Form-based Coding

Rail~Volution
Wednesday, November 8, 2006
Farr Associates
Designing Sustainable Human Environments

Architecture
Planning
Preservation
Why Form-Based Codes?
Why a Form-Based Code?
Result of Conventional Practices
Why a Form-Based Code?

Result of Conventional Practices

Aerial images by Jim Wark from
A Field Guide to Sprawl

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Why a Form-Based Code?

Result of Conventional Codes
Why a Form-Based Code?
Conventional Codes Often Ignore Community Character
Why a Form-Based Code?

Conventional Codes Often Restrict Mix of Uses
Conventional Zoning Codes
Band Aid Approach 1: Planned Unit Developments

- “Grand Variance”
- Resulting plans only as good as the players involved
- Over used & applied to inappropriate projects
- Labor intensive
- “Plan Until Death” or “Please U Developer”
Conventional Zoning Codes

Band Aid Approach 2: Design Guidelines

- Cornices cap the building
- Recessed vertical double-hung windows allow for ventilation in warmer weather
- Horizontally repeated sill define the base of the window
- Expression lines break down the mass of a building so that it relates more to a human scale
- Transom windows bring light into the rear of a store
- Storefront windows allow merchants to display their wares
- Pilasters, piers or columns also break down the building mass
- Recessed entrance protects visitors from the elements or passersby
- Base Panels protect a building at the base of the storefront under the windows
- Bases define the bottom of the pilaster, pier, or column
Conventional Zoning Codes

Band Aid Approach 2: Design Guidelines
Form-Based Codes
As a Tool for Creating More Sustainable Communities
Form-Based Codes Can...
Create More Sustainable Communities

1. By Providing a Regional Map for Growth

2. By Creating Complete Neighborhoods
   - Types of Open Space
   - Neighborhood Civic & Retail Districts
   - Multiple Housing Types

3. By Allowing Transportation Choices

4. By Preserving Community Character

5. By Respecting & Mapping the Natural Environment
Form-based Codes Can...
Create More Sustainable Communities
By Providing a Regional Map for Growth
Form-based Codes Can...
Create More Sustainable Communities
By Creating Complete Neighborhoods

Clarence Perry’s 1926 Neighborhood Plan
Form-based Codes Can... Create More Sustainable Communities By Creating Complete Neighborhoods

Historic Neighborhood Retail District

Neighborhood Retail (New Construction)

Smaller Scale Retail District

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Form-based Codes Can...
Create More Sustainable Communities
By Creating Complete Neighborhoods

Mix of Housing Types
Form-based Codes Can...
Create More Sustainable Communities
By Ensuring Walkable Neighborhoods

Perry Neighborhood Unit

CZ 4 General Urban
Form-based Codes Can...
Create More Sustainable Communities
By Ensuring Walkable Neighborhoods

Los Angeles, California
Savannah, Georgia

Source: Great Streets by Allan B. Jacobs
Form-based Codes Can...
Create More Sustainable Communities
By Ensuring Walkable Neighborhoods
Form-based Codes Can...
Create More Sustainable Communities
Respecting the Natural Environment
Form-based Codes Can...
Create More Sustainable Communities
By Preserving Local Character
Form-Based Codes
Comparison with Conventional Zoning
Conventional Zoning

• Mapped **GENERALLY** (by area)

Form-Based Zoning

• Mapped **SPECIFICALLY** (by parcel)
Conventional Zoning

• Ignores Street Types

Form-Based Zoning

• Maps Street Types & Bases Building Types on Street Types
Conventional Zoning

• Maps Large Scale Regional Open Space

Form-Based Zoning

• Maps Series of Scales & Types of Open Space
Conventional Zoning

- Based on GENERIC SUBURBAN forms:

Form-Based Zoning

- Based on EXISTING REGIONAL forms:
Conventional Zoning

• Prioritizes USE over form:

Form-Based Zoning

• Prioritizes FORM over use:
Conventional Zoning

- TEXT with some graphics

Form-Based Zoning

- GRAPHICS with text
Form-Based Codes

Elements
Form-Based Code Elements

Building Types
4.03. Pocket Park. (Refer to Figure 4.03-1)

4.03.01. Intent. To provide primarily passive recreation and gathering space for neighborhood residents within walking distance.

4.03.02. Applicability. Pocket Parks may be developed wherever Neighborhood Open Space uses are permitted.

4.03.03 Description. Refer to Figure 4.03-1 for two typical layouts of pocket parks.

A. Location. Pocket Parks can be found adjacent to residential or commercial development.

B. Definition. Pocket Parks are located within a developable block and are defined by right-of-way on at least one side. It is recommended that Pocket Parks be located on the end of a block (corner parcel).

