



# DEARBORN, MI

## SUSTAINABLE NEIGHBORHOOD ASSESSMENT

April 25 - April 27, 2012

### SUSTAINABLE NEIGHBORHOOD ASSESSMENT USING LEED-ND

Through the Sustainable Neighborhood Assessment Tool developed by Global Green USA, public officials and local government staff are using the LEED for Neighborhood Development (LEED-ND) rating system to determine ways that future development in their communities can achieve high levels of environmental, economic, and social sustainability. LEED-ND integrates the principles of smart growth, walkable urbanism and green building into the first national rating system for neighborhood design. In Dearborn, MI, Global Green used the assessment tool to reveal the existing, planned, and potential sustainability levels of the City's West Dearborn Downtown neighborhood and to make sustainability-related recommendations.

### ENVIRONMENTAL PROTECTION AGENCY

Technical Assistance provided by Global Green USA with Farr Associates and the US Green Building Council to the City of Dearborn was made possible through funding from the US EPA's Office of Sustainable Communities Building Blocks for Sustainable Communities Grant Program.



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## Neighborhood Location



Michigan



Wayne County



Dearborn



West Dearborn Downtown



## Sustainable Neighborhood Assessment Process

The goal of the sustainable neighborhood assessment process is to establish several focus areas where policy and planning changes in a particular area can promote sustainable urban development over the short and long term. To define these focus areas, Global Green USA and its team use a sustainable neighborhood assessment tool whose backbone is a modified LEED-for Neighborhood Development (ND) checklist and associated metrics. Prior to visiting the target neighborhood, the team conducts a thorough review of relevant planning documents, code requirements, and city and stakeholder priorities for the neighborhood and creates an initial augmented LEED-ND checklist, marking each credit as “achieved”, “not achieved,” “unknown,” or “not applicable” according to baseline conditions. This initial checklist also ranks credits within the three LEED-ND categories (Smart Location & Linkages, Neighborhood Pattern & Design and Green Infrastructure & Building) as they compare to local policy priorities, regulatory support, technical feasibility, market support, and stakeholder input. The checklist for West Dearborn Downtown is provided on page 16.

The Global Green team then conducts a three-day site visit that includes walking every block of the target neighborhood, several meetings with city staff and other targeted stakeholders, and an open community meeting. Throughout this process, the preliminary checklist is edited and augmented to incorporate the team's visual observations, issues raised during stakeholder meetings, and priorities developed during the community workshop.

The checklist helps to group individual sustainability components into the broad focus areas noted on the next page in the green box. It also provides specific sustainability performance metrics – taken directly from LEED-ND – for those focus areas. These metrics often then serve as the technical criteria of the team's specific policy and planning recommendations.

At the end of this process in Dearborn, the Global Green team developed specific recommendations in four topic areas. Many of these recommendations have components that can be implemented quickly while others will require long-term dedication and collaboration among many public and private sector partners. The intention behind the recommendations is not to formally certify the area under the LEED-ND rating system but rather to suggest policy, planning, and development changes that promote the sustainable growth of West Dearborn Downtown. Following these recommendations would, in time, enable West Dearborn Downtown to look, feel and perform like a LEED-ND neighborhood.

## Neighborhood Background

West Dearborn Downtown is located at the eastern edge of west Dearborn and is adjacent to one of the oldest neighborhoods in Dearborn. The assessment area is bisected by Michigan Avenue (State Highway 12) which serves as the major connector between east and west downtowns and the headquarters of The Ford Motor Company. A number of other Ford facilities, employing thousands of people, are nearby.

West Dearborn Downtown recently received federal funds to construct a new rail station, which is situated approximately half a mile east of West Dearborn Downtown's core commercial area. The parcels immediately surrounding the planned rail station include two vacant lots, a hotel, a small medical office, two auto dealerships, and the vacant and historical Ford Motor Company's Powertrain Operations Engine Engineering Building. Directly across Michigan Avenue from the principal entry of the new station is a trail head for a highly-used, 20-mile regional greenway system. This trail runs along the Rouge River, the major natural amenity within the neighborhood.

The assessment area addressed in this report is approximately 135 acres and includes the transit station, commercial businesses, single family, multifamily, and senior residential buildings. Northeast of the assessment area is a regional shopping mall, hotels, Henry Ford Health System hospitals, and two higher-education

institutions - the University of Michigan-Dearborn and Henry Ford Community College. South of the assessment area is The Henry Ford, a historical tourist attraction that receives over 1.7 million visitors a year. The Henry Ford is a major economic driver in the City and includes the Greenfield Village, Henry Ford Museum, IMAX theater, the departure point for the Ford Rouge factory tour, Benson Ford Research Center, and the Automotive Hall of Fame. Through the West Dearborn Downtown Development Authority (WDDDA), the City of Dearborn promotes investment in the development of west downtown, with a focus on small and medium size businesses. In order to promote economic growth and provide a counter-weight to declining property values in the West Dearborn business district, the WDDDA adopted a Tax Increment Financing Plan which provides funds for economic studies and analysis, district marketing, and business retention and attraction. It is also authorized to make public sector improvements and has made several significant investments over the past years in city-owned parking garages and lots serving the area. The WDDDA plans to undertake additional public improvements within the district boundaries, a smaller geographic area than the assessment area looked at by the Global Green team and which does not currently include the area around the new train station.

