COMPREHENSIVE CAMPUS STUDY

EXISTING SITE AND BUILDING CONDITIONS



March 2014

Prepared for:

Southbury Training School Task Force Town of Southbury

Prepared by:





COMPREHENSIVE CAMPUS STUDY

EXISTING SITE AND BUILDING CONDITIONS FOR SOUTHBURY TRAINING SCHOOL

March 31, 2014

Prepared for:

Southbury Training School Task Force Town of Southbury Office of the First Selectman 501 South Main Street Southbury, CT 06488

Prepared by:

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The Governor's Task Force on Southbury Training School Report to Governor Dannel P. Malloy Executive Summary

Background and Process

Consistent with its charge, the Governor's Task Force on Southbury Training School (STS) has completed its work with regard to the assembly of information pertaining to the natural resources, infrastructure, and structures at the STS property. The result of this work is contained in this Comprehensive Campus Study prepared by Milone & MacBroom, Inc. at the direction of the Task Force.

In addition to the technical analysis and discussions at several Task Force meetings, a public meeting was held at the Southbury Town Hall on December 4, 2013. Approximately 75 people, as well as Task Force members, were in attendance to listen to a presentation of a summary of the draft study.

Following the presentation, those in attendance were provided an opportunity to ask questions. After responses were given, people were asked to identify future uses they would like to see for the campus, as well as those uses which they would not. It was clearly stated that this was a visioning process, no plan for reuse of the campus was in preparation, and that other than a commitment of a portion of the property to the Connecticut Department of Agriculture, no other reuse decisions have been made.

With respect to current activities and services provided at STS, a clear statement was made at the beginning of the meeting that there is no date certain for the closing of the school. The existing information that has been assembled will not be used as a basis for any decision to closing of the school. As the number of people being served at the school declines, a process of consolidation of facilities to one portion of the campus is being carried out. This may result in the demolition of some structures that are no longer needed for school uses. Such buildings are, for the most part, either in a condition or form that is inappropriate for reuse.

This Comprehensive Campus Study summarizes the findings as to existing conditions at the property through the use of extensive mapping and supporting narrative. The study is structured in six main sections:

- Natural Resources
- Infrastructure and Utilities
- Campus Structures
- Conclusion as to Baseline Conditions
- Visioning
- Next Steps



There are maps that present information in support of these topics within the body of the study, as well as additional maps and data tables in the Appendix. All of the mapping has been prepared in a GIS format, which provides for an integration of various characteristics as well as the ability to undertake a range of analytical tasks. This technology is not static; therefore, this baseline information can be supplemented and updated as appropriate. Any future planning for the campus will be greatly facilitated by having this information in this form.

Natural Resources

The topography of the property ranges from flat meadow/fields and gently sloping hills to high points with dramatic views of the surrounding area. The hydrology of the property provides both surface and subsurface water resources. The vegetation includes planted landscaped areas, as well as natural undergrowth and stands of mature forest. The soils provide large areas of high-value agricultural land.

Infrastructure and Utilities

In order to support the campus population at its historically high levels, a fully-developed infrastructure was required. This infrastructure includes potable water, sewage treatment, electrical power, central steam heat, roads, and bridges, as well as communications. Over the years, this infrastructure has been maintained, modified, and replaced in response to a reduction of population and changes in technology. These changes and modifications have included:

- Closure of the on-site sewage treatment plant, which has been replaced with a connection to the Heritage Hills Wastewater Treatment Plant via a system of pipes and pumping facilities.
- Electrical power is now provided via connection with Connecticut Light & Power (CL&P) transmission lines. The on-site generation facility is still operable and used in those instances when the CL&P source is interrupted.

As a result of a reduction in the population on campus, most if not all infrastructure facilities have a capacity in excess of current demand. This is particularly important with regard to the sewer treatment and water capacities. Much of the value of the infrastructure system can be attributed to the sound maintenance practices by the staff. As a result, there are limited infrastructure constraints on a wide range of reasonable future uses.

Structures

There are currently 70 structures on the campus, including those for various activities as well as infrastructure support structures (such as pump stations). In this 70-structure inventory, 42 were previously or are currently in residential use. Within these 42 residential structures, 15 are either closed or in transition to be closed.

In order to evaluate the overall condition of the structures, a sample of the structures was inspected.



The structures inspected included:

- Davidson administrative building
- Crawford closed, used for active storage
- Roselle School training center
- Power House utility
- Thompson Hall housing (closed)
- Health Care Center medical (closed)
- Fleck Hall housing (closed)
- Cottages residential (sample)
- Pre-Fab Structures repair/equipment storage
- Staff Houses housing (closed)

The study describes the results of these inspections. With the exception of one staff house, no major structural deficiencies were found. Clearly, many of the interior systems are dated due to the age of the structures. It should be noted that the condition of structures is much superior to other large state facilities such as Fairfield Hills Hospital and Norwich State Hospital. This is attributed to two factors: (1) most structures on these other two properties were closed with limited moth balling; and (2) the buildings at the school are being closed with much more thought and treatment than was the situation at the other properties.

One factor in the examination of old structures is the extent of hazardous materials, particularly asbestos and lead paint. Over the last several years, in those instances where such materials have been visible and presented a hazard, abatement has been carried out. However, invasive testing has not been done for such materials in plaster, tile, and windows. Based upon experience at similar properties, it may be assumed that some of these materials are present. The treatment and expense related to these conditions will be specific to future use decisions. Demolition and adaptive reuse will have specific requirements and resulting costs. The only other potential hazardous condition might be the remains of various pesticides used around building foundations. The extent of hazardous environmental conditions will require testing and analysis. An application for funds to undertake this testing and analysis has been submitted to DECD. A draft scope of work for this is contained in the Appendix.

A second factor impacting the future use of the school property and structures is the listing on the Federal Register of Historic Places, as well as the State Register. Consultation is underway with the State Historic Preservation Officer to determine the nature of the impact of this listing and the process needed to move forward. A memorandum from the State Historic Preservation Officer addressing this issue is attached in the Appendix. This memorandum includes the recommendation that a historic assessment survey of the campus be completed. The process of making an application for funding for such a survey is currently underway. A graphic showing the contributing and noncontributing historic resources on the campus is included in the Appendix of this report.



Conclusion as to Baseline Conditions

Based upon the data gathering and analysis more fully described in this study, it is concluded that there are no existing conditions that represent major obstacles to a range of future use options for the campus. Clearly, the type of construction, configuration, and internal systems of structures as well as environmental conditions will be a central issue in terms of adaptive reuse. For the most part, structural conditions are classified as moderate to good. However, the longer closed structures remain closed, conditions will unavoidably deteriorate. As stated earlier, the capacity and condition of the water and sewage treatment systems will support a wide range of uses.

Visioning

While the completed study focuses on baseline information, the topic of future use has been considered relevant by both the Task Force and the public, as demonstrated at the December 4, 2013 meeting. This report Appendix includes a full listing of questions and answers, as well as future use thoughts expressed at the meeting. As a result of the process of completing the study, including the public meeting, a list of possible uses ranging from most desirable to least desirable has been compiled by the Task Force. It should be noted that this list does not consider such factors as local land use codes, cost and market feasibility, or development/operational structure. The range below does not represent any ranking within categories.

Categories of Envisioned Uses

<u>Most Desirable</u> Agriculture Agriculture/Agri-business Education and Facilities Education General Open Space/Recreation

<u>Desirable</u> Vocational Training/Disabled Veteran Training Commerce/Corporate Park Residential

<u>Least Desirable</u> Retail Manufacturing (unless uniquely matched to site conditions)

Next Steps

It is the Task Force's recommendation that the planning process continue in order to provide a reasonable, community-supported vision for the future use of the campus. This process must be based upon the realities of the agreed-upon policy that the current population at the school will be treated with the upmost respect for their needs and the planning process will not impact this



policy. A convergence of needs and vision for the property may provide an opportunity for a change of use for portions of the property. The Task Force and community are in agreement that this coordinated planning process is needed to avoid the experience at both Fairfield Hills Hospital and Norwich State Hospital, where such planning was not undertaken prior to closing the facility and most, if not all, of the activities and use of buildings had been abandoned prior to the development of a strategy for the future.

In the meantime, these specific actions must be taken:

- Funding and completion of an Environmental Assessment
- Funding and completion of a Historic Assessment Survey
- Funding and ongoing mothballing of structures no longer in use
- The discussion and creation of an authority unique to the use and reuse of the Southbury Training School

2097-16-4-a214-rpt



1.0 NATURAL RESOURCES

1.1 <u>Introduction</u>

The descriptions and computations included in this Comprehensive Campus Study are provided in support of the future policy decisions relative to the Southbury Training School (STS). STS is located north of the Town of Southbury's (the Town) Historic District. The STS campus is designated to reflect the Town's character, help meet community needs, provide community amenities, and preserve the site's agricultural, natural, and historic resources by the 2012 Southbury Plan of Conservation and Development. STS has approximately 635 acres of land area, of which the focus of this report – the main campus within these 635 acres – is approximately 330 acres. Other nonoperation uses of the campus include an Adventure Area and a proposed elderly housing development.

The Adventure Area has an Amphitheatre and a Storage Building west of Cottage 35. This Adventure Area is typically occupied during the summer months by the YMCA summer camp and is dependent upon the main campus for electrical service only. There are aboveground transmission lines that run from Cottage 35 westerly toward Constitution Hill and the Adventure Area. Some recent infrastructure improvements to this area include a new private well and subsurface sewage disposal system.

The proposed elderly housing development is located east of the Pierce Hollow Cemetery. This area consists of 45 acres currently in use for housing of STS staff and consumers. The proposed plan for this area will not be discussed within this report and has been mentioned for reference purposes only.

1.2 <u>Natural Resources</u>

The property is bound to the north by Deer Hill Road and Flag Swamp Road, to the east by Traditions at Historic Southbury housing development, to the south by the Town's Historic



District, and to the west by Spruce Brook Road. Per the Town zoning map, the property is a residential zone R-60.

The property falls within the Aquifer Protection District #1 (AP-1) for tributaries to the Pomperaug River and is subject to all applicable requirements of Section 5A of the Southbury Zoning Regulations. The entire project site is located within the Transylvania Brook watershed. This watershed is located within the Pomperaug Regional Basin, which is located within the Housatonic Major Basin, and identified as Regional Basin 6806 on the Connecticut Department of Energy & Environmental Protection's (CT DEEP) *Atlas of Public Water Supply Sources and Drainage Basins*. A review of the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for the area shows that both the 100-year and the 500-year FEMA floodplain boundary extends onto the project site along the Transylvania Brook adjacent to South Britain Road.

The existing main campus is fairly developed with buildings of varying sizes and open spaces. There are wooded areas that separate the structures from one another for added privacy. The terrain of the site generally rises from South Britain Road to a high point that is located west of the Adventure Area at approximately 770 feet above mean sea level. The site generally slopes radially from the high point east toward Transylvania Brook and south toward Spruce Brook where the two streams converge near the sanitary pump station. From this point the flow is directed southerly toward the Town's Historic District. Figure 0 on the following page presents these conditions. There are no known wetlands on site beyond the Gravel Pond or areas along the stream courses that flow through the property.

Several maps pertaining to the existing hydrologic soil conditions via the United States Department of Agriculture – Natural Resources Conservation Service (USDA-NRCS) Web Soil Survey website, Natural Diversity Data Base (NDDB) Areas, FEMA FIRM, and CT DEEP Aquifer Protection Areas are attached in the Appendix.



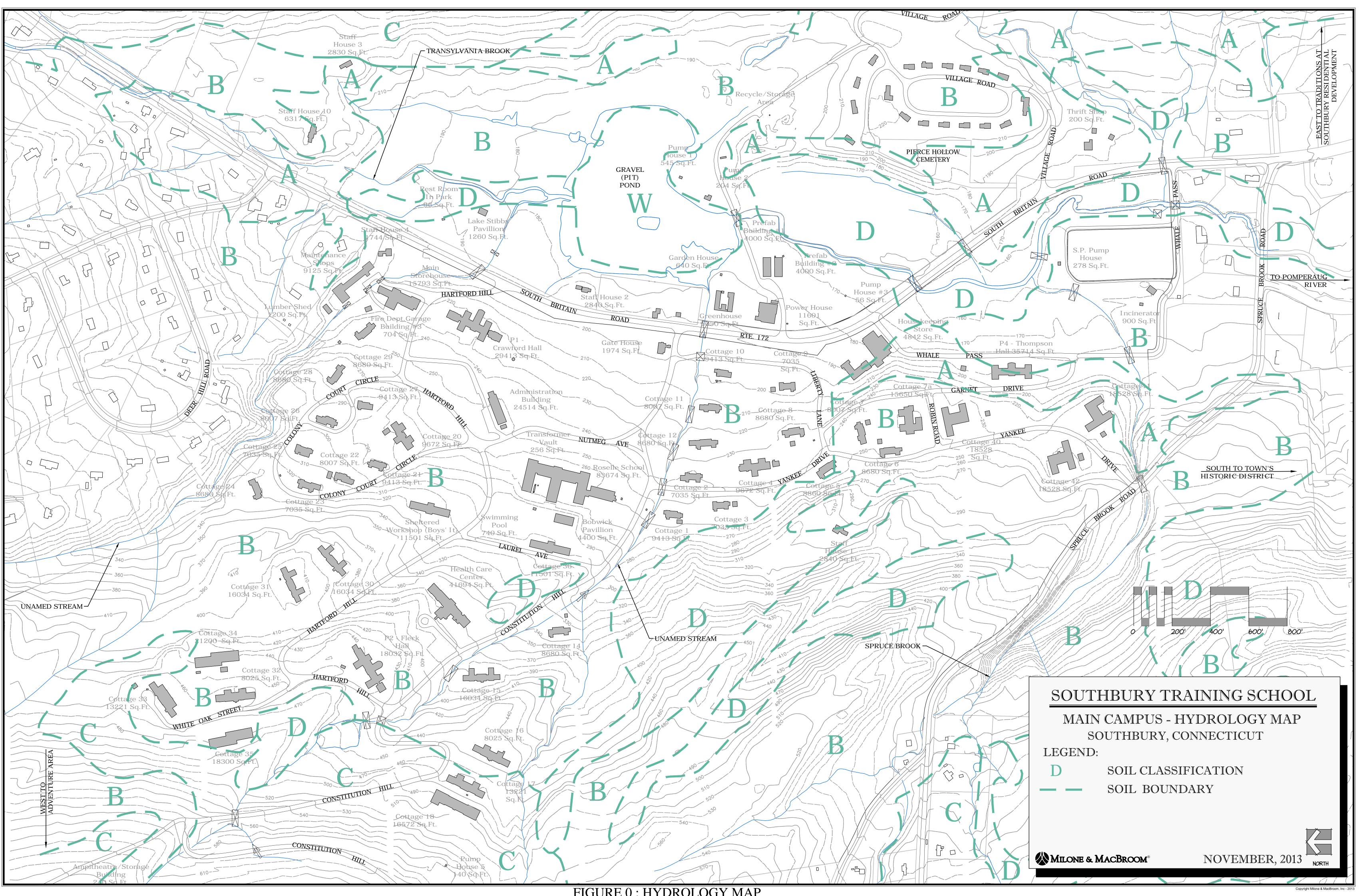


FIGURE 0 : HYDROLOGY MAP

As part of the ongoing maintenance and renovation of structure, asbestos abatement has been conducted over the years by multiple companies. All visible building elements that contained asbestos have been removed in all the main campus buildings. There have been no specific documents provided by STS to confirm such work has been conducted. Detailed information on the conditions of the existing buildings can be found in Section 3.0. Buildings that have been closed are periodically checked by the Southbury Training School Fire Department to ensure there are no imminent fire dangers.

The building closure process is outlined below:

- 1. Windows are closed and sealed.
- 2. Water from the radiators and plumbing fixtures is drained.
- 3. Fire suppression system is flushed.
- 4. Antifreeze is circulated through the buildings' plumbing.
- 5. Internal power from the electrical panel is shut off.
- 6. Any fuel in a storage tank that is connected to a secondary source generator is preserved to exercise the equipment weekly.

2.0 INFRASTRUCTURE AND UTILITIES

2.1 <u>Stormwater Management</u>

The existing stormwater management system utilizes surface drains and curbside catch basins to divert flows into neighboring streams through a closed pipe system that also consists of open channels and concrete pipe culverts and metal pipe culverts. There are a series of vehicle and pedestrian bridges where concrete culverts divert flows to the east and south ultimately into the Transylvania Brook. The only recorded flooding area is around the Main Storehouse.

There are multiple vehicle crossings at the Main Storehouse where an open channel diverts flows easterly to the Transylvania Brook. This is the Transylvania Brook tributary that flows easterly



and converges with the Transylvania Brook at Gravel Pond. The Main Storehouse area only reported flooding up to the roadway during super storm Sandy and hurricane Irene. Both of these were extreme events beyond the drainage design storm required by the Town's zoning regulations. The associated maintenance and cleanup after the storm followed the typical facilities procedure for after a rain fall event.

The maintenance interval for campus drainage facilities is on an as-needed basis. This typically occurs after major storm events. A visual inspection of the campus stormwater system and neighboring streams is followed by the clearing of any debris that has fallen and has blocked typical flow paths. If there are any subsequent construction activities on campus, standard state permitting procedures are followed.

