

Brownfields Site Reuse Assessment

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Prepared for

UConn TAB Summer 2023 Program: Village
of Spofford in the Town of Chesterfield,
New Hampshire

09/22/23

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SECTION 1 INTRODUCTION & OBJECTIVES

The Town of Chesterfield, New Hampshire is working with the assistance of the Southwest Regional Planning Council (SWRPC), the Monadnock Economic Development Corporation (MEDC), the New Hampshire Department of Environmental Services (NH DES), and Region 1 of the U.S. Environmental Protection Agency (USEPA) to facilitate the cleanup and redevelopment of a property located at 409-411 Route 9A in the center of Spofford Village. The property is known locally as the former Electrosonics site and referred to herein as the “Target Site” or “Site.” This property is a “brownfield” site; federal and state rules define a brownfield as “real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.”

To further its efforts, the town has requested the assistance of the University of Connecticut Technical Assistance for Brownfields (UConn TAB) program to prepare a Site Reuse Assessment which is presented herein. This SRA aims to identify the community's needs by analyzing demographic data, existing planning and environmental studies, zoning regulations, environmental conditions, and site-specific characteristics, and by communicating with town officials. Based on this analysis, this report identifies feasible reuses for the Target Site. Reuse scenarios identified are not representative of every possible redevelopment but those which are most viable considering the community's vision and needs, and physical, environmental, cultural, and financial factors. The information in this report may also be used to identify other viable reuse options for the Site not analyzed here.

SECTION 2 SITE INFORMATION

The Target Site (addresses of 409-411 NH Route 9A) encompasses three parcels totaling ~0.92 acres¹ (Table 1).

Table 1. Site Parcels (Source: Chesterfield NH Property Cards)

Parcel ID	Address	Acreage	Ownership	Buildings
Map 6A; Lot D5	411 Route 9A	0.180	Van Oene Dirk	2-Story Frame Light Industrial; Built 1929; 4,045 Eff Area
Map 6A; Lot D5.1	409 Route 9A	0.275	Zampini Dino C/O Zampini Associates, LLC	None
Map 6A; Lot D6	Route 9A	0.459	Zampini Dino C/O Zampini Associates, LLC	None

Residential parcels surround it, abutted by residential lots to the north and east; Joslin Street, a residential parcel to the west; and NH Route 9A, beyond which are residential parcels to the south² (Figure 1).

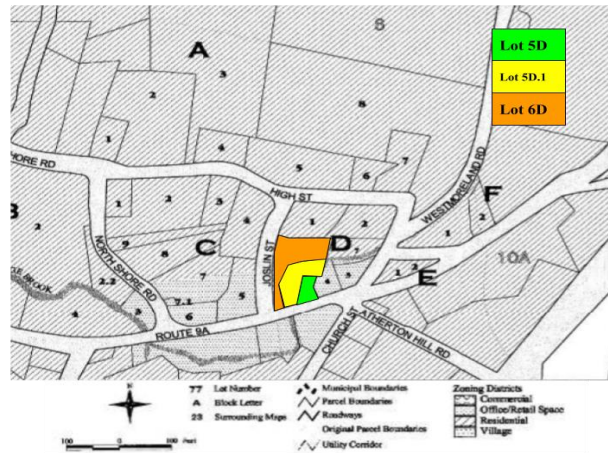


Figure 1. Map of Site (Source: Town of Chesterfield Property Maps: #6A)

Partridge Brook, the outlet stream from Spofford Lake, flows from the southwest to northeast through the site and comprises the border of Lot D5.1 and Lot D6.

¹ Avitar Associates of New England, Inc. “Chesterfield, NH; Map 6a; Lot D5, D5.1, D6” (accessed 06/05/23)

² Ransom Consulting, Inc. “Phase II Environmental Site Assessment and Hazardous Materials Inventory: Former Electronics Site” (Jan 2013), 5

The site is a part of the former Pierce’s Mill complex in Spofford’s historic Village district, where the Town’s first small businesses, mills, and shops were founded in the early 1800s. Spofford Village has a rich rural history dating back to the 1770s when the first commercial building, a Grist Mill operated by Oliver Farwell, was constructed. Preserving and adaptively reusing the remaining historical Village structures is an important goal for the Town. A historical marker for the former mill complex faces Route 9A on the eastern border of the Site (**Figure 2**).

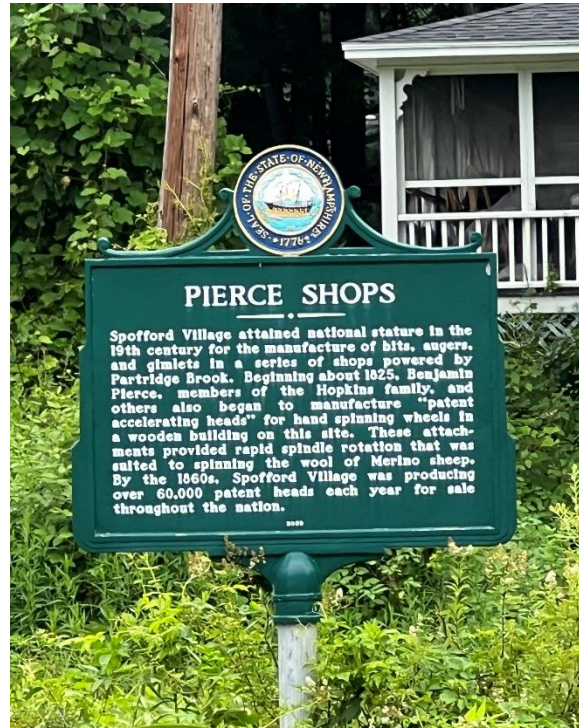


Figure 2. Pierce Shops Historical Marker (Source: Photo from 07/25/23 Site Visit)

This Site was previously used for various industrial activities, including an automotive dealership at the site building (Lot D5) and circuit board printing at a former mill occupied by Electro-Sonics from 1966 to 1984 in Lot D5.1 and D6³. The only remaining building on the Site (“Site Building” in Lot D5) is a vacant two-story brick building constructed in 1927⁴. Lot D5.1 is currently vacant; the wooden-framed mill building built circa 1810 was demolished in 2005 to allow for the partial removal of soils contaminated by the practices of the former circuit board manufacturer⁵. Lot D5.1 also contained a Wastewater Treatment Facility associated with Electro-Sonics activities, now demolished except for a 20,000-gallon underground storage tank below the former building footprint⁶. Lot D6 is also currently vacant.

³ Ransom, “Phase II” (2013), 2

⁴ Ibid.

⁵ Ibid.

⁶ Ransom, “Phase II” (2013), 4

Groundwater at the site generally flows toward Partridge Brook across Lot D5 and D5.1 in a north-northwest direction⁷. No water supply is currently connected to the site building. Formerly, potable water was supplied to the Site by a drilled bedrock water supply well which was taken out of service in 2005 due to impacts from historical releases of solvents at the Site⁸. Moderately steep slopes were identified during a Site Visit at the border of the Brook and Lot D5.1. Historically, wastewater generated during former site operations was discharged directly or indirectly to 1) Partridge Brook, 2) an on-site leach field after no treatment or only partial treatment, and 3) to the dirt-floored basement of the former mill building⁹. It is documented that releases impacted the site soils, groundwater, and surface water and sediment quality in the brook¹⁰. These discharges were the subject of NH DES enforcement actions and compliance initiatives from the late 1960s into the mid-1980s, followed by remediation activities in 2006 that included the removal of portions of the leach field and installing a septic holding tank in 2007¹¹. Heating oil releases at the site were the focus of various spill response efforts in 1984, 1988, 1989, and 2000. The EPA and NH DES implemented two corrective action soil removal projects in 2006 and 2007 to remediate soil impacts¹². It is important to note that “The objective of the past soil removal actions was to reduce the environmental and human health risk associated with the known areas of contamination; not necessarily to achieve compliance with applicable soil remediation standard.”¹³

SECTION 3 NEIGHBORHOOD CHARACTERISTICS

3.1 Demographics

Spofford is an unincorporated community in the northeastern part of the Town of Chesterfield. The population of Spofford is estimated to be 1,388¹⁴, about 39% of the total population of Chesterfield (3,522)¹⁵. The largest age groups in Chesterfield are ages 35 to 54 and 65+¹⁶ (**Figure 4**).

⁷ Ibid.

⁸ Ibid.

⁹ Ibid.

¹⁰ Ibid.

¹¹ Ibid.

¹² Ibid.

¹³ Ibid.

¹⁴ U.S. Census Bureau, *2020 American Community Survey 5-Year Estimates* [ZCTA5 03462] (accessed 05/22/23)

¹⁵ New Hampshire Employment Security (NHES), “Community Profiles: Chesterfield, NH” (accessed 05/22/23)

¹⁶ Ibid.

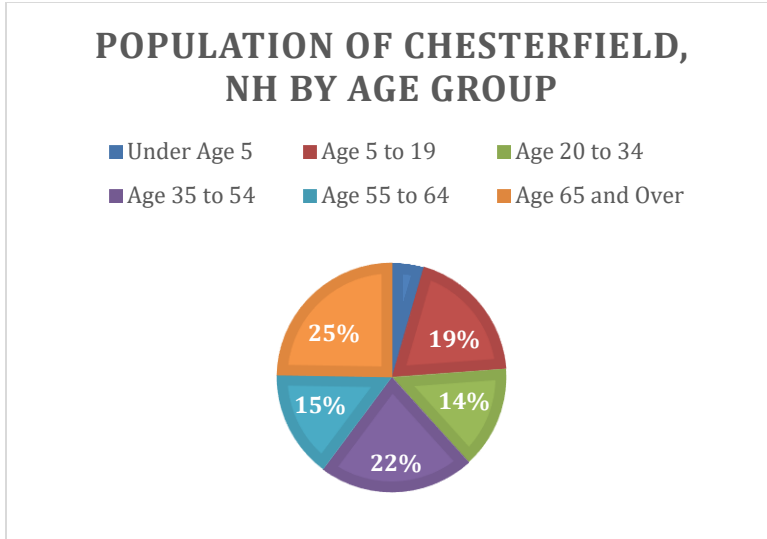


Figure 4. Population of Chesterfield, NH in 2021 by Age Group (Source: NH Employment Security Community Profiles)

The high proportion of senior residents in Chesterfield follows trends experienced by other communities in Southwest New Hampshire, where the proportion of older citizens (65+) grew an average of 43% between 2010 to 2020¹⁷. Population growth in Chesterfield has stalled in the past two decades; the Town grew consistently between 1940 and 2000 (**Figure 6**) but increased by only six residents (to 3,562) between 2000 and 2021¹⁸.

