# City of Fitchburg
# N. McGaw Neighborhood

## Neighborhood Design Principles

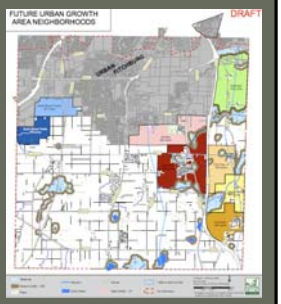
**Neighborhood Design Workshop**
**May 22, 2008**

## Fitchburg Growth Policies

Plan for 75 acres per year of development

7 units per acre residential target density

"Balanced" neighborhoods




Source: Draft City of Fitchburg Comprehensive Plan



## Balanced Neighborhoods

"An **integration** of compatible uses"

"A **mix of residential densities** - low density, medium density, and high density will be encouraged."

"**Mix use areas** will include commercial, business, and residential units in higher density areas, to promote live-work areas and offer day to day needs within a local neighborhood."

Source: Draft City of Fitchburg Comprehensive Plan



## Balanced Neighborhoods

"Neighborhoods offering a more completely coordinated land use, open space, and transportation patterns will be more marketable to a greater diversity of residents

however

it is also understood that characteristics of some neighborhoods may limit the creation of a full balanced neighborhood."

Source: Draft City of Fitchburg Comprehensive Plan



## Balanced Neighborhoods

**Housing choices for diverse families and households that are located close to public and semi-public spaces, commerce, recreation, and civic and cultural activities, which encourages walking, bicycling and social interaction**

MIX OF HOUSING

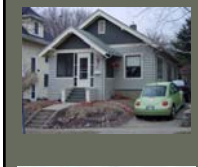
PROXIMITY

MIX OF USES

FUNCTION

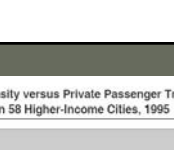
LOCATION

## Mix of Housing



## Proximity


## Mix of Uses



## Function

Mix of Houses
+
Proximity
+
Mix of Uses
=
Compactness





Newman and Kenworthy, Opolis, Vol. 2, No. 1, Winter 2006

Goodland, KS
2.5 units per acre

Holdenville, OK
3.8 units per acre

Lincoln Institute of Land Policy
Visualizing Density
www.lincolninst.edu

Huntersville, NC
6 units per acre

Lincoln Institute of Land Policy
Visualizing Density
www.lincolninst.edu

## "Transit-Friendly" Threshold
## Approximately 12-15 units per acre

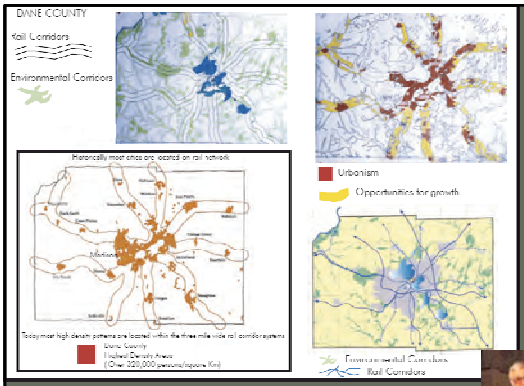
Boulder, CO
12 units per acre

Lincoln Institute of Land Policy
Visualizing Density
www.lincolninst.edu

## Density alone is not enough

Location

Design




Resolution R-30-07
Favor development along rail lines

Professor Phil Lewis

## North McGaw Neighborhood

**Proximity**

Shopping
Civic
Recreation
Employment

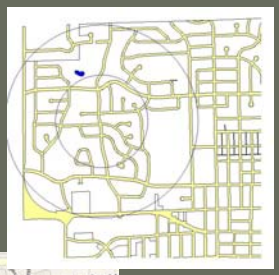
**Retail Potential**

## Design Matters

Same Density - 12 units per acre
Different Neighborhoods

Lincoln Institute of Land Policy
Visualizing Density

## Street Network



## Urban Design

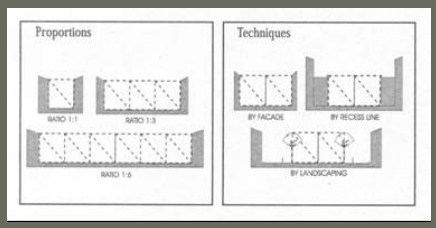
**Buildings oriented around pedestrian- and bicycle-friendly streets**

### Sense of Place

Buildings face street
Buildings open to street
Human scaled
Articulated buildings
Defined, safe pedestrian space
Repeating Patterns
Quality Materials