There are no active stormwater general discharge permits open for construction activities. The last such permit was issued for the sanitary pump station project that was concluded in September 2013.

The following map highlights the stormwater management system for the main campus:



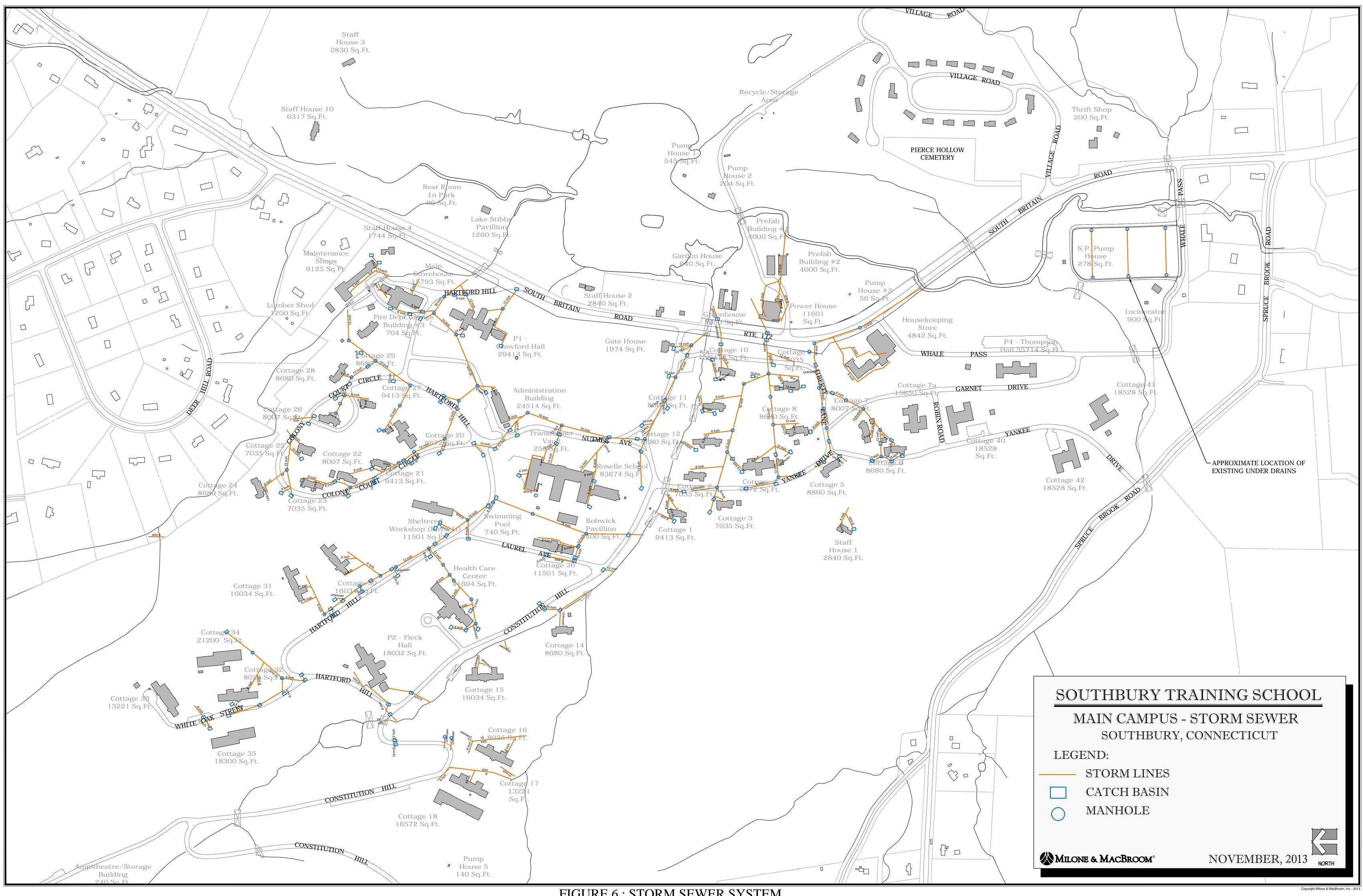


FIGURE 6 : STORM SEWER SYSTEM

2.2 Bridges and Pipe Crossings

An inspection of the campus' bridges and pipe crossings was conducted. There were no major deficiencies on the main campus as routine maintenance of all such structures is evident. Attached to many of these bridges are electrical and communication conduits that are representative of underground services. Any minor deficiencies are noted on the following Bridges and Pipe Crossings plan. An index sheet with more detail is included in the Appendix of this report.



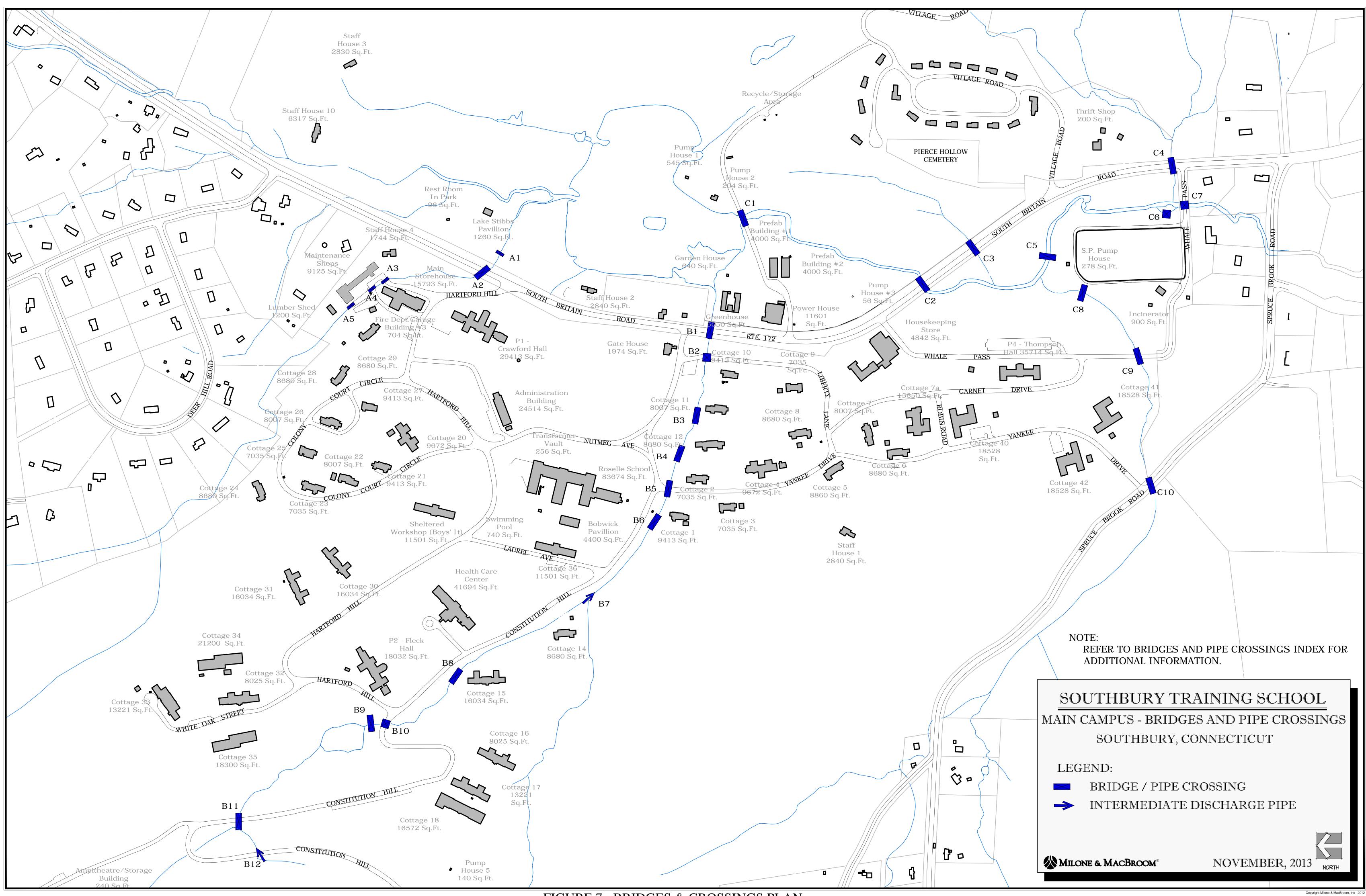


FIGURE 7 : BRIDGES & CROSSINGS PLAN

2.3 <u>Sanitary Sewer</u>

The property has a piped system that collects sewage and directs it to a sanitary pump station located on the southern edge of the campus on Whale Pass. The Department of Construction Services (DCS) conducted an I/I study prior to the construction of the pump station. All associated relining of pipes has been completed. (No documents to support this finding have been received from the DCS). The pump station sends the sewage to the Heritage Village treatment facility.

The permitted peak average daily load to the Heritage Village treatment facility is 180,000 Gallons per Day (GPD). For the last seven months, STS has pumped an average of 96,035 GPD. This is only 47 percent of the total permitted flow to Heritage Village. The pump station has both a primary and an emergency storage tank that can temporarily hold the peak volume if Pump Station – 7 at Traditions Golf Course does not have the capacity to receive flow. Request for an as-built of the pump station and associated permitting documentation have not been received by DCS. All current demand figures include the Personnel Village, which is the proposed elderly housing development area. The following table is a summary of the sanitary sewer flows that are being transferred to Heritage Village from the Southbury Training School pump station.



SANITARY SEWER FLOW SUMMARY

	PRECIPITATION	AVERAGE FLOW	TRANSFERRED VS.	AVAILABLE SYSTEM		
MONTH	TOTAL (IN.) ^{1.}	TRANSFERRED (GAL.)	PERMITTED FLOW (%)	CAPACITY (GAL.)		
June*	3.01	145,107	80.6	34,893		
July	1.21	91,182	50.7	88,818		
August	0.80	72,909	40.5	107,091		
September	0.58	69,947	38.9	110,053		
October	0.03	64,186	35.7	115,814		
November ^{2.}	2.81	66,574	37.0	113,426		
December**	0.48	77,850	43.3	102,150		
7 Month Average	1.27	83,965	46.6	96,035		

Permitted Monthly Flow

180,000 GAL.

* Pump station started to transfer flows from Southbury Training School on June 5, 2013.

** Data is current as of December 30, 2013.

1. Precipitation totals for Southbury were acquired from wunderground.com using the Oxford, CT weather station.

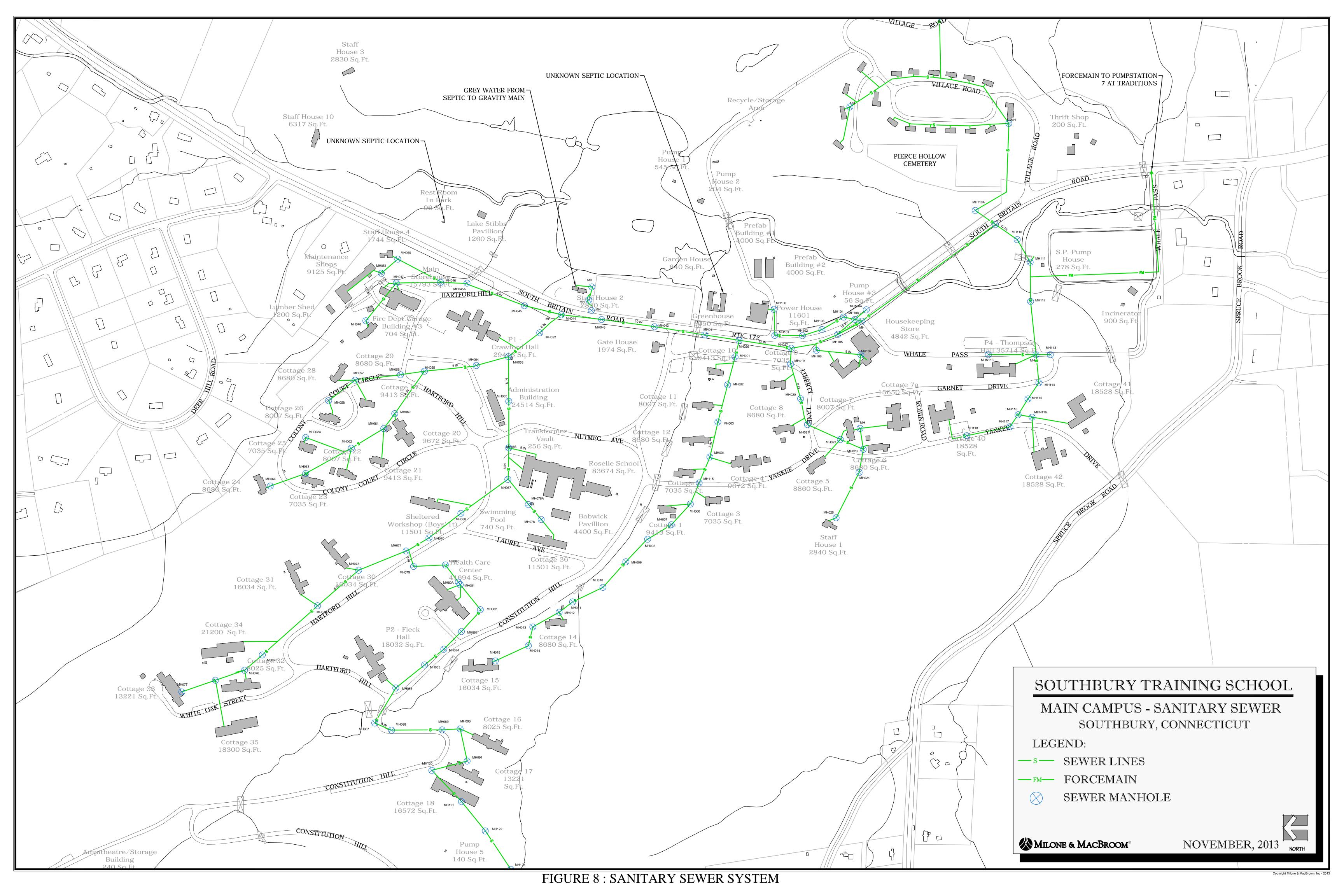
2. The sanitary sewer I/I study by DCS and system upgrades were said to have been completed at the time of developing the main campus existing conditions report.

In addition to structures connected to the piped system, there are dwellings on the main campus that are served by private septic. These buildings include the following:

- Restroom in the Park
- Thrift Shop
- Greenhouses adjacent to the Power House
- Adventure Area
- Staff House 2 (Septic tank only. Grey water is pumped into a sanitary main in South Britain Road and discharges into the STS sanitary pump station)
- Staff Houses 3 and 10

The following map of the sanitary sewer system has been included in this report for your reference:





2.4 <u>Water Supply</u>

The available capacity for main campus water distribution system is dependent upon three wells located around the Power House. Pump Houses 1, 2, and 3 provide to the total supply for drinking, power, and heating needs. The capacity and status of these pump stations are:

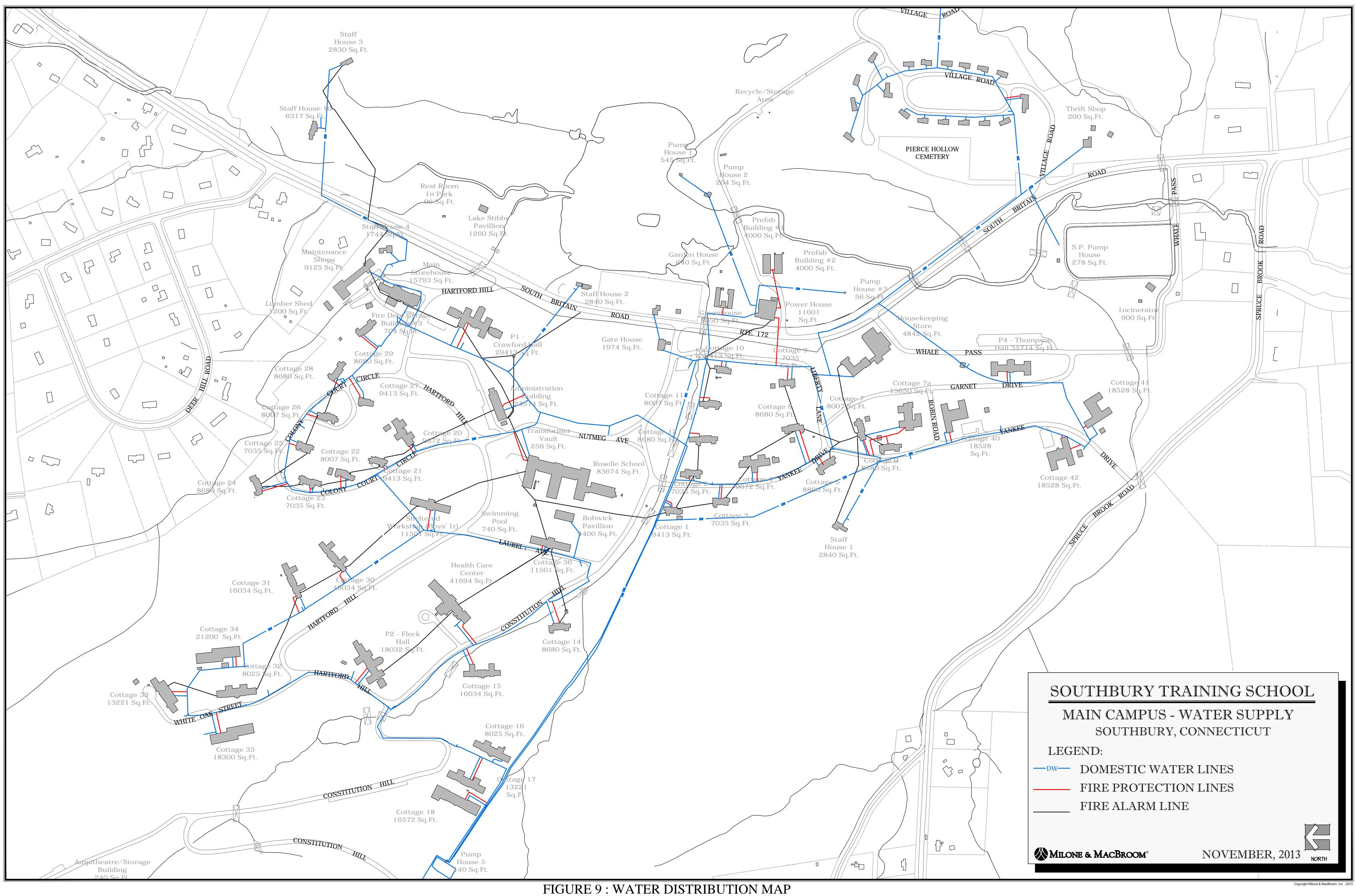
- Pump House 1 = 125 GPM (Approximately 180,000 GPD)
- Pump House 2 = Not is Use (Not in operation, water treatment required)
- Pump House 3 = 225 GPM (Approximately 324,000 GPD)

The water from the wells is treated from Pump Houses 1 and 3 before it is pumped to Pump House 5, where there are two 75,000-gallon tanks that distribute both fire and domestic service to the main campus. There is no Pump House 4 on campus. Therefore, one can assimilate Pump Houses 1, 2, and 3 with service wells. The purpose of Pump House 5 is to hold then release the domestic and fire water to the campus.

