



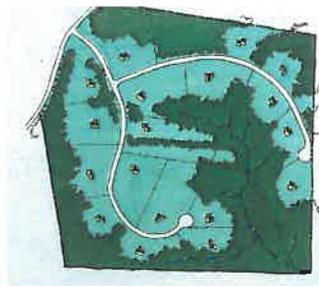
## Priority Best Local Land Use Practices

### 3. CONSERVATION DEVELOPMENT

- Apply Conservation Development, with adequate standards, where appropriate



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Conventional



Conservation Development

- 40-50% Permanent Open Space
- Quality Open Space
- Resource Protection
- Appropriate Development Intensity

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**Ohio**



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## Priority Best Local Land Use Practices



### 4. STORM WATER MANAGEMENT

- Adopt storm water management and erosion control regulations for design and construction

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## Storm Water Management and Erosion/Sediment Control

- Storm water management reduces quantity, and improves quality, of runoff in the watershed
- Site based approach reduces long term costs to community



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## Priority Best Local Land Use Practices

### 5. STREAM AND WETLAND SETBACKS

- Adopt stream and wetland setback zoning regulations



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**Ohio** Stream setback in a conservation development



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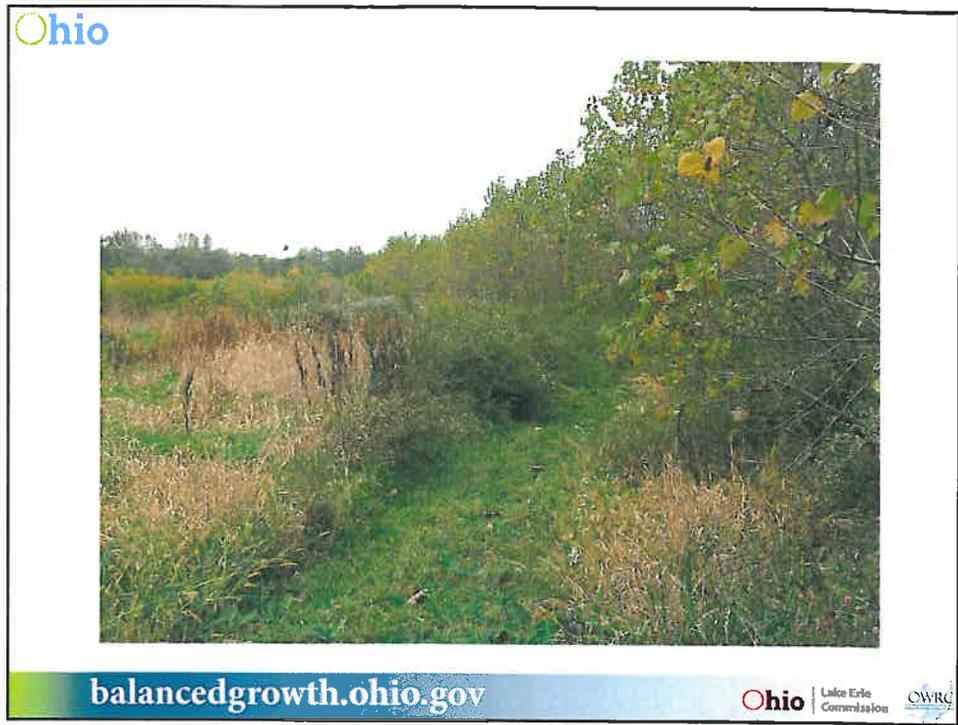
**Ohio** Priority Best Local Land Use Practices

6. MEADOW PROTECTION

- Modify mowing ordinances to allow natural meadows under controlled conditions



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**Ohio**

### Priority Best Local Land Use Practices

1. Comprehensive Planning
2. Compact Development
3. Conservation Development
4. Storm Water Management
5. Stream and Wetland Setbacks
6. Meadow Protection

← Project Focus

**balancedgrowth.ohio.gov** Ohio Lake Erie Commission CWRG

# Best Local Land Use Practices

## Case Study Project

Developed by CDM, Inc.

