

Urban Agriculture in the Community Design Studio: The Detroit Studio Example



Ryerson University Symposium: The role of food and agriculture in the design and planning of buildings and cities

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The Detroit Studio Community Outreach Program Projects:
2002 – present
Project Director: Joongsub Kim



The Detroit Studio

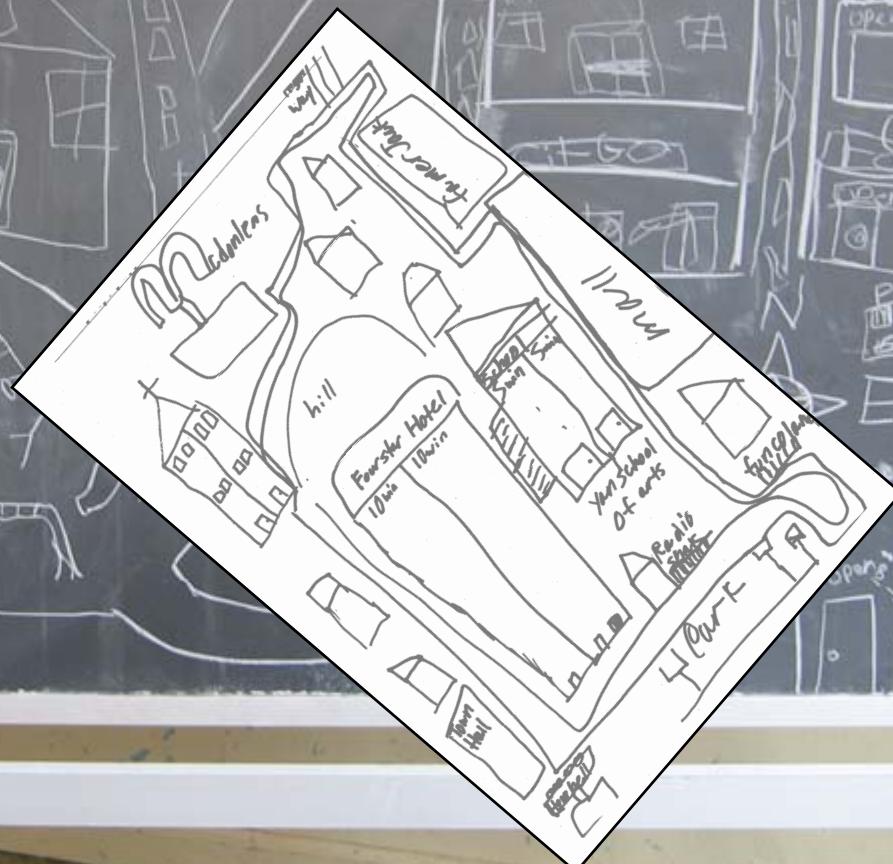
The Detroit Studio is an off-campus, storefront studio facility founded in 1999 by the College of Architecture & Design at Lawrence Technological University, located in the New Center Area of Detroit. Its location in central Detroit creates a unique educational setting for students. The Detroit Studio is committed to serving communities in Detroit, Wayne County, and Southeastern Michigan through Service Learning projects that utilize interdisciplinary collaboration, teamwork, and social-scientific approaches to address real needs, problems, and potentials. The mission of The Detroit Studio is educational to provide students with an enriched educational experience through community-based architectural, urban design, and community development projects and to offer accessible and useful programs and information to the public, design professionals, municipal officials, and the business community. Major support for the Detroit Studio is provided by the General Motors Corporation.



- **EXAMPLE 1**

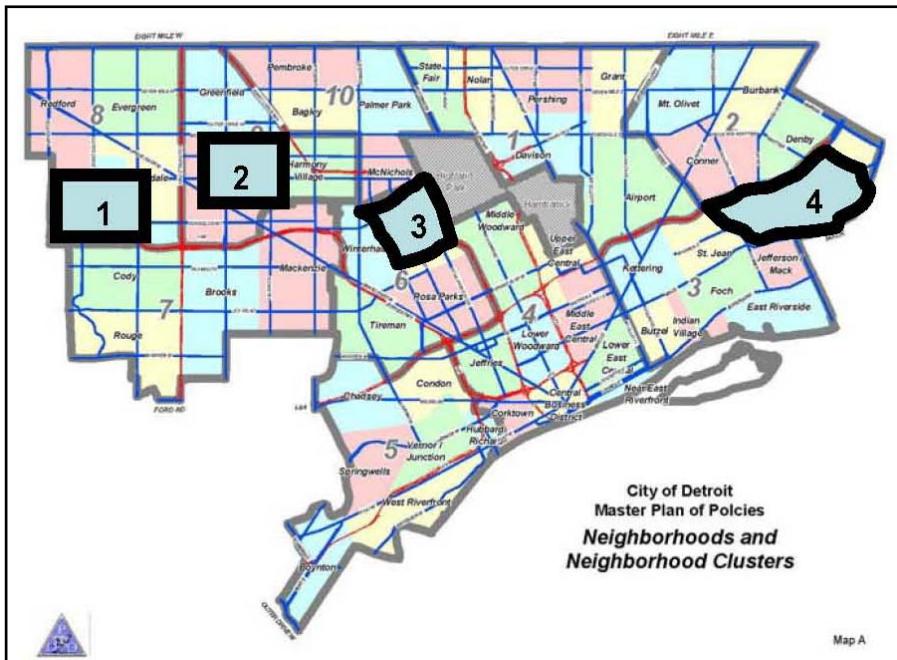
It Takes the Children to 'Masterplan' the Neighborhood

- houses
- legend
- cities, states, etc.
- North area (Compass Rose)
- Streets & street names
- freeways
- buildings & schools & stores
- empty
- parks
- construction



INTRODUCTION

BACKGROUND



- **Project:** Community revitalization based on collaborative efforts made by the Detroit Studio Community Outreach Program, middle schools, community agencies, public officials, local professionals, and other stakeholders in Detroit. The project was directed by the author, who also directs the Detroit Studio.
- **Project Location:** (1) Brightmoor, (2) Cerveny, (3) Durfee, and (4) East Warren
- **Project Duration:** Summer 2004, Fall 2004, Summer 2006, and Fall 2006
- **Course:** Junior architecture studio (each term a different group of students worked on one or more project phases)
- **Key Michigan project collaborators:** Four middle schools; four community development corporations; an African American history museum; an art college; city departments; community residents; and professional firms in architecture, urban design, and planning.

Existing Conditions

East Warren Community (study site highlighted in green)



