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**Buildings**



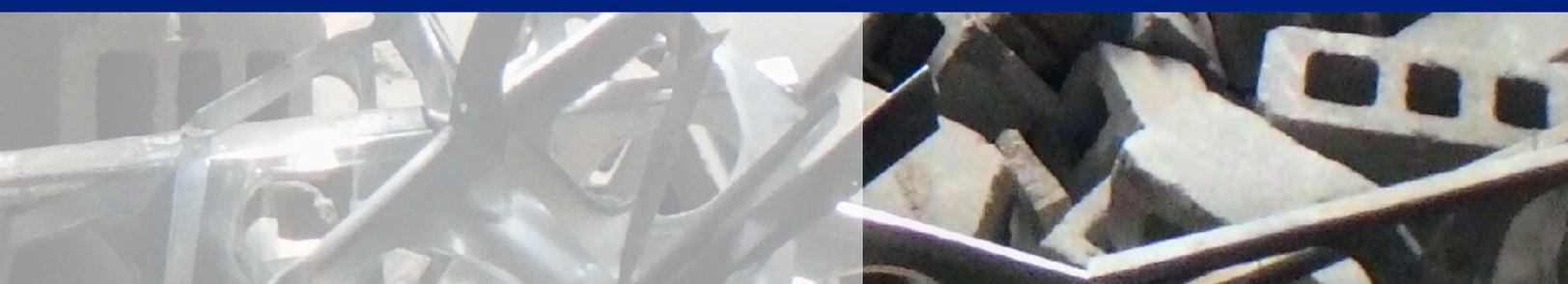
**IMPROPER LOADING  
OF COLD-FORMED  
STEEL CONSTRUCTION  
CAN BE DANGEROUS**

**CONSTRUCTION ADVISORY:**

**IMPROPERLY INSTALLED  
& OVERLOADED  
COLD-FORMED STEEL**

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# LOADS CANNOT BE PLACED ON COLD-FORMED STEEL UNTIL THE FLOOR AND SUPPORTING FRAMING SYSTEM IS COMPLETELY INSTALLED, ALL SHORING AND BRACING IS IN PLACE, AND ALL CODE-MANDATED INSPECTIONS HAVE BEEN COMPLETED

## WHAT IS COLD FORMED STEEL?

Cold-formed steel is a type of light-weight steel product made by bending or rolling steel sheets at ambient temperature into various shapes. Cold-formed steel products are available for both structural and non-structural applications.

## WHAT HAPPENED HERE?



CMU blocks were stacked on a deck supported by cold-formed joists without adequate shoring, overloading the deck.



A knuckleboom deposited CMU block on a deck before the framing system was complete, overloading the deck.

## WHAT SHOULD YOU DO?

### WORKERS

- **DO NOT** go onto any section of a deck that is being formed unless you are experienced with laying decking and have discussed the operation with your supervisor before beginning the work.
- Avoid edges and openings unless guardrails are in place and holes are covered, or you are wearing appropriate fall protection.
- **DO NOT** cut or drill through cold-formed steel, run all utilities through provided openings.
- **DO NOT** remove shoring or bracing unless directed by your supervisor.
- Place materials and equipment only in designated areas as directed by your supervisor. These areas must be clearly marked on the deck by spray paint.



## CRANE OPERATORS

- **DO NOT** deposit material on cold-formed steel construction unless directed by an authorized signal person at the job site.

## CONSTRUCTION SUPERINTENDENTS

- **DO NOT** allow persons, material, or equipment on cold-formed steel until all members, fasteners, shoring and bracing have been installed, and Code-mandated special inspections and competent person inspections have been completed and documented.
- Ensure loads do not exceed design limits and are placed only in areas designated on drawings.
- Ensure compliance with installation requirements, including requirements for the sequence of operation, alignment of joists, rafters, trusses, and structural wall studs, and installation of screws, bolts, anchors, and other fasteners.
- Ensure bracing and shoring is installed as indicated on the drawings.
- Ensure no bracing or shoring is removed until the special inspector has determined it is no longer required. Ensure modifications to bracing or shoring are verified by the special inspector.
- Ensure masonry walls are properly braced during construction.

## PERMIT HOLDER

- The permit holder is ultimately responsible for ensuring a safe job site and compliance with the New York City Building Code.
- Engage a registered design professional (RDP) to develop site specific bracing, shoring, and loading drawings for your site.
- Provide complete details of anticipated loading to the RDP and immediately notify the registered design professional of changes to anticipated loading.
- Ensure deliveries of materials and equipment to the site are made only when qualified personnel are present at the site to receive the delivery.
- Keep the special inspector aware of the progress of work. Notify the special inspector at least 72 hours in advance of work requiring a special inspection.
- Ensure all work requiring special inspection remains accessible and exposed until the special inspector approves the relevant work.
- Ensure required inspection checklists and reports are maintained at the site and available for review by the Department.

For 2022 Code projects see Section 3305.8 of the 2022 NYC Building Code for further information. For 2014 Code projects see Buildings Bulletin 2019-011 for more information.