C. Landscaping. Pocket Parks contain both paved areas such as paths, fountains, gazebos, street furniture; and landscaping, including lawn, planters and trees.

D. Designated Sports Fields. Playground equipment may be installed but designated sports fields are not permitted.

E. Fully Enclosed Structures. Fully enclosed structures are not permitted.

F. Impervious Coverage. Maximum impervious coverage is 30%; an additional 10% may be semi-pervious.

G. Size. A maximum of a quarter (¼) of an acre.
# Form-Based Code Elements

## Street Types

<table>
<thead>
<tr>
<th>Vehicular Realm</th>
<th>Avenue Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location</strong></td>
<td>Permitted adjacent to the following districts: Outer Neighborhoods (C2, E1, N4-6, NC1, OS1, OS2, OS3, OS5) Industrial Districts (11-13) Rural/Preserve Districts (A1, OS3, OS4)</td>
</tr>
<tr>
<td><strong>Typical Right-of-Way Width</strong></td>
<td>80 feet or 100 feet with median</td>
</tr>
<tr>
<td><strong>Travel Lanes</strong></td>
<td>2 lanes in each direction</td>
</tr>
<tr>
<td><strong>Lane Width</strong></td>
<td>minimum 10 feet; maximum 12 feet (14 feet for shared bicycle lane)</td>
</tr>
<tr>
<td><strong>Allowable Turn Lanes</strong></td>
<td>left only with median; right permitted in place of parking at intersections</td>
</tr>
<tr>
<td><strong>Parking Lanes</strong>&lt;sup&gt;1&lt;/sup&gt;</td>
<td>optional, both sides of street, parallel only</td>
</tr>
<tr>
<td><strong>Pavement Width</strong></td>
<td>minimum 40 feet; maximum 64 feet</td>
</tr>
<tr>
<td><strong>Curb</strong></td>
<td>optional</td>
</tr>
<tr>
<td><strong>Target Speed</strong></td>
<td>25-35 mph</td>
</tr>
<tr>
<td><strong>Permitted Median</strong></td>
<td>permitted, maximum 16' wide</td>
</tr>
<tr>
<td><strong>Bicycle Facilities</strong>&lt;sup&gt;2&lt;/sup&gt;</td>
<td>designated shared, or 5' wide designated lanes in each direction</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pedestrian Realm</th>
<th>Avenue Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pedestrian Facilities</strong></td>
<td>minimum 5' wide clear sidewalk on both sides</td>
</tr>
<tr>
<td><strong>Street Buffer</strong></td>
<td>minimum 5' wide parkway or minimum 5' wide furnishings zone</td>
</tr>
</tbody>
</table>

<sup>1</sup> Reference III.3.03.08 for on-street parking requirements.

<sup>2</sup> Reference III.3.03.06 for bicycle facility types and requirements.
Form-Based Code Elements

Regulating Plan
Form-Based Code Elements
Level of Design Standards
Form-Based Code

Ways to Adopt Form-Based Codes

1. Create a new zoning code for a municipality

2. Require the use of a template code for development on greenfield sites

3. Develop an overlay for sensitive portions of your municipality
Form-Based Code
Overlay
Chicago Zoning Reform
Early Midwest Form-based Coding

Chapter 17-3 | Business and Commercial Districts
17-3-004E | Pedestrian Streets

Pedestrian streets also radiate from the following six-center intersections:

<table>
<thead>
<tr>
<th>Intersection</th>
<th>East Street</th>
<th>South Street</th>
<th>Coordinates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lake Shore Dr</td>
<td>11000 E</td>
<td>0000 N</td>
<td>11000 E 11000 S</td>
</tr>
<tr>
<td>Michigan Ave</td>
<td>11000 E</td>
<td>0000 N</td>
<td>11000 E 11000 S</td>
</tr>
<tr>
<td>Randolph St</td>
<td>11000 E</td>
<td>0000 N</td>
<td>11000 E 11000 S</td>
</tr>
<tr>
<td>Grand Ave</td>
<td>11000 E</td>
<td>0000 N</td>
<td>11000 E 11000 S</td>
</tr>
<tr>
<td>Grant Park Dr</td>
<td>11000 E</td>
<td>0000 N</td>
<td>11000 E 11000 S</td>
</tr>
<tr>
<td>Columbus Dr</td>
<td>11000 E</td>
<td>0000 N</td>
<td>11000 E 11000 S</td>
</tr>
</tbody>
</table>

Printed: November 1, 2004

Chicago Zoning Ordinance
Page 2-14
Chicago Zoning Reform
Early Midwest Form-based Coding

Chapter 17 (3) Business and Commercial Districts
17-3-0500 Pedestrian Streets

17-3-0504 Standards

17-3-0504A Applicability
The standards of this section apply to all development on lots that abut the right-of-way of designated pedestrian streets unless otherwise expressly stated.

