SAMET CORPORATION

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SITE SPECIFIC SAFETY PLAN

Revised on 05/2023

SAMET SAFETY
Safeguarding Families

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SITE SPECIFIC SAFETY PLAN

This SSSP was prepared to assist all workers in understanding the health and safety expectations and requirements of Samet Corporation on this project. Compliance with this Plan is expected and a condition of work. Contractors' project managers and superintendents have overall responsibility for the implementation and the execution of this Plan.

On this project site, Samet Corporation enforces its Safety Program through its Superintendent, Safety Manager and other designees and weekly meetings with our own labor force and contractor employees (including tiers) stressing the importance of maintaining a safe and productive work site.

Health and safety will always remain the top priority for all levels of management, supervision, and workers engaged in construction activities. Health and safety will never be sacrificed in lieu of schedule, cost, production, or any other component of the work process.

To comply with this philosophy, the project's contractors will:

- Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- Effectively communicate the health and safety requirements of Samet Corporation this Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthful workplace.
- Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

All contractors will incorporate, as a minimum, OSHA 29 CFR 1926 Construction Safety Standards, OSHA 29 CFR 1910 General Industry Standards (as applicable), specific state safety regulations, specific owner requirements, project safety rules, and this SSSP when determining the safe work practices and protection of all workers. If any of these standards, requirements, or procedures conflict, the more stringent requirement shall prevail.

Refer to Samet's TSW "Above OSHA Requirements"

The term "contractor" within this document refers to any contractor or subcontractor of any and all tiers. Samet Corporation, as the general contractor, is referred to by name.

SITE SPECFIC SAFETY COMMITTEE

A site-specific safety committee will be utilized to assist project team in implementing this SSSP and to work as a team to identify and correct safety or health hazards, identify unsafe work practices and offer solutions to safety issues. Participation is mandatory and each contractor must designate at least one (1) foreman level (or higher) to actively participate.

Refer to Samet's TSW for Project Safety Committee

CONTRACTOR SAFETY PERFORMANCE

Samet Corporation expects all contractors to execute their work on this project with a proactive commitment to safety at all levels. Each contractor should plan their work focusing on protecting their workers from incidents and injuries. The following are actions that each of us can take to improve safety performance on this project:

- Attend and actively participate in toolbox meetings.
- Discuss safety in all meeting.
- When you talk about safety, talk about people, not numbers or statistics.
- Ask where the next injury is likely to happen and what can be done to prevent it – Run The 2 Minute Drill
- Fill a Pre-Task Plan for all high-risk activities on a daily basis and have it communicated/acknowledged by all crew members involved.
- Recognize individuals and groups daily for working safely – Implement MVA program
- Take positive actions when you see someone doing something you believe is unsafe. Talk to them about your concern for their safety, not about violating rules or procedures -Safeguarding Families
- Take responsibility for people's safety that work with you, for you and around you.
- Fine ways to express care and concern for people and work to improve the dignity and respect people experience on the project.
- Make and keep promises around safety issues.

Samet Corporation or their representative will continually monitor and assess each contractor for compliance with this SSSP and appropriate regulatory requirements.

Immediate corrective action will be taken to eliminate any safety discrepancy, hazard, at-risk behavior, or violation observed.

DESIGNATED CONTRACTOR COMPETENT PERSON

Each contractor will designate a competent person as defined by OSHA 29 CFR 1926.32(f) as "one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who as authorization to take prompt corrective measures to eliminate them" as their project safety representative. This person(s) name will be submitted to Samet Corporation and this person must have the authority and responsibility to ensure the proper implementation and enforcement of this SSSP.

The General Trades Competent Person/Foreman designated will be expected to have an adequate knowledge of OSHA construction standards,

The Scaffold Competent Person designated to oversee erection and dismantling of scaffolds will be expected to have an above average knowledge of OSHA 29 CFR 1926.450 Subpart L –Scaffolds, and proof of qualification training.

The Trenching and Excavation Competent Person designated to oversee digging trenches and excavations will be expected to have an above average knowledge of OSHA 29 CFR 1926.650 Subpart P – Excavations, and proof of qualification training.

The Fall Protection Competent Person designated to oversee his company's fall protection plan will be expected to have an above average knowledge of OSHA 29 CFR 1926.500 Subpart M – Fall Protection, and proof of qualification training.

The Electrical Competent Person designated to oversee his company's electrical protection plan will be expected to have an above average knowledge of OSHA 29 CFR 1926.400 Subpart K and NFPA 70E – and proof of qualification training,

The Rigging qualified person designated to oversee the rigging of structural steel, concrete panels, materials or other equipment hoisted above the ground will be expected to have an above average knowledge of OSHA 29 CFR 1926.251. Competent Person designated for rigging structural steel shall have an above average knowledge of OSHA 29 CFR 1926.753 Hoisting and rigging, and formal training.

The Safety Competent Person designated to oversee the safety of their employees and subcontractors will be expected to have an above average knowledge of OSHA construction standards.

As a minimum, each of these competent persons must:

- be proficient in the development and execution of pre-task safety plans, competency plans and risk/severity assessments. Audit, document and submit as required.
- obtain an OSHA 10-hour certificate from a certified OSHA trainer and a minimum of 3 years' experience as a foreman/competent person. OSHA 30-hour certificate and at least 5 years construction safety training is highly recommended. Experience must be in the non-residential construction industry.
- obtain certified competency training conducted by an authorized OSHA certified trainer.
- conduct regular safety meetings with workers to instruct them on safe work practices and requirements.
- timely submission of all safety related documents.
- conduct documented pre-task safety plans and communicate daily to workers to ensure compliance with safe work practices, this Site Safety and Prevention Program and OSHA safety regulations.

For the purposes of this Program, the use of the words "competent person", in any format, is defined pursuant to the OSHA definition as stated above.

WORK-RELATED INJURIES, ILLNESSES, AND INCIDENT INVESTIGATION - MONTHLY INCIDENT SUMMARY REPORTS

An incident is defined as any unplanned or undesired event that results in or has the potential to result in a work-related injury/illness, property damage, or disruption of business where the cause was from human errors or omission.

Every incident will be investigated to determine the probable root causes (s) and steps required preventing a similar occurrence from happening in the future. All contractors must fully cooperate with Samet's investigation under the law.

All work-related injuries/illnesses and incidents must be reported to Samet Corporation immediately and submit a preliminary report within 24 hours of the incident. A final report must be submitted within 48 hours for review and implementation of lessons learned to prevent further incidents from occurring.

Each contractor must submit a report monthly indicating the below information. This form must be submitted even if the subcontractor has no incidents to report.

- Total man hours worked, first aid cases, OSHA medical treatment cases & lost workday cases, restricted work cases.

CONTRACTOR SAFETY SUBMITTALS

Prior to beginning work, each contractor shall submit the following minimum (but not limited to) documentation:

- Contractor's written site-specific safety programs including, but not limited to substance abuse and silica exposure control.
- Contractor's written housekeeping plan and Samet Housekeeping Commitment Agreement
- Energized Work Permit.
- Detailed job hazard analysis/pre-task safety plan
- Personal protective equipment hazard assessment and certification (if applicable)
- Annual crane inspections
- Verification of OSHA and or project required training as necessary. Employee training shall be verified by contractor's management and documentation of training submitted to Samet team. Examples of training may include:
    - OSHA 10- and 30-hour construction safety training
    - Fall protection
    - Pre-task safety training and risk assessment
    - Ladders
    - Scaffolds
    - Trenching
    - Crane signalperson
    - Confined spaces
    - Respiratory protection
    - Lockout/Tagout
    - Rigging (plan)

- Mechanized equipment (all types) operators
- Traffic control (public right-of-way)
- First aid
- Competent persons by scope of work

Throughout the course of the project each contractor will be required to submit various on-going safety documents as required by the scope of work. These submittals may include but are not limited to:

- Weekly Jobsite Inspection Checklist.
- Daily documented scaffold, trench, crane, aerial lift, rigging/hoisting equipment, PFAS, welding machines, generators, ladders, power tools, heavy equipment (i.e., backhoe, dump truck, front end loader) and forklift inspections.
- Weekly safety toolbox meeting training records.
- Daily pre-task safety plan
- Air sampling data (if respirator in use)

VIOLATION OF SAFETY AND HEALTH REQUIREMENTS

Violations of statutory health and safety regulations, project safety rules and policies contained in this plan or at-risk behavior will not be tolerated. All identified hazards are to be abated immediately. When a hazard cannot be immediately corrected, a written explanation is to be submitted to Samet Corporation team. Failure to correct hazards may result in disciplinary actions or suspension of part or all work.

DISCIPLINARY PROGRAM

Each worker has an individual responsibility to work safely and minimize unsafe actions. Samet Corporation reserves the right to discipline any contractor based on safety violations committed by their employees of any tier, or the contractor itself.

Samet Corporation has established a progressive disciplinary program as outlined below:

Committing an unsafe act, practice of disregard for policies (see below) that is not considered Immediately Dangerous to Life or Health (IDLH) can result in the following consequences:

- First occurrence: Verbal warning with a note to file
- Second occurrence: Written warning, re-training, or action to include, but not limited to suspension from project, holding monthly invoice checks, etc.
- Third occurrence: Written notification of actions up to termination from project site.

Other-than-serious unsafe safety acts may consist of, but not limited to:

- Failure to wear hard hat properly.
- Failure to wear safety glasses/eye protection when required.
- Failure to use hearing protection when required.
- Failure to wear proper work boots/shoes and clothing.
- Failure to wear seatbelts on mechanized equipment.
- Failure to have first aid kit.
- Using frayed/cut drop cords.
- Using drop cords less than #14 AWG.
- Using unrated ladders.
- Failure to submit daily safety reports.
- Failure to submit weekly toolbox safety talks.

Committing unsafe acts and or practices that are considered Immediately Dangerous to Life and Health (IDLH) may result in worker and supervisor's immediate removal from the project. Samet Corporation also reserves the right to immediately discipline/sanction a contractor. Sanctions include but are not limited to immediate abatement of the IDLH condition/hazard or a mandatory meeting with contractor's ownership to discuss actions to improve safety performance. Samet Corporation reserves the right to terminate a contractor for repeated IDLH safety violations.

IDLH safety violations may include, but are not limited to:

- Failure to follow fall protections requirements.

- Removing guard rails and not putting them back in place.
- Working in an unprotected trench greater than 5 feet deep.
- Failure to follow the Substance Abuse Policy.
- Possession of firearms, explosives or dangerous weapons.
- Violation of project security rules and procedures.
- Fighting, horseplay, practical joking or gambling.
- Entering a confined space without following procedures.
- Failure to follow lock-out/tag-out procedures.
- Working on energized circuits without an energized hot work permit.
- Physical altercations, or any sort of harassment (investigated).
- Smoking within any structure or outside the designated smoking area.

It is impossible to publish every safety rule to cover every circumstance. However, if workers fail to follow safe work practices not covered by this policy, disciplinary actions will be assessed based on Samet Corporation's assessment of the violation.

SUBSTANCE ABUSE POLICY

This project is committed to providing a safe, drug free workplace for all employees. This policy applies to all Samet Corporation contractors, vendors and other third-party employees.

The use, sale, offer to sell, purchase, and transfer, distribution, or possession of drug paraphernalia, any detectable amounts of alcohol or illegal drug, firearm, or other dangerous weapons by any employee on this project is prohibited. Each contractor will promote a Drug Free Workplace with their employees and communicate during the safety orientation what constitutes prohibited activities. Every worker involved in an incident shall have a post incident drug/alcohol test performed within three (3) hours after the incident. Any worker on the project site who is reasonably suspected of being under the influence of alcohol or a controlled substance shall be tested. Contractors are responsible for having their workers tested at an approved facility and reporting the results to Samet. Any worker that refuses to test, stall to be tested, are uncooperative with collectors, or attempt to alter a urine specimen will be considered positive and immediately removed from the project.

SAFETY PLANNING

Job Hazard Analysis (Completed by Contractor Superintendent and Project Manager)
Prior to starting work on this project, each contractor will submit a written Job Hazard Analysis (JHA) for their scope of work. The JHA can be included in the Site-Specific Safety Plan. The JHA must identify and outline each work component or activity, list the potential safety hazards, risk/severity assessment and health hazards associated with each activity. It must also describe what safety controls, PPE, tools and equipment will be implemented and required to mitigate the recognized hazards and safely complete each activity.

Pre-Task Safety Planning (Completed by Contractor Foreman or First Line Supervisor)
Each Foreman, designated supervisor and/or workers will analyze each task to be performed by scope of work and identify the work sequences, hazards, and controls necessary to protect workers from the identified hazards. Our hierarchy of controls must be observed. The Pre-Task Safety Plan (PTP) will be communicated daily to each crew performing work on this project. Each employee will sign the PTP acknowledging the safety procedures while engaged in the task. In cases of a changed construction activity, the employee or contractor's competent person must assess the change(s), retrain his employees and document that re-training in his daily pre-task safety plan and field report.

2 Minute Drill -throughout the day, each worker should run the 2 Minute Drill to help prevent any potential accidents.

SAFETY INSPECTIONS

Each Contractor performing work will be responsible for conducting weekly safety inspections of their work area, tools and equipment (daily). The following inspections will be required as applicable to ongoing work activities. Safety forms or permits can be obtained from project team.

General Daily Worksite Safety Inspections (weekly documentation Required)
Each contractor will perform a visual general safety inspection of their work area where their employees and subcontractors are working daily. Subcontractor's competent person will use their daily pre-task safety plan when assessing the potential hazards utilizing

a hierarchy of risk control. Safe work practices and physical hazards must be verified while conducting inspection of their work areas. Samet weekly Worksite Safety Inspection form or equivalent form must be used to document these inspections and the competed corrective actions

Daily Inspections
Contractors using the below equipment or performing the specific type of work will designate a competent person to inspect and document each day prior to use.

Scaffolds, trenches, cranes, forklifts, aerial lifts, material handling and hoisting equipment, rigging, ladders and hand and power tools.

Notes: All rigging equipment shall be inspected and certified by contractor prior to use and as a minimum monthly.
A visible inspection tag must be used for scaffolds and mechanized equipment.
Each contractor who requires their employees to wear personal fall arrest systems (PFAS) shall inspect harnesses and lanyards as required. Workers engaged in steel working activities shall inspect harnesses and lanyards daily. All others shall inspect harnesses and lanyards monthly (or as required by manufacturer), color code or tag them to indicate current inspection.

SAFETY TRAINING

Safety and health training are a requirement and mandatory for all and contractor workers assigned to this project to promote and ensure that an incident and injury free environment exists.

Safety Orientation:
All project management, supervisors, and workers shall attend site-specific safety orientation training and will be allowed to start work until they have attended.

Upon conclusion thereof, all personnel will be given a hard hat sticker verifying that they have been through the orientation and will, be asked to sign the orientation summary and the Samet "I am Committed to Safety For" sign.

GENERAL SAFETY GUIDING PRINCIPLES

Clean and safe working conditions are essential for achieving an Incident and Injury Free Environment. Everyone must maintain a strong personal desire to think and act safely.

The following Safety Guiding Principles will be used to guide all work activities on this site and to help foster a culture of ensuring that all workers go home safely to their families each day.

- Everyone is responsible for safety and health -
- We look out for each other –
- Safety is planned into our work –
- All injuries are preventable –
- All deficiencies will be resolved immediately –
- Management is accountable for preventing injuries –
- Everyone must be trained to work safely & healthfully –
- Working safely and healthfully is a condition of employment –
- We measure safety performance –
- React to incidents, not just injuries –
- Off the job safety is as important as on the job safety
- Every worker has 100% Stop Work Authority (SWA)

EMERGENCY ACTION PROCEDURES

A site-specific emergency action plan (EAP) will be written, and all subcontractor competent persons will be provided a copy will be discussed during the project safety orientation meeting.

A site-specific emergency action plan (EAP) will be written and maintained in the Samet field office The EAP determines the proper access/egress of emergency equipment and/or personnel into or out of the site in case of emergency.

- Project superintendent will activate EAP using 3 long air horn blasts and/or phone communication to subcontractor competent persons.
- Supervisors will be directed to key locations on the site to assist in an emergency.
- Each employee is expected to follow direction of supervisors and cooperate in any emergency action effort.
- Personnel should evacuate the site in an orderly fashion if instructed to do so by supervisors.
- If you become aware of an emergency or an injury, notify a supervisor immediately.
- Two means of access/egress must be available, identified and unobstructed at all times.

Personnel are strictly forbidden to discuss project conditions, incidents, or emergencies with the media, press or any person not associated with the project.

PROJECT SITE SECURITY

"No Trespassing" signs shall be posted at the project site to prevent casual entry by the public (See Project Signage TSW). All construction traffic and parking will follow Site Logistics plan.

All workers may be subject to Samet Corporation disciplinary procedures for violation of project security measures and will be held under applicable Local, State and Federal laws for any offenses that violate said laws including but not limited to:

- Possession of firearms and other weapons
- Fighting or horseplay.
- Being on project while under the influence or possession, distribution, or offering for sale of alcohol or controlled substances.
- Theft.
- Smoking in unauthorized areas.
- Negligent damage of owner's property or the property of contractors or employees.

FIRST AID POLICY

In the event an employee is injured on the job, first aid kits are available for the employee to treat their own injuries. First aid kits will be in the vicinity of the work area and contents of the kit inspected when brought on site. Subcontractor Foreman will notify project superintendent or his representative if employees use first aid items. In the event of a serious injury, 911 will be called.

No employee is required to treat another's' wounds. However, in the event "Good Samaritan" assistance is rendered, the exposed employee and victim will be evaluated by a medical clinic or doctor for Blood Borne Pathogens exposure control within 24 hours. The exposed employee will receive general blood borne pathogen training pursuant to OSHA 1910.1030 requirements.

HEAT STRESS

Work involving high air temperature, radiant heat sources, high humidity, direct physical contact with hot objects or strenuous physical activities have a high potential for inducing heat stress in workers engaged in construction activities.

Workers should consume adequate liquids and take necessary rest breaks to help prevent heat disorders. Water is recommended over carbonated beverages or sport drinks like Gatorade.

Heat Disorders and Health Effects

Heat stroke: Occurs when the body temperature rises to critical levels, Heat stroke is a medical emergency. Do not send worker home or leave unattended.

Heat Exhaustion: Symptoms often are non-specific and may be sudden in onset. These symptoms often resemble a viral illness. It is caused from dehydration where a large loss of body fluid causes a slowing of the circulatory system.

Heat Cramps: Usually caused by performing hard physical labor in a hot environment. They are caused from an electrolyte imbalance or by too little or too much salt.

HAZARDOUS COMMUNICATION/SDS

All contractors will submit their hazardous communication program and SDS to the Samet team prior to the start of work. Each contractor must supervisor employees under his direct supervision for proper training and proper precautions prior to the hazardous chemical's introduction to the jobsite. The following information will assist in understanding OSHA Hazardous Communication requirements:

List of Hazardous Chemicals
The team will maintain a master list of all hazardous chemicals on the project. This list will be in the trailer and available for all employees upon request.

Safety Data Sheets (SDS's)
Each contractor must have ready access to the SDS for all chemicals they bring to the project site.
Labels and Other Forms of Warning
Each contractor will ensure all containers on the site have proper, up-to-date labels.

Training
Each contractor is responsible for the proper training of their employees.

Contractor Employees
Project team will advise contractors of location of hazardous chemical inventory list during the safety orientation.

Each contractor bringing chemicals onsite must provide a copy of their written Hazardous Communication Program including all SDS's to Samet team prior to mobilization on the jobsite.

Community Right to Know
Each project location will cooperate with city and county officials to comply with requirements of the OSHA standards regarding hazardous materials onsite.

FALL PROTECTION

All individuals will take all practical measures to eliminate, prevent, and control fall hazards. All work will be planned with the intent to eliminate identified and potential fall hazards. Samet Corporation's fall protection policy and OSHA 29 CFR 1926.500 Subpart M govern the requirements to protect workers exposed to falls. Additionally, Samet Corporation's fall protection policy is 100% fall protection when exposed six (6) feet or greater above a lower level. The use of conventional fall protection systems (passive preferred) shall be utilized to protect workers from falls to lower levels. Workers wearing personal fall arrest systems shall not free fall more than six (6) feet or contact a lower level.

A written fall protection and prevention plan, including a rescue plan as applicable, may be required as deemed necessary by Samet Corporation. Contractors engaged in the following shall submit their fall protection plan for approval prior to beginning work on site: Steel erection, concrete (cast in place), wood framing, dry laid masonry wall (segmented), pre-cast concrete walls, tilt-up concrete walls, and roofing work. The plan must be agreed to prior to beginning work and the designated competent person must enforce said plan.
Acceptable fall protection systems include the following conventional systems: guardrails, safety netting, floor and wall hole covers, positioning device systems, fall restraint systems, protection from falling objects and personal fall arrest systems.
*****Safety monitoring systems as part of a warning line fall protection system is prohibited.*****

Workers exposed to fall hazards shall be uniformly equipped, trained, and given periodic refresher training in fall protection at specific intervals to minimize the adverse effects of accidental falls. Fall protection training records will be maintained on the project and available for review by Samet Corporation.

Flat Roof fall protection program: Warning line systems:
There are times when a warning line is necessary. The roofers shall place the warning line as close as six (6) feet from the edge. For the other trades working on a roof the warning line must be 15 feet from the edge.
Anyone outside of the warning line system is required to wear personal fall protection.
Personal fall arrest systems will be required for workers on ladders when the following conditions are present:

- center of worker's body is outside the side rails of the ladder,
- ladder is positioned such that its distance to a leading edge or open-sided floor is less than the working height of the ladder, plus 6 feet.
- 3 points of contact cannot be maintained when climbing,
- Competent Person evaluation of conditions, working greater than 6 feet above a lower level and tying off does not create an additional hazard on the ladder.

High Rise Construction

In order to ensure fall hazards (people/materials) are effectively mitigated additional controls will be required in the following areas;

- Full heigh netting enclosure will be required on all elevator shaft openings and around the perimeter in any areas over construction activities or adjacent to public interface. All temporary perimeter protection systems must be protected with debris netting.
- Cantilevered catch netting system rated for people/debris must be installed around the entire building perimeter and must be cycled to stay no more than 3 levels (approximately 30' feet from working deck)
- Ground level building footprint will be protected by physical barriers (similar to the perimeter protection provided on elevated floors) and overhead protected entrances provided.
- Tool tethers must be utilized when working within 10 feet of any leading edge not fully enclosed or on any exterior elevated platforms (suspended scaffolds, boom lifts, etc.)
- Material hoist landing enclosures will offer floor to ceiling protection to prevent any accidental interaction with the hoist way.

General fall protection requirements:

Any task or activity involving work at heights must be carefully planned and communicated with all involved. Effective controls must be implemented to protect people/tools/materials from falling distances equal or greater than 6 feet.

Any contractor that creates a floor hole or penetration larger than 2 inches will be responsible for protecting that opening and properly marking it with the words "HOLE-DO NOT REMOVE" or "COVER-DO NOT REMOVE" in languages that the workers speak most prevalently.

SCAFFOLDS AND AERIAL LIFTS

All Contractors shall identify a Competent Person responsible for the erecting and dismantling of all scaffolds according to OSHA regulations (29 CFR 1926 subpart L- Scaffolds) and Codes of Safe Practice (Scaffold Industry Association). Records will be maintained for scaffold training and be available for review by Samet Corporation team. The Competent person shall submit to Samet Corporation Superintendent or his representative a fall protection plan for erecting and dismantling scaffolds.
Employees working on scaffolds 6 feet above a lower level shall be protected from falling by either a standard guardrail system or personal fall arrest system. Any use of a personal fall arrest system used on a scaffold shall be approved by Samet Corporation team and Samet Corporation EHS Director. The subsequent specific scaffold requirements shall be followed:

- All scaffolds shall be erected under the supervision of a competent person and inspected daily. Scaffold tags or equivalent shall be used to document the inspection. Green Tags - Approved ready for use. Yellow Tags - Caution if restrictions are required. Red Tags – Scaffold unsafe do not use. Narrow span scaffolds (Baker scaffolds) are required to be inspected and tagged.

Aerial Lifts

- All contractors are required to ensure that their workers are properly trained in the use and operation of aerial lifts, including any manufacturer specific requirements and OSHA requirements of 29 CFR 1926 subpart L.
- Workers must wear their personal fall arrest system while working on any mobile elevated working platforms.

PERSONAL PROTECTIVE EQUIPMENT

All personal protective equipment (PPE) shall meet applicable standards of the American National Standards Institute (ANSI), American Society for Testing and Materials (ASTM) and properly used in accordance with the manufactures' recommendations. Each employer shall furnish their employees approved PPE that fits to size and provide training in the selection, use and care of such, retraining to be performed as necessary. Employees must maintain their PPE in good sanitary conditions, if defective or showing signs of excessive wear PPE must be replaced. All persons entering the jobsite will, as a minimum, wear the following personal protective equipment at all time in the designated work area while on this project (except in office and lunch areas). At no times during the project will PPE requirements be relaxed.

Head Protection

An approved hard hat must always be worn.

Eye and Face Protection

- Safety glasses (Z87.1) with side shields must always be worn.
- Workers that wear prescription safety glasses may do one of the following:
    - Obtain prescription safety glasses (Z87.1) with rigid side shields.
    - Wear over- the- glass safety glasses.

In addition, the following eye/face equipment must be worn when performing the following work activities:

• Arc welding	Welding hood with proper shading*.
• Burning	Burning goggles with proper shading
• Grinding or cutting metals	Face shield*
• Drilling (rock)	Face shield*
• Chemical handling	Face shield*
• Molten materials	Face shield*
• Corrosive liquids	Face Shield*
• Concrete pouring	Face Shield*

Note: * Safety glasses will be worn in conjunction with face shields and welding hoods.

Foot Protection

Above the ankle hard soled work boots or shoes that are in good condition must always be worn. Safety toed work boots if worn must conform to ASTM F2412-05 & ASTM F-2413-05.

Work attire

- Shirt sleeves will have a minimum length of 4 inches. No shorts, tank tops, or cut-off shirts are permitted.
- All personnel shall wear a reflective vests or high visibility clothing while in the designated work zone. During the hours of dusk to dawn ANSI class II reflective vests or clothing shall be worn.
- Long pants that fit properly around the waist and of a proper length so as not to create a trip hazard
- Long hair must be contained so as not to create a hazard of getting caught.

Respiratory Protection

All contractors are required to determine if hazards exist that require respiratory protection. If so, the Competent Person must submit a plan to the Samet team prior to the start of work. Respiratory protection would be required if OSHA permissible exposure limits are exceeded, and no means of engineering controls could be used. Subcontractor would be responsible for determining the exposure level by sampling for airborne contaminates.

When respiratory protection is required, the employer must establish a comprehensive respiratory protection program, as outlined in OSHA's Small Entity Compliance Guide for Respiratory Protection and as required in the OSHA respiratory protection standard [29 CFR 1910.134 and 1926.103].

Use of Respirators

As the primary means of preventing or minimizing exposures to airborne contaminants, use effective source controls such as substitution, automation, enclosed systems, local exhaust ventilation or wet methods.

Hearing Protection

Approved hearing protection will be worn as specified in posted areas and while working with or around high-noise level

producing machines, tools, or equipment. A good rule to follow is: When you must raise your voice to be heard, you need hearing protection. Exposure to impulsive or impact noise must not exceed 140dB noise level.

Hand Protection

Workers will wear appropriate level of hand protection as necessary and as determined by the Competent Person to prevent hand and finger injuries.

Additional Protections

Specific activities may require that additional personal protective equipment be worn such as working on energized circuits. Contractors and their Competent Persons shall evaluate the need for additional protection based on their pre-task safety plan.

Hand and Power Tools

All hand and power tools will be operated, kept in good condition and regularly maintained per manufacturer's recommendations. Workers working 6 feet or greater above a lower level while using handheld tools and or power tools that may be subject to dropping shall be tethered or area barricaded to prevent tool from hitting unsuspected workers below.

HOUSEKEEPING AND ORDERLINESS

All persons shall always maintain their work locations in an orderly and clean manner. Daily cleanup of work areas is mandatory for all trades on site. Subcontractor competent person shall submit a housekeeping plan to project team prior to starting work.

Samet Corporation Cleanliness Standard

Dumpsters for general trash, construction debris (wood, metal, concrete and etc) and recycling dumpsters will be provided pursuant to contract requirements. Contractors shall provide trash containers on site for general trash and debris. All miscellaneous trash generated by workers shall be deposited in a container or in the back of pickup trucks daily. Do not throw bottles, food wrappers, cups or any other types of trash on the floor or ground. When containers are ¾ full, they will be either removed from the site or dumped in a large metal dumpster. Contractors, as required by contract, will provide their own dumpsters for their specific excess materials and allocate adequate resources to ensure this housekeeping standard is maintained throughout their time on the project. Project team shall address this housekeeping standard with all subcontractors prior to beginning work.

General Housekeeping Requirements:

Housekeeping is an important part of our daily work. All materials, equipment, etc. brought on site shall be organized and stored in areas designated by Samet project team. Trade partners are responsible for organizing material, equipment, and tools so they do not create tripping hazards or impede/block exits. Trade partners are responsible for daily clean up of excess material and debris which shall be deposited in appropriate containers throughout the day. When work is completed in a room or area all excess material and debris shall be removed and broom cleaned.

Refer to Samet's "Housekeeping Commitment Agreement" as provided by the project team

LADDER SAFETY

Samet Corporation requires all portable ladders to be rated heavy duty Type 1, 1A, or 1AA. Type II or Type III Ladders (<225 Lbs.) and all types of aluminum ladders are prohibited. Job made ladders shall comply with ANSI A14.4 1979 and 2009 as well as OSHA 29 CFR 1926 Subpart X. Contractor Competent Person shall evaluate the use of personal fall protection systems while on ladders greater than 6 feet above the finished floor the ladder sits on.

Refer to manufacturer's specifications for the proper use of all ladders.

ELECTRICAL SAFETY

The following regulations apply to both temporary and permanent electrical installations used on this Project site. Electricians working on exposed live (50 to 280 volts) parts shall wear the appropriate level of personal protective equipment required under NFPA 70e and as designated by the Competent Person.

- Extension cords used with portable electrical tools and appliances shall be #14 AWG or greater and be three-wire type designed for hard or extra-hard usage. Grounds are never to be removed from the extension cords.
- All flexible cords plugged into a generator with an output of 5KW or greater and all flexible cords plugged into the permanent wiring of the building shall be protected by a ground fault circuit interrupter (GFCI).

- Any replacement plug ends installed on flexible cords shall be UL/FM approved for its intended use. Note: Open construction sites are considered wet locations. UL/FM approved water-resistant replacement plug ends would be acceptable.
- Temporary lights shall be equipped with guards to prevent accidental contact with the bulb. "Red" bulbs will be used to designate exit ways. Temporary lighting circuits shall be permitted within cable assemblies, or within multi-conductor cord or cable of a type identified for hard usage or extra-hard usage.
- Electrical and extension cords or cable are not to be laid on floors, in walkways, etc., unless it is impractical to do otherwise. They should be suspended or protected in such a way as not to block or hang in walkways, doorways, or work areas.
- It is Samet Corporation policy that electrical panels shall be de-energized and locked out prior to being worked on. However, if any work on energized circuits is required with panels removed an "Energized Work Permit" and safety plan shall be submitted and reviewed by Samet project team and EHS Director. Compliance with NFPA 70E is mandatory. PPE requirements shall comply with NFPA 70E Hazard Risk Classification Table 130.7 (c)(9) and 130.7 (c)(10).
- A weekly cord roll-up program is required on this project. This includes cords of every type, not just extension cords.

TRENCHING & EXCAVATION SAFETY

The following regulations apply to all trenching and excavation activities on this site: OSHA CFR 1926, Subpart P.

- Any contractor engaged in trenching operations deeper than 5 feet shall designate a Competent Person and inform Samet Corporation team.
- Underground utilities must be located.
- Trenches or excavations greater than 5 feet in depth will be sloped, benched, or otherwise protected from cave-ins as determined by the Competent Person. Sloping, benching or other protective systems are recommended for any trenches and excavations over three (3) feet in depth.
- Protective systems designed to be placed in trenches such as trench boxes must have tabulated data available for review as necessary.
- Spoil piles and other materials will be placed a minimum of 2 feet from the edges of all trenches and excavations.
- In trenches deeper than four (4) feet, locate means of egress, such as ladders or steps or ramps (45-degree slope), so they are no more than 25 feet of travel from anyone in trench.
- The Competent Person must inspect all trenches daily before work begins and after every rainstorm or other hazardous conditions.
- A registered professional engineer must design all excavations and protective systems over 20 feet in depth.
- Completion and acceptance of Samet's "Underground Utility Excavation Permit/Checklist" is required for each trench.

UNDERGROUND UTILITY LOCATIONS

Any contractor who digs a trench or excavation shall call the State appropriate 811 service. Before digging, be sure that all utilities have responded to your locate request. The 811 representatives will advise you of the member utility owners notified. It is the responsibility of the caller (the contractor responsible for excavation) to contact a utility locating company to have any private lines located.

A copy of the 811-notification form shall be submitted to Samet Corporation team as part of the completion and acceptance of Samet's "Underground Utility Excavation Permit/Checklist".

Private or third-party independent locate is required if 811 Service isn't available in the location where the excavation will be occurring.

CONFINED SPACE

The following regulations apply to all confined space activities on this site: OSHA CFR 1926.1201.

Samet Corporation team along with contractor's Competent Person will identify all confined spaces on the project. Confined Space in Construction shall abide by all the requirements of the standard. Specific requirements for work in a confined space shall be attached as an amendment to this SSSP. As a minimum before work starts at a project site, each contractor must ensure that a Competent Person identifies all confined spaces in which one or more of their employees it directs may work, and identifies each space that is a permit space, through considerations and evaluation of the elements of that space, including testing as necessary. Samet Corporation policy is that all confined spaces by definition as indicated in 29 CFR 1926.1201 will be reclassified as a non-permit confined space based on 1926.1203(e)(1)(i-vi). Contractor's Competent Person shall submit to Samet Corporation team a confined space entry permit indicating its reclassification as a non-permit confined space. In the event a confined space can't be reclassified as a non-permit space,

all requirements under 1926.1203(a-d) shall be followed. Samet Corporation team is required to coordinate confined space rescue with local fire department in absence of on-site rescue procedures.

FIRE PROTECTION AND PREVENTION

Fire Protection

Temporary fire protection measures, such as fire extinguishers, temporary hose lines, and temporary standpipes are required near hazardous locations and as required by OSHA regulations 29 CFR 1926 Subpart F.

