

**CAMPANELLI ASSOCIATES  
CONSTRUCTION CORPORATION  
STANDARD  
OCCUPATIONAL HEALTH AND  
SAFETY PROGRAM MANUAL**

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**NOTE: A Job Specific Health and Safety Program is created upon receipt of site specific information from Owner**

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## **100 Campanelli Safety Policy**

The safety and health of Campanelli Associates Construction Corporation (hereafter referred to as "Campanelli") employees, its subcontractors, vendors and the general public are of prime importance. Campanelli will strive to provide the systems necessary to maintain a safe working environment.

Campanelli has developed this safety program specifically for this jobsite. This program conforms to the best practices within the construction industry. Our intention is to review and revise this program, as needed, to ensure it is current.

The objective of this safety program is to reduce the number of occupational injuries and illnesses and ensure compliance with all applicable health and safety regulations.

Campanelli recognizes that management, supervisors, employees, subcontractors and visitors share the responsibilities for safety:

- ❖ Management accepts responsibility to ensure the Safety Program is effective and current. Management is also responsible for providing the guidance, materials and equipment required ensuring safe conditions.
- ❖ The Project Manager and Site Superintendent are responsible for implementing health and safety programs and for risk management in the workplace among Campanelli's employees and subcontractors. The Superintendent is responsible for supervising all operations that are performed with the utmost regard for the safety and health of our employees, subcontractor employees and the general public.
- ❖ Employees are responsible for complying with all aspects of the Campanelli Associates Construction Corporation Occupational Health and Safety Program. This includes compliance with company safety rules and regulations, as well as state and federally mandated safety standards (i.e.OSHA).

Practicing safe work habits and maintaining safe conditions is essential to the successful business operation of Campanelli Associates Construction Corporation.

## **110 Individual Responsibilities**

### **Project Manager shall**

- ❖ be responsible for the implementation of this Campanelli Associates Construction Corporation Occupational Health and Safety Program at this location.
- ❖ support and provide the means to implement this program.
- ❖ require all subcontractors and vendors to abide by the provisions of this program.
- ❖ routinely inspect the operations at the site to assure that the program is being followed.
- ❖ provide the means for the updating of this program to reflect changes in applicable laws, operations, accident experience, etc.
- ❖ encourage other employees at the sites to abide by the provisions of this program, and document any violations for future reference.

- ❖ assure distribution to all interested parties.

### **Job Superintendent shall**

- ❖ be responsible for the implementation of the Campanelli Associates Construction Corporation Occupational Health and Safety Program at this job site.
- ❖ review (daily, before work) each operation at the site to assure the provisions of the program are being followed.
- ❖ enforce the provisions of the program at this job site.
- ❖ assure that necessary documentation required by the program is being properly maintained.
- ❖ provide input to management to update this program to reflect additional needs.

### **Subcontractor's Job Superintendent shall**

- ❖ be responsible for the implementation of the Campanelli Associates Construction Corporation Occupational Health and Safety Program as it affects his portion of the contract, and shall implement safety action required of him by the job superintendent and as required by OSHA.
- ❖ be responsible for the completion of necessary documentation required by this program (i.e. Tool Box talks, etc.), and submit this documentation available on a weekly basis to the job superintendent.
- ❖ keep records of all "Competent Persons" regarding specific activities of the subcontractor to include; fall protection, trenching, heavy equipment operation, scaffolding, demolition, hoisting, blasting, etc.
- ❖ be responsible for giving both new employees and employees a brief safety orientation before they start work. This orientation will include instruction regarding the safety guidelines outlined in this manual.

### **Subcontractor's Job Foreman (if applicable) shall**

- ❖ be responsible for implementing the program at the work level.
- ❖ designate competent persons for all required activities & communicate those persons to Campanelli Superintendent
- ❖ encourage the use of safe work practices in his work area.
- ❖ correct unsafe working conditions in his work area.
- ❖ conduct daily safety inspections of work areas.

### **Employees and Subcontractor's Employees shall**

- ❖ be responsible for observing all safety rules, as outlined in this manual or as mandated by OSHA.
- ❖ report all accidents and injuries promptly.
- ❖ report unsafe acts and conditions as they arise to the appropriate foreman and Campanelli Superintendent

## **Subcontractor Safety Responsibility**

Campanelli expects its subcontractors and vendors to obtain and follow *all* regulations pertaining to health and safety outlined within Campanelli Associates Construction Corporation Occupational Health and Safety Program and OSHA regulations.

The Occupational Safety & Health Administration (OSHA) requires all jobs be conducted per the Code of Federal Regulations Manual for Construction Labor (29 CFR 1926). All of Campanelli's subcontractors and vendors are responsible for incorporating the Campanelli Safety Program with their own and following all procedures outlined in this manual; Campanelli Associates Construction Corporation Occupational Health and Safety Program shall supersede any subcontractor's safety program in all instances where Campanelli's requirements are more stringent than those of the subcontractors'.

Subcontractors with questions about safety on the job site should contact Campanelli's Corporate Office at (781) 849-1440 or Campanelli's Safety Consultant (603) 225-3335.

## **140 Weekly Safety Meeting**

Campanelli recognizes the need for employees and subcontractor employees to fully understand the hazards associated with various job site activities. To meet this objective, Campanelli requires their employees and subcontractors to hold weekly safety (toolbox) meetings.

- ❖ Campanelli requires their employees and subcontractors to hold weekly safety meetings. The meetings should review hazards associated with the work activities and the safety procedures to manage them.
- ❖ All subcontractors are responsible for providing their own paperwork to conduct these weekly tool box talks. Subcontractors shall submit documentation of weekly safety meetings to the Campanelli Site Office by 8:00 a.m. each Friday.

## **150 Safety Training Programs**

Campanelli recognizes the importance of ensuring that employees know how to work safely. All new employees shall be required to view the Campanelli Safety Video describing Campanelli's safety manual and procedures. Superintendents shall be required to take the OSHA 30 hour course and all other field personnel shall be required to take the OSHA 10 hour course.

## **170 Record Keeping**

OSHA requires employers to maintain a Log and Summary of Occupational Injuries and Illnesses (Form 300, 301 (or equivalent) & 300A).

Every recordable illness or injury involving a Campanelli employee must be logged on the 300 form. The Campanelli Safety Officer (or designee), upon receipt of the Employee Accident Report Form, will complete the OSHA 300 Form. The annual summary form 300A will be completed and posted, as required by OSHA, from February 1 to May 1. This form must be maintained in file for the current year, plus an additional five years. **NOTE: Sites that have access to a fax machine are not required to maintain the OSHA 300 log but this information must be readily accessible from the Home Office.**

## **180 Inspections**

Campanelli Companies is committed to maintaining a high level of awareness on the job site in order to minimize accidents and make the site as safe as possible.

**OSHA** - Compliance Safety and Health Officers (CSHO) periodically conduct inspections of construction job sites to ensure safe conditions and acts are maintained. If a CSHO or Safety and Health Consultant enters the premises to conduct an inspection, refer or escort him/her to the Campanelli Site Office. A member from Campanelli management will accompany him/her throughout the inspection and will cooperate with his/her needs. Campanelli will contact the owner of the property that the inspector wishes to examine and invite them to participate in this meeting and inspection.

If a violation exists, Campanelli will be asked to correct it. If Campanelli is not diligent in remedying the hazard, Campanelli may incur a criminal offense or fine. If it is a federal inspector that identifies a violation, Campanelli may be issued a citation and a notification of penalty that explains, in detail, the exact nature of the violation(s) and any associated penalties (fines). The federal officer will discuss with a member of Campanelli's management: (1) the nature of the violation(s); (2) possible abatement measures Campanelli may take to correct the unsafe condition or act; (3) and possible abatement dates Campanelli may be required to meet.

**Inhouse** - Campanelli management will conduct comprehensive, documented safety inspections at this site. The purpose of these safety inspections is to identify unsafe conditions and actions and to correct them promptly, before they result in an accident. The inspections will cover work being performed by Campanelli employees and by subcontractors. Findings will be documented along with the proposed corrective actions.

Subcontractors will receive written notification of any unsafe acts and unsafe conditions, observed during the safety inspection, for which they were responsible. The notification will include recommendations on how to correct the unsafe act or condition. Campanelli will issue these notifications within one week of the inspection.

The Subcontractors failure to correct unsafe acts or unsafe conditions or to notify the Campanelli Safety Officer of corrective measures may result in disciplinary actions including fines and/or termination.

## **190 Preventive Maintenance**

Campanelli recognizes the potential for serious injuries if job site hand tools and equipment are not properly maintained. It is Campanelli's policy that employees and subcontractors inspect their hand tools on a daily basis and repair or replace them as needed. All inspection results must be documented. In addition to the formal monthly inspections, all employees and subcontractors will inspect tools on a daily basis to ensure they are in proper working condition.

Any tools, equipment or materials found in poor condition must be removed from service immediately and identified as unsafe by tagging or locking the control(s) to render them inoperable. Campanelli will periodically evaluate the conditions of hand tools, cords, and other job site materials and equipment through safety inspections to ensure they have been adequately inspected and maintained.

## **200 Accident Reporting and Investigation**

Campanelli requires all industrial accidents and illnesses be reported to the Campanelli Site Superintendent immediately. A member of Campanelli management will then investigate the accident. This may include visiting the accident scene to ensure appropriate care is provided for the victim, taking witnesses statements, controlling the hazard(s) and securing any accident evidence. In the meantime, no further work will be done which could jeopardize other site employees.

A Superintendent Accident Summary form will be completed by the Site Superintendent. The Site Superintendent will also interview and fill out an Accident Victim Questionnaire with the injured to determine the casual factors of the accident and discuss potential controls to prevent another injury. If there were witnesses present who saw the accident, they are to complete an Accident Witness Questionnaire and forward it to the Campanelli Site Superintendent that same day. The subcontractor's foreman or representative shall forward any of their own company's completed forms when the accident involves a subcontracted employee. These forms must be submitted to the Campanelli Site Superintendent by the end of that working day. When an accident involves a subcontracted employee, the subcontractor's foreman is responsible for educating the injured on how to prevent a similar event.

## **220 Job-Site Posting Requirements**

Federal and State laws require that certain posters and notices be prominently displayed in places of employment. Campanelli provides its Site Office with all federally required posters, and it is the responsibility of the Safety Officer to research the state and local requirements for his/her own project. The Site Office is responsible for posting each notice and insuring that they remain in place and are adhered to. At the completion of the project, all the posters must be gathered and brought to the next project. The only poster that may not need to be retained is the Emergency Phone Numbers as this may change at each new project.

The following notices must be posted according to federal law:

### **SAFETY AND HEALTH PROTECTION - OSHA POSTER**

This must be posted by every employer engaged in a business affecting commerce, who has employees. It covers employer and employee rights and responsibilities under the Occupational Safety and Health Act of 1970.

