



**NICHOLS**

YOU FIRST



# Nichols LEED Journey

## Global CO<sub>2</sub> Emissions by Sector

**#1. Buildings**

**#2. Transportation**

**#3. Industry**

# IMPACTS OF U.S. BUILDINGS ON RESOURCES

**40%** primary energy use\*

**72%** electricity consumption\*

**39%** CO<sub>2</sub> emissions\*

**13.6%** potable water consumption\*\*

Sources:

\*Environmental Information Administration (2008). EIA Annual Energy Outlook.

\*\* U.S. Geological Survey (2000). 2000 data.

# Why LEED

In a world that is constantly evolving, one of the hallmarks of LEED is continuous improvement. With each new version, LEED raises the bar on the green building industry. From improving energy performance to emphasizing human health and integrative building design, LEED encourages project teams to operate beyond the status quo.

LEED, or Leadership in Energy and Environmental Design, is the most widely used green building rating system in the world, 2.2 million SF certified daily and now more than 90,000 projects

Available for virtually all building, community and home project types. 165 countries and territories

LEED provides a framework to create healthy, highly efficient and cost-saving green buildings. Gives the ability to attract tenants, cost less to operate and boost productivity and retention.

LEED certification is a globally recognized symbol of sustainability achievement

**ENERGY  
USE**

24%\* -50%\*\*

**CO<sub>2</sub>  
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.

# What is LEED?



© U.S. Green Building Council, 2008



# Leadership in Energy and Environmental Design

A leading-edge system  
for certifying the  
greenest performing  
buildings in the world

## LEED® Facts

Building size 12,500 square ft  
Type of building

LEED for Core & Shell Development  
Certification awarded July 27, 2006

**Platinum** 49\*

Sustainable Sites 13/15

Water Efficiency 5/5

Energy & Atmosphere 12/15

Materials & Resources 6/9

Indoor Environmental Quality 10/13

Innovation & Design 3/5

\*Out of a possible 62 points

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# LEED SYSTEM GOALS



Reduce contribution to global climate change



Enhance individual human health



Protect and restore water resources



Protect and enhance biodiversity and ecosystem services



Promote sustainable and regenerative material cycles



Build a green economy

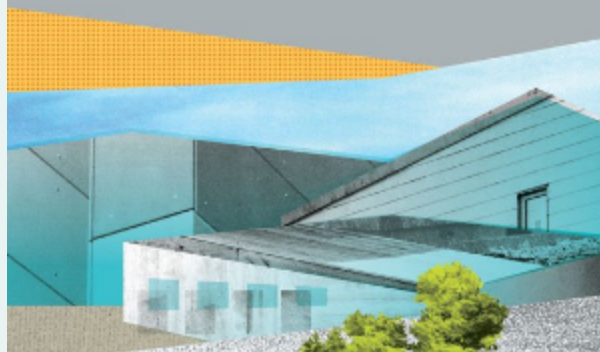


Enhance community quality of life



THIS is

# LEED®



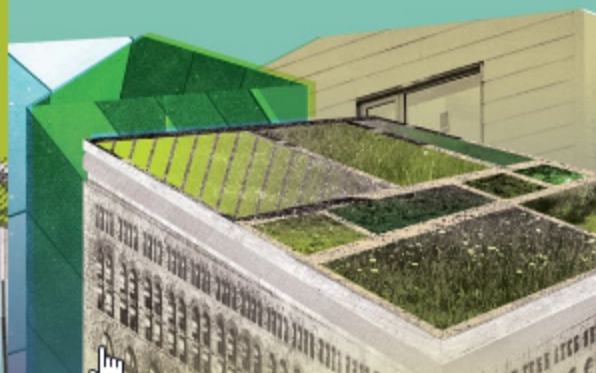
LEED® for

## BUILDING DESIGN + CONSTRUCTION



LEED® for

## BUILDING OPERATIONS + MAINTENANCE



LEED® for

## INTERIOR DESIGN + CONSTRUCTION



LEED® for

## HOMES



LEED® for

## NEIGHBORHOOD DEVELOPMENT



# USGBC has four levels of LEED:







# 1391 Judson Road

- Built in 1995 as a warehouse for cross-docking
- 46 dock doors (front and back) – now 22
- 104,000 square feet, 12,000 is now office space
- Regional Distributor
- Achieved LEED EB O+M June 2010, Recertified LEED EBOM V4.0 October 2015



