NET--ZERO ESG COMPLIANT POSITIVE IMPACT PROJECTS FOR ATTRACTING ESG FUNDS – TECHNOLOGY PARTNERSHIP FROM DESIGN, ENGINEERING TO EXECUTION + CERTIFICATIONS





Design, Engineering, Masstimber Construction, Sustainable building Material TEAMS

Windsor Wood (India) Private Limited

WINDSOR HOUSING USA INC.

PRAKASHKUMAR NARMADASHANKAR SUTHAR

INTEGRAL PART OF YOUR PROJECT, DESIGN, ENGINEERING TEAM FOR ACHIEVING NET-ZERO TO MINUS NET-ZERO + SECURING ESG FUNDS AND OFF-TAKETS TAKING CLIMATE ACTIONS

DESIGNING ESG-COMPLIANT POSITIVE IMPACT PROJECTS LEADING TO NET-ZERO WORKING WITH YOUR TEAM, INTEGRAL PART OF YOUR PROJECT, DESIGN, ENGINEERING, CONSTRUCTION MANAGEMENT, SUSTAINABLE BUILDING MATERIAL TEAM FOR NET-ZERO BUILDINGS.
CREATING ENVIRONMENTAL LIFE-CYCLE & CIRCULAR ECONOMY
DESIGN ENGINEERING FOR TRANSITION TO NET-ZERO
DESIGNING PROJECTS WITH BIOGENIC CARBON FLOWS

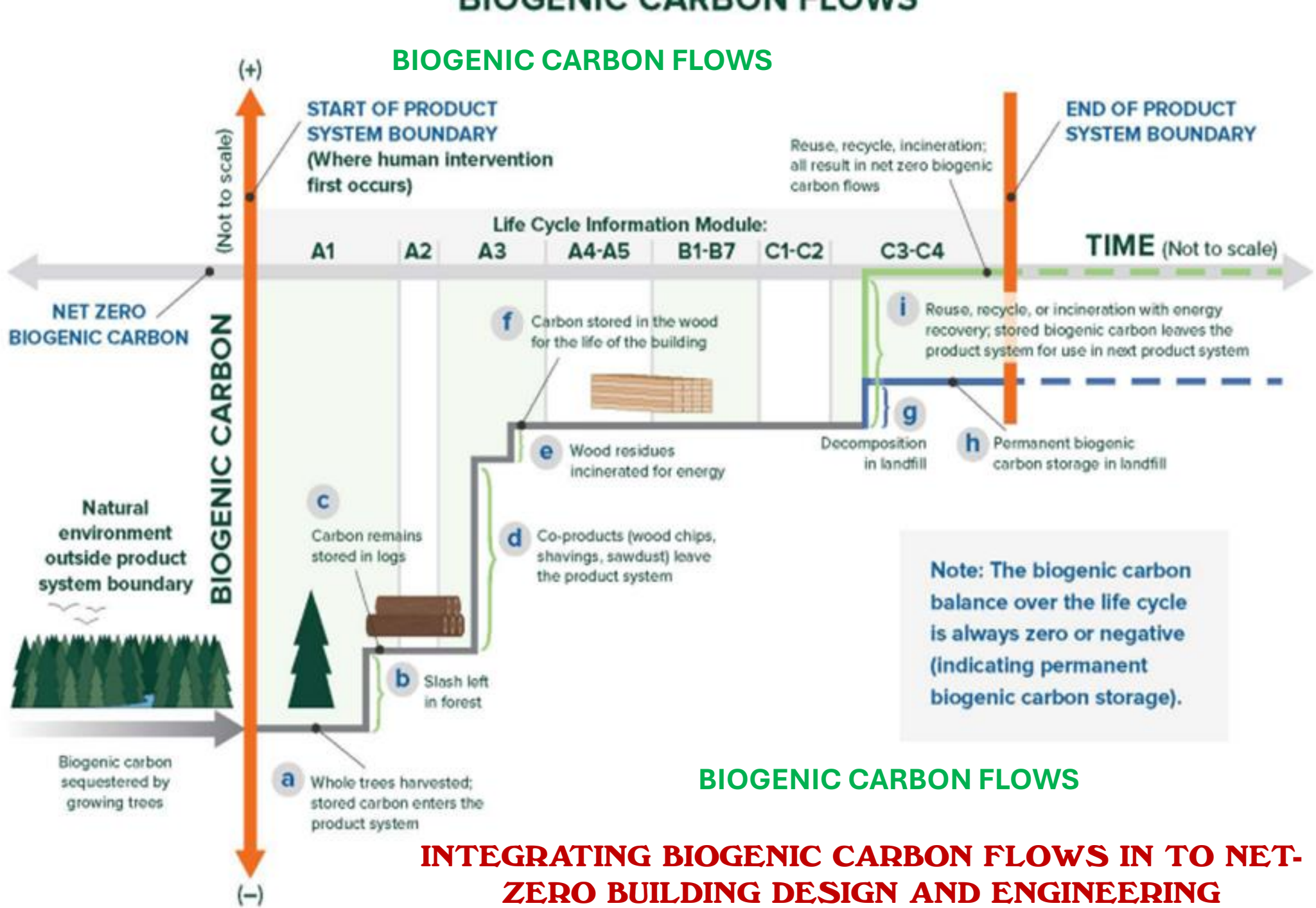
DESIGN AND ENGINEERING that, "associates biophilic spaces with