## Neighborhood Highlights



LOCAL JOBS



HOUSING DIVERSITY



NEIGHBORHOOD RETAIL



RECREATION & NATURAL AREAS

## FOCUS AREAS

### Related LEED-ND Credits

#### Future Development Response to Station

##### Category: Smart Location & Linkages

- Housing and Jobs Proximity (credit 5)
- Brownfield Redevelopment (credit 2)

##### Category: Neighborhood Pattern & Design

- Compact Development (prerequisite 2 & credit 2)
- Mixed-Income Diverse Communities (credit 4)

#### Connection to Existing Assets

##### Category: Smart Location & Linkages

- Bicycle Network and Storage (credit 4)

##### Category: Neighborhood Pattern & Design

- Walkable Streets (prerequisite 1 & credit 1)
- Transit Facilities (credit 7)
- Access to Civic & Public Space (credit 9)
- Access to Recreation Facilities (credit 10)

#### University's Role in West Dearborn Downtown

##### Category: Smart Location & Linkages

- Bicycle Network and Storage (credit 4)

##### Category: Neighborhood Pattern & Design

- Mixed-Use Neighborhood Centers (credit 3)
- Mixed-Income Diverse Communities (credit 4)
- Walkable Streets (prerequisite 1 & credit 1)
- Transit Facilities (credit 7)

#### Green Building and Infrastructure

##### Category: Green Infrastructure & Building

- Building Energy Efficiency (prerequisite & credit 2)
- Building Water Efficiency (prerequisite & credit 3)
- Stormwater Management (credit 8)
- District Heating & Cooling (credit 12)
- Infrastructure Energy Efficiency (credit 13)



## Catalytic Projects

The City of Dearborn applied for technical assistance for the West Dearborn Downtown neighborhood based on one major development project - the Dearborn Intermodal Passenger Rail Station. The City of Dearborn is part of a regional coalition supporting the development of a high speed and commuter rail in southeast Michigan. With \$28.2 million in funding for a new intermodal transit station, West Dearborn Downtown will benefit greatly from this infrastructure investment as the number of trains stopping at the station increases over time.

The intermodal transit station is designed to be a resource efficient facility and is registered under USGBC's LEED for New Construction rating system. The project may reach Silver level certification and, from an environmental performance perspective, serve as an example of how future development could respond to the City's desire to create a sustainable neighborhood. This station is Amtrak's Dearborn location on the Detroit (Pontiac) high-speed rail line from Chicago to Detroit. The station will also be a stop on the commuter rail line from Ann Arbor to Detroit with a stop at the Detroit Metropolitan Airport, and will include space for regional and local buses, employee shuttles, and taxis. Ideally these elements will increase transportation options, decrease traffic congestion, and boost customer visits to surrounding businesses. At present, however, the train is only planned to stop six times a day, limiting the station's immediate ability to foster a significant amount of transit oriented development. The potential for a higher-frequency commuter rail line is being discussed, as is high-speed service between Detroit and Chicago that would stop in Dearborn; this additional

service would augment the policies and plans that the City is now putting into place to encourage a more sustainable neighborhood.

Other projects underway include the recent approval of plans for 500+ student housing units about one mile from the future station. It is estimated that an additional 2,000 student housing units will be needed in the area to accommodate a growing resident student population at the University of Michigan-Dearborn and Henry Ford Community College.

The City of Dearborn has also recently adopted a city wide Complete Streets Resolution with a directive to develop a Non-Motorized Transportation Plan (NMTP) incorporating greenways, and bike paths to connect natural and existing urban systems. The Complete Streets resolution was preemptively passed in March 2012, ahead of Michigan's mandatory statewide policy. However, if the NMTP planning effort is to support the City's desire to create sustainable neighborhoods with multimodal transportation choices, the plan will need to include improved bikability on vehicular streets in addition to improvements for off street greenways and bike paths.

# Recommendation 1

RESPONSIBLE  
DEPARTMENT  
Public Works and  
Planning Department  
with support from  
Michigan Department  
of Transportation  
(MDOT)

## Walking and Cycling in West Downtown

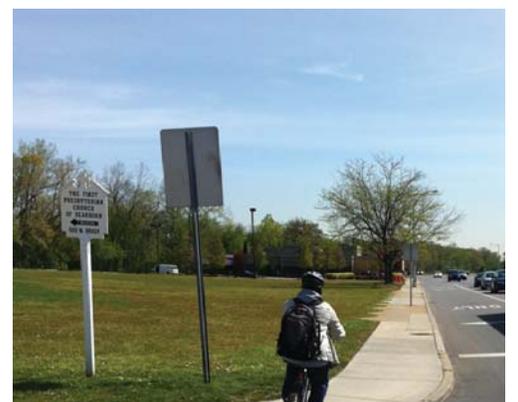
The largest category within LEED-ND, in terms of points, is Neighborhood Pattern & Design (NPD). This credit category emphasizes the creation of compact, walkable, vibrant, mixed use neighborhoods with connections to nearby assets. These attributes are vital to creating a sustainable neighborhood by using infrastructure and land more efficiently, therefore reducing driving while promoting local businesses. West Dearborn Downtown has many of these assets already in place and its street system meets many of the requirements that are fundamental to creating walkable and bikable streets, namely high levels of connectivity due to short block lengths, and neighborhood streets that are designed for motor vehicles to travel at speeds of 25 mph or less. The presence of these fundamental assets allows the City to focus policy and development efforts on other standards for improving walking and biking in the area.

In an effort to help the City achieve the walkable and bikable west downtown environment that will drive economic development by attracting and retaining local business, creating a safe pedestrian environment, and improving public health by encouraging daily physical activity, the Global Green team identified a set of short term and long term recommendations. These recommendations are derived from the standards required for achieving the NPD Walkable Streets prerequisite and credits, as well as the credit focused on bicycle network and storage standards within the Smart Location & Linkages category. The main barrier that needs to be addressed is the hostile pedestrian environment. The lack of on-street parking and high speed traffic on Michigan Avenue impacts pedestrian safety, retail viability, and the orientation of commercial buildings. The Global Green team sees Michigan Avenue as an essential component to creating a walkable downtown; the focus for bikability in West

Dearborn Downtown is mainly on infrastructure and on connecting the regional greenway system with the existing network of slow moving streets.