## Public Spaces

## Sense of Enclosure




**Sustainable communities preserve natural environments by:**

**• preserving working landscapes and natural systems within and surrounding metropolitan regions, and**

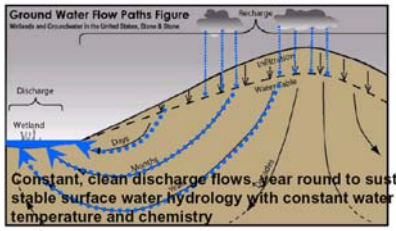
**•building and urban design that integrates nature into urban communities.**

## Protecting Water Systems

### Historical Patterns of Hydrology

Recharge Zone: Uplands

Discharge Zones: Lowlands- rivers, streams, ponds, wetlands




Constant, clean discharge flows, year round to sustain stable surface water hydrology with constant water temperature and chemistry

Source: Jim Patchett

## Water in Contemporary Urban, Suburban & Rural Environments

**Traditional Stormwater Management Approach:**

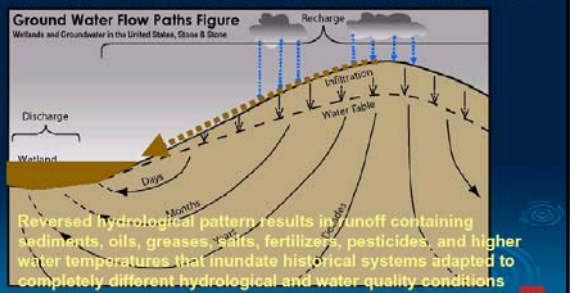
**Collect and convey water away from the site just as quickly and efficiently as the law will allow through enclosed storm sewer systems designed with concentrated points of discharge that generate a velocity and volume of flow that is nearly impossible to mitigate.**

Source: Jim Patchett

## Contemporary Hydrology

Upland becomes discharge zone

Natural wetlands are expected to function as recharge zones




Reversed hydrological pattern results in runoff containing sediments, oils, greases, salts, fertilizers, pesticides, and higher water temperatures that inundate historical systems adapted to completely different hydrological and water quality conditions

## Sustainable water resource management: decentralized system design

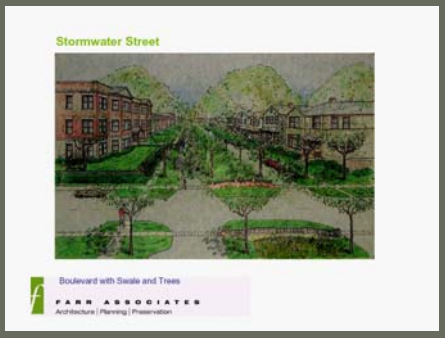
- Capture rainfall
- Diffuse flow
- Cleanse
- Absorb on-site

Restore historically stable patterns of infiltration and groundwater-dominated hydrology

## Rain Gardens

## Green Roofs

## Green Streets



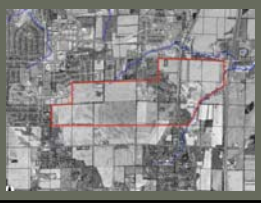

## ModelBlock Exercise

**Purpose**:

1. Communicate neighborhood design principles
2. Increase capacity of Steering Committee to evaluate and guide neighborhood plans
3. Create a resource for future use

## Model Block Exercise

**Model Goals:**
·Target density: 7 dwelling units per residential acre
·Mix of development types: commercial (employment, retail), residential, park and open space, civic.
·Mix of housing types: large single family, small single family, town house, apartment.
·Interconnected street network
·Walkable destinations - try to locate destinations within quarter to half mile walking distance



## Target Sites

## Average Densities

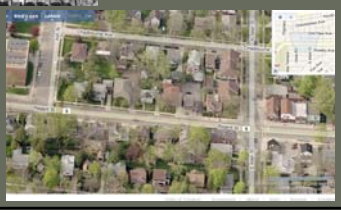
### McKee Park area

Lots: 91' X 150'
One unit per lot
Density: 2.5 units per acre

## Average Densities

### Madison - Regent

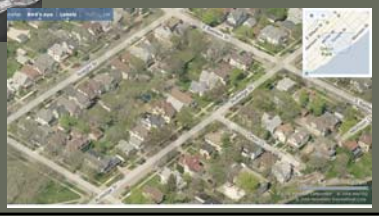
Lots: 50' X 120'
One unit per lot
Density: 5.25 units per acre



## Average Densities

### Madison - N. East Side

Lots: 33' X 130'
Approx. 1.5 units per lot
Density: 11 units per acre



## ModelBlock Exercise Steps

Make site observations
Designate open space corridors & networks
Designate primary street network
Designate neighborhood "center"
Designate land uses
Designate blocks
Place buildings
Record information