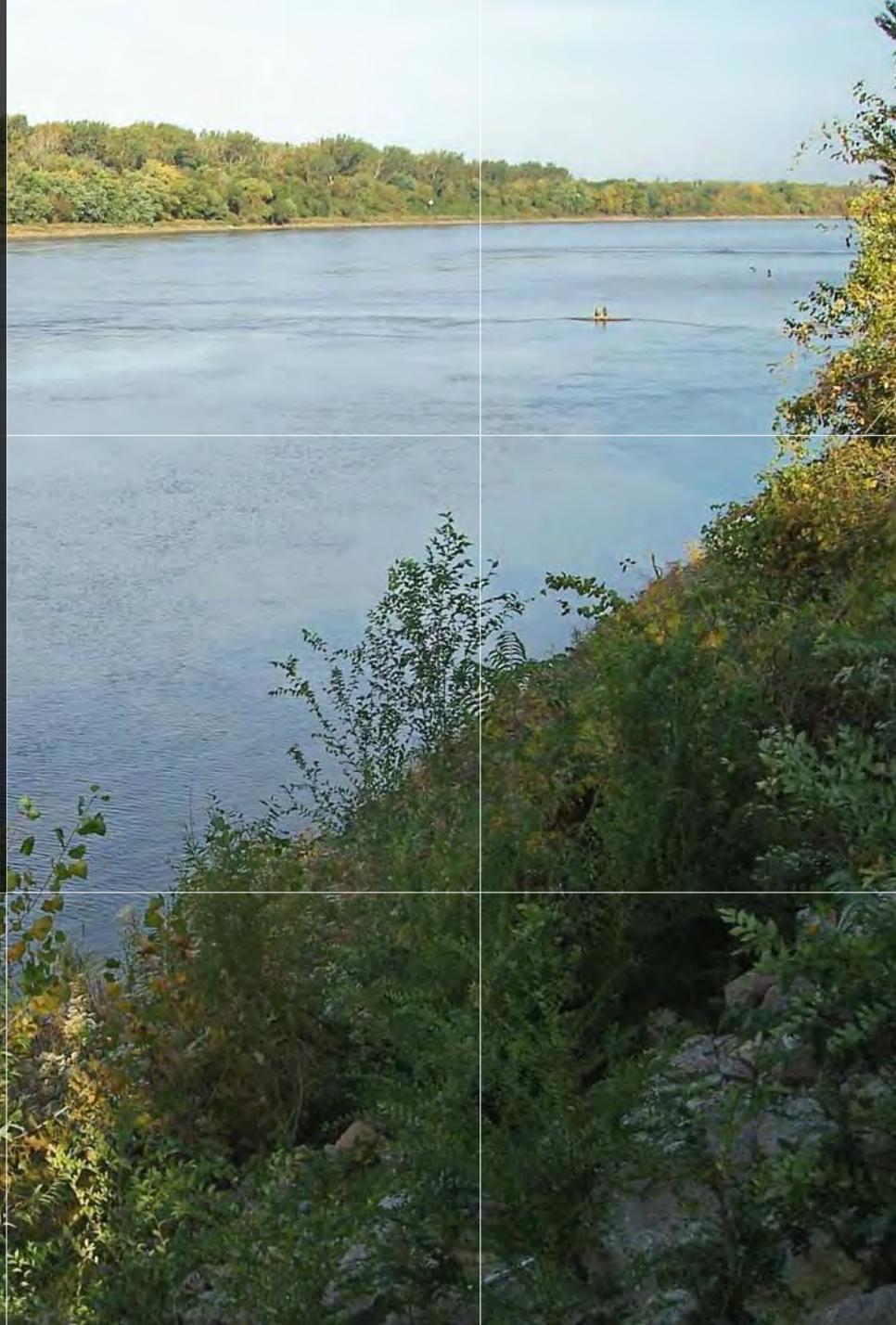
