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March 11, 2014

VIA E-MAIL (jane.murray@des.nh.gov)
AND FIRST CLASS MAIL

Jane Murray, Exec. Sec.
Department of Environmental Services
29 Hazen Road, Box 95
Concord, NH 03301

**RE: Docket 2014- , Motion by Granite Reliable Power, LLC to Amend the
Certificate of Site and Facility Granted in Docket No. 2008-04
EXPEDITED CONSIDERATION REQUESTED**

Dear Ms. Murray:

Enclosed for filing with the New Hampshire Site Evaluation Committee (the "Committee") in the above-captioned matter are an original and eighteen (18) copies of the Motion by Granite Reliable Power LLC ("Granite") to Amend the Certificate of Site and Facility granted by the Committee in Docket No. 2008-04. The Motion includes as Exhibit A the proposed Amendment to the High Elevation Mitigation Settlement Agreement between New Hampshire Fish and Game Department, the Appalachian Mountain Club ("AMC"), and Granite.

As noted in the Motion, Granite seeks an amendment to one narrow term of the Certificate concerning roadbed widths. This amendment is necessitated by maintenance requirements of the turbines located on Mt. Kelsey. This amendment will maintain the project's energy value while continuing to minimize the project's environmental impact by implementing a High Elevation Restoration Plan ("Plan") providing for detailed restoration and re-vegetation requirements. The Plan is the product of consultation with interested state agencies, the Army Corps, and the AMC. The Plan incorporates their comments and, subject to approval by the Committee, we believe that the Plan is acceptable to relevant state agencies and the AMC.

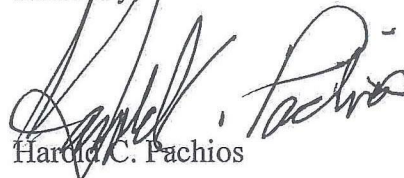
I respectfully request that the Committee consider our motion at the earliest convenience, as we are requesting expedited consideration of the motion for two reasons. First, the planting season will (with any luck) be upon us shortly and Granite would like to initiate the re-vegetation plan promptly for the benefit of the project and the environment. Second, Granite has discussed the proposed Amendment and Plan with the signatories to the High-Elevation Mitigation Settlement Agreement and expects that they will be prepared to execute a formal amendment to the Agreement once the Committee reviews our motion and indicates approval.

PRETI FLAHERTY

Jane Murray
March 11, 2014
Page 2

Thank you for considering our motion and for scheduling this matter to be heard at the earliest possible date consistent with applicable notice requirements.

Sincerely,



Harold C. Pachios

MSW:
Enclosures

cc: Joshua L. Stayn
Sigmund D. Schutz
Kyle Murphy
Kevin Bernier
Anthony Zarrella
Todd Wynn

STATE OF NEW HAMPSHIRE
SITE EVALUATION COMMITTEE

Docket No. _____

EXPEDITED MOTION BY GRANITE RELIABLE POWER LLC TO AMEND THE
CERTIFICATE OF SITE AND FACILITY

NOW COMES Granite Reliable Power LLC (“Granite”) and moves the Site Evaluation Committee (“SEC” or “the Committee”) to modify the Certificate of Site and Facility approved on July 15, 2009, Docket No. 2008-04 (the “Certificate”). The project has been built and is currently operating, but Granite has encountered maintenance requirements that have made a single term of the Certificate impracticable and ineffective in achieving its intended purpose. In particular, Granite agreed to re-vegetation requirements and to limit certain access road widths, but the project has proven to require maintenance by vehicles unable to navigate roads of the specified width. As a result, Granite has been forced to disturb re-vegetation adjacent to certain access roads and Granite anticipates that this will be a periodic and necessary occurrence going forward to perform project maintenance. Granite proposes re-vegetation in alternative locations to maintain an appropriate balance between the project benefits and environmental impacts. Granite has consulted at length with the parties to the High Elevation Mitigation Settlement Agreement referenced in the Certificate, and believes that agreement has been reached on alternative re-vegetation subject only to the approval of the Committee. Accordingly, Granite moves for an amendment to the Certificate that removes the 12 foot limitation on access road width and approves an amendment to the High Elevation Mitigation Settlement Agreement that revises re-vegetation requirements and permits access road widths as allowed by the proposed amendment to the Mitigation Agreement. The proposed amendment is attached as **Exhibit A**.

In support of this Motion, Granite recites as follows:

Background

On July 15, 2009, the SEC approved the development of the “Granite Reliable Power Windpark”, a 99-megawatt wind powered 33 turbine electric power generation facility sited in the central portion of Coos, County, New Hampshire (the “Project”).¹ The corresponding Certificate of Site and Facility (“Certificate”) was initially granted to the applicant Granite. On February 8, 2011 the SEC approved transfer of the ownership interest in Granite to Brookfield Renewable Power, Inc.²

The Certificate incorporates a High Elevation Mitigation Settlement Agreement (“Mitigation Agreement”) between Granite, the New Hampshire Fish and Game Department (“NHFG”), and the Appalachian Mountain Club (“AMC”).³ Among other requirements, the Mitigation Agreement requires that, after construction of the Project, the high elevation access road must be re-vegetated, and the roadbed limited to 12 feet in width.⁴

Granite has implemented the Project as approved. Granite completed all restoration procedures required by terms of the Certificate by the fall of 2012, including re-vegetating the access road so that the roadbed is limited to 12 feet in width.

On or about mid-August 2013, one of the turbines located on Mt. Kelsey required unscheduled maintenance due to a bearing failure. This turbine’s repair required the transport of crane components and erection of a crane on the roadway near the turbine. Such repair required windrowing of the organic material (and associated seedlings and germinating grass) overlying

¹ See, Order and Certificate of Site and Facility, Granite Reliable Power, LLC, 2008-04 (July 15, 2009).

² See, Decision and Order Approving Transfer of Ownership Interest in Granite Reliable Power, LLC, 2010-03 (Feb. 8, 2011).

³ Certificate, at 3-4.

⁴ Mitigation Agreement, Para. A.5.

the restored portion of the access road to expose the underlying gravel. As a result, the gravel surface is in places wider than 12 feet.

After further engineering and operational evaluation, it is now apparent that the Mt. Kelsey turbines will require periodic maintenance, and that this maintenance necessitates a roadbed wider than 12 feet. Granite has consulted the AMC and the NHFG regarding this issue, and is working with both groups to revise the Mitigation Agreement so as to maintain the Project's energy value while continuing to protect the natural environment. Granite has also consulted with the New Hampshire Department of Environmental Services, the Army Corps of Engineers, and New Hampshire Department of Resources and Economic Development-Natural Heritage Bureau.

