



MEMORANDUM

To: Deerfield Wind, LLC

From: Michael Buscher

Date: November 1, 2017

Re: Deerfield Wind Project – Re-vegetation / Landscape Plan

T.J. Boyle Associates (“TJBA”) was requested by Deerfield Wind, LLC (“Deerfield”) to assess post-construction conditions for the Deerfield Wind Project (the “Project”) per CPG condition 34 of Docket No. 7250. Condition 34 states that, “Deerfield shall submit a re-vegetation and landscape plan for disturbed areas created by the access road, substation, and transmission line infrastructure.” TJBA made a site visit inspection to review areas noted in condition 34 on September 7, 2017 and have subsequently assessed these areas for potential revegetation/landscaping. Based on our review, TJBA is proposing over 100 landscape plantings (trees and shrubs) at the two locations where the Project access roads connect with Vermont Route 8. As discussed further below, the other specified project components (substation and transmission line infrastructure) are well sited and based on our assessment, do not create impacts which require additional re-vegetation.

Access Road/Public Road Intersections: Access roads connecting with Vermont Route 8 (at Putnam Road and at Sleepy Hollow Road), including potential views of the operations and maintenance building area, were reviewed for possible revegetation and landscaping. In accordance with the approved plans, clearing at these locations was required to accommodate equipment delivery, an additional curb cut for the eastern access road, and required stormwater management facilities.

At the access to the eastern ridge, a new curb cut and short portion of access road were constructed slightly north of the intersection with Route 8 and Sleepy Hollow Road. Clearing was necessary for new stormwater facilities to the southeast of the intersection of the access road and Sleepy Hollow Road. Clearing for the stormwater facilities resulted in vegetation removal between Sleepy Hollow Road and an existing Green Mountain Power substation, built as part of the Searsburg Project. The new curb cut and short portion of access road directs visibility at the existing substation for a short distance as vehicles pass the clearing for the new access road. Views from Route 8 are illustrated in Figure 1. Clearing also increased visibility of the existing substation from Sleepy Hollow Road and surrounding area. As a result of clearing at this location, including exposure of the existing substation, TJBA has proposed new landscape mitigation plantings as depicted on sheet L-1, attached to this memo.

With the completion of construction, use of the new access road between Route 8 and Sleepy Hollow Road will be discontinued and top soil will be placed, and grass planted on top of the road surface. However, this road will otherwise be retained if replacement components for the turbines need to be delivered. TJBA is proposing mitigation plantings to be installed along the northern edge of the access road to minimize the width of clearing for the road. Plantings are proposed around the new stormwater facilities to re-establish screening of the existing substation. Plantings are located to avoid constraints, including stormwater facilities, property boundaries, overhead utility lines and future access to the site. Overall, a combination of 50 evergreen and deciduous trees are proposed to re-vegetate disturbance at this location.



Figure 1: View taken from Route 8 looking along clearing for a new access road and storm water pond at the base of the eastern ridge. (September 7, 2017)

The access road to the western portion of the Project intersects with Route 8 along an existing dirt surfaced road, Putnam Road. Per the approved design plans, the large radii necessary to transport equipment onto the site from Route 8, and the necessary stormwater facilities, required Putnam Road to be significantly reconstructed, including a slight relocation of the roadway to the south. The overall width of the road and curb cut were also expanded to accommodate construction. Limited clearing immediately south of the curb cut was necessary and further up the access road, where a maintenance facility and staging area for construction was located. Clearing and a steep embankment for this area is visible near the top of Putnam Road (including temporary trailers and storage), but the new maintenance building is not visible. Figure 2 portrays the conditions at the intersection of Route 8 and Putnam Road. Please note this is a panoramic image to provide overall context and character, but it otherwise exaggerates the width of the intersection.

Although the full width of the curb cut will be retained if replacement components for the turbines need to be delivered, portions of the curb cut are already planned to have top soil and grass planted on top of the road surface, effectively narrowing the perceived width of the curb cut. TJBA is proposing additional landscape mitigation plantings at this location to soften views along Putnam Road and of the stormwater facilities. Proposed plantings are depicted on sheet L-2, attached to this memo and include a combination of 57 evergreen and deciduous trees and shrubs. Proposed mitigation will soften views of the re-constructed intersection of Putnam Road and Vermont Route 8.



Figure 2: Panoramic view taken from Route 8 looking at the access road to the western ridge (September 7, 2017). Note that the panoramic image provides overall context and character, but exaggerates the width of the intersection.