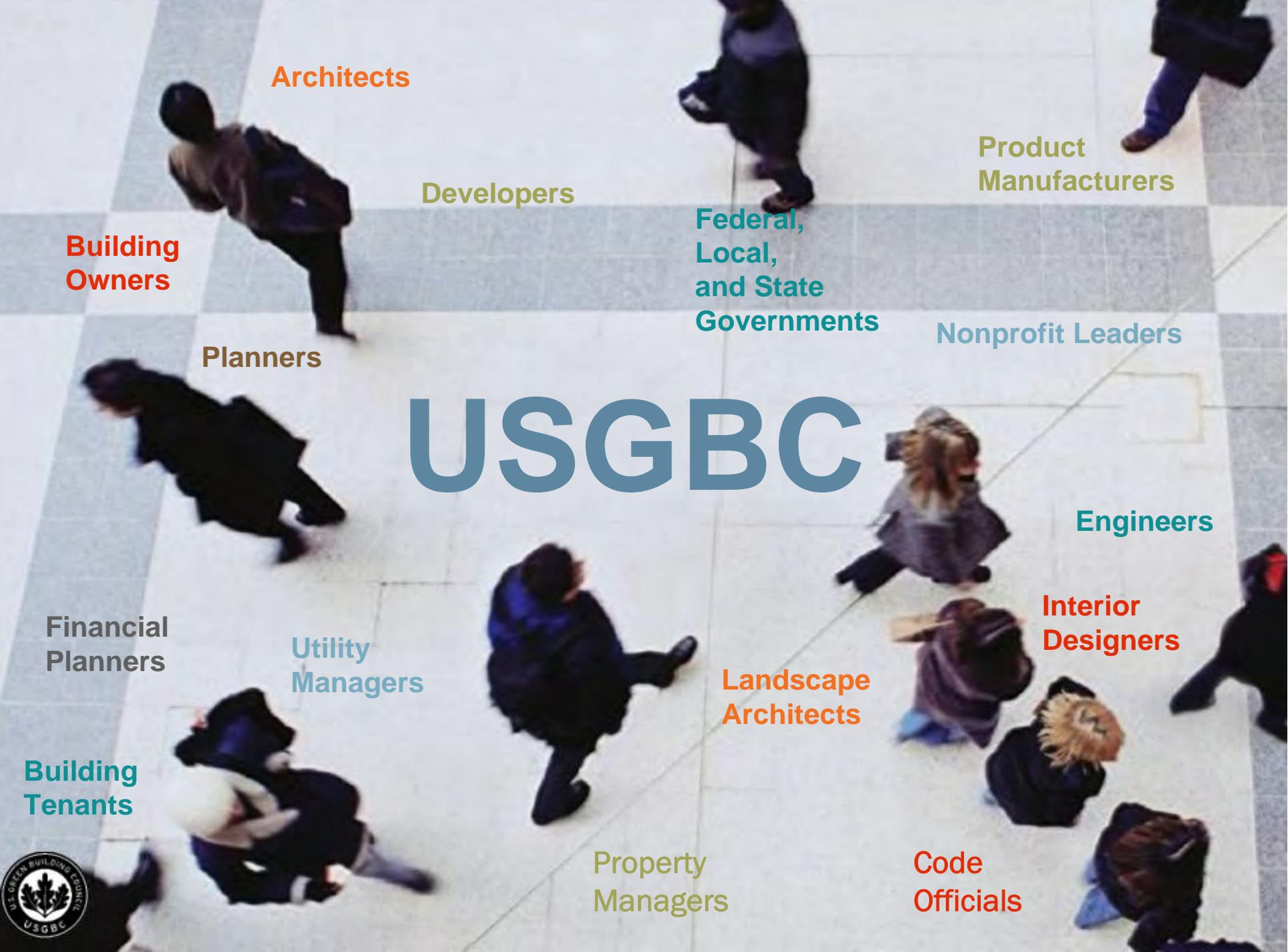


