollow Road  
Newtown Square, PA 19073  
Lolli Architects

Jim Lolli  
610-935-1480

**McKinley Elementary School – Mechanical Plant Renovations**  
**Philadelphia School District**  
Contract \$2,282,000 Completed 2/2017  
440 N. Broad Street  
Philadelphia, PA 19130

John Gidzinski  
215-400-5207

**Philadelphia International Airport – Terminals D, E and F  
Restroom Renovations**  
Contract \$1,184,000 Completed 3/2017  
City of Philadelphia  
3500 Essington Avenue  
Philadelphia, PA

Julie Coyle  
215-937-7882

**Queen Lane Water Treatment Plant – Influent Valve & Actuators**  
**Philadelphia Water Department**  
Contract \$2,115,000 Completed 1/2016  
3110 W. Queen Lane  
Philadelphia, PA 19129

Joe Irrera  
215-685-2120

**Northeast Water Pollution Control Plant  
Process Air System Valve Improvements**  
**Philadelphia Water Department**  
Contract \$764,000 Completed 9/2016  
3895 Richmond Street  
Philadelphia, PA 19137

Dominic Cundari  
215-288-6793

**Lower Merion School District Administration Conversion**  
**SJ Thomas Company**  
HVAC - \$1,200,000 Completed 10/2016  
Plumbing - \$423,000  
301 E. Montgomery Ave  
Ardmore, PA 19003

Gary Thomas  
610-622-3720

**West Chester University  
Academic Quad Improvements**  
Contract \$280,000 Completed 11/2017  
201 Carter Drive  
West Chester, PA 19383

Rod Lukens  
610-496-0798

**Hill College House – University of PA**  
**EJ Raith Mechanical**  
Contract \$164,000 Completed 1/2017  
3333 Walnut Street  
Philadelphia, PA 19104

Ed Raith  
610-429-4980

**Rendall Hall Renovations**  
**Lincoln University of PA**  
Plumbing – \$381,540 Completed 9/2016  
HVAC – \$147,800  
1570 Baltimore Pike  
Lincoln University, PA 19352

Kathy Comisiak  
484-365-8171

**Founders Hall**  
**Delaware County Community College**  
Contract \$213,000 Completed 9/2016  
901 Media Line Road  
Media, PA 19063

Matt Griffith – Marotta/Main  
717-393-3211



**Zoup Soup**

**Flynn Construction**

Contract \$72,500 Completed 4/2016  
500 W. Germantown Pike  
Plymouth Meeting, PA 19462

Ryan Ernst  
800-434-7759

**New Eagle & Valley Forge**

**Tredyffrin Easttown School District**

Contract \$113,700 Completed 9/2016  
507 Howellville Road  
Berwyn, PA 19312

Mort Isaacson -- Daley + Jalboot  
215-564-5222

**West Chester University**

**Boiler #1 Replacement**

Contract \$1,274,000 Completed 2/14  
Century Engineering  
200 Airport Road, Capital City Airport  
New Cumberland, PA 17070

Andrew Barnes  
717-901-7055

**West Chester University**

**Hollinger Field House HVAC System Conversion**

Contract \$1,666,800 Completed 2/2014  
Century Engineering  
200 Airport Road, Capital City Airport  
New Cumberland, PA 17070

Andrew Barnes  
717.901.7055 x3152

**West Chester University**

**Lawrence Hall**

Contract \$413,800 Completed 2/2014  
Century Engineering  
200 Airport Road, Capital City Airport  
New Cumberland, PA 17070

Andrew Barnes  
717.901.7055 x3152

**Delcroft School Toilet Room Renovations**

**Southeast Delco School District**

Contract \$119,000 Completed 10/2016  
Bonnett Associates  
220 Baldwin Tower  
Eddystone, PA 19022

Walt Subers  
610-447-1200

**PublicSafety Building Renovation**

**Lower Merion Township**

Contract \$269,850 Completed 10/2016  
Pennonni Associates  
3001 Market Street, 2<sup>nd</sup> Floor  
Philadelphia, PA 19104

Joann Ma  
215-254-7788

**Penncrest Men's Locker Room HVAC Replacement**

**Rose Tree Media School District**

Contract \$243,000 Completed 10/2016  
Bonnett Associates  
220 Baldwin Tower  
Eddystone, PA 19022

Walt Subers  
610-447-1200

**Penn Wynne Library Addition & Alteration**

**Lower Merion Township**

Contract \$74,000 Completed 10/2016

VITETTA

1510 Chester Pike, Suite 104

Eddystone, PA 19096

Mark Johannesen

215-218-4733

**Department of General Services**

Lincoln University – Dickey Hall Modular IT

Contract \$36,900 September 2015

Kimmel Bogrette Architecture

151 E. 10<sup>th</sup> Ave, Suite 300

Conshohocken, PA 19428

Dennis Kucera

484-365-7973

Ray Marijczuk

610-834-7805

**West Chester University**

**Heated Sidewalks & Stair Removals**

Contract \$53,600 October 2015

Arris Engineering Group Ltd.

667 North River Street

Plains, PA 18705

Rod Lukens

610-496-0798

Brian Flynn

570-825-7760 x303

**PA Dept of General Services**

**Cheyney University - Waste Water Treatment Plant Upgrades**

Contract \$109,000 Completed 6/14

Pennoni Associates

One Drexel Plaza, 3001 Market Street, Suite 200

3001 Market Street, Suite 200

Philadelphia, PA 19104

Bradley Pferdehirt

215-254-7878

**Delaware County Community College**

**AJC Replacement Units-Data Center**

Contract \$236,750 Completed 4/14

Delaware Co. Community College

901 South Media Line Road

Media, PA 19063

Tony Deluca

610-359-5110

**East Goshen Township**

**Township Building HVAC System Replacement**

Contract \$409,900 Completed 1/14

Alderson Engineering

407 Lakeside Park

Southampton, PA 18966

Paul Chiappardi

215-475-2766

**Tredyffrin/Easttown School District**

**Upgrades at Hillside ES & Valley Forge MS**

Contract \$288,600 Completed 9/14

Schiller & Hersch Associates, Inc.

636 Skippack Pike, Suite 200

Blue Bell, PA 19422

Mort Isaacson

215-886-8947

**Norristown State Hospital**

**Refurbish Steam Distribution System**

Contract \$34,600 Completed 8/14

PA Dept. of General Services

1 Tek Park Technology Campus

Breinigsville, PA 18031

Eric Povish

610-496-0495

**Upper Darby Township**

**Police Building HVAC**

Contract \$147,500 Completed 6/14

Gillan & Hartmann, Inc.

140 Whitaker Avenue

Mont Clare, PA 19453

Dave Resh

610-935-0101

**Philadelphia Water Department**

**Manayunk Sewer / Venice Island Recreation Center**

Plumbing Contract \$277,000 Completed 7/13

HVAC Contract \$1,996,000 Completed 8/14

Hazen & Sawyer

801 Market Street, Suite 1001

Philadelphia, PA 19107

Jim Gaffear

215-380-2132

**Northeast Water Pollution Control Plant – Bid No. 2897**

**Philadelphia Water Department**

Plant Water System Rehabilitation

Contract \$208,420

Stone Hill Contracting Co, Inc.

252 W. Swamp Road, Suite 19

Doylestown, PA 18901

Tom Mott

215-340-1840

**County of Chester**

**Tactical Village Project**

Contract \$497,000 February 2014

Manns Woodward Studios

10839-D Philadelphia Road

White Marsh, MD 21162

Gary Campbell

410-344-1460

**Cheyney University**

**Waste Water Treatment Plant Upgrades**

PA Dept of General Services Bid No. 403-80.2

Contract \$109,000 June 2013

Pennoni Associates

One Drexel Plaza, 3001 Market Street, Suite 200

3001 Market Street, Suite 200

Philadelphia, PA 19104

Bradley Pferdehirt

215-254-7878

**DCCC - AJC Replacement Units-Data Center**

Contract \$236,750 May 2013

Delaware Co. Community College

901 South Media Line Road

Media, PA 19063

Tony Deluca

610-359-5110

**East Goshen Township**

**Township Building HVAC System Replacement**

Contract \$409,900 January 2014

Alderson Engineering

407 Lakeside Park

Southampton, PA 18966

Paul Chiappardi

215-475-2766



**FIVE STAR, INC.**  
**MECHANICAL CONTRACTORS**  
833 Lincoln Avenue, Unit 8  
West Chester, PA. 19380

September 20, 2022

Attachment #3

Commonwealth of Pennsylvania  
Department of General Services  
Bureau of Professional Selections and Administrative Services  
18<sup>th</sup> & Herr Streets  
Harrisburg, PA 17125

Reference: DGS C-1101-0054 Phase 1 HVAC Construction

Five Star, Inc. has not had any health or safety violations issued to us..

Phone: 610-719-6415 ~ Fax: 610-719-6416

[general@fivestarmechanical.com](mailto:general@fivestarmechanical.com)

**Summary of Work-Related Injuries and Illnesses**

**Note: You can type input into this form and save it.** Because the forms in this recordkeeping package are "fillable/writable" PDF documents, you can type into the input form fields and then save your inputs using the free Adobe PDF Reader.

Year 20 21



U.S. Department of Labor  
Occupational Safety and Health Administration  
Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0."

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

**Number of Cases**

| Total number of deaths | Total number of cases with days away from work | Total number of cases with job transfer or restriction | Total number of other recordable cases |
|------------------------|--|--|--|
| 0                      | 0  | 0  | 0                                      |
| (G)                    | (H)  | (I)  | (J)                                    |

**Number of Days**

| Total number of days away from work | Total number of days of job transfer or restriction |
|-------------------------------------|---|
| 0                                   | 0   |
| (K)                                 | (L)   |

**Injury and Illness Types**

| Total number of . . . (M)  |   |
|----------------------------|---|
| (1) Injuries               | 0 |
| (2) Skin disorders         | 0 |
| (3) Respiratory conditions | 0 |
| (4) Poisonings             | 0 |
| (5) Hearing loss           | 0 |
| (6) All other illnesses    | 0 |

**Post this Summary page from February 1 to April 30 of the year following the year covered by the form.**  
Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

**Establishment Information**

Your establishment name Five Star Inc

Street 833 Lincoln Ave # 8

City West Chester State PA Zip 19380

Industry description (e.g., *Manufacture of motor truck trailers*)

North American Industrial Classification (NAICS), if known (e.g., 336212)

**Employment Information** (If you don't have these figures, see the Worksheet on the next page to estimate.)

Annual average number of employees 34

Total hours worked by all employees last year 37065

Sign here Roseanne Strubbe

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Roseanne Strubbe Title Administrative

Company executive

Phone 607-79-6415 Date 3/15/22

**Reset**

Note: You can type input into this form and save it. Because the forms in this recordkeeping package are "fillable/writable" PDF documents, you can type into the input form fields and then save your inputs using the free Adobe PDF Reader.



## Summary of Work-Related Injuries and Illnesses

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0."

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

### Establishment Information

Your establishment name Five Star, Inc.

Street 833 Lincoln Avenue, Unit 8

City West Chester State PA Zip 19380

Industry description (e.g., *Manufacture of motor truck trailers*)

Contracting

North American Industrial Classification (NAICS), if known (e.g., 336212)

Employment Information (If you don't have these figures, see the Worksheet on the next page to estimate.)

Annual average number of employees 37

Total hours worked by all employees last year 34,294.25

Sign here Meghan Sylvester

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Meghan Sylvester Accounting Administrator

Company executive Title

Phone 610-719-6415 Date 05/04/2021

Reset

### Number of Cases

| Total number of deaths | Total number of cases with days away from work | Total number of cases with job transfer or restriction | Total number of other recordable cases |
|------------------------|--|--|--|
| <u>0</u>               | <u>0</u>                                       | <u>0</u>   | <u>0</u>                               |
| (G)                    | (H)  | (I)  | (J)                                    |

### Number of Days

| Total number of days away from work | Total number of days of job transfer or restriction |
|-------------------------------------|---|
| <u>0</u>                            | <u>0</u>  |
| (K)                                 | (L)   |

### Injury and Illness Types

| Total number of ... (M)    |          |
|----------------------------|----------|
| (1) Injuries               | <u>0</u> |
| (2) Skin disorders         | <u>0</u> |
| (3) Respiratory conditions | <u>0</u> |
| (4) Poisonings             | <u>0</u> |
| (5) Hearing loss           | <u>0</u> |
| (6) All other illnesses    | <u>0</u> |

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 18 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

# OSHA's Form 300 (Rev. 04/2004)

## Log of Work-Related Injuries and Illnesses

**Note:** You can type input into this form and save it. Because the forms in this recordkeeping package are "fillable/writable" PDF documents, you can type into the input form fields and then save your inputs using the free Adobe PDF Reader. In addition, the forms are programmed to auto-calculate as appropriate.

**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.

Year 20 19



U.S. Department of Labor  
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

**Please Record:**

- Information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid.
- Significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional.
- Work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12.

**Reminders:**

- Complete an injury and illness incident report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.
- Feel free to use two lines for a single case if you need to.
- Complete the 5 steps for each case.

Establishment name Five Star Inc

City West Chester State PA

**Step 1. Identify the person**

**Step 2. Describe the case**

**Step 3. Classify the case**

**Step 4.**

**Step 5.**

| (A)<br>Case no.                        | (B)<br>Employee's name | (C)<br>Job title<br>(e.g., Welder) | (D)<br>Date of injury or onset of illness<br>(e.g., 2/19) | (E)<br>Where the event occurred<br>(e.g., Loading dock north end) | (F)<br>Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g., Second degree burns on right forearm from acetylene torch) | Remained at Work      |                                  |                                    |                               | Days away from work<br>(K) | On job transfer or restriction<br>(L) | Illness                          |                       |                       |                       |                       |                       |                       |                       |
|--|------------------------|------------------------------------|---|---|--|-----------------------|----------------------------------|------------------------------------|-------------------------------|----------------------------|---------------------------------------|----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|  |                        |                                    |   |   |  | Death<br>(G)          | Days away from work<br>(H)       | Job transfer or restriction<br>(I) | Other recordable cases<br>(J) |                            |                                       | Injury                           | Non-injury            | Respiratory condition | Phenylalanine         | Hearing loss          | All other illnesses   |                       |                       |
| <input type="button" value="Reset"/> 1 | William Garvin         | Mechanic                           | 8 / 22<br>month / day                                     | Greenfield Elementary School                                      | Hand was cut by factory cabinet edge   | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/>              | <input type="radio"/>         | 62 days                    | 0 days                                | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="button" value="Reset"/>   |                        |                                    | month / day   |   |  | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/>              | <input type="radio"/>         | days                       | days                                  | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="button" value="Reset"/>   |                        |                                    | month / day   |   |  | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/>              | <input type="radio"/>         | days                       | days                                  | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="button" value="Reset"/>   |                        |                                    | month / day   |   |  | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/>              | <input type="radio"/>         | days                       | days                                  | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="button" value="Reset"/>   |                        |                                    | month / day   |   |  | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/>              | <input type="radio"/>         | days                       | days                                  | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="button" value="Reset"/>   |                        |                                    | month / day   |   |  | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/>              | <input type="radio"/>         | days                       | days                                  | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="button" value="Reset"/>   |                        |                                    | month / day   |   |  | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/>              | <input type="radio"/>         | days                       | days                                  | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="button" value="Reset"/>   |                        |                                    | month / day   |   |  | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/>              | <input type="radio"/>         | days                       | days                                  | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="button" value="Reset"/>   |                        |                                    | month / day   |   |  | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/>              | <input type="radio"/>         | days                       | days                                  | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="button" value="Reset"/>   |                        |                                    | month / day   |   |  | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/>              | <input type="radio"/>         | days                       | days                                  | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Public reporting burden for this collection of information is estimated to average 14 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about this estimate or any other aspect of this data collection, contact US Department of Labor, OSHA, Office of Statistical Analysis, Room N-3641, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

Add a Form Page

Page totals ▶ 0 1 0 0 62 0 1 0 0 0 0

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

Injury  
(1)

Non-injury  
(2)

Respiratory condition  
(3)

Phenylalanine  
(4)

Hearing loss  
(5)

All other illnesses  
(6)

### Summary of Work-Related Injuries and Illnesses

**Note: You can type input into this form and save it.** Because the forms in this recordkeeping package are "fillable/writable" PDF documents, you can type into the input form fields and then save your inputs using the free Adobe PDF Reader.

Year 20 19



U.S. Department of Labor  
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0."

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

#### Number of Cases

| Total number of deaths | Total number of cases with days away from work | Total number of cases with job transfer or restriction | Total number of other recordable cases |
|------------------------|--|--|--|
| 0                      | X 1  | 0  | 0                                      |
| (G)                    | (H)  | (I)  | (J)                                    |

#### Number of Days

| Total number of days away from work | Total number of days of job transfer or restriction |
|-------------------------------------|---|
| X 62                                | 0   |
| (K)                                 | (L)   |

#### Injury and Illness Types

| Total number of . . . (M) | (1) Injuries | (2) Skin disorders | (3) Respiratory conditions | (4) Poisonings | (5) Hearing loss | (6) All other illnesses |
|---------------------------|--------------|--------------------|----------------------------|----------------|------------------|-------------------------|
|                           | X 1          | 0                  | 0                          | 0              | 0                | 0                       |

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 2100 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

#### Establishment Information

Your establishment name Five Star, Inc.

Street 833 Lincoln Avenue, Unit 8

City West Chester State PA Zip 19380

Industry description (e.g., *Manufacture of motor truck trailers*)

Contracting

North American Industrial Classification (NAICS), if known (e.g., 336212)

**Employment Information** (If you don't have these figures, see the Worksheet on the next page to estimate.)

Annual average number of employees 49

Total hours worked by all employees last year 36,372.00

Sign here Meghan Sylvester  
Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Meghan Sylvester Accounting Administrator

Company executive Title

Phone 610-719-6415 Date 03/04/2021

Reset





**FIVE STAR, INC.**  
**MECHANICAL CONTRACTORS**  
833 Lincoln Avenue, Unit 8  
West Chester, PA. 19380

September 20, 2022

**Attachment #4**

Commonwealth of Pennsylvania  
Department of General Services  
Bureau of Professional Selections and Administrative Services  
18<sup>th</sup> & Herr Streets  
Harrisburg, PA 17125

Reference: DGS C-1101-0054 Phase I HVAC Construction

Five Star has not been issued any health or safety citations by federal or state agencies for any reason.

Phone: 610-719-6415 ~ Fax: 610-719-6416

[general@fivestarmechanical.com](mailto:general@fivestarmechanical.com)



**FIVE STAR, INC.**  
**MECHANICAL CONTRACTORS**  
833 Lincoln Avenue, Unit 8  
West Chester, PA. 19380

September 20, 2022

Attachment #5

Commonwealth of Pennsylvania  
Department of General Services  
Bureau of Professional Selections and Administrative Services  
18<sup>th</sup> & Herr Streets  
Harrisburg, PA 17125

Reference: DGS C-1101-0054 Phase I HVAC Construction

Five Star has nothing to disclose - all answers were negative.

Phone: 610-719-6415 ~ Fax: 610-719-6416

[general@fivestarmechanical.com](mailto:general@fivestarmechanical.com)

**Financial Statements**

**Five Star, Inc.**

**December 31, 2021 and 2020**



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## SUPPLEMENTARY INFORMATION

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## INDEPENDENT ACCOUNTANTS' REVIEW REPORT

To the Stockholders  
Five Star, Inc.  
West Chester, Pennsylvania

We have reviewed the accompanying financial statements of Five Star, Inc. (a corporation), which comprise the balance sheets as of December 31, 2021 and 2020, and the related statements of income and retained earnings, changes in stockholders' equity, and cash flows for the years then ended, and the related notes to the financial statements. A review includes primarily applying analytical procedures to management's financial data and making inquiries of company management. A review is substantially less in scope than an audit, the objective of which is the expression of an opinion regarding the financial statements as a whole. Accordingly, we do not express such an opinion.

### **Management's Responsibility for the Financial Statements**

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement whether due to fraud or error.

### **Accountants' Responsibility**

Our responsibility is to conduct the review engagements in accordance with Statements on Standards for Accounting and Review Services promulgated by the Accounting and Review Services Committee of the AICPA. Those standards require us to perform procedures to obtain limited assurance as a basis for reporting whether we are aware of any material modifications that should be made to the financial statements for them to be in accordance with accounting principles generally accepted in the United States of America. We believe that the results of our procedures provide a reasonable basis for our conclusion. We are required to be independent of Five Star, Inc. and to meet our other ethical responsibilities in accordance with the relevant ethical requirements related to our reviews.

### **Accountants' Conclusion**

Based on our reviews, we are not aware of any material modifications that should be made to the accompanying financial statements in order for them to be in accordance with accounting principles generally accepted in the United States of America.

*Rainer & Company*  
Rainer & Company

Newtown Square, PA  
May 25, 2022

- 1 -

**FIVE STAR, INC.**  
**Balance Sheets**  
**December 31, 2021 and 2020**  
(See Independent Accountants' Review Report)

| <u>ASSETS</u>  | <u>2021</u>                 | <u>2020</u>                |
|--|-----------------------------|----------------------------|
| Current:   |                             |                            |
| Cash and Cash Equivalents  | \$ 71,682                   | \$ 1,202,362               |
| Contract Receivables   | 1,748,565                   | 1,697,604                  |
| Costs and Estimated Earnings in Excess<br>of Billings on Uncompleted Contracts   | 220,205                     | 196,072                    |
| Due from Related Party   | <u>15,327</u>               | <u>15,327</u>              |
| <b>TOTAL CURRENT ASSETS</b>  | <b>2,055,779</b>            | <b>3,111,365</b>           |
| Equipment and Leasehold Improvements, Net  | <u>169,737</u>              | <u>79,645</u>              |
| <b>TOTAL ASSETS</b>  | <b><u>\$ 2,225,516</u></b>  | <b><u>\$ 3,191,010</u></b> |
|  |                             |                            |
|  | <u>LIABILITIES</u>          |                            |
| Current:   |                             |                            |
| Note Payable - Demand  | \$ 450,000                  | \$ 0                       |
| Accounts Payable   | 100,804                     | 456,232                    |
| Accrued Expenses   | 43,045                      | 219,231                    |
| Payroll Taxes and Withholdings   | 8,212                       | 5,342                      |
| Accrued Losses on Contracts in Progress  | 453,171                     | 0                          |
| Billings in Excess of Costs and Estimated<br>Earnings on Uncompleted Contracts   | <u>868,593</u>              | <u>474,010</u>             |
| <b>TOTAL CURRENT LIABILITIES</b>   | <b><u>1,923,825</u></b>     | <b><u>1,154,815</u></b>    |
|  |                             |                            |
|  | <u>STOCKHOLDERS' EQUITY</u> |                            |
| Common Stock - \$1,000 Par Value, 80 Shares Authorized and Issued,<br>60 Shares and 80 Shares Outstanding in 2021 and 2020, respectively | 80,000                      | 80,000                     |
| Retained Earnings  | <u>671,691</u>              | <u>1,956,195</u>           |
|  | 751,691                     | 2,036,195                  |
| Less: Treasury Stock at Cost (20 Shares)   | <u>(450,000)</u>            | <u>0</u>                   |
| <b>TOTAL STOCKHOLDERS' EQUITY</b>  | <b><u>301,691</u></b>       | <b><u>2,036,195</u></b>    |
| <b>TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY</b>  | <b><u>\$ 2,225,516</u></b>  | <b><u>\$ 3,191,010</u></b> |

The accompanying notes are an integral part of these statements.

**FIVE STAR, INC.**  
**Statements of Income and Retained Earnings**  
**For the Years Ended December 31, 2021 and 2020**  
(See Independent Accountants' Review Report)

|   | <u>2021</u>              | <u>2020</u>                |
|---|--------------------------|----------------------------|
| Contract Revenues Earned                    | \$ 8,333,429             | \$ 11,531,761              |
| Cost of Revenues Earned                     | (6,380,242)              | (9,775,235)                |
| Provision for Loss on Contract in Progress  | <u>(453,171)</u>         | <u>0</u>                   |
| <b>GROSS PROFIT</b>                         | <b>1,500,016</b>         | <b>1,756,526</b>           |
| General and Administrative Expenses         | <u>1,636,627</u>         | <u>1,597,162</u>           |
| <b>INCOME (LOSS) FROM OPERATIONS</b>        | <b><u>(136,611)</u></b>  | <b><u>159,364</u></b>      |
| Other Income (Expense):                     |                          |                            |
| Miscellaneous Expense                       | (7,654)                  | (3,689)                    |
| Miscellaneous Income                        | 0                        | 10,000                     |
| Interest Expense                            | 0                        | (3,149)                    |
| Interest Income                             | 6                        | 16                         |
| Loss on Disposal of Equipment               | (245)                    | 0                          |
| Grant Revenue - Paycheck Protection Program | <u>490,000</u>           | <u>612,200</u>             |
| <b>TOTAL OTHER INCOME</b>                   | <b><u>482,107</u></b>    | <b><u>615,378</u></b>      |
| <b>NET INCOME</b>                           | <b>345,496</b>           | <b>774,742</b>             |
| Retained Earnings - Beginning               | 1,956,195                | 1,585,453                  |
| Less: Dividends                             | <u>(1,630,000)</u>       | <u>(404,000)</u>           |
| <b>RETAINED EARNINGS - ENDING</b>           | <b><u>\$ 671,691</u></b> | <b><u>\$ 1,956,195</u></b> |

The accompanying notes are an integral part of these statements.



**FIVE STAR, INC.**  
Statements of Changes in Stockholders' Equity  
For the Years Ended December 31, 2021 and 2020  
 (See Independent Accountants' Review Report)

|                                    | Common<br>Stock  | Retained<br>Earnings | Treasury<br>Stock   | Total             |
|------------------------------------|------------------|----------------------|---------------------|-------------------|
| Balance - January 1, 2020          | \$ 80,000        | \$ 1,585,453         | \$ 0                | \$ 1,665,453      |
| Net Income                         | 0                | 774,742              | 0                   | 774,742           |
| Dividends                          | 0                | (404,000)            | 0                   | \$ (404,000)      |
| <b>BALANCE - DECEMBER 31, 2020</b> | <b>80,000</b>    | <b>1,956,195</b>     | <b>0</b>            | <b>2,036,195</b>  |
| Net Income                         | 0                | 345,496              | 0                   | 345,496           |
| Purchase of Treasury Stock         | 0                | 0                    | (450,000)           | (450,000)         |
| Dividends                          | 0                | (1,630,000)          | 0                   | (1,630,000)       |
| <b>BALANCE - DECEMBER 31, 2021</b> | <b>\$ 80,000</b> | <b>\$ 671,691</b>    | <b>\$ (450,000)</b> | <b>\$ 301,691</b> |

The accompanying notes are an integral part of these statements.



**FIVE STAR, INC.**  
**Statements of Cash Flows**  
**For the Years Ended December 31, 2021 and 2020**  
(See Independent Accountants' Review Report)

|  | <u>2021</u>        | <u>2020</u>         |
|--|--------------------|---------------------|
| Cash Flows From Operating Activities:                                  |                    |                     |
| Net Income   | \$ 345,496         | \$ 774,742          |
| Adjustments to Reconcile Net Income to                                 |                    |                     |
| Net Cash Provided By Operating Activities:                             |                    |                     |
| Depreciation and Amortization  | 15,368             | 14,487              |
| Loss on Disposal of Equipment  | 245                | 0                   |
| Decrease (Increase) in:  |                    |                     |
| Contract Receivables   | (50,961)           | 537,131             |
| Costs and Estimated Earnings in Excess of Billings on                  |                    |                     |
| Uncompleted Contracts  | (24,133)           | 506,790             |
| Increase (Decrease) in:  |                    |                     |
| Accounts Payable   | (355,428)          | (407,080)           |
| Accrued Expenses   | (176,186)          | 1,765               |
| Payroll Taxes and Union Liabilities                                    | 2,870              | 1,264               |
| Accrued Losses on Contracts in Progress                                | 453,171            | 0                   |
| Billings in Excess of Costs and Estimated Earnings                     |                    |                     |
| on Uncompleted Contracts   | 394,583            | 169,084             |
| NET CASH PROVIDED BY OPERATING ACTIVITIES                              | <u>605,025</u>     | <u>1,598,183</u>    |
| Cash Flows From Investing Activities:                                  |                    |                     |
| Purchase of Equipment  | <u>(105,705)</u>   | <u>0</u>            |
| Cash Flows From Financing Activities:                                  |                    |                     |
| Payment of Note Payable - Demand                                       | 0                  | (300,000)           |
| Advances to Affiliate  | 0                  | (373)               |
| Stockholder Dividends  | <u>(1,630,000)</u> | <u>(404,000)</u>    |
| NET CASH USED BY FINANCING ACTIVITIES                                  | <u>(1,630,000)</u> | <u>(704,373)</u>    |
| NET INCREASE (DECREASE) IN CASH  |                    |                     |
| AND CASH EQUIVALENTS   | (1,130,680)        | 893,810             |
| Cash and Cash Equivalents - Beginning                                  | <u>1,202,362</u>   | <u>308,552</u>      |
| CASH AND CASH EQUIVALENTS - ENDING                                     | <u>\$ 71,682</u>   | <u>\$ 1,202,362</u> |
| <u>Supplemental Disclosure of Non-Cash Flow Financing Information:</u> |                    |                     |
| Debt Obligations Incurred for the Purchase of Treasury Stock           | <u>\$ 450,000</u>  | <u>\$ 0</u>         |

The accompanying notes are an integral part of these statements.

**FIVE STAR, INC.**  
**Notes to Financial Statements**  
**December 31, 2021 and 2020**  
(See Independent Accountants' Review Report)

**NOTE 1 - Summary of Significant Accounting Policies**

**Business Activity** - The company is a mechanical contractor. The work is performed on a time and material basis and under fixed price contracts. The company grants credit to customers primarily located in southeastern Pennsylvania, New Jersey and Delaware.

**Use of Estimates** - The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

**Cash and Cash Equivalents** - The company considers all highly liquid investments purchased with an original maturity of three months or less to be cash equivalents.

The company maintains cash balances at a financial institution. The accounts at this institution are insured by the Federal Deposit Insurance Corporation. In the normal course of business, the company may have deposits that exceed insured balances.

**Contract Receivables** - The company considers accounts receivable to be fully collectible; accordingly, no allowance for doubtful accounts is required. Trade accounts receivable are periodically evaluated for collectability based on past credit history with customers and their current financial condition. Balances that are still outstanding after the company has used reasonable collection efforts are written off through a charge to operations.

**Equipment and Leasehold Improvements** - Equipment and leasehold improvements are carried at cost. Depreciation is provided on straight-line and accelerated methods over the estimated useful lives of the assets. Maintenance and repairs are charged to operations as incurred. Gains and losses on dispositions are recorded in current operations.

The estimated useful lives for depreciation are:

|                          |           |
|--------------------------|-----------|
| Transportation Equipment | 5 Years   |
| Furniture and Fixtures   | 3-5 Years |
| Leasehold Improvements   | 15 Years  |

**Income Taxes** - The company has elected to be treated as a small business corporation ("S") for federal and state purposes. Under the provisions of an "S" corporation, the net income of the corporation is taxed to the stockholders. Therefore, there is no provision for federal or state income taxes.

Management has determined that there are no uncertain tax positions that would require recognition in the financial statements. If the company were to incur any income tax liability in the future, interest on any income tax liability would be reported as interest expense, and penalties on any income tax would be reported as income taxes. Management's conclusions regarding uncertain tax positions may be subject to review and adjustment at a later date based on ongoing analysis of tax laws, regulations, and interpretations thereof as well as other factors. Generally, federal, state, and local authorities may examine the company's tax returns for three years from the filing date and the current and prior three years remain subject to examination as of December 31, 2021.

**FIVE STAR, INC.**  
**Notes to Financial Statements**  
**December 31, 2021 and 2020**  
(See Independent Accountants' Review Report)

**NOTE 1 - Summary of Significant Accounting Policies (Continued)**

**Advertising** - Advertising costs, which are principally included in general and administrative expenses, are expensed as incurred. Advertising expenses were \$700 for the year ended December 31, 2021. There were no advertising expenses for the year ended December 31, 2020.

**Revenue and Cost Recognition** - The Financial Accounting Standards Board (FASB) issued new guidance that created Topic 606, *Revenue from Contracts with Customers*, in the Accounting Standards Codification (ASC). Topic 606 supersedes the revenue recognition requirements in FASB ASC 605, *Revenue Recognition*, and requires the recognition of revenue when promised goods and services are transferred to customers in an amount that reflects the consideration to which an entity expects to be entitled for those goods or services. The new guidance also added Subtopic 340-40, *Other Assets and Deferred Costs - Contracts with Customers*, to the ASC to require the deferral of incremental costs of obtaining a contract with a customer. Collectively, the new Topic 606 and Subtopic 340-40 are referred to as the "new guidance". The requirements of the new guidance were adopted as of January 1, 2019, utilizing the modified retrospective method of transition. No adjustment to beginning retained earnings was necessary. The new guidance was applied using the practical expedient provided in Topic 606 that allows the guidance to be applied only to contracts that were not complete as of January 1, 2019. Adoption of the new guidance resulted in changes to accounting policies for revenue recognition and deferred costs. No adjustment to 2019 revenues was necessary.

The company's primary source of revenue is from construction of industrial and commercial buildings. Revenue is recognized from fixed-price and modified fixed-price construction contracts using the cost-to-cost input method.

*Disaggregation of Revenue from Contracts with Customers*

The construction of an industrial or commercial building is a single performance obligation that is satisfied over time. As a result, the company is dependent on the strength of the construction industry and its ability to collect amounts owed on contracts.

*Performance Obligations and Significant Judgements*

The company recognizes revenues from fixed-price and modified fixed-price construction contracts using the cost-to-cost input method, which measures progress toward completion based on the percentage of cost incurred to date to estimated total cost for each contract. That method is used because management considers total cost to be the best available measure of progress on contracts. Because of inherent uncertainties in estimating costs, it is at least reasonably possible that estimates used will change in the near term.

Payment is due over time in installments, based on project phases as specified in the contract, with a final payment due at the time the building is completed and ready for occupancy and the customer accepts the property.

**FIVE STAR, INC.**  
**Notes to Financial Statements**  
**December 31, 2021 and 2020**  
(See Independent Accountants' Review Report)

**NOTE 1 - Summary of Significant Accounting Policies (Continued)**

*Performance Obligations and Significant Judgements (Continued)*

Contract costs include all direct material and labor costs and those indirect costs related to contract performance, such as indirect labor, supplies, tools, repairs, and depreciation. Costs of inefficiencies or wasted resources (material or labor) are excluded when measuring progress and are expensed as incurred. Selling, general, and administrative costs are charged to expense as incurred. Provisions for estimated losses on uncompleted contracts are made in the period in which such losses are determined. Changes in job performance, job conditions, and estimated profitability may result in revisions to costs and income, which are generally recognized in the period in which the revisions are determined. Changes in estimated job profitability resulting from variable consideration (such as incentives for completing a contract early or on time, penalties for not completing a contract on time, claims for which the company has enforceable rights, or contract modifications and change orders in which the scope of modification has been approved, but the price has not been determined or approved) are accounted for as changes in estimates in the current period, but limited to an amount that will not result in significant reversal of revenue in future periods.

The contract asset, "Costs and estimated earnings in excess of billings on uncompleted contracts," represents revenues recognized in excess of amounts billed. The contract liability, "Billings in excess of costs and estimated earnings on uncompleted contracts," represents billings in excess of revenues recognized.

Subsequent Events - The company has evaluated subsequent events through May 25, 2022, which represents the date the financial statements were available to be issued.

On March 11, 2020, the World Health Organization declared the outbreak of a coronavirus (COVID-19) a pandemic. As a result, economic uncertainties have arisen which are likely to negatively impact operating activity. Other financial impact could occur though such potential impact is unknown at this time.

**NOTE 2 - Contract Receivables**

|                                   | <u>2021</u>                | <u>2020</u>                |
|-----------------------------------|----------------------------|----------------------------|
| Completed Contracts               | \$ 1,031,087               | \$ 765,494                 |
| Contracts in Progress             | 304,496                    | 520,251                    |
| Retainage                         | <u>412,982</u>             | <u>411,859</u>             |
| <b>TOTAL CONTRACT RECEIVABLES</b> | <b><u>\$ 1,748,565</u></b> | <b><u>\$ 1,697,604</u></b> |

**FIVE STAR, INC.**  
**Notes to Financial Statements**  
**December 31, 2021 and 2020**  
(See Independent Accountants' Review Report)

**NOTE 3 - Uncompleted Contracts**

Costs, estimated earnings and billings on uncompleted contracts are summarized as follows:

|   | <u>2021</u>         | <u>2020</u>         |
|---|---------------------|---------------------|
| Costs Incurred on Uncompleted Contracts | \$ 4,902,247        | \$ 10,382,020       |
| Estimated Earnings                      | 2,483,954           | 3,008,646           |
|   | <u>7,386,201</u>    | <u>13,390,666</u>   |
| Less: Billings to Date                  | <u>8,034,589</u>    | <u>13,668,604</u>   |
|   | <u>\$ (648,388)</u> | <u>\$ (277,938)</u> |

Included in the accompanying balance sheets under the following captions:

|  | <u>2021</u>         | <u>2020</u>         |
|--|---------------------|---------------------|
| Costs and Estimated Earnings in Excess<br>of Billings on Uncompleted Contracts | \$ 220,205          | \$ 196,072          |
| Billings in Excess of Costs and Estimated<br>Earnings on Uncompleted Contracts | <u>(868,593)</u>    | <u>(474,010)</u>    |
|  | <u>\$ (648,388)</u> | <u>\$ (277,938)</u> |

The company has entered into a contract to perform construction services for \$4,689,000. The projected costs to complete the contract is \$5,142,171. A provision for loss on contracts in progress has been recognized at December 31, 2021 in the amount of \$453,171. Construction costs on the contract as of December 31, 2021 are \$156,341. Billings on the contract as of December 31, 2021 are \$228,000.

**NOTE 4 - Equipment and Leasehold Improvements**

|  | <u>2021</u>       | <u>2020</u>      |
|--|-------------------|------------------|
| Transportation Equipment                   | \$ 68,982         | \$ 68,982        |
| Furniture and Fixtures                     | 85,013            | 85,013           |
| Leasehold Improvements                     | <u>312,203</u>    | <u>246,648</u>   |
| TOTAL EQUIPMENT AND LEASEHOLD IMPROVEMENTS | 466,198           | 400,643          |
| Less: Accumulated Depreciation             | <u>296,461</u>    | <u>320,998</u>   |
| NET EQUIPMENT AND LEASEHOLD IMPROVEMENTS   | <u>\$ 169,737</u> | <u>\$ 79,645</u> |

**FIVE STAR, INC.**  
**Notes to Financial Statements**  
**December 31, 2021 and 2020**  
(See Independent Accountants' Review Report)

**NOTE 5 - Line of Credit**

The company has available a \$1,000,000 line of credit guaranteed by the stockholders with interest at the bank's prime lending rate. The line is a demand note with no specific expiration date. The outstanding balance at December 31, 2021 was \$450,000. There was no outstanding balance at December 31, 2020.

**NOTE 6 - Treasury Stock**

On January, 1, 2021, the company entered into an agreement with a stockholder to redeem 20 shares of the company's common stock in exchange for \$450,000 in cash. Treasury stock, shown at cost, for the year ended December 31, 2021 was \$450,000.

**NOTE 7 - Forgivable Loan Under Small Business Administration Paycheck Protection Program**

In response to the coronavirus (COVID-19) outbreak in 2020, the U.S. Federal Government enacted the Coronavirus Aid Relief, and Economic Security Act that, among other economic stimulus measures, established the Paycheck Protection Program (PPP) to provide small business loans.

FASB ASU No. 2018-08, Not-for-Profit Entities (Topic 958): Clarifying the Scope and the Accounting Guidance for Contributions Received and Contributions Made (Subtopic 958-605, Not-for-Profit Entities - Revenue Recognition) addresses the accounting for contributions by Not-for-Profit Entities. Although the scope of FASB ASC 958-605 excludes contributions made by governmental entities to business (for-profit) entities, the FASB has acknowledged that entities scoped out of that guidance are permitted to apply it by analogy when appropriate. A business (for-profit) entity that expects to meet the PPP's eligibility criteria and concludes that the PPP loan represents, in substance, a grant that is expected to be forgiven may apply the guidance from FASB ASC 958-605.

Under this model, the timing of recognition for a contribution received depends on whether the contribution is conditional or not. If conditional, the contribution is not recognized until the conditions are substantially met or explicitly waived. Specifically, the company would initially record the cash inflow from the PPP loan as a refundable advance. The company would then reduce the refundable advance and recognize the contribution once the conditions of release have been substantially met or explicitly waived.

In April 2021, the company obtained a PPP loan for \$490,000, which was initially recorded as a refundable advance. During 2021, the company reduced the refundable advance and recognized grant revenue, in accordance FASB ASC 958-605, once the measurable performance or other barrier and right of return of the PPP loan no longer existed. The company recognized \$490,000 of grant revenue for the year ended December 31, 2021.

In April 2020, the company obtained a PPP loan for \$612,200, which was initially recorded as a refundable advance. During 2020, the company reduced the refundable advance and recognized grant revenue, in accordance FASB ASC 958-605, once the measurable performance or other barrier and right of return of the PPP loan no longer existed. The company recognized \$612,200 of grant revenue for the year ended December 31, 2020.

**FIVE STAR, INC.**  
**Notes to Financial Statements**  
**December 31, 2021 and 2020**  
(See Independent Accountants' Review Report)

**NOTE 8 - Multiemployer Pension Plans**

The company participates in various multiemployer defined benefit pension plans under the terms of collective bargaining agreements covering most of its union-represented employees. The risks of participation in these multiemployer plans are different than single-employer plans in the following aspects:

1. Assets contributed to the plan by a company may be used to provide benefits to participants of other companies,
2. If a participating company discontinues contributions to a plan, other participating employers may have to cover any unfunded liability that may exist, and
3. If the company stops participating in some of its multiemployer pension plans, the company may be required to pay those plans an amount based on the underfunded status of the plan, referred to as a withdrawal liability.

The company contributes to pension plans under industry-wide collective bargaining agreements which provide for pension benefits. Governmental regulations impose certain requirements relative to multi-employer plans. In the event of plan termination or employer withdrawal, an employer may be liable for a portion of the plan's unfunded vested benefits. The company does not anticipate withdrawal from the plans, nor is the company aware of any expected plan terminations. There are no unfunded vested benefits for the years ended December 31, 2021 and 2020.

**Steamfitters Local Union No. 420 Pension Plan**

The company's participation in the Steamfitters Local Union No. 420 Pension Plan for the years ended December 31, 2021 and 2020 is outlined in the table below. The most recent Pension Protection Act (PPA) zone status available in 2021 and 2020 is for the plan's year ended December 31, 2020. The zone status is based on information that the company received from the plan and is certified by the plan's actuary. Among other factors, plans in the red zone are generally less than 65 percent funded, plans in the yellow zone are less than 80 percent funded, and plans in the green zone are at least 80 percent funded. "The FIP/RP Pending/Implemented" column indicates plans for which a Financial Improvement Plan (FIP) or a Rehabilitation Plan (RP) is either pending or has been implemented.

**Plumbers Local Union No. 690 Pension Plan**

The company's participation in the Plumbers Local Union No. 690 Pension Plan for the years ended December 31, 2021 and 2020 is outlined in the table below. The most recent Pension Protection Act (PPA) zone status available in 2021 and 2020 is for the plan's year ended June 30, 2021. The zone status is based on information that the company received from the plan and is certified by the plan's actuary. Among other factors, plans in the red zone are generally less than 65 percent funded, plans in the yellow zone are less than 80 percent funded, and plans in the green zone are at least 80 percent funded. "The FIP/RP Pending/Implemented" column indicates plans for which a Financial Improvement Plan (FIP) or a Rehabilitation Plan (RP) is either pending or has been implemented.



**FIVE STAR, INC.**  
**Notes to Financial Statements**  
**December 31, 2021 and 2020**  
 (See Independent Accountants' Review Report)

**NOTE 8 - Multiemployer Pension Plans (Continued)**

The company's participation in the plans for the years ended December 31, 2021 and 2020 is outlined in the table below.

| Pension Protection Act Zone Status | FIP/RP Status Pending/ Implemented | Contributions |      | Employer Contributions Greater Than 5% of Total Plan Contributions | Surcharge Imposed | Expiration Date of Collective Bargaining Agreement |
|------------------------------------|------------------------------------|---------------|------|--|-------------------|--|
|                                    |                                    | 2021          | 2020 |  |                   |  |

Plan Name: Steamfitters Local Union No. 420 Pension Plan  
 (EIN:23-2004424)

|            |     |            |            |    |    |          |
|------------|-----|------------|------------|----|----|----------|
| (Red Zone) | Yes | \$ 201,528 | \$ 275,536 | No | No | 04/30/23 |
|------------|-----|------------|------------|----|----|----------|

Plan Name: Plumbers Local Union No. 690 Pension Plan  
 (EIN:23-6405018)

|              |     |            |           |    |    |          |
|--------------|-----|------------|-----------|----|----|----------|
| (Green Zone) | N/A | \$ 131,528 | \$ 99,378 | No | No | 04/30/22 |
|--------------|-----|------------|-----------|----|----|----------|

**NOTE 9 - Non-Union Employee Retirement Benefits**

The company created a 401K Plan whereby the participants may elect to defer a percentage of their compensation and contribute this amount to the plan. The company may make a discretionary matching contribution equal to a percentage of the deferred compensation. In addition, the company may elect to make an additional contribution based on total compensation of all participants. Both employer contribution amounts are determined annually. There were no employer contributions for the year ended December 31, 2021. The employer contribution expense was \$194,791 for the year ended December 31, 2020.



**FIVE STAR, INC.**  
**Notes to Financial Statements**  
**December 31, 2021 and 2020**  
(See Independent Accountants' Review Report)

**NOTE 10 - Related Party Transactions**

Advances to related parties were \$15,327 as of December 31, 2021 and 2020. The advances have no specific repayment terms for the company and are not expected to be paid during the next operating cycle.

**NOTE 11 - Commitments**

The company leases its operating facilities at the monthly rate of \$8,600 from an affiliated entity. Rent expenses paid to the related party was \$103,200 for the years ended December 31, 2021 and 2020.

**NOTE 12 - Variable Interest Entities**

The company has not included in its financial statements, the net assets of Gaffney Properties, LLC, a variable interest entity affiliated with the company through common ownership. Gaffney Properties, LLC was created in June 2005 to own property leased to the company. Monthly rentals are \$8,600 (see Note 11). The company has provided the majority of financial support to Gaffney Properties, LLC. The company has also provided the majority of rental income to Gaffney Properties, LLC. Expenses consist primarily of interest and depreciation. Additionally, the balance sheet of Gaffney Properties, LLC at December 31, 2021 and 2020, includes cash balances of \$11,408 and \$11,419, property and equipment, net of accumulated depreciation, of \$509,906 and \$530,076, and notes payable of \$196,348 and \$229,839, respectively. Total assets and liabilities of Gaffney Properties, LLC as of December 31, 2021 were \$521,314 and \$216,565, respectively. Total assets and liabilities of Gaffney Properties, LLC as of December 31, 2020 were \$541,495 and \$250,086, respectively.