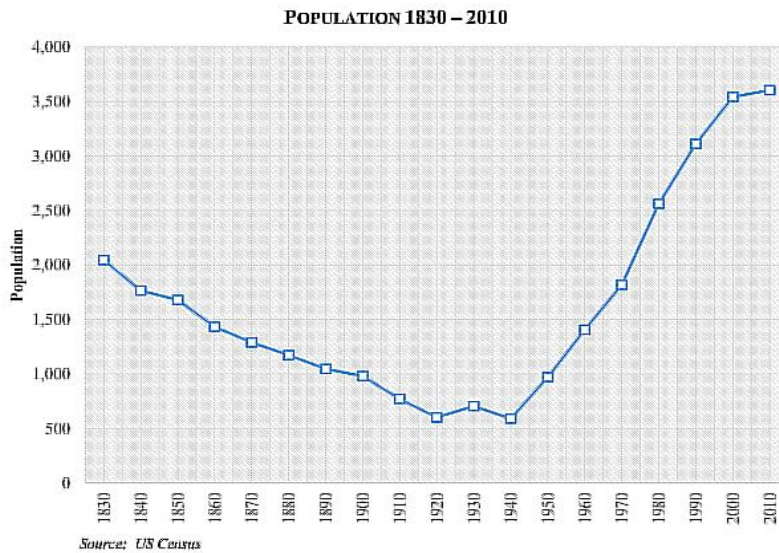


Figure 5. Population of Chesterfield, NH, 1830 to 2010 (Source: Town of Chesterfield)

¹⁷ Southwest Region Planning Commission (SWRPC), “Southwest New Hampshire Regional Housing Needs Assessment” (2023), 13

¹⁸ NHES, “Community Profiles” (accessed 05/22/23)

It is projected that the population of Chesterfield will increase by 2% between 2010-2040, at a slower rate than surrounding communities, except for Hinsdale (Table 2).

Table 2. Population Projections of Chesterfield and Surrounding Communities 2010 to 2040 (Source: Town of Chesterfield Master Plan)

POPULATION PROJECTIONS, 2010 - 2040

	2010	2015	2020	2025	2030	2035	2040	# Increase 2010-2040	% Change 2010-2040
Chesterfield	3,604	3,557	3,551	3,598	3,633	3,657	3,661	57	2%
Swanzey	7,230	7,294	7,446	7,545	7,619	7,668	7,677	447	6%
Keene	23,409	23,332	23,531	23,842	24,076	24,233	24,260	851	4%
Westmoreland	1,874	1,899	1,946	1,972	1,992	2,004	2,007	133	7%
Winchester	4,341	4,348	4,406	4,464	4,508	4,537	4,543	202	5%
Hinsdale	4,046	3,938	3,874	3,926	3,964	3,990	3,994	-52	-1%
Brattleboro, VT	11,885	11,826	11,767	11,708	n/a	n/a	n/a	n/a	n/a

Source: NH Office of Energy & Planning, November 2013; Vermont Department of Health

Cheshire County is projected to experience a net decrease in population (-3.5%), while the population of New Hampshire is projected to increase by 9%¹⁹. Overall, it is estimated that future growth in Chesterfield will be slower than that experienced before the turn of the century and by nearby communities. As for specific age cohorts, it is projected that residents aged 65 and older will represent 26% of the Cheshire County population in 2040, a 10% increase from 2010²⁰.

The following demographic and economic data is from EJ Screen, the EPA’s economic and climate justice screening tool²¹. These data quantify the relative occurrence of important health risk factors and demographic statistics in comparison to statewide and nationwide averages. The data are specific to block group 330059715003, which encompasses the northern portion of Spofford (including Spofford Lake) and contains the site, (Figure 6).



Figure 6. Block Group 330059715003 in Spofford, NH (Source: EJ Screen)

¹⁹ New Hampshire Department of Business and Economic Affairs (BEA), “State, County, and Municipal Population Projections: 2020-2040” (Sep 2022).

²⁰ Chesterfield Master Plan Committee & Southwest Region Planning Commission, “Chesterfield, NH Master Plan Update” (2016).

²¹ Environmental Protection Agency (EPA), “EJ Screen” (accessed 05/22/23)

Table 3. Environmental, Demographic and Economic Data for Block Group 330059715003 in Spofford, NH (Source: EJ Screen)

<u>Variables</u>	%ile in State	%ile in USA
Particulate Matter	87	2
Ozone	31	15
Diesel PM	40	<50th
Air Toxics Cancer Risk	79	<50th
Air Toxics Respiratory Hazard Index	0	<50th
Traffic Proximity and Volume	41	34
Lead Paint Indicator	63	64
Superfund Proximity	28	41
RMP Proximity	41	12
Hazardous Waste Proximity	26	20
Underground Storage Tank Indicator	22	29
Wastewater Discharge Indicators	2	5
Demographic Index	39	12
People of Color	29	9
Low Income	53	33
Unemployment Rate	80	68
Limited English Speaking	0	0
Population With Less Than High School Education	48	33
Population under Age 5	0	0
Population over Age 64	68	75
Low Life Expectancy	35	25

Compared to the United States and New Hampshire, the block group containing the site experiences a high unemployment rate and has a large proportion of senior residents. Multiple environmental risks also burden the block group at a higher-than-average rate, including Lead Paint, Particulate Matter, and Air Toxins related to Cancer Risks.

Compared to regional or statewide averages, the block group does not contain a greater than average proportion of limited English proficiency (LEP) residents; however, 26% of Chesterfield residents are LEP, which is greater than the State of NH (18%) or the southwest NH regional average (20%)²².

No portion of Chesterfield or Spofford is defined as a 'Disadvantaged Community' by the Climate and Economic Justice Screening Tool (CEJST) created by the U.S. Council on Environmental Quality²³. A community is "highlighted as disadvantaged...if it is in a census tract that is (1) at or above the threshold for one or more environmental, climate, or other burdens, and (2) at or above the threshold for an associated socioeconomic burden."²⁴ Although census tract 33005971500 (population 5,197) is not identified as disadvantaged, the CEJST identified multiple environmental and economic burdens in the tract: 72nd percentile projected flood risk, 68th percentile energy cost, and 61st percentile lack of indoor plumbing²⁵. Any new developments at the site should consider these variables, with proper flood mitigation strategies and potential uses of alternative energy sources included in the site plan, when necessary and feasible.

The median household income for Chesterfield, \$86,635²⁶, is about the same as the rest of the state (\$83,449) but greater than the county (\$69,360)²⁷. Similarly, the per capita income of Chesterfield residents (\$45,245)²⁸ is similar to the state (\$43,887) but greater than the county (\$36,172)²⁹. Between 1990 to 2014, the median income and per capita income of Chesterfield residents consistently increased. At that same time, the median income of Cheshire County and New Hampshire decreased, and the Chesterfield per capita income grew at a faster rate than both regions (**Table 4**).

²² SWRPC, "Housing Needs" (2023), 16

²³ U.S. Council on Environmental Quality, "Climate and Economic Justice Screening Tool" (accessed 05/22/23)

²⁴ Ibid.

²⁵ Ibid.

²⁶ NHES, "Community Profiles" (accessed 05/22/23)

²⁷ U.S. Census Bureau, *2020 American Community Survey 5-Year Estimates* [County: Cheshire County, NH; State: New Hampshire] (accessed 05/22/23)

²⁸ NHES, "Community Profiles" (accessed 05/22/23)

²⁹ U.S. Census Bureau, *2020 American Community Survey 5-Year Estimates* [County: Cheshire County, NH; State: New Hampshire] (accessed 05/22/23)

Table 4. Change in Median Income and Per Capita Income: Chesterfield, Cheshire County, and New Hampshire 1990 to 2014 (Source: Chesterfield Master Plan)

PERCENT CHANGE, 1990-2014

	Median Income Change		Per Capita Income Change	
	1990*-2000*	2000-2014**	1990*-2000*	2000-2014**
New Hampshire	1.3%	-4.8%	+11.2%	+1.4%
Cheshire County	-0.3%	-5.6%	+10.9%	+2.3%
Chesterfield	+0.6%	+5.0%	+21.0%	+6.2%

*Source: US Census 1990 & 2000, *Figures were adjusted for inflation using the Bureau of Labor Statistics Consumer Price Index (2014 dollars). **2010-2014 American Community Survey 5-Year Estimates (2014 dollars).*

Likewise, the poverty rate in Chesterfield decreased from 1990 to 2014, while it increased in Cheshire County and in New Hampshire (Table 5).

Table 5. Poverty Rate: Chesterfield, Cheshire County, and New Hampshire 1990 to 2014 (Source: Chesterfield Master Plan)

Poverty Rate-1990, 2000 and 2014

	1990	2000	2014
New Hampshire	6.4%	6.5%	8.9%
Cheshire County	7.0%	8.0%	11.7%
Chesterfield	6.2%	4.5%	3.4%

Source: 2010-2014 American Community Survey 5-Year Estimates

Overall, the individual economic characteristics of Chesterfield residents have maintained an edge over the county and state over the past few decades. Currently, these characteristics are more in line with the rest of the state but still ahead of Cheshire County.

From 1990 to 2022, the unemployment rate in Chesterfield stayed at or below 5.3% (2010) and typically remained within the 2-5% range.³⁰ (Figure 7). On average, during that period, unemployment in Chesterfield (3.33%) was lower than in New Hampshire (4.2%³¹) and Cheshire County (3.8%³²). The current unemployment rate in Chesterfield (2.8%) is similar to the state (2.5%³³) and Cheshire County

³⁰ New Hampshire Employment Security (NHES), “Unemployment Rate and Labor Force: Chesterfield, NH” (accessed 05/22/23)

³¹ Federal Reserve Bank of St. Louis (FRED) Economic Data, “Unemployment Rate in New Hampshire” (accessed 05/22/23)

³² Federal Reserve Bank of St. Louis (FRED) Economic Data, “Unemployment Rate in Cheshire County, New Hampshire” (accessed 05/22/23)

³³ (FRED), “Unemployment Rate in New Hampshire” (accessed 05/22/23)

(2.7%³⁴). The labor force of Chesterfield has remained relatively stable in the same period, slightly decreasing to 1,860 in 2022 from 1,917 in 1990³⁵.