Intro to USGBC & LEED



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Architects

**Product
Manufacturers**

Developers

**Federal,
Local,
and State
Governments**

**Building
Owners**

Nonprofit Leaders

Planners

USGBC

Engineers

**Financial
Planners**

**Interior
Designers**

**Utility
Managers**

**Landscape
Architects**

**Building
Tenants**

**Property
Managers**

**Code
Officials**



VISON & MISSION

VISION

To create and restore buildings and communities that will regenerate and sustain the health and vitality of all life within a generation.

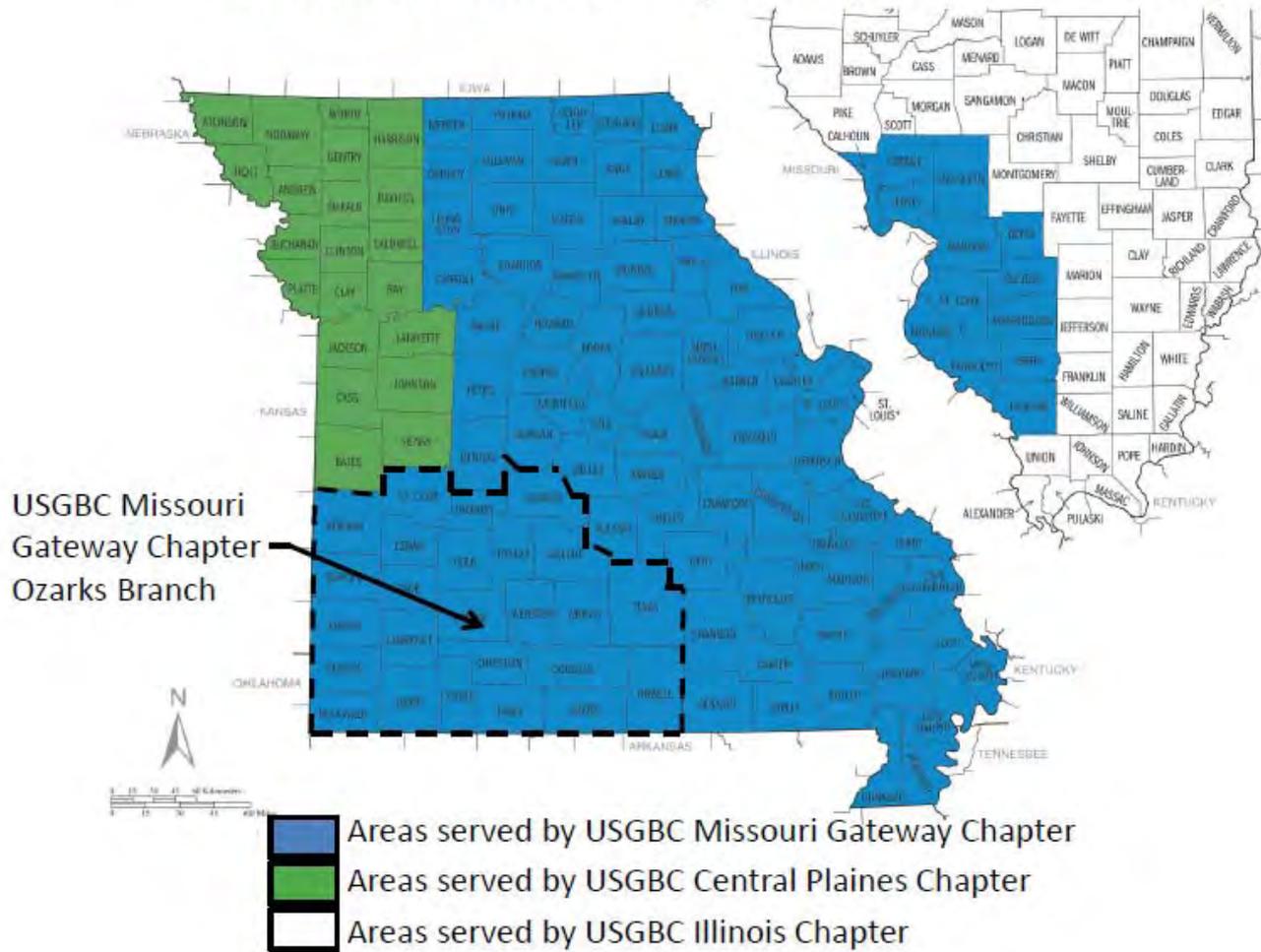
MISSION

To initiate, develop and accelerate implementation of green building concepts, technologies and principles that promote environmentally responsible, prosperous and healthy places to live and work.



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Missouri Gateway Chapter Territory



CHAPTER ACTIVITIES AND MEMBERSHIPS

Over **525** chapter members

Monthly Networking and Educational Programs

LEED and Green Building Efforts

Outreach and Advocacy Efforts



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EDUCATION & OUTREACH

growing green awards
honoring people + organizations transforming the built environment



C&D TOOLKIT

construction & demolition materials toolkit

A WASTE RESEARCH & EDUCATION PROJECT FOR THE ST. LOUIS REGION

10
JUN

A Regional Construction & Demolition Materials Toolkit



The **St. Louis Region** and the **Midwest** are blessed with much open space, which means that it is easy to overlook where our residential and commercial waste ends up. Our landfill tipping fees, i.e. "the cost to dump", are relatively low compared to other parts of the United States as a result of the abundance of landfill areas.

