# Appendix A Key Observation Points Maps and Photos

# Appendix A: Key Observation Points

Most public visibility of the Project has been identified from public roadways. The Vermont Agency of Transportation ("AOT") classifies roadways in Vermont. The different road classes provide an impression of the importance of a road and the extent of usage the area receives. Road class is used to portray the character of the landscape. The location and class for each roadway within the Project study area was derived from GIS data used by 911 Emergency Services (E911) available through the Vermont Center for Geographic Information. Areas we describe include the following road classifications:

- <u>Class 4</u> Undivided town highway: Class 4 roads are not funded by VTrans, but are legally considered Class 3. These are local roads that mainly provide property access. They are not always maintained by the town and are typically not cleared of snow in the winter.
- <u>Class 3</u> Town highway: Typically these are local roads that provide access to rural and low-density properties. Within the study area, Class 3 roads include a mix of dirt surfaced and paved roads, and are typically maintained year round.
- <u>Class 2</u> Undivided town highway: These roads are regional collector roads and provide the
  only access to many Vermont communities. They are typically (although not always) paved
  roadways.
- <u>Class 30</u> Vermont State highway, undivided centerline (typically): These roads are major transportation routes and provide access between major regions within the state.
- <u>Class 40</u> U.S. highway, undivided centerline: US highways are major transportation routes that provide access between regions within and out of the state.
- <u>Classes 41, 42, 43 and 44</u> U.S. highway, divided centerline: US highways are major transportation routes that provide access between regions within and out of the state. The road class in this category are broken down to north bound, south bound, east bound and west bound respectively.

The Project passes through a variety of land uses. This include rural, residential, agricultural, commercial and industrial uses. Land uses are another important way to describe the character of a specific area and will be used throughout the section evaluating potential impacts. Land use characterizes the types of activities and development within a given area. Land use descriptions within this report are used only to describe the general landscape character and do not necessarily coincide with specific zoning regulations and bylaws for the individual towns in which the Project is located. Below is a description of land-use terms used in this report.

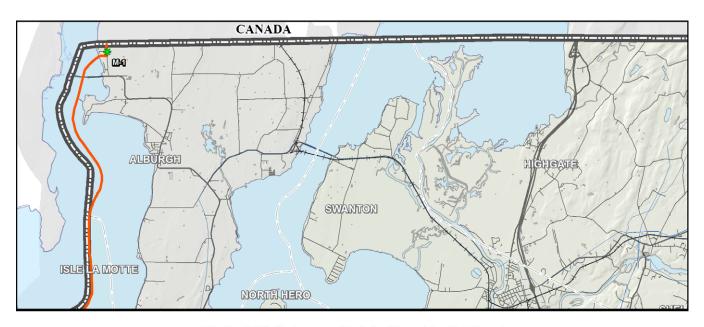
- Remote, Rural, or Rural Residential (RR): Consists of land that is not developed, nor being used for active farming or other uses. It can be isolated or secluded. Some individual residences may be present but are typically more than a road mile from another residence.
- <u>Low Density Residential (LR)</u>: Residential development that consists of single-family houses on large, spacious lots. These are typically not subdivisions, and form patterns of residences fronting a single road. Densities are no more than one residential unit per two acres.

- Medium Density Residential (MR): Residential development that consists primarily of single family detached houses at densities between one-half to two acres per unit. Development patterns typically include clusters of units along roads and subdivisions.
- <u>High Density Residential (HR)</u>: Residential development that includes single family and multifamily units. Densities are greater than one unit per one-half acre.
- <u>Park or Recreational (PR)</u>: Areas specifically designated for recreational uses, or as town, state, or national forest lands.
- Agricultural (AG): Areas in active agricultural use, including crops and livestock.
- <u>Commercial (CM)</u>: Customer-based businesses that typically do not involve exterior storage and warehouse facilities.
- <u>Industrial (ID)</u>: Uses that portray a "manufacturing" type of appearance and includes utility-based infrastructure and warehouse style development.

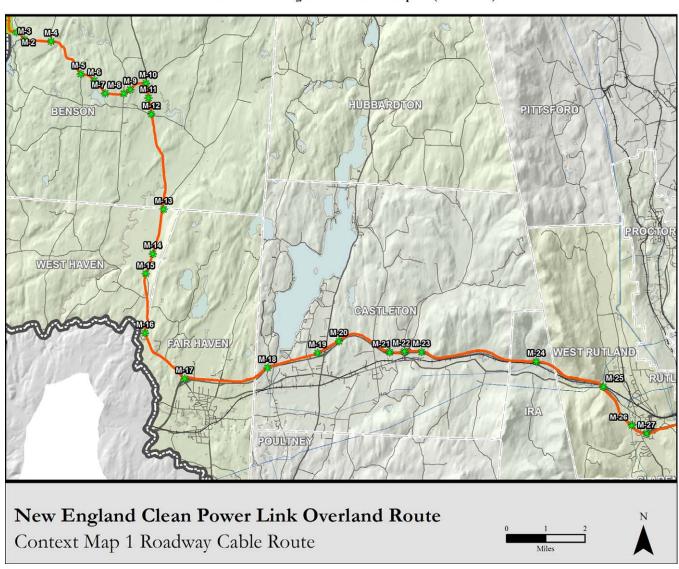
We have utilized both land-use and road classifications to help portray the character of the areas assessed in the study. At specific locations, the report text provides a more detailed description, which may include the scenic quality and diversity of the landscape; whether the Project components are in the foreground, middle ground, or background of views; the extent or duration of views; and how prominent the Project will appear within the view.

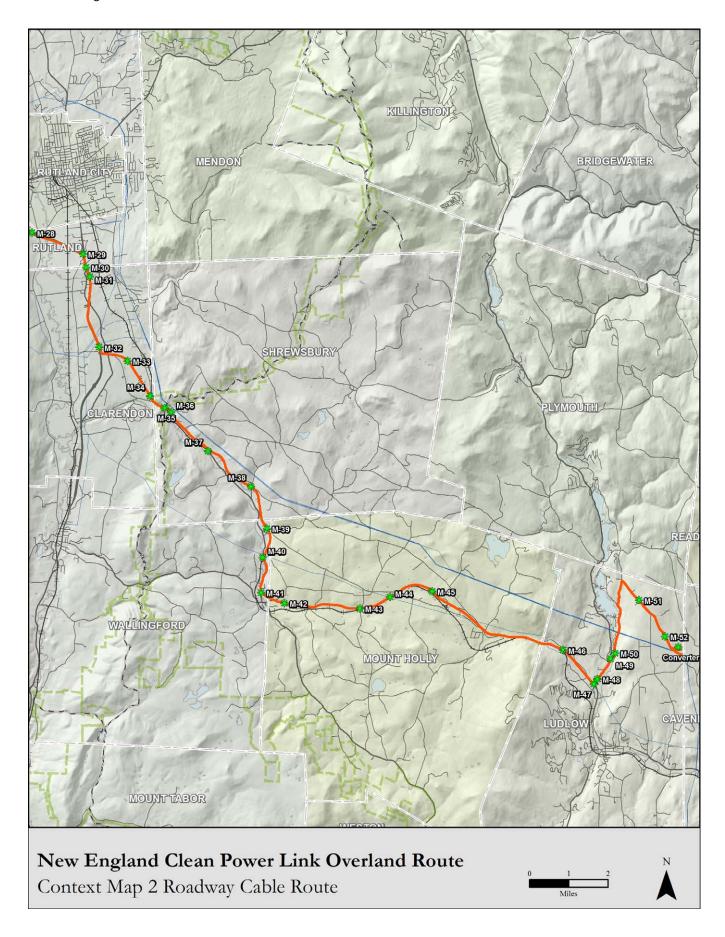
Areas assessed within this study are represented by aerial maps with viewpoint locations that correspond to photos shown within Appendix A. Photos are either used to illustrate the character of the area or to show the location of proposed Project infrastructure.

