



04 BUILD-OUT ANALYSIS

- **INTRODUCTION**
 - **BUILD OUT SCENARIOS**
 - **FUTURE SCENARIO MODELING**
-

BUILD OUT ANALYSIS

INTRODUCTION

Changes in development intensity and the mix of uses within The Triangle will inevitably occur over time. While it is difficult to say if The Triangle will become more or less intensely developed and how much of a shift in uses the area may see, it is nevertheless important to look at the range of possibilities to gauge and plan for potential impacts. One of the primary reasons for conducting this Study of The Triangle was to better understand how current and future development may impact the transportation system, and what mitigation measures should be planned to accommodate these changes. In order to understand these impacts, both positive and negative, the Consultant Team created a model to test different development scenarios. These outputs were then used as inputs to the transportation model to better understand what transportation improvements would be needed to accommodate land use changes in the future.

BUILD-OUT SCENARIOS

Within The Triangle's boundary, there is just over 10.3 million square feet of existing development. Approximately 4.6 million square feet (45 percent) is on the Natick side, and 5.7 million square feet

ASSESSOR'S USE CATEGORIES	EXISTING BUILT SQUARE FOOTAGE		
	NATICK	FRAMINGHAM	TOTAL
RESIDENTIAL	648,903	257,526	906,429
OFFICE	537,400	2,734,874	3,272,274
RETAIL	2,672,583	2,033,659	4,706,242
INDOOR REC/ENTERTAINMENT	41,658	205,300	246,958
STORAGE, WAREHOUSE, DISTRIBUTION	285,578	103,428	389,006
HOTEL/MOTEL	438,944	162,732	601,676
EXEMPT	0	201,287	201,287
TOTALS	4,625,066	5,698,807	10,323,873

Note: Exempt parcels are those that are classified by the Assessing Department as tax exempt, and could include town-owned land, state or federal buildings and land, utilities and rights-of-way, churches, educational institutions, or non-profit organizations.

(55 percent) is on the Framingham side. Table 4.1 illustrates the breakdown of square footage of built space by land use category in both Natick and Framingham.

To better understand the build-out potential of The Triangle under the existing zoning districts and overlay districts, an effective Floor Area Ratio (FAR) was developed for each district. The FAR calculation illustrates how much development could take place on a parcel of land after taking into account setbacks, landscaping requirements, and surface parking requirements. The FAR number is then multiplied by the total square footage of the parcel, resulting in the amount of developed space that could occur on a given parcel of land. This exercise was completed for each of the base zoning districts and the overlay districts to compare the existing development intensity in The Triangle to the maximum development potential allowed by zoning regulations.

The results of this analysis showed a difference of only 50,000 square feet when comparing existing development to what could be developed under the existing zoning (Table 4.2). Across the entirety of the Golden Triangle, development intensity has largely followed what one might expect to see based

on the dimensional regulations in the existing zoning. It is interesting to compare what exists today in each zoning district to what is possible from a development intensity standpoint, noting some base zoning districts appear to be underdeveloped while others have been developed at an intensity greater than what the base zoning may allow.

This is likely the result of some developments being approved and constructed under the various overlay districts that cover portions of The Triangle where FAR increases

TABLE 4.2 BUILDING SQUARE FOOTAGE COMPARISON			
ZONING DISTRICTS	BUILT SQUARE FOOTAGE COMPARISON		
	EXISTING CONDITIONS	BUILD-OUT	DIFFERENCE
COMMERCIAL II (CII)	1,906,511	772,890	(1,133,621)
INDUSTRIAL I (INII)	1,572,542	1,115,775	(456,767)
RESIDENTIAL A (RSA)	13,721	159,183	145,462
HIGHWAY MIXED-USE I (HMUI)	634,515	1,017,207	382,692
INDUSTRIAL (INI)	379,653	345,111	(34,542)
HIGHWAY MIXED-USE II (HMUII)	118,124	67,881	(50,243)
LIGHT MANUFACTURING (M-1)	2,075,056	1,984,103	(90,953)
GENERAL MANUFACTURING (M)	1,583,824	1,090,770	(493,054)
OFFICE & PROFESSIONAL (P)	51,384	124,655	73,271
SINGLE FAMILY (R-1)	87,247	258,444	171,197
BUSINESS (B)	1,901,296	3,434,705	1,533,410
TOTAL	10,323,873	10,370,726	46,853

can be approved in return for specific mitigation measures. In other cases, this could be the result of special permits, negotiations with the Planning Board, or a variance granted for dimensional relief.

To better understand the build-out potential of the overlay districts within The Triangle, the Consultant Team modeled the maximum FAR allowances on parcels covered by the overlays.