Many consumers, businesses and contractors think nothing of throwing things "away and out of sight." However, it is not environmentally responsible to dispose of items that could be salvaged, recycled or

C & D Waste Toolkit

- Recycling & Reuse Resources for C & D Waste Diversion
- Lay of the Landfill in the St. Louis Region
- Current Regulations
- What are C & D Materials?
- C & D Myths
- The Business Case
- Best Practices & Policy
- Putting Your Plan In Motion
- LEED Documentation of C & D Waste Diversion

Helpful

Organizations

WHAT IS A GREEN BUILDING?

A building that...

- ❑ consumes less energy and water
- ❑ is durable and easier to maintain
- ❑ is healthier
- ❑ uses resource efficient materials
- ❑ is integrated with the building site



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WHY BUILD GREEN

Triple Bottom Line – Benefits All



ENVIRONMENT



ECONOMIC



SOCIAL



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IMPACT OF BUILDINGS IN THE U.S.

ELECTRICITY CONSUMPTION

76%

WASTE OUTPUT

65%

CO₂ EMISSIONS

39%

WATER USE

12%



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**ENERGY
USE**

24%* -50%**

**CO₂
EMISSIONS**

33%*** -39%**

**WATER
USE**

40%**

**SOLID
WASTE**

70%**

**GREEN BUILDINGS
CAN REDUCE...**

* Turner, C. & Frankel, M. (2008). Energy performance of LEED for New Construction buildings: Final report.

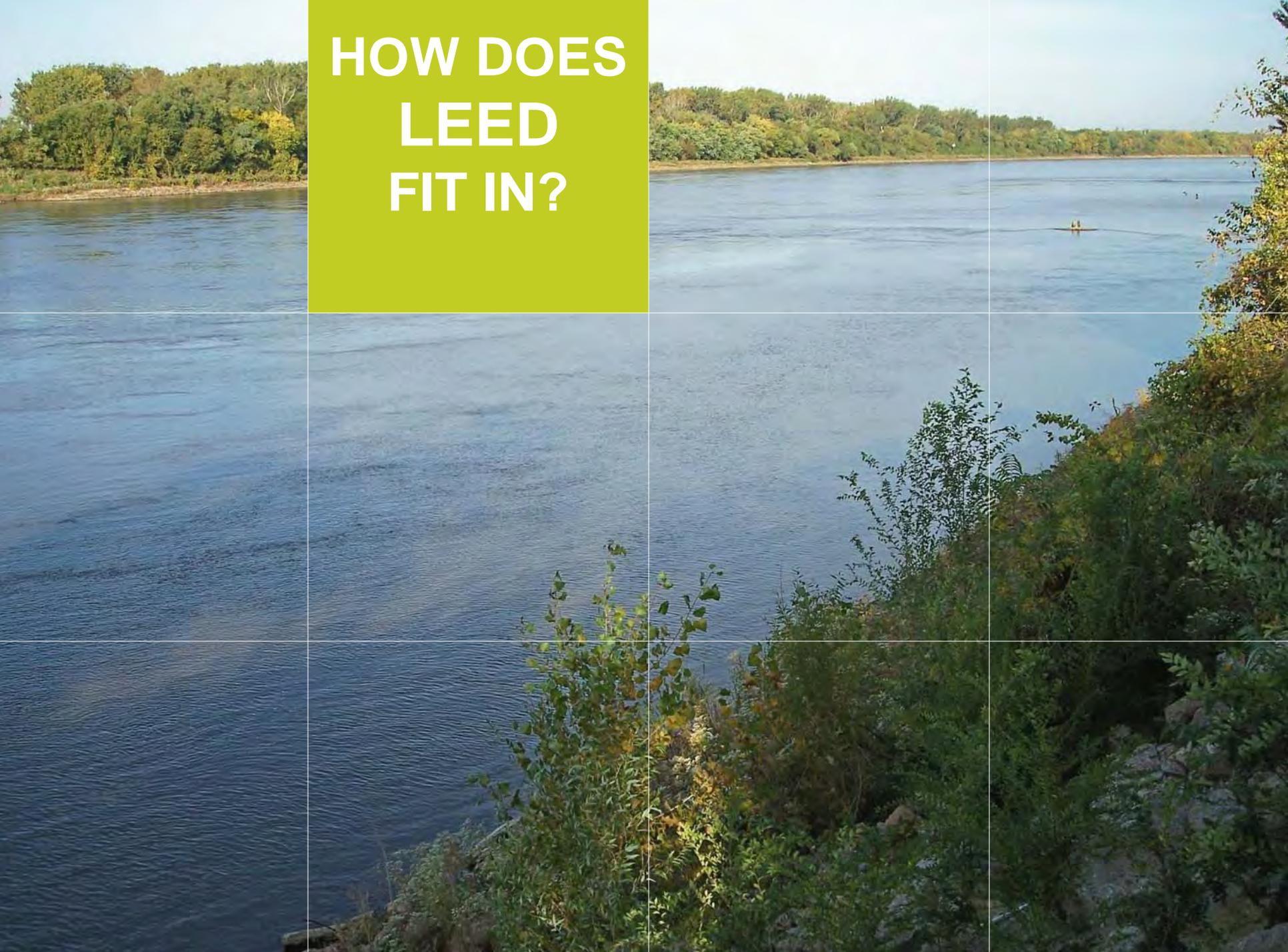
** Kats, G. (2003). The Costs and Financial Benefits of Green Building: A Report to California's Sustainable Building Task Force.