However, since the underground portion of the line will be located along almost 60 miles of public ROWs, this evaluation utilizes a selection of Key Observation Points ("KOP or KOPs") to represent how the Project will affect the visual landscape of these areas. The following map and chart shows the location and lists all of the KOPs. The chart also provides a determination as to whether the Project will result in an Adverse or Undue Adverse impact within the area of each KOP. Additionally, road class, land use, references to maps and photos in appendix A, recommended tree protection, recommended mitigation planting, and locations were post-construction review is recommended, is listed for each KOP, as well as general comments and other recommendations. For locations where it was determined that the Project could result in an adverse impacts, a description of those areas are provided within the report.



- Marine Cable Underground in Lake Champlain (Not Shown) -





# **Chart of Key Observation Points**

Key Observation Points (KOPs)	Road Class	Land Use	Map No.	Viewpoints	Appendix A Page(s)	Not Adverse	Adverse	Undue Adverse	Tree Protection	Mitigation Planting	Post-Const. Review	Comments / Recommendations
Alburgh, VT												
Bay Road	3	RR AG	1	1, 2	A-9 A-10	X			X			Line to be installed beneath or just outside the road surface. Care should be taken to reduce impacts to vegetation along the west side of Bay Road. Protect and avoid the removal of shade trees at MP 0.3 where the line angle towards Lake Champlain to the extent possible.
	Benson, VT											
Stoney Point Road	3	RR	2	3, 4	A-11 A-12	X			X			Minimize removal of vegetation when entering Stoney Point Rd. at MP 97.75. Line to be installed beneath road surface. No clearing required.
North Lake Road	3	RR AG	3, 4, 5	5, 6, 7	A-13 A-14 A-15	X						Line to be installed beneath road surface. No clearing required.
Glenn Road (Old North Lake Road)	4	RR	5, 6	7,8	A-15 A-16	X			X		X	Project plans call for the installation of the line beneath the road surface. Some vegetation loss is expected due to the narrow width of the road surface. Impacts to veg. should be minimized to the extent possible for the length of this portion of Glenn Rd.
Glenn Road (Old North Lake Road)	3	RR AG ID	7, 8	9, 10	A-17 A-18	X						Line to be installed beneath road surface. No clearing required.
Stage Road	2	CM MR	8	10 <b>,</b> 11	A-18 A-19 A-20	X						Line to be installed beneath road surface. No clearing required.
Hulett Hill Road	2	MR	8, 9	11, 12	A-18 A-20 A-21	X			X			Line to be installed beneath road surface. No clearing required. Care should be taken to ensure no damage to trees close along the edge of road from MP 101.5 to 101.7.
Vermont Route 22A	30	AG RR	10, 11, 12	13, 14, 15	A-22 A-23 A-24	X						The line will be located outside of the road shoulder, within the ROW. The Project design significantly avoids removal of vegetation along Route 22A in Benson.
						We	est H	aven,	VT			
Vermont Route 22A – MP 105.4	30	AG RR	13	21	A-25		X			X	X	At the town line with Benson, the Project will require the removal of several large shade trees lining the road.
Vermont Route 22A – MP 106.5	30	AG RR	14	112	A-26		X		X	X	X	Project plans indicate a large Willow tree between Route 22A and an adjacent farm house will be removed. It is suggested that the line be relocated closer to the road and tree preservation methods be employed to save this tree. If not possible, mitigation plantings will be proposed.
Vermont Route 22A	30	AG RR	15	22	A-27	X						Between MP 106.9 and 107.1, the line will diverge to the outside of a widened portion of the ROW at the base of a steep slope. Some clearing along the edge of wooded areas will be required.

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Key Observation Points (KOPs)	Road Class	Land Use	Map No.	Viewpoints	Appendix A Page(s)	Not Adverse	Adverse	Undue Adverse	Tree Protection	Mitigation Planting	Post-Const. Review	Comments / Recommendations	
Fair Haven, VT													
Vermont Route 22A, MP 108.6	30	RR	16	110	A-28	X						Near MP 108.6, to install the cable along the side of the road, the existing face of ledge will be removed to widen the clear zone along the east side of Vermont Route 22A.	
Vermont Route 22A / Exit 2, US Route 4	30 44	RR	17	19	A-29 A-30	X						Along Vermont Route 22A, the line will be horizontal drilled from where it turns east at US Route 4 to north of Mud Brook. From Route 22A, the line continues east along the north side of the US Route 4 ROW.	
US Route 4 Airport Road	44 3	MR AG	17	20 106	A-29 A-31		X		X	X	X	The line will move out away from the edge of the paved road and may require the removal of a row of mature white pine trees that appear to have been planted to provide a screen between Route 4 and adjacent development.	
	Castleton, VT												
US Route 4 MP 112.5	44	RR	18	36	A-32	X						Typically the lines will be located relatively close to the paved shoulder along US Route 4, within existing cleared areas. At this location the line will be located between the paved shoulder and the rock cut.	
US Route 4 Exit 4	44	RR	19	35	A-33	X						A HDD staging area located near the end of the westbound on-ramp at exit 4 will require clearing into the wooded portion of the ROW at this location.	
US Route 4 MP 114.4	44	RR	20	34	A-34	X					X	At a few locations, the line will be install away from the edge of the Route 4 paved area. At this location the line will be located on top of the rock cut and up to 50 feet of vegetation will be cleared from the edge of the rock cut.	
US Route 4 MP 115.8	44	RR	21	35	A-35	X					X	This is a second location where the line will be installed on top of a rock cut and clearing of up to 50 of vegetation may be required to construction the line.	
E. Hubbardton Rd. / Higgins Road	2 3	RR MR	22	31, 32	A-36 A-37		X		X	X	X	A HDD temporary staging area along US Route 4 at exit 5 indicates clearing that will remove a row of pines that appear to have been installed as a buffer between Route 4, E. Hubbardton Rd. and Higgins Rd.	
US Route 4 MP 116.7	44	RR	23	30	A-38	X					X	A typical location were the existing edge of woods along US Route 4 may be cleared up to 40 feet further back from the edge of the road to install the cable.	
							Ira	, VT					
US Route 4 pull-off	44	RR	24	28	A-39	X					X	Approximately 50 feet of wooded area near the west end of the Route 4 pull-off in Ira will be cleared to install the cable	
West Rutland, VT													
US Route 4 VT Route 4A Whipple Hollow Road	44 30 3	RR MR IN	25	23, 24, 25, 26	A-40 A-41 A-42 A-43		X		X	X	X	Where VT Route 4A crosses beneath US Route 4 in West Rutland, a temporary HDD staging area will require a large, wooded highway embankment to be cleared, opening views between Whipple Hollow Road and the surrounding properties to US Route 4.	