The Site Superintendent is responsible for posting this notice on the site and is responsible for changing the notice if a new notice is needed.

### **EMERGENCY PHONE NUMBER POSTER and DIRECTIONS to the LOCAL HOSPITAL**

This information must be posted by every employer engaged in a business affecting commerce, who has employees. This poster may include the telephone numbers of doctors or local hospitals, ambulance services and a map indicating the best route to the nearest hospital.

## MISCELLANEOUS

Other signs, as appropriate will be posted on each job site. This includes: “Hardhats Required”, “No Trespassing”, “Visitors must report to job trailer”, “No Smoking within 50 feet” (propane), etc. In general, these postings will be included on a single bill board provided to the jobsite.

### **300 Personal Protective Equipment**

SUBCONTRACTORS are asked to supply PPE to all of their employees and train them on proper usage. Supplementary PPE can be signed out from the Campanelli Site Superintendent and must be returned at the end of the work day.

#### **Minimum Personal Protective Equipment Requirements**

On all Campanelli jobsites, the following must be worn **AT ALL TIMES**:

- ❖ Hard hat
- ❖ Long pants
- ❖ Shirts with a minimum of a 4” sleeve.

Shorts and sleeveless shirts are **NOT** permitted at any time.

#### **Head Protection**

Campanelli recognizes that head injuries can be serious. The hard hat is the most visible commitment to safety and is a proven, effective means of preventing serious head injuries. OSHA (29 CFR 1910.135) requires head protection if any aspect of the work environment presents a risk of head injury. Campanelli employees and subcontractor employees must wear American National Standards Institute (ANSI) approved head protection when the potential for head injury exists and when site is posted.

Campanelli will supply their employees with the appropriate head protection and subcontractors are responsible for ensuring that their employees are equipped with the proper head protection and that their employees wear proper head protection when required.

Campanelli's and subcontractor's management representatives shall inspect all hard hats routinely for dents, cracks, nicks, gouges, and any damage due to impact, penetration, abrasion, rough treatment, or wear that might reduce the degree of protection originally provided. Any hard hat showing signs of damage shall be removed and replaced *immediately*.

NOTE: Bump caps are not an acceptable form of head protection on a construction site.

#### **Foot Protection**

Campanelli recognizes the potential for serious injuries to employees and subcontractors when proper foot protection is not worn. **Approved safety shoes shall be worn by employees of Campanelli and subcontractors at all times.** Approved safety shoes must have soles whose design and composition offer an appropriate combination of abrasion, chemical and slip resistance under conditions of anticipated use. All Campanelli employees and subcontractor's employees are required to wear safety shoes at all times.

Management of each subcontractor is responsible for ensuring that employees have and wear safety shoes in accordance with the above requirements.

Roofers are allowed to use sneakers on the roof when there are no dangerous situations but they must wear safety shoes (boots) when they are on the ground.

## **Eye Protection**

Campanelli requires that protective eye equipment, meeting ANSI Z87.1 - 2003 requirements, be worn where there is a reasonable probability of injury that can be prevented by such protection.

Contact lenses shall not be worn in areas where chemical contact is a potential hazard to the eyes. Contact lenses may be worn in other areas requiring eye protection, providing that approved eye protection is worn over the contact lenses.

Campanelli will provide approved eye protection for Campanelli personnel.

Campanelli's employees and subcontractors will wear eye protection in all posted areas, and where there is a reasonable probability of injury from flying objects that can be prevented by appropriate eye protection.

Subcontractors are required to adhere to this eye protection program and provide proper eye protection for their workers.

Visitors' safety spectacles are available for visitors entering the site. Eye protection is dispensed from and returned to the Campanelli Site Office. The Site Office will ensure that an adequate supply of visitor's spectacles is readily available.

## **Hearing Protection**

Campanelli recognizes that prolonged exposure to loud noise<sup>1</sup> can permanently impair one's ability to hear. Hearing protection will be worn by employees and subcontractors when:

- ❖ The job area is posted as a hearing protection job and/or
- ❖ The sound levels exceed those shown in OSHA's Table D-2-Permissible Noise Exposures, when measured on the A-scale of a standard sound level meter at slow response.

Campanelli will supply its employees with proper hearing protection and subcontractors are responsible for supplying their employees with proper hearing protection.

## **Hand Protection**

Workers' hands may be exposed to a variety of hazards (i.e. temperature extremes, abrasive materials, paints and solvents) that may cause inflammation of the skin or dermatitis and gloves are the primary type of hand protection. Gloves may be made of leather, rubber, cotton, or a variety of plastics or synthetics. There is no all-purpose glove. For this reason, you must select your gloves on the basis of the hazards involved in doing the work.

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<sup>1</sup> Noise levels in excess of 85 dBA, TWA

- ❖ For abrasive blasting, you should wear heavy-duty canvas or leather gloves.
- ❖ For water blasting, you should wear gloves that protect against chemicals and wetness.
- ❖ Always wash hands after using solvents or materials that may pose health risks.
- ❖ Never wear gloves around moving machinery because they can be snagged and pull your hands into the machinery.

## **Protective Clothing**

Campanelli employees and subcontractor employees must wear American National Standards Institute (ANSI) approved high visibility vests when working at or below ground level during the course of all major site work operations. This includes but is not limited to roadwork, blasting, earthmoving, utility work, building foundations and under slab utilities.

## **410 Hazard Communication Program**

Campanelli has implemented the following written Hazard Communication Program in order to comply with OSHA 1910.1200, Hazard Communication Standard. It has been updated to reflect the new Global Harmonization Requirements. This program will reflect the use of both MSDS and SDS as they become more prevalent.

The Campanelli Safety Officer is the overall coordinator of this program acting as the representative of Campanelli Companies. The Safety Officer has the overall responsibility for hazardous chemical identification, procuring individual SDSs/MSDSs and (Campanelli) employee training.

In general, each Campanelli employee and each subcontractor at the job site will be apprised of: the Hazard Communication Standard, the hazardous properties of chemicals used, and the measures to protect themselves from these hazards.

### **Material Safety Data Sheets (MSDS) / Safety Data Sheets (SDS)**

The University of Vermont database (website: <http://siri.org/msds/index.php> ) will be the source for every chemical substance on this site. SDS/MSDS will be readily available to all employees for review within their work shift.

A copy of the SDS/MSDS shall be backed up in written form on the site. They shall be placed in an open area accessible to any worker at any time without the worker specifically requesting access.

### **Labels and Other Forms of Warning**

The Site Superintendent (or designee) is responsible to ensure that all hazardous chemicals at the site are properly labeled. Labels should list at least the chemical identity, appropriate hazard warnings, and, if available, the body organ targeted by this chemical.

On a monthly basis, the Site Superintendent will ensure that fixed containers (diesel tanks, propane storage, etc.) are labeled.

As new SDSs come into the site, labeling of the containers involved will comply with the new requirements.

## **Employee Training and Information**

Campanelli will periodically (as needed) conduct training on this program. Subcontractors will be invited to participate but they are solely responsible for their own employee training program. Subcontractors must comply with all elements specified below.

Prior to starting work, each new (Campanelli) employee must attend a health and safety orientation and receive information and training on the following. Subcontractors' are responsible for providing this training to their employees.

- ❖ An overview of the requirements contained in the Hazard Communication Standard.
- ❖ A summary of Campanelli's written program.
- ❖ The hazardous chemicals present in the workplace.
- ❖ The location and availability of our Hazard Communication Program.
- ❖ The hazardous chemical properties, including visual appearance and odor.
- ❖ The physical and health effects of the hazardous chemicals.
- ❖ The methods and observation techniques used to determine the presence or release of hazardous chemicals.
- ❖ The methods to lessen or prevent exposure to these hazardous chemicals through the use of control/work practices and personal protective equipment.
- ❖ Steps the company or subcontractor has taken to lessen or prevent exposure to these chemicals.
- ❖ Emergency procedures to follow if they are exposed to these chemicals.
- ❖ Hazardous chemical spill and response procedures.
- ❖ The location of MSDS/SDS; how to read the new GHS chemical labels; and an actual review of MSDS/SDS.

After attending the training class, each employee will sign a form to verify that they attended the training, received written materials, and understand Campanelli's written Hazard Communication Program.

## **Hazardous, Non-Routine Tasks**

Periodically, Campanelli employees and subcontractor's employees are required to perform non-routine tasks involving hazardous chemical(s). Supervisors of employees (or the individual subcontractor) contemplating such a non-routine task, will ensure that employees are informed of chemical hazards associated with the performance of these tasks and they are aware of appropriate protective measures. This will be completed before work begins.

This information will include:

- ❖ Specific chemical hazards
- ❖ Protective/safety measures the employee can take

- ❖ Measures to lessen the hazards including ventilation, respirators, presence of another employee, and emergency procedures

### **Labeling Requirements**

The symbols, signal words, and hazard statements on labels have all been standardized and assigned to specific hazard categories and classes, as appropriate. This approach makes it easier for countries to implement the system and should make it easier for companies to comply with regulations based on the GHS.

The standardized label elements included in the GHS are:

- ❖ Symbols (pictograms): Convey health, physical and environmental hazard information, assigned to a GHS hazard class and category.
- ❖ Signal Words: "Danger" or "Warning" are used to emphasize hazards and indicate the relative level of severity of the hazard
- ❖ Hazard Statements: Standard phrases assigned to a hazard class and category that describe the nature of the hazard.
- ❖ Precautionary Statements: Precautionary information supplements the hazard information by briefly providing measures to be taken to minimize or prevent adverse effects from physical, health or environmental hazards. First aid is included in precautionary information.

Other GHS label elements include:

- ❖ Product Identifier (ingredient disclosure): Name or number used for a hazardous product on a label or in the SDS.
- ❖ Supplier identification: The name, address and telephone number should be provided on the label.
- ❖ Supplemental information: non-harmonized information.

