

## OUTLINE OF VERMONT LAW SCHOOL'S 2004 MASTER PLAN

### Vermont Law School Master Plan – 2004

- Updates from 1995 and 1999
  - Underground electric service (serving Oakes Hall, Cornell Library, and will run to Debevoise)
  - The Clivus composting toilet system
- Individual buildings status as of 2004
  - Water/sewer
  - Heat/air
  - Electricity/Electric Power
  - Comments/Other Information

	<b>Water/Sewer</b>	<b>Heat/Air</b>	<b>Electricity/Electric Power</b>	<b>Comments/ Other Info</b>
<b>Abbott House (10-508)</b>	- water supply: 12 inch village water main via a ¾ inch iron pipe - sanitary sewer: discharges into village sewer main	- hot water baseboard radiation from single oil burner in the basement	- single-phase 110 volt 60 Hz AC - electric power is obtained via CVPS distribution lines	- over-heated in winter and hot summer
<b>Anderson House and Barn (10-1022)</b>	- water supply: 6 inch village transite pipe water main via a ¾ inch iron pipe - sanitary sewer: discharges into village sewer main	- hot water baseboard radiation from single oil burner in the basement	- single-phase 110 volt 60 Hz AC - electric power is obtained via CVPS distribution lines	
<b>Chase Community Center and Chase Annex (10-835)</b>	- new restrooms in Annex are supplied by a ½ inch water	- hot water baseboard radiation from single oil burner in the basement	- Chase Center: electrical service is fed from a transformer to the south	-Annex is not insulated - building is not adequately ventilated and

	line from Debevoise and discharged by a new 4 inch PVC sewer line to Debevoise Hall sewer line	- Addition has a cabinet unit heater supplied by the Chase boiler - 1,000 gallon underground fuel tank provides heating for the building (tank is buried 20 feet from the SW corner of the building)	- Annex: electrical service is fed from Cornell Library transformer	becomes hot
<b>Cornell Library (10-1166)</b>	- water supply: 6 inch water main installed by VLS; water main connects to 6 inch transite pipe water main located on North Windsor; water enters the library via a 1.5 inch copper pipe - sanitary sewer: line discharges to a sewer line installed by VLS	- hot water baseboard radiation from two oil burners in the basement - 5,000 gallon underground fuel tank provides heating for the building (tank is buried on the SW side of the building) - 3 air handling units supply the building with air	-3 split system condensers on a mechanical equipment pad - condensers have R-22 refrigerant with 230 volts AC three-phase 60 Hz electricity - power for the remainder of the building is 100 volt AC fed from a transformer	- there is no hot water anywhere, though there is a hot water heater - toilets are low flow and do not clear - replace paper towels with hand driers in restrooms
<b>Curtis House (10-1024 and 10-1025)</b>	- plumbing system is about 18 years old - water supply: 6 inch village	- heating system is about 18 years old - hot water baseboard radiation from single oil burner	- single-phase 110 volt 60 Hz AC - electric power is obtained via CVPS distribution lines	-completely insulated

	transite pipe water main on North Windsor via ¾ inch iron pipe -wastewater discharges to a septic tank and then flows to a leach field	in the basement		
<b>Davis House (10-1048)</b>	- water supply: 6 inch water main via a ¾ inch iron pipe - wastewater runs to a campus sewer line	- hot water baseboard radiation from single oil burner in the basement	- single-phase 110 volt 60 Hz AC - electric power is obtained via CVPS distribution lines	-walls are partially insulated and some areas are not insulated at all -the attic and basement have some insulation -roof is insulated
<b>Dearing House</b>	- water supply: taken from the 12 inch village water main via a ¾ inch iron pipe - sewer line: discharges to the village sewer main	- hot water baseboard radiation from single oil burner in the basement	- single-phase 110 volt 60 Hz AC - electric power is obtained via CVPS distribution lines - barn has power that is run from the main building	- storm windows were installed and new windows have insulated glazing
<b>Debevoise Hall (10-1166)</b>	- water supply: supplied by a 2 inch copper pipe off the 12 inch campus main - sewer line: runs via a 6 inch PVC pipe	-provided via oil-fired hydronics using FTR and self contained unit ventilators - centrally air conditioned and ventilated - 1,000 gallon	- 800 amp, 3-phase service fed underground from the library transformer	- building envelope will utilize dense- pack and spray applied cellulose and high-density spray foam insulations - will be LEED

