

CLIMATE CHANGE
will drive a price on carbon

LIABILITY
will make whole areas uninsurable

CONCRETE
doesn't have a viable low carbon solution

MATERIAL DEMAND
will require engineered living materials

TECHNOLOGY
is needed to speed construction & reduce cost

MAKE IT
EFFICIENT!

GET TO
ZERO!

USE EVERY
TOOL!

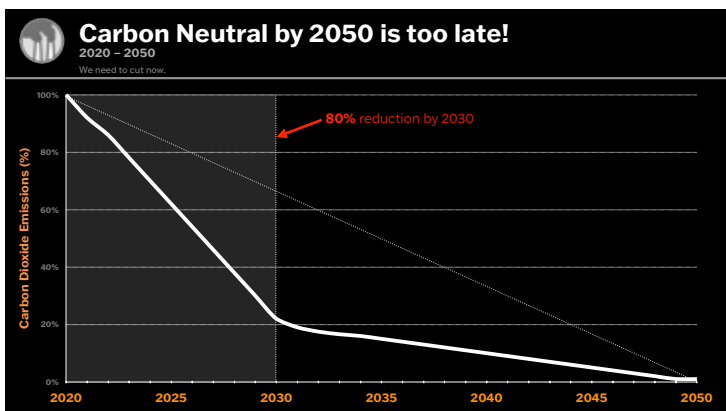
MEASURE
EVERYTHING!

DO IT
NOW!

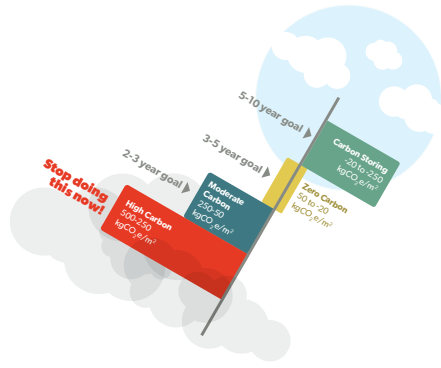
USE
NATURE!

no data
no insights
no productivity
no automation
no prefabrication

**EXTREME
MAKEOVER**
CARBON Edition



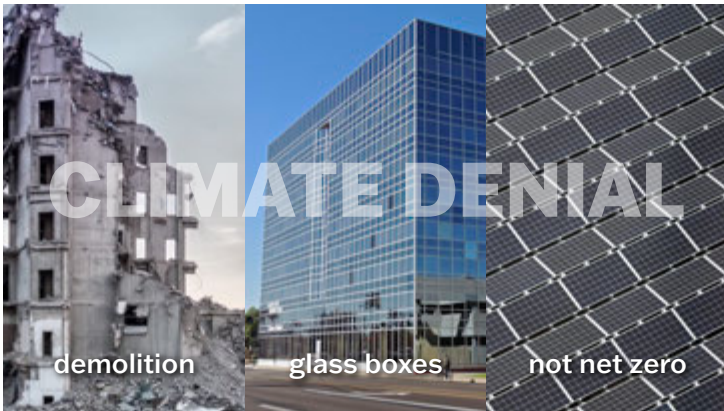
**There is no time.
We have zero years.**



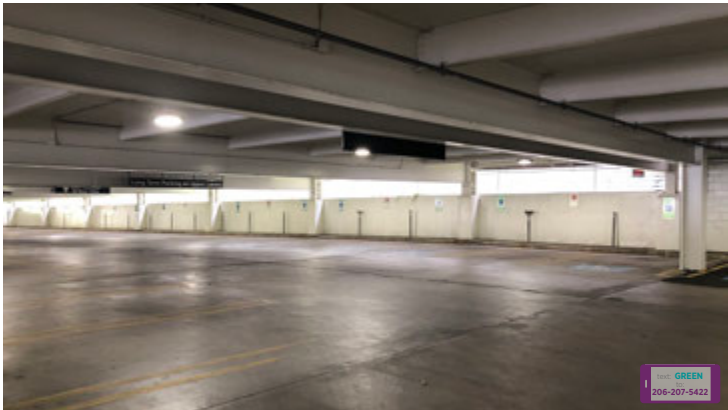
Text: GREEN
206-207-5422



Text: GREEN
206-207-5422



Text: GREEN
206-207-5422



A teal background featuring a graphic of five lightbulbs hanging from above. The first lightbulb on the left is illuminated with a yellow glow and contains a brain icon. The other four lightbulbs are unlit. The text "sustainability pays for itself" is written in yellow in the upper right. A small purple logo with the text "text: GREEN 206-207-5422" is in the bottom right corner.