Example of existing commercial business oriented to W. Village Drive with locked or non-existent entries on Michigan Avenue



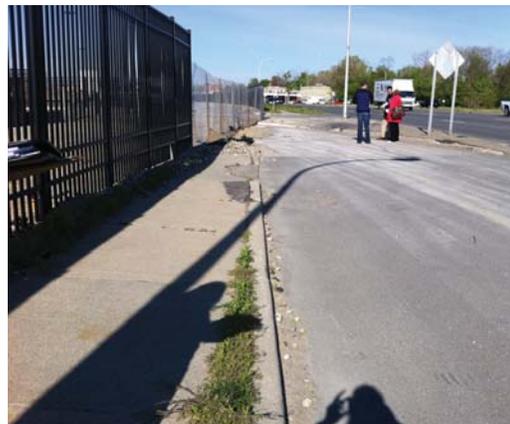
Cyclist heading East on Michigan Avenue toward the regional Rouge River Gateway Trail

# Walking and Cycling in West Downtown

## Recommendations:

### Short Term Walkability

1. Create designated non-rush hour times for on-street parking on Michigan Avenue in the core commercial areas of west downtown between Military Avenue and Elm Street.
2. Eliminate right turn lane onto Michigan Avenue from the station and continue the sidewalk and planting strip west to the main entry of the station along Michigan Avenue.
3. Tree plantings should be large enough to provide symmetry with plantings on the north side of Michigan Avenue and to provide a buffer for pedestrians from the traffic on Michigan Avenue.



Existing sidewalk condition adjacent to the right turn lane from the planned train station

### Long Term Walkability

4. Create permanent on-street parking along Michigan Avenue between Military Avenue and Elm Street through negotiations with MDOT.
5. Where sidewalks along Michigan Avenue between South Military Avenue and Elm Street are less than 8 feet wide, they should be widened per the standards for retail or mixed-use blocks listed in the chart on page 9. Tree lawn or tree well sizing, along with tree specimens, should be similar to the picture below (a composite of different conditions along Michigan Avenue) so as to provide a natural buffer between travel lane and the pedestrian realm.



Composite of desirable urban design elements along Michigan Avenue

# Walking and Cycling in West Downtown

## Short Term Bikability

1. As part of the Non-Motorized Transportation Plan (NMTP), create a bicycle network map identifying all existing and planned bike networks using standard bike classifications, whereby east-west streets parallel to Michigan Avenue and north-south streets are designated either Class II or Class III.
2. Add necessary signage and striping to newly designated Class II and Class III routes and add to the zoning code a bike parking requirement per the chart on page 9.



Existing bike lane signage at the Rouge River Gateway Trail

## Long Term Bikability

3. Develop a bike share program with drop/pick up stations at strategic locations in and around the downtown core, the train station, and the University of Michigan-Dearborn and Henry Ford Community College campuses.