Amendment to Permit Necessary Maintenance and to Improve Re-Vegetation

Granite seeks to modify a single condition of the Certificate and to approve a modification to one sentence of the Mitigation Agreement (a proposed Amendment to the Mitigation Agreement, attached as **Exhibit A**). The Certificate is "subject to the conditions" contained therein, including those created by the Mitigation Agreement.⁵ Among other terms and conditions, Section A.5 of the Mitigation Agreement provides in relevant part, "After project construction the roadway shall be re-vegetated so that the roadbed is limited to 12 feet in width."

The unscheduled turbine bearing failure in August 2013 and evaluation of the project by engineering and operations indicates that periodic maintenance will be necessary to maintain the project, which requires road widths sufficient to accommodate cranes and related vehicles. As a result, re-vegetation adjacent to access roads will be subject to repeated disturbance if road widths are maintained at 12 feet. A wider access road will also reduce delay in completing

⁵ The Certificate, at 2.

necessary maintenance and represent a safety improvement, but the primary reason for the requested amendment is that it is both impractical and environmentally unsustainable to repeatedly re-vegetate the roadway upon the completion of each maintenance job, only to tear up this same vegetation upon commencement of the next maintenance job.

Granite has worked with both the AMC and the NHFG in an effort to find a mutually acceptable way of conducting the required periodic maintenance while minimizing adverse environmental impacts. Granite understands that AMC and NHFG are in agreement with the terms of a proposed alternative re-vegetation plan that provides similar or greater benefits as the relevant re-vegetation requirements in the original Mitigation Plan, but that both NHFG and AMC desire that Granite submit a formal motion to the Committee before formally signing-off on the proposed amendment to the Mitigation Agreement.

In particular, NHFG has expressed a desire to add trees to turbine pad areas and reduce the area of gravel surfaces. AMC has expressed concern related to moisture retention for tree growth, the use of a grass planting for soil stabilization in high elevation areas which could potentially attract predators (fox, coyote, etc.), and routine roadside tree maintenance. Granite has incorporated revisions into its proposed plan to accommodate all concerns.

The proposed modification of the Certificate will not alter any other terms or conditions contained in the Certificate. Aside from the narrow issue that is the subject of this proposed Amendment, the findings of the Committee in Docket 2008-04 with regards to the Project's siting, permitting, environmental, design and construction issues described in RSA 162-H:16 will remain unaltered. Likewise, the findings of the Committee in Docket 2010-03 with regards to Brookfield's financial, technical, and managerial capability also remains unaltered by terms of the proposed modification.

Grounds for Expedited Relief

Granite has worked closely with AMC and NHFG during the preceding weeks to arrive at a mutually acceptable agreement, and, having now reached agreement in concept, Granite requests that the Committee consider this motion on an expedited basis in time to allow re-vegetation during the Spring 2014 planting season, i.e., by early May. The upcoming Spring 2014 window for planting gives the proposed re-vegetation the best opportunity to become established at the earliest possible time.

Conclusion

Wherefore, Granite respectfully requests that the Site Evaluation Committee grant the requested amendment. The proposed amendment, which has been carefully vetted with the relevant parties, maintains the balance between the energy benefits of the project and carefully minimized environmental impacts and post-construction restoration, and should be approved on an expedited basis.

Respectfully submitted,

BROOKFIELD RENEWABLE POWER INC.



Attorneys for Brookfield Renewable Power, Inc.
Preti Flaherty Beliveau & Pachios PLLP
Harold C. Pachios and
Sigmund D. Schutz (NH Bar No. 17313)
P.O. Box 1318
57 North Main Street
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March 12, 2014

AMENDMENT TO HIGH-ELEVATION MITIGATION SETTLEMENT AGREEMENT

Granite Reliable Power, LLC, (“Granite”), the New Hampshire Fish and Game Department (“NHFG”) and the Appalachian Mountain Club (“AMC”) (collectively the “Parties”) enter into this Amended Agreement as of the last date signed below.

WHEREAS the Parties previously executed a High-Elevation Mitigation Settlement Agreement (the “Agreement”) to govern the construction by Granite of a 99-megawatt wind power facility (the “Windpark”) located in the unincorporated places of Millsfield, Ervings Location, Dixville and Odell and the town of Dummer in Coos County, NH.

WHEREAS Granite completed construction of the Windpark and satisfied all required mitigation by the Fall of 2012, including re-vegetation of the Mt. Kelsey roadway so the roadbed is limited to 12 feet in width.

WHEREAS after further engineering and operational evaluation Granite has determined that the cranes, equipment and vehicles necessary to perform regular repairs and maintenance on the Windpark’s turbines, which are necessary for the Windpark to provide a renewable source of energy, will require that the roadbed be wider than 12 feet where necessary.

WHEREAS the Parties agree that re-vegetating Mt. Kelsey roadways each time maintenance is performed on the Windpark’s turbines neither is sustainable nor will benefit the high-elevation ecosystems.

WHEREAS based on the post construction pine martin study there is evidence of winter mortality by canine predators that are gaining access by way of the road, predation that potentially could be enhanced due to high elevation roadside grass seeding and resultant creation of attractant prey population habitat.

WHEREAS the Parties agree that re-vegetation efforts should be undertaken at multiple beneficial areas of the Windpark and modified to enhance natural forest regeneration so as to better mitigate potential adverse environmental impacts and that other restoration measures are appropriate.

NOW THEREFORE, the Parties covenant and agree to amend the Agreement as follows:

1. Strike the final sentence of Paragraph A.5, so that Paragraph A.5 reads: “Within the Retained Land on Mt Kelsey, only those trees necessary for project construction will be cut. Once construction is completed, there shall be no commercial timber harvesting in this area.”
2. Add Paragraph A.5.a to read: Granite agrees to comply with and to reasonably perform all restoration procedures defined in Granite’s “High Elevation Restoration Plan” as attached hereto as **Exhibit A** and which is incorporated herein by reference.

WITNESS

New Hampshire Fish and Game Department

By: _____

Date: _____

Name: _____

Its: _____

WITNESS

JMKennedy
LeeMarie Kennedy

Appalachian Mountain Club

By: *[Signature]*
Date: _____

Name: *JOHN JUDGE*

Its: *PRESIDENT & CEO*

WITNESS

Granite Reliable Power, LLC

By: _____

Date: _____

Name: _____

Its: _____

Brookfield

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Granite Reliable Power LLC

Revised High Elevation Restoration Plan

Coos County, New Hampshire

March 3, 2014

INTRODUCTION

This Granite Reliable Power Revised High Elevation Restoration (HER) Plan presents a comprehensive approach to restoration and re-vegetation of disturbed areas associated with the construction of the Granite Reliable Power (Granite) windpark. The Plan benefits from post-construction operational and maintenance experience and supersedes the previously approved HER Plan prepared by RMT. The Plan provides equivalent or greater environmental restoration than originally required. The Plan is meant to be incorporated into an amendment to the High Elevation Mitigation Settlement Agreement, which will be submitted to the New Hampshire Site Evaluation Committee for approval. The road access provisions of this Plan are meant to supersede, once approved, the road width limitations in the High Elevation Mitigation Settlement Agreement and the same road width limitations referenced in the Decision and Order Granting Certificate of Site and Facility (July 15, 2009).