- Fire extinguishers will be the primary means for fire protection and must be located within 75' feet of travel distance from any point within any structure under construction, although other means may be added.
- Any discharge of a fire extinguisher must be reported to Samet Corporation team.
- All enclosed buildings under construction shall have appropriate number of fire extinguishers rated not less than 4A-40B:C (10 lbs. ABC) and not less than 2A-20B:C (5 lbs. ABC) for motorized equipment.
- All temporary buildings (shops, field offices, locker rooms, etc.) will have a class ABC fire extinguisher rated not less than a 2A-10B:C
- All spark producing, welding, cutting or flammable storage operations shall require the fire extinguisher rated not less than 4A-40B:C (minimum 10 lbs. ABC Fire extinguisher) be approximately 25' from operations.

Fire Prevention

Combustible refuse from construction operations will not be burned or dumped anywhere on the construction site. Such refuse will be removed at frequent intervals, as required. Storage of large quantities of construction debris will be placed in metal dumpsters.

Compressed gasses will be:

  - Stored with valve caps securely fastened when not attached to a regulator.
  - Always secured upright, including when transported in vehicles.
  - Fuel and oxygen cylinders will be separated by 20 feet for greater when not in use or separated by a not less than a 5' fire rated (one-half hour) wall.
  - Empty cylinders shall be stored separate from full cylinders.
- Oily rags and waste are to be stored separately in metal containers fitted with self-closing lids.
- **Smoking shall not be permitted inside any structure**, only permitted in designated smoking areas.
- **Smoking areas shall be delineated with physical barriers, with proper signage, have a 4A-40B:C (10 lbs. Fire Extinguishers) and safe receptables for smoking materials disposal**.

Flammable Liquid Storage and Dispensing

Flammable liquids will be:

- Stored outside and no closer than 20 feet of any structure or inside a properly constructed storage container.
- Stored in approved metal safety cans and marked to indicate its contents.
- Not more than 25 gallons stored inside any trailer or building.
- Posted with "No Smoking" signs.
- Outside storage areas kept free of other combustible materials.
- Gasoline or diesel storage tanks will be double walled and protected from contact by mechanized equipment.
- At fuel dispensing points, the following is required:
  - Fire extinguisher rated not less than 40 B-C located within 75 feet of fueling point.
  - "No Smoking" signs posted.
  - Self-locking fuel nozzle prohibited.
  - Spill kit stored nearby.

HOTWORK PERMIT REQUIREMENTS

A Hot Work Permit is required for any temporary operation involving open flames or producing heat and/or sparks. This includes, but not limited to brazing, flame cutting, grinding, soldering, torch applied roofing and welding. Hot work permits will be issued by Samet Corporation team and will filled out by contractor engaged in hot work operations in an enclosed building/structure.

- All provisions of the Hot Work Permit will be followed including fire watch personnel. Hot Work Permits can be issued for the duration of the hot work but not to exceed the work shift.

- Hot work operations will be minimized or eliminated by selection of safer means methods whenever possible (example; utilizing hydraulic cutters/shears vs flame torches)
- ***Refer to Samet's PtW – Hot Work Permit***

EQUIPMENT AND VEHICLES

- Heavy equipment (cranes, forklifts, dump trucks, excavators/backhoes, man-lifts, etc.) used on this project will be inspected prior to use and comply with applicable OSHA and ANSI standards as well as manufacturers documentation.
- Seat belts shall be worn on all equipment with roll-overprotective structures.
- Windshields will be free from cracks or other visible damage.
- Vehicles and equipment with an obstructed view to the rear must have an audible backup alarm or a flagman must be used.
- No equipment or vehicle will be used to transport personnel unless it is specifically designed to do so.
- Equipment operators are responsible to check their equipment daily to verify it is working properly.
- Equipment operators will possess the required training, certification, and licensees as required by law for the equipment that they are required to operate. All forklift operators shall have a valid operator's license, a copy of which must be submitted to Samet Corporation team.
- If operating a forklift, backhoe, or similar piece of equipment in a public ROW, a valid State driver's license is required and must be on file with Samet Corporation team.

CRANE SAFETY, RIGGING AND HOISTING OPERATIONS

Any contractor who uses a crane on this Project Site shall adhere to the requirements of 29 CFR 1926.1400 Cranes and Derricks in Construction and ASME B30. **All crane operators shall fill out Samet Pre-Erection/Assembly Crane Analysis and provide required documentation such as annual inspection certification, operator's license, and signalman training.**

Each qualified crane operator will be responsible to conduct a detailed daily inspection of its crane and ensure findings are properly logged in a written daily report and reported to crane supplier and Samet.

Mobile Cranes

- No crane will be brought onto the project without a current annual inspection and applicable load charts.
- Crane operators will perform daily crane safety inspections. Crane operators are to turn in the Daily Crane Safety Checklist to Samet Superintendent. A Daily Safety Crane Checklist is provided in the Appendix to this manual. Note: An equivalent form may be used.
- All cranes will be equipped with an anti-two block device. Hooks will be equipped with safety latches.
- Contractor's supervisor shall designate a qualified person to monitor all rigging. All rigging will be inspected daily and before each shift. A Daily Rigging Safety Inspection Checklist is provided in the Appendix to this manual.
- The crane manufacturer's operating manual, instructions and load charts for a specific crane will be used to determine the safe operation of all cranes.
- All crane operators must be certified by the National Commission on Certification of Crane Operators (NCCCO) or equivalent. This rule applies to Contractors as well as Samet employees. Exception: cranes mounted on delivery trucks that unload outside, onto the ground.
- The supervisor shall ensure that crane operators meet legal and Owner requirements. After initial qualification, the supervisor shall closely monitor until the operator's capability is established.
- The ground where the crane will be set up must be solid and able to support the weight of the loaded crane. Determine if underground utilities exist near where the crane will be set up.
- Cranes will be set up level with outriggers fully extended or set per the manufacturer's recommendation for particular lift configuration. All tires should be clear of the ground.
- Cribbing or mats under outrigger pads should be of sufficient size and properly placed to ensure adequate soil bearing.
- Tag lines shall be used when needed to control the load. (Exception: When loading and unloading trucks)
- The entire swing radius of the rear rotating superstructure of all cranes must be barricaded to prevent crushing injuries.
- The load path shall be barricaded to protect worker from overhead hazards.
- Loads shall be routed to minimize exposure to workers.

- Before a lift, determine the load weight and load capacity. A designated qualified person will determine the load weight. Refer to the shipping weight or have the equipment or machinery assembly weighed. Calculate all structural loads and determine the center of gravity.
- Position the crane so there is a minimum swing and load path clearance of two feet. Cranes and their loads shall not be operated within 20 feet of electrical lines. Increased clearance is required for higher voltage lines. When working near electrical sources (overhead lines or lightning), the crane should be grounded.
- Crane operators are to know the weight of the load they are lifting.
- A written critical lift and rigging plan are required for any lift where:
  - The load is greater than 75% of the crane capacity as configured for the lift.
  - Two cranes are used.
  - The Project Manager/Superintendent or Safety Director determines the lift to be non-routine.
  - Lift plans are required for all project hoisting operations not taken plan of regular basis.

Tower Cranes

- Tower cranes must be fitted with limit switches and alarms when operating in close proximity to other tower cranes (and other equipment), public interface and any other structure that could compromise safe operations.
- Cranes must be installed, erected, adjusted, climbed, inspected, maintained and dismantled in accordance with the manufacturer's requirements. Detailed planning must be submitted for Samet's review at least two weeks prior to performing activity.
- All Tower cranes must only be assembled/disassembled under the direct supervision of someone competent and qualified as an assembly director. The A/D Director must have clear understanding of safe procedures prior to commencing any A/D activities. A detailed plan for any A/D activities must be submitted for Samet's review prior to performing these activities.
- A/D plans must include Roles & responsibilities for crew members, proof of competency, detailed logistics, schedule of picks, JHA and lift plan(s), equipment inspection records and load chart..
- Crews performing any assembly/disassembly must be trained in the hazard recognition for their work and how to effectively mitigate them. Safe A/D plan must be reviewed and acknowledged by crew prior to commencing A/D activities
- Tower cranes require a competent engineer to design the crane base; complete any interim checks during installation; provide approval for the crane to be installed; and provide written confirmation that the base is fit for purpose.
- Tower crane base must be secured with 6 feet barrier (fence or rigid wood partition) with lockable gate and signage to prevent unauthorized access during non-working hours.
- Tower base must be kept free of debris and standing water. Any excess power cords must be rolled up and elevated.
- Effective measures must be implemented to prevent cranes coming into contact with overhead power lines or underground services, other cranes, equipment or structures. Crane to crane communication must be established between any cranes (or other equipment) that could be operating within physical reach of one another. Daily operators' coordination required.
- All Tower cranes have to be equipped with a functional Safe Load Indicator (LMI) at all times.
- Tower cranes must be inspected and deemed operationally safe by a qualified technician after any relevant weather-related event (hurricanes, major storms, earthquakes, or lightning strikes) any incidents and major repairs.
- Third party inspection required after initial erection (for both Tower Cranes and Material/Personnel hoists). Samet will coordinate and hire in a third-party inspector to ensure Tower Crane has been installed, erected, inspected/maintained in accordance with manufacture's requirements and industry standards.
- Fatigue management – Operators normal operating hours must not exceed 12 hours shift. Only under extreme circumstances exceeding shift duration should be allowed.

Rigging

- Special attention needs to be taken when wind speeds exceed 20mph. Such lifts will only be made at the discretion of the crane operator, project superintendent and safety director and must follow Crane manufacture's recommendations. Lower crane booms/raise hook when appropriate due to high winds.
- All loads to be slung, lifted, or transported must have no uncontrolled movement or loss of the load. This can involve redundant slinging or secondary containment for small objects.
- All lifting gear and tackle (e.g., chains, wire ropes, kibbles, slings and rubbish removal skips) must be inspected before use and must be structurally sound, fit for purpose and designed for lifting (with certified lifting points and the rated capacity/safe working load clearly displayed).
- Tag lines shall be used when needed to control the load.
- Objects transported through site must be adequately restrained to prevent uncontrolled movement forwards, rearwards, upwards or sideways.

- Slinging methods must manage any expected dynamic load forces (e.g. wind, sudden crane halt).
- Deliveries where the load has the potential to fall/roll when unshackled must be inspected by a Competent Person, i.e. Rigger/Signal Person or equivalent and restrained before removal, e.g. chocked or slung with hoisting/lifting gear.
- The requirement for exclusion zones for lifting/hoisting operations must be identified and included in the crane lifting plan or PtP.
- All riggers must possess a valid qualification card and identifiable at all times (e.g. different color vest with Rigger identification) or hardhats)
- Proprietary Loading platforms are preferred (Prestonbox Type) when utilized by multiple trade partners. All platforms must be engineered, load capacity posted, enclosed on all sides and equipped with means of controlling access to the platform.

Signalman Training and Qualifications

Employers of signalmen shall ensure that each signal person meets the qualification requirements contained in 29 CFR 1926.1419 Signals – General Requirements.

- Know and understand the type of signals used. If hand signals are used, the signal person shall be designated in writing and know and understand the standard method for hand signals.
- Be competent in the application of the type of signals used.
  Have a basic understanding of equipment operations and limitations, including the crane dynamics involved in swinging and stopping loads and boom deflection from hoisting loads.
- The crane operator, signal person shall be able to effectively communicate the language used.
- The signals used (hand, voice, audible, or new) and means of transmitting the signals to the operator (such as line of sight, video, radio, etc.) shall be appropriate for the site conditions.
- If radios are used to signal crane operator radio must have a dedicated channel.
- Hand signal charts shall be either posted on the equipment or readily available at the site.
- A crane operator should always move loads according to the established code of signals and use a signaler. Hand signals are preferred and commonly used.
- Only a qualified person should give signals to the crane operator.
- There should be only one designated person at a time giving crane signals.
- A crane operator should move loads only on crane signals from one person.
- A crane operator must obey STOP signals no matter who gives it.
- The person giving crane signals must be in clear view of the crane operator.
- The person giving crane signals must have a clear view of the load and the equipment,
- The person giving crane signals must keep persons outside the crane's operating area. Any request or questions should be addressed to the signaler.
- The person giving crane signals should never direct a load over a person.

DEMOLITION

- Demolition plans shall follow OSHA 29 CFR 1926 Subpart T.
- Prior to start of any demolition work, an engineering survey of the building or area to be demolished is required to determine the condition of the area. Debris and material shall not be dropped through walls, floor holes, windows, or other elevated work areas without the area below being barricaded and proper signs posted.
- Debris chutes shall have a substantial gate at all elevated openings.
- Samet Corporation may require the demolition contractor to submit a site-specific fall protection plan if the work requires the removal of exterior walls and or flooring.

CONCRETE AND MASONRY

- Free standing masonry walls over eight (8) feet in height will be adequately braced to prevent collapse. Limited access zones will be established as required by OSHA 1926, Subpart Q, to protect workers from the hazards associated with collapsing masonry walls.
- All rebar dowels, electrical conduits or similar items which are considered a “potential impalement hazard” shall always be capped (protected). This includes vertical and horizontal impalement hazards.
- Refer to Section on SILICA for specific requirements.

Pre-Cast Concrete

- The inspection and supervision of all rigging and hardware must be performed by a Competent Person.
- Never move pre-cast members over another worker.
- 100% fall protection is required of all workers involved in the setting or connection of pre-cast members
- No workers will use their hands to reach under a pre-cast member to adjust a shim or bearing pad.

STEEL ERECTION

The steel erection contractor shall submit a written steel erection plan to the Samet Corporation team prior to any work being performed. The plan must be comprehensive and include all aspects of the erection process, including but not limited to storage/staging of materials, equipment for hoisting materials, routes for lifting operations, critical lifts, rigging procedures, connection procedures, erection bridging procedures, stability requirements, fall protection requirements, decking procedures and proper training of workers. Steel erection procedures shall follow OSHA 29 CFR 1926. 750 Subpart R – Steel Erection standard or any supplemental requirements required by Samet Corporation. The following requirement shall be incorporated into the plan:

- 100% continuous fall protection for heights six (6) feet or greater above a lower level. Workers engaged in steel erection activities to include connecting, bolt-up and decking are **not exempt** from the project's 100% fall protection requirements.
- During skeletal steel erection, a tightly planked temporary floor shall be maintained within two (2) stories or thirty (30) feet, whichever is less, below and directly under that portion of each tier of beams on which any work is being performed.
- During structural steel assembly, a safety railing of wire rope (at least 3/8" dia.) or equivalent shall be installed. Top railing should be forty-five (45) inches and a mid-railing at twenty-two (22) inches above the deck along all open sides including stairway landings and elevator shafts. The railing must support two hundred (200) lbs. of downward force and not deflect below thirty-nine (39) inches and shall not deflect outward beyond the edge of the floor. Flagging must be placed no more than every six (6) feet apart using a hi-visibility material.
- When placing structural steel members, the load shall not be released from the hoisting line until the member is secured by at least two bolts or the equivalent at each connection, drawn up wrench tight.

MOLD CONTROL

If mold is observed, work must not continue in the area until Samet Corporation supervision has made an evaluation of the exposure and develop an abatement plan.

SILICA

Contractors shall submit an exposure control plan to Samet team prior to beginning any work. The contractor shall adhere to the requirements of 29 CFR 1926.1153 Respirable crystalline silica. If respiratory protection is required by this section, the contractor shall institute a respiratory protection program according to 29 CFR 1910.134. In addition, contractor shall ensure medical surveillance is available at no cost to employees as required under 29 CFR 1926.1153(h).

- Workers that perform any of the following work tasks will be protected from exposure to crystalline silica dust:
    - Abrasive blasting using silica sand as a blasting medium.
    - Abrasive blasting of concrete regardless of the type of medium.
    - Sawing, hammering, drilling, grinding, sanding or chipping of concrete, rock or masonry products.
    - Heavy equipment and utility vehicles used to fracture or abrade silica containing materials, i.e. rock ripping, grading, demolition, fracturing
    - Dry sweeping or compressed air blowing of concrete, masonry, rock, or sand dust.
- Workers exposed to silica dust will receive training on silica hazards and protection methods.
- Examples of acceptable engineering controls are:
    - Substitute blasting medium for less hazardous material with 0% silica.
    - Dust collection systems shall be equipped with a commercially available shroud and have a filter with 99% or greater efficiency and a filter-cleaning mechanism.
    - Wet saw systems equipped with integrated water delivery system that continuously feeds water to the blade or cutting surface.
    - Wet sweeping, HEPA-filtered vacuuming shall be used to clean up materials and debris where crystalline silica may be present.
- Do not use respirators as the primary means of preventing or minimizing exposures to airborne contaminants. Instead, use effective source controls such as substitution, automation, enclosed systems, local exhaust ventilation, wet methods, and good work practices as indicated in 29 CFR 1926.1153 Respirable crystalline silica.

- Do not eat, drink, or use tobacco products in areas where crystalline silica dust is present. Always wash hands and face before eating, drinking, or using tobacco products.

INSTALLING AND SANDING SHETROCK

This procedure outlines the safety requirements for installing and sanding sheet rock in all buildings under construction.

- While wearing stilts, workers are prohibited from walking up and down stairs or working near leading edges without proper physical protection.
- Workers wearing stilts who are within ten (10) feet of standard guardrails must extend the top rail an additional two (2) feet to ensure proper protection.
- Workers hand sanding sheetrock joints can, on a voluntary basis, wear a disposable respirator (dust mask) rated N95. Workers must be trained and sign Appendix D to section 29 CFR 1910.134 "Voluntary Use of a Disposable Respirator".
- Workers engaged in mechanically sanding (powered orbital sander) sheetrock joint compound shall not be exposed to airborne concentrations of respirable dust above the OSHA permissible exposure level (PEL). Contractor is responsible for determining the exposure level of respirable dust in and around their employees breathing zone. The use of a vacuum attached to powered orbital sanders is the preferred means to reduce respirable dust below the OSHA PEL.
- Workers who would be exposed to respirable dust that is greater than 5mg/m3 in and around workers breathing zone must submit a comprehensive respiratory protection program that complies with 29 CFR 1910.134 if they require their employees to wear respiratory protection when sanding sheetrock joint compound.

LOCK OUT POLICY

This procedure establishes the minimum requirements for the lockout of energy isolation devices whenever maintenance or servicing is done on machines or electrical equipment. It shall be used to ensure that the machine or electrical equipment is stopped, isolated from all potentially hazardous energy sources, and locked out before anyone performs any servicing or maintenance where the unexpected energization or start-up of the machine or electrical equipment or release of stored energy could cause injury.

- Lockout is the preferred method of isolating machines or electrical equipment from energy sources. To assist employers in developing a procedure which meets the requirements of the standard, the following simple procedure is provided for use in lockout programs. This procedure may be used when there are limited numbers or types of machines or electrical equipment or there is a single power source. For more complex systems, a more comprehensive procedure will need to be developed, documented, and utilized.
- All employees and contractor employees are required to comply with the restrictions and limitations imposed on them during the use of lockout. The authorized employees are required to perform the lockout in accordance with this procedure. All employees and contractor employees, upon observing a machine or piece of electrical equipment which is locked out to perform servicing or maintenance, shall not attempt to start, energize, or use that machine or electrical equipment.
- ***Refer to Samet's TSW for LOTO, Verify Permit***

Responsibility

- Appropriate employees (contractor) shall be instructed in the safety significance of the lockout procedure.
- A competent person will conduct a survey to locate and identify all isolating devices to be certain which switch(s), valve(s) or other energy isolating devices apply to the equipment to be locked out. More than one energy source (electrical, mechanical, or others) may be involved.

Lockout system procedure

- Notify all affected employees that a lockout system is going to be utilized and the reason. The authorized employee (contractor) shall know the type and magnitude of energy that the machine or electrical equipment utilizes and shall understand the hazards.
- If the machine or electrical equipment is operating, shut it down by the normal stopping procedure.
- Operate the switch, valve, or other energy isolating device(s) so that the equipment is isolated from its energy source(s). Stored energy (such as that in springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc.) must be dissipated or restrained by methods such as repositioning, blocking, bleeding down, etc.
- Lockout the energy isolating devices with assigned individual lock(s) and tag(s).
- Ensure that the equipment is disconnected from the energy source(s) by first checking that no personnel are exposed, then verify the isolation of the equipment by operating the push button or other normal operating control(s) or by testing to make

certain the equipment will not operate. Return operating control(s) to neutral or "off" position after verifying the isolation of the equipment. The machine is now locked out.

Restoring Equipment to Service

When the servicing or maintenance is complete and the machine or electrical equipment is ready to return to normal operating condition, the following steps shall be taken.

- Check the machine or electrical equipment and the immediate area around the machine or equipment to ensure that nonessential items have been removed and that the machine or electrical equipment components are operationally intact.
- Check the work area to ensure that all employees have been safely positioned or removed from the area.
- Verify that the controls are in neutral.
- Remove the lockout devices and reenergize the machine or electrical equipment.
- Notify affected employees that the servicing or maintenance is complete, and the machine or electrical equipment is ready for use.

CODE OF CONDUCT /WORKPLACE VIOLENCE

Nothing is more important to Samet Corporation than the safety and security of its associates and partners. Threats, threatening behavior or acts of violence against anyone on Company property or projects sites will not be tolerated. Violations of this policy will lead to disciplinary action (up to and including termination) and/or removal from premises.

In carrying out Samet Corporation policies, it is essential that all personnel understand that no existing Samet Corporation policy, practice, or procedure should be interpreted to prohibit decisions designed to prevent a threat from being carried out, a violent act from occurring, or a life-threatening situation from developing.

All workers are responsible for notifying their supervisor and Samet Corporation team of any and all threats or unusual behavior, which they may witnessed, receive or have been told that another person has witnessed or received.

This policy also requires all individuals who apply for or obtain a protective restraining order, which lists company locations as being protected areas to provide such to Samet's Safety Director. Samet Corporation understands the sensitivity of the information requested and will respect the confidentiality thereof.

PROTECTING ASSOCIATES IN THE WORKPLACE

Protecting all Associates' safety and well-being is of utmost importance to maintaining a positive, productive work environment and culture. This commitment includes protecting Samet field and office Associates from harassment, threats, and violent behavior, and extends to our sub-contractors, customers, and anyone present at one of our job sites or offices. Being a good steward of your own personal safety and the safety of others involves knowing the risk factors, reducing any known risks, and taking pro-active approaches to help yourself and others stay safe and free from harassment, threatening or volatile behavior in any form.

Risk factors for working on construction sites:

- Working late at night or early morning hours
- Working during non-daylight hours
- Working alone or with a limited number of co-workers
- Uncontrolled access to a construction site
- Areas of known security concerns
- General construction parking areas
- Areas that cannot be readily seen by others (i.e., apartment units, closets, enclosed spaces)

Reducing the risks:

- Remove yourself from any contentious situation immediately and do not confront the workers or engage in conversation
- Note who the workers are and or what job they were doing
- If harassed in any form, contact your supervisor or a co-worker immediately and then report the incident to Associate Services. If you wish to by-pass your immediate supervisor, you may reach out to Associate Services or any member of the management team.
- Report all safety concerns to a member of Samet's safety team or VP of Administration
- You can raise concerns or make reports without fear of reprisal

Practical tips for helping yourself and others stay safe at work:

- Always be aware of your surroundings
- Inform your co-workers when working alone
- Inform your co-workers when you intend to enter and return from the project site
- Park your vehicle near the construction office and not in the general parking area
- Keep your cell phone handy and ensure it is charged
- Keep phone numbers of project or department team members in your cell phone's favorites file
- Be aware of groups congregated in and around isolated areas
- Do not stay in isolated areas too long
- Keep doors to isolated spaces open
- When possible, position yourself between the door and the person(s) you are with

If you believe you are being harassed either through verbal communication, body language, or gestures, report the incident immediately to your supervisor and Associate Services. Samet will investigate and take prompt action against any worker(s) or individual(s) who harass Associates in the workplace or the general public near a project site. Threats, hostile behavior, or acts of violence against Associates, contractors, visitors, guests, or other individuals by anyone on company property or projects sites will not be tolerated. Violators will be subject to disciplinary action up to and including termination of employment. You may view Samet's full policy on harassment and sexual harassment on SametNet. If you have concerns about the safety and security of a Samet job site or office, please contact a member of our safety team or VP of Administration.

Revision History

June 1, 2016 – Added Silica Requirements (Section XX) and Modified Aerial Lift Requirement (Section XX)
April 18, 2018 – Revised SSSP
March 2020 – General re-write
May 2021 – Revised / Reformatted
June 2022 – High Rise Construction requirements under Fall Protection, Hot Work Requirements updated, Tower Cranes and hoists third party inspections added.
May 2023 – Fire Prevention was updated - No Smoking allowed within any structure, language for designated smoking areas added. Also updated the Fire Extinguisher size to 10 lbs for general purposes and Fire Watch purposes.
October 2023- Tower Crane Assembly/Disassembly requirements

South Carolina Code of Laws
Unannotated

Title 15 - CIVIL REMEDIES AND PROCEDURES

CHAPTER 73
Sellers of Defective Products

SECTION 15-73-10. Liability of seller for defective product.

(1) One who sells any product in a defective condition unreasonably dangerous to the user or consumer or to his property is subject to liability for physical harm caused to the ultimate user or consumer, or to his property, if

(a) The seller is engaged in the business of selling such a product, and

(b) It is expected to and does reach the user or consumer without substantial change in the condition in which it is sold.

(2) The rule stated in subsection (1) shall apply although

(a) The seller has exercised all possible care in the preparation and sale of his product, and

(b) The user or consumer has not bought the product from or entered into any contractual relation with the seller.

HISTORY: 1962 Code SECTION 66-371; 1974 (58) 2782.

SECTION 15-73-20. Situation in which recovery shall be barred.

If the user or consumer discovers the defect and is aware of the danger, and nevertheless proceeds unreasonably to make use of the product and is injured by it, he is barred from recovery.

HISTORY: 1962 Code SECTION 66-372; 1974 (58) 2782.

SECTION 15-73-30. Intent of chapter.

Comments to SECTION 402A of the Restatement of Torts, Second, are incorporated herein by reference thereto as the legislative intent of this chapter.

HISTORY: 1962 Code SECTION 66-373; 1974 (58) 2782.

SECTION 15-73-40. Actions involving firearms or ammunition; basis for determining design defect; elements to be proved by plaintiff.

(A) In a products liability action involving firearms or ammunition, whether a firearm or ammunition shell is defective in design must not be based on a comparison or weighing of the benefits of the product against the risk of injury, damage, or death posed by its potential to cause that injury, damage, or death when discharged.

(B) In a products liability action brought against a firearm or ammunition manufacturer, importer, distributor, or retailer that alleges a design defect, the burden is on the plaintiff to prove, in addition to any other elements required to be proved that:

(1) the actual design of the firearm or ammunition was defective, causing it not to function in a manner reasonably expected by an ordinary consumer of firearms or ammunition; and

(2) any defective design was the proximate cause of the injury, damage, or death.

HISTORY: 2000 Act No. 345, SECTION 1.

THE STATE OF SOUTH CAROLINA
In The Court of Appeals

_____

APPEAL FROM CHARLESTON COUNTY
Court of Common Pleas
The Honorable Jennifer B. McCoy, Circuit Court Judge

RECEIVED
Feb 17 2026
SC Court of Appeals

_____

Case No. 2023-CP-10-01923, Appellate Case Number 2025-002480

_____

JEFFREY CEPIN,..... Appellant,
v.
SAMET CORPORATION; METROMONT CORPORATION
n/k/a METROMONT, LLC,.....Respondents.

_____

MOTION FOR TRANSCRIPT CORRECTION Case Number 2025-002480

_____

I, Jeffrey Patrick Cepin Appellant, am requesting a transcript correction. The Charleston County South Carolina Court of Common Pleas Court Transcript I, Jeffrey Patrick Cepin received, from, the September 02nd, 2025, Judge Jennifer B. McCoy's Court Room, Case Number 2023-CP-10-01923 is incorrect an a false narrative of the spoken words on the official court record as well as, an attempt to depict me, Jeffrey Patrick Cepin as a person unable to communicate a complete sentence.

Here is my, Jeffrey Patrick Cepin's Corrections to the LEGAL EAGLE, Charleston County South Carolina Court Of Common Pleas, Judge Jennifer B. McCoy Court Transcript for Case Number 2023-CP-10-01923 on September 02nd, 2025.

- Page 2: lines 13, 14, 15, 16, is incorrect. (William R. Padget, Esquire was a former attorney for plaintiff, Jeffrey Patrick Cepin.)

- Page 4: line 8 (Metromont LLC chosen attorney's name is incorrectly spelled as Michael Task. Correct spelling is Michael Trask)

- Metromont LLC chosen attorney's name is Misspelled throughout the whole Legal Eagle court transcript of the September 02nd, 2025 Charleston County South Carolina Circuit Court of Judge Jennifer B. McCoy, case number 2023-CP-10-01923. Correct Spelling of Metromont LLC chosen attorney's name is Michael Trask, From this point on I, Jeffrey Patrick Cepin will not mention the mistake but ask you to refer to this statement for proper identification of inaccuracy in this specific Legal Eagle court transcript Case Number 2023-CP-10-01923 from Judge Jennifer B. McCoy's Circuit Court in Charleston County South Carolina on September 02, 2025.

- Page 4: Between lines 13, 14 defendant Mike Trask words and statements were deleted as he, Mike Trask returned from running out of the court room.

- Page 4: Lines 20, 21, 22 have deleted words and are incorrect. (Specific party names and speaking order have been deleted, as well as,)

- Page 5: Lines 14, 15 have inaccurate wording of what I, Jeffrey Patrick Cepin Said. (I, Jeffrey Patrick Cepin said I, Jeffrey Patrick Cepin do not have a memory of the accident.)

- Page 5: lines 22, 23, 24, 25 have deleted statements and wording is incorrect. I, Jeffrey Patrick Cepin Said, Starting after clarifies that. (The defendants attorney Mike Trask statement is false. There are no Solid Steel Beam involved in the construction, building of one of these parking garages. I, Jeffrey Patrick Cepin know this due to my, Jeffrey Patrick Cepin's years of work experience actually constructing these parking garages and the photos taken of the accident site debris broken concrete pieces.)

- Page 8: lines 9,10 are inaccurate. Metromont LLC attorney Mike Trask said (handing over paperwork and documents or just simple not how thing are done.)

- Pages 4, 5, 6, 7, 8:there are deleted statements from Metromont LLC Attorney Mike Trask that were claimed to be spoken by Samet Corporation Attorney Mr. Gruber on pages 23, 24.
- (Page 23: lines 7, 8, 9, 10, 11, 12, 23, 24, 25 were Metromont LLC Attorney Mike Trask said statements.
- (Page 24: lines 1, 2, 3, 4, 5, were Metromont LLC Attorney Mike Trask said statements said statements.

- Page 9: lines 10, 11, 12, 13, deleted words and incorrect wording of my, Jeffrey Patrick Cepin Statement. I, Jeffrey Patrick Cepin said (I, Jeffrey Patrick Cepin haven't had any request for a deposition and still to this day haven't had a request for a deposit to be taken by separate unique individual Employer Identification Number Samet Corporation to even ask a single question.)

- Page 9: line 23 specific dates were deleted. I, Jeffrey Patrick Cepin Said specific date of March 8, 2024 and June 17th, 2024 the Defendants motion for Summary Judgment of Statutory Employee was denied.)

- Page 10: line 3 deleted words. I, Jeffrey Patrick Cepin Said (both defendants claimed they never had the time to even attempt a deposition or question me, Jeffrey Patrick Cepin.)

- Page 10: lines 10, 11, 12 deleted words. I, Jeffrey Patrick Cepin said (you said you, would give your verdict on this Summary Judgment.)

- Page 10: line 12, 13, 14, 15, 16 incorrect wording. I, Jeffrey Patrick Cepin Said (Now back to when I was at the first deposition. The defendants stated asking completely irrelevant questions to the Summary Judgment for Statutory Employee submitted on March 08th, 2024 and June 17th, 2024. The questions personal about my family and irrelevant to my, Jeffrey Patrick Cepin's occupation solely as a welder.)

- Page 10: line 19, 20, 21, deleted words and incorrect wording. I, Jeffrey Patrick Cepin said (about my occupation or a matter relevant to the Statutory Employee Summary Judgment filed on March 08th, 2024 and June 17th, 2024 Metromont LLCs attorney ended the deposition.)

- Page 10: line 22 deleted words I, Jeffrey Patrick Cepin said (and ended the deposition as well.)

- Page 11: line 5 deleted word I, Jeffrey Patrick Cepin said (claim my, objection to that question.)

- Page 11: line 12, 13 deleted words and incorrect Wording. I, Jeffrey Patrick Cepin said (extremely falsified and out of sequence , order to how the Metromont LLC lawyer was asking.)

- Page 11: line 18 deleted words. I, Jeffrey Patrick Cepin said (Judge Jessica A. Salvini not she)

- Page 11: line 20 incorrect wording I, Jeffrey Patrick Cepin said (to sit through another Deposition.)

- Page 11: line 24, 25 incorrect wording deleted words. I, Jeffrey Patrick Cepin Said (Now this is after the close of discovery deadline date of March 15th, 2025 given in the verdict on November 12th, 2024 from Judge McCoy gave.)

- Page 12: line 12 deleted words incorrect wording. I, Jeffrey Patrick Cepin said (18th of July 2025 and Samet Corporation was on the 21st of July 2025.)

- Page 12: line 17 deleted words incorrect wording. I, Jeffrey Patrick Cepin said (and chopped up answers and questions and I have.)

- Page 13: lines 1, 2, 3, 4, 5 incorrect statements in the sequence of this trials proceedings. added statements from page

- page 13: lines 9, 10, 11 incorrect wording. I, Jeffrey Patrick Cepin said (and that the Deponent has been given the opportunity to read and correct the deposition. That statement is completely false.)

- Page 13: line 13 incorrect wording. I, Jeffrey Patrick Cepin said (weeks, the deposition would not be ready)

- Page 13: line 18, 19, 20 incorrect wording. I, Jeffrey Patrick Cepin said (be compelled to answer irrelevant questions, in the first deposition and that deposition was thrown out on March 31st, 2025 by Judge Jessica A. Salvini from an improper submission of the deposition. I)

- Page 13: line 23 incorrect wording. I Jeffrey Patrick Cepin said (that I, Jeffrey Patrick Cepin would not, as I represent myself, Jeffrey Patrick Cepin

- Page 13: line 24 deleted words. I, Jeffrey Patrick Cepin said (would not waive my rights to see

the deposition or make sure that)

- Page 14: lines 3, 4, 5, incorrect wording deleted words. I, Jeffrey Patrick Cepin said (next to the stenographer statements. I, Jeffrey Patrick Cepin would say that the Samet Lawyers questions have been chopped up and altered as well as, my answers to such question and questions were added.