In March 2014, the Financial Accounting Standards Board issued Accounting Standards Update No. 2014-07, Consolidation (Topic 810): Applying Variable Interest Entities Guidance to Common Control Leasing Arrangements, which no longer requires nonpublic companies to apply variable interest entity guidance to certain common control leasing arrangements. This recent change in accounting principles generally accepted in the United States of America has enabled the company to prepare its financial statements as if it never had controlling financial interest in Gaffney Properties, LLC and consolidation was not required. The company believes this accounting alternative is preferable because it more closely aligns with the needs of the primary users of the financial statements.

The following is select financial information pertaining to Gaffney Properties, LLC as of December 31, 2021 and 2020:

|                                       | <u>2021</u>       | <u>2020</u>       |
|---------------------------------------|-------------------|-------------------|
| Total Assets                          | <u>\$ 521,314</u> | <u>\$ 541,495</u> |
| Total Liabilities                     | 216,565           | 250,086           |
| Members' Equity                       | <u>304,749</u>    | <u>291,409</u>    |
| Total Liabilities and Members' Equity | <u>521,314</u>    | <u>541,495</u>    |
| Advances Payable to Five Star, Inc.   | <u>\$ 15,327</u>  | <u>\$ 15,327</u>  |



INDEPENDENT ACCOUNTANTS' REVIEW REPORT  
ON SUPPLEMENTARY INFORMATION

To the Stockholders  
Five Star, Inc.  
West Chester, Pennsylvania

Our report on our reviews of the basic financial statements of Five Star, Inc. for 2021 and 2020 appears on page 1. The objective of those reviews was to perform procedures to obtain limited assurance as a basis for reporting whether we were aware of any material modifications that should be made to the financial statements for them to be in accordance with accounting principles generally accepted in the United States of America. The supplementary information included in the accompanying schedules is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from, and relates directly to, the underlying accounting and other records used to prepare the financial statements. The supplementary information has been subjected to the review procedures applied in our reviews of the basic financial statements. We are not aware of any material modifications that should be made to the supplementary information. We have not audited the supplementary information and do not express an opinion on such information.

*Rainer & Company*  
Rainer & Company

Newtown Square, PA  
May 25, 2022



**FIVE STAR, INC.**  
**Supplementary Information**  
**For the Years Ended December 31, 2021 and 2020**  
(See Independent Accountants' Review Report on Supplementary Information)

**SCHEDULES OF GENERAL AND ADMINISTRATIVE EXPENSES**

|                                    | <u>2021</u>         | <u>2020</u>         |
|------------------------------------|---------------------|---------------------|
| Payroll Expense - Administrative   | \$ 1,112,621        | \$ 976,683          |
| Payroll Taxes                      | 177,555             | 81,101              |
| Retirement Plan Contribution       | 0                   | 194,791             |
| Insurance                          | 74,159              | 73,709              |
| Rent                               | 103,200             | 103,200             |
| Professional Fees                  | 38,411              | 27,303              |
| Transportation Expenses            | 44,653              | 35,077              |
| Depreciation and Amortization      | 15,368              | 14,487              |
| Advertising                        | 700                 | 0                   |
| Office Supplies                    | 40,584              | 27,550              |
| Telephone and Other Office Expense | 9,563               | 10,530              |
| Meals and Entertainment            | 6,087               | 5,454               |
| Dues and Subscriptions             | 4,378               | 4,964               |
| Donations                          | 3,103               | 4,194               |
| Repairs and Maintenance            | 6,490               | 8,287               |
| Postage and Delivery Expense       | 1,275               | 1,007               |
| Professional Development           | 816                 | 829                 |
| Local Taxes                        | (6,531)             | 21,629              |
| Travel Expense                     | 4,195               | 6,367               |
|                                    | <u>4,195</u>        | <u>6,367</u>        |
| TOTAL                              | <u>\$ 1,636,627</u> | <u>\$ 1,597,162</u> |

**FIVE STAR, INC.**  
Supplementary Information  
For the Year Ended December 31, 2021  
 (See Independent Accountants' Review Report on Supplementary Information)

SCHEDULE OF COMBINED EARNINGS FROM CONTRACTS

|  | Revenues<br>Earned | Cost of<br>Revenues<br>Earned | Gross<br>Profit<br>(Loss) |
|--|--------------------|-------------------------------|---------------------------|
| Contracts in Progress                      | \$ 5,920,974       | \$ 3,987,704                  | \$ 1,933,270              |
| Provision for Loss on Contract in Progress | 0                  | 453,171                       | (453,171)                 |
| Contracts Completed                        | 2,412,455          | 2,392,538                     | 19,917                    |
| TOTAL                                      | \$ 8,333,429       | \$ 6,833,413                  | \$ 1,500,016              |



**FIVE STAR, INC.**  
**Supplementary Information**  
**For the Year Ended December 31, 2021**  
(See Independent Accountants' Review Report on Supplementary Information)

**SCHEDULE OF CONTRACTS IN PROGRESS**

| Contract Name                | Total Contract       |                        | From Inception to December 31, 2021 |                     |                     |                     |                            | Before January 1, 2021 |                   |                   | At December 31, 2021                               |  | For the Year Ended December 31, 2021 |                     |                     |                  |
|------------------------------|----------------------|------------------------|-------------------------------------|---------------------|---------------------|---------------------|----------------------------|------------------------|-------------------|-------------------|--|--|--------------------------------------|---------------------|---------------------|------------------|
|                              | Revenues             | Estimated Gross Profit | Revenues Earned                     | Cost of Revenues    | Gross Profit        | Billed To Date      | Estimated Cost to Complete | Revenues Earned        | Cost of Revenues  | Gross Profit      | Costs and Estimated Earnings In Excess of Billings | Billings in Excess of Costs and Estimated Earnings | Revenues Earned                      | Cost of Revenues    | Gross Profit (Loss) | Percent Complete |
| Del Co Stockpile Facility    | 705,000              | 208,624                | 65,868                              | 46,376              | 19,492              | 18,530              | 450,000                    | 0                      | 0                 | 0                 | 47,338   | 0  | 65,868                               | 46,376              | 19,492              | 9%               |
| Eagleview ES - Methuon       | 2,365,368            | 1,047,452              | 2,365,368                           | 1,317,916           | 1,047,452           | 2,220,084           | -                          | 0                      | 0                 | 0                 | 145,284  | 0  | 2,365,368                            | 1,317,916           | 1,047,452           | 100%             |
| Engine 37                    | 688,679              | 187,311                | 578,791                             | 421,368             | 157,423             | 708,696             | 80,000                     | 446,222                | 330,537           | 115,685           | 0  | 129,905  | 132,569                              | 90,831              | 41,738              | 84%              |
| PSD- Pratt ES                | 554,487              | 106,426                | 535,924                             | 433,061             | 102,863             | 543,863             | 15,000                     | 0                      | 0                 | 0                 | 0  | 7,939  | 535,924                              | 433,061             | 102,863             | 97%              |
| Septa - Ardmore              | 927,900              | 170,407                | 20,330                              | 16,593              | 3,737               | -                   | 740,000                    | 19,566                 | 15,649            | 3,937             | 20,330   | 0  | 744                                  | 944                 | (200)               | 2%               |
| Seravalli- PHL Fuel Facility | 275,000              | 50,168                 | 43,198                              | 35,332              | 7,866               | 60,500              | 190,000                    | 0                      | 0                 | 0                 | 0  | 17,302   | 43,198                               | 35,332              | 7,866               | 16%              |
| SJ Thomas- PACS              | 235,500              | 46,272                 | 7,253                               | 5,828               | 1,425               | -                   | 183,400                    | 0                      | 0                 | 0                 | 7,253  | 0  | 7,253                                | 5,828               | 1,425               | 3%               |
| SJ Thomas - Fair Acred #8    | 1,263,961            | 244,228                | 369,041                             | 297,733             | 71,308              | 927,611             | 722,000                    | 0                      | 0                 | 0                 | 0  | 558,570  | 369,041                              | 297,733             | 71,308              | 29%              |
| Southwest WFCP               | 2,252,000            | 567,927                | 2,151,707                           | 1,609,073           | 542,634             | 2,168,651           | 75,000                     | 25,031                 | 20,007            | 5,024             | 0  | 16,944   | 2,126,676                            | 1,589,066           | 537,610             | 96%              |
| Spring City Readiness        | 937,990              | 188,492                | 43,174                              | 34,498              | 8,676               | 124,283             | 715,000                    | 0                      | 0                 | 0                 | 0  | 81,109   | 43,174                               | 34,498              | 8,676               | 5%               |
| Strawberry Mansion           | 1,223,190            | 528,691                | 1,205,547                           | 684,469             | 521,078             | 1,262,371           | 10,000                     | 974,388                | 548,350           | 426,038           | 0  | 56,824   | 231,159                              | 136,119             | 95,040              | 99%              |
| <b>TOTAL</b>                 | <b>\$ 11,428,145</b> | <b>\$ 3,345,998</b>    | <b>\$ 7,386,201</b>                 | <b>\$ 4,902,247</b> | <b>\$ 2,483,954</b> | <b>\$ 8,034,569</b> | <b>\$ 3,180,400</b>        | <b>\$ 1,465,227</b>    | <b>\$ 914,543</b> | <b>\$ 550,684</b> | <b>\$ 220,205</b>                                  | <b>\$ 868,593</b>                                  | <b>\$ 5,020,974</b>                  | <b>\$ 3,987,704</b> | <b>\$ 1,033,270</b> |                  |



**FIVE STAR, INC.**

Supplementary Information

For the Year Ended December 31, 2021

(See Independent Accountants' Review Report on Supplementary Information)

SCHEDULE OF COMPLETED CONTRACTS

| Contract Name                 | Contract Totals      |                      |                     | Before January 1, 2021 |                     |                     | For the Year Ended December 31, 2021 |                     |                  |
|-------------------------------|----------------------|----------------------|---------------------|------------------------|---------------------|---------------------|--------------------------------------|---------------------|------------------|
|                               | Revenues Earned      | Cost of Revenues     | Gross Profit        | Revenues Earned        | Cost of Revenues    | Gross Profit        | Revenues Earned                      | Cost of Revenues    | Gross Profit     |
| Crum Creek                    | \$ 395,000           | \$ 200,989           | \$ 194,011          | \$ 247,804             | \$ 125,989          | \$ 121,815          | \$ 147,196                           | \$ 75,000           | \$ 72,196        |
| Delaware Valley Veterans Home | 495,131              | 228,546              | 266,585             | 440,970                | 203,546             | 237,424             | 54,161                               | 25,000              | 29,161           |
| East Ward Elem - DASD         | 188,000              | 150,890              | 37,110              | 58,422                 | 46,890              | 11,532              | 129,578                              | 104,000             | 25,578           |
| Exeter UV                     | 3,297,662            | 2,700,582            | 597,080             | 3,279,566              | 2,685,802           | 593,764             | 18,096                               | 14,780              | 3,316            |
| Fair Acres - Bldg # 19        | 477,000              | 377,445              | 99,555              | 59,959                 | 47,445              | 12,514              | 417,041                              | 330,000             | 87,041           |
| Loomis                        | 3,355,000            | 2,499,230            | 855,770             | 3,315,227              | 2,128,472           | 1,186,755           | 39,773                               | 370,758             | (330,985)        |
| Merit - Coatesville           | 202,363              | 160,267              | 42,096              | 141,755                | 112,267             | 29,488              | 60,608                               | 48,000              | 12,608           |
| Northeast Elem - RSD          | 1,980,000            | 1,461,735            | 518,265             | 981,258                | 493,735             | 487,523             | 998,742                              | 968,000             | 30,742           |
| Owen J Roberts                | 358,118              | 291,804              | 66,314              | 106,308                | 41,804              | 64,504              | 251,810                              | 250,000             | 1,810            |
| Penn Treaty GS - PSD          | 163,000              | 129,761              | 33,239              | 2,212                  | 1,761               | 451                 | 160,788                              | 128,000             | 32,788           |
| Servalli - WTP                | 181,620              | 65,626               | 115,994             | 115,200                | 41,626              | 73,574              | 66,420                               | 24,000              | 42,420           |
| Uwchlan Elem                  | 3,177,000            | 2,749,476            | 427,524             | 3,175,845              | 2,748,476           | 427,369             | 1,155                                | 1,000               | 155              |
| WGU - Twisted Taco            | 68,000               | 54,735               | 13,265              | 913                    | 735                 | 178                 | 67,087                               | 54,000              | 13,087           |
| <b>Total</b>                  | <b>\$ 14,337,894</b> | <b>\$ 11,071,086</b> | <b>\$ 3,266,808</b> | <b>\$ 11,925,439</b>   | <b>\$ 8,678,548</b> | <b>\$ 3,246,891</b> | <b>\$ 2,412,455</b>                  | <b>\$ 2,392,538</b> | <b>\$ 19,917</b> |

**APPENDIX G  
DESIGNATED CRITICAL WORK  
QUALIFICATIONS STATEMENT**

**COVER SHEET**

DGS Project Name Lincoln University Cresson Hall Building Renov. Lincoln University, Chester Springs, PA  
DGS Project Number DGS C-1101-0054 PHASE 1

**DESIGNATED CRITICAL WORK: For proper evaluation, the Proposer MUST submit at least one "Designated Critical Work Qualification Statement" for each Work item listed in T-1C for the respective contract. NOTE: The selected Proposer shall enter subcontracts with each listed subcontractor in T-1C.**

Check One Work item for which this Qualification Statement is being submitted:

General Construction (.1 contract)

Exterior Metal Restoration

Masonry

Slate Roofing

Interior Millwork

HVAC Construction (.2 contract)

Testing, Adjusting and Balancing

Geothermal System

Geothermal Wellfield

Plumbing Construction (.3 contract)

NOT APPLICABLE

Electrical Construction (.4 contract)

Audio Visual

Name of Firm Butler Balancing Co., Inc.

Address PO Box 72256 Thorndale, PA 19372

Principal Office 1657 Bondsville Road Downingtown, PA 19335

Owner or Authorized Representative Jeanette S Miller, President

**SECTION 1 – FIRM INFORMATION**

1.1 Background Information

a) How many years has the firm been in business? 31

b) How many years has the firm been doing business in proposed contract field? 31

Under what former names has the firm conducted business?

None  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

c) Identify all jurisdictions in which the firm is licensed or otherwise qualified to do business.

Delaware                      New Jersey                      \_\_\_\_\_  
Pennsylvania                      Maryland                      \_\_\_\_\_

d) If the firm is a corporation, provide the following information:

Date of incorporation August 30, 1991  
State of incorporation Pennsylvania  
President's name Jeanette S Miller  
Vice President's name(s) Donald Butler Jr., Paul Thomas, David Miller  
Secretary's name Melanie Thomas  
Treasurer's name Melanie Thomas

e) If the firm is a partnership, provide the following information:

Date of formation \_\_\_\_\_  
Type of partnership n/a  
Names of partners \_\_\_\_\_

f) If the firm is individually owned, provide the following information:

Date of formation August 30, 1991  
Name of owner Susan Butler 95%

g) If the form of the firm is other than those listed above, describe it and name the principals: n/a



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## SECTION 2 - EXPERIENCE AND PERFORMANCE

### 2.1 General

- a) Provide the annual construction volume in dollars completed by the firm in the past three years:
- Year 2021 \$ 3.9 million
- Year 2020 \$ 3.5 million
- Year 2019 \$ 3.6 million
- b) Identify the percentage of work on similar projects the firm typically performs with its own work force 100%.
- c) List the categories of work that the firm normally performs with its own forces on similar projects. Air and water balancing, duct leakage testing, sound and vibration testing

### 2.2 Project Experience and References

Submit as **Attachment 1** to this Qualifications Statement:

- a) Suggested number of Sheets/Pages:

- 3 sheets/(6 pages)

Three (3) detailed project descriptions for relevant projects similar in size and scope to the Contract Work. The project descriptions shall include, at a minimum, the following information presented in the order listed below:

- vii. Name of project, type of project and location
- viii. Description of the project and relevance of work to the Contract Work
- ix. Contact information for an owner representative familiar with the firm's work performed on this project. Include name, address, telephone number(s) and e-mail address.
- x. The original bid/proposal price and the final contract price. If the project is ongoing, project the final price and relation to proposal price. Contract value for which the firm was/is responsible.
- xi. The original date for project completion and the actual completion date. If the project is ongoing, project the completion date and relation to original schedule.
- xii. As available, performance ratings of the work evaluated by owner or owner's representative.

### 2.3 Contractor Safety Record

Submit as **Attachment 2** to this Qualifications Statement the information specified herein and verify this information by providing copies of OSHA 300/200 Forms or appropriate documentation from insurance carriers, as applicable. The firm may submit written explanations to comment on or clarify its safety record.

- a) Provide the firm's Workers Compensation Experience Modification Rating for the past three years, beginning with the most recent year available:
- Year 1: 2021-2022, Merit Rating of 1.00

Year 2: 2020-2021 Merit Rating of 1.00

Year 3: 2019-2020 Merit Rating of 1.00

- b) Provide the firm's Total Lost Workday Incidence Rate (LWDIR) for the past three years, beginning with the most recent year available:

Year 1: 2021 0

Year 2: 2020 0

Year 3: 2019 0

\*LWDIR Rate = Number of Lost Time Injuries & Illnesses x 200,000 ÷ Total Hours Worked

- c) Provide the firm's Recordable Incidence Rate (RIR) for the past three years:

Year 1: 2021 0

Year 2: 2020 0

Year 3: 2019 0

\*RIR Rate = Number of Injuries x 200,000 ÷ Total Hours Worked

- d) Provide in an **Attachment 3** to this Qualifications Statement a list of any health or safety citations issued by federal or state agencies for serious or willful violations issued in the past 3 years. Include a separate statement for any such violations and include the citation number, a brief description of the violation and the amount of penalty, if any, for each violation and current status of violation.

### **SECTION 3 - REQUIRED DISCLOSURES**

The firm shall answer the following questions with regard to the past three (3) years. If any question is answered in the affirmative, the firm shall submit in an **Attachment 5** to this Qualifications Statement, for each affirmative answer, a written explanation which shall provide details concerning the matter in question, including applicable dates, locations, names of projects/project owners and current status of any such matter.

- 3.1 Is the firm currently debarred or suspended from doing business with any federal, state or local government agency or private entity?

Yes \_\_\_ No

- 3.2 Has the firm ever been debarred or suspended from doing business with any federal, state or local government agency or private entity?

Yes \_\_\_ No

- 3.3 Is the firm currently or has the firm been otherwise prohibited from doing business with any federal, state or local government agency or private entity?

Yes \_\_\_ No

- 3.4 Has the firm been denied prequalification (not including short listing), declared non-responsible, or otherwise declared ineligible to submit bids or proposals for work by any federal, state or local government agency or private entity?

Yes \_\_\_ No

- 3.5 Has the firm defaulted, been terminated for cause or otherwise failed to complete any project that it was awarded?  
Yes \_\_\_ No
- 3.6 Has the firm been assessed or required to pay liquidated damages in connection with work performed on any project?  
Yes \_\_\_ No
- 3.7 Has the firm had any business or professional license, registration, certificate or certification suspended or revoked?  
Yes \_\_\_ No
- 3.8 Have any liens been filed against the firm as a result of its failure to pay subcontractors, suppliers, or workers?  
Yes \_\_\_ No
- 3.9 Has the firm been denied bonding or insurance coverage or been discontinued by a surety or insurance company?  
Yes \_\_\_ No
- 3.10 Has the firm been found in violation of any laws, including but not limited to contracting or antitrust laws, tax or licensing laws, labor or employment laws or environmental laws by a final decision of a court or government agency?  
Yes \_\_\_ No
- \*Note: information regarding health and safety violations is addressed in a previous section.
- 3.11 Has the firm or its owners, officers, directors or managers been the subject of any criminal indictment or criminal investigation concerning any aspect of the firm's business?  
Yes \_\_\_ No
- 3.12 Has the firm been the subject to any bankruptcy proceeding?  
Yes \_\_\_ No

#### **SECTION 4 - REQUIRED REPRESENTATIONS**

In submitting this Qualifications Statement, along with the other representations and authorizations listed in the RFP, the firm also makes the following representations, which it understands are required as a condition of performing the Contract Work and receiving payment for same.

- 4.1 The firm will possess all applicable professional, business and trade licenses required for performing the Contract Work.
- 4.2 The firm satisfies all bonding and insurance requirements as stipulated in the solicitation for the Contract Work.
- 4.3 The firm and all subcontractors it employs in execution of the Contract Work shall be in full compliance with the Commonwealth's requirements for workers' compensation insurance according to all applicable laws, and unemployment insurance according to all applicable laws.

- 4.4 The firm and all subcontractors it employs in execution of the Contract Work shall be in full compliance with all requirements of the Commonwealth's prevailing wage law and Public Works Employment Verification Act.
- 4.5 If awarded the Contract Work, the firm represents that it will not exceed its current bonding limitations when the Contract Work is combined with the total aggregate amount of all unfinished work for which the Contractor is responsible.
- 4.6 The firm represents that it has no conflicts of interests with the Commonwealth of Pennsylvania and, if awarded the Contract Work, any potential conflicts of interest that may arise in the future will be disclosed immediately to the Department of General Services.
- 4.7 The firm represents the price offered in connection with its proposal for the Contract Work was arrived at independently without consultation, communication or agreement with any other Proposer or competitor.
- 4.8 The firm will ensure that employees and applicants for employment are not discriminated against because of their race, color, religion, sex or national origin.

## Largest Projects Completed in the past 5 years

**Maple Shade School District located Maple Shade, NJ**

Completion Year: 2021

Subcontract Value: \$120,900.00

Reference Contact: Bob Rate with New Road Construction 856-424-8888

**Fairview Campus MS + HS located Townsend, DE**

Completion Year: 2021

Subcontract Value: \$140,000.00

Reference Contact: Andrew Hickey with EDIS Company 800-995-3347

**75 Park Lane Residential located in Jersey City, NJ**

Completion Year: 2020

Subcontract Value: \$137,500.00

Reference Contact: Tom Diamond with Worth & Company, Inc. 267-362-1100

**Boyertown HS located in Boyertown, PA**

Completion Year: 2018

Subcontract Value: \$170,000.00

Reference Contact: Zach Zazo with D'HUY Engineering 610-865-3000

**SCI Prison located in Collegeville, PA**

Completion Year: 2018

Subcontract Value: \$233,250.00

Reference Contact: Chad Weigmann with Weigmann Associates 636-940-1056



Attachment 2

1199 Lancaster Ave, Suite 200  
Berwyn, PA 19312  
Phone: 610.630.0470  
Fax: 610.630.4143

April 30, 2021

Butler Balancing Company, Inc.  
P.O. Box 72256  
Thorndale, PA 19372

Attention: Jeanie Miller

Re: Butler Balancing Company, Inc.  
Workers' Compensation Policy  
Policy #WKY-H256750

Dear Jeanie,

Butler Balancing Company, Inc., does not have an Experience Modification Rating (EMR) for the May 8, 2019 to May 8, 2020, May 8, 2020 to May 8, 2021 or May 8, 2021 to May 8, 2022 term because your three-year audited Workers' Compensation premium is below the threshold to qualify for an EMR; therefore, you do not qualify for experience rating to be assigned an EMR and have NCCI Worksheets. Instead of having an EMR on the policy you have a Merit Rating of 1.00.

Also, Butler Balancing Company, Inc., does not have an Interstate Rating because you do not employ people who reside outside of the state of Pennsylvania.

If you have any questions, please contact our office.

Sincerely,

ENGELS INSURANCE, INC.

Gary H. Engels, CIC

GHE/lj

## Summary of Work-Related Injuries and Illnesses

**Note: You can type input into this form and save it.**  
 Because the forms in this recordkeeping package are "fillable/writable" PDF documents, you can type into the input form fields and then save your inputs using the free Adobe PDF Reader.

Year 20 19



**U.S. Department of Labor**  
 Occupational Safety and Health Administration  
 Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0."

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

| Number of Cases        |  |  |  |
|------------------------|--|--|--|
| Total number of deaths | Total number of cases with days away from work | Total number of cases with job transfer or restriction | Total number of other recordable cases |
| 0                      | 0  | 0  | 0                                      |
| (G)                    | (H)  | (I)  | (J)                                    |

| Number of Days                      |   |
|-------------------------------------|---|
| Total number of days away from work | Total number of days of job transfer or restriction |
| 0                                   | 0   |
| (K)                                 | (L)   |

| Injury and Illness Types   |   |                         |   |
|----------------------------|---|-------------------------|---|
| Total number of ... (M)    |   |                         |   |
| (1) Injuries               | 0 | (4) Poisonings          | 0 |
| (2) Skin disorders         | 0 | (5) Hearing loss        | 0 |
| (3) Respiratory conditions | 0 | (6) All other illnesses | 0 |

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspect of this data collection, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

**Establishment information**

Your establishment name Butler Balancing Co., Inc.

Street 1657 Bondsville Road

City Downingtown State PA Zip 19335

Industry description (e.g., *Manufacture of motor truck trailers*)  
Testing, Adjusting and Balancing

North American Industrial Classification (NAICS), if known (e.g., 336212)  
238220

**Employment information** (If you don't have these figures, see the Worksheet on the next page to estimate.)

Annual average number of employees 24

Total hours worked by all employees last year 50941

**Sign here**

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Deanne Miller President  
 Company executive Title

Phone 610-873-6905 Date 3, 1, 2020

Save Input

# Log of Work-Related Injuries and Illnesses

**Note: You can type input into this form and save it.** Because the forms in this recordkeeping package are "fillable/writable" PDF documents, you can type into the input form fields and then save your inputs using the free Adobe PDF Reader. In addition, the forms are programmed to auto-calculate as appropriate.

**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.

Year 20 19



U.S. Department of Labor  
Occupational Safety and Health Administration  
Form approved OMB no. 1218-0176

**Please Record:**

- Information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid.
- Significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional.
- Work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12.

**Reminders:**

- Complete an Injury and Illness Incident Report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.
- Feel free to use two lines for a single case if you need to.
- Complete the 5 steps for each case.

Establishment name **Butler Balancing Co., Inc.**  
City **Downingtown** State **PA**

| Step 1. Identify the person |                        | Step 2. Describe the case       |  |  |  | Step 3. Classify the case                                 |                         |                                 |                            | Step 4.   |                                | Step 5.               |                          |                                  |                       |                         |                                |                       |
|-----------------------------|------------------------|---------------------------------|--|--|--|---|-------------------------|---------------------------------|----------------------------|---|--------------------------------|-----------------------|--------------------------|----------------------------------|-----------------------|-------------------------|--------------------------------|-----------------------|
| (A)<br>Case no.             | (B)<br>Employee's name | (C)<br>Job title (e.g., Welder) | (D)<br>Date of injury or onset of illness (e.g., 2/10) | (E)<br>Where the event occurred (e.g., Loading dock north end) | (F)<br>Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g., Second degree burns on right forearm from acetylene torch) | SELECT ONLY ONE circle based on the most serious outcome: |                         |                                 |                            | Enter the number of days the injured or ill worker was: |                                | Select one column:    |                          |                                  |                       |                         |                                |                       |
|                             |                        |                                 |  |  |  | Remained at Work  |                         |                                 |                            | Away from work  | On job transfer or restriction | Illness               |                          |                                  |                       |                         |                                |                       |
|                             |                        |                                 |  |  |  | Death (G)   | Days away from work (H) | Job transfer or restriction (I) | Other recordable cases (J) | (K)   | (L)                            | (M)                   | Injury Skin disorder (1) | Injury Respiratory condition (2) | Injury Poisoning (3)  | Injury Hearing loss (4) | Injury All other illnesses (5) | (6)                   |
| Reset                       |                        |                                 | month / day  |  |  | <input type="radio"/>                                     | <input type="radio"/>   | <input type="radio"/>           | <input type="radio"/>      | days  | days                           | <input type="radio"/> | <input type="radio"/>    | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/>          | <input type="radio"/> |
| Reset                       |                        |                                 | month / day  |  |  | <input type="radio"/>                                     | <input type="radio"/>   | <input type="radio"/>           | <input type="radio"/>      | days  | days                           | <input type="radio"/> | <input type="radio"/>    | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/>          | <input type="radio"/> |
| Reset                       |                        |                                 | month / day  |  |  | <input type="radio"/>                                     | <input type="radio"/>   | <input type="radio"/>           | <input type="radio"/>      | days  | days                           | <input type="radio"/> | <input type="radio"/>    | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/>          | <input type="radio"/> |
| Reset                       |                        |                                 | month / day  |  |  | <input type="radio"/>                                     | <input type="radio"/>   | <input type="radio"/>           | <input type="radio"/>      | days  | days                           | <input type="radio"/> | <input type="radio"/>    | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/>          | <input type="radio"/> |
| Reset                       |                        |                                 | month / day  |  |  | <input type="radio"/>                                     | <input type="radio"/>   | <input type="radio"/>           | <input type="radio"/>      | days  | days                           | <input type="radio"/> | <input type="radio"/>    | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/>          | <input type="radio"/> |
| Reset                       |                        |                                 | month / day  |  |  | <input type="radio"/>                                     | <input type="radio"/>   | <input type="radio"/>           | <input type="radio"/>      | days  | days                           | <input type="radio"/> | <input type="radio"/>    | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/>          | <input type="radio"/> |
| Reset                       |                        |                                 | month / day  |  |  | <input type="radio"/>                                     | <input type="radio"/>   | <input type="radio"/>           | <input type="radio"/>      | days  | days                           | <input type="radio"/> | <input type="radio"/>    | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/>          | <input type="radio"/> |
| Reset                       |                        |                                 | month / day  |  |  | <input type="radio"/>                                     | <input type="radio"/>   | <input type="radio"/>           | <input type="radio"/>      | days  | days                           | <input type="radio"/> | <input type="radio"/>    | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/>          | <input type="radio"/> |
| Reset                       |                        |                                 | month / day  |  |  | <input type="radio"/>                                     | <input type="radio"/>   | <input type="radio"/>           | <input type="radio"/>      | days  | days                           | <input type="radio"/> | <input type="radio"/>    | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/>          | <input type="radio"/> |
| Reset                       |                        |                                 | month / day  |  |  | <input type="radio"/>                                     | <input type="radio"/>   | <input type="radio"/>           | <input type="radio"/>      | days  | days                           | <input type="radio"/> | <input type="radio"/>    | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/>          | <input type="radio"/> |
| Reset                       |                        |                                 | month / day  |  |  | <input type="radio"/>                                     | <input type="radio"/>   | <input type="radio"/>           | <input type="radio"/>      | days  | days                           | <input type="radio"/> | <input type="radio"/>    | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/>          | <input type="radio"/> |

Page totals ▶ 0

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

Add a Form Page

Page 1 of 1

Public reporting burden for this collection of information is estimated to average 14 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.



# Summary of Work-Related Injuries and Illnesses



All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0."

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

| Number of Cases        |  |  |  |
|------------------------|--|--|--|
| Total number of deaths | Total number of cases with days away from work | Total number of cases with job transfer or restriction | Total number of other recordable cases |
| 0                      | 0  | 0  | 2                                      |
| (G)                    | (H)  | (I)  | (J)                                    |

| Number of Days                      |   |
|-------------------------------------|---|
| Total number of days away from work | Total number of days of job transfer or restriction |
| 0                                   | 0   |
| (K)                                 | (L)   |

| Injury and Illness Types   |   |                         |   |
|----------------------------|---|-------------------------|---|
| Total number of . . .      |   |                         |   |
| (1) Injuries               | 2 | (4) Poisonings          | 0 |
| (2) Skin disorders         | 0 | (5) Hearing loss        | 0 |
| (3) Respiratory conditions | 0 | (6) All other illnesses | 0 |

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact US Department of Labor, OSHA Office of Statistical Analysis, Room N-3614, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

### Establishment information

Your establishment name Butler Balancing Co., Inc.

Street 1657 Bondsville Road

City Downingtown, State PA ZIP 19335

Industry description (e.g., *Manufacture of motor truck trailers*)  
Testing, Adjusting & Balancing of HVAC/Mechanical Systems

Standard Industrial Classification (SIC), if known (e.g., 3715)

OR

North American Industrial Classification (NAICS), if known (e.g., 336212)  
2 3 8 2 2 0

**Employment information** (If you don't have these figures, see the Worksheet on the back of this page to estimate.)

Annual average number of employees 25

Total hours worked by all employees last year 52,000

**Sign here**

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Jeanette S Miller President  
Company executive  
( ) 610-873-6905 Ext. 3  
Date 1-1-2021

# Log of Work-Related Injuries and Illnesses

**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.

You must record information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12. Feel free to use two lines for a single case if you need to. You must complete an Injury and Illness Incident Report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

Establishment name **Butler Balancing Co., Inc.**  
 City **Downingtown** State **PA**

| Identify the person |                        | Describe the case               |   |  | Classify the case  |                          |                          |                                 | Enter the number of days the injured or ill worker was: |                    | Check the "Injury" column or choose one type of illness: |                                     |                          |                           |                          |                          |                          |
|---------------------|------------------------|---------------------------------|---|--|--|--------------------------|--------------------------|---------------------------------|---|--------------------|--|-------------------------------------|--------------------------|---------------------------|--------------------------|--------------------------|--------------------------|
| (A)<br>Case no.     | (B)<br>Employee's name | (C)<br>Job title (e.g., Welder) | (D)<br>Date of injury or onset of illness | (E)<br>Where the event occurred (e.g., Loading dock north end) | (F)<br>Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g., Second degree burns on right forearm from acetylene torch) | Remained at Work         |                          |                                 |   | Away from work (K) | On job transfer or restriction (L)                       | (M)                                 |                          |                           |                          |                          |                          |
|                     |                        |                                 |   |  |  | Death (G)                | Days away from work (H)  | Job transfer or restriction (I) | Other recordable cases (J)                              | (K)                | (L)  | Injury (1)                          | Skin disorder (2)        | Respiratory condition (3) | Poisoning (4)            | Hearing loss (5)         | All other illnesses (6)  |
| 1                   | Dave Fusco             | Field Tech                      | 6/1/2020                                  | Roof   | Laceration to Right Hand   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>        | <input checked="" type="checkbox"/>                     | 0 days             | 0 days   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2                   | Dan Wood               | Field Tech                      | 12/ /11                                   | Roof   | Eyes Exposed to UV Lighting  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>        | <input checked="" type="checkbox"/>                     | 0 days             | 0 days   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>Page totals</b>  |                        |                                 |   |  |  | 0                        | 0                        | 0                               | 2   | 0                  | 0  | 2                                   | 0                        | 0                         | 0                        | 0                        | 0                        |

Public reporting burden for this collection of information is estimated to average 14 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

Injury (1) Skin disorder (2) Respiratory condition (3) Poisoning (4) Hearing loss (5) All other illnesses (6)

# Summary of Work-Related Injuries and Illnesses

Year 2021



U.S. Department of Labor  
Occupational Safety and Health Administration  
Form approved OMB no. 1218-0126

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0."

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

### Number of Cases

| Total number of deaths | Total number of cases with days away from work | Total number of cases with job transfer or restriction | Total number of other recordable cases |
|------------------------|--|--|--|
| 0                      | 0  | 0  | 1                                      |
| (G)                    | (H)  | (I)  | (J)                                    |

### Number of Days

| Total number of days away from work | Total number of days of job transfer or restriction |
|-------------------------------------|---|
| 0                                   | 0   |
| (K)                                 | (L)   |

### Injury and Illness Types

| Total number of . . . (M) | (1) Injuries | (2) Skin disorders | (3) Respiratory conditions | (4) Poisonings | (5) Hearing loss | (6) All other illnesses |
|---------------------------|--------------|--------------------|----------------------------|----------------|------------------|-------------------------|
|                           | 1            | 0                  | 0                          | 0              | 0                | 0                       |

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: U.S. Department of Labor, OSHA Office of Statistical Analysis, Room N-3664, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

### Establishment information

Your establishment name Butler Balancing Co., Inc.  
 Street 1657 Bondsville Road  
 City Downingtown, State PA ZIP 19335

Industry description (e.g., *Manufacture of motor truck trailers*)  
Testing, Adjusting & Balancing of HVAC/Mechanical Systems  
 Standard Industrial Classification (SIC), if known (e.g., 3715)

OR  
 North American Industrial Classification (NAICS), if known (e.g., 336212)  
2 3 8 2 2 0

### Employment information (If you don't have these figures, see the Worksheet on the back of this page to estimate.)

Annual average number of employees 24  
 Total hours worked by all employees last year 49,600

### Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Jeanette S Miller Jeanette S Miller, President  
Company Executive Title  
 Phone 610; 873-6905 Ext. 3 Date 12-31-2021

# Log of Work-Related Injuries and Illnesses

**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.

You must record information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12. Feel free to use two lines for a single case if you need to. You must complete an Injury and Illness Incident Report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

Establishment name Butler Balancing Co., Inc.  
 City Downingtown State PA

| Identify the person |                        | Describe the case               |   |  | Classify the case  |                          |                          |                                 | Enter the number of days the injured or ill worker was: |                    | Check the "Injury" column or choose one type of illness: |                                     |                          |                           |                          |                          |                          |
|---------------------|------------------------|---------------------------------|---|--|--|--------------------------|--------------------------|---------------------------------|---|--------------------|--|-------------------------------------|--------------------------|---------------------------|--------------------------|--------------------------|--------------------------|
| (A)<br>Case no.     | (B)<br>Employee's name | (C)<br>Job title (e.g., Welder) | (D)<br>Date of injury or onset of illness | (E)<br>Where the event occurred (e.g., Loading dock north end) | (F)<br>Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g., Second degree burns on right forearm from acetylene torch)                   | Remained at Work         |                          |                                 |   | Away from work (K) | On job transfer or restriction (L)                       | (M)                                 |                          |                           |                          |                          |                          |
|                     |                        |                                 |   |  |  | Death (G)                | Days away from work (H)  | Job transfer or restriction (I) | Other recordable cases (J)                              | days               | days   | Injury (1)                          | Skin disorder (2)        | Respiratory condition (3) | Poisoning (4)            | Hearing loss (5)         | All other illnesses (6)  |
| 1                   | Daniel Wood            | TAB Technician                  | 11 / 08<br>month/day                      | Working on a make up air unit in a ceiling, off 6' ladder.     | Employee pulling the motor closer to the fan pulley to get the belt back on. As he was using his right arm to left the motor up and towards the fan, he felt something in the inner part of his elbow click. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>        | <input checked="" type="checkbox"/>                     | 0                  | 0  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>Page totals</b>  |                        |                                 |   |  |  | 0                        | 0                        | 0                               | 1   | 0                  | 0  | 1                                   | 0                        | 0                         | 0                        | 0                        | 0                        |

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|        |               |                       |           |              |                     |
|--------|---------------|-----------------------|-----------|--------------|---------------------|
| Injury | Skin disorder | Respiratory condition | Poisoning | Hearing loss | All other illnesses |
| (1)    | (2)           | (3)                   | (4)       | (5)          | (6)                 |

**APPENDIX G  
DESIGNATED CRITICAL WORK  
QUALIFICATIONS STATEMENT**

COVER SHEET

DGS Project Name Lincoln University Vail Hall

DGS Project Number C-1101-0053

**DESIGNATED CRITICAL WORK:** For proper evaluation, the Proposer **MUST** submit at least one "Designated Critical Work Qualification Statement" for each Work item listed in T-1C for the respective contract. **NOTE:** The selected Proposer shall enter subcontracts with each listed subcontractor in T-1C.

Check One Work item for which this Qualification Statement is being submitted:

General Construction (.1 contract)

Exterior Metal Restoration

Masonry

Slate Roofing

Interior Millwork

HVAC Construction (.2 contract)

Testing, Adjusting and Balancing

Geothermal System

Geothermal Wellfield

Plumbing Construction (.3 contract)

NOT APPLICABLE

Electrical Construction (.4 contract)

Audio Visual

Name of Firm MORRISON GEOTHERMAL INC

Address 63 GAMBERS CORNER RD DUNCANSON PA 17020

Principal Office SAME

Owner or Authorized Representative MICHAEL RASH V.P

**SECTION 1 – FIRM INFORMATION**

1.1 Background Information

- a) How many years has the firm been in business? 33
- b) How many years has the firm been doing business in proposed contract field? 27

Under what former names has the firm conducted business?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- c) Identify all jurisdictions in which the firm is licensed or otherwise qualified to do business.

PA                      NJ                      DE  
MD                      WV                      \_\_\_\_\_

- d) If the firm is a corporation, provide the following information:

Date of incorporation July 1989  
State of incorporation PA  
President's name HARRY MORRISON JR  
Vice President's name(s) MICHAEL RASH  
Secretary's name BONNIE MORRISON  
Treasurer's name BONNIE MORRISON

- e) If the firm is a partnership, provide the following information:

Date of formation \_\_\_\_\_  
Type of partnership \_\_\_\_\_  
Names of partners \_\_\_\_\_

- f) If the firm is individually owned, provide the following information:

Date of formation \_\_\_\_\_  
Name of owner \_\_\_\_\_

- g) If the form of the firm is other than those listed above, describe it and name the principals:

\_\_\_\_\_  
\_\_\_\_\_

## SECTION 2 - EXPERIENCE AND PERFORMANCE

### 2.1 General

- a) Provide the annual construction volume in dollars completed by the firm in the past three years:
- Year 2021 \$ 1,442,324.00  
Year 2020 \$ 680,126.00  
Year 2019 \$ 427,337.00
- b) Identify the percentage of work on similar projects the firm typically performs with its own work force \_\_\_\_\_
- c) List the categories of work that the firm normally performs with its own forces on similar projects. DRILLING - GROUTING - MANIFOLDS - EXCAVATION

### 2.2 Project Experience and References

Submit as **Attachment 1** to this Qualifications Statement:

- a) Suggested number of Sheets/Pages:

- 3 sheets/(6 pages)

Three (3) detailed project descriptions for relevant projects similar in size and scope to the Contract Work. The project descriptions shall include, at a minimum, the following information presented in the order listed below:

- vii. Name of project, type of project and location
- viii. Description of the project and relevance of work to the Contract Work
- ix. Contact information for an owner representative familiar with the firm's work performed on this project. Include name, address, telephone number(s) and e-mail address.
- x. The original bid/proposal price and the final contract price. If the project is ongoing, project the final price and relation to proposal price. Contract value for which the firm was/is responsible.
- xi. The original date for project completion and the actual completion date. If the project is ongoing, project the completion date and relation to original schedule.
- xii. As available, performance ratings of the work evaluated by owner or owner's representative.

### 2.3 Contractor Safety Record

Submit as **Attachment 2** to this Qualifications Statement the information specified herein and verify this information by providing copies of OSHA 300/200 Forms or appropriate documentation from insurance carriers, as applicable. The firm may submit written explanations to comment on or clarify its safety record.

- a) Provide the firm's Workers Compensation Experience Modification Rating for the past three years, beginning with the most recent year available:

Year 1: 2022-23 . 1862  
Year 2: -2021-22 . 0.851

Year 3: 2020-21 1825

- b) Provide the firm's Total Lost Workday Incidence Rate (LWDIR) for the past three years, beginning with the most recent year available:

Year 1: 2019 0

Year 2: 2020 0

Year 3: 2021 0

\*LWDIR Rate = Number of Lost Time Injuries & Illnesses x 200,000 ÷ Total Hours Worked

- c) Provide the firm's Recordable Incidence Rate (RIR) for the past three years:

Year 1: 2019 0

Year 2: 2020 13.8

Year 3: 2021 6.9

\*RIR Rate = Number of Injuries x 200,000 ÷ Total Hours Worked

- d) Provide in an **Attachment 3** to this Qualifications Statement a list of any health or safety citations issued by federal or state agencies for serious or willful violations issued in the past 3 years. Include a separate statement for any such violations and include the citation number, a brief description of the violation and the amount of penalty, if any, for each violation and current status of violation.

n/a

### SECTION 3 - REQUIRED DISCLOSURES

The firm shall answer the following questions with regard to the past three (3) years. If any question is answered in the affirmative, the firm shall submit in an **Attachment 5** to this Qualifications Statement, for each affirmative answer, a written explanation which shall provide details concerning the matter in question, including applicable dates, locations, names of projects/project owners and current status of any such matter.

- 3.1 Is the firm currently debarred or suspended from doing business with any federal, state or local government agency or private entity?

Yes \_\_\_ No

- 3.2 Has the firm ever been debarred or suspended from doing business with any federal, state or local government agency or private entity?

Yes \_\_\_ No

- 3.3 Is the firm currently or has the firm been otherwise prohibited from doing business with any federal, state or local government agency or private entity?

Yes \_\_\_ No

- 3.4 Has the firm been denied prequalification (not including short listing), declared non-responsible, or otherwise declared ineligible to submit bids or proposals for work by any federal, state or local government agency or private entity?

Yes \_\_\_ No

- 3.5 Has the firm defaulted, been terminated for cause or otherwise failed to complete any project that it was awarded?



- Yes \_\_\_ No
- 3.6 Has the firm been assessed or required to pay liquidated damages in connection with work performed on any project?  
Yes \_\_\_ No
- 3.7 Has the firm had any business or professional license, registration, certificate or certification suspended or revoked?  
Yes \_\_\_ No
- 3.8 Have any liens been filed against the firm as a result of its failure to pay subcontractors, suppliers, or workers?  
Yes \_\_\_ No
- 3.9 Has the firm been denied bonding or insurance coverage or been discontinued by a surety or insurance company?  
Yes \_\_\_ No
- 3.10 Has the firm been found in violation of any laws, including but not limited to contracting or antitrust laws, tax or licensing laws, labor or employment laws or environmental laws by a final decision of a court or government agency?  
Yes \_\_\_ No
- \*Note: information regarding health and safety violations is addressed in a previous section.
- 3.11 Has the firm or its owners, officers, directors or managers been the subject of any criminal indictment or criminal investigation concerning any aspect of the firm's business?  
Yes \_\_\_ No
- 3.12 Has the firm been the subject to any bankruptcy proceeding?  
Yes \_\_\_ No

#### **SECTION 4 - REQUIRED REPRESENTATIONS**

In submitting this Qualifications Statement, along with the other representations and authorizations listed in the RFP, the firm also makes the following representations, which it understands are required as a condition of performing the Contract Work and receiving payment for same.

- 4.1 The firm will possess all applicable professional, business and trade licenses required for performing the Contract Work.
- 4.2 The firm satisfies all bonding and insurance requirements as stipulated in the solicitation for the Contract Work.
- 4.3 The firm and all subcontractors it employs in execution of the Contract Work shall be in full compliance with the Commonwealth's requirements for workers' compensation insurance according to all applicable laws, and unemployment insurance according to all applicable laws.

- 4.4 The firm and all subcontractors it employs in execution of the Contract Work shall be in full compliance with all requirements of the Commonwealth's prevailing wage law and Public Works Employment Verification Act.
- 4.5 If awarded the Contract Work, the firm represents that it will not exceed its current bonding limitations when the Contract Work is combined with the total aggregate amount of all unfinished work for which the Contractor is responsible.
- 4.6 The firm represents that it has no conflicts of interests with the Commonwealth of Pennsylvania and, if awarded the Contract Work, any potential conflicts of interest that may arise in the future will be disclosed immediately to the Department of General Services.
- 4.7 The firm represents the price offered in connection with its proposal for the Contract Work was arrived at independently without consultation, communication or agreement with any other Proposer or competitor.
- 4.8 The firm will ensure that employees and applicants for employment are not discriminated against because of their race, color, religion, sex or national origin.

