TOWN OF HINESBURG
POLICE IMPACT FEES

January 10, 2022

Town of Hinesburg

RSG
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Cover Image Credit: Hinesburg Community Police Station

Name of Agency

TOWN OF HINESBURG POLICE IMPACT FEES

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LIST OF ABBREVIATIONS

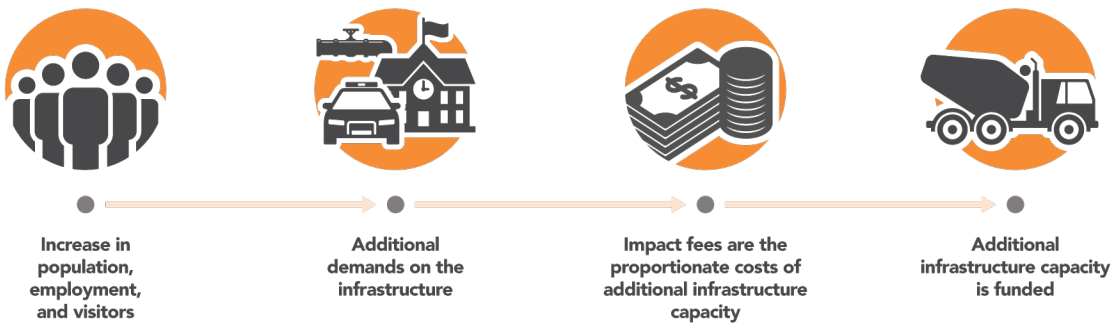
ACS	American Community Survey
CCI	[ENR] Construction Cost Index
CCRPC	Chittenden County Regional Planning Commission
DMV	Department of Motor Vehicles
FTE	Full Time Equivalent staffing
GFA	Gross floor area
MTP	Metropolitan Transportation Plan
PUMS	Public Use Microdata Sample

1.0 INTRODUCTION

This impact fee study report evaluates how land use development in the town of Hinesburg can accommodate new demands it places on existing services and infrastructure. Impact fees are a type of land use regulation that local governments use to generate revenue to construct additional capacity to accommodate this demand. The Town of Hinesburg retained RSG to develop this needs study to identify a fair and equitable impact fee structure for its transportation investments.

Vermont statute authorizes municipalities to levy impact fees on new development. The purpose of these fees is to allocate the cost of new capital facilities to the development that will benefit from those facilities.[1] This can include fees to offset the costs of facilities built in the past with excess capacity for anticipated future development (such as the Hinesburg police station), facilities planned to be built to accommodate future development, and marginal expansion of capacity in response to population growth and changes in community expectations. The statute states that the costs of such infrastructure should only include the portion associated with new capacity to accommodate the future land development's demand. The process is visualized in Figure 1 below.

FIGURE 1: IMPACT FEE PROCESS



Source: RSG

The methodology used in the Hinesburg police impact study follows a "consumption" or standards based approach by expanding marginal capacity based on incremental changes in demand (i.e., population).

The consumption based approach identifies the standards by which the services are currently provided, compares those to expected standards of service, and uses a change in base demand to forecast how much additional capacity may be necessary in the future. The plan

[1] 24 V.S.A. § 5200

based approach uses an established plan or vision to identify the necessary capital investments to meet the needs of the future population. Table 1 summarizes the methods and growth units for the two capital impact fee areas. The fire department cost center is not evaluated at this time.

TABLE 1: HINESBURG IMPACT FEE CAPITAL COST CENTERS

COST CENTERS	METHOD	UNITS	GROWTH UNITS
Fire	Standards "Consumption" based / Plan based	Staff, Space and equipment per capita	Bedrooms and Employees or square feet
Police	Standards "Consumption" based	Space & full time equivalents per capita	Bedrooms and Employees or square feet

1.1 LEGAL BACKGROUND

The American Planning Association, which is a national organization dedicated to supporting local communities and planning processes, has developed standards for impact fees. These standards are as follows:[2]

- *The imposition of a fee must be rationally linked (the "rational nexus") to an impact created by a particular development and the demonstrated need for related capital improvements pursuant to a capital improvement plan and program.*
- *Some benefit must accrue to the development as a result of the payment of a fee.*
- *The amount of the fee must be a proportionate fair share of the costs of the improvements made necessary by the development and must not exceed the cost of the improvements.*
- *A fee cannot be imposed to address existing deficiencies except where they are exacerbated by new development.*
- *Funds received under such a program must be segregated from the general fund and used solely for the purposes for which the fee is established.*
- *The fees collected must be encumbered or expended within a reasonable timeframe to ensure that needed improvements are implemented. Six years in Vermont.*
- *The fee assessed cannot exceed the cost of the improvements, and credits must be given for outside funding sources (such as federal and state grants, developer initiated improvements for impacts related to new development, etc.) and local tax payments which fund capital improvements, for example.*

[2] American Planning Association. "APA Policy Guide on Impact Fees." Available at: https://www.planning.org/policy/guides/adopted/impactfees.htm.

- *The fee cannot be used to cover normal (day to day) operation and maintenance or personnel costs, but must be used for capital improvements, or under some linkage programs, affordable housing, job training, child care, transit operations, etc. This expectation has to define costs attributed to mitigating the impacts associated with additional land use development.*

Typical management activities:

- *The fee established for specific capital improvements should be reviewed at least every two years to determine whether an adjustment is required, and similarly the capital improvement plan and budget should be reviewed at least every 5 to 8 years.*
- *Provisions must be included in the ordinance to permit refunds for projects that are not constructed, since no benefit will have manifested.*
- *Impact fee payments are typically required to be made as a condition of approval of the development, either at the time the building or occupancy permit is issued.*

Vermont's impact fee statute does not preclude using funds for administrative duties associated with the management of the impact fee program. Nationally, it is common practice to collect and expend impact fees to cover time and expenses associated with the creation, management, and administration of the impact fee program. These funds often cover the salary portion of the impact fee administrator, staff time in the preparation and review of impact fee studies, consultant or staff time preparing impact fee needs reports, and ordinance support. Therefore, a 5% additional margin has been identified in this study as a reasonable cost for the administration of this program.

2.0 COMMUNITY CONTEXT

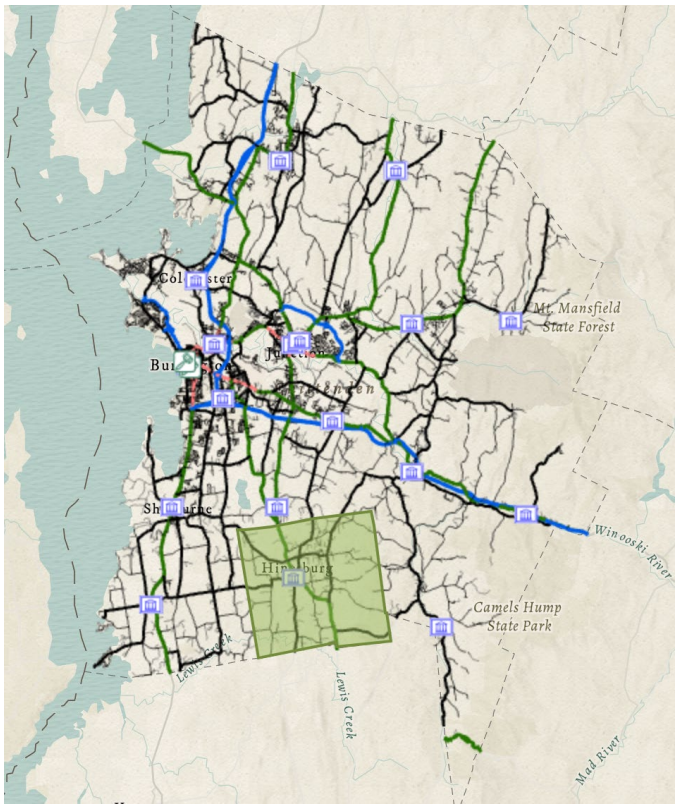
Hinesburg is a predominately rural community located south of the Burlington metro area in the foothills of the Green Mountains. The town boasts a vibrant village center surrounded by a working rural landscape dominated by agricultural and forest lands with scattered residential development.

Hinesburg has a variety of industries and a diverse small commercial sector along with a large base of employment in the educational sector with a pre-K through 8th grade school and one of the largest union high schools in the state drawing students from southern Chittenden County.

The Town Plan[3] sets out the key goals for the community:

- Enhance the village area.
- Maintain its rural character.
- Provide for environmental sustainability.
- Strive to offer the highest quality social, educational, recreational and economic opportunities, and a variety of housing options.