- Page 14: line 6, 7, deleted words incorrect wording. I, Jeffrey Patrick Cepin said (the Samet Corporation Lawyer questions started here on page 45 line 22. Now, let me just get this correct and straight. The Samet Corporation Lawyer questions specific to safety.

- Page 14: line 12 deleted words. I, Jeffrey Patrick Cepin said (questions by Metromont LLCs lawyer and not at that time but at the time when Metromont LLCs was actually asking questions.

- Page 14: line 14 deleted words incorrect wording. I, Jeffrey Patrick Cepin said (was no back and forth or off the record discussion between the Samet Corporation lawyer and the Metromont LLC lawyer during the Samet)

- Page 14: line 19 incorrect wording. I, Jeffrey Patrick Cepin said (my correction the Question is completely wrong.)

- Page 14: line 20 incorrect statement added deleted wording false narrative.

- Page 14: lines 21, 22, 23 incorrect wording. I, Jeffrey Patrick Cepin said (Samet Corporation lawyer questioning started on page 45 which is a couple of pages south of where this deposition has his questions started.)

- Page 15: lines 1, 2, 3, 4, 5, deleted words, deleted statements answers and incorrect wording. I, Jeffrey Patrick Cepin said (being questioned by Metromonts LLC Lawyer you said it was Davis Erecting's formans responsibility for the entire job sites safety. My, Jeffrey Patrick Cepin's answer to the Samet Corporations Question was No, that was not the question or answer asked and given to the Metromont LLC Lawyer. The Metromont LLC lawyer asked about Davis Erecting Forman being in charge of inspections for the entire job site. My answer to the Metromont Lawyer questions to entire job site inspection is that it was Samet Corporations Contracted job for entire job site inspections it's what Samet Corporation gets paid for. The Samet Corporation lawyer added the Samet Corporation Name, Metromont LLC Name)

- Page 15: lines 24 deleted words incorrect wording. I, Jeffrey Patrick Cepin said (my correction there's another chopped up question in that question.)

- Page 16: line 1, 2, 3, 4 statements moved from proper sequence in trial proceedings deleted words incorrect wording. Mike Trask said I object I did not alter the deposition. Mr. Gruber then said I did not alter the deposition either.
- I, Jeffrey Patrick Cepin then said something similar to page 16: lines 19, 20, 21, 22. I Jeffrey Patrick Cepin said (now, Metromont LLC Lawyer and Samet Corporation Lawyer just sat there and said they didn't alter anything on the deposition yet still submitted a false Deposition to the

court.

- Then Metromont Lawyer said what is on page 23: lines 18, 19, 20
- Then Mr. Gruber said the deposition is correct there is nothing altered in it.

- Page 16: lines 17, 18 deleted words incorrect wording. I, Jeffrey Patrick Cepin said (responsibility. My answer to the question is actually on page 23. It's Samet Corporation contracted duty for job site safety.

- Page 16: lines 19, 20, 21, 22 have already been corrected.

- Page 16: lines 23, 24, 25 statement did not happen

- Page 16: statement missing from me, Jeffrey Patrick Cepin motioning the Court to dismiss the defendants Metromont LLC & Samet Corporation second Summary Judgment for product liability and negligence after the close of discovery on March 15th, 2025. Both Defendants both submitted A Summary Judgment 40 days after the close of discovery order by Judge McCoy for a motion completely different from the original Summary Judgement for statutory employee. (Metromont LLC changed there motion in court on May 05th, 2025 from Summary Judgement statutory employee to Product liability and Samet Corporation changed their Motion in Court on June 27th, 2025 from Summary Judgment statutory employee to Summary Judgment negligence. The law states motions can only be changed up to 30 days after the close of discovery witch Judge McCoy set a dead line of March 15, 2025 and that was for the specific filing of Summary Judgment statutory employee by both defendants.

- Page 17: line 1, statement did not happen

- Page 17: Line 13, 14 deleted words incorrect wording. I, Jeffrey Patrick Cepin said (guess we'll get into it that I did submit evidence 10 Photos and Documents when we first filed the case for Personal injury 3rd party lawsuit back in 2022 and again with Judge Rhode and the court. The documents included corporations in the same Prestressing precast concrete business. Safety originations, inspection organizations, FEMA, South Carolina permitting Laws, Charleston County South Carolina permitting paperwork, blueprints, international building code paperwork, rebar companies, concrete inspection equipment companies, concrete Construction Engineer statements and more etc... I, Jeffrey Patrick Cepin did not pay or have to pay anyone for these documents and information.)

- Page 17: line 18 incorrect wording. I, Jeffrey Patrick Cepin said (said Metromont LLC in their claim submitted on the 18th of July 2025)

- Page 17: lines 23, 24, 25 deleted words incorrect wording. I, Jeffrey Patrick Cepin said (see in the Metromont LLC Filing on the 18th of July 2025 just a few lines down that this statement is false. I, constantly said I, Jeffrey Patrick Cepin don't have a memory of the accident due to the traumatic brain injury I sustained from this accident. The Metromont Lawyer is even telling the court I told the Metromont lawyer I, don't have a memory of the accident due to the traumatic brain injury amnesia.

- Page 18: line 11 incorrect Wording. I, Jeffrey Patrick Cepin said (how, I, Jeffrey Patrick Cepin am an expert in this specific subject.)

- Page 18: lines 15, 16 deleted words. I Jeffrey Patrick Cepin said (I went to school for multiple occupations under the construction subject and have multiple certifications.

- Page 18: lines 17, 18, 19 incorrect wording deleted wording. I, Jeffrey Patrick Cepin said (in court on the 12th of November 2024 the defendants Metromont and Samet Corporation both agreed in court for Summary Judgement for Statutory Employee with you Judge McCoy that I went to school for construction.

- Page 19: 1, 2, 3 incorrect wording. I, Jeffrey Patrick Cepin said (against Samet Corporation for their participation in the accident on May 01st, 2021. Because Samet Corporation has just a few more and different documents regarding this subject.)

- Page 19: line 6, 7 deleted words incorrect wording. I, Jeffrey Patrick Cepin said (multiple inner components missing including metal rebar, metal wire mesh, metal stirrups, metal strands which are the laws and standards in the state of South Carolina a company has to legally obey in order to legally manufacture a Prestressing precast concrete construction business.)

- Page 19: line 9 added words (hit here)

- Page 19: lines 12, 13, 14, 15, 16, 17deleted words incorrect wording. I , Jeffrey Patrick Cepin Said (page 3 of that document it states that they are using the International Building Code requirements for the construction for a parking structure with Prestressed Precast Concrete Double T’s. The International building code comes from the International Code Council who creates Laws and Standards construction companies must obey in this whole country of The United States of America.

- Page 19: line 18 is a false statement

- Page 19: line 21 is a false statement

- Page 19: line 23, 24, 25deleted words incorrect wording. I, Jeffrey Patrick Cepin said (it’s from the South Carolina Labor, Licensing and Regulations website. One moment , I believe there are about six pages of it stating how the state of South Carolina Adopts the International Building Code every year from the International Code Council and the state of South Carolina obeys the standards and regulations required by the International Building Code.)

- Page 20: lines 1, 2 were corrected on page 19

- Page 20: line 3 and that one is three pages long is misplaced statement belong on page 19 in between lines 21 and 25

- Page 20: lines 3, 4, 5, 6 deleted words. I, Jeffrey Patrick Cepin said (So these are Not standards, regulations that both defendants Metromont LLC and Samet Corporation don’t know about. I

know about it. Anyone in the business of constructing buildings or construction material has to be licensed, and know about the standard to build them.)

- Page 20: lines 7, 8, 9, 10, 11, 12, 13 14, 15 deleted words incorrect wording. I, have it stared. The South Carolina Labor and Licensing Regulations website, states that each year South Carolina adopts the The International Building Code after the International Code Council meeting.

- Page 20: lines 16, 17, 18, 19 deleted words incorrect wording. I, Jeffrey Patrick Cepin said (so that proves that with these documents here that I'm showing the court and my personal knowledge, years of work experience and Photos proves my, Jeffrey Patrick Cepin claim true that the improper incorrect manufacturing of the Prestressed Precast Concrete Double T's participated in the accident on May 01, 2020 in Charleston County South Carolina that left me with sustained injuries.

- Page 20: line 23 deleted words incorrect wording. I, Jeffrey Patrick Cepin said (reinforcement. It's on page Four and it shows the top of a prestressed precast concrete double T.)

- Page 21: line 6 deleted words. I, Jeffrey Patrick Cepin said (to International Building Code Standards.)

- Page 21: line 10 deleted words. I, Jeffrey Patrick Cepin said (so now this is the bare minimum metal reinforcement that could be used wire metal mesh and I showed where photos of this were in the evidence I , Jeffrey Patrick Cepin Submitted to the court.)

- Page 21: lines 19, 20, 21, deleted words incorrect wording. I, Jeffrey Patrick Cepin said (photo number 2 which is this one here if you look at the photo you do not see any of the top flange metal reinforcement wire metal mesh in the pile of concrete rubble in the photo.

- Page 21: line 22, 23, deleted words incorrect wording. I, Jeffrey Patrick Cepin said (Photo number 3 goes even closer where you just see pieces of concrete and no metal reinforcement.)

- Page 21: line 25 deleted words incorrect wording. I, Jeffrey Patrick Cepin said (long strands which go the whole distort the prestressed precast concrete double T, which)

- Page 22: line 1 deleted words incorrect wording. I, Jeffrey Patrick Cepin said (is 60 foot. these are 60 foot prestressed precast concrete double T's which were involved in the accident on May 01st, 2020 which left me Jeffrey Patrick Cepin with multiple sustained injuries. In that same

- Page 22: line 5 deleted words incorrect wording. I, Jeffrey Patrick Cepin said (brings up a 60 foot prestressed precast concrete double T)

- Page 22: lines 7, 8, 9, 10, 11, 12 deleted words incorrect Wording. I Jeffrey Patrick Cepin said (at the bottom of the chart it shoes sample span feet and says for a 60 foot long prestressed precast concrete Double T. there should be 16 of these very long metal strands in each one of those prestressed precast concrete double T stems which are used to prestress the prestressed precast concrete double T. So that makes 32 of these metal strands in one of these prestressed

precast concrete double T’s

- Page 22 line 13 deleted words incorrect wording. I, Jeffrey Patrick Cepin said (Now as you can see from the photos there are 4 levels of this parking structure that collapsed. This would mean four (4) prestressed precast concrete double T’s were improperly incorrectly manufactured and involved in the May 01st, 2020 accident leaving me permanently disabled brings the total number of metal strands in the concrete debris to over 100 and you don’t see any none on one whole side of the concrete debris.

- Page 22: line 23 deleted wording incorrect wording I, Jeffrey Patrick Cepin said (against the defendants, explaining the documents)

- Page 22: line 24 false narrative added statement

- Page 22: line 25 false narrative Judge McCoy asked for Samet Corporation lawyer to speak his case.

- Page 23: line 4 added words Mr. Gruber said very simple.

- Page 23: lines 5, 6 were added Mr. Gruber did not say any of that.

- Page 23: line 8 words added. Mr. Gruber did not say in discovery nor did Mike Trask.

- Page 23: lines 7, 8, 9, 10, 11, 12 were statements from Mike Trask Metromonts lawyer Mr. Gruber did not say that.

- Page 23: lines 12, 13, 14, 15, 16 added wording Mr. Gruber said (to the extent that Samet did not have a duty or obligation to inspect the panels. I don’t even know how they could have inspected the product. On that note alone I am asking for the court to grant defendant Samet summary judgment.

- Page 23: lines 17, 18, 19, 20 were spoken by Mike Trask in the begging of the trial proceedings on page 16

- Page 23: lines 21, 22 were added Mr. Gruber did not say any of that.

- Page 23: lines 23, 24, 25 were not said by Mr. Gruber. The lines were said by Mike Trask in the beginning of the court proceeding where Mike Trask was giving Judge McCoy a event brief page 6, 7

- Page 24: lines 1, 2, 3, 4, were not said by Mr. Gruber they were lines or statements from Mike Trask on pages 6, 7

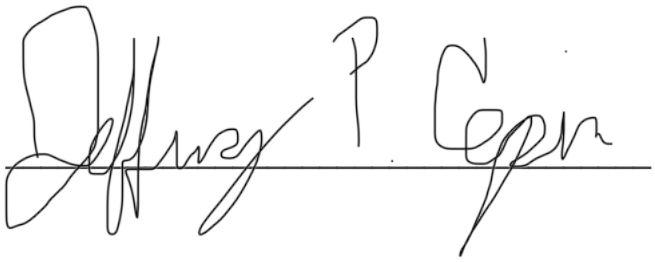
- Page 24: lines 5, 6, ,7, 8, 9, 10, 11 are false statements and were not spoken.

- Page 24: lines 17, 18, 19, 20: deleted words incorrect wording. I, Jeffrey Pactrick Cepin said (excuse me, Your Honor. I, have Proof that, The Defendants Samet Corporation and Metromont LLC are withholding and refusing to show the proper documentation that's required by court and law which proves both the defendants had legal responsibilities and duties to inspect those incorrectly manufactured Precast Prestressed Concrete pieces.

The Judge (Judge McCoy) then stoped me, Jeffrey Patrick Cepin from taking and would NOT let me, Jeffrey Patrick Cepin explain any more evidence or factual information regarding both defendants Samet Corporation and Metromont LLC participation in the Accident on May 01st, 2020, in Charleston County South Carolina, that caused me, Jeffrey Patrick Cepin, to be PERMANENTLY DISABLED.

I, Jeffrey Patrick Cepin I requesting the Appeals Court of South Carolina to accept my, Jeffrey Patrick Cepin's changes to the September 02nd, 2025 Charleston County South Carolina Circuit Court transcripts case number 2023-CP-10-01923 with Judge Jennifer B. McCoy as the truth, an over turn the decision of Judge Jennifer B. McCoy and DENIE, Both Defendants Samet Corporation and Metromont Corporation Summary Judgments. Thank You.

Jeffrey Patrick Cepin, February 17th, 2026.



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STATE OF SOUTH CAROLINA
COUNTY OF CHARLESTON
IN THE CIRCUIT COURT
DOCKET NO.: 2023-CP-10-01923

JEFFREY CEPIN

PLAINTIFF,

vs.

SAMET CORPORATION

DEFENDANT.

H E A R I N G

BEFORE THE HONORABLE JENNIFER B. MCCOY

DATE: SEPTEMBER 2, 2025
LOCATION: SOUTH CAROLINA CIRCUIT COURT 9
TRANSCRIBER: JENNIFER JAEGER

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(THIS TRANSCRIPT MAY CONTAIN QUOTED MATERIAL. SUCH MATERIAL IS REPRODUCED AS READ OR QUOTED BY THE SPEAKER.)

THE COURT: So that takes us to Jeffrey Cepin versus Samet Corporation. Good morning. How are you, Mr. Cepin?

MR. CEPIN: Thank you, Your Honor. How are you?

THE COURT: I am fine. So, who all is here this morning?

MR. GRUBER: Your Honor, I'm Robert Gruber. I represent Samet. Michael Task is here, and he represents Metromont, the two defendants.

THE COURT: Should we give him a minute to come back in?

MR. GRUBER: Yes, ma'am. I'm not real sure why he ran out, but he did. I'm sure there's a good reason.

THE COURT: You're good; you're okay. Who do you represent in this matter?

MR. TASK: Your Honor, I represent Metromont, one of the defendants.

THE COURT: We've got two motions of summary judgment pending in this case filed by the defendants. I'm happy to hear these in [inaudible]. Happy to hear that we're talking about the moving party first, and then we'll respond afterwards.

MR. TASK: Yep. May it please the Court, Your Honor. Like I said, Mike Task here on behalf of Metromont. By way of background, Your Honor, this is a

May 1, 2020 incident that occurred during the construction of a parking garage. Just by the brief background, Mr. Cepin was a welder at the time, a crane operator trying to get what I believe is a steel beam moved snapped his wiring, causing him to plot it ...

MR. CEPIN: Objection. There said steel beam, as far as I know I was -- was -- was killed by the accident and came back alive in -- in the hospital after six hours. I just want -- want to get -- get this out that I was diagnosed with traumatic brain diffuse -- traumatic brain injury with -- with multiple symptoms and what one be -- being amnesia of the -- the the acc -- accident, until I came -- came back alive in MUSC, Charleston hospital here. And I do not know what -- what happened ...

THE COURT: Okay.

MR. CEPIN: But, of course, there are concrete, prestressed, precast double Ts that were involved now there is metal in -- inside of them, components, reinforcement materials. But as far as it being, as -- as he said in the record, a steel beam. Meaning solid metal, as my expertise clarifies that. I do know that -- that -- that is most likely false due -- due to the photos and the actual construction of one of those parking structures. Thank you.

THE COURT: Okay. What I'm going to do is I'm going to let them get his whole motion. You don't need to object, just make a note so that when it's your time to respond, that's what I'll hear from you. Okay? It's a little bit different than being like in a trial to sort of make any objections, and I'm going to let him do his full presentation, and then after that, I'm let you respond anything that you want to at that time. Okay?

MR. CEPIN: I do appreciate that.

THE COURT: Sure.

MR. CEPIN: Thank you. Thank you.

MR. TASK: Yes, Your Honor, so inconsequential it all that matters is that something cuts his harness lines. He falls, and then he allegedly sustains these injuries, and so he's brought this lawsuit against Metromont and then against Samet. As Your Honors are aware, we actually came before you back in March, I believe, or maybe it's late February, arguing statutory employer only. And at that point we had taken Mr. Cepin's deposition.

You told us the motion was denied, and to then go take his deposition, we did that. It took Judge Salvini actually issuing an order to have him be compelled to sit for the deposition, to take his

deposition. And what he tells me, when I asked him, what Metromont did wrong is, he just expressed the states that it is a products liability issue. That they improperly manufactured the precast concrete structures.

And he says that based on his look at the photo. There's no expert witness who's ever opined on that. As Mr. Cepin just said on the record, he has no recollection of how the incident occurred whatsoever. He's never put an affidavit in. All he did was just say, "I looked at some photos, and it just doesn't look right to me, and it's -- it's a products liability case."

And so we filed this motion on multiple grounds. The first is that there's no duty that's ever been substantiated in this case or the precast concrete. No one has a pawn on how that relates to it. But more importantly, no one's ever said that anything's wrong with it, which then leads into breach. At some point, somebody has to an expert -- has to show up and say, "This is what's wrong with it, and this is why it matters for this accident."

Not just, "I looked at some photos, and I think that you manufactured this incorrectly." And that's his entire case. And so for that reason, Your Honor,

discovery is closed, no experts. He's never taken any depositions. There's no affidavits that were ever produced to us.

I'm looking to my right. There are a lot of envelopes here. I've never seen any of that. None of that's been produced to me. I remember in March or February, we first argued. He took stuff off of our website, so I'm sure there's some stuff in there about that. But, Your Honor, it's just a very straightforward issue under negligence.

He has to prove duty and breach with actual evidence, and he has failed to do that in this situation. All he's done is just say, "I think there's something wrong with the concrete." And that, unfortunately, does not pass muster. And so for that reason, Your Honor, we're asking you to grant our motion for summary judgment.

And I believe Mr. Cepin is still receiving workers' comp. I wasn't going to revisit the statutory employer issue today, Your Honor, just based on your prior ruling. I was just going off of duty and breach, but I'm happy answer any questions important to have.

THE COURT: Okay, all right. Mr. Cepin, it relates to Metromont, I am happy to hear from you.

MR. CEPIN: Right. Well, they're more multiple

places where I'm -- I'm going to start here. First off, the deposition. Quote from Metromonts lawyer just recently about I had to become compelled. That is incorrect.

I -- there were two dep -- depositions that were taken. One was in is, I believe February. I have the date here, February 25, 2025, and I showed up in Charleston, Mount Pleasant the office of Metromont, lawyer and Metromont was the only one to actually request a dep -- deposition. I had no and still to this day, did not receive one from separate, independent identification Number 7 to even ask a single question.

Now during that -- that dep -- deposition on the February 25, 2025 I told the defendants they asked completely irrelevant questions to the statutory employee claim that as the verdict on November 12, 2024 in the hearing, you, I believe you were the Judge McCoy. You mentioned that for the specific filing date, you were giving a verdict on which was Metromonts March 8, 2024 and saying corporations filing date of June 17, 2024. Your verdict stated that for that specific date, the -- the motion was -- was denied for stat -- statutory employee of the defendants. But you -- you would open a discovery.

Due to the defendants complaining that they in four years, five -- five, almost five years of the case being open, they never attempted to even question me. But then again, they submitted affidavits about the case in October of 2024. And then with some discussion back and forth in court on November 12, 2024, the defendants finally admitted that it was their -- their fault. A dep -- deposition was never taken.

I believe your response was they had adequate time to do -- do so as the law required that, and then you said you would give your verdict decision on this situation. Now, back to when I was -- was in the first step that position. They started asking your completely -- your irrelevant questions to either summary judgment submitted here, they were personal questions. They're about my family; there's nothing.

And I brought up and showed the verdict and about after 20 minutes of them not asking one single question about my occupation or any matter of this judgment of summary that was never even filed, they will Metromont ended the dep -- deposition. And Samet was there as well, and Samet did not ask any questions and ended it. They, the defendants themselves, ended the deposition. Shortly after that, they put in an order to compel me to answer questions.

I then had a video hearing with Judge Jessica A. Salvini and the -- the judge ordered me at that point to answer all questions, no matter how irrelevant they are to anything, but I had the right to object and claim my objection to that. Now, prior to the court hearing with Judge Salvini on March 31, 2025, I specifically asked at the time of the initial dep -- deposition, February 25, 2025, for a copy of the dep -- deposition that took place. I never received a copy of it, and apparently one was submitted to Judge Salvini, which in the few lines that were submitted, they were extremely falsified and out of this stature of our sequence of the Metromonts, lawyer asking. Now, Judge Salvini, because I disapproved of what the little I could see and how I never even received a dep -- deposition throughout and discarded their attempt to submit a dep -- deposition without my approval.

Now that's basically it with that one, she did not acknowledge that first dep -- deposition, and I agreed to sit through and that now there want one which I did. Which took, took place on, I think it was May 2, 2025 at that at this point in time, Samet still did not request for me to sit for a dep -- deposition either. Now this is also after a year; the deadline date in the verdict on November 12, 2024. So I sat through the dep

-- deposition.

Once again, at the end of the dep -- deposition, I requested a copy and was told I would receive one in maybe three weeks, due to a backup log the reporters stenographer had. Now I never heard from -- from anybody again about a deposition. Apparently, about receiving it for corrections and my approval of it. Then on, I believe it was the July 21, 2025, in the court case with Judge Rode, Samet and Metromont had submitted a dep -- deposition.

I believe Metromont submitted, what one on the 18th of July 2025 and Met -- Metromonts was -- was on the 21 July to 2025. I am here to say that that deposition is extremely falsified. Both of the defendants have altered questions and answers. Changed the sequence of questioning, altered the lawyer whom asked questions, and a big actual -- and I have corrections here, and I have it all written out next to where they did it.

And if you can actually see on the back page, even the reporter apparently falsified my response to wanting a deposition. She said, "I refused to sign." I believe if you read her statement there, it says he refused to sign but did not want one at the time, which is completely incorrect. I definitely requested one.

I have the deposition here. I can go over because one of the questions there, and I will start from the back side, because, I guess you would say that is where some relevance to either motion of judgment summary questions were asked by both defendants. So let me get -- get to the back here, which is page 53.

Now, my apologies if I'm wrong on how I say that this. It's between -- it starts between lines 10 and goes to lot -- line 12. And that the witness has get given opportunity to -- to read and correct said that deposition to subscribe the same that is completely false. They told me I could not have one for multiple weeks. It would not be ready.

And then it also states in there saying something about me not being available. Right below it between lines 12 and 14 to sign, and I waived my right to sign. Now we're all sitting here, and the fact that I had to be compelled to answer irrelevant questions, and the first deposition was thrown out on March 31 with Judge Jessica A. Salvini from a improper submission of it. I would say that we can understand that that statement right there would be false.

That I would not, as I represent Jenny myself, would not waive my rights to see or make sure that deposition was correct. Now, I guess that would handle

the reporter's, stenographer's part of it. Now, I guess we'll get to Samet Corporation, since it's right next to that Samet Corporation's lawyer. I would say that his questions now he they chopped this stuff up here.

His questions started here. Now, let me just get this here. He only asked questions specifically on safety. Now, anything in there, which there is quite a bit, starting from pages 43 to about 45 line 21 was not asked by Samet Corporation's lawyer, which that gentleman is sitting there -- Mr. Gruber -- they were questions by Metromonts lawyer. And not at that time when Metromont what actually asking questions. There was no back -- back and forth between them during Samet Corporation's lawyer's examination or deposition questioning. Though on page 42 of that his first question is also false. Now it is somewhat correct, but as I have, or actually no, it is completely wrong. My correction is completely wrong.

It is something about the spelling of a doctor's nickname. Samet Corporation started a question similar to this, and it starts on page 45 which is a couple pages south of where his examination started. It says was very awkward question, and he said, "I don't want to put words in your -- your mouth. But when you were

being examined, which none of this has even, it's kind of here by Metromonts lawyer."

You said, "It was Davis Erectings For -- Foreman's responsibility for the entire site's safety." Okay? They added Samet Corporation. They added Metromont. They added Davis equipment, and they took out the word "safety" and put in "inspection." Now I can show you where this question was asked.

I could show you where it was moved to his actual question, because it was specifically about safety. And my foreman be for Davis Erecting and Finishing, Incorporating being in charge of the entire site's safety. It is on page, I guess it's 23 through 25 and it would be pa -- page 23. Give me a moment here to pan through it. Okay?

It starts on 23. Page 23 where you can actually see it says, "Recess was -- was taken." And there is the beginning part. It said before the break, like I said, he took the eliminated lines. It was somewhat similar what Samet Corporation's lawyer asked. I was asking you if Davis Equipment Rental's foreman. Oh, hold on, wait, maybe that might not be the right one. Oh, yes, it is the right section. My correct that's another chopped up one.

MR. TASK: Judge, I apologize very briefly for the

record. I object to any allegation that I chopped up a deposition testimony or falsified anything to protect myself. I just want to protect myself on the record.

MR. GRUBER: I second that objection.

THE COURT: For sure. All right, I understand. Though, that I have time restraints. I have folks here for their motions in nine minutes. I mean, I understand the gist, word for words and bar, but maybe in the next couple of minutes or summarize your position, wrap it up with the attorney, first thing. Okay?

MR. CEPIN: Well, it basically was a about Davis' foreman being in charge of the entire site's safety, which it's in here, and that question is false. Samet Corporation did not ask it how it's recorded there. And I responded, "No, it was Samet Corporation's response." My answer to it is -- is actually on page 23. "It was their contracted -- contract that pays them to do so." Now, Samet Corporation, they both just sat here and said they did not do anything to this deposition, yet they submitted a false one to the court. They had time to look at it.

So what they just both told you is also false. They're sitting there saying that they did not chop or screw anything, yet they're agreeing that what they

did, what this court reporter did here, is correct, and I'm saying it's false. Now also in their motion, this is about the second, this is about the fourth explanation of what happened out of Samet Corporation and Metromont corporation. Last hearing with Judge Rode, they said that the crane hit me and their pieces were not even involved.

How did their the Met -- Metromont, precast, double T pieces injure me if a crane hit me in the first one -- one on November 12, they 2024 -- they tried claiming that something snapped. Today they have just claimed that a steel beam was involved. So I guess we'll get into it that I did submit evidence to them back when we filed and with Judge Rode. There are 10, even with the court, 10 photos that are filed there.

They're also trying to say that I specifically said Metromont in their claim submitted on the 21st is trying to claim, it says it right here now this is out of Metromont lawyer's writing. It says, "The plaintiff alleged that a double T beam fell and caught his harness." It specifically says, "me", and you could see it in the filing of the 18th that is, that is false. I constantly said, "I don't remember." And he's even saying to the court, he's told me he don't

remember, yet he has the nerve to file that I told him this.

And then a few lines that down, he also says his claim is, "Our product was made wrong." There are multiple photos sent to the defense. Ten and even brought to the court. Now in South Carolina, there are standards, building code standards. The International Building Code standards and council that South Carolina adopts. Now I submitted all this information last the 21st 2025 to Judge Rode, and it's in documentation on how, number one, I'm an expert.

I went to school for construction. I submitted those documents. We've went over it multiple times. It's in the deposition that I told them I am an expert, went to school for multiple occupations under the construction and have multiple certifications and even in court on the 12th of November to 2024. They agreed to that with -- with in Court, with you, Judge McCoy for a statutory employee.

I still submitted the documentation. Now, the photos are very clear, and they show and I have here, if you would like me to pull out the -- the -- the laws that say they have to obey the permitting. Now this, let me get this understood here. This is strictly at -- at the moment against Metromont, we're still to go

against Samet here for their partaking in this because Samet has just a little bit of different information regarding this.

But as far as the photos show, they show that it's missing inner components. As I've said, there are multiple inner components in quite a lot that are the law and the standards in this -- this state to actually do that. If you would look at the evidence specifically towards the back hit here, it would be Concrete Technology Corporation, 10 foot wide, double T technical data and detailing double T's. Now on -- on page three of -- of that, it -- it states that they're using building code requirements for structural concrete and the International Building Code is an International Code Council and parking structure -- structure recommendations practice for design and construction.

Today I submitted to -- to the -- the Court, which I have here, and I have copies of all this for everybody, just in case it's not -- not there. How these standards and how South I have the proof that South Carolina uses the International Building Code. It's from their licensing website here. One moment, I believe there are about six pages of it, building Code Council, label -- labor licensing regulations. And it

states South Carolina modifications to International Building Codes, and it states that they use it.

And that one is three pages long. So these are standards that they don't know about. I know about it. The business building them has to be licensed, and know about the standards to build these. Also, from the same labor and licensing regulations South Carolina Building Codes Council, there are two or three pages on page two, make sure, yes, three -- three pages on page two. It has, I have it starred after each edition issued of International Codes Council. The South Carolina Building Codes Council begins to adopt and or modify the codes to the previous building code, International Building Codes approved standard regulations.

So that proves that these documents here that I'm showing the Court and my personal knowledge and years of experience are proven true here with -- with my claim on even just looking at those photos. Now, if you would go to page four of the Concrete Technology Corporation technical data for detailing double T's, you would see where it says standard double T reinforcement. It's on page four and it shows the top. It says minimum reinforcement.

Now, this packet has been designed for the bare

minimum, which on page two of the same packet states that. That page two general notes. It says this, "All details, information given in documents and loading conditions, any reinforcement and hardware, should be considered as the minimum amount to be used according to code. Data, design process in code, the building code, as we have discussed on page three, we're using International Building Code, which is the same as South Carolina uses in this situation."

So now this is the bare minimum that could be used on page four for what they call this top piece here of the double T is a flange. Now I'm going to get the photos out.

THE COURT: Now, Mr. Cepin, I told you hear about ten minutes ago, we need to wrap this up. Okay?

MR. CEPIN: Yes.

THE COURT: It is 11:34, and I will cut you off at 11:37. All right?

MR. CEPIN: The photos here, two which is this. This one here, I believe, it's in. You do not see any of this. Top reinforcement in there, nowhere you would see it. Page number three of the photo even goes closer, where you just see pieces of it that there.

There are also supposed to be strands, these big, long strands which go the whole distance of it, which

is 60 foot. This is a 60-foot double T. In that same documentation of Concrete Technologies, but this is the one behind it, which is for design criteria and span load charts. If you go to two page, I believe it's 12, brings up a 60, it brings up a chart there with a 60 foot double T on it.

As the bottom shows -- shows sample span feet, and says it should be at 60-foot. There should be 16 of these very long pieces of what is used to prestress it. They're stretched in it, and they're a half inch thick in each one of those stems. So that makes 32 of these strands in one of these double T's.

Now, there are as of what everybody is saying for that are involved in this debris here, this accident dent. Now, if you would see, there's nothing. There is no rebar at all.

THE COURT: All right. It's 11:37, and I will switch over now. I am already -- I'm giving you two warnings.

MR. CEPIN: Okay. There's a -- yes -- there's a lot -- lot of information here. And it's, it's all submitted, and I have submitted a statement again against them, explaining that this -- this stuff would be considered.

THE COURT: When we hear this argument, but wrap

it up for us.

MR. Gruber: Yes, yes, Your Honor. May it please the Court. Samet's argument for summary judgment is very similar to that made by Metromont already. Essentially, there is no -- there is no evidence of a product defect in that panel. It just isn't.

Mr. Cepin's has referred to photographs that were provided to him in discovery and to some building standards that I don't believe I've seen yet. Anyway, there's no -- there's no evidence that there was a defect at all in the product that was manufactured by Metromont. And to the extent that Samet, I don't think they had a duty to inspect the panel, but even if they did, if the plaintiff can't even prove that there was a defect, I don't know what the inspection -- I don't know what that would have revealed.

There are a couple of things I just wanted to point out. First of all, nobody modified the deposition transcript. That is absurd. I didn't, Mike didn't, Samet didn't, Metromont didn't. The other issue I wanted to cover is Mr. Cepin talked to Goodman about the delays and scheduling his deposition.

Well, his attorney, Bill Paget, it took him nine months to get relieved as counsel because Mr. Cepin wouldn't agree. Wouldn't this lawyer so they had no

hearing. Took nine months. This case, as of last week, the 29th is three years. Is three years. Mr. Cepin hadn't opposed anybody. He hasn't opposed anybody from Samet, Metromont, nobody.

Discovery closed on March the 15th of '25. We ask, I'm going to, just going to say it on Mike's behalf too, Samet, Metromont's court, granted the judgment, because the plaintiff cannot prove the elements of his case under a products liability theory, which he testified to in front of a statistician. Thank you, Your Honor.

THE COURT: Thank you all very much. I will consider everything that has been filed, and the hearing is adjourned at this time. I don't need to hear anything else from anybody.

MR. TASK: Thank you, Judge.

MR. CEPIN: Excuse me, Your Honor. They're refusing to show their -- their proper documentation that's required by the courts for Samet Corporation's responsibility it is ---

THE COURT: As I said, anything that's on record will be reviewed, and by making it a combination of the outcomes whatever is or is not filed, that's all right. Thank you.

MR. CEPIN: All right. Thank you.

(THERE BEING NOTHING FURTHER, THIS HEARING CONCLUDED)

CERTIFICATE OF TRANSCRIBER

I, Jennifer Jaeger, a Court-approved transcriber, do hereby certify that the foregoing is a true, accurate and complete Transcript of Record of the proceedings had and evidence introduced in the trial of the captioned case, relative to appeal, in the South Carolina Circuit Court 9, Charleston County, South Carolina, on the 2nd Day of September, 2025.