17-3-0504B Building Location
1. The entire building façade that faces a designated pedestrian street must abut the sidewalk at the location within 5 feet of the sidewalk.
2. These building location standards do not apply to permitted accesses, public plazas or parks, entries to through-block connections, or recessed entrances. Recessed entrances must meet the following standards:
   a) The entrance width may not exceed 12 feet or 5% of the building’s street-facing façade width;
   b) The entrance depth may not exceed the entrance width; and
   c) The entrance may not exceed 7 stories in height.

17-3-0504C Transparency
1. A minimum of 60% of the street-facing building façade between 4 feet and 10 feet in height must be comprised of clear, non-reflective windows that allow views of adjacent commercial space or product display areas. This standard applies to buildings, façades that face pedestrian streets.
2. The bottom of any windows or product display window used to satisfy this requirement may not be more than 4.5 feet above the adjacent sidewalk.

Chapter 17 (3) Business and Commercial Districts
17-3-0509 Pedestrian Streets

3. Product display windows used to satisfy these requirements must have a minimum height of 4 feet and be internally lighted.

Figure 17-3-0504D

17-3-0504D Doors and Entrances
1. On flat-abutting pedestrian streets, buildings must have a primary entrance door facing the pedestrian street. Entrances at building corners facing a pedestrian area may be used to satisfy this requirement.
2. Building entrances may include doors to individual shops or businesses, lobby entrances, entrance to pedestrian-oriented plazas or entries in a cluster of shops or businesses.

Figure 17-3-0504D

17-3-0504E Off-street Parking Requirements
No off-street parking is required for non-residential uses on flat-abutting pedestrian streets unless eachinside exceeds 10,000 square feet of gross floor area, in which case off-street parking must be provided for the floor areas in excess of 10,000 square feet. (See Sec. 17-3-0506E for off-street parking rules.)
Form-Based Codes
Normal, Illinois
Normal, Illinois
Downtown Redevelopment
Normal, Illinois
Downtown Redevelopment

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Normal, Illinois
Downtown Redevelopment

Children’s Museum
Multi-modal Facility
Normal, Illinois
Downtown Redevelopment
Normal, Illinois
Downtown Redevelopment

SITE-SPECIFIC GUIDELINES
Building B

Building B has street facades located on North Street, Northtown Street, Broadway Street, and the Roundabout. The following supplement the Town of Normal Development Design Guidelines.

Building Height
To provide a continuity for second the circle and a proper proportion for the space of the circle, the maximum building height is subject to the following: maximum building height as measured from the ground floor on the Roundabout is 50% of the Roundabout diameter. Minimum building height is a distance or minimum of 60' from the ground floor at the circle to the top of the parapet. (After General Guidelines require more than 60')

Building Height on Broadway Street is determined by the allowable height on the Roundabout. Because of simple obstructions from the Roundabout to Broadway, the allowable building height on the Broadway street floor is higher.

Upper-Floor Setbacks
Along street facades, the fourth through third floors must be set back at a maximum of 30% of the determined window depth.

Pavement and Landscapes
In addition to the existing requirements, the final design of streetscape shall be the responsibility of the architect and landscape architect. The intent of the guidelines is to encourage the development of the Roundabout as a continuous pedestrian connection along the third floor around the circle.

Build-To-Zone
For street facades except those with awnings, the first through third floors must be located within the build-to-zone, which is located not to five feet behind the property line.
Normal, Illinois
Downtown Redevelopment

A tower element is permitted for street facades located on the Circle. If a tower is desired, the following guidelines apply:

**Orientation**
Tower may be oriented to the left, center, or right side of a street facade located on the Circle, based on the vista from the radial street opposite the building. When no vista is prominent, tower may be oriented to left, center, or right.

**Dimensions**
Tower may be a maximum of 30 feet wide and 30 feet deep.

**Height**
Tower may be a maximum of two stories above roofline, but no more than eight stories tall. Tower may not be located below the third story of a building.