Key Observation Points (KOPs)	Road Class	Land Use	Map No.	Viewpoints	Appendix A Page(s)	Not Adverse	Adverse	Undue Adverse	Tree Protection	Mitigation Planting	Post-Const. Review	Comments / Recommendations
Ke.	Ro		Ma	Vic	Ap	ž	PΨ	Un	Tre	Mi	Po	
US Route 4 MP 123	43	MR IN RR	26	38	A-44	X					X	Up to 50 feet of vegetation will be removed from the bottom of the road embankment towards the edge of the US Route 4 ROW.
West Rutland Rec. Area Path US Route 4, Exit 6	43	MR PR	27	39, 40, 41	A-45 A-46		X			X	X	Removal of vegetation for a HDD staging area will open views between parts of the park, recreation path and US Route 4.
Town of Rutland, VT												
US Route 4 near Creek Rd. Overpass	43	AG RR	28	44	A-47	X					X	Up to 50 feet of clearing will be require along the southern edge of US Route 4, west of Creek Road.
US Route 4 US Route 7	43 42	CM AG RR	29	45	A-48	X						View of HDD staging area where the Project turns to the south and parallels the US Route 7 along the western side of the
	Clarendon, VT											
US Route 7 at Clarendon / Rutland Town Line	42	СМ	30	46	A-49	X		,				View of second HDD staging area along US Route 7. Minimal to no tree clearing will be required at this location.
US Route 7, south of Cold River	42	MR IN	31	47	A-50		X		X	X	X	Tree clearing for a third HDD staging area may remove buffer vegetation and open up views between US Route 7 and an adjacent residential structure.
US Route 7, just north of Vermont Route 103	42	RR AG CM	32	49	A-51	X						Minimal clearing will be require along most of US Route 7 where the line will be installed within existing open areas.
VT Route 103 MP 103.9	30	RR	33	53	A-52	X						The edge of woods along the north side of Vermont Route 103 at this location will be cleared back to the edge of the road ROW, or up to 26 feet further away from the edge of road.
VT Route 103 at E. Clarendon Rd.	30	RR CM	34	54	A-53	X					X	A second example along Route 103 where clearing up to the edge of the ROW is shown on Project plans.
	ı	Г			T	Sh	rews	oury,	VT			
VT Route 103 LT/AT Crossing	30	PR RR	35	55	A-53	X						The line will be installed by HDD at the Long Trail / Appalachian Trail crossing with minor clearing for the eastern HDD staging area.
VT Route 103 MP 132.6	30	RR	36	56	A-55		X		X	X	X	Near MP 132.7, Project plans show removal of roadside vegetation, including landscape plantings, opening views between an adjacent residential structure and Route 103.
VT Route 103 MP 133.9 to 134.1	30	RR	37	57 58	A-56 A-57		X			X	X	Along this stretch of Route 103, the Project will result in clearing of roadside vegetation in varying depths, up to 26 feet further back from the edge of the road. Clearing up to 30 feet along the north side of the railroad will also be required.
Town Hill Road / Shunpike Road	3 3	RR	38	64 100 101	A-58 A-59 A-60		X			X	X	The Project will create views along a widened utility corridor from Town Hill Road. Removal of most of the hedgerow, east from Town Hill Road and north of the railroad will remove the vegetative buffer between Shunpike Road and the railroad.

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Key Observation Points (KOPs)	Road Class	Land Use	Map No.	Viewpoints	Appendix A Page(s)	Not Adverse	Adverse	Undue Adverse	Tree Protection	Mitigation Planting	Post-Const. Review	Comments / Recommendations
Wallingford, VT												
Freeman Brook Road	3	RR	39	67	A-60 A-61	X						The Line will be installed by HDD from north of Freeman Brook Road to south of Old Turnpike Road and will not require clearing in these areas.
VT Route 103	30	RR	40	69	A-62		X			X	X	A 50 foot width of vegetation will be clearing along the east side of the railroad as the Project descends the steep slope to return to the Vermont Route 103 ROW.
VT Route 103 East Wallingford Village	30	RR MR CM	41	70 71 72	A-63 A-64		X		X	X	X	The line will run along the east / north side of Route 103 within E. Wallingford Village. To install the cable, clearing up to 30 feet back from the edge of road will be required.
Mount Holly, VT												
VT Route 103 MP 139.2	30	RR	42	74	A-65	X						View along Route 103 in Mount Holly where the Project will be installed within the clearing along the sides of the road. Existing overhead utility lines will need to be relocated.
VT Route 103 Hortonville Road	30	RR CM	43	75	A-66		X			X		Although relatively minor, the Project will result in the removal of a small clump of trees at the northeast corner of the intersection at the center of Mount Holly, which are the only large trees on that corner.
VT Route 103 MP 141.7	30	RR	44	76	A-67	X						An example of long straight sections of Route 103 in Mount Holly where the Project will have no visual impacts.
VT Route 103 MP 142.9	30	RR	45	77	A-68	X			X		X	Tree preservation measure should be implemented to reduce any impact to the adjacent line of evergreen trees.
		ı					Ludlo	w, V	T	ı		
VT Route 103	30	RR	46	79	A-69	X						The Project will be installed near the edge of Route 103 within Ludlow and will not result in noticeable visual changes along the road.
VT Route 103 VT Route 100	30 30	RR	47	80	A-70	X						Where Route 103 intersects with Route 100, the line will turn northeast, leave Vermont Route 103 and then follow Route 100. A HDD staging area will be located just south of this intersection.
VT Route 100	30	CM MR RR	48 49	81 82	A-71 A-72	X						The line will be installed beneath the paved surface of Vermont Route 100. No construction activity or disturbance is proposed outside the road pavement.
East Lake Road	3	MR RR	50	84	A-73	X						The line will be installed beneath the gravel surface of East Lake Road. No construction activity or disturbance is proposed outside the area of the road surface.
Pettiner Hill Road	3	RR	51	87	A-74	X						The line will be installed beneath the grael surface of Pettiner Hill Road. No construction activity or disturbance is proposed outside the area of the road surface.
Nelson Road	3	RR	52	88	A-75	X						The line will be installed beneath the gravel surface of Nelson Road. No construction activity or disturbance is proposed outside the area of the road surface.

# Bay Road, Alburgh: Class 3 Town Highway



Assessment Map 1: The NECPL will run beneath the road surface for the first 400 feet along Bay road before shifting to just outside the western edge of the road. Vegetation along the west side of the road should be protected during construction.



Viewpoint 1: View looking south along Bay Road from the Canadian border.



<u>Viewpoint 2</u>: View looking north from just south of where the line will turn west and proceed to Lake Champlain.



<u>Viewpoint 2</u>: View looking west across open fields through which the line will connect with Lake Champlain. The two deciduous trees in this view may be removed to accommodate the line.

Stoney Point Road, Benson: Class 3 Town Highway



Assessment Map 2: From Lake Champlain, the NECPL will exit the lake, travel a short distance through a TDI-NE controlled parcel and then connect with Stoney Point Road and will be located beneath the road surface.



<u>Viewpoint 4:</u> View from Stoney Point Road looking west into the narrow field through which the line will be located after exiting Lake Champlain and before connecting with Stoney Point Road.



<u>Viewpoint 3:</u> View looking north where the Project connects with Stoney Point Road. Up to a 50-foot wide clearing of the existing vegetation in this photo will be necessary to connect between the road and an open field. \*Wide Angle Focal Length



<u>Viewpoint 3</u>: View looking southeast along Stoney Point Road where the line will be buried beneath the road surface.

### North Lake Road, Benson: Class 3 Town Highway



Assessment Map 3: Traveling south along the Project route, Stoney Point Road turns into North Lake Road, a similar dirt surfaced Class 3 Town Highway. The Project will be buried beneath the road surface and construction will not require removal of vegetation along the roadside.



Viewpoint 5: View looking south along North Lake Road.



Assessment Map 4: Further south along North Lake Road, at the intersection with Frazier Hill Road, this area is characterized by large agricultural fields with a few rural residential properties.



<u>Viewpoint 6</u>: View looking northeast along North Lake Road.



Assessment Map 5: Continuing southeast along North Lake Road from the intersection with Frazier Hill Road, the Project Route turns east onto Glenn Road, also known as Old North Lake Road. Glenn Road is a class 4 roadway and is only one lane wide at many locations with mature trees immediately adjacent to the road edge.

\*Note: The cable route shown does not properly align with the aerial image. The cable will be installed beneath the road surface.



Viewpoint 7: View looking southeast from North Lake Road at the intersection with Glenn Road.

# Glenn Road (Old North Lake Road), Benson: Class 4 Town Highway



<u>Assessment Map 6</u>: The Project follows along a stretch of Glenn Road categorized as a Class 4 Town Highway for less than 1 mile. Project plans indicate no tree clearing will be necessary along this section of Old Stage Road, although at least some limited impact is expected.



Viewpoint 8: View looking southeast along Glenn Road.

# Glenn Road, Benson: Class 3 Town Highway



Assessment Map 7: Glenn Road (Old North Lake Road) at the Benson Transfer Station where the road classification changes from Class 4 (to the west) to Class 3 (to the east).



Viewpoint 9: View looking east from the Benson Transfer Station along the Class 3 portion of Glenn Road.

# Stage Road, Benson: Class 2 Town Highway



Assessment Map 8: From Glenn Road, the Project turns north for approximately 300 feet along Stage Road and then turns to the east again and continues along Hulett Hill Road.



<u>Viewpoint 10</u>: View looking west along Glenn Road from the intersection with Stage Road.