VALLEY VIEW NURSING HOME  
HOLLIDAYSBURG, PA  
ARCHITECT - JOHN HAAS ASSOCIATES, ALTOONA, PA  
CONTRACT AMOUNT - \$224,970.00  
DATE OF COMPLETION - 4/98

PA WATER AUTHORITY  
2699 STAFFORD AVENUE  
SCRANTON, PA 18505  
ARCHITECT - PREMIUM BUILDERS - 570-408-1280  
CONTRACT AMOUNT - \$235,000.00  
DATE OF COMPLETION - 5/14

NORTHLEY ELEM SCHOOL  
2801 CONCORD ROAD  
ASTON, PA 19014  
ARCHITECT - MYCO MECHANICAL - 267-382-0297  
CONTRACT AMOUNT - \$578,000.00  
DATE OF COMPLETION - 5/14

CENTRAL COLUMBIA  
4777 OLD BERWICK ROAD  
BLOOMSBURG, PA 17815  
ARCHITECT - BENELL INC - 570-784-0805  
CONTRACT AMOUNT - \$1,000,000.00  
DATE OF COMPLETION - 7/14

FORT DIX  
STATE RTE 68  
FORT DIX, NJ 04202  
ARCHITECT - BORO CONSTRUCTION - 610-272-7400  
CONTRACT AMOUNT - \$335,000.00  
DATE OF COMPLETION - 9/14

WESTMINISTER PLACE  
150 PAULINE DRIVE  
YORK, PA 17402  
ARCHITECT - MASSARO BLDG CO - 717-741-0839  
CONTRACT AMOUNT - \$242,000.00  
DATE OF COMPLETION - 8/15

LONGWOOD GARDENS  
1001 LONGWOOD ROAD  
KENNETT SQUARE, PA 19348  
ARCHITECT - WORTH & CO - 267-362-1100  
CONTRACT AMOUNT - \$412,000.00  
DATE OF COMPLETION - 10/15

FORT NECESSITY  
1  
FARMINGTON, PA 15437  
ARCHITECT - WU ASSOCIATES - 856-857-1639  
CONTRACT AMOUNT - \$57,800.00  
DATE OF COMPLETION - 12.15

ST MARY'S  
227 ISABELLA ROAD  
ELVERSON, PA 19520  
ARCHITECT - DEKALB MECHANICAL - 815-756-6528  
CONTRACT AMOUNT - \$90,000.00  
DATE OF COMPLETION - 12/15

STRATTON MEDICAL CENTER  
113 HOLLAND AVENUE  
ALBANY, NY 12208  
ARCHITECT - IRON SWORD ENTERPRISES - 845-863-1788  
CONTRACT AMOUNT - \$149,200.00  
DATE OF COMPLETION - 12/16

**APPENDIX G  
DESIGNATED CRITICAL WORK  
QUALIFICATIONS STATEMENT**

**COVER SHEET**

DGS Project Name Lincoln University Cresson Hall Renovations

DGS Project Number DGS C -1101-0054 Phase 1

**DESIGNATED CRITICAL WORK: For proper evaluation, the Proposer MUST submit at least one "Designated Critical Work Qualification Statement" for each Work item listed in T-1C for the respective contract. NOTE: The selected Proposer shall enter subcontracts with each listed subcontractor in T-1C.**

Check One Work item for which this Qualification Statement is being submitted:

General Construction (.1 contract)

Exterior Metal Restoration

Masonry

Slate Roofing

Interior Millwork

HVAC Construction (.2 contract)

Testing, Adjusting and Balancing

Geothermal System

Geothermal Wellfield

Building Automation Systems

Plumbing Construction (.3 contract)

NOT APPLICABLE

Electrical Construction (.4 contract)

Audio Visual

Name of Firm Delta Connects

Address 10 Centre Drive Monroe, NJ 08831

Principal Office \_\_\_\_\_

Owner or Authorized Representative Raymond Matlack

2022-3864

September 19, 2022

RE: Lincoln University – Cresson Hall Appendix G- Attachment 1

This is being sent to provide information required for Appendix G Attachment 1 of the bid documents, specifically with reference to Lincoln University.

Delta Connects is the Sole Source BAS Vendor for the site as identified in the project Division 230900 specifications. Delta Connects furnishes, installs, wires and starts-up devices on the Lincoln University Delta Controls BACnet BMS/DDC campus network system for the University on many projects.

We provide BAS Operating and Monitoring Control systems for either Construction (renovation and new), service and maintenance projects, and upgrades to the University. This also includes training for the personnel who keep your mechanical building systems operating efficiently throughout the life of the buildings.

Delta Connects has provided (20) or more projects that extend or maintain the system for Lincoln since 2016. They include a variety of projects, types as mentioned above. Currently there are three major construction sites on the site that we are either finished or nearing successful completion:

- Vail Hall- Bid 3/22/22, contractor Five Star Mechanical, Proposal Price \$265,500
- Amos Hall Expansion – Bid 1/12/21, contractor Dolan Mechanical, Proposal Price \$312,000
- Dickey Hall- Bid 9/18/18, contractor Heisey Mechanical, Proposal Price \$219,886

The remainder of the projects are smaller service or upgrade projects that total hundreds of thousands of dollars that help maintain a functioning site for Lincoln University. Please contact us if there is any additional information you need.

Raymond JMatlack  
Account Executive  
Delta Connects Inc

---

**Delta Connects Inc.**

10 Centre Drive \* Monroe, NJ 08831 \* (732) 355-7177  
5 Penn Plaza 19<sup>th</sup> Floor \* New York, NY 10001 \* (212) 629-8844



## Garrett Gelting

**Project Role:** Project Planning, Design, Execution, Monitoring, Controlling and Closing

**Position Title:** Project Manager

**Industry Experience:** 6 ½ Years

### Experience:

Garrett has considerable experience in all aspects of the ever evolving Delta product line and the controls business since he began at Delta in 2016. Prior to becoming a team member of Delta, Garrett has gained industry experience as an Development Technician providing automatic controls on equipment for a polymer manufacturer. Duties include the development and management the project's costs, time and scope by communicating with client and team members, allocating tasks, and setting milestones. Garrett is ultimately responsible for ensuring the project meets the client's requirements in accordance with the project contract requirements and meets Delta's high standards.

Garrett's project experience includes Commercial, Higher Education, Hospitality, Manufacturing, and Healthcare. Some examples are:

- BNY Mellon at 1735 Market Street, Philadelphia
- Various VAMC Locations
- Various Penn Medicine Locations
- Various Philadelphia Housing Authority Locations
- Lincoln University

### Licenses & Certifications:

- BS in Electrical Engineering
- MBA in Project Management & Operations

## Daniel James

**Project Role:** Designing, Developing and Implementing Programs and Applications  
**Position Title:** Application Engineer  
**Industry Experience:** Over 10 Years

### Experience:

Daniel has considerable experience in all aspects of the ever evolving Delta product line and the controls business since he began at Delta in 2014. Prior to becoming a team member of Delta, Daniel has gained industry experience as an Application Engineer at various companies.

Duties include the development of the client's integrated Building Automation/Energy Management System design, software and graphical user interface. Daniel is ultimately responsible for creating applications that respond to our client's needs and provide innovative solutions while meeting Delta's high standards.

Daniel's project experience includes Commercial, Higher Education, Hospitality, Manufacturing, and Healthcare. Some examples are:

- Sugarhouse Casino
- Philadelphia Housing Authority
- Methodist Hospital
- Sunoco Corporate Headquarters
- Penn Medicine

### Licenses & Certifications:

- ✓ Level 1 Technical Training
- ✓ Level 2 Technical Training
- ✓ Engineering in enteliWEB
- ✓ GCL+ Programming
- ✓ DCI Qualification

## Kevin Heide

**Project Role:** Team Building, Design, Execution, Monitoring, Controlling and Closing

**Position Title:** Operations Manager

**Industry Experience:** Over 24 Years

### Experience:

Kevin has considerable experience in all aspects of the ever evolving Delta product line and the controls business since he began at Delta in 1998. Prior to becoming the operations manager of Delta, Kevin has gained industry experience as an engineering manager, design engineer, and technician; providing high quality control systems designs and implementations. Kevin's duties include the development and management the overall construction installation process, equipping the project team members to successfully build high quality projects, and interfacing with clients to ensure we are exceeding expectations. Kevin is ultimately responsible for ensuring the project is delivered on time, meeting the project contract requirements, and delivering Delta's high standards.

Kevin's project experience includes Commercial, Higher Education, Hospitality, Manufacturing, and Healthcare. Some examples are:

- New Youk Methodist Hospital
- Lincoln Center Central Mechanical Plant
- Canon America's Headquarters
- Fordham University
- 60 Wall Street
- VA Medical Centers



## Employee Name **Shishir Amin**

**Project Role:** Designing, Developing and Implementing Programs and Applications

**Position Title:** Engineering Manager

**Industry Experience:** Over 25 Years

### Experience:

Shishir has considerable experience in all aspects of the ever evolving Delta product line and the controls business since he began at Delta in 1998. Prior to becoming a team member of Delta, Shishir has gained industry experience as BMS Manager managing multiple facilities BMS. Shishir has Masters in Mechanical Engineering from Stevens Institute of Technology in Hoboken, NJ.

Duties include the development of the client's integrated Building Automation/Energy Management System design, software and graphical user interface. Shishir is ultimately responsible for creating applications that respond to our client's needs and provide innovative solutions while meeting Delta's high standards. Shishir has taken lead role in developing Analytics solutions for both energy efficiency and efficient planned maintenance. Shishir manages engineering group and has developed Engineering standards to have uniform product across the board.

Shishir's project experience includes Commercial, Higher Education, Hospitality, Manufacturing, and Healthcare. Some examples are:

- Lincoln Center Central Plant (10,000 Tons of cooling to Theater district)
- Fordham University Lincoln Center Campus
- Canon HQ in Melville, NY
- Deutsche Bank on Wall Street, NY

### Licenses & Certifications:

- ✓ CEM

## Kevin Goodwin

**Project Role:** Overall Project Execution, Customer Interaction, Team Supervision, Design Review

**Position Title:** Area Manager

**Industry Experience:** Over 35 Years

### Experience:

Kevin has considerable experience in all business aspects. He has maintained a key role in developing the Delta product line since he began at Delta in 2015. Prior to becoming the Area manager of Delta's Philadelphia Metro Area, Kevin held the position of Area Construction Sales Manager at Siemens and Area Installation Manager at Johnson Controls. Kevin's main responsibility is focusing on the client experience, by overseeing all aspects of the project and ensuring the team is exceeding their expectations.

Kevin's project experience includes Pharmaceutical, Higher Education, Sport's Arenas, Manufacturing, and Healthcare. Some examples are:

- Rocket Pharma
- Mellon Center
- Erytech Pharma
- Lincoln Finanical Field
- VA Medical Centers
- Prudential Center (Devil's Arena)
- Lincoln University

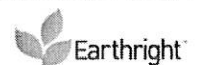
### Licenses & Certifications:

- BS in Mechanical Engineering
- Professional Engineer License
- Master HVAC License

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### Delta Connects Inc.

10 Centre Drive \* Monroe, NJ 08831 \* (732) 355-7177  
5 Penn Plaza 19<sup>th</sup> Floor \* New York, NY 10001 \* (212) 629-8844  
1650 Market Street, Suite 3600 \* Philadelphia, PA 19103 \* (215) 486-2033



## **T 2-A**

### **Project Management Team and Responsibilities**

#### **Five Star Inc Roles & Responsibilities**

##### **Joe Gaffney, Lead Project Manager:**

Joe successfully managed and coordinated managed a \$4.0 million boiler plant decentralization at Cheyney University. Joe was the PM for the three similar projects that Five Star completed for the Philadelphia School District. Please see attached resume for additional references and qualifications. Joe has more than 30 years of experience in public works and multi prime projects as a foreman up to a lead project manager. Please see attached resume for additional references and qualifications.

##### **Kevin Burke, Contract/Project Manager:**

Kevin has also successfully managed and coordinated some of the most unique projects for Five Star. He brings with him more than 30 years of experience in public works and multi prime projects. Please see attached resume for additional references and qualifications.

##### **Tom Gaffney, Labor Supervisor:**

Tom has been a key part of the organization with his ability to coordinate labor and subcontractors. He has more than 30 years of experience in public works and multi prime projects. Tom served as the on site project superintendent for the \$7.7 million Coatesville 9-10 Center project for Five Star. Please see attached resume for additional references and qualifications.

##### **Mary Ellen Strubilla, Project Coordinator:**

Mary Ellen has been involved with Five Star public works and multi prime project management for the last seven years and more than 25 years working on DGS and public works projects. Please see attached resume for additional references and qualifications.

All subcontractors will be coordinated and managed by the above team, as detailed in the organizational chart shown in section T 1-B. Five Star will ensure only high quality experienced subcontractors will be involved with this project. Five Star prides itself on quality of workmanship, and the relationships it has built upon all of our past projects with our subcontractors and Owners.

# ROBERT GAFFNEY

## SUMMARY OF QUALIFICATIONS

---

- Project Management Experience
- Estimating Experience.
- Business Management Experience.
- Pipe Fitting Experience.

## EXPERIENCE

---

04/02 to Present **Five Star, Inc.** West Chester, PA

*Owner*

- Responsible for all company operations.
- Project Managing.
- Office Manager.
- Estimating

06/01 to 03/02 **MidAtlantic Constructors** Eddystone, PA

- Estimating.
- Project Managing (15 million dollar project).

04/01 to 05/01 **EJ Meloney Mechanical Contractors** Lansdowne, PA

- Pipe Fitting Foreman (City Hall Chilled Water Project \$400,000).

1989 to 2001 **PHC** Edgmont, PA

- Responsible for all Company Operations for six million dollar business.
- Prepare Bids.
- Project Manager
- Pipe Fitter.
- Office Manager.

02/89 to 04/89 **Henkels & McCoy** Blue Bell, PA

- Pipe Fitter.

01/86 to 01/89 **EJ Meloney Mechanical Contractors** Lansdowne, PA

- Pipe Fitting Foreman.

12/81 to 12/85 **Steamfitters Apprentice Program**

Various Mechanical Contractors.

## EDUCATION

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- 1976-1980 Cardinal O'Hara High School Springfield, PA
- Penn State – Blue Print Reading; Penn State- Mechanical Estimating;
  - Penn State – Project Managing; Steamfitter Apprentice Program.

28 Foxbrook Drive, Thornton, PA 19373 (610) 399-3129

# THOMAS W. GAFFNEY

## SUMMARY OF QUALIFICATIONS

- Foreman
- Project Manager
- Superintendent for all field operations
- 25 years of pipe installations and mechanical systems
- Certified Welder
- Estimating Experience

## EXPERIENCE

01/02 to Present **Five Star, Inc.** West Chester, PA

- Owner
- Secretary
- Responsible for all company operation
- Outside Superintendent, Sales
- Responsible for all field operations

01/95 to 01/02 **PHC Company** Edgemont, PA

- Estimating
- Project Managing
- Outside Superintendent
- PHC Company

01/91 to 01/95 **Herman Goldner** Philadelphia, PA

- Foreman for Herman Goldner for various commercial jobs

01/86 to 01/91

- Foreman for various contractors
- Industrial Work:
  1. Henkles and McCoy
  2. Nooter
  3. JJ White

Bluebell, PA  
Bensalem, PA  
Philadelphia, PA

08/81 to 08/85 **Steamfitters L.U. 420 Apprentice Program**

- Various Mechanical Contractors

## EDUCATION

1974 to 1978:

- Cardinal O'Hara High School, Springfield PA
- Penn State Mechanical Contractor Certificate
- Drexel University:
  1. Understanding Construction Drawings
  2. Contracts Spec I
  3. Estimating I
  4. Management Construction Field Services
  5. Value Engineering I
  6. Marketing Construction Services

Mary Ellen Strubilla

Experience: **Five Star, Inc.** – Commercial Mechanical Contractor, West Chester, PA  
May 2013 - present

Project Coordinator/Bid Coordinator – commercial bid processing, review of project drawings and specifications for price requests, process awarded contracts from \$50K to \$5M, submittals, RFI's, project buyout, subcontractor agreements, purchase orders, change orders, close out documents, certified payroll, MBE/WBE reporting, union dues, AIA Documents, payroll, accounts payable and receivable, tax filing.

**TMI Commercial, Inc.** – Plumbing/HVAC Commercial Contractor, Honey Brook, PA  
February 2004 – May 2013

Project Coordinator/Office Manager – working directly with Architects/Engineers, School District personnel, Municipalities, PA DGS, suppliers and subcontractors regarding prime contracts, \$50k to \$1.5m, from initial start up, bids to contracts, contract bonds and insurance through submittals, application for payments, change orders, DGS forms, MBE/WBE reporting, RFI's, certified payroll to close out bonds and manuals. Responsible for accounts receivable and payable, payroll for approximately 20 employees along with the filing of related Federal, State and local employee payroll taxes.

**CH&E Construction, Inc.** – General Contractor, Lancaster, PA  
December 1998 to January 2004

Project Coordinator – contract administrator working directly with the Project Manager from bid stage to project completion including the following: prepare subcontract agreements and purchase orders, submittals to Architect for all phases of the specifications, create and track change orders for subcontractors and owners, code invoices by phase and job, maintain cost-to-complete per project, reconcile vendor discrepancies, create and maintain AIA formatted documents, prevailing wage certified payroll reporting, familiar with Affirmative Action agreements, Section 3 requirements, prepare maintenance manuals and close out information.

**Carlino Development Group** – Residential/Commercial Developer, Wyomissing, PA  
June 1992 – November 1998

Purchasing Assistant – track new home construction, prepare and maintain budgets for all residential and commercial projects, code subcontractor invoices for general ledger, job and phase, identify budget variance, assist in all phases of purchasing from quote to contract, maintain residential option selections, developed budget spreadsheets for all projects to define costs.

Accounting Assistant – Responsible for general ledger preparation and processing to close out, start to finish of all payables for commercial and residential projects, processed checks, bank reconciliation, resolved vendor discrepancies, prepare bank vouchers, create and maintain spreadsheets based on job cost.

Commonwealth of Pennsylvania Notary since 1995.

# Kevin Burke

## SUMMARY OF QUALIFICATIONS

---

- Project Management Experience
- Estimating Experience.
- Business Management Experience.
- Pipe Fitting Experience.
- Mechanical Equipment Service.

## EXPERIENCE

---

2018 to Present **Five Star, Inc.**

West Chester, PA

- Estimating.
- Project Manager.
- Office Manager.
- Prepare bids.

2006 to 2018 **AllstatesMechanical**

- Estimator/Project Manager.
- Pipe Fitter/Plumber.
- HV AC Equipment Service.

**Five Star Inc**  
**Preliminary Work Plan and Schedule**

As the HVAC Contractor on this project, we will be responsible to complete all our physical work with the proper amount of crews in a timely fashion. We will have a competent superintendent on the project to coordinate with all the other primes and their subcontractors and installing all work in a professional manner as well as making sure the crews are working safely.

It will be our responsibility to meet all milestones and contract sequences. It will also be our responsibility to test and balance all our systems and equipment and make sure they operate per the Sequence of Operations. After all this is complete we will warranty all our work from any equipment defects or workmanship issues.



Kutztown University De...ancesco Building

| ID | Task Mode | Task Name             | Duration | Start        | Finish       | Predecessors |
|----|-----------|-----------------------|----------|--------------|--------------|--------------|
| 1  | ▶         | submittal process     | 45 days  | Tue 5/4/21   | Mon 7/5/21   |              |
| 2  | ▶         | coordination drawings | 59 days  | Mon 5/3/21   | Thu 7/22/21  |              |
| 3  | ▶         | mobilization          | 14 days  | Mon 5/10/21  | Thu 5/27/21  |              |
| 4  | ▶         | initial layout        | 21 days  | Mon 5/17/21  | Mon 6/14/21  |              |
| 5  | ▶         | third floor demo      | 30 days  | Mon 5/24/21  | Fri 7/2/21   |              |
| 6  | ▶         | second floor demo     | 30 days  | Mon 6/7/21   | Fri 7/16/21  |              |
| 7  | ▶         | third floor demo      | 30 days  | Mon 6/21/21  | Fri 7/30/21  |              |
| 8  | ▶         | mech room demo        | 14 days  | Mon 7/5/21   | Thu 7/22/21  |              |
| 9  | ▶         | 1st floor piping      | 80 days  | Mon 7/19/21  | Fri 11/5/21  |              |
| 10 | ▶         | 2nd floor piping      | 70 days  | Mon 10/18/21 | Fri 1/21/22  |              |
| 11 | ▶         | 3rd floor piping      | 60 days  | Mon 12/6/21  | Fri 2/25/22  |              |
| 12 | ▶         | mech. Room piping     | 30 days  | Mon 1/17/22  | Fri 2/25/22  |              |
| 13 | ▶         | 1st floor ductwork    | 120 days | Mon 7/19/21  | Fri 12/31/21 |              |
| 14 | ▶         | 2nd floor ductwork    | 120 days | Mon 9/20/21  | Fri 3/4/22   |              |
| 15 | ▶         | 3rd floor ductwork    | 90 days  | Mon 11/22/21 | Fri 3/25/22  |              |
| 16 | ▶         | mech. room duct       | 45 days  | Mon 12/27/21 | Fri 2/25/22  |              |
| 17 | ▶         | 1st floor insulation  | 40 days  | Mon 8/16/21  | Fri 10/8/21  |              |
| 18 | ▶         | 2nd floor insulation  | 40 days  | Mon 11/8/21  | Fri 12/31/21 |              |
| 19 | ▶         | 3rd floor insulation  | 30 days  | Mon 1/3/22   | Fri 2/11/22  |              |
| 20 | ▶         | mech. room insul.     | 10 days  | Mon 1/24/22  | Fri 2/4/22   |              |
| 21 | ▶         | equip. install        | 45 days  | Mon 12/13/21 | Fri 2/11/22  |              |

|            |   |   |   |   |   |   |   |            |   |   |   |   |   |   |   |             |   |   |   |
|------------|---|---|---|---|---|---|---|------------|---|---|---|---|---|---|---|-------------|---|---|---|
| May 2, '21 | S | M | T | W | T | F | S | May 9, '21 | S | M | T | W | T | F | S | May 16, '21 | S | M | T |
|------------|---|---|---|---|---|---|---|------------|---|---|---|---|---|---|---|-------------|---|---|---|

Project: Project1.mpp  
Date: Tue 5/4/21

|                    |  |                       |  |                    |  |
|--------------------|--|-----------------------|--|--------------------|--|
| Task               |  | Inactive Summary      |  | External Tasks     |  |
| Split              |  | Manual Task           |  | External Milestone |  |
| Milestone          |  | Duration-only         |  | Deadline           |  |
| Summary            |  | Manual Summary Rollup |  | Critical           |  |
| Project Summary    |  | Manual Summary        |  | Critical Split     |  |
| Inactive Task      |  | Start-only            |  | Progress           |  |
| Inactive Milestone |  | Finish-only           |  | Manual Progress    |  |

Kutztown University De...ancesco Building

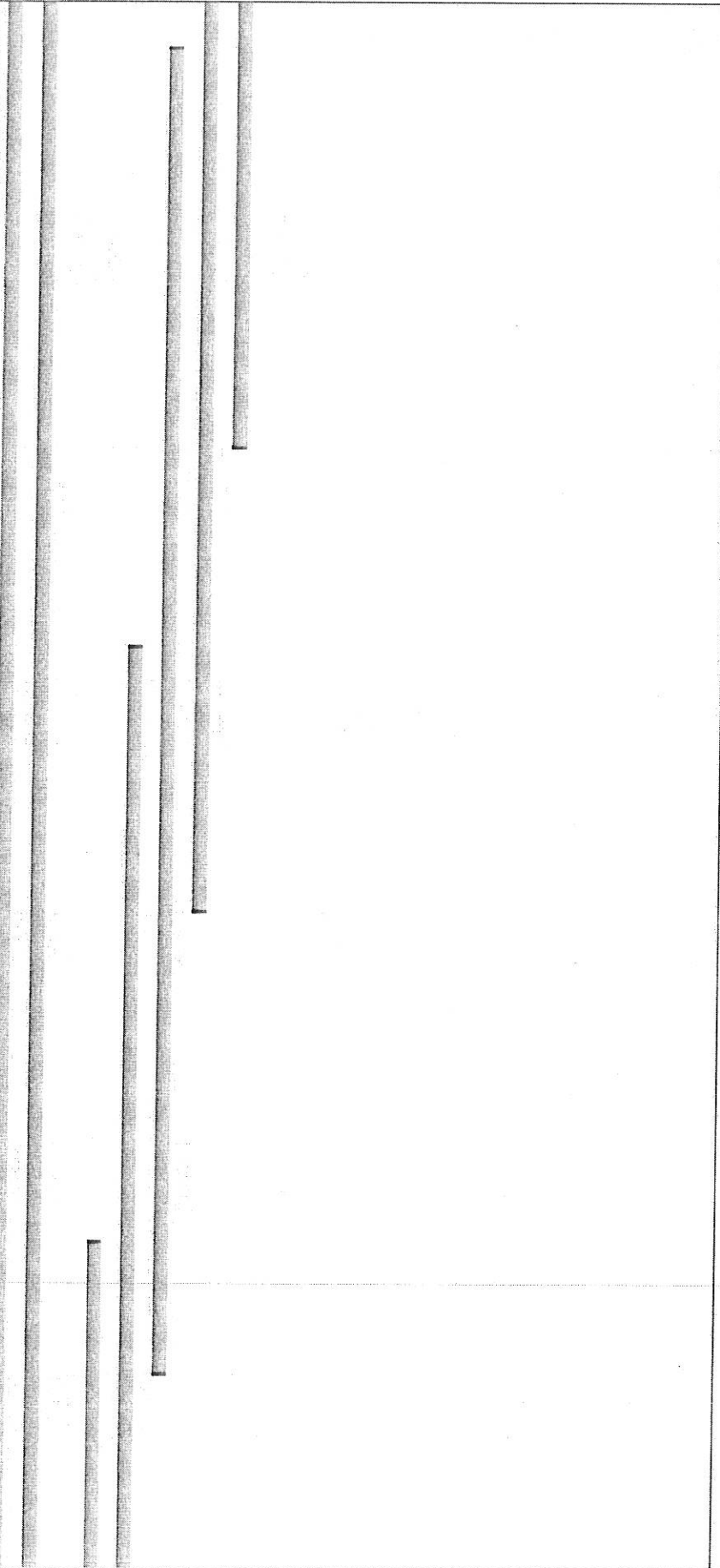
| ID | Task Mode | Task Name           | Duration | Start        | Finish       | Predecessors | May 2, '21 | May 9, '21 | May 16, '21 |
|----|-----------|---------------------|----------|--------------|--------------|--------------|------------|------------|-------------|
|    |           |                     |          |              |              |              | S          | S          | S           |
|    |           |                     |          |              |              |              | M          | M          | M           |
|    |           |                     |          |              |              |              | T          | T          | T           |
|    |           |                     |          |              |              |              | W          | W          | W           |
|    |           |                     |          |              |              |              | T          | T          | T           |
|    |           |                     |          |              |              |              | F          | F          | F           |
|    |           |                     |          |              |              |              | S          | S          | S           |
| 22 | ↑         | 1st floor controls  | 40 days  | Mon 7/12/21  | Fri 9/3/21   |              |            |            |             |
| 23 | ↑         | 2nd floor controls  | 40 days  | Mon 9/20/21  | Fri 11/12/21 |              |            |            |             |
| 24 | ↑         | 3rd floor controls  | 40 days  | Mon 12/27/21 | Fri 2/18/22  |              |            |            |             |
| 25 | ↑         | test, comm, balance | 30 days  | Mon 2/21/22  | Fri 4/1/22   |              |            |            |             |
| 26 | ↑         | closeout docs       | 20 days  | Mon 3/14/22  | Fri 4/8/22   |              |            |            |             |

Project: Project1.mpp  
Date: Tue 5/4/21

|                    |                       |                    |
|--------------------|-----------------------|--------------------|
| Task               | Inactive Summary      | External Tasks     |
| Split              | Manual Task           | External Milestone |
| Milestone          | Duration-only         | Deadline           |
| Summary            | Manual Summary Rollup | Critical           |
| Project Summary    | Manual Summary        | Critical Split     |
| Inactive Task      | Start-only            | Progress           |
| Inactive Milestone | Finish-only           | Manual Progress    |

Kutztown University De...ancesco Building

|     |   |   |   |   |   |             |   |   |   |   |   |   |   |             |   |   |   |   |   |   |   |            |   |   |   |   |   |   |   |             |   |   |   |   |   |   |   |             |   |   |   |   |   |   |   |             |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|-------------|---|---|---|---|---|---|---|-------------|---|---|---|---|---|---|---|------------|---|---|---|---|---|---|---|-------------|---|---|---|---|---|---|---|-------------|---|---|---|---|---|---|---|-------------|---|---|---|---|---|---|---|
| '21 | T | W | T | F | S | May 23, '21 | S | M | T | W | T | F | S | May 30, '21 | S | M | T | W | T | F | S | Jun 6, '21 | S | M | T | W | T | F | S | Jun 13, '21 | S | M | T | W | T | F | S | Jun 20, '21 | S | M | T | W | T | F | S | Jun 27, '21 | S | M | T | W | T | F | S |
|-----|---|---|---|---|---|-------------|---|---|---|---|---|---|---|-------------|---|---|---|---|---|---|---|------------|---|---|---|---|---|---|---|-------------|---|---|---|---|---|---|---|-------------|---|---|---|---|---|---|---|-------------|---|---|---|---|---|---|---|



|                    |                       |                       |                    |
|--------------------|-----------------------|-----------------------|--------------------|
| Task               | Inactive Summary      | Inactive Summary      | External Tasks     |
| Split              | Manual Task           | Manual Task           | External Milestone |
| Milestone          | Duration-only         | Duration-only         | Deadline           |
| Summary            | Manual Summary Rollup | Manual Summary Rollup | Critical           |
| Project Summary    | Manual Summary        | Manual Summary        | Critical Split     |
| Inactive Task      | Start-only            | Start-only            | Progress           |
| Inactive Milestone | Finish-only           | Finish-only           | Manual Progress    |

Project: Project1.mpp  
Date: Tue 5/4/21

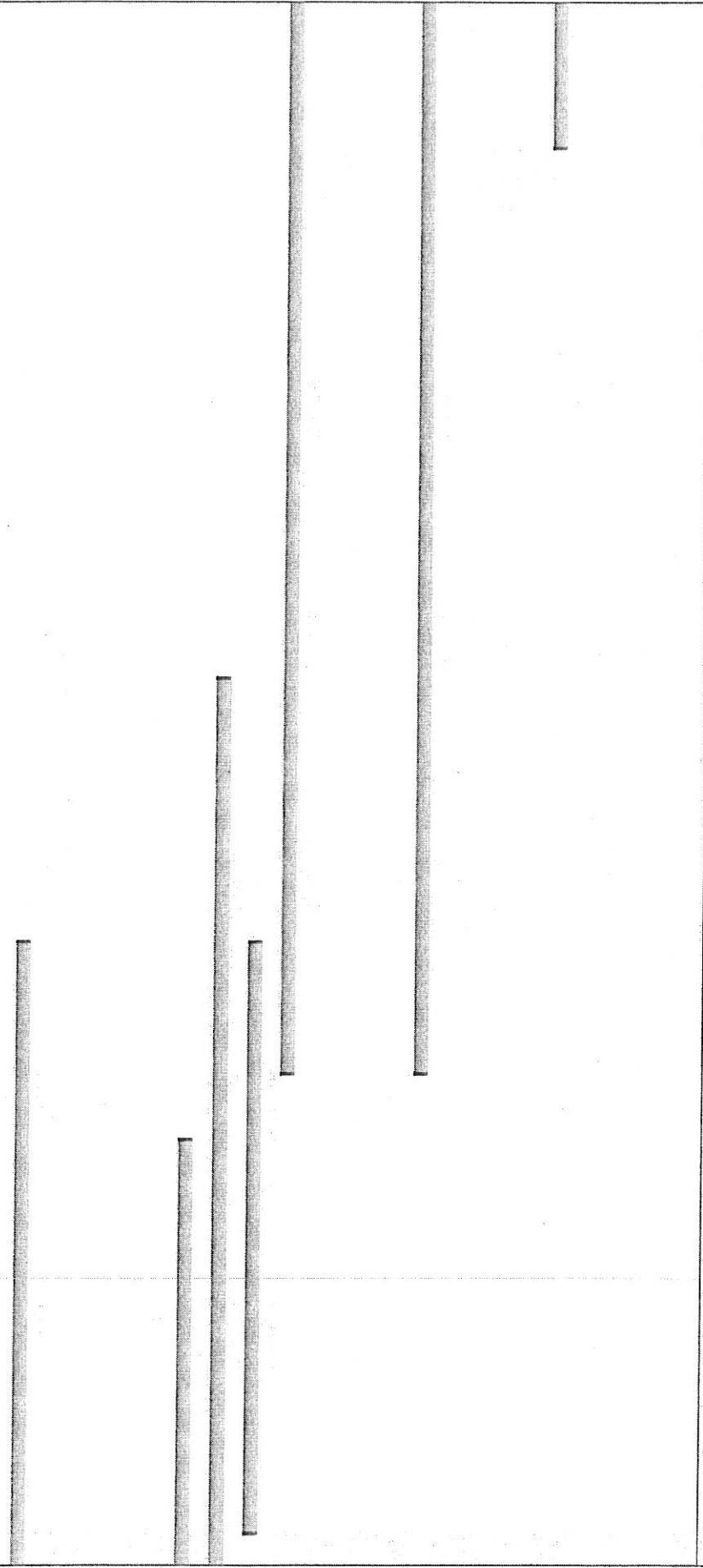
Kutztown University DeVincentesco Building

|     |             |             |            |             |             |             |
|-----|-------------|-------------|------------|-------------|-------------|-------------|
| '21 | May 23, '21 | May 30, '21 | Jun 6, '21 | Jun 13, '21 | Jun 20, '21 | Jun 27, '21 |
| T   | S           | S           | S          | S           | S           | S           |
| W   | T           | F           | S          | T           | F           | S           |
| T   | W           | T           | W          | T           | F           | S           |
| F   | S           | M           | T          | W           | T           | F           |
| S   | M           | T           | W          | T           | F           | S           |

|   |  |   |  |
|---|--|---|--|
| Project: Project1.mpp<br>Date: Tue 5/4/21 | <p>Task</p> <p>Split</p> <p>Milestone</p> <p>Summary</p> <p>Project Summary</p> <p>Inactive Task</p> <p>Inactive Milestone</p> | <p>Inactive Summary</p> <p>Manual Task</p> <p>Duration-only</p> <p>Manual Summary Rollup</p> <p>Manual Summary</p> <p>Start-only</p> <p>Finish-only</p> | <p>External Tasks</p> <p>External Milestone</p> <p>Deadline</p> <p>Critical</p> <p>Critical Split</p> <p>Progress</p> <p>Manual Progress</p> |
|---|--|---|--|

Kutztown University DeMaanesco Building

|            |             |             |             |            |            |             |
|------------|-------------|-------------|-------------|------------|------------|-------------|
| Jul 4, '21 | Jul 11, '21 | Jul 18, '21 | Jul 25, '21 | Aug 1, '21 | Aug 8, '21 | Aug 15, '21 |
| S          | S           | S           | S           | S          | S          | S           |
| M          | M           | M           | M           | M          | M          | M           |
| T          | T           | T           | T           | T          | T          | T           |
| W          | W           | W           | W           | W          | W          | W           |
| T          | T           | T           | T           | T          | T          | T           |
| F          | F           | F           | F           | F          | F          | F           |
| S          | S           | S           | S           | S          | S          | S           |



|                    |                       |                       |                    |
|--------------------|-----------------------|-----------------------|--------------------|
| Task               | Inactive Summary      | Inactive Summary      | External Tasks     |
| Split              | Manual Task           | Manual Task           | External Milestone |
| Milestone          | Duration-only         | Duration-only         | Deadline           |
| Summary            | Manual Summary Rollup | Manual Summary Rollup | Critical           |
| Project Summary    | Manual Summary        | Manual Summary        | Critical Split     |
| Inactive Task      | Start-only            | Start-only            | Progress           |
| Inactive Milestone | Finish-only           | Finish-only           | Manual Progress    |

Project: Project1.mpp  
Date: Tue 5/4/21



**FIVE STAR, INC.**  
**MECHANICAL CONTRACTORS**  
833 Lincoln Avenue, Unit 8  
West Chester, PA. 19380

## Project Safety Plan

Attached is a table of contents of the current Five Star, Inc. safety plan. Five Star works closely with Donegal Mutual Insurance Company to ensure minimal exposure and a wide variety of training and orientation. In addition, Five Star conducts their own weekly tool box talks. We subscribe to a weekly publication that offers numerous topics, as well as anything specific you request. The talks are conducted by our Site Superintendent and are a mandatory meeting. Any employee caught in violation of the Five Star Safety Plan may be dismissed immediately.

Phone: 610-719-6415 ~ Fax: 610-719-6416

[general@fivestarmechanical.com](mailto:general@fivestarmechanical.com)

# **FIVE STAR, INC.**

**Site Specific Safety Plan for  
Cresson Hall Renovations  
Lincoln University  
DGS C-1101-0054 Phase 1**

*Safety Handbook*

*COVID-19 Guidelines*

*Safety Orientation*

*Checklists*

*Site Specific Guidelines*

## Contact Information

**Project Name-** Cresson Hall Renovations Lincoln University

**Address-** 1570 Baltimore Pike, Lincoln University, PA 19352

**Project Number-** DGS C-1101-0054 Phase 1

## Five Star Contact Information

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**FIVE STAR JOB SITE SAFETY  
HANDBOOK  
January 1<sup>st</sup>, 2021**

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## **Five Star Inc**

# **JOB SITE SAFETY HANDBOOK**

### ***PREFACE***

This Job Site Safety Handbook has been developed for the purpose of communicating the requirements for safe work expected of all FIVE STAR Inc.'s Employees and its subcontractor's Employees while performing work at Cresson Hall.

This handbook is to be used in conjunction with NFPA, OSHA and local guidelines as a source of reference for guidance in conforming to environmental, safety and health requirements and established safe work practices. It is not intended that this handbook be used as an all-inclusive manual of environmental, safety and health rules and regulations. It is not a substitute for good, sound judgment and common sense - the basis for effective, safe work habits.

Your individual participation in our Safety Program is more important to FIVE STAR than your job skills. You must dedicate your efforts to perform safely. All Employees and subcontractor employees are required to comply with all environmental, safety and health standards while visiting or performing on-site work, including the following:

- All applicable rules and regulations of the Environmental Protection Agency, the Occupational Safety and Health Administration and any other applicable regulatory governing bodies;
- All federal, state, and local laws, rules and regulations;
- All FIVE STAR Corporate and Job Site environmental, safety and health policies and procedures;
- Any other applicable environmental, safety and health policies and procedures.

Every job site should be continually analyzed to identify recognizable potential hazards. Where practicable, engineering controls shall be utilized to minimize hazards. Where engineering controls are not feasible or otherwise deemed to be impracticable, sufficient forms of personal protective equipment shall be utilized and work practices modified to safely perform assigned tasks. Strict adherence to job site policies, procedures, rules and work practices on each and every job is required.

### ***GENERAL RESPONSIBILITIES***

Every individual, whether a FIVE STAR employee, subcontractor employee, vendor or visitor has a duty to conduct themselves in an orderly and sensible manner. You are to safely perform all work assignments by following established safe work practices and utilizing appropriate personal protective equipment. You are to select the proper tools and safety equipment necessary to properly perform the job to which you were assigned. Tools and equipment are to be maintained in a clean, safe, and reliable operating condition and are to be used in a manner consistent with their intended purposes. Each worker is responsible for keeping the work area clean and uncluttered. Stay aware of your surroundings and report any unsafe act or condition to your supervisor or a FIVE STAR representative immediately. Above all, perform your work assignments in a safe and sensible manner, keeping your safety and the safety of those around you foremost in your thoughts. At any time if you are unsure or have a safety concern stop what you are doing and talk to a supervisor.

## **JOB SITE RESPONSIBILITIES**

FIVE STAR will maintain a program that provides systematic policies, procedures, and practices that, when followed, will serve to protect its Employees from, and allow them to recognize, job-related safety and health hazards. The program includes provisions to identify, evaluate, and prevent or control general workplace hazards, specific job hazards, and potential hazards that may arise from foreseeable conditions. Although compliance with the law is an objective, the program will look beyond the specific requirements of law to address all identifiable hazards. Our goal is the prevention of injuries and illnesses, whether or not compliance is at issue.

FIVE STAR will continually obtain and evaluate information regarding its safety performance and programs. We will use this information to accomplish desired job tasks without compromising the safety and health of its Employees and anyone else in its work area.

FIVE STAR will provide a site-specific safety orientation to its Employees before they are allowed to commence work. Upon request FIVE STAR will assist any subcontractor in preparing a site-specific orientation for their respective employees. This orientation will include site-specific information such as:

1. Specific Client and FIVE STAR Job Site Safety Policies and Procedures;
2. Information about the potential for fire, explosion, or toxic release;
3. Chemical hazards related to the specific facility, work and processes;
4. The location of information pertaining to site-specific hazards (MSDS);
5. Job Site requirements for personal protective equipment and safety devices;
6. Information about the alarm signals and what they mean;
7. Directions for proper Employee responses to alarms and emergency signals;
8. Emergency evacuation procedures, safe refuge and reporting requirements;
9. On-site contacts, their names and where they can be found;
10. The location of the nearest available medical clinic.

## **EMPLOYEE'S RESPONSIBILITIES**

*The term "Employees" as referred to in this handbook refers collectively to all FIVE STAR Employees, its subcontractors, and their employees working at the Job Site.*

All employees must ensure that they are properly trained to safely and proficiently perform the task to which they are assigned. If in doubt, notify your supervisor to obtain the required training **before** attempting to perform any questionable tasks. Information relative to the known potential of fire, explosion, or toxic release hazards related to the type of work the Employee is expected to perform will also be communicated to the employee.

Each employee must advise a supervisor of any observed potential hazards while at the James Logan Site. If a supervisor is not available at James Logan Site.

FIVE STAR will provide MSDS on all chemicals or other potentially hazardous materials to be used by the Employee while working at the Job Site. This information is located within a marked binder in the site superintendent's office.

Each employee must ensure that they comply with all standards and governmental regulations pertaining to the work being performed. FIVE STAR will provide access to written procedures and other applicable governmental rules and regulations associated with an employee's work. In addition every employee is required to actively engage in weekly tool box talks.

## **JOB SITE SAFETY COORDINATOR**

The Job Site Safety Coordinator must establish a working relationship and maintain contact with members of Five Star's Inc's Job Site team and Southeastern Pennsylvania Transportation Authority's assigned Contract Coordinator.

The Job Site Safety Coordinator must be aware of potential hazards and the steps taken or to be taken to mitigate such hazards. They must ensure that appropriate personal protective equipment is available, insist that it is utilized and ensure that work practices be modified, where necessary, to protect Employees.

The Job Site Safety Coordinator shall prepare and submit an incident report or other appropriate documentation in the event of any reported near miss, incident or injury.

## **GENERAL SAFETY PRACTICES**

The following includes, but is not limited to, General Safety Practices which must be followed by all personnel working at the James Logan School Job Site:

1. An Eye Wash Station is located near the FIVE STAR superintendents office. All employees should familiarize themselves with the station.
2. Never hesitate to caution someone else when they are in danger of injuring themselves or others.
3. Do not work with defective equipment.
4. Walk; do not run unless you are in danger.
5. Do not work or pass under cranes, hoists, and suspended loads.
6. Hold onto hand rails while ascending or descending stairs.
7. Do not jump from one level to another, use a stairway or ladder.
8. Do not enter into an exclusion zone area unless your assigned duties necessitate your being there.
9. Do not take short cuts through any process units, always use aisles and walkways.
10. Do not wear loose clothing or any apparel that can become caught on or in moving equipment.
11. Do not wear rings, bracelets or other jewelry when working with machinery.
12. Never leave any equipment running while unattended.
13. All vehicles being loaded or unloaded must have both rear wheels chocked.
14. Everyone shall report any Fire Fighting Equipment deficiencies discovered to a supervisor.
15. Fire fighting equipment shall be used for its intended purpose only.
16. Easy access to fire fighting equipment must be maintained at all times.  
**Do not block or otherwise hinder access to any emergency equipment at the Job Site.**
17. Five Star Inc's Subcontractors are responsible for providing first aid to their Employees but all Job Site personnel shall assist as much as possible in an emergency.

## **SPECIFIC SAFETY RULES AND PROCEDURES**

### **SMOKING**

#### **A. Prohibitions**

1. Smoking is prohibited in any construction or work area not specifically designated as a smoking area.

#### **B. Designated Smoking Areas**

1. DSA's will not be permitted on Lincoln University property.

### **DRUGS, ALCOHOL AND CONTRABAND**

#### **A. Prohibitions**

1. The possession, use and/or sale of any of the following items by any individuals while on site premises is strictly prohibited:
  - a. Illegal or unauthorized drugs (including excessive quantities of prescription or over-the-counter drugs) and any other chemical substances which may affect one's mood, senses, responses, motor functions or alter or affect a person's perception, performance, judgment, reactions or senses while working.
  - b. Prescription or over-the-counter drugs which may adversely influence performance or behavior when taken in prescribed quantities, except under the following conditions:
    - 1) When the Employee has informed his/her supervisor prior to working under the influence of or using such drugs or medication on the job. Employee must provide proper literature listing the side effects, restrictions or other pertinent information related to medication.
    - 2) The prescription drugs are in the original vials, are labeled with Employee's name, the physician's name, prescription number and date of issuance, which should be within one (1) year from the current date, and the physician has indicated that the Employee may work under the influence of such drugs or medication.
  - c. Drug-related Paraphernalia – any material or equipment used or designed for use in testing, packaging, storing, injecting, ingesting, inhaling, or otherwise introducing into the human body any illegal or unauthorized, controlled or dangerous substances.
  - d. Alcoholic or intoxicating beverages.
  - e. Unauthorized firearms, weapons, explosives and ammunition.
2. ***Reporting to work or working under the influence of detectable levels of unauthorized or illegal drugs and/or alcoholic beverages is strictly prohibited.***

**B. Enforcement Activities**

All FIVE STAR Employees, subcontractor employees and visitors to the job site shall comply with this requirement related to Drugs, Alcohol, and Contraband Use. Non-compliance can result in immediate termination of employment and removal from the site for all violators.

**C. Consent**

A person's entry onto the job site premises shall constitute his/her recognition and consent of this policy on Drugs, Alcohol, and Contraband Use.

**D. Violations**

Violations of this policy will result in immediate removal from the job site premises. Further, the violation of this policy by any of subcontractor's employees shall also constitute cause for cancellation of the Contract between FIVE STAR and such Subcontractor.

***EMPLOYEE ENTRY/EXIT TO THE JOB SITE***

**A. Employee Safety Training**

1. If outside special training is required for the work assignment, the employee must provide proof of their participation in and successful completion of an approved Safety Training Program for associated special hazardous of the work assignment.
  - a. Proof of attendance may be in the form of a course completion card or written certification from Course Provider.