Access Roads: Access roads between turbine locations and including the turbine sites were reviewed to assess whether cut and fill excavation areas are visible from surrounding roads, and if visible, whether it can or should be addressed via mitigation plantings. First, observations were made from along the access roads to identify views into the surrounding viewshed. Figure 3 illustrates conditions along the access road along the top of the eastern ridge. Observations were then conducted by traveling the surrounding roads most likely to have views. Although some very limited visibility of ridgeline roads was possible from surrounding public roads, visibility of cut and fill areas were not detected from surrounding roads. Areas of disturbance will be revegetated per State of Vermont Erosion Prevention and Sediment Control Requirements, and per the United State Forest Service re-vegetation and restoration requirements. In our opinion no additional re-vegetation is necessary since the access roads between turbines and turbine sites are generally not visible and do not result in visual impacts.



Figure 3: Approximately 180° panoramic view taken from along the access road on top of the eastern ridge (September 7, 2017).



Figure 4: Views towards the Project substation from Vermont Route 9 with inset enlargement of the substation from the same location (September 7, 2017).

Substation: Field investigation found that there is minimal visibility of the new substation from areas off-site. Visibility was detected at a few isolated locations on Vermont Route 9, west of the Project. Visibility was limited to the uppermost portions of substation equipment and was observed from distances over 2-½ miles from the substation. Figure 4 illustrates views to the Project substation from Route 9, west of the substation. The substation was not an easily discernible element in the visual landscape from these locations and therefore no additional landscape plantings or re-vegetation is necessary to mitigate visibility of the substation.

Transmission Line (Project Collector Line): An overhead collector line was constructed between the eastern and western portions of the Project. Collector lines along the ridges were installed underground. An existing GMP-owned collector line, which was installed as part of the Searsburg Wind Project, was rebuilt along the access road to the eastern ridge to collocate both the new and existing lines on the same structures. Near Vermont Route 8, the new line diverges around the south side of the cemetery, near the base of the access road, and then crosses Route 8. After crossing Route 8, the line proceeds up the southern end of the western ridge.

Based upon our field observations, there is minimal visibility of the Project collector lines from off-site locations; it is limited to the tops of pole structures that are adjacent to the eastern ridge access road from isolated location along Vermont Route 8. Figure 5 depicts this view.

The road crossing of the collector line on Route 8 was designed for a location that would minimize visibility; and, there was minimal clearing undertaken for the new right-of-way. The location of the road crossing limits views approaching from either direction on Route 8. Figure 6 illustrates views of the line crossing

Route 8, first when approaching the crossing from the north, and then at the crossing looking east along the corridor. The collocation of a portion of the new line with the existing GMP line and the presence of existing vegetation successfully limits visibility.

Given the limited visibility and constraints in the use of landscape mitigation in these area, no additional landscape mitigation or re-vegetation is recommended or necessary to mitigate visibility of the Project collector lines.