<u>Viewpoint 10</u>: View looking north along Stage Road from the intersection with Glenn Road. The line will be buried beneath the paved travel lanes.



<u>Viewpoint 11</u>: View looking south along Stage Road from the intersection with Hulett Hill Road.



<u>Viewpoint 4</u>: View looking east along Hulett Hill Road from Stage Road.

# Hulett Hill Road, Benson: Class 2 Town Highway



Assessment Map 9: From Stage Road, the Project route will connect to Vermont Route 22A via Hulett Hill Road. Similar to Stage Road, the line will be installed beneath the paved road surface for the length of Hulett Hill Road.



<u>Viewpoint 12</u>: View looking southwest along Hulett Hill Road.



<u>Viewpoint 12</u>: View looking northeast along Hulett Hill Road.

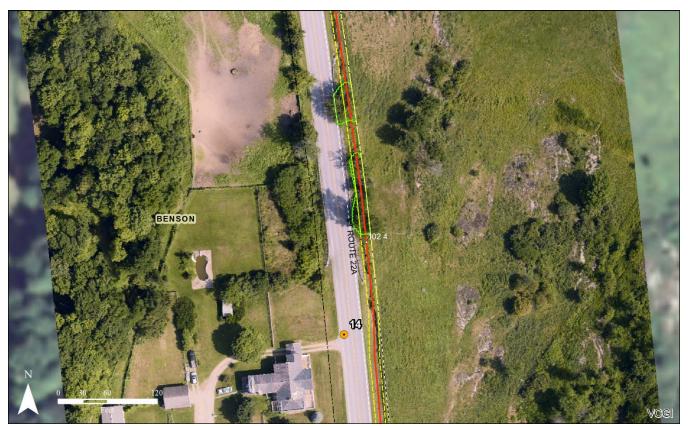
# Vermont Route 22A, Benson: Class 30 State Highway



Assessment Map 10: At the east end of Hulett Hill Road, the Project will cross beneath Vermont Route 22A, angle south and run along the outside of the eastern shoulder of the road.



<u>Viewpoint 13</u>: View looking south along the eastern shoulder of Vermont Route 22A at the intersection with Hulett Hill Road. The line will be installed outside of the eastern shoulder of the road.



<u>Assessment Map 11:</u> Further south on Vermont Route 22A, a small stand of naturally occurring vegetation will likely be removed as a result of the Project.



<u>Viewpoint 14</u>: View looking north along Vermont Route 22A at a small isolated stand of vegetation to be removed.



Assessment Map 12: Vermont Route 22A at the intersection with Mill Pond Road and Lake Road. Most of the land along Route 22A in Benson consists of open agricultural fields. The Project will mostly result in the removal of small shrubby vegetation along the road. Signs, fences and other elements within the Project area will be reinstalled at the same approximate locations



Viewpoint 15: View looking north along Vermont Route 22A from the intersection with Mill Pond Road.

# Vermont Route 22A, West Haven: Class 30 State Highway



Assessment Map 13: Within the Town of West Haven, the Project is located entirely along Vermont Route 22A, first along the western side of the road, and then along the eastern side of the road before entering Fair Haven.



<u>Viewpoint 21</u>: At the Benson – West Haven town line, a line of shade trees along the side of the road will be removed, eliminating the buffer between the road and adjacent residential structure.



Assessment Map 14: Near MP 106.5, Project plans show potential removal of a large Willow tree which is the only vegetation between the adjacent farm house and Route 22A.



Viewpoint 112: View looking north along Route 22A in West Haven at large Willow tree.



**Assessment Map 15:** As the route approaches MP 106.9 the line will diverge to the base of a highway embankment, along the outside of the right-of-way and will result in some minor vegetation removal on the embankment.



<u>Viewpoint 22</u>: View looking south along the highway embankment near MP 106.9. The line will run along the base of the slope and then merge back to the edge of the shoulder along the edge of the background vegetation.

# Vermont Route 22A, Fair Haven: Class 30 State Highway

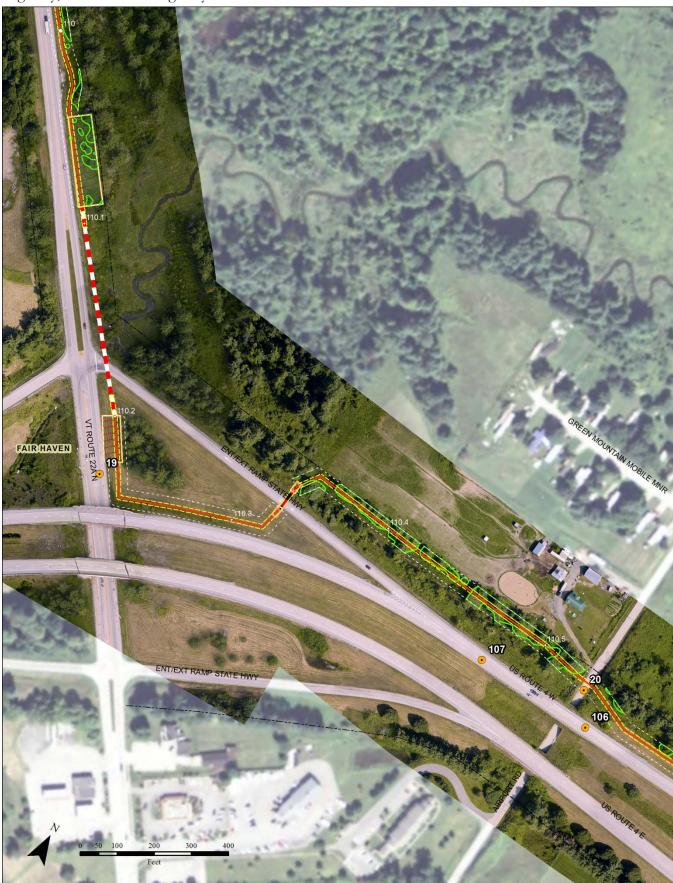


Assessment Map 16: From West Haven, the line continues into Fair Haven along the eastern side of Vermont Route 22A. Near MP 108.6, ledge may need to be removed along the edge of the roadway to install the cable.



<u>Viewpoint 110</u>: View looking north along Vermont Route 22A. Construction of the line at this location may require the existing face of the ledge to be removed and widen the clear zone along the highway where the cable will be installed.

**Vermont <u>Route 22A, US Route 4, Airport Road, Fair Haven</u>:** Class 30 State Highway, Class 44 US Highway, Class 3 Town Highway.



Assessment Map 17: The line continues along the eastern side of Vermont Route 22A until the Exit 2 exchange with US Route 4, where the Project will turn east and follow along the north side of the US Route 4 ROW.



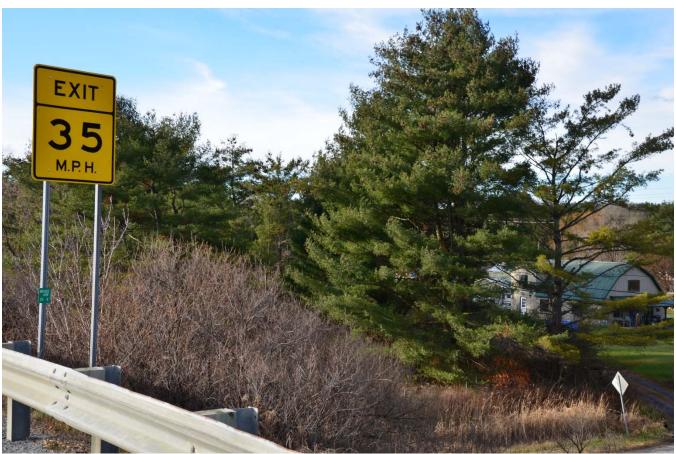
Viewpoint 19: View looking north along Vermont Route 22A. The line will be horizontally drilled to the north side of the guard rail along the northbound lanes.



Viewpoint 19: View looking east at the Project route on the northern embankment of US Route 4.