I do further certify that I am neither of kin, counsel, nor interest to any party hereto.

Jennifer Jaeger

Jennifer Jaeger, Transcriber

Notary Public for S.C.

Commission Expires: 10/28/2032

6 Things You Need To Know About Concrete Structural Failures

Articles | 4 years ago

Written by: Allen Brown Photography: La Casa del Sapo (Onnis Luque, Fabian Martinez)

In today's modern world, concrete has become a very commonly used substance in construction. Watch any building being built, and you will most likely see a lot of concrete being poured and formed to create walls, slabs for floors, sidewalks, roads, bridges, and so on.

Because of this overwhelming use, it's important to be aware of the potential for concrete structural failures. Often these happen because the correct sealants and finishing processes are not applied. This can be avoided by having employees go through quality concrete polishing training. Here are six things you need to know about concrete structural failures

Concrete Failures Can Be Fixed

If you live in Brisbane and experience a concrete structural failure on your property, don't panic. Most of these problems can be fixed, you only need to find an expert for concrete repairs in Brisbane to prevent it from worsening. After a structural inspection of your property, a professional will determine whether the damage is severe enough to require replacement or if it's a simple matter of filling the cracks and holes with filler material before repairing the problem area.

In some cases, concrete structural failures are simply the result of a concrete mix that wasn't made properly. If this is the case, the concrete can be replaced with a new mix that will be more durable and less likely to crack in the future.

If you're not sure if your concrete has failed structurally, you can always have it tested by a professional. This is a good idea if you're planning on selling your home in the near future, as it could affect the resale value of your property. A concrete structural failure can also make your home difficult to insure.

La Casa del Sapo: a concrete seafront home on Zapotengo beach in Oaxaca, Mexico by Espacio 18 Arquitectura

Causes Of Concrete Structural Failure

One of the most common reasons for concrete structural failure is poor design. This can be due to a number of factors, such as using the wrong type of concrete for the application, not taking into account climate conditions, or not properly reinforcing the structure. Another common reason for concrete structural failure is poor quality control and faulty construction. This can include things like insufficient quality control, using too much water while mixing the concrete, not allowing it to cure properly, or failing to install reinforcements correctly.

Well-constructed buildings can also decline. This can be caused by a variety of factors, such as weathering, corrosion of reinforcement steel, or alkali-silica reaction. Failures can also be caused by accidental events, such as a car hitting a bridge or an earthquake shaking a building. And finally, terrorism or sabotage can also lead to concrete structural failures.

Concrete Structural Failures Cause Many Other Issues

Another thing you need to know about concrete structural failure is that these cracks can cause many issues around a home where they appear. Everything from mild cosmetic problems like small holes in sidewalks and driveways to much more serious safety hazards such as the collapse of a porch or an entire section of wall can result from concrete that cracks and begins to fail.

The important thing to note is that you cannot always tell by looking at concrete what its strengths and weaknesses are, or how it will perform in various situations. This means that even if a small bit of cracking may be acceptable now, you still need to take the time to have your property inspected for these issues periodically by a professional who can identify them quickly before they lead to bigger problems.

The Fig House (Casa Da Figueira) in Brazil by Stemmer Rodrigues Arquitetura

Concrete Structural Failures Can Be Prevented

It is important to know that most concrete structural failures are preventable. If you use high-quality materials when creating your concrete structures and take care during their installation, you're likely to avoid any significant problems down the line. However, even the best-made structures can eventually succumb to the effects of weathering and age, so regular inspections are still necessary.

If concrete structural failures do occur, it's important to address them as soon as possible. Ignoring the issue can lead to even more damage, and in some cases, the failure of the entire structure. If you're not sure how to properly maintain your concrete structures, it's best to consult with a professional engineer. With the right care and attention, your concrete structures can provide many years of reliable service.

Concrete Structural Failures Aren't Always Obvious

Homeowners may not even notice certain types of concrete structural failures as they're happening. For example, hairline cracks in slabs can expand quickly without being noticed as they work their way toward nearby soil, causing them to split apart further.

In other cases, an entire section of the wall or sidewalk might begin to warp and buckle due to foundation issues beneath it, but this change is often hidden from view by landscaping and surrounding structures.

Of course, some concrete structural failure problems are quick to reveal themselves. One example is ground settling and sinking, which can lead to visible cracks in driveways. This type of problem typically develops slowly over the course of months or years as water and soil volume change and the earth moves. Another common issue is when concrete fails to properly cure after it has been poured, leading to a spongy or weak surface that can easily crumble.

Concrete Can Fail Suddenly Or Overtime

Over time, even well-constructed concrete structures can deteriorate and eventually fail. Engineers classify concrete failure into two categories: brittle and ductile failures. Brittle failures occur suddenly and completely, while ductile failures exhibit an amount of giving before cracking, bending, or breaking.

Although crack patterns can be different in both types of failures, they often include a network of fissures or cracks that usually begin at the surface and extend toward the center.

Concrete cracks are a network of fissures that start at the surface and often lead to corrosion of structural steel reinforcement materials. Once this begins, it spreads toward the center of the concrete, which causes it to fail completely. Concrete failures, whether brittle or ductile, rarely occur in isolation and follow a similar pattern.

Knowing the six things above about concrete structural failures will help you better understand this common problem and what to do if it occurs on your property. By being aware of these issues, you can take steps to prevent them from happening in the first place and know what to do if they do occur.

By Liliana Alvarez

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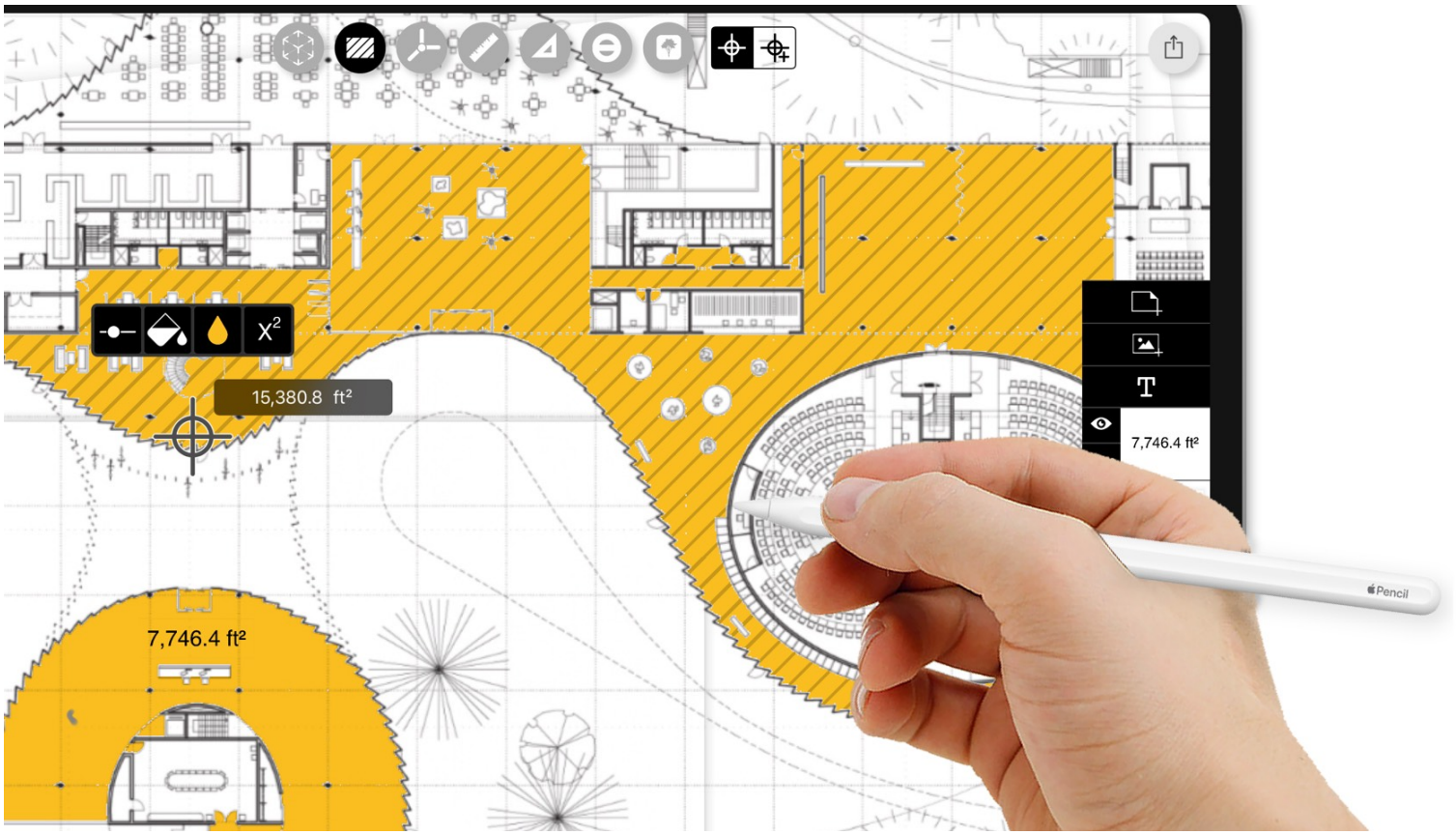

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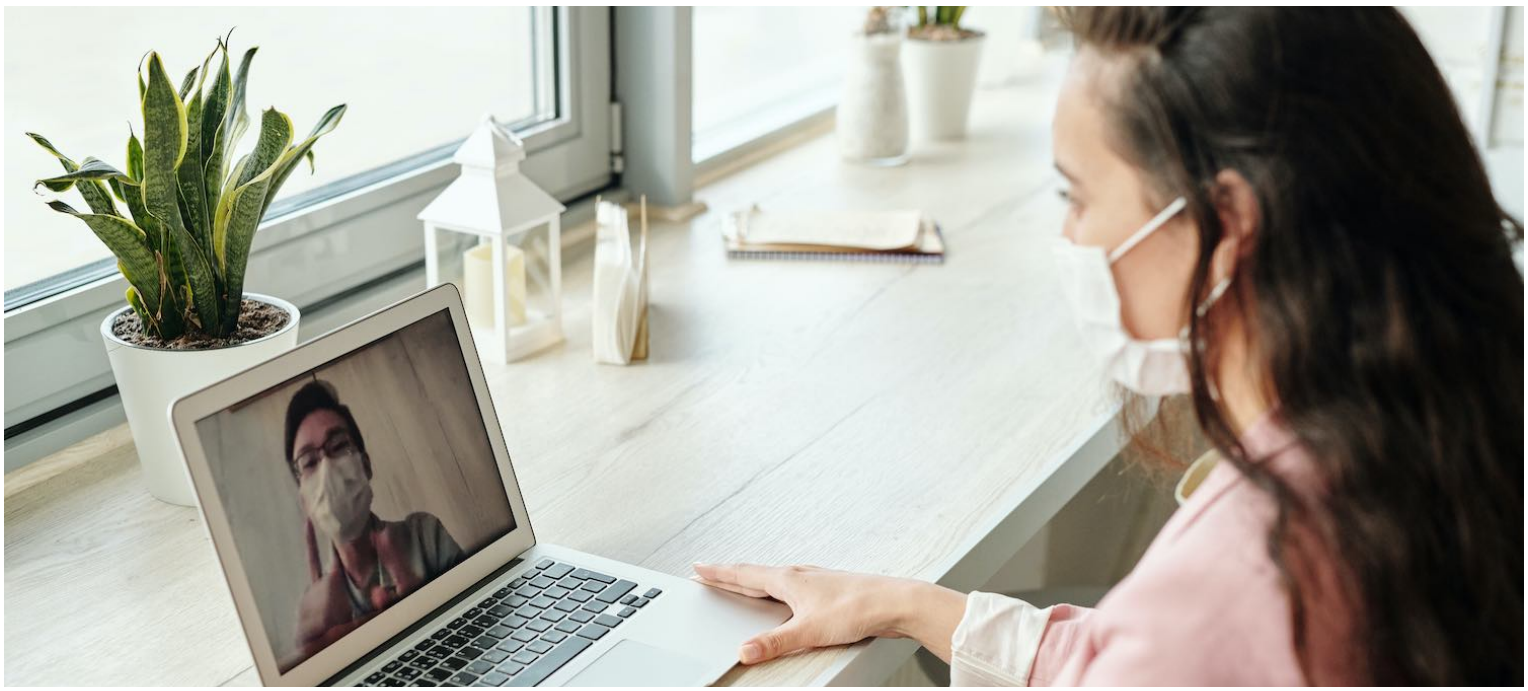

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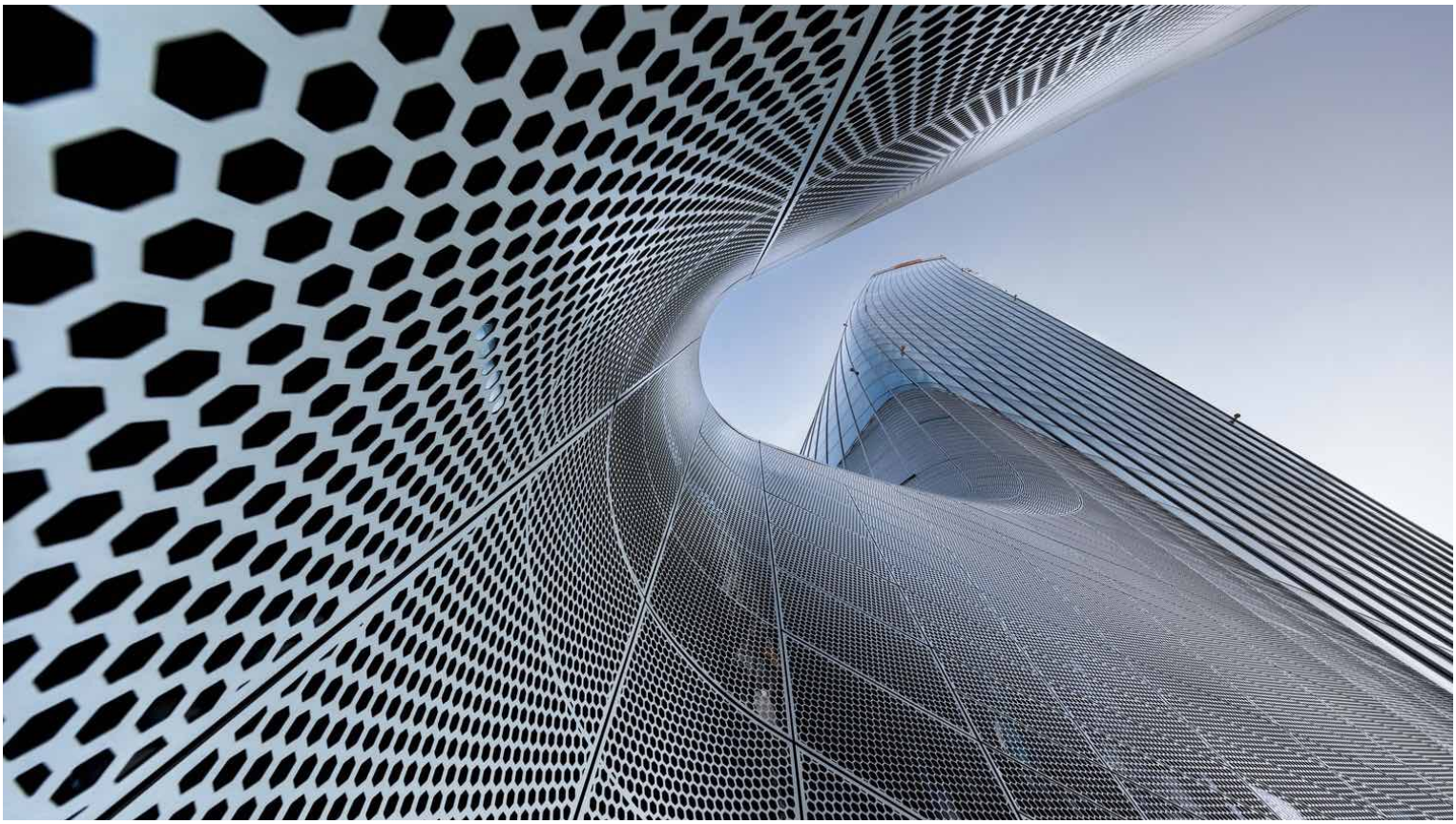

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ELECTRONICALLY FILED - 2025 Jul 21 10:09 AM - CHARLESTON - COMMON PLEAS - CASE#2023CP1001923

STATE OF SOUTH CAROLINA COUNTY OF CHARLESTON	)	IN THE COURT OF COMMON PLEAS
JEFFREY CEPIN, Plaintiff, vs. SAMET CORPORATION; METROMONT CORPORATION N/K/A METROMONT, LLC, Defendants.	)	Civil Action No. 2023-CP-10-01923 **AFFIDAVIT OF JASON WOODARD**

PERSONALLY APPEARED BEFORE ME, the undersigned, Jason Woodard, who, after being duly sworn, deposes and states:

1. I am over the age of eighteen (18) years.

2. Samet Corporation contracted with Metromont Corporation for the construction and design of structural pre-cast concrete walls for a parking garage meant to service the Charleston Technology Center. The date of the Contract between Samet and Metromont was October 23, 2019.

3. Metromont's scope of work only included the construction and design of the pre-cast concrete walls for a parking garage. No employee from Metromont was present on the construction site when the Plaintiff's alleged incident occurred. No employee for Metromont was on site to install the pre-cast concrete walls when the Plaintiff's incident occurred. Installation of the pre-cast concrete walls was subcontracted to another contactor, Davis Erecting and Finishing.

4. Metromont was not required to supervise and/or monitor the construction and installation of the structural pre-cast concrete walls for a parking garage meant to service the

Charleston Technology Center. Furthermore, Metromont did not have any control over any of the workers on the job site, including Plaintiff, when the subject incident occurred.

FURTHER, AFFIANT SAYETH NAUGHT.

Jason Woodard

SWORN TO AND SUBSCRIBED BEFORE ME

This 21st day of July, 2025.

Tracey S. Farmer

Notary Public for South Carolina

My Commission Expires: 06-16-26

TRACEY S. FARMER
NOTARY PUBLIC
SOUTH CAROLINA
MY COMMISSION EXPIRES
06-16-26

ELECTRONICALLY FILED - 2025 Jul 21 10:09 AM - CHARLESTON - COMMON PLEAS - CASE#2023CP1001923

STATE OF SOUTH CAROLINA COUNTY OF CHARLESTON	)	IN THE COURT OF COMMON PLEAS
JEFFREY CEPIN, Plaintiff, vs. SAMET CORPORATION; METROMONT CORPORATION N/K/A METROMONT LLC, Defendants.	)	Civil Action No. 2023-CP-10-01923 **AFFIDAVIT OF JASON WOODARD**

PERSONALLY APPEARED BEFORE ME, the undersigned, Jason Woodard, who, after being duly sworn, deposes and states:

1. I am employed as Vice President of Corporate Services for Metromont LLC ("Metromont"), and is authorized to execute this affidavit on its behalf. I am over the age of eighteen (18) years.

2. Samet Corporation contracted with Metromont for the manufacture and construction of structural precast concrete components for a parking garage meant to service the Charleston Technology Center. The date of the Subcontract between Samet and Metromont was October 23, 2019 and Metromont was to be paid $8,061,000.00 for its work.

3. Metromont provides design, manufacturing and construction services for turnkey delivery of structural precast concrete components for a complete precast structure. Erection and finishing services at the jobsite are an integral part of its business as can be seen by the Metromont website at www.metromont.com.

4. Metromont was to complete work for Samet that had to be done in order for the Charleston Technology Center Parking Garage to be completed.

5. Metromont agreed to be bound to the terms of the Contract between Samet and the owner as part of the Metromont Subcontract with Samet.

6. The Subcontract between Metromont and Samet required Metromont to be responsible for rigging, hoisting and erection of the structural precast concrete components delivered for and as a part of construction of the Charleston Technology Center Parking Garage.

7. Metromont entered into subcontract agreement with Davis Erecting and Finishing on November 2, 2020.

8. The Subcontract with Davis called for it to be paid $688,000.00 for erecting all of the precast concrete components per Metromont's Subcontract with Samet.

9. Davis was doing work which was essential to Metromont's business and part of its business as it relates to the erection and installation of precast concrete components as a part of the construction services required under it Subcontract.

10. Mr. Cepin was an employee of Davis.

11. Mr. Cepin was allegedly injured as a result of working on the erection and installation of the precast concrete components.

12. Davis paid Workers' Compensation benefits to Mr. Cepin.

13. Had Davis not paid Workers' Compensation benefits to Mr. Cepin, Metromont would have been required to pay Workers' Compensation benefits as he was doing the work contracted for by Metromont at its request.

14. Metromont provided the material in the form of the precast concrete components that were to be erected and installed by Davis.

[Remainder this page blank]

FURTHER, AFFIANT SAYETH NAUGHT.

Jason Woodard

SWORN TO AND SUBSCRIBED BEFORE ME

This 14th day of October, 2024.

Notary Public for South Carolina

My Commission Expires: 06-16-26

TRACEY S. FARMER
MY COMMISSION EXPIRES
06-16-26
SOUTH CAROLINA
NOTARY PUBLIC

CDA Technical Institute

91 Trout River Drive
Jacksonville, FL 32208

(904) 766-7736

Cepin, Jeffrey

418 East Mine Street
Hazleton, PA 18201

ID: 20071838
DOB: 10/11/1988
Phone: (570) 578-5626

Program: MWP - Maritime Welding Program
Status: Grad Grad Date: 05/11/2012 Full Time
First Term: 01/16/2012 LDA: 05/11/2012 Session: D

Transcript - All Enrollments

Type	Description	Points Earned	Total Points	Percentage Earned
Term: 1/16/2012				
MWP-MOD 1 - Maritime Welding Program MOD-1				
Quiz-SAP	Construction Math	10.42	10.42	100.00%
Quiz-SAP	Oxyfuel Cutting	8.336	10.42	80.00%
Quiz-SAP	Hand and Power tools	10.42	10.42	100.00%
Quiz-SAP	SMAW Equipment and Set-up	10.42	10.42	100.00%
Quiz-SAP	HAZWOPER	9.378	10.42	90.00%
Quiz-SAP	Confined Space	9.378	10.42	90.00%
Quiz-SAP	Electrode Selection	8.857	10.42	85.00%
	Weighted Total:	*67.209*	*72.94*	*92.14%*
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
	Weighted Total:	*112.5*	*125*	*90.00%*
Exam-SAP	Fresh. Cumulative Final	125	125	100.00%
	Weighted Total:	*125*	*125*	*100.00%*
	Weighted Current Total:	*304.709*	*322.94*	*94.35%*

Term: 2/13/2012

CDA TECHNICAL INSTITUTE OFFICIAL RECORDS REGISTRAR'S OFFICE

Cepin, Jeffrey

Type	Description	Points Earned	Total Points	Percentage Earned
Term: 2/13/2012				
MWP-MOD 2 - Maritime Welding Program MOD-2				
Quiz-SAP	Rigging	9.4822	10.42	91.00%
Quiz-SAP	Rigging Practical	10.42	10.42	100.00%
Quiz-SAP	Wire Welding	10.42	10.42	100.00%
Quiz-SAP	Weld Quality	10.42	10.42	100.00%
Quiz-SAP	Basic Metal Preperation/Properties of Metal	9.899	10.42	95.00%
Quiz-SAP	Mig/Flux	9.378	10.42	90.00%
Quiz-SAP	Offshore Survival	9.378	10.42	90.00%
	Weighted Total:	*69.3972*	*72.94*	*95.14%*
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
	Weighted Total:	*112.5*	*125*	*90.00%*
Exam-SAP	Sophomore Final	123.75	125	99.00%
	Weighted Total:	*123.75*	*125*	*99.00%*
	Weighted Current Total:	*305.6472*	*322.94*	*94.65%*
Term: 3/12/2012				
MWP-MOD 3 - Maritime Welding Program MOD-3				
Quiz-SAP	Welding Symbols	10.42	10.42	100.00%
Quiz-SAP	Junior Practical	9.899	10.42	95.00%
Quiz-SAP	Junior Final	121.25	125	97.00%
Quiz-SAP	Construction Drawings	9.378	10.42	90.00%
Quiz-SAP	Plasma Cutting/Arc Gouging	10.42	10.42	100.00%
	Weighted Total:	*161.367*	*166.68*	*96.81%*
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%

CDA TECHNICAL INSTITUTE OFFICIAL RECORDS REGISTRAR'S OFFICE

Cepin, Jeffrey

Type	Description	Points Earned	Total Points	Percentage Earned
Term: 3/12/2012				
MWP-MOD 3 - Maritime Welding Program MOD-3				
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.9375	6.25	95.00%
DPG-SAP	Daily Prog Grade	5.9375	6.25	95.00%
DPG-SAP	Daily Prog Grade	5.9375	6.25	95.00%
DPG-SAP	Daily Prog Grade	5.9375	6.25	95.00%
DPG-SAP	Daily Prog Grade	5.9375	6.25	95.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.625	6.25	90.00%
DPG-SAP	Daily Prog Grade	5.9375	6.25	95.00%
	Weighted Total:	*114.375*	*125*	*91.50%*
	Weighted Current Total:	*275.742*	*291.68*	*94.54%*
Term: 4/16/2012				
MWP-MOD 4 - Maritime Welding Program MOD-4				
Quiz-SAP	SMAW Practical	9.899	10.42	95.00%
Quiz-SAP	GMAW Practical	9.378	10.42	90.00%
Quiz-SAP	FCAW Practical	9.899	10.42	95.00%
Quiz-SAP	Sense Mod 2	0	0	100.00%
Quiz-SAP	Sense Mod 3	0	0	97.00%
Quiz-SAP	Sense Mod 4	0	0	100.00%
Quiz-SAP	Sense Mod 5	0	0	100.00%
Quiz-SAP	Sense Mod 6	0	0	100.00%
Quiz-SAP	Sense Mod 8	0	0	98.00%
Quiz-SAP	Sense Mod 9	0	0	100.00%
	Weighted Total:	*29.176*	*31.26*	*93.33%*
DPG-SAP	Daily Prog Grade	5.9375	6.25	95.00%
DPG-SAP	Daily Prog Grade	5.9375	6.25	95.00%
DPG-SAP	Daily Prog Grade	5.9375	6.25	95.00%
DPG-SAP	Daily Prog Grade	5.9375	6.25	95.00%
DPG-SAP	Daily Prog Grade	5.9375	6.25	95.00%
DPG-SAP	Daily Prog Grade	5.9375	6.25	95.00%
DPG-SAP	Daily Prog Grade	5.9375	6.25	95.00%
DPG-SAP	Daily Prog Grade	5.9375	6.25	95.00%
DPG-SAP	Daily Prog Grade	5.9375	6.25	95.00%
DPG-SAP	Daily Prog Grade	5.9375	6.25	95.00%
DPG-SAP	Daily Prog Grade	5.9375	6.25	95.00%
DPG-SAP	Daily Prog Grade	4.0625	6.25	65.00%
DPG-SAP	Daily Prog Grade	5.9375	6.25	95.00%
DPG-SAP	Daily Prog Grade	5.9375	6.25	95.00%

CDA TECHNICAL INSTITUTE
OFFICIAL RECORDS
REGISTRAR'S OFFICE

Cepin, Jeffrey

Type	Description	Points Earned	Total Points	Percentage Earned
Term: 4/16/2012				
MWP-MOD 4 - Maritime Welding Program MOD-4				
DPG-SAP	Daily Prog Grade	5.9375	6.25	95.00%
DPG-SAP	Daily Prog Grade	5.9375	6.25	95.00%
DPG-SAP	Daily Prog Grade	5.9375	6.25	95.00%
DPG-SAP	Daily Prog Grade	5.9375	6.25	95.00%
DPG-SAP	Daily Prog Grade	5.9375	6.25	95.00%
DPG-SAP	Daily Prog Grade	5.9375	6.25	95.00%
	Weighted Total:	*116.875*	*125*	*93.50%*
Exam-SAP	Senior Cumulative Final	122.5	125	98.00%
	Weighted Total:	*122.5*	*125*	*98.00%*
WPG-SAP	Basic Employability Skills	100	100	100.00%
	Weighted Total:	*100*	*100*	*100.00%*
	Weighted Current Total:	*368.551*	*381.26*	*96.67%*

Cepin, Jeffrey

Term	Course	Hours Attended	Hours Missed	Hours Scheduled	Absent Count	Absent Hours Missed	Tardy Count	Tardy Hours Missed	Left Early Count	Left Early Hours Missed	Attendance Percentage	Final Course Grade
01/16/2012	MWP-MOD 1 (D-1)	179.00	1.00	180.00	0	0.00	0	0.00	0	0.00	99.44%	94
02/13/2012	MWP-MOD 2 (D-1)	180.00	0.00	180.00	0	0.00	0	0.00	0	0.00	100.00%	94
03/12/2012	MWP-MOD 3 (D-1)	180.00	0.00	180.00	0	0.00	0	0.00	0	0.00	100.00%	94
04/16/2012	MWP-MOD 4 (D-1)	170.00	1.00	171.00	0	0.00	0	0.00	0	0.00	99.42%	96
		709.00	2.00	711.00	0	0.00	0	0.00	0	0.00	99.72%	94.50

Report does not include Transfer Credits *(Cumulative GPA)*

Absent Hours Missed sums the scheduled hours for days marked "A" (absent)

CDA TECHNICAL INSTITUTE OFFICIAL RECORDS REGISTRAR'S OFFICE

CDA Technical Institute

91 Trout River Drive
Jacksonville, FL 32208

(904) 766-7736

Cepin, Jeffrey		
Program: MWP - Maritime Welding Program		
ID: 20071838	Status: Grad	418 East Mine Street
DOB: 10/11/1988	First Term: 01/16/2012	Hazleton, PA 18201
Phone: (570) 578-5626	Grad Date: 05/11/2012	

Student Totals	Attended	Scheduled	Percentage	Units Attempted	Units Completed	GPA
	709.00	711.00	99.72%	720.00	720.00	94.50

Term **Course**
01/16/2012 MWP-MOD 1 (D-1)
02/13/2012 MWP-MOD 2 (D-1)

Week 1: Jan 15 - Jan 21							Week 2: Jan 22 - Jan 28							Week 3: Jan 29 - Feb 4							Week 4: Feb 5 - Feb 11							Week 5: Feb 12 - Feb 18						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
	9.00	9.00	9.00	9.00	9.00			9.00	9.00	9.00	9.00	9.00			9.00	9.00	9.00	9.00	9.00			9.00	9.00	9.00	9.00	8.00								
																													9.00	9.00	9.00	9.00	9.00	

Term **Course**
02/13/2012 MWP-MOD 2 (D-1)
03/12/2012 MWP-MOD 3 (D-1)

Week 6: Feb 19 - Feb 25							Week 7: Feb 26 - Mar 3							Week 8: Mar 4 - Mar 10							Week 9: Mar 11 - Mar 17							Week 10: Mar 18 - Mar 24						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
	9.00	9.00	9.00	9.00	9.00			9.00	9.00	9.00	9.00	9.00			9.00	9.00	9.00	9.00	9.00																
																						9.00	9.00	9.00	9.00	9.00			9.00	9.00	9.00	9.00	9.00	

Term **Course**
03/12/2012 MWP-MOD 3 (D-1)
04/16/2012 MWP-MOD 4 (D-1)

Week 11: Mar 25 - Mar 31							Week 12: Apr 1 - Apr 7							Week 13: Apr 8 - Apr 14							Week 14: Apr 15 - Apr 21							Week 15: Apr 22 - Apr 28						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
								9.00	9.00	9.00	9.00	9.00			9.00	9.00	9.00	9.00	9.00																
																						9.00	9.00	9.00	9.00	9.00			9.00	9.00	9.00	9.00	9.00	

Term **Course**
04/16/2012 MWP-MOD 4 (D-1)

Week 16: Apr 29 - May 5							Week 17: May 6 - May 12							Week 18: May 13 - May 19							Week 19: May 20 - May 26							Week 20: May 27 - Jun 2						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
	9.00	8.00	9.00	9.00	9.00			9.00	9.00	9.00	9.00																							

Cepin, Jeffrey

Term	Course	Hours Attended	Hours Missed	Hours Scheduled	Absent Count	Absent Hours Missed	Tardy Count	Tardy Hours Missed	Left Early Count	Left Early Hours Missed	Attendance Percentage	Final Course Grade
01/16/2012	MWP-MOD 1 (D-1)	179.00	1.00	180.00	0	0.00	0	0.00	0	0.00	99.44%	94
02/13/2012	MWP-MOD 2 (D-1)	180.00	0.00	180.00	0	0.00	0	0.00	0	0.00	100.00%	94
03/12/2012	MWP-MOD 3 (D-1)	180.00	0.00	180.00	0	0.00	0	0.00	0	0.00	100.00%	94
04/16/2012	MWP-MOD 4 (D-1)	170.00	1.00	171.00	0	0.00	0	0.00	0	0.00	99.42%	96
		709.00	2.00	711.00	0	0.00	0	0.00	0	0.00	99.72%	94.50

Report does not include Transfer Credits

(Cumulative GPA)

Absent Hours Missed sums the scheduled hours for days marked "A" (absent)

CDA TECHNICAL INSTITUTE OFFICIAL RECORDS REGISTRAR'S OFFICE

Data Sheet 629
Rev. April 2016

Prestressed Concrete (Yard Operations)

The prestressed concrete industry, records show, is as safe as most other construction operations. The major hazards have been identified and steps have been initiated to educate and protect workers. This is a specialized type of construction; however, which requires special training for workers if incidents are to be avoided.

1. In addition to the precautionary measures necessary on any construction work, it must be remembered that a prestressed concrete steel strand, under tension as high as 180,000 psi, can whip across working areas with deadly results if stored energy is suddenly released by some type of equipment or material failure.
2. This data sheet discusses the principal hazards involved with prestressed concrete and suggests measures that should be taken to avoid injury. Statistically, the most common types of incidents and injuries occurring in prestressed concrete plants or on jobsites are eye, hand or foot injuries resulting from improper use of air hoses, saws and other equipment.
3. In this specialized type of construction, there are factors inherent to prestressed concrete that require special attention from an incident prevention standpoint. Therefore, various components or phases that warrant special attention will be covered separately.
4. There are two basic methods of prestressing concrete—pretensioning and post-tensioning. This data sheet is limited to the pretensioning method.
5. In pretensioning, the wire strands or bars are tensioned before the concrete is poured. After the concrete has cured, the load is removed from end abutments and transferred by strand resistance to the concrete member.

