An Introduction to the State’s the New Open Space Design / Natural Resource Protection Zoning Model Bylaw

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Potentially Developable Land as Zoned for Dwelling Unit Density

<table>
<thead>
<tr>
<th>Summary Acres</th>
<th>Dwelling Unit Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>635,982.7</td>
<td>Equal or greater than 80,000 sq ft</td>
</tr>
<tr>
<td>6,229.8</td>
<td>70,000 to 79,999 sq ft</td>
</tr>
<tr>
<td>323,907.1</td>
<td>60,000 to 69,999 sq ft</td>
</tr>
<tr>
<td>54,093.8</td>
<td>50,000 to 59,999 sq ft</td>
</tr>
<tr>
<td>106,366.1</td>
<td>43,561 to 49,999 sq ft</td>
</tr>
<tr>
<td>500,463.9</td>
<td>40,000 to 43,560 sq ft</td>
</tr>
</tbody>
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Energy and Environmental Affairs
Map by JFMath, 4-8-09
Sustainable Development Principles

1. Concentrate Development and Mix Uses
2. Advance Equity
3. Make Efficient Decisions
4. Protect Land and Ecosystems
5. Use Natural Resources Wisely
6. Expand Housing Opportunities
7. Provide Transportation Choice
8. Increase Job and Business Opportunities
9. Promote Clean Energy
10. Plan Regionally
**Problems with current practice:**

- Special Permit Required – Discretionary
- Process often cumbersome, long, & expensive
- Large parcel size requirements
- Insufficient amount of land protected
- Less than ideal land conservation
- Dimensional standards inhibit use

**Open Space Design**

- By Right/Mandatory
- Formulaic and quick
- No minimum lot size
- [60%] of land area protected
- Strategic protection via Conservation Analysis & Findings
- Flexible Design Standards – lot size, frontage, setbacks, roads, etc.
New Model Open Space Design Bylaw/Ordinance

• Based on Natural Resource Protection Zoning

• Accompanied by subdivision regulations & special permit regulations for density bonuses and shared driveways

• Will replace the current OSRD model in EEA’s Smart Growth/Smart Energy Toolkit

• Addresses problems with application of Cluster, OSRD, Conservation Subdivision zoning

• Formatted to be easily customized, though municipal counsel should be consulted

• Interaction with other local regulations must be considered (esp. Board of Health)

• Addresses process questions raised by the Wall Street v. Westwood decision
http://www.mass.gov/envir/smart_growth_toolkit/

Website that is user friendly, comprehensive, and MA focused

Integrated materials on each smart growth technique to promote understanding and local passage of new zoning bylaws

Case studies show real world implementation, many in Massachusetts communities

Achieving higher density development in areas without public water or sewer service presents unique challenges. However, there are a number of technological and regulatory opportunities to address these challenges including shared systems (multiple homes on one septic system), innovative and alternative septic systems, and small sewage treatment plants.

In Brief: TND, also known as “new urbanism”, “neo-traditional” or village-style development, includes a variety of housing types, a mix of land uses, an active center, a walkable design, and often a transit option within a compact neighborhood scale area either as infill in an existing developed area or as a district scale project.

The Problem

Traditional Neighborhood Development seeks to remedy the most pressing problems associated with recent suburban expansion - low-density, auto-oriented development, single-use developments lacking in context and distinction as a unique community.

Low Impact Development (LID)

Two main principles of LID: Better Site Design and Best Management Practices

What is better site design?

A Set of Tools Designed To:
- Reduce Impervious Cover
- Promote Conservation of Natural Areas
- Promote the Diffusion of Stormwater Runoff
- Encourage Effective Stormwater Management and Treatment

Massachusetts Smart Growth Toolkit
Why did EEA develop this bylaw and why does it want communities to adopt it?

• Reduced environmental and fiscal impact
  
  o Reduced costs to construct/maintain roads and infrastructure
  
  o Less impervious surface and runoff
  
  o Protection of water supplies, habitat, greenways, productive forest, agriculture, etc.