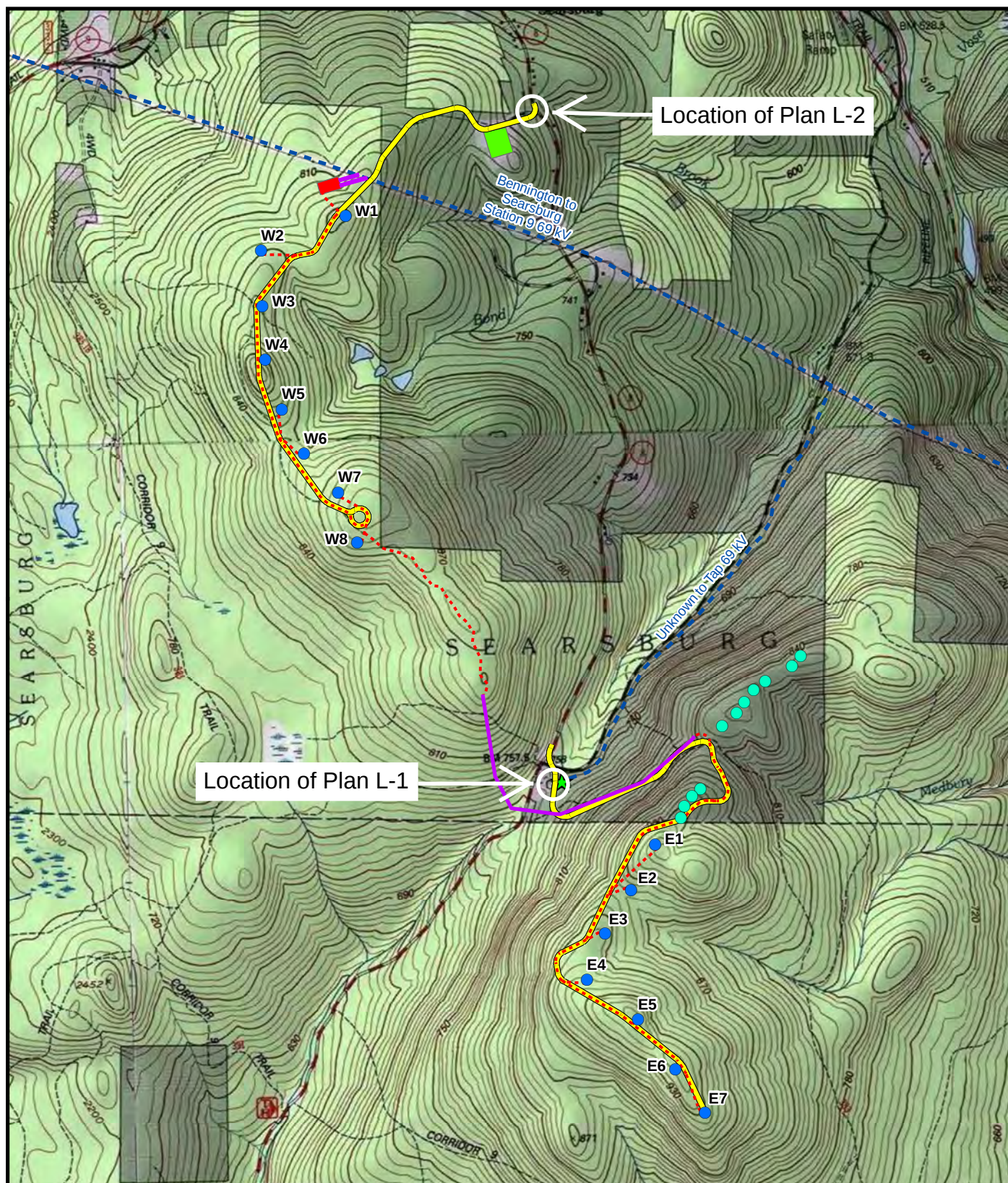
Figure 5: Views towards the access road and transmission line, east of Route 8 (September 7, 2017).



Figure 6: View approaching transmission line crossing from the north and looking east along corridor (September 7, 2017).

Conclusion: In review, TJBA found that landscaping mitigation is necessary at both locations where Project access roads intersect with Route 8. Proposed plantings will successfully re-establish vegetation at these areas and allow Project components to better fit within the landscape character along Vermont Route 8. Other Project components, including the Project transmission lines (collector lines) and substation, are sited in such a manner that their views are already limited due to existing vegetation; therefore additional plantings are not necessary.