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Sample Building: View from Circle
Orientation of tower may be to left, center, or right, depending on the vista, refer to plan, above.

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Architecture | Planning | Preservation
Normal, Illinois
Downtown Redevelopment: Children’s Discovery Museum

Architect: Russell Francois

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Architecture | Planning | Preservation
Normal, Illinois
Downtown Redevelopment: Multimodal Transit Facility

Architect: Ratio, LLC

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Normal, Illinois
South Downtown Residential District
Normal, Illinois
South Downtown Residential District
Normal, Illinois
South Downtown Residential District
Regulating Plan

Four building types are proposed for the South Downtown Residential District in Normal. The location of Building Types A1 and A2 are interchangeable within the plan.

- **Building Type A1: Wide Townhouse**
  - Building Type A1 allows for a two- to three-story townhouse or rowhouse, with no more than 3 bedrooms per unit and a maximum three units attached. This building type is proposed for lots along Constitution Trail and is essentially interchangeable with Building Type A2, although A1 illustrates a wider, shallower unit, allowing parking to occur behind the building. Parking shall be accessed from a shared drive at the rear of the lot, with entrances from the side streets. Buildings and entrances shall face Constitution Trail, and each unit shall have a separate exterior door. Porches are required at a minimum elevation above finish grade.

- **Building Type A2: Townhouse w/Parking Under**
  - Building Type A2 allows for a two- to three-story townhouse or rowhouse that incorporates parking underneath each residence. The units are configured to stand side-by-side rather than stacked on top of each other, with no more than 3 bedrooms per unit. This type is similar to Building Type A1; however, this building type is narrow and deep on the lot, allowing a maximum of four units attached. Parking shall be accessed from shared driveway along the rear of the lot. Like Building Type A1, buildings and entrances shall face Constitution Trail. Each unit shall have a separate exterior door with a porch, raised above grade to provide privacy.

- **Building Type B: Multi-Unit Building**
  - Building Type B allows for an apartment building with multiple simplex and/or duplex units. Parking shall be located behind the apartments in surface parking lots or underneath the back portion of the building, to be accessed from the side streets or alleys. Buildings and entrances shall face the street, with a minimum of one entrance per 30’ of building frontage. A single entrance may serve multiple units. Front stoops are required, raised slightly above grade to create an entranceway.

- **Building Type C: “Big House” Building**
  - Building Type C allows for a two-story building with the option of an additional story below the roofline, accommodating several units, but designed to look like a large house. This building type is appropriate along Broadway and Verno, in keeping with the context of the residences to the south. Parking is located behind the residences or under the back portion of the building, and is accessed from the alleys. Minimum of one, maximum of two front building entrances shall face the street, with other entrances located within the side yards. Porches are required for all entrances for this housing type.
Normal, Illinois
South Downtown Residential District

Regulating Plan

Building Type A1: Wide Townhouse
Building Type A2: Townhouse with Parking Under Building
Building Type A3: One and Two-Family Dwelling

Building Type B: Multi-Unit Building

Building Type C: "Big House" Building

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Normal, Illinois
South Downtown Residential District

Building Type C
"Big House" Building

Building Type C, also referred to as a "Big House," designed to evolve a new tradition of the surrounding residential neighborhood. It includes a single-story, one-family dwelling, with a gabled roof and a pronounced, unifying presence in its environment. The building shall be a residence, containing no more than 300 square feet of living space. It shall have a minimum of 2,000 square feet of floor area and not exceed 2,500 square feet of floor area. It shall not be a duplex, triplex, or quadplex. The building shall be a non-stocked, non-commercial, single-family dwelling.

Parking Requirements
A parking space shall be provided for each dwelling unit and garage as required in Section 4 of the Standard Plan. A parking space shall be provided for each terrace as required in Section 5 of the Standard Plan. A parking space shall be provided for each garage as required in Section 6 of the Standard Plan.

Unit Configuration
Units shall be provided with a minimum of 240 square feet of living space. At least one bedroom shall be provided for each unit. Each unit shall have a kitchen, bathroom, and living area.

Height Requirements
The maximum height of the building shall be 20 feet. The building shall not exceed 24 feet in height at any point along the property line. The building shall not exceed 20 feet in height at any point along the property line.

Setbacks and Build to Line
The rear of the building shall be set back from the side yard line by a minimum of 10 feet. The building shall be set back from the front property line by a minimum of 20 feet. The building shall be set back from the side property line by a minimum of 10 feet.

