Nodal Development
Tompkins County Council of Governments
December 12, 2019
What Is Nodal Development?

- Focus new development in:
  - Existing centers
  - Served by viable infrastructure
  - Higher density, mixed-used development
  - Employment and housing in close proximity
  - Viable for transit, biking and walking
One Concept – Different Names

- Nodal Development
- Development Focus Areas
- Traditional Village/Hamlet
- Smart Growth
- New Urbanism
Development Focus Area Strategy

Urban Center
Established Node
Emerging Node
Rural Center
For 50+ years, 2/3 of development happened outside of the city and villages

Our goal is to ‘flip the script’
Direct Benefits

✓ Community
  ✓ Walkable neighborhoods
  ✓ Local businesses supported

✓ Affordability
  ✓ Higher densities reduce housing costs per unit
  ✓ Infrastructure costs shared by more people
  ✓ Lower tax rates
Taxable Value per Acre

Historic Village and Hamlet form is efficient

Creates high value in a concentrated land area

Can be served by higher levels of infrastructure

By design efficiency creates sustainability
Secondary Benefits

- Walking, biking and transit
  - Improved health
- Reduced pressure to develop agricultural and natural resources
- Protect rural character and scenic resources
Nodal Development and Sustainability

- Improved resiliency and adaptability
- Reduced energy use
- Reduced greenhouse gas emissions

Tompkins County 2014 GHG EMISSIONS INVENTORY (MTCO2E)

- Residential, 20%
- Commercial, 35%
- Industrial, 5%
- Transportation, 32%
- Other, 9%
Single Family Detached

<table>
<thead>
<tr>
<th></th>
<th>Million BTU Per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suburban Location</td>
<td>108</td>
</tr>
<tr>
<td>Walkable Mixed-Use</td>
<td>108</td>
</tr>
<tr>
<td>Neighborhood</td>
<td>87</td>
</tr>
<tr>
<td></td>
<td>87</td>
</tr>
</tbody>
</table>

© Jonathan Rose Companies LLC, with support from US EPA, Revised March 2011


Single Family Detached

<table>
<thead>
<tr>
<th>Location</th>
<th>Typical Home, Typical Vehicle</th>
<th>Green Home, Green Vehicle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suburban Location</td>
<td>240</td>
<td>132</td>
</tr>
<tr>
<td></td>
<td>108</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>158</td>
<td>41</td>
</tr>
<tr>
<td>Walkable Mixed-Use Neighborhood</td>
<td>149</td>
<td>113</td>
</tr>
<tr>
<td></td>
<td>108</td>
<td>26</td>
</tr>
</tbody>
</table>

© Jonathan Rose Companies LLC, with support from US EPA, Revised March 2011
Location Efficiency: Boiling it down to BTUs, Johnathan Rose Companies funded by EPA 2011

Single Family Detached

<table>
<thead>
<tr>
<th>Location</th>
<th>Suburban Location</th>
<th>Walkable Mixed-Use Neighborhood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Million BTU Year</td>
<td>240</td>
<td>132</td>
</tr>
<tr>
<td></td>
<td>158</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>149</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>113</td>
<td>26</td>
</tr>
</tbody>
</table>

Multi-Family

<table>
<thead>
<tr>
<th>Location</th>
<th>Suburban Location</th>
<th>Walkable Mixed-Use Neighborhood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Million BTU Year</td>
<td>186</td>
<td>132</td>
</tr>
<tr>
<td></td>
<td>95</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>115</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>70</td>
<td>44</td>
</tr>
</tbody>
</table>

Walkable Mixed Use Neighborhood

- Single Family Detached: 158 Million BTU Year
- Multi-Family: 95 Million BTU Year
Nodal development and housing demand

- Baby boomers downsizing
- Young adults seeking mixed-use neighborhoods
- Smaller Households
- Growth in household incomes flatter
- Growing pressure to reduce energy use and greenhouse gas emissions
Local government actions: Land Use

- Regulations in nodes
  - Encourage small lots
  - Allow missing middle housing types
  - Mix uses – vertical or horizontal
  - Establish design standards – walkability & character
- Define a distinct edge around nodes
Local government actions: Infrastructure

- Maintain water and sewer infrastructure
- Provide walkability in nodes
- Support walking and biking connections to nearby development
- Do not extend infrastructure far from nodes
Thank you!

David West  DWEST@tompkins-co.org
Joan Jurkowich JJURKOWICH@tompkins-co.org
Tompkins County Department of Planning & Sustainability  607-274-5560