Under the Direction of Ohio Lake Erie Commission and  
Cleveland State University



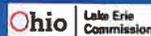
## Project Description

- ◆ Develop case studies that illustrate and increase understanding of the land development implications of implementing OLEC Best Local Land Use Practices
- ◆ Engage stakeholders in land development in identifying key opportunities and barriers to use of best practices
- ◆ Use case studies in training workshops

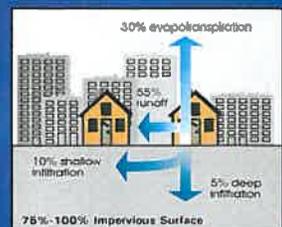
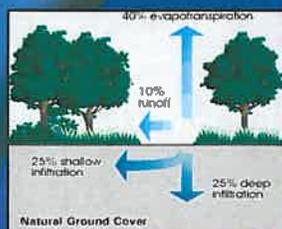


## Project Objectives

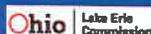
- ◆ Resolve real and perceived barriers to acceptance of best practices by:
  - ◆ Developers
  - ◆ Local Governments
  - ◆ Buyers / tenants
- ◆ Illustrate how properly-applied best practices can reduce costs and enhance property values
- ◆ Provide adequate detail to support cost-effective implementation
- ◆ Be repeatable for on-going education
- ◆ Others? (as an outcome of today's meeting)



## Managing Storm Water Quantity



- ◆ Impervious Surface: surface with minimal infiltration
- ◆ Impervious surface model: 5 to 8 % change triggers degradation of watercourses

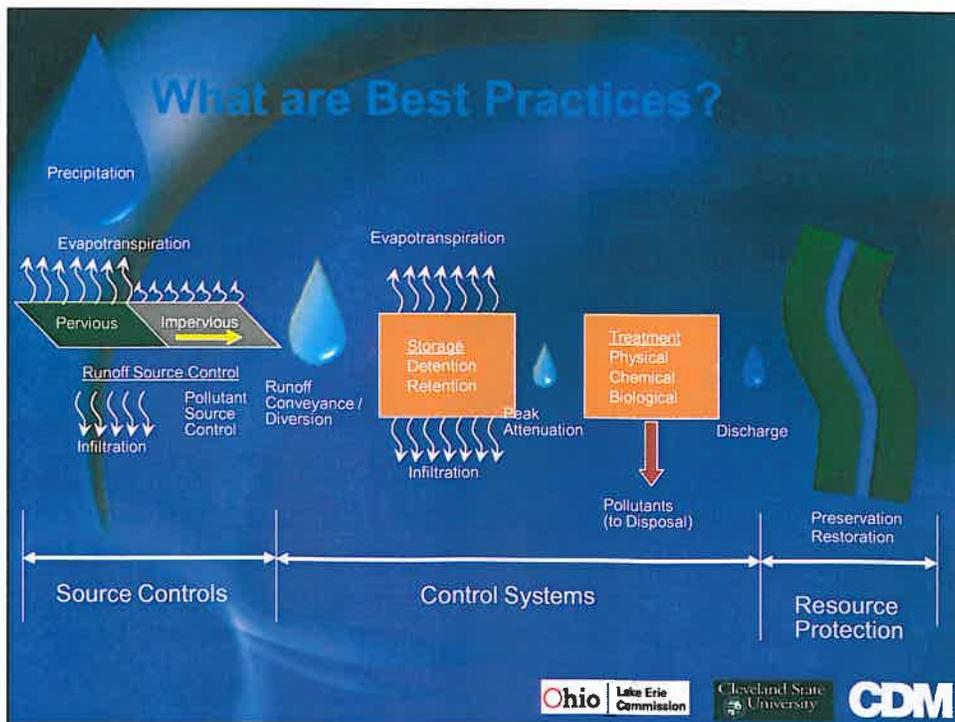


THE NATIONAL  
**REPORT**  
IN BRIEF  
ACADEMIES

**Urban Stormwater Management  
in the United States**

*This report calls for an entirely new permitting structure that would put authority and accountability for stormwater discharges at the municipal level. A number of additional actions, such as conserving natural areas, reducing hard surface cover (e.g., roads and parking lots), and retrofitting urban areas with features that hold and treat stormwater, are recommended.*