<u>Viewpoint 20</u>: Slightly east from exit 2, this view is looking west from Airport Road along the Project Route running parallel to US Route 4. \*Wide Angle View

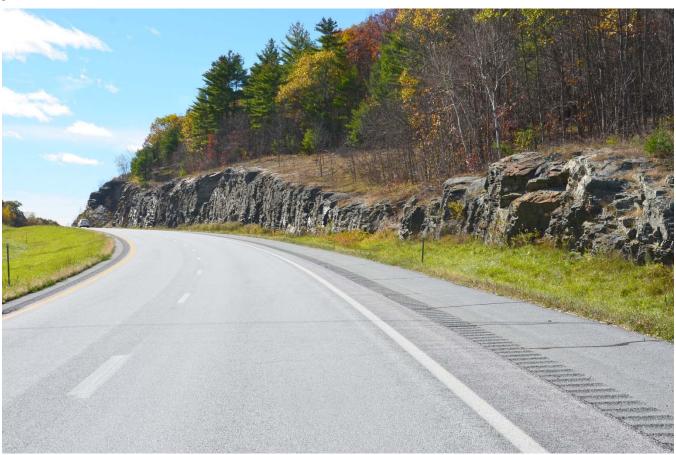


Viewpoint 106: View looking at existing White Pines from Vermont Route 22A.

### US Route 4, Fair Haven: Class 44 US Highway



Assessment Map 18: A typical section of the Project along US Route 4 where the line will be installed between the edge of the paved shoulder and a rock cut.

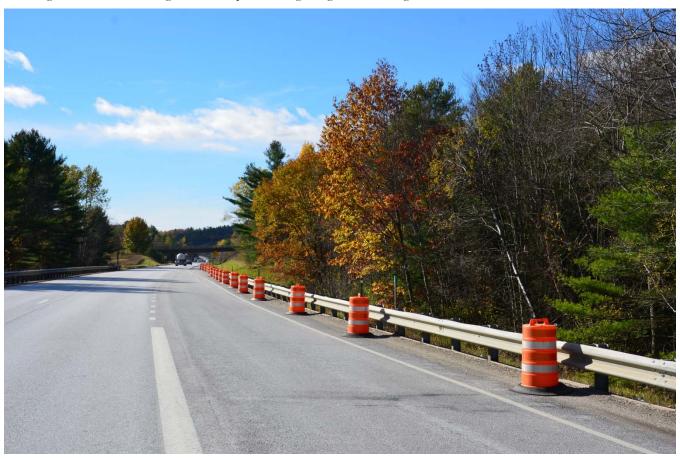


<u>Viewpoint 36</u>: View looking west along the westbound lanes of US Route 4 at typical section of the Project where the line will be installed between the paved shoulder and an adjacent rock cut.

### US Route 4, Castleton: Class 4 US Highway



Assessment Map 19: Near the end of the US Route 4, exit 4 westbound on-ramp, a temporary staging area for a HDD, and trenching for the line continuing east, will require clearing along the road. Vegetation above the drill area will be retained.



Viewpoint 35: View looking west at the end of the on-ramp of exit 4, US Route 4 towards area of vegetation clearing.



<u>Assessment Map 20</u>: Traveling westbound on US Route 4, this example shows one of the few locations where the line will be located above the top of a highway rock cut. Up to 50 feet 0f vegetation will be cleared from along the top of the rock cut, back towards the edge of the ROW to the north.



<u>Viewpoint 34</u>: View looking westbound along US Route 4 where the line will be located on top of the rock cut along the roadside.



Assessment Map 21: The line will also be located above the rock cut along US Route 4 near MP 115.8, and the line will be setback up to 240 feet from the edge of the paved road surface, retaining vegetation between the road and clearing.



<u>Viewpoint 33</u>: View looking west where the line will be located above the rock cut along the roadway, up to 240 feet away from the paved edge of the road.

East Hubbardton Road & Higgins Road, Castleton: Class 2 Town Highway & Class 3 Town Highway



Assessment Map 22: An HDD staging area west of the East Hubbardton Road overpass at Exit 5, US Route 4, may clear trees that appear to have been planted as a screen between Route 4, East Hubbardton Road, and Higgins Road.



Viewpoint 31: View looking east from Higgins Road toward the East Hubbardton Road overpass at Exit 5, US Route 4.

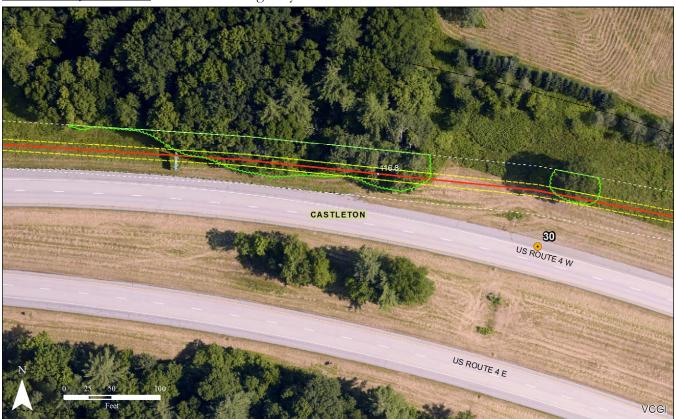


<u>Viewpoint 32</u>: View looking west from on top of the East Hubbardton Road overpass at Exit 5, US Route 4 towards a row of pines that would be partially removed to accommodate a HDD temporary staging area. \*Wide Angle Zoom



<u>Viewpoint 32</u>: Same view as above, taken with a normal lens focal length.

## US Route 4, Castleton: Class 44 US Highway



<u>Assessment Map 23</u>: US Route 4, westbound, this shows an typical example of several locations along Route 4 where some limited vegetation clearing will move the edge of woods slightly further back from the edge of road.



<u>Viewpoint 30</u>: View looking westbound along US Route 4 where clearing as a result of the Project will relocated the edge of woods up to 40 feet further back from the edge of the road.

#### US Route 4, Ira: Class 44 US Highway



Assessment Map 24: At the west end of the pull-off along the westbound lanes of US Route 4, a 50-foot wide clearing will be necessary to along construction of the Project.



<u>Viewpoint 28</u>: View looking from the US Route 4 pull-off towards the west where an area 50-foot wide along the line will be cleared to allow construction of the Project.

Whipple Hollow Road, Vermont Route 4A, US Route 4, West Rutland: Class 2 Town Highway, Class 30 State Highway, Class 43 US Highway



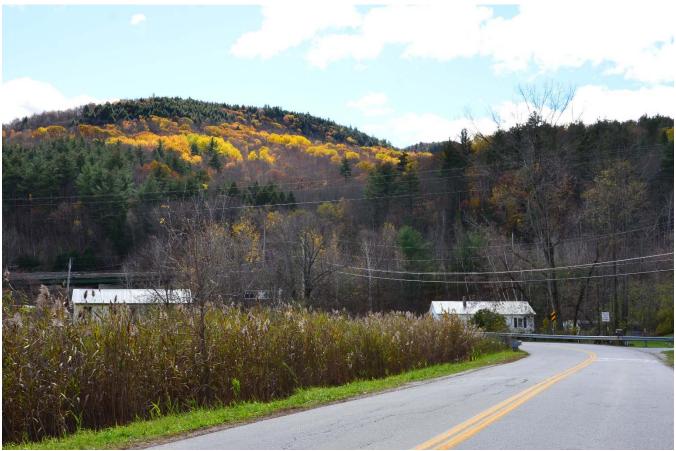
Assessment Map 25: The Project Route will be horizontally drilled beneath the Castleton River and then transition to the southern edge of the eastbound lanes of US Route 4 at the Vermont 4A (Main Street/Castleton Road) underpass.



<u>Viewpoint 25</u>: <u>Panoramic view</u> from Whipple Hollow Road looking at vegetation to be cleared on the US Route 4 embankment. The orange rectangle towards the right of the image represents the image below, which is captured with a 50mm normal lens, equivalent to the human 'field of view'.



<u>Viewpoint 25</u>: View looking south at vegetation on the US Route 4 embankment that will be cleared for a HDD staging area. Clearing of this vegetation will remove the buffer between Route 4 and Whipple Hollow Road and the surrounding properties.