An unimproved road in the rear of Cottage 18 provides secondary access to Pump House 5. The main access to Pump House 5 is off Constitution Hill. There are no known deficiencies with campus water supply, service mains, or fire suppression systems. This is due in part to the decreasing operations, resulting in a diminishing demand. The only planned improvements associated with campus water supply are the Pump House structures themselves. Pump Houses 1 and 2 will have the masonry caps along the roof replaced.

The following map highlights the location of the wells and the water distribution system:





2.5 <u>Power and Steam Distribution</u>

Although the Power House is in place and operational, primary electrical service is provided by Connecticut Light and Power (CL&P) facilities off South Britain Road. Yankee Gas has a main that terminates in South Britain Road near the Power House with a service line that connects to the eastern portion of the building.

All water chemistry is constantly monitored to prevent damage or excessive maintenance of the boilers at the Power House. There are no reported issues with the Power House boilers or turbines. The newest boiler is a gas-fired boiler and is the most efficient among the three boilers. Gas service comes from the south on South Britain Road and terminates at the Power House. The Power House has a combined system capacity of 1.5 megawatts (MW) when all boilers and steam turbines are operating. The main function of the Power House is during the winter months to provide steam heat to the campus. Campus heating will resume sometime in November for this heating season. If there should be a power failure, there are secondary measures in place throughout the campus.

Secondary power generators are located at buildings that require on-demand backup because of medical needs. There is a diesel generator at the Power House that has a 1MW capacity for secondary power. This can operate the entire campus should there be an immediate failure of CL&P service or the Power House boilers. If Roselle School is closed, this would be a major trigger in ending the operation of the Power House.

Recent Power House improvements include the replacement of the primary condensate return tank. Deficiencies to the steam line distribution system include the following:

- Groundwater seeping into the steam chamber at Cottage 15.
- A steam line repair from Cottage 16 westerly toward Cottage 17 was completed earlier this year. The repair extends partly into the hillside beyond the front entry of Cottage 16.



- Between the Sheltered Workshop and Cottage 30, there is a break on the 4 inch condensate line. This fault is located at the steam chamber.
- The steam distribution system is maintained on an as-needed basis and any breaks are fixed prior to the heating season. The last major replacement and repair of the steam line system was conducted in 1979. As-built mapping of this work is available upon request.

No electrical or steam distribution lines in the main campus have been taken off line. The majority of the campus is served by buried electric and steam pipes. Evidence of this buried network is most visible at stream crossings where conduit is anchored to the bridge façade. Overheard electrical is present at the sanitary pump station across South Britain Road to the Thrift Shop and from Cottage 35 to the Adventure Area.

The following maps highlight the campus power and steam line distribution system. A table presenting the location of the electrical transformers on campus is contained in the Appendix of this report.



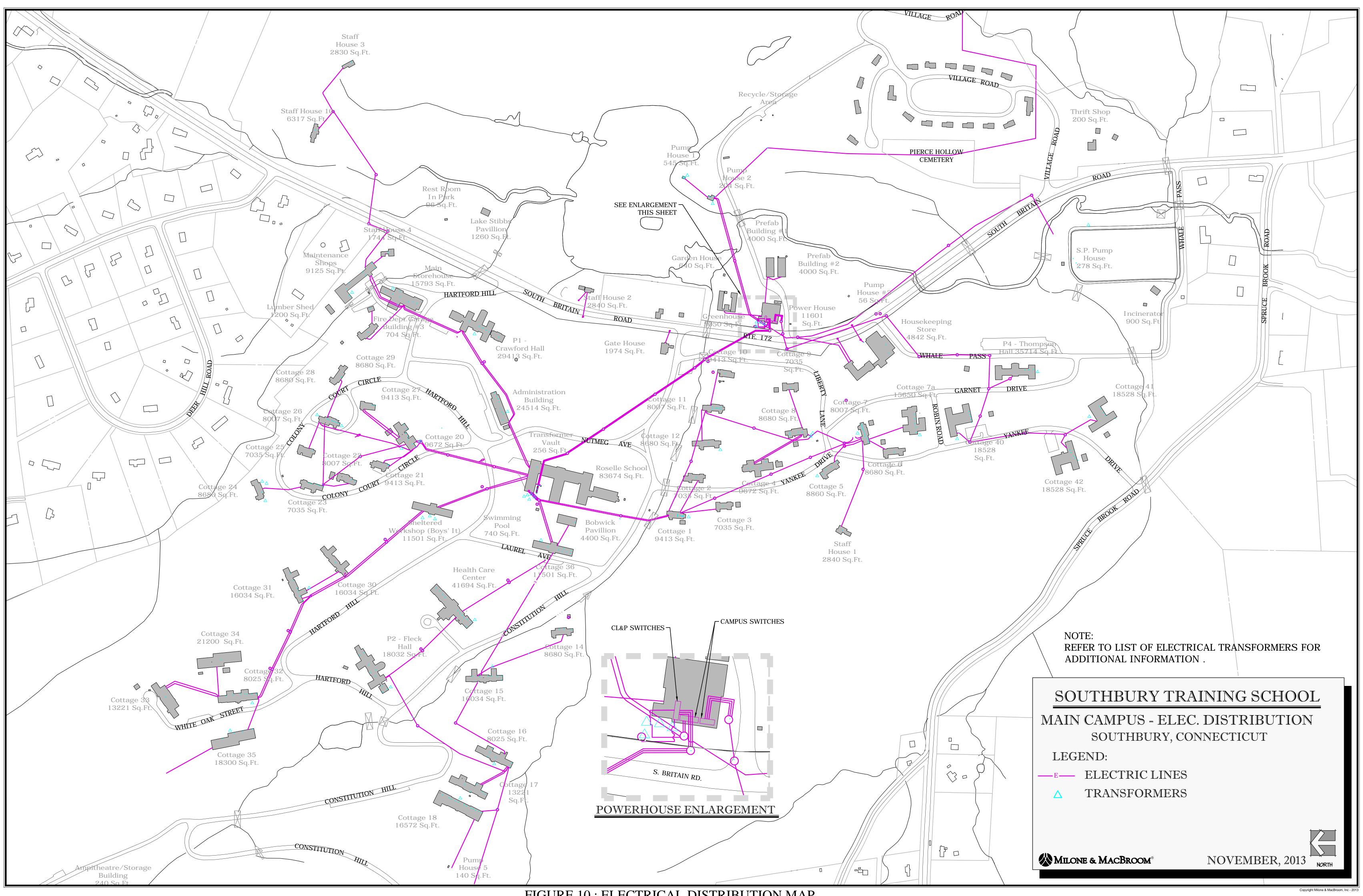


FIGURE 10 : ELECTRICAL DISTRIBUTION MAP

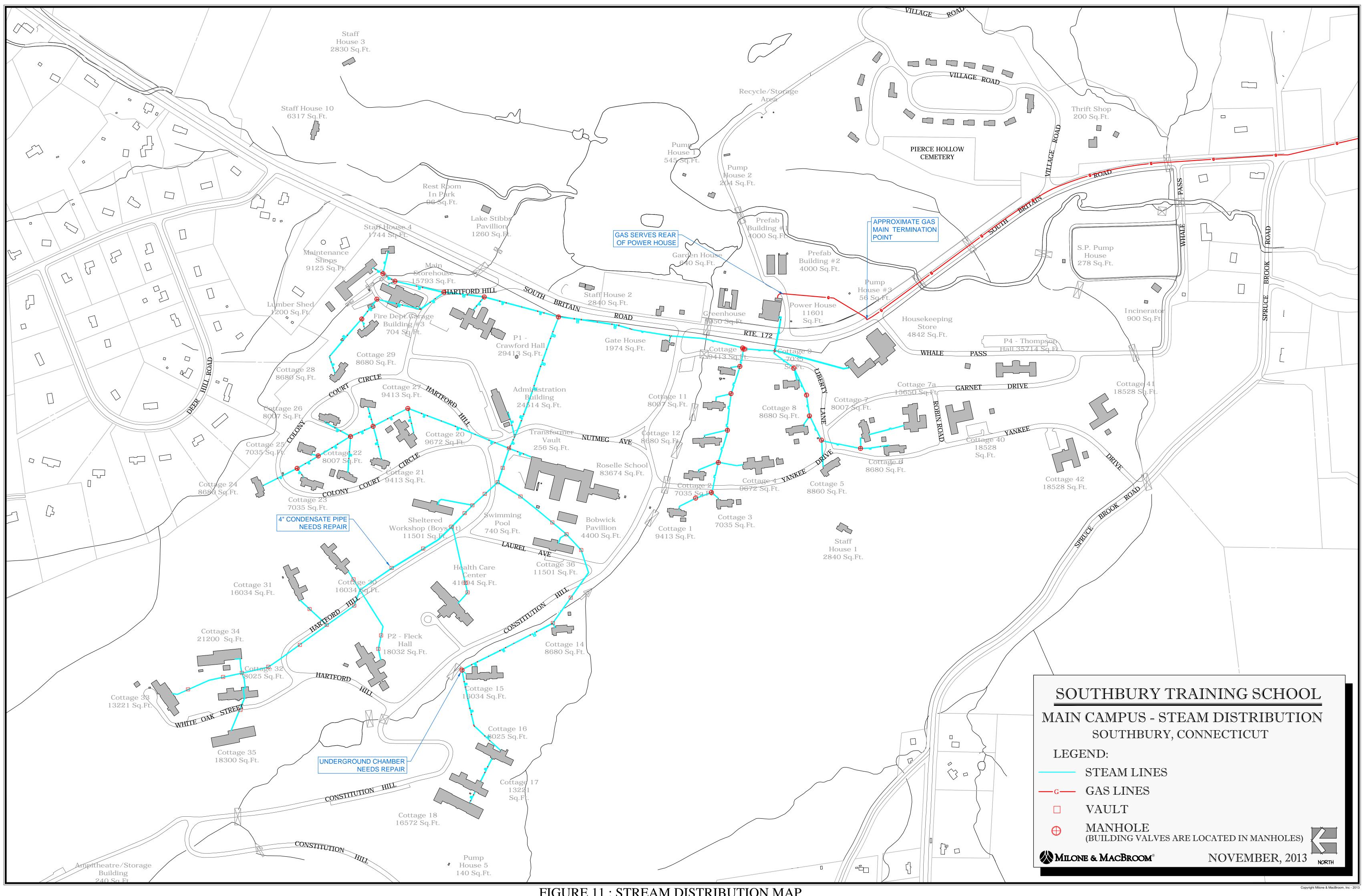


FIGURE 11 : STREAM DISTRIBUTION MAP

2.6 **Telecommunications**

STS has a Wide Area Network (WAN) and a Local-Area Network (LAN) that serves the campus.¹ Multiple buildings on the main campus are interdependent of one another. A telecommunications map following this page and a table of the buildings that have network antennas are included in the Appendix for your reference.² There have been no reported issues with the current system.



¹ The WAN serves to support wireless connectivity to communication services. The LAN serves as a hardline connection to communication services.² Telephone and cable communication services are also present and represented in the following map.

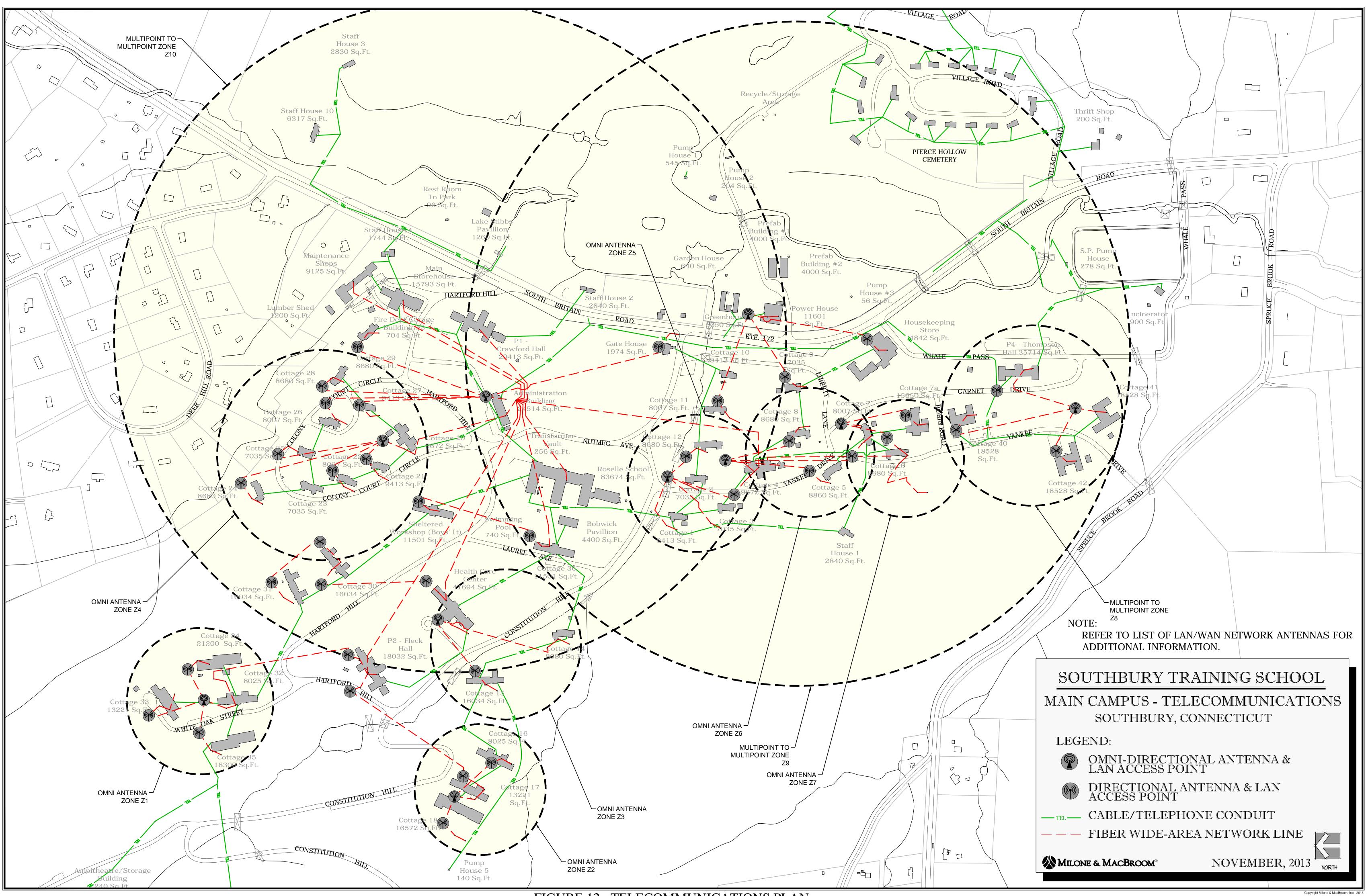


FIGURE 12 : TELECOMMUNICATIONS PLAN

2.7 <u>Fuel/Chemical Storage</u>

All campus fuel containers have been or will be replaced by self-contained convault tanks which provide high quality storage. The campus currently stores diesel, gasoline, and fuel oil No. 2 in multiple areas. The locations of these fuel tanks¹ are shown on the following map. There is also a table in the Appendix of this report that lists the type of fuel stored at each tank location.