**B. Safety Orientations**

1. Prior to the commencement of work activities all Employees and subcontractor's Employees must ensure they have read and understand all site safety requirements, guidelines and logistics. If any employee needs further explanation on any safety issue they should report to a supervisor before commencing work.
2. As a minimum, Employees will be instructed as to his/her responsibilities relating to the following:
  - a. Known potential for fire, explosion or toxic release hazards and actions required in an emergency.
  - b. Job Site Hazard Communication Systems
  - c. Personal Protective Equipment Required by Employee
  - d. Personal Protective Equipment provided by "Others"
  - e. Location of Safety Supplies, Equipment and Reference Documents

**C. Presence**

1. All Employees are required to report to their supervisors as they arrive at their assigned work area.



2. All Employees must remain at their assigned worksite, except for lunch and other breaks. No one is allowed to roam around the Job Site.
3. When needed, Employees may utilize the designated smoking areas, designated sanitation areas and restrooms.

**D. Final Exit upon Job Completion**

When the job is completed, all employees or other designated representative must notify the FIVE STAR Site Superintendent that they will no longer be accessing the site for any lawful purpose.

**E. Vehicle Entry**

1. No vehicles are permitted on site without prior authorization from FIVE STAR Site Superintendent

## ***PERSONAL PROTECTIVE EQUIPMENT***

**A. Eye and Face Protection**

1. Safety Glasses are **to be worn at a minimum during the operation of all hand, power and pneumatic tools.**
2. Safety Goggles are to be worn anytime there are flying particles, sparks, noxious gases, liquid splashes or other type eye hazards present.
3. Face Shields, in addition to Safety Glasses and/or Goggles, are required when working with:
  - a. wire brush wheels
  - b. grinding stones
  - c. welding
  - d. woodworking machines
  - e. acids, alkalis, etc.
  - f. any other activities that could produce splash hazards.
4. Suitable welder's goggles and properly shaded face shields shall be worn during all welding activities.

**B. Foot Protection**

1. Proper Safety Boots are **to be worn at all times while at the Job Site.** Steel-Toed Safety Boots are recommended however are not required unless stated otherwise by site supervision.
2. Shock-Resistant, Safety Boots are to be worn when electrical shock hazards exist.
3. Chemical Resistant, Safety Boots are to be worn when working with acids, alkalis, or other corrosive liquids.

**C. Hand Protection**

1. General purpose gloves must be worn when performing general job site type work to protect the hands from injury.

2. High-quality gloves should be used to lessen the possibility of injury for task specific assignments. These include cut resistant, chemical resistant or abrasion resistant.
3. Gloves should fit snugly.
4. Glove gauntlets should be taped for working with fiberglass materials.
5. Workers should always wear the right gloves for the job (for example, heavy-duty rubber for concrete work, welding gloves for welding, etc.).

**D. Head Protection**

1. Workers must **wear hard hats at all times**.
2. Inspect hard hats daily as well as after any impact for dents, cracks, or deterioration.
3. If a hard hat has taken a heavy blow or electrical shock, you must replace it even when no visible damage is detectable.
4. Maintain hard hats in good condition; do not drill; clean with strong detergents or solvents; paint; or store them in extreme temperatures.
5. Hard hats do expire and must be replaced after expiration date.

**E. Fall Protection**

1. Lifelines, safety harnesses, and lanyards shall be used when a fall hazard exists of a fall greater than 6 feet.
2. Any lifeline, safety harness, or lanyard actually subjected to in-service loading, as distinguished from static load testing, shall be immediately removed from service and shall not be used again for worker safeguarding.
3. Lifelines shall be secured above the point of operation to an anchorage or structural member capable of supporting a minimum dead weight of 5,400 pounds.
4. Safety harness lanyard shall be a minimum of 1/2-inch nylon, or equivalent, with a maximum length to provide for a fall of no greater than 9 feet.
5. All safety harness and lanyard hardware, shall be capable of withstanding a tensile loading of 5,000 pounds without cracking or breaking.
6. All fall protection devices must be inspected at a minimum on a daily basis. If any employee is unsure how to properly inspect a piece of equipment they are to consult the Job Site Safety Coordinator.
7. All lifelines must be used only for designated application. Specialty tasks may require specific lifeline equipment. These tasks include but are not limited to rock scaling, steel member wrapping, extreme temperatures, etc.

**HAIR**

**A. Hair Length**

1. Employees working around rotating parts and shafts, such as stock projecting from the chuck of a lathe, shall maintain their hair in a manner so that the hair cannot be caught by the machinery and draw

the operator in. This can seriously mangle or crush the operator.

2. Hair should not protrude over one's eyes or otherwise obstruct vision.

**B. Facial Hair**

1. If an Employee is required to work in an area that could require the use of a respirator, Employee's facial hair (e.g. beards, sideburns, mustaches, etc.) shall not interfere with the face-to-respirator seal or valve function of a respirator.
2. All FIVE STAR Employees and subcontractor's Employees shall be required to shave any facial hair required to meet established Job Site requirements.

## **RESPIRATORY PROTECTION**

**A. General Use and Training**

1. If an employee is required to work in an area that could require the use of a respirator the employee shall be properly trained and tested for the type of respirator to be used.
2. Tight-fitting respirators shall not be worn by employees who have facial hair or any condition that interferes with the face-to-respirator seal or valve function.
3. Personal protective equipment shall be worn in such a manner that does not interfere with the seal of the sealing of the respirator to the face.
4. Employees shall perform a user seal check each time they put on a tight-fitting respirator using established procedures as per OSHA and the respirator manufacturer's procedures.

**B. Care and Maintenance of Respirators**

1. All respirators shall be cleaned and disinfected as follows:
  - a. As often as necessary to maintain a sanitary condition for exclusive-use respirators
  - b. Before being worn by different individuals when issued to more than one employee
  - c. After each use for emergency use respirators and those used in fit testing and training

## **HEARING PROTECTION**

All Employees entering any area that has been identified and is posted as a high noise area must use suitable hearing protection. Exposing the ear to high levels of noise may cause hearing loss. Ear plugs and other hearing protection devices are available for employees working in a high noise area. Use only approved plugs and replace or clean daily to prevent ear infections. All employees exposed for noises of 90 decibels or more must consult OSHA's permissible noise exposure guidelines or see the Job Site Safety Coordinator.

## **SAFE WORK PERMITS**

**A. Issuance**

1. A Safe Work Permit can only be issued by someone authorized by an Owner Represent or Five Star Inc's Job Site Safety Coordinator.
2. The Safe Work Permit will provide information regarding:
  - a. The specific task(s)
  - b. The area in which the work is to be performed

- c. Potential hazards in the area
  - d. Safety measures and precautions to be taken
  - e. Signed authorization to perform the work.
3. The work crew foreman will review the contents of the permit with the crew prior to the commencement of work.
  4. The permit must be maintained at the jobsite until the job is finished and the permit is returned to the person issuing the Safe Work Permit.

## **PERMIT-REQUIRED CONFINED SPACE ENTRY**

### **A. General**

A Permit-Required Confined Space will be clearly identified as such. It includes any task, vessel, pit, ditch, sewer or other enclosed structure which, by design, has limited opening for entry and exit or where there may be unfavorable natural ventilation which might render the atmosphere of the space flammable, toxic, or oxygen deficient.

### **B. Equipment Preparation**

1. Job site foreman or superintendent and the FIVE STAR Job Site Safety Coordinator will identify any circumstances that dictate extra measures be taken to ensure a safe work condition. These extra measures may include, but are not limited to;
  - a. Ventilation,
  - b. Lighting & Electrical requirements,
  - c. Special Equipment & Tools,
  - d. Hot Work requirements, etc.
2. Forced ventilation (fans, air movers, air horns, etc.) shall be used when the Confined Space work requires any type of Hot work or if there is a possibility of irritants or toxic atmospheres during the work.
3. Forced ventilation should also be used to minimize heat if conditions warrant.
4. Any temporary lighting used in a Confined Space area shall be rated for type of area. Typically vapor proof and explosion proof 12 volt lights with heavy duty cords and insulation shall be used.
5. Feeders supplying 110 volt temporary lighting being used in the Confined Space must be protected by a ground fault interrupter located outside the Confined Space.
6. Portable electric tools must either have a three-wire cord with ground and be grounded or be double insulated and protected by a ground fault interrupter.
7. Cylinders of compressed gas, except self-contained breathing apparatus cylinders, shall never be taken into a Confined Space. Oxygen and acetylene lines used by welders shall not be left unattended in a Confined Space and compressed gas cylinder valves must be closed and disconnected when not in use.
8. Any hot work (welding, cutting, burning, sandblasting, use of electrical tools, or air tools, grinder, gouger, etc.) to be done in a Confined Space must be permitted by obtaining a Hot Work Permit to do such work.

9. A safe means of ingress and egress (such as portable ladders, hoists, permanent ladders, etc.) must be in place at all times. All ingress and egress systems shall comply with OSHA standards.

**C. Confined Space Atmospheric Testing**

1. All Confined Spaces can present hazards such as fires and explosions, oxygen deficiency, toxic liquids, vapors, dusts, and other hazards during work. Everyone associated with the Confined Space work site must be fully familiar with these hazards and with the methods of controlling them.
2. The site superintendent or safety coordinator will identify all recognizable potential sources of physical and health hazards such as hydrocarbons, hydrogen sulfide, oxygen deficiency, heat, etc. when planning the work.
3. The Confined Space Atmosphere shall be properly tested if there is any chance that the air can become oxygen deficient or if harmful vapors may be present or produced during the work.
4. The area around the Confined Space will also be tested to make sure that the area is free of harmful vapors.
5. All air moving/ventilation equipment must be shut off prior to testing the inside of the Confined Space.
6. All testing will be done by certified personnel.
7. To the extent practicable, tests for initial safe entry will be conducted from outside of the Confined Space. When these tests cannot be made from outside of the Confined Space, safe entry and rescue procedures will be established prior to anyone entering the Confined Space.

**CI. Hazard Assessment**

1. After the Confined Space has been tested for oxygen content, flammable vapors, and toxic substances, as discussed above, and after the physical condition of the Confined Space has been assessed, entry conditions will be noted on the Confined Space Entry Permit.
2. All open Confined Spaces will have a sign posted at its entrance(s) at all times indicating whether entry is permitted or if entry is approved and the conditions for which entry is permitted.
3. Confined Space entry is generally prohibited if any of the following conditions exist:
  - a. Oxygen content is less than 19.5 percent or above 23.5 percent;
  - b. Flammable vapors are greater than 5 percent of the lower explosive limit;
  - c. Hydrogen sulfide concentration is greater than 10 parts per million;
  - d. Airborne concentrations of toxic substances are above levels acceptable to the Job Site and local, state, or federal regulations; or
  - e. The physical condition of the Confined Space is not safe for entry based on any other conditions

**CII. The Permit-Required Confined Space Entry Permit/Job Safety Analysis**

1. Once the Permit-Required Confined Space is tested and approved for safe entry, the FIVE STAR Job Site Safety Coordinator will prepare and sign the Permit Required Confined Space Entry Permit.
2. The Confined Space Entry Permit should include, at a minimum the following:
  - a. The identification of the Confined Space to be entered;
  - b. The purpose of the entry;

- c. Date and duration of the permit;
  - d. Identifiable hazards of the Confined Space;
  - e. The measures taken to control the identifiable hazards;
  - f. Personal protective equipment and clothing requirements;
  - g. Conditions of the Confined Space when approved for entry;
  - h. The name(s) of the Confined Space Attendant(s);
  - i. The name(s) of Authorized Entrant(s) currently in the confined space;
  - j. Communication procedures to be used between Authorized Entrants and the Confined Space Attendant; and
  - k. Special conditions/other requirements.
3. Prior to entry, the work crew leader will review with the FIVE STAR Job Site Safety Coordinator and sign the permit as the Work Crew Leader.
  4. The completed permit will be hung in a prominent location at or near the entrance to the Confined Space.
  5. The Confined Space Entry Permit will be valid for an 8-hour shift. In the event work spans more than one operations shift and the FIVE STAR Job Site Safety Coordinator will validate the existing permit within one hour. All new shift personnel will be given the same briefing and instructions as the original personnel.
  6. Any unusual circumstances or change of conditions, such as a hydrocarbon spill or gas releases in the area of the permitted Confined Space, shall void the permit and all persons must be removed from the Confined Space as quickly as possible, until such time as a new permit can issued using the above procedures.
  7. To facilitate non-entry rescue, retrieval systems must be used whenever anyone enters a confined space, unless the retrieval equipment would increase the overall risk of the entry or would not contribute to the rescue of the entrant.
  8. A properly trained safety watch, or Confined Space Attendant, must be posted at the entrance to any Confined Space when persons are in the Confined Space. The safety watch should maintain communication with those in the Confined Space by signal, voice or others. The attendant must also have an air horn or Job Site radio or other communication device to sound an alarm in case of an emergency situation.
  9. The Confined Space Attendant can attempt rescue from outside the Confined Space but shall not enter until after assistance has arrived.
  10. The Confined Space Attendant must monitor the supplied-air respirator equipment (bottle or compressor) to be sure that there is an adequate supply of air and that hoses are free of flowing restrictions.
  11. In the event of an emergency, the Confined Space Attendant will have access to at least the same level of protection required of the Authorized Entrants.

**F. Continuous/Periodic Monitoring**

1. The Confined Space Attendant shall continuously monitor the conditions inside the Confined Space.
2. At least hourly, the results of monitoring shall be recorded on the Permit.
3. If conditions inside the Confined Space reach an unacceptable level, or if there is a sudden, unexplained change in conditions, the Confined Space Attendant must immediately remove the

Entrants from the Confined Space and notify the Entry Supervisor immediately.

4. The Confined Space Entry Permit shall immediately be considered void and shall be removed from the entrance to the Confined Space.
5. Reentry shall not be permitted until a new Confined Space Entry Permit has been issued.
6. The Work foreman shall periodically check the status of the Confined Space throughout his shift.

**G. Rescue.**

1. Once an unsafe condition occurs or is suspected, the Confined Space Attendant must immediately remove the Entrants from the Confined Space.
2. If the Entrants in the Confined Space cannot exit on their own, the initial response shall consist of the following:
  - a. Remember to Remain Calm!!!
  - b. Immediately summon for help. The Entry Supervisor, a member of the Plant Emergency Response Team and the FIVE STAR Job Site Safety Coordinator are to be contacted immediately.
3. While awaiting assistance, the Confined Space Attendant shall remain in voice contact at all times, if possible, assuring the personnel in the Confined Space that help is on the way.
4. Once help has arrived, and if the personnel contacted above or other supervisory personnel or their designee on the scene reasonably believe that rescue can be safely attempted, others may enter the Confined Space with the necessary precautions and personal protective equipment.

**H. Responsibilities**

1. The Work Crew Leader is responsible for:
  - a. Reviewing the Confined Space Entry Permit with the Entry Supervisor;
  - b. Informing the work crew of all information contained on the Confined Space Entry Permit;
  - c. Informing the Entry Supervisor of the communication procedures to be used between the attendant and the authorized Entrants and recording those procedures on the Permit.
2. The Confined Space Attendant is responsible for:
  - a. Staying stationed at the lowest entrance to the Confined Space to assist, communicate, sound emergency alarm, pass tools, etc. to the personnel inside the Confined Space;
  - b. Staying in constant contact with all persons in the Confined Space through either visual contact or oral communication;
  - c. Maintain the Confined Space Entry Permit and ensure that all entrants;
    - i. Are authorized to enter the Confined Space;
    - ii. Sign in upon entering the Confined Space;
    - iii. Sign out upon exiting the Confined Space.
3. The Safety Watch is responsible for: (Note – The duties for the Confined Space Attendant and the Safety Watch are sometimes combined if conditions warrant.)
  - a. Sound emergency alarm and call rescue personnel, if needed;
  - b. Assist personnel in the Confined Space in work;

- c. Assist in rescue activities if possible from outside the Confined Space;  
**The Safety Watch is never to enter the Confined Space, at least until additional help has arrived.**
  - d. Continuously monitor the Confined Space for oxygen content, LELs, and hydrogen sulfide
  - e. Alert personnel in the Confined Space if safe limits are exceeded;
  - f. Record the results of monitoring activities.
4. Authorized Entrants are responsible for:
- a. Confirming that they are capable and properly trained for the tasks at hand;
  - b. Reviewing the Confined Space Entry Permit with work crew leader prior to entering the Confined Space;
  - c. Making sure that all Personal Protective Equipment issued is properly fitted and functioning properly;
  - d. Understanding the potential hazards in the Confined Space;
  - e. Maintaining constant contact with the Confined Space Attendant while in the Confined Space;
  - f. Signing in prior to entering the Confined Space and signing out upon exiting.

## **HOT WORK PERMITS**

### **A. Approval**

- 1. “Hot Work” means riveting, welding, flame cutting or other fire or spark-producing operations. All hot work must be approved by Five Star Inc’s Job Site Safety Coordinator or site superintendent.
- 2. No hot work shall be performed until all sections of the “Hot Work Permit” form have been completed and signed by the Work foreman, indicating approval.

### **B. Fire Watches**

- 1. If the Job Site Safety Coordinator or site superintend determines that a Firewatch is necessary, the personnel doing the Hot Work shall provide a Firewatch.
- 2. The Firewatch must be sufficiently trained and have no other duties or responsibilities than to monitor the work site for fires.
- 3. The Firewatch must, at a minimum:
  - a. Have a fire extinguisher;
  - b. A means to keep the work area wet;
  - c. Radio or cellular phone with contact information for supervisory personnel.
- 4. Multiple-Firewatches may be required for large work areas or overhead work, where sparks might fall into lower levels.

### **C. Fire Protection and Safety**

- 1. All drainage openings in the vicinity must be covered prior to start of hot work.
- 2. All combustible, flammable, and other ignitable materials must be removed from the hot work area.
- 3. Oxygen and acetylene bottles used by welders shall be properly secured and kept away from flying sparks and/or hot metal.



4. All welding or other hot work equipment must be properly grounded.
5. Valves and blinds isolating equipment for hot work shall be properly tagged and locked, where necessary.

## **LOCKOUT/TAGOUT**

### **For Reference Only**

#### **A. Preparation for Lockout**

1. Any person performing work on any machine or equipment will review the planned work with the work foreman
2. The work foreman will locate all isolating devices to be certain which switch (es), valve(s), starter(s), or other energy isolating devices apply to the equipment to be locked out.
3. All personnel working on any equipment must be aware of the type and magnitude of energy that the machine or equipment utilizes and must understand the associated hazards.

#### **B. Shutdown**

1. Equipment shall be shutdown using established shutdown procedures.
2. All process valves and utilities to and from the machine or equipment will be properly closed and locked.
3. All pressure, liquids and/or gases shall be removed from the machine or equipment.

#### **C. Lock and Tag**

1. The Work foreman and personnel working on the equipment shall open the main breaker to the machine or equipment; install a hasp and lock to lock the breaker in the off position.
2. The Work foreman shall prepare a tag indicating ownership of the lock and shall place the tag on the lock or chain.
3. All inlets and outlets to steam valves shall be chained and locked in the closed position.
4. All process and utility valves to and from the machine or equipment shall be chained and locked in the closed position.
5. The Work foreman shall check and confirm that valves and switches are in the closed position not leaking.
6. The personnel doing the work must verify that all locks have been installed.
7. The personnel doing the work is responsible for a final check to verify the effectiveness of the lockout and insure that all energy and pressure sources have been dissipated.

#### **D. Lock Removal**

1. No locks shall be removed by anyone other than the person who installed the lock or the person to whom ownership of the lock has been transferred during a shift change.
2. When a lock-out runs past shift change, the custody of the lock will be transferred from the Work foreman and personnel doing the work going off to the personnel coming on shift.
3. Upon completion of the work, the personnel performing the work shall notify the Work foreman that the work has been completed.
4. The Work foreman will check the equipment or machinery to insure all guards and safety equipment are in place.
5. Prior to restarting the machinery or equipment, the Work foreman will also ensure that all other locks or tags have been removed and that proper startup procedures are followed.

## ***ELECTRICAL SAFETY***

### **A. General Requirements**

1. Safety-related work practices shall be employed to prevent electric shock or other injuries relating from either direct or indirect electrical contacts, when work is performed on or near energized electrical equipment or circuits. Specific safety-related work practices shall be consistent with the nature and extent of the associated electrical hazards.
2. Live parts to which a worker may be exposed shall be de-energized by properly trained personnel before work is started on or near the device, unless it can be demonstrated that de-energizing introduces additional or increased hazards or is infeasible due to equipment design or operational limitations.

### **B. Working On or Near Exposed De-energized Parts**

1. All circuits energizing the devices to be worked on shall be properly locked and tagged out prior to any work starting.
2. A qualified person shall verify that the equipment cannot be re-energized and restarted.
3. A qualified person shall verify that the circuit elements and equipment parts are de-energized.

### **C. Working On or Near Overhead Lines**

1. Lines shall be de-energized and grounded, or other protective measures, such as guarding, isolating or insulating, shall be provided before work is started.
2. When an unqualified person is working in an elevated position near overhead lines, the longest conductive object in their procession cannot come closer to any unguarded, energized overhead line than the following distances and voltages to ground:
  - a. 50 kV or below: 15 feet;
  - b. Over 50 kV: 15 feet plus 4 inches for every 10 kV over 50 kV.
3. A qualified person working in the vicinity of overhead lines, whether in an elevated position or on the ground, may not approach or take any conductive object without an approved insulating handle closer to exposed energized parts than shown in the table below unless:

- a. The person is insulated from the energized part;
- b. The energized part is insulated both from all other conductive objects at a different potential and from the person;
- c. The person is insulated from all conductive objects at a potential different from that of the energized part;
- d. The qualified person shall adhere to the following Approach Distances:

| <b>Voltage Range<br/>(phase to phase)</b> | <b>Approach Distance<br/>(Minimum)</b> |
|---|--|
| 300 V and less:                           | Avoid contact                          |
| 300 V to 750 V:                           | 1 foot                                 |
| 750 V to 2 kV:                            | 1.5 feet                               |
| 2 kV to 15 kV                             | 2 feet                                 |
| 15 kV to 37 kV                            | 3 feet                                 |
| 37 kV to 87.5 kV                          | 3.5 feet                               |
| 87.5 kV to 121 kV                         | 4 feet                                 |
| 121 kV to 140 kV                          | 4.5 feet                               |

4. Any vehicle or mechanical equipment capable of having parts of its structure elevated near energized overhead lines shall be operated so that a clearance of 15 feet is maintained.

## **HEAVY EQUIPMENT OPERATION/LIGHT EQUIPMENT USE REQUIREMENTS**

A spotter must be present to help ensure that operating equipment and overhead structures are not accidentally struck when moving equipment around site.

### **CRANE SAFETY**

#### **A. General Requirements**

1. Only qualified personal shall be permitted to operate a crane.
2. A substantial and durable load rating chart with clearly legible letters and figures shall be provided with each crane and securely fixed to the crane cab in a location visible to the operator while seated at his control station.
3. All cranes and similar equipment shall have been inspected and certified in accordance with applicable OSHA, ANSI, Federal, State and Local ordinances and regulations, within one year prior to using such equipment in the Job Site.
4. All certification and inspection documents must be made available to the Job Site Safety Coordinator or other Client representatives upon request.
5. Cranes moving into, within, and out of operating units must have a spotter present to ensure that operating equipment is not accidentally struck.
6. All guards and other load limiting devices specified by the crane manufacturer shall be in place and fully operational.

#### **B. Handling the Load**

1. No crane shall be loaded beyond 85% of its rated load with all outriggers used.
2. The hoist rope shall not be wrapped around the load.

3. The load shall be attached to the hook by means of slings or other approved devices.
4. Only properly trained personnel shall rig loads not having clear lifting points.

**C. Moving the Load**

1. The crane should be level and properly blocked or balanced during all lifting and moving operations.
2. The load should be well secured and properly balanced in the sling or lifting devices.
3. Before starting to lift and move a load, the hoist rope shall be checked to ensure that it is not kinked and multiple hoist lines are not twisted around each other.
4. The hook shall be brought over the load in such a manner as to prevent swinging.
5. During hoisting, there shall be no sudden acceleration or deceleration of the moving load.
6. Care shall be taken to prevent the load from contacting any obstructions.
7. No personnel shall be on the load or the hook during any hoisting, lowering, swinging, or traveling.
8. The load shall not be positioned over any personnel.
9. Outriggers shall be used in accordance with the Manufacturer's specifications when the load radius dictates.
10. Neither the load nor the boom shall be lowered below the point where less than two full wraps of rope remain on their respective drums.
11. When two or more cranes are used to lift one load, one designated person shall be responsible for the operation. He shall be required to analyze the operation and instruct all personnel involved in the proper positioning, rigging of the load, and the movements to be made.
12. During transit, the following additional precaution shall be taken:
  - a. The boom shall be carried in line with the direction of motion;
  - b. The superstructure shall be secured against rotation, except when negotiating turns and the boom is properly supported on a dolly.
  - c. An empty hook shall be lashed or otherwise restrained so that it cannot swing freely.
13. Before traveling, with or without a load, a designated person shall be responsible for determining and controlling safety. Decisions such as position of load, boom location, ground support, travel route, and speed of movement shall be controlled by the designated person.
14. When rotating the crane, sudden starts and stops shall be avoided.
15. A tag or restraint line shall be used to control the movement and location of the load.
16. At no time shall personnel be positioned where the load could possibly crush them against a stationary object.

**D. Holding the Load**

1. The operator shall not be permitted to leave their position at the controls while the load is suspended.
2. No person is permitted to stand or pass under a suspended load.
3. If the load must remain suspended for any considerable length of time, the operator shall hold the drum from rotating in the lowering direction.

## **PUBLIC SAFETY**

### **A. General Requirements**

1. All activities must be planned with the utmost emphasis of both public and passenger safety. Before starting any work, especially new work, ensure at a minimum the following guidelines are met.

### **B. Pre-Use Control Measures**

1. Ensure an appropriate barrier between construction work and the public is in place. At a minimum this barrier must be a visible deterrent which divides the work area in its entirety from the public. For other activities which involve noise, dust/aspiration impediments, visual dangers, fall hazards or struck by hazards a full height physical barricade of appropriate construction is required.
2. Ensure proper signage in both immediate and adjacent areas are in place prior to the start of any work. Signage may include but is not limited to
  - a. No Trespassing
  - b. Construction Area/Keep Out
  - c. Restricted Area/Keep Out
  - d. Work Area/Proper PPE Required
  - e. All visitors are required check in to site supervisor
  - f. Emergency Contact Information
3. Ensure all material and tool storage is cordoned off from public access. Deliveries of said material should be coordinated to avoid public interaction to the greatest extent possible. If necessary provide appropriate flagmen or watchmen to ensure public interaction and safety.

### **C. Construction Operations adjacent or within Public/Passenger Areas**

1. Monitor noise levels to ensure local and federal regulations are being maintained. For DGS projects this limit may be as low as 65 decibels (daytime) depending on situation.
2. Ensure proper containment and/or ventilation is being provided to public areas. In cases where specific worker PPE is required ensure appropriate measures are in place to mitigate same risks to public.
3. Unauthorized personnel shall not be permitted within controlled access (work/material storage areas). If unauthorized person is present safe of work area and immediately tell a supervisor.
4. Active work areas must not left be unattended. When a work area is no longer active but must remain incomplete tools must be stored in a safe manner with all safety hazards securely barricaded from the public.

5. Clean adjacent public areas of any construction debris at a minimum after the completion of each trip or more frequently if poses any safety concern. In the event debris are hazardous to public stop work and use alternative methods to complete work or provide additional measures to protect the public.

## **LADDER SAFETY**

### **A. Inspections**

1. Ladders shall be maintained in good condition at all times.
2. All ladders must be inspected prior to each use. The inspection shall include, but not be limited to:
  - a. The joint between the steps and side rails shall be tight;
  - b. All hardware and fittings should be securely attached;
  - c. Movable parts shall operate freely without binding or undue play;
  - d. Frayed or badly worn rope shall be replaced;
  - e. Check for missing steps, rungs, or cleats, broken side rails, or other faulty equipment;
  - f. Check for proper bases or feet.

### **B. Safety Precautions**

1. The following safety precautions shall be observed in connection with the use of ladders;
  - a. Portable rung and cleat ladders shall be used at such a pitch that the horizontal distance from the support to the foot of the ladder is one-quarter (1/4) of the working length of the ladder;
  - b. The ladder shall be placed as to prevent slipping;
  - c. Ladders shall not be placed on boxes, barrels, or other unstable bases to obtain additional height;
  - d. Ladders shall not be placed in front of doors opening toward the ladder unless the door is blocked open, locked, or guarded;
  - e. Ladders shall be tied off at the top;
  - f. Ladders used to gain access to roof shall extend at least three (3) feet above the point of support;
  - g. While climbing a ladder, both hands should be used to hold onto the side rails;
  - h. Do not carry tools or other objects in your hands. Use a hand line, if necessary to raise or lower tools;
  - i. Do not work from the top three rungs of single or extension rung ladders;
  - j. Do not stand on the top two rails of step ladders;
  - k. When working from a ladder, both feet must be kept on the ladder rungs or steps;
  - l. Your waist must be kept within the boundary of the side rails;

### **C. Loads**

Self-supporting (foldout) and non-self-supporting (leaning) portable ladders must be able to support at least four times the maximum intended load, except extra-heavy-duty metal or plastic ladders, which must be able to sustain 3.3 times the maximum intended load

### **D. Angle**

1. Non-self-supporting ladders, which must lean against a wall or other support, are to be positioned at such an angle that the horizontal distance from the top support to the foot of the ladder is about ¼ the working length of the ladder.

2. In the case of job-made wooden ladders, that angle should equal about 1/8 the working length. This minimizes the strain of the load on ladder joints that may not be as strong as on commercially manufactured ladders.

**E. Rungs**

1. Ladder rungs, cleats, or steps must be parallel, level, and uniformly spaced when the ladder is in position for use. Rungs must be spaced between 10 and 14 inches apart.
2. For extension trestle ladders, the spacing must be 8-18 inches for the base, and 6-12 inches on the extension section.
3. Rungs must be so shaped that an employee's foot cannot slide off, and must be skid-resistant.

**F. Slipping**

1. Ladders are to be kept free of oil, grease, wet paint, and other slipping hazards.

**G. Other Ladder Requirements**

1. Foldout or step ladders must have a metal spreader or locking device to hold the front and back sections in an open position when in use.
2. When two or more ladders are used to reach a work area, they must be offset with a landing or platform between the ladders.
3. The area around the top and bottom of ladder must be kept clear.
4. Ladders must not be tied or fastened together to provide longer sections, unless they are specifically designed for such use.
5. Never use a ladder for any purpose other than the one for which it was designed.
6. Only fiberglass ladders are permitted on-site unless a specific job made wooden ladder has been approved by Project Site Safety Coordinator

## **SCAFFOLD SAFETY**

**A: Prior to Erection of All Scaffolding Assemblies**

*Everyone's safety depends upon the design, erection use,  
and dismantling of scaffolding by **COMPETENT PERSONS ONLY**.*

*Inspect scaffolding before each use to see that the assembly has  
not been altered and is safe for use.*

*Manufacturers and Rental Dealers of Scaffolding issue detailed instructions concerning the erection,  
use and dismantling of Scaffolding Structures, follow these instructions closely.*

***As a minimum, observe the following guidelines when using scaffolding;***

1. The erection site must be inspected to determine ground conditions, strength of supporting structure, and proximity of electric power lines, overhead obstructions, wind conditions, and the need for overhead or weather protection. These conditions must be evaluated and adequately addressed.
2. Frame spacing and sill size can only be determined after the total loads to be imposed on the scaffold and the weight of the scaffold have been calculated.
3. Stationary scaffolds over 50 feet in height must be designed by a professional engineer.
4. All equipment must be inspected to see that it is good condition and is serviceable. Damaged or deteriorated equipment must not be used.

***WARNING: Not all species and grades of lumber can be used as scaffold plank. Wood planks used for scaffolding must be graded as scaffold plank by an approved grading agency, or specifically manufactured for scaffold use.***

5. Scaffold plank must be inspected to see that it is graded as scaffold plank, is sound and in good condition, and is free from saw cuts, cracks, notches, splits, delaminations and holes.
6. A fully qualified and competent person can deviate from these guidelines only if it can be shown that the resulting scaffold design complies with applicable codes and generally accepted scaffold engineering practices.
7. The scaffold assembly must be designed to comply with all OSHA, Local, State, and Federal requirements.

**B. Erection Of Scaffold.**

***WARNING: FALL ARREST equipment attached to scaffold MAY NOT Prevent serious INJURY or DEATH if a fall occurs.***

Scaffold must be erected, moved, or disassembled only under the supervision of competent persons. Safety equipment including safety glasses and hard hats must be worn by all persons erecting, moving, dismantling or using scaffolding.

1. Base plates must be centered on the sills, and be in firm contact with both sills and frame legs. Be especially careful when scaffolds are to be erected on soft or frozen ground. Any part of a building or structure used to support the scaffolding must be capable of supporting the load to be applied.
2. Compensate for uneven ground by using screw jacks and base plates, and sills if required by ground conditions. DO NOT USE unstable objects such as blocks, loose bricks, and similar objects or materials.
3. Plumb and level scaffolding. Be sure scaffold stays plumb and level as erection progresses.
4. Ties, guys, bracing, and/or outriggers may be needed to assure a safe, stable scaffold assembly. The height of the scaffold in relation to the minimum base width, wind loads, the use of brackets or cantilevered platforms, and imposed scaffold loads determine the need for sway and stability bracing.

The following general guidelines apply:

- a. A scaffold must always be secured when the height of the scaffold exceeds three (3) times the minimum base width.

***WARNING – Outriggers, or other means, may be used to increase the minimum base dimension of a scaffold tower. The resulting base dimension, however, may NO LONGER***



***BE THE MINIMUM (or limiting) BASE DIMENSION.***

- b. Ties must be placed as near as possible to horizontal members. The bottom tie must be placed no higher than four (3) times the minimum scaffold base width. Subsequent vertical tie placement will depend upon the scaffold width. Scaffolds three (3) feet and narrower must be tied at vertical intervals no more than 20 feet apart. Scaffolds wider than three (3) feet must be tied at vertical intervals no more than 26 feet apart. The uppermost tie should be placed as close to the top as possible and, in no case, more than four (4) times the minimum base width from the top.
  - c. Vertical ties must be placed at the ends of the scaffold runs and at no more than 30 feet horizontal intervals in between.
  - d. Ties must be installed as the erection progresses, and not removed until scaffold is dismantled to that height.
  - e. Side brackets, cantilevered platforms, pulleys, hoist arms, enclosed scaffolds, sloped surfaces, and windy conditions introduce overturning and uplift forces which must be considered and compensated for. These situations require additional bracing, tying, or guying.
  - f. Circular scaffold erected completely around or within a structure may be restrained from tipping by use of “stand off” bracing members.
  - g. A free standing tower must be guyed at the intervals outlined above or otherwise restrained to prevent tipping or overturning.
5. Outrigger frames or outrigger units can be used to increase the minimum base width. If used, they must be installed on both sides of the tower.
  6. Work platforms must be fully decked with platform units in good, sound condition. Platform units may be individual scaffold grade wood planks, fabricated planks, fabricated scaffold decks or fabricated scaffold platforms.
    - a. Scaffold platforms and walkways must be at least 18 inches wide.
    - b. Each end of each plank must overlap its support by a minimum of 6 inches or be cleated.
    - c. Each end of each platform 10 feet long or less must overhang its supports by no more than 12 inches. Each end of each platform longer than 10 feet must overhang its supports by no more than 18 inches. Larger overhangs must be guarded to prevent access to the overhang. Materials must not be stored on overhangs. Do not stand on overhangs.
    - d. Each plank on a continuous run scaffold must extend over its supports by at least 6 inches and overlap each other by at least 12 inches.
    - e. Spans of 2 inch by 10 inch nominal scaffold grade plank must never exceed 10 feet. No more than one person must stand on an individual plank at one time. Loads on planks must be evenly distributed and not exceed the allowable loads for type of plank being used.
    - f. Secure platform units to scaffolding to prevent uplift caused by high winds or other job site conditions. Use latches, if supplied by platform manufacturer or other suitable means.
  7. Guardrails must be used on all open sides and ends of scaffold platforms. Both top and mid-rails are required. Local codes specify minimum heights where guardrails are required. Use at lower heights if falls can cause injury.

8. Toe-boards must be installed whenever people are required to work or pass under a scaffold platform. When materials are to be stacked higher than the toe-board, screening is required from the toe-board or platform to the top guardrail.
9. Access must be provided to all work platforms. If access is not available from the structure, access ladder units, or stairways must be provided. When access ladder units are provided; a rest platform must be installed at vertical intervals of 35 feet or less. Attachable ladder units must extend at least three (3) feet above platforms. Install access ladder units as scaffold erection progresses.
10. Use fabricated decks or cleated planks to minimize platform interference in access areas.
11. DO NOT store materials on side or end bracket platforms.
12. Cantilevered platforms must be specifically designed for that purpose, the frames pinned to prevent uplift and adequate ties provided to prevent overturning.
13. Materials must never be placed on cantilevered platforms unless the assembly has been designed to support material loads by a qualified person. These types of platforms cause overturning and uplift forces which must be compensated for.
14. After erecting scaffold, be sure screw jacks are in firm contact with frame legs.
15. Special care must be taken when putlogs are used:
  - a. Putlogs must only be mounted using putlog hangers, with all bolts and nuts installed and tightened.
  - b. Putlogs must overhang their supports by at least 6 inches.
  - c. Lateral bracing and knee-bracing are both required for putlog spans greater than 10 feet.
  - d. Putlogs used as side or end brackets require special mountings and special bracing.
16. DO NOT install platforms between free standing towers.
17. Material hoists and derricks should not be mounted on a scaffold unless the scaffold is specifically designed for that purpose.
18. **CHECK THE ENTIRE SCAFFOLD ASSEMBLY BEFORE USE.** Thoroughly inspect the completed assembly to see that it complies with all safety codes, all fasteners are in place and tightened, it is level and plumb, work platforms are fully decked, guardrails are in place, and safe access is provided. All completed scaffold must be tagged green prior to use.

### **C. Erection Of Rolling Scaffolds**

The following additional precautions apply to the erection of rolling towers:

1. The height of the rolling tower must not exceed four (4) times its minimum base width, or 40 feet, whichever is lower.

***WARNING: The load rating of the casters used will limit the size, configuration, and load capacity of the rolling tower.***

2. Secure all casters to frame legs or screw jacks with a nut and bolt or other secure means.
3. Screw jacks must not increase the height of the scaffold by more than 12 inches. Towers must be kept level and plumb at all times.
4. Horizontal diagonal bracing must be used at the bottom and top of rolling towers where the top work platform is more than 9 feet above the surface.
5. When rolling towers are to be erected higher than 9 feet, the first brace must be no more than 2 feet above the casters, the others at no greater than 21 foot intervals above. Fabricated planks with hooks may be used as diagonal braces.
6. All frames must be fully cross-braced.
7. Platform units with hooks, or cleated planks, must be used on rolling towers.

**D. Use of All Types of Scaffolds**

1. Before you use the scaffold, a competent person must:
  - a. Inspect the scaffold assembly to be sure it has not been altered;
  - b. is assembled correctly;
  - c. is level and plumb;
  - d. all base plates are in firm contact with sills;
  - e. all bracing is in place and securely tightened
  - f. all platforms are fully decked;
  - g. all guardrails are in place;
  - h. safe access is provided;
  - i. it is properly tied and/or guyed;
  - j. there are no overhead obstructions;
  - k. there are no energized electric power lines within 12 feet of the scaffold assembly and;
  - l. any deficiencies found are corrected prior to use.
2. Use only proper access. Do not climb cross braces. Do not climb any scaffold component unless it is specifically designed for that purpose. Do not stand on platform overhangs.
3. Climb safely!
  - a. Face the rungs as you climb up or down.
  - b. Use both hands.
  - c. Do not try to carry materials while you climb.

- d. Be sure of your footing and balance before you let go with your hands. Keep one hand firmly on frame or ladder at all times.
- e. Clean shoes and rungs to avoid slipping.
4. DO NOT work on slippery platforms.
5. DO NOT overload platforms with materials. Special care must be taken when putlogs are used.
6. DO NOT store materials on platforms supported by putlogs. They are designed for personnel ONLY.
7. DO NOT extend working heights by standing on planked guardrails, boxes, ladders or other materials on scaffold platforms.
8. DO NOT loosen, detach, or remove any component of a scaffold assembly except under the supervision of a competent person. Components that have been removed must be replaced immediately.
9. DO NOT erect scaffolding on wagons, trucks, or other wheeled vehicles.
10. Stand only within the platform area; do not try to extend work area by leaning out over guard railing.

**E. Additional Precautions When Using Rolling Towers**

1. DO NOT RIDE MANUALLY PROPELLED ROLLING SCAFFOLD. NO ONE MUST BE ON A ROLLING TOWER WHILE IT IS BEING MOVED.
2. Lock all casters before getting on a rolling tower. Casters must be locked at all times the scaffold is not being moved.
3. DO NOT bridge between rolling towers.
4. Remove all materials from scaffolding before moving a rolling tower.
5. Be sure floor surface is clear of obstructions or holes before moving scaffold.
6. Be sure there are no overhead obstructions or energized electric power lines in the path when moving a rolling tower.
7. Rolling towers must only be used on level surfaces.
8. Move rolling towers from the base level only. DO NOT PULL OR PUSH from the top.

**F. Dismantling Scaffolds**

The following additional precautions apply when dismantling scaffolding:

***WARNING: IT MAY BE NECESSARY TO ADD PARTS TO A SCAFFOLD BEFORE IT CAN BE DISMANTLED SAFELY.***

1. PRIOR TO REMOVAL OR LOOSENING of any component, consider the effect the removal of the component, or the loosening of a joint, will have on the strength of the remaining assembly.

2. Check to see if scaffolding has been altered in any way which would make it unsafe. If so, reconstruct where necessary before beginning the dismantling process.
3. Use only proper access. Do not climb braces or vertical members. Do not climb scaffold components unless they are specifically designed for that purpose.
4. Do not remove ties until scaffold above has been removed.
5. Visually inspect each plank to be sure it is supported on both ends and is safe to work on.
6. Do not accumulate removed components or equipment on the scaffold.
7. Lower components in a safe manner as soon as dismantled. Do not throw components off scaffold.
8. Stockpile dismantled equipment in an orderly manner.
9. Remove scaffold components immediately after detaching from scaffold.
10. Understanding and following these safety guidelines will increase your personal safety and the safety of your fellow workers.

### ***MULTI-GAS DETECTORS***

#### **A. Usage**

1. When necessary, as in the case of Confined Space Entry, Multi-gas Detectors should be used to check for oxygen, hydrogen sulfide (hydrochloric acid), and L.E.L. of combustible gas.
2. Prior to usage, the instrument will be checked by the Job Site Safety Coordinator and/or the Work foreman.
3. In the event of a discrepancy, a second instrument will be used and the apparently defective instrument will be taken out of service and returned to the Job Site Safety Coordinator for calibration or other service.
4. The Employee's designated Confined Space Attendant or other person responsible for monitoring the instrument must be able to demonstrate knowledge of its operation and usage.
5. When the use of a multi-gas detector is necessary, the Employee is to record the meter's readings every hour on forms to be supplied by the Job Site Safety Coordinator.
6. The completed forms are to be attached to the Confined Space Entry Permit or other permit and returned to the Job Site Safety Coordinator.

### ***TOOLS – HAND AND POWER***

#### **A. General Requirements**

1. All hand and power tools and similar equipment shall be maintained in a safe condition.
2. When power operated tools are designated to accommodate guards, they shall be equipped with such guards when in use.

3. Sufficient forms of personal protective equipment shall be worn when necessary to protect one from hazards.

**B. Hand Tools**

1. The use of unsafe hand tools is strictly prohibited.
2. Wrenches, including adjustable, pipe, end, and socket wrenches shall not be used when jaws are sprung to the point that slippage occurs.
3. Wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight in the tool.

**C. Power-Operated Hand Tools**

1. Electric power operated tools shall either be of the approved double insulated type or grounded in accordance with OSHA regulations.
2. Pneumatic power tools shall be secured to the hose or whip by some positive means to prevent the tool from becoming accidentally disconnected.

**D. Abrasive Wheels and Tools**

1. All grinding machines shall be supplied with sufficient power to maintain the spindle speed at safe levels under all conditions of normal operation.
2. Grinding machines shall be equipped with appropriate safety guards.
3. All abrasive wheels shall be closely inspected and ring-tested before mounting to ensure that they are free from cracks or defects.

**E. Woodworking Tools**

1. All portable power-driven circular saws shall be equipped with guards above and below the base plate or shoe.
2. Guides and templates shall be utilized as much as possible to aid operator in safe operation.

**COMPRESSED GAS CYLINDERS**

**A. General Requirements**

1. Valve protection caps shall be in place when compressed gas cylinders are transported, moved, or stored.
2. Cylinder valves shall be closed when work is finished and when cylinders are empty or are moved.
3. Compressed gas cylinders shall be secured in an upright position at all times, except, if necessary, for short periods of time when cylinders are actually being hoisted or carried.
4. Cylinders shall be kept at a safe distance or shielded from welding or cutting operations. Cylinders shall be placed where they cannot become part of an electrical circuit.
5. Oxygen and fuel gas regulators shall be in proper working order while in use.
6. Valve protection caps shall be installed immediately after use by the operator using the cylinder.

## **EXCAVATION AND TRENCHES**

### **A. Definitions**

1. Any man-made cut, cavity, trench, or depression in the ground, formed by earth removal is considered an excavation.
2. Excavations and trenches are considered permit required confined spaces. A permit must be obtained from the Work foreman prior to personnel entry.

### **B. General Requirements**

1. Excavations must be barricaded to protect pedestrians and vehicles.
2. All excavated material must be piled at least three feet back from the edge of the excavation.
3. All walls and faces of excavations that are greater than four (4) feet deep must be shored or sloped in accordance with OSHA standards to eliminate the hazards of cave-in.
4. A ladder for Employee exit must be provided. An Employee working in the trench must not have to walk more than 25 feet to gain access to the ladder.
5. Personnel are not permitted to work beneath suspended or moving loads of earth during the excavation.

## **HOUSEKEEPING**

### **A. Housekeeping – Safety Factor**

1. Housekeeping is the responsibility of every individual on the site.
2. Housekeeping is one of the most important factors in accident prevention and is an integral part of safety.
3. Keep all work areas in a neat and orderly manner.
4. Keep all aisles, exits and emergency escape routes unobstructed and otherwise free of debris and other possible tripping hazards.
5. Floors and stairways are to remain free of spills and other slipping hazards at all times.
6. Materials are to be stored only in designated areas and should never block emergency equipment, i.e. fire extinguishers, breathing apparatus, etc.
7. Dispose of cigarette butts in cans provided. Smoke only in designated areas.
8. Put trash in trash containers.

## **HAZARD COMMUNICATION**

### **A. Material Safety Data Sheets (MSDS)**

1. All applicable MSDS will be made available for review by Employees when requests for such information are made.
2. The Job Site Safety Coordinator or Contract Coordinator shall provide or otherwise make available to the Employee, the identity and location of potentially hazardous chemicals to which their Employees may be exposed and will supply the Employee the location of a MSDS for those products.

