

ZONECODE	DISTRICT	AREA (SQ FT)	ACREAGE	PERCENT
SR	Suburban Residence SR District	2,369,682	54	1.8%
SR-A	A Suburban Residence SR-A District	22,493,266	516	17.0%
SR-B	B Suburban Residence SR-B District	12,237,353	281	9.3%
UR-A	A Urban Residence UR-A District	66,858,202	1,535	50.5%
UR-B	B Urban Residence UR-B District	14,846,278	341	11.2%
UR-C	C Urban Residence UR-C District	3,570,032	82	2.7%
UR-D	D Urban Residence UR-D District	1,465,822	34	1.1%
BA-I	General Business BA-I District	2,303,348	53	1.7%
BB	Extensive Business BB District	1,093,298	25	0.8%
BB-I	Extensive Business BB-I District	976,468	22	0.7%
BC	Local Business BC District	858,213	20	0.6%
BD	Medical Business BD District	1,680,708	39	1.3%
I	Industrial I District	1,516,494	35	1.1%
TOTAL		132,269,162	3,036	100%

MAP 3: Composite Development City of Melrose

Partial Development Constraints

Redevelopment Districts

Absolute Development Constraints

Future Developable Land

Water Bodies

Streams

Intermittent Streams

Roads

Local

Interstate

Arterial

Collector

Trains

Summary Buildout Statistics (Additional Developments and Impacts)

Developable Land Area (sq ft)	7,721,007
Total Residential Lots	208
Comm./Industrial Buildable Floor Area (sq ft)	(545,952)
Comm./Industrial Water Use (Gal/day)	(40,946)
Dwelling Units	1,419
Future Residents	3,349
Residential Water Use (Gal/day)	251,202
Municipal Solid Waste (tons)	1,718.22
Non-Recycled Solid Waste (tons)	1,221.85
Students	357
New Roads (miles)	2.2

Notes:

- "Residential Water Use" is based on 75 gallons per person per day.
- "Comm./Ind. Water Use" is based on 75 gallons per 1,000 square feet of floor space.
- "Municipal Solid Waste" is based on 1026 lbs. per person per year. All waste estimates are for residential uses only.
- "Non-Recycled Solid Waste" is a subset of Municipal Solid Waste and is based 730 lbs. per person per year ending up in a land fill or incinerator.
- The number of "Students" at buildout is based on a student per household ratio taken from external demographic estimates.
- "New Roads" are based on an assumption that 60% of the new residential lots will have required frontage on new roads.