There are no reported hazardous chemicals stored on campus. The chemicals used for the water treatment process are actively used and are exchanged at the distributor when empty. This process eliminates the need for a formal chemical storage location and other hazardous waste protocols.

¹ Indicative to buildings that require a power backup system because of medical needs.



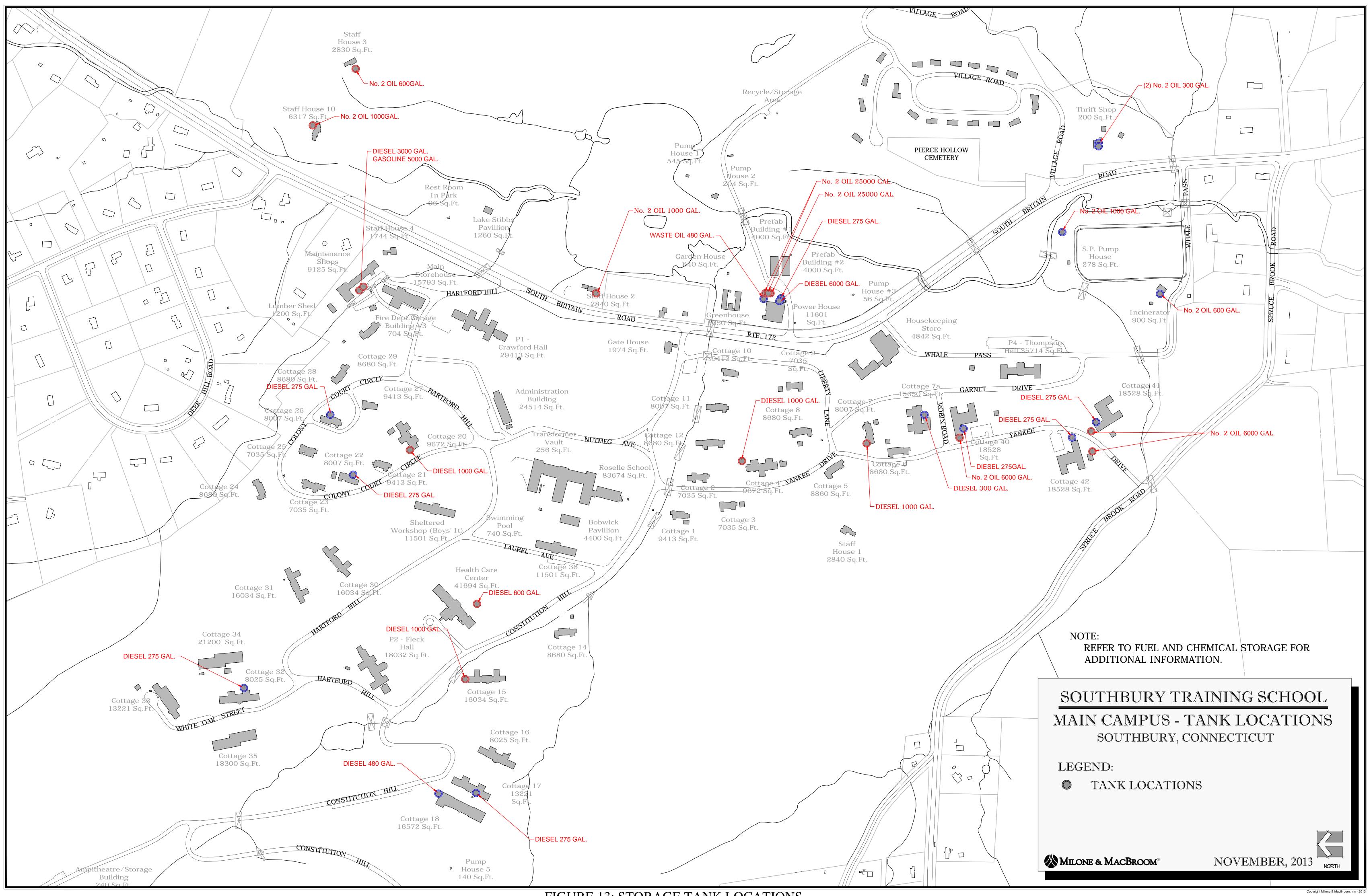


FIGURE 13: STORAGE TANK LOCATIONS

2.8 <u>Road, Sidewalk, and Parking Area Conditions</u>

Maintenance of the paved areas and concrete walks are visible throughout the campus. Sections of roadway have been repaved as needed for campus transportation needs as well as sidewalks for pedestrian use. Most areas that are in need of repair are a result of other campus housekeeping projects or are no longer in service. Below is a list of areas that are in need of repairs.

- North of Cottage 18 on Constitution Hill, there is an ongoing drainage and pavement repair project. The pavement repair extends from the eastern parking area along Constitution Hill into the roadway. Catch basin tops are being replaced and unpaved areas will be paved.
- The pedestrian concrete sidewalk and stair connection between Thompson Hall and Cottage 40 is in disrepair. This access has been closed off with gates and the perimeter landscaping is overgrown. The extent of any damages may be beyond aesthetic oxidation of railings and a full assessment of any necessary repairs needs further review.
- The access road to the sanitary pump station off Whale Pass is incomplete. There are piles of asphalt-milling material that are in need of spreading for final grade, and the finish surface is not going to be paved but will consist of compacted millings.
- The roadway surface on Whale Pass, south of Thompson Hall is in need of paving as previously noted. Bridge crossing C9, shown on the Bridges and Crossings map, does not have a paved surface or guiderails. The roadway is currently comprised of base material only and has not been fine graded.
- The secondary access road to Pump House 5 from Cottage 18 is overgrown with sections of pavement missing at the intersection of the primary access road (off Constitution Hill).



2.9 <u>Traffic Information</u>

There are no Office of the State Traffic Administration (OSTA, formerly known as the State Traffic Commission) certificate records on file for this property. The latest Connecticut Department of Transportation (CTDOT) Average Daily Traffic (ADT) volumes on Route 172, South Britain Road, are from 2011. The following is a record of the state data for the vicinity of Southbury Training School:

- 7,300 vehicles south of Spruce Brook Road
- 6,300 vehicles north of Spruce Brook Road
- 4,900 vehicles north of Constitution Hill Road

Connecticut Route 172 is considered a Collector. This type of Functional Classification describes a road that can generally experience daily traffic volumes between 1,100 and 8,000 vehicles.¹

The regulatory posted speed limit is 40 miles per hour near the Southbury Training School. Advisory speed and pedestrian crossing signs are noted to be present. Peak hour traffic volumes on Route 172 are found to range from approximately 450 vehicles in the vicinity of Constitution Hill Road to 750 vehicles south of Spruce Hill Road. These volumes are the total of both directions; northbound and southbound traffic. By comparison, the peak hour carrying capacity of Route 172 was reviewed and found to be significantly higher than the actual traffic demands. Since the flow of traffic on Route 172 in the vicinity of the Southbury Training School is generally uninterrupted and is not influenced by traffic signals, the Highway Capacity Manual² indicates that it has carrying capacity of approximately 3,000 - 3,200 vehicles per hour. Thus, during the time period that Route 172 is most heavily traveled on a regular basis, only around 15% - 25% of its carrying capacity is being used.

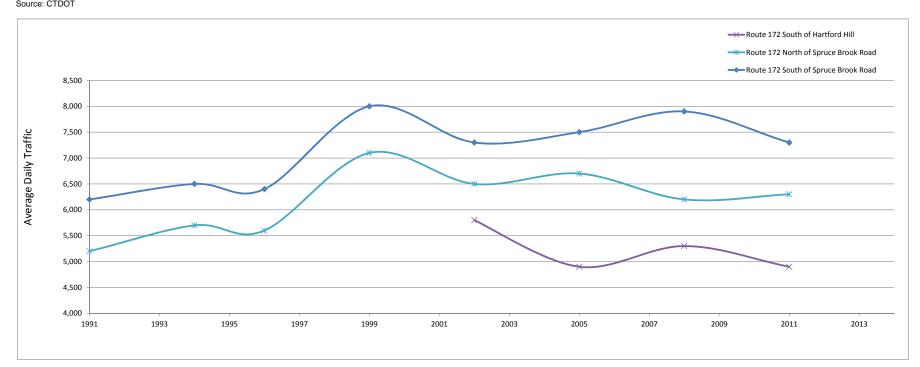


¹ Information gathered from a U.S. Department of Transportation Federal Highway Administration publication entitled

[&]quot;Highway Functional Classification Concepts, Criteria and Procedures" 2013 Edition, May 2013.

² HCM 2010 – Highway Capacity Manual. Transportation Research Board of the National Academies.

Average Daily Traffic (ADT) - Southbury, CT											
		1991	1994	1996	1999	2002	2005	2008	2011	Annual Percent Growth / Decline	
Location	CTDOT ID									2005 - 2011	2008 - 2011
Route 172 South of Hartford Hill	94					5,800	4,900	5,300	4,900	0.00%	-2.58%
Route 172 North of Spruce Brook Road	38	5,200	5,700	5,600	7,100	6,500	6,700	6,200	6,300	-1.02%	0.53%
Route 172 South of Spruce Brook Road	73	6,200	6,500	6,400	8,000	7,300	7,500	7,900	7,300	-0.45%	-2.60%
Source: CTDOT											



3.0 STUDY OF CAMPUS STRUCTURES

3.1 <u>General Overview</u>

The intent is to focus the campus housing resources in the cottages south of Constitution Hill and Yankee Drive. Most of these buildings have secondary power sources and are currently or will be outfitted with fuel oil boilers and hot water tanks. As a result, the Power House would be closed since low demand buildings would not be an efficient use of the Power House.

The main campus is comprised of housing, programming, recreation, operational support, and administration buildings. All functional structures are routinely maintained and refurbished as needed. Many buildings on campus have been renovated in an effort to accommodate high standards of assisted living. As of this date, 18 buildings have been closed as part of the Department of Developmental Services (DDS) effort to transition consumers into the community. STS currently serves 368 consumers that participate in programs on and off the campus.¹ The current status of the buildings on the main campus is shown on the following map. A complete tabulation is included in the Data Table contained in the Appendix.

The buildings on campus are mostly of very similar construction. Most date to the original 1940 campus construction and are in comparable physical condition. As noted on the Building Status Map, roughly a quarter of the buildings are either closed or in transition. The closed structures were found to have all utilities except for power turned off and to be in a relatively "water tight" condition. It should be noted that a lack of heat in buildings of this nonvapor-barrier type construction will allow moisture to enter. In many locations, wall and ceiling plaster are showing deterioration as a result of this moisture infiltration. The buildings appear, through visual review only, to be generally physically and structurally sound. The potential for reuse for any facility may depend in large degree to the intended future use. Uses requiring significant floor loading could present a particularly significant concern because the buildings were intended for normal pedestrian loading (residential/office type). Mechanical, electrical, and plumbing



¹ Number of individuals served by Southbury Training School was last modified on April 4, 2013 on the Department of Developmental Services website. <u>http://www.ct.gov/dds/cwp/view.asp?q=392994</u>

systems in the buildings are generally at the end of their useful life. In most cases, we anticipate that complete replacement of these systems would be required to meet current codes for most reuses of the buildings. These MEP replacements will require significant architectural accommodations, most likely including removal of interior walls and ceilings.

3.2 Administration Building (Davidson)

The building is a three-story brick structure that appears to have been built during the original campus construction (approximately 1940). Exterior walls are of multiple-layer brick in relatively good condition. Some exterior masonry deterioration was noted near the flat roof areas. Windows are single-pane steel frame type and require painting. Exterior wood trim and the wood framed cupola are in need of prep and paint. Building foundations are poured concrete. The building structure appears to be steel encased in concrete. No structural deficiencies were apparent. Floors are poured concrete and in good condition. Interior walls are predominantly clay tile block with plaster facing. The wall plaster is deteriorated in areas. Most doors appear to be original solid wood type. The building has three interior stairs and no elevator. The roof shingles appear to be a transite/cement composite, which dates to the original building construction. Most ceilings appear to be original plaster with wire lathe. The building is fully sprinklered – this system was clearly installed after the original building construction and appears to be at most 20 years old. Gypsum soffits were added to enclose the sprinkler piping in finished areas and fully-recessed heads were utilized. The building is heated with steam from the central plant and radiators. There appears to be some exhaust serving the toilet rooms, but otherwise the only building ventilation is provided via operable windows. A few window air conditioning units have been installed. Plumbing fixtures date to the original building construction; piping here appears to be mostly brass. The building has been divorced from the central system for water heating and an electric water heater was installed. Electrical switchgear in the building dates to the original building construction, but high voltage transformers in an interior vault have been updated. Wiring is mostly installed in conduit. Lighting is a mix of incandescent, linear fluorescent, and compact fluorescent and emergency lighting is provided with individual "twin-head" units. The building is served by an older Gamewell fire alarm system. Modern communication systems have been run to the building and serve limited spaces.



3.3 <u>Crawford Hall</u>

The building is a three-story brick structure that appears to have been built during the original campus construction (approximately 1940). Exterior walls are of multiple-layer brick in relatively good condition. Some minor exterior masonry deterioration was noted. Windows are single-pane steel frame type and require painting. Exterior wood trim features and the wood framed cupola are in need of prep and paint. Building foundations are poured concrete with both brick and stone facing in some areas. The building structure appears to be steel encased in concrete. No structural deficiencies were apparent. Floors are poured concrete and in good condition. Interior walls are predominantly clay tile block with plaster facing. The wall plaster is in relatively good condition. Most doors appear to be original solid wood type. The building has three interior stairs and no elevator. The roof shingles are a mix of transite/cement composite, which dates to the original building construction, and some newer asphalt shingles. Most ceilings appear to be original plaster with wire lathe; some ceiling plaster is failing, most likely due to roof leaks. The building is fully sprinklered but the system is turned off - this system was clearly installed after the original building construction and appears to be at most 20 years old. Gypsum soffits were added to enclose the sprinkler piping in finished areas and fullyrecessed heads were utilized. The building was heated with steam from the central plant and radiators, but the heating system is currently turned off. There appears to be some exhaust serving the toilet rooms, but otherwise the only building ventilation is provided via operable windows. A few window air conditioning units have been installed. Plumbing fixtures date to the original building construction and piping appears to be mostly brass. Water supply to the building is turned off. When it was still active, domestic water heating was provided via a heat exchanger connected to the campus central steam. The main electrical panel was replaced relatively recently, but most other electrical equipment appears to date to the original building construction. High voltage transformers in an interior vault have been updated. Wiring is mostly installed in conduit. Lighting is a mix of incandescent, linear fluorescent, and compact fluorescent and emergency lighting is provided with individual "twin-head" units. The building is served by an older Gamewell fire alarm system. Modern communication systems have been run to the building and serve limited spaces.



3.4 <u>Roselle School</u>

The building is a two-story brick structure that appears to have been built during the original campus construction (approximately 1940). There has been one three-story addition to this building, which we believe to be approximately 20 years newer than the rest. Exterior walls are of multiple-layer brick in relatively good condition. Exterior and interior walls in the addition are concrete block. Windows are single-pane steel frame type and require painting. Exterior wood trim is in need of prep and paint. Building foundations are poured concrete. The building has a partial full-height basement with the rest being crawl space with a dirt floor. The building structure appears to be steel encased in concrete. No structural deficiencies were apparent. Original floors are poured concrete and the floors in the addition are concrete dock plank. All floors are in good condition. Interior walls are predominantly clay tile block with plaster facing. Most doors appear to be original solid wood type. The building has multiple interior stairs and one operational hydraulic elevator. There is a large auditorium in the building complete with a platform, mezzanine seating, and projection booth. The roof shingles appear to be a transite/cement composite, which dates to the original building construction. The roof of the addition and part of the original roof are flat. Most ceilings appear to be original plaster with wire lathe, though part of the building has been fit with lay-in acoustical tile ceilings. There is a sprinkler service run to the building but the remainder of the system was never installed. The original building is heated with steam from the central plant and radiators. The addition utilizes hot water heat via a steam to hot water heat exchanger. There appears to be some exhaust serving the toilet rooms, but otherwise the only building ventilation is provided via operable windows. Multiple ductless air conditioning systems as well as window air conditioning units have been installed. Plumbing fixtures date to the original building construction and piping appears to be mostly brass. Electrical switchgear in the building is a mix of original and newer equipment. The high voltage transformers have been removed from the interior vault and installed outside. Wiring is mostly installed in conduit. Lighting is a mix of incandescent, linear fluorescent, and compact fluorescent and emergency lighting is provided with individual "twinhead" units. The building is served by an older Gamewell fire alarm system. Modern communication systems have been run to the building and serve limited spaces.



3.5 <u>Power House</u>

The building is a high-volume, single-story brick structure that appears to have been built during the original campus construction (approximately 1940). Exterior walls are of multiple-layer brick in relatively good condition. Windows are large single-pane steel frame type and require painting. The building is partly concrete slab on grade with a partial basement. The building structure is exposed steel. No structural deficiencies were apparent. There is a free-standing brick chimney serving the boilers. The building has a flat roof; there were no signs of leakage noted, but the roof material and condition were not able to be viewed. There is no sprinkler system in this building. Power production equipment includes three boilers (one new), a diesel generator, three steam turbine electric generators, natural gas service, and three 30,000-gallon oil tanks, all with the associated high voltage electrical distribution system. Some electrical switchgear in the building dates to the original building construction but appears to be in working order. Newer 15 kV switchgear was installed in coordination with utility upgrades.