### **B. Hazardous Product Container Labels**

1. All containers of hazardous chemicals or materials received by FIVE STAR must display a hazard warning label. Such labels must be supplied by the product manufacturer or supplier.
2. Product hazard warning labels or tags must be clearly and conspicuously displayed on each container and shall indicate the identity of the hazardous chemical(s), appropriate hazard warnings; and the name and address of the chemical manufacturer, supplier or other responsible party.
3. The Job Site Safety Coordinator shall be immediately notified of any potentially hazardous material container that has a missing, incomplete or illegible label. A hazard warning label or tag (e.g. NFPA 704M Hazardous Material Labels) shall be placed on such containers. The information for these labels is to be obtained from the product MSDS or from the manufacturer or supplier.
4. Employees are strictly prohibited from removing or defacing any hazardous material label without expressed written permission of FIVE STAR.
5. Portable or other containers into which hazardous chemicals or materials are transferred from the labeled containers shall be labeled with the same identity and hazard warning found on the original container. Such labeling of transfer containers is not required if the contents are intended for immediate use (i.e. same shift).

### **C. Hazard Communication Program Information**

1. All foreman will ensure that their Employees have received formal hazard communication training. All supervisory personnel shall participate in all available Client hazard communication training and shall supply its personnel with the information and instruction received from the client.
2. All Employees will receive information relative to the Job Site's Hazard Communication Program as part of their Job Site Safety Orientation, including:
  - a. The location and availability of the MSDS files and the chemical inventory;
  - b. Personal protective equipment and work practices to be used and followed when working with potentially hazardous chemicals or materials; and,
  - c. The methods and observations that are used to detect the presence or release of a hazardous chemical in the work area (i.e. chemical monitoring conducted, continuous air monitoring devices, visual inspection of Job Site operations to detect chemical releases, etc.).



## **EMERGENCY RESPONSE PROCEDURES**

### **A. If an Emergency Alarm Sounds**

At the first sound of an emergency alarm (two long air horn bursts), all Employees should immediately cease their operations, turn off all possible sources of ignitions and evacuate to an area of safe refuge located at the corner of Belmont and Monument Avenues. If designated area of safe refuge is unavailable or otherwise hazardous all personnel to report to the corner of Belmont and Conshohocken Avenues.

1. Employees should walk to safe refuge via perimeter roads and pathways to the must area as shown on site logistics plan. Do not walk through the Job Site. To the maximum extent possible, choose a route that will take you upwind of the emergency.
2. Employees are to remain at the designated safe refuge areas until:
  - a. All have been accounted for;
  - b. You are given further instructions, or
  - c. An “All Clear” message has been received via air horn in which 3 short bursts are sounded, in which case you may return to work.

### **B. Turn of all Possible Sources of Ignition**

All equipment, tools, vehicles, and other possible sources of ignition should be turned off or otherwise extinguished.

### **C. Evacuate on Foot in an orderly Fashion**

Evacuation should be accomplished on foot. All vehicles should be turned off. Typically no one is allowed to operate a vehicle for any reason during an emergency. The Work Crew Leader is responsible for ensuring that everyone in his/her crew knows the specific Job Site Evacuation Procedures.

### **D. All Clear Signals**

An “All Clear” signal will be sounded to notify everyone when the emergency has been stabilized and clear. At that time, return to your assigned job area or follow the directions of the Work Crew Leader.

## **INCIDENT/ACCIDENTS**

### **A. Reporting**

1. All incidents that resulted in or could reasonably have resulted in injury, damage to equipment, or release to the environment, must be promptly reported to the FIVE STAR Job Site Safety Coordinator immediately following the incident.
2. An incident report form should be obtained from the Job Site Safety Coordinator, completed, and turned in within 24 hours.

### **B. Investigation**

1. At the request of the FIVE STAR Management Team, the following incidents will be investigated to obtain facts relative to the probable cause of the incident and to identify corrective actions to minimize recurrence:

- a. All incidents that resulted in injury;
  - b. All incidents that resulted in or could reasonably have resulted in a injury or major damage;
  - c. Any other incident for which an investigation is deemed desirable.
2. Any other incident of such magnitude that management deems it necessary will be investigated by an investigation team.
  3. Any incident investigation that does not require a team effort will be investigated by at least one of the following:
    - a. Job Site Safety Coordinator;
    - b. Corporate Safety Officer; or
    - c. Other designated person(s).

**C. Employee Incidents**

1. When an Employee is involved in an incident, the Employee will be expected to summarize the incident in writing and provide the summary to the accident investigator.
2. The Job Site Safety Coordinator must be informed of the results of the investigation and any corrective actions or preventive measures taken as a result of the investigation.

**ENFORCEMENT AUTHORITY**

**A. Expressed Authority**

All FIVE STAR Employees have the expressed authority, right and responsibility to actively enforce all of the programs and procedures described herein. If given instructions that you believe may be contrary to or in conflict with your own best judgment, you should solicit the input of:

1. Your supervisor or designated Job Site Safety Coordinator, **and/or**
2. The work foreman or shop steward assigned to supervise your work,
3. The jobsite superintendent.

**B. No Unsafe Work**

No one will be allowed to work in violation of the safe work practices, programs, and procedures described herein as well as other generally accepted safe work practices.

**C. Question Questionable Conditions**

When you have a question or are unsure of the level of safety relative to a task that you have been asked to perform, or the conditions under which you are expected to perform those tasks, you are expected to ask your supervisor, your designated Job Site Safety Coordinator, or the FIVE STAR Project Manager until you are satisfied that the work can be performed safely.

**D. FIVE STAR WILL NOT COMPROMISE YOUR SAFETY OR THE SAFETY OF THOSE AROUND YOU FOR ANY REASON.**

## **CONCLUSION**

This booklet contains **minimal** safety procedures that should be adhered to while working at the James Logan Site. By following the safe work practices outlined in this booklet, you will contribute significantly to the successful and safe execution of work completed at the James Logan site.

The Safety Policies and Procedures of FIVE STAR are a collection of safety requirements adopted over an extended time of continuous safety improvement. FIVE STAR will continue to observe the activities of its workers and those of others in comparable working conditions. When better safety policies and procedures are discovered and proven, they will be adopted.

All employees are expected always adhere to the most stringent requirements specified by either the client's safety procedures or Five Star Inc's safety procedures.

**PLEASE FAMILIARIZE YOURSELF WITH ADDITIONAL INFORMATION LISTED BELOW AND INCLUDED BEHIND THIS HANDBOOK**

1. Site Logistics Plan
2. Employee Orientation Sheet
3. Nearest Emergency Room Directions
4. Emergency Contact Numbers



## Covid-19 - Work Place Safety and Procedures

Listed below is a set of recommendations and some guidance in maintaining a safe and healthy workplace. Your safety is a priority, if you have any suggestions or concerns please help us to help you.

### Help Reduce the Risk of Transmission

- Stay home if you are sick, except to get medical care.
- Inform your supervisor if you have a sick family member at home with COVID-19. Learn what to do if someone in your house is sick.
- Wash your hands often with soap and water for at least 20 seconds. Use hand sanitizer with at least 60% alcohol if soap and water are not available.
- Avoid touching your eyes, nose, and mouth with unwashed hands.
- Cover your mouth and nose with a tissue when you cough or sneeze or use the inside of your elbow. Throw used tissues in the trash and immediately wash hands with soap and water for at least 20 seconds. If soap and water are not available, use hand sanitizer containing at least 60% alcohol.
- Clean AND disinfect frequently touched objects and surfaces such as workstations, keyboards, telephones, handrails, and doorknobs. Dirty surfaces can be cleaned with soap and water prior to disinfection. To disinfect, use products that meet EPA's criteria for use against COVID-19, and are appropriate for the surface.
- Avoid using other employees' phones, desks, offices, or other work tools and equipment, when possible. If necessary, clean and disinfect them before and after use.
- Practice social distancing by avoiding large gatherings and maintaining distance (approximately 6 feet or 2 meters) from others when possible.

## Social Distancing Practices

- Avoid physical contact such as hand-shaking or other contact.
- Keep a minimum 6-foot distance between people and avoid any gathering of ten or more participants.
- Employees must wear face coverings at all times, even while social distancing.
- Meetings are to be held online, by phone, conference call or outdoors while maintaining proper distancing.
- Employees must avoid using other workers' equipment when possible. If items are to be shared, they must be regularly disinfected.
- Anyone entering the project site, including all outside vendors and truck drivers are required to practice social distancing and PPE guidelines.

## Cleaning and Disinfecting

While working in a potential Covid-19 environment, it is important to reduce the risk of potential exposures by keeping all work vehicles, equipment and tools clean.

- Shared surfaces such as door handles, handrails, light switches, bathroom doors, etc. must be regularly disinfected.
- Upon entering the jobsite, all employees must disinfect their hands and any potential contact surfaces they may have or will encounter.

## Watch for Symptoms

Reported illnesses have ranged from mild symptoms to severe illness and death for confirmed coronavirus disease 2019 (COVID-19) cases.

The following symptoms may appear **2-14 days after exposure**:

- Fever
- Cough
- Shortness of breath or difficulty breathing
- Chills
- Repeated shaking with chills
- Muscle pain
- Headache
- Sore throat
- New loss of taste or smell

## When to Seek Medical Attention

If you develop **emergency warning signs** for COVID-19 get **medical attention immediately**. Call 911. Notify the operator that you have, or think you might have, COVID-19. If possible, put on a cloth face covering before medical help arrives.

Emergency warning signs include\*:

- Trouble breathing
- Persistent pain or pressure in the chest
- New confusion or inability to arouse
- Bluish lips or face

## Reduce Transmission Among Employees

**Actively encourage sick employees to stay home:**

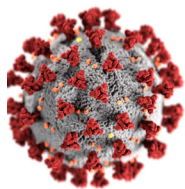
- Employees who have symptoms (i.e., fever, cough, or shortness of breath) should notify their supervisor and stay home.
- Sick employees should follow CDC recommended steps. Stay home, stay in touch with your doctor and avoid public transportation. Stay away from others and call ahead before visiting any health care providers. Employees should not return to work until the criteria to discontinue home isolation are met, in consultation with healthcare providers and state and local health departments.
- Employees who are well but who have a sick family member at home with COVID-19 should notify their supervisor and follow CDC recommended precautions.

## Sub-Contractor Participation

List of sub-contractors complying with FIVE STAR Inc.'s COVID-19 plan: \*

-

# What you should know about COVID-19 to protect yourself and others



## Know about COVID-19

- Coronavirus (COVID-19) is an illness caused by a virus that can spread from person to person.
- The virus that causes COVID-19 is a new coronavirus that has spread throughout the world.
- COVID-19 symptoms can range from mild (or no symptoms) to severe illness.



## Know how COVID-19 is spread

- You can become infected by coming into close contact (about 6 feet or two arm lengths) with a person who has COVID-19. COVID-19 is primarily spread from person to person.
- You can become infected from respiratory droplets when an infected person coughs, sneezes, or talks.
- You may also be able to get it by touching a surface or object that has the virus on it, and then by touching your mouth, nose, or eyes.



## Protect yourself and others from COVID-19

- There is currently no vaccine to protect against COVID-19. The best way to protect yourself is to avoid being exposed to the virus that causes COVID-19.
- Stay home as much as possible and avoid close contact with others.
- Wear a cloth face covering that covers your nose and mouth in public settings.
- Clean and disinfect frequently touched surfaces.
- Wash your hands often with soap and water for at least 20 seconds, or use an alcohol-based hand sanitizer that contains at least 60% alcohol.



## Practice social distancing

- Buy groceries and medicine, go to the doctor, and complete banking activities online when possible.
- If you must go in person, stay at least 6 feet away from others and disinfect items you must touch.
- Get deliveries and takeout, and limit in-person contact as much as possible.



## Prevent the spread of COVID-19 if you are sick

- Stay home if you are sick, except to get medical care.
- Avoid public transportation, ride-sharing, or taxis.
- Separate yourself from other people and pets in your home.
- There is no specific treatment for COVID-19, but you can seek medical care to help relieve your symptoms.
- If you need medical attention, call ahead.



## Know your risk for severe illness

- Everyone is at risk of getting COVID-19.
- Older adults and people of any age who have serious underlying medical conditions may be at higher risk for more severe illness.





# Stop the Spread of Germs

Help prevent the spread of respiratory diseases like COVID-19.

Avoid close contact with people who are sick.



Cover your cough or sneeze with a tissue, then throw the tissue in the trash.



Avoid touching your eyes, nose, and mouth.



When in public, wear a cloth face covering over your nose and mouth.

Clean and disinfect frequently touched objects and surfaces.



Stay home when you are sick, except to get medical care.



Wash your hands often with soap and water for at least 20 seconds.



[cdc.gov/coronavirus](https://cdc.gov/coronavirus)

## COVID-19 Guidance for the Construction Workforce

OSHA is committed to protecting the health and safety of America's workers and workplaces during these unprecedented times. The agency will be issuing a series of industry-specific alerts designed to keep workers safe.

When working in the construction industry, the following tips can help reduce the risk of exposure to the coronavirus:

- Encourage workers to stay home if they are sick.
- Allow workers to wear masks over their nose and mouth to prevent them from spreading the virus.
- Continue to use other normal control measures, including personal protective equipment (PPE), necessary to protect workers from other job hazards associated with construction activities.
- Advise workers to avoid physical contact with others and direct employees/contractors/visitors to increase personal space to at least six feet, where possible. Where work trailers are used, all workers should maintain social distancing while inside the trailers.
- Train workers how to properly put on, use/wear, and take off protective clothing and equipment.
- Encourage respiratory etiquette, including covering coughs and sneezes.
- Promote personal hygiene. If workers do not have immediate access to soap and water for handwashing, provide alcohol-based hand rubs containing at least 60 percent alcohol.
- Use Environmental Protection Agency-approved cleaning chemicals from [List N](#) or that have label claims against the coronavirus.
- To the extent tools or equipment must be shared, provide and instruct workers to use alcohol-based wipes to clean tools before and after use. When cleaning tools and equipment, workers should consult manufacturer recommendations for proper cleaning techniques and restrictions.
- Keep in-person meetings (including toolbox talks and safety meetings) as short as possible, limit the number of workers in attendance, and use social distancing practices.
- Clean and disinfect portable jobsite toilets regularly. Hand sanitizer dispensers should be filled regularly. Frequently-touched items (i.e., door pulls and toilet seats) should be disinfected.
- Encourage workers to report any safety and health concerns.

For more information, visit [www.osha.gov/coronavirus](http://www.osha.gov/coronavirus) or call 1-800-321-OSHA (6742).

*OSHA issues alerts to draw attention to  
worker safety and health issues and solutions.*

# HAND TOOL SAFETY

## Scope and Application

This procedure applies to operations involving the use of hand tools and/or power equipment, including chain saws, brush cutters, powder-actuated tools, and similar high-hazard implements.

The purpose of this standard is to provide guidelines for the safe use and handling of hand tools and power equipment.

## Implementation

Implementation of this procedure is the responsibility of the management.

## Procedure

### 1.0 General

- A. Keep hand and power tools in good repair, and use only for the task for which they were designed.
- B. Remove damaged or defective tools from service.
- C. Keep surfaces and handles clean and free of excess oil to prevent slipping.
- D. Do not carry sharp tools in pockets.
- E. Clean tools and return to the toolbox or storage area upon completion of a job.
- F. Wrenches must have a good bite before pressure is applied.
  - 1. Brace yourself by placing your body in the proper position so that in case the tool slips you will not fall.
  - 2. Make sure hands and fingers have sufficient clearance in the event the tool slips.
  - 3. Always pull on a wrench - never push.
- G. When working with tools overhead, place tools in a holding receptacle or secure when not in use.
- H. Do not throw tools from place to place, from person to person, or drop from heights.
- I. Use non-sparking tools in atmospheres with fire or explosive characteristics.
- J. Inspect all tools prior to start-up or use to identify any defects.
- K. Powered hand tools should not be capable of being locked in the on position.
- L. Require that all power-fastening devices be equipped with a safety interlock capable of activation only when in contact with the work surface.
- M. Do not allow loose clothing, long hair, loose jewelry, rings and chains to be worn while working with power tools.
- N. Do not use cheater pipes.
- O. Make provisions to prevent machines from automatically restarting upon restoration of power.

### 2.0 Grinding Tools

- A. Inspect work rests and tongue guards for grinders.
  - 1. Work rest gaps should not exceed 1/8 inch (3 mm).
  - 2. Tongue guards gap should not exceed 1/4 inch (6 mm).

## HAND TOOL SAFETY

- B. Do not adjust work or tool rests while the grinding wheel is moving.
- C. Inspect the grinding wheel for cracks, chips or defects. Remove from service if any defects are found.
- D. Wear goggles when grinding. A clear full-face shield may be worn with the goggles.
- E. Do not use the side of a grinding wheel unless the wheel is designed for side grinding.
- F. Always stand to the side of the blade, never directly behind it.
- G. Use grinding wheels only at their rated speed.
- H. Grinding aluminum is prohibited.

### 3.0 Power Saws

- A. Require that circular saws be fitted with blade guards.
- B. Remove damaged, bent or cracked saw blades from service immediately.
- C. Require that table saws be fitted with blade guards and a splitter to prevent the work from squeezing the blade and kicking back on the operator.
- D. Require guards that cover the blade to the depth of the teeth on hand held circular saws.
  - 1. The guard should freely return to the fully closed position when withdrawn from the work surface.

### 4.0 Wood Working Machinery

- A. Do not use compressed air to remove dust, chips and from wood working machinery.
- B. Locate the on-off switch to prevent accidental start up. The operator must be able to shut off the machine without leaving the workstation.
- C. Guard planers and joiners to prevent contact with the blades.
- D. Use a push stick when:
  - 1. The cutting operation requires the hands of the operator to come close to the blade.
  - 2. Small pieces are being machined.
- E. Adjust saw blades so they only clear the top of the cut.
- F. Automatic feed devices should be used whenever feasible.

### 5.0 Pneumatic Tools and Equipment

- A. Require that pneumatic tools have:
  - 1. Tool retainers to prevent the tool from being ejected from the barrel during use.
  - 2. Safety clip or tie wire to secure connections between tool/hose/compressor if they are of the quick connection (Chicago fittings) type.
- B. Do not lay hose in walkways, on ladder or in any manner that presents a tripping hazard.
- C. Never use compressed air to blow dirt from hands, face or clothing.
- D. Compressed air exhausted through a chip-guarded nozzle shall be reduced to less than 30 psi. Proper respiratory, hand, eye and ear protection must be worn.
- E. Never raise or lower a tool by the air hose.

## HAND TOOL SAFETY

### 6.0 Powder Actuated Fastener Tools

- A. Use powder-actuated tools that comply with the requirements of the American National Standards Institute (ANSI) Standard A 10.3 - 1970.
- B. Use only individuals that have been trained by a manufacturer's representative and possess the proper license to operate, repair, service and handle powder-actuated tools.
- C. Never use a powder-actuated tool in a flammable or explosive atmosphere.
- D. Require the use of goggles or a full-face shield as well as safety glasses during operation of powder-actuated tools.
- E. Powder-actuated tool must not be able to be fired unless the tool is pressed against the work surface.
- F. The tool must not be able to fire if the tool is dropped when loaded.
- G. Firing the tool should require two separate operations, with the firing movement being separate from the motion of bringing the tool to the firing position.
- H. Never fire into soft substrate where there is potential for the fastener to penetrate and pass through, creating a flying projectile hazard.
- I. Do not use powder-actuated tools in reinforced concrete if there is the possibility of striking the re-bar.
- J. Do not use on cast iron, glazed tile, surface hardened steel, glass block, and live rock or face brick.
- K. Never load and leave a powder-actuated tool unattended. It should only be loaded prior to intended firing.
- L. Test tools each day prior to loading by testing safety devices according to manufacturer's recommended procedure.

### 7.0 Chain Saw

- A. Inspect the saw prior to each use and periodically during daily use.
- B. Operate the chain saw with both hands at all times.
- C. Never cut above chest height.
- D. Require that the idle be correctly adjusted on the chain saw. The chain should not move when the saw is in the idle mode.
- E. Start cutting only after a clear escape path has been made.
- F. Shut the saw off when carrying through brush or on slippery surfaces. The saw may be carried no more than 50 feet (15 meters) while idling.
- G. Require applicable protective gear. This may include, but is not limited to
  - 1. Hard hat
  - 2. Safety glasses
  - 3. Steel-toed boots
  - 4. Protective leggings
  - 5. Hearing protection
- H. Inspect saws to require that they are fitted with an inertia break and hand guard.
- I. Never operate a chain saw when fatigued.
- J. Do not allow others in the area when chain saws are operated.
- K. Make sure there are no nails, wire or other imbedded material that can cause flying particles.

## **HAND TOOL SAFETY**

- L. Do not operate a chain saw that is damaged, improperly adjusted, or is not completely and securely assembled. Always keep the teeth sharp and the chain tight. Worn chains should immediately be replaced.
- M. Keep all parts of your body away from the saw chain when engine is running.

### **8.0 Hand Operated Pressure Equipment**

- A. Pressure equipment such as grease guns, paint and garden sprayers shall be directed away from the body and other personnel in the area. The person operating any equipment such as this, which has a potential for eye injury, must wear protective goggles.
- B. The noise produced when using certain types of pressure equipment may require the use of hearing protection.
- C. Never allow the nozzle of a pressurized tool to come in contact with any body parts while operating. There is potential for injection of a chemical directly into the user's body, resulting in severe injury or death.

### **9.0 Gasoline Powered Tools**

- A. Never pour gasoline on hot surfaces.
- B. Never fuel around open flame or while smoking.
- C. Shut down the engine before fueling.
- D. Provide adequate ventilation when using in enclosed spaces.
- E. Use only OSHA approved safety cans to transport flammable liquids.

### **10.0 Inspection**

- A. Inspect all hand tools on a regular basis. Defective tools shall be immediately removed from service, tagged or destroyed to prevent further use.

### **11.0 Documentation Requirements**

- A. File the Training rosters and send copy to Human Resources Safety.
  - 1. Site briefings regarding tool use.
  - 2. Provide records of tools removed from service.
  - 3. Provide copies of powder-actuated tool licenses (as applicable).
  - 4. Provide tool inspection documentation.



## CERTIFICATE OF COMPLETION

This certifies that

Brian Joseph Gaffney

is awarded this certificate for

**OSHA 30 Hour Outreach Training Program - Construction**



CEUs  
3.4



Credit Hours  
30.00



Completion Date  
06/11/2021

Curtis Chambers, Trainer C 26-0110333 and G 26-0082322



"As an OSHA authorized trainer, I verify that I have conducted this OSHA outreach training class in accordance with OSHA Outreach Training Program requirements. I will document this class to my authorizing OSHA training organization. Upon successful review of my documentation, I will provide each student their completion card within 90 days of the end of the class."

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# THE SCHOOL DISTRICT OF PHILADELPHIA

## HOT WORK PERMIT

|   |       |   |
|---|-------|---|
| Contractor or subcontractor Performing Hot Work:  |       | Application Date:                                       |
| Project Name:   |       |   |
| Location:   |       | Floor:  |
| Area Affected:  |       |   |
| Work to be Done (Give as much detail as possible):  |       |   |
| Person Completing the Work:   |       |   |
| Special Precautions:  |       |   |
| Fire Watch Person (PRINT NAME):   |       | Fire Watch Duration (hours & minutes N/A 2 hr minimum): |
| The location where this work is to be done has been examined, necessary and precautions taken and permission for this work is granted (per Hot Work Program requirements)?<br>(Yes or No) |       |   |
| Permit Start Date:  |       |   |
| Permit Expiration Date:   |       |   |
| (Permit Duration can be no longer than one shift)   |       |   |
| Time of Start:  |       | Time of Termination:                                    |
| Person Issuing the Permit:  |       | Title & Company   |
| Signed:   |       | Date:   |
| Work Completion Check-Off   |       |   |
| 30 Minute Check:  | Time: | By:   |
| 60 Minute Check:  | Time: | By:   |
| 90 Minute Check:  | Time: | By:   |
| 2 Hour Check:   | Time: | By:   |
| 3 Hour Check:   | Time: | By:   |
| Fire Watch End of Shift / Watch   | Time: | By:   |
| Insp Initials:  |       | Const Safety Coord Initials:                            |
| Date:   |       | Date:   |

\*Note: Hot work permits should be kept on site by the contractor for the duration of the project or 6 months, whichever is shorter.



## Hot Work Permit

Hot work is any work that involves burning, welding, cutting, brazing, soldering, grinding, using fire- or spark-producing tools, or other work that produces a source of ignition.

1. Contractor or subcontractor Performing Hot Work – Name of contractor performing work requiring the Hot Work Permit.
2. Application Date – The date that the Hot Work Permit is being completed.
3. Project Name – Name of the project.
4. Location – school or location of the project.
5. Area Affected – Area or room in the school or location where the hot work will be performed.
6. Floor – floor of the building where the hot work will be performed.
7. Work to be Done – Description of the work being performed.
8. Person Completing the Work – Name of the person doing the work requiring the Hot Work Permit.
9. Special Precautions – Any special precautions that the person performing the work will need to take.
10. Fire Watch Person– Name of person doing the fire watch. Must be different then the person performing the work.
11. Fire Watch Duration - the person completing the Hot Work Permit needs to state how long that a fire watch is required. Per SDP specifications minimum duration is 2hrs with 30 min check off times.
12. The location where this work is to be done has been examined, necessary and precautions taken and permission for this work is granted – The person completing the Hot Work Permit needs to state that proper precautions have been taken before the hot work actually starts.
13. Permit Start Date – the date that the hot work starts
14. Permit Expiration Date - the date that the hot work ends (Should be no longer than one day/shift)
15. Time of Start – time the hot work starts
16. Time of Termination - time the hot work ends
17. Person Issuing the Permit – person completing the Hot Work Permit
18. Title & Company – title and company name of the person completing the Hot Work Permit
19. Signed – signature of the person completing the Hot Work Permit
20. Date – date the Hot Work Permit was completed. Must be before the work requiring a Hot Work Permit starts
21. Work Completion Check Off – The person identified as the Fire Watch must enter the time and sign when he completes the required fire watch inspections. The fire watch must last as long as stated in item 11.
22. Fire Watch End of Shift / Watch – Time and signature of the fire watch at the end

of the fire watch.

23. Insp Initials – The assigned SDP Inspector/ Asst PM should initial and date the Hot Work Permit at the end of the day or the next day.
24. Const Safety Coord Initials – the Construction Safety Coordinator will initial the Hot Work Permit(s) when a Safety Inspection is completed for the project.
25. Hard copies of Hot Work Permit(s) need to be kept on site by the Prime Contractor for the duration of the project or 6 (six) months, whichever is shorter.

**TOOL BOX TALKS:  
A YEAR'S WORTH OF WEEKLY SAFETY MEETING SUBJECTS**

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## **TOOL BOX TALKS**

### **Introduction: Why This Project?**

#### **WHY TRAINING?**

An insightful contractor commented that if everyone used their common sense, we wouldn't have injuries or accidents on or off the job. Workers need to be trained in the recognition and avoidance of unsafe conditions as part of company profitability and professional development. Using common sense is only part of the solution in preventing injuries or accidents.

#### **Safety Committee**

There is a Safety Committee factor involved in training. Employers in the construction trades are required to have a Safety Committee. A purpose of a Safety Committee is to identify hazards in the workplace (generally through quarterly inspections) and "make recommendations to the employer regarding corrections of the hazards." A second purpose is to "establish procedures for investigating all safety-related incidents..." Topics in this document are intended to help in having a viable Safety Committee by providing a quick reference guide to build on to accomplish both these important tasks.

#### **SELECTING TOPIC'S**

Use common sense in selecting a topic. You wouldn't want to present "Dressing For Winter Work" at the start of summer. "Heat Exhaustion/Sunstroke" is more appropriate to the season. Failure on your part to select an appropriate topic to present will result in uninterested workers, a waste of everyone's time and a loss of credibility on the part of company management.

Observe job-safety techniques. Focus on what is important (and mandatory). Listen to and follow up on company Safety Committee and employee recommendations. Identify what poor work practices are causing injuries or accidents on the job. Plan for and schedule out for a month so you have time to research and possibly modify your company policy.

#### **INSTRUCTION GUIDE**

Each of the "tool box talks" has an introductory statement, a guide for discussion, and space for additional discussion notes. Some have some reminders for the instructor on subjects to research and discuss; others require knowing company policy. We recommend employees signing the page; the company then maintains the topic as a record on file.

#### **Training Records**

In selected situations, you should have and maintain an individual training record on each employee. Included is Competent Person training for employee's using ladders and stairways, to recognize and minimize fall hazards and actions to take in fall protection. These are compliance actions as well as "common sense" to protect the contractor. See the Reference Section for more information on mandatory training subjects.

**CUSTOMIZING**

The following are some of the talks that require some sort of company specific information:

|         |                               |  |
|---------|-------------------------------|--|
| Page 9  | Recognizing Unsafe Conditions | Requires specific name(s)                |
| Page 13 | Care For The Injured          | Requires 1 <sup>st</sup> Aid information |
| Page 15 | Listening Safety              | Address policy issue                     |
| Page 16 | Accident/Incident Reporting   | Requires specific names                  |
| Page 19 | Keeping In Shape              | Address policy issue                     |
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| Page 53 | Portable Electric Tools       | Address policy issues                    |
| Page 57 | Chain Saws                    | Address policy issues (PPE)              |
| Page 65 | Full Body Harnesses/Lifelines | Address policy issues                    |
| Page 73 | Heavy Equipment Hazards       | Requires specific names                  |
| Page 75 | Electrical Hazards            | Address policy issue                     |
| Page 76 | Assured Grounding Program     | Address location issue                   |
| Page 78 | Fire Protection and Control   | Address location/policy issue            |
| Page 79 | Fire Extinguishers            | Requires specific names                  |

**DESIGNING YOUR OWN**

When you design your own specialized tool box talks, remember some basic principals in giving instruction: Introduce what you are going to explain them, the body or key points you want to cover, and a conclusion. Ask for questions. Conclude with a reminder; the key point you tried to get across in the first place.

**Supervisor Training**

The importance of training supervisors in their responsibilities is an important management function as well as lawfully required when others are placed in charge of workers. They know the most about the people they work with daily, the equipment, materials and environment because of first-line supervisory responsibilities. Therefore it makes sense to train supervisors and is why the two are separated into the two subjects.

## Whose Responsibility Is It?

After an accident has occurred, it is not unusual for those who were around the injured worker to feel guilty. This guilt is part of each person's inner awareness that there was possibly something they could or should have done to prevent the accident. Sometimes the accident is the result of someone else's mistakes. But who causes the accident is not as important as who is responsible for the accident, and what steps will be taken to correct future similar accidents from happening. The following is a partial list of responsibilities for safety on the job.

### Guide for Discussion

#### *Who's Responsible? (Discussion Points)*

- Senior company management?
- Crew supervisor?
- Each person on the job?
- Trained safety professionals?
- Company safety committee?

#### *Some Responsibility Rules for Everyone*

If it's unsafe for you then it's unsafe for the next person and the hazard should be corrected.

Safety doesn't belong to any one construction craft; rather it is part of every construction craft to be responsible.

If safety doesn't begin with you, it won't begin at all.

#### *An Individual's Responsibility*

- To yourself
- To your family
- To your co-workers
- To your company

### **Additional Discussion Notes:** (See Pages 6A and 6B)

**Remember:** Workers' compensation checks won't pay all the bills nor will they replace the self-esteem one has from being a good provider to their families. Without complete cooperation from everyone on the worksite, it just will not be as safe as it should be.

### **Attendee's:**

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.



**Supplemental Information For  
Whose Responsibility Is It  
A Tool Box Talk**

**Instructor Note:** This written test can be given to employees, supervisors, the employer and the company safety committee to reinforce training in “Whose Responsibility Is It.” An answer sheet and a discussion topic is found on page 6B.

In our company, who is primarily responsible for the following safety activities?

- E = Employee
- SC = Safety Committee
- S = Supervisor
- EMP = Employer

- \_\_\_\_\_ Complying with Safety Rules
- \_\_\_\_\_ Conducting Safety Training
- \_\_\_\_\_ Recognizing Others for Safety Performances (Good or Bad)
- \_\_\_\_\_ Reporting Injuries or Illnesses
- \_\_\_\_\_ Providing Feedback About Safe Work Procedures
- \_\_\_\_\_ Enforcing Safety Rules
- \_\_\_\_\_ Conducting Area Safety Inspections
- \_\_\_\_\_ Selecting Personal Protective Equipment (PPE)
- \_\_\_\_\_ Assessing Workplace Hazards
- \_\_\_\_\_ Reporting Hazards
- \_\_\_\_\_ Conducting Accident Investigations
- \_\_\_\_\_ Rewarding Incentives
- \_\_\_\_\_ Recommending Corrective Actions to Eliminate Hazards
- \_\_\_\_\_ Demonstrating Safe Work Practices
- \_\_\_\_\_ Training Safe Work Procedures to New Employees
- \_\_\_\_\_ Ensuring Safe and Healthful Work Areas
- \_\_\_\_\_ Monitoring Safety and Health Programs
- \_\_\_\_\_ Showing Others How to Use Personal Protective Equipment
- \_\_\_\_\_ Reporting Incidents or Near Misses
- \_\_\_\_\_ Eliminating or Reducing Hazards
- \_\_\_\_\_ Developing Safe Work Procedures
- \_\_\_\_\_ Conducting Job Hazard Analyses

**Supplemental Information For: Whose Responsibility Is It, Continued  
Answer Sheet**

*Choices*

- E = Employee
- SC = Safety Committee
- S = Supervisor
- EMP = Employer

*Because each company is different, there are no single correct answers. However, one perspective of primary responsibility recommends one of the following answers:*

- E, SC, S, EMP Complying with Safety Rules
- SC, S, EMP Conducting Safety Training
- SC, S, EMP Recognizing Others for Safety Performances (Good or Bad)
- E, S Reporting Injuries or Illnesses
- E, SC Providing Feedback About Safe Work Procedures
- SC, S, EMP Enforcing Safety Rules
- SC, S, EMP Conducting Area Safety Inspections
- SC, EMP Selecting Personal Protective Equipment (PPE)
- SC, EMP Assessing Workplace Hazards
- SC Reporting Hazards
- SC, S, EMP Conducting Accident Investigations
- SC, EMP Reward Incentives
- E, SC, S Recommending Corrective Actions to Eliminate Hazards
- SC, S, EMP Demonstrating Safe Work Practices
- SC, S, EMP Training Safe Work Procedures to New Employees
- SC, S, EMP Ensuring Safe and Healthful Work Areas
- SC, S, EMP Monitoring Safety and Health Programs
- SC, S, EMP Showing Others How to Use Personal Protective Equipment
- E, S Reporting Incidents or Near Misses
- E, SC, S, EMP Eliminating or Reducing Hazards
- SC, S, EMP Developing Safe Work Procedures
- S, EMP Conducting Job Hazard Analyses

**Why such emphasis on Supervisors?**

WAC 296-800-14020

*The employer shall instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to his/her work environment to control or eliminate any hazards or other exposure to illness or injury.*

Past WISHA rulings have indicated that:

“Any supervisor or persons in charge of work are held to be agents of the employer in the discharge of their authorized duties.”

Authorized duties include:

- (a) The execution in a safe manner of the work under their supervision;
- (b) The safe conduct of their crew while under their supervision; and
- (c) The safety of all workers under their supervision.”

It makes good sense to hold supervisors responsible for the employees placed under their charge. It builds a sense of teamwork and shared responsibility for safe productivity. Supervisors are generally closer to the employees under their charge and better able to positively influence positive behavioral change.

## The Deadly Dozen

We all know that there must be a cause for an accident to happen. In order to avoid accidents, we must remove the cause. Every cause is a result of an unsafe act or unsafe condition. By recognizing the unsafe act or condition, we can effectively remove the exposure to them. The following “deadly dozen” are reminders to help you recognize unsafe acts or conditions.

### Guide for Discussion

#### *Unsafe Acts*

1. Unauthorized use or operation of equipment.
2. Failure to secure or tie down materials to prevent unexpected movement.
3. Working or operating equipment too fast.
4. Failure to issue warnings or signals as required.
5. Using defective tools or equipment.
6. Removing guards.
7. Improperly using tools or equipment.
8. Standing in an unsafe place or assuming an improper posture (as in lifting).
9. Servicing moving equipment.
10. Riding equipment not designed for passengers.
11. Horseplay.
12. Failure to wear the proper personal protective equipment.

#### *Unsafe Conditions*

1. Lack of proper guards.
2. Lack of a proper warning system.
3. Fire and explosion hazards.
4. Poor housekeeping.
5. Unexpected movements.
6. Protruding objects such as nails, wire, or other metals.
7. Improper clearance or congestion at aisles or passageways.
8. Poor placement, storage or arrangement of materials.
9. Hazardous tools, equipment or materials.
10. Poor lighting, high noise levels.
11. Hazardous atmospheric conditions.
12. Improper personal attire.

### Additional Discussion Notes:

**Remember:** Be able to recognize the conditions or acts we just discussed, you can effectively correct or avoid them and reduce your personal exposure to the general causes of accidents.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Why Accidents Occur

Every accident is caused by a breakdown in one of four areas: the worker, the tools used, the materials used, or the methods used. Often there is a breakdown in at least two areas; one being the worker and the other coming from one of the three other areas. The accident's cause usually results from an unsafe act or an unsafe condition. Today we will review some types of unsafe acts, the results from, and unsafe conditions.

### Guide for Discussion

#### *Types of Unsafe Acts:*

- Operating a tool or some equipment without authority.
- Working at an unsafe speed.
- Using unsafe or defective equipment or using equipment in an unsafe manner.
- Disconnecting safety devices.
- Unsafe unloading, placing or mixing materials.
- Assuming an unsafe position or posture.
- Working on moving equipment.
- Horseplay or distractions; taking shortcuts.
- Failure to wear and use personal protective equipment.

#### *Unsafe Acts Result From:*

- An improper attitude.
- Lack of knowledge or skills.
- Reduced mental or physical capacities.

#### *Unsafe Conditions:*

- Improper guarding.
- Defective equipment or materials.
- Unsafe working procedures.
- Improper housekeeping.
- Poor lighting or ventilation.
- Improper personal attire (Poor dress).
- No or improper evaluation of site conditions.

### Additional Discussion Notes:

**Remember:** With the issuance of WISHA citations, many of the routine hazards on job sites thirty years ago have been corrected. For example, machines are now significantly protected with guards. However, the bottom line is still the use by each worker of their common sense by avoiding contact with unsafe conditions and by avoiding unsafe acts.

### Attendee's:

Reference: ANSI Z16.2-1962 (R1969) code.

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Recognizing Unsafe Conditions

Recognizing unsafe conditions, or hazards in the workplace, is not just a Safety Committee responsibility. It is everyone's responsibility from the most junior employee to the company president to identify hazards and make suggestions on how to fix the problem.

### Guide for Discussion

*Causes of unsafe conditions or actions:*

- Poor housekeeping.
- Horseplay.
- Confused material storage.
- Careless handling of materials.
- Improper or defective tools
- Lack of machine guarding; failure to install warning systems.
- Lack of or failure to wear proper personal protection equipment.
- Weather.
- Worker not dressing for the job to be done.
- Failure to follow instructions.

*Steps to take once an unsafe condition is found:*

- If possible, correct the condition yourself immediately.
- Report any major unsafe condition or action to the appropriate company authority.
- Follow-up – report the condition again if it is not corrected.

### Additional Discussion Notes:

**Remember:** There are three steps to follow in recognizing unsafe conditions. Look for trouble (the unsafe condition), report it, and act to prevent it from happening again.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Shop Safety

*Instructor Note:* Perform a self-inspection prior to making a shop safety presentation. Look for anything that is out of place. Check against the Guide for Discussion for items to point out.

**Introduction:** The safe work practices we do in our shop are often the same practices we take out of our shop and into our homes. What we want to talk about today is what makes shop safety a little different than what we normally do.

### Guide for Discussion

Discuss in-shop procedures initiated to ensure that frequent and regular inspections are conducted to identify potential hazards in materials and equipment in the shop by:

- Individuals
- Supervisors
- Safety Committee

Based on self-inspection, identify and point out slip, trip hazards on walking/working surfaces; overhead dangers (like cranes), moving equipment (like forklifts), and general good housekeeping (like slip, trip or fall hazards).

Discuss location of key information including emergency medical plan, hazard communications (MSDS binder), fire extinguishers, fire evacuation signs and routes. Employer posters, Safety Committee meeting minutes posted.

Discuss power operated tools and equipment machine guarding, anti-kickback devices, personal protective equipment that is required to be worn when operating machinery.

### Additional Discussion Notes:

Employee qualification program to operate machines requirements (if any).

Self-inspection checklists

**Remember:** The safe work practices we bring into the shop are often the same safe work practices we take out of the shop onto the job and then into our homes. For example: Just as you wouldn't want a slipping/tripping hazard on a set of stairs, you don't want the same hazard on our shop floor. Think safety.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## What Does An Accident Cost?

Every accident has something in common: It costs everyone involved something. There are direct and indirect costs, both to the employee who was injured and the employer who eventually will pay for the accident. The costs are more than dollars.

### Guide for Discussion

#### *Employee Direct Costs*

- Lost regular wages and overtime

#### *Employee Indirect Costs*

- Mental anguish, physical pain and suffering
- Decreased active participation with their family and friends (It's tough to be at a ball game when laying up in a hospital bed)
- Inability to be productive on or off the job

#### *Employer Direct Costs*

- Workers' Compensation claim
- Medical bills
- Associated legal and possible increased insurance costs
- Uninsured property damage costs

#### *Employer Indirect Costs*

- Loss of valuable employee with a result of lost efficiency on the job
- Managerial and clerical time expended to handle injury claims
- Time loss wages paid with no work performed
- Hiring and training replacement
- Damaged or destroyed equipment, materials or tools

### Additional Discussion Notes:

**Remember:** The indirect (or hidden) cost in an accident is between three and ten times the actual cost of the claim. But it is not the costs, direct or indirect, that totals the most. More often than not it is the loss of a valuable co-worker or member of a family that causes the most problems for our company.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Near Misses

Most accidents occur as a result of an unsafe condition or unsafe action coming together with a person. The end result is the person gets injured. Often unsafe acts or unsafe conditions have several misfires and the result is a near miss accident or incident. The only difference between a near miss and an accident is luck. Safety conscious companies make a near miss a big deal – so do we.

### Guide for Discussion

- Near misses are injuries without people.
- Near misses are not funny; they are often deadly.
- Always report a near miss.
- Take immediate action to prevent a similar near miss.
- If you did not cause a near miss but saw it, discuss it with those involved and your supervisor.
- Obey safety rules and you will decrease the number of near misses around you.

### Additional Discussion Notes:

Near miss reporting procedures to the company safety committee. (\*) Describe.

Company safety committee responsibility to investigate near miss accidents and make corrective recommendations to management. (\*) Describe:

(\*) State-mandated requirements.

**Remember:** Near misses are warnings that something or someone is not performing the job correctly. Always pay attention to near misses. Don't let near misses repeat themselves or you may find yourself or a co-worker being treated for an injury that could have been avoided.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.



## Care For The Injured

The following points should be covered on how to care for the injured after a careful review of your Emergency Response Plan.

### Guide for Discussion

Determine the seriousness of the injury:

*If Serious:*

- Contact Emergency Response Team(s).
- Do not move the injured person.
- Get First Aid trained personnel assistance; ask them to help.
- Keep the injured person from standing.
- In case of bleeding—apply pressure to the wound. Do not use a tourniquet except in cases of excessive bleeding.
- If the injured person has stopped breathing, get someone who has been trained in CPR to help restore the breathing.
- Try to keep the injured person warm.

*If Non-Serious:*

- Contact the supervisor immediately.
- Do not try to get the injured person to move if a fall is involved.
- Get any First Aid treatment that may be needed. Be sure you know the location(s) of the nearest First Aid kit on the job.

Other Items to be Aware of:

- Report all injuries—even minor ones may become major ones.
- Seek first aid for even minor injuries.
- Be sure the emergency telephone numbers and the location of the nearest cross street are posted in a conspicuous place on the job. Know them.

### Additional Discussion Notes:

- Company Emergency Medical Plan including location of nearest telephone, 911 or other system, and nearest cross-street.
- Who is First Aid/CPR trained on the job? *INSERT NAME*
- The First Aid kit is kept where? *INSERT LOCATION*
- The Supervisory person to contact on all accidents/injuries is? *INSERT NAME*

**Remember:** Be sure to review the locations of First Aid kit(s) and emergency numbers on the jobsite.

**Attendee's:**

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Accidents Are Avoidable

Each time someone is injured, we need to ask ourselves “how did it happen?” Accidents just don’t happen, they are caused. Accidents are usually a result of someone not paying attention or not knowing how to recognize a job (or home or automobile) safety hazard. Jobs with effective safety attitudes have about a fifth as many injuries compared to those without the safety attitude. Today we will discuss some general rules to follow and the four hazard avoidance rules.

### Guide for Discussion

#### General Rules

- Learn the safe way to do your job.
- Don’t jump from one elevation to another.
- Don’t work under suspended loads.
- Remove protruding nails or bend them over.
- Keep the work area clear of debris.
- Use the personal protective equipment required for the job.
- Treat all electrical wires as being “live.”
- Use the right tool for the right job.
- Be sure all tools are in good shape.

#### Four Hazard Avoidance Rules

- Know the safe way to work, and then follow the safe way all the time.
- Maintain safe working conditions – for yourself and others around you.
- Work safely, setting the example, and encourage others to do so.
- Report all accidents and near misses.

#### Additional Discussion Notes:

- Keep scaffolds free of excess weight.
- Other ways to avoid hazards.
- Report accidents and near misses to Employer.

**Remember:** Remember to ask yourself if you are following the basic common sense rules? If you aren’t following them, then take the chance and you will have or cause an accident. Keep asking yourself “how can I make my work safer?” Doing so and you’ll probably not have a serious accident, and help prevent a serious accident for a fellow worker.

#### Attendee’s:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don’t hesitate to contact your Employer.

## Listening Safety

Nearly all construction sites are filled with various sounds and noises. Each sound we hear is the result of an action of a worker using a tool or a piece of equipment. In nearly every case, a tool or piece of equipment will signal its breakdown by a change in the normal operating sound. Everyone on site should condition himself or herself to be able to pick up these advance warning signals even when wearing ear plugs or earmuffs. Your individual safety could easily be dependent on your ability to hear approaching danger.

### Guide for Discussion

#### Things Decreasing Listening Safety

- Over concentration on work
- Lack of sleep
- Improper over eating habits
- Use of alcohol or drugs (both legal and illegal)
- Poor work place ventilation
- Loud radio's; individual radio with ear plugs

#### How to Improve Listening Safety Habits

- Become acquainted with the proper operational sounds of equipment and tools
- Listen closely to instructions. Ask questions if instructions are unclear or confusing
- Stay alert

#### Additional Discussion Notes:

Company policy on job site radio's *Insert Company Policy.*

**Remember:** Although it may be easier to see danger than it is to hear it, your ears are able to perceive warning signals from all around you. Your eyes are only good in the direction you are looking. Fine tune your ears and you can fine tune your exposure to danger and injury.

#### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Accident/Incident Reporting

**Instructor Note:** Before you start to talk, determine who the accident or incident information should be reported to (don't forget the company Safety Committee) and who will fill out the Injury Report in the company office.

The following points should be covered in discussing the importance of reporting and investigating accidents, incidents or near miss accidents:

### Guide for Discussion

Always report any accidents or near misses to Employer.

Any injuries needing first aid or medical attention should be reported to Employer.

What employees do in the case of an emergency (first aid and calling for an ambulance)?

Where is the nearest hospital? What is the nearest cross street? (**Note:** Discuss the information necessary to direct an ambulance to the worksite.)

Who are the first aid qualified people on the job site?