Strands and bars

6. Generally, the strands and bars are made of high-carbon steel, which makes them very susceptible to mechanical damage. A nick or kink can cause failure when tensioned to the high stresses normally required. When moving the reels, the strands should be protected as much as possible. Consequently, lifting and handling equipment should be attached to the flanges or through the center hole of the reel. Most mechanical damage occurs after the strands have been pulled into the bed and before they are tensioned. This is caused by

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sharp edges of carelessly handled steel hand tools and other small equipment.

7. Careful handling of welding equipment cannot be overemphasized. A strand failure can result from a single drop of molten weld metal on the strand. Failure will be instantaneous if the strand is under tension when the high temperature occurs. However, a strand not under tension, but subjected to high temperature, will fail during the tensioning operation. Many damages may not be visible to the naked eye and unfortunately are discovered only when the strands fail while being tensioned.
8. When strands must be kept for prolonged periods, they should be stored indoors or otherwise protected from the weather. Only a light coat of rust is permissible; therefore, it is most important to inspect for pitting. Strands that are pitted from rust should not be used.
9. The method in which strands are cut is most important. There have been many strand failures as a result of their being cut off with a burning torch. Cutting the ends off a finished member is permissible, but to use a burning torch or welding equipment in or around a bed prior to placing the concrete is extremely dangerous. Hence, routine cutting of strands, other than at ends of finished members, should be done with a portable strand cutter especially designed for this purpose or with a fast-cutting abrasive wheel on a portable grinder. It is especially important that strands that are to be spliced be cut with a shear or grinding wheel. The wheel should be properly guarded and the operator should be wearing safety goggles.

Casting beds

10. Casting beds range in size from a few feet for casting single components to hundreds of feet for casting several large components simultaneously. Untidy housekeeping encourages poor workmanship and is one of the leading causes of incidents in prestressing yard operations. Therefore, good housekeeping should be maintained at all times. Release agents are normally applied to the steel forms making them extremely slippery. Extreme care should be taken when walking on the forms. A bed over 3 feet in height should be equipped with steps, standard walkways and handrails along the entire length of the bed. Regardless of the method of curing, whether it is steam, hot water or hot oil, there is an ever-present possibility of getting burned. All piping should be maintained in good condition. Where possible, piping should be totally enclosed by concrete forms; however, if any is exposed to the work area, it should be well insulated.

Stressing or tensioning strands

11. The most common method of stressing is by means of hydraulic jacking. The manufacturer's recommendations on the use of jacks should be strictly followed. All hoses, hose connections, valves and other components should be checked daily for defects and should be repaired promptly according to the manufacturer's recommendation. Extreme care should be exercised to avoid damaging strands when they are pulled into the bed with a tugger hoist or similar equipment. The wedge-type temporary anchor or grip used for holding strands under load should be handled in accordance with the instructions issued by the manufacturer.
12. It is most important that the grips and strands be perfectly clean. A small piece of sand or dirt between a wedge (jaw) and the steel case (barrel) will retard the motion of the wedge into the case and may cause premature failure or slippage of the strand. Strand guides should be cleaned after every usage. The importance of using the correct size anchor grip cannot be overemphasized. Different sized anchor grips should be physically separated, preferably in different buildings. A nonflammable solvent should be used for cleaning the grips.
13. When several strands are to be tensioned simultaneously, they should first be tensioned to a specific low tension in order to equalize the

load on each strand. The most accurate way to determine strand load is with a dynamometer. After the strand has been pulled to the predetermined amount, the temporary anchor grip should then be pushed up tight against the face of the anchor plate. After each strand has been equally tensioned and anchored, all the strands can be stressed simultaneously to the predetermined total load. Stressing levels and elongation calculations are normally determined by the plant engineering department.

14. The amount of stress on a single strand or on several strands stressed simultaneously can be determined by measuring strand elongation and jack pressure on a calibrated gage. The load elongation properties of strand are not the same for all manufacturers; therefore, this should be taken into consideration when computing the amount of elongation.

15. There are two operations that should be carefully checked during stressing:

- Measure the actual movement (elongation) of the crosshead in relation to a predetermined fixed point.
- While gradually applying pressure to the jacks, note the gage reading; it should not exceed the predetermined amount of pressure.

16. When there is a difference of more than 5 percent between steel stress (determined from elongation) and from the gage reading, the cause for this difference should be determined and corrected immediately.

17. Strands and bars should not be stressed in excess of 80 percent of their ultimate strength, which is to be based on the data furnished by the manufacturer. In members where the strands are deflected prior to prestressing, the hold-down and support devices should be the roller type, which will reduce the amount of friction on the strand.

18. When the strands are deflected after tensioning, care should be exercised when transferring the strand to the hold-down or support devices. Raising or lowering a strand increases its tension; therefore, this should be taken into consideration in all computations. Placing the strands in their final path, under and over the roller-type, hold-down and support devices (prior to tensioning), is by far the safest method of deflecting strands.

19. During the period of actual stressing, all personnel should be removed from the casting bed. A physical barrier, preferably a concrete wall, should be placed across the entire width of the casting bed on both ends. If a strand should break, the wall will prevent it from flying about (generally, end-first like a projectile). A steel wire fence should not be used as a barrier because broken strands often fly end-first and many penetrate the openings in the fence. The jack operator also can work safely behind this wall.

Placement of reinforcing steel and concrete

20. Reinforcing steel is normally placed in the casting bed after the tendons are stressed; therefore, prefabrication into mats outside the bed is desirable to minimize personnel exposure to the stressed tendons. Care must be taken to prevent contact between the tendons and the reinforcing steel or lifting equipment. Hold-downs or anchors that hold the tendons in position also should be protected.

21. Trucks conveying ready concrete impose traffic problems that should be considered. The ideal arrangement is to have the beds laid out in a way that makes backing unnecessary; however, where backing is necessary, it should be controlled by a signaler, properly positioned in an area behind the truck and clearly visible to the driver.

22. All roadways should be properly laid out, and equipment should be carefully routed to provide a systematic flow of traffic throughout the working area. Traffic should be arranged so that placing concrete can take place with a minimum of handling to avoid damage to the strands.

- Where concrete cannot be conveyed directly from the truck into the beds, and concrete buckets are required, care should be taken to prevent the bucket from injuring the hands and feet, or pinning the workers against other objects. The buckets also shall be kept clear of the tendons and anchors. Dropping of concrete on the tendons should be avoided.
- Vibrators, electrical or mechanical, should be kept completely clear of the tendons. Vibrations of the tendons or reinforcing steel should not be permitted. Electrical vibrators should be moisture-proofed.
- Normal personal protective equipment for concreting operations should be provided and worn, with particular emphasis on safety glasses or full goggles.

Detensioning and handling

23. After the concrete has cured sufficiently to attain adequate compressive strength, the transfer of the prestressing force or detensioning follows. Detensioning of the strands in a member should be done gradually and smoothly. In multiple-strand detensioning, strands should be unjacked and not served while under tension. If the force in the strand is transferred individually, single-strand detensioning should be done in an approved, balanced pattern and schedules incorporated to avoid propelling excessive stresses into the remaining strands and the member. Single strands are generally released by heat cutting; and when the heat cutting is performed at both ends simultaneously, the sliding of the member will be minimized.

24. Stripping the forms and handling the finished members will vary considerably from plant to plant. Specially designed equipment, properly tested before use, has proven to be safer and more efficient than ordinary, conventional types.

25. Before handling long, slender members, such as piles, or any other type of member that was designed without lifting eyes, consult the design engineer to ascertain the exact center of gravity and the lifting point of the member to place rigging for hoisting. The lifting eyes or loops should be carefully inserted within the member and in compliance with the specification. (Short lengths of strands and eye-bolts have proven satisfactory.) If more than one lifting strand is required to carry the weight, the strands should be handled cautiously and placed evenly so equal stress is placed on all lifting strands.

26. The strength of the concrete is another factor that should not be overlooked. The blocking up and chocking of members is extremely dangerous. Therefore, the weight, height, width, location, wind forces, equipment vibration and other variables will dictate the necessary precautionary measures. All hoisting equipment should be carefully inspected daily. Worn ropes and old socket fittings should be replaced. A hoisting line failure can cause inestimable damage. Contact with overhead electrical power lines can produce fatal shocks. These lines should be placed underground whenever possible. Otherwise, hoist lines should be placed at least 10 feet away, by positive swing stops on the crane or by a watchman on foot.

27. To avoid collapse of erected precast structural members they should be braced or guyed until all members are safely secured by their permanent fastening.

28. Prestressed members should be stored on a level base and should be adequately supported during storage and transportation. They should be handled at pick points specified by the designer and with the lifting devices recommended by the manufacturer or the engineer in charge. No one should be allowed under stressed members during lifting or erection.

Safety program

29. The large tensioning forces, which are necessary to all prestressing operations, inevitably result in

all such constructions being very hazardous. A carefully planned program of good safety practice should be developed for each prestressing plant, and each employee should be required to comply with the program in all respects.

30. The operation of tensioning has more potential for serious incidents than most of the other phases of prestressed concrete production. The following basic rules applicable to tensioning should be included in the safety requirements of all plants:

- Prior to tensioning any bed, a visible and audible signal should be given and all personnel not required to perform the tensioning should leave the area adjacent to the bed.
- Jacks should be adequately secured to prevent the jack from flying longitudinally or laterally in case of tendon failure or sudden release of tension.
- Personnel should never be permitted to stand at either end of the bed directly in-line with the tendon being tensioned.
- Personnel should not stand over tendons being tensioned to make elongation measurements. Such measurements should be made by jigs or templates from the side or from behind shields.

31. Some general safe practices include, but are not limited to, the following:

- Installation and maintenance should comply with pertinent provisions of the National Electrical Code. All electrical circuits and equipment should be properly grounded in compliance with the code. This means a three-wire polarized system on all tools, extension cords, receptacles and the like, except where double-insulated tools are used.
- Require all personnel to wear safety hats.
- Require all personnel to wear proper footwear.
- Require all personnel to wear safety glasses.
- Have all debris removed immediately from the work area.
- Have the proper type and amount of fire fighting equipment installed and train the workers in proper usage.
- Have flammable gasses, liquids, etc., stored out of the immediate work area.
- Keep hand tools in good condition—sharp, free of broken handles, free of mushroomed heads, etc.
- Keep wire rope, slings, shackles and other rigging equipment in good condition.
- Ensure saws and other equipment are properly guarded.
- Provide adequate shielding for all welding operations.
- Prohibit anyone from riding slabs that are being moved by crane or other handling devices.
- Require ground observer to be utilized with travel lifts.

Sources of information

Preston, H.K., “Practical Prestressed Concrete.” McGraw-Hill Education, P.O. Box 182605 Columbus, OH 43218.

“Manual for Quality Control for Plants and Production of Precast Prestressed Concrete Products.” Prestressed Concrete Institute, 200 West Adams St., Suite 2100, Chicago, IL 60606.

National Electrical Code, ANSI/NFPA 70. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

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South Carolina Code of Laws
Unannotated

Title 6 - Local Government - Provisions Applicable to Special Purpose Districts and Other Political Subdivisions

CHAPTER 9

Building Codes

SECTION 6-9-5. Public policy for building codes.

(A) The public policy of South Carolina is to maintain reasonable standards of construction in buildings and other structures in the State consistent with the public health, safety, and welfare of its citizens. To secure these purposes, a person performing building codes enforcement must be certified by the South Carolina Building Codes Council, and this act is necessary to provide for certification.

(B) To clarify the intent of the General Assembly and address questions which might arise or have arisen with respect to provisions of the nationally known codes which have been or are in place, only those portions or provisions of the nationally known building and safety codes which relate to building standards and safety are binding upon a state or local governmental entity or agency which adopts the building and safety codes authorized or required by this chapter.

(C) To further clarify the intent of the General Assembly, Chapter 9, Title 23 continues to apply to a person who may act under authority of the State Fire Marshal and that the allocation of inspection duties among local officials is not dictated by Title 6 but remains a matter for the local authority.

HISTORY: 1997 Act No. 123, Section 7; 2003 Act No. 83, Section 1, eff July 2, 2003.

Code Commissioner's Note

This section was classified as Section 6-9-5 at the direction of the Code Commissioner.

Effect of Amendment

The 2003 amendment designated the first and second undesignated paragraphs as subsections (A) and (B), substituted "this chapter" for "Chapter 9 of Title 6 of the South Carolina Code of Laws" and made a nonsubstantive change in subsection (B), and added subsection (C) relating to persons acting under the authority of the Fire Marshal and the allocation of inspection duties.

SECTION 6-9-10. Enforcement of building codes by municipalities and counties; applicability to electric cooperatives, Public Service Authority and certain public utility corporations; conflicts with federal manufactured housing construction and installation regulations.

ROOF DECKS A to Z

Part V: Precast, Prestressed Concrete Tees

By Lyle D. Hogan, RRC, FRCI, PE; & Kami Farahmandpour, FRCI, RRC, RWC, REWC, RBEC, PE

ABSTRACT

This is the fifth in a series of articles examining various deck types. Of the numerous considerations involved in selecting a roof system, the type of decking is among the most important. With the variety of decks to be encountered (both new and old), it is incumbent upon roofing experts to be the authority on these matters.

This article will explore features of precast, prestressed concrete decks—whether in a single- or double-tee profile. Use of these members in parking structures will also be considered. This is because 1) the domain of modern roof consulting now encompasses more than just roofs, 2) practitioners may well be asked to participate in the rehab of such members, and 3) there are similarities in their construction.

Figure 2 – Spans of 50 to 80 ft. are rather common, with some projects supplied in lengths in excess of this range. Transportation of precast tees may be the limiting factor in determining their maximum practical span.

INTRODUCTION

Precast, prestressed concrete tee panels offer many advantages that make them suitable for construction of elevated parking decks as well as the substrate for waterproofing and roofing systems. An unreinforced flat slab of suspended concrete would have little flexural strength and would surely fail under service loading.

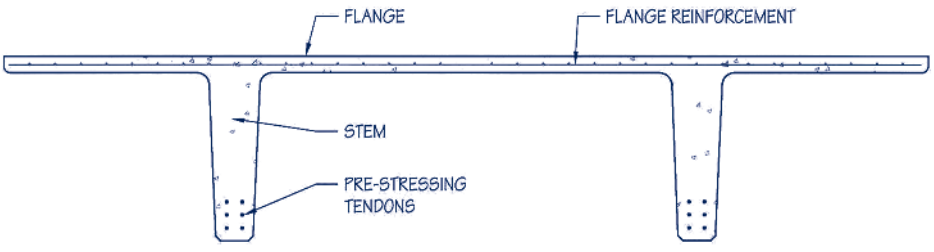

Figure 1 – Typical section through precast, prestressed double tees. Legs or stems contain the heavier reinforcing steel. The flange contains welded wire fabric.

Consequently, the shape is modified to have vertical legs, characterizing the "T" profile. These legs or stems contain heavier reinforcing steel (*Figure 1*). They can be manufactured in single- or double-tee configurations. Precast, prestressed concrete tees achieve their ability to support loads over large spans due to the depth of the stem (which results in a high-section modulus) as well as prestressing tendons placed along the lower part of the stem. With their efficient cross section, precast tees are often used where spans in excess of 60 ft. are desired. This makes them ideal for use in parking garages where the typical spans for a drive isle and parking stalls on either

Figure 3 – Camber of tees from compression induced by the embedded prestressing tendons. This is beneficial to counteract the dead-load, live-load, and creep deflection of panels.

side of the aisle are 60 ft. or more. Spans of 50 to 80 ft. are rather common, with some projects supplied in lengths well in excess of this range. Transportation of precast tees may be the limiting factor in determining their maximum span (*Figure 2*).

Tees are also suitable for many other applications, such as warehouses, large manufacturing facilities with house cranes within, paper machine rooms, turbine rooms, roofs of large ballrooms, decks for vegetative roofs over parking garages, etc. They have several advantages over some other deck types, including:

- Ability to support loads over large spans
- Rapid erection in the field
- Durable, if maintained and waterproofed properly
- Plant-manufactured, making them less dependent on a site's environmental conditions

Since they are heavy and large, tees require large cranes for erection. Therefore, their use is limited to low- and mid-rise structures where large cranes can lift them into place. Most tower cranes cannot effectively lift these large, heavy panels in high-rise construction.

MANUFACTURING AND INSTALLATION

The tees are manufactured in precast plants using prepared forms (also referred to as "beds"). They are in the same orientation as the panels are to be installed in the field (i.e., the stems and lower surfaces of the flange are smooth-formed, and the top surface is finished manually). Prestressing tendons are situated within the forms and are stretched (stressed) prior to placement of concrete.[1] Tendons are high-tensile-strength cables, typically of multiple strands. After placement of concrete and development of adequate compressive strength, tendon ends are cut, releasing the tension and imparting compression to the stems. This compression shortens the lower section of panels, resulting in upward curvature known as "camber" (*Figure 3*); this is beneficial to counteract the dead-load, live-load, and creep deflection of the panels.

The flange of each panel is cantilevered from the stem. In order to resist tensile stresses that develop near the top of each flange, conventional reinforcing is placed in the flange. Since the flange is relatively thin and cantilevering lengths are small, the conventional flange reinforcing is usually welded wire fabric and is placed at approximately the mid-depth of the flange.[2] The welded wire helps resist flexural stresses from out-of-plane loads and provides a minimal amount of reinforcing to control drying shrinkage cracks. To protect from corrosion, prestressing tendons are typically coated with epoxy. Conventional reinforcement such as stirrups and welded wire fabric may also utilize protective coatings to resist corrosion.

Tees are cast using various types of concrete. Typically, 28-day compressive strengths ranging from 3,500 to 5,000 psi are used for casting the panels; however, they can also be readily manufactured with higher-strength concrete. If panels are intended to receive a concrete topping, the

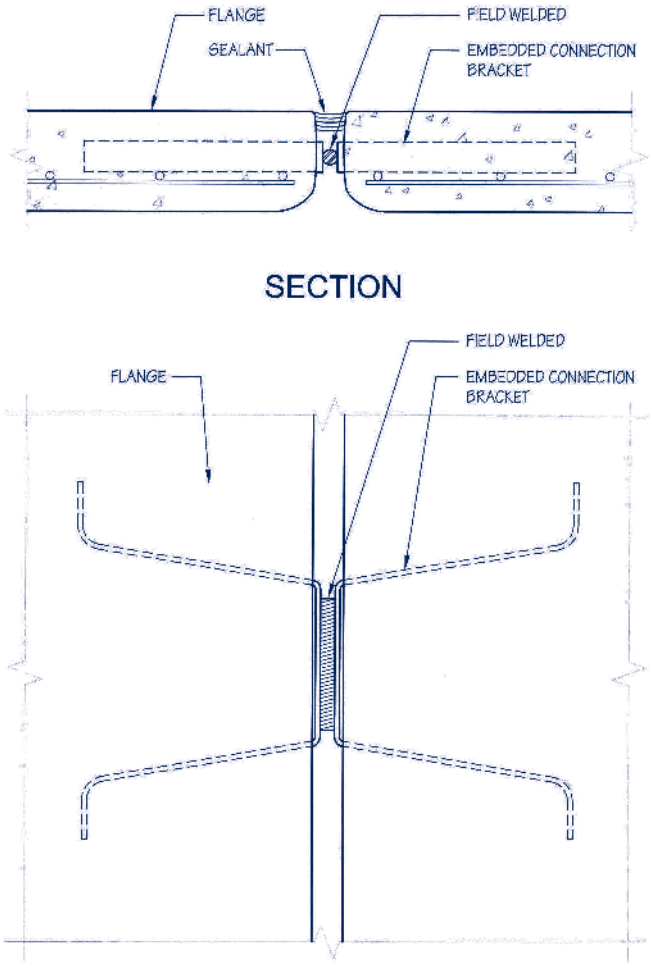

Figure 4 – Connection brackets transfer in-plane shear and allow panels to form a diaphragm. In most cases, the gap between adjoining brackets is filled with a steel bar or steel shim; they are then welded through the joint between panels.

top surface is floated and then roughed to help achieve good mechanical bond. If the panels are intended to be used without a topping, their top surface can be finished using a variety of methods. For parking deck applications, the top is typically a broom finish for improved traction.

DESIGN CONSIDERATIONS

As previously mentioned, precast, prestressed concrete tees derive their ability to support loads for large spans from their efficient cross-sectional shape and high tensile stresses in the prestressing tendons. When designing tees, several factors are considered. In most cases, each panel is designed to be simply supported at each end. As such, most tees bear on a supporting girder or beam. During manufacturing, a bearing plate is usually cast at ends of the stems to provide a uniform contact with the supporting surface. In many cases, the bearing surface is slightly recessed from the bottom of the stem. Bearing points of panels on the supporting beams or girders are typically laid with no mechanical connection on one end. Where mechanical connections are required (such as for seismic considerations), they are designed to allow longitudinal movement of the panels from temperature changes. A 60-ft.-long panel can experience more than ¾ in. of longitudinal movement due to temperature changes.

Since tees are placed on simple bearing points, they cannot resist lateral loads for the structure. In order to transfer in-plane shear movement and allow panels to form a diaphragm, tees need to be joined along edges of the flange. In the field, this is typically achieved by welding embedded steel brackets (which are exposed) along the edges of the flanges (*Figure 4*). In most cases, the panels are situated in place, and the gap between adjoining brackets is filled with a small-diameter steel bar or steel shim; they are then welded through the joint between panels. There are several such brackets along the length of each panel. They are primarily designed to transfer in-plane loads to resist lateral building frame movements. However, they also resist out-of-plane (vertical) movement that occurs when one panel is loaded differently than the adjacent panel. This happens frequently in parking garages as wheel traffic transfers from one panel to another.

In most cases, the side gap between panels ranges from ¾ to 1¼ in. If panels are to be topped, the concrete topping is placed after the adjoining panels are welded together. Topped panels are not typical below conventional roofing systems and do not necessarily rely on the welded side connections for load transfer. Instead, the concrete can be placed across joints and designed to accommodate such stresses. It is imperative that topping slab be designed to act compositely with the panels. Dowels need to be installed to ensure proper connection between the two. The composite action of the panels and their topping also helps provide a higher section modulus and stiffness for the panels.

After panels are welded together, the panel joints are treated and the topping slab is placed. For use with conventional roofing systems, joint treatment can merely consist of taping. Where used as an exposed deck or below adhered waterproofing systems, the joints are sealed with sealant and backer rod. The most widely used sealant type for joints is polyurethane. Although silicones have excellent performance, most

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Figure 5 – Parking deck joints are particularly prone to leakage. Backer rods cannot be properly installed at the embedded connection brackets, and the joint geometry makes them susceptible to failure.

silicone sealants have inferior toughness and abrasion resistance as compared to polyurethane. As such, they are typically not used for sealing joints of tees. However, many other sealant types can be used along panel joints if the joint design and in-service requirements are properly considered.

After treating the joints, the deck may be protected using a waterproofing membrane, a roofing assembly, or an elastomeric traffic-bearing membrane. All these systems must be designed to accommodate the anticipated movement at all panel joints. In some cases, exposed panels used for parking garage applications merely receive clear water-repellent to help improve durability. However, such systems need periodic reapplications and should be selected properly for each use.

TYPICAL DETERIORATION MECHANISMS AND REPAIR TECHNIQUES

Precast, prestressed concrete tees can be very durable. However, in many cases, deficiencies in their design, construction, or maintenance can result in premature distress. Deterioration is particularly prevalent on parking decks with no protective membrane applied over the deck surfaces. A detailed discussion of all deterioration mechanisms in concrete tees is beyond the scope of this article, but the following is a summary of prevalent deterioration mechanisms the authors have observed in decks constructed using concrete tees.

Leakage Through Joints

A parking deck constructed using tees can have thousands of linear feet of sealant joints. In the absence of a protective membrane such as a traffic-bearing membrane, these joints are a common avenue for water leakage (*Figure 5*). Joints are particularly prone to leakage due to the following factors:

- Each deck has a large quantity of sealant joints. Proper quality control/quality assurance of sealant application at these joints is difficult, given their quantity. Variations in workmanship and lack of surface preparation or primer application results in disbonding of sealant joints from the joint shoulders.
- As previously discussed, a backer rod cannot be properly installed at the embedded connection brackets. The joint geometry at those locations makes those joints more susceptible to failure.
- During installation, workers typically tool the joints to provide for an hourglass shape and ensure proper contact with the substrate. However, the concave shape of the joints results in water accumulation along each joint and deterioration of the sealant. In many cases, self-leveling sealant may be used to avoid the need for tooling of the joint; but even so, it is difficult to maintain a slightly recessed profile (to avoid damage by snowplow blades and traffic) that does not form a trough in which water will accumulate.
- Boot heel traffic can cause punctures and failures in the sealant joints. For this reason, a stiffer joint backing and lower-modulus sealants may be more suitable for horizontal applications.
- In some cases, sharp snowplow blades can cause damage to the sealant joints (and the protective coating). As such, establishing maintenance procedures for panel joints is critical. If snowplows are to be used, they should be equipped with rubber blades. Beyond this, power brushes to clear snow may prove more effective and less destructive to the joints.

Corrosion and Distress in Connection Brackets

Given the long span of tees, deflections caused by loading can be significant. Current model building codes and standards limit deflection of structural slabs to L/240.[3] This means that deflection of 3 in. would be permissible for a fully loaded, 60-ft.-long panel. Often, the differential movement can be felt when standing on a panel while vehicles cross the side joints; however, the magnitude of this movement is considerably less than the maximum anticipated deflection.

Differential loading at connection brackets can be exacerbated when the top elevations of adjoining panels are not the same (*Figure 6*). This causes impact loads from vehicles to induce higher stresses at the connection brackets. These stresses can result in concrete cracking, in turn allowing water and deicing salts to penetrate the concrete and come in contact with the connection brackets. These cracks also allow water to bypass the sealant joints along panel connections and result in water leakage (as discussed above).

Whether concrete cracking or corrosion starts first, the combination makes connection brackets prone to corrosion damage. In

Figure 6 – Differential loading and stresses at connection brackets can result when adjacent panels are not the same height. Here, the difference in top-surface elevation is measured using a dial gauge micrometer.

Figure 7 – Whether the cracking or corrosion starts first, the combination makes connection brackets prone to damage. When investigating tees, exploratory openings are crucial to evaluate the condition of brackets.

most cases, corrosion of connection brackets is the first sign of deterioration (*Figure 7*). When investigating such decks, a thorough visual review of the concrete around the connection brackets and exploratory openings at connection brackets are crucial. Brackets can be found using an R-Meter, and removal of concrete around brackets is necessary for proper evaluation.

If connection brackets are found to be corroded or the cause of concrete cracking, retrofit brackets of various configurations can be designed and installed to transfer loads across the panel side joints. It should be noted that patching of the concrete around brackets should be avoided as a method of restoring the brackets. If the concrete around the brackets is patched, the patch should be carefully designed to accommodate the stresses that the brackets impose on the immediately surrounding concrete. Otherwise, the patched area will simply fail again.

Corrosion of Embedded Conventional Reinforcing

As previously indicated, welded wire fabric or reinforcing bars are placed at mid-depth in the flange concrete. Since flanges are relatively thin, it is difficult to place the reinforcing at an exact depth from the top surface to provide for proper concrete cover. In some cases, welded wire fabric can move during concrete placement, resulting in shallow concrete cover. If the panel is not protected with a coating, the topping layer will eventually carbonate, reducing the pH of the concrete. In combination with frequent exposure to moisture on the top surface, this results in corrosion of the embedded reinforcing. Another factor that can accelerate and promote corrosion of reinforcing steel is the presence of chloride ions. On parking deck applications where deicing salts are broadcast onto the deck, chlorides can permeate and reach the reinforcing steel. These chlorides quickly break down the passivating layer over steel and initiate the corrosion process.[4]

As indicated above, corroding steel can cause delamination and spalling of the concrete around it. If the welded wire fabric is placed at the proper depth, the likelihood of corrosion-induced delamination and spalling is reduced. Conventional repairs are typically used to address corroded, embedded reinforcing in the flange of the panels. However, if the corrosion has resulted in a significant loss of cross-sectional area, supplemental reinforcing will be needed to ensure proper capacity to support loads.

Similar to the reinforcing in the flanges, conventional reinforcing in the stems can also experience corrosion, resulting in cracking. These deficiencies should also be

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Figure 8 – Substandard adhesion of insulation over tees has been encountered in a number of instances. Concrete is a thermal sink and can become very cold, so direct mopping of hot asphalt should embody long-recognized cold-weather procedures. Note also the lack of taped decking joints.

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repaired. However, careful consideration should be given to the structural integrity of the stems, shoring, and required supplemental reinforcing.

Corrosion of Prestressing Tendons

Failure of sealant joints at panel ends where they abut the supporting beams can lead to water leakage at those areas. In roofing applications, failure of the roof covering can result in water leakage at the same locations. If such water penetration is not controlled, continued exposure to moisture can result in corrosion of prestressing tendons at panel ends. Prestressing tendons are particularly vulnerable at panel ends, since their cut ends are exposed at those locations. Corrosion of the prestressing tendons poses a serious risk of structural deficiencies.

Prestressing tendons cannot be readily replaced. Typically, their repair requires shoring of the tees to counteract dead and live loads. Damaged concrete around the tendon is then repaired, and deteriorated prestressing tendons are supplemented using externally applied fiber-reinforced polymer (FRP) applied as strips of composite materials bonded to the stem surfaces. The fiber reinforcing can consist of carbon fiber or glass fiber. These repair systems are proprietary in nature and are typically designed by the system manufacturer based on loading criteria established by an engineer.

Corrosion of Bearing Plates

Water leakage discussed above can lead to corrosion of bearing plates and distress at the stems and supporting beam/girders. Repair of such deterioration is difficult due to space constraints and shoring requirements. Specifying stainless steel bearing plates is a good practice. The bearing pads can then be constructed of elastomeric products that do not corrode. In situ repair of corroded bearing pads and embedded bearing plates is possible but requires careful consideration and proper shoring. Such repairs will likely involve removal of concrete around the bearing plates, replacing the bearing plates, and patching of the concrete. The importance of proper shoring design and installation when performing such repairs cannot be overstated.

Freeze/Thaw Deterioration

In general, most precast concrete is durable. The quality of concrete placed at precast plants can be better controlled, and it is typically cured more properly than site-placed concrete. However, in some cases, panels that are exposed to moisture and repeated freezing and thawing can suffer deterioration.[5] Freeze/thaw-damaged concrete typically exhibits a random cracking pattern and makes a dull sound when tapped with a sounding hammer. More importantly, the network of cracks results in significant diminution of its strength.

In most cases, advanced freeze-thaw deterioration can be visually identified; however, in its early stages, and to confirm the cause of observed cracking, petrographic examination of concrete cores should be performed.[6] Although a petrographic examination does not provide an accurate estimate of air content, it can help assess presence, extent, and pattern of micro-cracking within the concrete. An experienced petrographer can then correlate the cracking pattern with the general quality of the concrete and reach opinions regarding the cracking cause. More accurate estimation of air content can be performed through other standard test methods such as ASTM C457.[7]

Repair of advanced deterioration is not practical. If limited to the flange, it may be possible to remove the compromised portion and cast a new flange. Again, such repairs

should be performed after careful consideration is given to the camber and upward "rebound" of panels once the weight of the flange is removed.

OTHER MECHANISMS OF DISTRESS

Several other deterioration mechanisms can be encountered in precast, prestressed concrete tees. These include, but are not necessarily limited to, delayed ettringite formation (DEF) and alkali-silica reactivity (ASR). DEF is typically encountered in precast components cured at high temperature to accelerate strength development. A detailed discussion of these is beyond the scope of this article.

STRUCTURAL STRENGTHENING

In order to repair cracking or to increase the structural capacity, it may be necessary to supplement reinforcing tendons in precast, prestressed tees. In the last few decades, fiber-reinforced polymer (FRP) sheets have gained widespread use for such applications. As previously mentioned, these repair systems are proprietary in nature. If considered as a repair technique, the root cause of cracking or other distress should be evaluated carefully. Both concrete and FRP have varying structural properties. As such, the design of such repairs will require careful analysis—usually performed by the repair system manufacturer with input from the engineer.

OTHER ROOFING CONSIDERATIONS

Roof decks constructed of precast, prestressed concrete tees pose a particular challenge with surface drainage. Each panel is originally constructed with a camber. Yet in-service deflections due to creep and to dead and live loads can change the camber considerably over the service life of the roof covering. As such, the drainage design should anticipate these changes in surface elevation of the panels. Moreover, once installed, the panel ends may form a dead flat zone that must be corrected; consequently, a topping course of lightweight insulating concrete (LWIC) may be applied to produce drainage contours that cannot be configured into the panels themselves.

When board insulation is installed over panels in hot bitumen, a bituminous primer should be first applied, and decking joints should be taped. Tees are a thermal sink and can become very cold, so direct mopping of hot asphalt should embody long-recognized cold-weather procedures. The authors have encountered substandard adhesion of insulation in a number of instances (*Figure 8*). Alternatively, if a topping course of LWIC is applied, a base ply will need to be used, along with fasteners appropriate for that material.

With compressive strengths exceeding 3,500 psi, a roofing system can certainly be mechanically attached to panels using appropriate concrete anchors; however, all such devices would require predrilled holes, with the likelihood of some encountering

Figure 9 – Tees used to form building walls. The re-entrant corners and turns make this handcrafted flashing slow and arduous.

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the embedded reinforcement. This makes mechanical attachment of roofing systems to these decks an unattractive option. Instead, modern foam adhesives are the preferred method for board insulation attachment.

Just as with parking decks, side-joint elevation differences can be challenging. Since adjacent panels can have slightly varying cambers, differential surface elevations as high as 1 in. can result. The use of LWIC topping can address this issue. Otherwise, filler insulation will be needed to form a smooth substrate for roof coverings.

Tees may even be used to form a building's exterior walls. This can create a flashing dilemma in which there are lower roof levels or additions onto buildings with such walls. As shown in *Figure 9*, the re-entrant corners and turns make this hand-crafted flashing slow and arduous.

SUMMARY REMARKS

Precast, prestressed concrete tees offer many advantages and can be very durable. Accordingly, they may serve as the building's substrate for multiple reroofing phases. Deterioration of tees from failed roof coverings is relatively uncommon unless water entrapment has persisted for a long time. Exposed tees can be compromised by extensive water leakage, deicing salts, freeze/thaw, excessive service loads, improper deck openings, and the like. These aspects should be evaluated by the consulting practitioner in the course of study.