Ohio | Lake Erie Commission | Cleveland State University | **CDM**



## What are Best Practices?

Reduced Imperviousness

Conservation Development

Downspout Disconnection

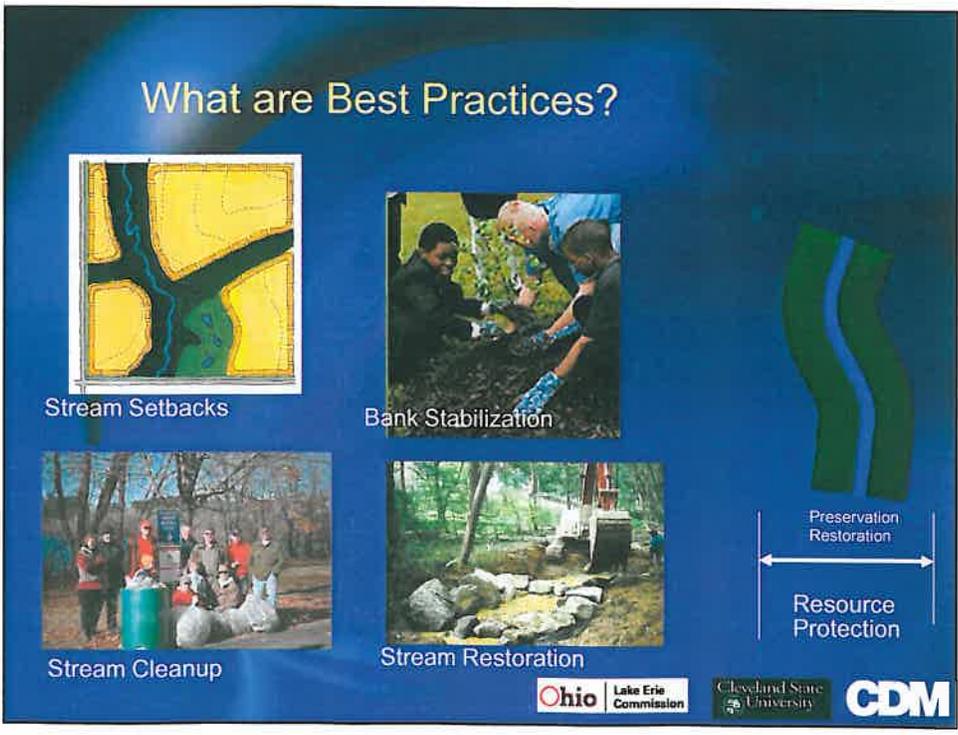
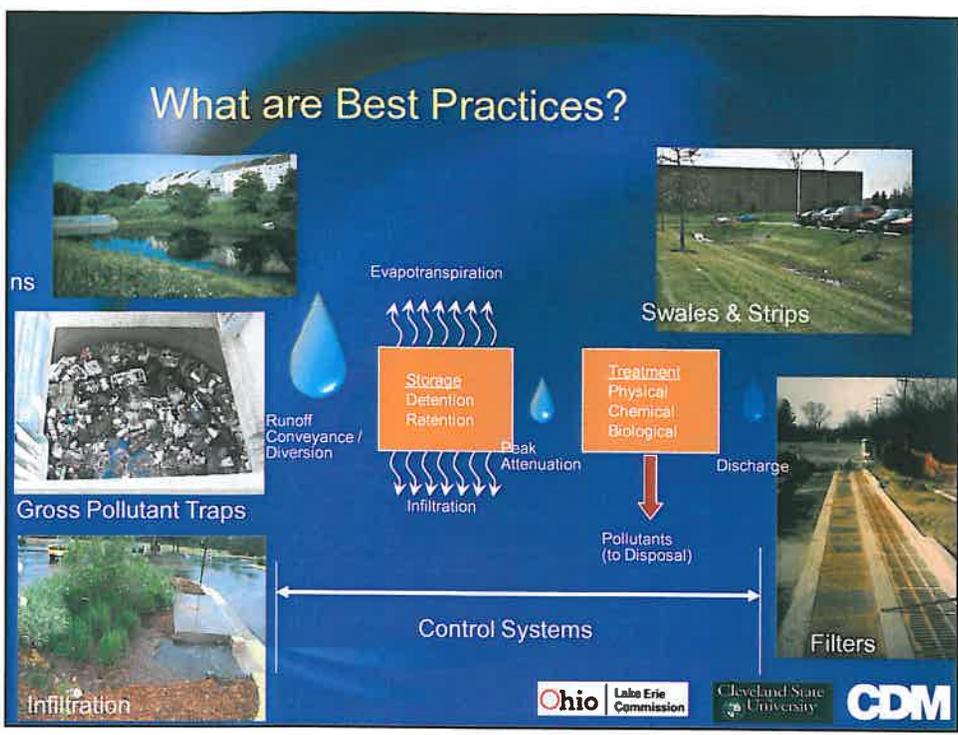
Permeable Pavement

