Mass Timber Project Questionnaire for Builder's Risk Insurance

This document is an editable form that construction, development and design teams can fill out to aid in collecting mass timber project-specific information to share with their insurance team. The goal is to answer some of the common questions and concerns that insurers may have specific to the mass timber aspects of the project. This document is not intended to address all topics nor be a universally accepted form providing all necessary information to insurers. However, by utilizing this form as a means of providing project-specific information on many critical items, it has the potential to preemptively address concerns and demonstrate that thorough processes for safety and property protection are in place.

General Project Information

1. **Project Overview**

   Project name _____

   Address _____

   Total number of stories _____

   Number of stories of timber _____

   Number of stories below grade _____

   Height in feet _____

   Total area (square feet) _____

   Occupancy(ies) _____

2. **Total insured value of project ($ USD)** _____

3. **What mass timber products are being used on the project (select all that apply)?**

   ☐ Glue-Laminated Timber (Glulam) – beam/column application

   ☐ Cross-Laminated Timber (CLT)

   ☐ Dowel-Laminated Timber (DLT)

   ☐ Nail-Laminated Timber (NLT)

   ☐ Glue-Laminated Timber (GLT) – floor/roof/wall application

   ☐ Structural Composite Lumber (SCL)

   ☐ Heavy Timber – beams/columns/decking application

   ☐ Other (describe) _____

4. **What materials are being used for the main structural elements (beams, columns, bearing walls)?**

   ○ All mass timber

   ○ Mass timber and steel hybrid

   ○ Mass timber and concrete hybrid

   ○ Mass timber, steel and concrete hybrid

   ○ Other (describe) _____

5. **What is the project's vertical lateral force-resisting system (to resist wind and seismic forces)?**
   - ○ Light wood-frame shear walls
   - ○ Mass timber shear walls
   - ○ Timber braced frames
   - ○ Structural steel braced frames/moment frames
   - ○ Concrete shear walls
   - ○ Masonry shear walls
   - ○ Cold-formed steel shear walls
   - ○ Other (describe) _____

6. **What is the construction of the vertical egress components (i.e., stair and elevator shafts)?**
   - ○ Mass timber
   - ○ Concrete
   - ○ Masonry
   - ○ Cold-formed steel stud walls
   - ○ Light wood-frame stud walls
   - ○ Other (describe) _____

7. **What is the construction of interior partition walls?**
   - ○ Light wood-frame stud walls
   - ○ Cold-formed steel stud walls
   - ○ Other (describe) _____

8. **Building Code Compliance**

   What is the International Building Code (IBC) construction type? _____

   Which version of the IBC is the building being permitted under? _____

   Are any variances being requested of the building department? ○ Yes ○ No

   Will this be the first mass timber project in this jurisdiction? ○ Yes ○ No

9. **What is the current stage of design completion?** _____

10. **Has a building permit been obtained for the project?** ○ Yes ○ No

11. **If a building permit has not yet been obtained, to what extent have conversations on the project been carried out with the Authority Having Jurisdiction (AHJ)?** _____

    Is the AHJ familiar with mass timber? ○ Yes ○ No

    Does the AHJ have concerns regarding the use of mass timber in general and/or specific to this project? ○ Yes ○ No

12. **What is the required fire-resistance rating of the structural elements?**

    Beams, columns, bearing walls _____

    Floor assemblies _____

    Roof assembly _____

13. How are the fire-resistance ratings of the above members and assemblies being achieved? (check all that apply)

- ☐ Inherent fire-resistance of the mass timber (i.e., charring)
  - » ☐ Tested assemblies
  - » ☐ Calculated approach (NDS Chapter 16)
- ☐ Mass timber is covered with non-combustible materials (i.e., gypsum board)
- ☐ Other (describe) _____

14. Will the top sides of the mass timber floor panels receive a concrete or gypsum-based poured topping material? ○ Yes ○ No

If no, will other materials be installed on the top side of the mass timber floor panels? ○ Yes ○ No

15. Is the building sprinklered? ○ Yes ○ No

Describe the sprinkler system (NFPA 13 or 13R, ceiling mounted heads or sidewall heads, other characteristics, supply source, etc). _____

When will the sprinkler system be installed and activated? _____

Will there be temporary sprinkler coverage/standpipes during/throughout construction? ○ Yes ○ No

16. Describe the mechanical systems being used for air distribution, heating and cooling.

_____

_____

Will these systems require vertical shafts and, if so, describe the construction of the shafts. ○ Yes ○ No

_____

Will these systems require horizontal and vertical penetrations through the mass timber elements?
○ Yes ○ No

- » If yes, will these penetrations be cut/drilled in the mass timber manufacturer's facility or on site?
  ○ Manufacturer's facility ○ On site

Describe firestop systems to be used at penetrations of mass timber members and assemblies.