# Nichols - Why Sustainability & LEED?

- Best Practice Management / Accountability / Framework
- IAQ for our Associates, Cleaning Contractor Associates and Visitors
- Customer Demand
- Community Leader
- Industry Leader
- Walk the Talk One-third of the credits for certification can be obtained from a Green Cleaning Policy and Program

# Results and Benefits

From our first LEED EBOM Gold Certification 2010:

- Findings regarding our 3 water systems that support the property
- Energy Star Score of 79, Energy Reduction of 34%
- Waste Reduction
  - Reduced net waste hauling fees by 97%
  - net income gained
  - 2009/2010 Michigan Recycling Coalition Certified Recycler recognition
- Water Use Reduction 41%

# Credit Categories

## LEED Version 4.0

- Location and Transportation
- Sustainable Sites
- Water Efficiency
- Energy and Atmosphere
- Materials and Resources
- Indoor Environmental Quality





Norton Shores, MI		Project ID: 1000039304	
<b>Nichols v4 O+M Recertification</b>		Status: Certified	
<b>LEED v4 O+M: WDC</b>		Certification level: Gold	
Attempted: 65, Denied: 5, Pending: 0, Awarded: 60 of 110 points		Certification date: 10/12/2015	
<b>LOCATION AND TRANSPORTATION</b>	4 OF 15	<b>INDOOR ENVIRONMENTAL QUALITY</b>	7 OF 17
Alternative Transportation	4 / 15	Minimum IAQ Performance	Y
<b>SUSTAINABLE SITES</b>	4 OF 10	Environmental Tobacco Smoke Control	Y
Site Mgmt Policy	Y	Green Cleaning Policy	Y
Site Development - Protect or Restore Habitat	0 / 2	IAQ Mgmt Program	0 / 2
Rainwater Mgmt	3 / 3	Enhanced IAQ Strategies	1 / 2
Heat Island Reduction	0 / 2	Thermal Comfort	0 / 1
Light Pollution Reduction	1 / 1	Interior Lighting	0 / 2
Site Mgmt	0 / 1	Daylight and Quality Views	0 / 4
Site Improvement Plan	0 / 1	Green Cleaning - Custodial Effectiveness Assessment	1 / 1
<b>WATER EFFICIENCY</b>	8 OF 12	Green Cleaning - Products and Materials	1 / 1
Indoor Water Use Reduction	Y	Green Cleaning - Equipment	1 / 1
Indoor Water Use Reduction	5 / 5	Integrated Pest Mgmt	2 / 2
Building-Level Water Metering	Y	Occupant Comfort Survey	1 / 1
Outdoor Water Use Reduction	2 / 2	<b>INNOVATION</b>	4 OF 6
Cooling Tower Water Use	0 / 3	Innovation	3 / 5
Water Metering	1 / 2	LEED Accredited Professional	1 / 1
<b>ENERGY AND ATMOSPHERE</b>	25 OF 38	<b>REGIONAL PRIORITY CREDITS</b>	4 OF 4
Energy Efficiency Best Mgmt Practices	Y	Site Development - Protect or Restore Habitat	0 / 1
Minimum Energy Performance	Y	Rainwater Mgmt	1 / 1
Optimize Energy Performance	16 / 20	Light Pollution Reduction	1 / 1
Building-Level Energy Metering	Y	Optimize Energy Performance	1 / 1
Fundamental Refrigerant Mgmt	Y	Renewable Energy and Carbon Offsets	0 / 1
Existing Building Commissioning - Analysis	2 / 2	Solid Waste Mgmt - Ongoing	1 / 1
Existing Building Commissioning - Implementation	2 / 2	<b>TOTAL</b>	<b>60 OF 110</b>
Ongoing Commissioning	0 / 3	40-49 Points	CERTIFIED
Advanced Energy Metering	0 / 2	50-59 Points	SILVER
Demand Response	0 / 3	60-79 Points	GOLD
Renewable Energy and Carbon Offsets	4 / 5	80+ Points	PLATINUM
Enhanced Refrigerant Mgmt	1 / 1		
<b>MATERIALS AND RESOURCES</b>	4 OF 8		
Ongoing Purchasing and Waste Policy	Y		
Facility Maintenance and Renovation Policy	Y		
Purchasing - Ongoing	0 / 1		
Purchasing - Lamps	1 / 1		
Purchasing - Facility Maintenance and Renovation	1 / 2		
Solid Waste Mgmt - Ongoing	2 / 2		
Solid Waste Mgmt - Facility Maintenance and Renovation	0 / 2		