### HCS Pictograms and Hazards

<p><b>Health Hazard</b></p>  <ul style="list-style-type: none"> <li>▪ Carcinogen</li> <li>▪ Mutagenicity</li> <li>▪ Reproductive Toxicity</li> <li>▪ Respiratory Sensitizer</li> <li>▪ Target Organ Toxicity</li> <li>▪ Aspiration Toxicity</li> </ul>	<p><b>Flame</b></p>  <ul style="list-style-type: none"> <li>▪ Flammables</li> <li>▪ Pyrophorics</li> <li>▪ Self-Heating</li> <li>▪ Emits Flammable Gas</li> <li>▪ Self-Reactives</li> <li>▪ Organic Peroxides</li> </ul>	<p><b>Exclamation Mark</b></p>  <ul style="list-style-type: none"> <li>▪ Irritant (skin and eye)</li> <li>▪ Skin Sensitizer</li> <li>▪ Acute Toxicity</li> <li>▪ Narcotic Effects</li> <li>▪ Respiratory Tract Irritant</li> <li>▪ Hazardous to Ozone Layer (Non-Mandatory)</li> </ul>
<p><b>Gas Cylinder</b></p>  <ul style="list-style-type: none"> <li>▪ Gases Under Pressure</li> </ul>	<p><b>Corrosion</b></p>  <ul style="list-style-type: none"> <li>▪ Skin Corrosion/Burns</li> <li>▪ Eye Damage</li> <li>▪ Corrosive to Metals</li> </ul>	<p><b>Exploding Bomb</b></p>  <ul style="list-style-type: none"> <li>▪ Explosives</li> <li>▪ Self-Reactives</li> <li>▪ Organic Peroxides</li> </ul>
<p><b>Flame Over Circle</b></p>  <ul style="list-style-type: none"> <li>▪ Oxidizers</li> </ul>	<p><b>Environment</b> (Non-Mandatory)</p>  <ul style="list-style-type: none"> <li>▪ Aquatic Toxicity</li> </ul>	<p><b>Skull and Crossbones</b></p>  <ul style="list-style-type: none"> <li>▪ Acute Toxicity (fatal or toxic)</li> </ul>

### SAFETY DATA SHEET REQUIREMENTS

The (Material) Safety Data Sheet (SDS) provides comprehensive information for use in workplace chemical management. Employers and workers use the SDS as sources of information about hazards and to obtain advice on safety precautions. The SDS is product related and, usually, is not able to provide information that is specific for any given

workplace where the product may be used.

Minimum information required for an SDS

1.	<b>Identification of the substance or mixture and of the supplier</b>	<ul style="list-style-type: none"> <li>▪ GHS product identifier.</li> <li>▪ Other means of identification.</li> <li>▪ Recommended use of the chemical and restrictions on use.</li> <li>▪ Supplier's details (including name, address, phone number, etc.).</li> <li>▪ Emergency phone number.</li> </ul>
2.	<b>Hazards identification</b>	<ul style="list-style-type: none"> <li>▪ GHS classification of the substance/mixture and any national or regional information.</li> <li>▪ GHS label elements, including precautionary statements. (Hazard symbols may be provided as a graphical reproduction of the symbols in black and white or the name of the symbol, e.g., flame, skull and crossbones.)</li> <li>▪ Other hazards which do not result in classification (e.g., dust explosion hazard) or are not covered by the GHS.</li> </ul>
3.	<b>Composition/ information on ingredients</b>	<p><b>Substance</b></p> <ul style="list-style-type: none"> <li>▪ Chemical identity.</li> <li>▪ Common name, synonyms, etc.</li> <li>▪ CAS number, EC number, etc.</li> <li>▪ Impurities and stabilizing additives which are themselves classified and which contribute to the classification of the substance.</li> </ul> <p><b>Mixture</b></p> <p>The chemical identity and concentration or concentration ranges of all ingredients which are hazardous within the meaning of the GHS and are present above their cutoff levels.</p> <p><i>NOTE: For information on ingredients, the competent authority rules for CBI take priority over the rules for product identification.</i></p>
4.	<b>First aid measures</b>	<ul style="list-style-type: none"> <li>▪ Description of necessary measures, subdivided according to the different routes of exposure, i.e., inhalation, skin and eye contact, and ingestion.</li> <li>▪ Most important symptoms/effects, acute and</li> </ul>

		<p>delayed.</p> <ul style="list-style-type: none"> <li>▪ Indication of immediate medical attention and special treatment needed, if necessary.</li> </ul>
5.	<b>Firefighting measures</b>	<ul style="list-style-type: none"> <li>▪ Suitable (and unsuitable) extinguishing media.</li> <li>▪ Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products).</li> <li>▪ Special protective equipment and precautions for firefighters.</li> </ul>
6.	<b>Accidental release measures</b>	<ul style="list-style-type: none"> <li>▪ Personal precautions, protective equipment and emergency procedures.</li> <li>▪ Environmental precautions.</li> <li>▪ Methods and materials for containment and cleaning up.</li> </ul>
7.	<b>Handling and storage</b>	<ul style="list-style-type: none"> <li>▪ Precautions for safe handling.</li> <li>▪ Conditions for safe storage, including any incompatibilities.</li> </ul>
8.	<b>Exposure controls/personal protection.</b>	<ul style="list-style-type: none"> <li>▪ Control parameters, e.g., occupational exposure limit values or biological limit values.</li> <li>▪ Appropriate engineering controls.</li> <li>▪ Individual protection measures, such as personal protective equipment.</li> </ul>
9.	<b>Physical and chemical properties</b>	<ul style="list-style-type: none"> <li>▪ Appearance (physical state, color, etc.).</li> <li>▪ Odor.</li> <li>▪ Odor threshold.</li> <li>▪ pH.</li> <li>▪ melting point/freezing point.</li> <li>▪ initial boiling point and boiling range.</li> <li>▪ flash point.</li> <li>▪ evaporation rate.</li> <li>▪ flammability (solid, gas).</li> <li>▪ upper/lower flammability or explosive limits.</li> <li>▪ vapor pressure.</li> <li>▪ vapor density.</li> <li>▪ relative density.</li> <li>▪ solubility(ies).</li> <li>▪ partition coefficient: n-octanol/water.</li> <li>▪ autoignition temperature.</li> <li>▪ decomposition temperature.</li> </ul>
10.	<b>Stability and reactivity</b>	<ul style="list-style-type: none"> <li>▪ Chemical stability.</li> <li>▪ Possibility of hazardous reactions.</li> <li>▪ Conditions to avoid (e.g., static discharge, shock or</li> </ul>

		<ul style="list-style-type: none"> <li>vibration).</li> <li>▪ Incompatible materials.</li> <li>▪ Hazardous decomposition products.</li> </ul>
11.	<b>Toxicological information</b>	<p>Concise but complete and comprehensible description of the various toxicological (health) effects and the available data used to identify those effects, including:</p> <ul style="list-style-type: none"> <li>▪ information on the likely routes of exposure (inhalation, ingestion, skin and eye contact);</li> <li>▪ Symptoms related to the physical, chemical and toxicological characteristics;</li> <li>▪ Delayed and immediate effects and also chronic effects from short- and long-term exposure;</li> <li>▪ Numerical measures of toxicity (such as acute toxicity estimates).</li> </ul>
12.	<b>Ecological information</b>	<ul style="list-style-type: none"> <li>▪ Ecotoxicity (aquatic and terrestrial, where available).</li> <li>▪ Persistence and degradability.</li> <li>▪ Bioaccumulative potential.</li> <li>▪ Mobility in soil.</li> <li>▪ Other adverse effects.</li> </ul>
13.	<b>Disposal considerations</b>	<ul style="list-style-type: none"> <li>▪ Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging.</li> </ul>
14.	<b>Transport information</b>	<ul style="list-style-type: none"> <li>▪ UN Number.</li> <li>▪ UN Proper shipping name.</li> <li>▪ Transport Hazard class(es).</li> <li>▪ Packing group, if applicable.</li> <li>▪ Marine pollutant (Yes/No).</li> <li>▪ Special precautions which a user needs to be aware of or needs to comply with in connection with transport or conveyance either within or outside their premises.</li> </ul>
15.	<b>Regulatory information</b>	<ul style="list-style-type: none"> <li>▪ Safety, health and environmental regulations specific for the product in question.</li> </ul>
16.	<b>Other information i.e. information on preparation and revision of the SDS</b>	

## **440 Permit Required Confined Space Program**

Periodically, subcontractors working for Campanelli must enter permit required confined spaces for inspection, cleaning, or maintenance. Campanelli recognizes that such spaces can present unusual hazards, and as a result, Campanelli has implemented a Permit Required Confined Space Program for Campanelli employees and subcontractor employees. This program follows OSHA Regulations 29 CFR 1926.1201 – 1926.1213. Any questions regarding this program should be directed to the Campanelli Safety Officer.

A confined space is a space that:

- ❖ Is large enough for a worker to bodily enter and
- ❖ Has limited means of entry or exit and
- ❖ Is not designed for continuous employee occupancy

For example: Attics, crawl spaces, pits, vaults, tubs, excavations or other open top vessels, sewers, manholes, large duct work, or other similar spaces.

A permit required confined space has one or more of the following characteristics.

- ❖ It contains or has the potential to contain a hazardous atmosphere;
- ❖ It contains a material that has potential for engulfing an entrant,
- ❖ It has internal structure that could trap or asphyxiate an entrant;
- ❖ It contains any other recognized serious health hazard.

Employees who are working in or near a confined space must be trained and qualified to perform the following duties:

- ❖ Know the hazards they could face during entry.
- ❖ Use equipment necessary and to perform all required monitoring to enter a permit-required confined space in a safe and proper manner.
- ❖ Use equipment necessary to extract an entrant from a permit-required confined space in a safe and proper manner.
- ❖ Communicate with the emergency response personnel, as necessary.
- ❖ Alert the entrant whenever there is any warning sign or symptom of exposure to a dangerous situation or a prohibited condition.
- ❖ **ENTRY RESCUES BY ATTENDANTS ARE STRICTLY PROHIBITED.**

Each affected subcontractor must develop a comprehensive, written entry program whenever conditions indicate that their employees could be exposed to hazards normally associated with a permit required confined space.

Each subcontractor will notify Campanelli before they start construction on an area/space that may be considered a confined space. Campanelli will keep a list of all identified confined spaces at the site.

In the event that an entry into a Permit Required Confined Space is necessary, the subcontractor will be responsible for developing the permit and coordinating with rescue services. Campanelli will be kept informed at all stages of the process.

#### **450 Blood Borne Pathogens Guidelines**

Exposure to blood borne pathogens may occur in many ways. Although needle sticks injuries are the most common means of exposure, it also can be transmitted through contact with mucous membranes and non-intact skin of workers. Treat all blood and body fluids as potentially infectious. Campanelli wants to protect their employees from any predictable exposure.

The following procedures and guidelines will be followed:

- ❖ Do not touch blood or bodily fluids,
- ❖ Do not give unprotected mouth to mouth resuscitation,
- ❖ Call 911 and wait for emergency professionals to arrive on the scene.
- ❖ If you must assist and the injured is bleeding:
  - Leave on all regular personal protective equipment.
  - Put on leak-proof gloves.
  - Eye protection should be worn.
  - If you do get blood or bodily fluid on your skin, **WASH IMMEDIATELY** with a non-abrasive soap and water.
  - If fluid or blood gets in your eyes nose or mouth **immediately** flush with running water.

Personal Protection Equipment is provided for your protection, **USE IT!**

#### **500 Electrical**

Campanelli recognizes that serious injury exists when working near or with electrical equipment. To reduce the chance of injury, Campanelli has instituted the following procedure.