FIGURE 2: HINESBURG LOCATION



Source: CCRPC ECOS Map Viewer

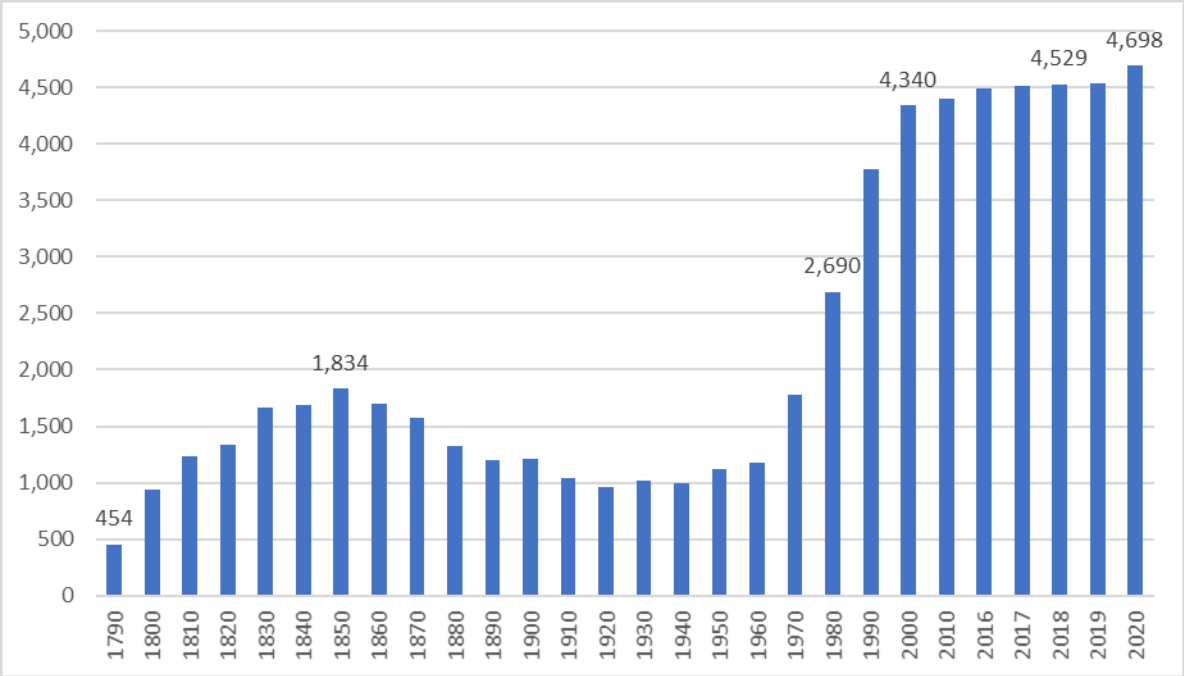
The police and fire departments are important and valuable investments made by the community and will continue to serve public safety functions in the town with adequate investment and planning for the future. Impact fees are only one of a handful of funding mechanisms to support the viability and strength of these essential resources.

[3] https://www.hinesburg.org/sites/g/files/vyhlif6691/f/uploads/hinesburg-townplan-092517.pdf

2.1 POPULATION

The town of Hinesburg has a population of 4,698 as of the 2020 Decennial Census.[4] Over the last 20 years the growth has remained relatively stable after a period of significant growth between 1970 and 2000. Figure 3 shows the historical residential population for the town since 1790.

FIGURE 3: TOWN OF HINESBURG HISTORICAL POPULATION



Source: US Census, ASC 5 year estimates, US Decennial Census for years 2020, 2010 and earlier

2.2 HOUSEHOLDS

To minimize adverse effects on housing affordability and build a strong nexus between the need for services and growth in the town, it is important to understand the actual number of people occupying the land uses being developed. Households is an accessible and commonly used term for forecasting growth and one of the few units of growth that is specifically used in the permitting process.

Bedrooms however is also a frequently used metric, guiding the size requirements for waste water and raw water as well as other land development permits.

[4] The 2020 Census data is only available for population figures at the time of this report. The 2019 American Community Survey is used for all other detailed demographic data.

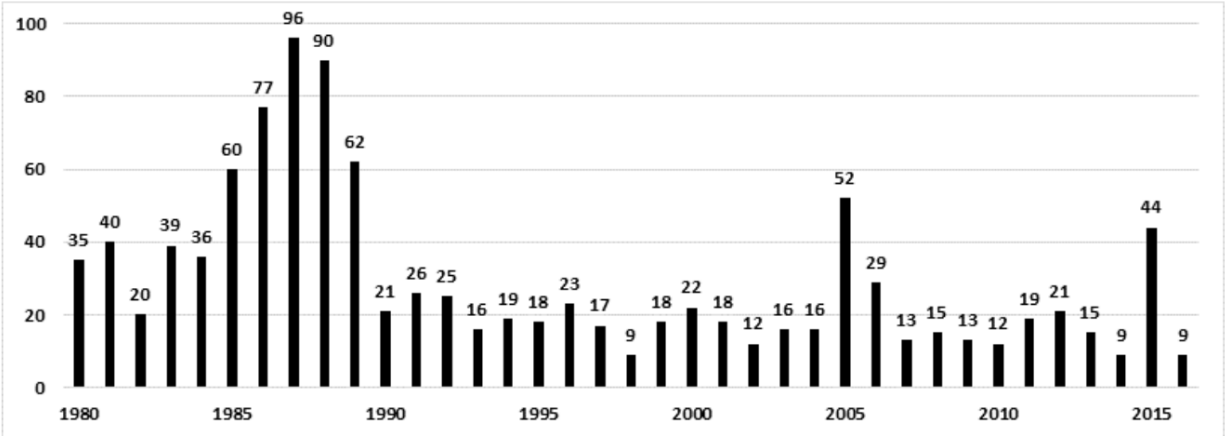
Both the number of households and the number of bedrooms in those households are known entities at the time a building permit is obtained prior to construction. The number of occupants are not – which is the true source of demand for town services such as police protection.

This section connects the number of bedrooms to the number of households and then using available census data for Vermont a model is estimated for the number of persons a household may be expected to have.

The town of Hinesburg has an estimated 1,996 housing units as of the 2019 ACS, with approximately 75% of those consisting of one unit standalone dwelling structures, and 87% when incorporating manufactured mobile homes.[5]

Figure 4 shows the historical permitting record of new residential dwelling units in Hinesburg since 1980 through 2016. The data indicated a substantial annual change in the late '80s and then a period of stability with a few larger increases associated with specific subdivisions behind the police and fire station and on Thistle Hill.

FIGURE 4: NEW DWELLING UNITS IN HINESBURG (1980-2016)



Source: Town Plan derived from Hinesburg Zoning Administrator based on Building Permits issued.

Bedrooms per Household

The 2019 breakdown of households and the number bedrooms is shown in Table 2.

TABLE 2: BEDROOMS, BY HOUSEHOLD UNIT (2019 5-YEAR ACS)

HOUSEHOLD BEDROOM COUNT	COUNT	PERCENT
No Bedroom (i.e., studio or efficiency unit)	0	0%
1 Bedroom	107	5%
2 Bedrooms	524	26%
3 Bedrooms	1,017	51%

[5] ACS data on units in structure. Table DP04

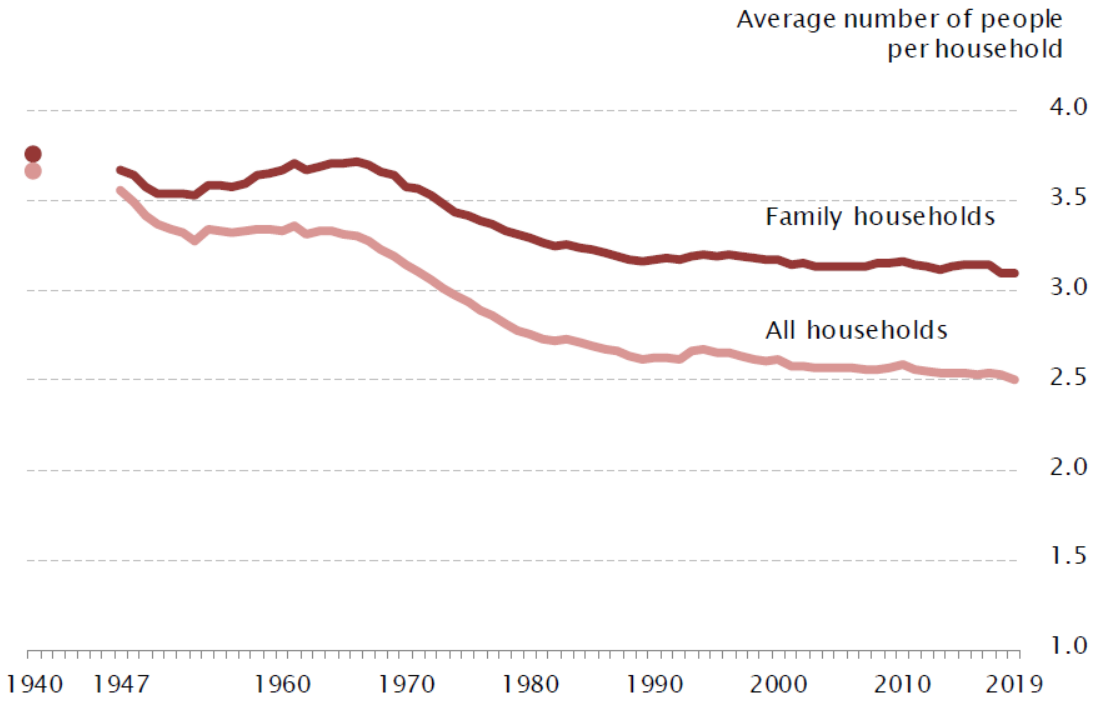
4 Bedrooms	306	15%
5 or More Bedrooms	42	2%
Total Housing Units	**1,996**	**100%**

The weighted average number of bedrooms per unit is 2.8.

