



Urban Revitalization

Waste Management

Energy

Environmental

Harvard Case Study: Sustainable Redevelopment of Warrensville Heights, Ohio Brownfield Site

Ohio Brownfield Conference
January 20, 2011

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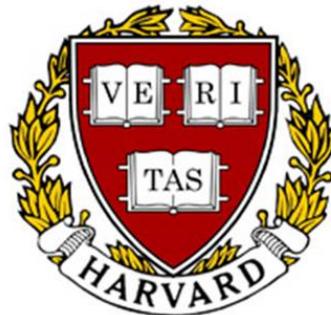
Partners in Sustainable Brownfield Revitalization



Cuyahoga County
Public Library



Clean **Ohio** Fund



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History of Property

16.7 acre property was operated as a commercial property since the 1960s and was abandoned for 17 years.

Zayre's retail store and automobile service center, furniture store, and bowling alley.

The property was burdened by issues related to property ownership, environmental conditions, asbestos, safety hazards, and demolition requirements.









Clean Ohio Revitalization Fund Grant

- ✓ Acquisition balance
- ✓ Asbestos removal
- ✓ Demolition
- ✓ UST and Creek remediation

\$1,089,000 already spent by City
\$40,000 more committed by City
\$1,054,000 needed from the Fund

Warrensville Heights is a minority city (90% of population is minority). The majority of the families in the area surrounding the Property are low income families.



USEPA Brownfield Assessment Grant

- Ohio EPA obtained a grant for the city
- Used Ohio EPA Site Investigation Field Unit (SIFU) to perform supplemental groundwater investigation to confirm GW meets UPUS



Warrensville Heights Selected for Harvard University Graduate School of Design Fall 2009 Course

Program for Sustainable Urban Revitalization
Sponsored by Hull & Associates

Study resulted in a plan for sustainable redevelopment of the city core, catalyzed by the redevelopment of the CORF/VAP site

WARRENSVILLE HEIGHTS TOWN CENTER

Towards a holistically sustainable future



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WARRENSVILLE HEIGHTS

Towards a holistically sustainable future

CONTEXT ANALYSIS

Identity
Socioeconomics
Site Assets + Site Challenges
Connection Networks

VISION

Five Principles
Holistic Sustainability

STRATEGY

Urban Fabric to Design Strategy
Urban Magnets
[Making a Public Realm]

MASTER PLAN

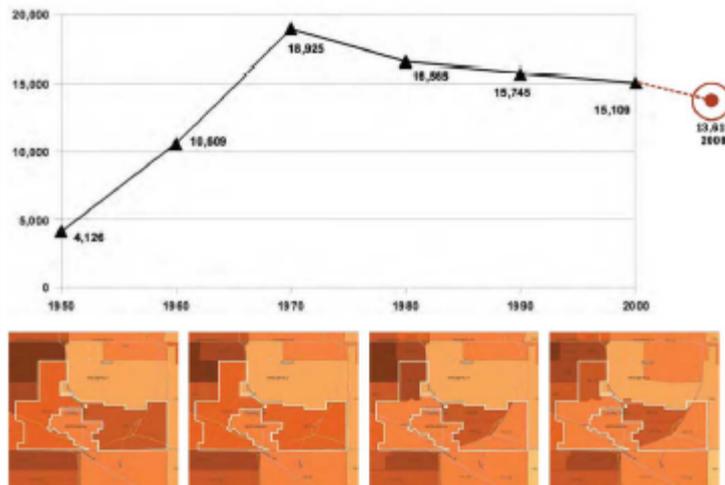
Crafting Successful Urban Magnets
The Complete Street
Magnets in Detail
The Middle Zone
Environmental Sustainability
Extending the Strategy



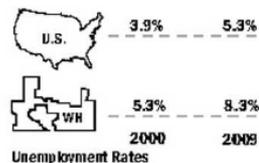
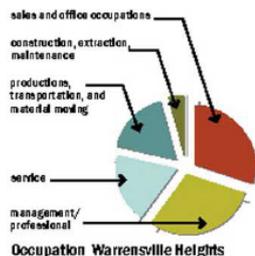
The Harvard plan involves creating a series of “urban magnets” to draw people to the site and keep them invested.

