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THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA
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2017 Fall BIMForum/BuildCon

Beyond Coordination to Integration!

Impact of Prefabrication and Modular Construction
on Traditional Construction Contracts

Quality People.
Quality Projects.



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Today's Advancements - Modular Construction



Byproduct of Change

- ▶ Advancements in technology and project delivery methods are changing the construction industry.
- ▶ Technology
 - Building Information Modeling (BIM)
 - Virtual Design and Construction (VDC)
- ▶ Collaborative project delivery methods and processes
 - Design-build / Design-bid-build
 - Integrated Project Delivery (IPD)
 - Private-Public Partnerships (PPP)
 - Lean construction

Byproduct of Change

- ▶ All of these advancements are lending themselves to the spread of modular construction and other prefabrication processes.
- ▶ Bringing new challenges and potential pitfalls in the legal landscape.



Modular Manufacturer: Subcontractor or Manufacturer?

- ▶ Form construction contract documents treat subcontractors and manufacturers very differently.
 - e.g., AIA, ConsensusDocs
- ▶ Distinctions create very different rights and obligations.



Common Law or UCC

- Article 2 of the Uniform Commercial Code UCC applies only to transactions in goods.
- UCC defines “goods” as “all things (including specifically manufactured goods) which are movable at the time of identification to the contract for sale . . . ,”
- The UCC does not apply to contracts that are purely for services.

Modular Manufacturer: Subcontractor or Manufacturer?

- ▶ Modular construction transactions combine both goods and services.
- ▶ Thus, this hybrid transaction has legal implications concerning both UCC and common law.



Modular Manufacturer: Subcontractor or Manufacturer?

- ▶ Most courts apply the “Predominant Factor” test

- ▶ Predominant Factor Test:

Goods → UCC applies → Manufacturer

Services → Common law applies → Subcontractor

Modular Manufacturer: Subcontractor or Manufacturer?

- ▶ Provision of services is currently the prevailing view
 - ▶ Therefore -- Subcontractor predominates.
- ▶ Presently, there are no court decisions applying UCC to modular construction.
 - ▶ However, prior treatment of mobile homes, modular homes and prefabricated buildings create the possibility of a future shift toward UCC view.
 - State v. Bohne, 63 P.3d 63 (Utah 2002) (Court recognized the “general principle that modular homes are ‘goods’ under UCC until affixed to real property.)

Acceptable Performance

- Under Common Law, a party to a construction contract does not materially breach if it performs its obligations in “substantial compliance” with the contract terms.
- Under UCC – Perfect Tender Rule - if the goods or the tender of delivery fail in any respect to conform to the contract, the buyer may:
 - (a) reject the whole; or
 - (b) accept the whole; or
 - (c) accept any unit or units and reject the rest.”

Warranties

- UCC creates both express and implied warranties.
- EXPRESS = Express promise
- IMPLIED:
 - Merchantability:
 - fit for the ordinary purpose for which such goods are used.
 - Fit for a Particular Purpose:
 - seller knows of the buyer's particular purpose for purchasing the goods and the “buyer is relying on the seller's skill and judgment to furnish suitable goods

Products Liability Exposure?

- Modular contractor exposed to Products Liability
 - Design Defect
 - Manufacturing Defect
 - Informational Defect



Impact of State Law

- ▶ **BE CAREFUL -**
Standard form contracts leave owners and contractors exposed to local legal implications.
- ▶ May be impacted in a number of ways by state laws in the jurisdiction of an out-of-state manufacturer / subcontractor.



Impact of State Law

Statutes of Limitation / Repose

- Out-of-state manufacturer of modules may effect differing statutes of limitation / repose.

OSHA Implications

- Module manufacturer and project site may be subject to different state plans, or even different industry standards (e.g., 29 CFR 1926 – Construction Industry Standard; 29 CFR 1910 – General Industry Standard).



Impact of State Law

- ▶ State law can also impact state licensing requirements.
- ▶ Mech. Contractors Ass'n of New York, Inc. v. New York City Dep't of Bldgs., 8 N.Y.S.3d 565, 566 (N.Y. App. Div. 2015)
 - ▶ Mechanical and plumbing contractor associations brought suit - argued that the DOB failed to apply construction code licensing requirements to off-site modular construction operations

Impact of State Law

- ▶ Mech. Contractors Ass'n of New York, Inc. (cont.)
 - Supreme Court for the State of New York dismissed action.
 - Judge Rakower stated “[the DOB] did not exceed its mandate in permitting the *manufacture* of these systems.”