Persons per Household

The 2019 ACS data indicates an average of 2.43 persons per household across Hinesburg based on the 4,672 population and 1,870 occupied housing units. The 2010 data indicates an average of 2.50 persons per household across the 1,749 housing units. This decline in average household size mirrors national data, which over the past half century, shows the average size (number of persons) of households has dropped from 3.67 persons per household in 1940 to 2.53 in 2016, as shown in Figure 5.

FIGURE 5: AVERAGE HOUSEHOLD SIZE (1940–2016)



Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplements, 1940 and 1947 to 2019.

Source: US Census Bureau[6]

[6] US Census Bureau. "Historical Households Tables." December 2020. Available at: https://www.census.gov/data/tables/time-series/demo/families/households.html.

The number of occupants per household influences the number of housing units necessary to house the population and may also influence the degree to which any household may impact the needs for goods and services.

The U.S. Census Public Use Microdata Sample (PUMS) regularly surveys around 1% of the U.S. population each year across the full set of variables surveyed in the ACS. The 2019 five-year PUMS data was downloaded using the statistical software R and exported for the state of Vermont geography, providing occupancy data on 32,056 households. The data accessed compares persons per household and the number of bedrooms in that household. The relationship is visualized in Figure 6 below.

FIGURE 6: VERMONT PERSONS PER HOUSEHOLD BY BEDROOM

Source: Census PUMS data analyzed by RSG

A strong linear relationship exists between the number of bedrooms a household has and the number of persons in that household. This relationship is used to convert per capita fees for the police department to residential fees based on the number of bedrooms the dwelling unit has.

2.3 EMPLOYMENT

The town of Hinesburg hosts an estimated 1,467 employed persons in the town across the many significant business and educational facilities located throughout the town. Of these, approximately 78% live outside of Hinesburg and commute in. Table 3 shows the 2019 five-year ACS summarizes the jobs within the town of Hinesburg.

TABLE 3: DISTRIBUTION OF EMPLOYMENT SECTORS IN THE TOWN OF HINESBURG

NAICS DESCRIPTION	% OF WORKERS IN TOWN OF HINESBURG
Agriculture, forestry, fishing and hunting, and mining	4%
Construction	11%
Manufacturing	14%
Wholesale trade	<1%
Retail trade	9%
Transportation and warehousing, and utilities	3%
Information	<1%
Finance and insurance, and real estate and rental and leasing	2%
Professional, scientific, and management, and administrative and waste management services	13%
Educational services, and health care and social assistance	24%
Arts, entertainment, and recreation, and accommodation and food services	9%
Other services, except public administration	8%
Public administration	3%

Source: 2019 ACS 5-year B0526

2.4 LAND USE FORECASTS

The Town Plan, town zoning and land development regulations anticipates future growth and land development. Consistent with New England, and Vermont trends, Hinesburg's growth is expected to remain modest relative to historical trends. The 2020 Census data indicates the state grew 2.8%, or 0.28% annually between 2010 and 2020, while Hinesburg grew 6.64%, or 0.66% annually[7], from 4,396 to 4,698 residents between 2010 and 2020.

Countywide Context

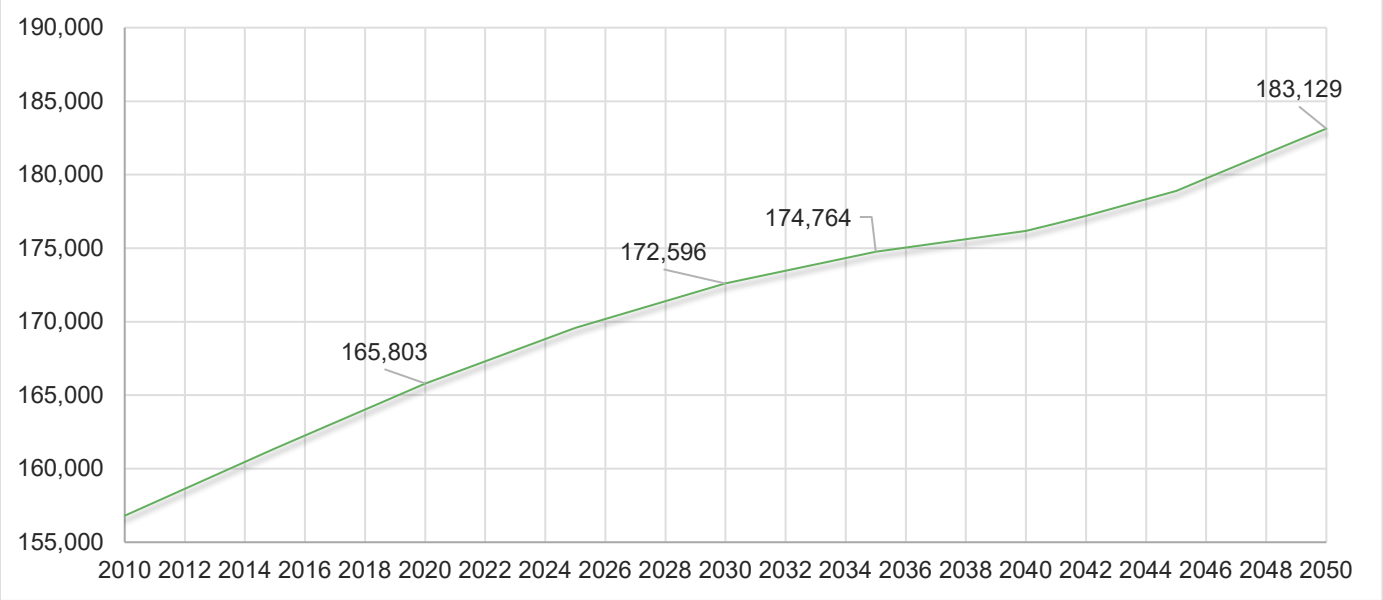
The 2018 ECOS Metropolitan Transportation Plan (MTP) produced by the Chittenden County Regional Planning Commission (CCRPC) developed countywide and municipal forecasts out to 2050. The 2018 projections have countywide population projected to increase from 165,000 in

[7] Using a natural log growth equation

2020[8] to 183,000 in 2050. The population is anticipated to slow in annual growth rates through the 2020s and then increase again starting in the 2030s as the 'millennials' fully enter an age typical of household formation.

Figure 7 shows the chart for the projected countywide population growth through year 2050. The chart indicates that annual growth rates between 2010 and 2020 are around 0.56% and forecast between 2020 and 2030 at 0.4%. Hinesburg data indicates that the town is adding more residents faster than the Chittenden County average.

FIGURE 7: CHITTENDEN COUNTY POPULATION PROJECTIONS



Source: CCRPC 2018 ECOS MTP (developed by Economic Policy Resources, Inc. and RSG)

The cumulative countywide population are compared by time period in Table 4 that illustrates how the annual average growth rates vary by period of analysis.

TABLE 4: CHITTENDEN COUNTY POPULATION PROJECTED ANNUAL RATES OF GROWTH

TIME PERIOD	AVG. ANNUAL FORECAST GROWTH RATE
2010 – 2030	0.480%
2010 – 2040	0.388%
2020 – 2050	0.331%
2030 – 2050	0.296%
2040 – 2050	0.387%
2010 – 2050	0.388%

Source: RSG analysis of CCRPC 2018 ECOS countywide population projections

[8] The 2019 ACS data indicates Chittenden County has a population of 163,774

Hinesburg Area Growth

This study uses the recent growth in the town along with the regional forecasts to establish the connection between the number of residents and employed persons in town and their demand for police and fire services. The forecast growth is an indicator of how the future demands on the two departments will change and when additional investment may be necessary to maintain current service standards.