# Results and Benefits - 2<sup>nd</sup> Time Around

LEED EBOM is a continuous improvement process:  
since 2010 we have.....

- Reduced energy consumption, 7% in 2014 and winner in the Michigan Battle of the Buildings and 2<sup>nd</sup> place in 2015 with a 10.84% decrease
- Energy Star score 89
- Demand Ventilation on HVAC system – this automated fresh air coming into the warehouse and offices, was a manual process
- Purchased Renewable Energy Credits
- Composting – started in June 2012 – reducing landfill by approximately 12 yards/annually (4200 pounds)
- 87% waste diversion from landfill




**ENERGY AND ATMOSPHERE**
**25 OF 38**

Energy Efficiency Best Mgmt Practices	Y
Minimum Energy Performance	Y
Optimize Energy Performance	16 / 20
Building-Level Energy Metering	Y
Fundamental Refrigerant Mgmt	Y
Existing Building Commissioning - Analysis	2 / 2
Existing Building Commissioning - Implementation	2 / 2
Ongoing Commissioning	0 / 3
Advanced Energy Metering	0 / 2
Demand Response	0 / 3
Renewable Energy and Carbon Offsets	4 / 5
Enhanced Refrigerant Mgmt	1 / 1

# Energy Upgrade Summary

2007 – Distribution Center Lighting Upgrade, metal halide to florescent – 6 lamp fixtures

2014 – Demand Ventilation – warehouse

- Project cost \$7224.87, Incentive received \$9753.30

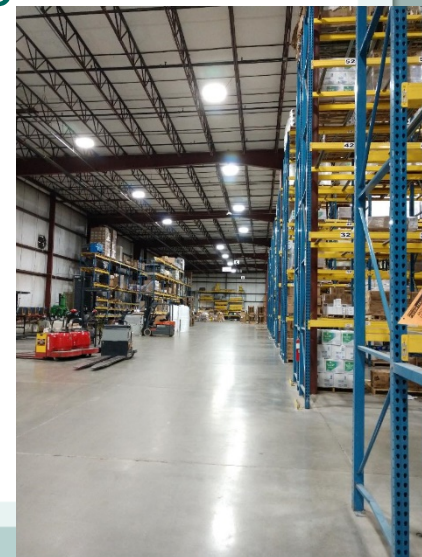
2016 – Office Lighting Upgrade from 4 lamp florescent to LED & dock lighting at 22 dock doors to LED

- Project Cost apx \$25,000, Incentive appx \$800

2017 – sensors on irrigation system

2019 – Warehouse lighting upgrade to LED with occupancy sensor at each fixture.

Project cost \$40,000, Incentive approximately \$7,000








## Interesting Fact

If Nichols was using the same amount of energy today in the Norton Shores facility that we were using in 2007 at today's prices of electric and natural gas, we would be spending \$30,000 annually more than we are.

So we are cost avoiding \$30,000 annually just by saving energy!