ENDNOTES

1. Concrete is relatively weak in tension and must be reinforced with steel at extreme fiber bending. The work of resisting tension is mostly done by the steel, with the intent that the concrete will experience little tension because the internal steel tendons will resist it under service loading.
2. For durability and corrosion resistance, building codes require that reinforcing members smaller than No. 6 bars should have a minimum concrete cover of 1½ inch.
3. ACI 318. This deflection limit applies to finishes attached to the slab that could be damaged by such deflections. For roof structures, the deflection limit is greater (more lenient) at L/180.
4. In high-alkaline environments, a passivating layer is formed over steel. This layer protects the steel against corrosion. Alkalinity of recently placed concrete ranges from a pH of 10 to 12.
5. To resist freeze/thaw deterioration, air-entraining admixtures are blended into concrete. The required air content (percent of volume of air compared to the total volume of the concrete) can vary, depending on coarse aggregate size and severity of exposure to freeze/thaw cycles. Model building codes include requirements for air entrainment.
6. Petrographic examination of concrete includes microscopic evaluation of concrete samples and thin sections (sections so thin that light passes through them). ASTM C856 provides a recognized standard for performing petrographic examinations.
7. The air void system is not the only factor that influences concrete's resistance to freeze-thaw cycles. Other factors such the ratio of water to cementitious material can also influence freeze/thaw resistance.

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Kami Farahmandpour is the principal of Building Technology Consultants, PC, a forensic engineering firm in Arlington Heights, IL. He has managed over 450 projects involving the evaluation and/or repair of building envelopes, many of which have involved complex multidisciplinary issues. He is a Fellow of RCI, a Registered Building Envelope Consultant, a licensed professional engineer in several states, a Certified Construction Specifier, and a Certified Construction Contract Administrator.

Texas Passes Procurement Law

A new materials procurement bill passed by the Texas legislature went into effect September 1, 2013. Texas House Bill 1050 regulates government entities' procurement of construction goods through purchasing cooperatives when their cost is greater than $50,000. The bill compels public entities to certify in writing that their co-op construction project does not need an independent design professional. It also requires design professionals on publicly funded projects to disclose any possible conflicts of interest.

Precast components in parking structures

27 Dec 2019

Introduction

This article describes the basic precast components which are being used in multilevel precast parking garages.

1. Advantages of precast building system for parking structures

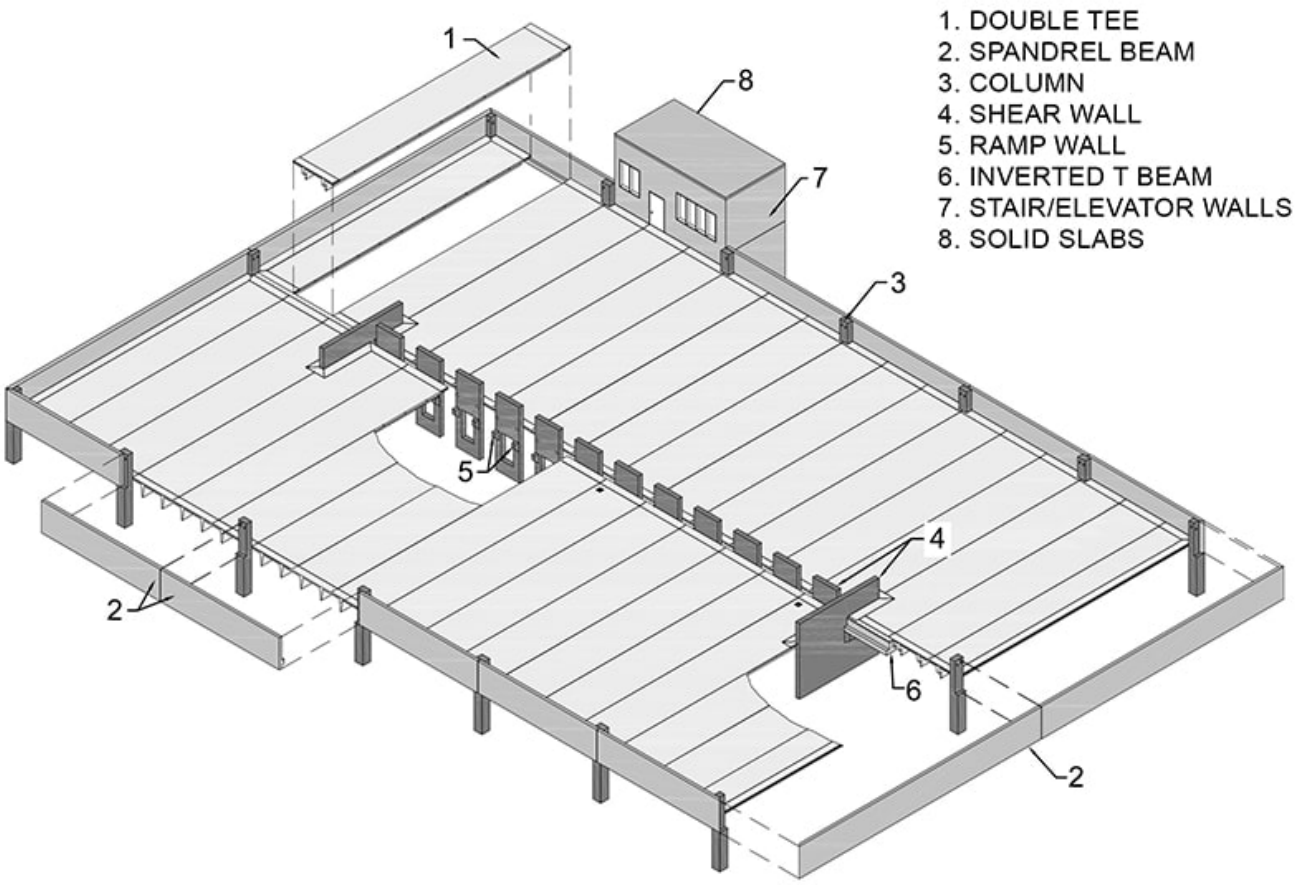
Precast components are the most popular structural system for multilevel parking structures. Advantages of using a precast building system for parking structures are as follows:

1. Large spans with prestressed double tee slabs to create open and efficient layouts
2. Fire resistant precast concrete structure
3. Architectural design with different textures and colors in exterior precast panels
4. Durable and low maintenance building system
5. Fast, all weather erection with precast components
6. Cost advantage because of repetition in precast components

2. Precast components

Typical components of a precast parking garage:

1. Double tee
2. Spandrel beam
3. Column
4. Shear wall
5. Ramp wall
6. Inverted T beam
7. Stair / elevator walls
8. Solid slab



Picture 1. Typical components of a precast parking garage

3. Double tees

Precast double tees are structural slabs consisting of two vertical stems connected to each other by a horizontal deck (the flanges). Double tees are prestressed precast components made on pretensioning beds. The strands that are prestressed are placed inside the stems and the flanges are reinforced with a mild steel reinforcing mesh. Due to the optimized design precast double tees are used to create large clear spans in parking structures. Typical double tee flange width is 8 to 10 feet with size of up to 15 feet available. Stem depth can range between 12 to 34 inches (up to 5 ft). Typical double tee span length ranges from 25 to 55 feet and double tees with span of 80 feet or even more have been fabricated.

Top

Picture 2. Precast double tee slabs

4. Precast spandrel beams

Precast spandrel beams are generally used at the perimeter of precast parking structures to support the double tees and transfer their loads to the load bearing columns or walls. Spandrel beams are prestressed precast components which are typically 76 inches deep with spans ranging from 48 ft to 60 ft having a web thickness of minimum 8 inches. Spandrel beams are supporting the double tees on either a continuous ledge, spot corbels or inside pockets. The exterior spandrels can be designed and fabricated with architectural finish in different colors and textures. Textures and finishes like acid etch, water wash, sandblast, exposed aggregates, polished surface, formliners, brick and stone veneers are possible.

Picture 3. Precast spandrel beams

5. Precast columns

Generally the precast columns are placed at the periphery of the car park where they support the spandrel beams and inverted T-beams. To support the spandrel beams the precast columns can be fabricated with ledges. Also columns can be fabricated with additional large corbels for the support of the precast IT-beams. The precast columns are reinforced with prestressing steel with additional mild steel reinforcing inside the corbels and ledges.

Picture 4. Precast columns in parking garage

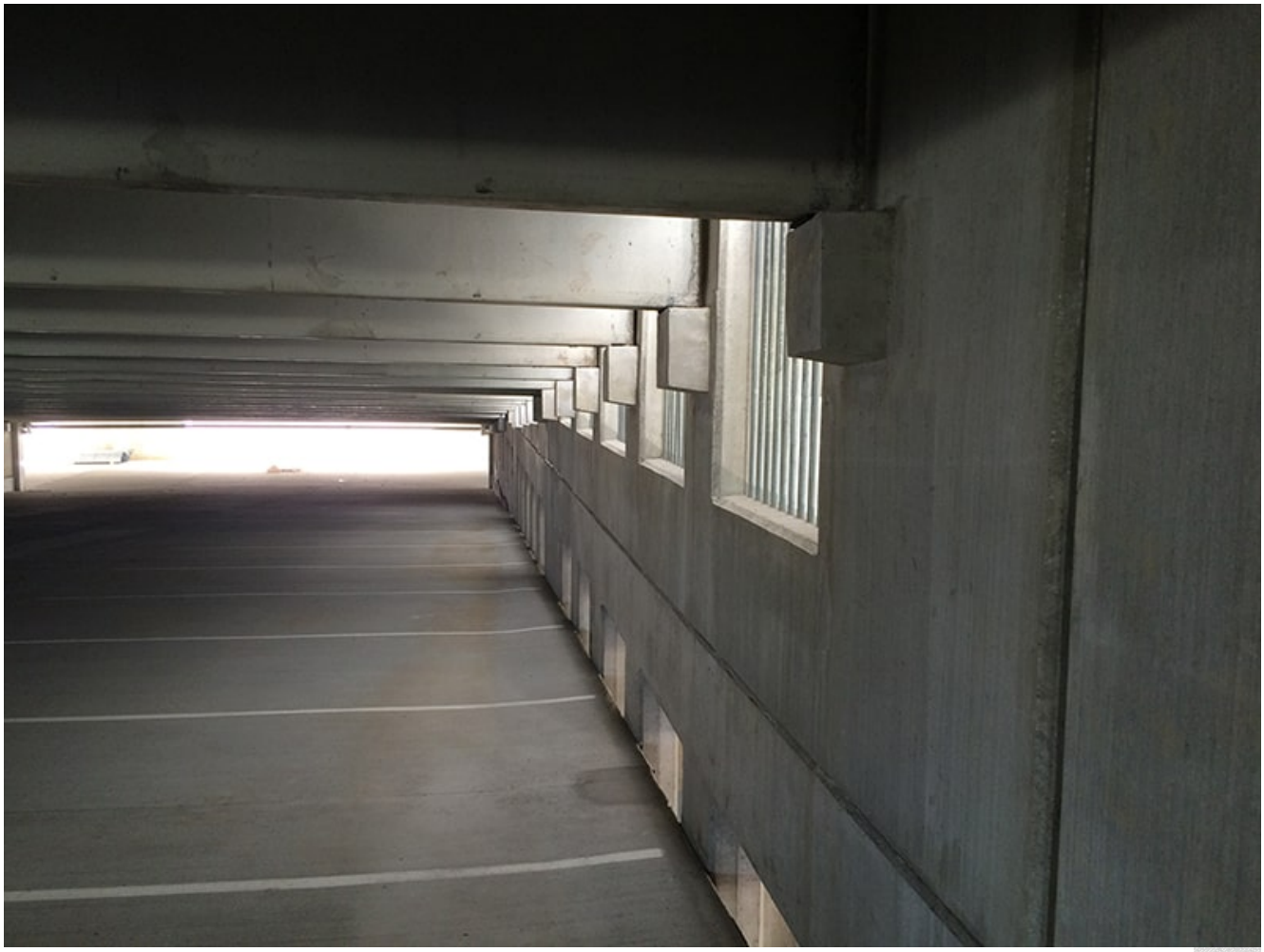
6. Precast shear walls

Precast shear walls are provided in parking structures to resist the lateral loads like wind and seismic forces. Shear walls can be made as solid panels or with openings for lighting and ventilation purposes. Large corbels can be provided on the face of the shear walls to support the inverted T-beams.

Picture 5. Precast shear walls in parking garage

7. Precast ramp walls

Precast ramp walls are part of the lateral load resisting system and are placed inside the parking structure parallel to the ramps. Ramp walls are fabricated with spot corbels for the support of the double tees. In case ramps are situated at both sides then the spot corbels will be provided at both of the faces of the wall. Precast ramp walls can be made as horizontal panels or as multilevel vertical panels and are generally fabricated with openings for better visibility, ventilation and openness.



Picture 6. Precast ramp walls in parking garage

8. Inverted T-beams

Inverted T-beams are supporting the double tee slabs and the beams are spanning between columns and walls. They are generally bearing on large corbels attached to the columns and walls or resting inside wall pockets. The precast IT-beams are prestressed components and are made on long line casting beds.

Picture 7. Precast inverted T-beams for parking garage

9. Precast stair and elevator walls

The staircase and elevator walls are made as precast solid walls that can be divided as horizontal panels or as multilevel vertical panels. For support of the precast stair landings the walls are fabricated with continuous ledges.

Picture 8. Precast stair walls in parking garage

10. Precast solid slabs

Solid slabs can be used in parking garages at various locations such as the floor areas near the elevator lobby and staircases. Furthermore they will be used to cover the staircase and elevator shafts where the slabs are generally resting on ledges attached to the precast walls.

Picture 9. Precast solid slabs in parking garage

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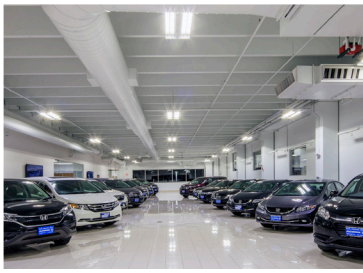


Double Tee Design Guide

WELLS®

Table of Contents

3 Common uses for double tees

4 Common tee sections

8 Composite section options

9 Sound transmission

10 Determining the fire rating

12 Penetrations & fastenings

13 Recommended connection details

16 Connection of other materials

Common Uses for Double Tees

Double tees are precast structural members with efficient sections typically used as framing to achieve long spans. Consisting of two beam elements and a flat deck, double tees are used for a variety of building types — from highly loaded structures with assembly or storage loads to lightly loaded roofs with over 100 ft spans. The prestressing steel incorporated during manufacturing of the double tee results in increased durability and longevity over the lifetime of the structure.

Auditoriums

Data Centers

Fire Stations

Food Processing

Gymnasiums

Livestock

Manufacturing

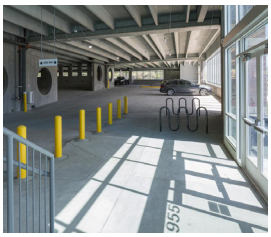
Medical

Mixed Use

Natatoriums

Offices

Parking



Residential

WWTP / WTP

Common Double Tee Sections

The design information below is intended to introduce designers to a range of common applications of double tees. The spans, building types and loads below can vary widely beyond the listed values. Additional double tee sections exist and can be selected with with proper coordination with Wells Engineering and Sales teams.

Each double tee capacity is determined based on length and thickness of the tee. Contact your local sales rep for exact cross sections used in your project area.

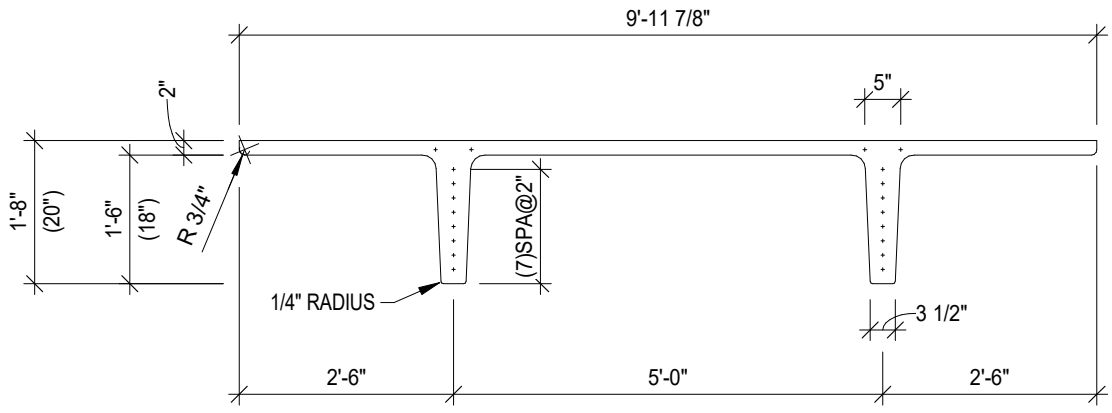
20" Deep x 10'-0" Wide Nominal

5.5.7.2 DT210 (DT1, DT10)

Section Properties

Area	395 in^2
I	12,530 in^4
Yb	15.33 in
Yt	4.67 in
Sb	817 in^3
St	2683 in^3
Vol./Surf	1.28 in
DL	42.5 psf
Weight 155pcf	425 plf

Design Information	Office Loading	Parking Garage Loading	Roof Loading
Superimposed dead load (psf[4])	15	5	15
Live load (psf[4])	100	55[2]	30
Topping thickness[3] (inches)	4	3	0
Span[1] (feet)	37	45	50
Note 1: *Actual maximum span can be adjusted based on a number of considerations, contact Wells for more information*			
Note 2: *55 psf accounts for combination case of 30 psf snow and 40 psf live*			
Note 3: *Tees can also be pretopped and all subsequent loads/spans do not change*			
Note 4: *psf stands for "pounds per square foot"*			



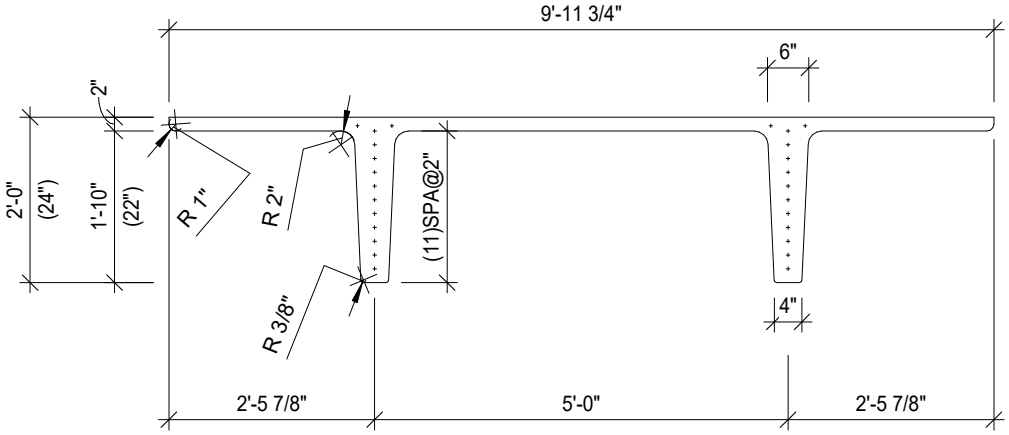
24” Deep x 10’-0” Wide Nominal

5.5.7.3 DT2410 (DT2, DT3, DT4, DT8)

Section Properties

Area	461 in^2
I	23,370 in^4
Yb	17.62 in
Yt	6.38 in
Sb	1326 in^3
St	3663 in^3
Vol./Surf	1.43 in
DL 155pcf	49.6 psf
Weight 155pcf	496 plf
DL 135pcf	43.2 psf
Weight 135pcf	432 plf
DL120pcf	38.4 psf
Weight 120pcf	384 plf

Design Information	Office Loading	Parking Garage Loading	Roof Loading
Superimposed dead load (psf[4])	15	5	15
Live load (psf[4])	100	55[2]	30
Topping thickness[3] (inches)	4	3	0
Span[1] (feet)	50	60	65
Note 1: *Actual maximum span can be adjusted based on a number of considerations, contact Wells for more information*			
Note 2: *55 psf accounts for combination case of 30 psf snow and 40 psf live*			
Note 3: *Tees can also be pretopped and all subsequent loads/spans do not change*			
Note 4: *psf stands for “pounds per square foot”*			



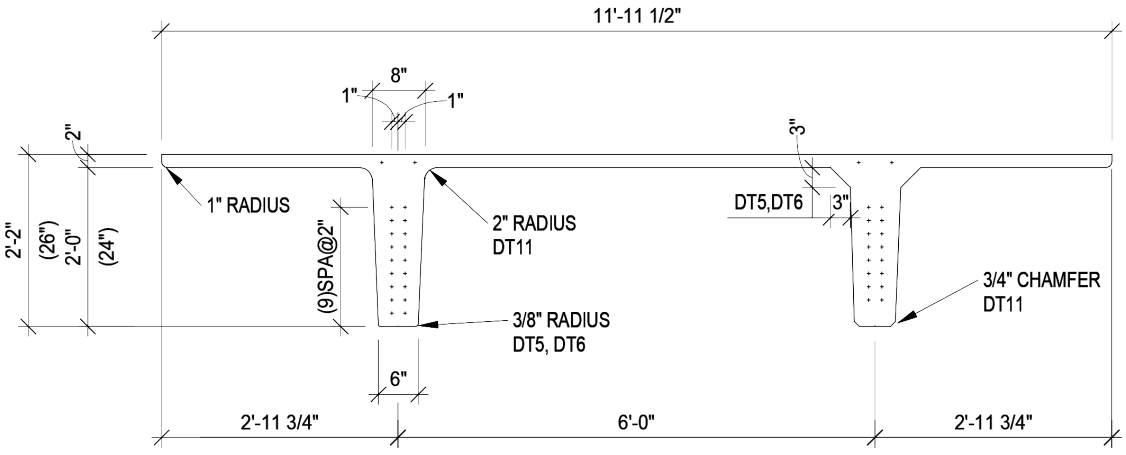
26” Deep x 12’-0” Wide Nominal

5.5.7.4 DT2612 (DT5, DT7, DT11)

Section Properties

Area	640 in^2
I	40,346 in^4
Yb	18.42 in
Yt	7.58 in
Sb	2190 in^3
St	5323 in^3
Vol./Surf	1.71 in
DL	57.4 psf
Weight 155pcf	689 plf

Design Information	Office Loading	Parking Garage Loading	Roof Loading
Superimposed dead load (psf[4])	15	5	15
Live load (psf[4])	100	55[2]	30
Topping thickness[3] (inches)	4	3	0
Span[1] (feet)	50	60	65
Note 1: *Actual maximum span can be adjusted based on a number of considerations, contact Wells for more information*			
Note 2: *55 psf accounts for combination case of 30 psf snow and 40 psf live*			
Note 3: *Tees can also be pretopped and all subsequent loads/spans do not change*			
Note 4: *psf stands for “pounds per square foot”*			



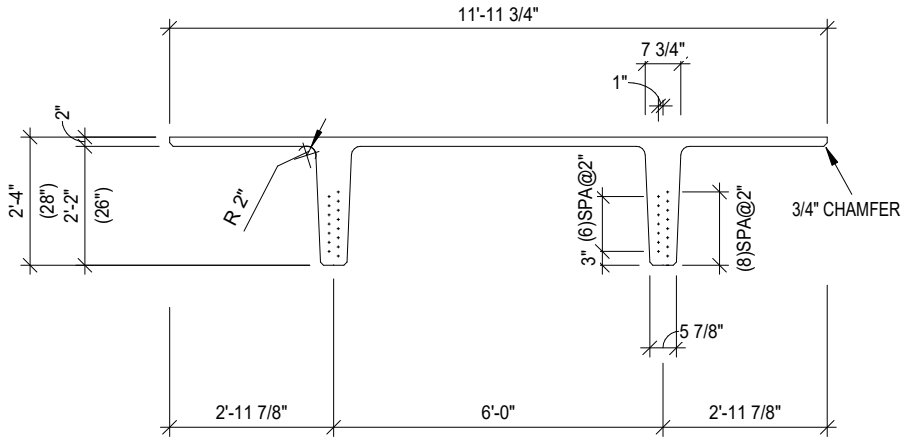
28” Deep x 12’-0” Wide Nominal

5.5.7.5 DT2812 (E-2)

Section Properties

Area	641.8 in^2
I	48,348 in^4
Yb	19.6 in
Yt	8.4 in
Sb	2,471 in^3
St	5,767 in^3
DL	57.5 psf
Weight 155pcf	690.8 plf

Design Information	Office Loading	Parking Garage Loading	Roof Loading
Superimposed dead load (psf[4])	15	5	15
Live load (psf[4])	100	55[2]	30
Topping thickness[3] (inches)	4	3	0
Span[1] (feet)	52	63	70
Note 1: *Actual maximum span can be adjusted based on a number of considerations, contact Wells for more information*			
Note 2: *55 psf accounts for combination case of 30 psf snow and 40 psf live*			
Note 3: *Tees can also be pretopped and all subsequent loads/spans do not change*			
Note 4: *psf stands for “pounds per square foot”*			



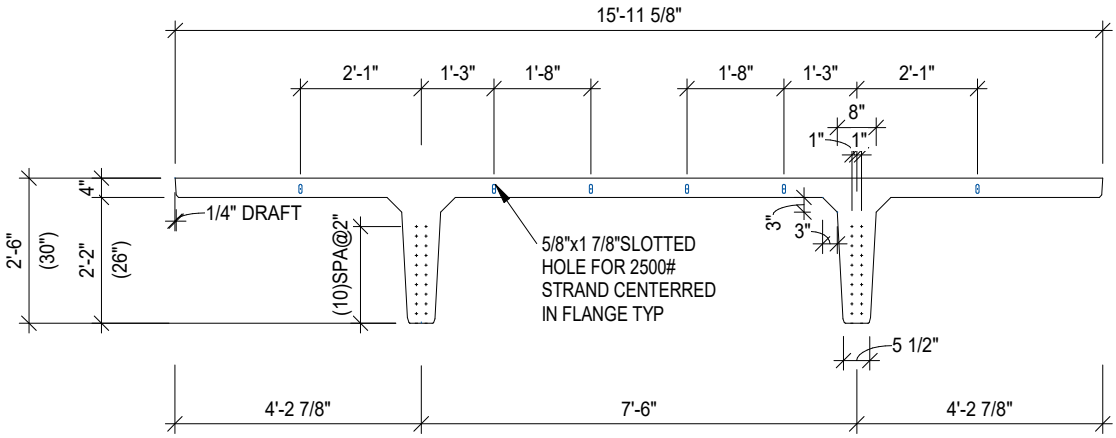
30” Deep x 16’-0” Wide Nominal

5.5.7.6 DT6016 (E-4)

Section Properties

Area	1,118 in^2
I	69,108 in^4
Yb	23.54 in
Yt	6.46 in
Sb	2,915 in^3
St	10,702 in^3
DL	75.2 psf
Weight 155pcf	1,118 plf

Design Information	Office Loading	Parking Garage Loading	Roof Loading
Superimposed dead load (psf[3])	15	5	15
Live load (psf[3])	100	55[2]	30
Span[1] (feet)	45	60	67
Note 1: *Actual maximum span can be adjusted based on a number of considerations, contact Wells for more information*			
Note 2: *55 psf accounts for combination case of 30 psf snow and 40 psf live*			
Note 3: *psf stands for “pounds per square foot”*			



Note: This is an example of a pretopped double tee, and the flange thickness can be increased to achieve a desired fire rating as needed.

32” Wide x 10’0” Wide Nominal

5.5.7.7 DT3210 (DT4, DT16, DT9)

Section Properties

Area	609 in^2
I	59,354 in^4
Yb	22.03 in
Yt	9.98 in
Sb	2695 in^3
St	5948 in^3
Vol./Surf	1.72 in
DL	65.6 psf
Weight 155pcf	656 plf

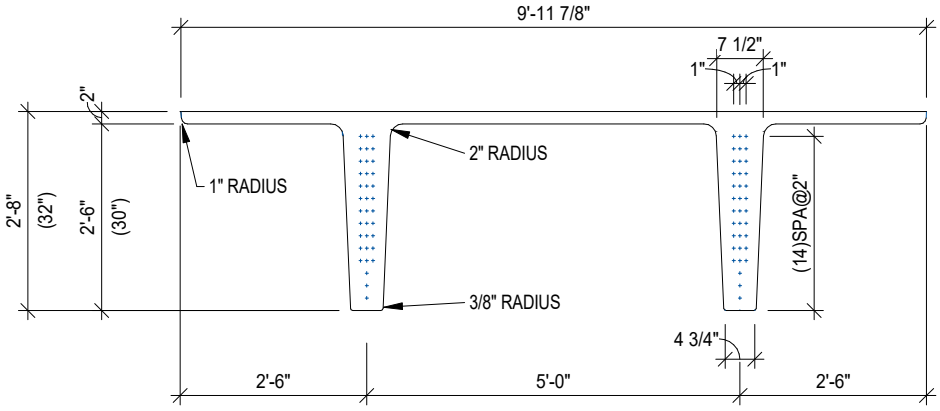
Design Information	Office Loading	Parking Garage Loading	Roof Loading
Superimposed dead load (psf[4])	15	5	15
Live load (psf[4])	100	55[2]	30
Topping thickness[3] (inches)	4	3	0
Span[1] (feet)	60[2]	70	85

Note 1: *Actual maximum span can be adjusted based on a number of considerations, contact Wells for more information*

Note 2: *Vibration should be considered in this application*

Note 3: *Tees can also be pretopped and all subsequent loads/spans do not change*

Note 4: *psf stands for “pounds per square foot”*



42” Deep x 8’-0” Wide Nominal

5.5.7.8 DT4208 (DT9)

Section Properties

Area	624 in^2
I	105,687 in^4
Yb	27.70 in
Yt	14.31 in
Sb	3817 in^3
St	7388 in^3
Vol./Surf	1.81 in
Weight 155pcf	671 plf
DL 155 pcf	83.9 psf
Weight 135pcf	584 plf
DL 135 pcf	73.1 psf
Weight 120pcf	520 plf
DL 120pcf	65 psf

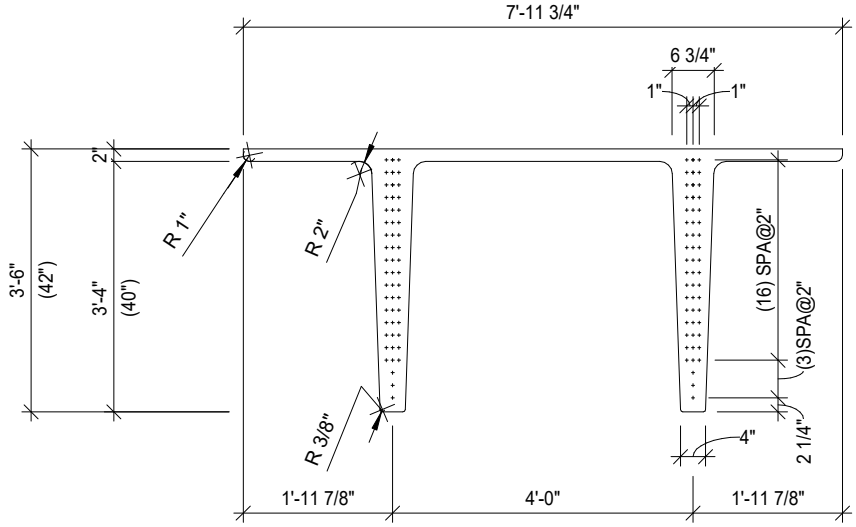
Design Information	Office Loading[2]	Parking Garage Loading[2]	Roof Loading
Superimposed dead load (psf[4])	15	5	15
Live load (psf[4])	100	55[2]	30
Topping thickness[3] (inches)	4	3	0
Span[1] (feet)	75	90	105

Note 1: *Actual maximum span can be adjusted based on a number of considerations, contact Wells for more information*

Note 2: *If you wish to use this member size in these structures, contact Wells for more information*

Note 3: *Tees can also be pretopped and all subsequent loads/spans do not change*

Note 4: *psf stands for “pounds per square foot”*



Composite Section Options

Field-topped

In many areas throughout the country it is common to cast the double tee in a precast manufacturing facility and then apply a post-pour topping once it is erected at the job site. The top flange of the member is produced with a thickness between 2 to 3 inches. A roughened surface is provided at the interface of the top deck surface and the cast in place topping.

Once the topping cures it increases the overall performance and strength of the double tee. Control joints are also placed in the topping at the joint between members. Topping is usually used as a leveling compound to mitigate the effect of camber.

Pre-topped

The other option is to simply cast a thickened flange when producing the double tee. This eliminates a significant amount of coordination time needed in post-pour applications. In cold weather climates in particular this option offers cost benefits and a more efficient build. The performance of the double tee is similar to the post-pour method and is easily accommodated in the design of the tee. Pre-topped systems are based on weight limitations, and for longer span double tees, pre-topped may not be the best solution due to weight and length.

Sound Transmission

Often, acoustical control is specified as to the minimum insulation values of the dividing partition system. Local building codes, lending institutions, and the Department of Housing and Urban Development (HUD) list both airborne STC and impact IIC values for different living environments. For example, the HUD recommendations are given in Table 11.2.2.

Table 11.2.2 HUD recommendations for sound transmission class (STC) and impact insulation class (IIC)

Location	STC	IIC
Between living units	45	45
Between living units and public space	50	50

Other community ordinances are more specific, listing the sound insulation criteria with relation to particular ambient environments.

Once the objectives are established, the designer should refer to available data, for example, Table 11.2.4, and select the system that best meets these requirements. In this respect, concrete systems have superior properties and can, with minimal effort, comply with these criteria.

PCI Design Handbook (8th Edition)

Table 11.2.4 Airborne sound transmission class (STC) and impact insulation class (IIC) ratings from tests of precast concrete assemblies

Assembly	Description	STC	IIC
	Floor-ceiling systems		
20	5-in.-thick flat slabs, 60 lb/ft^2	52[a]	24
21	5-in.-thick flat slab concrete with carpet and pad, 61 lb/ft^2	52[a]	68
22	6-in.-thick flat slabs, 75 lb/ft^2	55	34

Determining the Fire Rating

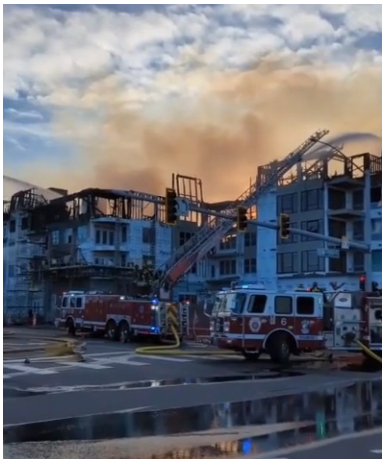
The fire rating of double tees is established based on two principles. The overall flange thickness must be established and sufficient concrete cover must be provided around the prestressed strand.