Anyone witnessing an accident should report what he or she saw to Employer.

All accidents involving medical treatment should have an investigation conducted to determine the cause.

### Additional Discussion Notes:

**Remember:** Always report any unsafe condition or unsafe acts, no matter how minor, to your Employer. It's far better to prevent accidents than it is to report, investigate, deal with the workers' compensation carrier, and have the loss of a valuable employee.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact *Employer*.

### Incident/Accident Report

**Immediate Supervisor should complete this form properly with worker input.**  
Please print clearly and report all incidents as soon as possible.

Injured Worker: \_\_\_\_\_

Occupation: \_\_\_\_\_

Where Injury Occurred: \_\_\_\_\_

Date/Time: \_\_\_\_\_ (AM/PM)

Type of Injury: \_\_\_\_\_

Treatment: \_\_\_\_\_ None \_\_\_\_\_ 1<sup>st</sup> Aid \_\_\_\_\_ Doctor \_\_\_\_\_ Hospital

Witnesses: \_\_\_\_\_

Describe Incident/Injury: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Identify Cause: \_\_\_\_\_ Work Habit \_\_\_\_\_ Rule Violation \_\_\_\_\_ Other (If Other, Describe)

\_\_\_\_\_

Caused by Faulty Equipment? If So, Identify:

\_\_\_\_\_

Did Previous Injury/Condition of Worker Contribute? Explain:

\_\_\_\_\_

If Incident Was Caused By A Person Not Employed By Us, Who?

Name: \_\_\_\_\_

Phone: \_\_\_\_\_

Address: \_\_\_\_\_

Action Taken to Prevent Similar Occurrence:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Date: \_\_\_\_\_ Injured Worker Signature: \_\_\_\_\_  
(If Available)

Date: \_\_\_\_\_ Supervisor's Signature: \_\_\_\_\_

## Safety Is Common Sense

According to safety professionals, four of five serious injuries are the result of workers not being sensible on the job and taking unnecessary chances. Common sense on the job is irreplaceable. Most of us have worked around people that are accident prone. They aren't jinxed; they aren't very common sense smart. Today we want to talk about using common sense to avoid accidents in the workplace.

### Guide for Discussion

#### Common Sense "Smarts"

- Always wear the proper personal protective equipment.
- Don't over exert yourself – get help with heavy tasks.
- Don't over extend yourself when on ladders – and risk losing your balance.
- Always use the proper tool for the job.
- Concentrate on your work.
- Look for unsafe acts or unsafe working conditions – and then report them.
- Watch out for others – remember you are part of a team.

Ask the following questions before you begin to work:

- Are the conditions safe to do the work?
- Are the methods we are going to use safe?
- Does everyone know what to do?
- Does everyone know how to do it?
- Can I fall, get struck by, get caught between or under, or get electrocuted on this job?

#### Additional Discussion Notes:

**Remember:** By remembering and following common sense rules and by asking yourself about the conditions, methods, job site hazards and knowing what to do, you should be able to decrease your chances of being injured. Be "common sense smart" and prevent accidents, not cause them.

#### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Keeping In Shape

Staying in shape is one subject that is rarely discussed when safety is the topic. However, a person who stays in good physical condition is less likely to be involved in an accident. They are usually more alert, less subject to the adverse effects of weather and generally able to react more quickly to changing conditions on the job. That is why this is an important subject.

### Guide for Discussion:

#### *Staying in Shape Reduces Injuries by:*

- Reducing the effect that adverse weather has on your body.
- Reducing the effect of minor injuries. A body in good condition will usually repair itself much faster.
- Substantially reducing exposure to minor sprains, strains and muscle pulls. Most people in good shape rarely strain or pull muscles.
- Cutting down the exposure to normal illnesses. The percentages of those people who are in good shape getting colds and the flu are lower. A person in good shape can better fight the germs causing the illnesses.
- Being more alert to job site conditions.

#### *How To Stay In Shape:*

Exercise regularly.  
Eat right.  
Get plenty of rest.  
Avoid overindulging in sweets, alcohol or food.  
Diet when needed to maintain recommended body weight.  
Avoid smoking. Smoking cuts down circulation making cold colder, hot hotter, and injury recovery longer.

### Additional Discussion Notes:

- The importance of eating breakfast; having a snack around mid-morning to be alert.
- *Insert Company Policy* on smoking on the job.

**Remember:** Few people will dispute the fact that when you physically feel good, your attitude is also good. You are able to avoid illness and can react quicker to dangerous situations. It is far better on your body to stay in shape since it places less strain on your muscles and your heart. Keeping in good shape makes good sense, and good sense is the cornerstone to safety.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Warming Up

**Introduction:** “Construction is an athletic event” The importance of being warmed up prior to starting construction work (or any work involving heavy lifting) is just like getting ready for a sporting event. Stretching is a means to avoid the most common body sprain/strain injuries. Stretching before lifting is especially helpful to avoid back injuries. According to safety experts, over half of all workers’ compensation claims and costs were due to sprain/strains.

### Guide for Discussion

Overexertion effects:

Backs; Trunks (Waist, Hips); Knees; Shoulders, Arms and Elbows

The hardest injury to live with is a back injury; once you are injured expect repeat injuries. One professional study indicates that once you do injure your back, you are five times more likely to suffer a re-injury.

Stretching: Brick masons working a major project (Intel Ronda Acres in Hillsboro, Or.) demonstrated that those who stretched before starting work didn’t have any back sprain/strain or lifting injuries.

Helpful Hints:

- Go into stretching with a relaxed and open mind.
- Stretch to the point where it is comfortable, not painful.
- Do not strain when you stretch – straining keeps the muscle from relaxing.
- Concentrate on the muscle being stretched – think about the good feeling of a proper stretch.
- As the feeling of the stretch changes to a mild stretch, stretch a little further, comfortable with no pain.
- Don’t bounce when you stretch. That can cause injuries.
- Always stretch to the tight side first.
- Breathe with a slow, normal rhythm. Do not hold your breath.

### Additional Discussion Notes:

Demonstrate proper stretching exercises.

**Remember:** Construction is an athletic event. Stretching before you start work will make your job easier and helps prevent injuries on the job. Try it at home too.

**Attendee’s:**

NOTE: Always promote a discussion of any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don’t hesitate to contact your Employer.



## Proper Lifting

**Introduction:** Most of us forget the importance of our backs for the enjoyment of a normal, happy and successful life. However, the back contains one of the most critical muscle groups in the body, as well as the spinal cord and associated vertebrae and disks. Everyone working in the building industry must lift materials to either put them into place or to expedite from one location to another. Back injuries are cumulative; a lot of small injuries lead up to the big one. It is, therefore, important to remember the key elements of proper lifting.

### Guide for Discussion

#### Preparing to Lift

- Do you need help? Get help if needed (more people, lift equipment).
- Do you need to stretch before preparing to lift?
- Determine the load capacity.
- Determine your ability to handle the load.
- Wear safe shoes.
- Wear gloves to protect your hands if the surface is rough.
- Make sure you have a clear walkway.

#### Making the Lift

- Center the load between your legs or shoulders
- Always bend with your legs.
- Keep your back straight.
- Lift with your legs (You can feel your leg muscles doing the work).
- Keep the load close to your body. (Hug the object you are lifting.)

#### Moving the Load

- Keep your back as vertical as possible.
- Keep the load close to you.
- Don't twist your body – move your feet.
- When lowering your load, bend with the knees and keep the back straight.

Remember to follow these rules of lifting and you will give your back a break rather than breaking your back.

### Additional Discussion Notes:

**Remember:** The only thing you'll prove by lifting more than you should is that your back is a poor substitute for a forklift. Think before you lift—everytime.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Horseplay

**Introduction:** Nearly everyone has heard a practical joker say “This one is gonna kill ya.” Well, hopefully it never will. However, practical jokes invite danger. The building trades industry is potentially dangerous and anything that unnecessarily increases the chance of an injury must be eliminated. Horseplay benefits no one and usually only builds up resentment and fosters retaliation. Practical jokes should be discouraged. At some point, if they continue they need to be reported.

### Guide for Discussion

#### Examples of Horseplay

- Scaring someone.
- Air hosing someone.
- Wrestling with someone.
- Boxing.
- Goosing.
- Dropping objects next to someone.
- Throwing water on someone.
- Throwing objects or tools at someone.
- Placing tacks under someone.

### Additional Discussion Notes:

Can you think of other examples?

What are the adverse (bad) consequences of horseplay?

When is it appropriate to report horseplay to supervisors?

**Remember:** Practical jokers can not guarantee the success of their jokes. They can guarantee that they increase the chance of an accident occurring. Imagine a joke that backfires, resulting in an injury or death to a co-worker. Do you want any part of that? It's easy enough to get hurt on the job as it is. Let's not increase anyone's chances.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Short Cuts

**Question:** (Yes/No answer) Nearly everyone we know uses short cuts to get the job done?  
**Answer:** Generally yes.

However, there are some reasons not to use short cuts. As we all know, a project is completed by use of certain construction methods. Short cuts usually modify methods and as a result, decrease the safety built into proven methods.

### Guide for Discussion

What are some ideas to keep in mind when doing short cuts?

- Everyone uses short cuts
- They can be dangerous
- Sometimes they are deadly
- Our company is willing to take the time necessary to do a job properly
- Heights increase the dangers of short cuts
- Excavation and tunnels increase the dangers of short cuts
- Warn those using unsafe short cuts of the hazards associated with short cuts.

### Additional Discussion Notes:

Short cuts can really hurt our customers and our profits. Name some examples you have seen on the job.

**Remember:** Although we all use short cuts in our daily routines, we must be aware of the dangers that short cuts expose us to. There are two ways to perform a work task. Often the safe way is not the fastest or easiest way.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Protecting the Public

One social critic pointed out that in the late 1990's the United States has four percent of the world population, and half the world's attorney's. In today's legalistic society with the laws of civil liability and negligence being what they are, all construction companies need to take seriously steps to protect the public. It doesn't really accomplish anything if we protect the public after an accident; their lawyer will have a field day in court at a cost to us and the future of our company.

### Guide for Discussion

- Efforts to protect the jobsite should be directed toward the young. (Many liability claims come as a result to injuries to youths that gain access to a jobsite after hours or on weekends.)
- Inform the police of the normal hours of work and ask that they regularly patrol the site after working hours.
- Have workers report changes in the work conditions that may require additional protective measures.
- If possible, fence in the site using plywood or chain link fences, keep the site well lit at night, or provide for a night guard (including using an injured worker in an ERTW status).
- During working hours, don't let unauthorized personnel on the site without an escort.
- Always rope off or barricade excavations; protect against fall exposures.

### Additional Discussion Notes:

Consider not installing risers and tread on stairways until after the doors and windows are hung to keep unwanted visitors out of the second or third floors.

Guardrails are an important fall protection on stairways and landing platforms. What do we do to insure guardrails remain functional?

**Remember:** In all situations of public exposure, it is important that steps are taken to eliminate the exposure of the public to injuries on your jobsite. In defending a suit against the company, good faith efforts can go a long way to protecting the company.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Children And Construction

Most construction sites are like oil and water for children; they don't mix. Conversely, like iron and a magnet, children are attracted to any type of construction. Children like to explore.

### Guide for Discussion

Some general observations:

- Children don't recognize hazards as well as those who work on site.
- Locked equipment may still be a hazard.
- All excavations are potential forts or swimming pools.
- Scaffolds become gym sets.

Discouraging children:

- Don't allow children on site during the day.
- Erect a site fence.
- Mark excavations with signs or guard or both. (Remember: Fall protection rules.)
- Group and lock up equipment at night.
- Post "No Trespassing" signs.
- Ask for regular police patrols to check out your jobsite. If necessary, post a guard.

### Additional Discussion Notes:

**Remember:** Most children will respect the builder's wishes and stay out. But some will not and these are the ones that can get hurt or hurt your project from a vandalism standpoint. Experience indicates that those who have had a child injured on their sites find it can be quite a burden on one's conscience. We don't want that to happen on our job sites.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Vehicle Operations

Most construction sites never have all the site space that they need to move vehicles in and around. This is especially true with new subdivisions. Therefore it is important that all the space we have is conserved and used to its maximum. We can reasonably expect congested traffic and an increased likelihood of a vehicle related accident.

### Guide for Discussion

- Always keep the vehicles and equipment in good running conditions. This includes brakes, lights, turn signals, and back-up alarms if so equipped.
- Any loads extending past the vehicle body must be tagged.
- No employee should be allowed to ride the load or exterior of any vehicle not designed to transport personnel.
- Always give the right-of-way. Don't worry about who should go first, rather who is the safest.
- Avoid backing in vehicles; when you have to, have front and rear ground guides.
- Report any unsafe road conditions to your fellow employees and supervisor(s).

### Additional Discussion Notes:

*Note:* If workers can expect to be around heavy equipment, see Heavy Equipment or Heavy Equipment Hazards for more information.

- If the worksite is going to be very busy, what is the policy on use of a spotter (ground guide) to direct delivery vehicles?
- What is the *company policy* on parking individually owned cars and trucks around the workplace?

**Remember:** Unsafe acts when compounded by the force of large vehicles can result in severe injuries and expensive repair or damaged material bills.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## TRAFFIC CONTROL

Almost every job at one time or another needs traffic control. This often involves the use of a flagman and signs. In short duration situations flagmen are preferable to signs since they can react to any changes in site situations. Signs are however, a suitable solution to an extended traffic control problem.

It should be remembered that the intent of traffic control procedures is to prevent a tie-up in the operation of the construction project and to allow the general public to move as efficiently as possible around the construction site. It is important that all flagmen remember that they represent the company and will come into contact with many people while flagging. Therefore be courteous at all times.

### **Guide for Discussion**

Is the flagman trained and certified?

#### *Set-Up*

Pre-plan the entire traffic control operation.  
Have the flagman knowledgeable of all construction operations to occur.  
Clearly mark all changes or detours.  
Enforce all changes and detours.

#### *Flagging Operations*

Be sure the traffic can see you.  
Wear an Orange safety vest.  
Use a flag.  
Wear suitable shoes.  
Be dressed neatly (to reflect a good public image)  
Wear a hard hat  
Never turn your back on the traffic  
Always be courteous but firm.

### **Additional Discussion Notes:**

*IDENTIFY CERTIFIED AND TRAINED COMPANY FLAGGERS*

**Remember:** The flagman has a responsibility to protect the general public as well as those at work on the construction site. Pay attention to what is going on around you.

### **Attendee's:**

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## BARRICADES & WARNING DEVICES

Two types of construction work, which usually require a great deal of public protection, are new residential developments and highway work. Both should require modifying the existing traffic patterns and more importantly the existing driving habits of the public. Today we will discuss the use of barricades and signs.

### Guide for Discussion

#### *Types of Accidents*

- Collision with construction equipment such as forklifts or trucks.
- Collision with other vehicles.
- Pedestrians (both construction workers and visitors) falling into excavations.
- Driving into excavations.
- Driving into work areas.
- Loss of control of vehicle due to changes in road conditions.

#### *Types of Warning Devices*

- Signs
- Cones
- Drums
- Barricades
- Channeling devices such as barrier walls
- Flashing lights

#### *General Rules*

- Give the public plenty of warning by use of signs
- Make sure warning devices can be seen and are effective
- Use flagmen on narrow passages, one way passages, or when construction vehicles will be interacting with the public traffic flow
- Maintain all barricades and signs
- Give the construction area a buffer area
- Be sure you clearly mark the beginning and end of the construction area.

### Additional Discussion Notes:

**Remember:** There are numerous specific rules for signs, barricades and warning device usage. It is important we use all the types of warning devices we have to protect us and the public around our construction site(s).

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.



## Effects of Weather

There is one element in the construction business that we have no control over—the elements—the weather. However, we can control how the weather affects the safety of a project.

### Guide for Discussion

Wind:

- Can blow dust in your eyes.
- Can blow materials and people off scaffolds, roofs or higher floors.
- Can blow down poorly braced formwork or newly framed walls.

Lightning:

- Often electrical storms occur without any rain. Therefore are very dangerous.
- Be sure to stay away from any type of tall object.
- If working around iron or rebar and lightning is seen, clear the area.

Rain, Sleet, Ice and Snow:

- All four are wet, some are cold, and all can cause slips, trips and falls.
- Snow, sleet and ice can cover floor openings and cause more slips, trips and falls.
- Mud can result in pulled muscles from straining.
- All four can ruin construction materials.
- Water, ice and snow can affect trenches and other excavations. Closely inspect all excavations to determine how the weather is affecting them.
- Water, when it accumulates on a jobsite, increases the chances for electrocution.

### Additional Discussion Notes:

- What other weather elements can adversely affect the jobsite?
- What our policy is when working in high areas to tie down equipment or people? *DESCRIBE*
- *Who* has the authority to shut down a job because of the danger of high winds?

**Remember:** When dealing with the weather and the effects of it on a construction project, use common sense and try to minimize the adverse effects.

**Attendee's:**

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Heat Exhaustion/Sunstroke

Washington is known for its extremes. During summer months we can be exposed to heat exhaustion. Excessive heat causes accidents in many ways. It becomes more difficult to concentrate on the job, you sweat, you get tired and nervous, and begin making errors in judgment. When the temperature exceeds 90o, everyone needs to be aware of the danger signs.

### Guide for Discussion

How to prevent heat exhaustion:

- Avoid consuming alcohol and ice water while working.
- Drink plenty of cool fluids; citrus or fruit juices work best.
- Avoid heavy, fatty-type foods.
- Wear light, loose clothing.
- Avoid fatigue; get plenty of rest.
- Replace lost body salts.
- See a doctor if you are not feeling well.

How to recognize heat exhaustion:

- A person is dazed, staggers or becomes dizzy.
- There is a feeling of nausea or vomiting; the person also can feel chilly.
- Their face looks pale.
- There is a weak pulse and body temperature is below normal.
- A person is lying out unconscious.

What to do:

- Call for emergency medical assistance. (Review "Care For The Injured")
- Keep the victim lying down with their head lower than their feet.
- Loosen the victim's clothing.
- Keep the victim warm. (Remember, one of the results is the person feels chilly.)
- Give fluids if possible. Avoid ice water and alcohol. Salt solutions are best.

### Additional Discussion Notes:

**Remember:** Both heat exhaustion and sunstroke are serious matters. In both cases, the body is reacting to a life threatening situation. Do not take chances. Should you begin to feel ill, take a break and drink some cool (not ice) water or something else other than an alcoholic beverage. Both injuries frequently cause a lack of consciousness; in our business, that can lead to a serious injury.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Dressing For Winter Work

During cold weather, it can have a chilling effect on the senses to see, smell, and feel. It is usually difficult to be productive when you are cold. Therefore, it is important to dress for the weather conditions found on the jobsite.

### Guide for Discussion

- Always dress in layers with the outer layers being rather loose and the inner layers being somewhat tighter (to trap body heat).
- Do not over bundle.
- Use the outer layer of clothing as a windbreaker. This will make the layers underneath more effective.
- Minimize sweat. If you begin to get hot, take a layer off. Try to avoid getting your clothing wet. Once wet, they will not serve as good protection from the cold.
- Wear head protection. This will increase your overall warmth. Over half of the body's heat loss comes from the head.
- Be sure to properly protect your feet. Unless you are moving around, your feet will feel the effects of the cold first. Wool socks help, but 4-buckle overshoes can provide better protection.
- Gloves are very important. Most often a thin pair of wool gloves under a pair of leather gloves will provide the best protection.

### Additional Discussion Notes:

**Remember:** Don't overdress. This can restrict your movements and increase the chances of an accident. The shock effect resulting from an accident in cold weather can be much more dangerous. Should an accident occur in cold weather, it is critical that the injured person be kept warm.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Clothing

The proper work clothing can make a job a lot easier. Most workers never really think much about what they are wearing, but they should. It is very important to dress for the weather since most of the work is done outside or in areas without any climate control.

**Guide for Discussion:** The following items should help each worker how to dress properly:

### *Weather*

- Know the day's forecast.
- Be prepared to add or subtract clothing.
- Never work without your shirt in summer.
- If you begin to overheat, don't take off more clothes. Instead, slow down your working pace.
- In winter, try to avoid getting wet by wearing the proper clothing.

### *Proper Clothing – Head to Toe*

- A Hard Hat when required; soft cap during winter months.
- Eye protection of either safety glasses or safety goggles (or safety shield).
- Long or short sleeved shirt depending on the weather.
- Long pants always – wearing short pants can be dangerous if you are light skinned.
- Thick socks.
- Safety shoes.
- Work gloves.

### *Watch for the Following*

- Dirty clothes – keep your clothes clean and free of grime and bacteria.
- Keep oil and chemicals off of your clothes—don't be a human torch.
- Don't wear pants with cuffs on them.
- Missing buttons, rips and tears can increase the chances of cuts, bruises and other injuries.
- Loose garments tend to get caught easily.
- Belts, ties and other accessories.

### **Additional Discussion Notes:**

*Company Policy* on wearing hard hats, eye protection, shirts/long pants.

**Remember:** Since we generally must work in our clothes all day, every day, it makes good sense to wear the proper type of clothing to keep us as comfortable as possible.

### **Attendee's:**

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Head Protection – Hard Hats

There are some practical reasons for wearing a hard hat. They help keep your head cooler in summer; dry during rain; and helps shield your ears from noise. But the main reason to wear a hard hat is that it protects the control center part of your body—your head.

### Guide for Discussion

#### *What a Hard Hat Does*

- Protects you from falling objects.
- Protects your head in case of a fall or bump's into machinery, ductwork and the like.
- Protects you from electrical shocks and burns if it's a non-conductive hat.
- It is a neat place to put stickers and decals, especially first aid trained or safety committee member.

*Proper Care.* In order for your hard hat to take care of you, you need to care for your hat.

- Always keep your hard hat properly adjusted.
- Do not cut, bend or heat the hard hat.
- When you see deep gouges or cracks in the shell, or the hat color turns dull, its time for a new one.

#### *Proper Wear.*

- Do not wear it backwards.
- Don't put anything inside your hard hat except your head.
- Don't try to substitute it for a "bump cap." The bump cap will not provide adequate protection from falling objects; just isn't strong enough.
- It is not a stool or a step; doing so weakens the shell of the hard hat.

### Additional Discussion Notes:

What is company policy on wearing hard hats? *INSERT POLICY*

When working on scaffolding and exposed to falling objects, a hard hat must be worn.

**Remember:** The average hard hat weighs about 14 ounces. The average head weighs about 14 pounds. That's about one ounce of protection for each pound of head. A small price to pay to protect the control center of your body.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Eye Protection

The protection of your sight requires three extremes: extremely easy, extremely important, and too often, extremely forgotten. Once you have lost an eye or your ability to see, it's too late. Protecting your eyes is the easiest thing to do, if you care about your eyes.

### Guide for Discussion

#### *Types of Eye Injuries*

Small flying objects such as dust or other microscopic objects.

Particles resulting from chipping, grinding, sawing, brushing, hammering or using power tools (including nail guns). (These items move with the speed of a bullet and can permanently damage your eyes.)

Liquids such as chemicals, tar, asphalt solvents, paints or masonry cleaning solutions.

Invisible light rays such as those generated by welding operations or by a laser beam.

#### *Methods of Protection*

Safety glasses  
Safety goggles  
Face shields  
Welding hoods

### Additional Discussion Notes:

**Remember:** There are all kinds of safety glasses or goggles available on the market; some are really cool. Eye injuries occur in a split second. Don't blind yourself to the necessity of protecting your eyes

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Foot Protection

Foot protection is probably about the least talked about type of personal protection. Nevertheless, it is still an important safety topic. One nail puncture could cause weeks of lost time off the job.

### Guide for Discussion

#### Characteristics of a Suitable Boot

- Puncture resistant soles.
- Steel toes.
- Boot extends above the ankle.
- Sole provides good traction.

#### Type of Injuries Commonly Resulting from Poor Footwear

- Punctures from nails and tie wire.
- Bruises of the foot.
- Unsure footing.
- Blisters.
- Body fatigue.
- Mashing of foot resulting from dropped objects.

#### Other Acceptable Footwear

- Buckle Overshoes – for work in mud, water and concrete. (\*)
- Knee and Hip boots – for work in deep water and mud.

(\*) Encourage use of rubber boots when placing concrete. Sometimes we forget concrete can cause severe burns if it comes into contact with the skin for any length of time.

### Additional Discussion Notes:

What is the company policy on wearing sandals or tennis shoes on the job? *INSERT POLICY*

**Remember:** Almost all of us work on our feet or at least use our feet to get to work. Doesn't it make sense to take good care of our feet in order to insure that they are able to get us to work?

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Hand Protection

Someone commented that the “hands and fingers are the instruments of the mind.” If that is true, it must become very difficult to be productive when your hands are injured or lost as a result of an accident. Whatever the construction craft, a worker must be able to use both hands in order to get the job accomplished.

### Guide for Discussion

#### *Causes of Hand Injuries:*

- Inattention.
- Taking chances.
- Exposure to rough materials.
- Stacking of heavy materials (i.e., getting your hand or fingers caught between materials).
- Cut by sharp objects.
- Mashed (or hit by) tools.
- Burns.
- Caught in machinery.

#### *How to Protect Your Hands:*

- Wear gloves whenever possible.
- Pay attention to the task being performed.
- Use the proper tools.
- Make sure any equipment used has hand guards in place.

### Additional Discussion Notes:

**Remember:** Should any injuries occur to your hands, be use to get immediate treatment. Without treatment, a minor cut can turn into a major problem with infection. Your hands may look tough, but when you get scratches, cuts, bruises or mashed that seriously injure your hands, you take a chance of losing them. In this business you can't work without them.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.



## Personal Protective Equipment -- Concrete Construction

Concrete construction has unique requirements for the need of personal protective equipment (also called PPE). Today we are going to discuss the various types of PPE and why.

### Guide for Discussion

#### *Construction Common*

Some sort of head gear. If there is a danger of falling objects, wear a hard hat. If working in cold weather, wear a hat to keep the body warm.

Eye protection. Wear safety glasses or goggles when pouring concrete. That way any splashing concrete stays out of your eyes.

Gloves. It makes common sense to protect our hands as much as possible. Wearing gloves protects against scratches and cuts and possible infection because of the chemicals used in concrete.

Long sleeve shirt/pants. This keeps concrete from splashing on your body. You can avoid burns that way.

#### *Concrete Unusual*

One vital piece of PPE is kneepads. Since concrete finishing often exposes knees to additional wear and tear, it makes sense to wear kneepads designed to take the stress rather than scraps of insulation held on by duct tape.

Rubber Boots. If wet concrete comes into contact with the skin for any lengthy period of time, we can get severe burns. Besides, it is easier to wash off rubber boots than to wash off and have wet feet with regular boots after pouring mud.

### Additional Discussion Notes:

**Remember:** Just like roofers have to wear a full body harness, concrete workers need to protect themselves. Unlike roofers protecting against a fall, we have to protect ourselves against additional wear and tear on our bodies.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Knee Pads

Construction workers (and especially roofers) are prone to have knee problems. We bend our knees almost as much as we bend our backs and then at the end of the day, complain about our aching bodies. Just as we must be careful in lifting, we must be careful in bending. To assist in saving our bodies, think about using kneepads as an important part of personal protection equipment.

### Guide for Discussion

Do we have exposure to knee injuries?

Is there a way to “engineer out” the constant knee bending situations on this job?

What are appropriate times and places to wear kneepads? Discuss as needed:

- Concrete Finishing
- Decking work
- Roofing work
- Finishing work
- Electrical or plumbing work
- Welding
- Millwrighting or other mechanical type work

Is using a piece of insulation and duct tape an acceptable means of protecting knees?

Improper use examples:

- Binding straps too tight (cutting off circulation)

### Additional Discussion Notes:

Are we using kneepads that can work when wearing double kneed work clothing?

**Remember:** It only takes a moment to strap on kneepads or wear them in double kneed work clothing. Over time, kneepads will save you from permanent injury from working while on your knees, and it is more comfortable for you when getting the work done.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Respirators

**Instructor Note:** Prior to making a safety presentation, obtain and review your company respirator protection program.

*Our company has developed a separate respirator protection program. It is an important program because of the exposures we face in the workplace. We want to protect your body and lungs.*

### Guide for Discussion

#### Generally:

- ◆ No respiratory program is required when filtering-facepiece respirators are the only respirator used and they are used voluntarily.
- Respirators will be worn when the employee is exposed to hazards such as fumes, gases, mists, vapors and sprays
- Fit testing shall occur prior to allowing an employee to wear the respirator.
- Employees should be fit tested at minimum of annually to ensure the employee is putting on the respirator properly.
- Respirators shall be kept in a sanitary condition, covered at all times when not in use.
- Respirator training should be conducted prior to wearing the respirator for the first time.

**Company Specific:** We want all our line employees to:

Inspect the respirator before each use.

Know how to properly don/fit their respirator.

Conduct a positive pressure or negative pressure check with each use.

Report any and all problems to your supervisor.

Take proper care of the respirator.

Never hang respirator on a nail or leave exposed to dust.

#### Additional Discussion Notes:

Company Respirator Protection Program notes: *Detail Specific Comments*

**Remember:** The reason we wear respirator is to protect our lungs and bodies against hazardous fumes, gases, mists, vapors or sprays.

#### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Housekeeping

Lack of proper housekeeping on the job is one safety hazard common to all construction projects until after final cleanup. Good housekeeping is one item that can help improve not only the safety on the job, but also the morale and productivity of the job.

### Guide for Discussion

The following "General Rules" should be covered in any discussion on housekeeping:

- Keep scrap lumber with protruding nails separate from other debris;
- Bend nails over or remove from lumber.
- Keep all waste debris in neat piles and away from the immediate work area.
- Remove debris from the job on a regular basis.
- Keep aisles, stairways and walkways clear.
- Store materials only in their designated areas.
- Place trash barrels where needed to eliminate food rubbish.
- Keep tools and equipment stored neatly.
- Keep extension cords from being across walkways. If necessary, run them overhead; same applies to air compressor hoses.
- Don't let trash and debris build up. If it does, make an extra effort to get it cleaned up.

Good Housekeeping Can:

- Prevent minor injuries like cuts, punctures, slivers;
- Prevent major accidents like slips, trips, falls and fires;
- Increase job productivity by speeding up the movement of workers and materials on the job;
- Keep compliance inspectors from visiting the job.

### Additional Discussion Notes:

When doing tear-off's or out's, no material shall be dropped to any point lying outside the exterior walls of the structure unless the area is effectively protected. (See Trash Chutes for more information.)

**Remember:** Good housekeeping aids everyone and makes it easier for everyone to do their work safely and with more pride.

**Attendee's:**

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Trash Chutes

(Instructor Note: See WAC 296-155-785)

Trash chutes (also called disposal chutes) are commonly used on high rise projects. They are also used by remodeler's and roofers to keep their job sites cleaner and safer.

### Guide for Discussion

No material shall be dropped to any point lying outside the exterior walls of the structure unless the area is effectively protected.

Whenever materials are to be dropped in an unprotected area an enclosed chute will be used.

The chute should be fully enclosed on all sides. See WAC 296-155-785.

Never allow someone using a chute to be subjected to material falling from above.

Be sure the chute door can be securely latched in a closed position.

Be sure all debris is collected into a suitable container (i.e., trash barrels, back of a dump truck).

Never allow debris to fall into an unguarded or unsecured area.

Never allow debris to accumulate to overflow.

Keep a fire extinguisher near the trash accumulation area.

Never put solvent, oil, flammable liquids or materials soaked with any flammable liquids into a trash chute.

Be sure the chute is properly guarded with standard guardrails. (See Guardrails "Tool Box Talk" on page 55.)

If attached to a wall opening, standard guardrails, a safety net system or a personal fall arrest system (PFAS) must be used.

### Additional Discussion Notes:

Chutes shall be designed and constructed of such strength as to eliminate failure due to impact of debris or other materials loaded on them. In short, don't use a 1x6 when 2x6's are needed.

Where debris is dumped from a wheelbarrow or other mechanical equipment, a toeboard or bumper not less than four (4) inches thick and six (6) inches high will be mounted at each chute opening.

**Remember:** The use of trash chutes can greatly improve the housekeeping of any construction project. But unless the chutes are properly constructed and used, they will do nothing but create additional hazards for the workers. Be conscious of what you are doing around a chute.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Material Storage

Proper material storage is a vital part to every construction site and to good site housekeeping. This is especially true with finish hardware since it can take so long to receive the materials from the supplier after the order is placed. It also makes good sense, since materials have to be stacked and placed properly, to do it so you can access the materials easily and safely.

### Guide for Discussion

Poorly stacked materials are dangerous to anyone around the jobsite.

Keep aisles and passageways clear; never store materials in such a way as to block either.

Never store materials within six (6) feet of a hoistway entrance, floor opening, or at second floors and higher.

Segregate incompatible materials. Don't stack flammables next to combustibles.

Never store more materials than are to be used immediately on scaffolds or runways.

Remove all nails from lumber stacks.

Block all cylindrical storage areas to prevent spreading or tilting.

When possible, cross-tie tiers of a material to increase support.

If heavy materials or large quantities of materials are to be stored on floors above grade, know the load limits of the floor and don't exceed them.

### Additional Discussion Notes:

**Remember:** One way to increase efficiency and safety on the job is to store materials correctly the first time. It just makes good sense.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Material Handling

Proper material handling is part of the successful working of any job. Material handling is also potentially dangerous to those moving the materials from the delivery vehicle to its storage place.

### Guide for Discussion

#### *Material Storage*

- Ensure that floors can handle the storage loads.
- Keep materials six feet away from open floors or landings; ten feet away from the exterior of the building.
- Keep all aisles and passageways clear.
- Do not store non-compatible materials together. For example, gas containers and bulk lumber do not mix.

#### *Proper Lifting Techniques*

- Know your individual lifting capacity.
- Know the capacity of the load to be lifted.
- Avoid over-extending or twisting your back.
- Use your legs to lift – keeping your back straight - with the load close to your body.
- Get help if needed.

### Additional Discussion Notes:

**Remember:** There is a place for everything and everything needs to be in its place. The proper storage of work materials will make your job easier. Proper lifting and handling, with help if needed, will keep you from being injured on the job.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## The Spotter

With the high level of material delivery on a construction project and with delivery trucks generally required to back on the site, it becomes very important for the safety of workers and the project to provide spotters. Today we will review what the spotter should be doing and looking out for.

### Guide for Discussion

A spotter should always be used any time a vehicle with restricted view is on-site.

A spotter should always:

- Look out for themselves.

- Look out for others.

- Make sure the delivery vehicle is not damaged.

- Make sure the project and project materials are not damaged.

- Give clear and understandable signals.

- Never pass out of view of the driver without stopping the vehicle.

If you must go directly behind a vehicle, keep one hand on it so that you can immediately sense any movement of the vehicle.

Always signal on the driver's side.

Be consistent in giving signals.

Use hand signals.

The spotter must watch where they are walking.

### Additional Discussion Notes:

**Remember:** It is the responsibility of the spotter to get the delivery vehicle on and off the construction site without injury or property damage. This is a big responsibility—no one should take it lightly.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.



## Signaling Techniques

Proper signaling can greatly increase the efficiency and productivity of a construction project whether it is guiding a delivery vehicle, a forklift or a crane. Improper signaling can kill or injure workers as well as cause severe property damage on a project. The following points are recommended discussion points when discussing signaling.

### Guide for Discussion

Know the signals. If you have to, get with the operator and coordinate what signals mean.  
Allow only one person to give signals.  
Be sure the operator knows who the signal person is.

The signal person must:

- Always be in a position to see both the operator and the work area.
- Always watch the load; the operator must watch the signal person.
- Not move a suspended load over workers.
- Always warn workers when loads are being moved in their area.
- Watch for overhead power lines and any other obstructions.

Remember the proper type of signaling operation – for a truck, forklift or crane.

### Additional Discussion Notes:

**Remember:** It only takes one small mistake on the part of the signal person to cause a severe injury or major property damage. Make sure you and the operator understand each other and the signals to be used.

### Attendee's:

NOTE: Always promote a discussion of any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## The Right Tool for the Right Job

We are seeing the construction industry become more and more sophisticated with new construction techniques. However, in residential construction, the same tools that were used fifty years ago are used today although with some improvements. One way to get injured on the job is using the wrong tool for the job. Two important points to remember when using hand tools is the selection of the tool for the job and the use of the tool for the job.

### Guide for Discussion

Some key points to remember:

#### *Misuse Resulting From:*

- Ignorance.
- Poor attitudes.
- Production demands.

#### *General Points:*

- Keep your tools clean and in good condition.
- Chose the right tool for a specific job.
- Never use a tool not designed for the job you are doing.
- Never carry tools in your pockets.
- When chipping or cutting, wear eye protection.
- Be wary of the effect of your actions on other nearby workers.
- Use a pulling motion to operate hand tools rather than a pushing method.
- Never leave hand tools in areas where they may be kicked off onto lower levels or where they may be a tripping hazard.
- Never improvise.
- Don't adapt or use "cheaters."
- Never remove an electrical cord by jerking it; pull it away from power by the plug.
- Always be sure that power tools are electrically safe.

### Additional Discussion Notes:

**Remember:** The use of hand tools effects the daily lives of all construction workers. As a result, it is necessary that everyone be aware of safe hand tool practices and follows those practices.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Hand Tools

Without the use of hand tools, the completion of a construction project would be nearly impossible. Yet, as vital as they are, they are often the cause of serious accidents. All too frequently, hand tools are used improperly or when they are defective. Since we use hand tools continually, it is important they be used properly. We are going to briefly cover proper use today.

### Guide for Discussion

#### *Pre-Work Inspection*

##### Chisels

- Be sure the heads are safe ended or dressed.
- Be sure the cutting edges are sharp and square.

##### Files

- The tangs should be protected with handles.
- The teeth should be sharp and clean.

##### Hammers

- Be sure the handles are tight, unbroken and clean.
- The face of the head should be smooth and not mushroomed.

##### Screwdrivers

- Be sure handles are smooth and clean.
- Be sure all bits should be sharp and square.

##### Saws

- Blades should be kept sharp and oiled.
- Handles should be smooth and continuous.

#### *General Hand Tool Rules*

- Always use the right tool for the right job.
- Use only tools in good condition.
- Keep tools sharpened.
- Store tools properly.
- When chipping, always wear a face shield or safety glasses.
- Never throw tools to co-workers.
- Never use a tool in such a way that you will be injured if it slips.

#### **Additional Discussion Notes:**

**Remember:** Each tool is designed to perform a specific function. As long as you use the right tool and keep it in good operating condition, the various hand tools will serve you well. When you begin to improvise, expect the unexpected—injuries.

#### **Attendee's:**

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Screwdrivers

The screwdriver is one of the most commonly misused hand tools. While it is designed to tighten or loosen screws, you can also find it being used as a pry bar, punch or chisel. When that happens, the screwdriver can slip. When it slips, it can cause an injury or ruin the tool.

### Guide for Discussion

#### *Proper Care*

- The handle should be tight, smooth and not slippery.
- The shank should be true and straight.
- The bit should be flat, with the end at a right angle with the shank.
- Keep the bit square edged.
- When sharpening, be use not to remove the bit temper.
- Keep the bit and handle clear and free of grease and oil.

#### *Proper Use*

- Always use the proper size bit to fit the screw head.
- Keep the bit square to the screw head.
- Never use pliers on a screwdriver; if possible, use a vise.
- Never use as a pry, chisel, punch or lever.
- Use only a standard screwdriver on a standard screw; Phillips head on a Phillips head screw.
- Select the right length for the job; don't try to improvise.
- Always use a screwdriver with an insulated handle for electrical work.

### Additional Discussion Notes:

**Remember:** The screwdriver is a valuable tool when used properly. When used improperly, it becomes a hazard to your safety with the possibility of a resulting injury.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Wrenches

Wrenches—a very good name for this tool in that all too often it is the condition of a worker's back after misusing a wrench. (Wrenched back, get it?) It is not only a back that can be injured, as we will see after our discussion.

### Guide for Discussion

#### *Proper Care*

- Inspect on a regular basis
- Replace sprung jaws, cages and faces
- Replace all bent handles
- Keep the jaws sharp
- Keep the wrench clean and free of grease and oil.

#### *Proper Use*

- Always use the proper size wrench for the job.
- Never use a shim to make a wrong size wrench fit a nut.
- Never use a piece of pipe on the handle to increase your leverage. (Slip hazard.)
- Don't use a wrench as a substitute for a hammer.
- Don't pound on a wrench to try to loosen a frozen bolt. Use penetrating oil.
- Always pull a wrench toward you—never push away. (Slip hazard.)
- See that the wrench jaws are sharp and can bite the nut.

### Additional Discussion Notes:

Avoid possible falls – be sure you have firm footing.  
Using a wrench on moving equipment? Never.

**Remember:** After you have several banged up knuckles or a busted finger because of improper use of a wrench, you have learned the hard way that a wrench is dangerous. Bottom line: If you use a wrench improperly, it can cause painful injuries.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Hammers/Chisels

One of the most common causes of hand injuries is from the improper use of hammers and chisels. Both are responsible for a high number of eye injuries as a result of flying nails, metal or concrete chips.

### Guide for Discussion

#### *Chisel Use*

- Never use a chisel with a mushroomed head.
- Always wear eye protection.
- Hold the chisel between the thumb and forefingers – don't make a fist around the chisel.
- Do not grip a chisel if your hands are numb.
- If another worker is nearby, place yourself between the other worker and the chipping area.
- Always use sharp chisels.

#### *Hammer Use*

- Use the right type of hammer for the job.
- Only use hammers in good condition.
- Use only hammers to drive objects.
- Always grip the hammer close to the end and grip it tightly.
- Whenever possible, wear eye protection.
- Always concentrate on the striking point.
- Strike blows as squarely as possible.
- Be sure there is an unobstructed back swing.
- Don't strike blows with the side of the hammer.
- Never strike a hammer or tempered tool with another hammer.
- Always keep your hammer free of grease and oil.
- Never allow someone else to hold a nail or chisel while striking it.

### Additional Discussion Notes:

The company policy on wearing eye protection on the job is *Insert Company Policy*

**Remember:** In addition to using common sense and following the techniques we discussed earlier, wear safety glasses or goggles when chiseling around metal, concrete or shooting nails. Both will decrease the chances of receiving eye or hand injuries.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Nails Are Dangerous Too

You would think that discussing nails is not a very important subject. However, by one industry estimate, about 20% of all minor injuries on the job are a result of punctures, scrapes, and cuts resulting from nails that were not properly removed from lumber and other debris. We all recognize what can happen if a nail is not properly set before driving it, yet we often forget about how dangerous a nail is once it becomes a part of scrap lumber or job debris.

### Guide for Discussion

#### *Driving Nails:*

- Be sure your hammer is in good condition.
- Always hit the nail squarely, especially on the first blow.
- Always hit with the blow's 90 degrees to the nail head.
- Make sure the back swing is unobstructed; claws can hurt.
- Be consistent—"groove" your swing.
- Concentrate on the head of the nail.

#### *Pulling Nails:*

- Always pull or bend nails when stripping.
- Use the right pulling device for the job.
- If needed, use a block of wood as a fulcrum. It will make the job much easier.
- Keep scrap materials in neat piles and out of walkways.
- Carefully discard used nails.

### Additional Discussion Notes:

**Remember:** Nails can become "snake fangs" if used improperly. Always treat nails with the respect due them. Otherwise you may end up with puncture wounds, scrapes, cuts or potentially the loss of your eyesight. Driving and pulling nails is often common sense; use it.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Table Saws

We all recognize how important our hands are to our employability. However, every year hundreds of fingers and hands are lost to table saws. Table saws are the surest and cleanest way to lose a finger or a hand. Much of this is a result of getting used to operating a table saw and then losing respect for it. That is why it is so important that we review the common safety rules pertaining to the operation of a table saw.

### Guide for Discussion

*Two common types of saws:* Table saw; radial arm saw.

#### *General Operating Rules:*

- Never operate without all guards in place, especially the blade guard.
- Be sure you stand in the correct position—always allow for kick back.
- Maintain good footing.
- Never allow other workers to work or rest when they are exposed to kick back.
- Maintain good housekeeping in the saw area.
- Never use your hands to run lumber through the blade or to clean off sawdust. Get a pushstick and a brush.
- Never use a saw with a dull blade. (Note: When you go to change a blade, make sure the power is disconnected and you control the switch.)
- Don't crowd (i.e., pinch) a blade especially when cross-cutting.
- Don't wear loose clothing around a saw.
- Always wear eye protection.
- Be wary of warped lumber.
- Be wary of "fly back" (also called kick back) when ripping.
- Keep the blade set so it just barely makes the desired cut.

#### **Additional Discussion Notes:**

**Remember:** The use of table saws can greatly increase productivity. But if improperly used, they can greatly handicap the user.

#### **Attendee's:**

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.



## Electric Power Tools

Electric power tools come in all shapes and sizes and are designed to do almost anything. However, there are some things that they all have in common, rules for safe and proper use.

### Guide for Discussion

The following rules should be remembered when discussing the use of electrical power tools:

Select the right tool.

Know how to use it.

Be sure it is properly grounded or double insulated (i.e., a plastic body and two pronged plug).

Inspect for the following:

- Broken or defective cords
- Defective terminal connections
- Defective plugs
- Defective or loose switches
- Brushes that spark excessively

Never use a tool unless the guards are in place and in working order.

Before using the tool:

- Remove the chuck or adjusting key
- Firmly secure the work
- Be sure you have firm footing

Always use proper personal protective equipment and remove dangerous items:

- Safety glasses or goggles
- Hard Hat
- Safety Shoes
- Loose Clothing
- Jewelry

Never carry the tool by its cord.

Never adjust the tool when it is plugged in.

Disconnect the tool when finished or when not using.

Maintain good housekeeping.

Avoid working in wet areas whenever possible. When you do, wear insulating materials such as rubber gloves or a rubber vest.

### Additional Discussion Notes:

**Remember:** All the basic rules we discussed are common sense in nature. Yet too many times they are forgotten or disobeyed with the result of someone being injured—too often, seriously.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Electric Hand Saws

The electric hand saw is one of the most common power tools found in residential construction. It is also one of the most abused being tossed around, kicked out of the way, but depended on to get the job done. Today we are going to discuss basic safety rules, guard rules, and saw blade rules.

### Guide for Discussion

#### *General Safety Rules*

- Use only grounded or double-insulated tools.
- Use only extension cords that are in good condition.
- Make sure there is an assured grounding program or ground fault interrupter (GFI) being used. (See Electrical section for more information.)
- Make sure all work areas are as dry as possible.
- Never do maintenance work on the saw while it is plugged in.
- Never ever use your leg as a sawhorse.
- Always remain alert.

#### *Guard Rules*

- Make sure all guards are operable before use.
- Do not use the saw if it has a defective guard.
- Never block any of the guards open.

Always check before setting the saw down to be sure that the blade guard does not jam open.

#### *Saw Blade Rules*

- Always keep the blade sharp.
- Use the right blade for the materials being cut.
- Never change blades while the saw is plugged in.

### Additional Discussion Notes:

The WISHA penalty for a missing or misused guard is anywhere from \$150 up to \$1,700 depending upon the severity of the violation.

**Remember:** An electric handsaw can, in just a blink of the eye, severely injure you or a co-worker. Be alert when using an electric hand saw and follow the common sense rules we just discussed.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Portable Electric Tools

The use of portable electric power tools is one of the most common occurrences on a construction project today. Workers are exposed to the use of these tools constantly.