<u>Viewpoint 26</u>: This viewpoint is further north on Whipple Hollow Road, looking south at the Route 4 embankment that will be cleared for the HDD temporary staging area.



<u>Viewpoint 23</u>: View looking northwest from the intersection of Whipple Hollow Rd and Route 4A at vegetation to be cleared.



<u>Viewpoint 24</u>: View looking southeast from Route 4A after the line has crossed beneath US Route 4 and will continue east along the southern edge of the eastbound lanes.

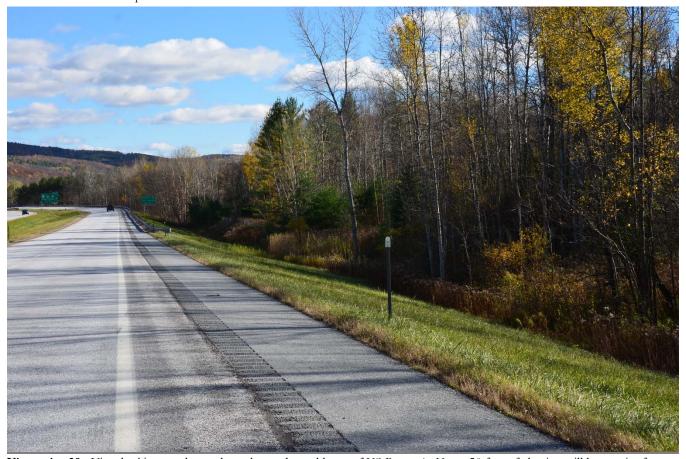


<u>Viewpoint 37</u>: The line will be installed in a narrow corridor between the paved road and rock cut along the eastbound lanes.

# US Route 4, West Rutland: Class 43 US Highway



Assessment Map 26: Near MP 123, up to 50 feet of clearing from the bottom of the highway embankment towards the edge of the US Route 4 ROW is planned at this location.



<u>Viewpoint 38</u>: View looking southeast along the eastbound lanes of US Route 4. Up to 50 feet of clearing will be require from the bottom of the road embankment towards the edge of the ROW.

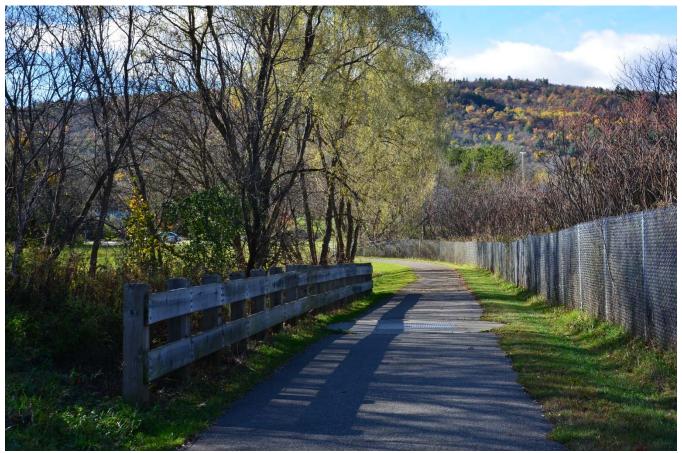
#### West Rutland Recreation Area Pathway, West Rutland



Assessment Map 27: The line will be located at the base of the roadway embankment along the Exit 6 eastbound exit ramp for US Route 4. A recreation path associated with a West Rutland Recreational area is also located at the bottom of the embankment within the US Route 4 ROW.



Viewpoint 39: View looking east at a small line of Willow trees that are within a HDD staging area.



<u>Viewpoint 40</u>: View looking west from the West Rutland Recreation Area rec. path back towards a HDD staging area that extends into a row of Willows.



<u>Viewpoint 41</u>: View looking east along the recreation path were the line will be installed along the left side of the pathway.

#### US Route 4, Rutland Town: US Class 43 Highway



Assessment Map 28: The Project continues along the south side of the US Route 4 eastbound lanes in the Town of Rutland. Near the Creek Road overpass, the line will diverge from along the edge of the paved surface and will be located at the base of the highway embankment and will require removal of the hedgerow the separates the roadway from adjacent agricultural fields.



<u>Viewpoint 44</u>: View looking southeast at area were up to a 50-foot wide clearing will be made to construct the Project.

## US Route 4 & US Route 7 Rutland Town: US Class 43 & 42 Highway



<u>Assessment Map 29</u>: US Route 4 merges with US Route 7 and continues to the north. However, the Project turns south and proceeds along the west side of US Route 7. For the entire extent of the Project along US Route 7, within the Town of Rutland, the Project will be installed by HDD.



Viewpoint 45: View looking at the HDD staging area at US Route 7. The existing overhead utilities will need to be relocated.

# US Route 7, Rutland Town - Clarendon Town Line: US Class 42 Highway

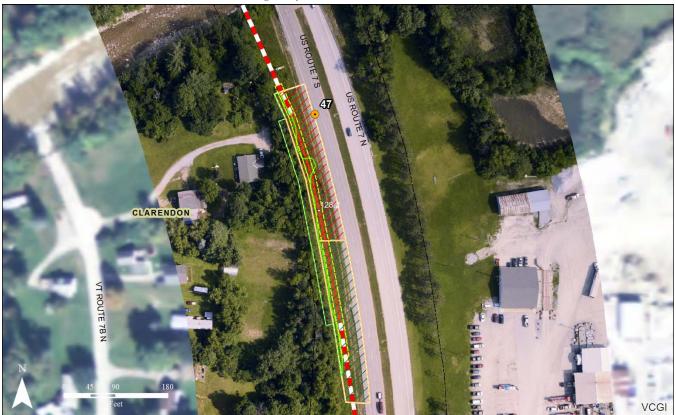


Assessment Map 30: A second HDD temporary staging area will be located at the Rutland – Clarendon Town Line.



<u>Viewpoint 46</u>: View looking at the second HDD staging area when entering the Town of Clarendon. No clearing will be required at this location.

US Route 7, Clarendon: US Class 42 Highway



<u>Assessment Map 31</u>: A third HDD staging area will be located just south of the Cold River crossing. As currently shown, clearing at this location may remove buffer vegetation between US Route 7 and adjacent residential structures.

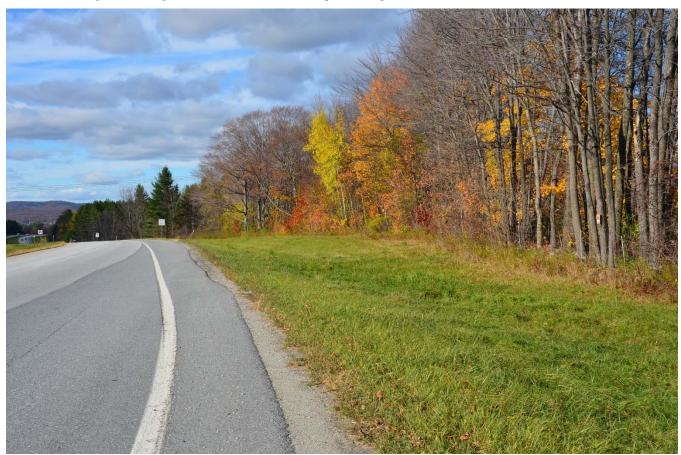


<u>Viewpoint 47</u>: View looking at a thin buffer of vegetation within and adjacent to the HDD staging area south of the Cold River crossing along US Route 7. \*Wide Angle Zoom

#### US Route 7, Clarendon: US Class 41 Highway



Assessment Map 32: Traveling north along US Route 7, just north of the intersection of Vermont Route 103. Minimal disturbance to vegetation along the side of the road will be required along most of Route 7 in Clarendon.