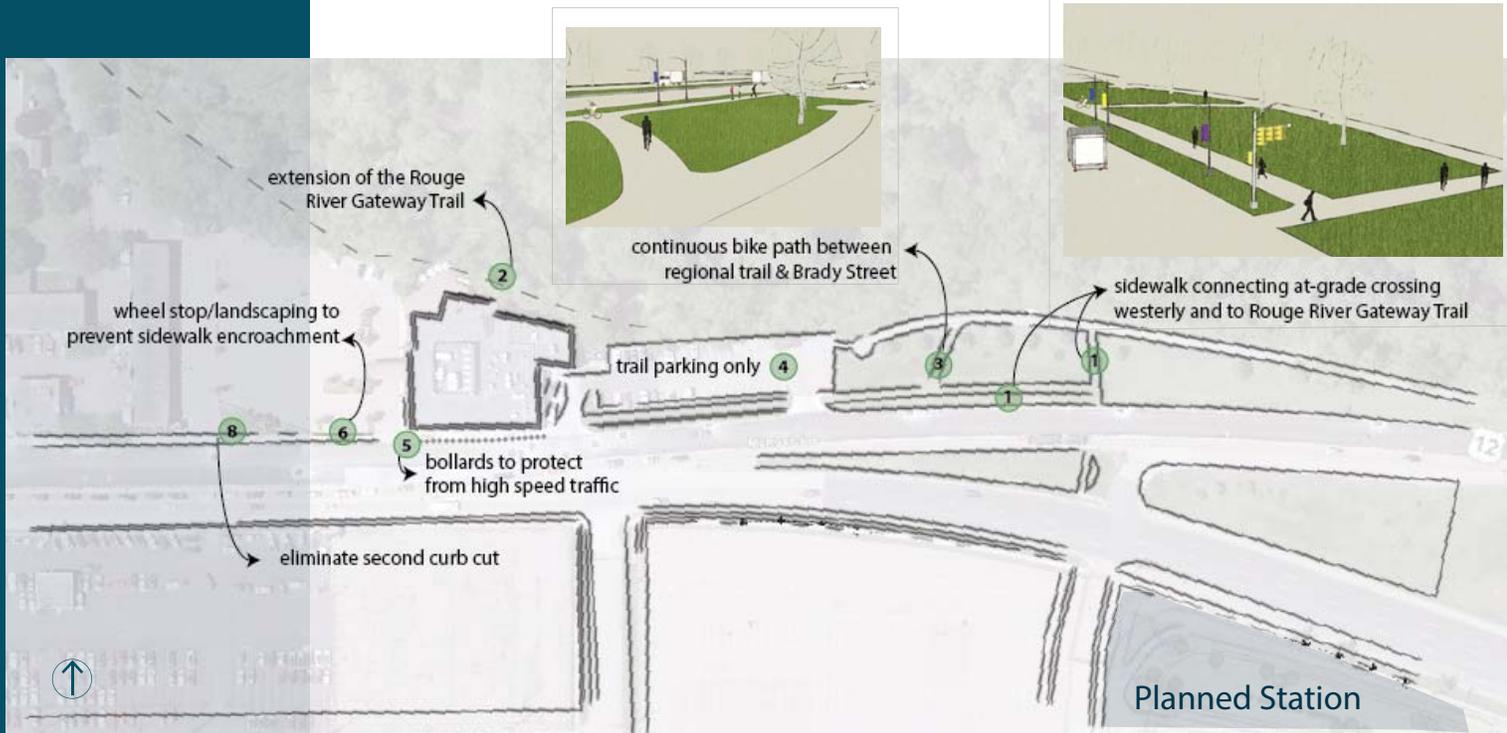


Source: c1ecolocalizer.com

# Walking and Cycling in West Downtown

## Rouge River Gateway Trail & Station Connection

1. Install a sidewalk on the north side of Michigan Avenue from the station's at-grade crossing heading westerly and connecting to the existing Rouge River Gateway Trail per the rendering below. This will connect transit riders to the existing sidewalks north of Michigan Avenue.
2. Redesign the bike path connection between the regional trail head and Brady Street, behind Andiamo Restaurant per the Rouge River Gateway Trail Master Plan (2001).
3. If funding is not granted for the proposed Rouge River Gateway Trail Extension Project behind Andiamo Restaurant, add a path across the existing lawn to connect cyclists to the proposed sidewalk in recommendation 1 per the rendering below. This will create a continuous and safe bike route between the regional trail and Brady Street.
4. Prevent patrons of Andiamo from using the surface parking lot adjacent to the trail head in order to reduce the number of vehicular conflicts with bikes and pedestrians.
5. Install bollards along Michigan Avenue adjacent to Andiamo to protect pedestrians and cyclists from high speed traffic per the street section rendering below.
6. Prevent vehicular encroachment from the Andiamo parking lot onto the sidewalk through landscaping, or wheel stops. This will ensure pedestrians and cyclists full use of the public ROW per the rendering below.
7. Install transit shelters per the chart on page 9 at strategic locations in and around the downtown core, the train station, and the University of Michigan-Dearborn and Henry Ford Community College campuses.
8. Eliminate the western-most curb cut from the Andiamo parking lot. This will limit the number of potential pedestrian, cyclist, and vehicular conflicts on the sidewalk between the trail head and Brady Street.



# Walking and Cycling in West Downtown

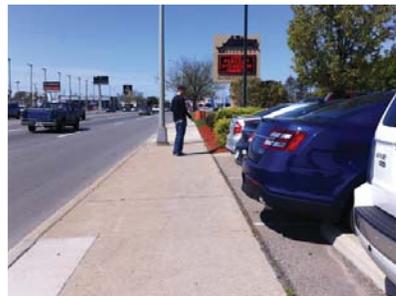
## Existing



Existing condition south of surface parking lot adjacent to Andiamo Restaurant



Existing sidewalk condition between Michigan Avenue and Andiamo Restaurant

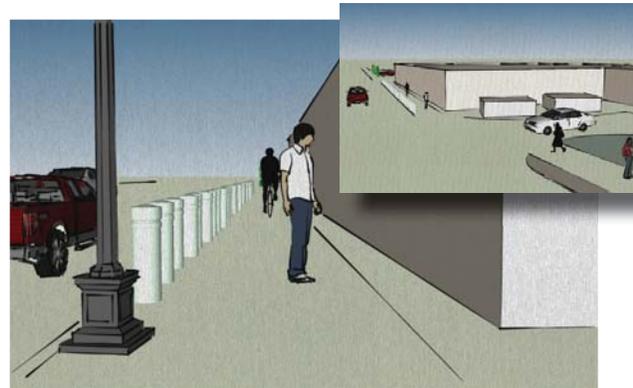


Existing vehicular encroachment onto sidewalk between Michigan Avenue and Andiamo parking lot

## Proposed



1 Recommended sidewalk connecting pedestrians from station to north side of Michigan Avenue and west to Brady Street



5 Recommended bollards between Michigan Avenue and Andiamo Restaurant



6 Recommended landscaping or wheel stops to protect pedestrians from vehicle encroachment onto the sidewalk adjacent to Andiamo parking lot