_____

17. Is the project in a wildfire-susceptible zone? ○ Yes ○ No If yes, describe safeguards.

_____

_____

Site Safety Measures

1. **What site security measures are being implemented?**
   - ☐ Fencing
   - ☐ Cameras (type) _____
   - ☐ Lighting
   - ☐ On-site guard (hours) _____
   - ☐ Others _____

2. **When will site security measures start and terminate relative to construction start and termination date?**

   _____

3. **Coordination with Local Police Department**

   Has coordination with the local police department taken place to discuss the project and site security measures being taken? ○ Yes ○ No

   Describe local crime rate, CoreLogic crime scores, etc. _____

4. **Construction Site Fire Safety**

   Describe hot work safety measures. _____

   Describe plan for removal of construction debris and other housekeeping measures.

   _____

   Presence of fire extinguishers (meets or exceeds NFPA applicable standards?) ○ Yes ○ No

   Presence of temporary standpipes ○ Yes ○ No

   Describe compliance measures in accordance with NFPA 221. _____

   Other measures _____

5. **Coordination with Local Fire Department**

   Capability of local fire department to address a fire in this building considering project size and unique site constraints (if any)

   _____

   _____

   Distance of serving fire department to project site _____

   Describe any permanent water supply available (such as fire hydrants) to site prior to delivery of mass timber.

   _____

   Describe access around site perimeter for fire department.

   _____

6. **Will project require temporary heating during construction?** ○ Yes ○ No

   If yes, describe type and fuel source(s).

   _____

Material Procurement and Transport

1. **Mass Timber Product Transportation**

   Transportation method (truck, rail, barge, etc.) _____

   Distance from manufacturer's facility to project site _____

   Describe method for tracking materials during transport such as QR codes, GPS tracking, etc.

   _____

   _____

   Describe communication and coordination methods in place prior to and during transport, specifically between the contractor and manufacturer.

   _____

   _____

   Are the loss limits of the transporter's insurance adequate to cover the value of materials in each shipment?
   ☐ Yes ☐ No

2. **Is off-site storage of mass timber materials required?** ☐ Yes ☐ No

   Duration of time between mass timber arriving on site and its installation _____

   Address of off-site storage and distance from jobsite _____

   Approximate value of mass timber materials stored at off-site locations ($ USD) _____

   Describe security measures in place to monitor off-site storage locations

   _____

   Is any pre-assembly or additional fabrication taking place at the offsite storage locations? ☐ Yes ☐ No

   How will materials be moved from offsite storage to job site?

   _____

3. **How many loads of mass timber materials per day will be received?** _____

   Who is responsible for receiving materials? _____

   Protocol for material receipt (checking inventory, inspecting for damage)

   _____

   How will materials be stacked?

   _____

   Protocol for inspection of stored materials

   _____

   How will materials be unloaded?

   _____

4. **Are special transport permits required?** ○ Yes ☐ No

   Is a police or other escort necessary? ○ Yes ☐ No

   Will there be oversized loads, or other concerns such as narrow streets, small bridges, etc. during material transport? ○ Yes ☐ No

   Will the project require closing one or more streets at the jobsite during delivery and/or throughout construction? ○ Yes ☐ No

5. **If mass timber materials are coming from outside of the US, are there any unique customs, tariffs or other concerns with material transport and receipt?** ○ Yes ☐ No

6. **Mass Timber Supplier**

   Company _____

   Location (if more than one facility, which is servicing this project?) _____

   Annual production capacity _____

   How long have they been producing mass timber for construction use? _____

   Number of projects supplied _____

   If CLT is being used, is it certified according to PRG 320? ☐ Yes ☐ No

   If glulam is being used, is it certified to ANSI A190.1? ☐ Yes ☐ No

   Provide other pertinent material certifications and test reports along with this questionnaire.

   Describe QA/QC and auditing processes in place with mass timber manufacturer's facility.

   _____

   Will the manufacturer have a representative on site during installation? ☐ Yes ☐ No

   Manufacturer's track record for on-time material delivery? _____

7. **General Contractor/Construction Manager**

   Company and contact _____

   Project superintendent _____

   Previous mass timber experience? ☐ Yes ☐ No

   If yes, list projects and scales.

   _____

8. **Mass Timber Installer**

   Company and contact _____

   Prequalification and selection process used _____

   Previous mass timber experience? ☐ Yes ☐ No

   If yes, list projects and scales.

   _____

9. **If this is a hybrid structural system (i.e., mass timber and at least one other material are being used in combination as the structural components):**

Is the mass timber installer also installing the other structural systems? ○ Yes ○ No

If not, who is installing the other structural systems? _____

Explain strategies in place to make sure installers understand the nuances of working with or near mass timber.