3.6 <u>Thompson Hall</u>

The building is a three-story brick structure that appears to have been built during a later phase of campus construction (approximately 1960). Exterior walls are concrete block with brick facing. Some minor exterior masonry deterioration was noted. Windows are single-pane wood frame type and require painting. Exterior wood trim features are in need of prep and paint. Building foundations are poured concrete. The building structure appears to be a steel frame. No structural deficiencies were apparent. Floors are poured concrete on steel pan with vinyl tile and in good condition. Interior walls are predominantly painted concrete block. There were noticeable issues with peeling paint and other moisture-related issues. Doors appear to be original to the building and are a mix of solid wood and hollow metal type. The building has three interior stairs and no elevator. The roof shingles appear to be standard asphalt type. Ceilings are a mix of 1x1 glue-on tile and lay-in acoustical tile. The building is fully sprinklered – this system was clearly installed after the original building construction and appears to be at most 20 years old. Gypsum soffits were added to enclose the sprinkler piping in finished areas



and fully-recessed heads were utilized. The building is heated with hot water from a boiler within the basement. There appears to be some exhaust serving the toilet rooms and kitchen, but otherwise the only building ventilation is provided via operable windows. Plumbing fixtures date to the original building construction and piping appears to be mostly copper tubing. The main electrical panel was replaced relatively recently, while most other electrical equipment appears to date to the original building construction. High voltage transformers in an interior vault have been updated. Wiring is mostly installed in conduit. Lighting is a mix of incandescent, linear fluorescent, and compact fluorescent and emergency lighting is provided with individual "twin-head" units. The building is served by an older Gamewell fire alarm system. Modern communication systems have been run to the building and serve limited spaces.

3.7 <u>Health Care Center</u>

The building is a two-story brick structure that appears to have been built during the original campus construction (approximately 1940). Exterior walls are of multiple-layer brick in relatively good condition. Some minor exterior masonry deterioration was noted. Windows are single-pane steel frame type and require painting. Exterior wood trim is in need of prep and paint. Building foundations are poured concrete. The building has a partial full-height basement with the rest being crawl space with a dirt floor. The building structure appears to be steel encased in concrete. No structural deficiencies were apparent. Floors are poured concrete and in good condition. Interior walls are predominantly clay tile block with plaster facing. Most doors are solid wood type but appear to vary in age. The building has multiple interior stairs and one operational hydraulic elevator. The roof shingles appear to be a transite/cement composite, which dates to the original building construction. Most ceilings appear to be original plaster with wire lathe though part of the basement has been fit with lay-in acoustical tile ceilings. The basement ceiling shows signs of mold. The building is fully sprinklered. Gypsum soffits were provided to enclose the sprinkler piping in finished areas and fully-recessed heads were utilized. The building is heated with steam from the central plant and radiators. There appears to be some exhaust serving the toilet rooms, but otherwise the only building ventilation is provided via operable windows. The wards have old built-in central air conditioning units. Multiple window



air conditioning units have also been installed. Plumbing fixtures date to the original building construction and piping appears to be mostly brass. Electrical switchgear in the building is a mix of original and newer equipment. The high voltage transformers have been updated. Wiring is mostly installed in conduit. Lighting is a mix of incandescent, linear fluorescent, and compact fluorescent and emergency lighting is provided with individual "twin-head" units. The building is served by an older Gamewell fire alarm system. Modern communication systems have been run to the building and serve limited spaces.

3.8 Fleck Hall

The building is a three-story brick structure that appears to have been built during the original campus construction (approximately 1940). Exterior walls are of multiple-layer brick in relatively good condition. Some exterior masonry deterioration was noted, particularly on the rear stair and stone facing. Windows are single-pane wood frame type and require painting. Exterior wood trim is in need of prep and paint. Building foundations are poured concrete partly with stone facing. The building has a partial full-height basement with the rest being crawl space with a dirt floor. The building structure appears to be steel encased in concrete. No structural deficiencies were apparent. Floors are poured concrete and in good condition. Interior walls are predominantly clay tile block with plaster facing. Most doors are solid wood type but appear to vary in age. The building has multiple interior stairs but no elevator. The roof shingles are a mix of transite/cement composite, which dates to the original building construction, with some newer asphalt shingles. The gutter system is damaged and downspouts are missing. There is some evidence of roof leaks. Most ceilings appear to be original plaster with wire lathe. The building is fully sprinklered, but the system is turned off - this system was clearly installed after the original building construction and appears to be at most 20 years old. Gypsum soffits were added to enclose the sprinkler piping in finished areas and fully-recessed heads were utilized. The building is heated with steam from the central plant and radiators, but the heating system is currently turned off. There appears to be some exhaust serving the toilet rooms, but otherwise the only building ventilation is provided via operable windows. A few window air conditioning units have been installed. Plumbing fixtures date to the original building construction and piping



appears to be mostly brass. Electrical switchgear in the building dates to the original building construction. The high voltage transformers have been labeled as "non-PCB." Wiring is mostly installed in conduit. Lighting is a mix of incandescent, linear fluorescent, and compact fluorescent and emergency lighting is provided with individual "twin-head" units. The building is served by an older Gamewell fire alarm system. Modern communication systems have been run to the building and serve limited spaces.

3.9 <u>Cottages</u>

These buildings are typically two-story brick structures that appear to have been built during the original campus construction (approximately 1940). Exterior walls are of multiple-layer brick in relatively good condition. Some exterior masonry deterioration was noted, especially between the dormers where there is no gutter. Windows are single-pane wood frame type and in fair to poor condition. Exterior wood trim is showing some signs of rot. Building foundations are poured concrete. There is a partial full-height basement and adjacent crawl spaces, all of which have dirt floors. The building structures appear to be steel encased in concrete. No structural deficiencies were apparent. Floors are poured concrete and in good condition. Interior walls are predominantly clay tile block with plaster facing. The wall plaster is significantly deteriorated in some areas; this is most likely due to moisture infiltration because of the lack of heat in the space. Most doors appear to be original solid wood type. The buildings typically have one interior stair, an open exterior fire escape, and no elevator. The roof shingles appear to be asphalt and some roof leaks were evident. Most ceilings appear to be original plaster with wire lathe. The buildings are fully sprinklered, though the system is turned off in the unoccupied locations. These sprinkler systems were clearly installed after the original building construction and appear to be at most 20 years old. Gypsum soffits were added to enclose the sprinkler piping in finished areas and fully-recessed heads were utilized. The buildings are heated with steam from the central plant and radiators. There appears to be some exhaust serving the toilet rooms. In most buildings, the only ventilation is provided via operable windows. Plumbing fixtures date to the original building construction in most buildings, but had been updated in some. Piping appears to be mostly brass. In some cases, the buildings have been divorced from the central



steam for water heating and electric water heaters were installed. Electrical switchgear in the buildings dates to the original construction. Wiring is mostly installed in conduit and surface raceway (Wiremold). Lighting is a mix of incandescent, linear fluorescent, and compact fluorescent and emergency lighting is provided with individual "twin-head" units. The buildings are typically served by an older Gamewell fire alarm system. Modern communication systems have been run to the buildings and serve limited spaces. Cottage 22 had been renovated to include multiple interior improvements, including central air conditioning, an elevator, newer plumbing fixtures, newer electrical devices, and an emergency generator.

3.10 Prefab Structures 1 and 2

These buildings are typical single-story metal buildings with steel structure, wall panels, and roof on a concrete slab on grade. One functions as a repair garage and the other houses building and grounds keeping equipment. Both are in relatively good condition. The exact age of these buildings is not known, but we estimate the construction date to be in the 1980s. The buildings are connected to the campus electrical, water, and sewer systems but have their own independent heating (one oil and one propane). The gutters on both buildings are damaged. Each building has several overhead doors; each also has a small partitioned interior space housing lockers, toilet facilities, and an office.

3.11 Staff Houses

These buildings are typically two-story wood residential structures of widely varying ages. Exterior walls are wood clapboards. Windows are single-pane wood frame type. Building foundations are poured concrete. There is a full-height basement under the living space. The garage areas are slab on grade. The building structures are typical residential wood frame. No structural deficiencies were apparent. Floors are wood framed and many have hardwood finish. Interior walls are predominantly wood stud with plaster facing. Most doors are solid wood type. The buildings typically have one interior stair and no elevator. The roof shingles appear to be asphalt. Most ceilings appear to be original plaster with wire lathe. The buildings are not



sprinklered. Most of these buildings are heated with stand-alone steam boilers and radiators. Plumbing and electrical services are generally in the same condition as the overall building. The buildings have single- or multiple-station smoke detectors, but no fire alarm system. Staff Houses 1, 2, and 3 were of similar colonial design. Staff House 1 was in very bad condition with significant deterioration of exterior and interior components and considerable mold. Staff House 2 was in good condition and is still occupied. Staff House #3 was in poor condition, though not as deteriorated as Staff House 1. Staff House 4 is a two-story cape that was reportedly built in the 1800s. This building is connected to all campus services. It is in good condition and still occupied. Staff House 10 is a much larger colonial in excellent condition. The building is connected to campus water and electric, but has its own oil heating and septic system.

3.12 <u>Thrift Shop</u>

The Thrift Shop is a two-story brick structure built in 1818 (based on the plaque). This building is connected to the campus electric, water, and sewer, but has an independent heating source. The building is good condition and still operating as a Thrift Shop.

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I ne existing	conditions	or the camp	us binnaings.	nave been	summarized below:
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BUILDING	Good Condition	Fair Condition	Poor Condition
Administration	Х		
Crawford Hall		X	
Roselle School	Х		
Power House	X		
Thompson Hall		X	
Health Care Center		X	
Fleck Hall		X	
Pre-Fab #1	X		
Pre-Fab #2	Х		
Cottage #1		X	
Cottage #11		X	
Cottage #22	X		
Cottage #23			X
Cottage #24		X	
Cottage #27			X
Staff House #1			X
Staff House #2	X		



Staff House #3		Х
Staff House #4	Х	
Staff House #10	X	
Thrift Shop	X	

Condition Key:

Good Condition: Only minor aesthetic deficiencies.

Fair Condition: Some deterioration of interior and/or exterior building materials. Poor Condition: Deterioration of a significant percentage of interior and/or exterior materials.

3.13 <u>Summary of Hazardous Materials</u>

Limited information is available concerning the presence or absence of hazardous building materials such as asbestos containing materials (ACM), lead-based paint (LBP), and polychlorinated biphenyls (PCBs). ACM can often be found in building materials such as roofing, flooring, wall and ceiling insulation, pipe jacket insulation, wall plaster, and foundation waterproofing. LBP and other lead-based materials can often be found on interior and exterior surfaces of older buildings. PCBs are often found in window and joint caulking, electrical switches and components such as light ballasts, and wiring harnesses. Mercury-containing devices often include switches and thermostats. Other items, including those commonly referred to as Universal Wastes, include items such as florescent lights and remaining refrigerants in appliances or cooling systems.

No physical documentation to substantiate the asbestos abatement operations on campus have been provided by STS. The STS Facilities Department reported that all visual sources of asbestos have been abated in all campus buildings. The Power House specifically only has asbestos within the masonry walls of the boiler units. The remaining building no longer has asbestos elements.

A complete and thorough assessment will need to be performed prior to the renovation or demolition of any of the site structures. The assessment will require the inspection of the structures for potential hazardous building materials and the collection and analysis of each suspect material. A suspect material is one that might contain hazardous material. Based upon



the results of the sampling, abatement plans and specifications will need to be developed by qualified professionals. The actual abatement of hazardous building materials must be performed by licensed contractors prior to any work that has the potential to disturb these materials. A proposed scope of services for an assessment is contained in the Appendix of this report.

3.14 <u>Historic Properties</u>

A second factor impacting the future use of the school property and structures is the listing on the Federal Register of Historic Places, as well as the State Register. Consultation is underway with the State Historic Preservation Officer to determine the nature of the impact of this listing and the process needed to move forward. A memorandum from the State Historic Preservation Officer addressing this issue is attached in the Appendix. This memorandum includes the recommendation that a historic assessment survey of the campus be completed. The process of making an application for funding for such a survey is currently underway. A graphic showing the contributing and noncontributing historic resources on the campus is included in the Appendix of this report.

4.0 <u>CONCLUSION AS TO BASELINE CONDITIONS</u>

No major deficiencies were found in this investigation of the existing site conditions. Any noted needs within this report are relatively minor and would not impose significant difficulties for decisions made on the reuse of the property.

Power, telecommunications, and gas services to the properties are available in South Britain Road. If gas service is needed for future use, it may warrant the need to extend the main from its current termination point at the Power House. Water supply for the campus is provided by three wells, Pump House 1, 2, and 3, located near the Power House. These Pump Houses then feed into Pump House 5 to distribute water to the campus. There is no Pump House 4. The campus has a permitted sanitary sewage capacity of 180,000 GPD that can be pumped to the Heritage



Village Water Pollution Control facility. The Southbury Training School is currently pumping at approximately 47 percent of the permitted capacity.

The following is a listing of the utility companies that have facilities along South Britain Road and can serve the Southbury Training School campus:

Cable TV	- Charter Communications Entertainment, LLC				
Communication – AT&T Connecticut (Fiber)					
	- Fiber Technologies Networks, LLC (Fiber)				
Electric	- Northeast Utilities Service Company (CL&P)				
Gas	– Yankee Gas Services Company				
Water	– Private Wells				
Sanitary Sewe	r – Heritage Village Water Company				

5.0 <u>VISIONING</u>

While the completed study focuses on baseline information, the topic of future use has been considered relevant by both the Task Force and the public, as demonstrated at the December 4, 2013 meeting. This report Appendix includes a full listing of questions and answers, as well as future use thoughts expressed at the meeting. As a result of the process of completing the study, including the public meeting, a list of possible uses ranging from most desirable to least desirable has been compiled by the Task Force. It should be noted that this list does not consider such factors as local land use codes, cost and market feasibility, or development/operational structure. The range below does not represent any ranking within categories.

Categories of Envisioned Uses

<u>Most Desirable</u> Agriculture Agriculture/Agri-business Education and Facilities Education General Open Space/Recreation



<u>Desirable</u> Vocational Training/Disabled Veteran Training Commerce/Corporate Park Residential

<u>Least Desirable</u> Retail Manufacturing (unless uniquely matched to site conditions)

6.0 <u>NEXT STEPS</u>

It is the Task Force's recommendation that the planning process continue in order to provide a reasonable, community-supported vision for the future use of the campus. This process must be based upon the realities of the agreed-upon policy that the current population at the school will be treated with the upmost respect for their needs and the planning process will not impact this policy. A convergence of needs and vision for the property may provide an opportunity for a change of use for portions of the property. The Task Force and community are in agreement that this coordinated planning process is needed to avoid the experience at both Fairfield Hills Hospital and Norwich State Hospital, where such planning was not undertaken prior to closing the facility and most, if not all, of the activities and use of buildings had been abandoned prior to the development of a strategy for the future.