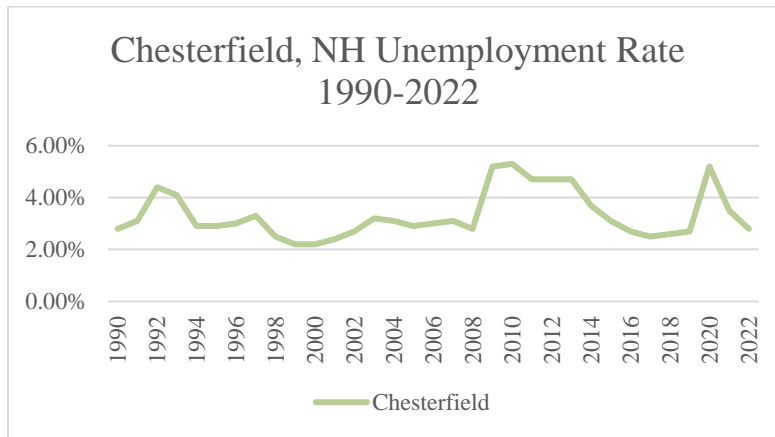


Figure 7. Chesterfield, NH Unemployment Rate 1990 to 2022 (Source: New Hampshire Employment Security)

According to the WISDOM health data portal maintained by the New Hampshire Department of Health and Human Services, the percentage of children with blood lead levels of 5 micrograms per deciliter (µg/dl) or greater (age 0-6) in Cheshire County was the same (3%) as the rest of New Hampshire³⁶. The cancer incidence rate in Cheshire County for all cancers, male and female, was not statistically significant compared to the rest of the state³⁷. Asthma prevalence in females was lower in Cheshire County (7.1%) than in the rest of the state (15.7%), and the data was ‘suppressed’ for men in Cheshire County³⁸.

Housing in Chesterfield is predominantly owner-occupied (86%)³⁹ (Table 6). This follows historical trends in which the percentage of owner-occupied housing in Chesterfield has always been at least 80% since 1990⁴⁰.

Table 6. Chesterfield, NH Housing Data (Source: U.S. Census Bureau ACS 5-Year Estimates 2021)

	Chesterfield	New Hampshire
Total Housing Units	1,787	638,795

³⁴ (FRED), “Unemployment Rate in Cheshire County, New Hampshire” (accessed 05/22/23)

³⁵ NHES, “Unemployment” (accessed 05/22/23)

³⁶ New Hampshire Department of Health and Human Services (NHDHHS), “Childhood Blood Lead Levels: Testing Results (town, 5-year aggregate)” (accessed 05/23/23)

³⁷ NHDHHS, “Cancer Incidence (All Cancers)” (accessed 05/23/23)

³⁸ NHDHHS, “Asthma Prevalence (Adults)” (accessed 05/23/23)

³⁹ U.S. Census Bureau, *2021 American Community Survey 5-Year Estimates* [Chesterfield Town, Cheshire County, New Hampshire] (accessed 05/22/23)

⁴⁰ Chesterfield Master Plan Committee & Southwest Region Planning Commission, “Chesterfield, NH Master Plan Update” (2016).

Vacant Housing Units (% out of total housing units)	21%	15.60%
Median Value Owner Occupied Housing (w/ mortgage)	\$251,700	\$281,200
% of housing Owner Occupied	86%	71%
% of housing Renter Occupied	14%	29%
Median Gross Rent	1,169	1,145
Median Gross Rent as %age of Household Income	36.6%	29%

The cost of rent is a more significant portion of income for Chesterfield residents than for the rest of New Hampshire. Moreover, the cost of housing in Chesterfield, for both homes and rent, has increased consistently from 1980 to 2020 (Table 7). The percentage of renter-occupied housing in Chesterfield has more than doubled during that same time period.

Table 7. Cost of Housing, Chesterfield 1980-2010 (Source: Master Plan)

Cost of Housing, Chesterfield 1980 – 2010				
Median Housing Cost	1980	1990	2000	2010
Chesterfield House Value	\$45,700	\$138,700	\$129,700	\$198,300
Chesterfield Gross Rent*	\$218	\$483	\$631	\$884
<i>Source: US Census* Median contract rent; figures not inflation adjusted.</i>				

Improving the diversity of housing options in a community, both by tenure and cost, is integral to ensuring growth in the future. With more housing options, individuals of various socioeconomic backgrounds, occupations, and familial structures can contribute to the Chesterfield community and economy.

In 2023, The Southwest Region Planning Commission conducted a regional housing needs assessment for Southwest New Hampshire (Figure 8)⁴¹.

⁴¹ SWRPC, “Housing Needs” (2023), 5

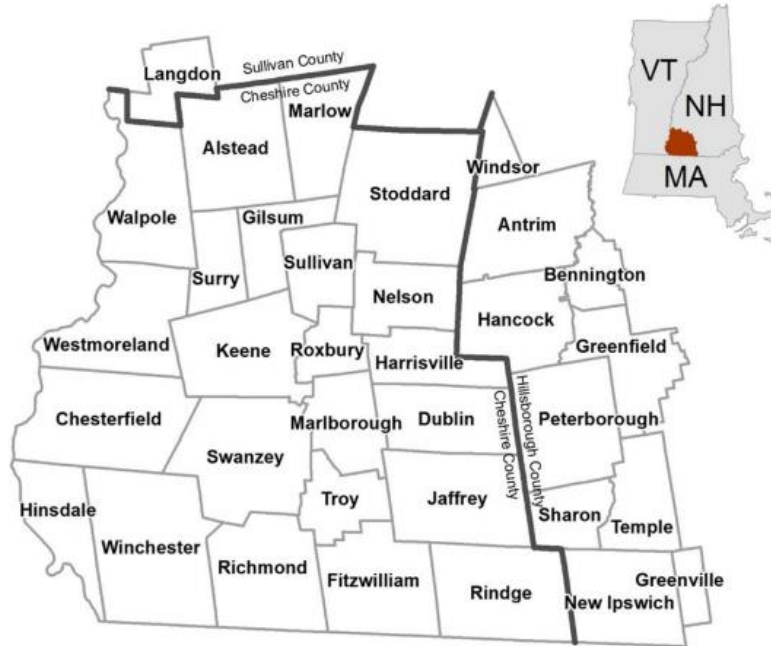


Figure 8. Map of Southwest New Hampshire

The assessment evaluates, as NHRSA 36:47, II requires, “current, local, and regional data and project[s] future needs of residents of all income levels and ages.”⁴² A significant challenge identified in the assessment was a declining labor force in the southwest region of New Hampshire⁴³ (Figure 9).

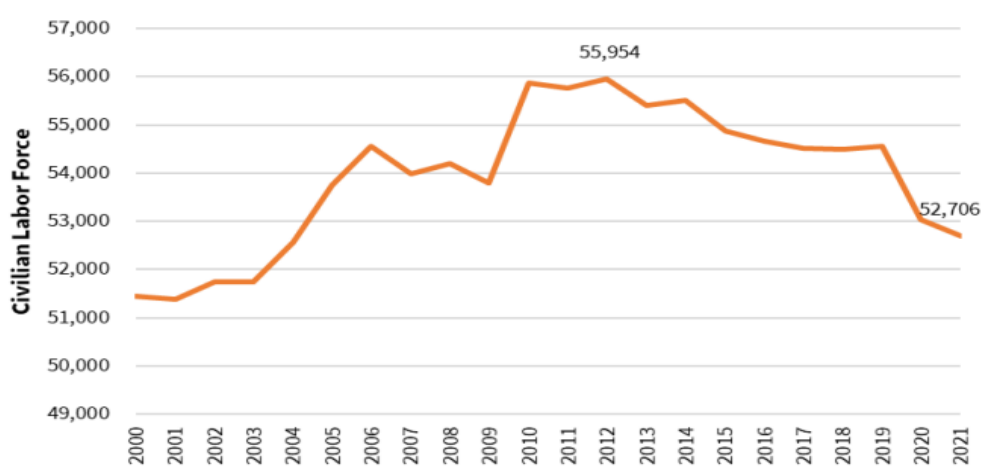


Figure 9. Change in Civil Labor Force, Southwest Region of NH 2000-2021 (Source: SWRPC)

⁴² Ibid.

⁴³ SWRPC, “Housing Needs” (2023), 26

From 2010 to 2021, Chesterfield’s labor force decreased by 2%, slower than the southwest region (5.7%)⁴⁴. Regarding housing supply, replacement workers with fewer housing opportunities will compete for a smaller stock of available housing or face longer commutes⁴⁵. As such, a significant component of Chesterfield’s efforts to grow its labor force is providing adequate housing opportunities appropriate for the incomes of all prospective workers.

The assessment also notes that rental unit vacancy rates are quite low in the southwest region, at just 0.7%⁴⁶, indicating “a scarcity of affordable housing options.” For both tenants and landlords, a vacancy rate of 5% is considered a balanced market, according to the 2022 NH Residential Rental Cost Survey report (NHHFA)⁴⁷. Another important indicator of housing affordability is the median household income compared to the cost of living. Between 2010 and 2020, the CPI (cost of living) rose by 19%, while the median household income of Chesterfield residents rose by only 2% and decreased by 52% for those in renter-occupied units⁴⁸ (Table 8). This income decrease for renters was the most significant in all of southwest New Hampshire, demonstrating the critical nature of affordable rental housing options for Chesterfield.

Table 8. Change in Median Household Income for Renter-Occupied Units: SW Region 2010 to 2020
(Source: SWRPC Housing Needs Assessment)

Geography	Median Household Income (Renter-Occupied)		
	2010	2020	% Change 2010-2020
Alstead	\$27,639	\$27,250	-1%
Antrim	36,528	36,364	0%
Bennington	50,329	44,904	-11%
Chesterfield	61,953	29,574	-52%
Dublin	50,750	28,929	-43%
Gilsum	60,625	45,625	-25%
Greenville	33,594	37,857	13%
Hinsdale	30,302	32,656	8%
Langdon	42,813	38,750	-9%
Marlborough	42,930	32,644	-24%
Nelson	33,214	26,250	-21%
New Ipswich	75,364	70,977	-6%
Rindge	41,833	43,365	4%
Swanzey	32,463	34,531	6%
Troy	36,023	31,250	-13%

Using a model from Root Policy Research, the SWRPC assessment created housing targets for each municipality in southwest NH through 2040. These targets are based on expected population growth, demographic changes, and economic fluctuations. For Chesterfield, it is projected that to meet the needs of future populations, 109 owner-occupied units (43 below 100% AMI & 66 above 100% AMI) and 63 renter-occupied units (19 below 60% AMI & 44 above 60% AMI) will be needed by 2040⁴⁹

⁴⁴ SWRPC, “Housing Needs” (2023), 26

⁴⁵ SWRPC, “Housing Needs” (2023), 27

⁴⁶ SWRPC, “Housing Needs” (2023), 39

⁴⁷ Ibid.

⁴⁸ Ibid.

⁴⁹ SWRPC, “Housing Needs” (2023), 80

(AMI=Regional Average Median Income). These projections can help guide long-term housing development plans serving multiple income levels and occupations.