- ❖ Ground Fault Circuit Interrupters (GFCI) must be used on all electrical circuits on this site. Portable GFCIs must be installed at the male end of each cord, closest to the duplex outlet.
- ❖ Extension cords must be 3-wire types designed for heavy duty or extra heavy duty use.
- ❖ Extension cords must be protected from physical damage and not hung from nails or suspended from wires.
- ❖ No cord or tool with a damaged ground plug may be used.
- ❖ Worn or frayed cables may not be used.
- ❖ Bulbs on temporary lights will be equipped with guards unless the bulbs are deeply recessed in a reflector.

- ❖ Temporary lights may not be suspended by their electric cords unless so designed.
- ❖ Subcontractors are required to inspect each cord set, attachment cap, plug and receptacle of cord sets, and any equipment connected by cord and plug, except cord sets and receptacles which are fixed and not exposed to damage, before each use for external defects and possible internal damage.
- ❖ Subcontractors must remove from service or repair immediately any defective items.
- ❖ No work on any energized electrical systems is permitted. If you feel that this is necessary, contact the Campanelli Site Superintendent.

## **700 Fire Protection and Emergency Response Plan**

Campanelli recognizes that fires can lead to loss of life, serious injury and/or property damage. Therefore, Campanelli has instituted this fire extinguisher policy and procedure to minimize personal injury and property damage.

The Site Superintendent is responsible for providing proper fire extinguisher protection at appropriate work locations as soon as the structure has been enclosed. Subcontractors should also provide extinguishers in heavy equipment (excavators, front end loaders, forklifts, etc.) and elsewhere before the structure has been enclosed. In general, a 2A:10BC fire extinguisher should be no further than 100 feet from every employee on the jobsite or within 50 feet of flammable or combustible liquids.

The Superintendent must have the Campanelli portable fire extinguishers serviced annually and tagged, in accordance with maintenance and use of portable fire extinguishers, NFPA No. 10A-1970. (This also applies to subcontractors who have fire extinguishers on site.)

The Superintendent must visually inspect all fire extinguishers on a weekly basis to ensure each one is properly mounted and it is in serviceable condition

All employees shall familiarize themselves with the locations of the fire extinguishers, first aid kits and emergency notification procedures.

Flammable liquids are considered one of the most serious hazards on a construction site. Their ease of ignition, rapid burning rate, ability to form explosive mixtures, capability of spreading fire and difficulty to extinguish present dangers which require special handling precautions and safeguards. Campanelli has instituted this policy and procedure to minimize the potential for injury or property damage. Subcontractors are also responsible for practicing these procedures.

- ❖ Only approved, containers will be used for storage and handling of flammable and combustible liquids,
- ❖ Keep flammable liquids in closed containers when not in use,
- ❖ All containers must be labeled, and
- ❖ Post conspicuous and legible signs prohibiting smoking in service, storage and refueling areas.

## **Emergency Action Plan**

All injuries must be reported to the Site Superintendent and treated as soon as possible. Employees requiring medical treatment will be transported to the local hospital either by ambulance or by another employee. Under no circumstances will an injured employee drive himself.

A first aid kit is available in the construction trailer to treat minor injuries.

All rescue, recovery and advanced medical duties will be handled by the local Fire and Police Departments.

### **710 Flammable and Combustible Liquids Storage and Handling**

- ❖ Only approved containers and portable tanks will be used for storage and handling of flammable and combustible liquids.
- ❖ Keep flammable liquids in closed containers when not in use.
- ❖ Post conspicuous and legible signs prohibiting smoking in service and refueling areas.

### **730 Welding, Cutting and Brazing**

- ❖ Welding, cutting and brazing operations present several hazards to both persons and property. Among these are exposures to toxic vapors and fumes, ultra violet radiation, electrical shock and fire.
- ❖ Whenever possible, welding, cutting or brazing work done by Campanelli employees or by subcontractors' employees should be performed in special fire safe areas or rooms with concrete metal plate floors. Work should be off of the floor or the floor should be protected by a metal shield.
- ❖ A fire watch will be posted whenever there is a chance that surrounding materials may be ignited.
- ❖ When welding, cutting or brazing is done over wood floors, they should be swept clean and wetted down and preferably covered with flame resistant blankets, metal or other non-combustible covering.
- ❖ Hot metal and slag must be kept from falling through floor openings and igniting combustible materials below.
- ❖ Sheet metal, flame-retardant tarpaulins or flame resistant curtains should be used around welding operations to prevent sparks from reaching nearby combustible materials.
- ❖ Welding, cutting or brazing will not be performed in or near rooms containing any flammable liquid, vapor or dust. If questions or problems arise, contact the Site Superintendent.
- ❖ Shields must be installed around spot welders to prevent sparks from reaching nearby combustibles and/or injuring employees.
- ❖ After work is completed, the welder or cutter must inspect the area and its perimeter for any live sparks, hot metal and, "extinguish."

## **800 FALL PROTECTION**

Campanelli, in accordance with the OSHA Fall Protection Standard, requires fall protection when employees or subcontractors are exposed to free falls of 6 feet or more. (NOTE: Framers, Steel Erectors, Roofers and Masons are sometimes allowed to use Alternative fall plans.) All Campanelli employees and subcontractors will follow the OSHA regulations and the acceptable ways of dealing with these hazards.

- ❖ Each affected subcontractor shall designate a “Competent Person” who is responsible for identifying fall hazards involving their employees. This person shall be onsite site at all times when employees are exposed to potential fall injuries.
- ❖ The Competent Person(s) will select the appropriate fall protection system for the employees they are responsible for.
- ❖ The Competent Person(s) will provide training for their employees which includes: where, when and how to use the fall protection.
- ❖ Site Superintendent and responsible supervisor must monitor the fall protection practices being used on a daily basis. **Any employees found not using the designated fall protection will be dismissed from the job.**

### **PROTECTIVE SYSTEMS - GUIDELINES**

The OSHA Fall Protection Standard uses a variety of methods to provide fall protection for construction workers. Areas where each system may be used are spelled out in the regulations. An understanding of the regulation (29 CFR 1926, Subpart M) starts with a discussion of the types of fall protection systems.

#### **Guardrails and Guardrail Systems**

- ❖ Guardrail system means a barrier erected to prevent workers from falling to lower levels. Guardrails should have a top edge member at 42 inches (plus or minus 3 inches) above the walking/working level. When workers are using stilts, the top edge height of the top rail should be increased an amount equal to the stilt height.
- ❖ Mid-rails, screens, mesh, intermediate vertical members, or equivalent intermediate structural members should be installed between the top edge of the guardrail system and walking/working surface when there is no wall or parapet wall at least 21 inches high.
- ❖ Intermediate members (such as balusters), when used between posts, should not be more than 19 inches apart.
- ❖ Other structural members (such as additional mid-rails and architectural panels) should be installed so there are no openings in the guardrail system more than 19 inches wide.
- ❖ Guardrail systems should be capable of withstanding without failure, a force of at least 200 pounds applied within 2 inches of the top edge, in any outward or downward direction, at any point. When the test load is applied in a downward direction, the top edge of the guardrail should not deflect to a height less than 39 inches above the walking/working level.
- ❖ Mid-rails, screens, mesh, intermediate vertical members, solid panels and equivalent structural members should be capable of withstanding without

failure, a force of at least 150 pounds applied in any downward or outward direction of any point.

- ❖ Guardrail systems should be surfaced so as to prevent injury from punctures or lacerations and snagging of clothing. Ends of all top rails and mid-rails should not overhang terminal posts except where such overhang does not constitute a projection hazard. Unsuitable materials such as steel or plastic banding should not be used as top rails or mid-rails.
- ❖ Top rails and mid-rails should be at least one-quarter inch nominal diameter or thickness to prevent cuts and lacerations. Wire rope top rails should be flagged at not more than 6-foot intervals with high-visibility material.
- ❖ Guardrail systems used at hoisting areas should have a chain, gate or removable guardrail section across the access opening when hoisting operations are not taking place. Guardrails must be replaced immediately following the hoisting operation. Guardrail systems used at holes should be erected on all unprotected sides or edges of the hole.
- ❖ When guardrail systems are used around holes used for the passage of materials, the hole should have not more than two sides provided with removable guardrail sections to allow passage of materials. When the hole is not in use, it should be closed over with a cover, or a guardrail system should be provided along all unprotected sides or edges.
- ❖ When guardrail systems are used around holes, which are used as points of access (such as ladder ways), they should be provided with a gate, or be offset so a person cannot walk directly into the hole. Guardrail systems used on ramps and runways should be erected along each unprotected side or edge.
- ❖ Manila, plastic, or synthetic rope used for top rails or mid-rails should be inspected as frequently as necessary to ensure it continues to meet strength requirements.

### **Personal Fall Arrest Systems**

Only full body harnesses are acceptable as personal fall arrest systems. Body belts should not be used as part of a personal fall arrest system although they can be used as a positioning device.

Dee-rings, snap-hooks, lanyards and attachment points must have a minimum tensile strength of 5,000 pounds.

Snap-hooks should be sized to be compatible with the member to whom they are connected to prevent rollout. **Only locking type snap-hooks should be used.**

Self-retracting lifelines and lanyards which automatically limit free fall distance to 2 feet or less should be capable of sustaining a minimum tensile load of 3,000 pounds. Self-retracting lifelines and lanyards which do not limit free fall distance to 2 feet or less, ripstitch lanyards, and tearing and deforming lanyards will be capable of sustaining a minimum tensile load of 5,000 pounds.

When ripstitch lanyards are used, one must consider the length of lanyard, the distance it can rip out, height of worker, and other factors to ensure that any part of the worker's body cannot hit the ground or a lower surface. It may be that a retractable or straight lanyard may be more appropriate.

## Warning Line Systems

Warning line system means a barrier erected on a roof to warn workers that they are approaching an unprotected roof side or edge, and which designates an area in which roofing work may take place without use of guardrail, body belt, or safety net systems.

Warning line systems should comply with the following provisions:

- ❖ Warning lines should be erected around all sides of roof work area,
- ❖ When mechanical equipment is not being used, warning lines should be at least 6 feet from roof edge. (**NOTE: Warning lines for trades other than roofers must be at least 15 feet from the roof edge.**),
- ❖ When mechanical equipment is being used, warning lines should be not less than 6 feet from the roof edge which is parallel to the direction of mechanical equipment operation, and not less than 10 feet from roof edge perpendicular to the direction of mechanical equipment operation,
- ❖ Points of access, materials handling areas, storage areas, and hoisting areas should be connected to the work area by an access path formed by two warning lines; and
- ❖ When the path to a point of access is not in use, a rope, wire, chain, or other barricade, equivalent in strength and height to the warning line, should be placed across the path. The point where the path intersects the warning line erected around the work area, or the path is offset so a person cannot walk directly into the work area is where the line shall be used.