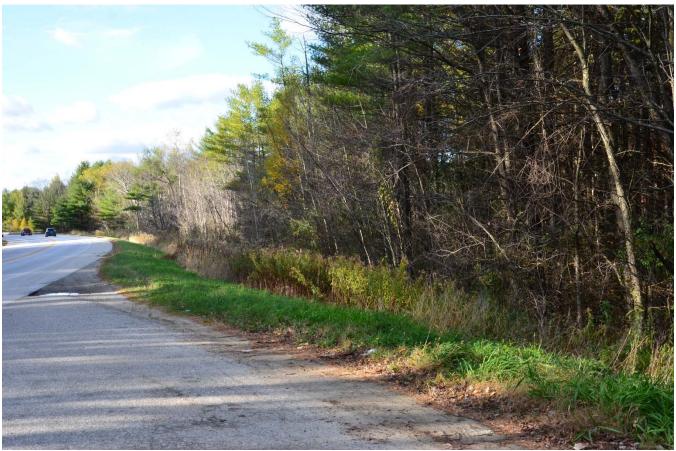


<u>Viewpoint 49</u>: View looking north along the east side of US Route 7, just north of Vermont Route 103. Minimal tree clearing will be require at this location, but may be avoided with tree protection measures.

## Vermont Route 103, Clarendon: US Class 30 Highway



Assessment Map 33: At the intersection with Vermont Route 103, the Project turns east and continues along Vemront Route 103. Near MP 131.0, the line will be installed away from the edge of the road and clearing will be required up to the edge of the ROW, relocating the edge of woods up to 26 feet further from the road.



Viewpoint 53: View looking northeast from pull-off along Vermont Route 103 where up to 26 feet of clearing will be required.



Assessment Map 34: Continuing southeast along Vermont Route 103, this area at the intersection with East Clarendon Road and Railroad Drive shows another example where clearing will be needed along the roadside.



<u>Viewpoint 54:</u> View looking southeast along Vermont Route 103 from the near the intersection with East Clarendon Road and Railroad Drive. Project plans indicate possible clearing up to the edge of the ROW at this location.

## Vermont Route 103, Shrewsbury: Class 30 State Highway



Assessment Map 35: At the Long Trail / Appalachian Trail crossing on VT Route 103, the line will be installed by HDD. Some limited clearing of shrubs and individual trees will be necessary at the eastern HDD staging area.



Viewpoint 55: View looking east at the Long Trail / Appalachian Trail crossing along Vermont Route 103.



<u>Assessment Map 36</u>: Plans currently show clearing of roadside and landscape vegetation between the road and an adjacent residential structure near MP 132.7 to install the cable.



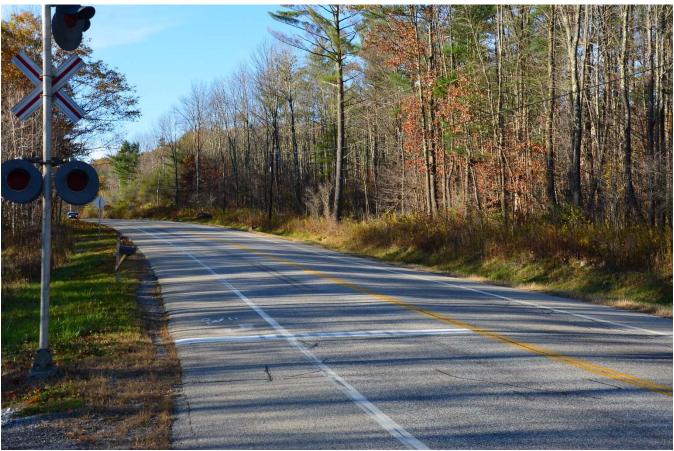
<u>Viewpoint 56</u>: View looking along the eastern edge of Vermont Route 103 where plans call for vegetation clearing along the side of the road that will eliminate the buffer between the road and residential structure.



Assessment Map 37: The Project continues along the north/east side of Vermont Route 103, until MP 134.1, where the line leaves the side of the road and continues along the north side of the Green Mountain Railroad.



<u>Viewpoint 57</u>: The Project generally stay relatively close to the edge of Vermont Route 103 through Clarendon, but at this location the line will be located near the edge of the ROW, at the top of the embankment towards the right side of this image.



<u>Viewpoint 58</u>: View looking northwest along Vermont Route 103 just prior to the Project turning along the railroad. The edge of woods will be cleared up to 26 feet further from the edge of the road at this location.



Viewpoint 58: View looking southeast along the railroad where the line will be installed +/- 30 feet off the edge of the tracks.

## Town Hill Road, Shrewsbury: Class 3 Town Highway



Assessment Map 38: At Town Hill Road, the line will be located to the northeast of the tracks and will require clearing up to 40 feet from the edge of the tracks.



<u>Viewpoint 64</u>: View looking northwest along the railroad from Town Hill Road. An HDD site at this crossing going northwest will retain some trees along the edge of the railroad that would otherwise be cleared.



<u>Viewpoint 64</u>: View looking southeast along the railroad from Town Hill Road. Most of the vegetation along the north side (to the left) of the tracks will need to be removed.



<u>Viewpoint 100</u>: View looking southeast from Shunpike Road at hedgerow of trees to be removed along the railroad.



<u>Viewpoint 101</u>: View looking west along Shunpike Road. Trees towards the left of the photo, at the back of the field adjacent to the road will mostly be cleared to install the cable along the railroad.

# Freeman Brook Road, Wallingford: Class 3 Town Highway



Assessment Map 39: Project crossing of Freeman Brook Road in Wallingford while staying parallel to the railroad.



<u>Viewpoint 67</u>: View looking north at HDD staging area in foreground. The woods in the mid and background along the north (right) side of the tracks will be cleared 40 feet back from the edge of the closest rail.



**<u>Viewpoint 67:</u>** The line will be installed by HDD from north of Freeman Brook Road to south of Old Turnpike Road and will not require clearing along the side of the railroad in this image looking south from Freeman Brook Road.

## Vermont Route 103, Wallingford: Class 30 State Highway



Assessment Map 40: Where the railroad crosses the Mill River, the Project returns to alongside Vermont Route 103.



<u>Viewpoint 69</u>: A 50-foot wide corridor will be cut alongside the railroad where the line descends the slope to meet with Vermont Route 103 and clearing for a HDD staging area is proposed at this location.



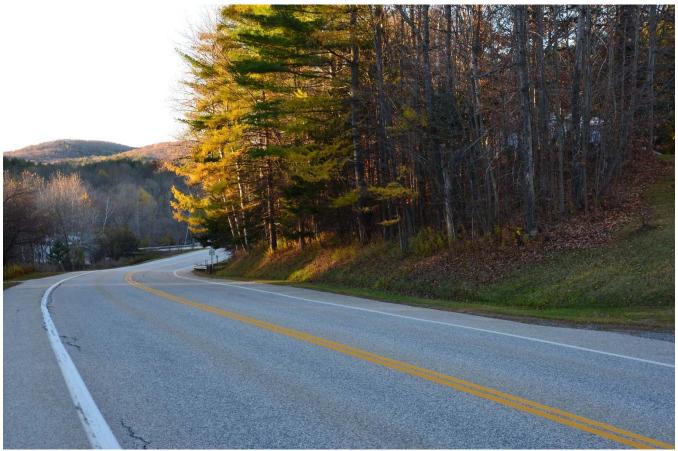
Assessment Map 41: As the Project proceeds through the village area of East Wallingford, the line will be installed along the east / north side of Vermont Route 103 and will require clearing of roadside vegetation.



<u>Viewpoint 70</u>: Vegetation along the east side of Vermont Route 103 when entering East Wallingford Village, between the edge of Route 103 and the gravel drive, will be removed.



<u>Viewpoint 71</u>: View looking north at vegetation to be removed from the road embankment in East Wallingford Village.