Chesterfield/Westmoreland ranks no. 1 in the southwest region on the New Hampshire Housing Opportunity Index⁵⁰, which measures how well a particular area may provide residents with a high quality of life and higher opportunity for success. As a high-opportunity area, it is logical to provide an array of housing opportunities to attract residents and workers to a community where they could experience positive long-term growth. The SWRPC outlines a few significant takeaways about the housing situation in the southwest region, which should be considered in the reuse scenarios at the site and community-wide⁵¹:

- “The varied housing needs of southwest NH individuals and households are not being sufficiently met...
- ...Transportation, water, sewer, energy, and broadband are part of a package of household needs that are inextricably linked with today’s notion of adequate housing...
- ...housing plays a much more critical role than an individual or household’s shelter; it is an essential ingredient for maintaining a community’s vitality.”

3.2 Public Services (schools, hospitals, municipal services)

Schools

The Town of Chesterfield operates grades K-8, while grades 9-12 are enrolled at Keene High School⁵². Chesterfield School is where children from Chesterfield, West Chesterfield, and Spofford grades K-8 are enrolled. The school is about a 5-minute drive from the site and currently enrolls 274 students⁵³. Between 2006-2016, enrollment at Chesterfield School decreased by about 100 students⁵⁴ (Figure 10).

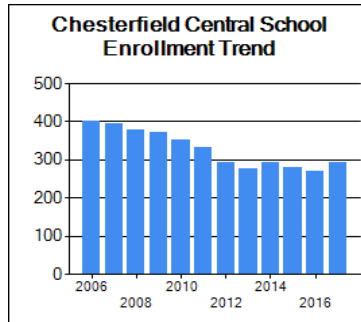


Figure 10. Chesterfield Central School Enrollment Trend (Source: NHES Community Profiles)

⁵⁰ SWRPC, “Housing Needs” (2023), 109
⁵¹ SWRPC, “Housing Needs” (2023), 120-121
⁵² NHES, “Community Profiles” (accessed 05/22/23)
⁵³ Chesterfield School, “About Chesterfield School” (accessed 05/23/23)
⁵⁴ NHES, “Community Profiles” (accessed 05/22/23)

Currently, K-4 enrollment at Chesterfield Center totals 167 students⁵⁵, while there is only 1 NH licensed Child Care Facility with a total capacity of 20 children in Chesterfield⁵⁶. Moreover, the SWRPC 2023 Housing Needs Assessment identified a supply gap for childcare services in Spofford (**Figure 11**).

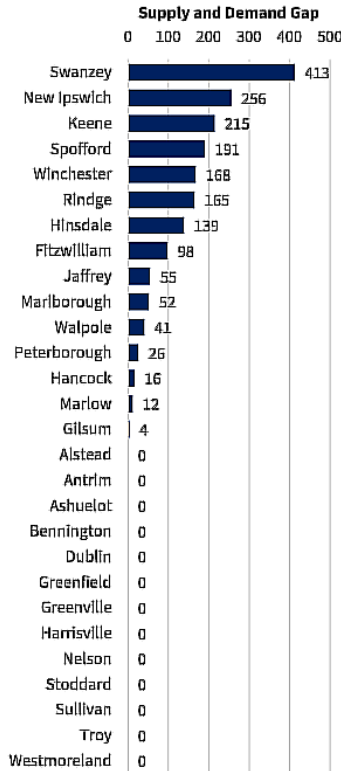


Figure 11. Supply and Demand Gap for Childcare Services in SW New Hampshire (Source SWRPC 2023 Regional Housing Needs Assessment)

This gap in afterschool childcare services could be mitigated through a multi-purpose community center with space for such services. The Town of Chesterfield Master Plan indicates that Keene High School’s enrollment capacity is sufficient to meet Chesterfield’s student population needs “in the foreseeable future.”

Healthcare

The nearest hospitals to the site are Battleboro Memorial Hospital (9 miles, 61 staffed beds) and Cheshire Medical Center in Keene (14 miles, 94 staffed beds)⁵⁷. According to data from the Health

⁵⁵ NHES, “Community Profiles” (accessed 05/22/23)

⁵⁶ Town of Chesterfield, New Hampshire, “Capital Improvements Program” (2022)

⁵⁷ NHES, “Community Profiles” (accessed 05/23/23)

Resources and Services Administration (HRSA), the site falls within a Primary Care Health Professional Shortage Area (Primary Care HPSA)⁵⁸ (**Figure 12**).

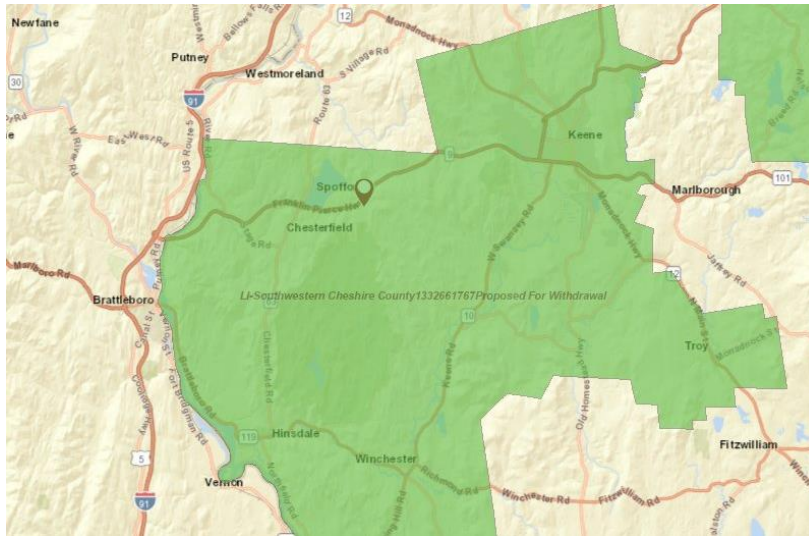


Figure 12. Primary Care HPSA in Spofford, NH (HPSA Area in Green) (Source: Health Resources and Service Administration)

There are no Primary Care Providers (including dentists) in Spofford or Chesterfield, with the closest providers in Keene. However, even certain areas of Keene fall within a Primary Care HPSA, so services provided in that area may be insufficient to support the needs of surrounding communities.

Recreation

There is a wide variety of outdoor recreation opportunities in Chesterfield and Spofford. Spofford Lake is the center of outdoor recreation for both communities, providing various water recreation options (**Figure 13**):

- Wares Grove Beach (Spofford Lake-Public): ~ 1.6 miles from the site
- North Shore Beach (Spofford Lake-Residents only): ~2 miles from the site
- Spofford Lake Boat Launch (West of Camp Spofford): ~2 miles from the site
- Pierce Island State Park (Island on Spofford Lake): ~0.25 miles from the state boat ramp

⁵⁸ Health Resources and Services Administration, “HPSA Finder” (accessed 05/23/23)



Figure 13. Water Recreation on Spofford Lake (Source: Google Maps)

There is less public recreation access on the eastern side of Spofford Lake, nearest the site, than along other shorelines. Development at the site should consider leveraging nearby natural attractions while also seeking to complement the current recreational opportunities on Spofford Lake and other nearby areas. Other recreation opportunities in Chesterfield include:

- Chesterfield Gorge Natural Area: ~0.7 miles from site
- Chesterfield Gorge State Wayside: ~1 miles from site
- Recreation Complex (Public Park Complex): ~4 miles from the site
- Friedsam Town Forest: ~5 miles from site
- Pisgah State Park: ~5 miles from site
- Madame Sherri Forest: ~ 7 miles from site
- Wantastiquet Mountain State Forest: ~9 miles from site

The most extensive trail systems in town are for snowmobiles, some on state land but mainly operated over private lands⁵⁹.

The Chesterfield Master Plan outlined various strategies to “develop opportunities and spaces that foster social capital and encourage relationship building within communities”⁶⁰ by developing diverse recreation opportunities throughout Chesterfield. The strategies, as they relate to recreation opportunities, include:

- 1) “Establish new and promote existing events that bring together multiple generations in the community (e.g., Old Home Festivals, community performances, fairs, etc.).”
- 2) “Repurpose and enhance the utilization of existing community facilities and outdoor spaces...to provide for and access to various community services including public Wi-Fi networks, evening programs, training, community gardens, etc.”

⁵⁹ Chesterfield Master Plan Committee & Southwest Region Planning Commission, “Chesterfield, NH Master Plan Update” (2016), 16.

⁶⁰ Master Plan Committee, “Master Plan”, 9.

Development at the site may seek to implement outdoor community spaces, as appropriate, as a space to hold community events.

Emergency Services

Spofford has a separate fire department from Chesterfield. The Spofford Fire District is a sub-unit of the local government and provides services to residents of Spofford (and backup fire services to Chesterfield and other local departments)⁶¹. The Spofford Fire Department headquarters are only ~0.8 miles from the site, and the Chesterfield Police Department is next to the Chesterfield Fire Department, about ~3.7 miles from the site.

3.3 Food Access

According to the USDA Food Research Atlas, no portion of Chesterfield is Low-Income and Low-Supermarket Access (LILA)⁶². For a census tract to be designated as LILA, it must meet the criteria to be classified as both Low-Income (LI) and as having Low-Supermarket-Access (LA). LI is “defined by poverty rates (at least 20 percent) or median family income (at or below 80 percent of the metropolitan area or State median income) in each census tract.” LA can be defined in four ways, based on proximity to the nearest grocery store and vehicle access⁶³.

There are no grocery stores or supermarkets within Spofford or Chesterfield; the nearest are in Keene (~7 miles), Brattleboro (~9 miles), and Hinsdale (~15 miles). There are two convenience stores in Chesterfield: Spofford Irving – The Big Deal and Riverside Grocery.

3.4 Businesses

The largest employer in Chesterfield is the UNFI Distribution Center, with 500-999 employees⁶⁴. Other large employers include:

- Thomas Companies (Construction, drilling, & blasting): 65
- Perkins Home Center (Home Lumber Supply): 45
- Fed Ex Ground (Package Delivery Service): 28
- Foard Panel (Wall Panel Construction): 28 +/-
- Ames Performance (Auto Parts Distributor): 23

Between 2011-2021, the service industry and private industry gained employees, while the goods-producing sector and government jobs lost employees in Chesterfield. However, for all industries, average wages increased, with the most significant increase in the goods-producing sector (**Table 9**).