	to a structure outside of Oakes - composting and foam flush toilets	underground tank south of Debevoise Hall serving the building		certified
<b>Eaton House (10-500)</b>	- water supply: taken from 12 inch village water main via ¾ inch iron pipe - sanitary sewer line connects to village sewer main	- hot water baseboard radiation from single oil burner in the basement	- single-phase 110 volt 60 Hz AC - electric power is obtained via CVPS distribution lines	- walls have been insulated with zonolite - attic has minimal rock wool insulation
<b>Eaton House Barn</b>	- plumbing is tied to Eaton House through underground pipes which can freeze in the winter - water is continued from the Eaton House via a ¾ inch copper line - sanitary sewer line: combines with sewer line in Eaton House basement and discharges into village sewer main	- shop is heated by the furnace in the Eaton House (hot water baseboard radiation from single oil burner in the Eaton House basement)	- electricity runs from Eaton House	- walls and floor have been well insulated -attic has 6 inches of fiberglass insulation
<b>Faye House (10-16963)</b>	- water is run by a ¾ inch line from the	- heat is electric baseboard	- 100 amp, single phase service	- building is insulated with fiberglass batts

	<p>municipal line</p> <ul style="list-style-type: none"> <li>- sewer runs to an on-site septic tank and leach field</li> </ul>			<p>in the exterior walls</p> <ul style="list-style-type: none"> <li>- attic is insulated with 6 inch fiberglass batts and blown in cellulose</li> </ul>
<p><b>Jacobs House (10-22245, 10-22830, and 10-22831)</b></p>	<ul style="list-style-type: none"> <li>- water is run by a ¾ inch line from the municipal service on Chelsea Street</li> <li>- sewer runs to the 8 inch campus sewer line exiting Oakes Hall</li> </ul>	<ul style="list-style-type: none"> <li>-heat is oil/kerosene fired hot air</li> </ul>	<ul style="list-style-type: none"> <li>- 100 amp, single phase service run overhead from Chelsea Street</li> </ul>	<ul style="list-style-type: none"> <li>- some areas may not insulated</li> <li>- windows are single glazed with aluminum storms</li> </ul>
<p><b>Kirsch House (10-26873)</b></p>	<ul style="list-style-type: none"> <li>- water is run by a ½ inch line from the municipal service on Chelsea Street</li> <li>- sewer runs to the municipal service on Chelsea Street</li> </ul>	<ul style="list-style-type: none"> <li>- heat is propane-fired, hot water baseboard</li> </ul>	<ul style="list-style-type: none"> <li>- 100 amp, single phase service run overhead from CVPS lines Chelsea Street</li> </ul>	<ul style="list-style-type: none"> <li>- no insulation added to the main house</li> <li>-shed has had cellulose insulation blown into the roof</li> </ul>
<p><b>Oakes Hall (10-1166)</b></p>	<ul style="list-style-type: none"> <li>- water feed is a 2 inch copper off the 12 inch campus main line</li> <li>- roof water runs to an underground storm water system to</li> </ul>	<ul style="list-style-type: none"> <li>- hydronic heat system and hot water are provided from boilers in Whitcomb</li> <li>- rooms utilize ceiling mounted fan coil units</li> <li>- attic has enthalpy wheel</li> </ul>	<ul style="list-style-type: none"> <li>- 800 amp, 3-phase power run underground from Cornell Library transformer</li> <li>- electric lines are run in a trench with 12 inch campus water main</li> </ul>	<ul style="list-style-type: none"> <li>- tri-glazed fiberglass windows employs an efficient thermal envelope</li> <li>-uses energy efficient lighting and controls</li> </ul>