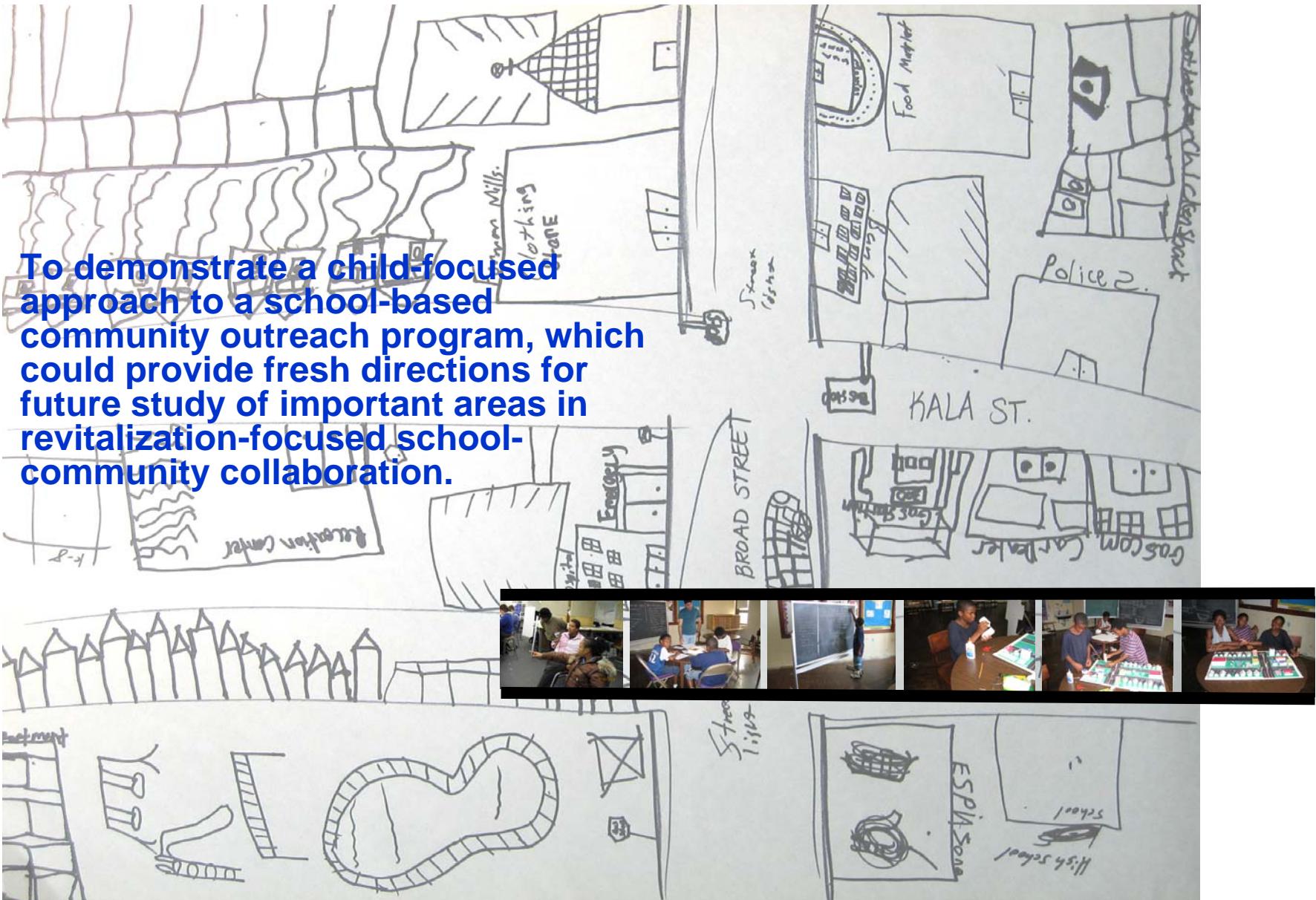
FIGURE GROUND MAP



FIGURE GROUND MAP ILLUSTRATING THE WIDESPREAD DISTRIBUTION OF VACANT LAND

GOAL

To demonstrate a child-focused approach to a school-based community outreach program, which could provide fresh directions for future study of important areas in revitalization-focused school-community collaboration.



METHOD



METHODOLOGICAL ISSUES AND STRATEGIES

[advocating children's participation thru video and urban and social scientific perspectives]

- According to various reports, our study sites, typical underserved residential areas in Detroit, have far more children per household than suburban communities.
- Various studies and our experience in past community outreach projects suggest that children-related issues are among the most worrisome to residents of poor communities.
- Despite extensive research about children's behaviors and perceptions about the built environment, serious incorporation of children's inputs in community revitalization is rare in architecture.
- While there are many examples of children's participation in small scale architectural projects such as playground design, their participation in community master planning or urban design and research on such subjects are rare.

METHOD



- There is still a lack of application of urban and social scientific perspectives in current undergraduate architectural education despite findings on the benefits that urban perspectives and social sciences bring to architectural design
- Studies suggest that contemporary community outreach programs tend to neglect urban design projects.
- Research indicates that college students can greatly “learn by doing and coaching” young children.
- Young people and children are greatly attracted to visual media (in our project, mainly, video and art) and successfully use it to express themselves.

Therefore, we proposed the community outreach design studio program where junior architectural students include children as key players in community master planning and architectural design, utilizing video, art, urban design, and social science perspectives.

METHOD

[Theoretical and Inductive Approaches]

The relative lack of adequate theory, research, and practice on children's participation in community master planning led to the conclusion that a multifaceted approach to the development of the studio project could yield very useful results and provide provocative directions for future study of this important area.

Therefore we chose a theoretical and inductive approach to the project design, giving attention to multiple data sources in a seven-phase methodology.



PHASE 1

(summer 2004)

INQUIRY BY IMPRESSION THROUGH KIDS' CAM

[observational evidences collected from
the children through videos]



- A junior architecture student led a team of two or three 7th grade children through their neighborhood. While leading a team on its respective site, the architecture student was instructed to let the children videotape the community for a few times a week, showing us how they see their community.
- While videotaping, children in the team casually engaged in a dialogue with the student about the neighborhood.
- The student was instructed that careful attention be given to the experience of the children and the sense and meaning they make of that experience. There were four teams, each of which observed the four selected communities.

PHASE 2

(summer 2004)



FORMAL PREUNDERSTANDINGS

[environmental variables and theoretical constructs explored]

- After finishing Phase 1, each team returned to its respective school and began “deconstructing” the videos.
- While analyzing the recordings, the architectural student in each team helped its children members group various physical features according to several categories (e.g., bike pass and alleys as part of circulation, etc.)
- The student was instructed to find themes running through the dialogues and images on the video by reviewing them and asking the children questions (e.g. sustainability, responsibility, etc.).
- The student then helped children compare the physical characteristics to the emerging themes and discuss their relationships to one another (e.g., vacant land and safety).

PHASE 3

(summer 2004)



THERAPEUTIC ART EXERCISE

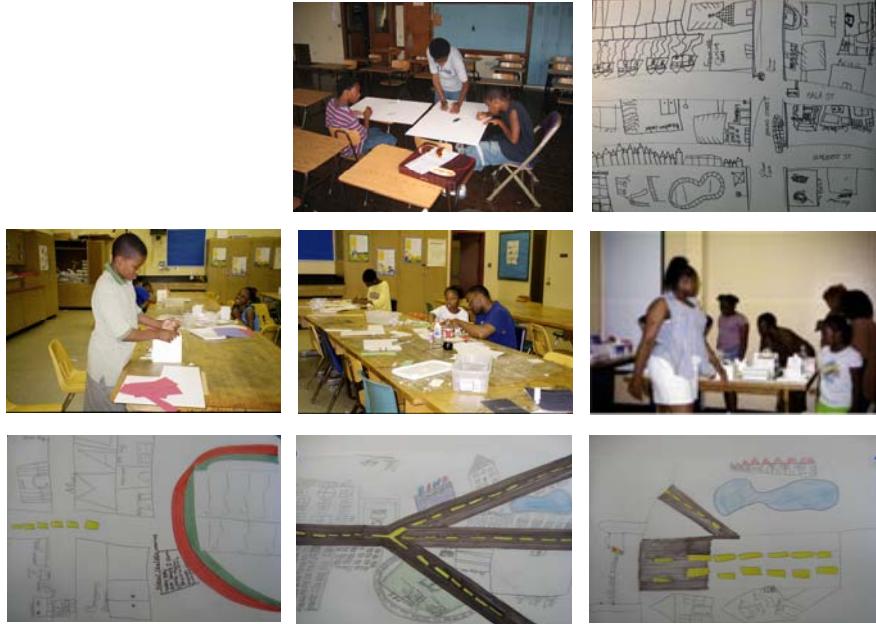
[helped the students and children to make a smooth transition to next phase]

- Each child team member drew a map of his community according to the student's instruction.
- The student also produced artwork to express her feelings, and hopes about her study neighborhood, along with her desires for the next state of the project. Her young co-workers helped.
- The student artwork was critiqued by local graduate art school students in hopes of teaching one another about architecture and art, and exploring what architecture and art students could learn from one another.
- The goal was to give children and architectural students a "therapeutic" opportunity to organize their thoughts for the next phase: the model-making exercise.