Warning lines consist of ropes, wires, or chains, and supporting stanchions erected as follows:

- ❖ Rope, wire, or chain should be flagged at not more than 6-foot intervals with high-visibility material, such as warning tape;
- ❖ Rugged and supported so the lowest point is no less than 34 inches and highest point is no more than 39 inches from walking/working surface;
- ❖ With lines attached, stanchions should be capable of resisting, without tipping over, a force of at least 16 pounds applied horizontally against the stanchion, 30 inches above the walking/working surface, perpendicular to the warning line, and in the direction of the floor, roof, or platform edge;
- ❖ Rope, wire, or chain should have a minimum tensile strength of 500 pounds; and
- ❖ Lines should be attached at each stanchion in such a way that pulling on one section of the line between stanchions will not result in slack being taken up in adjacent sections before stanchion tips over.
- ❖ No worker should be allowed in the area between a roof edge and a warning line unless performing roofing work. Mechanical equipment on roofs should be used or stored only in areas where workers are protected by a warning line system, guardrail system, or personal fall arrest system.

## CONTROLLED ACCESS ZONES

Controlled Access Zone (CAZ) means an area in which certain work (e.g., overhead bricklaying) may take place without use of guardrail systems, personal fall arrest systems, or safety net systems and access to the zone is controlled.

It is the responsibility of each subcontractor who is working on or will create a fall protection hazard to enforce a proper controlled access zone.

Controlled Access Zones must conform to the following provisions:

- ❖ When used to control access to areas where leading edge and other operations are taking place the controlled access zone should be defined by a control line or other means that restricts access;
- ❖ Control lines should be erected not less than 6 feet nor more than 25 feet from unprotected or leading edges, except when erecting precast concrete members:
- ❖ When erecting pre-cast concrete members, control lines should be erected not less than 6 feet nor more than 60 feet or half the length of the member being erected, whichever is less, from the leading edge;
- ❖ Control lines should extend along the entire length of the unprotected or leading edge, approximately parallel to the unprotected or leading edge, and
- ❖ Control lines should be connected on each side of a guardrail system or wall.

When used to control access to areas where overhand bricklaying and related work is taking place, the following apply.

- ❖ The controlled access zone should be defined by a control line erected not less than 10 feet nor more than 15 feet from working edge,
- ❖ Control lines should extend to enclose all workers performing overhand bricklaying and related work at the working edge and should be approximately parallel to the working edge,
- ❖ Additional control lines should be erected at each end to enclose the controlled access zone, and
- ❖ Only workers engaged in overhand bricklaying or related work should be permitted in the controlled access zone.

Control lines should consist of ropes, wires, tapes, or equivalent materials, and supporting stanchions, as follows:

- ❖ Lines should be flagged or otherwise clearly marked at not more than 6-foot intervals with high-visibility material;
- ❖ Each line should be rigged and supported so its lowest point is not less than 39 inches and its highest point not more than 45 inches (50 inches when overhand bricklaying operations are being performed) from the walking/working surface; and
- ❖ Each line should have a minimum breaking strength of 200 pounds.

On floors and roofs where guardrail systems are not in place prior to the beginning of overhand bricklaying operations, controlled access zones will be enlarged, as necessary, to enclose all points of access, material handling areas, and storage areas.

On floors and roofs where guardrail systems are in place, but need to be removed to allow for overhand bricklaying work or leading edge work, only the portion of the guardrail necessary to accomplish that day's work should be removed.

## **Safety Monitoring Systems**

Safety-monitoring system means a safety system in which a Competent Person is responsible for recognizing and warning workers of fall hazards. When used, safety monitoring systems should comply with the following provisions.

Each subcontractor's Competent Person should designate a Safety Monitor to observe the safety practices of other workers (s)he shall complying with the following requirements. The Safety Monitor should:

- ❖ have no other responsibilities which could take his or her attention from the monitoring function,
- ❖ be competent to recognize fall hazards,
- ❖ warn workers when it appears they are unaware of a fall hazard or are acting unsafely,
- ❖ be on the same surface within visual sighting distance of workers being monitored, and
- ❖ be close enough to communicate orally with workers.

Mechanical equipment should not be used or stored in areas where safety-monitoring systems are being used to monitor workers engaged in roofing operations on low-slope roofs. No worker, other than a worker engaged in roofing work (on low-sloped roofs) or a worker covered by a fall protection plan, should be allowed in an area where a worker is being protected by a safety monitoring system.

Workers working in a controlled access zone should be required to comply promptly with fall hazard warnings from safety monitors.

## **Covers**

Hole means a gap or a void 2 inches in its least dimension in a floor, roof, or other walking/working surface. Covers for holes in floors, roofs, and other walking/working surfaces should meet the following requirements.

- ❖ Covers located in roadways and vehicular aisles should be capable or supporting, without failure, at least the maximum axle load of the largest vehicle expected to cross over the cover,
- ❖ All other covers should be capable of supporting, without failure, at least twice the weight of workers, equipment, and materials that may be imposed,
- ❖ All covers should be secured when installed to prevent accidental displacement by wind, equipment, or workers, and
- ❖ All covers must be marked with the word "HOLE" or "COVER" to provide warning of the hazard.

## **Protection from Falling Objects**

Falling object protection complies with the following provisions.

- ❖ Hard-hats should be worn,
- ❖ Toe-boards, when used, should be erected along the edge of the overhead walking/working surface for a distance sufficient to protect workers below,

- ❖ Toe-boards should be capable of withstanding, without failure, a force of at least 50 pounds applied in any downward or outward direction at any point,
- ❖ Toe-boards should be a minimum of 3 1/2 inches in vertical height with not more than 1/4 inch clearance above the walking/working surface,
- ❖ Toe-boards should be solid or have openings not over 1 inch at its greatest dimension,
- ❖ Where tools, equipment, or materials are piled higher than the top edge of a toe-board, paneling or screening should be erected to the top of a guardrail system's top rail or mid-rail, for a distance sufficient to protect workers below, and
- ❖ Guardrail systems, used as falling object protection, should have openings small enough to prevent passage of potential falling objects.

During the performance of overhand bricklaying and related work:

- ❖ No materials or equipment except masonry and mortar should be stored within 4 feet of the working edge and
- ❖ Excess mortar, broken or scattered masonry units, and other materials and debris should be kept out of the work area by removal at regular intervals.

During performance of roofing work:

- ❖ Materials and equipment should not be stored within 8 feet of a roof edge unless guardrails are erected at the edge; and
- ❖ Materials, which are piled, grouped, or stacked near a roof edge, should be stable and self-supporting.

Canopies, when used as falling object protection, should be strong enough to prevent collapse and prevent penetration by any objects which may fall onto the canopy.

### **Alternative Fall Protection Plan**

This option is available **only** to employers engaged in leading edge work, precast concrete erection work, or specific trades involved in residential-type construction work.

- ❖ Fall protection plans should be prepared and developed by a qualified person specifically for the affected subcontractor where leading edge work, precast concrete work, or residential construction work is being performed, and the plans should be kept up to date,
- ❖ Changes to the fall protection plan should be approved by a Qualified Person,
- ❖ A copy of the fall protection plan with approved changes should be maintained at the job site, and
- ❖ Implementation of the fall protection plan should be under supervision of a competent person.

## Steel Erection

Campanelli Corporation is considered the CONTROLLING CONTRACTOR for steel erection activities and must provide the steel erector with written notification that:

- ❖ the concrete in the footings, piers, and walls has attained 75% of its design comprehensive strength based on ASTM standard test method of field-cured samples, and
- ❖ any repairs, replacement and/or modifications to anchor bolts were conducted in accordance with section 29 CFR 1926.755(b)

The CONTROLLING CONTRACTOR is also responsible for providing:

- ❖ adequate access roads into and through the site for derrick movement, materials storage and pedestrian traffic, and
- ❖ proper storage areas.

The steel erector will designate a Competent Person to manage all steel erection activities. This person must understand the most recent regulations governing steel erection, especially with respect to fall protection for “connectors” and in “controlled decking zones”, and take appropriate action to protect employees and private property.

Steel erection shall not start until all of above items have been completed along with the preplanning of overhead lifts and the preparation of a site-specific plan to assure employee safety.

The subcontractor’s Qualified Person shall inspect hoisting equipment (i.e. crane) and shall inspect rigging equipment (i.e. slings, etc.) daily, prior to use.

No employee shall work under suspended loads except initial connectors, and employees hooking and unhooking loads.

All columns must be secured with at least four (4) anchoring bolts.

Each anchorage must resist 300 lbs @ 18”.

The Competent Person must determine if guying is required.

If anchor bolts have been damaged in any way, a Structural Engineer must evaluate the impact on their strength and other factors relating to structural integrity.

All equipment, materials and tools must be secured against accidental displacement.

The Controlling Contractor shall prohibit other construction activities directly below lifts unless adequate overhead protection is provided.

Generally, all steel erection employees must have fall protection when subject to a free fall of fifteen (15) or more feet,

Perimeter cables and warning tapes must be installed by the steel erection subcontractor as soon as the metal decking has been installed,

Controlled Decking Zones must be established until all decking is secured and guard rails (cables) are in place. The CDZs can be no larger than 90’ X 90’ and no closer to leading edge than 6’. Access to the CDZs must be limited to the decking crew.

“Connectors” and employees working in the controlled decking zone must be provided with and wear fall protection devices when working at heights above fifteen (15) feet.

“Connectors” and others working in the controlled decking zone must use (i.e. tie off) fall protection when working at heights above thirty (30) feet.

The Controlling Contractor takes full responsibility for the safety cable guarding system when steel erector has completed work if C.C. directs the erector to keep cables in place.

### **Framing (Wall erection, interior and exterior)**

The majority of exterior wall erection will be done from a portable lift (either scissor or aerial lift). All employees operating the lifts must have proper training from a qualified professional and be able to present proof of this training upon request.

Employees working in an elevated lift must remain on the inside of the guardrails at all times. The entrance door must be securely closed or chained while the basket is elevated. Employees must not stand on the guardrails at any time to increase elevation. Any employee working in an articulating lift (**Aerial lift**) must be securely harnessed and tied off to the manufacturer’s approved anchorage point. Again, consider the type of lanyard being used and the distance to the ground or other objects below to ensure that the fall protection system will prevent workers from being able to contact those surfaces in the event of a fall. Depending on the circumstances, a retractable lanyard or a short straight lanyard may be a better option.

All interior shaft openings will be properly protected with guardrails or secured covers. If for any reason they are removed, then safety harnesses will be used until they are back in place.

### **Roofing**

A safety monitoring system will be used in compliance with the section above titled “Safety Monitoring Systems.” If for any reason this system cannot be used, all roofers within 6 feet of the edge must use safety harnesses or be properly protected by guardrails.

