

## Build-Out Analysis

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A build-out analysis is a broad estimate of the maximum development that could occur in a community based on current zoning and environmental limitations. The analysis consists of maps and data showing current zoning, constraints to development, and land that is available and suitable for development. The acreage of developable land is determined and calculations are made to estimate the number of potential homes that could be developed in residential zoning districts and the amount of commercial, retail, and industrial floor space that potentially could be built in nonresidential districts.

This information is used to project future demand for public services (such as roads, sewers, water, and schools), anticipate potential problems (such as congested roads or overloaded sewer facilities), and establish goals and policies for directing and managing development.

### The Value of a Build-Out Analysis

In essence, a build-out analysis is a model that shows a community the amount of development allowable under its zoning code. A build-out analysis can be the basis from which a community's vision for the future emerges, stimulating discussion about the need to guide change and prompting stakeholders to take a proactive approach to transportation and land use planning, economic development, fiscal management, and environmental protection.

In more practical terms, a build-out analysis:

- Provides an integral component to the development of a comprehensive master plan or a targeted resource plan such as a recreation plan, corridor plan, or a central business district plan.
- Helps a community compare its goals for the future with the development its current regulations may produce.

- Can be used to reevaluate and amend current zoning and land use regulations.
- Becomes an important tool for coordinated, multi-jurisdictional land use planning when performed with neighboring communities – such as those sharing the same major highway.

### Model Build-Out Analyses

Several studies funded by the Genesee Transportation Council demonstrate how communities – planning alone or with other municipalities – use build-out analyses to chart their future development patterns proactively in order to protect the unique characters of their communities. Examples include the Town of Macedon and nine towns and villages in Ontario and Seneca Counties.

#### MACEDON

The Town of Macedon in Wayne County is bisected by NYS Route 31, a major thoroughfare. As Rochester's suburbs push eastward, Macedon has experienced moderate, but significant residential growth. The Town's population increased nearly 50 percent over the past 20 years to about 6,500. The population growth in the town and surrounding area attracts commercial development. New chain retailers and restaurants, offices, and light-industrial and warehouse operations have opened on Route 31, putting pressure on Macedon's historic business district, increasing traffic volumes, and generally changing the character of the corridor.

In response, the town conducted a GTC-funded study, including a build-out analysis, to recommend ways to manage existing and future traffic without adding lanes to Route 31 and to improve the community's traditional vitality and sense of place.

# Build-Out Analysis

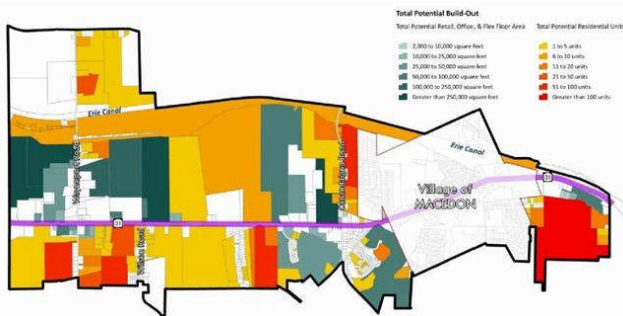
## *Understanding and Interpreting Build-Out Maps and Analysis*

The Macedon study included several maps and tables which contain information found in most build-out analyses.



*MAP 1: Existing Building Locations*

This map indicates which land is already developed; the relative proportion of land zoned for residential vs. land zoned for commercial uses; where recent (i.e., in the last ten years) development has been occurring; and land that is available for development subject to zoning and other regulations.



*MAP 2: Full Build-Out Analysis*

The full build-out map indicates the potential number of dwelling units and commercial floor space possible for each parcel of land according to current zoning regulations. Removed from the analysis are parcels that are unlikely to be developed because they are public lands (state

parklands, town or school district property, etc.) or have environmental constraints (steep slopes, wetlands, flood hazard areas, permanently protected open space, etc.).

