

PARAMETRIC ENGINEERING SERVICES

FEASIBILITY STUDIES FOR EARLY DECISION MAKING

Early design choices drive as much as 80% of a building's ultimate cost, schedule, and performance. IMEG's parametric engineering workflow delivers reliable data when it matters most—before major commitments are made.

IMEG's parametric engineering empowers stakeholders with data for high-quality, fact-based decision making.

Parametric engineering puts critical performance data at your fingertips when design decisions have maximum impact. Our services provide:

High-quality data: Side-by-side comparisons of structure, cost, carbon, etc.

Speed: Hours or days, not weeks, to test “what-if” scenarios

Collaboration: Live working sessions with owners, architects, and contractors

Flexibility: Models adapt instantly as priorities or constraints change

COLLABORATIVE AND ITERATIVE WORKFLOW

IMEG's proven five-step process transforms early concepts into data-driven solutions through real-time collaboration and rapid iteration:

- 1. Discovery:** Stakeholders outline vision, constraints, and success metrics
- 2. Rapid model build:** IMEG creates a parametric model of the concept
- 3. Option generation:** IMEG produces multiple viable schemes
- 4. Live review & tuning:** Adjust inputs (e.g., floor count, bay spacing, and material) and watch results update with stakeholders in real time
- 5. Decision package:** Clear dashboards summarize structural design, cost, carbon, and implications for the preferred options

METRICS DELIVERED FOR EVERY OPTION

Each design alternative includes comprehensive performance data, enabling direct comparisons across critical project dimensions:

Structural: Optimized layout and initial member sizes

Environmental: Preliminary embodied-carbon (CO₂e) estimate

Budget: Order-of-magnitude material cost range

Additional checks: MEP, energy, façade, and site constraints integrated upon request

KEY VARIABLES WE CAN EXPLORE

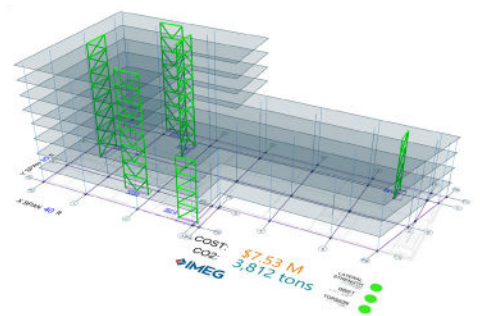
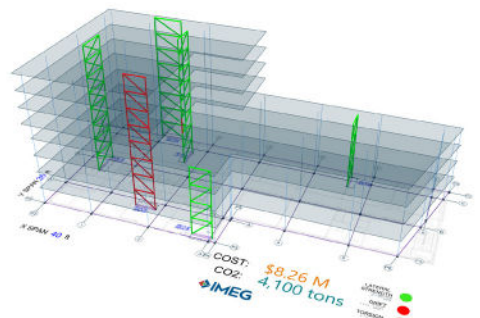
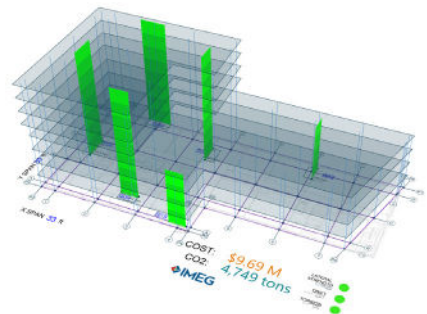
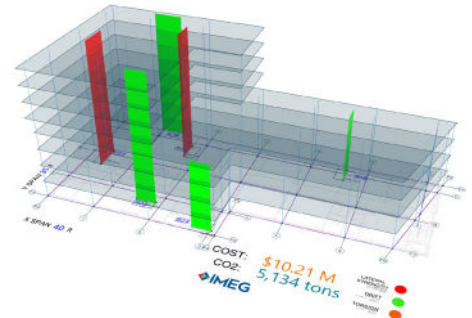
Our parametric models adapt to test virtually any design parameter, from fundamental building geometry to advanced material specifications:

Size: Floor plate geometry, building height, levels, etc.

Occupancy: Residential, office, labs, retail, etc.

Material / Structural System: Concrete versus steel, shear walls versus braced frames, low-carbon mixes

Location: Seismicity, wind, and soil site class estimate



TO LEARN MORE, CONTACT:

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