





Presenters

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Agenda

Introduction to LEED

Giant Eagle's Experience with LEED

LEED New Construction vs. Retail





Giant Eagle

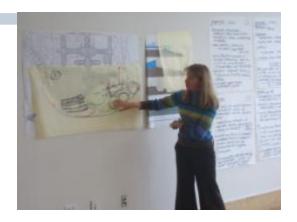
- Regional Supermarket Brand with 5 formats
 - 220 Giant Eagles, 4 Market Districts, 6 Valu Kings, 162 Get Gos, 1 Giant Eagle Express
- Over 9 billion in annual sales
- One of the nation's largest privately owned and family operated grocers
- Locations in Pennsylvania, Ohio, West Virginia and Maryland





evolveEA





- Sustainability and Built Environment
- People * Process * Place
- Founded in 2004
- Managed over 30 LEED projects





Introduction to LEED





USGBC and **LEED**



USGBC...is a 501 c3 non-profit organization committed to a prosperous and sustainable future for our nation through cost-efficient and energy-saving green buildings.



LEED... promotes sustainable building and development practices through a suite of rating systems that recognize projects that implement strategies for better environmental and health performance. It works throughout the building lifecycle – design and construction, operations and maintenance, tenant build-out, and significant retrofit.





Rating Systems

GREEN BUILDING DESIGN & CONSTRUCTION

LEED FOR NEW CONSTRUCTION

LEED FOR CORE & SHELL

LEED FOR SCHOOLS

LEED FOR HEALTHCARE

LEED FOR RETAIL

GREEN INTERIOR DESIGN & CONSTRUCTION

LEED FOR COMMERCIAL INTERIORS

LEED FOR RETAIL INTERIORS

GREEN BUILDING OPERATIONS & MAINTENANCE

LEED FOR EXISTING BUILDINGS

LEED FOR EXISTING SCHOOLS







Point Achievement Thresholds



40-49

50-59

60-79

+08







Paths of LEED Certification

LEED	for New Construction		LEI	ED for Retail	
Total Possible Points**		110*	Tota	al Possible Points**	111*
Y	Sustainable Sites	26	9	Sustainable Sites	27
	Water Efficiency	10		Water Efficiency	10
*	Energy & Atmosphere	35	*	Energy & Atmosphere	35
	Materials & Resources	14		Materials & Resources	14
	Indoor Environmental Quality	15		Indoor Environmental Qu	uality 15

^{*}Out of a possible 100 points + 10 bonus points

^{**} Certified 40+ points, Silver 50+ points Gold 60+ points, Platinum 80+ points

	Innovation in Design	6
P	Regional Priority	4

*Out of a possible 100 points + 10 bonus points

^{**} Certified 40+ points, Silver 50+ points Gold 60+ points, Platinum 80+ points

	Innovation in Design	6
P	Regional Priority	4



Paths of LEED Certification

The number of credits in each LEED category do not significantly differ...but how those credits are achieved in NC vs. Retail do have some notable differences. Which we will discuss shortly.





Sustainability at Giant Eagle:

Experiences with LEED





Giant Eagle's Commitment to Sustainability

PEDLICTION STATEMENT

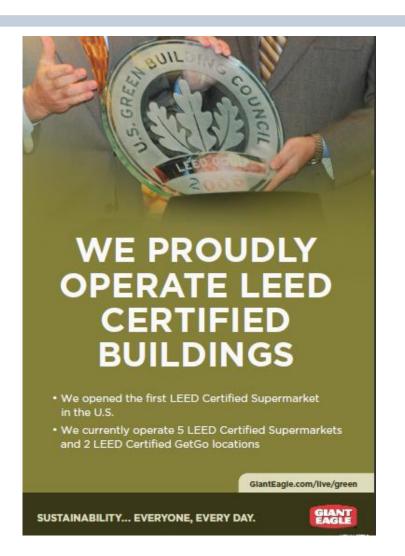
We strive to understand the environmental implications of all we do, this responsibility is reflected in our individual behaviors and how we conduct our business...We include smart sustainability strategies in our business planning, including:

- •Reducing and removing the use of non-renewable resources and waste
- •Recycling the waste we create
- Seeking out energy-saving alternatives





LEED as Innovation & Measurement Tool



- LEED is used as a design improvement mechanism for store development
- The appropriate LEED rating system is examined and evaluated for each project
- New initiatives are tested in LEED store development
- Standards are adopted long-term if they meet sustainability and business criteria
- LEED has served as a catalyst for organizational greening



Incremental Cost:





Potential LEED Incremental Costs



\$1.5-\$3 m

\$75 k -1.5 m



Brunswick, Giant Eagle

- Cleveland, Ohio
- •LEED NC 1.0
- •First ever LEED Certified Supermarket

Initiatives Adopted as Standards:





Initiatives Tested:

Energy Modeling
Skylights
Commissioning
Education Plans
Water Sub-metering
Pulping





Shadyside Market District

- Pittsburgh, PA
- •LEED CI 2.0
- •First ever LEED CI Certified Supermarket





Initiatives Tested:

Green-roof installation
Daylight Modeling
Materials Adoption: Recycled Content,
Regional Materials, Low VOCs







New Albany, Giant Eagle

- Columbus, OH
- •LEED NC 2.1 GOLD
- •First ever LEED Gold Supermarket

Standards:

2008 White TPO Roof Exposed Ceiling

Skylights
Commissioning



Initiatives Tested:

White TPO Roof Exposed Ceiling







Pine Township Giant Eagle & Robinson Market District

- Pittsburgh, PA
- •LEED NC-Retail, PILOT
- Testing of Retail Model





2009

Materials Standards Adoption New Daylighting Pattern

Initiatives Adopted as

Standards:

2007-08

White TPO Roof Exposed Ceiling

2003

Skylights Commissioning

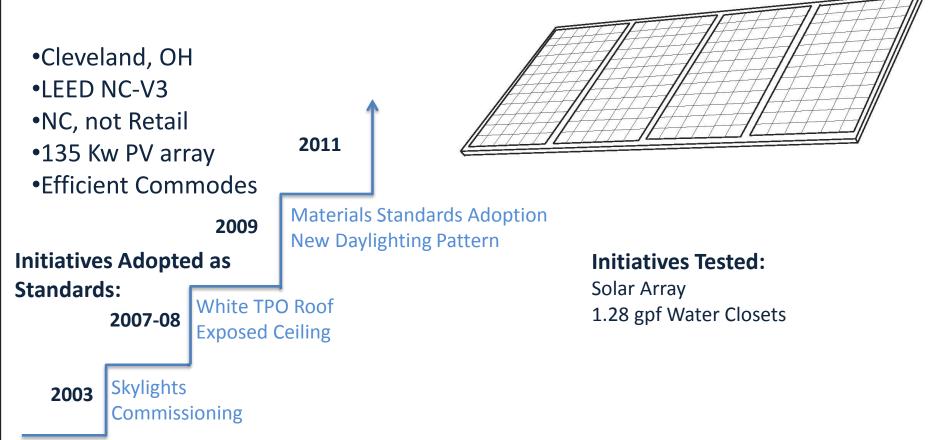
Initiatives Tested:

Materials Standards Adoption New Daylighting Pattern LEED for Retail





Broadview Heights, Giant Eagle



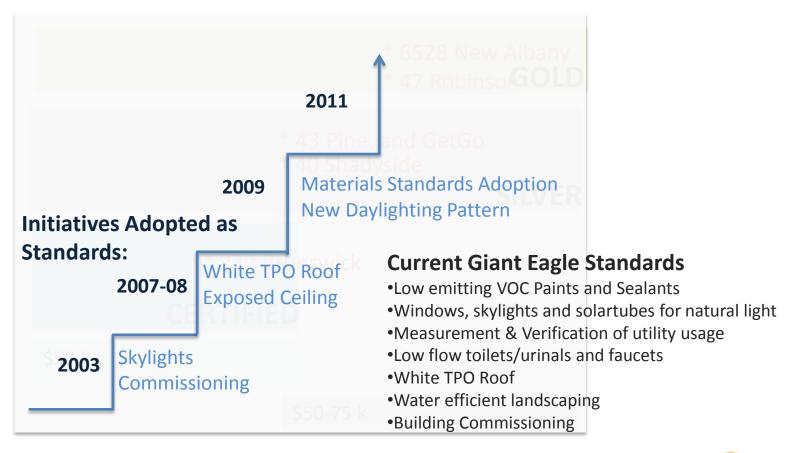
RAISING THE DESIGN AND CONSTRUCTION FLOOR







Reducing Costs by Raising the Standard







LEED NC

and

LEED for Retail







Rating Systems

GREEN BUILDING DESIGN & CONSTRUCTION

LEED FOR NEW CONSTRUCTION

LEED FOR CORE & SHELL

LEED FOR SCHOOLS

LEED FOR HEALTHCARE

LEED FOR RETAIL

GREEN INTERIOR DESIGN & CONSTRUCTION

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GREEN BUILDING OPERATIONS & MAINTENANCE

LEED FOR EXISTING BUILDINGS

LEED FOR EXISTING SCHOOLS





Why LEED for Retail?