Building Type C: Front View

Building Type C: Rear View

South Downtown Residential District
March 2004

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Normal, Illinois
South Downtown Residential District

BUILDING TYPE C
“Big House” Building

KEY
- Facades with minimum transparency required
- Required building entrance locations
- Required building setback lines. Building must be set back beyond these lines.
- Parking lot screening required.

Building Type C: Front View

- Minimum 1.5% transparency required on rear yard
- One double-loaded side of parking allowed. All parking must be located behind building.
- Minimum 10' setback from front street.
- No parking allowed along any side yard setbacks.
- Minimum 5' drop x 6' wide patios required at each front entrance.
- Maximum 15' drop x 6' wide setback a minimum 15' from front entrance.
- Minimum 20' setback from frontage line.
- Maximum 5' drop x 6' wide patios required at each front entrance.

Building Type C: Rear View

- Minimum 10' setback from front street.
- No parking allowed along any side yard setbacks.
- Minimum 5' drop x 6' wide patios required at each front entrance.
- Maximum 15' drop x 6' wide setback a minimum 15' from front entrance.
- Minimum 20' setback from frontage line.
- Maximum 5' drop x 6' wide patios required at each front entrance.

South Downtown Residential District
March 2004

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Normal, Illinois
South Downtown Residential District

Conventional Zoning

Form-based Zoning
Normal, Illinois
South Downtown Residential District Overlay

SEC. 15.6-21 – FORM BASED OVERLAY DISTRICT
A Intent. In addition to those general purposes set forth in Division 2 of this Code, it is the purpose and design of the Form Based Overlay District to foster land development that sets careful and clear controls on building form, public spaces, streetscapes, building architecture, and the relationship of the building on the lot. This Form Based Overlay District shall be applied as an overlay or a combined district. This technique retains the list of uses allowed in the present zoning classification that the Form Based Overlay District overlaps unless such uses are modified by the adopting ordinance. The purpose of the Form Based Overlay District is to:

1. regulate how lots and buildings relate to public spaces and the surrounding neighborhood;

C Form Based Code. Designation of an area as a FB Form Based Overlay District shall include the establishment of a Form Based Code [PDF] for that district. Such Code shall be incorporated into the designating ordinance by reference and shall be kept on file in the Office of the Town Clerk. Such Code shall include the following elements:

5. encourage architectural character that incorporates the best urban practices;

6. protect and enhance the Town’s attractions to residents, home buyers, tourists, and visitors and shoppers, thereby supporting and promoting business, commerce and industry; and
Form-Based Codes
Lessons Learned
Form-Based Codes

Lessons Learned: Documentation of Existing Preferred Elements
**Lessons Learned**

**Documentation of Existing Preferred Elements**

![Image of street scene](image-url)

<table>
<thead>
<tr>
<th>Site Name Organized by Proposed Building Types</th>
<th>Front Setback</th>
<th>Interior Sideyard Setback</th>
<th>Site Coverage of Buildings</th>
<th>Building Height (in stories)</th>
<th>Transparency*</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAIN STREET SITES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rockford</td>
<td>0</td>
<td>0.12</td>
<td>38</td>
<td>1,2,3</td>
<td>1-3 (mostly 1)</td>
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<tr>
<td>Bridge-Lexington-Stocking</td>
<td>0</td>
<td>0.5</td>
<td>54</td>
<td>1,2,3</td>
<td>1-3</td>
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<tr>
<td>Wealthy Street - Eastown</td>
<td>0</td>
<td>0.5,10</td>
<td>76</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>E Fulton Street</td>
<td>0</td>
<td>0</td>
<td>31</td>
<td>1,2</td>
<td>1-2 (mostly 2)</td>
</tr>
<tr>
<td>Cherry Street at Diamond Avenue</td>
<td>0</td>
<td>0.5</td>
<td>34</td>
<td>1,2</td>
<td>1-2 (mostly 1)</td>
</tr>
</tbody>
</table>

*Transparency values indicate the average percentage of the ground floor and upper floor.*

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Architecture | Planning | Preservation
Lessons Learned

**Documentation of Existing Preferred Elements**

**Ottawa Avenue**

Ottawa Avenue in downtown Grand Rapids is characterized by short, walkable, and irregularly shaped blocks. The grid pattern of these blocks is uniquely interrupted with angle streets. The buildings on Ottawa Avenue are primarily six or more stories tall and typically have a storefront on the ground story facade. Together these buildings form a dense commercial area not found elsewhere within the regional transit.