OCCUPENT'S health and cognitive benefits. + = By combining timber technology

and growing biophilic research, we can Build Better Build Environment

"Biophilic design is the deliberate attempt to translate an understanding of the inherent human affinity to affiliate with natural systems and processes—known as biophilia —into the design of the built environment."

NET –ZERO AND BIOPHILIC DESIGN IS THE NATURES GIFT TO HUMANITY



INTEGRATING BIOGENIC CARBON FLOWS IN TO NET-ZERO BUILDING DESIGN AND ENGINEERING

Sustainable Forestry Carbon Cycle

is connected to the complex natural layers, systems, and networks of a forest, from soil to sky.

Methane & Nitrous Oxide, GHG that are 25 times and 298 times POTENT

NET-ZERO-HERO ROJECTS WITH BIOGENIC CARBON FLOW

In the world of sustainable construction, mass timber has emerged as a revolutionary force, seamlessly blending sustainability, structural innovation, and architectural beauty.

Life Cycle Assessment

The choice of construction products has a significant impact on the

ENVIRONMENT

1. Converting Forestry into Dense Forestry
2. Woodlands into Forestry
3. Timber Innovation Act for Sustainable Building Material & Reducing Embodied Carbon from 47 percent / saving 12 percent Energy from Iron & Steel, Cement Concrete

This not only showcased the incredible potential of mass timber but also resonated with the idea of creating a sustainable and environmentally conscious residential and commercial, hospitals & educational spaces.