Context Map for Landscaping Plan



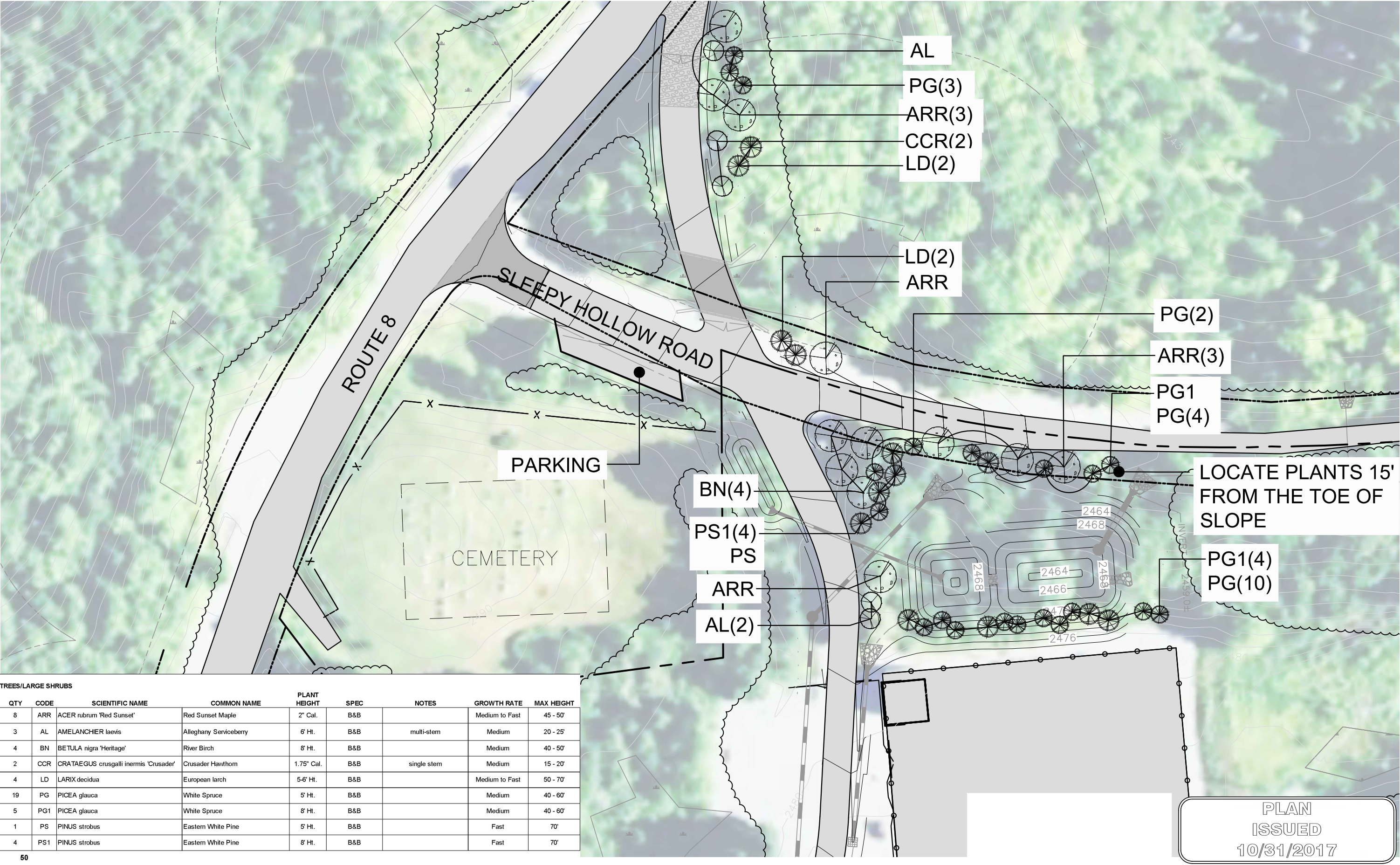
- Turbines
- Searsburg Turbines
- Project Overhead Collector
- - - Project Underground Collector
- Project Roads
- Project Substation
- Project O&M Facility
- ★ Existing Substation
- - - Existing Transmission