Any trade not associated with roofing must use safety harnesses or be protected by guardrails within 15 feet of the edge.

NOTE: Per OSHA, a roofer is permitted to utilize a “safety monitor”. This is permissible means of fall protection when workers are either outside of a warning line or on a building of less than 50 feet in width. On Campanelli jobsites, should the roofer be discovered not fully complying with the OSHA regulations when it comes to the proper implementation of a safety monitor, they will **NO LONGER** be permitted to use this method at this specific jobsite. All roofers will then be **REQUIRED** to utilize a positive means of fall protection, and protected by one of the following: personal fall arrest system, personal fall restraint system, guardrail system or safety net systems.

For steep-sloped roofs (over 4:12 pitch), conventional fall protection methods shall be used.

## **900 Ladders**

- ❖ Inspect all ladders before use. Faulty ladders must be immediately removed from service and tagged "Do not use".
- ❖ Tie all ladders securely at the top and provide firm footing at the bottom to reduce the chances of slipping.
- ❖ Extend ladders at least 3 feet above the upper landing.
- ❖ The slope of extension ladders should be approximately  $\frac{1}{4}$ , that is, 1 foot at the base for every 4 feet in height.
- ❖ Always face the ladder when climbing. Keep both hands available for holding the ladder.
- ❖ Use a handline for raising or lowering tools or material.
- ❖ Never overload ladders. One person at a time on the ladder.
- ❖ Never slide down a ladder.

## **910 Burning**

- ❖ Before starting to burn, look around to make certain that flame, sparks, or hot metal will not be likely to start a fire. Keeping the job clear of paper and rubbish will make this easier.
- ❖ Inspect the hose, torch, and regulators and make certain each is in good working order.
- ❖ Never interchange oxygen or acetylene regulators, hose and other burning apparatus. Make certain the hose is secure to the connections and that all fittings are tight.
- ❖ Use no oil, grease, or any other lubricant on burning apparatus. Burning equipment does not require lubrication. Oil or grease in the presence of oxygen under pressure will ignite violently. Do not handle cylinders or burning apparatus with hands, gloves, or clothing that is greasy.
- ❖ Never use gases from the cylinders without using regulators for reducing the pressure.
- ❖ Before installing the regulator, crack the valve of the oxygen and gas cylinders momentarily to clear the valves of any dust, dirt, grease or other foreign material which may have accumulated during shipment or storage.
- ❖ Always loosen the pressure adjusting screw on the regulator before opening the cylinder valve. Open the cylinder valve only slightly at first, when the gauge hand has stopped moving, open the cylinder valve fully.
- ❖ Keep a clear space between cylinders and the work so that pressure reducing regulators can always be reached quickly in the event of trouble.
- ❖ Always use standard burning goggles for this type of work.
- ❖ Always use a standard friction spark lighter or stationary pilot flame. Never use a match, cigarette or cigarette lighter. Such practice has resulted in serious burns.

- ❖ Never do any burning on a concrete floor, due to possible explosion of the concrete. Raise material to be cut at least 12" above the concrete floor.
- ❖ Don't relight torch on hot work in a pocket or small confined space. Always relight with a friction spark lighter in such cases. (In relighting a torch from hot metal, the gases do not always ignite instantly, and, in a small pocket, ignition may be violent if it is delayed for even a second.)
- ❖ When stopping work for an hour or longer, close the valve on the cylinder and release the pressure in the regulator. Make certain the torch is not burning when not in use and that the valves are closed tightly.
- ❖ When burning any piece, be sure you will not fall when the piece is burned; also, that the piece burned off will not fall or swing where other men are working. "Do not saw off the limb you are sitting on".
- ❖ Make certain that hot slag or sparks do not fall on any scaffold ropes, safety lines, burning hose, or workmen below. Provide protection underneath the burner for such conditions, or when burning over flammable materials.
- ❖ Keep cylinders away from unusually hot places such as stoves or open fires. Do not handle cylinders roughly; never drop them or permit them to strike other cylinders or other materials violently.
- ❖ Oxygen and acetylene cylinders should be stored in separate locations. In hot weather, the cylinders should be protected from the sun as much as possible.
- ❖ While cylinders are being moved, keep them from being knocked over or from falling. Never use wire rope slings or chokers for hoisting cylinders. Use a suitable cradle, box or platform.
- ❖ Use a respirator when burning material that has been painted or if exposed to material that gives off fumes and smoke.
- ❖ Always use proper gloves and shirts with long sleeves when burning. Appropriate construction boots and trousers without cuffs are desirable. Never burn when wearing ragged or oily clothing.
- ❖ Never burn on any closed container or containers that have held inflammable substances such as gas and oil. Fumes accumulated or generated within such containers may cause a violent explosion. All containers, gas lines, etc., must be thoroughly purged before any burning.
- ❖ Always place the burning hose where it will not be trampled on, run over, or present a tripping hazard.
- ❖ Always stand cylinders in an upright position and secure them to a structure or stand with a rope or chain to prevent overturning.
- ❖ Never use cylinders as rollers or supports even if they are considered to be empty. These are expensive devices which are easily damaged and obviously not designed for such use.
- ❖ See that protective caps are in place on all cylinders when they are not in use or are being moved.
- ❖ Never allow cylinders to come in contact with live wires or ground wires from electrical equipment.
- ❖ Never permit an open flame to come in contact with a cylinder.

- ❖ Never store full cylinders near other fuel gas or other flammable material.
- ❖ Never open the valve on any cylinder near sparks, flame or other welding or cutting operation.
- ❖ Never do any cutting or burning with material lying on the cylinders.
- ❖ Never burn over, around or near spray painting of any kind, whether or not the spray being used is flammable.
- ❖ Always have a fire extinguisher or water readily available when burning or welding.
- ❖ Always inspect and make sure there are no hot spots or smoldering material before leaving job.

## **920 Welding**

- ❖ Persons engaged in arc welding must wear or use a welding helmet or hand shield with a colored filter glass to protect them from the radiation of the arc. Either device must be light proof and shaped to screen the face and throat fully from the arc. Helmets are preferred to hand shields.
- ❖ The colored filter glass used in welding helmets shall conform to the requirements of Federal Spec. GGG-H-211. The filter glass shall be protected from welding splatter by a clear lens in front of it.
- ❖ Flash goggles with hardened lenses shall be worn beneath the helmet by those welders who are exposed to direct or reflected radiation from nearby arcs.
- ❖ When removing scale from welds the eyes must also be protected by the above flash goggles or by clear safety goggles.
- ❖ The hands of persons engaged in arc welding must be protected from heat, spatter, and arc radiation by chrome tanned leather or other fire resistant gauntlet gloves or mittens. Other parts of the body should be protected as necessary by leather sleeves, jackets, trousers or leggings.
- ❖ Protective equipment, gloves, shoes, and clothing should be kept as dry as possible to avoid electric shocks. Rubber overshoes should be worn by welders required to work on wet floors or ground.
- ❖ Any person working with or close to a welder must be protected, as necessary, from the welding heat, spatter, and arc radiation.
- ❖ Welders required to work in confined areas shall be provided with artificial ventilation. Respirators shall be provided for work in a dusty atmosphere, or when welding galvanized materials or other metals which give off noxious fumes. Such respirators shall be approved by the Bureau of Mines for protection against metal fumes.
- ❖ Only persons properly instructed and authorized or assigned to do so shall handle or operate welding equipment.
- ❖ The use of properly connected welding equipment and proper protective equipment, all in good condition, is mandatory.

- ❖ Welders must not attempt to repair welding machines, welding generators, or welding transformers. Only qualified electricians or repairmen shall repair welding equipment.
- ❖ All power connections to welding machines and welding transformers shall conform to the applicable requirements of the National Electric Code. Cable carrying power to welding machines shall be sufficient size to avoid undue heating and shall be insulated adequately for the voltage used.
- ❖ Splices and joints in the cable carrying welding current to the welding arc must be secure and insulated effectively. The use of insulated cable connectors that lock securely together is recommended.
- ❖ Work being welded should be connected to an earth ground wherever possible.
- ❖ Wherever possible, use a portable shield around arc welding to protect other workers.

### **930 Hand & Power Tools**

- ❖ Subcontractors are responsible to inspect all of their hand and power tools daily, before use.
- ❖ All tools shall be maintained in a safe condition. If they are found to be unsafe they shall immediately be removed from service and tagged “Do Not Use”.
- ❖ All guards shall be in place when using tools requiring them.
- ❖ All electric powered tools shall be grounded.
- ❖ Do not use cords or hoses for raising or lowering tools.
- ❖ All fuel powered tools shall be shut off while fueling, adjusting or transporting.

### **940 Floor & Wall Openings & Stairways**

- ❖ Floor and wall openings shall be covered or protected by standard railings (42" high[+/- 3 inches] with a mid-rail @ 21" and 4" toe board) when not in immediate use.
- ❖ All floor hole covers must be secured to the floor and marked “HOLE” or “COVER”.
- ❖ All stairways three stairs or higher, or runways or gang planks shall have standard railings strong enough to withstand 200 pounds in any direction. Railings shall be at least 2" x 4" lumber for top and 1" x 6" for mid-rail with uprights no more than 8' apart.

## **950 Rigging**

- ❖ When unloading trucks, make sure that the truck is level and, wherever possible, have the chokers in place before loosening the binders.
- ❖ Use only eye and eye slings for choking the load and be sure load is properly choked before raising.
- ❖ All capacity tags on rigging must be legible at all times.
- ❖ Remember that the capacity of spreaders or twin slings decreases as the spread between the slings increases.
- ❖ Use softeners where necessary to protect the slings from sharp edges or to protect the steel from damage from the slings. Tie softeners to prevent falling.
- ❖ See that block is centered over the load and that the load is well balanced.
- ❖ Do not use sorting hooks for hoisting. Their use should be confined to shaking out steel.
- ❖ Stay at the ends of the load so as not to be caught by the drift of the load. Keep free at all times.
- ❖ Keep hands off loads that may nest and pinch your fingers.
- ❖ In hoisting planks, lifts should be two planks wide. Fasten slings so that eyes break over the outside edge of the load of planks.
- ❖ Do not overload skip boxes. The material may fall out while the load is going up or being landed.
- ❖ Keep your eye on the load while it is being raised from the truck or car.
- ❖ Use thought in piling steel so it will be in proper sequence when it is to be taken to the site. Make sure that pieces are taken out of a car in proper sequence so that the remaining pieces do not fall.
- ❖ Material stored in tiers shall be stacked, racked, blocked, interlocked or otherwise secured to prevent sliding, falling or collapse

## **960 Rope, Slings & Shackles**

- ❖ Ropes and cables should be properly cared for and handled.
- ❖ Do not drag on ground or across rough objects.
- ❖ Avoid kinks in all hoisting lines. Remember that a loop in a wire rope will lead to a kink. Kinks cause permanent damage.
- ❖ Ropes, slings and shackles must be used within their rated capacities.
- ❖ Remember that a sudden jerk on a line will result in a strain far beyond the weight of the load.
- ❖ Use the correct sized sheaves and blocks for the diameter of the rope.
- ❖ Never use wire rope in a block designed for manila line.
- ❖ Never use manila rope on power equipment for hoisting or pulling without approval from the Superintendent. Never use manila rope in tandem with

wire rope. Manila rope is to be used only for hand falls, scaffold lines, tag lines, and under special conditions for tying up barges or boats.