# Walking and Cycling in West Downtown

## RECOMMENDED PERFORMANCE METRICS\*

|            | SIDEWALK  | BIKE LANES  | BIKE PARKING  |
|------------|---|---|---|
| DIMENSIONS | 8 feet on retail or mixed-use blocks<br>4 feet on all other blocks (widths are inclusive of planter strips)                               | Striped 5 feet (on street lanes or one way path or trail), or 8 feet (off-street two-way path or trail) | N/A   |
| STANDARDS  | Sum of recycled content equals 50% or more of the total mass used for new sidewalks<br><br>High albedo reflective material                | Designate streets with a design speed of 25 mph or slower as part of the bike network                   | <i>Multiunit Residential:</i> 1 enclosed storage space per occupant for 30% of planned occupancy. <i>Visitor:</i> 1 space per 10 du.<br><br><i>Retail:</i> 1 enclosed storage space per new retail worker for 10% of retail worker planned occupancy. <i>Visitor/Customer:</i> 1 space per 5,000 sf.<br><br><i>Nonresidential other than retail:</i> 1 enclosed storage space per new occupant for 10% of planned occupancy. <i>Visitor:</i> 1 space per 10,000 sf. of new commercial non-retail space.<br><br><i>Shower &amp; Changing Facility:</i> Provide one on-site shower and changing facility for developments with 100 or more new workers and at least 1 additional shower for every 150 new workers thereafter. |
|            | TRANSIT SHELTERS  | STREET LIGHTING   | STREET TREES  |
| DIMENSIONS | N/A   | N/A   | Intervals averaging 40 feet on center (excluding driveways and utility vaults)  |
| STANDARDS  | Covered shelter, with lighting and seating<br><br>Trash receptacles (including recycling)<br><br>Bulletin for posting transit information | 15% annual energy reduction below conventional infrastructure items<br><br>**Outlet for event lighting  | Noninvasive species, soil volume, root medium and well width  |

Planned Occupancy: minimum planned occupancy for multiunit residential buildings is 1 person for a studio unit, 1.5 persons for a 1 bedroom unit, and 1.25 persons per bedroom for a 2 bedroom or larger unit (LEED-ND Reference Guide; pg 471)

\* Dearborn is working towards applying these standards on new developments

\*\* Recommended but not a LEED-ND standard

# Recommendation 2

RESPONSIBLE  
DEPARTMENT  
Economic Development  
with support from Planning  
Department

## Prioritize Transit-Supporting Infill Housing

One of West Dearborn Downtown's strongest features is its mix of housing types, ranging from single family homes and rowhouses to medium and high density apartment buildings. This mix supports a range of household sizes, income levels, and age groups, helping to create both a stable and diverse community. However, per LEED-ND metrics in the key areas of jobs-housing balance, transit-supporting population density and mixed-use neighborhood centers, the area could benefit from a larger residential population and support more housing developments.

There are several potential development sites in West Dearborn Downtown (see map on next page). Given the number of vacant retail and commercial spaces in the area, it appears that further emphasis on non-residential development is not warranted. Instead, the city should promote housing development on these sites, particularly given the expected large increase in the resident student population at the nearby University of Michigan Dearborn campus. This population will have significantly lower car ownership rates than the other downtown residents and have significant social connections in both Detroit and Ann Arbor. These attributes are likely to promote overall transit ridership, support more basic neighborhood services, and create the densities necessary to attract the bike sharing system discussed in other recommendations.

While student housing could be a method of increasing residential density in West Dearborn Downtown, creating a true and successful transit oriented development around the new train station over the long-term is likely to require some reuse of the adjacent Powertrain Operations Engine Engineering (POEE) site and building. POEE is the type of large iconic building that lends itself well

to adaptive reuse of at least part of the building, and could support the introduction of a significant number of new residents and/or jobs into West Dearborn Downtown.



Existing multifamily housing along Michigan Avenue



Existing townhouses south of Michigan Avenue

# Prioritize Transit-Supporting Infill Housing

## Recommendations:

1. The City of Dearborn's Economic and Community Development Department and the West Dearborn Downtown Development Authority should, in collaboration with the University of Michigan-Dearborn, market opportunities in the area to developers specializing in student housing. Major developers of this type of housing include American Campus Communities, Campus Apartments, Campus Crest Communities, Capstone Companies, Education Realty, Greystar, Opus Development, and Trammell Crowe.
2. Discussions should begin with Ford Land about its long-term plans for the POEE site. As the ridership from the new transit station increases, the POEE site should be actively explored for housing and commercial development opportunities so as to enhance and enlarge the TOD district.

### Potential Housing Development Sites



# Recommendation 3

RESPONSIBLE  
DEPARTMENT  
Planning  
Department

## Extending Downtown to the Station

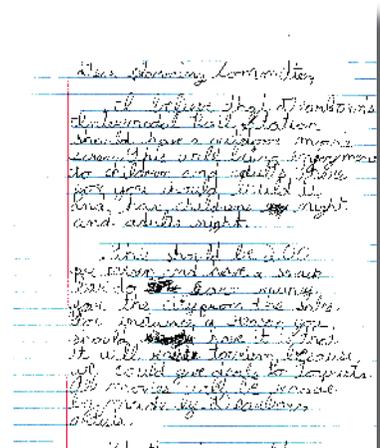
Successful transit oriented developments are often the outcome of an overarching visioning and planning process where surrounding land uses and physical improvements are identified in order to transform the way the area is experienced and used. This experience and the right mix of uses are crucial in creating a culture that supports transit use, local businesses and neighborhood vitality. In this visioning and planning process, LEED-ND metrics can be used to articulate specific density requirements, urban design standards, street connectivity, and access to surrounding amenities. However without first articulating an overarching community vision, the application of LEED-ND standards can be a technocratic process with sterile results, thus reducing their overall effectiveness in building a sustainable place.

The Global Green team recommends a combination of short and long term measures that enable this community vision to be established and realized. In the short-term, strategic investments on a parcel-by-parcel basis can create a positive first impression when arriving via train to the west downtown area while ensuring that the flexibility to implement more comprehensive changes is maintained. Making these short-term investments will allow the City to engage with the community about creating a longer-term vision for extending and connecting west downtown to the new station. As an example of community engagement, the outreach effort in conjunction with the Sustainable Neighborhood Assessment project resulted in a well - attended community workshop, interested

stakeholder participants, and ideas from third through fifth graders at DuVall Elementary on what uses should surround the train station. With this willingness to participate, engaging the community in a larger visioning process will lead to the future sustainable growth of the neighborhood. Ideally this process should result in a Master Plan, adopted by the City into their Comprehensive Plan, that will documents the community vision, using LEED-ND standards, where appropriate, to create an experience that is unique to West Dearborn Downtown.