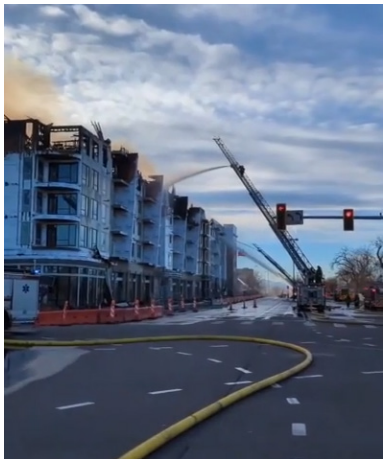
Flange Thickness

The thickness of the double tee deck (floor surface) is chosen in a similar fashion to wall panels or flat slabs. Table 720.1(3) is shown on the next page as defined in the IBC. Aggregate type has a significant impact on the overall rating of the deck and can vary by region.

Concrete Cover

The protection of the prestressed strand within the concrete also impacts the overall fire rating of the member. In the event of a fire, steel reinforcing has a tendency to lose strength through relaxation when subjected to rising temperatures. The concrete acts as an insulator to delay this relaxation, and double tees can be designed to provide an average cover for strand that satisfies the fire rating for the structure. Table 720.1(1) from the IBC is shown on the next page. Note that this specified cover distance relates to the centroid of all the strands in a double tee stem, not the bottom-most strand.





Precast concrete offers exceptional fire resistance as opposed to wood building materials, providing critical protection by maintaining structural integrity and preventing the spread of flames, making it a reliable choice for safety in building design.

Procedure for Determining Fire Rating

Fire Separation (flange thickness):

1. Table 721.1(3) International Building Code, Item #1 – Siliceous Aggregate 1-1.1 – Slabs

Use the below table to figure out how thick the composite slab must be for a given fire rating.

TABLE 721.1(3)MINIMUM PROTECTION FOR FLOOR AND ROOF SYSTEMS[a, q]

FLOOR OR ROOF CONSTRUCTION	ITEM NUMBER	CEILING CONSTRUCTION	THICKNESS OF FLOOR OR ROOF SLAB (inches)				MINIMUM THICKNESS OF CEILING (inches)			
			4 hours	3 hours	2 hours	1 hour	4 hours	3 hours	2 hours	1 hour
1. Siliceous aggregate concrete	1-1.1	Slab (ceiling not required). Minimum cover over nonprestressed reinforcement shall be not less than $^3/_4$".[b]	7.0	6.2	5.0	3.5	—	—	—	—
2. Carbonate aggregate concrete	2-1.1		6.6	5.7	4.6	3.2	—	—	—	—
3. Sand-lightweight concrete	3-1.1		5.4	4.6	3.8	2.7	—	—	—	—
4. Lightweight concrete	4-1.1		5.1	4.4	3.6	2.5	—	—	—	—

Fire Endurance (steel protection):

1. Table 721.1(1) International Building Code, Item #3 – 3-1.1 – Bonded Pretensioned Beam

Use the below table to figure out how much cover on strand there needs to be for given rating. Note that the cover is at the centroid of all the strands, not at the bottom-most strand.

TABLE 721.1(1)
MINIMUM PROTECTION OF STRUCTURAL PARTS BASED ON TIME PERIODS FOR VARIOUS NONCOMBUSTIBLE INSULATING MATERIALS[m]

STRUCTURAL PARTS TO BE PROTECTED	ITEM NUMBER	INSULATING MATERIAL USED	MINIMUM THICKNESS OF INSULATING MATERIAL FOR THE FOLLOWING FIRE-RESISTANCE PERIODS (inches)			
			4 hours	3 hours	2 hours	1 hour
3. Bonded pretensioned reinforcement in prestressed concrete[e]	3-1.1	Carbonate, lightweight, sand-lightweight and siliceous[f] aggregate concrete				
		Beams or girders	4[g]	3[g]	$2^1/_2$	$1^1/_2$
		Solid[h]		2	$1^1/_2$	1

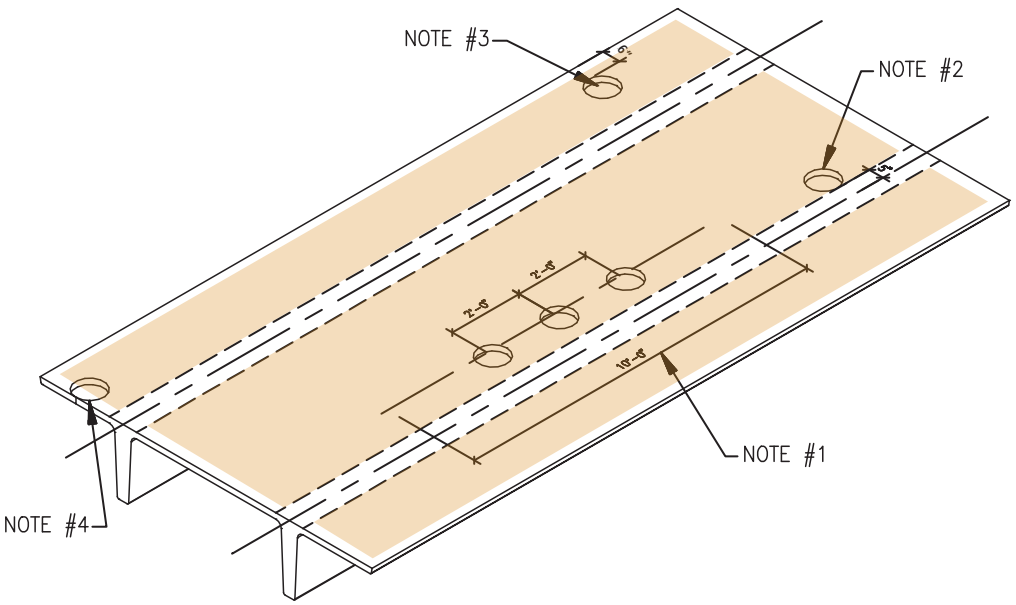
Penetrations & Fastenings

What to consider

Double tees provide a lot of flexibility with penetrations and fastening, and it is common and acceptable to have large openings in the stems, per shaded regions in the graphic below. The guidelines on this page are intended to provide a rule of thumb for locating openings, and you can contact Wells to coordinate unique conditions. Also reference the Design Handbook on the Wells website for more information.

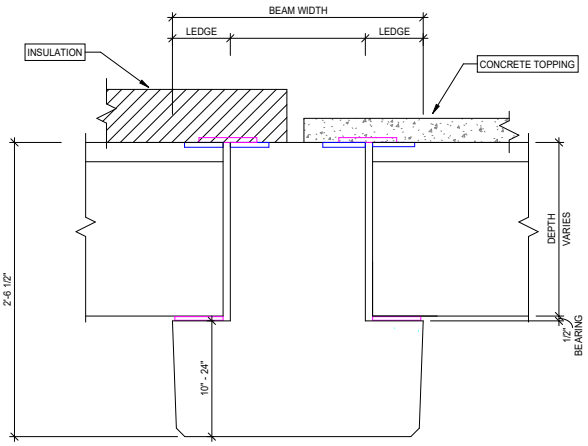
Fastening & cored holes criteria

1. No more than 3 holes in 10 ft in the same line, and not less than 2'- 0" on center between them.
2. Edge of holes cannot be closer than 5" from edge of hole to center of DT leg.
3. Edge of holes must be at least 6" away from edge of DT flange along the edges parallel to legs.
4. Edge of holes could be flush with edge of flange at the ends of DT.
5. Cores must be at least 1'- 0" away in any direction from any type of connection (tee to tee, tee to wall or spandrel, tee to beam).
6. See diagram below for anchors & fasterners in DT stems (legs).
   - 1/8" x 1" low velocity powder activated fasteners may be placed in shaded areas only.
   - Drilled-in-anchors in double tee legs in shaded area only.
7. Cored holes with Ø > 8" coordinate with Wells.
8. Cored holes with spacing less than 2 times the diameter of the hole coordinate with Wells.

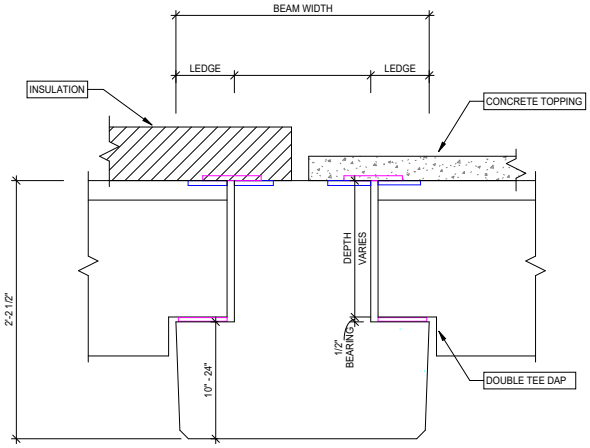


Recommended Connection Details

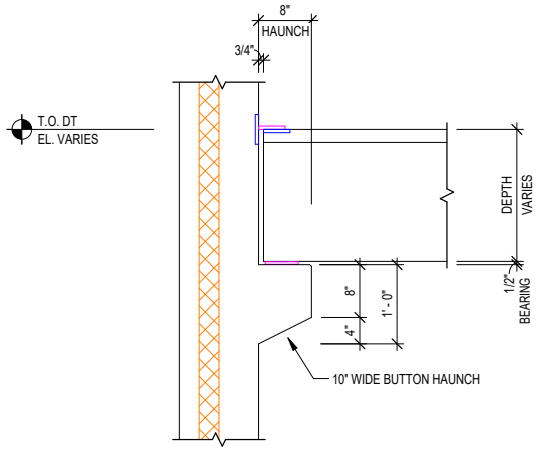
Double tee bearing at beam



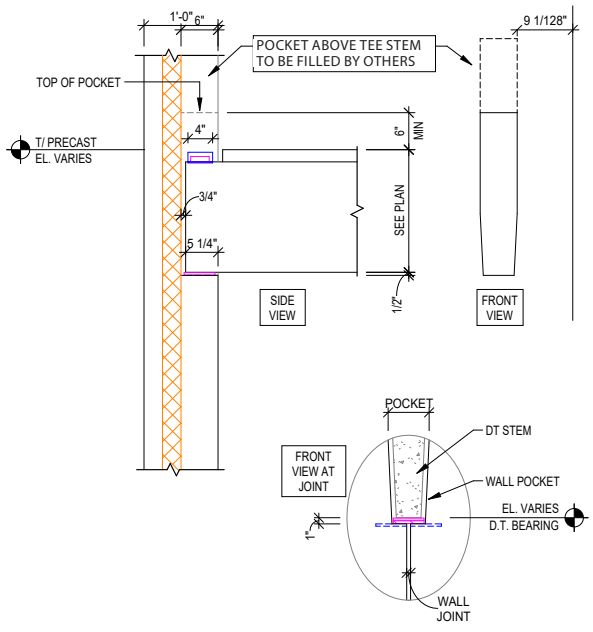
Double tee dap bearing at beam



Double tee bearing at wall haunch

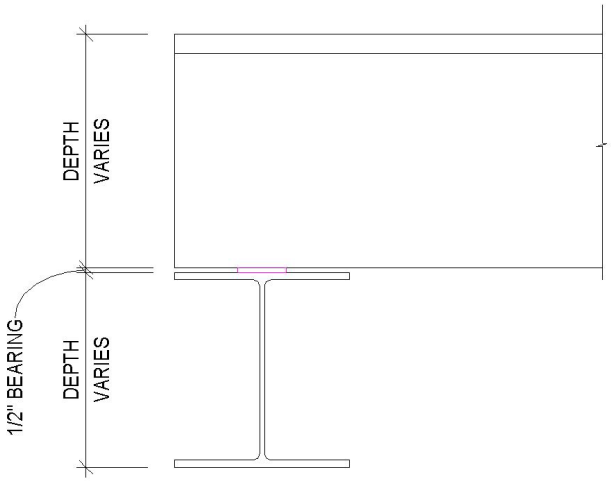


Double tee bearing at wall pocket

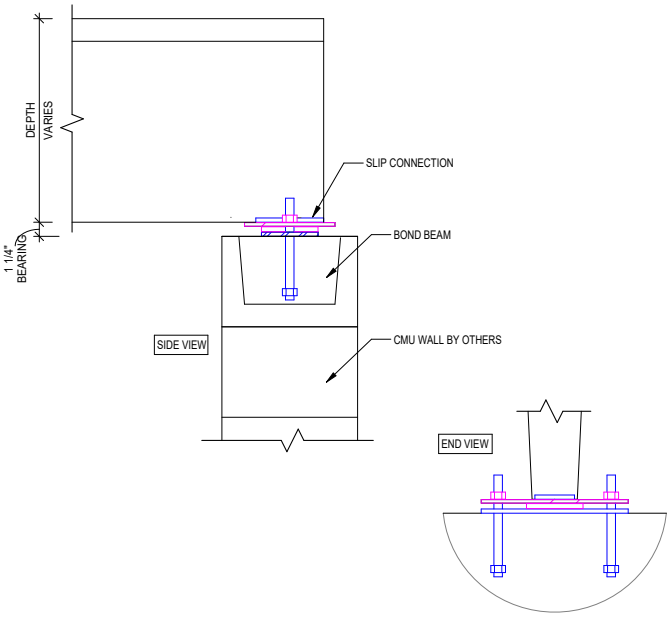


Recommended Connection Details

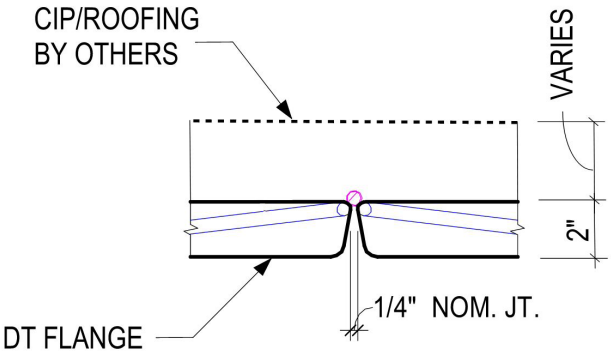
Double tee bearing at steel beam



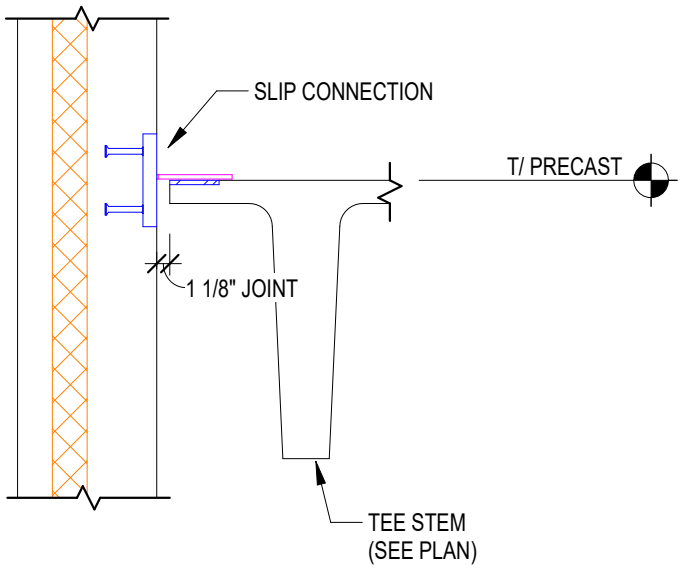
Double tee bearing at CMU wall slip



Double tee flange to flange connection

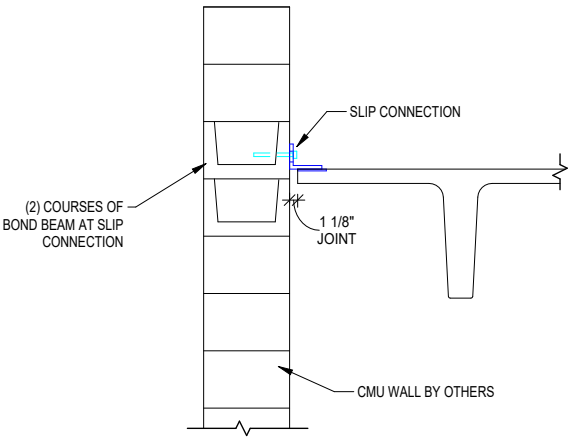


Double tee flange to wall slip

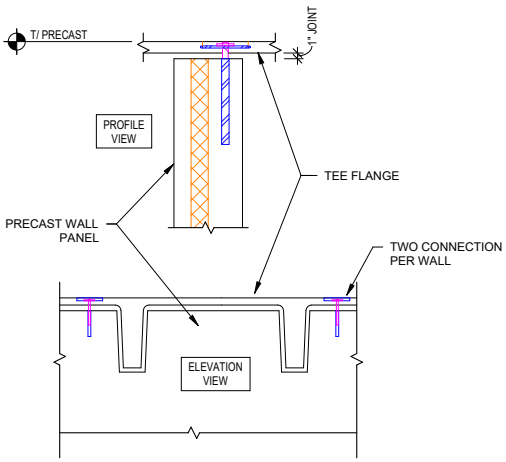


Recommended Connection Details

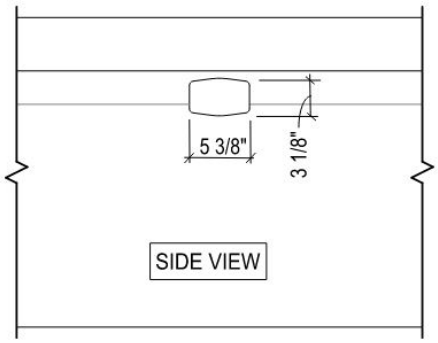
Flange to CMU slip

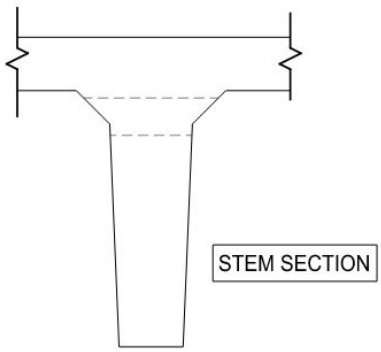


Flange to wall



Stem insert for mechanical conduit

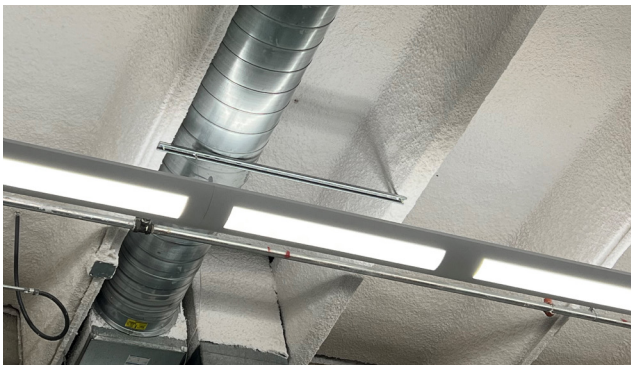




Sealants

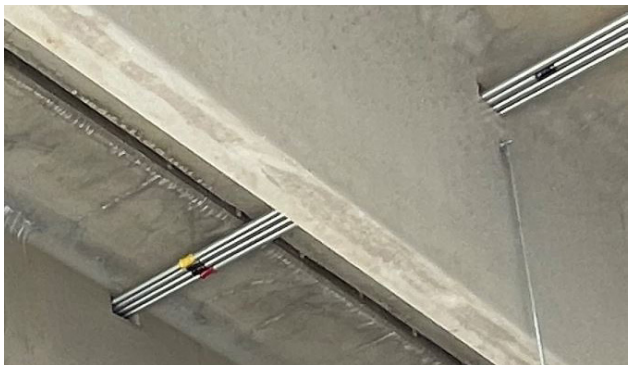
Properly sealing and maintaining double tee joints is important to creating an overall structure that will last. Caulking between joints and pockets can be provided to mitigate undesirable moisture infiltration.

Recommended Connection of Other Material



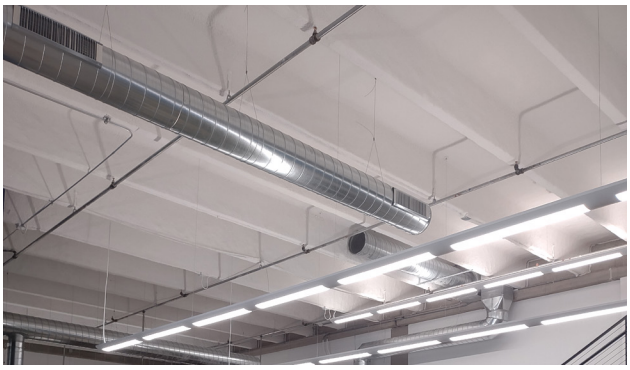
Unistrut

It is common to utilize Unistrut in the bottom of double tee stems. They can be used for ceiling support grids, piping, conduit, partition walls and many other applications. The unistrut is coordinated and can be cast in to the tee stem during the production process.



Electrical block-outs

Standard sizes exist for electrical blockouts that are cast into double tee stems. They are useful for routing conduit below the bottom surface of the deck.



Pipe sleeves

Mechanical coordination is a very important aspect of the coordination process for a project. Piping can be easily attached to the underside of the deck with expansion anchors.

Expansion anchors and concrete screws

The anchors themselves are custom to the customers needs and loading considerations. We recommend that if heavier loading is required that a steel embed plate be utilized instead.

Advantages of Double Tees over Steel Roof Systems

Clean Ceilings

The ledge-free surfaces of a double tee ceiling avoid the build-up of dust and debris present with steel ceiling structures, resulting in a cleaner aesthetic over the project's lifetime and better air quality for occupants.

Lower Profile

Double tees can achieve half the depth of steel ceiling structures on long spans, providing more clearance for the ability to integrate electrical ductwork.

Firewall Cost Savings

When designing a building as a total precast system, the use of double tees reduces the need for firewalls, saving projects time and money.

Technical guidance to create quality projects.

Find more resources to help in planning, designing and constructing your next project by visiting our online Design Handbook.

wellsconcrete.com/design-handbook

WELLS

Our building solution experts are here to help you achieve your vision.

wellsconcrete.com
800.658.7049

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BEAUFORT COUNTY SPECIAL INSPECTION PROCEDURE
IBC CHAPTER 17 2018 EDITION

When Required

All projects that require a South Carolina licensed Architect or Engineer per SC Architectural and Engineering registration law and IBC 1704.

Overview

The program consists of four basic forms, which must be filled out by the SC Design Professional in Responsible Charge and submitted to the building department. The *Statement of Special Inspections, Checklist of Required Special Inspection Reports, Contractor Statement of Responsibility & Owner's Acknowledgement of Special Inspections* must be submitted at the time of application for Plan Review. Copies of all inspectors license should be submitted in accordance with 2018 IBC Section 1704.2.1. The *Final Report of Special Inspections* is *Inspections* is to be send to Building department with all the interim reports, and made available to the building department prior to the Final Building Inspection and, prior each individual inspection.

Statement of Special Inspections

This form provides the general information about the project and identifies the SC Design Professional in Responsible Charge as required in IBC Section 107.3.4. This form is submitted as a condition for permit issuance and as a commitment to Special Inspections.

Checklist of Required Inspection Reports

These forms are to be filled out by the SC Design Professional in Responsible Charge by checking the boxes of the required inspections specific to the project. The names of the individuals or firms providing these inspections will be entered at this time. The qualifications for the inspector will be specific to the inspection preformed. The minimum qualifications will be as listed by the South Carolina Building Code Council Special Inspection Manual document, or as or as approved by the Department Engineer- Building Official. The forms will be reviewed by the Beaufort County Plan Review Department for completeness.

Interim Reports

These reports are the results of the required inspections and must be performed by the individuals designated by the SC Design Professional in Responsible Charge.

All interim reports generated from the inspections must be must be send (mail/email/fax) to Beaufort County Building Department prior County's Building Department regular inspection, and contain the following information:

- The project name and Permit Number.
- The project address.
- The name address and phone number of the individual/firm performing the inspection and generating the report.
- The IBC Section or Table number of the inspection. The criteria for each inspection must be performed as outlined in the appropriate code section or table. Some inspections are periodic, some are continuous, and others are performed only once. When tables are referenced all criteria in the table must be addressed.

Reports shall be submitted to the department engineer and the architect/engineer of record until all work is complete.

Final Report of Special Inspections

The SC Design Professional in Responsible Charge shall collect final inspection reports from all inspections requiring more than one inspection then fill out the *Final Report of Inspections*. This report is certifying that all required inspections have been preformed and all corrections have been made. The report is then send with the interim reports to building department prior to requesting a Final Building Inspection. (CO).

STATEMENT OF SPECIAL INSPECTIONS

Project: _____ Application No._____

Project location: _____

Project Owner: _____

Address: _____

SC Registered Design
Professional in Responsible Charge: _____

Firm (optional): _____

License Number: SC_____ Phone: _____ Fax: _____

Address: _____

Project Architect: _____

Firm (optional): _____

License Number: SC_____ Phone: _____ Fax: _____

Address: _____

Project Structural Engineer: _____

Firm (optional): _____

License Number: SC_____ Phone: _____ Fax: _____

Address: _____

This *Statement of Special Inspections* is submitted as a condition for permit issuance in accordance with the Special Inspection requirements of the International Building Code. It includes a Schedule of Special Inspection Services applicable to this project as well as the name of the Special Inspector(s) and the identity of other approved agencies that are to be retained for conducting these inspections.

The Special Inspector shall keep records of all inspections and shall furnish inspection reports to the Design Professional in Responsible Charge and the Department Engineer- Building Official. Discovered discrepancies shall be brought to the immediate attention of the Contractor for correction. If such discrepancies are not corrected, the discrepancies shall be brought to the attention of the Design Professional in Responsible Charge and the Department Engineer- Building Official. The Special Inspection program does not relieve the Contractor of his or her responsibilities.

A *Final Report of Special Inspections* documenting completion of all required Special Inspections and correction of any discrepancies noted in the inspections shall be submitted prior to issuance of a Certificate of Occupancy.

Job site safety and means and methods of construction are solely the responsibility of the Contractor.

Prepared by:

_____
Type or print name

_____
Signature Date

Accepted by:

_____
Type or print name

_____
Signature Date

Individual Seal	Firm Seal

CONTRACTOR'S STATEMENT OF RESPONSIBILITY

FOR WORK REQUIRING SPECIAL INSPECTIONS, STRUCTURAL OBSERVATIONS AND CONSTRUICTION MATERIAL TESTING IN ACCORDANCE WITH CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE.

Pursuant to Section 1704, Chapter 17 of the 2018 International Building Code, the contractor identified herein is responsible for the construction of main wind or seismic force resisting system, designated seismic system or wind or seismic resisting components listed in the statement of special inspections of this project and; is hereby submitting this statement of responsibility to the building official of the jurisdiction having authority over this permit and to the owner of this project.

Permit No: _____

Project Address: _____

☐ Please check if you are the owner of this project and also acting as the contractor/builder (owner-builder)

Contractor's Company Name: _____

State of South Carolina Contractor's License Number: _____ **Expiration Date:** _____

Name (Type or Print): _____
(First) **(M.I.)** **(Last)**

Title/ Position in the Contractor's/Builder's Organization: _____

Mailing Address: _____

Email: _____ **Phone:** _____

1. **I acknowledge and am aware of special requirements contained in the statement of special inspections**
2. **I acknowledge that control will be exercised to obtain conformance with the construction documents approved by the building official**
3. **I will have in place procedures for exercising control within our (the contractor's/builder's) organization for the method and frequency of reporting and the distribution of the reports**
4. **I certify that I will have a qualified person within our (the contractor's/builder's) organization to exercise such control**

Signature: _____ **Date:**_____

OWNER'S ACKNOWLEDGEMENT OF SPECIAL INSPECTIONS

Project Name: _____

Project Address: _____

Owner's Name/Company: _____

Owner's Address: _____

Owner's Phone: _____ Owner's Fax: _____

Owner's Email: _____

SC Registered Design Professional: _____

License Number: SC_____ Phone: _____ Fax: _____

Address: _____

Email: _____

By signing this acknowledgement I understand that the SC Registered Design professional in charge and all SC registered special inspectors are hired by myself being listed as the owner of the above referenced project at the above reference address and/or my authorized agent as approved by the building official pursuant to the International Building Code Section 1704 and the South Carolina Building Codes Council.

_____ _____

Signature Date

_____

Print Name

CHECKLIST OF REQUIRED SPECIAL INSPECTION REPORTS & INDIVIDUALS PERFORMING INSPECTIONS

Project_____Application No._____

Project location: _____

☐ **Concrete** IBC Table 1705.3
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Exterior Insulation and Finish Systems (EIFS)** IBC Section 1705.15
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Fabricator** ISO 9000 Lead Quality Assurance Auditor. IBC 1704.2.5
Accrediting Agency: _____ Phone: _____

- ❑ **Metal Building Fabrication**
  Accrediting Agency: _____ Phone: _____
- ❑ **Precast Concrete Fabrication**
  Accrediting Agency: _____ Phone: _____
- ❑ **Prefabricated Trusses**
  Accrediting Agency: _____ Phone: _____
- ❑ **Steel Bar Joist Fabrication**
  Accrediting Agency: _____ Phone: _____
- ❑ **Structural Steel Fabrication**
  Accrediting Agency: _____ Phone: _____

☐ **Masonry** IBC 1705.4
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Mastic and Intumescent fire-Resistant Coatings** IBC Section 1705.14
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Site Welding** IBC Table 1705.2.2
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Soils** IBC Sections 1705.6 through 1705.9
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

- ❑ **Fill Placement** IBC 1803.5.8
  Individual Name: _____ Phone: _____

  SC Registration Number:_____ Classification: _____

- ❑ **Driven Deep Foundations** IBC 1705.7
  Individual Name: _____ Phone: _____

  SC Registration Number:_____ Classification: _____

- ❑ **Cast In Place Deep Foundations** IBC Section 1705.8
  Individual Name: _____ Phone: _____

  SC Registration Number:_____ Classification: _____

- ❑ **Helical Pile Foundations** IBC Section 1705.9
  Individual Name: _____ Phone: _____

  SC Registration Number:_____ Classification: _____

☐ **Special Cases** IBC Section 1705.1.1
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Special Inspection for Smoke Control** IBC Section 1705.17.1 through 1705.17.2
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Special Inspections for Seismic Resistance** IBC Section 1705.12
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

- ❑ **Structural Steel** IBC Section 1705.12.1
  Individual Name: _____ Phone: _____

  SC Registration Number:_____ Classification: _____

- ❑ **Structural Wood** IBC Section 1705.12.2
  Individual Name: _____ Phone: _____

  SC Registration Number:_____ Classification: _____

- ❑ **Cold Formed Steel Light Framing** IBC Section 1705.12.3
  Individual Name: _____ Phone: _____

  SC Registration Number:_____ Classification: _____

- ❑ **Storage Racks** IBC Section 1705.12.7
  Individual Name: _____ Phone: _____

  SC Registration Number:_____ Classification: _____

- ❑ **Architectural Components and Access Floors** IBC Section 1705.12.5 and 1705.12.5.1
  Individual Name: _____ Phone: _____

  SC Registration Number:_____ Classification: _____

- ❑ **Plumbing, Mechanical and Electrical Components** IBC Section 1705.12.6
  Individual Name: _____ Phone: _____

  SC Registration Number:_____ Classification: _____

❑ **Designated Seismic System Verification** IBC Section 1705.12.4
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Sprayed Fire Resistance Materials** IBC Section 1705.14 through 1705.14.6
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Steel Frame** IBC Table 1705.2.1
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

❑ **High Strength Bolts** AISC 360
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Structural Observations** IBC Section 1704.6 (Risk Category III & IV or over 75')
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Testing and Qualification for Seismic Resistance** IBC Section 1705.13
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Structural Steel** IBC Sections 1705.13.1 as required by 1705.13
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Seismic Certification of Nonstructural Components** IBC Section 1705.13.2 as required by 1705.13
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Seismic Isolation Systems**IBC Section 1705.13.4 as required by 1705.13
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Wood Construction** IBC 1705.5
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

Prepared by: _____SC License No. _____

Approved by: _____ Date _____

FINAL REPORT OF SPECIAL INSPECTIONS

Project: _____ Application No.: _____

Project location: _____

Project Owner: _____

Address: _____

SC Registered Design
Professional in Responsible Charge: _____

Firm (optional): _____

License No.: SC_____ Phone: _____ Fax: _____

Address: _____

To the best of my information, knowledge, and belief, the Special Inspections and/or Testing requirements for this project, and designated for this Agent in the *Checklist of Required Inspection Reports, Checklist of Quality Assurance Plan* and the *Checklist of Required Testing* submitted for permit, have been completed in accordance with the contract documents.

Interim reports submitted prior to this *Final Report of Inspections* form a basis for, and are to be considered an integral part of this Final Report. All discrepancies that were outstanding in all of the Interim reports have been corrected.

Prepared by:

_____
Type or print name

_____
Firm (optional)

_____
Signature Date

Individuals Seal	Firm Seal

SPECIAL INSPECTOR QUALIFICATIONS

INTRODUCTION

This policy sets forth the minimum qualification requirements for individuals and firms offering Special Inspection services. Nothing in this policy prevents the project owner or the registered design professional in responsible charge, acting as the owner's agent, from requiring qualifications above those identified herein.

An approved agency shall employ experienced personnel educated in conducting, supervising and evaluating tests and/or inspections.

Firms offering special inspection services for projects and fabrications located in South Carolina shall be licensed, registered, or certified by either; the South Carolina Board of Architectural Examiners, the South Carolina Contractors Licensing Board or the South Carolina Board of Professional Engineers and Land Surveyors in accordance with South Carolina Code of Laws, Title 40, Chapter 26.

Any questions or correspondence regarding special inspections should be directed to the building official for the jurisdiction in which the project will be located.

This Special Inspection Policy in no way relieves any participant from the proper performance of work according to contract documents and applicable codes, standards and regulation.

INSPECTION OF FABRICATORS

Fabrication and Implementation Procedures

ISO 9000 Lead Quality Assurance Auditor and meet the applicable special inspector qualification requirements identified herein

Fabricator Approval

ISO 9000 Lead Quality Assurance Auditor and meet the applicable special inspector qualification requirements identified herein

The following fabricator certifications are considered sufficient.