- ❖ Manila rope particularly suffers from lying out in the weather, from freezing, from exposure to acid or caustic fumes. Never store near batteries.
- ❖ Never use manila rope that is joined using splices. Remember a knot reduces the strength of rope as much as 50%, also that a splice reduces its strength and dependability.
- ❖ Manila line should be inspected frequently. Broken inside threads will indicate it has been overloaded. A rope that has lost its feel of pliability or stretch, or in which the fibers have lost their luster and appear dry and brittle should not be used.
- ❖ To uncoil a new cable the reel should be mounted on a horizontal shaft and taken off from the bottom. If in a coil, roll it out along the ground.
- ❖ Wire rope should be carefully inspected for wear of the crown wires, corrosion, broken wires, kinking and high strands.
- ❖ Wire rope should be renewed if it shows 10% of broken wires per strand. The Superintendent should determine from the number of wires broken, the concentration of such breaks and the general appearance of the rope whether the rope is unsafe and should be removed from service.
- ❖ Do not use chokers in tandem eye to eye. If necessary to lengthen the chokers use a proper shackle.
- ❖ Never let the end of a running cable come so close to a sheave or stop that the cable chips are jammed together. If this does happen, stop and reset the clips.
- ❖ Never use a shackle without putting the nut on the pin. Never use a spud wrench in a shackle in place of a pin.

## **970 Housekeeping**

Subcontractors are responsible for the following items:

- ❖ Don't leave loose objects on walking/working surfaces,
- ❖ Clean up spills immediately,
- ❖ Store materials and tools properly,
- ❖ Keep work area free of clutter. Clean up all workareas at least daily and place refuse in proper receptacles,
- ❖ Keep materials stored in their designated areas, and
- ❖ Be sure all containers are properly labeled.

## **980 Material Storage**

- ❖ Subcontractors storing material on this site shall consult with Campanelli Site Superintendent for assignment of storage space and instructions for safe storage.

- ❖ Campanelli shall designate and design safe locations for bulk storage of materials. Separate and segregated areas for bulk storage of flammable and combustible liquids and compressed fuel gases shall be designated and assigned outside the building.
- ❖ Campanelli shall strictly enforce compliance with the following material storage requirements:
  - stored materials shall be kept at least 10 feet away from the perimeter of any open sided floor opening or shaft, and
  - housekeeping in materials storage areas shall be maintained to high standard at all times. Refuse and stored materials shall not be mixed.
- ❖ The Campanelli Site Superintendent shall check safe maximum load limits for each floor and subcontractors storing materials shall not exceed these limits.

## **990 Traffic Control**

If appropriate, the site subcontractor shall provide traffic controls such as signs, traffic cones, lights, barriers, etc. to ensure safe control of vehicles into, out of, and around the site.

## **991 Safety Signs**

Campanelli shall provide for the prompt and conspicuous posting of danger signs, caution signs and safety instruction signs as required for general use at the site to alert and inform employees and visitors of safety hazards and safety rules and regulations.

## **992 Site Security**

Campanelli shall provide for and maintain fencing, or otherwise protect the work site to deter access by unauthorized intruders. Employees shall report the maintenance of such site security and shall report breaches of the system to the job superintendent.

Local police will be requested to visit the site during off-hours.

## **993 Vehicle (re)Fueling**

- ❖ Only approved containers and portable tanks shall be used for the storage of flammable and combustible liquids and all portable tanks shall be provided with appropriate emergency venting (see NFPA 30 for details).
- ❖ Flammable or combustible containers shall not be stored in areas used as exits, stairways, or normally used for safe passage.
- ❖ Outside, portable fuel tanks shall not be closer than 20 feet from any building.
- ❖ Individual fuel tanks exceeding 1,100 gallons shall be separated by a 5 foot clear path.
- ❖ A twelve foot wide access way to each portable tank will be maintained to accommodate firefighting apparatus.

- ❖ Drainage or other means must be employed to control spills.
- ❖ Storage areas shall be kept free of weeds, debris, and other combustible materials.
- ❖ At least one fire extinguisher (20B) shall be located within 50 feet of any flammable liquid storage/dispensing tank. This extinguisher will be provided by the subcontractor who is responsible for the tank/container.
- ❖ Dispensing of flammable or combustible liquids must be done at a distance of more than 25 feet from a building.
- ❖ Dispensing containers must be protected from physical damage.
- ❖ Storage tank(s) and receptacle(s) must be electrically bonded during the fuel transfer.
- ❖ Smoking and/or open flames shall be prohibited in areas where tanks are placed.
- ❖ Conspicuous signs, for example, “No Smoking or Open Flames within 50 feet”, shall be posted on or near the flammable storage tanks or compressed gas cylinders.
- ❖ All tanks shall be properly labeled with Name of Contents and Hazard Warnings.

#### **994 Worker Conduct**

- ❖ Cell Phone usage: Subcontractors are responsible to ensure their employees aren’t distracted by cell phone usage on the jobsite. Campanelli reserves the right to remove any worker from the site for excessive usage or using them in an unsafe situation.
- ❖ Earbuds: Not allowed to be used while onsite. Campanelli reserves the right to remove any worker from the site for repeated notifications and continued usage.
- ❖ Music: Music can be played but cannot be too loud or disruptive to ongoing activities or other workers. Campanelli reserves the right to request music be turned off if too loud, disruptive or an unsafe situation arises.

#### **1000 Excavating and Shoring**

- ❖ A Competent Person must be designated by the affected subcontractor to manage all excavations deeper than four (4) feet. This person must be capable of determining soil types and taking appropriate action to protect employees working in and around the excavations.

- ❖ When underground utilities may be present in an area to be excavated, the affected utility companies will be contacted by the Superintendent (or affected subcontractor) to provide exact locations of their underground services.
- ❖ Between five feet and twenty feet deep, trench boxes or other suitable shoring techniques or sloping must be used.
- ❖ When used, trench boxes must extend 18" above the top of the excavation or above the top of the sloping.
- ❖ Sloping angles range from 0.75:1 to 1:1 to 1.5:1 and are depending upon whether the soil is type A, B or C.
- ❖ A ladder(s) must be available to access excavations deeper than four (4) feet. Ladder(s) must be spaced no more than twenty five (25) feet apart and must extend three (3) feet above the top of the excavation.
- ❖ Materials and equipment must be kept at least two (2) feet back from the edge of the excavation.
- ❖ If a hazardous atmosphere exists or could potentially exist, air monitoring must be done to ensure that oxygen levels are between 19.5% - 21.5% and that chemical concentrations are below their permissible exposure levels.
- ❖ Barriers are required to protect employees from falling into excavations that are deeper than six (6) feet and they may be appropriate at other times as well, especially when platforms or ramps span the excavation(s). The Competent Person will install barriers when they are necessary.

## **1001 Jackie's Law**

Jackie's Law is a new regulation governing virtually all activities relating to trenching. It is not a safety program normally covered by OSHA, NIOSH or other public agency.

### **General Requirements**

- ❖ Unattended trenches will be secured in a safe manner to protect the general public
- ❖ (Public Ways) If covers are used, they shall be made of ¾" steel plate. If barriers are used, they shall be at least 6 feet high, continuous, < 4" openings at sides or bottoms, and suitably supported from wind or traffic.
- ❖ (Public Ways – **high speed**) Ballasted traffic barrels or Jersey barriers may also be used.
- ❖ (Fixed work Sites) – Same as public ways PLUS: barriers supported at < 10' intervals, openings < 4" in fence and dwelling may be used if it meets the requirements.
- ❖ Posting- "Danger, Do Not Enter" or "Authorized Personnel Only" on the barrier.

### **Alternatives to General Requirements**

- ❖ Continuous personal monitoring by permit holder or designee.
- ❖ Backfilling trench while unattended.

### **Punitive Actions**

- ❖ Local Authority has the right to revoke a permit after conducting a hearing.
- ❖ Penalties for failure to protect the public from risks can result in fines up to \$5,000 per violation, per day.
- ❖ Written requests for a hearing to contest a fine must be filled with the Dept. of Public Safety within 10 days.
- ❖ Permitting Authority, MA Department of Public Safety and MA Department of Occupational Safety have the right to immediately shut down a trenching operation for cause.

### **Reporting**

All serious injuries or fatalities relating to trenching operations [*involving member(s) of the general public*] must be reported to the State Police within one (1) hour of the accident. In the meantime, the site [*relating to the trenching operations*] must be shutdown, secured and remain as it was at the time of the accident. The site may only open back up with consent of MA D.P.S.

### **Exemptions**

- ❖ Foundation excavations even if they are deeper than 3 feet.
- ❖ Trenches created by the installation of foundation forms or walls.
- ❖ Non-construction related trenches (i.e. burial vaults).
- ❖ Excavations not meeting the definition of a “trench.”

## **1002 Demolition**

All demolition activities will comply with OSHA 1926 Subpart T.

### **General Requirements**

- ❖ An engineering survey shall be made, by a competent person, of the structure to determine the condition of the framing, floors, and walls, and possibility of unplanned collapse of any portion of the structure. This will be performed prior to the demolition or removal of any structural members to ensure structural stability of the remained of the building. This report will also address the need for temporary support of the structure as sections are removed.

- ❖ The survey shall also address the presence, or lack of, lead and asbestos in the building. If these materials exist, additional precautions shall be taken and the work plan modified.
- ❖ When debris is dropped through holes in the floor without the use of chutes, the area onto which the material is dropped shall be completely enclosed with barricades not less than 42 inches high and not less than 6 feet back from the projected edge of the opening above. Signs, warning of the hazard of falling materials, shall be posted at each level.
- ❖ All electric, gas, water, steam, sewer, and other service lines shall be shut off, capped, or otherwise controlled, outside the building line before demolition work is started. In each case, any utility company which is involved shall be notified in advance.
- ❖ If it is necessary to maintain any power, water or other utilities during demolition, such lines shall be temporarily relocated, as necessary, and protected.