The regional growth that is forecast for Hinesburg in the CCRPC MTP is added to the estimated current population, household, and employed persons (from ACS data) and shown in Table 5.

TABLE 5: HINESBURG FORECAST GROWTH

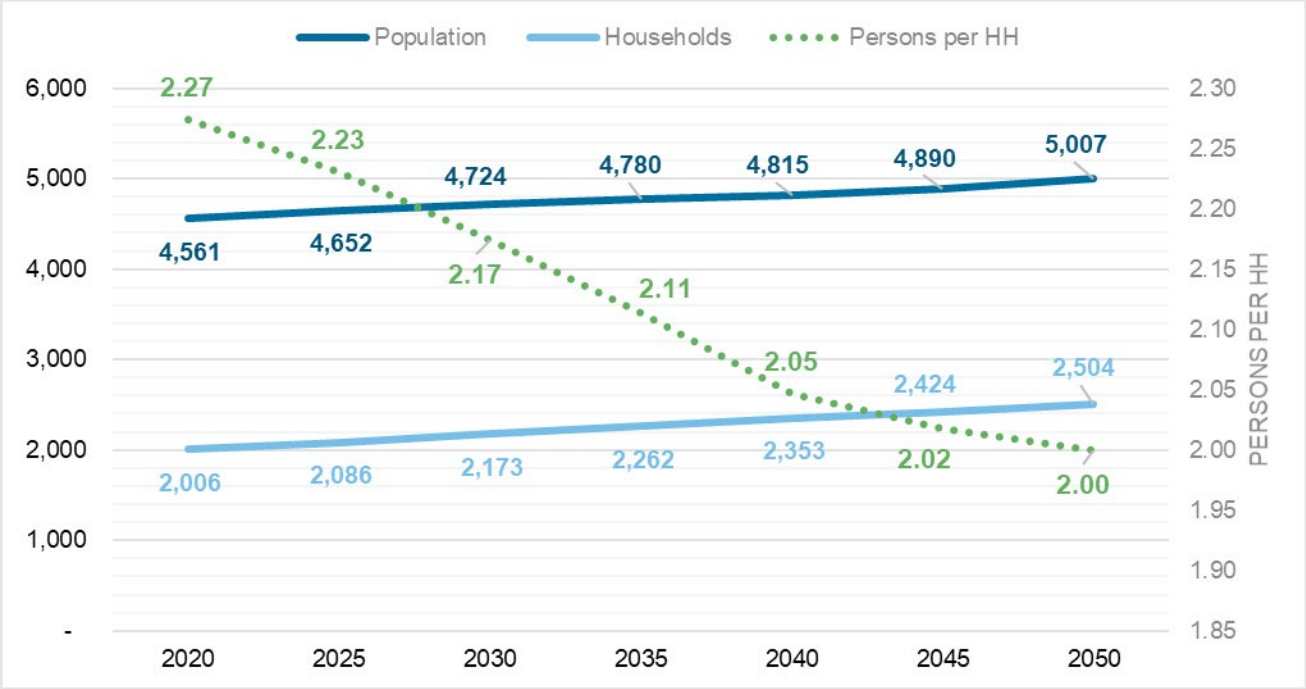
YEAR	POPULATION FORECAST[9]	HOUSEHOLDS	PERSONS PER HH	EMPLOYED PERSONS
2020	4,561	2,006	2.27	1,467
2025	4,652	2,086	2.23	1,482
2030	4,724	2,173	2.17	1,496
2035	4,780	2,262	2.11	1,512
2040	4,815	2,353	2.05	1,531
2045	4,890	2,424	2.02	1,595
2050	5,007	2,504	2.00	1,658

Source: CCRPC 2018 ECOS MTP Forecast Growth

These growth forecasts are derived from the New England, state, and regional level and applied at the local town level. The effects of the COVID Pandemic and other economic shocks or changes in migration patterns (both internationally and nationally) could all dramatically affect these forecasts. As such, these forecasts are used only for the purposes of evaluating the timing when additional capacity within the police department may be necessary. Retrospective analysis of these growth trends should be pursued every few years. The table is visualized for population and households in Figure 8.

[9] Population is growing faster than forecast. With Hinesburg already exceeding the 2025 projections by year 2020. The forecasts here are still valuable for the purposes of the study, however, if growth continues faster than forecast, the capacity for capital equipment and infrastructure may be reached sooner than originally anticipated.

FIGURE 8: HINESBURG POPULATION, HOUSEHOLDS, AND HOUSEHOLD SIZE FORECAST



Source: RSG derived from ACS data and CCRPC MTP forecasts

3.0 POLICE DEPARTMENT

3.1 INTRODUCTION

The Hinesburg Community Police Department is responsible for law enforcement in the town, 24 hours a day, seven days a week. This is accomplished by having on duty officers from 7am to 11pm and providing on call services after 11pm. The department has just over five full time equivalent staff with five full time employees and a handful of hours per week available for part time officers. The chief is an active duty officer (not simply an administrator) available for calls and working shifts themselves. The department also has a volunteer statistical analyst.[10]

3.2 IMPACT FEE OVERVIEW

The Town of Hinesburg has a police impact fee that is currently in effect. The fee was developed in 2009 with the intention of funding a new station and auxiliary items that would provide services to at least the year 2028 based on the expansion and the forecast demand and growth in services.

In 2009 the department had 5.125 full time equivalent (FTE) officers in the old station using 337 sq ft per officer. The 2009 study identified a preferred industry standard of service of 500 sq ft per FTE. The station would require additional square feet to achieve that service standard, which was in excess of the 1,728 square feet that existed in 2009. The 2009 impact fee was established to fund the creation of a new police station and add additional space and capital items to support the department.

The existing deficiency was remedied by the expansion and the passage of the bond that has been paid for by impact fees and the general fund using the locally assessed property tax. The 2009 study identified that of the future net expansion (originally scheduled to construct 3,800 square feet of office space), approximately 61% of the project was to address these existing deficiencies. The remaining 39% of the project constructing additional capacity to serve future demands.

After negotiations within the town, the plan for the station was amended and a new station was designed. The bond was financed in 2013 with an estimated total cost of $1,789,031 ($1,055,200 principal and $733,831 interest).[11] The total cost per square footage in 2014 dollars resulted in $580.29 per square foot. The new station opened in 2014 with approximately 3,083 square feet of office space (~2,733 feet downstairs currently in use and 350 feet upstairs unused). Of the 3,083 square feet of space, 2,318 square feet in the new station replaces

[10] Town Plan https://www.hinesburg.org/sites/g/files/vyhlif6691/f/uploads/hinesburg-townplan-092517.pdf
[11] https://vtbondbank.org/loan-search queried on 23 May 2021 for loan 545 for Hinesburg Town.

existing capacity (61% of 3,800 sq feet proposed in 2009) and addresses the existing service standard deficiencies, with the remaining 765 square feet to accommodate the growth in the police department.

Impact fees are only used to fund new capacity. Therefore, impact fees could contribute up to $697,722.09 (39% of total project cost) based on the additional square footage that will be available to serve new additional demands associated with population growth and land development.

As of the end of 2020, $521,150 has been paid on the loan, with $50,334.16 funded through impact fees.[12] Thus far, impact fees having only contributed 9.7% of the total bond payments. See below the section on *Historical Impact Fee Collection* in Section 3.6 for a summary on why the impact fees collected since 2014 fell short of expectations.

This update to the impact fee for the police department is based on charging new growth and land development the correct amount given that the assumptions on the size and cost of the police station are now known quantities (as opposed to plans back in 2009).

The process for updating that fee is set out as follows:

- Determine share of residential vs. nonresidential demands on the department.
- Determine degree of demand for services from residential and nonresidential land uses.
- Establish the existing department standard of service.
- Assess the cost of providing that standard of service per land use unit of development (i.e., persons or bedrooms, employees or square footage).
- Create a base impact fee.

3.3 CALL HISTORY

Residential vs. Nonresidential

Recent historical police call logs were reviewed to determine the degree to which residential and nonresidential land uses demand police department time and services. The call logs defined a category or type of call. RSG assigned the call type with residential and nonresidential land uses. A sum of calls for 2016, 2017, and 2018 were assessed and divided by three to obtain an annualized average call volume by land use type. The result of this analysis is shown in Table 6 below.

[12] Sum paid on loan calculated by using loan amortization table from the Bond Bank website and summing all payments from 2014 through 2020. The payments were provided by the Town Clerk.