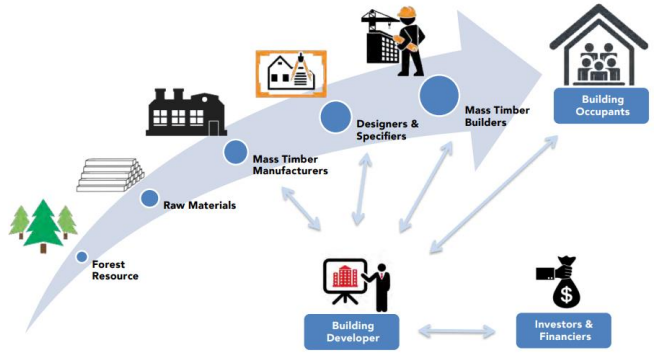
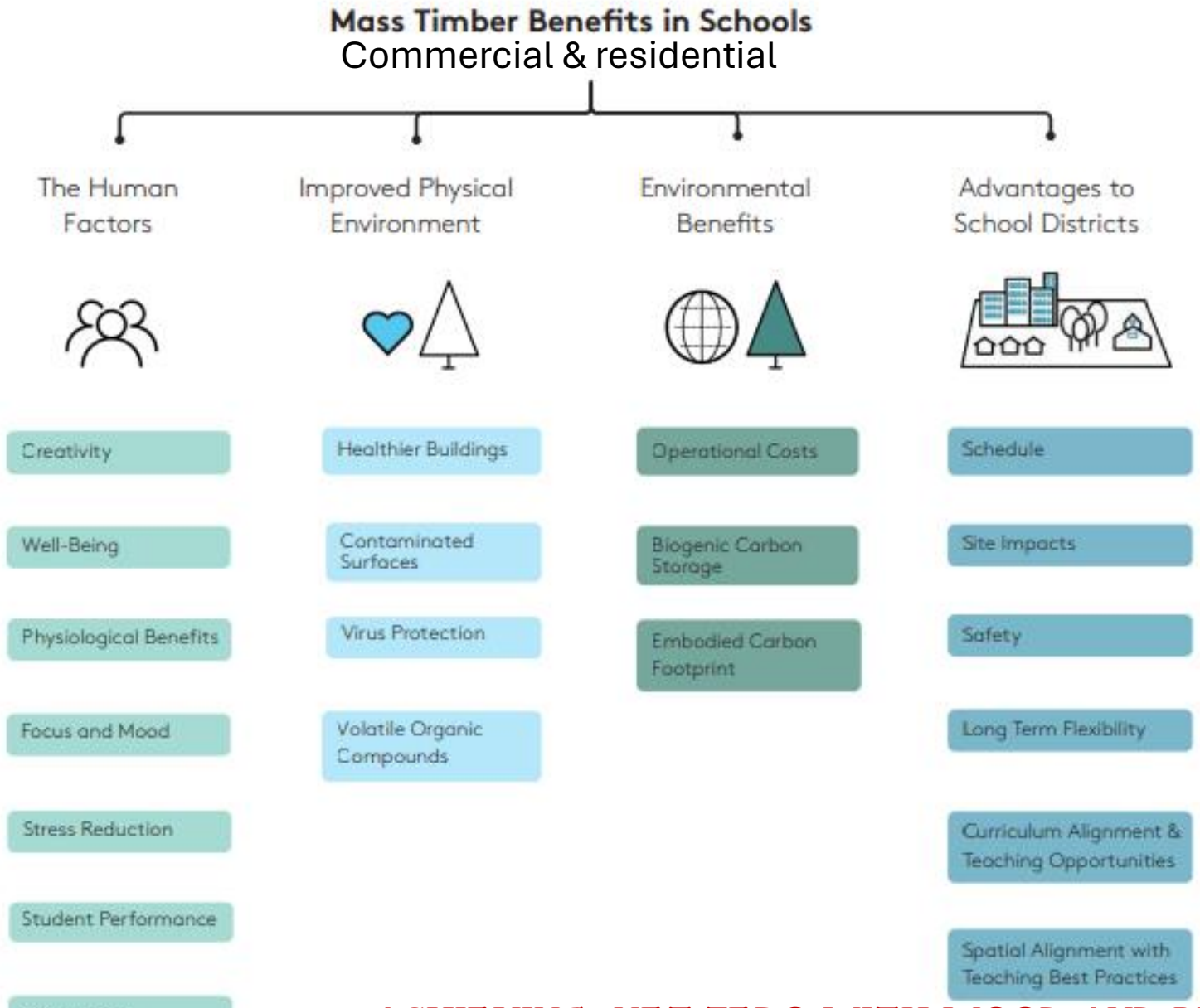


FIGURE 1.10 MASS TIMBER SUPPLY CHAIN



- **"Stress, as measured by sympathetic nervous system activation, was lower in the wood room in all periods of the study."**

Wood and Human Health : FP Innovations

ACHIEVING NET-ZERO WITH WOOD AND BIOPHILIC DESIGN IS THE KEY FOR ESG PROJECTS WITH OUR TECHNICAL EXPERTISE AND SPECIALITIES