## **1003 Concrete Operations**

### **General Operations**

- ❖ All protruding reinforcing steel, onto and into which employees could fall, shall be guarded to eliminate the hazard of impalement.
- ❖ Formwork shall be designed, fabricated, erected, supported, braced and maintained so that it will be capable of supporting without failure all vertical and lateral loads that may reasonably be anticipated to be applied to the formwork.
- ❖ Drawings or plans, including all revisions, for the jack layout, formwork (including shoring equipment), working decks, and scaffolds, shall be available at the jobsite. This information must be submitted prior to the beginning of any work onsite.
- ❖ Scaffolds on formwork will comply with OSHA's scaffold requirements.

### **Saw Cutting Operations**

- ❖ Masonry saws shall be guarded with a semicircular enclosure over the blade.
- ❖ In order to control concrete dust (silica), wet methods will be used or, in the alternative, HEPA vacuum systems will be used.
- ❖ Use all available work practices to control dust exposures, such as water sprays.
- ❖ Wear only a N95 NIOSH-certified respirator, if respirator protection is required.
- ❖ The subcontractor performing saw cutting operations will ensure that their operations have been characterized to ensure that proper personal protective equipment is used. Employees must be trained and, if using respirators, the employer will have a respirator program, performed medical surveillance and fit testing activities and have properly trained their employees.

- ❖ Wear disposable or washable work clothes and shower if facilities are available. Vacuum the dust from your clothes and change into clean clothing before leaving the work site.

## **1004 Crane Operations**

### **Controlling Contractor Requirements**

- ❖ The CONTROLLING CONTRACTOR will ensure that the crane operator is provided with a site that is firm, drained and graded. The ground conditions will be sufficient to support the crane (in conjunction with blocking, mats, etc.)
- ❖ The CONTROLLING CONTRACTOR Controlling Entity must Inform equipment user & operator of all known underground hazards such as voids, utilities, underground tanks, steam tunnels, etc.
- ❖ Information about ground conditions now includes all information known about ground conditions, including written information in possession of the controlling employer, whether on site or off site.

### **Training/Certification of Personnel**

- ❖ Crane operators shall be properly licensed by the State of Massachusetts.
- ❖ Signal people shall be properly trained per OSHA 29 CFR 1926.1428.

### **Inspections of Cranes**

- ❖ Shift inspections of the crane shall be conducted as required.
- ❖ A copy of the last monthly inspection shall be kept onsite.
- ❖ The crane must have had an annual inspection within the last 12 months. Any deficiencies found during that inspection must have been corrected.

### **Rigging and Moving of Loads**

- ❖ Loads shall not be swung over personnel, except those necessary for hooking or unhooking the load.
- ❖ Qualified riggers shall be used.
- ❖ **NO LOADS WILL BE PICKED IN EXCESS OF THE CRANES CAPACITY!** Also, no loads shall be picked within the crane's safety factor. The load radius charts shall be complied with at all times.

## **1005 Mobile Scaffold Operations**

### **Scissor Lifts**

- ❖ Only trained workers shall operate scissor lifts.
- ❖ Do not climb on the rails or toeboards.
- ❖ Keep both feet on the floor of the lift at all times.

- ❖ Scissor lifts will not operate in areas where there are pits or holes in the floors, or drop-offs. Such areas will be covered with covers that can withstand 2 times the weight of the lift or barricaded such that the scissor lift operator can see the barricades and stop in time to prevent contact with the obstruction.

### **Mobile scaffolds**

- ❖ Scaffolds shall be braced by cross, horizontal, or diagonal braces, or combination thereof, to prevent racking or collapse of the scaffold and to secure vertical members together laterally so as to automatically square and align the vertical members. Scaffolds shall be plumb, level, and squared. All brace connections shall be secured.
- ❖ Scaffold casters and wheels shall be locked with positive wheel and/or wheel and swivel locks, or equivalent means.
- ❖ Each time that a mobile scaffold is used in a stationary manner, all 4 wheels must be locked.
- ❖ When workers are moved while on a mobile scaffold, manual force will NOT be applied at a point higher than 5 feet above the floor.
- ❖ Platforms shall not extend outward beyond the base supports of the scaffold unless outrigger frames or equivalent devices are used to ensure stability.

### **Riding on Manually Propelled Mobile Scaffolds**

- ❖ The surface on which the scaffold is being moved is within 3 degrees of level, and free of pits, holes, and obstructions;
- ❖ The height to base width ratio of the scaffold during movement is two to one or less, unless permitted by the scaffold manufacturer.
- ❖ Outrigger frames, when used, are installed on both sides of the scaffold;
- ❖ No employee is on any part of the scaffold which extends outward beyond the wheels, casters, or other supports.
- ❖ Where leveling of the scaffold is necessary, screw jacks or equivalent means shall be used.
- ❖ Caster stems and wheel stems shall be pinned or otherwise secured in scaffold legs or adjustment screws.

## **1007 Demolition Operations**

- ❖ Prior to permitting employees to start demolition operations, an engineering survey shall be made, by a competent person of the Demolition Contractor, of the structure to determine the condition of the framing, floors, and walls, and possibility of unplanned collapse of any portion of the structure.
- ❖ Any adjacent structure where employees may be exposed shall also be similarly checked. The Demolition Contractor shall have in writing evidence that such a survey has been performed.

### **Miscellaneous Requirements**

- ❖ Fall Protection options will comply with the requirements contained elsewhere in this document.
- ❖ The use of any type of lift will comply with the requirements contained elsewhere in this document.
- ❖ If aerial lifts are used to perform work, the maximum weight limits will be adhered to at all times.
- ❖ For any lifts used on this project, the aerial lift manufacturers' specifications will be adhered to. This includes all limitations related to use in windy conditions/environments.

### **Falling Object Hazards**

- ❖ Containment systems will be installed by the demolition contractor to contain debris to ensure that it does not fall onto pedestrians or workers below.
- ❖ Weather conditions will be consulted to attempt to minimize the hazards associated with wind driven debris.
- ❖ Pedestrian walkways or roadways may need to be relocated after consulting with the demolition contractor.
  - ❖ Building grounds, walkways and parking areas will be kept clear of debris.
  - ❖ Sidewalk sheds may be necessary to protect building tenants, pedestrians and workers from overhead hazards.
  - ❖ Protected paths of travel for building tenants, pedestrians and workers will be provided to minimize hazards from any falling debris. This may involve closing of certain entrances/exits depending on the work activity and location.

### **1008 Land Clearing Operations**

- ❖ Employees engaged in site clearing shall be protected from hazards of irritant and toxic plants and suitably instructed in the first aid treatment available. Training regarding the recognition of such plants/animals will be required before the commencement of work
- ❖ All equipment used in site clearing operations shall be equipped with rollover guards meeting the requirements of this subpart. In addition, rider-operated equipment shall be equipped with an overhead and rear canopy guard meeting the following requirements:
- ❖ The overhead covering on this canopy structure shall be of not less than 1/8-inch steel plate or 1/4-inch woven wire mesh with openings no greater than 1 inch, or equivalent.

- ❖ The opening in the rear of the canopy structure shall be covered with not less than 1/4-inch woven wire mesh with openings no greater than 1 inch.
- ❖ Chain saw operators will be properly outfitted with protection for the head, eyes/face, hands and feet. Chaps or similar leg protection must be used. Hearing protection must be worn.

**1100 Evacuation Plan**

**EVACUATION PLAN**

**CAMPANELLI ASSOCIATES CONSTRUCTION CORP.  
PROJECT NAME  
PROJECT LOCATION**

**WHAT TO DO IF YOU DISCOVER A FIRE:**

1. SOUND THE ALARM - By activating the nearest fire alarm pull station.
2. REPORT THE FIRE - By dialing, or having someone else dial 9-1-1 from a safe location. The Site Address is identified above.
3. EVACUATE IMMEDIATELY - Upon hearing the Klaxon or being verbally notified of a fire or other emergency, evacuate by the nearest most direct exit. Notify and evacuate others as you leave the building. Respond immediately to the predetermined assembly point outside the building.

Your meeting place is: **IDENTIFY THIS POINT**

(Should be at least 50' away from the structure and out of the path of incoming emergency vehicles.)

4. NEVER RE-ENTER THE BUILDING FOR ANY REASON.
5. FOREMEN – TAKE A HEAD COUNT - All foremen are to take a head count and report the results to the Campanelli Superintendent. If anyone is missing, the Campanelli superintendent will notify the emergency responders.

**WHAT TO DO WHEN THE FIRE ALARM GOES OFF:**

1. TREAT EVERY FIRE ALARM ACTIVATION AS THE REAL THING!!
2. EVACUATE IMMEDIATELY - Do not hesitate, or attempt to investigate the possible cause of the activation. Get out via your nearest most direct exit. Notify and evacuate others as you leave the building. Respond immediately to the predetermined assembly point outside the building.

Your meeting place is: **IDENTIFY THIS POINT**

(Should be at least 50' away from the structure and out of the path of incoming emergency vehicles).

3. NEVER RE-ENTER THE BUILDING FOR ANY REASON.

## **1201 Notifications, Fines & Penalties**

It is imperative that all subcontractors working on the job site comply with all Campanelli and Industry Standard Safety and Health Regulations. Safety practices on this job site are regularly observed through routine safety inspections as well as by the Site Superintendent and other Campanelli representatives. These practices, when in violation of Campanelli Company safety rules or OSHA standards, are documented and forwarded to Campanelli management for appropriate action. Any subcontractor not complying with these regulations will be penalized as written below.

**First Offense:** Sub-contractors will be informed of the non-compliance issue(s) and are expected to remedy the situation(s) immediately. A certified letter will be sent to their main office notifying the sub-contractor of this offense.

**Second Offense:** Sub-contractors will be informed of the repeat non-compliance issue(s) and another certified letter will be sent to their main office notifying the sub-contractor of this repeat offense. In addition, a \$500.00 fine *for each offense* will be deducted from payments to the sub-contractor.

**Third Offense:** Sub-contractors will be informed of the third repeat non-compliance issue(s) and a third certified letter will be sent to the main office notifying the sub-contractor of this repeat offense. An additional \$1,000 fine *per offense* will be deducted from payments to the sub-contractor.

**Fourth Offense:** Sub-contractors will be informed of the fourth repeat non-compliance issue(s) and a fourth certified letter will be sent to the main office notifying the sub-contractor of this repeat offense. An additional \$1,000 fine *per offense* will be deducted from payments to the sub-contractor. Upon notification by the Project Manager (which shall be given verbally and followed by the certified letter mentioned above) the sub-contractor may be required to immediately stop working on this job site and subcontractor's progress payments may be withheld. This condition shall be in effect until a site safety inspection is conducted and Campanelli Companies confirms that any and all safety deficiencies have been corrected and that Campanelli Companies is satisfied that the sub-contractor *will enforce all safety requirements going forward*. When a fourth safety violation has been committed, Campanelli Companies reserves the right to terminate the subcontract.

**Please note, any and all fines collected as a result of a safety violation are donated annually to a charity organization.**