This Plan was presented to and incorporates comments received from NH Fish and Game (NHFG), the NH Department of Environmental Services (NHDES), the Army Corps of Engineers, the Appalachian Mountain Club (AMC), and the New Hampshire Natural Heritage Bureau (NHB).

This plan applies specifically to construction on Mt. Kelsey within the Retained Lands of the High Elevation Mitigation area with an elevation of 2,700 feet or higher. Therefore, the restoration methods described herein will be employed in those areas on Mt. Kelsey above 2,700 feet in elevation.

The Plan consists of five components:

1. Minimization of temporary and permanent disturbances
2. Restricted access
3. Stabilization & Revegetation
 - a. Grading
 - b. Soil preparation
 - c. Tree seedlings for restoration
 - d. Mulch for moisture retention and soil stabilization
4. Monitoring
5. Maintenance

Each of these components is detailed below.

1. Minimization of Temporary and Permanent Disturbances

The limits of tree clearing have been reduced from the permitted locations, as shown on RMT's construction drawings (submitted previously), to match the approximate extent of grading. Grading of roads, turbine assembly areas, truck turnarounds, and crane pads will be designed for the minimum disturbance necessary to complete construction.

Permanent disturbance will be minimized by reducing the constructed access road widths generally to 16 feet (previously 12 feet, see explanation in "Stabilization and Re-vegetation"), and by establishing other widths on certain roadway corners (see drawings in Attachment 2). The

surficial extent of wind turbine pad gravel surfacing will also be reduced, were feasible. These reductions in permanent gravel surfacing are accomplished by applying a minimum 4" thickness of organic material to such surfaces to support revegetation per this plan.

2. Restricted Access

Identification of the high elevation conservation areas will be included in construction crew training. Access to high elevation conservation areas will be restricted throughout construction.

Three permanent access gates will be installed on standard width access roads. Therefore, access to each turbine string will be restricted with a permanent gate as follows:

- Dixville Peak and Fishbrook will have one gate each
- A single gate on the common access road will control access to Owlhead and Mt. Kelsey

Gates were installed during initial road construction and remain in place after turbine erection. The gates have been posted with signs indicating, "Boundary- State Wildlife Management Area Beyond this Sign."

3. Stabilization and Re-vegetation

Stabilization and re-vegetation require grading, soil preparation, seedlings for restoration, and (typically) grass seeding and mulch for stabilization. The re-vegetation methods specified in this plan have been refined through various agency and stakeholder coordination efforts to minimize spruce/fir forest habitat fragmentation and lessen opportunities for habitation by mice and associated predators.

There are two general components to this revegetation plan: (A) the narrowing of roadway gravel surfaces by applying organic material to reduce exposed gravel surfaces, yet still allow for future wind turbine maintenance; and (B) planting of endemic tree seedlings to increase forest habitat connectivity. A third component of the original plan that included stabilization of the organic material with high elevation grasses has been eliminated due to concerns that the grass may provide habitat for mice and associated undesirable predators as described in greater detail below. This revegetation plan is intended to augment revegetation efforts that have already been instituted project-wide on areas above 2,700 feet in elevation.

While not part of the original HER Plan, input from the Army Corps of Engineers, NHF&G and NHDES in 2012-13 led to the revision of the plan to increase forest cover on wind turbine pad areas while considering the needs for crane access during future wind turbine maintenance. To accomplish these objectives, Granite to the following measures will be taken:

1. Surface a narrower portion of the 34-foot roadway with organic material consisting of forest duff, soil, and stump grindings and re-vegetate with planted seedlings. Generally, this will result in a 16-foot wide roadway surface with planted trees. However, at certain corners, roadway surfaces will be wider to accommodate the turning movements of larger vehicles needed for wind turbine maintenance. This vegetative treatment can be seen on the drawings (R299, R300, R301, R302, R303 and R304) in Attachment 2. No trees will be planted within adjacent ditches.

2. To offset the reduction in revegetation area on the roadways, Granite will replant the number of trees corresponding to the reduced area, but do so in other adjacent beneficial areas such that the same or greater total number of tree seedlings specified in the approved December 2010 HER plan are planted. These reallocated trees will be planted:

- on portions of the turbine pads (referred to as Tier 1 to acknowledge a higher priority by NHF&G),
- in areas where there are no natural or planted seedlings present (referred to as Tier 2); and
- in areas where natural seedlings may exist (Tier 3 areas).

The estimated numbers of tree seedlings that can be planted in Tier 1, Tier 2 and Tier 3 are summarized below. Additional tables and drawings are in Attachments 1, 2 and 3.

Tree Planting Summary <i>Provided by Horizons Engineering</i>			
Description	December 2010 Number of Trees	Proposed Number of Trees	Tree Seedlings Locations
Seedlings to be planted per December 2010 approved HER plan	5,605		See Table 1
		1,576	Previously planted areas; trees to remain on restored roadway at 7' o.c. spacing (see Table 1.a)
		1,323	Tier 1 - Turbine pads (see Table 2)
		894	Tier 2 - Areas where no seedlings are present (Table 3)
		1,814	Tier 3 - Areas where natural seedlings may exist (see Table 4)
TOTAL	5,605	5,606	

Seedlings will not be planted in water control structures (such as rock-lined ditches), and above the underground collection lines. The drawings showing the proposed planting areas are contained in Attachment 2 (R299, R300, R301, R302, R303, and R304).

Details of grading, soil preparation, tree seedlings and grass seeding follow

- a. **Grading** - The original permit drawing entitled *High Elevation Access (>2,700 feet) Road Restoration Details* (RMT Sheet No. C599) has been modified to reflect NHF&G's and Granite's proposed changes described above. The revised plan (R599 contained in Attachment 3) shows a cross-sectional view of a typical access road during the construction phase and as restored following construction. Forest duff, soil, and ground-up stumps removed for the construction phase will be stockpiled, to the

extent possible, and replaced over gravel surfaces at a minimum depth of four inches where re-vegetation will occur. Supplemental native soils will be procured from local construction projects or suppliers, if needed.

