Abstract

A computerized platform automates end-to-end deconstruction and salvage of building materials. Permit-ingestion logic continuously harvests construction-permit records from municipal open-data APIs or bulk uploads, filters them by project type and valuation to detect structures scheduled for demolition or major renovation, and enriches each lead with contractor contact, licence, and geolocation data. A CRM module initiates automated voice, text or e-mail outreach and manages follow-up. Upon acceptance, an indoor/outdoor drone captures image and LiDAR data; cloud vision algorithms segment the data to identify reusable fixtures, estimate fair-market value from a valuation database, and flag hazards. A decision engine compares donation-based tax-benefit scenarios with direct-purchase options, then dynamically generates the appropriate digital paperwork, donation agreement and IRS Form 8283 or purchase contract, together with insurance and indemnity documents for electronic signature. A dashboard tracks lead status, schedules salvage crews, logs recovered tonnage, and issues alerts if data feeds or integrations fail.