Socioeconomic analysis

POPULATION PATTERNS



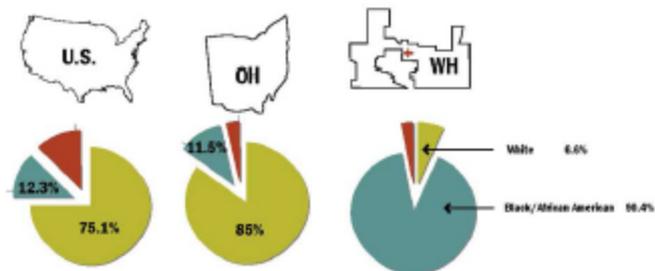
INCOME



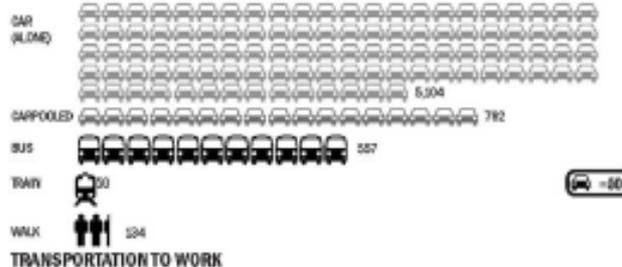
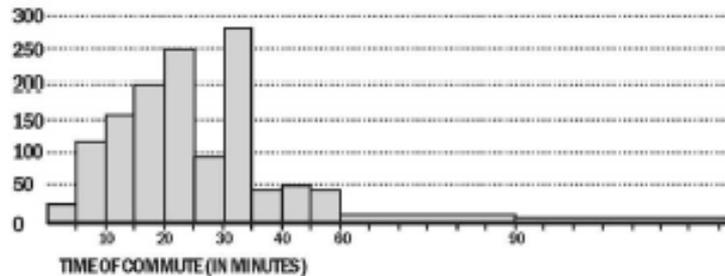
CLASS OF WORKER

CLASS OF WORKER	2000	2009
Employed civilian population 16 and over	6,975	100.0
Private for-profit wage and salary workers	4,768	68.4
Employees of own corporation	47	0.7
Private not-for-profit wage and salary workers	753	10.8
Local government workers	739	10.6
State government workers	190	2.7
Federal government workers	342	4.9
Self-employed workers	178	2.6
In agriculture, forestry, fishing and hunting	0	0.0
Unpaid family workers	5	0.1