It is important to remember that electricity always seeks a path of least resistance and often that is through a defective cord into the worker's body. This is especially true if the worker is exposed to wet weather or has been sweating.

### Guide for Discussion

The following safety rules should be reviewed when discussing the safe use of portable electric tools:

Use only equipment that is in good condition.  
Be sure the tool is properly grounded.  
Always report the following:

- Defective or broken cords;
- Bad connections to power terminals;
- Defective or broken plugs;
- Defective or loose switches;
- Brushes causing sparks.

Never overstrain the tool thus overloading the motor.  
Never use an un-insulated tool without a grounding plug.  
Avoid working in wet areas unless a ground fault interrupter circuit is used.  
Never use a tool in the presence of flammable vapors or gases unless it is designed for such use.

### Additional Discussion Notes: *Spell Out Company Policy.*

*Address:*

What is the company policy on tagging defective tools and removing them from service?  
Who is the person responsible to have company owned portable electric tools repaired?  
The company's policy on defective employee owned portable electric tool's is?

**Remember:** Electricity is an unseen killer; it gives no warning. But electrical shock can be avoided by using tools in good condition and common sense.

**Attendee's:**

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Powder Actuated Tools

Powder actuated tools are nothing more than a gun that fires a stud into a wall. As such, the safety rules that apply to firearm safety should almost always apply to the use of powder actuated tools. No one will be allowed to operate a powder actuated tool without proper training. The rules discussed today are not intended to be a complete set, but serve as a reminder and a starter.

### Guide for Discussion

#### Hazard Examples

- Flying particles
- Studs being shot through the work area
- Studs ricocheting
- Fire hazards
- Interchanging tool charges with firearm charges

#### Basic General Safety Rules

Allow only qualified workers trained and have on their person a qualified operator card for operating powder activated tools. See WAC 296-24-66321.

- Inspect the tool before each use.
- Test the tool before each use.
- Always follow the manufacturer's specifications for operation.
- Always study and determine the proper charge.
- Know what is on the other side of the work surface.
- Know what is on the work surface.
- Don't allow other workers on the other side of the work surface.
- Know what can't be shot into, such as cast iron, high carbon steel, armor plate, glazed brick, glass, or tile. See manufacturer's instructions.
- Load just prior to shooting.
- Always wear eye protection.
- Store the tools, charges and studs safely and securely.
- Don't try to fix jams and misfires.

#### Additional Discussion Notes:

**Remember:** The example's of hazards and basic general safety rules we discussed is only a partial listing. It is not a substitute for formal training. Powder actuated tools in the wrong or unqualified hands can be as deadly as any firearm. Use extreme caution when you are using or are around a powder actuated tool.

#### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Chain Saws

Except for log home builders and site clearer's, it is rare that a chain saw is used on construction jobs. These are a specialty tool that have their own special hazards. Before you use, review.

### Guide for Discussion

#### *Before Operations*

Always review operator instructions before you use a chain saw.  
Wear snug fitting clothing; don't wear any jewelry.  
Be sure to wear earplugs especially if you plan to cut for a long period of time.  
Always check for defects in the saw. Replace all defective parts before operating the tool.  
Don't use a saw with a dull blade.  
Check the item to be cut for nails, wire and any other metal-imbedded items.  
Before cutting, plan a path of retreat.

#### *During Cutting*

When cutting, keep the saw away from your body.  
Never cut anything directly overhead.  
Be wary of materials to be cut that may be under tension.  
Be careful to avoid pinching the blade or guide bar.  
As the material begins to fall, turn off the saw and move away quickly.  
Watch for a rebound.

#### *After Cutting*

Allow the saw to cool before refueling.  
Don't operate the saw near your refueling area.  
Check the operator instructions for any special after operations maintenance instructions.

### Additional Discussion Notes:

***Instructor:*** Determine company policy on always wearing a hard hat, ear plugs, safety glasses or goggles, leg protection and safety shoes when using a chain saw.

**Remember:** Chain saws can greatly reduce the labor burden in a construction project. However, these are a dangerous tool and can seriously injure a worker when improperly used. Use common sense and the basic rules we discussed to have a safe operation.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## JOB SITE HAZARDS – THE BIG FOUR

### Instructor Notes:

In some Federal Occupational Safety and Health (WISHA) states, compliance officers are evaluating a program whereas they will inspect four basic job site hazards on residential construction projects. If these four areas are found to be satisfactory, the compliance officer has the option to end the inspection at that point and leave the job site.

Residential construction safety professionals often use the four basic job site hazard subject areas as a means to get interest from the on-the-job employees; it works out very well as a training or instructional guide.

The big four are:

*Falls From Elevated Heights.* Subject areas include falls in general, ladders, floors and other openings on the walking/working surfaces (don't forget skylight wells), and the need to have guardrails or other fall protection devices installed.

We included the need for personal fall protection systems (PFAS) in these Tool Box Talks as discussion points. The various standards of when to wear PFAS will require some research on your part. However, you need to know that when a compliance officer sees someone working on a roof, they are required by statute to check out the situation to see if a worker is exposed to falling.

*Being Struck By:* This is a term used by industry safety and insurance personnel. Being struck by includes being hit by a hand or power tool. For example, when you accidentally hit your thumb with a hammer holding down a nail. You were struck by the hammer causing an injury. There are a lot of other more serious examples. One is using a nail gun and accidentally discharging a nail into a foot. Another example is an amputation of a hand or finger by a saw blade because the guard was removed.

When we put together this booklet, we looked at specific subject areas to include in "being stuck by." Because the accidents/incidents are so common, we decided to save paper and include the subjects in such areas as Tool Use and Care and Heavy Equipment subject areas.

*Being Caught Between or Under:* This is also a term used by industry safety and insurance workers. The primary example is excavation crews. Like seeing someone working on a roof, compliance officers are required to stop and inspect when they see a hole in the ground. Be advised. A more common example of a worker being injured is during the raising of a framed wall. If the wall falls backwards, a worker is potentially exposed to being "caught between." In this case, between the wall and the floor. Hips and legs have been broken by falling walls.

*Electrical:* This applies to all electrical hazards. One reason why electrical hazards are mentioned though out the tool box talks is because of the exposure all workers have to electrical hazards, the silent killer.

## TRAINING REQUIREMENTS – FALL HAZARDS

**Reference:** WAC 296-155-24505(3)(a) Training Requirements.

“The following training provisions supplement and clarify the requirements regarding the hazards.

(a) Training Program.

- (1) The employer shall provide a training program for each employee who might be exposed to fall hazards. The program shall enable each employee to recognize the hazards of falling and shall train each employee in the procedures to be followed in order to minimize these hazards.
- (2) The employer shall assure that each employee has been training, as necessary, by a competent person qualified in the following areas:
  - (i) The nature of fall hazards in the work area;
  - (ii) The correct procedures for erecting, maintaining, disassembling, and inspecting the fall protection system used;
  - (iii) The use and operation of guardrail systems, personal fall arrest systems, safety net systems, warning line systems, safety monitoring systems, controlled access zones, and other protection to be used;
  - (iv) The role of each employee in the safety monitoring system when this system is used;
  - (v) The limitations on the use of mechanical equipment during the performance of roofing work on low-sloped roofs;
  - (vi) The correct procedures for the handling and storage of equipment and materials and the erection of overhead protection; and
  - (vii) The role of employees in fall protection plans;
  - (viii) The standards contained in this subpart.

(b) Documentation of training

- (1) The employer shall verify compliance with paragraph (a) of this section by preparing a written training record. The written training record shall contain the name or other identity of the employee trained, the date(s) of the training, and the signature of the person who conducted the training or the signature of the employer.

**Training Notes:**

See (a) (1) “...a training program for each employee who **might be** exposed to fall hazards.” Some employers include any office or support staff who may come onto a job site in fall hazards training just in case. See “Fall Protection In Construction” for a training record example.

Some employers also include training on ladders as part of their fall hazards training. This accomplishes two training tasks simultaneously.

Wily Coyote always seems to fall into a deep canyon and not be injured at all. People can't. Then why do we seem to have trouble getting workers to pay attention to the fall hazards around them?

**Guide for Discussion**

The following items represent the bulk of the exposure to falls on a construction site.

*Ladders:*

- Always use the right ladder.
- Set them on level ground and tie them off at the top (for security).
- Do not over reach.
- Do not over extend yourself on the ladder.
- Always face the ladder and try to use both hands when climbing.

*Floor Openings:*

- Floor openings should be properly covered.
- Covers must be able to support walls the same as the floor.
- Covers should be firmly attached to the floor/walking/working surface.
- Covers should be marked as such. For example: "Cover," or "Do Not Remove Floor

*Opening Cover."*

- Consider wall openings and uncompleted stairways as openings with suitable protection provided.

*Stairways:*

- Use handrails.
- Watch where you step.
- Keep your view clear.
- Concentrate on the stairs.
- Do not run up or down the stairs.
- Keep stair well clean.

*Housekeeping:*

- Always try to provide good footing.
- Keep tools, trash, scrap materials out of walkways.
- Clean as you go.
- Always be wary of oil, ice or snow.

**Additional Discussion Notes:**

- Balance. Wear appropriate footwear (including auxiliary footwear like corks) when necessary.

**Remember:** Paying attention to things around you like ladders, floor openings, stairways and good housekeeping will help prevent a fall.

**Attendee's:**

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.



## Ladders

Injuries in the workplace because of ladder are commonplace. Falls from ladders can be as painful as a fall from a roof; about a third of all reported falls are falls from ladders. (\*) Many of the fall related injuries result from the improper use or the use of a defective ladder.

Step/extension ladders are made to access/egress upper levels, not to be used as work platforms. There are specifically designed ladders for use as work platforms such as order pickers. These ladders are constructed with a small platform and guardrail. The following safe work rules should be observed when working with ladders.

(\*) 1993-94 Study: 238 of 705 falls based on an OSHA study.

### Guide for Discussion

#### Inspection

Look for missing or loose cleats at the bottom.  
 Look for loose or missing screws, bolts or nails on job made ladders  
 Look for cracked, broken, split, dented or badly worn rungs, cleats or side rails.  
 Splinters on wood ladders.  
 Corrosion on metal ladders.

#### Ladder Use

- Always use the right ladder for the right job.
- Don't set your ladder in a walkway or door opening.
- Keep the area at the top and bottom of the ladder clear of tool cords, tools, material and garbage.
- Always set the ladder on solid footing.
- Use a twenty-five percent (25%) angle on the slope of the ladder.
- When using extension ladders, the three (3) top rungs must extend beyond the landing platform. (Or the top of an extension ladder must be 36" (3 feet) above the landing.
- Don't lean to the side when on a ladder or you may tip over.
- Do not carry tools or materials on a ladder. Use both hands when climbing a ladder to grab onto the side rails. If it is necessary to move material or tools up a ladder, first climb up, then pull up the work with a hand line.
- Only one person on a ladder at a time (*unless the ladder is double cleated*).
- Always secure the top of the ladder to prevent it from sliding.
- Never lean a step ladder; always fully open a step ladder.
- Always face the ladder.

#### Additional Discussion Notes:

Always tie off the ladder. That way it stays where you put it.

**Remember:** When you are on a ladder, you can fall. If you can fall, you can get hurt. Use ladders safely.

#### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

**FALL CAUSES DEATH: LADDER'S ARE KILLERS**  
**A Tool Box Talk Case Study: Why Take Ladders Seriously**

**Introduction:** This is a true story only the first name of the victim has been changed. One of our friends wrote: "I lost a good friend September 15, 1997 from a fall from a roof. It seems that my friend Leroy went to help a neighbor with a leaking roof problem."

**Guide for Discussion**

It was on a low pitched single story home (a 3/12 or 4/12 pitched roof), about eight foot ground to eaves's height. From family reports, Leroy borrowed a ladder from the neighbor to go up and temporarily fix the problem. However, it was just the top half of an extension ladder without safety feet on the bottom.

Leroy placed the ladder on a painted concrete patio, leaning against the house, with just one rung above the landing surface. Carrying a large rock to hold down the felt, Leroy went up the ladder.

While going up the ladder, the two friends continued their conversation. When Leroy got ready to step off the ladder, the ladder slipped and fell away. Leroy dropped the rock as he fell backward eight to ten feet. The rock bounced on the patio; Leroy hit the back of his head on the rock. He died later that night never having regained consciousness. He left four children (two of whom are contractors) and four grandchildren.

Leroy was an experienced concrete finisher, framer, finished carpenter, and roofer—a skilled "woodworker" according to his obituary. He was careless. I will miss Leroy. His children and grandchildren will miss him more; our sympathies go to the family. However, his accident was preventable.

There are about a dozen "common sense" safety violation lessons learned from Leroy's death. What lessons can you learn from this?

**Additional Discussion Notes:**

**Remember:** Tragedies remind us that fall's from ladders or roofs are serious and can be fatal. Every once in a while we need to be reminded why we have safety rules—and why they need to be followed. Don't you take unnecessary chances by using the wrong tool.

**Attendee's:**

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Floors and Other Openings

Injuries in the workplace because of holes in walking and working surfaces are commonplace. Slips, trips and even falls from one level to the next can be as painful as a fall from a roof. The following items should be considered when dealing with floors and other types of openings.

### Guide for Discussion

*Hazard Identification: Floor Openings (2"x2" minimum at any depth)*

- Temporary openings
  - Plumbing
  - Ventilation (Vault Ceilings?)
- Skylight wells
- Manholes
- Holes in Ground (Trenches and Excavations)
- Wall/Window Openings
  - Temporary guardrail system

*Washington Fall Protection Standards*

*Methods of Protection*

- Use of standard guardrails
- Use of covers
  - Able to support four times the intended load
  - Nail down
  - Mark with "Cover"

### Additional Discussion Notes:

Floor Openings -- Types in Need of Guarding

- Ladder way floor openings
- Hatchways and chutes

### Remember:

When you create a safety hazard, you need to protect others against the hazard. The easiest method is to fix the problem when you create the problem.

Guardrail systems must be able to withstand a 200 pound load applied horizontally and vertically. All floor covers must be able to support at least twice the intended load and installed to prevent accidental shifting. Floor coverings should be so marked in a bright colored paint to communicate the danger.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Guardrails

One of the more common WISHA citations is for lack of or improperly erected guardrails. There are two basic types of guardrails – the perimeter guardrail (i.e., found on flat roofs, upper stories before framing walls) and floor opening guardrails. Both are constructed the same way and are designed to provide the same type of protection. See WAC 296-155-505.

### Guide for Discussion

The following items should be reviewed when discussing guardrails:

#### *When are they required?*

All open-sided floors or floor openings exposing workers to a fall of four feet or greater.

#### *Standard Specifications*

- The top rail should be 42” high and constructed of 2”x4” stock wood.
- The intermediate (or mid rail) should be 21” (also using 2”x4”).
- The bottom rail or toeboard should be at least 4” in vertical height from the floor to the top of the toeboard.
- Uprights will be 2”x4” at 8’ centers at a minimum.
- All components must withstand a load test of 200 pounds at any point.

#### *General Rules*

Install guardrails properly the first time and reduce the amount of maintenance.  
Install as you go—don’t wait and then have to catch up.  
Regularly inspect all rails.

### Additional Discussion Notes:

Window and Door Openings.

Interior stairwells requiring hand rails.

Anyone repairing a guardrail at elevated heights should be wearing their Personal Fall Arrest System (PFAS) and be tied off to an anchor point.

Enforce replacement by subcontractors when they remove them.

**Remember:** Guardrails are designed to protect you from falling from one level to another. If the guardrail is defective or not there at all, then you are exposed to serious injury or even death.

### Attendee’s:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don’t hesitate to contact your Employer.

## Ramps and Runways

Ramps and runways are an integral part of almost every jobsite. However, many ramps and runways are not properly constructed resulting in a jobsite hazard to anyone on the site and as a source for damaged materials.

### Guide for Discussion

General rules for ramps and runways:

- Keep them free from job junk (debris).
- Provide suitable traction.
- Consider standard guardrails (with or without toeboard) on both sides to prevent falls.
- Ramps with a minimum width of eighteen (18) inches may have only one guardrail.
- Never exceed a twelve foot span (maximum) without bracing.
- All walkways used in lieu of stairs must have cleats.
- Give plenty of clearance when workers are carrying or pushing materials.
- Don't overload with people or materials.
- Keep all loads moving. Don't stop on a ramp or runway with a load.
- Never work under a ramp or runway; the load may wind up on you.

Danger signs for ramps and runways:

- Not wide enough.
- Not properly supported or nailed.
- Too steep an incline.
- No cleats.
- Bad spots or uneven walkways.

### Additional Discussion Notes:

When guardrails are mandatory.  
Other danger signs.

**Remember:** It makes good sense to erect safe and accessible ramps and runways. A failure to do so is just like setting up booby traps throughout the job.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

**FULL BODY HARNESES/LIFELINES DISCUSSION POINTS**

Full Body Harnesses, a connector (for example, a self-retracting lanyard), lifelines and anchors are all part of a Personal Fall Arrest System (or PFAS). The days of having a safety belt and lanyard are over – just too many injuries and deaths to workers.

PFAS is generally required when working at ten (10) feet in the workplace. That is a WISHA requirement. *Insert company policy.* Falls account for over a quarter of all construction injuries. It seems that some workers don't want to take the time to put their PFAS on, or worse, feel they don't need the equipment. We are sure that every person who was injured or died from a fall would have gladly worn their PFAS if they had only known they were about to fall.

**Guide for Discussion**

- Inspect the equipment (harness, hardware, connector, and lifeline) before use.
- Never use equipment, which is not in good condition.
- Use only rated equipment. Remember, the PFAS must withstand 5,000 pounds of dead load.
- Always secure lanyards to a suitable anchor, above your work area if possible.
- Don't modify to mix any of the safety equipment.
- Never allow acids, caustics or other corrosive materials to come into contact with any of the equipment.
- Store your equipment in a dry place.
- Replace damaged equipment; remove it from service as soon as possible as it is determined to be defective.
- Use the equipment required.

**Additional Discussion Notes:**

**Remember:** Don't allow yourself to be lulled into a false sense of security. Always provide yourself with some fall insurance. Regularly wear your PFAS and keep it attached to a lifeline. The life you save may be yours.

**Attendee's:**

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Being Struck By

### Instructor Note:

The most common cause of “being struck by” is the incorrect use of a hand or power tool.

For instructional information please refer to the following Tool Box talks:

- Tool Use and Care
- Heavy Equipment
- Heavy Equipment Hazards
- The Spotter
- Signaling Techniques

## Excavations

Cave-ins and slough-offs are a major cause of deaths in the construction industry each year. Excavations must be properly shored or cut back to an acceptable angle of repose; otherwise, there will be a constant threat of a cave-in and the associated chance of injury or loss of life. A qualified person must be involved in planning and having a safe excavation project.

### Guide for Discussion

#### *Before Excavation Review*

Underground utilities located? (Checked with local utility companies or property owner.)  
Any overhead hazards (i.e., falling rock, soil, or other materials or equipment)?  
Will there be any heavy equipment operating in the near proximity of the excavation?  
Estimated depth required for the excavation?  
How many people will work inside the excavation?  
Is there an escape plan for those inside the excavation to cover a possible cave-in or slide?  
Has there been a soil analysis? This will help determine the type of shoring to provide or the angle of repose needed.

#### *Steps to Take to Provide a Safe Excavating Operation*

Always shore or cut back the opening adequately.  
Any opening with a depth of five feet or more requires shoring or be cut back.  
Never store excavated or other materials closer than two feet from the edge of the excavation.  
Inspect the excavation daily. This must be done by a competent person.  
Access ladders must be provided every twenty-five feet in excavations of four (4) feet or more in depth.  
Review escape procedures with all personnel who may have cause to be in the excavation.

### Additional Discussion Notes:

Possible gas accumulation in the excavation?

Barriers, guardrails or other safety warnings in excavation area?

WISHA requires safety compliance officers to stop and examine all open trenches.

**Remember:** Unlike most accidents, the cave-in of an excavation usually can be predicted if closely watched. It is, therefore, critical that a competent person keeps a close eye on any excavation. Everyone should be removed from the excavation area should it appear to be unstable.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.



## Excavations: Additional Discussion Points

**Instructor Note:** Review the additional discussion points for specific application to the job at hand. For example, let the crew know who is the “Competent Person.” Explain what the Competent Person is required to do (see below). This reinforces the training and is a further sign of your commitment to have a safe and healthy workplace.

### Additional Discussion Points:

A competent person must inspect the site daily. This includes both excavation and the surrounding area. Inspection Points include but are not limited to:

- Possible cave-in's.
- Failure of protective systems and equipment.
- Hazardous atmosphere.
- Other hazardous conditions (i.e., following rain or man-made condition such as blasting).

Adequate protection must be provided against falling objects such as dirt, rock, equipment or other materials for workers.

A warning system should be used to alert equipment operators of the edge of an excavation.

Employees exposed to public vehicle movement must wear warning vests. Alternative is suitable garment made of reflectorized or high-visibility material.

A guardrail system is recommended especially if there are walkways or bridges crossing over an excavation. (See ramps and runways for additional information.)

During excavation operations, special care must be taken to insure no employee is under a load handled by digging or lifting equipment.

Employees should not be permitted to work in excavations where water has accumulated without adequate precautions. Adequate precautions include but are not limited to: Diversion dikes, ditcher or other means to prevent surface water from entering an excavation and to provide drainage to nearby areas.

While an excavation is open, underground installations such as utilities must be protected, supported or removed as necessary to safeguard excavation workers.

Adjacent structures must be supported to prevent possible collapse.

Employees should not enter an excavation greater than four (4) feet in depth without a competent person testing the atmosphere. Testing takes place where oxygen deficiency or a hazardous atmosphere exists or is believed to exist.

Emergency rescue equipment must be readily available. This equipment must be attended when hazardous atmospheric conditions may develop or exist.

### Special Company Procedures Notes:

References:

WISHA Excavation, Trenching and Shoring Standards **WAC 296-155-Part N**

## Trenching

As far as safety is concerned, trenching and excavation operations are very similar. Both expose workers to the same types of hazards. Therefore, many of the same basic safety rules apply. The main difference is that a trench allows for only restricted working space. This restriction increases the potential for injury. As just one result, the need for safety awareness is increased when compared to excavation operations.

### Guide for Discussion

#### *Pre-operations:*

- Locate all underground utilities.
- Determine, if possible, soil conditions.
- Determine if there is an overhead exposure.
- Based on the depth of the trench, determine the amount of shoring needed or angle of repose.
- Determine the number of access ladders needed.
- Estimate the number of workers who will be working in the trench and the amount of roof needed to perform the task.
- Appoint a "top man," someone who will monitor the trenching operations.

#### *Trenching Operations*

- Always maintain a "top man."
- Constantly monitor the soil conditions.
- Shore or slope any trench with a depth in excess of four (4) feet.
- All shore or stored materials must be kept at least two (2) feet away from the edge of the trench. (Same with "spoil," the dirt removed from the excavation.)
- Keep all unnecessary use of equipment away from the open trench.
- Devise and practice escape routes.
- Place access ladders every twenty-five (25) feet.
- Never allow personnel in trenches where there is a likelihood of a cave-in or slough-off.
- Review rescue techniques with all workers.

### Additional Discussion Notes:

WISHA requires safety compliance officers to stop and examine all open trenches.

**Remember:** A safe and successful trenching operation is the result of carefully following several safety techniques and taking no short cuts. One key is to shore or properly slope all trenches. That knowledge comes from training and supervision.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Dangers Overhead

More and more contractors are using mechanical means to lift loads to the working area; it saves time and avoids injuries. But there is still a hazard. If it takes a piece of equipment to lift materials, then you can bet that if the load falls, it can seriously injure or kill you. Always be aware of overhead operations and remember basic safety rules.

### Guide for Discussion

- Always be sure loads are carried close to the ground.
- Use tag lines on loads whenever possible.
- Use only one signal person.
- Be sure the signal person can clearly observe the load and operator at all times.
- Never hoist over other workers; keep the hoist area clear.
- Be sure loads are properly rigged.
- Make sure the hoisting and rigging equipment is in good workable condition.
- Hoisting speed should never proceed too fast as to risk losing control of the load.
- Monitor weather conditions, especially during winds.

### Additional Discussion Notes:

During excavation operations, special care must be taken to insure no employee is under a load handled by digging or lifting equipment.

**Remember:** It is important that the overhead danger of moving materials across a worksite be watched by all assigned to this task. It is important that all workers are aware of the overhead hazard. Once a load begins to free fall, that load is difficult to avoid.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Working in Confined Spaces

Working in a confined space is a unique and serious hazard. There is no halfway problem: Either there is or isn't a problem. By one definition, a confined space is one that is large enough and arranged so that an employee can fully enter and work, has limited or restricted entry or exit and which is not primarily designed for human occupancy. *Insert company policy.* See WAC 296-809 for Confined Space rules.

### Guide for Discussion

#### *Primary Hazards:*

- Oxygen deficiency.
- Exposure to toxic substances.
- Combustible or Explosive.

#### *Safety Procedures:*

- Test for oxygen deficiency.
- Sample for combustible gases. (Most combustible gas meters will not work in oxygen deficient atmospheres.)
- Continually monitor for toxic substances (i.e., gases) as work progresses.

#### *Making a Confined Space Workable:*

- If space is unable to be vented, be use to provide proper respiration equipment.
- If space can be vented, continually flush out the space with fresh air.
- Be aware that spark producing equipment should never be used to flush out confined spaces.

#### *Basic Rescue Procedures:*

- Never rush to the aid of a fellow employee in a confined space.
- Always be sure that someone watches work in a confined space outside of the space.
- All workers in a confined space must work with a lifeline attached outside of the space.
- All rescuers must be competent in the use of rescue equipment and self-contained breathing units.

### Additional Discussion Notes:

**Remember:** Confined spaces need not be dangerous places to work if the basic precautions are routinely followed. Remember that it is a rare circumstance that a single fatality occurs in a confined space; usually there are multiple fatalities.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Heavy Equipment

Heavy equipment has been designed to handle very large volumes or large loads. As such, heavy equipment is powerful machines and can be dangerous to all around them if not operated correctly. It is important to remember the proper methods used to move them from one site to another, and how to work around them properly.

### Guide for Discussion

#### *General Rules When Heavy Equipment is Nearby*

- Always remain alert to the equipment moving around you.
- Do not get near moving equipment unless necessary.
- Never ride on equipment unless it has been designed to carry you. This means it must have a seat and a seat belt.
- Do not walk along beside equipment. If it is necessary to travel with a piece of equipment, walk in front or behind it.
- Try to stay in view of the operator. You must remain in view of the operator when working around excavation or trenching if you are the "top man."

#### *Rules For Transporting Heavy Equipment*

- Inspect all transporting equipment and make sure it is all in good working condition.
- Always provide for the protection of the general public.
- Wear safety shoes.
- Estimate the center of gravity for the equipment to be loaded.
- Always load equipment slowly onto its carrier.
- If equipment is to be driven off-site, make sure the steering, braking and light systems are in good operating condition.
- Tightly secure the piece of equipment to its carrier.
- Be sure that the boom or any other extensions of the equipment are tightly secured.
- If working with others, be sure to work as a team.
- Keep your hands dry and free of grease and oil as possible.
- Always keep the loading area free of debris and unnecessary tools.

### **Additional Discussion Notes:**

*What the company does to further protect the general public?*

For example, flag man, barricade the work area.

**Remember:** A little mistake when dealing with heavy equipment can be magnified thousands of times and become a major mistake. This can easily result in a severe injury or even death.

### **Attendee's:**

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Heavy Equipment Hazards

The use of heavy equipment on a jobsite is vital and necessary to the overall success of the construction project. However, unauthorized or unwise use of heavy equipment can result in personal injury, loss of life, or severe loss to materials needed to complete the project. Today we will discuss some key points to keep in mind when working around heavy equipment.

### Guide for Discussion

#### *Workers*

- Always be alert to the position of the equipment around you.
- Only authorized personnel are to operate the equipment.
- Never ride the equipment unless it is designed to be ridden.
- Always keep away from suspended loads.
- When performing as a signal person, be aware of all overhead power lines. Keep crane booms at least ten (10) feet from all power lines.
- Never take naps, breaks or lunch around heavy equipment. You never know what might happen.

#### *Equipment Operators*

- Be sure that all bi-directional equipment is either accompanied on site with a signal person, or has an operational back-up alarm.
- Be aware of all overhead power lines and the possible effect on equipment operating within the close vicinity. Keep crane booms at least ten (10) feet from all power lines.
- Always lock out the equipment before it is to be lubricated, adjusted or repaired.
- Always replace gear, belts and any other guard after repair or adjustment.
- Always secure and lock out equipment upon its completion of use.
- Be sure to protect the glass areas of cabs with either metal grates or wood covers.

### Additional Discussion Notes:

*Who are the only authorized equipment operators?*

**Remember:** The best policy around heavy equipment is to take no chances. Be aware of what is going on around you—both workers and equipment operators.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## WORKING AROUND CRANES

A crane is one of the most versatile and important pieces of equipment usually found on a construction job. It can be used to accomplish a lot of otherwise heavy lifting tasks. However, it can also be one of the most dangerous since it can lift heavy loads over large areas of a project. Today we will discuss some of the important safety points about working around cranes.

### Guide for Discussion

- Always be aware of the swing radius of the crane
- Never walk within the swing radius of the crane
- Never work under suspended loads. Besides the crane boom could fail.
- Never ride the hook. There are too many things that can go wrong you can't control
- Always wear a hard hat when there is a possibility of a load being overhead
- Stay off of and away from the crane unless you are assigned to be on the crane
- Never walk under a boom, especially if it has a load on it.

### Additional Discussion Notes:

**Remember:** When working around a crane, the crane operator is going to be watching his load or the signal person and not for stray workers. Never enter the swing radius of a crane unless it is absolutely necessary. Never work within the swing radius. Hard hats are required.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Electrical Hazards

Electrical hazards are doubly hazardous in that there is not only the chance of electrocution but also, there is the probability that any electric shock will cause a loss of consciousness that may well result in a fall of some sort. Today we will discuss methods of receiving an electric shock and ways to avoid electrical hazards.

### Guide for Discussion

#### *Methods of Receiving an Electric Shock*

- From a defective power tool.
- From defective extension cords.
- From overloading a switch or over-riding a by-pass.
- By not grounding electrical equipment.
- By coming in close contact with live electric lines.
- By coming too close to high power lines with the power arching over and making contact.

#### *Ways to Avoid Electric Hazards*

- Always inspect tools and equipment for frayed cords and defective plugs before using them.
- Never use a power tool that has had the ground plug removed; inspect the plug.
- Never stand in water and operate a power tool without proper (i.e., insulated) footwear.
- Keep extension cords out of water when in use.
- Consider all power lines "live" and avoid contact with them.
- Follow the company assured grounding/electrical protection program.
- Disconnect all electrical tools and cords when not in use.
- Be use all temporary lighting is equipped with bulb covers.
- Make sure all power supplies, circuit boxes and breaker boxes are properly marked to indicate their purpose.
- Use Ground Fault Interrupters (GFI's) on all jobsites.

### **Additional Discussion Notes:**

*Who is responsible for the company assured grounding program or to install a ground fault interrupter system?*

**Remember:** The best way to eliminate the hazard of the "quiet killer" is to act as if each exposure to an electrical hazard may be your last. Never take electricity for granted, "it's a killer."

### **Attendee's:**

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.



## Assured Grounding Program

**Instructor Note:** Washington's Occupational Safety and Health (WISHA) strictly enforces the standards pertaining to electrical grounding. These standards require that a project use either Ground Fault Circuit Interrupters (GFI's) or an Assured Grounding Program. GFI's effectively prevent short circuits by tripping the entire circuit when a short occurs. It eliminates the possibility of electrocution and is the preferred method of protection. See WAC 296-155-447.

**Introduction:** Our company has an Assured Grounding program as a means to protect ourselves against accidental electrical shock.

### Guide for Discussion

#### *Program Components*

Have the company written policy on file.  
Our policy is located *Where*

Have a competent person conduct all tests.  
Our competent person(s) are: *Who*

Test all electrical equipment for proper grounding.  
Remove any defective equipment from use and tag it to prevent future use.  
Color code all equipment tested to insure complete test result.

We use the following colors— (winter),  
(spring),  
(summer),  
(fall).

A color chart is located *Where*

#### *Tests*

Test for the continuity of the grounding conductor.  
Test before the equipment is first used; after any repair; after any possible damage and a minimum quarterly (i.e., every three months).

#### *Inspections*

Visually daily for defects before use.  
Inspect the following types of equipment:  
Power Tools, Extension Cords and Temporary Receptacle Boxes

#### **Additional Discussion Notes:**

Three prong grounding testers to check extension cord continuity are located *Where*

**Remember:** The use of an Assured Grounding Program is not only required, but it is good common sense. Electrocution is no laughing matter and all steps we can take to reduce our exposure to this hazard makes sense.

#### **Attendee's:**

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Power Lines and Mobile Cranes

**Instructor Note:** This has been added to the Tool Box talks because electric line companies get very upset when a crane (or dump truck bed or other piece of heavy equipment) gets close to or touches a power line. They also will notify Occupational Safety and Health (WISHA). Invariably WISHA will pay your job site a visit looking at everything dealing with employee safety and health.

**Introduction:** It is not uncommon to work around power lines; however, the potential hazards to workers are enormous; workers just have to work safer.

### Guide for Discussion

#### *How to Avoid Electrocution*

- Locate all power supplies. Besides this being the state law, it's smart.
- Have the Power Company inform you of the voltage and arc distances.
- Shut off or insulate the power line(s) if possible.
- Never allow a piece of equipment to break the safety zone (the distance required to avoid electric arc.)

#### *General Rules to Remember*

- Designate a competent lead signal person.
- Communicate clearly with all members of the work crew.
- Have all crewmembers watch the operation.
- Be alert.
- Watch for non-alert crewmembers.

### Additional Discussion Notes:

**Remember:** Whenever you are near a power line, be sure to minimize the risk by de-energizing or insulating the power source. Only then proceed with caution. At all times, try to avoid entering an arc zone. It is far better to be safe than sorry.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Fire Protection and Control

Most fires are a result of inattention to the job site operations and surrounding conditions. This lack of attention or protection can result in the loss of life and property. All fires can be easily extinguished if caught soon enough and the proper extinguishing tools are handy.

### Guide for Discussion

#### *Steps to Remember When a Fire Starts:*

- Sound an alarm—yell if necessary.
- Warn those near the fire.
- If possible and the fire is small, try to extinguish it.
- Call the Fire Department if the fire can't be easily and quickly extinguished.
- Evacuate the area if the fire can't be quickly extinguished.
- Direct the Fire Department to the area of the fire.
- Stand by to help, but only if asked by a Fire Department official.

#### *Be Sure to Know the Following:*

- The Fire Department phone number.
- Be sure you know the location of the nearest cross street to give the Fire Department directions.
- Where the fire extinguishers are and how to use them.
- How to evacuate the work area.

#### *Steps to Prevent Fires*

- Regularly inspect all fire extinguishers.
- Keep the work area free of debris and trash.
- Designate high risk areas as “no smoking” areas. Enforce no smoking rules.
- Store flammable fuels and materials only in approved safety containers.
- Check temporary wiring and electrical tools for defects.

### Additional Discussion Notes:

*The emergency numbers and job site location (including nearest cross streets) are posted where on the job?*

*If welding equipment is on the job, when is it regularly inspected?*

**Remember:** Knowing how to recognize, react to, or eliminate fire hazards can greatly decrease the chances of being exposed to a fire.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Fire Extinguishers

One of the quickest ways to lose a job is allow a fire to start. Sometimes fires do start and it then becomes a matter of putting the fire out as soon as possible. The best way is to use a fire extinguisher.

### Guide for Discussion

#### *Care and Use*

Be sure the fire extinguishers are charged, strategically located and ready for use. Everyone has a responsibility to check to see that fire extinguishers and fire hoses (as well as other dispensing components) are not blocked.

#### *Common Types of Extinguishers*

Class A Fires: Rubbish, paper, scrap, scrap lumber. Use soda acid and pressurized extinguishers or water through use of a hose or pump type water can.

Class B Fires: Flammable liquids, oil, grease. Use carbon dioxide, dry chemical or foam extinguishers. Do not use water on these types of fires.

Class C Fires: Electrical in nature. Use carbon dioxide or dry chemical extinguisher. Do not use foam or water composition extinguishers.

### Additional Discussion Notes:

The person responsible to insure fire extinguishers are charged, strategically located and ready for use is *Employer*.

Our exposure is generally to Class \_\_\_\_\_ fires. We have Class \_\_\_\_\_ fire extinguishers available.

**Remember:** The quickest way to put out a fire may not always be the best way.

**Attendee's:**

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Refueling Equipment

Refueling equipment is a necessary part of each construction project. As such, it is important that this operation be conducted in as safe a manner as possible. Remember that gasoline and fuel oils are manufactured to cause an explosion (hopefully in the engine). Today, we want to talk about simple refueling rules.

### Guide for Discussion

Concentrate on the task to be performed.

Never smoke during refueling operations.

Don't refuel near an open flame or near a sparking situation.

Keep a fire extinguisher within 25 feet and closer than 6 feet.

If the equipment may accidentally move, chock the wheels.

Always shut the engine off.

If necessary, allow the engine to cool.

Be sure both fuel dispensing tank and equipment are grounded.

Don't spill the fuel. (Spilled fuel is a safety, health and environmental hazard).

Don't overfill the fuel tank. On hot days, allow for expansion.

Always clean up any spills.

### Additional Discussion Notes:

**Remember:** If there is a refueling area, be sure it is clearly marked and keep the area neat at all times. Whether you are filling a bulldozer or a chain saw, it's better to do it properly than to risk an explosion that could ruin or end your life and the life of those all around you. Remember gasoline was designed to explode when ignited.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Gasoline

Gasoline when harnessed properly serves as a vital source of energy. Treated carelessly, it can become an explosive monster. Many people are killed or seriously injured each year because they did not treat gasoline as a potential killer. Today we will discuss how you protect yourself from being injured or causing a fire or explosion.

### Guide for Discussion

#### *Gasoline Facts*

- Gasoline doesn't burn. It's the gas vapors that burn.
- Gas vapors are heavier than air. As a result, they collect in low areas.
- Any type of spark can ignite gas vapors.
- Gasoline should never be allowed to come into contact with your skin. Immediately clean the area contacted.
- Don't use it as a solvent for cleaning tools or parts.

#### *Storage*

- Always store in approved safety cans. Insure the can has proper labeling (i.e., Flammable plus the type of fuel such as gasoline.)
- Always mark the storage can "GASOLINE - NO SMOKING"
- Remember, an empty can is more dangerous than a full one (because of the gas vapors).
- Always flush out empty cans.
- Keep all containers tightly closed.

#### *Transferring Gasoline*

- Never transfer gasoline from one container to another in an area where there is any chance of ignition.
- Clean up any spills immediately. It is a safety, health and environmental hazard.
- Be wary of static electricity. Always use grounding straps when fueling from an above ground tank.

### Additional Discussion Notes:

**Remember:** Working around or with gasoline is like working around dynamite. Only the gasoline, if improperly handled, can be more dangerous. Remember the safety rules for handling gasoline; and use your common sense.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Safety Away From Work

Safety at work is hopefully a matter of routine. Just as important as safety on the job, is safety at home. According to one study, you are actually safer at work than at home. For our discussion today, consider driving, home and play.

### Guide for Discussion

#### *Driving*

- Don't speed.
- Drinking and driving don't mix.
- Maintain your vehicle in good mechanical condition.
- Watch out for other drivers.
- Allow for proper stopping distances.
- Be courteous, especially if you're in a company vehicle.

#### *Home*

- Minimize electrical exposures.
- Eliminate slipping and tripping hazards.
- Don't overextend on ladders.
- Teach your family to identify hazards.
- Know basic first aid and, if possible, CPR.

#### *Play*

- Be careful not to overexert yourself.
- Loosen up before you begin playing a sport.
- Don't try to keep up with the children (of all ages).
- Know any safety rules associated with your forms of recreating (i.e., boating, hunting).
- Teach your family how to play safely and then enforce the rules.

### Additional Discussion Notes:

**Remember:** Our family and friends are very important to us. With a safe driving, living, working and playing environment, we can continue with our friends and family.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

## Compressed Gas Cylinders

Most of us know what the various compressed gas cylinders are used for on the job, but how many of us realize that the gases stored in those cylinders are under pressure of from 250 psi to 2200 psi? These pressures make the cylinders not only dangerous from a fire standpoint but if not handled and stored properly, you are looking at a bomb or a rocket. Today we want to talk about the safe use of compressed gas cylinders.

### Guide for Discussion

1. Always store compressed gas cylinders in a secure upright position.
2. Always store with caps over the valves.
3. Never store two different types of gases closely together.
4. Never tamper with any safety devices on the valve or cylinder.
5. Always open valves slowly.
6. Avoid storing cylinders in areas of high temperatures (shade works).
7. Never use cylinders for rollers or sawhorses.
8. Never attempt to repair valves or regulators.
9. Separate full cylinders from empty ones.
10. Do not try to transfer gases from one cylinder to another.
11. Keep a fire extinguisher nearby when handling or working with compressed gas cylinders.
12. When in use, keep cylinders secured to a cart designed for that use.
13. Remove empty cylinders from the work area.
14. Never expose gases to oil or grease.

### Additional Discussion Notes:

**Remember:** The improper use of compressed gas cylinders is a common safety violation. Most people think the cylinders are safe. However, they are safe only if treated properly. To insure that they don't become a hazard, follow the basic rules we just discussed.

### Attendee's:

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.



## QUICK REFERENCE GUIDE

Many standards in WISHA rules require employers to ensure workers are trained to do their jobs safely. If you want to know exactly what a requirement says, this Quick Reference Guide has been included for you. For greater detail, see “Be Trained! A Guide to WISHA’s Safety and Health Training Requirements.” *Editing Note: Bold ( ) are small c; other ( ) are small i.*

### Accident Prevention Signs & Tags

Workers must be instructed that danger signs indicate immediate danger and caution signs indicate a possible hazard. Safety instruction signs must be used when there is a need for general safety instructions. For more information see:

|                          |                              |
|--------------------------|------------------------------|
| Caution Signs            | <b>WAC 296-24-14005 (2)</b>  |
| Danger Signs             | <b>WAC 296-245-14005 (1)</b> |
| Safety Instruction Signs | <b>WAC 296-24-15005 (3)</b>  |

### Construction Safety Training & Education

**Harmful Substances:** Workers required to handle or use poisons, caustics, and other harmful substances must have instruction emphasizing hazards, personal hygiene, and personal protective measures.

**Harmful Plants and Animals:** At job sites where harmful plants or animals are present, workers must be instructed on possible hazards, injury avoidance, and first aid.

**Flammable Liquids, Gases, Toxic Materials:** Workers required to handle or use flammable liquids, gases, or toxic materials must be instructed on how to use and handle them safely.

**Confined Spaces:** All workers required to enter confined or enclosed spaces must be instructed about the hazards, precautions, and protective and emergency equipment.

For more information see:

|                         |                                    |
|-------------------------|------------------------------------|
| Confined Spaces         | <b>WAC 296-809-100 through 800</b> |
| Flammables etc.         | <b>WAC 296-24-69507, 70007</b>     |
| Harmful Plants, Animals | <b>WAC 296-155-100 (3)</b>         |
| Harmful Substances      | <b>WAC 296-24-71521</b>            |
| Ventilation             | <b>WAC 296-24-71507</b>            |

### Electrical

Workers exposed to electrical shock hazards must be trained in safety requirements relevant to their jobs. Both qualified and unqualified persons must be trained. Qualified persons are trained to work on or near exposed energized parts; they must be able to determine exposed live parts, nominal voltage of exposed live parts, and safe clearance distances. Unqualified persons have not been trained to work on or near exposed energized parts.

For more information see:

**WAC 296-45-065**

## Excavations

*There are no specific excavation training requirements for workers.* However, employers must ensure that workers recognize and control or eliminate worksite hazards. In addition a competent person must inspect an excavation daily for evidence of cave-in. A registered professional engineer must determine that excavations are a safe distance from existing structures and will not pose a hazard for workers. Support systems must be designed by qualified persons and inspected by a competent person.

For more information see:

Stability of Adjacent Structures **WAC 296-155-655 (9)**  
Protection for Workers **WAC 296-155-655 (10)**  
Inspections **WAC 296-155-655 (11)**  
Safety Training and Education **WAC 296-800-14020**

## Fall Protection

Workers exposed to fall hazards must be trained to recognize the hazard and to use procedures that will minimize them. Training must be done by a competent person who understands the following:

- The nature of fall hazards in the work area.
- Procedures for erecting, maintaining, disassembling and inspecting fall protection systems.
- Use of guardrail systems, personal fall arrest systems, safety net systems, warning line systems, safety monitoring systems and controlled access zones.
- The role of each worker in the safety monitoring system.
- Limitations of mechanical equipment during roofing work on low-sloped roofs.
- Procedures for handling and storing equipment and for erecting overhead protection.
- Workers' roles in fall protection plans.
- The requirements of the fall protection standard.

**Certification:** The employer must certify training for each worker, documenting the worker's name, the training date, and the trainer's signature.

**Retraining:** The employer must retrain any worker who does not have the skills required by this standard.

For more information see:

**WAC 296-155-717**

See page 97 for information on Stairways & Ladders in Construction in these Tool Box Talks

## Hand & Power Tools

Only workers who have appropriate training are allowed to operate powder-actuated tools.

For more information see:

**WAC 296-155-36321**

## Hazard Communications

This is the “employee’s right to know law.” Employers are required to provide workers with training and information on hazardous chemicals (and/or materials) in their work areas at the time they first come on to the job and whenever a new hazard is introduced. Training and information must cover the following:

- Hazard communication standard requirements
- Operations where hazardous chemicals are present
- The location and availability of the written hazard communications program
- Methods used to detect the presence or release of hazardous chemicals in the work area
- Hazards of chemicals in the work area
- How workers can protect themselves from chemical hazards, including spills or leaks from sealed containers
- The hazard communications program

For more information see:

|                              |                            |
|------------------------------|----------------------------|
| Information and Training     | <b>WAC 296-800-17030</b>   |
| Information and Training     | <b>WAC 296-155-180</b>     |
| Leaks and Spills, Containers | <b>WAC-296-800-17040</b>   |
| Leaks and Spills, Containers | <b>WAC 296-155-100 (4)</b> |
| Transmittal of Information   | <b>WAC 296-800-18005</b>   |
| Transmittal of Information   | <b>WAC 296-800-18010</b>   |
| Transmittal of Information   | <b>WAC 296-800-18015</b>   |
| Transmittal of Information   | <b>WAC 296-800-18020</b>   |

**Noise Exposure**

Workers exposed to high noise levels must be fitted with hearing protectors. The employer must teach workers how to use and care for the protectors.

**Training Program:** The employer must have an annual training program for workers exposed to noise at or above an eight-hour time-weighted average of 85 decibels. Training must be consistent with changes in protective equipment and work processes.

For more information see: **WAC 296-817-2002**

**Permit-Required Confined Spaces WAC 296-809-20002**

Workers exposed to permit space hazards must have the understanding, knowledge, and skills necessary to perform assigned duties. Employers must provide training in the following situations:

- Before the duties are assigned;
- Before any changes in the assigned duties; and
- Whenever workers are deviating from entry procedures.

**Certification:** The employer must certify that workers accomplish required training. Certification must include each worker's name, signatures or initials of trainers, and training dates. The certification must be available for inspection by workers and their authorized representatives.