In the meantime, these specific actions must be taken:

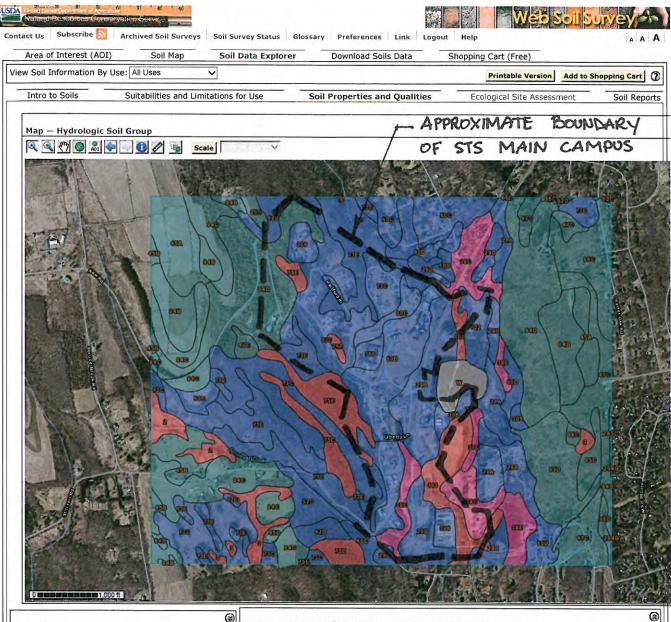
- Funding and completion of an Environmental Assessment
- Funding and completion of a Historic Assessment Survey
- Funding and ongoing mothballing of structures no longer in use
- The discussion and creation of an authority unique to the use and reuse of the Southbury Training School

2097-16-4-a214-rpt



APPENDIX





Search	(S) Tal
Properties and Qualities Ratings	Su
Open All Close	
Soil Chemical Properties	3
Soil Erosion Factors	21
Soil Physical Properties	29
Soil Qualities and Features	37
AASHTO Group Classification (Surface)	38
Depth to a Selected Soil Restrictive Layer	45
Depth to Any Soil Restrictive Layer	47
Drainage Class	50
Frost Action	52
Frost-Free Days	60

mmary I	by Map Unit — State of Connecticut (CT600)			8
lap unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
	Ridgebury fine sandy loam	D	10.9	1.0%
	Ridgebury, Leicester, and Whitman soils, extremely stony	D	12.1	1.1%
k,	Ninigret and Tisbury soils, 0 to 5 percent slopes	в	16.1	1.5%
	Agawam fine sandy loam, 0 to 3 percent slopes	в	8.9	0.8%
1	Agawam fine sandy loam, 3 to 8 percent slopes	в	83.5	7.6%
	Manchester gravelly sandy loam, 15 to 45 percent slopes	А	3.3	0.3%
	Hinckley gravelly sandy loam, 3 to 15 percent slopes	А	30.1	2.7%
	Hinckley gravelly sandy loam, 15 to 45 percent slopes	А	22.9	2.1%
÷	Woodbridge fine sandy loam, 0 to 3 percent slopes	С	33.7	3.1%
	Woodbridge fine sandy loam, 3 to 8 percent slopes	С	20.0	1.8%
	Woodbridge fine sandy loam, 2 to 15 percent slopes, extremely stony	с	48.9	4.5%
	Sutton fine sandy loam, 3 to 8 percent slopes	в	2.8	0.3%
	Sutton fine sandy loam, 2 to 15 percent slopes, extremely stony	в	10.9	1.0%
1	Canton and Charlton soils, 3 to 8 percent slopes	в	37.1	3.4%

http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx Figure 1: Existing Hydrologic Soils

1					
Hydrologic Soil Group	60C	Canton and Charlton soils, 8 to 15 percent slopes	в	41.0	3.7%
View Description View Rating	60D	Canton and Charlton soils, 15 to 25 percent slopes	в	25.3	2.3%
View Options Ø (2)	62C	Canton and Charlton soils, 3 to 15 percent slopes, extremely stony	в	0.3	0.0%
Map 🔽 Table 🔽	62D	Canton and Charlton soils, 15 to 35 percent slopes, extremely stony	в	14.4	1.3%
Description of 🗸	73C	Charlton-Chatfield complex, 3 to 15 percent slopes, very rocky	в	156.9	14.3%
Rating Options 🗸	73E	Chariton-Chatfield complex, 15 to 45 percent slopes, very rocky	в	83.1	7.6%
Detailed Description	75E	Hollis-Chatfield-Rock outcrop complex, 15 to 45 percent slopes	D	43.2	3.9%
Advanced Options (2) (2)	84B	Paxton and Montauk fine sandy loams, 3 to 8 percent slopes	С	45.7	4.2%
Aggregation Method Dominant Condition V	84C	Paxton and Montauk fine sandy loams, 8 to 15 percent slopes	с	70.9	6.5%
Component Percent	84D	Paxton and Montauk fine sandy loams, 15 to 25 percent slopes	с	123.5	11.3%
Cutoff Tie-break Rule Lower	85C	Paxton and Montauk fine sandy loams, 8 to 15 percent slopes, very stony	с	3.1	0.3%
e Higher	86C	Paxton and Montauk fine sandy loams, 3 to 15 percent slopes, extremely stony	С	35.4	3.2%
View Description View Rating	86D	 Paxton and Montauk fine sandy loams, 15 to 35 percent slopes, extremely stony 	с	\$ 35.7	3.3%
Map Unit Name	102	Pootatuck fine sandy loam	в	, 11.6	1.1%
te transference and the second second	103	Rippowam fine sandy loam	D	28.7	2.6%
Parent Material Name	245C	Woodbridge-Urban land complex, 8 to 15 percent slopes	С	. 0.8	0.1%
Representative Slope	284B	Paxton-Urban land complex, 3 to 8 percent slopes	С	* 0.1	0.0%
	305	Udorthents-Pits complex, gravelly	в *	2.0	0.2%
Unified Soil Classification (Surface)	306	Udorthents-Urban land complex	в	21.6	2.0%
Water Features	W	Water		11.7	1.1%
	Totals for	Area of Interest	_	1,096.0	100.0%
	Descriptio	m — Hydrologic Soil Group			8
	groups acc thoroughly The soils in B/D, and C Group A. S mainly of d of water tra Group B. S moderately to moderately to moderately to moderatel Group C. S layer that i These soils Group D. S consist chin that have a impervious If a soil is a the second	soil groups are based on estimates of runoff potential. Soils a ording to the rate of water infiltration when the soils are not p wet, and receive precipitation from long-duration storms. In the United States are assigned to four groups (A, B, C, and D /D). The groups are defined as follows: oils having a high infiltration rate (low runoff potential) when i leep, well drained to excessively drained sands or gravelly san ansmission. oils having a moderate infiltration rate when thoroughly wet. T deep or deep, moderately well drained or well drained soils t ely coarse texture. These soils have a moderate rate of water toils having a slow infiltration rate when thoroughly wet. These mpedes the downward movement of water or soils of moderat have a slow rate of water transmission. Soils having a very slow infiltration rate (high runoff potential) effy of clays that have a high shrink-swell potential, soils that ar is material. These soils have a very slow rate of water transmiss assigned to a dual hydrologic group (A/D, B/D, or C/D), the fir is for undrained areas. Only the soils that in their natural con to dual classes.	rotected)) and the thoroug ds. The These consist co	d by vegetatior hree dual class hly wet. These se soils have a onsist chiefly o e moderately fi ission. t chiefly of soils e texture or fine horoughly wet. high water tabl w over nearly r is for drained	a, are es (A/D, consist high rate f ne texture s having a e texture. These e, soils areas and
	Rating Op	tions — Hudrologic Soil Crown			(8
		tions – Hydrologic Soil Group			
		on Method: Dominant Condition			
	Aggregati				

Page 2 of 2

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3

Natural Diversity Data Base Areas SOUTHBURY, CT June 2013 State and Federal Listed Species

& Significant Natural Communities

Town Boundary

NOTE: This map shows general locations of State and Federal Listed Species and Significant Natural Communities. Information on listed species is collected and compiled by the Natural Diversity Data Base (NDDB) from a number of data sources . Exact locations of species have been buffered to produce the general locations. Exact locations of species and communities occur somewhere in the shaded areas, not necessarily in the center. A new mapping format is being employed that more accurately models important riparian and aquatic areas and eliminates the need for the upstream/downstream searches required in previous versions.

This map is intended for use as a preliminary screening tool for conducting a Natural Diversity Data Base Review Request. To use the map, locate the project boundaries and any additional affected areas. If the project is within a shaded area there may be a potential conflict with a listed species. For more information, complete a Request for Natural Diversity Data Base State Listed Species Review form (DEP-APP-007), and submit it to the NDDB along with the required maps and information. More detailed instructions are provided with the request form on our website.

www.ct.gov/deep/nddbrequest

This file has PDF Layers. Look for the Layers tab on the left. Expand the layers and use the "eye" icons to change visibility.

QUESTIONS: Department of Energy and Environmental Protection (DEEP) 79 Elm St., Hartford CT 06106 Phone (860) 424-3011



Connecticut Department of Energy & Environmental Protection Bureau of Natural Resources Wildlife Division

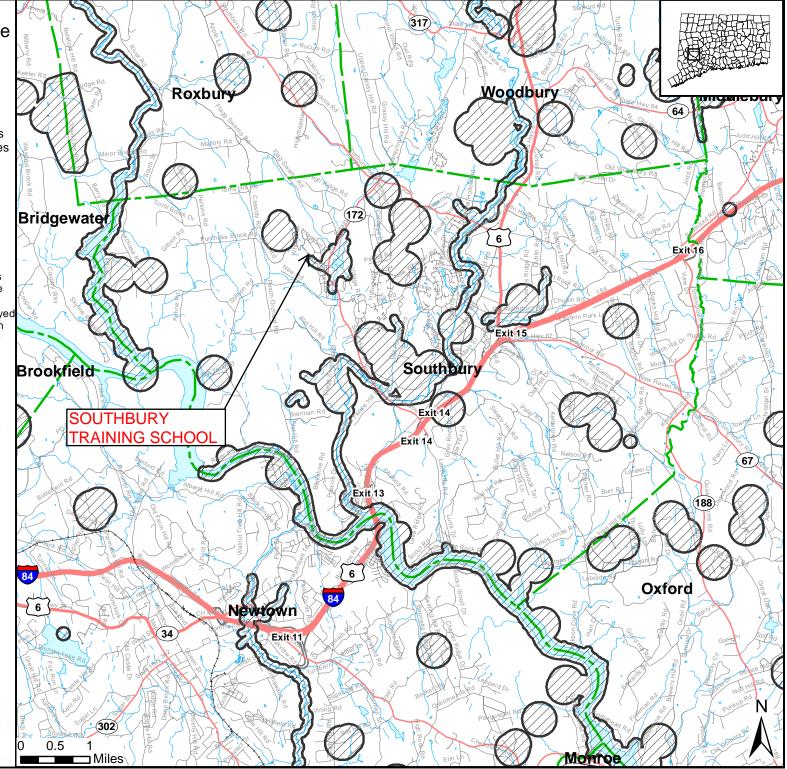


Figure 3: Natural Diversity Data Base - Southbury, Connecticut

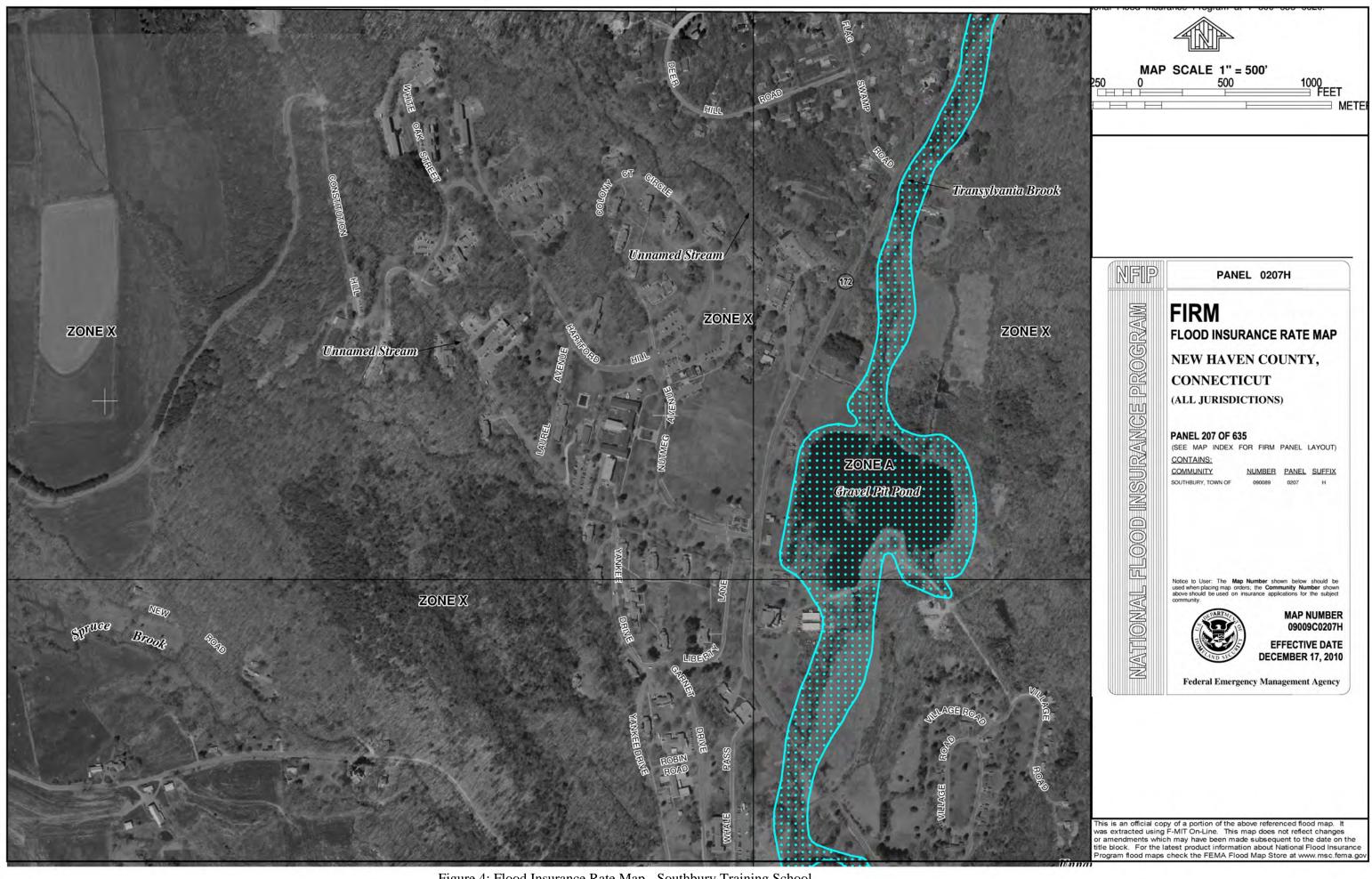


Figure 4: Flood Insurance Rate Map - Southbury Training School

AQUIFER PROTECTION AREAS SOUTHBURY, CONNECTICUT

LEGEND

Level A Aquifer Protection Area (Final Adopted)
Level A Aquifer Protection Area (Final)
Level B Aquifer Protection Area (Preliminary)

EXPLANATION

specific, detailed modeling of the ground water flow system at the well field. Preliminary mapping is conducted first and is replaced later with the more detailed final mapping.

The Aquifer Protection Program, administered by the Connecticut Department of Energy & Environmental Protection (DEEP), provides primary protection for Connecticut's high-yield public water supply well fields Responsibilities within the program are shared by DEEP, municipalities and the water companies. The intent of this program is to protect the water supplies by identifying the land areas contributing ground water to the wells through detailed field work and ground-water flow modeling, and then by regulating land use within those areas. Once mapped, municipalities adopt land use regulations for the final aquifer protection areas. For example, land use involving hazardous materials within a designated aquifer protection area is strictly monitored and regulated.

This information is intended to be used to depict regulated Aquifer Protection Areas on a map preferably at 124,000 scale. The mapping of these areas is one of the requirements of Connecticu's Aquifer Protection Area Program. The program requires water companies to complete both preliminary and final Aquifer Protection Area mapping. Preliminary mapping provides a general estimate of the area contributing ground water to the well field. Final mapping is based on extensive, site-

The aquifer protection area information can be used in conjunction with sufficial materials, bedrock geology, elevation, and solids to more thoroughly understand the physical characteristics of the aquifers. The spatial relationships between these areas and environmental quality data such as water quality, non-point source pollution, impaired ground water, contaminated lands, and past, present and projected land use can be analyzed.

This information does not include protection areas for all public water supply wells in Connecticut. It only includes aquifer protection areas for public water supply wells located in Connecticut that are set in statified drift and serve a residential population of 1,000 or move. It does not include protection areas for smaller stratified artift public water supply wells that serve less than 1,000 people, public water supply wells durited in Connecticut that serve customers out of state.

1:24,000-scale USGS 7.5 minute topographic quadrangle maps published between 1969 and 1992. It includes political boundaries, railroads, airports, hydrography, geographic names and geographic places. Streets and street names are from Tele Atlas[®] copyrighted data. Base map information is neither current nor complete.

This map is intended to be printed at its original dimensions in order to maintain the 1:24,000 scale (1 inch = 2000 feet).

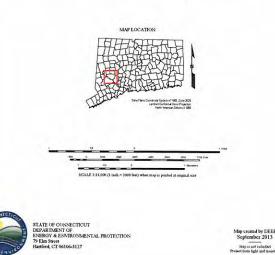
AQUIFER PROTECTION PROGRAM - Go to the DEEP website for more information on the Aquifer Protection Program and the aquifer protection areas.

DATA SOURCES

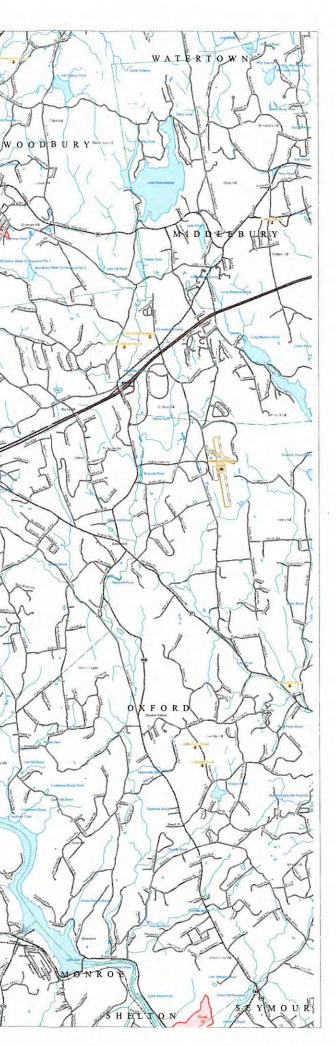
AQUIFER PROTECTION AREA DATA – Aquifer Protection Areas shown on this map are from the Aquifer Protection Area digital dataset which contains polygon data intended to be used at 124,000 scale. The dataset contains regulated areas classified as Level A Aquifer Protection Area (Final) and Level B Aquifer Protection Area (Final) and Level B Aquifer Protection Area (Final) and Level B Aquifer Protection Area (Frediminay). The data was collected from 1991 to the present and is actively uplated as Final area mapping replaces earlier Preliminary rears. The Aquifer Protection Areas are delineated by the individual water companies owning the well fields and ubmitted to DEEP for approval. Preliminary mapping provides a general estimate of the area contributing ground water to the well field. Final mapping is based on extensive, site-specific, detailed modeling of the ground water flow system. DEEP may dust Final area boundance to be consistent with 124,000 scale topography and base map data where appropriate during the approval process.

consistent with 124,000 scale topography and base map data where appropriate during the approval process. BASE MAP DATA - Based on data originally from this map.