DEMOGRAPHICS



TRANSPORTATION PATTERNS





Neighborhood pride



Adjacent land surplus



Bear Creek



Green Space



Committed municipal players



Funding opportunities



Central location



Adjacent to residential



Adjacent to schools

Site Asset Analysis



No city center



Auto-Centric



Limited resources for youth



Declining job sector



Shrinking population



Weak social amenities infrastructure

Site Challenge Analysis

Five Visions: Holistic Sustainability

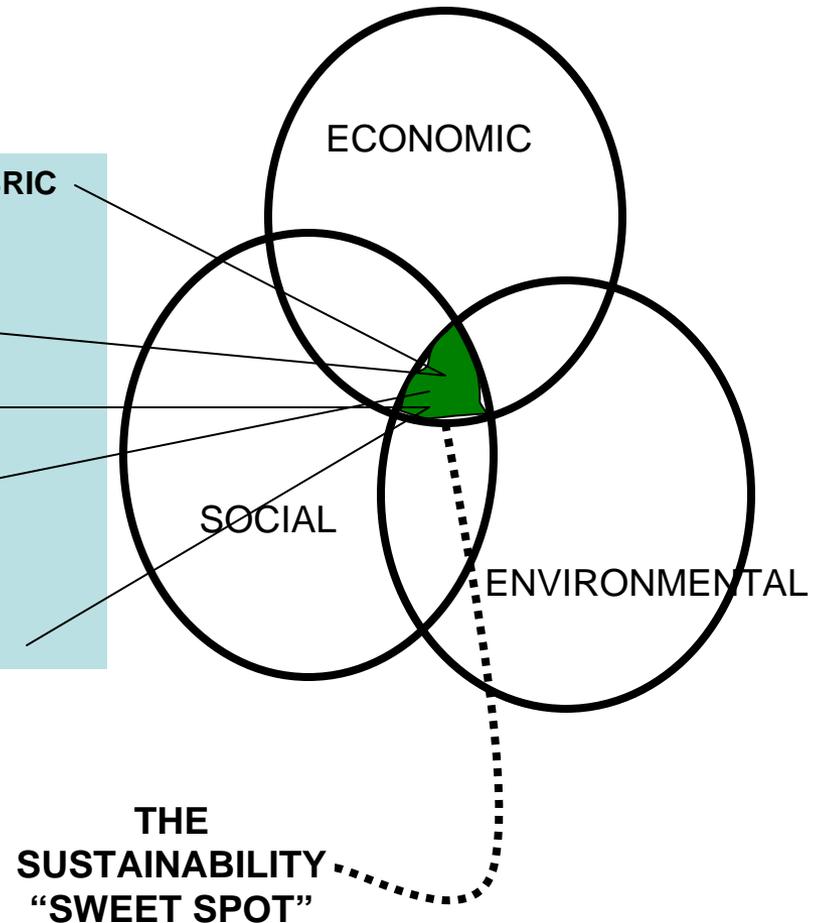
A WALKABLE TOWN CENTER THAT UNIFIES THE URBAN FABRIC

AN ATTRACTOR OF NEW FAMILIES

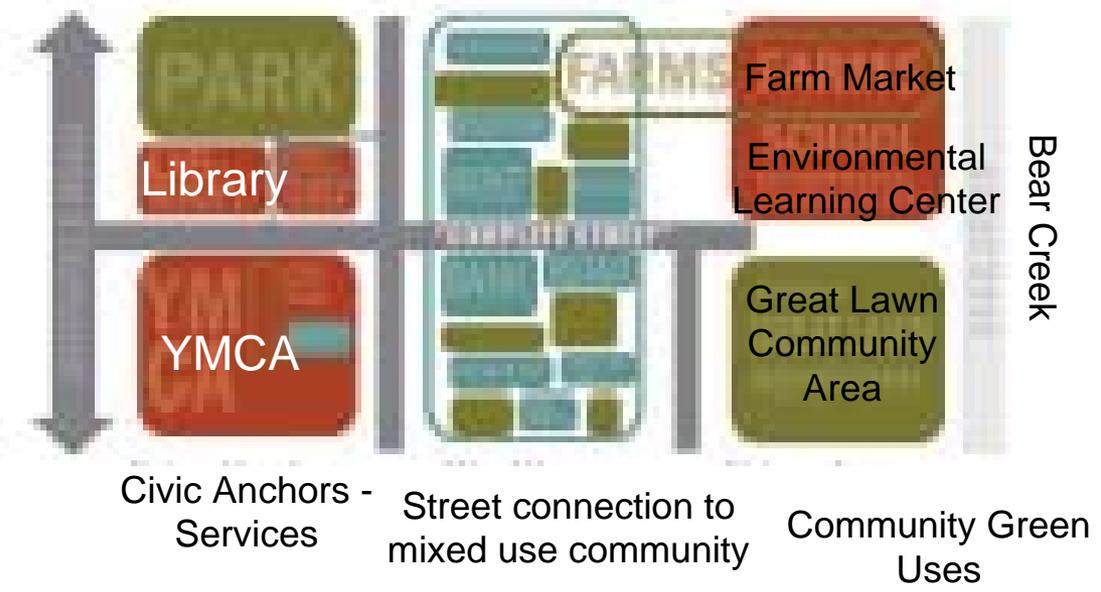
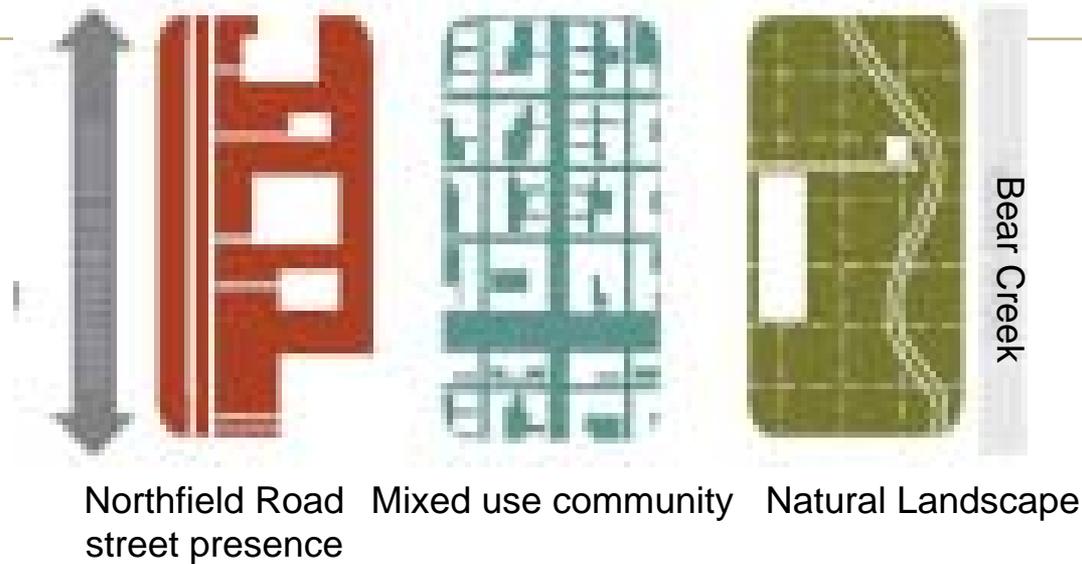
A PLACE PEOPLE ARE PROUD TO CALL HOME