Biophilia, which literally translates to “love of life” or “love of living things,” is a concept that addresses human connections with nature. The premise behind biophilic design is the idea that incorporating natural elements — water, natural light, green plants, and exposed **wood** where you can see and feel the grain — into buildings can contribute to the health and well-being of occupants. “LOVE FOR EDUCATION & LIFE”

NET –ZERO BUILDINGS SPECIALITIES AND EXPERTISE

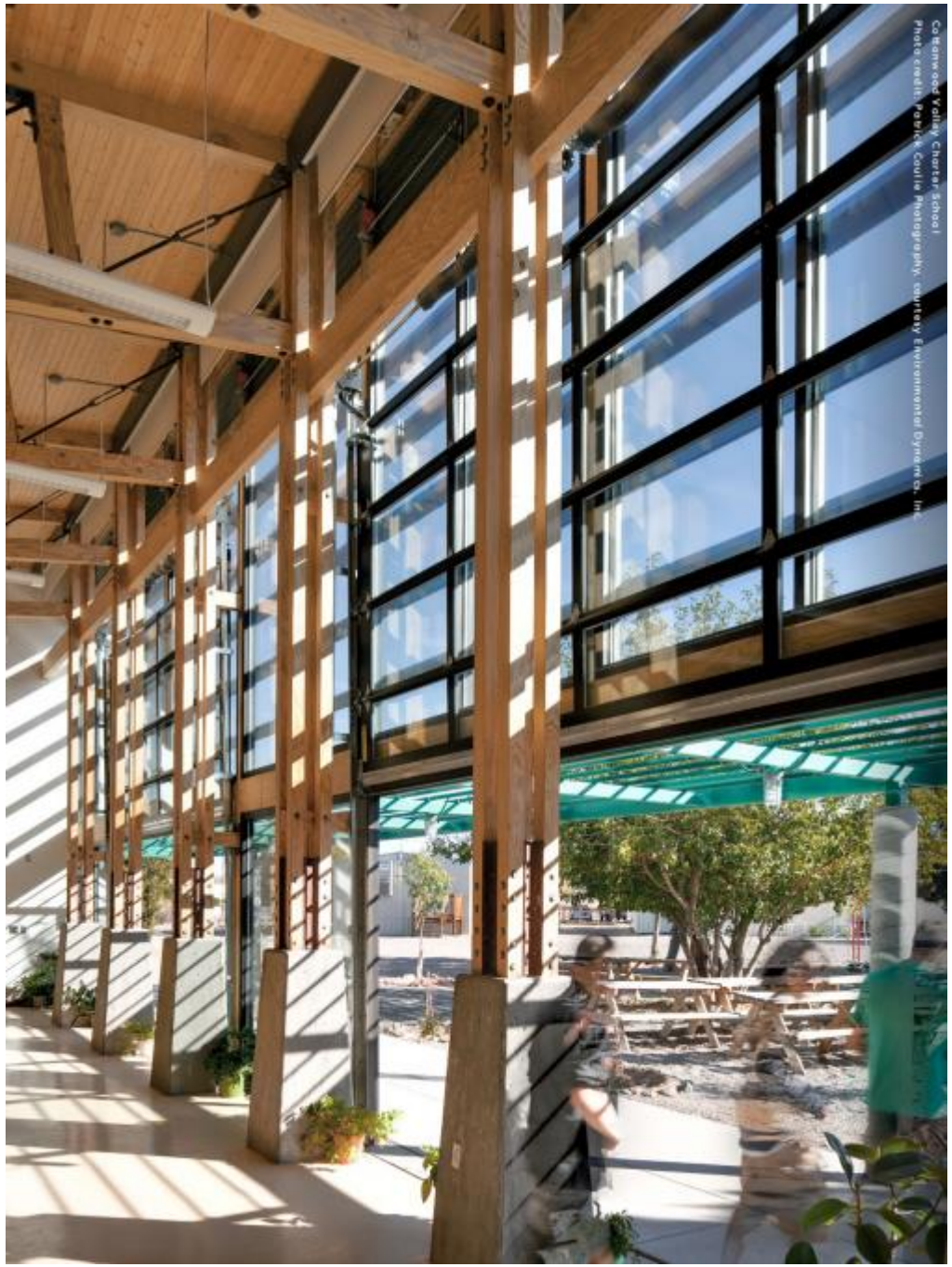
NET-ZERO HERO WITH WOOD AND BIOPHILIC DESIGN : Impact of Wood Finishes

