DEVELOPING A CARBON-NEUTRAL FUTURE

the role of organizations

By 2060:
- Global building floor area increase
- 230 billion m² or 2.3 trillion ft²
  - This doubles current worldwide building stock
- "building an entirely new planet next to the existing one"...in forty years
  – Ed Mazria, Executive Director of Architecture 2030
Planning, Design & Construction: 70% – 80% of goal
Renewables: 20% – 30% of goal

**A CARBON NEUTRAL, BUILT ENVIRONMENT**
- Planning, Design & Construction: 70% – 80% of goal
- Renewables: 20% – 30% of goal

**THE PCA ROAD MAP**

- **Clinker**: Key chemically reactive ingredient
- **Cement**: The binder
- **Concrete**: A critically useful material to society. Critical use phase impacts
- **Construction**: Service life
- **Carbonation**: Carbonate a CO₂ sink

https://www.cement.org/sustainability/roadmap-to-carbon-neutrality
THE PCA ROAD MAP: SOLUTIONS

NEAR-TERM
Replace raw materials with recycled materials
Products low carbon cement blends
Designs for the lowest life cycle emissions

MID-TERM
Increase the use of alternative fuels
Use renewable energy

LONG-TERM
Carbon capture
Introduce new cement blends

https://www.cement.org/sustainability/roadmap-to-carbon-neutrality

The concrete industry produces about 10 billion tons annually.

Global Green Concrete Market, by Region 2019-2027 (US$ Bn)

North America  ▢ Europe  ▢ Asia Pacific  ▢ Middle East & Africa  ▢ South America

BARRIERS TO SUCCESS?
SHRINKING WORKFORCE

COMMON SENSE

DEFIANCE
ASSOCIATION VIEWPOINT

Renewal, Reinvention and Responsibility

HOW DO WE:
LEARN | INSPIRE | LEAD
TO ENSURE SUCCESS?

HOW DO WE
DEFINE SUCCESS?

RENEWAL:
LEADING FROM WITHIN
REINVENTION: ACHIEVING THE UNBELIEVABLE

RESPONSIBILITY: EVOLVING THE BUILT ENVIRONMENT

RESPONSIBILITY: RECYCLING AND RECOVERY

CONFLUENCE PARK — SAN ANTONIO