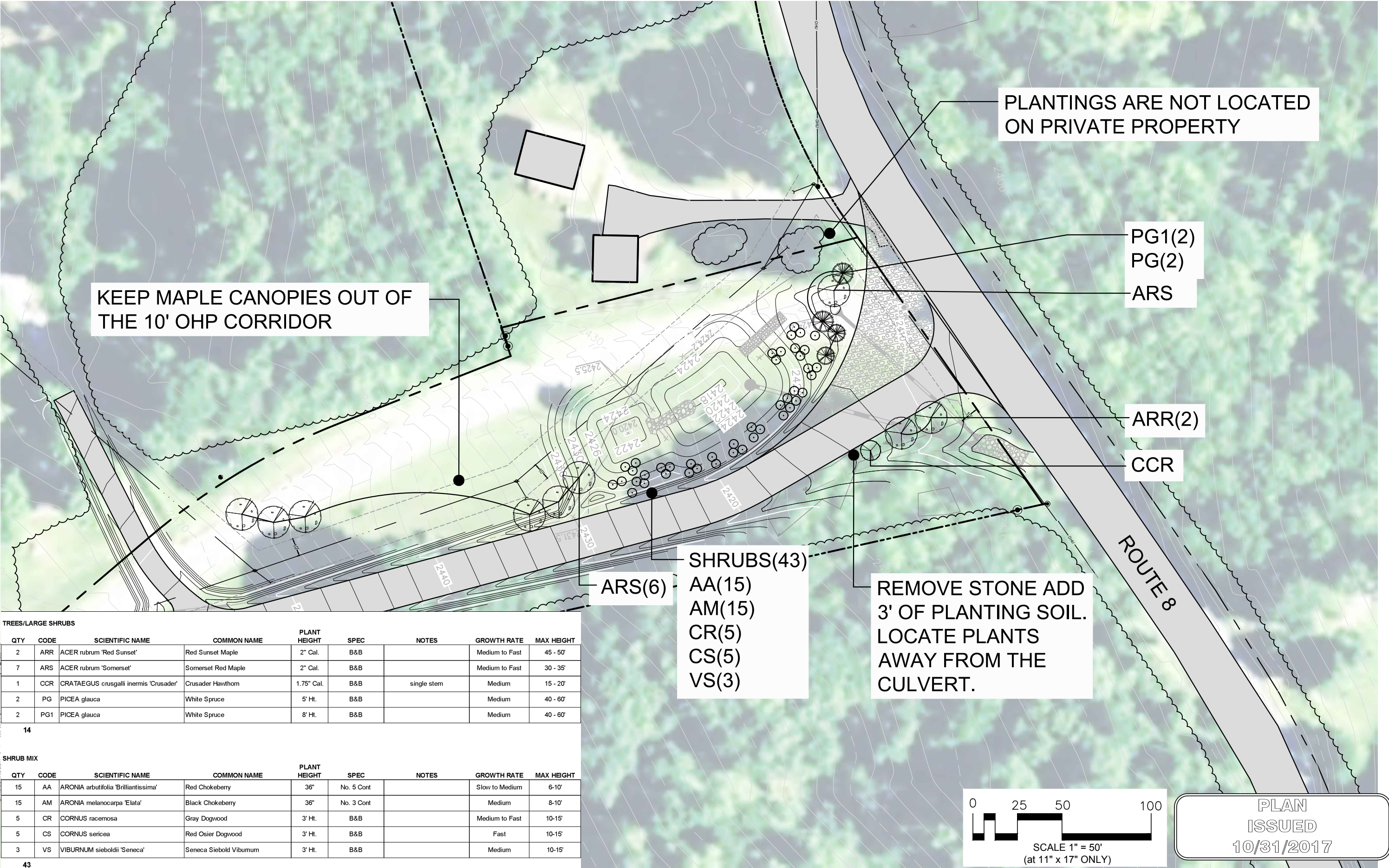


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Feet

Deerfield Wind Project

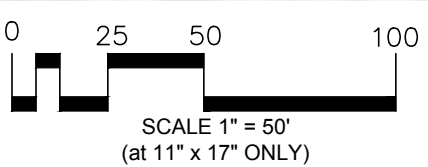






TREES/LARGE SHRUBS								
QTY	CODE	SCIENTIFIC NAME	COMMON NAME	PLANT HEIGHT	SPEC	NOTES	GROWTH RATE	MAX HEIGHT
2	ARR	ACER rubrum 'Red Sunset'	Red Sunset Maple	2" Cal.	B&B		Medium to Fast	45 - 50'
7	ARS	ACER rubrum 'Somerset'	Somerset Red Maple	2" Cal.	B&B		Medium to Fast	30 - 35'
1	CCR	CRATAEGUS crusgalli inermis 'Crusader'	Crusader Hawthorn	1.75" Cal.	B&B	single stem	Medium	15 - 20'
2	PG	PICEA glauca	White Spruce	5' Ht.	B&B		Medium	40 - 60'
2	PG1	PICEA glauca	White Spruce	8' Ht.	B&B		Medium	40 - 60'

SHRUB MIX								
QTY	CODE	SCIENTIFIC NAME	COMMON NAME	PLANT HEIGHT	SPEC	NOTES	GROWTH RATE	MAX HEIGHT
15	AA	ARONIA arbutifolia 'Brilliantissima'	Red Chokeberry	36"	No. 5 Cont		Slow to Medium	6-10'
15	AM	ARONIA melanocarpa 'Elati'	Black Chokeberry	36"	No. 3 Cont		Medium	8-10'
5	CR	CORNUS racemosa	Gray Dogwood	3' Ht.	B&B		Medium to Fast	10-15'
5	CS	CORNUS sericea	Red Osier Dogwood	3' Ht.	B&B		Fast	10-15'
3	VS	VIBURNUM sieboldii 'Seneca'	Seneca Siebold Viburnum	3' Ht.	B&B		Medium	10-15'



PLAN
ISSUED
10/31/2017