A MAGNET OF ECONOMIC DEVELOPMENT

A CATALYST FOR A RENEWED RELATIONSHIP TO THE LAND

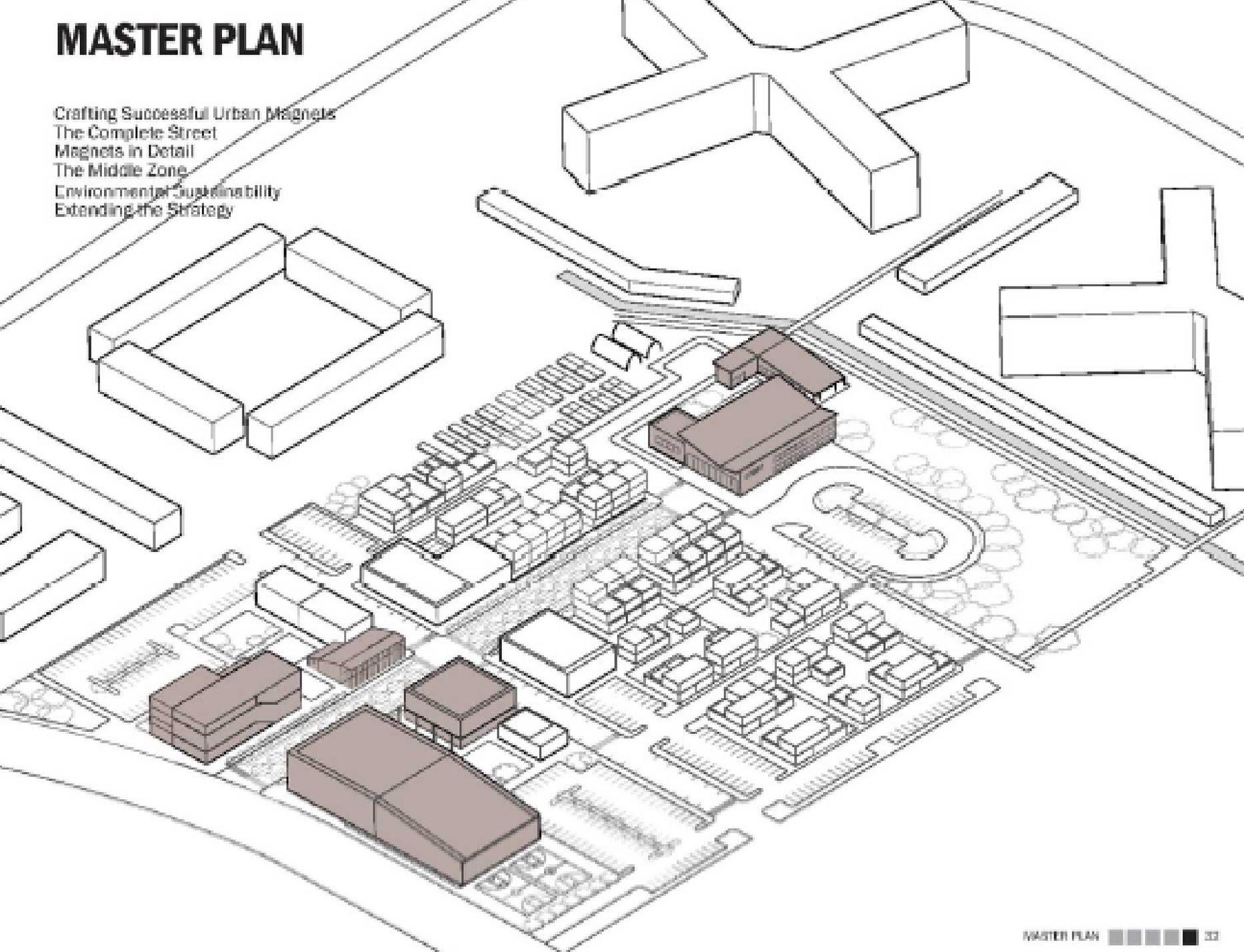


Harvard used “urban fabrics” to plan how to achieve the visions



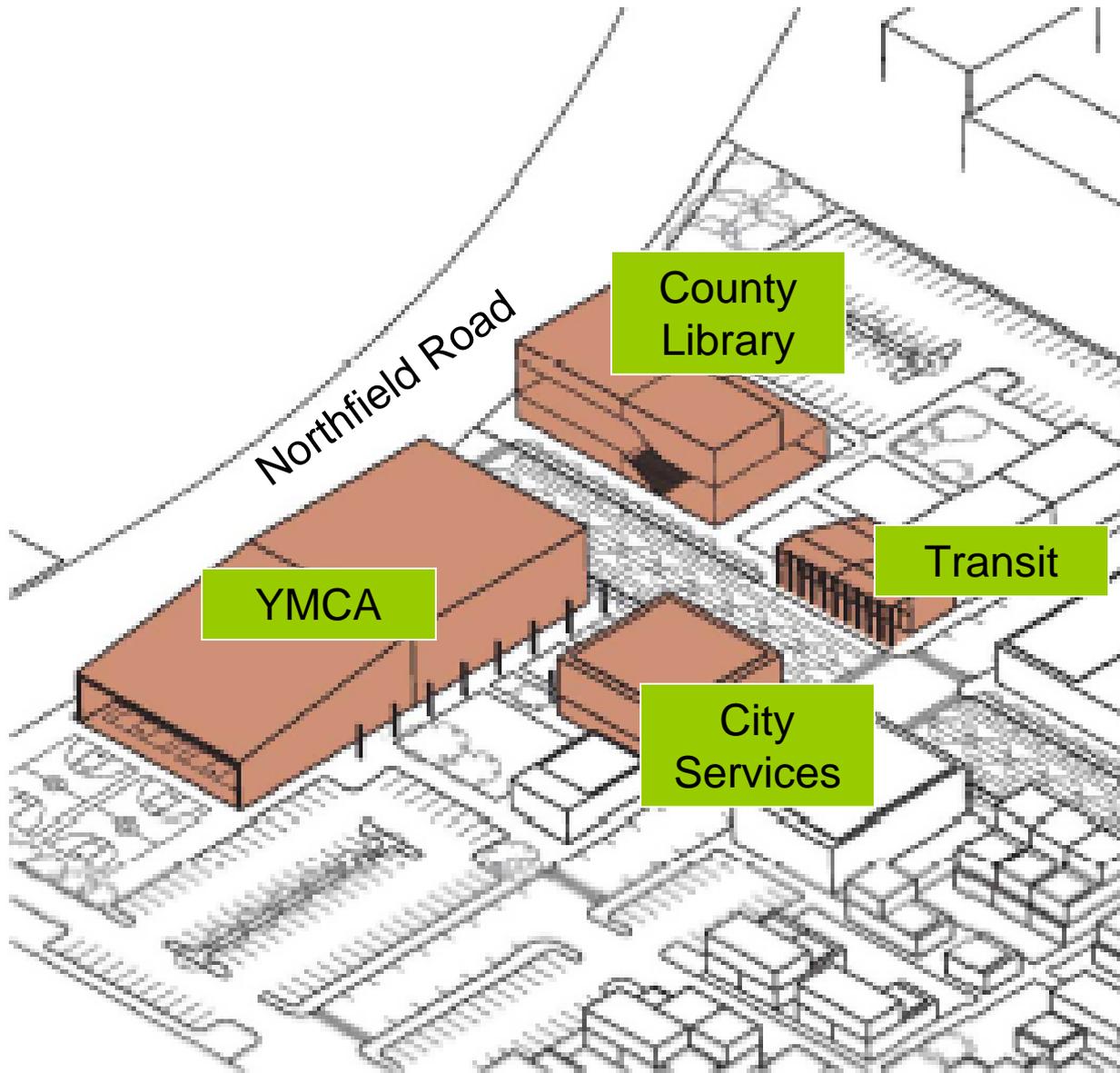
MASTER PLAN