## What are Best Practices?

Drainage System Maintenance

Pavement Cleaning

Pollution Prevention



## Best practices can provide a wide range of interrelated benefits

- ◆ Cleanse storm water
- ◆ Control flooding
- ◆ Protect water supplies
- ◆ Conserve water
- ◆ Control erosion
- ◆ Enhance quality of life
- ◆ Meet regulations



## Section 2

# MAJOR CONSIDERATIONS AFFECTING DEVELOPMENT DECISIONS



## Guest Speakers – Northeast Ohio

- ◆ Developer Perspective:
  - ◆ William Sanderson, Forest City
  
- ◆ Local Government Perspective:
  - ◆ Justin Czekaj, P.E., City of Aurora



## Guest Speakers – Northwest Ohio

- ◆ Developer Perspective:
  - ◆ William Decker, Decker Homes
  
- ◆ Local Government Perspective:
  - ◆ Jason Sisco, P.E., P.S.,  
Deputy Wood County Engineer



## “Mythbusters” Factsheet

- ◆ **Objective:**
  - ◆ Question commonly accepted development procedures
  - ◆ Present documented support of alternative development procedures
- ◆ **Factsheet Contents**
  - ◆ 6 different common development storm water control practice areas
  - ◆ Myths/facts for each



## Discussion Group Topic No. 1: Best Practice Opportunities and Barriers

### Instructions:

- ◆ **Individual exercise (15 minutes):**
  - Review “Fact Sheets”:
  - “Mythbusters” fact sheet
  - Best Practice Fact Sheets (Section 8)
  - Compare existing and “best” land use practices
  - List top 5 barriers (real or perceived) to “best” practices
  - List top 5 opportunities for “best practices”
- ◆ **Group Discussion (15 minutes)**
  - Compile and discuss individual lists
  - List your group’s top 5 barriers and opportunities on flip charts