<table>
<thead>
<tr>
<th>Site Name/Location</th>
<th>Existing Range</th>
<th>Comments</th>
<th>Recommended Maximum Block Length</th>
<th>Block Depth</th>
<th>Most Common, if not consistent</th>
<th>Lot Width</th>
<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DOWNTOWN SITES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ottawa Street</td>
<td>400-410</td>
<td></td>
<td>410</td>
<td>260</td>
<td>240</td>
<td></td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>410</td>
<td></td>
<td></td>
<td>260</td>
<td>260</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monroe Center</td>
<td>580</td>
<td>angled street</td>
<td>580</td>
<td>260</td>
<td>260</td>
<td></td>
<td>25</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>260</td>
<td>25,40,50,65,70,100,140</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ionia Street</td>
<td>250,400</td>
<td></td>
<td>400</td>
<td>220</td>
<td>220</td>
<td></td>
<td>55</td>
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<td></td>
<td></td>
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<td></td>
<td>220</td>
<td>20,25,30,45,50,90,100,135</td>
<td></td>
<td>Alley</td>
</tr>
</tbody>
</table>
Lessons Learned
Documentation of Existing Preferred Elements

Ottawa Avenue
Downtown Grand Rapids

Description
Ottawa Avenue is located in the midst of the Central Business District and is a main thoroughfare serving Downtown Grand Rapids. It was selected as a typical connector street in the context of urban core commercial. The travelway is an example of a narrow two lanes with parking cross section.

The sidewalk is adjacent to the travel way, with buildings fronting on the sidewalk. The width of the sidewalk is sufficient to support storefront uses that come out onto the sidewalk. The edge of the walk is treated differently north and south of Pearl Street. Tree lines are used north of Pearl Street to define the edge of walk from the travelway. South of Pearl Street, no tree line is present, but different orientations of the brick pavers are used to delineate the zone of the walk where light standards and parking meters are seated.

Transit and bicycle accommodation is accomplished in the travelway with no separate or special facilities.

<table>
<thead>
<tr>
<th>Thoroughfare Elements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Connector</td>
</tr>
<tr>
<td>Functional Class</td>
<td>Local</td>
</tr>
<tr>
<td>Jurisdiction</td>
<td>City</td>
</tr>
<tr>
<td>Lanes</td>
<td>2, one way</td>
</tr>
<tr>
<td>Turn Lanes</td>
<td>Shared with Through</td>
</tr>
<tr>
<td>Median</td>
<td>No</td>
</tr>
<tr>
<td>Sidewalks</td>
<td>Both sides</td>
</tr>
<tr>
<td>Planting Strips</td>
<td>Varies by block</td>
</tr>
<tr>
<td>Speed Limit</td>
<td>25 mph</td>
</tr>
<tr>
<td>Drainage</td>
<td>Urban, curb &amp; gutter</td>
</tr>
<tr>
<td>Parking</td>
<td>Parallel, both sides</td>
</tr>
<tr>
<td>Bicycle Lanes</td>
<td>None</td>
</tr>
<tr>
<td>Transit</td>
<td>1 route</td>
</tr>
<tr>
<td>ADT</td>
<td>5,500 vehicles per day</td>
</tr>
<tr>
<td>R/W</td>
<td>68'</td>
</tr>
<tr>
<td>Enclosure</td>
<td>68'</td>
</tr>
</tbody>
</table>

General Context

![Thoroughfare Type Table]

![Typical Cross Section]

FARR ASSOCIATES
Architecture | Planning | Preservation
Lessons Learned
Documentation of Existing Preferred Elements

Context Zone 1  Context Zone 2  Context Zone 3  Context Zone 4  Context Zone 5  Context Zone 6

FARR ASSOCIATES
Architecture | Planning | Preservation
Form-Based Codes
Lessons Learned: Robust Community Process
Lessons Learned

Community Process: Image Preference Survey
Lessons Learned
Community Process: Image Preference Survey

Image Preference Survey™

Score of +3

Score of -4

A.

