

QB CONSTRUCTABILITY REVIEW

MASS TIMBER

Early structural guidance that aligns design intent with fabrication and installation realities.

By reviewing structural assumptions through the lens of real-world construction experience, QB helps teams avoid late-stage redesign, cost escalation, and coordination challenges. Constructability engagement helps point the project team down the right path before structural systems are finalized.

QB CONSTRUCTABILITY REVIEW REPORT

Each Constructability Review produces a structured summary highlighting opportunities, risks, and directional recommendations for the structural system. The review includes a QB Constructability Dashboard summarizing key considerations influencing cost, fabrication, and installation.

EX: QB CONSTRUCTABILITY DASHBOARD

Review Category	Status	Notes
Structural System Feasibility	✓	CLT system aligns goals
Panel Geometry Strategy	⚠	Panel repetition could move fabrication
Connection Concept	✓	Exposed connections feasible
Fabrication Compatibility	✓	Supplier capabilities align

CONSTRUCTABILITY REVIEW DELIVERABLES

- Mass timber system feasibility evaluation
- Span and grid strategy feedback
- Panel geometry considerations
- Preliminary connection approach guidance
- Value engineering suggestions tied to timber efficiency
- Crane access and installation considerations
- Timber tower feasibility recommendations and integration considerations
- Supplier capability awareness
- Awareness of manufacturer product systems and available wood species

Constructability reviews reveal hidden overdesign and inefficiencies before they turn into hard costs—often returning 10%+ savings with little to no downstream disruption.

WHERE CONSTRUCTABILITY FITS ON A PROJECT LIFECYCLE

QB CONSTRUCTABILITY REVIEW

Constructability reviews deliver the greatest value As structural systems are analyzed. Early DD has the highest influence before structural systems are locked.

SD → EARLY DD → DD → CD → CONSTRUCTION

THE QB ADVANTAGE: INSTALL-INFORMED PERSPECTIVE

■ Panel Geometry Awareness

Evaluate span strategies and panel configurations.

■ Connection Strategy Guidance

Review exposed vs concealed connection concepts.

■ Installation Logistics Insight

Evaluate crane positioning, access, and sequencing considerations.

■ Mass Timber System Feasibility

Review CLT, glulam, and hybrid structural approaches.

■ Supplier & Fabrication Awareness

Consider fabrication workflows, supplier capabilities, panel sizes, and available wood species within manufacturer product systems.

■ Timber Tower Feasibility

Evaluate opportunities to incorporate mass timber elevator or stair cores (Timber Towers) to improve structural efficiency, simplify sequencing, and support mass timber structural strategies.

WHY EARLY CONSTRUCTABILITY MATTERS?

Mass timber systems are sensitive to early design decisions, including:

- Panel geometry
- Span strategy
- Connection approach
- Timber system selection
- Crane access and lift sequencing



CONSTRUCTABILITY REVIEW CASE STUDY

CONTEXT

Multi-story residential project with wood framing over concrete/steel podium. In design development / early CD phase with market-standard details, nothing obviously “wrong”.

CHALLENGE

Structural systems were technically code-compliant but conservatively overdesigned, creating unnecessary cost pressure during preconstruction.

WHAT WAS REVIEWED

- Wood framing layouts and details
- Concrete and steel podium systems
- Typical assemblies vs. local market norms

KEY FINDINGS

- Steel and concrete podium systems showed \$1.5M in cost-reduction opportunities
- Wood framing package revealed 10% savings (\$500K) through:
 - Right-sizing demising wall framing
 - Eliminating unnecessary rated hardware
 - Aligning details with local trade practices

OUTCOME

\$2 Million in identified total structural savings

Resulted in no reduction in building performance or quality. Minimal impact to unit layouts, architectural intent, and parking or program.

Overdesign is rarely obvious—but it is expensive.