- b. Soil Preparation** - Soil tests will be performed to support fertilizer specifications if fertilizer is to be used. The minimum appropriate soil amendments to establish seedlings will be used in order to address stormwater contamination concerns. The soil test results; the name, brand, and nutrient content (e.g., nitrogen, phosphorous, and potassium) of the specified fertilizer; and the application rates for lime and fertilizer, will be provided to NHDES within 30 days of receiving their request.
- c. Tree Seedlings for Restoration** - The updated drawing, High Elevation Access (>2,700 feet) Road Restoration Details (R599 contained in Attachment 3), provides specifications for establishing tree seedlings within the High Elevation Restoration Area. In general, the following seedling species (3 to 4 year maturity, depending on availability) will be planted within the areas shown in drawings R299, R300, R301, R302, R303, and R304, at a spacing of approximately seven feet on center (7' o.c.):
- Balsam fir
 - Red spruce
- d. Mulch for Moisture Retention and Stabilization** - Grass seeding requirements and specifications were discussed in the April 27, 2009 NHDES response to public comments regarding Granite's Section 401 Water Quality Certification (WQC# 2008-004). Replying to Comment A1, which discussed restoration at high elevations (>2,700 feet), the NHDES stated that the Applicant had consulted with NHDES's Alteration of Terrain Bureau, the NH Department of Resources and Economic Development, Natural Heritage Bureau regarding appropriate soil stabilization techniques that would not inhibit natural regeneration in the high elevation ecosystems. A high elevation grass seed mix was selected to provide a means of rapidly stabilizing all project disturbed soils above 2,700 feet in elevation, but not restrict the recruitment of tree seedlings.

In recent discussions with NHDES and on January 29, 2014 and February 10, 2014 with AMC regarding the organic material placed over the roadway within the High Elevation Mitigation area the Environmental Monitor indicated that the original objective of stabilization to prevent organic material erosion has largely been met on the surfaces where organic material was previously applied. This combined with AMC's concern that the introduction of grasses could change the ecology of these high elevation areas (by providing habitat for mice that may encourage coyotes and other predators that could in turn prey upon pine marten) has led to the conclusion that further grass seeding or establishment is undesirable. As an alternative, straw mulch will be applied where new organic material is placed or disturbed and will have the additional benefit of lowering the albedo and retaining moisture of the organic material. Therefore, this HER plan proposes that stabilization of this organic material be accomplished by natural seedlings with straw mulch applied to disturbed organic material surfaces to provide near-term stabilization in a manner that does not impede seedling germination and maturation.

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4. Monitoring

During construction, the Environmental Monitor will include qualitative checks on planted areas during inspections and determine the need for replanting. Following construction, Granite will provide annual monitoring of seedling survival for two years. Successful tree establishment will be a 75% survival rate.

5. Maintenance

It is understood that future wind turbine or related project maintenance needs will arise and may result in impacts to planted and natural trees. Where such maintenance can occur through the use of the gravel roadway surface, any tree trimming that needs to be done should involve reasonable attempts to leave the bottom 1-3' of the tree intact. In other cases it may be necessary to temporarily roll back the organics that overlie the original roadway to facilitate assembly and walking of cranes needed to perform maintenance on the wind turbines. Upon completion of any such maintenance within the crane assembly and walking areas organic material and straw mulch will be spread back across the roadway surface to the widths and depths specified in this plan.

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Attachments

Provided by Horizons Engineering

Attachment 1 – Detailed Tree Allocation Tables (Table 1, 1a, 2, 3 & 4)

Total Number of Trees

TABLE 1: HER Plan Approved Tree Planting Obligation				
Description	Beginning Station	Ending Station	Surface area (sf)	Trees (7' o.c. spacing)
Beginning to T-15	7950	12400	97,900	1,998
T-15 Spur	0	254	5,588	114
Road between T-15 and T-14	12400	13050	14,300	292
T-14 Spur	0	600	13,200	269
Road between T-14 and t-13	13050	13800	16,500	337
Road between T-13 and T-12	13800	15000	26,400	539
T-12 Spur	0	280	6,160	126
Road between T-12 and T-11	15000	15800	17,600	359
Road between T-11 and T-10	15800	16350	12,100	247
T-10 Spur	0	100	2,200	45
Road between T-10 and T-9	16350	17600	27,500	561
Road between T-9 and T-8	17600	19200	35,200	718
TOTALS			274,648	5,605

Total Number of Trees (continued)

TABLE 1a: Trees to Remain on Restored Roadway *				
Description	Beginning Station	Ending Station	Surface area (sf)	Trees (7' o.c. spacing)
Beginning to corner at station 91+50	7950	9150	21,600	441
No trees- corner between 91+50 and 94+00	9150	9400		
Road between 94+00 and 99+50	9400	9950	9,900	202
No trees- corner between 99+50 and 103+50	9950	10350		
Road between 103+50 and 107+00	10350	10700	6,300	129
No trees - corner between 107+00 and 110+00	10700	11000		
Road between 110+00 and 120+00	11000	12000	18,000	367
No trees - road between 120+00 and 142+00	12000	14200		
No trees - T-15 Spur	0	254		
No trees - T-14 Spur	0	600		
Road between 142+00 and 145+00	14200	14500	5,400	110
Road between 145+00 and 146+00	14500	14600	1,600	33
No trees - road between 146+00 and 178+00	14600	17800		
No trees - T-12 Spur	0	280		
No trees - T-10 Spur	0	100		
Road between 178+00 and 182+00	17800	18200	7,200	147
No trees - corner between 182+00 and 186+50	18200	18650		
Road between 186+50 and 190+50	18650	19050	7,200	147
No trees-road between 190+50 and 192+00	19050	19200		
TOTALS			77,200	1,576

* The number of trees is estimated based on the area of topsoil to remain. The exact number of trees within these areas has not been counted, but trees will be spaced at 7' o.c., so the total will equal or exceed the 1,576 indicated.

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Tier 1

Pad #	Planting area (sf)	# of Trees
15	5,147	105
14	10,255	209
13	9,839	201
12	8,820	180
11	10,687	218
10	3,717	76
9	7,609	155
8	8,753	179
TOTALS	64,827	1,323

Tier 2

TABLE 3: Tier 2 Tree Planting Areas Without Natural or Planted Seedlings						
Location (approx. roadway station)	Side of Road	Surface	Width	Length (along roadway)	Area (sf)	# of Trees
94+00	L	Stump grindings	10	50	500	10
95+00	L	Grass	20	70	1,400	29
95+50	L	Grass	30	40	1,200	24
101	L	Grass	20	70	1,400	29
107	R	Stump grindings	18	80	1,440	29
109	L	Grass	50	200	10,000	204
111	R	Stump grindings	30	60	1,800	37
113+50	R	Stump grindings	20	30	600	12
116	R	Stump grindings	20	40	800	16
116	L	Stump grindings	30	50	1,500	31
120	R	Stump grindings	25	100	2,500	51
122	R	Grass	18	300	5,400	110
132	R	Stump grindings	25	70	1,750	36
133	L	Stump grindings	50	80	4,000	82
135+50	R	Stump grindings	20	40	800	16
T-12 North	R	Stump grindings	20	50	1,000	20
158	R	Stump grindings	30	70	2,100	43
T-11 North	L	Stump grindings	20	30	600	12
160+50	R	Stump grindings	15	40	600	12
T-8 Southwest	L	Stump grindings	40	40	1,600	33
T-8 East	R	Grass	20	100	2,000	41
T-8 Southeast	R	Grass	20	40	800	16
TOTALS					43,790	894