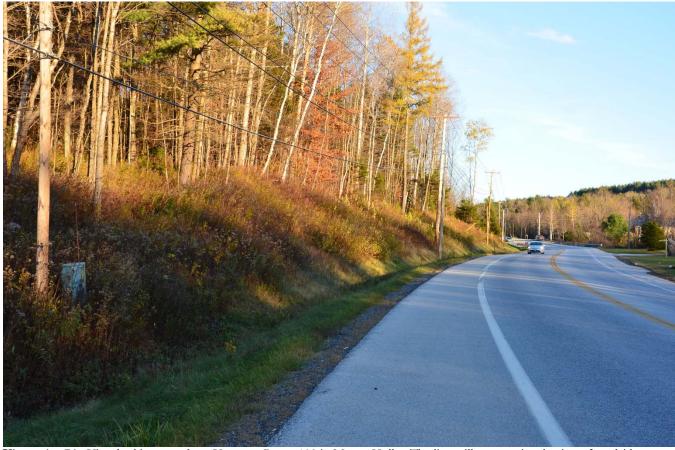


<u>Viewpoint 72</u>: View looking northwest from the southern end of Vermont Route 103 through East Wallingford Village. The existing edge of the woods will be cut up to 25 feet further away from the edge of the road at this location.

#### Vermont Route 103, Mount Holly: Class 30 State Highway



Assessment Map 42: The Project continues along Vermont Route 103 into Mount Holly. The area near MP 139.2 shows a typical location where the line will be installed within the existing clearing alongside the road.



<u>Viewpoint 74</u>: View looking east along Vermont Route 103 in Mount Holly. The line will not require clearing of roadside vegetation. Overhead utility lines will need to be relocated.



Assessment Map 43: This map depicts the line as it proceeds along the north side of Vermont Route 103 through the center of Mount Holly.



<u>Viewpoint 75</u>: View looking east along Vermont Route 7 at the center of Mount Holly. The small clump of trees at the northeast corner of this intersection, just left of the center of this photo, will be removed to install the cable.



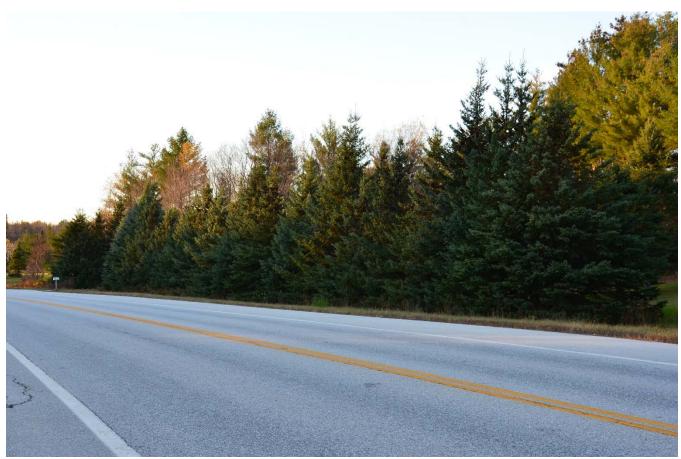
**Assessment Map 44:** Another example further east along Vermont Route 103 in Mount Holly, illustrating the wide open areas along the road, which will allow the Project to be installed with little visual change after construction is completed.



Viewpoint 76: View looking northeast along Vermont Route 103 in Mount Holly.



Assessment Map 45: Further east along Vermont Route 103. This location is an example of where the line will not require removal of the adjacent line of evergreen trees, but construction could damage the roots within the critical root zone of the tree.



<u>Viewpoint 77</u>: View looking north at a row of evergreen trees planted as a buffer along Vermont Route 103.

## Vermont Route 103, Ludlow: Class 30 State Highway



Assessment Map 46: In Ludlow, the line runs along the south/west side of the road and is typically located very close to the paved shoulder and will result in minimal clearing of roadside vegetation.



**Viewpoint 79:** View looking southeast along Vermont Route 103 in Ludlow. The line will be installed immediately adjacent to the paved shoulder of the road.



Assessment Map 47: At the intersection with Vermont Route 100, the Project will leave Vermont Route 103 and continue northeast along Route 100.



<u>Viewpoint 80</u>: View looking south at HDD staging area where the line will turn to follow Vermont Route 100 \*Wide Angle Zoom

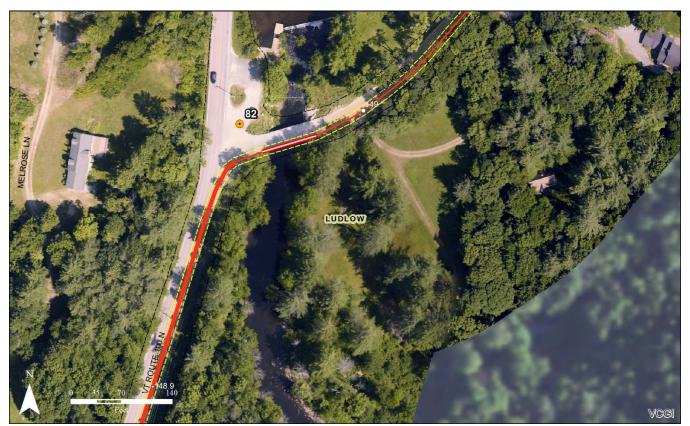
## Vermont Route 100, Ludlow: Class 30 State Highway



Assessment Map 48: After the line crosses beneath the



<u>Viewpoint 81</u>: View looking northeast along Vermont Route 100. The line will be buried beneath the paved surface of the road and will not require any construction activities off the pavement.

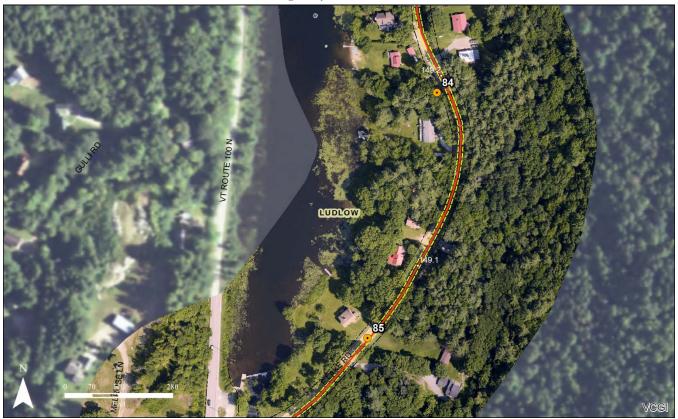


Assessment Map 49: For the entire extent along Vermont Route 100, the line will be located beneath the paved road surface. Prior to MP 149.0, the Project route will leave Route 100 and continue up East Lake Road.



<u>Viewpoint 82</u>: View looking south along Vermont Route 100 from the intersection with East Lake Road.

#### East Lake Road, Ludlow: Class 3 Town Highway



<u>Assessment Map 50</u>: After the line leaves Vermont Route 100, it will navigate a short series of dirt surfaced, class 3 town roads before terminating at the proposed converter station. The line will be buried beneath the road surface and generally, there will not be any clearing of vegetation along the side of these roads. Viewpoint 84 is on East Lake Road.



Viewpoint 84: View looking north along East Lake Road.

## Pettiner Hill Road, Ludlow: Class 3 Town Highway

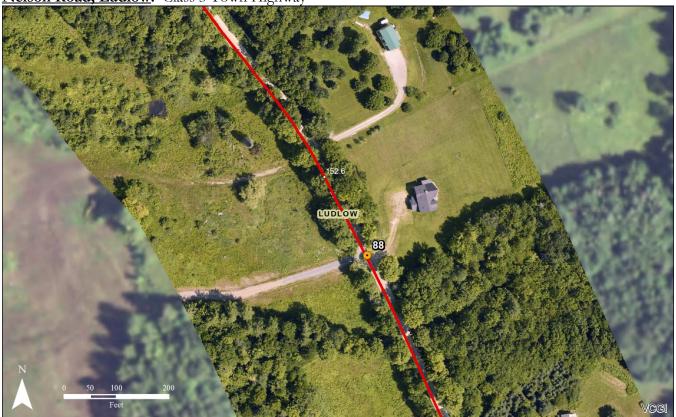


Assessment Map 51: From East Lake Road, the line will turn to the southeast and continue along Pettiner Hill Road.



Viewpoint 87: View looking southeast along Pettiner Hill Road.

Nelson Road, Ludlow: Class 3 Town Highway



Assessment Map 52: After the intersection with North Hill Road, Pettiner Hill Road turns into Nelson Road. The Project enter the proposed converter station from Nelson Road



Viewpoint 88: View looking south along Nelson Road.