# Energy Star Metrics Summary

Metrics Summary			
Metric 	Dec 2007 (Energy Baseline) 	Jul 2019 (Energy Current) 	Change 
ENERGY STAR Score (1-100)	63	76	13.00 (20.60%)
Source EUI (kBtu/ft <sup>2</sup> )	90.9	67.9	-23.00 (-25.30%)
Site EUI (kBtu/ft <sup>2</sup> )	43.6	43.3	-0.30 (-0.70%)
Energy Cost (\$)	99,224.66	80,303.95	-18,920.71 (-19.10%)
Total GHG Emissions Intensity (kgCO <sub>2</sub> e/ft <sup>2</sup> )	5.3 	3.8	-1.50 (-28.30%)



# Energy Star Certification



2018

In recognition of superior energy performance, the U.S. Environmental Protection Agency awards the ENERGY STAR® to

**Nichols**

Buildings that earn EPA's ENERGY STAR use 35 percent less energy and generate 35 percent fewer greenhouse gas emissions than similar buildings across the nation.



# What is Next?

# LEED v4.1

# LEED O+M V4.1



## LEED v4.1 for Operations & Maintenance: Interiors

### Scorecard

Y ? N

6	0	0	<b>Location and Transportation</b>	<b>14</b>
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6		Prereq	Transportation Performance	14
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0	0	0	<b>Water Efficiency</b>	<b>15</b>
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6		Prereq	Water Performance	15
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0	0	0	<b>Energy and Atmosphere</b>	<b>34</b>
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Y		Prereq	Energy Efficiency Best Management Practices	Required
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Y		Prereq	Fundamental Refrigerant Management	Required
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13		Prereq	Energy Performance	33
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		Credit	Enhanced Refrigerant Management	1
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0	0	0	<b>Materials and Resources</b>	<b>12</b>
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Y		Prereq	Purchasing Policy	Required
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Y		Prereq	Facility Maintenance and Renovations Policy	Required
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3		Prereq	Waste Performance	8
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		Credit	Purchasing	4
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0	0	0	<b>Indoor Environmental Quality</b>	<b>24</b>
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Y		Prereq	Minimum Indoor Air Quality	Required
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Y		Prereq	Environmental Tobacco Smoke Control	Required
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Y		Prereq	Green Cleaning Policy	Required
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8		Prereq	Indoor Environmental Quality Performance	20
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		Credit	Green Cleaning	3
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		Credit	Integrated Pest Management	1
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0	0	0	<b>Innovation</b>	<b>1</b>
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		Credit	Innovation	1
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0	0	0	<b>TOTALS</b>	<b>Possible Points: 100</b>
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Certified: 40-49 points, Silver: 50-59 points, Gold: 60-79 points, Platinum: 80+ points

# Why Use LEED

Instant recognition for your building

Faster lease up rates

Higher resale value

Healthier indoor space

Lower use of energy, water and other resources

Better for building occupants, the community and the environment

Enhances your brand and establishes you as a leader in green building

# Michigan Pollution Prevention Partnership (MBP3)

- We have been a member and recognized for two years (2015, 2016, 2018)
- We submit an annual report of our Environmental performance Results
- This keeps us in good-standing with customers

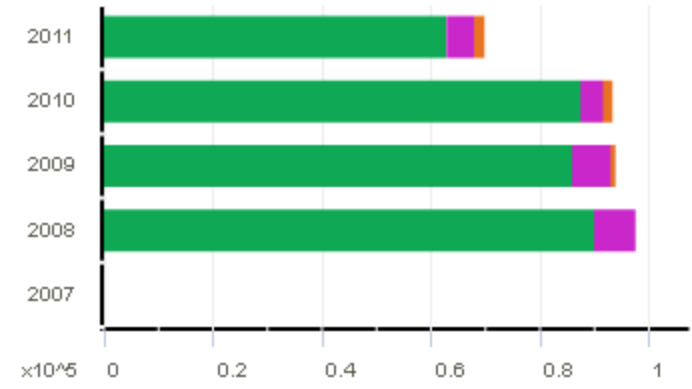
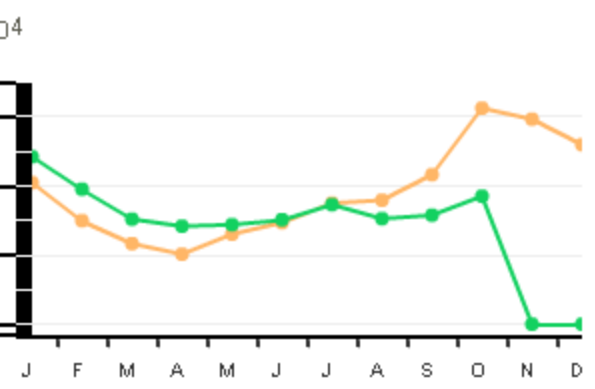