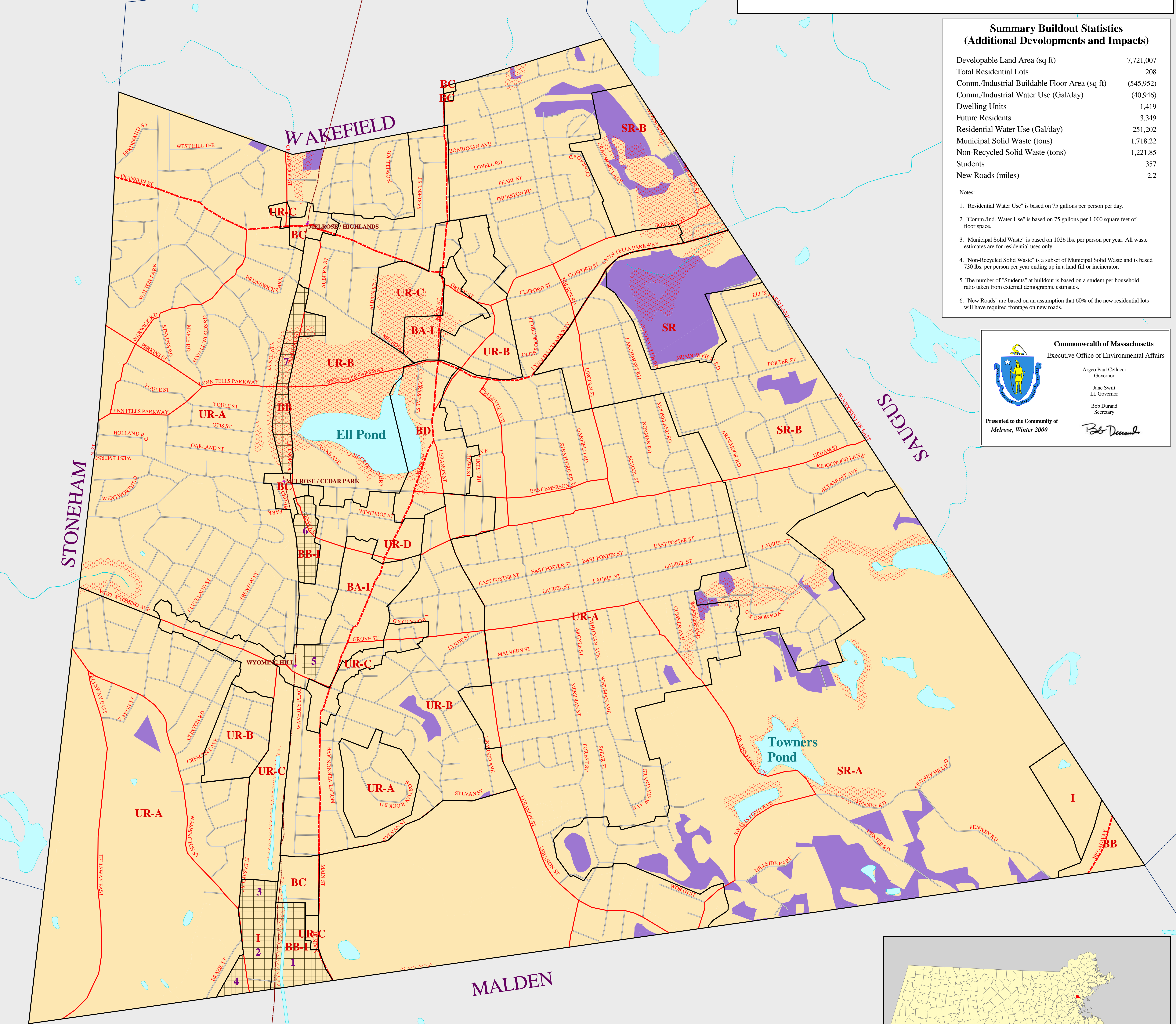
Commonwealth of Massachusetts
Executive Office of Environmental Affairs

Argo Paul Colucci
Governor

Jane Swift
Lt. Governor

Bob Durand
Secretary

Presented to the Community of
Melrose, Winter 2000



Methods

This buildout analysis is used to determine developable land area for both commercial and industrial zoning districts. Digital and hard copy data is collected. Digital zoning data is updated. Other existing digital data is gathered from a variety of sources including MassGIS, the community, Massachusetts Highway Department, and federal sources. Zoning, open space, land use, hydrography, environmentally sensitive areas, wetlands, Rivers Protection Act buffers, flood zones, slope, soil, orthophotography, rail lines, road networks, and political boundaries are utilized to different degrees. Additional layers are created that included miscellaneous features that were determined to be undevelopable, an update of the most recent MacConnell Land Use, and a layer of recent subdivisions since the last MacConnell update.

The developed land data is from the aggregated land use categories in the MacConnell Land Use layer provided by MassGIS. The aggregated developed land categories are spectator and water-based recreation, residential, commercial, industrial, transportation, and waste disposal.

The GIS analysis consisted of subtracting layers from zoning. The remaining developable land area represented on MAP 2 is aggregated by zoning category.

To determine the number of future buildable residential lots by zoning category a formula was developed to determine the land requirements of a typical lot in each category. The land requirements factor in required frontage multiplied by half the road right-of-way to determine road area. This figure varies from zone to zone. Additionally 10% is subtracted from each zone to cover miscellaneous variables such as odd lot shapes. Commercial and Industrial buildable lots were determined using an "effective" floor area ratio technique.

The analysis determines developable square feet of commercial and industrial areas. For each commercial and industrial zoning district, the major alternative land uses were examined in relation to the height limitations, maximum allowable percent lot coverage and parking requirements. An effective floor area ratio (FAR) for all use categories (e.g., offices, warehouses) in a particular district is developed for analysis purposes. An effective FAR for a district is estimated by averaging the FARs for the various potential land use types.

Note that where FARs are not detailed for zoning districts in the by-laws an estimated FAR is derived for similar zoning districts by multiplying the percent lot coverage by the number of 10-foot-tall stories that could be constructed. Effective limitations on total square footages caused by the required amount of parking with each use is also factored in.