⁶¹ Master Plan Committee, “Master Plan”

⁶² USDA Economic Research Service, “Food Research Atlas” (accessed 05/23/23)

⁶³ Alana Rhone, et al, “Low-Income and Low-Supermarket-Access Census Tracts, 2010-2015” (2017)

⁶⁴ NHES, “50 Largest Employers: Cheshire County, NH” (accessed 05/23/23)

Table 9 . Chesterfield, NH: Change in Employment and Weekly Wages from 2011 to 2021 (Source: NHES)

Chesterfield, NH: Change in Employment and Weekly Wages from 2011 to 2021		
Industry	Change in Average Employment from 2011 to 2021(number of employees)	Change in Average Weekly Wage from 2011 to 2021 (\$)
Goods Producing Industry	-50	+503
Service Providing Industries	+300	+255
Total Private Industry	+251	+262
Government (Federal, State, and Local)	-184	+121
Total, Private plus Government	-67	+280

Overall, the most common occupations for labor force members in Chesterfield are management, business, science, and arts occupations; and sales and office occupations⁶⁵(Table 10).

Table 10. Largest Occupations in Census Tract 9715 (Source: U.S. Census Bureau)

	<u>New Hampshire</u>	<u>Chesterfield</u>
Occupation	% of working residents aged 16 years or older	% of working residents aged 16 years or older
Management, business, science, and arts occupations	41.9	46.5
Service occupations	16	12.2
Sales and office occupations	21.3	31
Natural resources, construction, and maintenance occupations	8.7	5.5

⁶⁵ U.S. Census Bureau, *2021 American Community Survey 5-Year Estimates* [Chesterfield Town, Cheshire County, NH] (accessed 05/31/23)

Production, transportation, and material moving occupations	12	4.9
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Only 28.4% of working residents of Chesterfield work in Chesterfield⁶⁶. To bring work back into the Town, new commercial, retail, or industrial establishments could focus on attracting businesses which offer employment in fields where many residents are already employed elsewhere.

3.5 Community Stakeholders (churches, citizen groups, local organizations)

The Southwest Region Planning Committee (SWRPC) is one of nine regional planning commissions in New Hampshire. The SWRPC services over 34 municipalities in New Hampshire, including Spofford and Chesterfield. They are assisting Spofford in planning, brownfield redevelopment, and community engagement activities to revitalize underutilized sites in town.

Locally, the Chesterfield Revitalization Group (CRG), a subcommittee of the Town’s Economic Development Committee, has taken the lead on the remediation and productive reuse of contaminated and/or underutilized sites in the Town. Their work is currently centered around the Pierce Mill Complex, particularly in organizing Town meetings about Spofford’s historical buildings. These meetings have reinvigorated much of the community’s interest in the Target Site and other Brownfields that contain a deep history within Chesterfield.

Moreover, there is an abundance of churches in Chesterfield:

- Saint Margaret Mary Church
- Tri-State Baptist Church
- Asbury United Methodist Church
- Asbury Church
- Grace Community Evangelical Free Church
- Universalist Church

Other essential community groups include the local snowmobile association, which maintains the private trails in Chesterfield.⁶⁷

SECTION 4 SUMMARY OF PLANNING STUDIES

Planning Document	Year	Details
Chesterfield Master Plan ⁶⁸	2016	Goals Identified:

⁶⁶ NHES, “Community Profiles” (accessed 05/23/23)

⁶⁷ Master Plan Committee, “Master Plan”, 16

⁶⁸ Master Plan Committee, “Master Plan”

		<ul style="list-style-type: none"> • Develop spaces to foster social capital and encourage relationship building (new space for community events/performances or fairs, and repurposing of existing community facilities and outdoor spaces) (9) • Provide adequate and affordable housing for elderly residents (35) • Focus development in the Village (mixed uses and higher densities in the Village rather than outlying portions of town) *Site is in Village District* (57) • Plan for Pedestrian and Bicycle Connections (57) • Provide the necessary infrastructure to retain/foster economic growth, including broadband and public transportation (86) • Facilitate tourism as a means to support commercial businesses (87) • Rehabilitate existing, older, and historic homes and buildings for residential and commercial uses (126)
Southwest New Hampshire Regional Housing Needs Assessment ⁶⁹	2023	<ul style="list-style-type: none"> • “Scarcity of affordable housing options” in the SW region of New Hampshire (rental vacancy rate = 0.7%) (40) • The civilian labor force in SW New Hampshire has decreased consistently since 2012 (55,954 in 2012, 52,706 in 2022) (26) • The median home purchase price in the SW region of NH has consistently increased since 2010 (52) • Out of 15 occupations analyzed, only five could afford, on average, the median gross monthly rent in the SW region (59) • Between 2010-2020, the CPI (cost of living) rose, while the median household income of Chesterfield residents significantly decreased for those living in renter-occupied units (40) • To provide a fair share of housing for the region, Chesterfield will need to add 109 owner-occupied units (43 below 100% AMI & 66 above 100% AMI) and 63 renter-occupied units (19 below 60% AMI & 44 above 60% AMI) by 2040 (80) • Chesterfield/Westmoreland ranks no.1 in the SW region on the New Hampshire Housing Opportunity Index (109) • Significant supply and demand gap in child care services for Spofford (75)
Monadnock Region Future: Plan for	2015	<p>Trends & Conditions Impacting SW NH:</p> <ul style="list-style-type: none"> • Slowing population growth • Rapidly aging population

⁶⁹ SWRPC, “Housing Needs”

<p>Southwest New Hampshire⁷⁰</p>		<ul style="list-style-type: none"> ● Loss of young adults & families ● Loss of locally owned businesses ● Slow economic recovery ● Changing climate & severe storms <p>Goals for SW NH:</p> <ul style="list-style-type: none"> ● Vibrant communities with affordable places for people of all ages and abilities to live, work, and recreate ● Competitive and prospering regional economy that creates opportunities for current and future residents/workers ● Conserve the Region’s natural, historical, and cultural resources ● Preparedness for impacts of natural and artificial hazards and other emergencies
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An important recurring theme in the Chesterfield Master Plan is the improvement and addition of outdoor/open spaces to accommodate community events and serve as a source of tourism to the Town. The Plan notes that development should be focused in the Village district (where the Site is located) to consolidate commercial activities to easily accessible and highly trafficked areas. Both regionally and within Chesterfield, it is evident that there is a current and future need for affordable elderly housing. More broadly, the Housing Assessment conducted by the SWRPC indicates that southwest New Hampshire has a limited supply of affordable housing options, increasingly worrisome for residents as incomes remain stagnant or decrease in the region (especially for those in renter-occupied units) while the cost-of-living increases. Notably, the Assessment identified Chesterfield/Westmoreland as no. 1 on the NH Housing Opportunity Index, which indicates that Chesterfield is a highly resource-rich area with quality schools, lower poverty rates, and plentiful employment options.

SECTION 5 SITE-SPECIFIC CONSIDERATIONS

5.1 Zoning Regulations

The Site is mainly within the Village District, except for a portion of parcel D6 north of Partridge Brook zoned Residential (**Figure 14**).

⁷⁰ SWRPC, “Monadnock Region Future: A Plan for Southwest New Hampshire” (2015)



Figure 14. Zoning Map of Site (Source: Chesterfield Tax Map #6A)

Both the Village District and the Residential District allow for residential uses. Still, the Village District is designed to fill vacant land with a mix of commercial and residential services, while the Residential district encourages primarily residential land uses⁷¹. These purposes are illustrated by the permitted uses in each District (**Table 11**).

Table 11. Chesterfield Zoning Regulations (Source: Zoning Ordinance)

<u>Village District</u>		<u>Residential District</u>	
<u>Permitted Uses</u>	<u>Uses Permitted by Special Exception</u>	<u>Permitted Uses</u>	<u>Uses Permitted by Special Exception</u>
Single-family detached dwellings	Home occupations located in residences or accessory buildings are subject to compliance with	Single-family detached dwellings	Home occupations located in residences or accessory buildings are subject to compliance with
Two family dwellings	the additional requirements of Section 402	Two family dwellings	the additional requirements of Section 402
Multiple family dwellings subject to compliance with section 403*	Sand and gravel pits are subject to compliance with the additional requirements of Section 404	Multiple family dwellings subject to compliance with section 403*	General stores and variety stores, but not including the sale of gasoline or other fuels requiring bulk storage
Cluster developments are subject to compliance with the requirements of section 301**		Churches	
		Schools	
		Libraries	

⁷¹ Town of Chesterfield, NH. "Zoning Ordinance: Year 2023" (2023), 3

<u>Village District</u>		<u>Residential District</u>	
<u>Permitted Uses</u>	<u>Uses Permitted by Special Exception</u>	<u>Permitted Uses</u>	<u>Uses Permitted by Special Exception</u>
<p>Churches</p> <p>Schools</p> <p>Municipal buildings and uses</p> <p>Public utility buildings necessary for the transmission of essential public utilities</p> <p>Public and private non-commercial outdoor recreation facilities</p> <p>Cemeteries</p> <p>Farming, including the sale of products grown on the premises</p> <p>Golf courses and cross-country skiing facilities</p> <p>Forestry and wildlife preservation</p> <p>Museums</p> <p>Accessory uses customarily incidental to the above.</p>		<p>Municipal buildings and uses</p> <p>Public utility buildings necessary for the transmission of essential public utilities</p> <p>Meeting halls and lodges for non-profit, social, fraternal, and club organizations</p> <p>Accessory uses customarily incidental to the above.</p> <p>Senior housing, subject to compliance with Section 303***</p> <p>Workforce housing, subject to compliance with Section 304****</p>	<p>Tourist homes and “bed and breakfast” facilities provided there are not more than six (6) guest units, but not motels, hotels, or inns.</p> <p>Public or private daycare facilities</p> <p>Banks and lending institutions</p> <p>Businesses, professional and real estate offices</p> <p>Gift and antique shops</p> <p>Studios</p> <p>Accessory uses are customarily incidental to any use granted by a special exemption.</p>

<u>Village District</u>		<u>Residential District</u>	
<u>Permitted Uses</u>	<u>Uses Permitted by Special Exception</u>	<u>Permitted Uses</u>	<u>Uses Permitted by Special Exception</u>
Senior housing, subject to compliance with section 303***			
Workforce housing, subject to compliance with Section 304****			

*Section 403 of the Zoning Ordinance relates to multiple-family dwellings⁷², which have different spatial regulations and requirements than other uses:

- Minimum Lot Area and Frontage: More than 5 acres and less than 300 ft of frontage
- Density: Lot area shall contain at least:
 - 10,000 sq ft for the first bedroom of each dwelling unit on the lot, plus
 - 5,000 sq ft for each additional bedroom on the lot
- Building Spacing: At least 75 ft
- Dwelling Units per Building: No more than 5 per building
- Buffer: 100 ft wide on all sides (approved by Planning Board)

Section 301 of the Zoning Ordinance describes regulations for cluster developments, which require a parcel of at least 30 acres in size⁷³ (The site is 0.92 acres). *Section 303 relates to senior housing⁷⁴, and **** Section 304⁷⁵ relates to workforce housing. For both uses, the minimum lot area is 5 acres. If either use is identified as a reuse scenario, further changes/exceptions to the Zoning Ordinance will likely be required.