LEFT

RIGHT

1  -5  -4  -3  -2  -1  0  1  2  3  4  5
2   -5  -4  -3  -2  -1  0  1  2  3  4  5
3   -5  -4  -3  -2  -1  0  1  2  3  4  5
4   -5  -4  -3  -2  -1  0  1  2  3  4  5
5   -5  -4  -3  -2  -1  0  1  2  3  4  5
6   -5  -4  -3  -2  -1  0  1  2  3  4  5
7   -5  -4  -3  -2  -1  0  1  2  3  4  5
8   -5  -4  -3  -2  -1  0  1  2  3  4  5
9   -5  -4  -3  -2  -1  0  1  2  3  4  5

1   -5  -4  -3  -2  -1  0  1  2  3  4  5
2   -5  -4  -3  -2  -1  0  1  2  3  4  5
3   -5  -4  -3  -2  -1  0  1  2  3  4  5
4   -5  -4  -3  -2  -1  0  1  2  3  4  5
5   -5  -4  -3  -2  -1  0  1  2  3  4  5
6   -5  -4  -3  -2  -1  0  1  2  3  4  5
7   -5  -4  -3  -2  -1  0  1  2  3  4  5
8   -5  -4  -3  -2  -1  0  1  2  3  4  5
9   -5  -4  -3  -2  -1  0  1  2  3  4  5
Lessons Learned
Community Process: Image Preference Survey

3-4 Flrs.

4-6 Flrs.

6+ Flrs.
Lessons Learned
Community Process: Image Preference Survey

Dial your Density
Illustrate the Choices
Lessons Learned
Community Process: Image Preference Survey

- Brick Pavers
- Pedestrian Oriented Lights
- Wide Sidewalks
- Streetwall
- Transparent Windows
- Recessed entry Pedestrian Oriented Lights
- Pedestrian Oriented Signage
- Inviting. Attractive.
Lessons Learned

Community Process: Image Preference Survey

- Entrance on primary facade
- Entrance through porch or stoop
- Transparent facade
Lessons Learned
Community Process: Neighborhood Elements Charrette
Lessons Learned
Community Process: Neighborhood Elements Charrette

Townhouse
Size: 4 units

Apartment Building
Size: 21 units

Courtyard Building
Size: 36 units
Lessons Learned
Community Process: Neighborhood Elements Charrette

Plaza/Square
Size: approx. 8000 sf

Streets
Size: 66' Right of Way in 300' increments
Lessons Learned
Community Process: Neighborhood Elements Charrette
Form-Based Codes
Lessons Learned: Graphic Presentation
Lessons Learned

Graphic Presentation
Lessons Learned

Graphic Presentation: Building Types

II. Zoning Regulations
3.05 Building Type Standards: Cottage Commercial

3.05.01 Building Siting (Refer to Figure 3.05-1)
A. Street frontage.
B. On primary streets, a minimum of 65% of the length of the front build-to zone must be occupied by a building.
C. The intersection of the front and side build-to zone must be occupied by building.
D. Building facade must be constructed within a build-to zone located between five (5) feet and twenty (20) feet from the front property line.
E. Side building facade must be constructed within a build-to zone located ten (10) feet from the street.
F. Eaves and upper floor bays, balconies & awnings are permitted to extend over the side property line to within five (5) feet of the curb, maintaining a minimum of eight (8) feet height clearance along public sidewalk.
G. Parking, storage, and veins may encroach onto the street and side build-to zone.
H. Areas not occupied with the building along the front, side, and interior property lines shall be paved with a semi-permeable material or landscaped.
I. Interior Side & Rear Yard Setbacks.
J. Interior side yard setback shall be a minimum of five (5) feet.
K. Rear yard setback shall be a minimum of five (5) feet.

C. Buildable Area
A. Minimum impervious site coverage shall be 6%.
B. Additional 15% of the site may be semi-pervious.

3.05.02 Height & Use Requirements. (Refer to Figure 3.05-2).
A. Building Height.
B. A building height is a minimum of one (1) story and a maximum of two and a half (2 1/2) stories, with the half story being located within the roof structure.
C. Minimum floor area is a minimum of ten (10) feet, maximum first floor (15), as measured from floor to floor.
D. All allowable upper floor heights shall be a minimum of nine (9) feet, maximum of fourteen (14) feet, as measured from floor to floor.
E. Uses.
F. Specific use information can be found in Sections 2.01 of this Chapter.