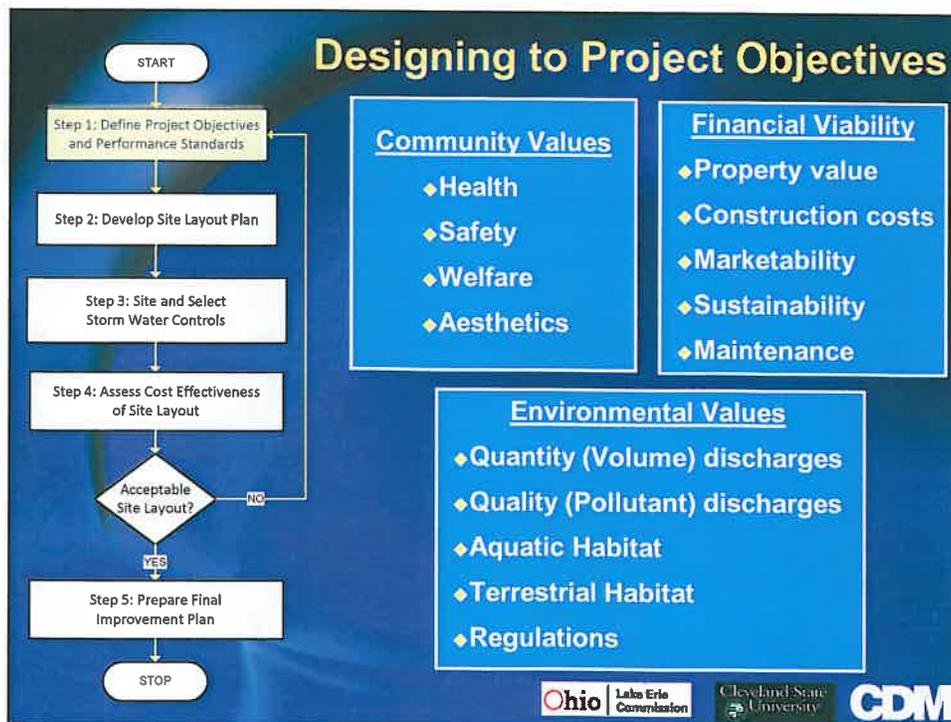
## TRIPLE BOTTOM LINE OBJECTIVES

- ◆ Community Values
- ◆ Environmental Values
- ◆ Financial Viability

Refer to Section 4





**A. Confirm Project Objectives**      **B. Provide Site-Specific Details**      **C. Establish Weights per Perceived Importance**

**Community Benefit Analysis / Performance Standards**

Objective	Issues / Considerations / Performance Standards	Potential Impact			Weight	Score
		(-)	0	(+)		
Public Health	- Vector Control					
Public Safety	- Traffic Safety					
	- Pedestrian Safety					
	- Emergency Vehicle Access					
	- Drowning Risk					
	- Handicap Accessible					
	- Roadway Flooding					
Public Welfare	- Land Use Compatibility					
	- Risk of Property Damage					
	- Aesthetics					
	- Open Space					
	- Recreation					
	- Construction Phase Impacts					
	- Community Services					
	- Public Infrastructure					
	- Structure Flooding					
	- Property Flooding					
<b>Total</b>					<b>100%</b>	<b>4</b>

Hold Step      For

Ohio Lake Erie Commission      Cleveland State University      CDM

**A. Confirm Project Objectives**      **B. Provide Site-Specific Details**      **C. Establish Weights per Perceived Importance**

**Environmental Benefit Analysis / Performance Standards**

Objective	Issues / Considerations / Performance Standards	Potential Impact			Weight	Score
		(-)	0	(+)		
Discharge Quality Control	- Stormwater Pollutants					
	- Flow Regime					
	- Groundwater					
	- Thermal					
	- Other Pollutant Discharges					
Aquatic Habitat Protection	- Stream Morphology					
	- Hydromodification					
	- Vegetation					
	- Macroinvertebrates					
	- Fisheries					
Riparian Habitat Protection	- Pollutant Filtering					
	- Streambank Stabilization					
	- Stream Shading					
	- Terrestrial Species					
<b>Total</b>					<b>100%</b>	<b>4</b>