PHASE 4

(summer 2004)

MODEL-MAKING EXERCISE [children's model of an ideal community]



- First, each team brainstormed about their ideal community. Children wrote down ideas and played with pieces of foamcore on the map of the community.
- Children then began making scale models of their ideal community. The architectural student in each team did not assist, other than to supervise for safety.
- Finally, the student guided the children in using the ideas arising from the video and art exercises. Additionally, the student helped children with how to connect individual elements (e.g., destination points and sidewalks) in some meaningful way.

PHASE 5

(summer 2004)



EDITING AND VIEWING OF VIDEOS

- Each team spent a couple of weeks preparing the videos for public viewing.
- Team members, parents, teachers, and others gathered to view the four teams' videos.
- The videos were also shown at the school that each child attended
- The goal of this phase was to educate the community about
 - (1) the process by which the analysis of their community was undertaken;
 - (2) the roles that their children and our students played;
 - (3) the lessons of the process and the project to date; and
 - (4) what lies ahead.

PHASE 6 (fall 2004 & summer 2006)

DEVELOPING CHILDREN'S IDEAS INTO PRELIMINARY PLANNING & DESIGN GUIDELINES [research conducted on the “urban agriculture-based community” theme]

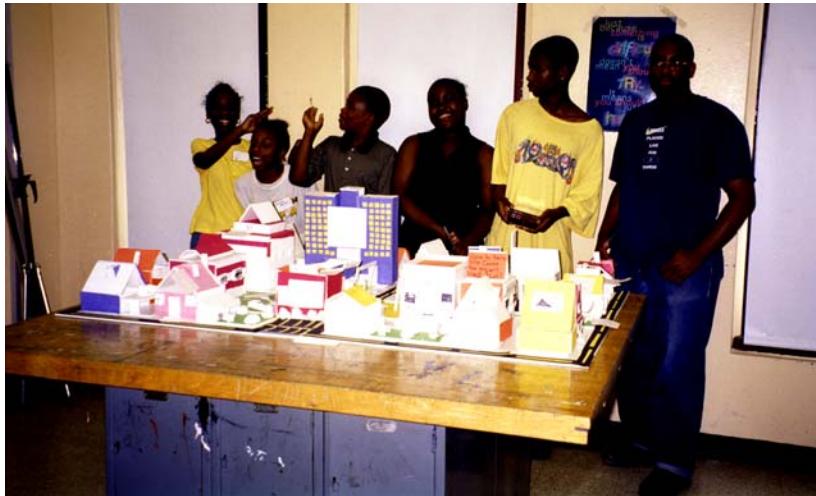


- After our studio carefully studied the children's input through videos and the model making exercise, it became clear to our team that the theme of an urban agriculture-based community ran through several concepts for the master plan of our study sites because it appeared to be the most effective and fresh approach to addressing the extensive vacant lots and vacant buildings.
- Next, architectural students conducted research on urban agriculture-based developments. The study consisted of:
 - (1) identifying social, economic, and environmental benefits and obstacles of urban agriculture in impoverished urban communities;
 - (2) identifying types and goals of agriculture operations in an urban context;
 - (3) conducting case studies on urban agriculture-based communities;
 - (4) developing principles of successful urban agriculture-based communities with supporting data; and
 - (5) creating design and planning guidelines for an urban agriculture-based community based on the Above.

INCORPORATION OF CHILDREN'S INPUTS AND RESEARCH OUTCOMES INTO GUIDELINES FOR URBAN AGRICULTURE DEVELOPMENT



- Building on the outcomes of the research, teams of architectural students developed master plans and guidelines for the East Warren test site based on the theme of sustainable urban agriculture development.
- Architectural students collaborated with children, local community development corporations, local design firms and professionals, local city planning department, city council, residents, and other stakeholders.
- Taking the steps above, the architectural students developed preliminary guidelines, conceptual community master plans and architectural design ideas for the urban agriculture education center and community market.

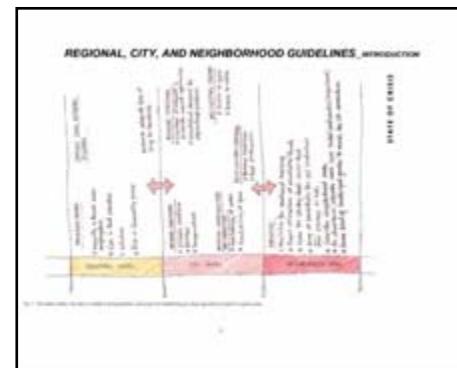
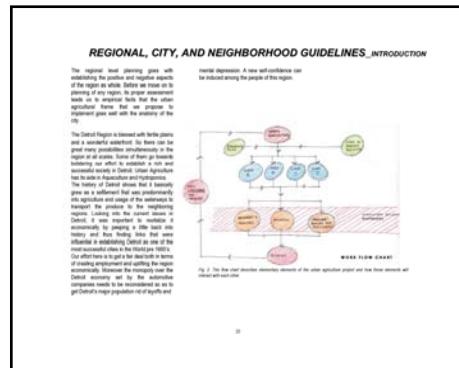


EXAMPLES for PLANNING & DESIGN GUIDELINES (draft)