Setbacks for all uses in the Village and Residential Districts (excluding those outlined in the Sections above) are similar⁷⁶:

⁷² Chesterfield, “Zoning Ordinance”, 36-38

⁷³ Chesterfield, “Zoning Ordinance”, 21

⁷⁴ Chesterfield, “Zoning Ordinance”, 28

⁷⁵ Chesterfield, “Zoning Ordinance”, 30

⁷⁶ Chesterfield, “Zoning Ordinance”, 7-8

Village District

Residential District

<p>Lot Area: Minimum of two acres</p> <p>Lot Frontage: minimum 200 feet, except two-family dwellings, which require 300 feet</p> <p>Coverage: building coverage shall not exceed ten percent (10%) of the area of a lot. Total impermeable coverage (including building coverage) shall not exceed twenty percent (20%) of the area of the lot.</p> <p>Front setback: 50 ft</p> <p>Side setback: 20 ft</p> <p>Rear setback: 20 feet</p> <p>The setback from all cemeteries and burial grounds: 50 ft</p>	<p>Lot Area: minimum of two acres except four acres for a two-family dwelling. Multiple-family dwellings are governed by sections 403.1 and 403.2*</p> <p>Lot Frontage: Minimum 200 feet except 300 feet for two-family dwellings. Multiple-family dwellings are governed by section 403.1*</p> <p>Coverage: building coverage shall not exceed ten percent (10%) of the area of a lot. Total impermeable coverage (including building coverage) shall not exceed twenty percent (20%) of the area of the lot.</p> <p>Front setback: 50 ft</p> <p>Side setback: 20 ft</p> <p>Rear setback: 20 ft</p> <p>There will be no building or structure within 50 feet of Route 9</p> <p>The setback from all cemeteries and burial grounds:</p>
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The only difference is that buildings in the Residential District cannot be within 50 feet of Route 9. The parcel's use dictates parking requirements⁷⁷:

<u>Type of Use</u>	<u>Number of Required Spaces</u>
Churches and other places of public assembly	One space for every eight seats
Schools	One space for each employee plus one space for each 500 sq ft. of gross floor area
Daycare facilities	One space for each employee plus one space for every five children

⁷⁷ 30

Libraries, community	One space for each center and similar uses employee plus one space for each 800 sq ft gross floor area.
Clubs, meeting halls, etc.	One space for each 100 sq ft of gross floor area
Museums	One space for each employee or staff member for the maximum number to be onsite and one space for each 500 sq ft of gross floor area
Retail sales	One space for every 150 sq ft of sales area plus one space for every additional 600 sq ft of gross floor area
Outdoor sales such as autos, boats, campers	Number of spaces required for retail sales plus one space for every 3000 sq ft of exterior area to be used to display sales items
Banks, offices, and personnel service businesses	One space for every 150 sq ft of gross floor area
Beauty parlors, barber shops	1.5 spaces for each workstation
Doctors' offices, chairs	One space for each employee and dentist (including doctors) plus three spaces for each doctor
Motels, hotels, tourist homes, lodging houses, bed & breakfast facilities	One parking space for each sleeping unit plus one space per each employee on the largest shift
Restaurants	One space for every table plus one space for each employee on the largest shift
Service stations	One space for each pump island plus two spaces per each bay
Auto repair facilities, body shops	One space for every 200 sq ft of gross floor area plus one space for every 1000 sq ft of exterior storage space
Wholesale establishments, warehouses, storage	One space for every 3000 sq ft of gross floor area
Other commercial	One space for every 3000 sq ft of gross floor area, but the Planning Board may require more throughout the site plan review process.

Industries	One space for each employee on the largest shift
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The Village district may be appropriate for the entire site unless the Site is meant to be used entirely for Residential purposes. The Village district would allow for more flexibility in reuse options for the Site while complementing the surrounding residential areas.

5.2 Floodplains

No portion of the site is within federally mapped Floodplains⁷⁸ (Figure 15).



Figure 15. Flood Insurance Map of Site and Surrounding Area (Source: National Flood Insurance Program)

5.3 Wetlands

Partridge Brook is a wetland defined as a ‘Riverine’ by the U.S. Fish and Wildlife Service (Figure 16)⁷⁹.

⁷⁸ National Flood Insurance Program (NFIP), “Flood Insurance Rate Map (FIRM) Ceshire County, NH, map number 33005C0245E” (effective 5/23/2006)

⁷⁹ U.S. Fish and Wildlife Service (USFWS), “National Wetlands Mapper” (accessed 06/19/22)



Figure 16. Wetlands Map of Site (Source: USFWS)

The classification code for the Riverine is R4SBC⁸⁰:

- R: the system is a Riverine
- 4: Intermittent (flowing water only part of the year)
- SB: Streambed class
- C: Seasonally flooded (“Surface water is present for extended periods, especially early in the growing season, but is absent in most years by the end of the growing season. The water table after flooding ceases is variable, extending from saturated to the surface to a water table well below the ground surface”)

Any development at the Site should not interfere with the natural flow of Partridge Brook. The Site is not within any floodplains, so floodplains do not present a risk to future development. Moreover, steep slopes and a deeply incised channel bordering the Brook at the Site will tend to mitigate the potential for overbank flooding.

SECTION 6 TRAFFIC & INFRASTRUCTURE ASSESSMENT

6.1 Utilities

Public drinking water is not available in the vicinity of the site; historically, site occupants relied on drilled bedrock and overburden supply wells for industrial and drinking water supply⁸¹. Most recently, Partridge Brook supplied non-potable water to the Site Building⁸². Water wells were taken out of service due to impacts from chlorinated volatile organic compounds (VOCs) associated with solvents

⁸⁰ USFWS, “Mapper”

⁸¹ Ransom Consulting, “Phase I Environmental Site Assessment” (July 2010)

⁸² Ransom, “Phase I”

from previous Site operations; further investigation would be required to determine the most efficient water supply for reuse of the site.

A septic holding tank was reportedly installed in 2006 to receive septic effluent that future uses of the Site Building could generate, according to the Phase I site assessment⁸³. It should be investigated whether this tank and any connected leaching system could provide adequate septic treatment to wastewater generated by any future uses of the Site.

According to the Federal Communications Commission (FCC) National Broadband Map, high-speed broadband internet is available in the Site area⁸⁴. Further investigation is needed to identify how electricity may be provided to the Site. Defunct electrical equipment, including circuit breaker boxes, were seen during a Site visit, but the condition of this equipment is unknown and the potential for reusing any of the existing electrical system has not been evaluated (**Figure 17**).

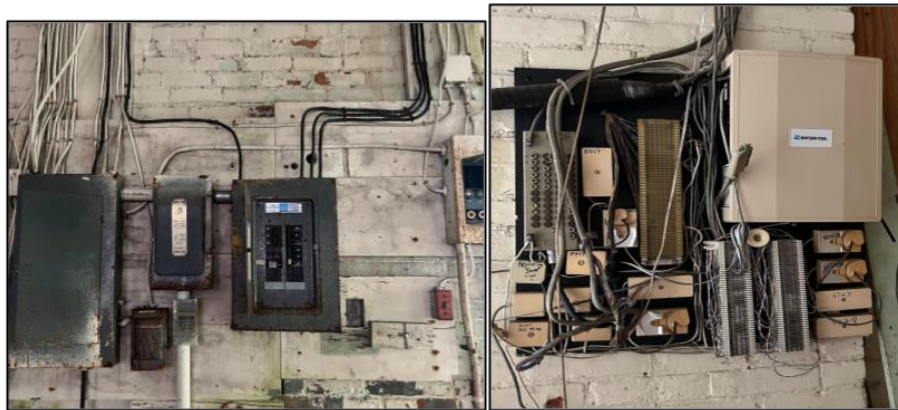


Figure 17. Breaker Boxes in Site Building (Photo taken during Site visit)

6.2 Traffic Assessment

The site is on NH-9A, a sub route of NH Route 9 (**Figure 29**). Route 9 continues east towards Keene and west towards Brattleboro, VT. Route 9A begins near the site and continues west along the southern shores of Spofford Lake.

⁸³ Ibid.

⁸⁴ Federal Communications Commission (FCC), "National Broadband Map" (accessed 06/20/23)

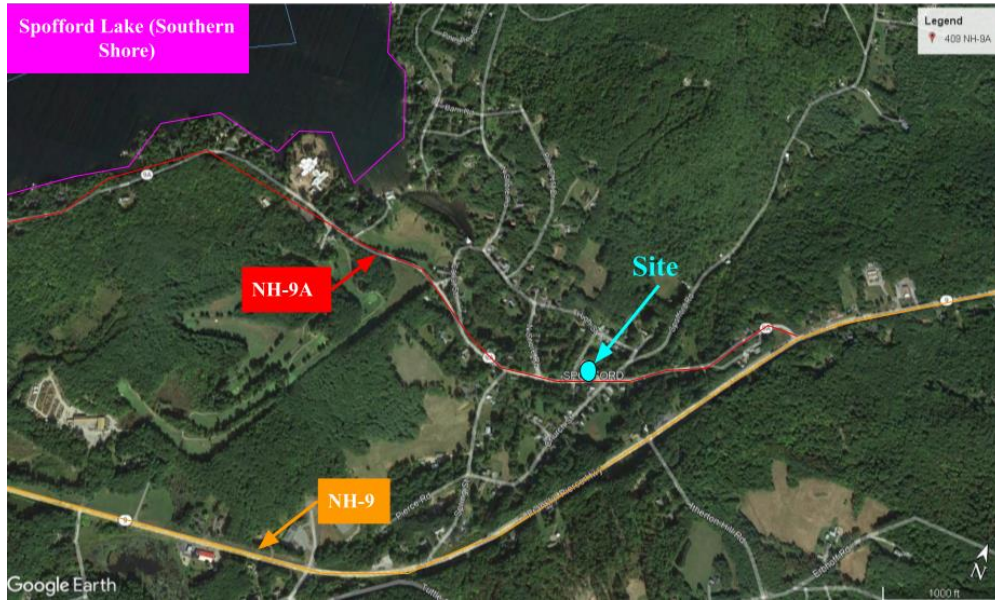


Figure 18. Transportation in the Area of the Site (Source: Google Earth Pro)

No identifiable designated public bus stations, train stations, or parking lots exist within Chesterfield or Spofford. The site is accessible on Route 9A, and there is no designated parking lot, only a small asphalt space in front of the building (~15x70 ft). Joslin St, which runs across the western border of the Site, is likely not a viable option for a second entrance to the site since it runs close to Partridge Brook.