Hold Step      For

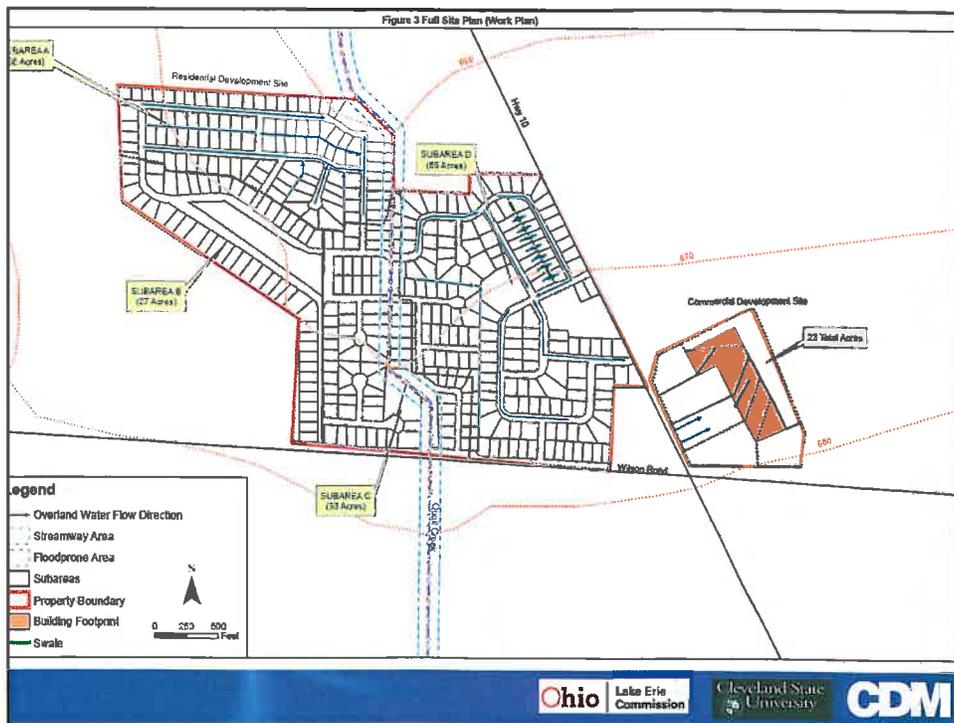
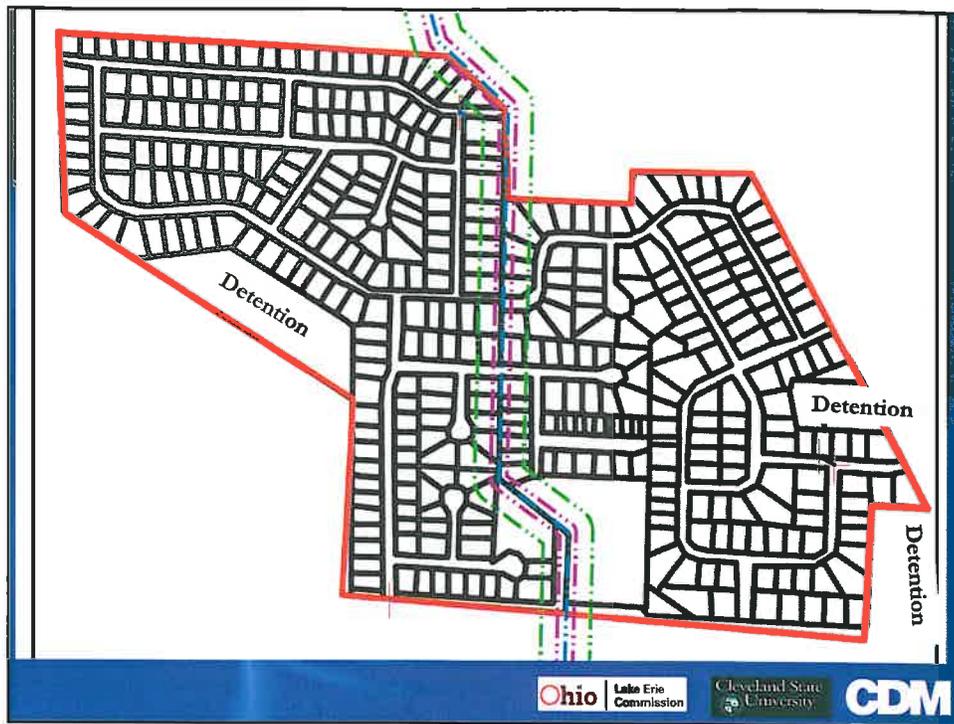
Ohio Lake Erie Commission      Cleveland State University      CDM

A. Confirm Cost Categories		B. Provide Site-Specific Details		Performance Standards
Category	Description / Issues / Considerations	Present Worth Costs / Revenue		
<b>Pre-Construction</b>				
- Design				
- Legal				
- Permitting				
- Property Acquisition				
- Financing				
- Other				
	Subtotal			<b>Hold For</b>
<b>Construction Costs</b>				
- Site Preparation and Grading				
- Roads and Pavement				
- Utilities				
o Water / Sewer				
o Storm Water				
o Other				
- Buildings				
- Site Restoration and Landscaping				
- Other				
	Subtotal			<b>Step 4</b>
<b>Long-Term Sustainability</b>				
- Operation and Maintenance				
- Long-Term Renewal				
	Subtotal			
<b>Marketability / Sales</b>				
- Anticipated Property Value				
- Anticipated Sales Price				
	Subtotal			
			<b>Total</b>	

## Discussion Group Topic No. 2: Triple Bottom Line Evaluation – Existing Site

Instructions: (15 minutes, over lunch)

- ◆ As a group, evaluate the design for Community, Environment, and Financial factors
- ◆ Use the TBL evaluation forms as a guide
- ◆ Make three findings under each category





## Questions?

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