TABLE 6: RECENT POLICE CALLS BY LAND USE TYPE

Category	Example Incidents	Average Annual Calls (using a 3-year rolling avg)	Residential Share	Annual Avg. Residential Calls	Annual Avg. Nonresidential Calls
1. Burg/Theft/Rob	Larceny, Burglary, Theft	21	50%	10	10
2. Vehicle/Traffic	Accident DMV Reports, Traffic Offense, Motor Vehicle Disturbances, Parking Problems, Driving License Suspended Criminal, Driving Under the Influence	244	50%	122	122
3. Property	Alarms, Vandalism, Property Damage, Trespassing Violations	126	50%	63	63
4. Against Persons	Citizen Dispute, Family Disturbance, Noise Disturbance, Simple Assault, Annoying/Harass/Suspicious Phone Calls, Sex Offenses, Suicides, Disorderly Conduct, Mistreatment of a Child, Domestic Abuse Order Violations	90	100%	90	0
5. Drugs	Intoxicated Persons, Possession of Regulated Drugs	4	100%	4	0
6. Fraud Investigate	Insufficient Funds Checks, Checks on Closed Accounts, False Pretenses/Swindling, Theft of Services, Forgery, Impersonation, Credit Card/Teller Machines	11	0%	0	11
7. Juvenile	Juvenile Problem, Runaway Juvenile	26	100%	26	0
8. Hazards/Threats	Bomb Threat, Fireworks, Chemical Spills	42		0	42
9. Medical Emergency	Ambulance or Medical Assist	157	100%	157	0
10. Public Safety	Traffic Hazard, Arrest on Warrant, Abandoned Vehicle, Condition of Release Violation, Probation/Parole Violation, Utility Problem	5	50%	2	2
11. Persons Assist	Citizen Assist, Property Watch, VIN Inspection, Lockouts, Welfare Check, Motorist Assistance, Attempt to Locate, Missing Persons	306	100%	306	0
12. Animal	Animal Problems, Cruelty To Animals	76	100%	76	0
13. Agency Assist	Agency (Police, Fire, Rescue) Assist, Fire Prevention Law Violation, Mental Health Assistance, Directed Patrol, Fire Investigation, Unlawful Burning	149	100%	149	0
14. E911 Hang-up	E911 Hang-up Calls	31	100%	31	0
15. Investigate Support	Suspicious Person/Circumstances, Background Investigation	160	100%	160	0
16. Other	Lost/Found Property, Tobacco Problem, Communications Offense, Littering, Illegal Possession by a Minor, False Swearing, False Information to Police	43	100%	43	0

Source: Hinesburg Police Department Your Department At Work annual reports 2016, 2017, 2018

The analysis of the calls indicate that residential land uses are responsible for 83% of the total police department incidents. (See Table 7).

TABLE 7: PROPORTION OF POLICE CALLS BY LAND USE TYPE (AVG. 2016-2018)

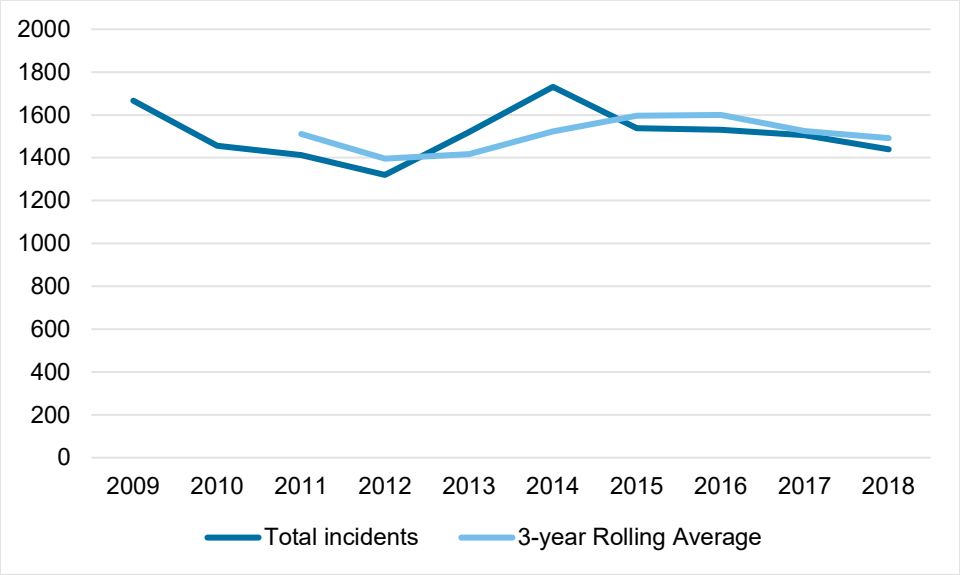
LAND TYPE	ANNUAL AVG NUMBER OF CALLS	PROPORTION OF CALLS
Residential	1,241	83%
Nonresidential	251	17%
Total Calls	**1,492**	**100%**

Source: RSG analysis of Hinesburg Police incidents

Call Volume over Time

The overall demand for police services has remained relatively stable since 2009. During this same period, the town has increased in the number of employed persons and resident population. Figure 9 shows the absolute number of police per year and the rolling average of incidents since 2009.

FIGURE 9: POLICE CALLS OVER TIME



Source: Hinesburg Police Department

3.4 EXISTING SERVICE STANDARDS

This section describes the size and capacity that the police department offers to the community. Because of changes in the way policing is done, or increasing demands on officer's time, no one metric is often sufficient to capture changes in demand over time.

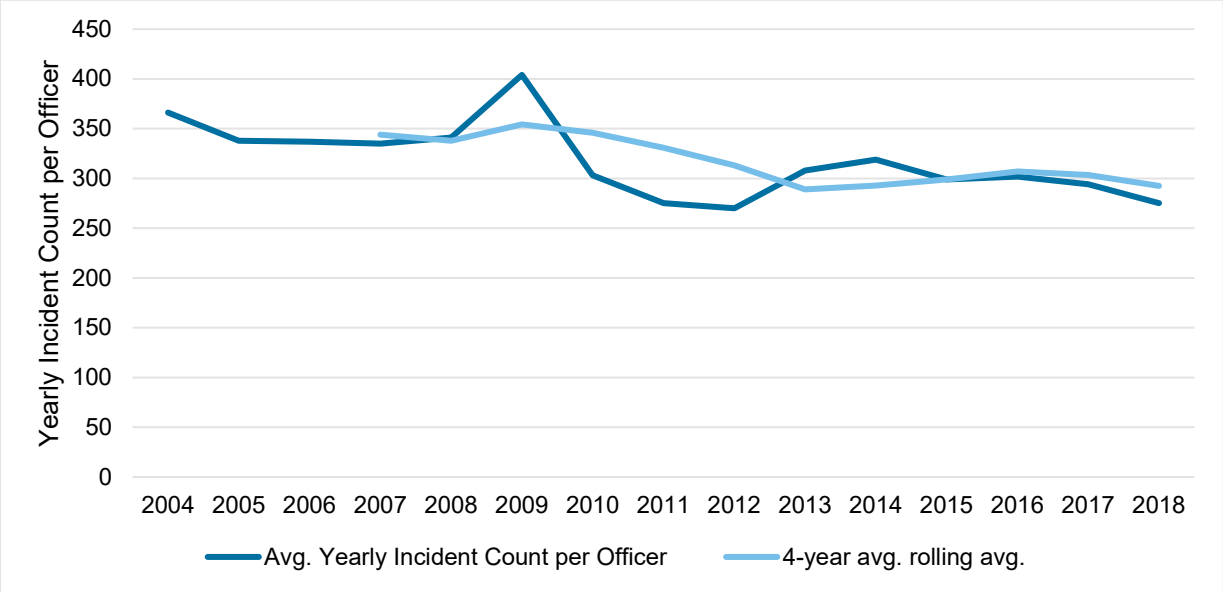
Comparing the demands on the department over time across various metrics can provide a wider perspective on how changes in the town may affect demand for police services.

Calls per Officer

Over the past decade the capacity to serve calls remained relatively stable, at around 300 calls per officer per year. This is a critical value, because if for any reason there requires a higher number of officers to service the number of calls, then additional capacity may be warranted and the costs to service the new residents and users in town increases. This analysis relies on a stable incident rate per officer for the foreseeable future.

Figure 10 shows the annual number of calls per officer and the rolling 4-year average.

FIGURE 10: ANNUAL INCIDENT COUNT PER OFFICER



Source: Hinesburg Police Department

Space Per Officer

The current building provides 517 square feet of occupied gross floor area (excluding garage/sally port) per officer given the occupied interior space of 2,733 square feet and 5.28 FTE officers. This value nearly matches what the 2009 impact fee identified as the desired standard of service of square feet per officer. This standard of ~500 square feet per FTE compares well to other national sources and should remain a benchmark for determining when additional space and staff becomes necessary.

If the current station were to be fully utilized, a total of 3,083 square feet is available for officers, giving the station a capacity of 6 FTE.