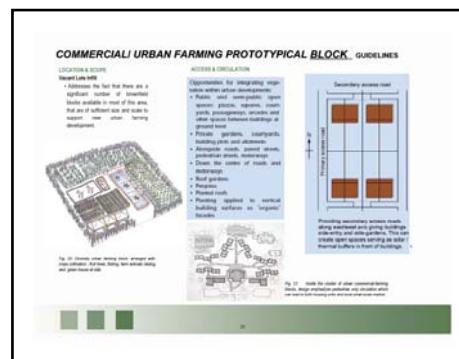
Overall principles



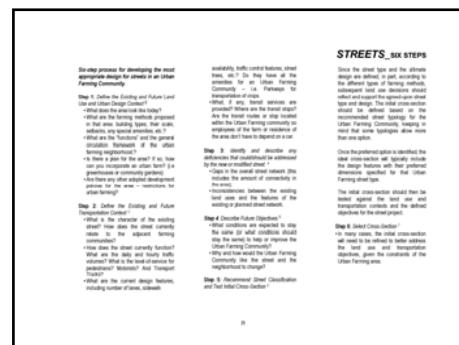
Regional, city, & neighborhood levels



Block level



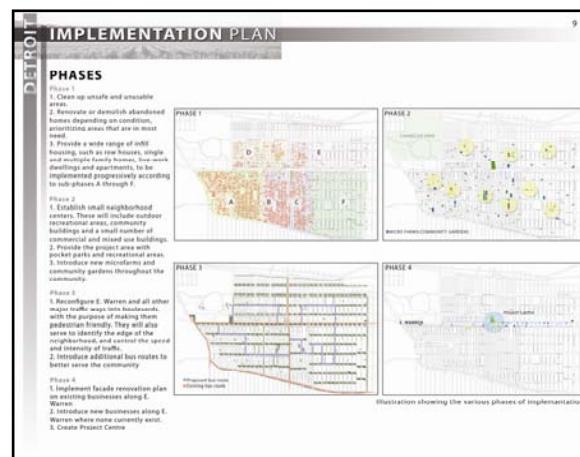
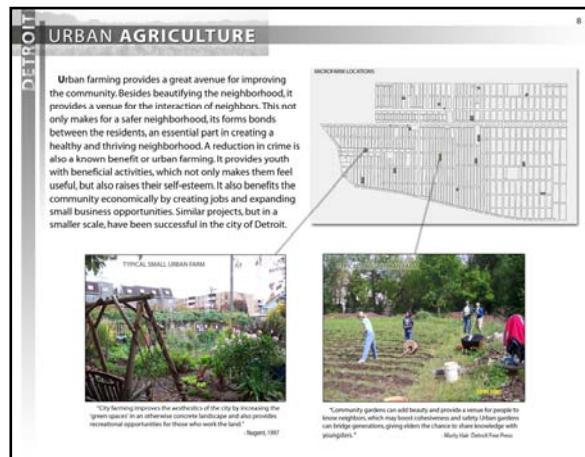
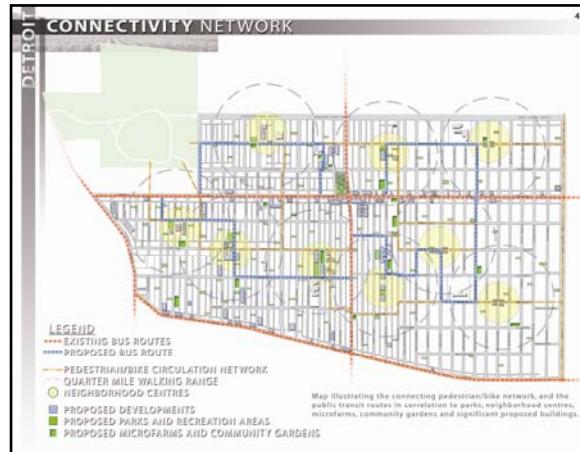
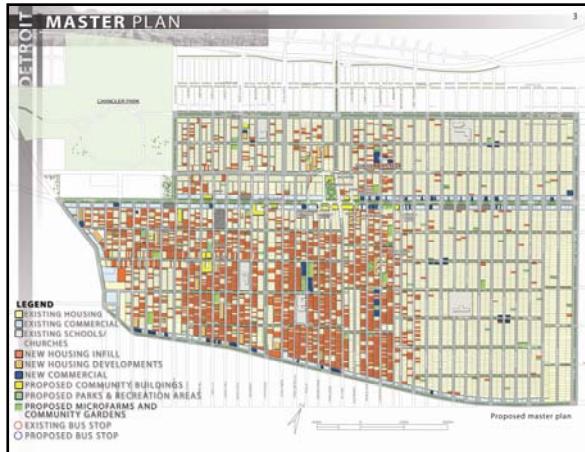
Street level



Building level

- **EXAMPLE 2**

SAMPLE MASTER PLAN DWGS (for East Warren)



► Entire area is divided into several sub-areas or districts according to 1/4 mile walking distance. Each district has a neighborhood center that includes neighborhood services and an urban agriculture development (farms, greenhouses, community gardens, etc.). These centers are well connected via a network of sidewalks.



PROPOSED NEIGHBORHOOD GREENNETWORK



URBAN REGENERATION KEY MAPS

- Proposed and Existing Developments are spread throughout for development of entire neighborhood.
- Natural Greening of neighborhood will be necessary to reduce ground source heating, carbon dioxide levels.
- GreenWay corridors will feature public, private and community gardens for production of organic vegetables, fruits, herbs and flowers
- Key developments will provide jobs, education and income for residents.
- Promote pedestrian walk ability and use of public transit instead of automobile.



BUILDING A
SUSTAINABLE WORLD
LIFE IN THE BALANCE



EXISTING CONDITIONS



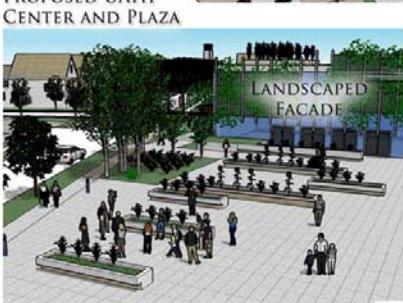
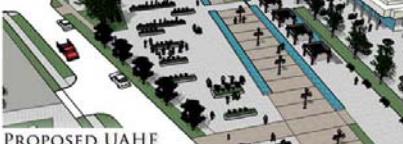
URBAN
REGENERATION



AGRICULTURAL
URBANISM



NEW
URBANISM



UAHF AND LIBRARY DEVELOPMENTS A DYNAMIC NEW URBANISM

- Landscaping and architectural elements will educate and promote awareness of sustainable living and urban agriculture.
- Developments will provide security and jobs to neighborhood residents. Public plazas will be developed to promote social gathering and rejuvenate surrounding properties.
- Farmers Market will be main location within neighborhood to sell produce developed in GreenWay Corridors.
- Transit Hub will be coupled with Market and Library to increase exposure and access to neighborhood

BUILDING A
SUSTAINABLE WORLD
LIFE IN THE BALANCE



EXISTING
CONDITIONS



URBAN
REGENERATION

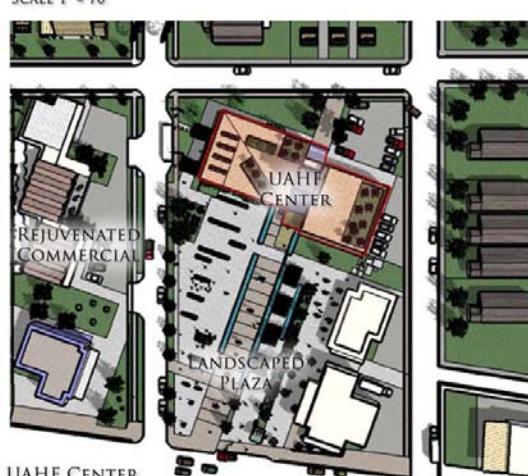
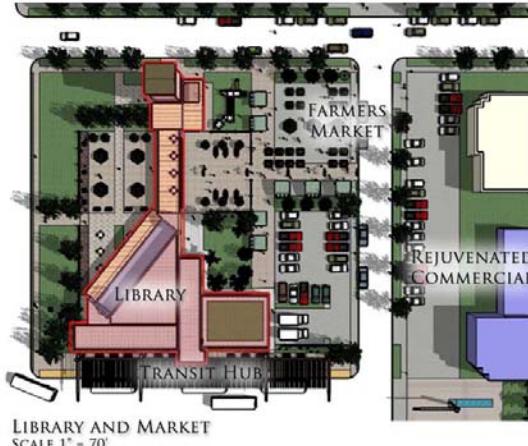


AGRICULTURAL
URBANISM



NEW
URBANISM

MASTERPLAN



DETROIT MICHIGAN



CANFIELD CENTER SITE &
BEACONTOWER



LIBRARY BEACONTOWER
AND FARMERS MARKET



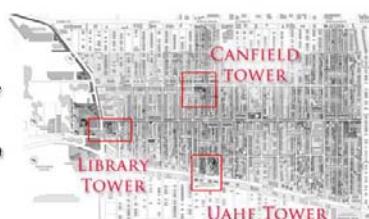
LIBRARY TOWER AND FARMERS MARKET



UAHF CENTER PLAZA

ICONIC DESIGN AND VISUAL IDENTITY THE BEACONTOWERS

- BeaconTowers will be integrated into influential new developments to provide iconic visual identity for projects and entire neighborhood.
- Intended as giant wind catcher, BeaconTowers will provide passive ventilation and cooling for building.
- Height and aesthetic style will be unique for each development and visually anchor two GreenWay Corridors.



