Field Visit Descriptions
Climate Positive Forest Products, Mass Timber
12-15 September 2022 – Porvoo & Helsinki, Finland

Throughout the field visits, we will follow the mass timber supply chain from forest to building. We will start day one in a forest that supplies raw materials used in mass timber and follow the supply chain through fabrication, building construction, to complete day two in a finished CLT building. Along the way we will consider social, environmental, and climate impacts from decisions related to land use, forest management, raw material sourcing, design, standards and safeguards.

FIELD VISIT DAY 1 – FORESTS AND LAND USE
The first day of field visits will bring participants to forests managed for a range of values to build understanding around how different land use decisions and silviculture practices affect forest product production and forest conservation in Finland.

Site 1: At the production forest in Kouvola region we will be hosted by UPM and will see assemblages of native birch, spruce, and pine species managed for timber production. We will visit a 25-year-old stand and a more recent clear cut. Participants will observe forest management techniques thinning treatments, forest rotations, and new plantings. Participants will also learn about forest health threats, including bark beetle, and management approaches used in Finland to address the risk of pests. At this site we will consider the following topics and questions:
- How is a forest that supplies raw materials for mass timber managed? How is this different than forests managed for other products or values?
- How would scaling up mass timber impact land use decisions and forest management practices?
- What sustainability standards shape the management of this forest?

Site 2: We will then move to a conservation forest where we will see a forest stand set aside by UPM for conservation in 2017. At this site we will consider the following topics and questions:
- How do current government policies influence forest conservation?
- How does this conservation forest site link with forest conservation efforts in the region?

Site 3: As our final forest site, we will visit a family forest where the landowner manages their land for multiple values including for timber and hunting. Participants will see a hunting cabin and hear from a private forest owner. At this site we will consider the following topics and questions:
- What are the factors (livelihoods and other values) influencing the family forest land use and management practices?
- How does forest product demand impact family forests and other non-industrial forests?
- Where does the forest owner go to seek information and advice on managing their land?

FIELD VISIT DAY 2 – MATERIALS, CONSTRUCTION, AND THE BUILT ENVIRONMENT
During the second day of field visits participants will learn about mass timber manufacturing techniques and visit both an active mass timber building construction site and a completed mass timber building. Something to consider as we visit multiple points in the supply chain throughout the day will be the opportunities and needs for sustainability standards (from sourcing raw materials, to manufacturing, construction, and design).

**Site 1:** We will first stop at a **mass timber building construction site** to observe how wood and mass timber components are utilized in construction. The Satama Areena building, designed by ALA Architects, will be an event center in the City Port of Kotka. The wood is supplied by Stora Enso and Puurakentajat. The site’s main contractor, SRV Rakennus, is working to complete the event center by summer 2023. At this site we will consider the following topics and questions:

- How do the ideals of mass timber construction face practical challenges of building with wood vs steel and concrete?
- What construction decisions are made that impact the building’s final form, embodied carbon, and use of wooden building elements?
- What are the sustainability and carbon accounting challenges within the construction stage?

**Site 2:** At **Timber Point** participants will see a process for cutting mass-timber plates (LVL, CLT) and other techniques that impact the use-efficiency and sustainability of mass timber elements. Timber Point, owned by Puurakentajat, specializes in the manufacture and assembly of CLT and LVL elements. Established in 2016, it was the first dedicated facility of its kind in Finland. Today, timber processors also perform this step. The prefabrication process modifies the standard mass timber plates produced from raw materials to fit the architect’s and contractor specifications.

- Where are the raw materials that supply the mass timber industry sourced from?
- What opportunities and bottlenecks do they anticipate in demand for their service and training of their workforce.
- What are the sustainability and carbon accounting challenges within the fabrication stage?

**Site 3:** Finally, we will visit the **Nature Center Haltia** made from CLT and wood. The Nature Center is in Nuuksio National Park and includes a museum with exhibits about Finland’s landscapes, wildlife, and natural world. The visit and self-guided exploration of the museum will cover topics including climate, sustainability, and mass-timber construction.

- What is your feeling and experience while being in a mass timber building?
- What are ways to understand how much carbon is stored in a building such as Halitia?
- What are current limitations to doing so?
- What are the mechanisms that encourage or discourage designing and building with mass timber?