This exercise resulted in an additional five million square feet of development potential above what is currently built on parcels that fall within the overlay districts. This indicates that the overlay districts are vastly underutilized from a build-out perspective. The total development capacity of parcels covered by the overlays, as well as parcels that fall only under a base zoning district, is just over 15.3 million square feet.

FUTURE SCENARIO MODELING

In addition to establishing baseline modeling results for existing conditions and current zoning capacity, the Consultant Team also modeled three scenarios which looked at how the future land use mix in The Triangle could potentially change over time and what impact that might have on future tax revenue, jobs, housing units, and population. The Triangle is home to over 4.7 million square feet of retail space, with everything from a large regional mall, to big box stores, to strip malls, to individual small-scale retailers. Recognizing and acknowledging the shift retail is currently undergoing and the scaling back of the over-retailed marketplace, the Consultant Team devised a set of future scenarios that attempt to model potential changes in the land use mix and gauge the potential impacts those changes could have on the two municipalities. The scenarios attempt to model the following assumptions which may have an impact on The Triangle over time:

- **Decline in Retail:** It is assumed that some retail spaces will transform over time, likely shifting to a mix of uses which could include additional office, entertainment, and residential. This shift has already occurred on the Natick side of The Triangle with the introduction of the Nouvelle at the Natick Mall (Fig. 4.1) and the Wegman's grocery store currently under construction (Fig. 4.2).



Figure 4.1: Mixed-use development in The Triangle includes Nouvelle at the Natick Mall.



Figure 4.2: The J.C. Penny space at the Natick Mall is being converted to a Wegman's supermarket.

- **Mix of Uses:** As the redevelopment and repositioning of built space occurs over time, it is likely that the use mix will shift away from single use structures to more of a mixed-use approach. This is evidenced by the new development proposal on the former Sam's Club (PACE Membership Warehouse, Ford Distribution) site in Natick where the site of a single use building is being transformed to accommodate residences and a hotel.
- **Growth in The Triangle:** New development and redevelopment in The Triangle is likely to increase the overall square footage of built space over time. Modeling for an additional percentage of growth will help both municipalities understand what improvements might be necessary to accommodate that growth so there can be requests and advocacy for those improvements over time.

The following sections detail the various development and land use mix scenarios that were modeled as part of this Study. It should be noted that only the existing conditions, 10 percent growth, and 20 percent growth scenarios were used as inputs to the transportation model discussed in Chapter 6.³⁵

DECLINING RETAIL SCENARIOS

Between the two municipalities there is over 4.7 million square feet of retail space in The Triangle. Based on recent trends in the retail market, some companies with larger retail anchors or big box stores have been scaling back and closing underperforming assets. These changes have impacted retail spaces in The Triangle, but not to the extent seen in other retail hubs around the Commonwealth or the United States. Still, it is important to recognize that some of the retailers in The Triangle today may not be there in the future and planning for that change is important to reduce vacancy for both property owners and the municipalities. Not taking action and failing to proactively plan for the eventual changes in the retail landscape will have a negative impact on tax revenues in both communities. The decline in retail sales, increasing vacancy, and eventual decline in tax revenue will not only have

³⁵ *These two scenarios were recommended for modeling by Framingham and Natick staff and confirmed by the project Steering Committee*

a negative fiscal impact on both communities, but will also create a negative image and perception of the area as a whole. All of which will directly conflict with both communities' goals of greater vibrancy, activity, and regional competitiveness for The Triangle.

To that end, the Consultant Team modeled three declining retail scenarios to better understand how much space and tax revenue could be lost if a percentage of the overall retail space remained vacant for some time. It is assumed that a higher retail vacancy rate would drive down the income derived by property owners, therefore lowering their earned income from the asset, thereby lowering the assessed value of the commercial property. The lower assessed value would then translate into lower commercial tax receipts to each community. Table 4.3 shows the baseline existing condition information and how a decline in retail space might impact the assessed values and tax receipts in each scenario. The figures of 8 percent, 10 percent, and 15 percent decline in retail square footage are based on a low, medium, and high vacancy rate that are typically seen in declining or underperforming

TABLE 4.3 RETAIL DECLINE SCENARIOS - DIFFERENCE BETWEEN EXISTING CONDITIONS & SCENARIOS				
	EXISTING CONDITIONS	8% DECLINE	12% DECLINE	15% DECLINE
SQUARE FEET	10,323,873	-376,499	-564,749	-705,936
ASSESSED VALUE	\$1,548,986,200	-\$9,015,565	-\$13,523,347	-\$16,904,184
TAX RECEIPTS	\$35,843,781	-\$176,632	-\$264,947	-\$331,184

retail markets.