BUILDING A
SUSTAINABLE WORLD
LIFE IN THE BALANCE



EXISTING
CONDITIONS



URBAN
REGENERATION



AGRICULTURAL
URBANISM

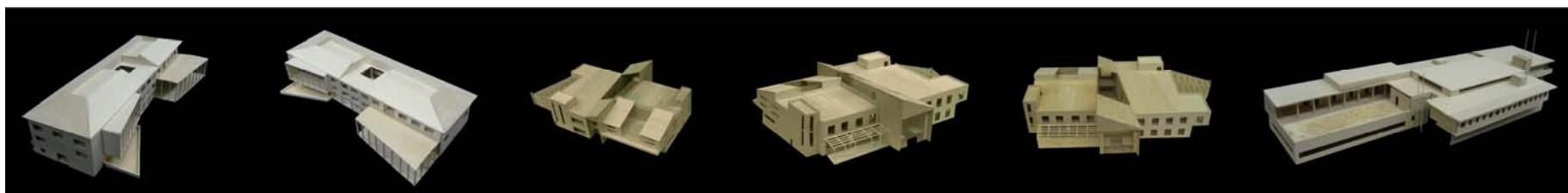


NEW
URBANISM

MASTERPLAN

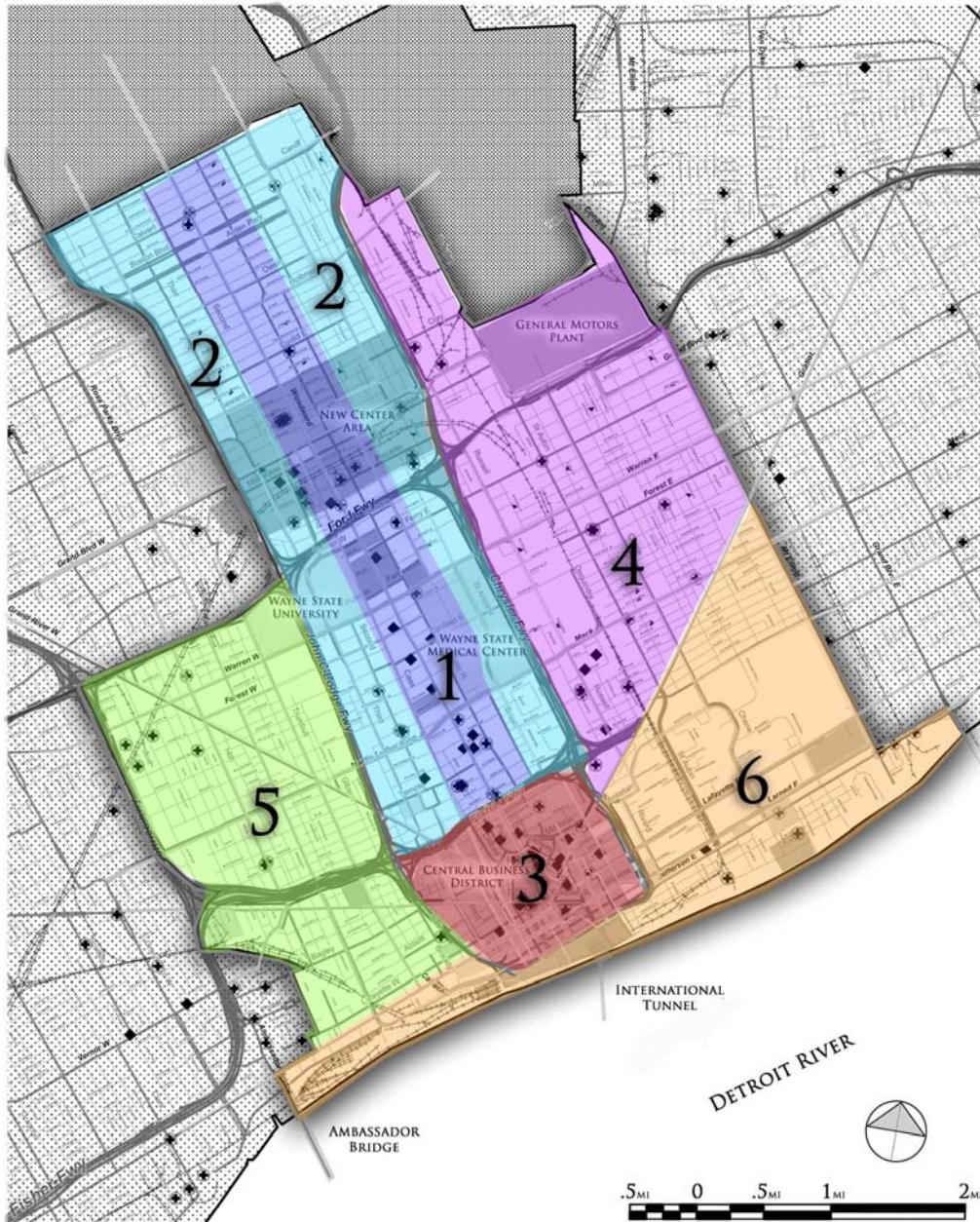
DETROIT MICHIGAN

SAMPLE ARCHITECTURAL PROPOSALS FOR AN URBAN AGRICULTURE EDUCATION CENTER AND COMMUNITY MARKET



▲ An urban agriculture education center plus a community market is a center where young people learn about urban farming, sustainability, and health. This center also provides services for residents concerning agriculture-related small businesses. In a center, local residents and minority farm owners from the outskirts of Detroit can sell their agriculture products.

- **EXAMPLE 3**



LEGEND

1 - WOODWARD CORRIDOR

2 - WOODWARD PERIPHERY
ASTRIT A. & DAROUNI L.

3 - DOWNTOWN CBD
JON MCGINN

4 - EAST CENTRAL
KADABINI DODDA

5 - CORKTOWN JEFFRIES
MAYUR NAIK

6 - RIVERFRONT
CHRIS BROWN



CLUSTER 4 REGIONAL MAP

DETROIT MICHIGAN UNITED STATES

KEY MAP
GREATER DETROIT AREA

Urban Agriculture, Greening and Sustainable Development Master Plan and Design Guidelines: City of Detroit Cluster 4

Woodward Corridor – Detroit's Spine



Astrit Alikaj

The Detroit Studio Community Outreach Program
College of Architecture and Design
Lawrence Technological University