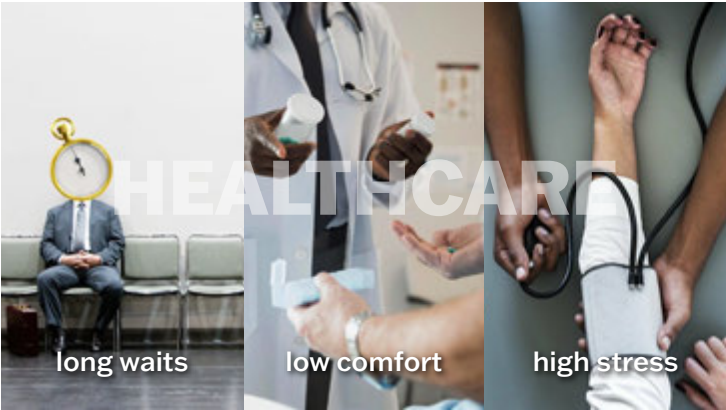
sustainability
pays for itself

text: GREEN
206-207-5422

A graphic with a blue sky background. At the top, the text "\$10,000,000,000,000" is written in large blue font, with "potential savings by 2100" in smaller purple text below it. Below the text are three vertical panels: a dry, cracked brown earth, a lush green field with a white path, and a deep blue ocean. A small purple logo with the text "text: GREEN 206-207-5422" is in the bottom right corner.

\$10,000,000,000,000
potential savings by 2100

text: GREEN
206-207-5422

A graphic with the word "HEALTHCARE" in large, semi-transparent white letters across the center. It is composed of three vertical panels: a man in a suit sitting on a bench with a clock for a head, a doctor in a white coat holding a pill bottle, and a person's arm being checked with a blood pressure cuff. Below each panel is a label: "long waits", "low comfort", and "high stress".

HEALTHCARE

long waits

low comfort

high stress

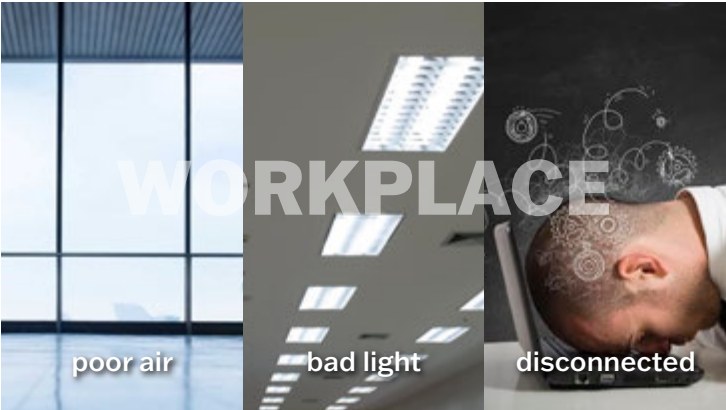
A graphic with the word "EDUCATION" in large, semi-transparent white letters across the center. It is composed of three vertical panels: a student sleeping at a desk, a classroom with poor lighting, and a bowl of food next to a trash can. Below each panel is a label: "uninspiring", "poor lighting", and "wasteful".

EDUCATION

uninspiring

poor lighting

wasteful

A graphic with the word "WORKPLACE" in large, semi-transparent white letters across the center. It is composed of three vertical panels: a view through a window showing poor air quality, a view of a ceiling with bad lighting, and a person's head with gears and a disconnected look. Below each panel is a label: "poor air", "bad light", and "disconnected".