The number of FTE officers in the physical station space is the ultimate capacity constraint on the department given a relatively stability in number of calls that officers can answer per year and the average calls per year in Hinesburg.

Space Per Capita and Per Employed Person

This metric compares the amount of station space relative to the number of Hinesburg residents as well as to the number of employed persons in Hinesburg. The demand for police services is tied to the level of activity in the town – both residential and nonresidential.

Table 8 shows the analysis comparing the station space by the two user groups. For example, the analysis indicates that 0.60 square feet of space is required for every new resident in town or using employees, 1.86 square feet for every new employee. Using these standards, the amount of future building space that will be in use can be estimated.

TABLE 8: SERVICE STANDARD PER SQUARE FOOTAGE

	EXISTING SPACE	EXISTING DEMAND	SPACE PER UNIT OF GROWTH	CHANGE IN UNIT BETWEEN 2015 & 2035	NEW CAPACITY DEMANDED BY GROWTH BY 2035
Square feet per capita	2,733	4,541 pop.	0.60	260 new residents	156 sq ft
Square feet per employee	2,733	1,467 emp.	1.86	149 new employees	278 sq ft
Weighted			0.81		176 sq ft

Source: RSG

350 square feet of available space is currently unoccupied in the new building ready to serve the future growth in demand for space and officers. Thus, using a weighted average (83% residential and 17% for nonresidential) there may be need for ~ 176 square feet of space to meet the needs by 2035; the building has sufficient capacity.

The standard of service can also be used to evaluate how long beyond 2035 the current capacity will provide service to the town.

The current rate of growth (pre-COVID) the town was adding between 15 and 16 residents per year and between 7-10 employed persons per year. Using the weighted average space per unit of growth (0.81 square feet) there would be sufficient space in the police building to meet the town's needs through 2050 – assuming no inflection points in population or in the number of officers per resident needed to conduct the police department business.

Officers Per Capita and Per Employed Person

The number of officers can be a function of the size and nature of the community. This service standard relates the number of FTE staff to the population and to the number of employed persons.

Table 9 shows number of FTE officers per population and per employed persons, 1.16 and 3.6, respectively. The forecast growth in population and employment can guide how many additional officers may be necessary to meet the future needs of the community by 2035.

TABLE 9: SERVICE STANDARD PER CAPITA AND USERS

	EXISTING FTE (2018)	EXISTING DEMAND (2018)	PER UNIT OF GROWTH	CHANGE IN UNIT BY 2035	NEW CAPACITY DEMANDED BY GROWTH BY 2035
Officers per 000 residents	5.28	4,529 pop.	1.16	260 new residents	0.30 additional officers
Officers per 000 employed persons	5.28	1,467 emp.	3.6	149 new employees	0.54 additional officers
Weighted (by type of call)			1.58		0.34 additional officers

Source: RSG

The police station currently utilizes approximately 2,733 square feet of the 3,083 square feet of total available office space. There is an average of 5.28 FTE officers as of 2018 (the base year of the analysis and available data) resulting in 517 square feet per officer. At this space per officer (similar standards were also used in the 2009 study) the building can accommodate up to 6 FTE officers (3,083/517 = 6). This suggests that the building has additional capacity for approximately another 0.72 officers given current space per officer standards.

Thus, with a need for ~ 0.34 additional officers to meet the needs by 2035, the building has sufficient capacity.

Using the weighted average space per unit of growth (1.58 officers per thousand persons in Hinesburg) and an average number of new persons in town there is likely sufficient space in the police building to meet the town's needs until 2055 – assuming no inflection points in population or in the number of officers per resident needed to conduct the police department business.[13]

3.5 BASE IMPACT FEE

Capital Costs

The service standards relate the size of the community in the town which benefit from police services to the size of the station and number of FTE officers.

[13] This analysis suggests that the town requires an additional 0.017 officers per year.

The cost of providing additional square footage of station space is used to develop the base impact fee by relating the amount of square footage (and by relationship, the number of officers) required to service the needs of users in Hinesburg. Residential and nonresidential users demand services at different rates and is accounted for in the development of the base impact fees.

Table 10 uses the latest three-year rolling average of calls to proportion the cost per square foot for the station ($580.29) to residential and nonresidential users (per Table 7).

TABLE 10: COST OF STATION CAPACITY BY LAND USE TYPE

LAND TYPE	PROPORTION OF CALLS	COST PER SQUARE FOOT
Total	**100%**	**$580.29**
Residential	83%	$481.64
Nonresidential	17%	$98.65

Base Residential Fee

The base residential impact fee is developed by using a per capita relationship between the need for police department capacity and the cost of providing that capacity. The steps to develop the base residential fee are set out below.

1) The police station is the only capital item of interest at this time and the residential share of the cost per square foot is $481.64 as per Table 10.
2) The square foot per capita requirement in the police station is 0.60 square feet per resident as per Table 8.
3) The base fee per capita is $288.98 per the calculation of $481.64 residential share of the cost per square foot x 0.60 square feet per capita.

Table 11 shows the base impact fee per household derived from the per capita impact fee using the relationship of persons per bedroom household established in Figure 6. In practice, the fee is assessed on residential construction which add new residents to the town. A zero bedroom could be a studio accessory unit or a studio unit in a multifamily structure. Other bedroom values are for any expansion or new structure which has a specific number of bedrooms.

TABLE 11: BASE IMPACT FEE PER HOUSEHOLD BY NUMBER OF BEDROOMS

Bedrooms	0	1	2	3	4	5+
Avg. Persons per Dwelling	1.6	2	2.4	2.8	3.3	4
Base Impact Fee	**$ 462.37**	**$ 577.97**	**$ 693.56**	**$ 809.15**	**$ 953.65**	**$ 1,155.94**

The appropriate credits will be taken off the base fee to offset any property tax payments that are used to fund the police station. See Section 4.2 for the police impact fee credits.

Base Nonresidential Fee

The base nonresidential impact fee is developed by using a per employee relationship between the need for police department capacity and the cost of providing that capacity. The steps to develop the base residential fee are set out below.

1) The police station is the only capital item of interest at this time and the nonresidential share of the cost per square foot is $98.65 as per Table 10.
2) The square foot per employed person requirement in the police station is 1.86 square feet per employed person as per Table 8.
3) Chittenden County average of 580 square feet per employee or 1.72 employees per 1,000 square feet (ksqft).[14]
4) The base fee per ksqft is $315.60, per the calculation of $98.65 nonresidential share of the cost per square foot of the station x 1.86 square feet of station space per employed person x 1.72 employed persons per ksqft for nonresidential uses.

The nonresidential impact fee can be assessed either on the basis of either:

- The number of new employees at $183.49 per employee, or
- The square footage of the gross floor area at $315.60 per 1,000 square feet.

3.6 IMPACT FEE REVENUE

The expected rate of growth between 2020 and 2035 indicates the town will add between 15 and 16 residents per year and between 7-10 employed persons per year. The 2020 Census data shows that Hinesburg averaged 30 residents per year since 2010. While the actual average annual growth has recently exceeded the forecast rate for next few decades, the analysis in Section 3.4 indicates it is very unlikely to exhaust the available capacity by 2035. However, it will be important to revisit these assumptions every few years and reset service standards to match changes in population and employment.

[14] Analysis of countywide square footage per employee data by NAICS job code performed for the CCRPC 2018 ECOS plan applied to the Hinesburg mix of jobs by sector to obtain average 580 square feet per employee.

Table 12 shows the potential impact fee revenue given a range of potential annual growth in residents and jobs within Hinesburg. These estimates are before any applicable credits are subtracted from the base impact fee.

TABLE 12: POSSIBLE IMPACT FEE REVENUE

Annual Growth	Annual Base Impact Fee Revenue	Cumulative Base Impact Fee Revenue by 2035
Residential @ 288.98 per person		
10 residents	$2,890	$40,458
12 residents	$3,468	$48,549
15 residents	$4,335	$60,687
20 residents	$5,780	$80,915
Nonresidential @ $183.49 per job		
5 jobs	$917	$12,844
7 jobs	$1,284	$17,982
10 jobs	$1,835	$25,688
12 jobs	$2,202	$30,826
15 jobs	$2,752	$38,533

Historical Impact Fee Collection

As of 2021, an estimated $50,334 has been collected through impact fees for the police department. $44,016 from residential uses and $6,318 from nonresidential uses. The fee has been assessed since 12/23/2009. Over the roughly ten years, that would be ~$4,400 a year from residential and $631 a year from nonresidential.