Brookfield

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Tier 3

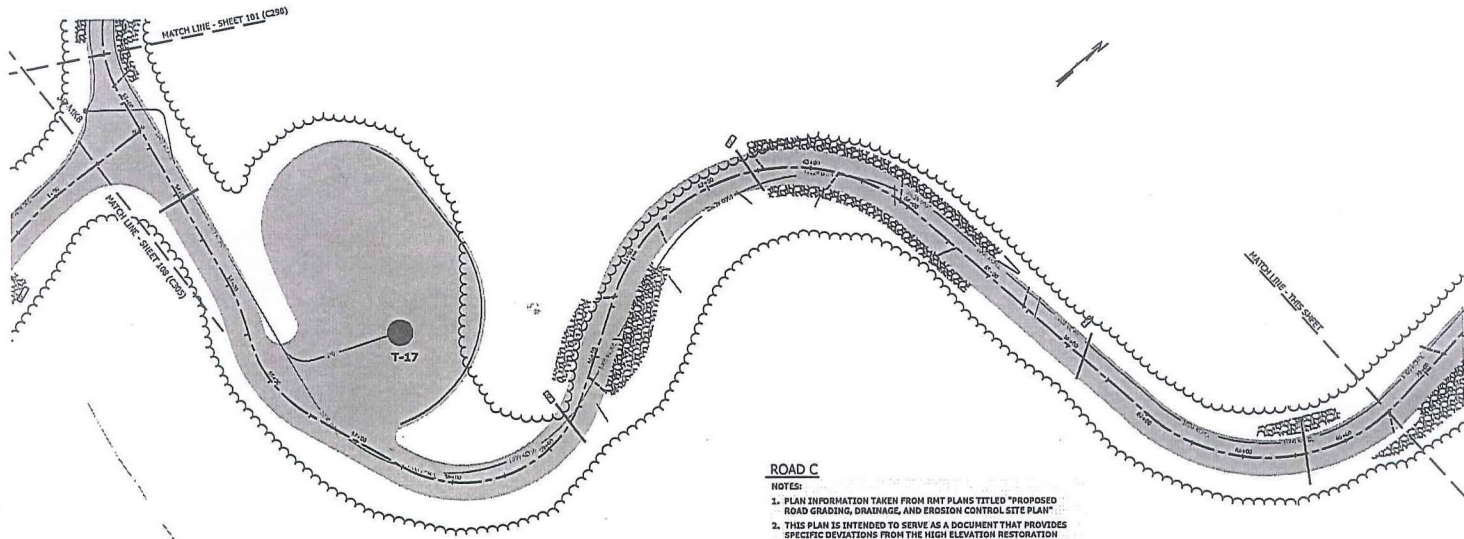
Location (approx. roadway station)	Side of Road	# of Trees
T-16 S-E-N Perimeter	L&R	160
76+50	R	295
91+50	L	42
99+00	L	42
102+50	L	50
105+00	R	300
118+50	R	100
125+00	R	80
129+50	L	105
130+50	R	25
T-14 Spur 5+00	R	40
T-14 East	L	30
142+00	L	25
153+50	L	50
154+00	R	30
161+00	L	60
167+00	R	80
181+00	R	115
184+00	R	85
189+50	L	100
TOTAL		1,814

Brookfield

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**Attachment 2 – Restoration Drawing No.'s R299, R300, R301, R302, R303
and R304**