	<p>daylight and the White River</p> <ul style="list-style-type: none"> <li>- sanitary system is a waterless, composting system</li> <li>- sewer discharges into the campus sewer main</li> </ul>	<ul style="list-style-type: none"> <li>- chiller is located on the ground outside the building</li> <li>- two 275 gallon oil tanks in basement of Waterman to serve Oakes and Waterman</li> </ul>		<ul style="list-style-type: none"> <li>- uses locally obtained, low VOC finish materials when possible</li> </ul>
<p><b>Pierce House (South Royalton Legal Clinic) (10-529, 10-530, and 10-531)</b></p>	<ul style="list-style-type: none"> <li>- water supply is taken from the village water main via a ¾ inch iron pipe</li> <li>- sanitary sewer line discharges to the village sewer main</li> </ul>	<ul style="list-style-type: none"> <li>- heat is provided through forced hot air from a single oil burner in the basement</li> </ul>	<ul style="list-style-type: none"> <li>- electricity is single-phase 110 volt 60 Hz AC</li> <li>- electric power is obtained from CVPA distribution lines</li> </ul>	<ul style="list-style-type: none"> <li>- building is partially insulated</li> </ul>
<p><b>Rogers House (10-1042)</b></p>	<ul style="list-style-type: none"> <li>- water supply: taken from the 6 inch village transite pipe water main via a ¾ inch copper line</li> <li>- common septic tank serves both house and barn</li> </ul>	<ul style="list-style-type: none"> <li>- heat is provided through hot water baseboard radiation from single oil burner in the basement</li> <li>- 1,000 gallon underground fuel tank provides heating fuel for the house and barn</li> </ul>	<ul style="list-style-type: none"> <li>- electricity is single-phase 110 volt 60 Hz AC</li> <li>- electric power is obtained from CVPA distribution lines</li> </ul>	
<p><b>Rogers House Barn (Student Center)</b></p>	<ul style="list-style-type: none"> <li>- water supply: comes from the basement of Rogers House</li> </ul>	<ul style="list-style-type: none"> <li>- heat is provided through hot water baseboard</li> </ul>	<ul style="list-style-type: none"> <li>- electricity is single-phase 110 volt 60 Hz AC</li> <li>- electric power is obtained from</li> </ul>	<ul style="list-style-type: none"> <li>- well insulated and fitted with new, insulated glass windows and doors</li> </ul>

	via a ¾ inch copper line - wastewater discharges into a common tank shared by Rogers House	radiation from single oil burner in the basement - 1,000 gallon underground fuel tank provides heating fuel for the house and barn - tank is buried 15 feet from the NE corner in front of the building	CVPS distribution lines	
<b>Whitcomb House (Waterman House) (10-1166)</b>	-water supply: taken off the 12 inch campus main - sanitary sewer line ties in with Oakes Hall sewer line (ties into the new sewer line installed by VLS, discharging into the village sewer main)	- heat is provided by hot water baseboard radiation from 4 new oil fired boilers in the basement (also serving Oakes Hall) - two, 275 gallon oil tanks in basement of Waterman to serve Oakes and Waterman	- electricity is single-phase 110 volt 60 Hz AC - electric power is obtained from CVPAS distribution lines	- building is fully insulated

#### Inventory of 2004 Conditions

##### Water:

- New 12 inch water line runs through campus
  - Cornell Library, Chase Annex, Oakes Hall, Waterman, and Debevoise Hall are all directly or indirectly related to this line

##### Sanitary Sewer:

- Most buildings are connected to the municipal sewer
- Curtis House, Rogers House and Barn, and Faye House are still connected to individual subsurface disposal systems

#### Electricity:

- Underground service runs to a transformer serving the Cornell Library, Oakes Hall, and will run to Debevoise Hall
- Chase Student Center and Annex are on a single service fed from a transformer south of Chase
- Other buildings are served by overhead connections to CVPS lines on Chelsea and North Windsor Streets
- Electric service reliability is poor in South Royalton
  - No centralized back-up power sources (generators) on campus

#### Drainage

- A piped subsurface drainage system collects runoff from the storm sewer inlets located adjacent to the library, Chase, Debevoise Hall, and Oakes Hall

#### Fuel Supply:

- Generally, the buildings are heated by individual furnaces that are fired with number 2 fuel oil
  - Fuel oil is stored in individual gas tanks in the basement of each house
- VLS has adequate fuel storage capacity