3.05.02.1 Facade Requirements. (Refer to Figure 3.05-3).
A. Transparency.
B. A minimum of 20% of the upper story front facade, measured from floor to floor shall have transparent, non-reflective windows.
C. Building Entrance.
D. The building's main entrance must be off the primary street. Entrances at the corner of a building satisfy this requirement.
E. Provide a minimum of one (1) entrance for every seventy-five (75) feet of building frontage on the primary street.
F. Specific information can be found in Section 3.01 for descriptions.
G. Allowing Cap & Base Types.
H. Allowing Cap Type is a pitched roof.
I. Allowing Base Type are:
   1. Stepfront when the ground floor is used along the facade is commercial.
   2. Porch or stoop when the ground floor is used along the facade is office.
Lessons Learned
Graphic Presentation: Open Space Types

<table>
<thead>
<tr>
<th>Open Space Type</th>
<th>Level of Imperviousness</th>
<th>Minimum Number of Public Right-of-way Frontages Required</th>
<th>Size (in acres)</th>
<th>Enclosed Structures</th>
<th>Designated Sports Fields</th>
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</thead>
<tbody>
<tr>
<td>Pocket Park</td>
<td>30%</td>
<td>1</td>
<td>less than .25</td>
<td>not permitted</td>
<td>playground only</td>
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<tr>
<td>Commons</td>
<td>30%</td>
<td>none</td>
<td>less than 1</td>
<td>not permitted</td>
<td>playground only</td>
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<tr>
<td>Plaza</td>
<td>80%</td>
<td>2</td>
<td>less than .5</td>
<td>permitted</td>
<td>not permitted</td>
</tr>
<tr>
<td>Square</td>
<td>40%</td>
<td>2</td>
<td>between .5 and 2</td>
<td>not permitted</td>
<td>not permitted</td>
</tr>
<tr>
<td>Green</td>
<td>20%</td>
<td>1</td>
<td>between .5 and 5</td>
<td>not permitted</td>
<td>playground(s) only</td>
</tr>
<tr>
<td>Greenway</td>
<td>20%</td>
<td>none</td>
<td>minimum width of 20’</td>
<td>not permitted</td>
<td>playground(s) only</td>
</tr>
<tr>
<td>Park</td>
<td>20%</td>
<td>1</td>
<td>greater than 2</td>
<td>permitted</td>
<td>any permitted</td>
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<tr>
<td>Conservation Area</td>
<td>10% or at the discretion of the zoning administrator</td>
<td>none</td>
<td>n/a</td>
<td>permitted</td>
<td>playground(s) only</td>
</tr>
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</table>
**Lessons Learned**

**Graphic Presentation: Street Types**

<table>
<thead>
<tr>
<th>Vehicular Realm</th>
<th>Avenue Requirements</th>
</tr>
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<tbody>
<tr>
<td><strong>Location</strong></td>
<td>Permitted adjacent to the following districts: Outer Neighborhoods (C2, C1, N4-6, NC1, OS1, OS2, OS3, OS5) Industrial Districts (11-13) Rail/Preserve Districts (A3, OS3, OS4)</td>
</tr>
<tr>
<td><strong>Typical Right-of-Way Width</strong></td>
<td>80 feet or 100 feet with median</td>
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<tr>
<td><strong>Travel Lanes</strong></td>
<td>2 lanes in each direction</td>
</tr>
<tr>
<td><strong>Lane Width</strong></td>
<td>minimum 10 feet maximum 12 feet (14 feet for shared bicycle lane)</td>
</tr>
<tr>
<td><strong>Allowable Turn Lanes</strong></td>
<td>left only with median; right permitted in place of parking at intersections</td>
</tr>
<tr>
<td><strong>Parking Lanes</strong></td>
<td>optional, both sides of street, parallel only</td>
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<tr>
<td><strong>Pavement Width</strong></td>
<td>minimum 40 feet maximum 64 feet</td>
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<tr>
<td><strong>Curbs</strong></td>
<td>optional</td>
</tr>
<tr>
<td><strong>Target Speed</strong></td>
<td>25-35 mph</td>
</tr>
<tr>
<td><strong>Permitted Median</strong></td>
<td>permitted, maximum 16’ wide</td>
</tr>
<tr>
<td><strong>Bicycle Facilities</strong></td>
<td>designated shared, or 5’ wide designated lanes in each direction</td>
</tr>
<tr>
<td><strong>Pedestrian Facilities</strong></td>
<td>minimum 5’ wide clear sidewalk on both sides</td>
</tr>
<tr>
<td><strong>Street Buffer</strong></td>
<td>minimum 5’ wide parkway or minimum 5’ wide furnishings zone</td>
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</table>

1 Reference III.3.03.08 for on-street parking requirements.
2 Reference III.3.03.06 for bicycle facility types and requirements.
## Lessons Learned

### Graphic Presentation: Use Table

<table>
<thead>
<tr>
<th>Lessons Learned</th>
<th>Table Content</th>
<th>Diagram Content</th>
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<tbody>
<tr>
<td><strong>Graphic</strong></td>
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Thank You!

www.farrside.com
leslie@farrside.com