**Rescue:** The employer must ensure that each member of a rescue team is provided with and trained to use all equipment necessary for permit space rescues.

Each member of the team must be trained to perform assigned rescue duties; receive the training required for authorized entrants; and be trained in basic first-aid and in cardiopulmonary resuscitation (CPR).

At least one member of the rescue service holding current certification in first-aid and in CPR must be available. Attendants may enter a permit space to attempt rescue if they have been trained and equipped for rescue operations.

For more information see:

|                    |                          |
|--------------------|--------------------------|
| Certification      | <b>WAC 296-809-40004</b> |
| Rescue             | <b>WAC 296-809-50014</b> |
| Training           | <b>WAC 296-809-40002</b> |
| Worker Proficiency | <b>WAC 296-809-40004</b> |

## Personal Protective Equipment (PPE)

Employers must provide training to workers who use PPE. Training must cover the following:

- When PPE is necessary
- What PPE is necessary
- How to put on, remove, adjust, and wear PPE
- The limitations of PPE
- Care, maintenance, and disposal of PPE

Each worker must understand the training and demonstrate the ability to use PPE properly.

Workers must be retrained when they can't demonstrate required skills and when there are changes in the workplace or in PPE that make previous training obsolete.

Certification: The employer must certify that workers have been trained. The certification must include the trainee's name, training dates, and the type of training received.

For more information see:

|                                |                          |
|--------------------------------|--------------------------|
| Certification                  | <b>WAC 296-800-16035</b> |
| Performing a Hazard Assessment | <b>WAC 296-800-16005</b> |
| Documentation                  | <b>WAC 296-800-16010</b> |
| Selection                      | <b>WAC 296-800-16015</b> |
| Providing PPE                  | <b>WAC 296-800-16020</b> |
| Training                       | <b>WAC 296-800-16025</b> |

A written Job Hazard Analysis shall be made that details the type of work being performed, the part(s) of the body which require protection, and the PPE required.

## Respirator Protection

Workers must be trained to use respirator protective equipment in dangerous atmospheres. Competent persons must do the training covering respirator selection, use, and maintenance. Trainers must provide users with the opportunity to handle the respirator, have it fitted properly, test its piece-to-face seal, wear it in normal air, and wear it in a test atmosphere.

**Repair Work:** Replacement or repairs must be done only by experienced persons. No attempt must be made to replace components or to make adjustments beyond the manufacturer's recommendations. Reducing or admission valves or regulators must be returned to the manufacturer (or to a trained technician) for repair.

For more information see:

|             |                          |
|-------------|--------------------------|
| Repair Work | <b>WAC 296-842-17015</b> |
| Training    | <b>WAC 296-842-16005</b> |

### **Safety Committees**

All safety committee members must receive training in workplace hazard identification and effective accident and incident investigations.

Employers must compensate workers who participate in safety committee training at their regular hourly wage.

### **Site Clearing**

Workers who do preconstruction site clearing must be instructed in first aid and protected from irritants and toxic plants.

For more information see:

**WAC 296-155-625 (1) (i)**

### **Stairways & Ladders in Construction**

The employer must provide training for workers who use ladders and stairways during construction work. Workers must recognize ladder and stairway hazards and how to minimize the hazards. Workers must be trained by a competent person and must understand the following:

- Fall hazards in the work area.
- Procedures for erecting, maintaining, and disassembling fall-protection systems.
- Proper construction, use, placement, and care of stairways and ladders.
- Maximum intended load-carrying capacities of ladders.

For more information see:

Training Program **WAC 296-155-48060-1 (a)**

Training Requirements **WAC 296-155-48060-1 (b)**

**WISHA Recommended  
Periodic Training and/or Certification**

| <i>Topic</i>                           | <i>Frequency</i>                        | <i>Certification</i> |
|--|---|----------------------|
| Acrylonitrile<br>WAC 296-62-07336 (15) | Prior to exposure and retraining yearly | No                   |

Agriculture

|   |   |             |
|---|---|-------------|
| Aerial Manlift<br>WAC 307-27010 (3)               | Prior to operation and retraining if required               | Recommended |
| Anhydrous Ammonia<br>WAC 296-307-40027 (1)        | Prior to handling and retraining if required                | Recommended |
| Bloodborne Pathogens<br>WAC 296-62-08001 (7) (b)  | Prior to exposure and retraining yearly                     | Recommended |
| Chemical Hazards<br>WAC 296-307-55030             | Prior to exposure and whenever new chemicals are introduced | No          |
| Cherry Camp<br>WAC 307-16325 (2) (a)              | On hiring   | No          |
| Electrical<br>WAC 296-307-37803                   | Prior to exposure and retraining if required                | No          |
| Field Sanitation<br>WAC 296-307-09509             | On hiring   | No          |
| Fire Protection<br>WAC 296-307-34021              | On hiring and retraining yearly                             | Recommended |
| First Aid<br>WAC 296-307-03910                    | Every two years   | Yes         |
| General Safety<br>WAC 296-307-018                 | On hiring   | No          |
| Guarding tools and equipment<br>WAC 296-307-18015 | On hiring and retraining yearly                             | No          |
| Hazardous Material Clean-up<br>WAC 296-62-3040    | Prior to exposure and annual refresher                      | Yes         |
| Hearing Conservation<br>WAC 296-62-09035          | Prior to exposure and annual refresher                      | Yes         |
| Ladders<br>WAC 296-307-05503                      | Prior to use  | No          |
| Lockout / Tagout<br>WAC 296-307-32019             | Prior to exposure and retraining if required                | No          |



|  |   |                       |
|--|---|-----------------------|
| Agriculture (continued)  |   |                       |
| LPG Installation, removal, operation, & maintenance<br>WAC 296-307-41043 | Prior to activity and annual refresher        | No                    |
| New Hire Orientation<br>WAC 296-307-030                                  | On hiring                                     | No                    |
| Personal Protective Equipment<br>WAC 296-307-10025                       | On hiring                                     | No                    |
| Pesticides<br>WAC 296-307-12040  | Prior to exposure                             | No                    |
| Pesticide Handler<br>WAC 296-307-13025 (3) (d) (xiii)                    | Prior to exposure and retraining yearly       | Yes                   |
| Powered Industrial Trucks<br>WAC 296-307-52029                           | Prior to operation and within three years     | Yes                   |
| Rim Wheel Service<br>WAC 296-307-53005 (1)                               | On hiring                                     | No                    |
| Roll Over Structures<br>WAC 296-307-08018                                | Prior to operation and retraining yearly      | No                    |
| Temporary Housing<br>WAC 296-307-16125 (2) (a)                           | On hiring                                     | No                    |
| Vehicles & Farm Equipment<br>WAC 296-307-07005                           | Prior to operation                            | Valid Drivers License |
| Welding<br>WAC 296-307-48001 (4)   | Prior to activity                             | No                    |
| Ammonia Handling<br>WAC 296-24-51009 (10) (a)                            | Prior to exposure                             | No                    |
| Asbestos (Anthophyllite)<br>WAC 296-62-07722 (1)                         | Prior to exposure and retraining yearly       | Yes                   |
| Asbestos Worker<br>WAC 296-65-005  | Prior to exposure and retraining yearly       | Yes                   |
| Benzene<br>WAC 296-62-07523 (10) (c)                                     | Prior to exposure and retraining yearly       | Recommended           |
| Bloodborne Pathogens<br>WAC 296-823-120                                  | Prior to exposure and retraining yearly       | No                    |
| Boom supported elevating work Platform<br>WAC 296-24-87510 (18)          | Prior to operation and retraining if required | Recommended           |
| Butadiene  | Prior to exposure and                         | Recommended           |

WAC 296-62-07460 (12) (b)

retraining yearly

Cadmium

WAC 296-62-07425 (4)

Prior to exposure and retraining yearly

Recommended

Chemical Hazard Communications (Package, Handle, React, Emit, Extract, Generate as a by-product, Transfer. WAC 296-800-17030

On hiring and whenever a new hazard is introduced in the work area

No

Coke Ovens

WAC 296-62-200019

On hiring and retraining yearly

No

Commercial Diving

WAC 296-37-520

On hiring and retraining if required

Recommended

Confined Spaces

WAC 296-809-400

Prior to exposure and as needed

Yes

Construction

Chemical Hazards

WAC 296-800-170

On hiring/retraining as required

Recommended

Equipment Operation

296-155-035-2

Prior to use and as required

Recommended

Fall Protection

WAC 296-155-24505 (4)

As necessary to maintain proficiency

No

First Aid

WAC 296-155-120

Prior to activity

Valid Certificate

Flagger, Construction

WAC 296-155-307 (7)

On hiring/retraining every three years

Yes

Ladder

WAC 296-155-48060

On hiring/retraining if required

No

Lead Exposure

WAC 296-155-17625 (1) (b)

Prior to exposure and retraining yearly

Yes

Occup. Health & Safety

WAC 296-155-100 (1) (c)

On hiring/retraining if required

Recommended

Rigging, multiple lift

WAC 296-155-717 (3)

As necessary to maintain proficiency

No

Rim Wheels

WAC 296-155-6175 (1)

On hiring/retraining if required

No

Scaffold erection/dismantle

WAC 296-155-493 (2)

Prior to use and retraining if required

Recommended

Scaffold use (working from)

WAC 296-155-493 (1)

Prior to use and retraining if required

Recommended

|  |   |   |
|--|---|---|
| Crane<br>WAC 296-24-23529 (1)                                      | Prior to operation and retraining if required or within three years | Yes   |
| Crime Prevention, Late Night Retail<br>WAC 296-832-200             | On hiring and retraining yearly                                     | No  |
| Electrical, risk of shock<br>WAC 296-24-970 (1)                    | Prior to exposure and retraining yearly                             | No  |
| Electrical, work on/near exposed energized parts<br>WAC 296-24-960 | Prior to exposure and retraining yearly                             | No  |
| Emergency Response Responder<br>WAC 296-62-41021                   | On hiring/retraining if required                                    | No  |
| Equipment Operator, Ski Area<br>WAC 296-59-015 (2)                 | On hiring/retraining if required                                    | No  |
| First Aid (general industry)<br>WAC 296-800-15005                  | As necessary to maintain proficiency                                | Yes   |
| Hazard Communication<br>WAC 296-800-17030                          | Annual refresher including correct respirator wear                  | No  |
| Hazardous Waste Operations<br>296-843-200                          | Prior to exposure and yearly recertification                        | Yes   |
| Industrial Powered Lift Truck<br>WAC 296-24-23025 (1)              | Prior to operation and retraining if required or within three years | Recommended                                 |
| LASER<br>WAC 296-62-09005 (4) (f)                                  | Prior to exposure and retraining yearly                             | No  |
| Lockout/Tagout<br>WAC 296-24-11005 (7) (c)                         | Prior to exposure and retraining yearly                             | No  |
| Logging Operations<br>WAC 296-54-507 (1)                           | On hiring/retraining if required                                    | No  |
| Mobile Equip. Operator, Ski Area<br>WAC 296-59-090 (2) (b)         | On hiring/retraining if required                                    | No  |
| New Employee Training and/or Orientation<br>WAC 296-800-14020      | On hiring   | Recommended<br>Sign-off on company policies |
| Noise Exposure<br>WAC 296-817-2002                                 | Annual, for each worker in a hearing conservation program           | Yes   |

|  |   |    |
|--|---|----|
| Permit-Required Confined Spaces<br>WAC 296-809-40002 | As necessary to maintain<br>proficiency | No |
|--|---|----|

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|   |                                  |    |
|---|----------------------------------|----|
| Portable Fire Extinguisher Use<br>WAC 296-800-300 | On hiring/retraining if required | No |
|---|----------------------------------|----|

|  |   |     |
|--|---|-----|
| Powder Actuated Tools<br>WAC 296-807-15005 | As necessary to maintain<br>proficiency | Yes |
|--|---|-----|

|                                  |  |    |
|----------------------------------|--|----|
| Respirators<br>WAC 296-842-16005 | Prior to exposure and<br>retraining yearly | No |
|----------------------------------|--|----|

|                      |                                     |    |
|----------------------|-------------------------------------|----|
| Robotics<br>WRD 87-3 | On hiring/retraining if<br>required | No |
|----------------------|-------------------------------------|----|

|  |                                     |             |
|--|-------------------------------------|-------------|
| Sawmill Occup. Health & Safety<br>WAC 296-78-515 (1) (c) | On hiring/retraining if<br>required | Recommended |
|--|-------------------------------------|-------------|

|   |  |    |
|---|--|----|
| Scaffold erection/dismantle<br>WAC 296-24-86020 (2) | Prior to use and<br>retraining if required | No |
|---|--|----|

|   |  |             |
|---|--|-------------|
| Scaffold use (working from)<br>WAC 296-24-86020 (1) | Prior to use and<br>retraining if required | Recommended |
|---|--|-------------|

|  |  |             |
|--|--|-------------|
| Self-propelled elevating work<br>Platform<br>WAC 296-24-87505 (14) | Prior to operation and<br>retraining if required | Recommended |
|--|--|-------------|

|                                    |   |    |
|------------------------------------|---|----|
| Window Cleaning<br>WAC 296-878-110 | As necessary to maintain<br>proficiency | No |
|------------------------------------|---|----|

|  |   |    |
|--|---|----|
| 1,2-Dibromo-3-Chloropropane<br>WAC 62-07342 (15) (a) | Prior to exposure and<br>retraining if required | No |
|--|---|----|

**WISHA Required  
Periodic Training and/or Certification**

|  |                                  |     |
|--|----------------------------------|-----|
| Personal Protective Equipment<br>WAC 296-800-160 | On hiring/retraining if required | Yes |
|--|----------------------------------|-----|

**No specific WISHA training Required**

Textile Industry WAC 296-301  
Bakery Equipment WAC 296-302  
Laundry Machinery and Operations WAC 296-303

## Tool Box Talk Training Record

| Safety Subject Area/Topic | Date Presented | Date Presented |
|---------------------------|----------------|----------------|
|---------------------------|----------------|----------------|

### Safety Training

Whose Responsibility Is It?  
 The Deadly Dozen  
 Why Accidents Occur  
 Recognizing Unsafe Conditions  
 Shop Safety  
 What Does An Accident Cost  
 Near Misses  
 Care For The Injured  
 Accidents Are Avoidable  
 Listen For Danger  
 Accident/Incident Reporting  
 Sample Report Form

### Common Sense Subjects

Safety Is Common Sense  
 Keeping In Shape  
 Warming Up  
 Proper Lifting  
 Horseplay  
 Short Cuts

### Protecting the Public

Protecting the Public  
 Children And Construction  
 Vehicle Operations  
 Traffic Control  
 Barricades & Warning Devices

### Effects of Weather

Effects of Weather  
 Heat Exhaustion/Sunstroke  
 Dressing for Winter Work

### Personal Protective Equipment

Construction Clothing  
 Head Protection -- Hard Hats  
 Eye Protection  
 Foot Protection  
 Hand Protection  
 Personal Protective Equipment – Concrete Construction  
 Knee Pads  
 Respirators

Tool Box Talk Training Record, Continued

| <b>Safety Subject Area/Topic</b> | <b>Date Presented</b> | <b>Date Presented</b> |
|----------------------------------|-----------------------|-----------------------|
|----------------------------------|-----------------------|-----------------------|

**Housekeeping**

Housekeeping  
Trash Chutes  
Material Storage  
Material Handling  
The Spotter  
Signaling Techniques

**Tool Use and Care**

The Right Tool For The Right Job  
Hand Tools  
Screwdrivers  
Wrenches  
Hammers/Chisels  
Nails Are Dangerous Too  
Table Saws  
Electric Power Tools  
Electric Hand Saws  
Portable Electric Tools  
Powder Actuated Tools  
Chain Saws

**JOB SITE HAZARDS – THE BIG FOUR**

**Falls From Elevated Heights**

Falls  
Ladders  
Fall Causes Death: Ladders Are Killers  
Floors and Other Openings  
Guardrails  
Ramps and Runways  
Full Body Harnesses/Lifelines  
Washington Training Requirements - Fall Hazards

**Being Caught Between or Under**

Excavations  
Excavation: Additional Discussion Points  
Trenching  
Dangers Overhead  
Working in Confined Spaces  
Heavy Equipment  
Heavy Equipment Hazards  
Working Around Cranes

Tool Box Talk Training Record, Continued

| Safety Subject Area/Topic  | Date Presented | Date Presented |
|--|----------------|----------------|
| <b>Electrical</b>  |                |                |
| Electrical Hazards<br>Assured Grounding Program<br>Power Lines and Mobile Cranes     |                |                |
| <b>Fire Protection</b>   |                |                |
| Fire Protection and Control<br>Fire Extinguishers<br>Refueling Equipment<br>Gasoline |                |                |
| <b>Other</b>   |                |                |
| Safety Away From Work  |                |                |
| <b>Future Topics/Topic Expansion</b>   |                |                |
| Compressed Gas Cylinders   |                |                |

## SAFETY TRAINING STEPS

### *Preparation*

Select a topic. Use a priority sequence. Accidents/incidents, demonstrated lack of skills, required or mandatory training (e.g., fall protection, ladders and stairways.)

Chose a good location to train

Research the subject; include company policies and procedures

If a new subject, ask what the audience already knows (so you can avoid covering that information in great detail)

### *Presentation*

Talk about what is going to be taught

Tell why the subject (or training) is important

Describe safety procedures, general to specific

If necessary, demonstrate safety procedures; one step at a time

Repeat steps if necessary; be patient

### *Involvement*

Get workers involved in the discussion; encourage questions

In demonstrations:

- ask worker to perform procedures
- correct any errors immediately; address performance not person
- practice until you and the worker are confident

### *Follow Up*

Observe worker performing safety procedures on the job

Ask for feed-back; encourage questions

Give feedback on performances

Decrease observation over time as appropriate



**Subject:**

**Introduction:**

**Guide for Discussion**

**Additional Discussion Notes:**

**Remember:**

**Attendee's:**

NOTE: Always promote a discussion on any of the topics covered in the Tool Box Talks. Should any question arise that you cannot answer, don't hesitate to contact your Employer.

# Job Hazard/ Safety Analysis Development Worksheet

Safety Team:


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Basic Description of Duties:

---

---

|  | <b>Steps of job</b>                                   | <b>List the safety requirements for this task (include personal protective equipment)</b> |
|--|---|---|
|  | Lifting, and material handling                        |   |
|  | Material handling                                     |   |
|  | Slips/trips/falls                                     |   |
|  | Exposure to falling materials- foot and head injuries |   |
|  | Exposure to flying material- eye injury               |   |
|  | Exposure to high noise environments or tasks          |   |
|  | Exposure to respiratory irritants                     |   |
|  | Forklift operation                                    |   |
|  | Working with sharp items                              |   |
|  | Working with chemicals (specify)                      |   |
|  | Working with non-ionizing sources                     |   |
|  | Working with ionizing radiation sources               |   |
|  | Desk work   |   |
|  | Machine/tool operation (specify)                      |   |
|  | Machine/tool maintenance work                         |   |
|  | Machine/tool blade or tooling changes                 |   |

|  | Steps of job                              | List the safety requirements for this task (include personal protective equipment) |
|---|---|--|
|   | Machine/tool unjamming work               |  |
|   | Working with the public                   |  |
|   | Driving (specify)                         |  |
|   | Compressed air use                        |  |
|   | Hoist or crane use                        |  |
|   | Welding, torch cutting, brazing, grinding |  |
|   | Confined space work                       |  |
|   | Elevated work                             |  |
|   | Step ladder use                           |  |
|   | Extension ladder use                      |  |
|   | Exposure to electrical sources (specify)  |  |
|   | Exposure to traffic                       |  |
|   | Traffic control                           |  |
|   | Handling hot items                        |  |
|   | Work in, exposure to trenches             |  |
|   | Pallet jack use                           |  |
|   | Dolly or hand truck use                   |  |
|   | Abrasive blasting                         |  |
|   | Concrete work                             |  |
|   | Computer/VDT workstation use              |  |



# Portable Ladder Inspection Checklist

Use this checklist to document what you observe while inspecting a portable ladder.

|            |   |
|------------|---|
| Employee:  | Company:  |
| Ladder ID: | Facility:   |
| Type:      | Material: <input type="checkbox"/> Fiberglass <input type="checkbox"/> Aluminum <input type="checkbox"/> Wood |

| General (All Ladders)  | Needs Repair | OK | Date Repaired |
|--|--------------|----|---------------|
| Loose steps or rungs (considered loose if they can be moved at all with the hand)? |              |    |               |
| Missing rungs?   |              |    |               |
| Paint, oil, or chemical residue?   |              |    |               |
| Loose nails, screws, bolts, or other metal parts?                                  |              |    |               |
| Cracked, spilt, or broken uprights, braces, or rungs?                              |              |    |               |
| Slivers on uprights, rungs, or steps?  |              |    |               |
| Damaged or worn non-slip bases?  |              |    |               |
| Bowed or twisted rails or rungs?   |              |    |               |
| Dents, cracks, corrosion, or decay?  |              |    |               |
| Foot treads and end caps are whole and in place?                                   |              |    |               |
| Labels and duty rating clearly marked?   |              |    |               |
| Treads or rungs are slip resistant?  |              |    |               |

| Step Ladders                    | Needs Repair | OK | Date Repaired |
|---------------------------------|--------------|----|---------------|
| Wobbly (from side strain)?      |              |    |               |
| Loose or bent hinge spreaders?  |              |    |               |
| Stop on hinge spreaders broken? |              |    |               |
| Loose hinges?                   |              |    |               |
| Broken, split or worn steps?    |              |    |               |

| Extension Ladders | Needs Repair | OK | Date Repaired |
|-------------------|--------------|----|---------------|
|                   |              |    |               |



# Portable Ladder Inspection Checklist

|   |  |  |  |
|---|--|--|--|
| Loose, broken, or missing extension locks?                |  |  |  |
| Defective locks that do not seat properly while extended? |  |  |  |
| Worn or rotted rope?                                      |  |  |  |

| Mobile Ladder Stands                             | Needs Repair | OK | Date Repaired |
|--|--------------|----|---------------|
| Casters are able lock stand in place?            |              |    |               |
| Stand structure solid with no rust or corrosion? |              |    |               |
| Handrails are at least 29 inches high?           |              |    |               |
| Toeboards on stands 10 feet or higher?           |              |    |               |
| Uniformly spaced steps?                          |              |    |               |

Ladders that are identified as needing repair should be removed from service and discarded unless they can be repaired with manufacturer approved methods and materials.

# Personal Protective Equipment—Inspection Form

| PERSONAL PROTECTIVE EQUIPMENT INSPECTION FORM   |   |    |
|---|---|----|
| Observations (Yes = Y or NI = Needs Improvement)  | Y | NI |
| Are employers assessing the workplace to determine if hazards that require the use of personal protective equipment (i.e., head, eye, face, hand, or foot protection) are present or are likely to be present?  |   |    |
| If hazards or the likelihood of hazards are found, are employers selecting and having affected employees use properly fitted personal protective equipment suitable for protection from these hazards?  |   |    |
| Has the employee been trained on PPE (what job task they need the PPE for, when they need it, how to properly adjust it, and maintain it.)?   |   |    |
| Are protective goggles or face shields provided and worn where there is any danger of flying particles or corrosive materials?  |   |    |
| Are approved safety glasses required to be worn at all times in areas where there is a risk of eye injuries such as punctures, abrasions, contusions or burns?  |   |    |
| Are hard hats provided and worn where danger of falling objects exists?   |   |    |
| Is appropriate foot protection required where there is the risk of foot injuries from slips-falls, hot, corrosive, or poisonous substances, falling objects, crushing or penetrating actions?   |   |    |
| Are approved respirators provided for routine or emergency use where needed?  |   |    |
| Where special equipment is needed for electrical workers, is it available?  |   |    |
| Is protection against the effects of occupational noise exposure provided when sound levels exceed those of the OSHA noise standard?  |   |    |
| Are protective gloves, aprons, shields, or other means provided and required where employees could be cut or where there is reasonably anticipated exposure to corrosive liquids, chemicals, blood, or other potentially infectious materials? <i>See 29 CFR 1910.1030(b) for the definition of "other potentially infectious materials."</i> |   |    |
| Are adequate work procedures, protective clothing and equipment provided and used when cleaning up spilled toxic or otherwise hazardous materials or liquids?   |   |    |
| Is all protective equipment maintained in a sanitary condition and ready for use?   |   |    |
| Is assigned PPE inspected regularly for damage and signs of wear?   |   |    |
| Do you have eye wash materials or facilities and/or a quick drench shower within the work area where employees are exposed to potentially injurious materials and/or airborne particulate?  |   |    |
| Where food or beverages are consumed on the premises, are they consumed in areas where there is no exposure to toxic material, blood, or other potentially infectious materials?  |   |    |
| Are there appropriate procedures in place for disposing of or decontaminating personal protective equipment contaminated with, or reasonably anticipated to be contaminated with, blood or other potentially toxic or infectious material?  |   |    |

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Observation By: \_\_\_\_\_



## FIVE STAR Inc. GENERAL SAFETY ORIENTATION

Five Star Employee Form

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li><input type="checkbox"/> Every person is ultimately responsible for their own safety and the safety of those around them.</li> <li><input type="checkbox"/> Avoid and report unsafe conditions or acts to your supervisor and a Five Star Superintendent immediately.</li> <li><input type="checkbox"/> Report all accidents or incidents, no matter how small, to your supervisor and a FIVE STAR Superintendent immediately.</li> <li><input type="checkbox"/> Job site safety and OSHA information sheets are posted at the FIVE STAR field office as well as Safety Program, Hazcom program and MSDS sheets are available inside the FIVE STAR field office.</li> <li><input type="checkbox"/> First aid for minor injuries shall be available on site. First aid stations are to be provided– ask your supervisor for your first aid station location(s).</li> <li><input type="checkbox"/> FIVE STAR will provide personal protective equipment (PPE) for their employees and the appropriate training required for the proper use of the provided PPE however it is each employees responsibility to verify and/or request appropriate PPE for the task being performed.</li> <li><input type="checkbox"/> Familiarize yourself with the location of fire extinguishers and exits before performing burning operations. Fire extinguishers must be kept readily available for all cutting, welding or other hot operations.</li> <li><input type="checkbox"/> Notify a FIVE STAR Superintendent prior to performing any hot work. Everyone is responsible for Fire Protection. No alcohol or illegal drugs are allowed or to be used on site.</li> <li><input type="checkbox"/> Hard hats and appropriate work attire must be worn at all times while on site.</li> <li><input type="checkbox"/> Hearing protection shall be worn dependent on work being performed and standards set forth in 29 CFR 1926.52 Table D-2.</li> <li><input type="checkbox"/> At a minimum, heavy leather work boots, short sleeved shirts (no tank tops or cut offs), and long pants are required while on site.</li> <li><input type="checkbox"/> No radios, cassette players, Ipod/MP3 players, etc. are allowed on site.</li> <li><input type="checkbox"/> No gambling, horseplay or fighting will be tolerated on site.</li> <li><input type="checkbox"/> All floor and wall openings of 2” or more must be protected, marked “hole” and secured to avoid injury.</li> <li><input type="checkbox"/> FIVE STAR Contracting enforces 100% fall protection.</li> <li><input type="checkbox"/> Removal of any forms of protection (fall, floor/wall openings, etc.) for any reason, must be reviewed by a FIVE STAR Superintendent before removal. You must replace the protection prior to leaving the area and upon completion of your task.</li> <li><input type="checkbox"/> All power tools must be on a G.F.C.I. All cords must be in good condition (no splices, frayed insulation or broken ground prongs) and must not create a tripping hazard when used.</li> <li><input type="checkbox"/> Lockout/Tagout procedures are enforced on this site.</li> <li><input type="checkbox"/> Only authorized and properly trained employees shall operate machinery, equipment, tools or vehicles.</li> <li><input type="checkbox"/> All ladders must be OSHA compliant per 29 CFR 1926.1053, in good condition and used properly.</li> </ul> | <ul style="list-style-type: none"> <li><input type="checkbox"/> All scaffolding shall be OSHA compliant per 29 CFR 1926 Subpart L, installed properly and inspected by a competent person before use.</li> <li><input type="checkbox"/> Compressed gas cylinders must be secured in an upright position and must be capped when not in use and while transported</li> <li><input type="checkbox"/> All areas are to be kept clean and free of debris and trip hazards. If an area is not being kept clean by other employees or trades please notify a supervisor immediately.</li> <li><input type="checkbox"/> All combustible materials must be removed immediately and a complete clean up of your work area done daily.</li> <li><input type="checkbox"/> Ongoing daily clean-up of all debris is required with removal of all trash to a designated dumpster.</li> <li><input type="checkbox"/> Maintain clear and adequate access/egress routes for the entire project.</li> <li><input type="checkbox"/> All tools, equipment and machinery must be locked and/or secured when not in use.</li> <li><input type="checkbox"/> Access to the site shall be limited to persons involved in the work being done.</li> <li><input type="checkbox"/> FIVE STAR Contracting Inc. reserves the right to refuse entry into the site.</li> <li><input type="checkbox"/> Safety inspections will be conducted by various individuals at various times. Violations found will be corrected immediately before work is allowed to continue.</li> <li><input type="checkbox"/> Should you find or observe any condition which is unsafe, please immediately contact your supervisor and/or a FIVE STAR Superintendent to identify, review and correct.</li> <li><input type="checkbox"/> FIVE STAR personnel has advised me of site logistics plan, possible alarm signals, emergency evacuation procedures, site contact information, nearest available medical clinic as well as site specific safety policies/procedures.</li> <li><input type="checkbox"/> <b>Any person who disregards safety warnings or repeatedly has safety infractions will be removed from this job site – BE ADVISED.</b></li> </ul> <hr style="border: 1px solid black;"/> <ul style="list-style-type: none"> <li><input type="checkbox"/> <b>I attended the FIVE STAR Inc. PA State Police Headquarters Jobsite Safety Orientation</b></li> <li><input type="checkbox"/> <b>I have read and understand the statements above and agree to comply with FIVE STAR’s Safety Rules in addition to OSHA standards.</b></li> </ul> <p><b>Print Name here</b> _____</p> <p><b>Signature</b> _____</p> <p><b>Date</b> _____</p> <p><b>Sticker Number</b> _____</p> |
|---|---|





HEATING • AIR CONDITIONING • REFRIGERATION • PLUMBING • PROCESS PIPING

### **Five Star Inc Quality Assurance and Quality Control Plan**

Five Star Inc utilizes two software programs for project management. All project documents are recorded and or generated through Quantum Software. Attached are copies of example logs from a prior project. All RFI's, Submittals, Transmittals, Change Order Proposals, and monthly payment applications are produced within this program. In addition to Quantum, Five Star Inc uses Quickbooks Enterprise Solutions for Contractors. This program contains all of our financial and contact information for Five Star, its' subcontractors, and suppliers. All insurance and payment information is recorded in this program.

Five Star will work diligently with all Primes to develop an accurate and meaningful project schedule. All details will be addressed prior to start of work. Five Star will work to the best of their abilities to maintain good relationships with all Primes, as well as productive coordination.

Five Star is very familiar with DGS procedures and paperwork requirements. Five Star has allocated a period of time for this project specifically for closeout documentation and training. Five Star utilizes a professional videographer for all training sessions to ensure every step is recorded, and the Owner does not have to rely upon word of mouth explanations for any processes.

Five Star is also well equipped for Multi Prime coordination. Steps will be taken to share approved submittals, and track progress of installations. All available means will be used to coordinate accordingly. Daily and weekly meetings will take place within Five Star to ensure compliance with all aspects of the project.



833 Lincoln Avenue, Unit 8, West Chester, PA 19380 Office: 610-719-6415 Fax: 610-719-6416

**Submittal Log**

Project ID: Eagleville ES - Methacton  
 Description: Eagleville ES Mechanical

Status: All

| <u>Num</u>           | <u>Req. Start</u> | <u>Req. Fin. Title</u>             | <u>Received</u> | <u>Sent Returned</u> | <u>Forward Status</u>      |
|----------------------|-------------------|------------------------------------|-----------------|----------------------|----------------------------|
| 23<br>0100_100_01    | 04/12/21          | Mechanical General Provisions      |                 | 04/06/21 04/16/21    | 04/16/21 Approved as Noted |
| 23<br>0250_100_01    | 04/22/21          | Duct Liner                         |                 | 04/06/21 04/28/21    | 04/28/21 Approved          |
| 23<br>0510_100_01    | 04/06/21          | Coil Hook Up Kits                  |                 | 04/06/21 04/29/21    | 04/29/21 Approved          |
| 23<br>0510_101_01    | 04/06/21          | Piping Specialties                 |                 | 04/06/21 04/29/21    | 04/29/21 Approved          |
| 23<br>0510_102_01    | 04/12/21          | HVAC Piping - Black Steel & Copper |                 | 04/06/21 04/16/21    | 04/16/21 Approved as Noted |
| 23<br>0510_103_01    | 04/12/21          | HVAC Valves                        |                 | 04/06/21 04/16/21    | 04/16/21 Approved          |
| 23<br>0510_104_01    | 04/12/21          | Gruvlok HW CW Piping               |                 | 04/06/21 04/16/21    | 04/16/21 Approved          |
| 23<br>0540_100_01    | 04/06/21          | Pumps                              |                 | 04/06/21 04/19/21    | 04/19/21 Approved as Noted |
| 23<br>0540_101_01    | 04/06/21          | Variable Frequency Drives          |                 | 04/06/21 04/22/21    | 04/22/21 Approved as Noted |
| 23<br>0545_100_01    | 04/06/21          | Chemical Water Treatment           |                 | 04/06/21 04/16/21    | 04/16/21 Approved          |
| 23<br>0835_100-01_01 | 04/06/21          | Unit Ventilator                    |                 | 04/06/21 04/15/21    | 04/16/21 Approved as Noted |
| 23<br>0835_101_01    | 04/08/21          | Air Handling Units                 |                 | 04/06/21 04/19/21    | 04/19/21 Approved as Noted |
| 23                   | 04/08/21          | Condensing Unit                    |                 | 04/06/21 04/15/21    | 04/15/21 Approved as Noted |

## Submittal Log

Project ID: Eagleville ES - Methacton  
 Description: Eagleville ES Mechanical

Status: All

| <u>Num</u>        | <u>Req. Start</u> | <u>Req. Fin.</u> | <u>Title</u>                           | <u>Received</u> | <u>Sent</u> | <u>Returned</u> | <u>Forward</u> | <u>Status</u>       |
|-------------------|-------------------|------------------|--|-----------------|-------------|-----------------|----------------|---------------------|
| 0835_102_01       |                   |                  |  |                 |             |                 |                |                     |
| 23<br>0835_103_01 | 04/08/21          |                  | Air Terminal Units                     |                 | 04/06/21    | 04/19/21        | 04/19/21       | Approved as Noted   |
| 23<br>0835_104_01 | 04/08/21          |                  | Fan Powered Terminal Units - VAV Boxes |                 | 04/06/21    | 04/19/21        | 04/19/21       | Approved as Noted   |
| 23<br>0835_105_01 | 04/08/21          |                  | Horizontal Unit Ventilators            |                 | 04/08/21    | 04/15/21        | 04/15/21       | Revise and Resubmit |
| 23<br>0835_105_02 | 04/27/21          |                  | Horizontal Unit Ventilators - Rev      |                 | 04/27/21    | 04/29/21        | 04/29/21       | Approved as Noted   |
| 23<br>0835_106_01 | 04/08/21          |                  | Duct Coils                             |                 | 04/06/21    | 04/19/21        | 04/19/21       | Approved as Noted   |
| 23<br>0835_107_01 | 04/08/21          |                  | Cabinet Unit Heaters                   |                 | 04/06/21    | 04/19/21        | 04/19/21       | Approved as Noted   |
| 23<br>0835_108_01 | 04/21/21          |                  | Wall Louvers for UV                    |                 | 04/06/21    | 04/28/21        | 04/28/21       | Approved as Noted   |
| 230860_100_01     | 04/23/21          |                  | Fans - Ventilation Equipment           |                 | 04/23/21    |                 |                | Open                |
| 23 0890_100-01_01 | 04/06/21          |                  | SM Shop Standards                      |                 | 04/06/21    | 04/16/21        | 04/16/21       | Approved            |
| 23<br>0890_101_01 | 04/06/21          |                  | Ductwork System                        |                 | 04/06/21    | 04/28/21        | 04/28/21       | Approved as Noted   |
| 23<br>0890_102_01 | 04/07/21          |                  | Sheet Metal Shop Drawings              |                 | 04/06/21    | 04/20/21        | 04/20/21       | Revise and Resubmit |
| 23<br>0890_102_02 | 04/21/21          |                  | Sheet Metal Shop Drawings - Revised    |                 | 04/06/21    | 04/22/21        | 04/22/21       | Approved as Noted   |
| 23<br>0890_103_01 | 04/22/21          |                  | Fire Dampers                           |                 | 04/06/21    | 04/26/21        | 04/26/21       | Approved as Noted   |
| 23<br>0890_104_01 | 04/22/21          |                  | Grilles, Registers & Diffusers         |                 | 04/06/21    | 04/29/21        | 04/29/21       | Approved as Noted   |
| 23<br>0890_105_01 | 05/03/21          |                  | Sheet Metal SM1.2 SM1.3 Shop Drawings  |                 | 04/06/21    | 04/22/21        | 04/22/21       | Open                |



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### RFI Log

**Project ID:** SE Delco - Delcroft School

**Type:** All

**Description:** Delcroft School

**Status:** All

| <u>Type</u> | <u>Num</u> | <u>Title</u>                         | <u>To Company</u> | <u>Started</u> | <u>Req.</u> | <u>Comp.</u> | <u>Status</u> |
|-------------|------------|--------------------------------------|-------------------|----------------|-------------|--------------|---------------|
| RFI         | 1          | Existing In-Line Pumps               |                   | 01/27/22       |             |              | Closed        |
| RFI         | 2          | Multi Purpose Dampers                |                   | 01/31/22       |             |              | Closed        |
| RFI         | 3          | Conflicts with Existing<br>Pipe Rack |                   | 02/01/22       |             |              | Closed        |
| RFI         | 4          | Multi-Purpose Rm<br>Hanger Detail    |                   | 02/01/22       |             |              | Closed        |
| RFI         | 5          | ERU Conflicts                        |                   | 02/03/22       |             |              | Closed        |
| RFI         | 6          | DOAS 4 Existing Duct<br>Conflicts    |                   | 02/15/22       |             |              | Closed        |
| RFI         | 7          | DOAS 5 Alternate Path                |                   | 02/23/22       |             |              | Closed        |
| RFI         | 8          | DOAS 3 Existing Steel<br>Conflict    |                   | 02/28/22       |             |              | Closed        |

### **T 3-A, T 3-B T 3-C**

#### **Five Star, Inc.**

#### **Staffing Resources Skill Training and Workforce Safety**

Five Star Inc is a union company. Five Star has affiliations with both the Local 420 Steamfitters, and the Local 690 Plumbers Union. These affiliations allow Five Star to pull from an expertly trained workforce from first period Apprentice through Foreman Journeyman. Five Star has the capability to pull manpower from this large pool of talented workers on a daily basis if needed. Five Star can man a job anywhere from 1 to 50 men on a day's notice depending upon what is required.

#### **Skill Training**

Since Five Star is a union company, field workers come to the company already trained for their specialties. Each union has an impressive 5 year apprenticeship program that requires classes and testing prior to promotion, as well as re-certification for welders at any level of seniority.

Five Star also utilizes the Mechanical Contractors Association for continuing education for foreman, project management, and updated safety training. All employees are required to review and comply with Five Star's no tolerance drug and alcohol policy, and are subject to spot testing as needed. Attached is a copy of the monthly report submitted which indicates whether there were any random tests performed.

#### **Workforce Safety**

Five Star's Site Superintendent will oversee the compliance with all safety regulations for both the Five Star workforce as well as subcontractors. Daily walk throughs will verify compliance, and weekly tool box talks will be mandatory for employees and subcontractors.

Prior to commencing work all employees will be issued a copy of the Five Star safety handbook, which requires signed acknowledgement of receipt. They must also sign off on our selected panel of doctors for our Workers Compensation, and will be issued the following safety equipment:

- Hard Hat
- Safety Glasses
- Ear Protection
- HEPA Respirator
- Fall Arrest System
- Work Gloves

Each employee and subcontractor must abide by Five Star's zero tolerance drug and alcohol policy. Anyone caught or suspected under the influence will be tested and immediately dismissed upon positive testing. All injuries require immediate testing for employees and subcontractors. All employees and subcontractors will receive a site orientation prior to beginning any work, and are encouraged to report any unsafe conditions to their supervisor immediately. Permits are required for all confined space entries, as well as hot work. These will be completed and filed prior to all related work.



# Training Center

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## Top News

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[\\*CLICK HERE FOR THE TRAINING ARCHIVE\\*](#)



PSM Online Refresher



M.E.S. Apprentice School Schedule Spring 2022



Upcoming PSM and OSHA Courses at the Steamfitters' Training Center



Medical Gas Certification Fees - Effective March 1, 2022





2021 BTJ Evening Courses Letter



2021-2022 JAT Course Descriptions and Schedule

## Training Center

No other organization serves the training needs of the piping industry like the United Association. For over a century, the UA has been training the most highly-qualified workers in the United States and Canada.

Over the past several decades, the United Association's training programs have produced a stable, skilled workforce responsible for building and maintaining piping systems in the various industrial and residential facilities that make up the North American landscape.

No one can match the commitment or investment. The UA spends over \$100 million annually on training programs efforts involving approximately 100,000 journeymen and apprentices in over 400 local training facilities at any given time.

If the United Association wanted to select the area which best reflects this commitment to the training and excellence produced, it could well look to state of Pennsylvania. Thanks in part to our relationship with the Mechanical Contractors Association, Steamfitters local 420 offers state of the art training year round.

We train apprentices and journeyworkers in many skills including: Pipe Fabrication, Pipe Welding, Orbital Tube Welding, Medical Gas Systems, Process Safety Management, Instrumentation /Calibration, Heating/Air Conditioning/Refrigeration, Rigging, Pipe Drafting, OSHA Safety, Computer Aided Drafting, Computerized Pipe Design in 3D, Primavera (Computer Software) Planning and Scheduling, and more.

In addition to our five-year apprenticeship programs, we offer continuing education opportunity that includes journeymen training and certification, as well as associate degr

## Training Center

- **Training Center**
- **Apprenticeship Home**
  - **Steamfitters Apprenticeship**
  - **Mechanical Equipment Training**
- **Forms and Docs**





programs.

**Click Here** to watch a short video on Local Union 420 Steamfitters' Training Center.

# Training Notices



## **August 2022 Apprenticeship Applications**

Fri, Oct 29, to Fri, Apr 29, 2022

Please click on the headline above for more information on applying to the Steamfitter and Mechanical Equipment Service apprenticeships.



Members of Local 420 are career-oriented individuals, proud of their heritage, their superior training and the opportunities offered in their field.

Local 420 contributes to future employment opportunities and supporting efforts to revitalize Philadelphia in order to attract new businesses and new employment opportunities for all residents of this metropolitan area.

## SITEMAP

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- Events
- Training
- Benefits Office
- Contact



## ADDRESS

🏠 14420 Townsend Rd.  
Philadelphia, PA 19154

📞 Phone: (267) 350-4200

📠 Fax: (267) 350-4299

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# Training Center

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## Top News

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[February 2022 Apprenticeship Applications](#)



[Local 420 Training Directors and Women In Construction](#)



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[Upcoming PSM and OSHA Courses at the Steamfitters' Training Center](#)



[JAT 2019-2020 Semester- Course Completion Journeyman List](#)



# History

## A History of Steamfitters Local 420.

### UA History

The United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada, the parent Union of Local #1 in New York, has a long and proud history that goes back more than 100 years.

#### In This Section

- [UA History](#)
- [Local 420 History](#)

Before and during the Civil War, plumbers and pipefitters were organized in many major cities of the United States. The first strong, long-lasting local Unions were established in the boom construction decade, 1879-1889, when United States population growth accelerated.

Journeymen in the pipe trades in the 1880s worked in three basic crafts: plumbers, steamfitters and gasfitters.

The first truly successful national body, the United Association of Journeymen Plumbers, Gas Fitters, Steam Fitters, and Steam Fitters' Helpers of the United States and Canada, was officially founded on October 11, 1889.

Gradually, former members of rival Unions joined the United Association. The depression of 1893-1897 slowed the development of a stronger organization. Membership in the United Association grew to 6,700 in 1893, but fell to 4,400 by 1897. Yet, by that year 151 local Unions were listed on its rolls.

Starting in 1898, the construction industry entered a period of expansion and prosperity that lasted until 1914. From 1898 to 1906 the United Association quadrupled its membership.

During its first years, the United Association was essentially a federation of local Unions, rather than a truly national Union of the pipe trades. The major breakthrough toward a unified national organization came at the 1902 national convention in Omaha, when delegates approved a



Nationalization Committee proposal establishing a comprehensive system of sick, death and strike benefits.

As such reforms to strengthen the national organization were being made in the early part of the century, however, some locals broke ranks to form a rival Union. In August 1906, members of the secessionist Union realized the futility of further rivalry and agreed to affiliate with the United Association.

From 1898 to 1914, the United Association went through several phases of a struggle with the International Association of Steam and Hot Water Fitters and Helpers, a prolonged and sometimes bitter dispute both over jurisdiction over a craft (steamfitting) and work assignments (plumbers vs. steamfitters). The conflict affected other building trades when walkouts by the rival steamfitting organizations, as a result of their jurisdictional dispute, led to work stoppages by other crafts.

The strength of the United Association, and favorable rulings by the American Federation of Labor, including the revocation of the International Association's charter in 1912, ended this jurisdictional battle, but other jurisdictional issues would continue to challenge the Union.

New disputes arose over the construction of chemical plants and other manufacturing and service establishments that required extensive piping systems. Large volumes of newer types of pipefitting

United Association retained jurisdiction over important, growing areas of work like construction of industrial plants, public utilities, petroleum facilities and residential buildings.

In the first half of the century, the United Association moved to formalize apprenticeship training programs, including making a five-year apprenticeship mandatory in 1921, and in 1938 holding that all apprentices be members of the United Association and attend related training classes. Its National Plumbing Apprenticeship Plan of 1936 was the first set of standards governing apprenticeship to win approval of the federal government.

In the Depression, United Association membership fell from its 1929 peak of 60,000 to 26,000 by 1933.

After several constitutional changes through the years, the 1946 convention changed the name of the organization to its present name: The United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada.

Throughout World War II and after, the United Association made considerable gains in membership and prestige. Between 1940 and 1954 membership surged from 60,000 to 240,000 with veterans entering the skilled craftsmen field.

United Association member George Meany was elected in 1952 to be president of the newly formed AFL-CIO and was to provide a shaping force in the American labor movement until his death in 1980.

The New Frontier of President John F. Kennedy and Great Society of President Lyndon Johnson were movements supported by the United Association. With expanded training programs beginning in 1956, the UA was able to meet the demands of accelerated construction activity in the 1960s. With the increased work the slogan, "There is no substitute for UA skilled craftsmen" became widespread.

throughout the industry. By 1971 the UA was 320,000 strong.

General President William P. Hite now leads the United Association forward into the 21st century.



Members of Local 420 are career-oriented individuals, proud of their heritage, their superior training and the opportunities offered in their field.

Local 420 contributes to future employment opportunities and supporting efforts to revitalize Philadelphia in order to attract new businesses and new employment opportunities for all residents of this metropolitan area.

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