RELATED INFORMATION



ROXBUR SOUTHBURY TRAINING SCHOOL BRIDGEWATER R Tyracti 90 G Mart AND IN SOUTHBURY 0 BROOKFFELD RE -tarm PL-0 E D NEWTO D. 120-1010 C



		Structu	re Status Data Table	
Building No.	Building Name	Status	Description	Square Footage
P1	Crawford Hall	Transition	Building is closed-active storage	2941
P2	Fleck Hall	Closed	Housing (Generator)	1803
P4	Thompson Hall	Closed	Housing	3571
1	Pump House	In Use	Utility	54
2	Pump House	Closed	Utility	20-
3	Pump House	In Use	Utility	50
5	Pump House	In Use	Utility	
3	Fire Dept. Garage Building	Transition	Fire Dept. to be moved to Cottage 9	704
-	Bobwick Pavilion	In Use	Training Center Support	440
-	Digester Building	Closed	Demolished	N/A
-	Drying House	Closed	Demolished	N/A
-	Gate House	In Use	Commercial Use	197-
-	Greenhouse	In Use	Recreation	505
-	Health Care Center	Closed	Medical	4169
-	Housekeeping Store	In Use	Maintenance	484
-	Incinerator	Transition	Active Storage	90
-	Lake Stibbs Pavilion	In Use	Recreation	126
-	Lumber Shed	In Use	Facilities	120
-	Main Storehouse	In Use	Facilities	1579
-	Maintenance Shops	In Use	Facilities	912
-	Post Chlorination	Closed	Demolished	N/A
-	Power House	In Use	Utility	1160
-	Rest Room in Park	In Use	Rest Room	9
-	Roselle School	In Use	Training Center	8367
-	Sanitary Pump House	In Use	Utility	27
-	Sheltered Workshop	In Use	Training Center Support	1150
-	Thrift Store	In Use	Commercial Use	20
-	Transformer Vault	In Use	Utility	25
_	Trickling Filter	Closed	Demolished	N/A

Structure Status Data Table					
Building No.	Building Name	Status	Description	Square Footage	
1	Prefab Building	In Use	Storage	4000	
2	Prefab Building	In Use	Storage	4000	
1	Staff House	Closed	Housing - To be demolished	2840	
2	Staff House	In Use	Housing	2840	
3	Staff House	In Use	Housing	2830	
4	Staff House	In Use	Housing	1744	
10	Staff House	In Use	Housing	6317	
1	Cottage	Closed	Housing (Generator)	9413	
2	Cottage	In Use	Housing	7035	
3	Cottage	In Use	Housing (Generator)	7035	
4	Cottage	In Use	Housing (Generator)	9672	
5	Cottage	In Use	Housing	8860	
6	Cottage	In Use	Housing (Generator)	8680	
7	Cottage	In Use	Housing (Generator)	8007	
	Cottage	In Use	Housing	15650	
8	Cottage	In Use	Housing (Generator)	8680	
9	Cottage	Transition	Intended for reuse by fire department (Generator)	7035	
10	Cottage	In Use	Housing	9413	
	Cottage	Transition	Renovation in progress for housing	8007	
12	Cottage	In Use	Housing	8680	
14	Cottage	Transition	Housing (Generator)	8680	
15	Cottage	In Use	Housing (Generator)	16034	
	Cottage	In Use	Housing	8025	
	Cottage	In Use	Housing	13221	
	Cottage	In Use	Housing	16572	
	Cottage	In Use	Housing (Generator)	9672	
	Cottage	Closed	Housing	9413	
	Cottage	Closed	Housing	8007	
	Cottage	Closed	Housing	7035	

	Structure Status Data Table				
Building No.	Building Name	Status	Description	Square Footage	
24	Cottage	Closed	Housing	8680	
25	Cottage	Closed	Housing	7035	
26	Cottage	Closed	Housing	8007	
27	Cottage	Closed	Housing	9413	
28	Cottage	Closed	Housing	8680	
29	Cottage	Closed	Housing	8680	
30	Cottage	Transition	To be closed	16034	
31	Cottage	Transition	To be closed	16034	
32	Cottage	Transition	To be closed	8025	
33	Cottage	In Use	Housing (Generator)	13221	
34	Cottage	In Use	Housing (Generator)	21200	
35	Cottage	In Use	Housing	18300	
36	Cottage	In Use	Housing	11501	
40	Cottage	In Use	Housing (Generator)	18528	
41	Cottage	In Use	Housing (Generator)	18528	
42	Cottage	In Use	Housing (Generator)	18528	

<u>.</u>	• • •	-		
Stream Section	Crossing No.	Туре	Condition	Description
A	1	Pedestrian	R	Southern abutment has overturned and is no longer flush with the support beam
A	2	Roadway Culvert	F	Minor concrete eroded from exposed areas
A	3	Vehicle Bridge / Culvert	F	re-mortar joints of stone façade at culvert
А	4	Vehicle Bridge / Culvert	F	re-mortar joints of stone façade at culvert
A	5	Roadway Culvert	R	Primary culvert and wingwall in good condition. Secondary discharge on western inlet needs repair
В	1	Roadway Culvert	G	Recent mortar maintenance
В	2	Vehicle Bridge / Culvert	G	
В	3	Vehicle Bridge / Culvert		
В	4	Vehicle Bridge / Culvert	F	Culvert on discharge end has chipped away
В	5	Vehicle Bridge / Culvert	R	Eastern culvert on discharge end and bridge have sections that have fallen and needs repair
В	6	Vehicle Bridge / Culvert	G	
В	7	Offroad Culvert	G	
В	8	Vehicle Bridge / Culvert	G	Recent mortar maintenance
В	9	Pedestrian Bridge	G	
В	10	Vehicle Bridge / Culvert	G	Recent mortar maintenance
В	11	Roadway Culvert	F	Minor cracking of mortar atop culvert end where roots penetrate headwall
В	12	Roadway Culvert	G	Recent repair of roadway and pipe crossing on Constitution Hill
С	1	Vehicle Bridge / Culvert	G	Detains water in Gravel Pond by means of weir boards and small orifices
C	2	Vehicle Bridge / Culvert	G	betains water in Graver ond by means of wen boards and small offices
C	3	Roadway Culvert	N/A	Culvert was submerged, unable to inspect
C	4	Roadway Culvert	G	Newer construction Reinforced Concrete Pipe
C	5	Pedestrian Bridge	F	Abutments/crossing in good condition. Concrete walkway approaches need repair
C	6	Pipe Bypass	G	
C	7	Vehicle Bridge / Culvert	G	
C	8	Roadway Culvert	G	
C	9	Vehicle Bridge / Culvert	F	Unpaved surface at crossing and guiderails are not present.
C	10	Roadway Culvert	G	
-		inclusion of carrier	-	

Condition Key:

Good	No visual deficiencies
Fair	Aesthetic repairs are needed
R epair	Structural integrity is concerning

LIST OF ELECTRICAL TRANSFORMERS	
Building	
Sanitary Pump House	
Thompson Hall	
Crawford Hall	
Housekeeping Store	
Main Storehouse	
Maintenance Shops	
Roselle School	
Health Care Center	
Administration Building	
Fleck Hall	
Power House	
Pump House 1	
Pump House 2	
Cottage 5	
Cottage 7	
Cottage 7a	
Cottage 8	
Cottage 15	
Cottage 16	
Cottage 18	
Cottage 20	
Cottage 23	
Cottage 26	
Cottage 31	
Cottage 32	
Cottage 35	
Cottage 36	
Cottage 40	
Cottage 41	
Between Staff House 3 and Staff House 10	

LIST OF LAN/WAN NETWORK ANTENNAS
Building
Maintenance Shop
Thompson Hall
Fleck Hall
Health Care Center
Administration Building
Housekeeping Store
Power House
Cottage 2
Cottage 3
Cottage 4
Cottage 5
Cottage 6
Cottage 7
Cottage 7a
Cottage 8
Cottage 9
Cottage 11
Cottage 12
Cottage 14
Cottage 15
Cottage 16
Cottage 17
Cottage 18
Cottage 20
Cottage 21
Cottage 22
Cottage 24
Cottage 25
Cottage 26
Cottage 27
Cottage 28
Cottage 29
Cottage 30
Cottage 31
Cottage 32
Cottage 33
Cottage 34
Cottage 35
Cottage 36
Cottage 40
Cottage 41
Cottage 42
-

FUEL AND CHEMICAL STORAGE		
Building	Container Size (Gal.)	
Gasoline Fuel Storage Tanks		
Maintenance Shop (UST)	5000	
Diesel Fuel Storage Tanks		
Cottage 4 (UST)	1000	
Cottage 7 (UST)	1000	
Cottage 7A (AGT)	300	
Power House (UST)	6000	
Power House (AGT)	275	
Maintenance Shop (UST)	3000	
Health Care Center (UST)	600	
Cottage 15 (UST)	1000	
Cottage 17 "Grounds" (AGT)	480	
Cottage 18 (AGT)	480	
Cottage 20 (UST)	1000	
Cottage 22 (AGT)	275	
Cottage 26 (AGT)	275	
Cottage 32 (AGT)	275	
Cottage 40 (AGT)	275	
Cottage 41 (AGT)	275	
Cottage 42 (AGT)	275	
No. 2 Fuel Oil Storage Tanks		
Power House (UST)	25000	
Power House (UST)	25000	
Power House (UST)	25000	
Cottage 40 (UST)	6000	
Cottage 41 (UST)	6000	
Cottage 42 (UST)	6000	
Sanitary Pump House (AGT)	1000	
Incinerator (UST)	600	
Staff House 2 (UST)	1000	
Staff House 3 (UST)	600	
Staff House 10 (UST)	1000	
Thrift Shop (AGT)	(2) 330	
Waste Oil Tanks		
Power House (AGT)	480	

Location Key

UST = Underground Storage Tank

AGT = Above Grade Tank

Q&A SESSION Table 8

Southbury Training School

- Q1. Will the repairs to the steam pipe and underground chamber noted in the presentation be maintained?
- A1. Yes, Southbury Training School (STS) has a maintenance staff that is very diligent in making repairs to the campus.
- Q2. Has town been offered property?
- A2. No
- Q3. What is the state's standing with property?
- A3. The campus is still in use and the state is looking to understand the Town's interest for reuse of the property upon closure.
- Q4. What would be the costs to the town associated with acquiring this land?
- A4. Multiple property assessments would have to be conducted and a proper offer from the town to the state would be made.
- Q5. Can the property support locations that could be used to harness renewable energy?
- A5. Seeing as the main campus is a fairly large property, it could afford to have such resources on site.
- Q6. Is there a timeframe to close the campus?
- A6. No firm closure date has been set. STS will remain open as long as the current consumers remain on campus.
- Q7. Is there a consolidation plan for current consumers of STS and will the site become subdivided during the consolidation period?

- A7. Currently there is no plan for such action. STS is still occupied and will remain open until all consumer services are satisfied.
- Q8. What is the current condition of the underground storage tanks and lead paints (Hazardous Materials) in the buildings?
- A8. These materials would need further investigation for reconstruction and/or construction.

2097-16-4-d1613-Table 8

PUBLIC INPUT ON PLAN FOR REUSE Table 9

Southbury Training School

<u>Legend</u>

- Text = Single Recommendation
- Text = Favorable Recommendation
- Text = Most Favorable Recommendation

1. Veterinary public school for reuse with an agricultural purpose i.e., farming curriculum

(Department of Agriculture).

- a. Reduce students looking out of state for education
- b. Income generator
- c. Technical Vocational Schools (High school or Post-secondary level)

2. Agricultural use of land

- a. CT Department of Agriculture will retain a portion of the current campus
- b. Slaughter house with remote location
- c. Farmers market for locally grown or raised products
- 3. Look at other state conversion examples for adaptive reuse. Specifically scenic areas i.e.,

<mark>parks.</mark>

- a. Abatement of property would be warranted and funds would need to be appropriated.
- b. California model of reuse
- Occupational therapy and similar medical use for military veterans and elderly
 - a. May qualify for federal funding
 - b. Example facility Lee, Massachusetts.
- 5. Think smaller in terms of land use entities that are <u>for</u> profit
 - a. Increase tax base for town while reducing resource-dependent sources.
- 6. Remain assistant care facility and RESPITE with an educational purpose

- a. Intellectually and Developmentally Disabled (IDD)
- b. World class medical care facility, i.e. add to current professional resources in place for research
- c. Geriatric resources for future use.
- d. Family resources with community outreach, i.e. open forum with respect to programming
- 7. As campus operations are reduced, vacant buildings to be used for ADA use.
 - a. Disaster relief centers
- 8. Cemetery reuse, as Southbury is experiencing a shortage of land.
 - a. Tax revenue
- 9. Use existing buildings to lease out as private commercial spaces
- 10. Adaptive reuse, energy collection locations? Specifically solar
- 11. Arts reuse, i.e. playhouse
- 12. Recreational facilities for town use.
- Has the state considered state branch campuses of the state higher education system?
 Response: Yes, it is unclear at this time if an additional state university campus would be sustainable

2097-16-4-d1613-Table 9

Engineering, Planning, Landscape Architecture and Environmental Science

MILONE & MACBROOM®

February 18, 2014

Honorable Edward Edelson, First Selectman Town of Southbury 501 Main Street South Southbury, CT 06488

RE: Project Scoping Southbury Training School Task Force MMI #2097-16-4

Dear Mr. Edelson:

The Governor's Task Force on Southbury Training School (STS) has asked that Milone & MacBroom, Inc. (MMI) prepare an estimate for the fee associated with conducting a hazardous building material (HBM) assessment and investigative study. This study would include the vacant buildings and the surrounding soils of those buildings on campus. There are currently 13 vacant buildings on site per Figure 6 of our report.

The purpose of a Predemolition or Prerenovation survey is to evaluate the presence and test for suspect asbestos containing materials (ACMs), lead-based paint (LBP), polychlorinated biphenyls (PCBs), and a visual evaluation of universal wastes on the interior, exterior, and roof(s) of the site buildings that may pose an impact to future demolition and/or renovation activities.

An HBM-level survey for ACMs, LBP, and PCBs is required in order to generate an estimate of the types and quantities of ACMs and hazardous materials associated with equipment and building materials that may be present in the site buildings. The survey should also include an inventory of other universal wastes (oil and other hazardous materials [OHMs]) within each site building. It is also possible that underground asbestos-cement water/sewer/steam piping is present at the site, as well as subsurface damp-proofing, which could be present on the exterior foundation walls.

A typical scope of work may include:

Asbestos Containing Materials

The number of asbestos bulk samples to be collected depends on the type of identified suspect material. According to the United States Environmental Protection Agency (EPA) regulation, materials may be classified as surfacing (i.e., applied to a surface such as joint compound/textured ceilings), thermal (i.e., providing thermal insulation), or miscellaneous (i.e., flooring/mastics).

(a) <u>Surfacing materials</u>: In a randomly distributed manner, collect bulk samples of surfacing materials, representative of each homogeneous area, and not assumed to be ACM.

Milone & MacBroom, Inc., 99 Realty Drive, Cheshire, Connecticut 06410 (203) 271-1773 Fax (203) 272-9733 www.miloneandmacbroom.com

- (1) Collect at least three bulk samples from each homogeneous area that is less than or equal to 1,000 square feet (sf).
- (2) Collect at least five bulk samples from each homogeneous area that is greater than 1,000 sf but less than or equal to 5,000 sf.
- (3) Collect at least seven bulk samples from each homogeneous area that is greater than 5,000 sf.
- (b) Thermal systems insulation:
 - (1) In a randomly distributed manner, collect at a minimum three bulk samples of thermal systems insulation material, representative of each homogeneous area, and not assumed to be ACM.
 - (2) Collect, at a minimum, one bulk sample of patched thermal systems insulation, representative of each homogeneous area, and not assumed to be ACM, providing the section of patch was less than six linear or square feet.
 - (3) Collect at a minimum three representative bulk samples of each insulated mechanical system not assumed to be ACM, including but not limited to cementitious material used on pipe fittings such as tees, elbows, or valves. Representative sampling was conducted in a manner sufficient as to identify whether each homogeneous area is either asbestos or nonasbestos containing.
 - (4) Bulk samples are not required to be collected from any homogeneous area where the accredited asbestos inspector has determined that the thermal system's insulation is a nonsuspect material (i.e., fiberglass, foam glass, rubber, or any other non-ACM).
- (c) <u>Miscellaneous materials</u>: Collect, at a minimum, two representative bulk samples of each miscellaneous material not assumed to be ACM, including but not limited to ceiling tiles, floor tiles, associated floor mastic, etc. Representative sampling was conducted in a manner sufficient as to identify whether each homogeneous area is either asbestos or nonasbestos containing.