SECTION 7 ENVIRONMENTAL ASSESSMENTS

7.1 Summary of Environmental Site Assessments

Phase II Environmental Site Assessment and Hazardous Building Materials Inventory (2013)

Nine Areas of Concern (AOCs) were identified by the Phase II Site Assessment conducted in 2013⁸⁵. AOCs are mapped in **Figure 4**; (large site plan is also included in Appendix):

AOC 1: Site Building

- Contains Hazardous Building Materials (HBMs), including lead in paint, potential polychlorinated biphenyl (PCB)-containing fluorescent light ballasts, and presumed mercury-containing light tubes/thermostat switches
- PCBs found in paint samples are either a component of the paint or the result of a release of PCBs within the building (inconclusive based on current data)

⁸⁵ Ransom, "Phase II"

- No air quality standards were exceeded in indoor air samples collected, but chlorinated volatile organic compounds (VOCs) were detected in one sub-slab soils vapor sample at a concentration exceeding its residential screening value
- Site Building roof is leaking ‘extensively,’ leading to rot, mold, and mildew issues

Recommendation(s):

- “Structural assessment of the building is necessary to evaluate whether restoration or demolition is appropriate.”
- “Depending on the chosen path to redevelopment, soil removal and vapor control measures could be implemented to mitigate risks to indoor air quality.”

AOC 2: Former Mill Building Footprint

- Trichloroethene (TCE) detected in the soil above NH DES Soil Remediation Standards (SRS)
- Inferred that residual contamination remains in soil (following EPA removal action) that likely extends into the former alleyway east of the former mill building (Area of Concern (AOC) 4).

Recommendation(s):

- Anticipated that active remediation (possibly soil excavation) is appropriate to mitigate long-term impacts

AOC 3: Wastewater Treatment Area

- No SRS exceedances were documented, but ‘significant evidence’ of petroleum was noted in soils, and it is ‘likely that this area remains a source of dissolved petroleum contamination.’

Recommendation(s):

- Soil excavation is an option but maybe ‘potentially cost prohibitive’ given the scale of the excavation area. Other options are: 1) more targeted soil removal⁸⁶, 2) containment strategies to stabilize chromium in place

AOC 4: Alleyway east of Former Mill Building

Recommendation(s):

- Soil excavation to mitigate long-term impacts of contaminated soil

AOC 5: Former USTs and Gasoline Dispenser Areas

- No additional investigation or corrective actions are anticipated for this AOC

AOC 6: Petroleum Contaminated Soil Excavation Area

- Petroleum contamination is present, but ‘there is some benefit to the presence of the relatively low-level impacts in that it provides a carbon source to help degrade the CVOC Plume.’

Recommendation(s):

- This benefit should be considered in deciding whether active remediation is warranted.

⁸⁶ Ransom, “Phase II”, Executive Summary page 5

AOC 7: Partridge Brook

- 'No additional investigation and no action planning are warranted based on the results of Phase II Investigation 2013.'

AOC 8: Historic Fire Debris/Hotel "Dump"

- **Given that the area is not used for any purpose**, the contaminants in soils present a low exposure risk, especially given the steep and vegetated nature of the area

AOC 9: Eastern Site Boundary

- **Redevelopment plans should include management strategies to make these soils less accessible**

Based on these findings, the Phase II assessment also recommended⁸⁷:

- Assessment of the source of PCBs in paint
- Conduct a structural assessment of the building
- Assessment of viability of on-site potable water
- Preparation of Analysis of Brownfields Cleanup Alternatives (ABCA) and Remedial Action Plan (RAP)
- Long-term management of the contaminated groundwater on and off-site, including the maintenance and operation of existing Point of Entry water treatment systems (POEs) and any future POEs as needed

7.2 Remedial Restrictions

Reuse scenarios in the Phase II Environmental Site Assessment and Hazardous Building Materials Inventory report assume that the site is decontaminated and can be reused for the purpose ascribed by the scenario. Upon completing the selected remedy, this Site Reuse Assessment identifies what is environmentally permitted and restricted at the site. A RAP and ABCA must be conducted to determine a remediation plan for contamination sources identified in environmental assessments. Once a remediation plan is chosen, these reports may identify remedial restrictions outside of those noted in this report.

The most extensive and recent Site assessment conducted was a Phase II investigation in 2013. Based on soil and groundwater samples collected, the investigation recommended:

- Possible soil excavation for AOC 2, AOC 3, AOC 4, and AOC 6
- AOC 8 (Area of Historic Fire Debris/Hotel 'Dump') should not be used for any purpose
- Redevelopment plans should include management strategies to make AOC 9 (Area of Eastern Site Boundary) less accessible
- Preparation of ABCA and RAP
- Long-term management of contaminated groundwater on and off-site

⁸⁷ Ransom, "Phase II", Executive Summary 9-10

- Conduct a structural assessment of the building

Based on these recommendations, multiple likely remedial restrictions can be identified:

- Restrict development within the boundaries of AOC 8 and 9 (with appropriate tools to prevent access)
- Restrict disturbance of contaminated subsurface soils east and south of the brook
- Potentially restrict demolition of building to prevent potential exposure to contaminated soils beneath the building

SECTION 8 REDEVELOPMENT SCENARIOS

8.1 Criteria for Reuse Assessment

Below we discuss the criteria used to help identify conceptual redevelopment scenarios and evaluate the viability of each.

Criterion 1: Building and Parcel Size

The site sits on three parcels totaling ~0.92 acres. The Chesterfield Zoning Ordinance requires a minimum lot area of 5 acres for any multiple-family dwelling; therefore, multi-family development at the Site would require exceptions from the local Zoning authorities. Treated as a single lot, the largest building footprint which could be developed on-site is ~4007 sq ft (larger than the current building footprint), given the maximum building lot coverage of 10% in the residential and village districts.

The current Site Building has a ~2000 sq ft footprint and two stories. Theoretically, ~2 small (~800 sq ft) units could fit on each floor, accounting for corridor and storage/utility space. These units alone are unlikely to account for and recoup redevelopment costs. However, such residential units on upper floors may provide added revenue and may improve the viability of commercial development on the ground floor of the building.

If the building is removed as part of reuse plans, green space is an appropriate and feasible option for reuse. The construction of a new building is another option. Still, given the small collective size of the three parcels that encompass the Site, even the largest possible development on-site is unlikely to properly balance construction costs with the expected return on investment. On the other hand, a small parcel like this may be more appropriately repurposed in a manner that leverages its natural features, such as an outdoor green and recreation space.

The former General Store located in Lot D4 is not part of the Target Site, but it is directly adjacent, and its history is largely intertwined with the Electrosonics Site. Moreover, the ~4,000 sq ft building on Lot D3 could improve the viability of future development at the Target Site, since more available building space creates more options for reuse. The General Store has not been included in the various redevelopment renderings for this report. Still, it should be considered by the Town as a potential asset to the reuse of the Site, which may be pursued as part of long-term plans to revitalize Spofford's Village area.

Criterion 2: Discussions with Town and Regional Planning Officials

The CRG identified three conceptual end uses for the Site based on the environmental status and reusability of the Site Building:

1. If the building had to be torn down: greenspace with a year-round pavilion for community gatherings.
2. If the building could be kept: a coffee shop/deli/community gathering space downstairs and housing units upstairs.
3. Per the interest of a community member: a craft boat building training facility and maker space.

Criterion 3: Demographics

The Town of Chesterfield has a significant elderly population, projected to increase along with the rest of the State. While senior housing requires a minimum lot size of 5 acres according to the Chesterfield Zoning Regulations, a green space accessible for all age groups could serve elderly residents and visitors who wish to escape into the nature of a quiet New Hampshire town. The need for affordable housing and well-paying jobs is evident in Southwest New Hampshire. It should be pursued in Spofford, especially at other larger underutilized Sites in Town that may be appropriate for commercial and/or residential development. A green space at this Site could incentivize commercial and residential developments in larger spaces.

Criterion 5: Environmental Restrictions

No development can occur within the boundaries of AOC 8 (border between Site and property abutting to the east) and AOC 9 (to the west of Partridge Brook along Joslin Street). This allows for development to occur in the center of the Site, along the 'inside' of Partridge Brook. Any outdoor green space development at the Site will leverage this, ensuring the Brook is a central theme. The Site is not within any floodplains, although Partridge Brook is a wetland. Groundwater flows towards the Brook, and steep slopes form its borders. As such, flooding of the portions of the Site likely to be reused is not a significant concern. Nonetheless, it is projected that rainfall and the propensity for natural disasters will increase in every part of the nation as a result of climate change, so adequate measures to promote flood resiliency and erosion control, such as vegetation along the river, should be considered.

Criterion 6: Planning Studies

An essential goal in the Master Plan is to provide the necessary infrastructure and attractions in Town to facilitate tourism and economic growth. The Site is on the outskirts of Spofford's developing village district, where the Master Plan indicates high-density commercial and residential developments should be pursued. A green space would incentivize residents and visitors to spend time in the area, benefiting such future developments. The Master Plan also indicates the need for more outdoor space for community events, which the Site could facilitate with appropriate parking, an outdoor stage, and/or picnic areas.

Criterion 7: Parking and Site Access

The Site has no vehicular access except for the small asphalt space in front of the Site Building adjacent to Route 9A. A new entrance with adequate parking will likely be needed to facilitate future reuse of the Site, particularly for commercial or residential reuse scenarios. Specific parking requirements are identified in each redevelopment scenario based on the projected reuse and Chesterfield's Zoning Regulations.

Criterion 8: Zoning (Exception required for multiple family dwelling lot size)

Section 403 of the Zoning Ordinance relates to multiple-family dwellings, which have different spatial regulations and requirements than other uses. A minimum lot area of at least 5 acres is required for any such development, so a residential use at the Site would require an exception from the Town's respective zoning authorities. Commercial uses and multiple-family dwellings are permitted uses in the Village district.

8.2 Reuse Alternatives

Below we describe three different reuse scenarios and provide conceptual renderings of each. Note that renderings are intended to be used for illustrative purposes only. The UConn TAB team prepared these renderings to facilitate participation by community stakeholders in future site redevelopment planning

Note that redevelopment will be constrained to some degree by the site's physical setting, such as topography, stormwater drainage, etc. In preparing the renderings, UConn TAB approximated the terrain for Route 9A and the area around the building using Topographic Maps (2021 US Topo Scale 1:24000 accessed via USGS Database⁸⁸) and Site Photos. The ground surface slopes moderately down water towards the rear area of the building from Route 9A. The high, steep slopes alongside Partridge Brook are not illustrated due to technical and time limitations but are identified as a 3-D Note in the renderings.