PROJECT INTRODUCTION

Region

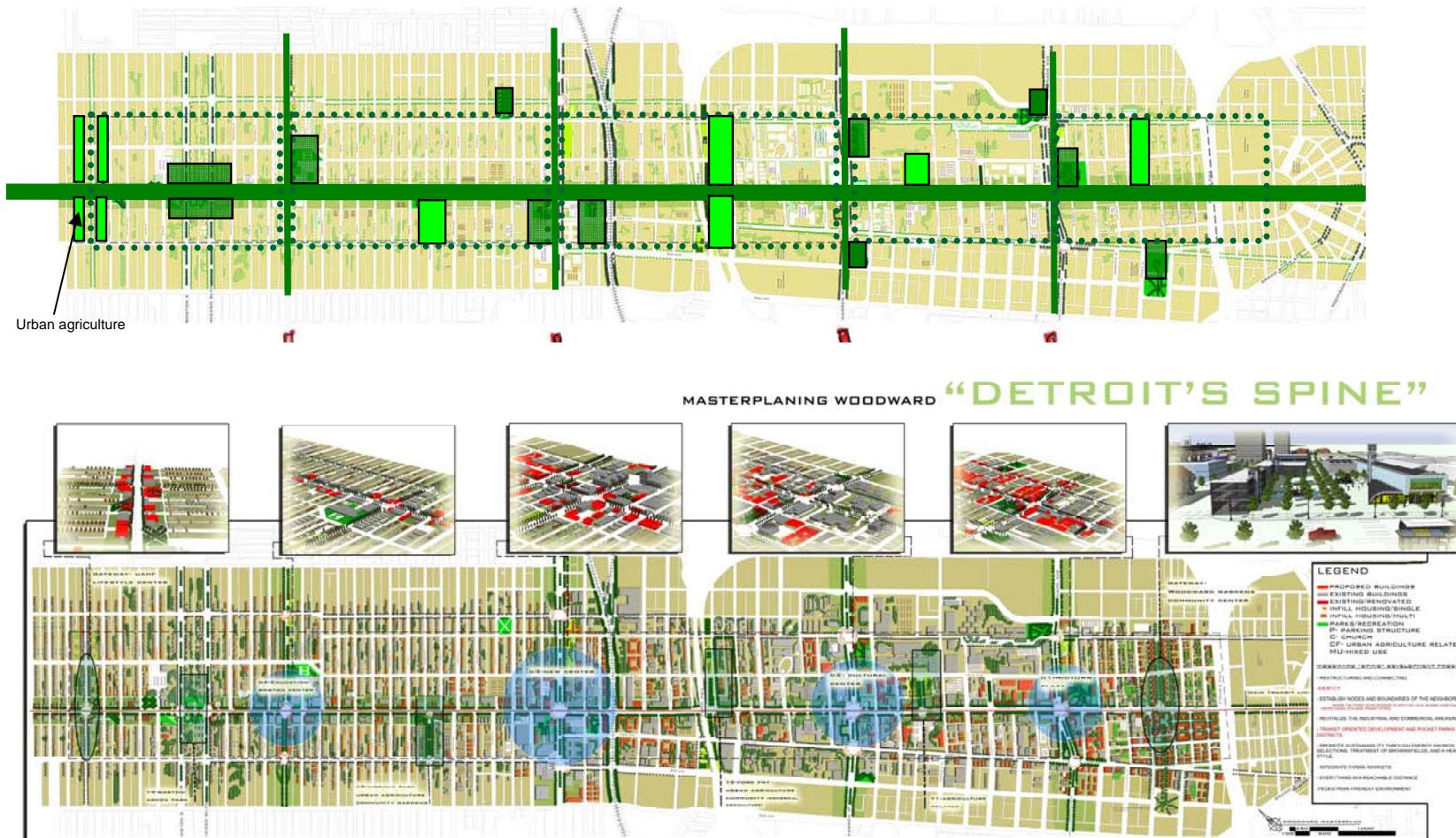
-Woodward Avenue is one of the most important corridors of the Detroit region for both its connectivity potential and its past history. It connects Detroit directly with the suburbs, especially towns such as Ferndale, Royal Oak, Birmingham, Bloomfield and Pontiac. From a regional stand point, the Woodward Corridor has a good shape and serves well as the main spine for development and connectivity. Unfortunately, while its potential for connectivity and development are used within the suburbs and town, they are not employed within Detroit. Activities such as the Woodward Dream Cruise, which are economically and historically important, are held mainly in the towns north of Detroit. The reasons for this are simple; these areas offer connectivity, pedestrian friendly environments and town centers which are absent within Detroit's corridor. With appropriate techniques and differing forms of Urban Agricultural Development, Woodward Avenue will have the same attention within Detroit as it receives in the northern suburbs and towns. With this attention, Woodward Avenue will be able to truly serve as the main spine and gateway of the region, connecting the downtown area with its northern neighbors.



Design Guidelines – *district*

Masterplan & Green Network Diagram

/ Mixed use, High Density & Walkable Communities



Astrit Alikaj

Design Guidelines – Block

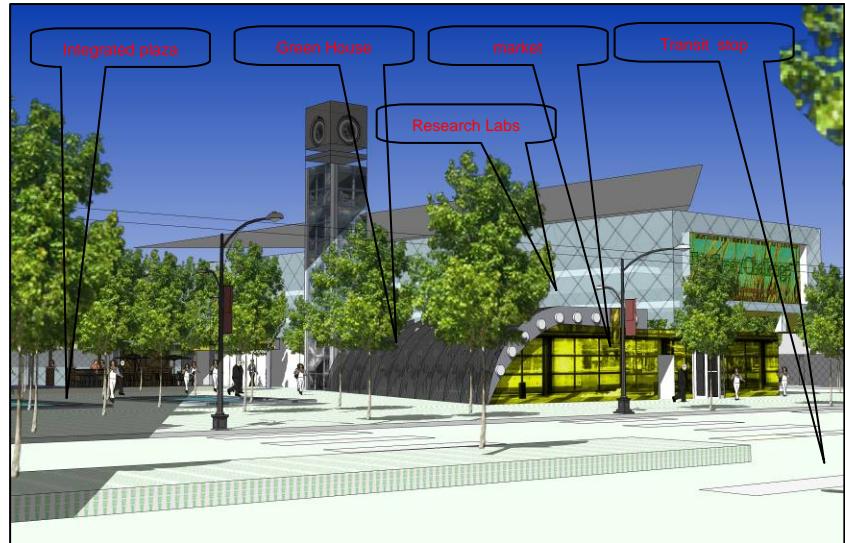
Farming District-Secondary Transit Stop -- Urban Market

Promote the Social-Economic benefits of Urban Agriculture

- Provide educational sessions to students as well as farmers.
- Open the market so that it is highly visible from Woodward Ave.

Provide other means of transportation.

- Transit stop at the center of the block.
- Distinguish Nodes
- Place commercial markets and educational activities promoting a mixture of uses around the nodes



WOODWARD GARDENS “COMMUNITY CENTER”



Pedestrian foot path
connecting Cass park

Design Guidelines – *Building*

Woodward Gardens Community Center

/ Mixed use, High Density & Walkable Communities



- Woodward Gardens Community Center is located at the corner of Woodward & Temple St. **The main goal is to promote a healthy lifestyle to the residents and offer them choices to do so.** The lower level will house programs such as a green house and a market (offering employment and providing a healthy lifestyle), library (where you can find information about Urban Agriculture), research center, community kitchen, recreation area, restaurant and educational rooms.
- Promote the idea of Community Outreach by encouraging the community' participation and offering them a gathering space (Urban farming related).
- Promote physical activities by placing the following programs near the transit stops; recreation centers, open green space, playgrounds, foot paths, temporary farmer's market, outdoor café & restaurants etc.

Site Considerations

- Take advantage of physical features that the site and the microclimate have to offer. (1)
- Maintain the existing grid for building orientation. Orient the green house for maximum solar gain and address prevailing winds.
- Supply foot path and fruit trees through the main plaza.

Energy Sources

- Use renewable energy sources such as Photovoltaic, day lighting techniques, geothermal energy, waste to energy, etc.
- Use glare-free and reflective-free materials on the façade of the buildings located on the east side of Woodward Ave.
- Adequately place solar panels within the façades of the buildings located east of Woodward Ave.
- Use rooftop panels on the buildings located west of Woodward Ave.
- Incorporate a courtyard in the center of the building for solar and ventilation access.

Design Guidelines – Conclusion

Woodward Corridor Development is an important and a vital step to Detroit's future. Indeed, it is **Detroit's Spine** and if developed appropriately as such, it can become a real success.

The focus of this proposal is steered towards creating a mixed use, high density & walkable community. Because it is being guided by two main themes, Urban Agriculture and Transit Oriented Design, the intention is to give people choices to promote a healthy lifestyle, to offer the desired density and mix of uses and to provide an architecture that addresses the human domain. In addition, the project is about affordability, whether it is in building and house prices or food prices. The project takes the focus away from the car, emphasizing the pedestrian.