Sustainable Neighborhood Assessment Community Meeting April 26, 2012



Letter from a student in DuVall Elementary's Community Service and Leadership Club

# Extending Downtown to the Station

## Recommendations:

### Short Term

1. Program interim uses for Lot 16. Engage local residents and students by soliciting ideas for how to program the space, potentially using social media tools. Examples include: summer outdoor movie nights, a mobile food court, a community performance space, winter holiday skating rink, pop-up café, etc. These and other ideas could be implemented on a revolving basis as a way to engage more members of the community.
2. Implement a gateway branding and way finding strategy that links the new train station to the core area of west downtown and to the Rouge River Gateway Trail head.



Existing condition of Lot 16

### Long Term

3. Develop a West Dearborn TOD Master Plan that integrates the community visioning outcomes. The Master Plan should emphasize LEED-ND credits related to walkability and the pedestrian experience, addressing the importance of scale, comfort-level, and interest along the route between the station and the Downtown. The Master Plan should also address: parking districts; design standards; and desirable land uses adjacent to the station including multi-use spaces to accommodate district stormwater, farmer's markets, or other impromptu gathering spaces. Additionally, the Plan should study the viability of establishing additional access routes between the train station and downtown, such as Newman Avenue. It is recommended that an outside consultant lead this effort. Finally, a more refined level of detail may be needed to implement the LEED-ND standards captured broadly within the Master Plan. One option is to implement a series of appropriate form-based zoning districts in place of the existing downtown zoning which can then codify LEED-ND metrics for street design, building facade design, walkability, civic places, and even green building and infrastructure standards.
4. Once the boundaries of the new West Dearborn TOD Master Plan are established, the city should explore the viability of modifying the boundary of the existing West Dearborn Downtown Development Authority so that it is aligned with the new Master Plan area.

# Recommendation 4

## RESPONSIBLE DEPARTMENT

Economic & Community Development,  
Residential Services,  
and City Engineer for Stormwater

## Making a Green Place

Efforts to turn the new train station into a catalyst for future sustainable development in West Dearborn Downtown will be enhanced by deliberate moves to identify the area as a “green” place, one that is distinct from other areas in the city due to its strong emphasis on natural resource conservation. While short-term efforts in the area of wayfinding and signage outlined in an earlier recommendation can help imprint some unique qualities to the place, LEED-ND offers a number of measures that can enhance existing green assets and ensure that future development will burnish the area’s green credentials.

West Dearborn Downtown’s most visible green asset is the Rouge River. Over the past decade, tremendous strides have been made in cleaning up and restoring the portion of the river that runs near West Dearborn Downtown, largely through the creation of a separate stormwater sewer system that reduces the risk of wastewater overflows during storm events. However, the quality of runoff now being deposited into the river via the stormwater sewer has not been addressed by the design of this new stormwater sewer system; pollutants carried by urban runoff could pose a long-term threat to further river clean-up efforts, particularly if West Dearborn Downtown experiences a substantial amount of new development.

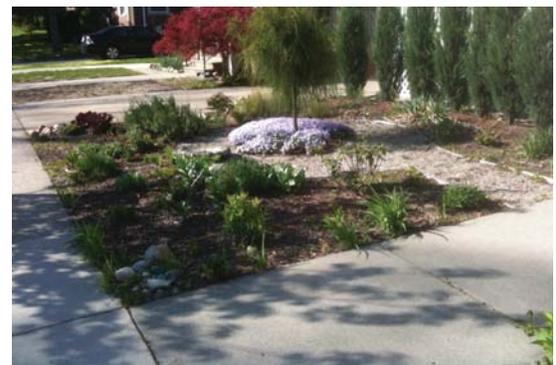
Meanwhile the neighborhood has a healthy mix of newer and older buildings, some of which have been painstakingly renovated. This mix suggests that any neighborhood transformation based on the values of resource conservation should include measures that support the upgrade of existing buildings while simultaneously pushing new buildings to be high performers in the areas of energy efficiency and water conservation.



Existing green destination operated by the University of Michigan -Dearborn



The Rouge River



Existing residential water efficient landscape

## Recommendations:

1. Future stormwater infrastructure projects and building code changes should move towards improving water quality in the Rouge River by emulating natural hydrologic conditions, principally through the establishment of LEED-ND based performance standards for on-site water retention, infiltration, and reuse.
2. Establish an energy code for West Dearborn Downtown of 10% better than ASHRAE 90.1-2007 for commercial buildings and IECC 2009 for residential buildings. Establishing this code in a limited area will allow West Downtown to be seen as a leader in energy efficiency and be a study area for possible city-wide adoption of higher code minimums for energy efficiency.
3. Require that indoor plumbing fixtures meet EPA WaterSense™ performance requirements for all applicable installations in new buildings and existing buildings undergoing plumbing renovations that require a permit.
4. Conduct a feasibility study for a West Dearborn Downtown district energy system, possibly in conjunction with the nearby Ford Engineering site, which has a high energy load, or as part of the specific plan update recommended elsewhere in this report.

## TO ESTABLISH PERFORMANCE STANDARDS FOR STORMWATER INFILTRATION AND REUSE

- Determine total developed area (in square feet) within the assessment boundary (include areas that are graded so as to be effectively impervious, and pollution generating pervious surfaces receiving treatment of fertilizers or pesticides).
- Obtain local precipitation data to calculate the amounts of precipitation per rainfall event over a 20-to-40 year + period.
- Determine the volume to be retained by ranking rainfall data and using Excel percentile function to calculate the percentile rainfall event at 80%, or higher (up to 95%- based on what is feasible).
- Multiply the development area (in square feet) by the inches of rainfall (converted to cubic feet).