• Advances EEA objectives while providing housing and treating landowners equitably

100 acre wooded site with field, stream, and trail before development

Two-acre zoning; conventional subdivision (34 lots, no preservation)

Natural Resource Protection Zoning (14 lots, >75% preservation)
“Open Space Design” shall mean a process for the development of land that: (a) calculates the amount of development allowed up-front by formula; (b) requires a Conservation Analysis to identify the significant natural, cultural, and historic features of the land; (c) concentrates development, through design flexibility and reduced dimensional requirements, in order to preserve those features; and (d) permanently preserves at least \([60\%]\) percent of the land in a natural, scenic or open condition or in agricultural, farming or forest use.

**Alternative: \([50-90\%]\)**

*Fifty percent is generally accepted as the minimum for Open Space Designs and similar zoning measures. Based on local circumstances - such as the nature of the natural resources to be conserved and the amount/pattern of existing development - communities should consider a range of \([50-90\%]\). A percentage at the higher end of the range is often warranted to protect particularly sensitive natural resources or attain a prominent local conservation objective. The amount of open space applicants are required to protect can be varied by zoning district, as is done for required square footage per unit in the Unit Count Calculation section of this model zoning.*
Practical & Political Considerations:

• Equity should be a consideration for political if not legal reasons

  o Yield (# of houses) under OSD vs. prior yield should be understood

  o Alright to reduce yield; unreasonable to build current zoned units in some communities

  o Zoning may not be the critical factor; other regulations may result in reduced yield

    – OSD applied to \( \leq 1 \) acre lots with individual lot well and septic a particular concern
**Yield: Allowable Residential Units**
- Units calculated by dividing the net acreage by the allowed density
- Net acreage calculation accounts for site-specific development limitations

**Net Acreage Calculation**
To determine net acreage, subtract the following from the total (gross) site acreage:

- \([\text{Half}]\) of the acreage of land with slopes of \([20\%]\) or greater;
- \([\text{The total acreage}]\) of land subject to easements or restrictions prohibiting development, lakes, ponds, vernal pools, 100-year floodplains as most recently delineated by FEMA, Zone I and A around public water supplies, and all wetlands as defined in Chapter 131, Section 40 of the General Laws and any state or local regulations adopted there under, as delineated by an accredited wetlands specialist and approved by the Conservation Commission; and
- \([\text{Ten}]\) percent of the remaining site acreage after the areas of A and B are removed to account for subdivision roads and infrastructure.

Note: Does not account for wastewater disposal

**Unit Count Calculation**
- Divide the net acreage by the required acreage (allowed density) for a unit
- Allowed density can vary by zoning district
Example

Dwelling Units:

Gross Project Area \(100\)
Minus constrained land \(32\)
Equals Net Project Area \(68\)
Divided by required acreage (1 per 2 acres)
Equals: Base # of Units \(34\)

Preserved Land

Land Area \(100\)
Multiple by required percentage [60\%] \(60\)
Add additional land from bonuses (if any) \(0\)
Equals: Minimum preserved land \(60\) acres
Applicability:

• Allowed by right – permitted via subdivision or site plan review

• Required in designated districts, permitted elsewhere

• Local choice as to which districts and which housing types

• Conventional subdivisions are by special permit

• Does not apply to homes built on existing or ANR lots (could be done voluntarily)

• Could also be applied to non-residential development

• Rate of development cap on non-OSD lots included as an optional incentive

OSD is allowed by right under zoning, subject only to the requirements of the subdivision regulations or site plan review as applicable and any other generally applicable non-zoning land use regulations, and may be proposed anywhere in [CITY/TOWN]. Within the [list designated districts] [all single family housing developments (including residential subdivisions or residential developments where the property is held in condominium, cooperative ownership, or other form where the property is not subdivided)] and within [Districts as designated by the CITY/TOWN] [all housing developments] shall comply with the OSD provisions of this section…
General Requirements:

Housing Types:

- Affords flexibility in regard to housing types.