Lead-Based Paint

Suspect LBP should be evaluated on interior and exterior surfaces and components of the site buildings by a Connecticut-licensed lead paint inspector. The inspection should include field screening analysis of representative interior and exterior painted surfaces throughout the site buildings with the use of an x-ray fluorescence analyzer (XRF).



Honorable Edward Edelson February 18, 2014 Page 3

Any disturbance of lead-containing paint during construction activities is subject to the Occupational Safety & Health Administration (OSHA) Lead in Construction Standard (29 CFR 1926.62). Components with levels greater than or equal to 0.5 percent of lead are considered dangerous. Prior to conducting demolition activities that will impact lead-based paint materials, a Connecticut-licensed abatement contractor must be retained to remove the lead anticipated to be impacted by such activities. Prior to the disposal of materials generated during building renovation or demolition projects, the USEPA Resource Conservation and Recovery Act (RCRA) regulations require that lead toxicity character leaching procedure testing be conducted to determine whether the waste streams must be disposed as a lead hazardous material or as general construction debris. If results of the testing are greater than 5.0 mg/L, then the material must be considered a hazardous waste.

Universal Waste

In addition, the survey should include a visual evaluation of the following OHMs/universal wastes:

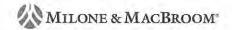
Light Ballasts: Survey fluorescent light fixtures in the various areas of the buildings for the presence of polychlorinated biphenyls (PCB)-containing and di-ethyl hexyl phthalate (DEHP) ballasts.

Light Tubes: Fluorescent light tubes and high intensity discharge (HID) lamps may contain mercury, and in some cases lead, in excess of characteristically hazardous levels established by the RCRA.

Switches: Mercury has been known for decades to be highly toxic, despite its common use in many everyday appliances. The switches in the majority of older thermostats contain quantities of mercury significant enough to contaminate renovation debris, if broken. The gauges in industrial equipment can also contain mercury in relatively sizable quantities.

Ozone Depleting Substances: EPA has promulgated, under Section 608 of the Clean Air Act (CAA), recycling and reclamation requirements for both chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs). These regulations specifically apply to disposal of air conditioning and refrigeration equipment.

PCB-Containing Equipment: Transformers, switches, capacitors, and mechanical equipment containing coolant oils or hydraulic fluids have historically been known to contain PCBs. PCBs are a hazardous substance whose management is regulated by the federal Toxic Substances Control Act (TSCA). Typical procedures for managing suspect PCB-containing equipment during renovation or demolition activities include taking representative samples of building materials and fluid from equipment reservoirs, testing for the presence of PCBs, draining PCB-contaminated fluids for incineration, and properly decontaminating or disposing of equipment



Honorable Edward Edelson February 18, 2014 Page 4

carcasses. Equipment containing fluids that are not PCB-contaminated also typically require draining and liquid disposal prior to equipment disposal or salvage.

Batteries: Batteries providing power to emergency lighting systems and generators are typically of the "wet-cell" variety. These and other battery types such as lead-acid, nickel-cadmium, and lithium are routinely prohibited by state regulations or policy documents from disposal at solid waste facilities.

Containerized Wastes: Remaining abandoned labeled containerized chemical wastes, if any, should be inventoried.

Miscellaneous: Note smoke detectors, fire suppression systems, hydraulic door stops, solids, liquids, and staining from areas that may require abatement and disposal prior to building renovation or demolition.

An HBM assessment and investigation would be a comprehensive study to understand the extent of materials that need to be removed for the renovation or demolition of buildings and would form the basis of project plans and specifications for the abatement of those materials. For budgetary purposes, the cost associated with comprehensive survey of the site buildings is expected to range from \$75,000 to \$125,000, depending upon the number of samples ultimately collected and analyzed.

Should you have any further questions, please do not hesitate to contact me.

Very truly yours,

MILONE & MACBROOM, INC.

Carlos J. Ruiz Civil Engineer

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Scott G. Bristol, LEP Senior Project Manager, Environmental







MEMORANDUM

March 12, 2014

TO THE SOUTHBURY TRAINING SCHOOL TASK FORCE

Attention:	Terrence W. Macy Ph.D. (Co-Chair), Commissioner of the Department of
	Developmental Services, Ben Barnes (Co-Chair), Secretary of the Office of
	Policy & Management

Subject: Historic Preservation Considerations for the Southbury Training School Property Master Plan

The Southbury Training School is a significant historic district listed in the State and National Registers of Historic Places in 1992. The National and State Register property encompasses *approximately* 1,500 acres, of which 1,100 acres were in use as an institutional farm complex and 400 acres were in use as the intuitional campus at the time of the properties listing. In total, the historic district included 82 historic buildings or structures (such as bridges) and 28 non-contributing (non-historic) buildings or structures at the time of listing. The latter primarily represent post-1950 construction on the campus, particularly a number of buildings erected between 1985 and 1990. The historic resources are associated with the 1940 design and construction of the original campus and several 19th-century wood framed farm buildings that were incorporated into the school property.

The primary historic buildings and the "central foci" of the historic district are:

- The Georgian Revival-style Lenore H. Davidson Administration Building, with its load-bearing brick masonry central block and symmetrical wings built on a reinforced concrete foundation.
- The Roselle School, designed with a complex E-shaped plan and prominent 300-foot façade and clock tower topped by an octagonal belfry.
- Crawford Hall, a Georgian Revival-style building constructed as a large staff residence and comprising essentially three linked buildings. The main block has two formal facades. The west façade features a colossal portico with paired columns and stylized Corinthian capitals. The east façade, visible from the highway features a large colonnaded pavilion.

The surrounding sections of the campus include other Georgian Revival buildings reflecting the same strong bilateral symmetry of design as three large structures described above, but





generally lacking the architectural ornamentation and showing a greater emphasis on utilitarian detailing. Examples include the former Print Shop and Activity Building.

Over 30 "cottages" on the campus are also contributing resources to the historic district and illustrate smaller-scale variations on the three-part plan of the large communal buildings. The cottages were designed as Colonial Revival-style residences in keeping with contemporary architectural trends. Other historic buildings around the campus echo the less ornamented Colonial Revival style of cottages, with several variations in floor plans and massing depending on their original use.

The earlier wood-framed buildings on the property were part of the former Pierce Farm, acquired by the state for the Training School development. A circa-1800 Cape Cod house with a center chimney was moved from its original location in the western part of the property to a spot near the main entrance of the campus in 1940. The brick Joel Pierce House is located at the south end of the campus and features a gambrel roof and Federal Period detailing.

The significance of the Southbury Training School Property rests with its largely intact historic architectural resources, which clearly retain their original design and setting, and in the association of the facilities with a significant change in the treatment of the "mentally handicapped" during the Great Depression and World War II eras. The original design of the Southbury Training School as an integrated campus supported by an institutional farm is essentially intact in 2014. Our tour of buildings and facilities suggest that the majority of the buildings are in fair to good structural condition and many original architectural details on the interior and exterior of the buildings remain.

Opportunities:

The State Historic Preservation Office manages several preservation programs which may assist in the planning and future redevelopment of the STS campus. Our Survey & Planning Grant program provides up to \$30,000 in funding to 501(c)3 not-for profit organizations or municipalities to conduct a wide range preservation planning activities. The program covers structural and conditions assessments, feasibility studies, and the development of plans and specifications for the appropriate restoration of historic buildings and structures. Because the Town of Southbury is a Certified Local Government (CLG), they are also eligible for up to \$30,000 Supplemental CLG Grants through SHPO's National Park Service funding. Although the level of funding is insufficient to complete detailed studies of the entire property, funding can be phased through sequential grants to address individual buildings or sections of the campus.

Our Historic Restoration Fund grants provide up to \$200,000 in matching funds for the physical restoration of historic buildings. Eligible applicants are 501(c)3 organizations and municipalities. Unlike our planning grant programs described above, HRF grants require that a preservation easement be placed on the affected property for a period of years determined





by the size of the grants. The easement for a \$200,000 grant would extend for 20 years. Many non-profits and towns have taken advantage of this program to restore historic buildings, but this program does require that the owner be the grantee.

Tax Credit Programs

Historic Preservation Tax Credits are the largest and most scalable financial incentive for the adaptive re-use of historic buildings. SHPO administers a number of tax credit programs which may support the future re-use of buildings at STS:

Historic Homes Rehabilitation Tax Credit

The Historic Homes Rehabilitation Tax Credit program is designed to encourage new homeownership and to assist existing homeowners in maintaining or renovating their property. The program allows allocation of up to \$3 million per state fiscal year in corporate tax credits. Corporations may qualify if providing funds in the form of cash -- purchase of the tax credits -- or loans where the value of the tax credit is used to reduce the amount owing on the loan.

- Provides a thirty percent tax credit, up to \$30,000 per dwelling unit, for the rehabilitation of 1-4 family buildings. After completion of rehabilitation work, one unit must be owner-occupied for a period of five years.
- Requires a minimum of \$25,000 in qualified rehabilitation expenditures to qualify.
- Requires that the building be listed on the National or State Register of Historic Places *and located in a targeted area to be eligible.**

(1) selected federal census tracts with family income levels below the state median,(2) state designated areas of chronic economic distress, or

(3) urban/regional centers identified in the State of Connecticut Conservation and Development Policies Plan of the Office of Policy and Management.

The owner must submit applications to the CCT for approval prior to the start of rehabilitation work.

* Based on amendments to our statutes (Section 10-416), the "targeted area" requirements of the Historic Homes program has been eliminated effective July 1, 2015

Federal Historic Preservation Tax Incentive

Current federal tax incentives for historic rehabilitation projects were established by the Tax Reform Act of 1986 and Internal Revenue Code Section 47. The program is governed by both National Park Service regulations (36 CFR 67) and the Internal Revenue Code. Applications are filed with the Connecticut State Historic Preservation Office, which conducts a preliminary review. Applications are forwarded to the National Park Service, which makes the final determination on certification.





- Law provides a 20% tax credit for the certified rehabilitation of certified historic structures.
- A "certified historic structure" is any structure (1) subject to depreciation *after* rehabilitation as defined by the Internal Revenue Code—usually in income-producing use such as rental residential, office, commercial, or manufacturing; and (2) listed individually on the National Register of Historic Places or is located in a registered historic district and certified by the National Park Service as contributing to the historical significance of the district.
- A certified rehabilitation is a completed rehabilitation project that is approved by the National Park Service as being consistent with the historic character of the property.
- Qualified rehabilitation expenditures must meet the IRS definition of substantial in order to qualify. Substantial rehabilitation means that the qualified rehabilitation expenditures incurred in a two-year measuring period must exceed the adjusted basis of the building— usually the cost of acquisition minus the value of the land plus any improvements minus any prior depreciation.

The tax credit can be used against any federal tax liability, but the ability to use the credit may be affected by other aspects of the Internal Revenue Code. Credits can be claimed for the year in which the building was placed in service.

Eligibility Requirements:

- Buildings must be listed on the National Register of Historic Places prior to claiming the tax incentive.
- Credits can only be used by individuals or business firms which have ownership standing in the property.
- The owner must hold title to the building for five years after completing the rehabilitation.

(State) Historic Preservation Tax Credit

The Historic Preservation Tax Credit program, established by <u>Connecticut General Statutes</u> <u>Section 10-416b</u>, as amended in Public Act 11-48 Section 122, establishes a tax credit for the conversion of historic commercial, industrial, former government property, cultural building, institutional, or mixed residential and nonresidential property to mixed residential and nonresidential uses or nonresidential use. Nonresidential uses include commercial, institutional, governmental or manufacturing.





Program Specifics:

- 25% tax credit of the total qualified rehabilitation expenditures.
- 30% tax credit of the total qualified rehabilitation expenditures if the project includes an affordable housing component provided at least 20% of the rental units or 10% of for sale units qualify under CGS Section 839a.
- Qualified rehabilitation expenditures are hard costs associated with rehabilitation of the certified historic structure; site improvements and non-construction costs are excluded.
- State tax credits may be combined with the 20% federal historic preservation tax credits provided the project qualifies under federal law as a substantial rehabilitation of depreciable property as defined by the Internal Revenue Service.
- \$50 million in tax credit reservations are available in three year cycles.
- Per building cap is up to \$5 million in tax credits.
- Tax credit vouchers are issued after completion of rehabilitation work or, in phased projects, completion of rehabilitation work to an identifiable portion of the building placed in service for residential use.
- Tax credits are available for the tax year in which the building or, in phased projects, an identifiable portion of the building is placed in service for residential use.
- Tax credits can only be used by C corporations with tax liability under Chapters 207 through 212 of the Connecticut General Statutes.
- Tax credits can be assigned, transferred or conveyed in whole or in part by the owner to others.

Eligibility Requirements:

- Buildings must be listed on the National or State Register of Historic Places, either individually or as part of an historic district.
- The property owner must be a person, firm, limited liability company, nonprofit or for-profit corporation, or other business entity or municipality which possesses title to the historic property.

Historic Structures Rehabilitation Tax Credit Program

The Historic Structures Rehabilitation Tax Credit program, established by <u>Connecticut</u> <u>General Statutes Section 10-416a</u>, establishes a tax credit for the conversion of historic commercial, industrial, institutional, former government buildings, cultural building, or residential property of more than four (4) units to residential use, including rental or condominium units. Partial tax credits are available for buildings converted to mixed residential and nonresidential uses.





Program Specifics:

- 25% tax credit of the total qualified rehabilitation expenditures.
- Qualified rehabilitation expenditures are hard costs associated with rehabilitation of the certified historic structure; site improvements and non-construction costs are excluded.
- State tax credits may be combined with the 20% federal historic preservation tax credits provided the project qualifies under federal law as a substantial rehabilitation of depreciable property as defined by the Internal Revenue Service.
- Annual aggregate cap of \$15 million in tax credit reservations.
- Per building cap is up to \$2.7 million in tax credits.
- Tax credit vouchers are issued after completion of rehabilitation work or, in phased projects, completion of rehabilitation work to an identifiable portion of the building placed in service for residential use.
- Tax credits are available for the tax year in which the building or, in phased projects, an identifiable portion of the building is placed in service for residential use.
- Tax credits can only be used by C corporations with tax liability under Chapters 207 through 212 of the Connecticut General Statutes.
- Tax credits can be assigned, transferred or conveyed in whole or in part by the owner to others.

Eligibility Requirements:

- the building must be listed on the <u>State or National Register of Historic Places</u>, either individually or as part of an historic district.
- the property owner must be a person, firm, limited liability company, nonprofit of forprofit corporation or other business entity that possesses title to the historic property.
- projects under construction but not placed in service as of July 1, 2006, may qualify.

Recommendations:

One key advantage and opportunity presented by the Southbury Training School in comparison to other large state facilities that have been transferred to new owners is the generally sound structural condition of the buildings and their historic integrity. Practical and cost effective steps taken to prevent and retard the degradation of the STS facilities leaves open the opportunities for new owner's to take advantage of several historic preservation programs to adapt these facilities to new uses and preserve the important heritage value of the property. Another important consideration is the potential use of federal funding for the redevelopment of some portions of the STS property. As a National Register-listed property, each federal action ("undertaking") with the potential to affect the property is subject to review under Section 106 of the National Historic Preservation Act. *Potential* federal agency involvement may include EPA, HUD, and US Army Corps, depending largely on the specifics of any redevelopment plans and, as yet, undefined site conditions. Even if the individual properties were allowed to deteriorate, the federal responsibility under Section 106





would still hold. This can greatly complicate the use of federal funds to support the economic development of the property.

SHPO therefore recommends that a **historic assessment survey** of the campus be completed to provide more detailed information on the structural and historic integrity of the buildings. The survey should be conducted by qualified historic preservation consultants, minimally including a licensed historical architect. The results of the assessment survey should be used to identify those buildings that present a significant economically viable opportunity for adaptive re-use. Once that population of resources has been identified, a detailed plan for moth-balling vacant and closed buildings should be prepared as part of the assessment survey. SHPO recommends that the moth-balling plan prioritize:

- The prevention and repair of any water infiltration affecting the historic buildings;
- Keeping gutters and leaders intact and functional to prevent the loss of mortar on brick masonry construction;
- Addressing failed paint or other finishes on historic wood trim and architectural details to prevent rot and decay;
- Securing vacant buildings to prevent vandalism and arson significant risks to these resources on a large campus with declining institutional activity;
- On-going visual inspection of the buildings' exterior to identify and remedy deterioration which threatens the structure or character-defining architectural features of the buildings;
- Interior inspection of the historic buildings on a six month schedule, or as recommended by the consultants undertaking the survey, to assess interior finishes, such as plaster walls/ceilings or wood paneling, which may be vulnerable to deterioration in unheated buildings.

In regards to the potential disposal or transfer of STS property, SHPO supports thorough consideration of potential subdivision of the property into parcels which maximize the economic viability of redevelopment. The best outcome for preservation of the historic STS properties is to maintain the use of the buildings and reduce periods of vacancy. Piece-meal disposal or transfer of buildings or sections of the property without careful consideration of the impacts to the remaining properties held in state ownership may artificially limit the potential re-use options and reduce the aggregate economic development benefits to the Town and surrounding communities. That may also adversely affect SHPO ability to assist in any future preservation efforts, as the margins for redevelopment may make even a relatively minor incremental cost for preservation of these assets unsupportable.





Respectfully,

Daniel T. Forrest Director of Arts and Historic Preservation State Historic Preservation Officer DECD