# Sustainability Assessment

## Checklist

The Project Assessment Checklist below is an annotated LEED-ND checklist created by Global Green. It is a key component of the tool used to document and compare the assessment area against the LEED-ND prerequisites and credits. Each credit within the three credit categories (Smart Location & Linkage, Neighborhood Pattern & Design, and Green Infrastructure & Building) is marked as “achieved,” “not achieved,” “unknown,” or “not applicable” under baseline conditions. Additional analysis has been done based on local planning policy, regulatory support, technical feasibility, market support and stakeholder input. The preliminary checklist analysis was edited and augmented during our site visit, stakeholder meetings, and the community workshop. This information was then translated into an overall assessment of sustainable neighborhood performance.

### LEED for Neighborhood Development: Project Assessment Checklist WEST DEARBORN DOWNTOWN, MICHIGAN

|                                      |
|--------------------------------------|
| Baseline Conditions                  |
| Local/Regional Planning Priority     |
| Regulatory Support                   |
| Technical feasibility                |
| Market Support                       |
| Neighborhood Need/ Stakeholder Input |

| Legend |  |
|--------|--|
| ✓      | Achieved   |
| ?      | Unknown  |
| ✗      | Not Achieved                                     |
| —      | Does not exist/ NA                               |
| Green  | Explicit support/ no technical issues            |
| Yellow | Lack of explicit support/ minor technical issues |
| Red    | Opposition/ significant technical issues         |

#### Smart Location and Linkage

|   |   |
|---|---|
| ✓ | P 1 Smart Location  |
| ✓ | P 2 Imperiled Species and Ecological Communities                              |
| ✓ | P 3 Wetland and Water Body Conservation                                       |
| ✓ | P 4 Agricultural Land Conservation  |
| ✓ | P 5 Floodplain Avoidance  |
| ✓ | C 1 Preferred Locations   |
| ✓ | C 2 Brownfield Redevelopment  |
| ✓ | C 3 Locations with Reduced Automobile Dependence                              |
| ✓ | C 4 Bicycle Network   |
| ✗ | C 4 Bicycle Storage   |
| ✗ | C 5 Housing and Jobs Proximity  |
| ✓ | C 6 Steep Slope Protection  |
| ✓ | C 7 Site Design for Habitat or Wetland and Water Body Conservation            |
| ✓ | C 8 Restoration of Habitat or Wetlands and Water Bodies                       |
| ✗ | C 9 Long-Term Conservation Management of Habitat or Wetlands and Water Bodies |



# Sustainability Assessment

## Checklist

### LEED for Neighborhood Development: Project Assessment Checklist WEST DEARBORN DOWNTOWN, MICHIGAN

|                     |                                  |                    |                       |                |                                      |
|---------------------|----------------------------------|--------------------|-----------------------|----------------|--------------------------------------|
| Baseline Conditions | Local/Regional Planning Priority | Regulatory Support | Technical feasibility | Market Support | Neighborhood Need/ Stakeholder Input |
|---------------------|----------------------------------|--------------------|-----------------------|----------------|--------------------------------------|

| Legend |  |
|--------|--|
| ✓      | Achieved   |
| ?      | Unknown  |
| X      | Not Achieved                                     |
| -      | Does not exist/ NA                               |
| Green  | Explicit support/ no technical issues            |
| Yellow | Lack of explicit support/ minor technical issues |
| Red    | Opposition/ significant technical issues         |

#### Green Infrastructure and Buildings

|   |        |        |        |        |        |   |
|---|--------|--------|--------|--------|--------|---|
| ✓ | Green  | Green  | Green  | Green  | Green  | P 1 Certified Green Building                              |
| X | Yellow | Yellow | Green  | Yellow | Green  | P 2 Minimum Building Energy Efficiency                    |
| X | Yellow | Yellow | Green  | Yellow | Green  | P 3 Minimum Building Water Efficiency                     |
| ✓ | Yellow | Green  | Green  | Green  | Green  | P 4 Construction Activity Pollution Prevention            |
| ✓ | Yellow | Yellow | Green  | Yellow | Green  | C 1 Certified Green Buildings                             |
| X | Yellow | Yellow | Green  | Yellow | Green  | C 2 Building Energy Efficiency                            |
| X | Yellow | Yellow | Green  | Yellow | Green  | C 3 Building Water Efficiency                             |
| ✓ | Green  | Green  | Green  | Grey   | Grey   | C 4 Water-Efficient Landscaping                           |
| ✓ | Green  | Green  | Green  | Green  | Green  | C 5 Existing Building Use                                 |
| ✓ | Green  | Green  | Green  | Green  | Green  | C 6 Historic Resource Preservation and Adaptive Reuse     |
| ✓ | Green  | Green  | Green  | Green  | Green  | C 7 Minimized Site Disturbance in Design and Construction |
| X | Yellow | Green  | Yellow | Yellow | Green  | C 8 Stormwater Management                                 |
| X | Yellow | Yellow | Green  | Yellow | Green  | C 9 Heat Island Reduction                                 |
| ✓ | Grey   | Grey   | Green  | Grey   | Grey   | C 10 Solar Orientation                                    |
| X | Yellow | Yellow | Green  | Yellow | Yellow | C 11 On-Site Renewable Energy Sources                     |
| X | Yellow | Yellow | Green  | Green  | Grey   | C 12 District Heating and Cooling                         |
| X | Yellow | Yellow | Yellow | Yellow | Grey   | C 13 Infrastructure Energy Efficiency                     |
| X | Yellow | Yellow | Yellow | Yellow | Yellow | C 14 Wastewater Management                                |
| X | Yellow | Yellow | Green  | Grey   | Yellow | C 15 Recycled Content in Infrastructure                   |
| X | Yellow | Yellow | Green  | Yellow | Yellow | C 16 Solid Waste Management Infrastructure                |
| ✓ | Green  | Green  | Yellow | Yellow | Green  | C 17 Light Pollution Reduction                            |