/ **Mixed use, High Density & Walkable Communities**

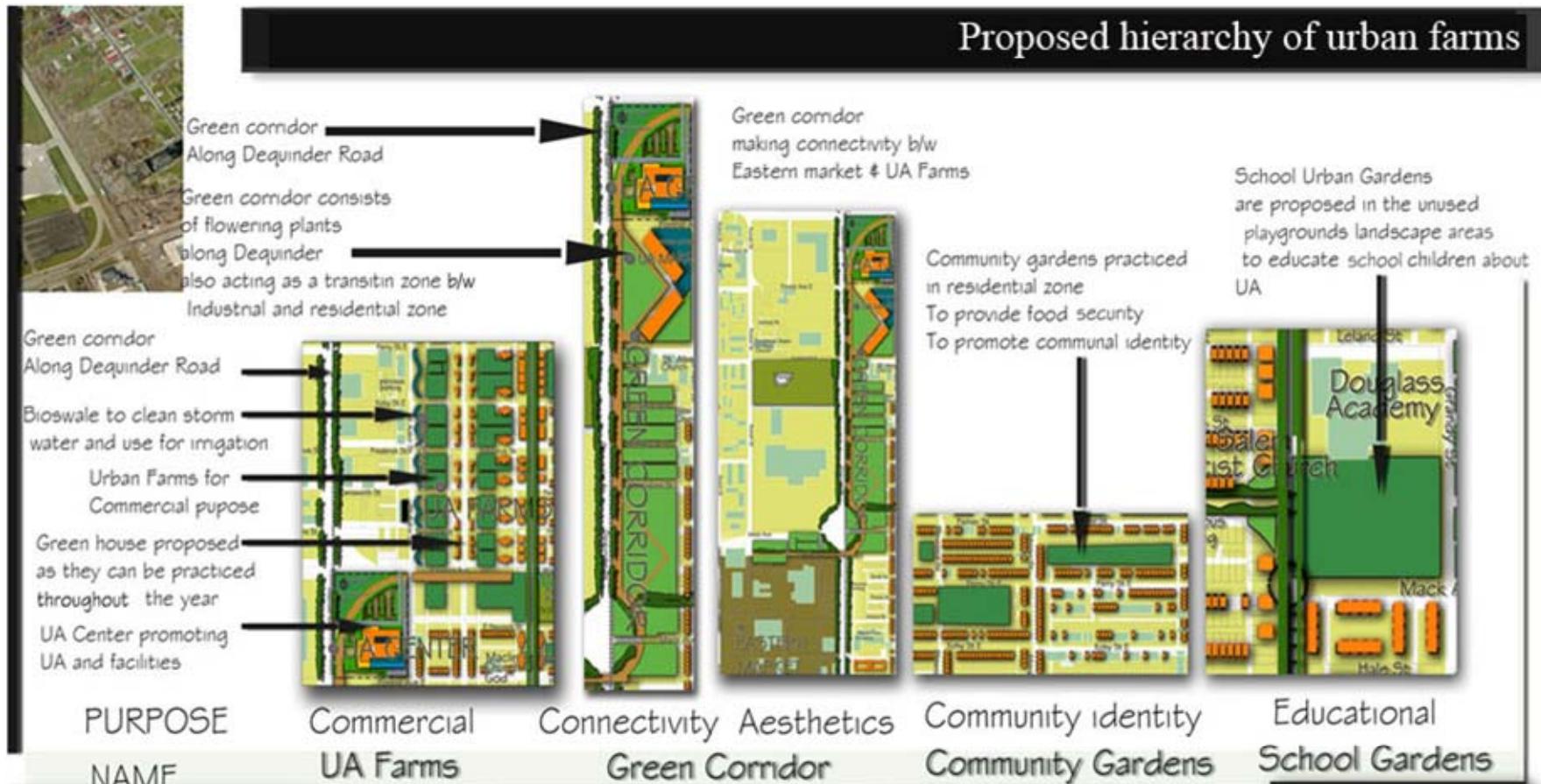
In this case we can use Urban Agriculture as our strength into holding land until transit oriented developments evolve and prices increase.

Although we recognize the fact that this can not be done on its own, strong partnerships and collaboration will be needed between transit agencies, local governments, developers and the community. In addition, public interest groups need to be challenged in order to take a more active role in the process of creating this vision; the vision of a ---

Healthy Lifestyle, Mixed Use, High Density & Walkable Community.



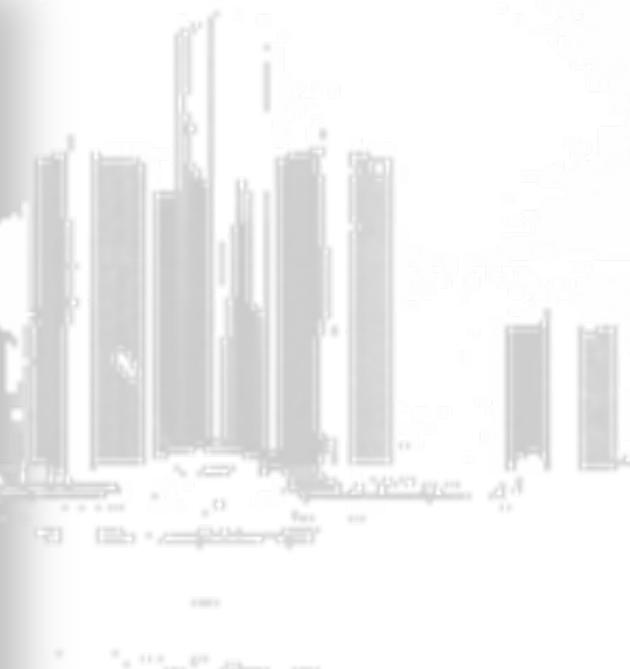
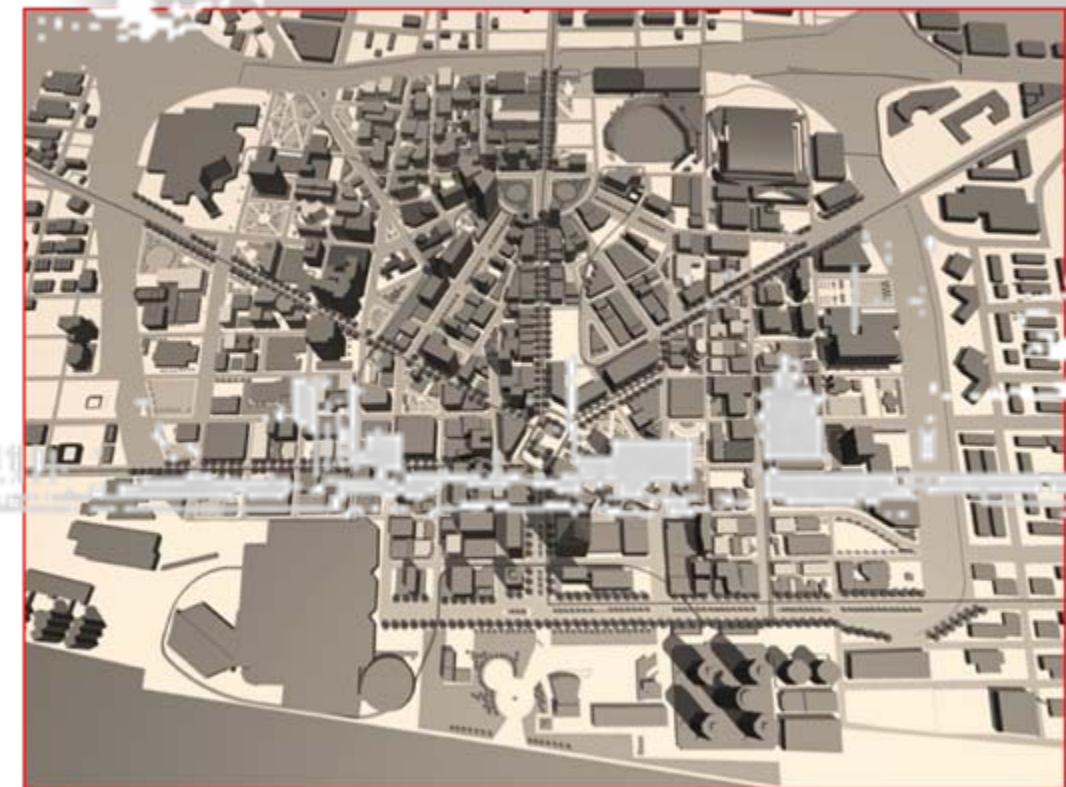
Hierarchy Of Proposed Urban Farms



EAST CENTRAL- *Upper and Middle East Central Sector*

Urban Agriculture, Greening, and Sustainable Developments Master Plan and Design Guidelines; CITY OF DETROIT CLUSTER 4

DOWNTOWN



Submitted by: Jon McGinn
Spring 2007
The Detroit Studio Community Outreach Program
College of Architecture and Design
Lawrence Technological University