WORKPLACE

poor air

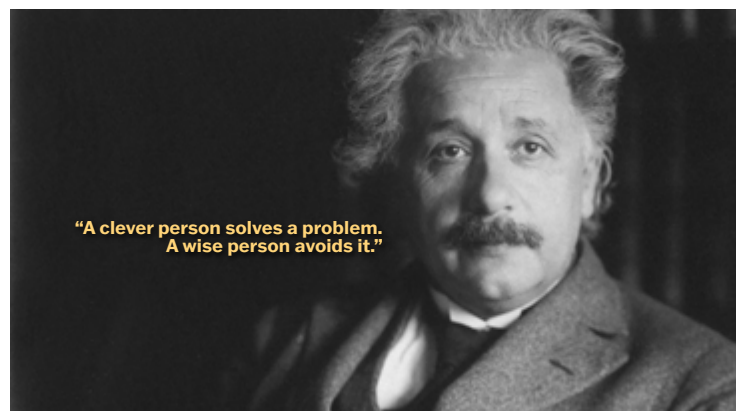
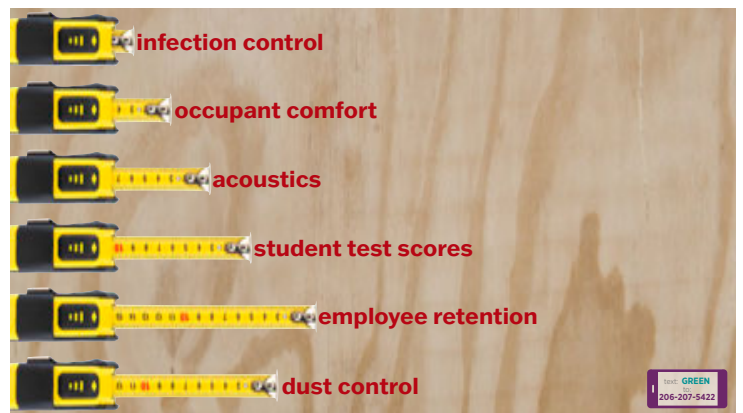
bad light

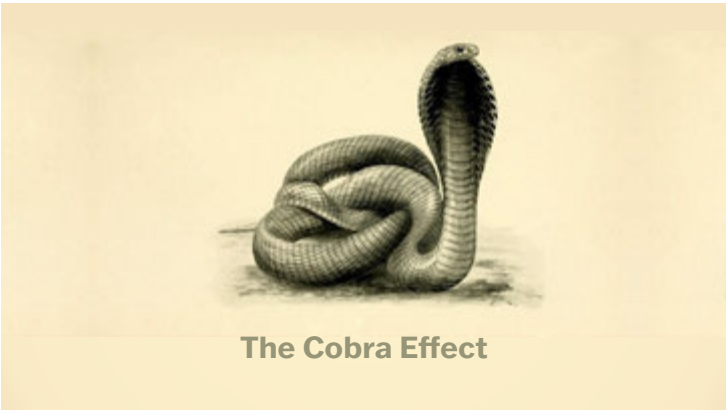
disconnected

A graphic with a yellow background. A yellow measuring tape is shown, with a hand holding it. The text "if we change what we measure, we can change the world." is written in red. A small purple logo with the text "text: GREEN 206-207-5422" is in the bottom right corner.

if we change
what we measure,
we can
change the world.

text: GREEN
206-207-5422





metrics can make bad targets:



AIR	CLIMATE	SPATIAL
Carbon Dioxide (CO ₂) (ppm)	pEUI (kBtu/feet ² /yr)	Temperature (°F/°C)
Carbon Monoxide (CO) (ppm)	Carbon Use Intensity (CO ₂ /Btu)	Relative Humidity (%)
Total VOCs (ug/m ³)	Embodied Carbon (kgCO ₂ e/m ²)	Noise (dB)
Formaldehyde (HCHO) (ug/m ³)	Global Warming Potential (IPCC AR4)	Irradiance (mW)
Nitrogen (NO ₂) (ug/m ³)	Carbon Emissions (CO ₂) (kg)	Illuminance (mV)
Ozone (O ₃) (ug/m ³)	Methane Emissions (CH ₄) (kg)	Daylight Factor (%)
PM2.5 (ug/m ³)	Fluorocarbons (CFC/HFC) (kg)	Lead Exposure (mcg/dL)
PM10 (ug/m ³)	Production (kW)	Asbestos (f/cc)
Air Quality Index (0-500)	Net Zero Site (kW)	Radon (pCi/L)
Air Changes (ACH) (cfm/ft ²)	Net Zero Source (kW)	
Fresh Air Intake (cfm/person)	Offsets (tonnes CO ₂ e)	
Air Pressure (mb)		
Dust (ug/m ³)		

WHAT CLIENTS CARE ABOUT
Capital Expenditure (CapEx) (\$)
Return on Investment (ROI) (months)
Rate of Return (ROR) (%)
Internal Rate of Return (IRR) (%)
Modified Internal Rate of Return (MIRR) (%)
Net Present Value (NPV) (\$)
Time Value of Money (TVM) (\$)
Weighted Average Cost of Capital (WACC) (\$)
Revenue per Square Foot (RevSF) (\$/foot ²)
Revenue per Available Room (RevPAR) (\$/unit)
Average Daily Rate (ADR) (\$/day)
Occupancy Rate (OR) (%)
Lease Rate (LR) (%)