*** GSA Public Buildings Service (2008). Assessing green building performance: A post occupancy evaluation of 12 GSA buildings.

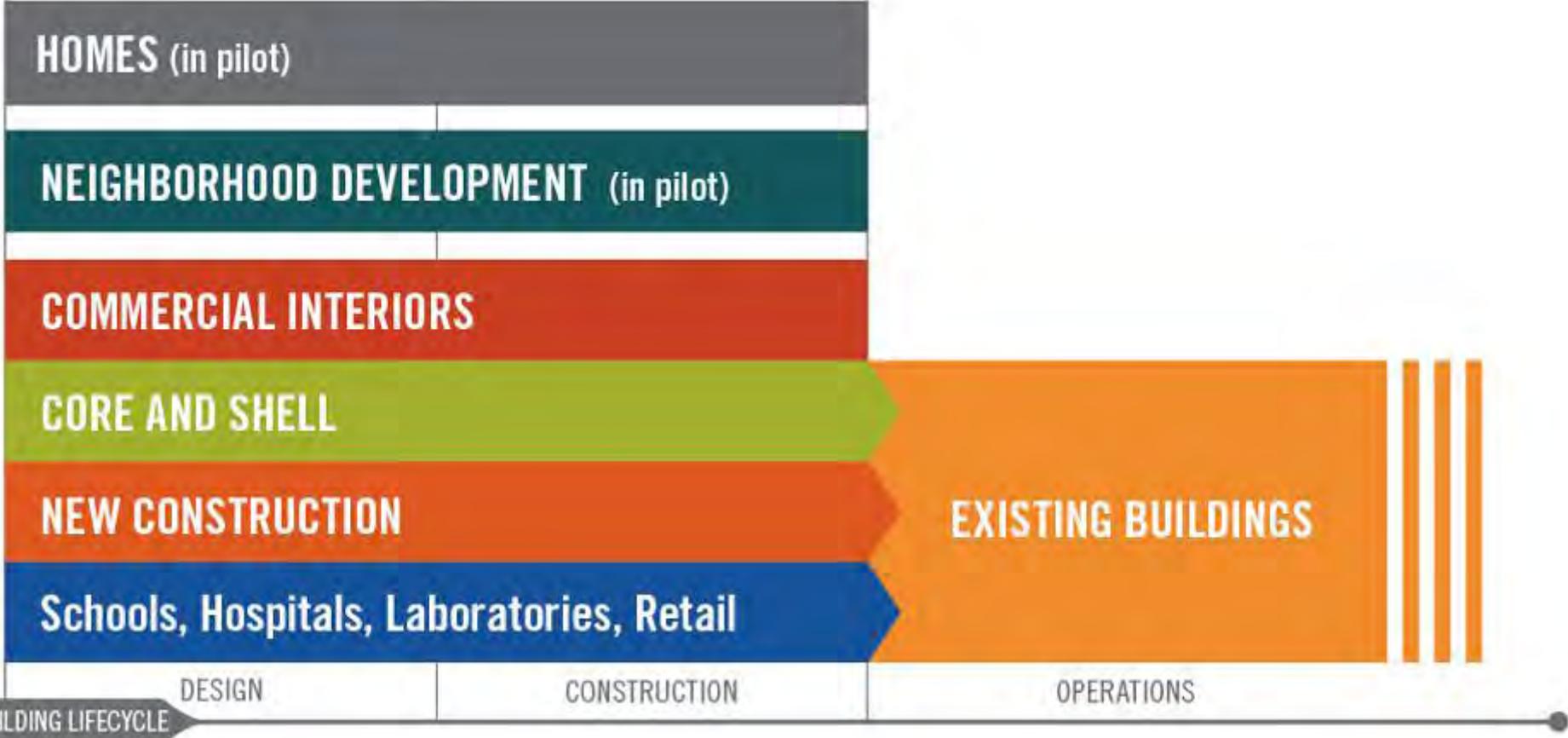


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HOW DOES LEED FIT IN?



LEED addresses the complete building lifecycle.



CONSENSUS-BASED STANDARDS

USGBC has four levels of LEED:



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A photograph of a modern building with a glass facade and a green lawn with trees. The building is on the left, and the lawn is in the foreground. The trees are on the right and in the background. The image is used as a background for a presentation slide.

SUSTAINABLE SITES

Stormwater Management

Reduced Site Disturbance

Heat Island Reduction

Light Pollution Reduction



EFFICIENT WATER USE

Minimum Water Efficiency

Water Efficient
Landscaping

Innovative Wastewater
Technologies

Water Use Reduction



ENERGY AND ATMOSPHERE

Minimum Energy Performance

Optimize Energy Performance

On/Off Site Renewable Energy

Performance Management

Documenting Cost Impacts



INDOOR ENVIRONMENTAL QUALITY

Outside Air Exhaust

Tobacco Elimination

No harmful products

Increased Ventilation

Thermal Comfort

Green Cleaning



MATERIALS AND RESOURCES

Source Reduction

Toxic Material

Construction Waste Management

Optimized Use of Alternative Materials

Sustainable Cleaning Products

Occupant Recycling

LEED & Solid Waste Diversion, part 1

NOTE: These are the credits from LEED for New Construction & Major Renovation (NC)

Credit	Points Available
Materials & Resources Prerequisite Storage & Collection of Recyclables	0
MR 1.1 – Building Reuse: Existing Walls, Floors & Roof 1 for 55% of building, 2 for 75%, 3 for 95%	2