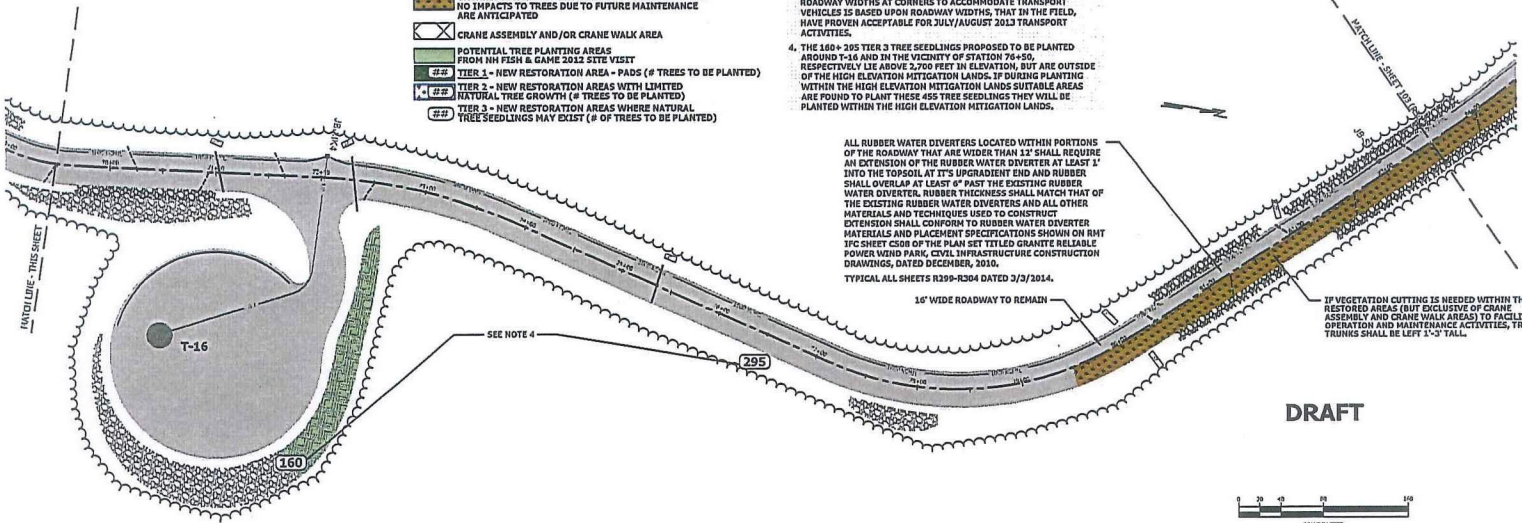


ROAD C

- NOTES:**
1. PLAN INFORMATION TAKEN FROM RHT PLANS TITLED "PROPOSED ROAD GRADING, DRAINAGE, AND EROSION CONTROL SITE PLAN"
 2. THIS PLAN IS INTENDED TO SERVE AS A DOCUMENT THAT PROVIDES SPECIFIC DEVIATIONS FROM THE HIGH ELEVATION RESTORATION PLAN PREVIOUSLY APPROVED BY NH FISH AND GAME FOR GRANITE RELIABLE POWER'S COOS COUNTY WIND PARK PROJECT. THIS PLAN WAS DEVELOPED IN COORDINATION WITH WILL STARKS OF NH FISH AND GAME, THE APPALACHIAN MOUNTAIN CLUB, THE NH NATURAL HERITAGE BUREAU, AND NHDES, AND IS INTENDED TO MODIFY THE LOCATIONS OF RESTORATION FEATURES SPECIFIED ON SHEET C558 OF THE ISSUED FOR CONSTRUCTION PLAN SET PREPARED BY RHT OF MADISON WISCONSIN.
 3. REDUCED WIDTHS OF TOPSOIL COVERAGE TO ALLOW WIDENED ROADWAY WIDTHS AT CORNERS TO ACCOMMODATE TRANSPORT VEHICLES IS BASED UPON ROADWAY WIDTHS, THAT IN THE FIELD, HAVE PROVEN ACCEPTABLE FOR JULY/AUGUST 2013 TRANSPORT ACTIVITIES.
 4. THE 180x205 TIER 3 TREE SEEDLINGS PROPOSED TO BE PLANTED AROUND T-16 AND IN THE VICINITY OF STATION 76+50, RESPECTIVELY LIE ABOVE 2,700 FEET IN ELEVATION, BUT ARE OUTSIDE OF THE HIGH ELEVATION MITIGATION LANDS. IF DURING PLANTING WITHIN THE HIGH ELEVATION MITIGATION LANDS SUITABLE AREAS ARE FOUND TO PLANT THESE 455 TREE SEEDLINGS THEY WILL BE PLANTED WITHIN THE HIGH ELEVATION MITIGATION LANDS.

LEGEND

- EXISTING ROADWAY TO REMAIN
- ORGANIC MATERIAL - TREES MAY BE IMPACTED
- ORGANIC MATERIAL WITH PLANTED SEEDLINGS WHERE NO IMPACTS TO TREES DUE TO FUTURE MAINTENANCE ARE ANTICIPATED
- CRANE ASSEMBLY AND/OR CRANE WALK AREA
- POTENTIAL TREE PLANTING AREAS FROM NH FISH & GAME 2012 SITE VISIT
- TIER 1 - NEW RESTORATION AREA - PADS (# TREES TO BE PLANTED)
- TIER 2 - NEW RESTORATION AREAS WITH LIMITED NATURAL TREE GROWTH (# TREES TO BE PLANTED)
- TIER 3 - NEW RESTORATION AREAS WHERE NATURAL TREE SEEDLINGS MAY EXIST (# OF TREES TO BE PLANTED)

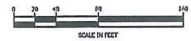


ALL RUBBER WATER DIVERTERS LOCATED WITHIN PORTIONS OF THE ROADWAY THAT ARE WIDER THAN 12' SHALL REQUIRE AN EXTENSION OF THE RUBBER WATER DIVERTER AT LEAST 1' INTO THE TOPSOIL AT IT'S UPGRADIENT END AND RUBBER SHALL OVERLAP AT LEAST 6" PAST THE EXISTING RUBBER WATER DIVERTER. RUBBER THICKNESS SHALL MATCH THAT OF THE EXISTING RUBBER WATER DIVERTERS AND ALL OTHER MATERIALS AND TECHNIQUES USED TO CONSTRUCT EXTENSION SHALL CONFORM TO RUBBER WATER DIVERTER MATERIALS AND PLACEMENT SPECIFICATIONS SHOWN ON RHT SPEC SHEET C508 OF THE PLAN SET TITLED GRANITE RELIABLE POWER WIND PARK, CIVIL INFRASTRUCTURE CONSTRUCTION DRAWINGS, DATED 3/13/2014.

TYPICAL ALL SHEETS R299-R304 DATED 3/3/2014.

IF VEGETATION CUTTING IS NEEDED WITHIN THE RESTORED AREAS (PIT EXCLUSIVE OF CRANE ASSEMBLY AND CRANE WALK AREAS) TO FACILITATE OPERATION AND MAINTENANCE ACTIVITIES, TREE TRUNKS SHALL BE LEFT 1'-3' TALL.