SHIFTING USE SCENARIOS

The second set of scenarios attempts to take into account what might happen if retail space declined over time, and the redevelopment or repositioning of that space resulted in an additional five percent growth in overall square footage in The Triangle. For example, it is unlikely that a property owner or developer would purchase a vacant big box store for redevelopment and construct a new building with an equivalent number of square feet in its place. It is far more likely that the new development

would have a different mix of uses and be larger in size than the previous building to ensure the developer makes money on the deal after paying for acquisition, demolition, and the construction of a new building.

This set of build-out scenarios assumes the same retail decline figures as noted above (8 percent, 12 percent, and 15 percent), but takes into account a five percent increase in overall built square footage in The Triangle. The Consultant Team assumed that the additional five percent of built space would be allocated evenly across office, residential, and indoor entertainment/recreation uses, as those seem to be the most likely uses to locate in The Triangle as part of any redevelopment scenario. In some cases it may be possible to convert vacant retail space to another use, in other cases it may be more feasible to demolish a retail building and redevelop. The model does not determine what will happen with vacant retail spaces, only that there is a shift in uses under these scenarios from retail to residential, office, and entertainment.

Table 4.4 shows the baseline existing condition information and how a shift in land uses with a five percent growth factor might impact the assessed values and tax receipts in each scenario. The results of this model show the same amount of built square footage under each shifting use scenario. The Consultant Team assumed a five percent maximum increase in square footage above what exists today in The Triangle. Assessed values on the other hand could change based on the type of new uses that may backfill space vacated by retailers. This is the result of other uses such as residential, office, or entertainment having a higher assessed value per square foot when compared to retail. In other words, as retail square feet declines and other higher value uses are built, it results in an in-

TABLE 4.4 SHIFTING USE SCENARIOS - DIFFERENCE BETWEEN EXISTING CONDITIONS & SHIFTING USE SCENARIOS WITH 5% GROWTH

	EXISTING CONDITIONS	8% DECLINE	12% DECLINE	15% DECLINE
SQUARE FEET	10,323,873	+516,194	+516,194	+516,194
ASSESSED VALUE	\$1,548,986,200	+\$112,275,817	+\$122,919,392	+\$130,902,073
TAX RECEIPT	\$35,843,781	+\$3,315,917	+\$3,759,832	+\$4,092,769

crease in overall assessed values.

GROWTH SCENARIOS

The final set of scenarios model two levels of potential growth of overall square footage in The Triangle; one at 10 percent and the other at 20 percent. The increment of growth in square footage over and above what exists today was allocated across five different land use categories which included residential, office, retail, recreation and hotel uses. To determine how best to allocate the new growth across these five land use categories, the Consultant Team researched recently approved and constructed mixed-use developments across Massachusetts and New Hampshire to determine an appropriate use mix for new development in The Triangle (Allocation #1). New large-scale mixed-use developments in suburban locations tend to have a much higher percentage of retail (56 percent) because they are often constructed in locations that do not have as high of a retail presence as what exists in The Triangle today.

Recognizing that the land use mix of new development in The Triangle will likely incorporate other uses with less of an emphasis on retail, the Consultant Team developed a second set of land use allocation assumptions that more heavily favored residential, office and entertainment uses (Allocation #2). This allocation more closely resembles what is occurring in The Triangle with more recent development and redevelopment proposals, namely Nouvelle, BJ's redevelopment (1225 Worcester Street), Wegmans, the proposed 40B at Cloverleaf Plaza, and the recently proposed but tabled Flutie Pass mixed-use development. Table 4.5 shows the two different land use allocations used for the 10

TABLE 4.5 LAND USE ALLOCATION FOR NEW GROWTH

USE TYPE	ALLOCATION #1	ALLOCATION #2
RESIDENTIAL	21%	40%
OFFICE	17%	20%
RETAIL	56%	25%
ENTERTAINMENT	1%	10%
HOTEL	5%	5%

percent and 20 percent growth scenarios.

Applying the two different land use allocations to the 10 and 20 percent growth scenarios yields the same increase in total square feet (1.032 and 2.064 million, respectively), but different assessed values and tax revenues. This is the result of allocating a higher percentage of new growth to residential and entertainment uses under Growth Scenario #2, which have a higher average assessed value than retail and office uses.³⁶

It is estimated that the two 10 percent growth scenarios would generate between \$3.5 and \$3.7 million in additional tax revenue for the two municipalities over time. It is estimated that the two 20 percent growth scenarios would generate between \$7.2 and \$7.4 million in additional tax revenue. Tables 4.6 and 4.7 compare the 10 percent and 20 percent scenarios to each other and to the existing conditions in The Triangle. Table 4.8 provides a summary of all ten scenarios that were modeled as part of the build-out analysis process.

