

FROM STUDENT VISION TO COLORADO'S FIRST 100% LOCAL CLT RESEARCH LANDMARK

The Aiken Audubon Research Outpost stands as a groundbreaking example of sustainable design, hands-on education, and collaborative engineering. Located in a bird refuge that supports over 330 avian species, this 1,000 SF facility was conceived, designed and built by University of Colorado Denver architecture students in partnership with KL&A Engineers & Builders, as the structural engineering design consultant. Through ingenuity, partnership, and respect for the site's ecological sensitivity, KL&A helped transform a student vision into a research facility that advances sustainable building practices and redefines the collaborative role of engineers in shaping the built environment.

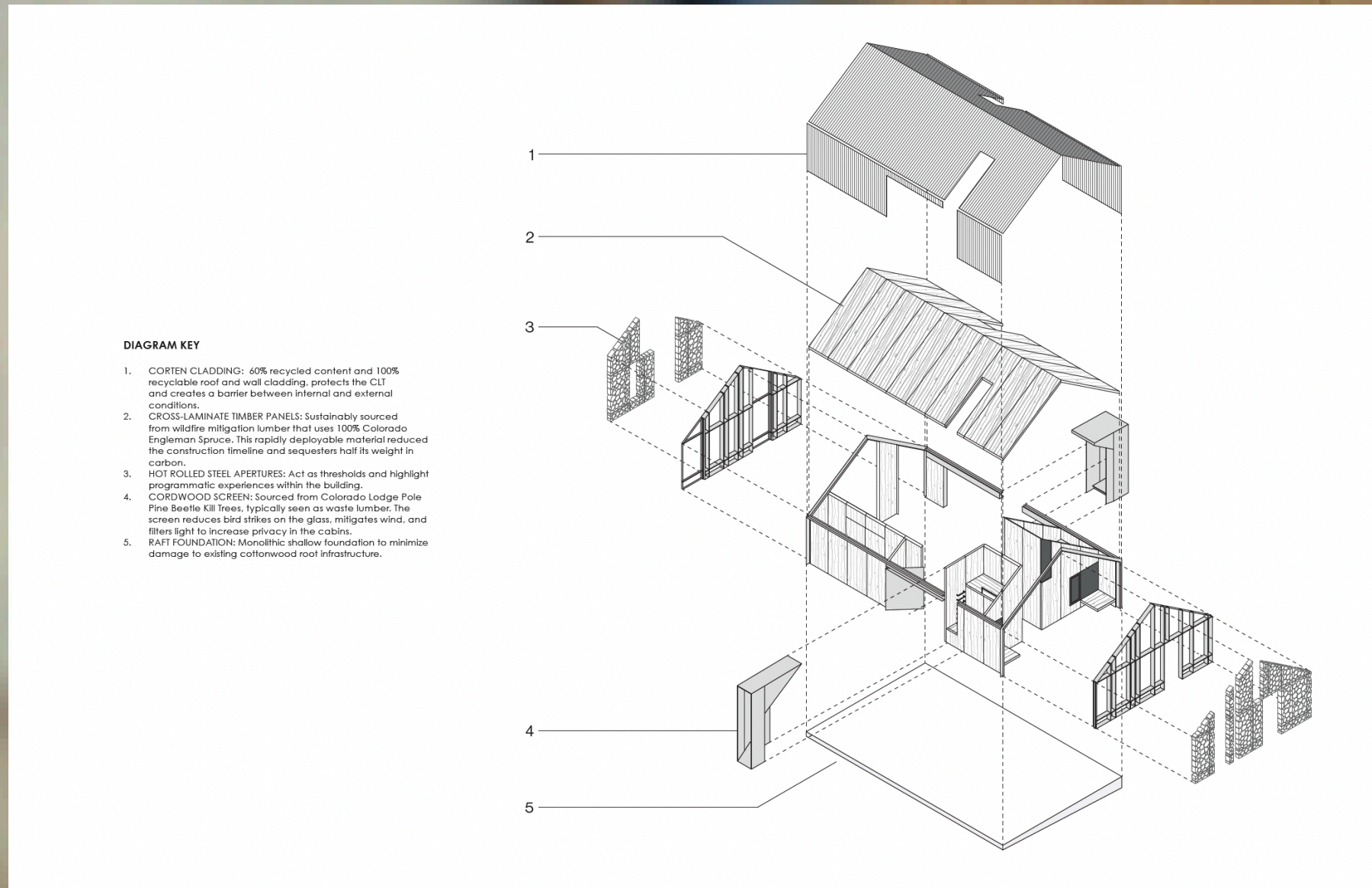
Uniqueness and/or Innovative Applications of New or Existing Techniques
This project is the first commercial project in the U.S. that uses cross-laminated timber (CLT) panels fabricated and sourced 100% from Colorado wood (Engelmann Spruce). In collaboration with the CU Denver students, KL&A helped develop a cordwood screen system made of beetle-kill lodgepole pine that reduces bird strikes on glazing while maintaining natural light and aesthetics.

Complexity
KL&A had to pioneer structural solutions using untested Colorado CLT, requiring custom analysis, supplier coordination, and reliance on KL&A's internal mass timber specialty to set a precedent for future mass timber construction in the region. Architectural restraints with no ridge beam and large openings, created lateral resistance and stability issues. KL&A introduced steel brace frames and tie rods, balancing structural integrity with architectural intent. The site was heavily wooded, and access was limited. The hands-on approach minimized disruption, relying on small-scale, labor-intensive methods instead of heavy machinery.

AIKEN AUDOBON RESEARCH OUTPOST COLORADO SPRINGS, CO



Research outpost uniting sustainable design, education, and collaborative engineering.



Colorado-sourced CLT panels store carbon while showcasing sustainable mass timber engineering.

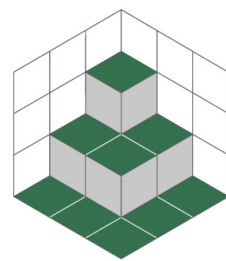


KL&A mentors students in the first-ever commercial build with 100% Colorado CLT panels.



Cordwood screen of beetle-kill pine protects birds while preserving light and landscape views.

Entering Firm: KL&A, Golden, CO
Client: University of Colorado, Denver



KL&A
Engineers & Builders



Denver



COLORADO
State Land Board