A study by the University of B. C. and FP established a link between wood and human health. Four office environments were created to study the effects of natural materials in the built environment on autonomic nervous system responses. The effects of both plants and wood were studied on a sample of 119 university students. In the study, students were assigned to one of four treatment conditions.

They were told only that they were going to participate in an office performance task and were not informed that the effects of materials were being studied

Visual Connection with Nature: A view to elements of nature, living systems, and natural processes. A space with a good Visual Connection with Nature feels whole it grabs one's attention and can be stimulating or calming.

It can convey a sense of time, weather, and other living things.



INCLUDING NATURE IN ALL SPACES CREATING DESIGN AND ENGINEERING WITH MASSTIMBER CONSTRUCTION FOR NET-ZERO BUILDING PROVES AS ESG COMPLIENT POSITIVE IMPACT PROJECTS FOR MOBILIZING TRILLIONS OF US$ ESG COMMITTED FUNDS

OCCUPENTS spend about 50 percent of their time inside. As a result, we design buildings by rethinking Biophilic design used to boost students' facility, and senior management's well-being through connection to nature and the use of natural elements like daylight, plants, water, and exposed wood.

These elements have been attributed to positive outcomes in humans—from reducing stress to boosting productivity.

Biophilic Design Look for COMERCIAL BUILDINGS ACHIEVING NET-ZERO

ONE ACTION – MANY SOLUTIONS FROM ENERGY, WATER, WASTE AND CARBON

Its exceptional strength-to-weight ratio challenged conventional construction norms and offered exciting possibilities for designing efficient and resilient structures.

Mass timber offers clear sustainability advantages and design opportunities, but its suitability depends on factors like project size, structural requirements, budget constraints, and local building codes.

WINDSOR HOUSING A NATURAL TECHNOLOGY PARTNER

SPORTS AREAS WITH WIDER SPANS DESIGN WITH MASSTIMBER COMPONENTS ACHIEVING NET-ZERO

The key sustainability benefits of mass timber encompass carbon sequestration, renewable resource utilization, energy efficiency, reduced carbon emissions, and support for the circular economy. These benefits collectively position mass timber as a frontrunner in sustainable construction practices, offering a promising avenue to address the environmental challenges associated with the built environment while simultaneously promoting innovative and aesthetically pleasing architectural solutions.

"Building with and exposing the wood in buildings is a simple way to achieve multiple objectives, including aesthetics, sustainability and occupant well-being."

The Masstimber building design meets FIRE, allowable heights, and span for the wooden structure buildings as per NBC, IBC, and EURO CODE.

DESIGN STARTS WITH PRE-PEER REVIEW

- DESIGN MODELLING
- CONSTRUCTION MODELLING
- DESIGN AND PRECONSTRUCTION OVERVIEW
- CODE AND FIRE MODELLING INCLUDING SEISMIC AND WIND

The Energy efficient most resilient wooden structure buildings withstand earthquakes and superstorms. ALL KINDS of buildings stated in the SCOPE OF WORK; including wider span buildings for 1500 students' gatherings with INDOOR AIR QUALITIES.