Master Plan – District



Central Business District

JON McGINN

Master Plan - District

Master Plan Concept

Key Points

- **Work, Live, and Play**

- Promote Urban Agriculture (both working and recreational)
 - City beautification
- Highlight Existing Assets
- Strengthen Circulation (pedestrian and vehicular)

Design Guideline proposal

Urban Agriculture, Greening and Sustainable Development Masterplan and Design Guidelines: City of Detroit Cluster 4



Conducted by: The Detroit Studio Community
Outreach Program
College of Architecture and Design
Lawrence Technological University

Produced by Chris Brown
000.431.308
Summer 2007

THE GOAL

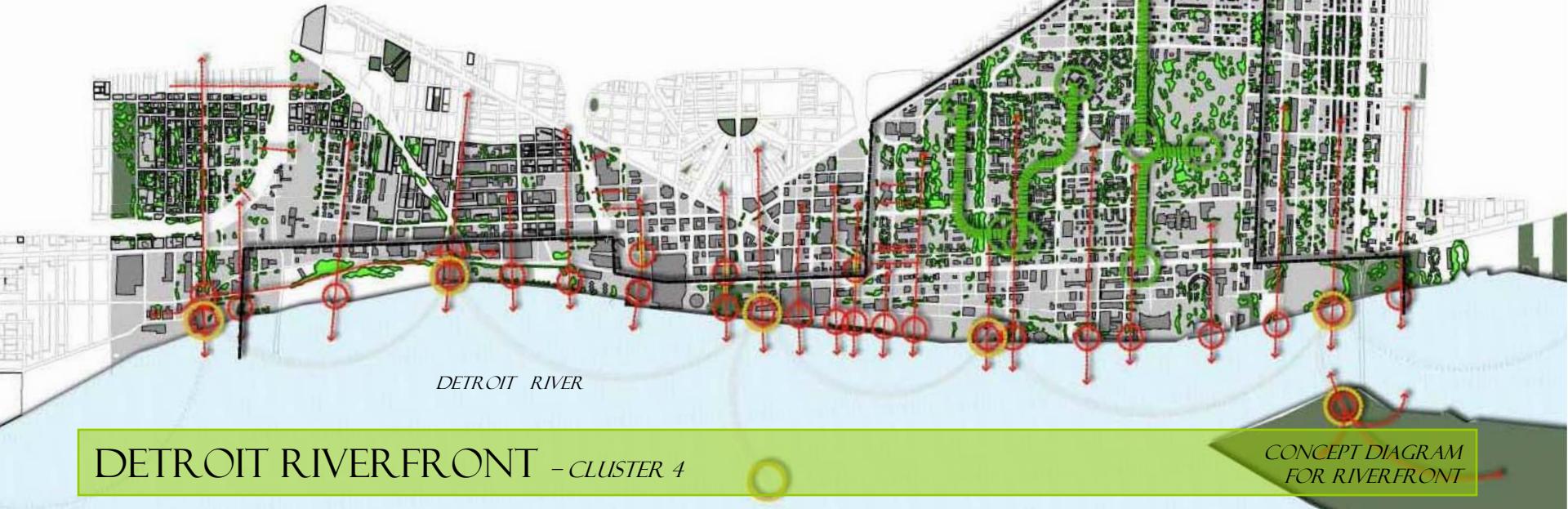
Identifying the past, examine the present, and planning for a sustainable future.

A prosperous Riverfront is what we need to strive towards, where a DIVERSITY of functions and activities mix with an equally DIVERSE DEMOGRAPHIC of ethnic groups and lifestyles. SUSTAINABLE APPROACHES to design implementation and maintenance will be used to reduce harmful effects on the natural environment. Developments will be encouraged to incorporate and reflect the IMPORTANCE OF NATURE in their designs and assist both the federal, state and local governments in the clean up process of polluted Riverfront properties. Detroit was once and still is an AMAZING PLACE TO LIVE, with the REJUVENATION of its riverfront Detroit can remarket its image and return to its rightful place as one of the greatest cities in the world.



Accessing the Riverfront

Providing and enhancing **accessibility** to the Riverfront will be essential to **urban renewal efforts**. By studying existing Land-use maps we will need to establish a strong residential presence both along and to the Riverfront from the inner city neighborhoods. A diagrammed study is shown below of **potential and existing access** corridors from the inner city to the Riverfront. Some corridor connections with the Riverfront could provide greater potential for economic renewal than others, and will be explored in greater detail within the Masterplan section of this proposal. The **natural connection between inner city and Riverfront** is also critical. Therefore, identifying existing green networks within the city which could have the potential to extend to River developments will be investigated as well.

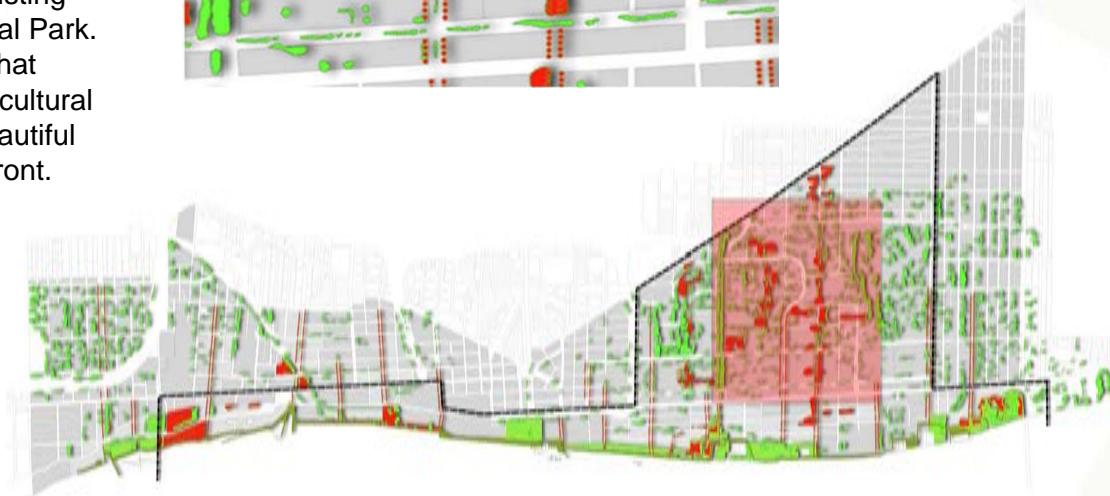


PLANNING AND DESIGN GUIDELINES

Block / Neighborhood Scale

Our fourth objective under Block / Neighborhood Guidelines is to [reintegrate a natural connection between the city and its Riverfront](#). Green Corridors of tree plantings, pocket parks, and agricultural gardens have been developed in this Masterplan proposal to help regenerate the city's ecological connection with the Riverfront. The majority of tree plantings, pocket parks and agricultural gardens will be implemented in the residential neighborhoods to the north of both Jefferson Avenue East and Fort Street West.

How and where these corridors terminate and interconnect along the way and into the Riverfront is critical to their success. The Masterplan analyzed existing green belts within the city, availability of open space both in residential neighborhoods and along that of the Riverfront, and existing green spaces along the Riverfront such as TriCentennial Park. The diagrams identify strong Green corridor locations that could be implemented, which when combined with agricultural gardens, and existing natural areas, could generate beautiful green belts from inner city neighborhoods to the Riverfront.



Riverfront Masterplan

The focus of this Masterplan is to encourage urban renewal along the entire length of the Detroit Riverfront through the introduction of five distinct development zones. Each development zone will exhibit a strong relationship with the Riverfront by way of Marina's, public promenades, fishing piers and Ferry Docks. The zones will also feature prominent civic projects developed from both the public and private sector that will act as additional catalysts for urban renewal. In addition to the development zones, proposed Green Networks and Urban Agriculture developments will correlate with existing Green spaces within the city to rejuvenate a natural connection back to the Riverfront.