An investigation into the previous methodology indicates two primary reasons for the significant under collection of police impact fees relative to what the 2009 study forecast: a) cost of structure and b) growth rate assumptions.

a) Cost of structure: The 2009 methodology anticipated a cost per square foot of $268.20 for the police station. Even with a 2.08% inflation rate between 2009 and 2014, the cost per square foot should be $297.32. However, the service standards used for justifying additional officers all used the office space (3,800 square feet) rather than the gross including the garage/sally port. The 2009 methodology should have used the smaller 'office space' square foot area for a cost of $324.65 ($1,233,700 / 3,800) per square foot. Instead, the new standalone police station required a bond for more total dollars to construct fewer square feet ($1.7 vs. $1.2 million for the bond and usable office space of 3,083 square feet vs 3,800 square feet). The new standalone station resulted in a cost per square foot of $580.29 in 2014 dollars.

b) Growth Rate: The 2009 methodology estimated 40 new residents were moving to Hinesburg annually. This forecast growth exceeds actual growth of 30 residents per year and well exceeded the growth that was forecast in 2016 as part of the regional transportation plan update (estimated to be around 15 to 16 residents per year). The more modest growth not only reduced the revenue coming in but also indicates the station has capacity to serve the town's growth for a longer period of time.

4.0 CREDITS

4.1 CREDITS

Credits are adjustments to the base impact fee that a land use would be assessed. Credits are applicable for the police impact fee developed in Section 3.5.

Two credits are used to offset impact fees: infrastructure credit and revenue credits. The credits are applied after the base impact fee is calculated, as per equation:

Impact Fee = (Cost per Unit of Growth x New Units of Growth) – (Applicable Credits)

Infrastructure Credits

A land use development applicant that constructs or directly funds any of the capital items funded through impact fees. In the case of the police department, there is no infrastructure credit possible given the police station is already constructed and the impact fees are repaying the town for the remaining capacity.

Revenue Credits

Revenue credits discount the base impact fee to reduce the chance that a land use development in the town would be funding the same capital improvement through two different funds.

This frequently occurs when the developer pays property taxes (prior to the development of the land and after the development) and a portion of which goes to fund the capital project that the impact fee contributed toward. In this situation, it is necessary to offset the impact fee by a credit value to eliminate the double payment toward the same capacity.

Property tax is paid by a parcel owner on undeveloped land prior to a land use development and future taxes once the land is developed. The taxes on the undeveloped land that contribute to the police station debt is referred to as the “past tax payments.” The property tax payments on the developed land that will contribute to the station debt is referred to as “future tax payments.” The streams of past and future tax payments are translated into net present values using an assumed 3% discount rate.

Property Valuation Approach

The strongest nexus between the amount of property tax paid and the development is the value of the property, prior to development and after development. The town of Hinesburg’s 2020 Grand List taxable valuation is $6,593,419 (total assessed value is $659,341,900). Assuming

the grand list will continue to grow by 1% per year[15], a tax rate is estimated per $1,000 of assessed value of the property to generate the annual expenses required. The average assessed value per acre of $3,524 is calculated using the 2020 Grand List data weighted by the average by undeveloped acres of land value per acre for land uses codes M, R1, and R2.

As the grand list grows, the tax rate will decrease (the absolute dollars needed per year is fixed and the tax base to raise those dollars grows). The combined tax rate of past years and future years are brought to net present valuations depending on the year the parcel is developed.

4.2 REVENUE CREDITS

The police station is funded through impact fees and property taxes which are collected to pay off the construction bond. The revenue credit is necessary to offset the possibility of a parcel owner paying both the property taxes that will be used for the bond debt and the impact fee.

Approximately $55,125 per year is required to satisfy the amortization schedule of the police station construction bond debt, with the last year of payment being 2043. It is estimated that approximately $6,000 per year can be collected through impact fees, leaving an estimated $49,125 of property tax revenue to fund the police station bond debt.

Past Tax

Tax is calculated on the value of the land prior to the development or redevelopment. The impact fee credit is split into two parts – one using the past tax values from the original impact fee study (Table PP-4 from September 2009) and applies for taxes paid between 2013 and 2020 and the one part applies only for taxes paid in 2021 going forward and for years that the land development entity or owner has proven title to the parcel.

The past tax credit is only applied to the entity who has the impact fee liability. For example:

- If a parcel is developed in 2025, the credit shall apply for the taxes paid in 2021, 2022, 2023, 2024, and 2025.
- if a parcel is developed in 2030, but was sold in 2028 to the current owner, the credit shall only apply for the taxes paid in 2029 and 2030.

[15] Historical average has been between 3% and 0.8%. Population growth rates suggest a more modest valuation increase.

Table 13 shows the annual tax rate per $1,000 valuation of the grand list to achieve the annual revenue to pay for the police station debt for properties that paid property tax between 2013 and 2020. The past taxes are credited against any impact fee liability.

- If the parcel was owned prior to 2013, use the $0.59 per $1,000 of taxable value. If the property is valued at $100,000 there is a $59 credit.
- If the parcel was purchased between 2013 and 2020, then the rate to apply would be the difference between the year the parcel was purchased and the $0.59 value for 2020. For example, the parcel was purchased in 2015, the PAST TAX rate would be ($0.59 - $0.22 = $0.37) per $1,000 of taxable value.

TABLE 13: 2013-2020 PAST TAX RATE FOR POLICE STATION PER $1,000 OF VALUATION

DWELLING CONSTRUCTION YEAR [A]	ANNUAL EXPENSE [B]	TAX RATE NEEDED (PER $1,000 ASSESSMENT) [C]	PAST TAXES PAID ON $1,000 OF VALUE [D]
2013	$33,676	0.006	**$0.08**
2014	$32,989	0.006	**$0.15**
2015	$32,301	0.006	**$0.22**
2016	$31,614	0.006	**$0.29**
2017	$30,927	0.005	**$0.36**
2018	$30,240	0.005	**$0.44**
2019	$29,553	0.005	**$0.51**
2020	$28,865	0.005	**$0.59**

Source: 2009 Impact Fee Study. Table PP-4

Table 15 column [D] shows past taxes for the year of development for properties that paid tax from 2021 onwards that is the sum of previous tax rates (using a 3% discount rate) that are applied for each $1,000 of valuation.

For example:

- Residential: A 5-acre undeveloped residential lot, with an average assessed value per acre of $3,524[16] for a total of $17,618, is developed in 2027. The past tax credit off any base impact fee would equal to (17.62*0.48) = $8.46
- Nonresidential: Undeveloped nonresidential land has an average weighted value of $2,624 per acre. When nonresidential land is developed, the average value of the land is 37% of the total assessed value of the property with an average land value of $8,970 per acre.

[16] 2020 Grand List weighted average by acres empty (undeveloped) land value per acre for land uses codes M, R1, and R2.

The credit should be calculated off the most current assessment of the property, either raw land if it is undeveloped, or if it is a redevelopment, the total value of the property (land and structures) pre-redevelopment should be used.

Future Tax

A portion of property taxes paid on the value of the developed parcel will fund the police station debt is calculated for the year of development in Table 15. A portion of the future stream of taxes will satisfy the bond debt. The annual tax rate shown in the column [E] in the table is per $1,000 of assessed future value.

The post-development credit is calculated based on the total development value of the parcel including the structure and land value (see above for land value). The development value is often included in local development permits and State Act 250 applications. If the land development is a redevelopment, the difference between pre-redevelopment and post-redevelopment assessed value shall be used.

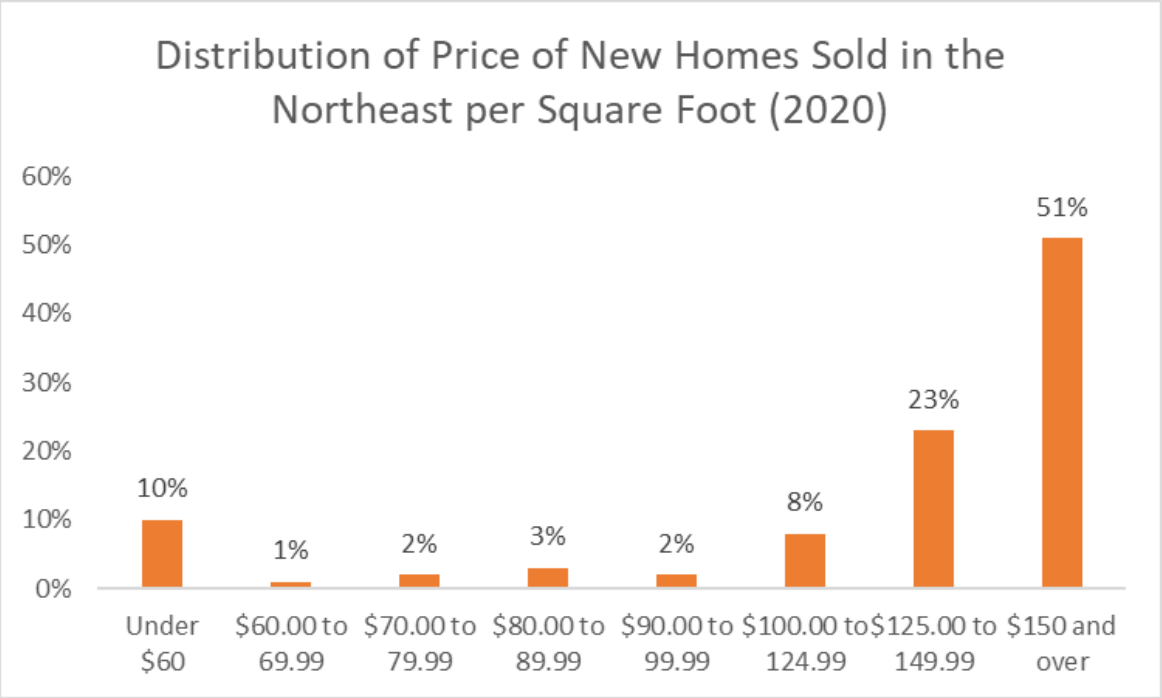
If the value of the developed property is not known the following data can be used to estimate residential and nonresidential property values:

Residential

U.S. Census data includes sales prices for new residential construction by region.[17] The data includes sales price by improved square foot that include finished basements and livable space that are heated or cooled. This would exclude garages, porches, or other external spaces. The data indicates that in current 2020 dollars the median sales price for new residential construction in the northeast is $161.17 per square foot of building space.[18]

[17] US Census. Characteristics of New Housing. https://www.census.gov/construction/chars/
[18] New Housing cost data https://www.census.gov/construction/chars/xls/soldpricesqft_cust.xls

FIGURE 11: SHARE OF NEW HOMES SOLD IN THE NORTHEAST BY COST PER SQUARE FOOT



Source: U.S. Census Data

Average sales data for new manufactured housing, or more commonly referred to as mobile homes, indicates that these structures with an average size of approximately 1,200 square feet, are sold for $60,000.[19] This is an average sales price of $50 per square foot.

Nonresidential

If the future assessed value of the nonresidential use is not known, Table 14 can be used to estimate the post development property assessment values based on different construction methods, building types, and uses. The table uses data from an online subscription to RSMeans Square Foot Cost Estimator, which is available for the Burlington, Vermont, metropolitan area based on 2017 Q2 data. The estimates include general contractor and architectural fees, basic site work elements, and structural building elements. Four generalized types and typical forms

[19] Sources for sales prices for new manufactured homes https://www.thehomesdirect.com/blog/average-cost-of-a-manufactured-home and https://home.costhelper.com/mobile-home.html

of construction often found here in Vermont are included in this analysis.[20] The 2017 data were escalated to 2021 values using the Engineering News Record CCI (Construction Cost Index).[21]

TABLE 14: 2021 CONSTRUCTION VALUES FOR NONRESIDENTIAL USES BY CONSTRUCTION TYPE (VALUE PER SQUARE FOOT)

CONSTRUCTION TYPE	REINFORCED CONCRETE OR STEEL FRAME	MASONRY OR CONCRETE BEARING WALL	WOOD FRAME	PREFAB. STEEL
Accommodation (hotels, shared and group housing)	$211	$205	$164	$202
Commercial (office, professional)	$244	$230	$193	$196
Industrial/factory/warehouse	$153	$140	$130	$112
Educational (K–12)	$206	$208	$175	$174
Retail	$164	$176	$124	$134

If the land development is a redevelopment, the difference between pre-redevelopment and post-redevelopment assessed value per square foot shall be used.

Tax Rate

Table 15 shows the annual tax rate per $1,000 valuation of the grand list to achieve the annual revenue to pay for the police station debt. For example, for a property worth $355,000, an estimated $26.45 of taxes are applied to the police station ($355,000*$0.074507 / $1,000). See Table 13 for the tax rate and past tax credit for taxes paid between 2013 and 2020.

TABLE 15: POLICE STATION TAX RATE PER $1,000 OF VALUATION

DWELLING CONSTRUCTION YEAR [A]	ANNUAL EXPENSE [B]	TAX RATE NEEDED (PER $1,000 ASSESSMENT) [C]	PAST TAXES PAID ON $1,000 OF VALUE [D]	FUTURE DISCOUNTED STREAM OF TAXES PER $1,000 OF FUTURE VALUE [E]
2021	$49,125	0.074507	**$0.00**	**$1.11**
2022	$49,125	0.073769	**$0.08**	**$1.07**
2023	$49,125	0.073038	**$0.16**	**$1.03**
2024	$49,125	0.072315	**$0.23**	**$0.99**
2025	$49,125	0.071599	**$0.32**	**$0.95**
2026	$49,125	0.070890	**$0.40**	**$0.90**
2027	$49,125	0.070188	**$0.48**	**$0.86**
2028	$49,125	0.069494	**$0.57**	**$0.82**
2029	$49,125	0.068806	**$0.66**	**$0.77**

[20] Wood frame industrial/factor/warehouse and education (K-12) are estimated based on the relationship that wood frame structures had for other construction types.
[21] Engineering News-Record: http://enr.construction.com/economics/default.asp a 12.8% increase between 2017 and 2021.

2030	$49,125	0.068124	**$0.75**	**$0.73**
2031	$49,125	0.067450	**$0.84**	**$0.68**
2032	$49,125	0.066782	**$0.94**	**$0.63**
2033	$49,125	0.066121	**$1.04**	**$0.58**
2034	$49,125	0.065466	**$1.13**	**$0.54**
2035	$49,125	0.064818	**$1.24**	**$0.49**
2036	$49,125	0.064176	**$1.34**	**$0.44**
2037	$49,125	0.063541	**$1.45**	**$0.38**
2038	$49,125	0.062912	**$1.55**	**$0.33**
2039	$49,125	0.062289	**$1.67**	**$0.28**
2040	$49,125	0.061672	**$1.78**	**$0.23**
2041	$49,125	0.061061	**$1.90**	**$0.17**
2042	$49,125	0.060457	**$2.02**	**$0.12**
2043	$49,125	0.059858	**$2.14**	**$0.06**
2044	-	0.000000	**$2.27**	**$0.00**

Net Police Impact Fee

The net police impact fee is calculated by accounting for the base fee, the pre-development credit and the post-development credit as set out by the examples below.

- Base Fee. Assessing fee per household by the number of bedrooms (see Table 11) or in the square footage of the nonresidential use.
- Pre-Development Credit. The credit for pre-development property taxes that were paid on the police station debt. Use the past tax rate per $1,000 of pre-development assessment (see Column [D] in Table 15).
    - Residential: A 5-acre undeveloped residential lot, with an average assessed value per acre of $3,524[22] for a total of $17,618, is developed in 2027. The past tax credit off any base impact fee would equal to (17.62*0.48) = $8.46
    - Nonresidential: A 3-acre of undeveloped nonresidential land has an average weighted value of $2,624 per acre is developed in 2030. The past tax credit off any base impact fee would equal (3*2,624/$1,000 *.75) = $5.90
- Post-Development Credit. The credit for post-development property taxes that will be used to pay the police station debt. Use the future tax rate per $1,000 of pre-development assessment (see Column [E] in Table 15).
    - Residential: A 4-bedroom 2,400 square foot home is built on the 5-acre residential lot in 2027. The property value is the land ($17,618) plus the structure value estimated at $386,808 ($161.17 per sq ft * 2,400 sq ft) equals $404,426. The future tax impact fee credit would equal (404.426 * 0.86) = $347.81

[22] 2020 Grand List weighted average by acres empty (undeveloped) land value per acre for land uses codes M, R1, and R2.

- Nonresidential: A 3-acre nonresidential parcel puts a 50,000 square foot warehouse on it for a development value of $5.6 million. With the estimate of the land now at valued at $26,910 ($8,970 * 3) and the structure, the parcel has a total post development value of $5,626,910 in 2030. The future tax impact fee credit equals (5,626.910 *.73) = $4,108.

The net fee equals = (Base Fee) – (pre-development credit) – (post-development credit)

- Residential example: (4-bedroom on 5-acre plot)
  - Pre-development impact fee credit: $8.46
  - Post-development impact fee credit: $347.81
  - Total credit subtracted from the base impact fee: $356.27
  - Impact fee = (base – credits)
    - Base fee = $953.65 for a 4-bedroom house
    - Credits = $356.27
    - Net fee = $597.38

- Nonresidential: 50,000 square foot warehouse
  - Pre-development impact fee credit: $5.90
  - Post-development impact fee credit: $4,108
  - Total credit subtracted from the base impact fee: $4,114
  - Impact fee = (base – credits)
    - Base fee = $315.60 per 1,000 square feet = $15,780.05
    - Credits = $4,114
    - Net fee = $11,666.05