Carbon Estimator

Results

Volume of wood products used (ft^3):
1,558,876 ft^3 (24,942,013 board feet) of lumber and

U.S. and Canadians forests grow this much wood in:
128 minutes

Carbon stored in the wood:
33,700 metric tons of CO_2

Avoided greenhouse gas emissions:
71,620 metric tons of CO_2

Total potential carbon benefit:
105,320 metric tons of CO_2

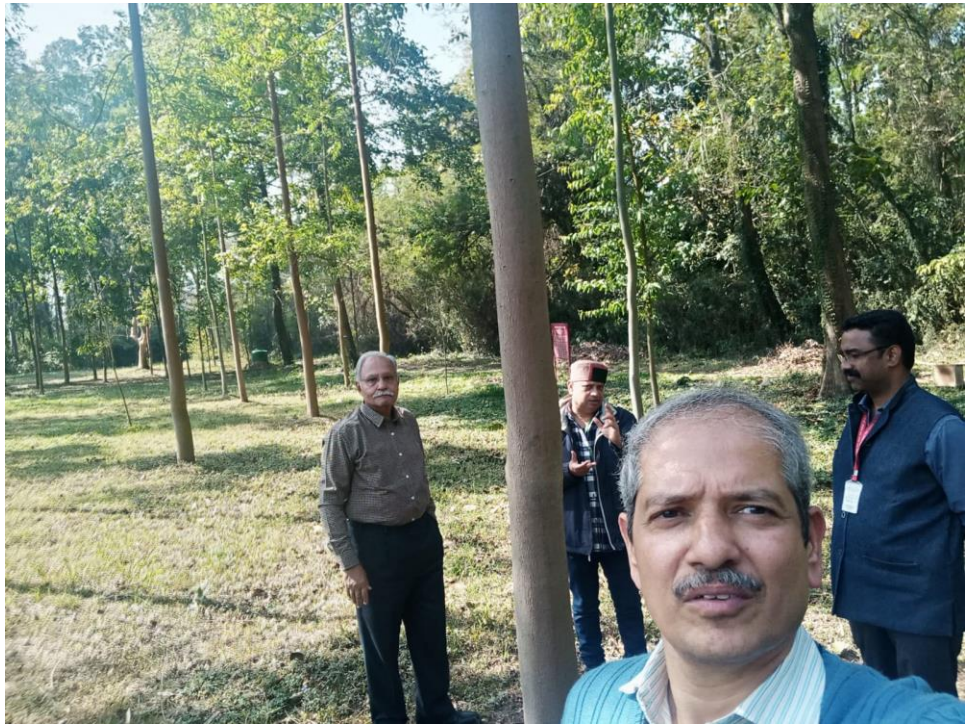
Equivalent to:

20,116 cars off the road for a year

Energy to operate **8,952** homes for a year

MANY OF OUR HARDWOOD SPECIES ARE GROWING ENOUGH JUST IN 8 / 10 / 12 YEARS FOR HARVEST AND USE IN LAMINATED MASSTIMBER CONSTRUCTIONS

SHARING EXPERIENCE OF FOREST RESEARCH INSTITUTE RECENT DISCUSSIONS. - FOLLOWING TREE JUST A FOUR YEARS GROWTH



MISCONCEPTION: RESOLVED

TECHNICAL COMMITTEE: BIS / NBC / CED:46:P6: MEMBER TECHNICAL COMMITTEE

FIRE CODES

DISRUPTIVE INNOVATIONS: WITHSTAND AGAINST EARTHQUAKES, SUPERSTORMS

NATURAL RESOURCES AVAILABILITY AND CARBON BENEFITS

CARBON EMISSIONS VS. CARBON SEQUESTRATIONS – SAVING 12 / 14 PERCENT ENERGY

CASE STUDIES COMPLETED & OCCUPIED BUILDINGS IN THE EDUCATIONAL & RESIDENTIAL BUILDINGS IN THE UNIVERSITIES

ALTERNATIVES :

- COST SAVINGS + LAND CONSERVATIONS + COMPLETION OF THE BUILDINGS
- SUCH AS, "THE CITY ABOVE THE CITY" : ANNEXED.
- ADDITIONAL PRESENTATION ON MASSTIMBER: DLT : ANNEXED

- **THANKING YOU**

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