DRAFT



CONTRACT NUMBER: 2013-001
 PROJECT: GRANITE RELIABLE POWER WIND PARK
 SHEET: R299
 DATE: 3/3/2014

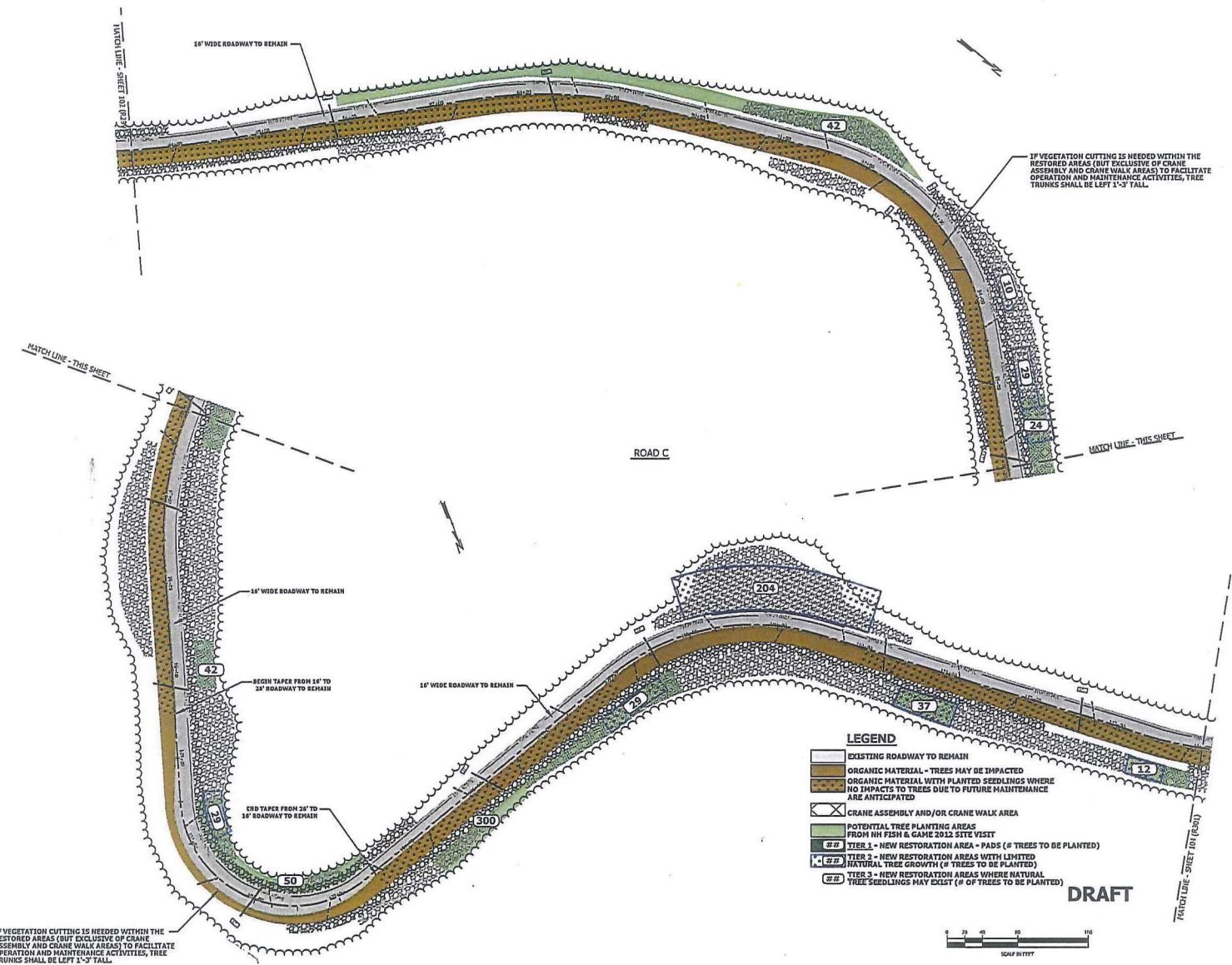


CONTRACTOR:

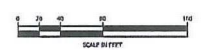
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HIGH ELEVATION RESTORATION PLANS
 AMMENDMENT PLAN SHEETS

R299
 3/3/2014



- LEGEND**
- EXISTING ROADWAY TO REMAIN
 - ORGANIC MATERIAL - TREES MAY BE IMPACTED
 - ORGANIC MATERIAL WITH PLANTED SEEDLINGS WHERE NO IMPACTS TO TREES DUE TO FUTURE MAINTENANCE ARE ANTICIPATED
 - CRANE ASSEMBLY AND/OR CRANE WALK AREA
 - POTENTIAL TREE PLANTING AREAS FROM WILFISH & GAMES 2012 SITE VISIT
 - #12 TIER 1 - NEW RESTORATION AREAS - PADS (# TREES TO BE PLANTED)
 - #13 TIER 2 - NEW RESTORATION AREAS WITH LIMITED NATURAL TREE GROWTH (# TREES TO BE PLANTED)
 - #14 TIER 3 - NEW RESTORATION AREAS WHERE NATURAL TREE SEEDLINGS MAY EXIST (# OF TREES TO BE PLANTED)



DRAFT

COURTESY: RMT
 PROPOSED ROAD GRADING, DRAINAGE, AND RESTORATION CONTINGENCY PLAN
 ROAD C
 PROJECT NO. 15-100-101
 DATE: 3/2/14



REVISIONS

NO.	DESCRIPTION	DATE	BY	CHK
1	ISSUED FOR PERMITTING	3/2/14		

HIGH ELEVATION RESTORATION PLANS
 AMMENDMENT PLAN SHEETS

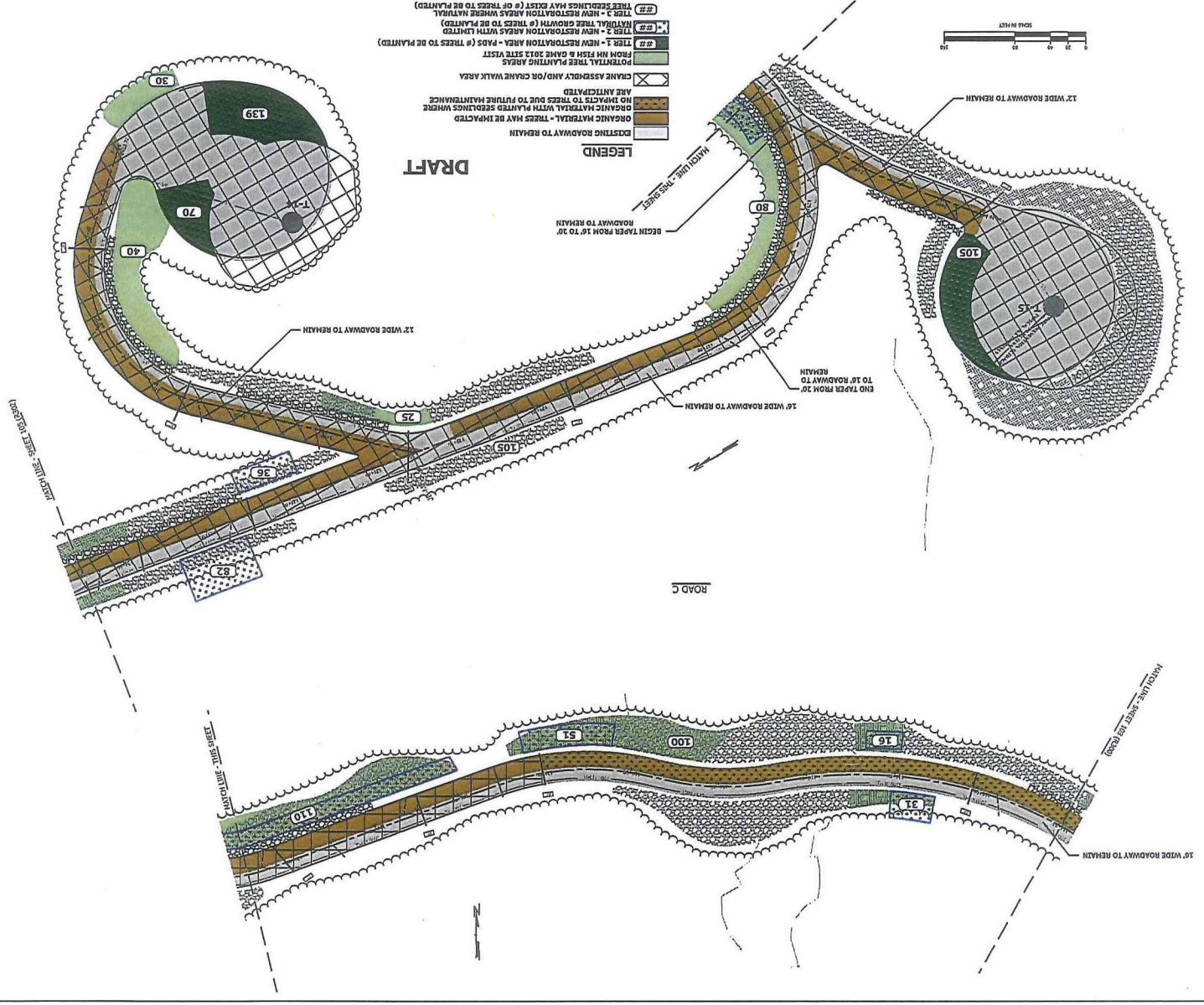
R300
 3/3/2014

3/2/2014
 R301
HIGH ELEVATION RESTORATION PLANS
 AMENDMENT PLAN SHEETS

NO.	DATE	REVISION



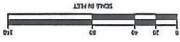
PROPOSED ROAD GRADING, DRAINAGE, AND EROSION CONTROL SITE PLAN
 DATE: 03/02/2014
 DRAWN BY: J. J. JENSEN
 CHECKED BY: J. J. JENSEN
 PROJECT NO.: 154
 SHEET NO.: 241