Crafting Successful Urban Magnets
The Complete Street
Magnets in Detail
The Middle Zone
Environmental Sustainability
Extending the Strategy



THE FIRST STEP

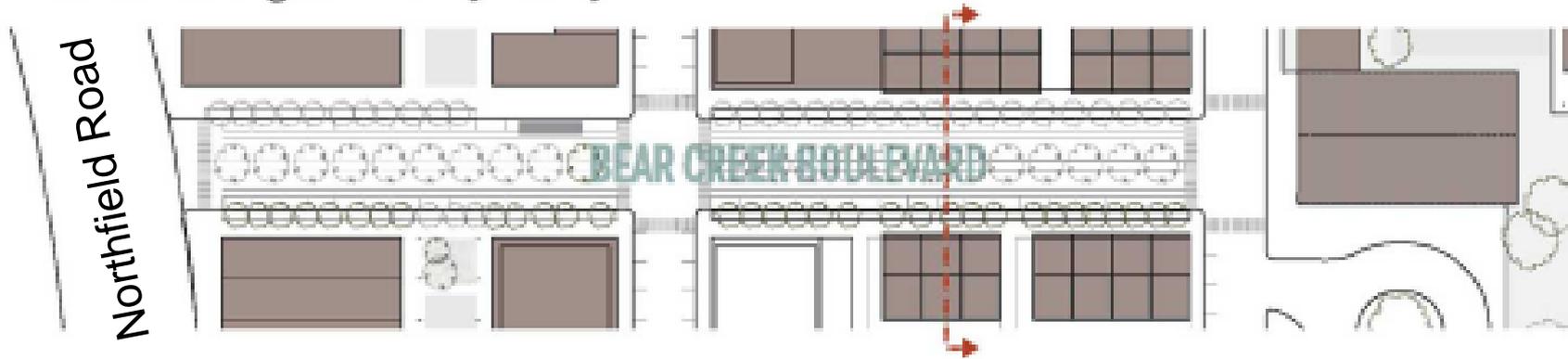
Deploying urban magnets to foster community