Impact of State Law

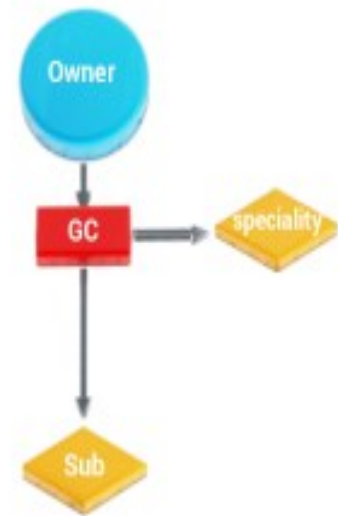
- ▶ State law can also impact labor-related jurisdictional issues (e.g., conflicts with local collective bargaining agreements, etc.)
- ▶ Limited precedence addressing all of these state law issues -- may be ripe for litigation.



Bound by Terms of Prime Contract?

- ▶ Limited precedence / commentary as to whether modular or prefab contractors/manufacturers are bound by the terms of the Prime Contract.
- ▶ Modular/Prefab subcontracts must be drafted to account for proper “flow-down” of Prime Contract terms and provisions.

Contract
Risk
Flowdown



Bound by Terms of Prime Contract?

- ▶ UCC, like service contracts, allows those entering into contract (buyers/sellers) to agree to liquidated damages.
- ▶ Under UCC, parties can also agree to refund of purchase price, or repair / replace non-conforming modules.
- ▶ UCC also permits the waiver of consequential damages, so long as waiver is not unconscionable.
- ▶ A Contractor may need to preserve its rights through flow-down provisions.

Protection Against Modular/Prefab Sub Default

- ▶ Modular/Prefab subcontractors are highly specialized and difficult to replace.
- ▶ Contract provisions concerning liquidated damages and bonding requirements must be properly carried down to modular/prefab subcontracts.
- ▶ UCC remedy allows for Specific Performance for unique goods.



Modular Contractor Default

- ▶ Who owns the materials / partially fabricated products?
 - ▶ Buyer will want security in case the manufacturer becomes insolvent.
 - ▶ If Modules are defined as a “building material” than, no security interest in the modules.
 - ▶ However, Article 9 of the UCC may give rise to new security interests in the modules are defined as “**fixtures**” (UCC – Art. 9, section 9-334), “**commingled goods**” (UCC – Art. 9, section 9-336) or “**goods covered by certificate of title**” (UCC – Art. 9, section 9-337).
 - ▶ Although Article 9 directly addresses the subject of manufactured homes, the law is less clear concerning larger-scale commercial construction.

Modular Contractor Default

▶ **Traditional View:**

- Security interests in construction is based on bonding and common law attachment / liens in the state in which the project is located.

▶ **UCC View:**

- Central question is who is a “buyer in the ordinary course of business.”
- Construction players buying manufactured modules may fall under this definition.

Modular Contractor Default

- ▶ When do moveable goods incorporated into a construction project become real property?
- ▶ This is a complex issue that blurs UCC security interests once the modules are incorporated into real property.
- ▶ Needs to be defined within the contract.



Quality Assurance / Quality Control

- Who is responsible for QA/QC inspection?
 - Is the Owner / General Contractor allowed access during fabrication?
 - Right to enter land / possession issues.

Quality Assurance / Quality Control

- ▶ Most states do not address modular construction by statute.
 - ▶ However, Florida passed the Manufactured Building Act in 1979.
 - ▶ The Act required Florida's Building Commission to adopt certain inspection criteria specific to prefabricated builds (e.g. observation of first assembly from start to finish constant oversight until QA/QC standards are met).
- ▶ May place additional QA/QC responsibility on public agencies.

Insurance Related Issues

- ▶ **Builder's Risk Policy**
 - Whether policy schedule / coverage includes materials and manufactured products at fabrication site.

- ▶ **CCIP/OCIP Policy**
 - Typically depend on amount of workers compensation premium to be paid.
 - If substantial work is performed off-site, the project may not meet the CCIP/OCIP threshold.