WHAT DOCTORS CARE ABOUT
Blood Pressure (Dia/Sys) (mmHg)
Heart Rate (Pulse) (bpm)
Tension (EMG) (V)
Electroencephalogram (EEG) (V)
Electrocardiogram (EKG) (ms)
Pain (Scale) (1-10)
Skin Conductance Levels (SCL) (uS)
Brain Activity (Response) (Y/N)
Body Temperature (Degree) (°F/°C)
Blood Oxygen (%) (mmHg)
Cortisol Levels (Blood) (mcg/dL)
Pulse Transit Time (PTT) (ms)
Oxyhemoglobin (SaO ₂) (%)

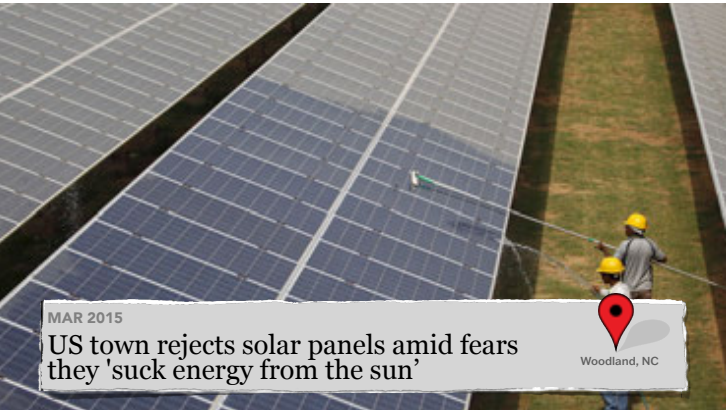


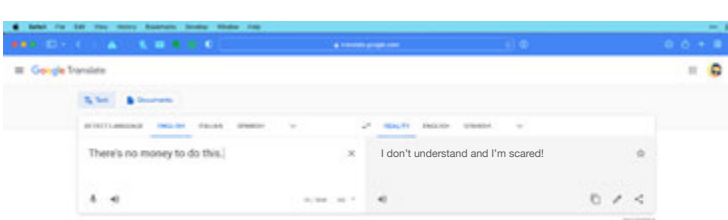


VIBRANCY	PROSPERITY	PERFORMANCE
Resiliency	Circularity	Staff Retention
Stronger value chains	Increased valuation	Student test scores
Higher Walkability	Share price	Reading comprehension
Access to green space	Reduced Risk	Worker productivity
Views of nature	Divestment	Transparency
Redlist free	Impact investment	Revenue per Employee
Waste reduction	Access to capital	Number of Applicants
Guest satisfaction	Social capital	Climate Targets
Reduced pain meds	Reduced overhead	Staff diversity
Faster immune response	Civic participation	Lower Absenteeism
Reduced length of stay	Graduation rates	Rates of Advancement
Engaged stakeholders	College acceptance	Lower commuting time
		Loss prevention

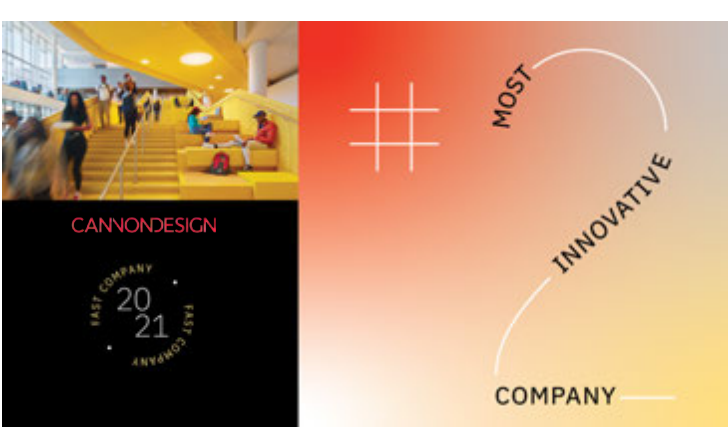
VIBRANCY	PROSPERITY	PERFORMANCE
Resiliency	Circularity	Staff Retention
Stronger value chains	Increased valuation	Student test scores
Higher Walkability	Share price	Reading comprehension
Access to green space	Reduced Risk	Worker productivity
Views of nature	Divestment	Transparency
Redlist free	Impact investment	Revenue per Employee
Waste reduction	Access to capital	Number of Applicants
Guest satisfaction	Social capital	Climate Targets
Reduced pain meds	Reduced overhead	Staff diversity
Faster immune response	Civic participation	Lower Absenteeism
Reduced length of stay	Graduation rates	Rates of Advancement
Engaged stakeholders	College acceptance	Lower commuting time
		Loss prevention