Metal Building Fabrication

Current American Institute of Steel Construction - Metal Building Systems Certification

Precast Concrete Fabrication

Current National Precast Concrete Association Plant Certification

Prefabricated Trusses

Current Truss Plate Institute Certification

Steel Bar Joist Fabrication

Current Steel Joist Institute Certification

Structural Steel Fabrication

Current American Institute of Steel Construction - Conventional Steel Building Structures

Current American Institute of Steel Construction - Complex Steel Building Structures

Current American Institute of Steel Construction - Simple Steel Bridges

Current American Institute of Steel Construction - Major Steel Bridges

QUALIFICATION OF SPECIAL INSPECTORS

The special inspector shall be a qualified person licensed in accordance with the requirements of the State of South Carolina Labor, Licensing and Regulation Department. The qualifications of all personnel new to an agency shall be provided to and approved by the building official before being assigned to any project.

Except for professional engineers and architects registered in the State of South Carolina, special inspectors shall have a license. The following is the current minimum requirements to obtain a license.

Steel Construction

Welding

Current American Welding Society (AWS) Certified Welding Inspector or

Current Canadian Welding Bureau Certified Welding Inspector

Nondestructive Testing of Welds

Current Nondestructive Testing Level II or III (Magnetic Particle Testing, Liquid Penetrate Testing, Ultrasonic Testing or Radiographic Testing)

(1) Level II personnel shall be qualified in accordance with the American Society of Nondestructive Testing (ASNT) to perform Magnetic Particle Testing, Liquid Penetrant Testing and Ultrasonic Testing, or

(2) Level II certification as certified by a Level III examiner to perform Magnetic Particle Testing, Liquid Penetrant Testing and Ultrasonic Testing. Level III Examiner shall be certified by ASNT and must submit a copy of his certification with the Level II certification.

Steel Frame Inspection/High-Strength Bolting

Current International Code Council (ICC) Structural Steel and Bolting Inspector

Concrete Construction

Reinforced Concrete

Current ICC Reinforced Concrete Special Inspector or

South Carolina Engineer in Training (EIT) with one year related experience under supervision of a licensed PE

Prestressed Concrete - Pretension tendons

Current ICC Reinforced Concrete Certification or

South Carolina Engineer in Training (EIT) with one year related experience under supervision of a licensed PE

Prestressed Concrete - Post-tension tendons

Current Post-Tensioning Institute (PTI) Certification Level I or

South Carolina Engineer in Training (EIT) with one year related experience under supervision of a licensed PE

Prestressed Concrete - Post-Tension Slabs-on-Ground

Current PTI Certification Level I or

South Carolina Engineer in Training (EIT) with one year related experience under supervision of a licensed PE

Precast Concrete Erection

The special inspector shall be registered for Reinforced Concrete or Welding as required based on the type of inspection being performed

Structural Masonry Construction

Current ICC Structural Masonry certificate and one year related experience or

South Carolina Engineer in Training (EIT) with one year related experience including plan reading under supervision of a licensed PE

Modular Retaining Walls

South Carolina Engineer in Training (EIT) with one year related experience under supervision of a licensed PE

Soils

Excavation and Filling/Verification of Soils

Current National Institute for Certification in Engineering Technologies (NICET) Level II certification in geotechnical engineering technology/construction or

Current NICET Level II in soils or

South Carolina Engineer in Training (EIT) with one year related experience under supervision of a licensed PE or

Soils Special Inspector or

Current SCDOT Earthwork, Drainage and Base Certification

Deep Foundations

Current NICET Level II certification in geotechnical engineering technology/construction or

South Carolina Engineer in Training (EIT) with one year related experience under supervision of a licensed PE or

Current SCDOT Foundation Inspector Certification

Sprayed Fire-Resistant Materials

Current ICC Spray-Applied Fire Proofing certificate

Smoke Control

Current NICET N-II-FPAS or

Current NICET N-II-FPFA or

Current National Environmental Balancing Bureau or

Current Associated Air Balance Council

Exterior Insulation And Finish System

South Carolina EIT with one year related experience

Special Cases

Approval on a case-by-case basis

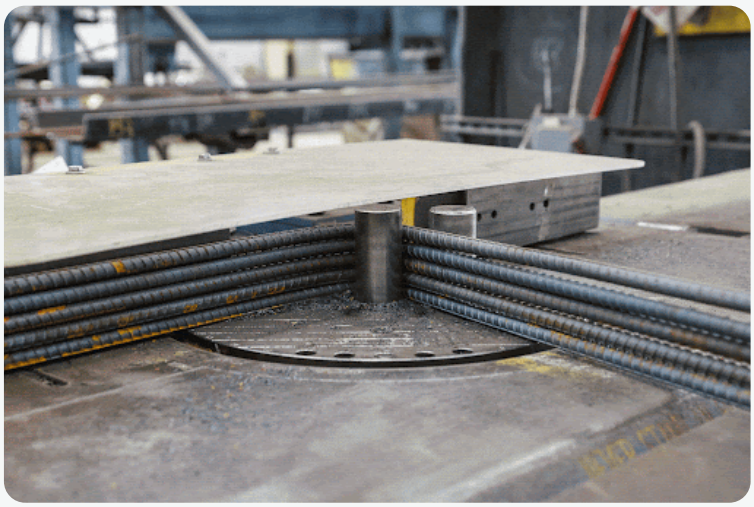
Why is Rebar Used in Precast Concrete Structures?

March 20, 2024

Precast concrete has revolutionized the construction industry, offering numerous advantages such as speed of

Privacy - Terms

construction, cost-effectiveness, and superior quality. One crucial component that enhances the strength and durability of precast concrete structures is reinforcement bars, commonly known as rebar. In this blog, we will explore the reasons why rebar is essential in precast concrete structures and how it effectively contributes to a structure's overall performance and longevity.



What is Rebar?

Rebar, short for reinforcement bar, is a steel bar or mesh of steel wires used as a tension device in reinforced concrete and masonry structures. It is typically manufactured with ridges or deformations on its surface to provide a better bond with the concrete. Rebar comes in assorted sizes/grades and can even be coated with epoxy to provide protection from corrosion. The specific type of rebar selected depends on the structural requirements of the project.

Enhancing Structural Integrity

One of the primary reasons for using rebar in precast concrete structures is to enhance their structural integrity. Concrete is strong in compression but weak in tension. When subjected to tensile forces such as bending or stretching, concrete tends to crack. Rebar counters this weakness by providing tensile strength to the concrete element, effectively resisting tensile stresses, and preventing cracks from forming or spreading.

Load-Bearing Capacity

Rebar plays a crucial role in increasing the load-bearing capacity of precast concrete elements. By reinforcing concrete with strategically placed rebar, engineers can design structures that can withstand heavier loads, ensuring safety and structural stability over the long term. This is particularly important in infrastructure projects such as bridges, marine ports, tunnels, airports, and high-rise buildings where heavy loads and dynamic forces are common.

Limiting Cracks from Spreading

In addition to enhancing load-bearing capacity, rebar limits cracks from spreading. While concrete may still develop cracks due to several factors such as shrinkage, temperature changes, and external loads, the presence of rebar helps distribute stresses and prevents cracks from spreading extensively. By bridging the cracks and providing additional strength to the concrete, rebar ensures that any potential cracking remains localized and does not compromise the overall integrity and performance of the precast structures. This reinforcement mechanism significantly enhances the durability and longevity of precast concrete structures, maintaining their functionality and safety over time.

Durability and Longevity

The use of rebar in precast concrete contributes to the overall durability and longevity of structures. Concrete structures reinforced with high-quality rebar are better equipped to withstand harsh environmental conditions, seismic activity, and other external forces over their service life. This durability not only reduces maintenance costs but also ensures the safety and reliability of the structure for occupants and users.

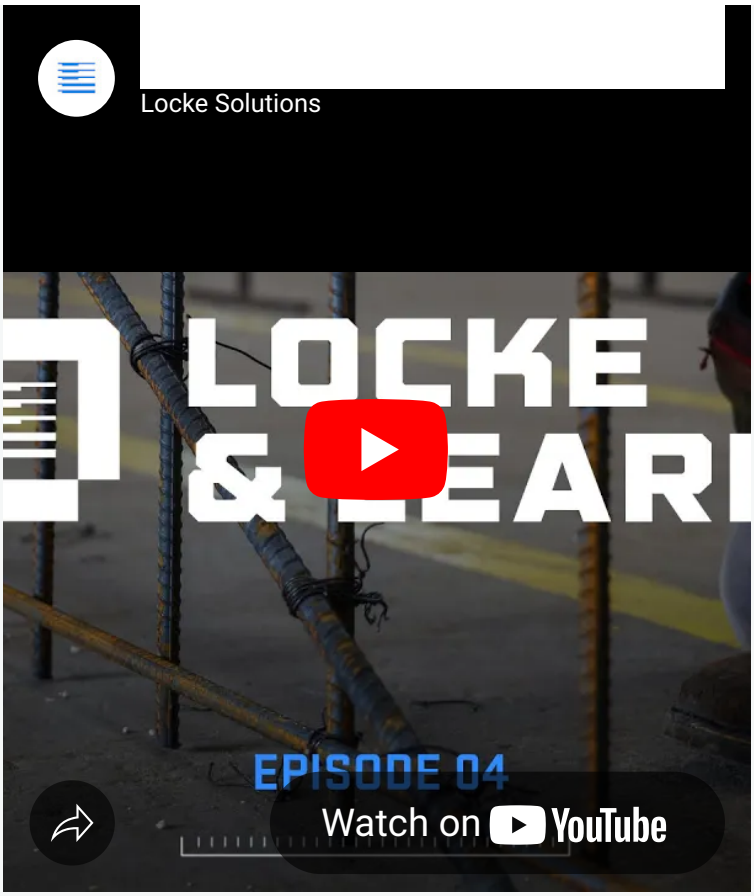
Compliance with Building Codes and Standards

Building codes and standards mandate the use of reinforcement in concrete structures to meet minimum safety requirements. Rebar placement, size, spacing, and material specifications are governed by these codes to ensure structural integrity and safety. Precast concrete manufacturers should always adhere to these standards and guidelines, providing customers with reliable and code-compliant products for their projects.

Final Thoughts

In conclusion, rebar plays a critical role in enhancing the strength, durability, and safety of precast concrete structures. By providing tensile strength, increasing load-bearing capacity, preventing cracking, and ensuring compliance with building codes, rebar reinforces the structural integrity of precast elements such as beams, columns, and panels. As a leader in precast concrete solutions, our team is fully dedicated to

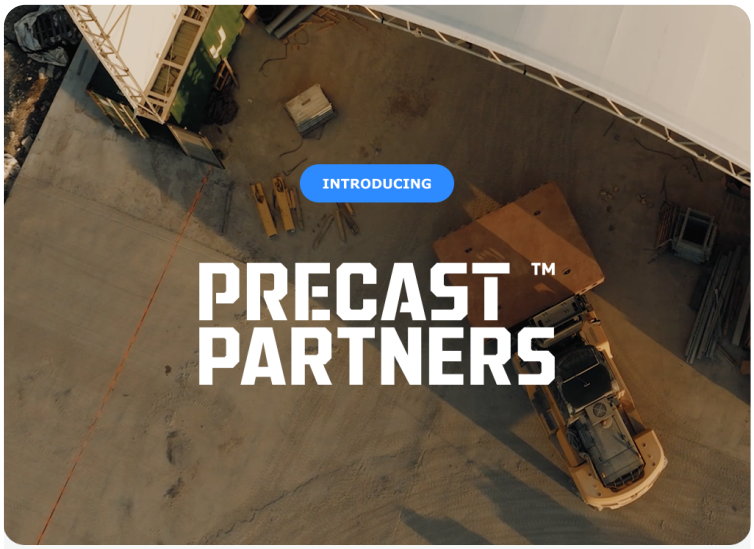
ensuring all our structures are duly reinforced and built-to-last for our customers.



Are you ready to get pricing for your next precast project? Contact our sales team at sales@lockesolutions.com.

Keeping Reading

See All



APRIL 26, 2025

Introducing: Precast Partners

APRIL 2, 2025

Manholes Product Spotlight: Built to

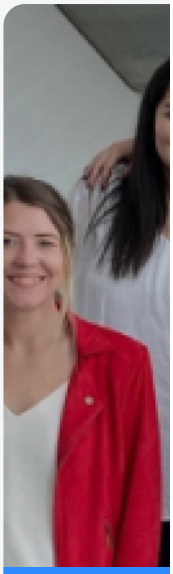
Last, Engineered for Strength

FEBRUARY 17, 2025

Locke Named One of Houston's Top Workplaces by the Houston Chronicle

Learn more about Locke™

Capabilities →



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SOUTH CAROLINA

Building Codes Council</bcc>

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APPLICATION STATUS<https://eservice.llr.sc.gov/sso/applicationstatus/index>

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<https://eservice.llr.sc.gov/onlineverificationbulk>

South Carolina Modifications to International Codes

The modifications as stated herein, have been made by the Building Codes Council to the codes listed and must be included in the building codes for all local jurisdictions.

2018 Code Modifications</bcc/pdffiles/2018 statewide modifications (final 1.1.2020).pdf>

2015 Code Modifications</bcc/pdffiles/2015%20code%20modifications.pdf>

2012 Code Modifications</bcc/pdffiles/2012%20code%20modifications.pdf>

2008 National Electrical Code</bcc/pdffiles/08%20nec.doc.pdf>

2006 International Building Code </bcc/pdffiles/06%20ibc.pdf>

2006 International Residential Code </bcc/pdffiles/06%20irc.pdf>

2006 International Fuel Gas Code </bcc/pdffiles/06%20ifgc.pdf>

2006 International Fire Code </bcc/pdffiles/06%20ifc.pdf>

2005 National Electrical Code</bcc/pdffiles/05%20nec.pdf>

2003 International Building Code</bcc/pdffiles/03%20ibc.pdf>

2003 International Residential Code</bcc/pdffiles/03%20irc.pdf>

2003 International Fuel Gas Code</bcc/pdffiles/03%20ifgc.pdf>

2003 International Fire Code</bcc/pdffiles/03%20ifc.pdf>

2000 International Building Code</bcc/pdffiles/00%20ibc.pdf>

2000 International Residential Code</bcc/pdffiles/00%20irc.pdf>

2000 International Plumbing Code</bcc/pdffiles/00%20ipc.pdf>

2000 International Fire Code</bcc/pdffiles/00%20ifc.pdf>

QUICK LINKS

Calendar</bcc/cal.aspx>

Agendas</bcc/agendas.aspx>

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Minutes</bcc/minutes/minutes.aspx>

BCC License Status Changes</bccstatuschanges/bccstatuschanges.html>

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110 Centerview Dr, Columbia SC
Board Executive: Maggie Smith
Administrative Coordinator: Teresa Martin

FAQ</bcc/faq.aspx>

</>

South Carolina Department of Labor, Licensing and Regulation

Synergy Business Park; Kingstree Building
110 Centerview Dr.
Columbia, South Carolina 29210
(803) 896-4300
Office Hours: 8:30am - 5:00pm

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APPLICATION STATUS<https://eservice.llr.sc.gov/sso/applicationstatus/index> LICENSEE LOOKUP

BOARD ORDERS DOCUMENT SUBMISSION<https://eservice.llr.sc.gov/documentsubmission/>

APPLY FOR A LICENSE</bcc/pub.aspx> MILITARY SPOUSE LICENSURE</military.aspx>

NEW LLR BULK LICENSE VERIFICATION SERVICE

NOW AVAILABLE FOR BUILDING CODES COUNCIL LICENSEES AND EMPLOYERS

LLR is happy to announce the launch of **LLR Bulk License Verification**, a paid service meant to aid employers and other organizations in managing large numbers of licenses. Conceived as a supplement to LLR Licensee Lookup, LLR Bulk License Verification accepts a list of Building Codes Council licenses and produces a report indicating each licensee's current status and expiration date.

LLR LABOR LICENSING REGULATION

REGISTER

<https://eservice.llr.sc.gov/onlineverificationbulk>

View Adopted Building Codes

After each new code edition is issued by the International Code Council (ICC), the SC Building Codes Council begins the process of adopting and/or modifying the Codes. Below are links to the current & previously adopted Building Codes.

View adopted Building Codes:
Building Codes

The article below outlines what building codes are in effect for South Carolina, along with a history of the code adoption:
Building Codes in Effect in South Carolina</bcc/pdffiles/building%20codes%20in%20effect%20for%20south%20carolina.pdf>

Code Modification

View Wind/Seismic Maps

Accessibility Provisions

Fair Housing Law

Energy Efficient Standards Act

Statutes & Regulations

QUICK LINKS

Calendar</bcc/cal.aspx>

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South Carolina Code of Laws
Unannotated

Title 40 - PROFESSIONS AND OCCUPATIONS

CHAPTER 11
Contractors

ARTICLE 1
In general

SECTION 40-11-5. Application of chapter; conflict of laws.

Unless otherwise provided for in this chapter, Article 1, Chapter 1, Title 40 applies to licensed contractors; however, if there is a conflict between this chapter and Article 1, Chapter 1, Title 40, the provisions of this chapter control.

HISTORY: 1998 Act No. 440, SECTION 1.

SECTION 40-11-10. South Carolina Contractor's licensing Board created; membership; terms; filling vacancies.

(A) There is created the South Carolina Contractor's Licensing Board under the administration of the Department of Labor, Licensing and Regulation. The purpose of this board is to protect the health, safety, and welfare of the public through the regulation of businesses and individuals who identify, assess, and provide contracting work to individuals or other legal entities through the administration and enforcement of this chapter and any regulation promulgated under this chapter and Article 1, Chapter 1.

(B) The board consists of nine members appointed by the Governor, seven of whom must be licensed contractors. Of the seven contractors, one must have as the larger part of his business the construction of highways, one must have as the larger part of his business the construction of public utilities, one must have as the larger part of his business the construction of commercial, industrial, and institutional buildings, one must have as the larger part of his business the performance of heating, plumbing, or air conditioning work, one must have as the larger part of his business the performance of electrical work, and one must have as the larger part of his business the installation, servicing, and responding to burglar or fire alarm systems, and one must have as the larger part of his business the performance of fire sprinklers systems work. Two members must be consumer members representing the public at large. Nominations for appointment to the board may be submitted to the Governor by the board or an individual,

SECTION 40-11-420. Requirements for obtaining building permit; list of licensed contractors performing work on project.

(A) Building permits, when required by law, must be obtained by the sole prime contractor in the name appearing on that entity's contractor's license.

(B) When there is more than one prime contractor working with a construction manager, the building permit must be obtained by the construction manager in the name appearing on that entity's professional license, and the construction manager must list on the building permit application the names and license numbers of all known licensed contractors performing work on the project. The construction manager must also be identified as such on the permit application by name, license number, and type of license he holds.

(C) If there is more than one prime contractor and no construction manager or if the owner is performing work pursuant to Section **40-11-360**(A)(5),(6), or (7), the owner must obtain the building permit and must list on the building permit application the name and license number of all licensed contractors performing work on the project.

HISTORY: 1998 Act No. 440, SECTION 1.

SECTION 40-11-430. Severability.

If a provision of this chapter or the application of a provision to a person or circumstance is held invalid, the invalidity does not affect other provisions or applications of this chapter which can be given effect without the invalid provision or application, and to this end the provisions of the chapter are severable.

HISTORY: 1998 Act No. 440, SECTION 1.

ARTICLE 3
South Carolina Notice and Opportunity to Cure Nonresidential Construction Defects Act

SECTION 40-11-500. Citation of article.

This article may be cited as the "South Carolina Notice and Opportunity to Cure Nonresidential Construction Defects Act".

HISTORY: 2006 Act No. 371, SECTION 1.

SECTION 40-11-510. Definitions.

As used in this article:

(1) "Action" means a civil action in any forum, including an arbitration proceeding, for damages

CHARLESTON COUNTY SPECIAL INSPECTION PROCEDURE
IBC CHAPTER 17 2021 EDITION

When Required

All projects that require a South Carolina licensed Architect or Engineer per SC Architectural and Engineering registration law and IBC 1704.

Overview

The program consists of four basic forms, which must be filled out by the SC Design Professional in Responsible Charge and submitted to the building department. The *Statement of Special Inspections, Checklist of Required Special Inspection Reports, Contractor Statement of Responsibility & Owner's Acknowledgement of Special Inspections* must be submitted at the time of application for Plan Review. Copies of all inspectors license should be submitted in accordance with 2021 IBC Section 1704.2.1. The *Final Report of Special Inspections* is *Inspections* is to be send to Building department (BIS) with all the interim reports and made available to the building department (BIS) prior to the Final Building Inspection and, prior each individual inspection.

Statement of Special Inspections

This form provides the general information about the project and identifies the SC Design Professional in Responsible Charge as required in IBC Section 107.3.4. This form is submitted as a condition for permit issuance and as a commitment to Special Inspections.

Checklist of Required Inspection Reports

These forms are to be filled out by the SC Design Professional in Responsible Charge by checking the boxes of the required inspections specific to the project. The names of the individuals or firms providing these inspections will be entered at this time. The qualifications for the inspector will be specific to the inspection preformed. The minimum qualifications will be as listed by the South Carolina Building Code Council Special Inspection Manual document, or as approved by the Building Official. The forms will be reviewed by the Charleston County Plan Review Division for completeness.

Interim Reports

These reports are the results of the required inspections and must be performed by the individuals designated by the SC Design Professional in Responsible Charge.

All interim reports generated from the inspections must be send (mail/email/fax BuildingServices@charlestoncounty.org) to Charleston County Building Department (BIS) prior County's Building Department regular inspection, and contain the following information:

- The project name and Permit Number.
- The project address.
- The name address and phone number of the individual/firm performing the inspection and generating the report.
- The IBC Section or Table number of the inspection. The criteria for each inspection must be performed as outlined in the appropriate code section or table. Some inspections are **periodic**, some are **continuous**, and others are performed only once. When tables are referenced all criteria in the table must be addressed.

Weekly reports shall be submitted to the building official and the architect/engineer of record until all work is complete.

Final Report of Special Inspections

The SC Design Professional in Responsible Charge shall collect final inspection reports from all inspections requiring more than one inspection then fill out the *Final Report of Inspections*. This report is certifying that all required inspections have been performed and all corrections have been made. The report is then put with the interim reports in the binder on the jobsite prior to requesting a Final Building Inspection.

STATEMENT OF SPECIAL INSPECTIONS

Project: _____ Application No._____

Project location: _____

Project Owner: _____

Address: _____

SC Registered Design
Professional in Responsible Charge: _____

Firm (optional): _____

License Number: SC_____ Phone: _____ Fax: _____

Address: _____

Project Architect: _____

Firm (optional): _____

License Number: SC_____ Phone: _____ Fax: _____

Address: _____

Project Structural Engineer: _____

Firm (optional): _____

License Number: SC_____ Phone: _____ Fax: _____

Address: _____

This *Statement of Special Inspections* is submitted as a condition for permit issuance in accordance with the Special Inspection requirements of the International Building Code. It includes a Schedule of Special Inspection Services applicable to this project as well as the name of the Special Inspector(s) and the identity of other approved agencies that are to be retained for conducting these inspections.

The Special Inspector shall keep records of all inspections and shall furnish inspection reports to the Design Professional in Responsible Charge and the Building Official. Discovered discrepancies shall be brought to the immediate attention of the Contractor for correction. If such discrepancies are not corrected, the discrepancies shall be brought to the attention of the Design Professional in Responsible Charge and the Building Official. The Special Inspection program does not relieve the Contractor of his or her responsibilities.

A *Final Report of Special Inspections* documenting completion of all required Special Inspections and correction of any discrepancies noted in the inspections shall be submitted prior to issuance of a Certificate of Occupancy.

Job site safety and means and methods of construction are solely the responsibility of the Contractor.

Prepared by:

_____
Type or print name

_____
Signature Date

Accepted by:

_____
Type or print name

_____
Signature Date

Individual Seal

Firm Seal

CONTRACTOR'S STATEMENT OF RESPONSIBILITY

FOR WORK REQUIRING SPECIAL INSPECTIONS, STRUCTURAL OBSERVATIONS AND CONSTRUICTION MATERIAL TESTING IN ACCORDANCE WITH CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE.

Pursuant to Section 1704, Chapter 17 of the 2021 International Building Code, the contractor identified herein is responsible for the construction of main wind or seismic force resisting system, designated seismic system or wind or seismic resisting components listed in the statement of special inspections of this project and; is hereby submitting this statement of responsibility to the building official of the jurisdiction having authority over this permit and to the owner of this project.

Permit No: _____

Project Address: _____

☐ Please check if you are the owner of this project and also acting as the contractor/builder (owner-builder)

Contractor's Company Name: _____

State of South Carolina Contractor's License Number: _____ Expiration Date: _____

Name (Type or Print): _____
(First) (M.I.) (Last)

Title/ Position in the Contractor's/Builder's Organization: _____

Mailing Address: _____

Email: _____ Phone: _____

1. **I acknowledge and am aware of special requirements contained in the statement of special inspections**
2. **I acknowledge that control will be exercised to obtain conformance with the construction documents approved by the building official**
3. **I will have in place procedures for exercising control within our (the contractor's/builder's) organization for the method and frequency of reporting and the distribution of the reports**
4. **I certify that I will have a qualified person within our (the contractor's/builder's) organization to exercise such control**

Signature: _____ Date:_____

OWNER'S ACKNOWLEDGEMENT OF SPECIAL INSPECTIONS

Project Name: _____

Project Address: _____

Owner's Name/Company: _____

Owner's Address: _____

Owner's Phone: _____ Owner's Fax: _____

Owner's Email: _____

SC Registered Design Professional: _____

License Number: SC_____ Phone: _____ Fax: _____

Address: _____

Email: _____

By signing this acknowledgement I understand that the SC Registered Design professional in charge and all SC registered special inspectors are hired by myself being listed as the owner of the above referenced project at the above reference address and/or my authorized agent as approved by the building official pursuant to the International Building Code Section 1704 and the South Carolina Building Codes Council.

_____ _____

Signature Date

_____

Print Name

CHECKLIST OF REQUIRED SPECIAL INSPECTION REPORTS & INDIVIDUALS PERFORMING INSPECTIONS

Project_____Application No._____

Project location: _____

☐ **Concrete** IBC Table 1705.3

Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Exterior Insulation and Finish Systems (EIFS)** IBC Section 1705.17

Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Fabricator** ISO 9000 Lead Quality Assurance Auditor. IBC 1704.2.5

Accrediting Agency: _____ Phone: _____

☐ **Metal Building Fabrication**
Accrediting Agency: _____ Phone: _____

☐ **Precast Concrete Fabrication**
Accrediting Agency: _____ Phone: _____

☐ **Prefabricated Trusses**
Accrediting Agency: _____ Phone: _____

☐ **Steel Bar Joist Fabrication**
Accrediting Agency: _____ Phone: _____

☐ **Structural Steel Fabrication**
Accrediting Agency: _____ Phone: _____

☐ **Masonry** IBC 1705.4

Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Mastic and Intumescent Fire-Resistant Coatings** IBC Section 1705.16

Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Site Welding** IBC Table 1705.2.2

Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Soils** IBC Sections 1705.6 through 1705.9

Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Fill Placement** IBC 1803.5.8

Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Driven Deep Foundations** IBC 1705.7

Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Cast In Place Deep Foundations** IBC Section 1705.8

Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Helical Pile Foundations** IBC Section 1705.9

Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Special Cases** IBC Section 1705.1.1

Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Fire-resistant Penetrations and Joints** IBC Section 1705.18

Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Special Inspection for Smoke Control** IBC Section 1705.19

Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Special Inspections for Seismic Resistance** IBC Section 1705.13

Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Structural Steel** IBC Section 1705.13.1

Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Structural Wood** IBC Section 1705.13.2
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Cold Formed Steel Light Framing** IBC Section 1705.13.3
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Storage Racks** IBC Section 1705.13.7
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Architectural Components and Access Floors** IBC Section 1705.13.5 and 1705.13.5.1
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Plumbing, Mechanical and Electrical Components** IBC Section 1705.13.6
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Designated Seismic System Verification** IBC Section 1705.13.4
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Sprayed Fire Resistance Materials** IBC Section 1705.15 through 1705.15.6
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Steel Frame** IBC Table 1705.2.1
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **High Strength Bolts** AISC 360
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Structural Observations** IBC Section 1704.6 (Risk Category III & IV or over 75')
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Testing and Qualification for Seismic Resistance** IBC Section 1705.14
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Structural Steel** IBC Sections 1705.13.1 as required by 1705.14.1
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Seismic Certification of Nonstructural Components** IBC Section 1705.14.2 as required by 1705.14
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Seismic Isolation Systems** IBC Section 1705.14.4 as required by 1705.14
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

☐ **Wood Construction** IBC 1705.5
Individual Name: _____ Phone: _____

SC Registration Number:_____ Classification: _____

Prepared by: _____SC License No. _____

Approved by: _____ Date _____

FINAL REPORT OF SPECIAL INSPECTIONS

Project: _____ Application No.: _____

Project location: _____

Project Owner: _____

Address: _____

SC Registered Design
Professional in Responsible Charge: _____

Firm (optional): _____

License No.: SC_____ Phone: _____ Fax: _____

Address: _____

To the best of my information, knowledge, and belief, the Special Inspections and/or Testing requirements for this project, and designated for this Agent in the *Checklist of Required Inspection Reports, Checklist of Quality Assurance Plan* and the *Checklist of Required Testing* submitted for permit, have been completed in accordance with the contract documents.

Interim reports submitted prior to this *Final Report of Inspections* form a basis for, and are to be considered an integral part of this Final Report. All discrepancies that were outstanding in all of the Interim reports have been corrected.

Prepared by:

_____
Type or print name

_____
Firm (optional)

_____
Signature Date

Individuals Seal

Firm Seal

SPECIAL INSPECTOR QUALIFICATIONS

INTRODUCTION

This policy sets forth the minimum qualification requirements for individuals and firms offering Special Inspection services. Nothing in this policy prevents the project owner or the registered design professional in responsible charge, acting as the owner's agent, from requiring qualifications above those identified herein.

An approved agency shall employ experienced personnel educated in conducting, supervising and evaluating tests and/or inspections.

Firms offering special inspection services for projects and fabrications located in South Carolina shall be licensed, registered, or certified by either; the South Carolina Board of Architectural Examiners, the South Carolina Contractors Licensing Board or the South Carolina Board of Professional Engineers and Land Surveyors in accordance with South Carolina Code of Laws, Title 40, Chapter 26.

Any questions or correspondence regarding special inspections should be directed to the building official for the jurisdiction in which the project will be located.

This Special Inspection Policy in no way relieves any participant from the proper performance of work according to contract documents and applicable codes, standards and regulation.

INSPECTION OF FABRICATORS

Fabrication and Implementation Procedures

ISO 9000 Lead Quality Assurance Auditor and meet the applicable special inspector qualification requirements identified herein

Fabricator Approval

ISO 9000 Lead Quality Assurance Auditor and meet the applicable special inspector qualification requirements identified herein

The following fabricator certifications are considered sufficient.

Metal Building Fabrication

Current American Institute of Steel Construction - Metal Building Systems Certification

Precast Concrete Fabrication

Current National Precast Concrete Association Plant Certification

Prefabricated Trusses

Current Truss Plate Institute Certification

Steel Bar Joist Fabrication

Current Steel Joist Institute Certification

Structural Steel Fabrication

Current American Institute of Steel Construction - Conventional Steel Building Structures

Current American Institute of Steel Construction - Complex Steel Building Structures

Current American Institute of Steel Construction - Simple Steel Bridges

Current American Institute of Steel Construction - Major Steel Bridges

QUALIFICATION OF SPECIAL INSPECTORS

The special inspector shall be a qualified person licensed in accordance with the requirements of the State of South Carolina Labor, Licensing and Regulation Department. The qualifications of all personnel new to an agency shall be provided to and approved by the building official before being assigned to any project.

Except for professional engineers and architects registered in the State of South Carolina, special inspectors shall have a license. The following is the current minimum requirements to obtain a license.

Steel Construction

Welding

Current American Welding Society (AWS) Certified Welding Inspector or Current

Canadian Welding Bureau Certified Welding Inspector

Nondestructive Testing of Welds

Current Nondestructive Testing Level II or III (Magnetic Particle Testing, Liquid Penetrate Testing, Ultrasonic Testing or Radiographic Testing)

(1) Level II personnel shall be qualified in accordance with the American Society of Nondestructive Testing (ASNT) to perform Magnetic Particle Testing, Liquid Penetrant Testing and Ultrasonic Testing, or

(2) Level II certification as certified by a Level III examiner to perform Magnetic Particle Testing, Liquid Penetrant Testing and Ultrasonic Testing. Level III Examiner shall be certified by ASNT and must submit a copy of his certification with the Level II certification.

Steel Frame Inspection/High-Strength Bolting

Current International Code Council (ICC) Structural Steel and Bolting Inspector

Concrete Construction Reinforced

Concrete

Current ICC Reinforced Concrete Special Inspector or

South Carolina Engineer in Training (EIT) with one year related experience under supervision of a licensed PE

Prestressed Concrete - Pretension tendons

Current ICC Reinforced Concrete Certification or

South Carolina Engineer in Training (EIT) with one year related experience under supervision of a licensed PE

Prestressed Concrete - Post-tension tendons

Current Post-Tensioning Institute (PTI) Certification Level I or
South Carolina Engineer in Training (EIT) with one year related experience under supervision of a licensed PE

Prestressed Concrete - Post-Tension Slabs-on-Ground

Current PTI Certification Level I or

South Carolina Engineer in Training (EIT) with one year related experience under supervision of a licensed PE

Precast Concrete Erection

The special inspector shall be registered for Reinforced Concrete or Welding as required based on the type of inspection being performed

Structural Masonry Construction

Current ICC Structural Masonry certificate and one year related experience or

South Carolina Engineer in Training (EIT) with one year related experience including plan reading under supervision of a licensed PE

Modular Retaining Walls

South Carolina Engineer in Training (EIT) with one year related experience under supervision of a licensed PE

Soils

Excavation and Filling/Verification of Soils

Current National Institute for Certification in Engineering Technologies (NICET) Level II certification in geotechnical engineering technology/construction or

Current NICET Level II in soils or

South Carolina Engineer in Training (EIT) with one year related experience under supervision of a licensed PE or

Soils Special Inspector or

Current SCDOT Earthwork, Drainage and Base Certification

Deep Foundations

Current NICET Level II certification in geotechnical engineering technology/construction or

South Carolina Engineer in Training (EIT) with one year related experience under supervision of a licensed PE or

Current SCDOT Foundation Inspector Certification

Sprayed Fire-Resistant Materials

Current ICC Spray-Applied Fire Proofing certificate

Smoke Control

Current NICET N-II-FPAS or

Current NICET N-II-FPFA or

Current National Environmental Balancing Bureau or
Current Associated Air Balance Council

Exterior Insulation And Finish System

South Carolina EIT with one year related experience

Special Cases

Approval on a case-by-case basis

Note: Chapter 17 of IBC-2021 Special Inspection Requirements. HB. [Revision Date: January 03, 2023]