- All commercial related to consumer
- Variety of types and sizes
- Occupancy and operational characteristics
- Process energy and water
- Parking and transportation
- Prototypes
- Lighting and display
- Pilot process
- Fit into the LEED 2009 structure







Rating Systems & Energy Use

GREEN
BUILDING
DESIGN &
CONSTRUCTION

LEEC	FOR	RNEW
CON	STRU	CTION

LEED FOR CORE & SHELL

LEED FOR SCHOOLS

LEED FOR HEALTHCARE

LEED FOR RETAIL

Building Type Energy Use: (kBtu/sf/year)

Bank 182 Retail Store 173

Mall 271

Retail Other 191

Service 150

Other 213

Food Sales/ Grocery &

Supermarket 618

Food Sales General 681

Are supermarkets comparable to other Retail?





Paths of LEED Certification

The number of credits in each LEED category do not significantly differ...but how those credits are achieved in NC vs. Retail do have some notable differences.





LEED for Retail: The major differences

New options to include employees in alternative **transportation** site credits

Retail projects can benefit from moving into or becoming part of larger green development master site and can earn credits based on the **master plan** (ex. Stormwater capture, mitigation)

Retail projects are required to account for unregulated water and energy uses related to Retail processes

Retail projects can include **furniture** in all materials calculations

Indoor Air Quality calculations must include furniture as part of the scope and IAQ issues focus more on **employees**





Sustainable Sites

PREREQUISITE Construction Activity

CREDITS: NEW or ADJUSTED

Alternative Transportation – Bicycling / Changing

Alternative Transportation – Low Emitting

Alternative Transportation – Delivery Service

Alternative Transportation – Incentives

Alternative Transportation – Education

Site Development – Open Space

Stormwater - Quantity

Stormwater - Quality

Light Pollution

New alternative transportation options promoting employee engagement

New options if store is part of green master plan development

PREREQUISITE None

CREDITS: NO CHANGE

Site Selection

Development Density

Brownfield Redevelopment

Alternative Transportation – Public Transit Access

Alternative Transportation – Parking Capacity

Site Development – Habitat

Heat Island - Non Roof

Heat Island - Roof



Energy & Store Development Conference



Water Efficiency

PREREQUISITE Water Use Reduction

CREDITS: NEW or ADJUSTED

Use Reduction – Process

Water Efficient Landscaping

Innovative Wastewater Technologies

Process water included and required as prerequisite, credit calculations (dishwashers, kitchen equipment)

New options for compliance if store is part of green master plan development PREREQUISITE None

CREDITS: NO CHANGE



Energy & Store Development Conference



Energy & Atmosphere

PREREQUISITE

Minimum Energy Performance

CREDITS: NEW or ADJUSTED

Optimize Energy Performance

All building energy uses must be included in the energy simulation model. Baselines for standard commercial kitchen equipment, refrigeration, walk in coolers and ventilation must be included.

*This prerequisite and credit:

may benefit a project if energy star appliances or efficient alternatives are used compared to baseline process loads
or if the project team has never modeled process loads

However it is likely to cost more and may penalize projects with significant process loads (each case will vary)

PREREQUISITE

Fundamental Commissioning Refrigerant Management

CREDITS: NO CHANGE

On Site Renewable Energy
Enhanced Commissioning
Enhanced Refrigerant Mgmt
Measurement & Verification
Green Power





Materials & Resources

PREREQUISITE Recyclables Collection & Storage

CREDITS: NEW or ADJUSTED

Materials Reuse

Recycled Content

Regional Materials

Rapidly Renewable Materials

Certified Wood

Definition of retail furniture provided.
Furniture may be included in material calculations, but must be included consistently.

PREREQUISITE

None

CREDITS: NO CHANGE

Building Reuse - Structural

C&D Waste Management





Indoor Environmental Quality

Environmental Tobacco and Smoke PREREQUISITE

Control

CREDITS: NEW or ADJUSTED

IAQ Mgmt Plan - Occupancy

Low Emitting Materials-Composite Wood and Agrifiber

Low Emitting Materials- Furniture

Low Emitting Materials-Ceiling and **Wall Systems**

Controllability - Lighting

Controllability - Thermal

Thermal Comfort- Verification

Daylighting

Views

Air testing may occur after construction ends and within 14 days following occupancy

New options added to address retail furniture and ceiling and wall systems

Controllability and surveying only applies to retail administration spaces and employees

Retail definition for nonregularly and regularly occupied spaces

PREREQUISITE

Minimum Outdoor Air Quality Performance

CREDITS: NO CHANGE

Outdoor Air Monitoring

Increased Ventilation

IAQ Mgmt Plan - Construction

Low Emitting Materials-Adhesives and Sealants

Low Emitting Materials-Paints and Coating

Low Emitting Materials- Flooring

Indoor Chemical and Source Pollutant

Control

Thermal Comfort Design





Conclusion

- LEED can be
 - A tool for measuring green standards testing and development
 - A catalyst for organizational greening
 - A mechanism for understanding first cost and payback period for a green initiative
- Evaluate all LEED options prior to the start of any project
- Utilize experts with experience then develop internal capacity



Thank You for Your Time

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