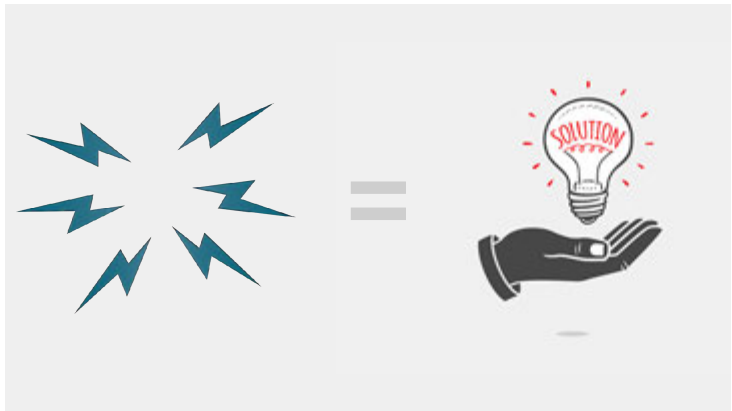
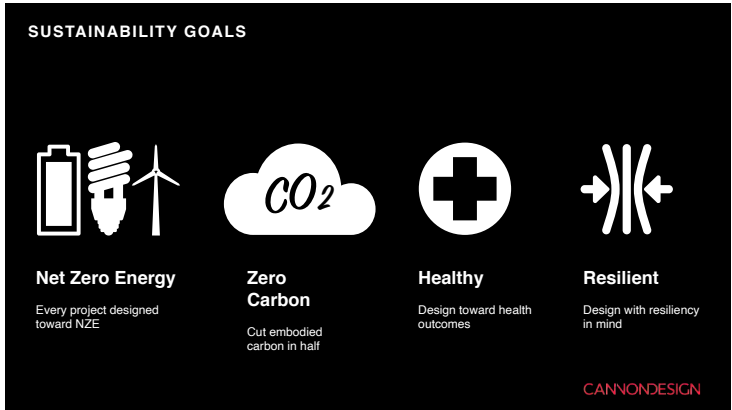