TABLE 4.6 GROWTH SCENARIOS - DIFFERENCE BETWEEN EXISTING CONDITIONS & SCENARIOS

	EXISTING CONDITIONS	10% GROWTH #1	10% GROWTH #2
SQUARE FEET	10,323,873	+1,032,387	+1,032,387
ASSESSED VALUE	\$1,548,986,200	+\$166,130,851	+\$171,745,572
TAX RECEIPTS	\$35,843,781	+\$3,529,103	+\$3,703,865

TABLE 4.7 GROWTH SCENARIOS - DIFFERENCE BETWEEN EXISTING CONDITIONS & SCENARIOS

	EXISTING CONDITIONS	20% GROWTH #1	20% GROWTH #2
SQUARE FEET	10,323,873	+2,064,775	+2,064,775
ASSESSED VALUE	\$1,548,986,200	+\$337,465,670	+\$343,491,144
TAX RECEIPTS	\$35,843,781	+\$7,230,467	+\$7,407,731

³⁶ Average assessed value per square foot calculated from Framingham and Natick 2017 assessor databases.

TABLE 4.8: SCENARIO SUMMARY TABLE - DIFFERENCE BETWEEN EXISTING CONDITIONS AND ALL SCENARIOS MODELED

	SQUARE FEET	ASSESSED VALUE	TAX RECEIPTS
EXISTING	10,323,873	\$1,548,986,200	\$35,843,781
8% RETAIL DECLINE	-376,499	-\$9,015,565	-\$176,632
12% RETAIL DECLINE	-564,749	-\$13,523,347	-\$264,947
15% RETAIL DECLINE	-705,936	-\$16,904,184	-\$331,184
8% USE SHIFT	+516,194	+\$112,275,817	+\$3,315,917
12% USE SHIFT	+516,194	+\$122,919,392	+\$3,759,832
15% USE SHIFT	+516,194	+\$130,902,073	+\$4,092,769
10% GROWTH #1	+1,032,387	+\$166,130,851	+\$3,529,103
10% GROWTH #2	+1,032,387	+\$171,745,572	+\$3,703,865
20% GROWTH #1	+2,064,775	+\$337,465,670	+\$7,230,467
20% GROWTH #2	+2,064,775	+\$343,491,144	+\$7,407,731

POTENTIAL COST IMPACTS

The Consultant Team used the results of the modeling exercise for existing conditions, 10 percent growth #2, and 20 percent growth #2 as inputs into the transportation model in Chapter 6. The build-out model also was used to calculate potential changes in population, employment, housing units, property tax revenue, and service costs to both municipalities. While increases to tax revenues are important, both communities wanted to ensure that municipal service costs would not outpace potential revenues.

As shown in Table 4.9, service costs increase with additional development, but net tax revenue from The Triangle still outpaces municipal service costs. The largest impact on municipal service costs comes from new residential development. Residents tend to use more municipal services than commercial businesses, particularly when it comes to services such as education, parks and recreation, library, trash collection, and administrative services. Both the 10 percent and 20 percent growth scenarios allocate 40 percent of the new growth to residential land uses, which drives up the cost of

TABLE 4.9 IMPACT MEASUREMENTS ACROSS GROWTH SCENARIOS			
	EXISTING CONDITIONS	10% GROWTH #2	20% GROWTH #2
TOTAL SQUARE FEET	10,323,873	11,356,260	12,388,647
POPULATION	2,198	2,969	3,898
RESIDENTIAL UNITS	1,059	1,319	1,732
EMPLOYEES	35,878	37,655	40,401
TAX RECEIPTS	\$35,843,781	\$39,547,646	\$43,251,512
SERVICE COSTS*	\$26,936,076	\$30,643,195	\$35,520,276
NET FISCAL IMPACT	\$8,907,705	\$8,904,452	\$7,731,236

**Note: Service Costs - Municipal service costs are based on an average cost model per resident and per employee. Students per unit calculations were based on a ratio of 0.11 students per residential unit as provided by the Framingham and Natick School Departments.*

municipal services compared to the increases in commercial development.

If the land use mix favors more commercial development in the future, tax receipts could be higher with lower overall service costs making the net fiscal impact more positive. While a heavier focus on commercial development is possible, it seems that the strong residential market in the Greater Boston area is creating a higher demand for residential development particularly in outlying suburbs that already have a substantial amount of retail and commercial development. ***The net fiscal impact comparison does not take into account any reduction in sales tax receipts from the decline in retail (as detailed in Table 4.3) should retail increase and not be backfilled by other use types.***

It is worth noting that the build-out model does not include revenue streams such as local excise taxes on vehicles, local options sales tax, reductions in vacancy which could drive up tax revenues, and assessed values on new construction that will be higher per square foot than what is currently built in The Triangle today. These additional revenue sources would increase the net fiscal benefit to both communities, and possibly bring in more revenue overall than