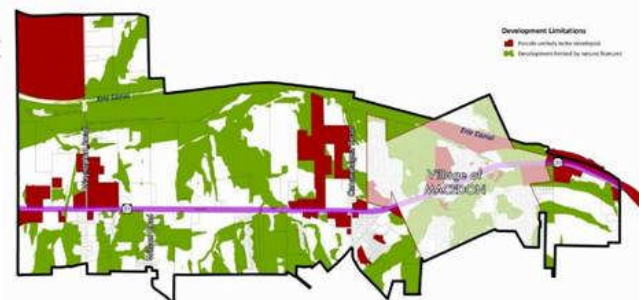
	Total Developable Acreage	Number of Potential New Residences	Total Floor Area of Potential New Commercial/Industrial Space (square feet)
Agriculture, Open Space, & Parks	1,502	44	0
Residential	358	1,068	0
Retail	931	0	1,508,638
Office & Flex Space	391	0	1,426,669
<b>TOTALS</b>	<b>3,181</b>	<b>1,112</b>	<b>2,935,307</b>

*TABLE 1: Full Build-Out Analysis by the Numbers*

This table shows that 3,181 acres of land are potentially available for development in the Town of Macedon within the Route 31 corridor. Based on current zoning, this land could support 1,112 new residences and over 2.9 million square feet of commercial space. The full build-out analysis does not follow any time frame or predict when – or if – full build-out may occur.

Additional calculations indicated that at full build-out all major intersections in the town would fail because of the increased traffic generated by the new development.

Based on community input and the goals of the study, the town’s consultants prepared a map of areas not recommended for future development:

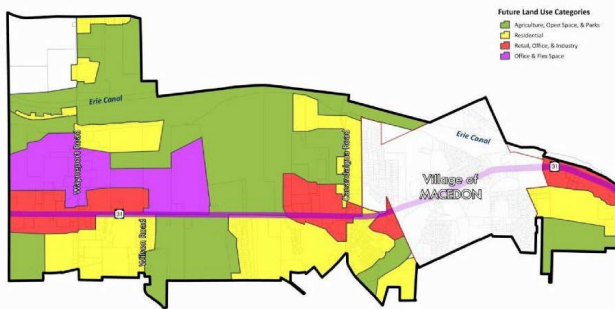


*MAP 3: Areas Not Recommended for Development*

This map illustrates areas that the town should not consider for future development because of

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either environmental and other constraints or community preference. Based on this map, 390 acres of land would potentially be available for development, rather than the current 3,181.



MAP 4: Future Land Use

A map of recommended future land use categories was created according to community goals and input. Future development on the 390 acres is concentrated in distinct nodes.

The study goes on to project various growth scenarios for the Town of Macedon over the next 10 years, following both current zoning and recommended future land use.

Based on the information acquired during the build-out analysis, residents and policymakers were presented options for zoning changes, development controls, design guidelines, pedestrian linkages, and roadway improvements – all designed to manage traffic and facilitate growth acceptable to the community.

### ROUTES 96 & 318 RURAL CORRIDOR STUDY

Nine municipalities in two counties located within the 25-mile-long corridor conducted a GTC-funded Corridor Management Study. The communities – the Towns of Manchester and Phelps and the Villages of Manchester, Shortsville, Clifton Springs, and Phelps in Ontario

County and the Towns of Junius, Tyre, and Seneca Falls in Seneca County – shared the goal of maintaining the rural character of their communities by developing a safe, efficient, and integrated transportation network; preserving farmland; and promoting economic development near existing population and commercial centers. All the communities realized that their fates were tied together by Routes 96 & 318, that the actions of one community impacted the others, and that their future well-being was best achieved by working together.

A full build-out analysis was completed according to the process described above for the entire corridor. A second build-out analysis looked at five existing population and commercial centers. Instead of exploring how *much* development could take place, the second analysis illustrated how development *should* take place to fulfill the goals of the communities along the corridor.

Based on the build-out analyses, corridor-wide and area specific recommendations were formulated.

### Resources

*Town of Macedon Route 31 Corridor Study, 2010.* [www.gtcmpo.org/Docs/PlansStudies/Rts.96&318\\_FinalCorridorManagementPlan.pdf](http://www.gtcmpo.org/Docs/PlansStudies/Rts.96&318_FinalCorridorManagementPlan.pdf)

*Ontario and Seneca Counties Routes 96 & 318 Rural Corridor Study, 2009.* [www.gtcmpo.org/Docs/PlansStudies/Rts.96&318\\_FinalCorridor-ManagementPlan.pdf](http://www.gtcmpo.org/Docs/PlansStudies/Rts.96&318_FinalCorridor-ManagementPlan.pdf)

*How to Do a Build-Out Analysis, U.S. Environmental Protection Agency.* [www.epa.gov/greenkit/build\\_out.htm](http://www.epa.gov/greenkit/build_out.htm)

- *Genesee Transportation Council - September 2010 (Adapted from materials published by the Berkshire Regional Planning Commission)*