Cost GHG

Sales

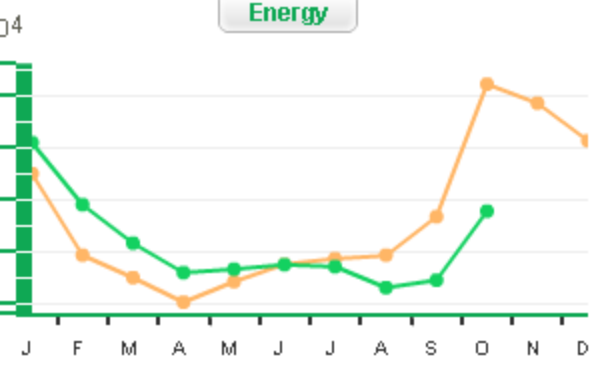
Home

Total Cost

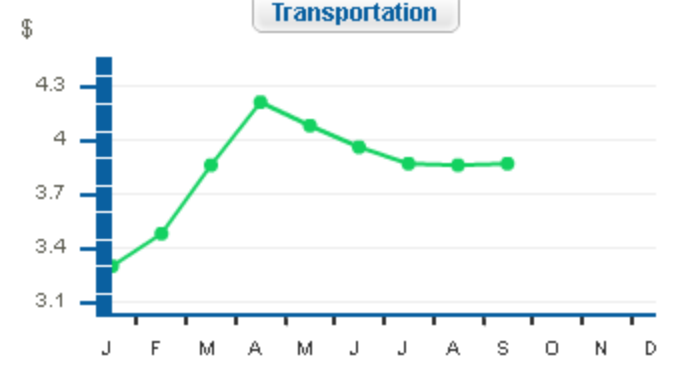


Sales has no data.

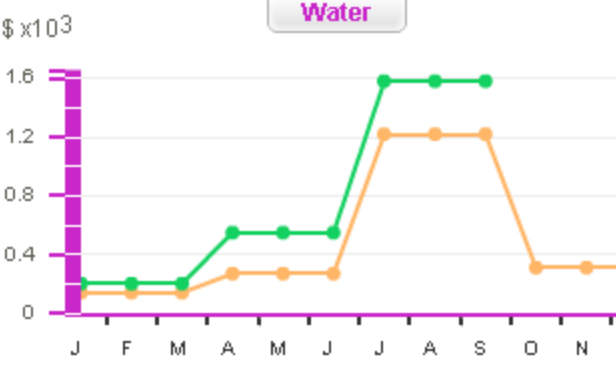
Energy



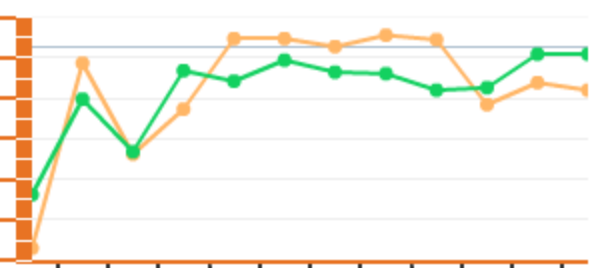
Transportation



Water



Waste/Recycling



Office Supplies has no data.

Product Sales has no data.

# International Sanitary Supply Association

ISSA's Distributor Efficiency Analytics & Learning (DEAL) program. DEAL is a comprehensive program that uses 'big data' and educational sessions to help association members operate their buildings and vehicles more efficiently, reduce waste, conserve natural resources, and save money.

Collectively, ISSA's members operate more than 5,000 buildings and 25,000 delivery trucks. By implementing more sustainable operating procedures, member companies could save an estimated US\$21 million annually.



Thank you!

Renae Hesselink, LEED AP BD+C  
Vice President of Sustainability  
Nichols

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