_____

_____

How are differential material tolerances and movement being accommodated?

_____

_____

Are vertical movements being monitored during construction? ○ Yes ○ No

If yes, describe the monitoring process.

_____

10. **Architect**

Company and contact _____

Previous mass timber experience? ○ Yes ○ No

If yes, list projects and scales.

_____

11. **Mass Timber Engineer and/or Structural Engineer of Record (SEOR)**

Company and contact _____

Previous mass timber experience? ○ Yes ○ No

If yes, list projects and scales.

_____

12. **Owner/Developer**

Company and contact _____

Previous mass timber experience? ○ Yes ○ No

If yes, list projects and scales.

_____

13. **Describe the contract structure for construction and material supply.**

- ○ GC is self-performing install, purchasing mass timber package directly.
- ○ GC is hiring a sub-contractor who is providing a turnkey solution for mass timber procurement and install.
- ○ GC is procuring mass timber package; a sub-contractor is hired by GC to install mass timber.
- ○ Owner is procuring mass timber package; a sub-contractor is hired by owner to install mass timber.
- ○ Other (describe) _____

14. Are connections/steel hardware off the shelf or custom-fabricated?

○ Off the shelf ○ Custom-fabricated

Who is the connections/hardware supplier? _____

Is hardware being installed on site or in the mass timber manufacturer factory? _____

Do details and connections used incorporate feedback from the manufacturer regarding best practices?

○ Yes ○ No

15. Are extra panels/beams/columns being sent to the site with the mass timber package in case of damage?

○ Yes ○ No

What plan is in place if replacement panels are needed?

_____

How soon will the mass timber manufacturer fabricate replacement panels/beams/columns if they are needed?

_____

How will replacement panels/beams/columns be transported to the site for expedited delivery?

_____

16. Value of Mass Timber Package

Total value of mass timber package ($ USD) _____

Value of mass timber package as a % of total project hard costs _____

% of mass timber package cost directly in materials _____

% of mass timber package cost in labor and overhead _____

Install and Site Management

1. **On-site moisture & UV protection. It is suggested that the contractor develop a moisture management plan that is shared with the insurer.**
   What methods are being used to protect mass timber from moisture & UV exposure once on site?

   What methods are being used to monitor moisture content of wood? _____

   What methods are being used to dry the mass timber prior to installing coverings?

   Are remote sensors being used for moisture monitoring and/or leak detection? ☐ Yes ☐ No

   What is the plan when a heavy rain or snow event occurs off hours?

   Will steel members be painted or coated to avoid rust staining of the timber? ☐ Yes ☐ No

2. **Are protective coatings being applied to mass timber elements?** ☐ Yes ☐ No
   Are these coatings being installed in the mass timber manufacturer's facility, on site or both? _____

3. **Describe other on-site damage protection measures to be implemented.**

4. **Exterior Walls**
   Describe the entire enclosure assembly. _____

   Are exterior walls prefabricated/panelized off site or built on site? ☐ Off site ☐ On site

   How soon after timber install is complete until enclosure install? _____

   Are temporary walls/windows/doors being installed to aid in moisture protection during construction?
   ☐ Yes ☐ No

   Is a building science/enclosure consultant involved in the project? ☐ Yes ☐ No

   If yes, company and contact _____

5. **Roof Assembly**
   Describe the entire enclosure assembly.

   Will there be a temporary roof installed when MT roof panels are installed? ☐ Yes ☐ No

   How long from mass timber roof panel installation to permanent roofing enclosure completion? _____

6. **What plans are in place for a preconstruction meeting?**

   Will there be mockups? ☐ Yes ☐ No If yes, describe each including intent/purpose.

7. **What is the schedule and purpose for on-site meetings once construction starts?**

_____

8. **Is the project designed for disassembly or reuse?** ❍ Yes ❍ No

9. **Is the project designed for progressive collapse?** ❍ Yes ❍ No
   Describe any other resilient design strategies used on the project.

   _____

10. **Describe the integration strategy for mechanical, electrical, plumbing and fire protection (MEPF) elements within the mass timber.**

    _____

    Is there a 3D model for coordination and design? ❍ Yes ❍ No

    Who is responsible for updating and coordinating the model for items such as MEPF penetrations, clashes and differential material integration? _____

11. **What is the total construction duration?** _____
    Anticipated construction state date _____
    Anticipated mass timber install date _____
    Anticipated mass timber install completion date _____
    Anticipated construction completion date _____
    Anticipated rainfall/snowfall during this time? _____

12. **Describe types/frequency of on-site third-party inspections, audits, QA/QC.**

    _____

13. **Describe the crane type being used.**

    _____

    What are the anticipated daily hours of operation for the crane? _____
    What is the total duration that the crane will be on site? _____
    Will an engineered erection and bracing plan be developed, and if so by who? _____