  “Housing units within [Districts as designated by the CITY/TOWN] shall be single-family structures. Within [Districts as designated by the CITY/TOWN] all housing types allowed under the [CITY/TOWN] [bylaw/ordinance] are permitted.”

- Language allowing accessory dwelling units provided as an alternative

Parking:

- [Two] off-street spaces required per unit
**Dimensional Requirements:**

**Goal:** Make it as easy as possible to conserve land and natural resources by arranging units/lots in as unconstrained a manner as practicable

- No required minimum lot size, but water or wastewater needs or other regulations may limit

- No numerical frontage required, rather “legally and practically adequate vehicular access”

- [10] foot setback to property lines & [20] feet between principal structures

**Enforcement:**

- Monumentation clearly delineating the open space required to ease enforcement
**Open Space:**

- Permanently conserves [60%] of land area

- Required % may be reduced by up to [10%] for land devoted to common water or wastewater infrastructure; this land must be subject to a Restrictive Covenant

- Preserved open space required to be contiguous to the greatest extent practicable

- Protection under Article 97 or a permanent Chapter 184 type restriction required
  - Restrictive Covenant under Chapter 184 required if CR not accepted
  - CR must specify permitted and prohibited uses consistent with the zoning

- Allowable and Prohibited Uses addressed in detail
  - Alternate language provided to address active and motorized recreation
  - Small portion [5%] may be paved/built on consistent with open space use
Open Space (continued):

• Ownership options specified; private owner, conservation non-profit or state agency, conservation commission, or homeowners association (HOA)
  
  o Provisions govern HOA ownership (including a conditional open space grant)
  
  o Unless held by the conservation commission a CR & access easement with inspection and enforcement provisions are required
  
• Maintenance standards established by Planning Board when approving the OSD
  
  o Has an enforcement provision, including the potential to place a property tax lien
  
• Submission requirements specify provision of a Conservation Analysis as per the Subdivision Regulations
Subdivision Regulations:

Design Process

Landscape architect must follow a prescriptive Conservation Analysis based process:

1. Informational meeting encouraged to discuss conservation & development priorities

2. Conservation Analysis delineates Primary and Secondary Conservation Areas
   - Contiguity requirement; can be waived

3. Written Conservation Findings specify areas to preserve and develop

4. Landscape architect lays out the subdivision within the Developable Area

5. Planning Board decision; incorporates Conservation Findings
Open Space Plans should guide land conservation in subdivisions.
Conservation Analysis and Findings

Step 1: Existing Conditions

Step 2: Site Constraints (unbuildable land)

Step 3: Identify Natural and Cultural Features

Step 4: Conservation Findings

- Preserve prime agricultural land and beech stand
- Preserve stone walls
- Preserve “Unbuildable Land” (10.5 acres of floodplain, wetlands, stream, steep slopes)
- Provide public access for bonus density
- Provide visual buffer from road
Subdivision Regulations (continued):

Grounds for Denial:

- Insufficient information;
- Open space not preserved as per the Conservation Findings; or
- Zoning requirements not met.

Design Standards

- Projects must minimize site disturbance & manipulation by concentrating development & designing around site features
- Street standards may be modified to implement OSD
- Vistas and cultural resources to be preserved as practicable
- Low Impact Development (LID) stormwater measures required

Wastewater Disposal

- Board of Health must be provided sufficient information on wastewater infrastructure
Special Permit Provisions:

Language provided for measures that can’t be readily included in by right zoning

**Density Bonuses**

Additional units for voluntary:

- Provision of public access to the open space;
- Construction of permanently affordable housing;
- Conservation of open space beyond that required; or
- Preservation of historic structures.

**Shared Driveways**

EEA encourages adoption and use to facilitate OSD
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