- ▶ **CGL Policy**
 - Reduction in CGL Premiums?
 - Theory is that the increased quality inherent in modular construction will result in fewer CGL claims resulting from defects and property damage.

Transportation Issues

- ▶ Who covers the expense and risk of loss / damage?
- ▶ Risk of Loss / Damage:
 - If module manufacturer is considered a **UCC merchant** (i.e. manufacturer selling modules/goods), risk of loss **passes to buyer upon receipt.**
 - If module manufacturer is not considered a merchant (i.e. **subcontractor** performing services), risk of loss **passes to buyer on tender of delivery.**
- Control through careful contract drafting!

Transportation Issues

► Risk of Loss / Damage (cont.):

- **When modules are shipped by carrier** (or bailee holds modules to be delivered) the risk of loss **passes to the buyer at the moment the seller delivers the goods to the carrier.**



Transportation Issues

- ▶ Other transportation considerations:
 - Time and cost associated with customs and international shipping
 - Truck and/or container height/weight limitations
 - Storage
 - Insurance



Scope Issues

- ▶ Notification that the site is ready for modules
 - Contract must establish protocol for when/how modules are to be received.
- ▶ Who performs survey/inspection and acceptance sign-off prior to delivery of modules?
- ▶ How are delays in delivery compensated?
 - Compensate for storage, maintenance and continued insurance.
 - Preserve LDs

Modular Construction Projects



Project: Mini Sky City

Location: Changsha, China

Contractor: Broad Suitable Building

Facts:

- ▶ 57 stories
- ▶ Erected in 19 days
 - 3 stories per day!
- ▶ 2,736 modules
- ▶ Modules built in 4.5 months
- ▶ Mixed-use building
 - 800 units
 - Office space for 4,000 people



Modular Construction Projects



Broad Suitable Building

Operates two pre-fabrication factories in China.

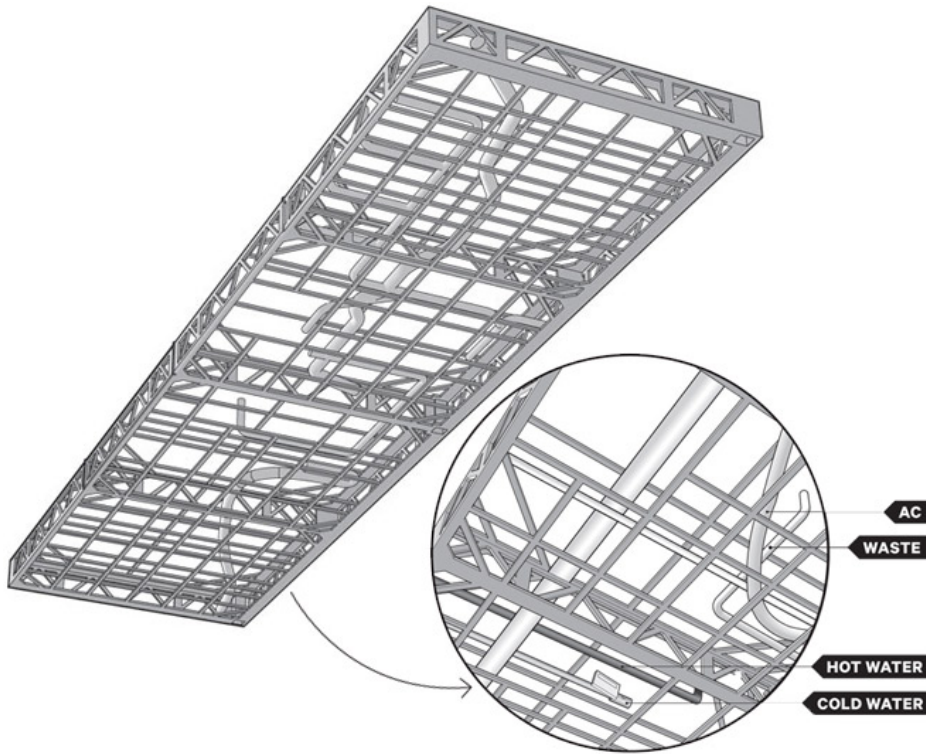
Built 17 structures
16 in China
1 in Cancun, Mexico

Broad is seeking to franchise its technology to partners in India, Brazil and Russia.