MR 1.2 – Building Reuse: Interior Nonstructural Elements	1
MR 2 – Construction Waste Management * 1 for 50% recycled or salvaged, 2 for 75%	2

** Innovation & Design credits available for exemplary performance - Construction Waste Management (95% diversion)*



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LEED & Solid Waste Diversion, part 2

NOTE: These are the credits from LEED for New Construction & Major Renovation (NC)

Credit	Points Available
MR 3 – Materials Reuse 1 for 5%, 2 for 10%	2
MR 4 – Recycled Content of Building Materials / Products * 1 for 10%, 2 for 20%	2
MR 5 – Regional Materials (Salvaged Materials Eligible) * 1 10%, 2 for 20%	2
TOTAL POSSIBLE POINTS:	12

** Innovation & Design credits available for exemplary performance - Recycled Content (30%) and Regional Materials (30%)*



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Saint Louis Zoo Animal Nutrition Center

St. Louis, MO

LEED New Construction-Silver

51% reduction in potable water use over baseline

89% of construction waste diverted from landfill



Green Circle Shopping Center

Springfield, MO
LEED Core & Shell - Platinum

70% more energy efficient
than a typical shopping center

50% reduction in lighting
costs through day lighting

70% domestic water use
reduction through rain water
harvesting



University City City Hall

University City, MO

LEED New Construction & Major
Renovations - Certified

50% of construction waste
diverted from landfills

Single-glazed window sashes
converted to **Insulated**
glass, saving energy

Smart panels turn lights
on/off according to the time of
day, improving energy efficiency

*Photograph taken by:
J Crocker*



Contacting the Chapter

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