Connections: Leveraging the Library and YMCA as Community Magnets

THE COMPLETE STREET

Concentrating Community Vitality



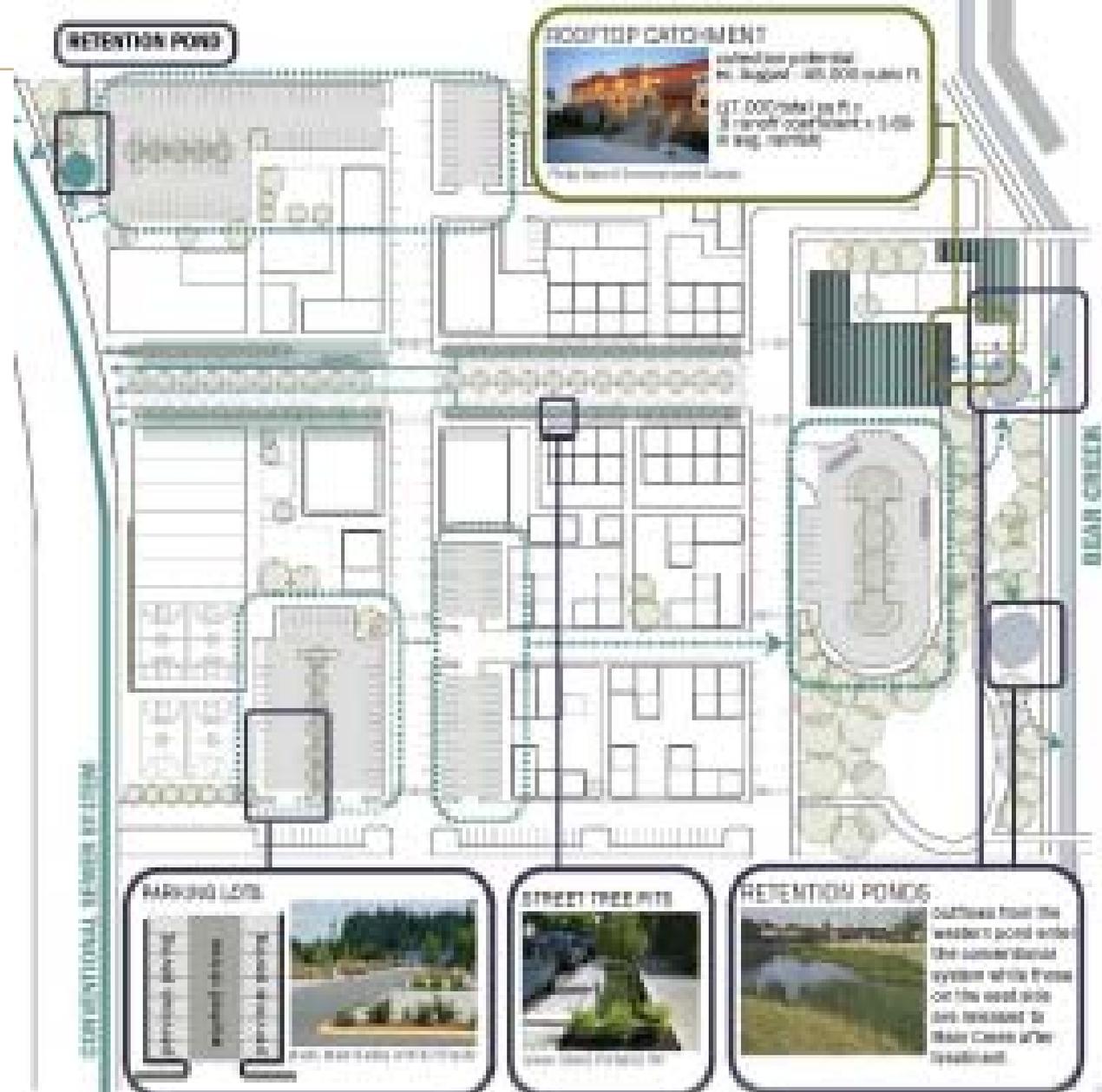
Creating a community with a connection to the environment