Modular Construction Projects

Broad Suitable Building

Modules constructed with preinstalled MEP utilities and other infrastructure.

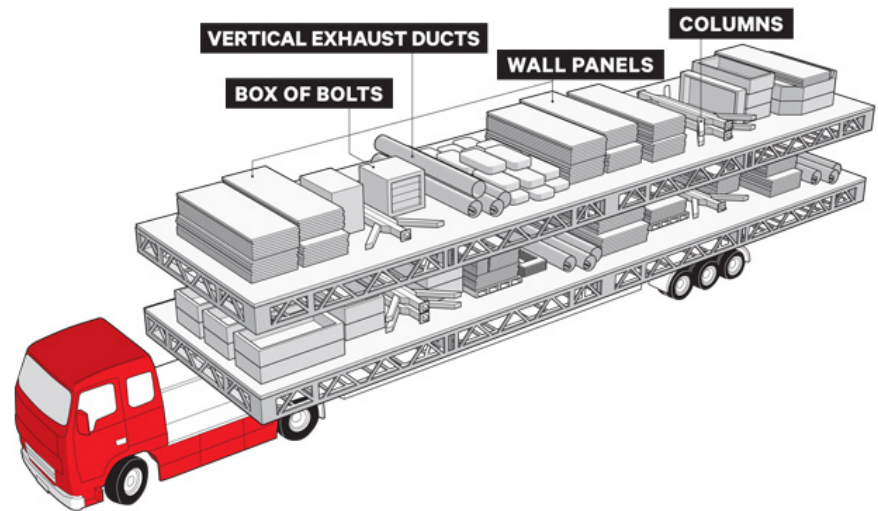


Modular Construction Projects

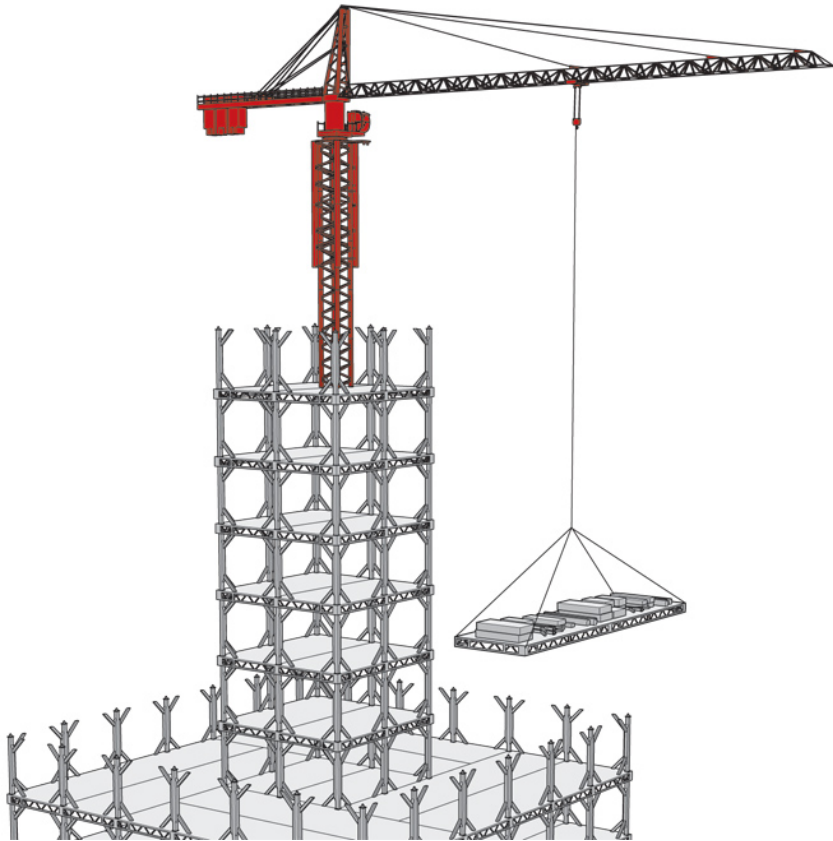


Broad Suitable Building

Once complete, two modules are loaded onto flatbed carriers.



Modular Construction Projects



Broad Suitable Building

Modules are then hoisted for “instant assembly.”

On-site workers use materials provided with module to make structural and MEP connections.

Curtain wall and window panels are later hoisted into place.

[VIDEO](#)