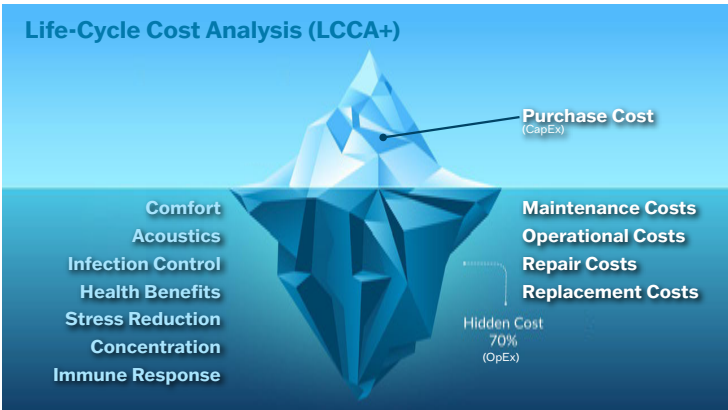
MAP OUT THEIR CONCERNS
FIND THEIR PAIN POINTS
SHOW THE BENEFITS

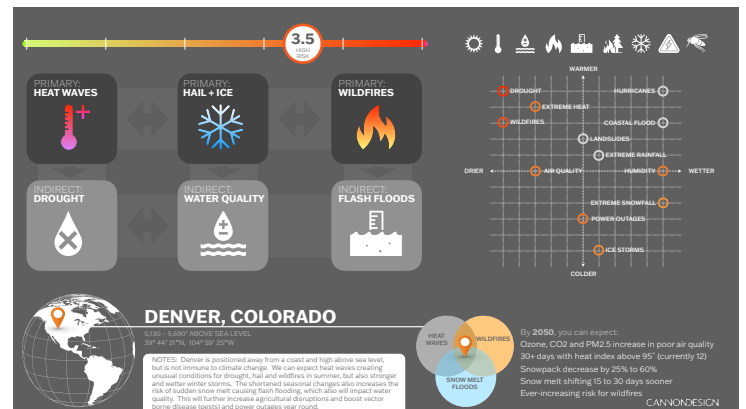
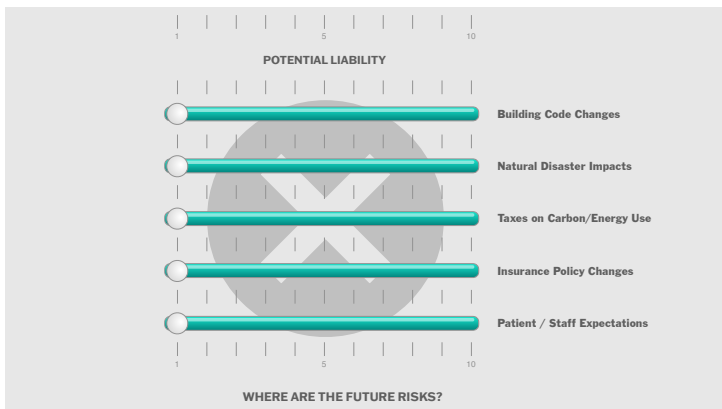
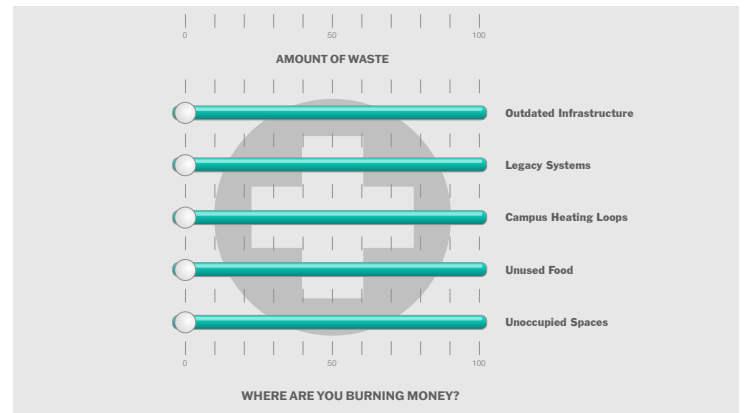
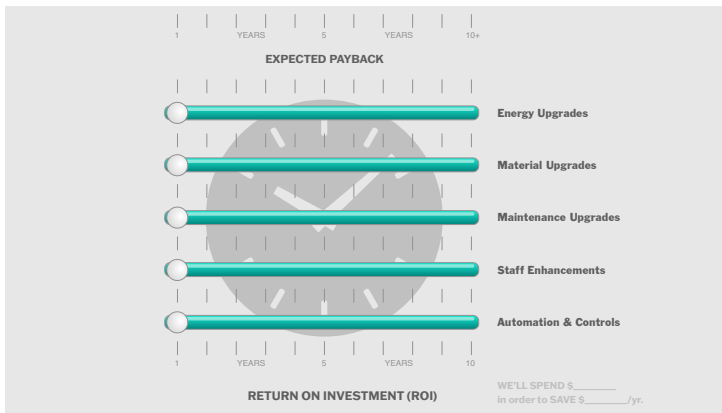


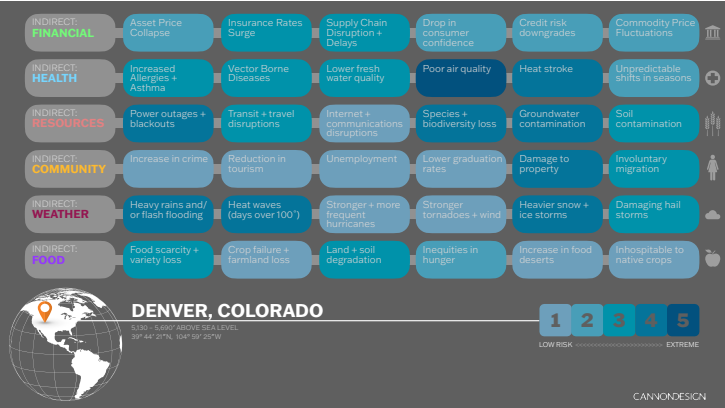


Provocation:
 What if we aspire to be the **healthiest** building on campus?

Note:
Everything you're about to see has **some payback or return on investment.**
 financial | social | staff | patient









speed up carbonation reaction



c8s.co.uk

inject CO2 into voids



solidiatech.com

coat aggregate with CO2



blueplanet-ltd.com

inject CO2 into water



carboncure.com

recycled aggregates



lafargeholcim.com

cement from blast furnace slag



ciments-hoffmann.com



ecovative
We grow materials.



ecovative.com