BEAR CREEK FARM EDUCATIONAL PROGRAM BEAR CREEK FARM PROGRAM

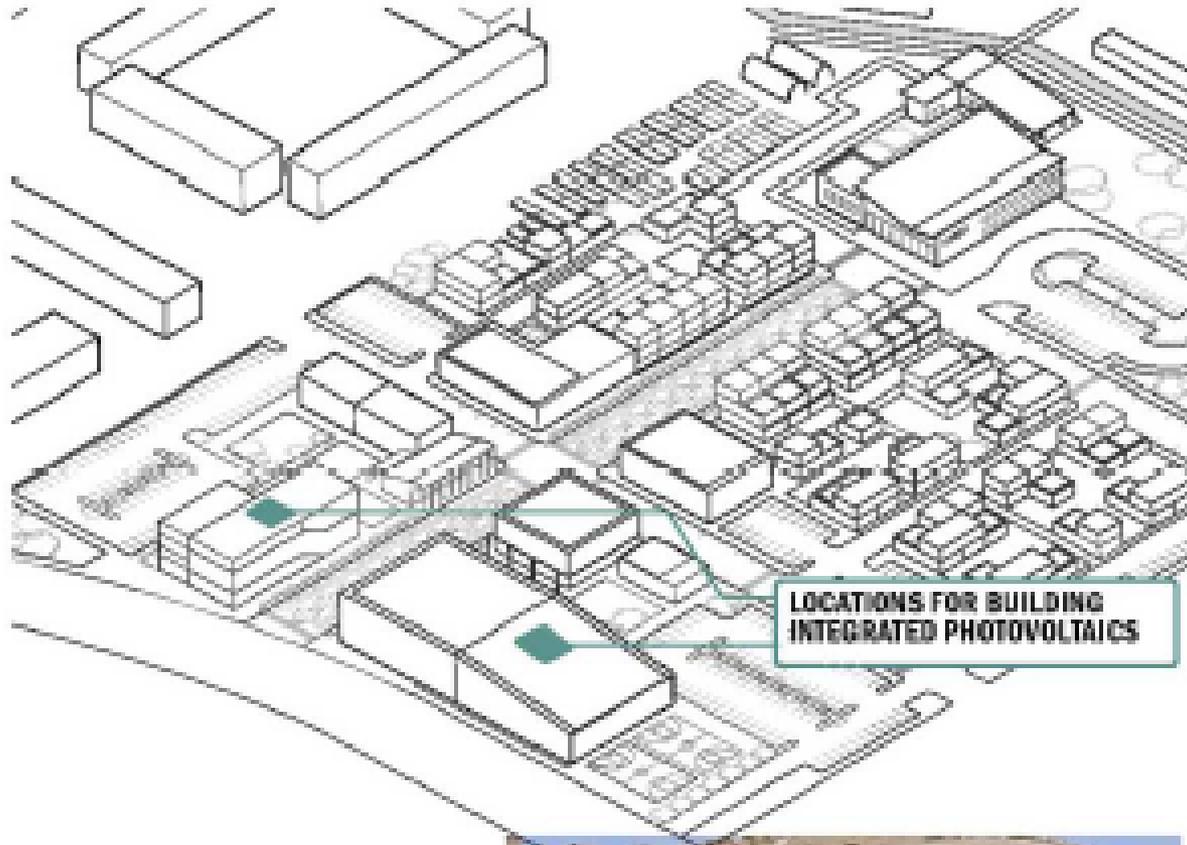
ENVIRONMENTAL SUSTAINABILITY

stormwater management / collection



ENVIRONMENTAL SUSTAINABILITY

solar energy generation



**LOCATIONS FOR BUILDING
INTEGRATED PHOTOVOLTAICS**



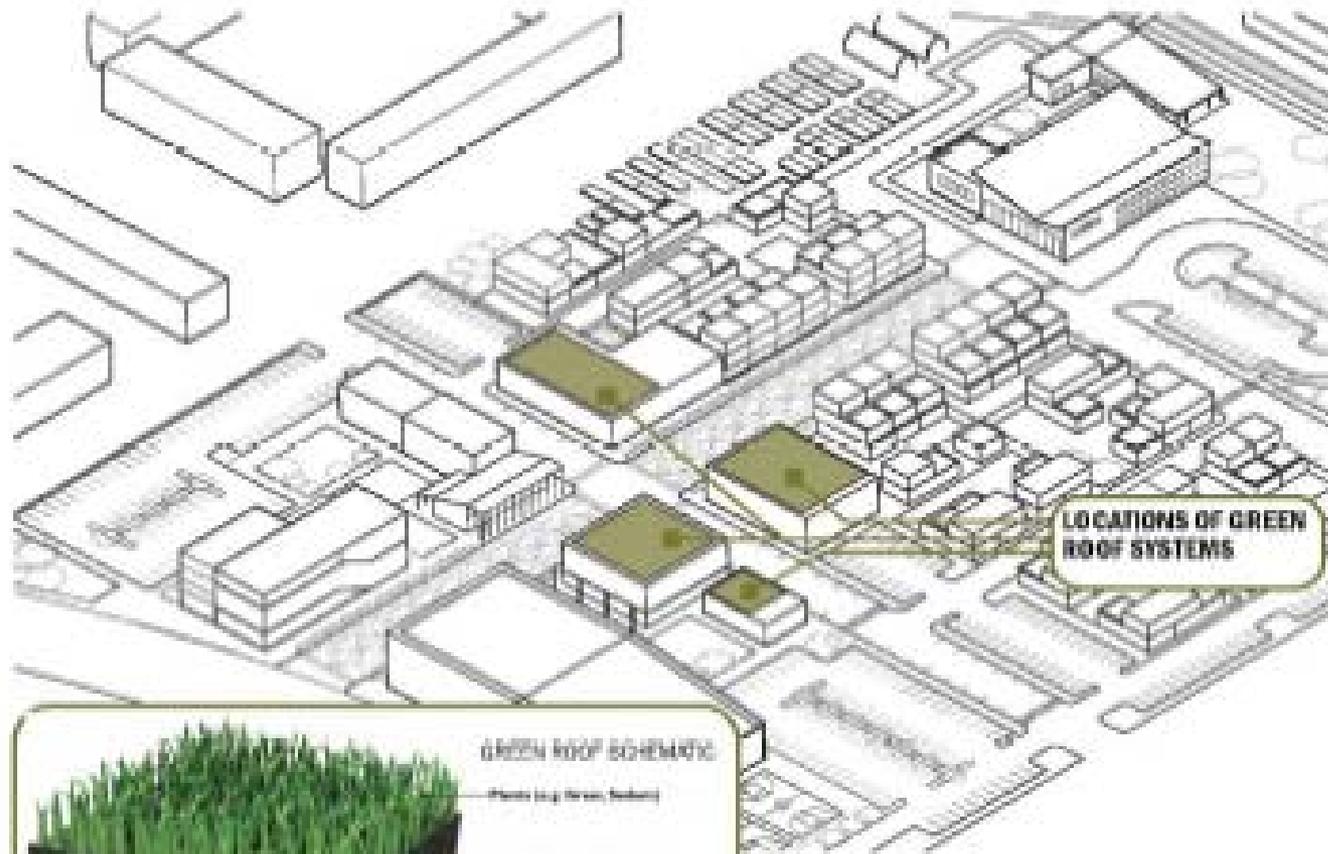
COURTESY OF GLOBAL SOLAR ENERGY



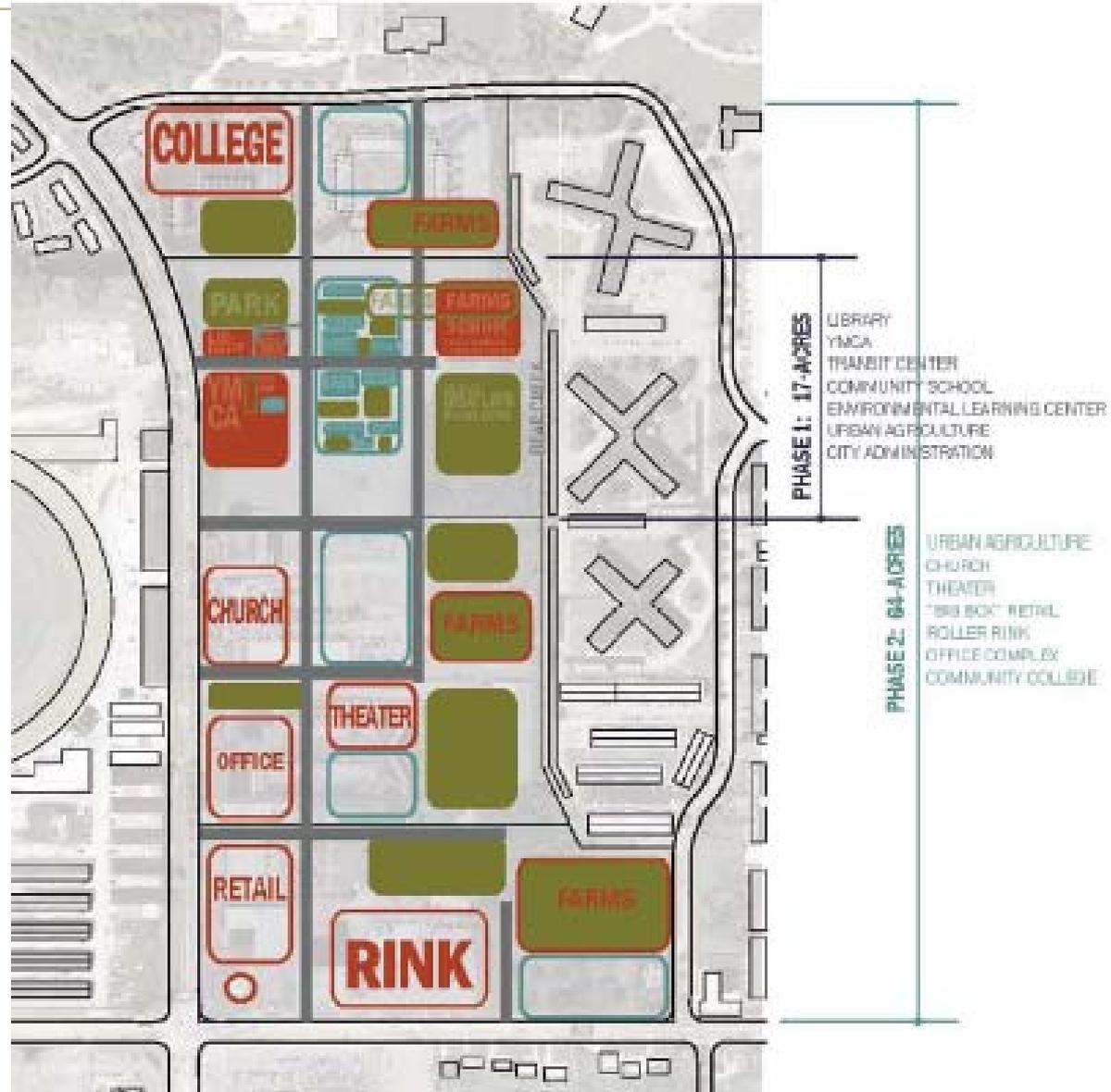
installation of BIPV panels on a pitched roof

ENVIRONMENTAL SUSTAINABILITY

building systems



Extending the Strategy: Leveraging for Further Sustainable Revitalization



Current Status

- YMCA and Cuyahoga County Library are being constructed on the site using sustainable design concepts developed by a second Harvard class
- Plans for adjacent properties that also incorporate concepts from the Harvard study are also underway