Dearborn, Michigan

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4/25/2012

# Sustainability Assessment

## Summary

Based on in-field assessment, planning document review, various stakeholder meetings, and the community workshop, the Global Green team estimated which LEED-ND credits were “Very Likely,” “Possible with Effort,” or “Unlikely” to be achieved, considering existing conditions, technical feasibility, policy readiness, financial burden, and applicability to neighborhood conditions. The bar graph summary identified the overall level of sustainable neighborhood performance for the West Dearborn Downtown. In all three of the LEED-ND credit categories the majority of the credits fall into the “Very Likely” category, which affirms the teams perception that the area has many already existing attributes of sustainability. Of the remaining credits, nearly all fall in the “Possible with Effort” category, which shows the large potential for improving the neighborhood’s level of sustainability specifically by pursuing the high-priority recommendations described in this report.

### Smart Location and Linkages



### Neighborhood Pattern and Design



### Green Infrastructure and Building



Legend

- “Very Likely”
- “Possible with Effort”
- “Unlikely”

The summary table below shows the numeric values extrapolated from the percentage of credits identified as “Very Likely” above. While these number values do not correlate exactly to specific LEED-ND points, they provide a broad estimate of the neighborhood’s potential level of future achievement. It should be noted that this is a rough measure of performance, and not an exact representation of the project’s level of certification if it was to pursue full certification under the rating system.

### Point Requirements for LEED-ND Certification

|                   |              |
|-------------------|--------------|
| <b>Certified:</b> | <b>40-49</b> |
| <b>Silver:</b>    | <b>50-59</b> |
| <b>Gold:</b>      | <b>60-79</b> |
| <b>Platinum:</b>  | <b>80+</b>   |

## West Dearborn Downtown, MI

### LEED for Neighborhood Development

|                                   | Total      | Achievable |
|-----------------------------------|------------|------------|
| Smart Location and Linkage        | 27         | 14         |
| Neighborhood Pattern and Design   | 44         | 23         |
| Green Building and Infrastructure | 29         | 13         |
|                                   | <u>100</u> | <u>49</u>  |

# Workshop Notes

## DEARBORN

### GROUP 1:

- SHUTTLE BUS FROM GREENFIELD VILLAGE
- EVENT TRAIN
- HISTORICAL TOUR - WALKING
- EAST & WEST TOGETHER
- ENOUGH BARS/MORE MERCHANTS
- PAID PARKING <sup>LEAVE</sup>?
- STUDENT HOUSING
- WELCOME SIGN/CENTER
- HENRY FORD MANSION RENO
- PUBLIC RESTROOMS
- CANTEEN FORD FIELD
- RIVER WALK
- LIKE GREEN SPACE @ BRADLY & 12
  - ↳ SOME SPACE TO RELAX THERE
- CLOTHING STORES
- COFFEE / ICE CREAM
- AQUARIUM @ BOT BTWN P-DECKS ... SOME EVENT ATTRACTION
- WELCOMING SIGNAGE

### GROUP 3: UNIVERSITY

- CONNECTION BTW CAMPUSES
- IMPROVED PATHS / BUSES
- CONNECTION TO W. DEARBORN
- HOW TO CATER
  - LAKE TRAILS
  - LIKE THE OPEN SPACE OR MARKET @ BRADLY & 12
- FAIRLANE MALL: HOURS OF OP.
- E. SIDE OF EVERGREEN IS HARD TO CROSS - NO BUS STOP
- EMPTY STORES - NO BANKS
- STUDENT SAFETY → BIKES ON TRAIN

### GROUP 2: CONNECTIONS

- E. & W. OF BRADLY ON 12 IS AN IMPEDEMENT
- CUTHROUGH TRAFFIC IS AN ISSUE
- DEBRIS ON SIDEWALKS
- MAINTENANCE PLAN W/ RDD - WHATS <sup>3rd</sup>?
- BIKE BLVDs. / GREENWAYS W/ TRAFFIC CALMING
  - ON GARRISON & NEWMAN
  - GREEN ALLEYS
- TAP INTO NAT'L BIKEWAYS
- BIKES ON TRAINS
- SECURITY ISSUES @ NIGHT
  - ↳ LIGHTING, POLICE ON BIKE & ON TRAILS
- COORDINATING W/ FORD LAND ON VILLAGE RD.
- BIKE FACILITIES (LOCKS)
  - ↳ WHO OWNS

### ~~GROUP 4~~ GROUP 4: GREEN BLDG

- VEHICLE CHARGING STATION
- CANOPY
- GREEN STATION
- HIGHLIGHT HISTORIC
- TAX & OTHER INCENTIVES FOR GREEN BLDG.
- WAGNER BLDG RETAIL
- MORE POCKET PARKS
- EXPAND PUBLIC ART
- BIKE RACKS OUT OF PED WAY
- BIKE SHARING
- PROMOTE USE OF RIVER
  - EATING ON RIVER
- SAFETY CROSSING @ 12
- GREEN GROCER @ FAIRWAYS
- TROLLEY SYSTEM (HYDRO ELECTRIC)
- STORMWATER AS AN ASSET
- MICHIGAN AVE. = PED. FRIENDLY

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