Scenario A: Site Building Renovated; Acceptable for Commercial and Residential Reuse

Scenario A assumes that the Site Building is renovated, and the property is environmentally acceptable for commercial and residential reuse. The building would be a mixed-use commercial/residential building with first-floor space (viewed from the street) for a small restaurant, coffee shop, retail, or other commercial endeavors. The top floor would include two ~800-1000-sq. ft. affordable housing units. The basement area has ground-level entrances on the west and north, which could be advantageous for a small brewery, restaurant, or to provide supplemental space for the end use of the first floor (e.g., a 2-story restaurant, dance space addition, or banquet hall). The rendering for Scenario A includes a coffee shop/bakery on the first floor, an indoor sit-down area for the coffee shop in the basement, and affordable housing units on the top floor.

This scenario assumes that impacted soils in several areas of the site would be remedied through the use of an environmental use restriction (EUR) and incorporates several design elements that will ensure the functionality of the EUR. For example, Partridge Brook serves as a natural barrier between site residents and visitor and AOC 8, and the walking path to the entrance of the building from the parking lot would be a barrier between the soils associated with AOC 9 (along the eastern site boundary) and pedestrians.

Chesterfield zoning requires that restaurants provide one parking space for every table plus one space for each employee on the largest shift. Assuming ~6 tables in the basement area and ~5

⁸⁸ United States Geological Survey (USGS), "Topoview: Spofford, NH" (accessed 07/25/23)

employees on the largest shift, 11 parking spaces would be required for the coffee shop. Two spaces per dwelling unit are required for residential uses, so four parking spaces will be needed to facilitate the upper-floor affordable housing. Based on the reuse outlined in Scenario A, the total number of required parking spaces for the Site would be 15. This number may change depending on the actual uses of each floor and/or the number of tables included in restaurant uses.



Figure 19. Scenario A: Bird's- Eye View



Figure 20. Scenario A: Front View of Former Electrosonics Building (NH-9A in bottom of image)



Figure 21. Scenario A: Straight-Ahead View of Former Electrosonics Building



Figure 22. Scenario A: View of Former Electrosonics Building from Ground



Figure 23. Scenario A: View of Site Entrance and Rear Parking Area



Figure 24. Scenario A: Side View of Former Electrosonics Building (NH-9A in to the right)



Figure 25. Scenario A: View of Entrance to Indoor Dining Area at Basement Level from Parking Lot

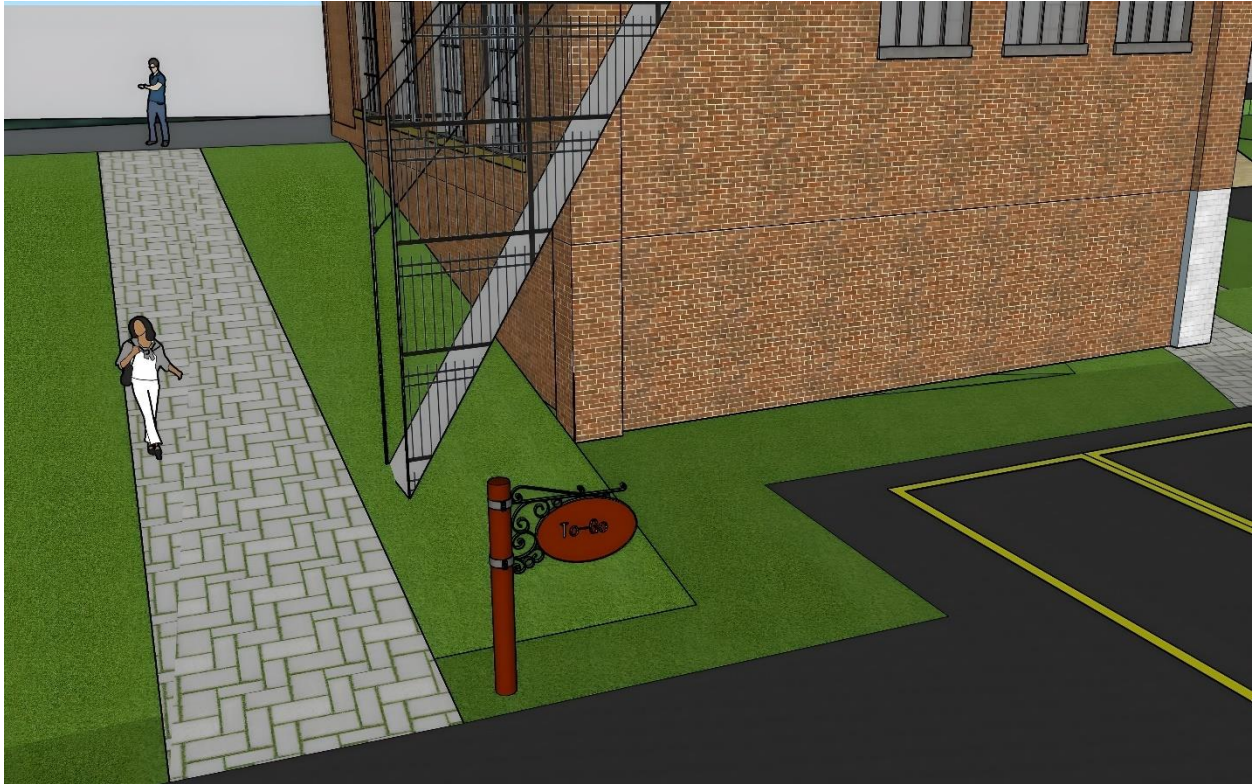


Figure 26. Scenario A: View of Path from Rear Parking Lot to Deli Entrance on Side Toward NH-9A

Scenario B: Site Building Removed; Green Space for Outdoor Community Events

Scenario B assumes the building is removed. In the rendering, the Site entrance (asphalt) covers the eastern site boundary, which the Phase II site assessment identified as an area where access should be limited to prevent access to impacted soils in AOC 9. As in Scenario A, Partridge Brook acts as a natural barrier, preventing access to AOC 8. Other features in the rendering for Scenario B are:

- Parking lot with 16 9'x18' parking spaces
- Space for food trucks
- Farmers' market area
- Outdoor seating (picnic tables)
- Trees to act as shade around outdoor seating
- Central gazebo with seating
- Outdoor tents for community events
- Path throughout the outdoor recreation area

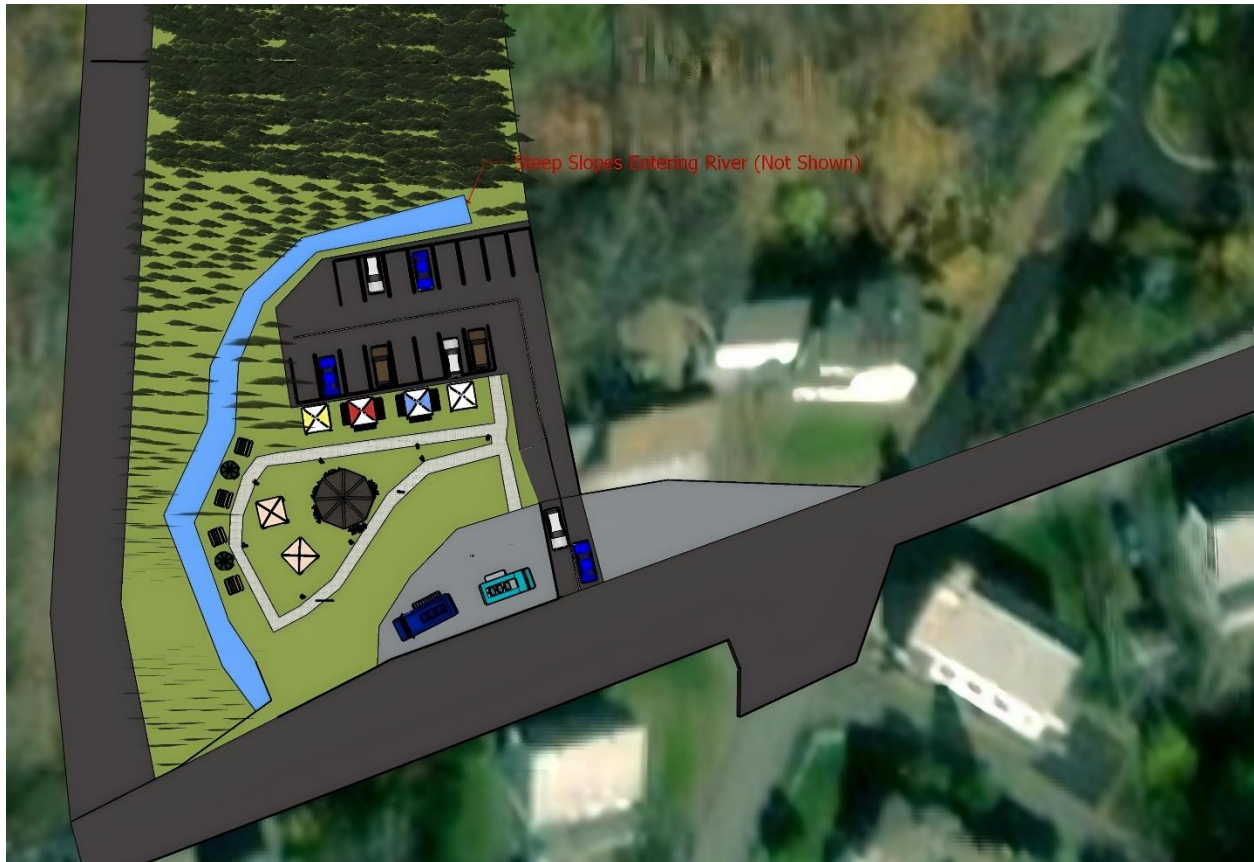


Figure 27. Scenario B: Bird's Eye View



Figure 28. Scenario B: View of Outdoor Recreation Area from Asphalt Area



Figure 29. Scenario B: Top View of Outdoor Recreation Area from Site Entrance



Figure 30. Scenario B: Top View of Outdoor Recreation Area from NH-9A



Figure 31. Scenario B: View of Farmers' Market Area from Ground



Figure 32. Scenario B: View of Outdoor Recreation Area from Ground of Food Truck Area



Figure 33. Scenario B: Top View of Outdoor Recreation Area and Food Truck Area

Scenario C: Art/Woodworking School

Discussions with Town officials indicated that there was interest in redeveloping the Site into an art/woodworking school in collaboration with a local organization. This scenario assumes that the Site Building remains and is available for such reuse. No renderings were done for this scenario, as it was indicated that site plans with renderings were already underway (or possibly completed) by the interested parties. This scenario could utilize site vehicular and pedestrian entrances like Scenario A or

choose alternative access routes deemed safe and efficient during the design process. Site redevelopment plans under Scenario C should:

- Provide adequate parking for students, visitors, and instructors
- Restrict or mitigate access to AOC 9 and AOC 8
- Adhere to local zoning regulations (setbacks)

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APPENDICES