DRAFT

LEGEND

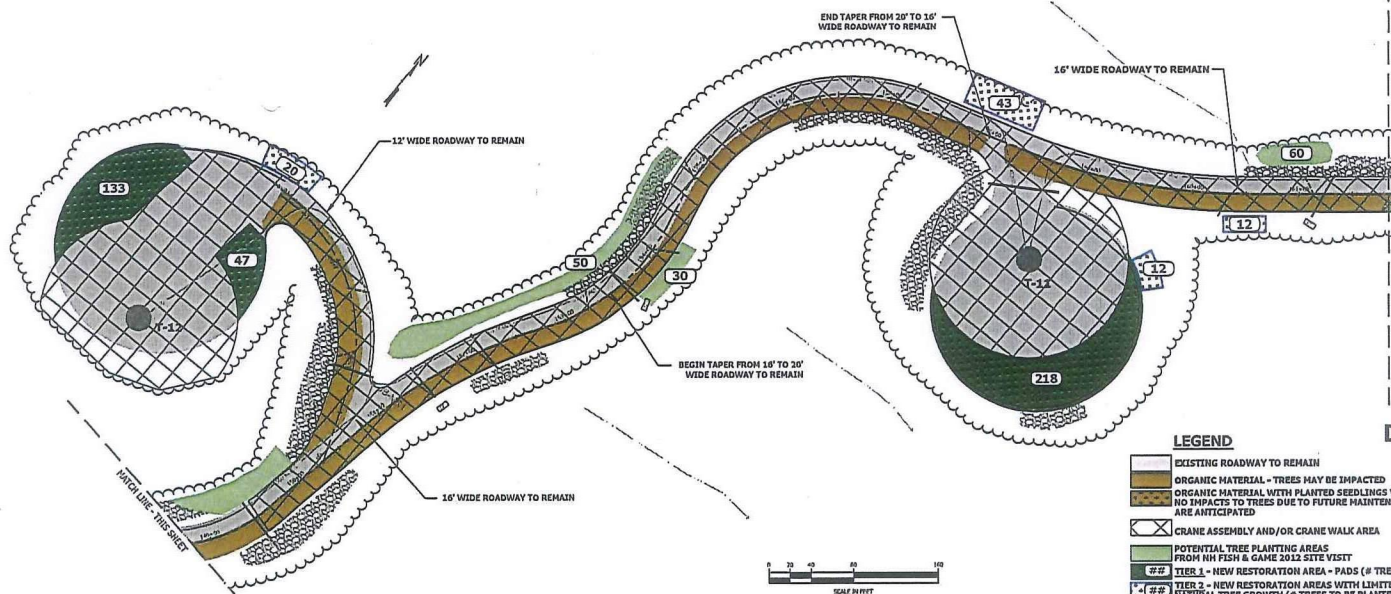
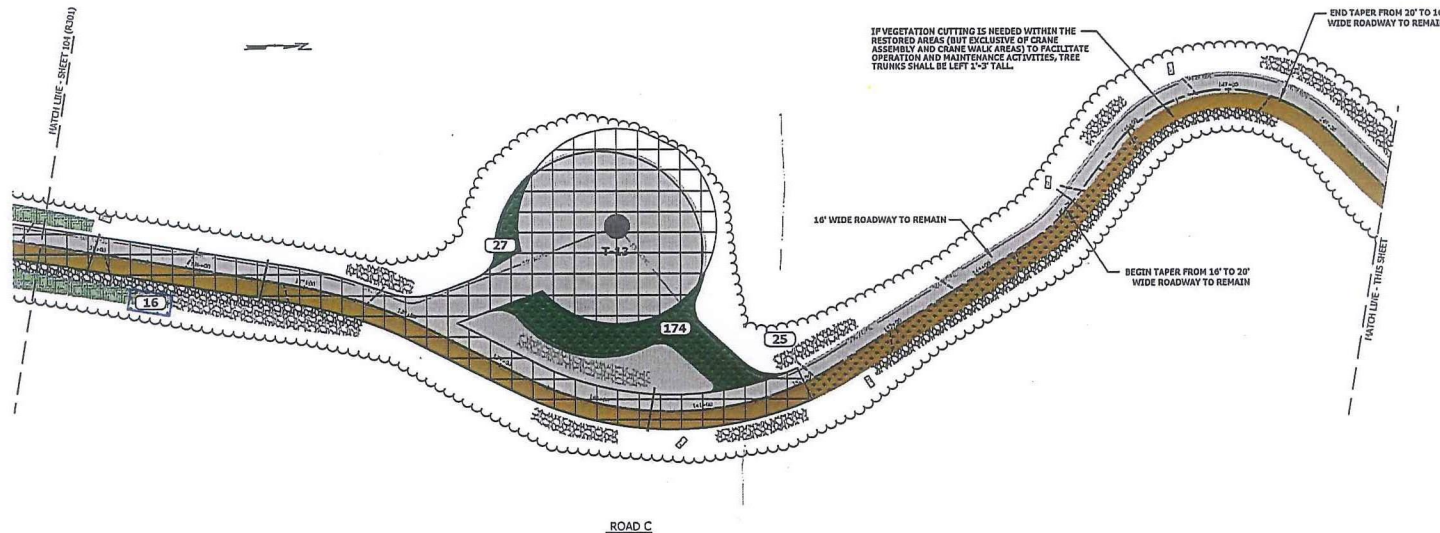
- EXISTING ROADWAY TO REMAIN
- ORGANIC MATERIAL - TREES MAY BE IMPACTED
- NO IMPACTS TO TREES DUE TO FUTURE MAINTENANCE
- ARE ANTICIPATED
- CRANE ASSEMBLY AND/OR CRANE WALK AREA
- POTENTIAL TREE PLANTING AREAS
- FROM NHI FISH & GAME 2012 SITE VISIT
- TIER 1 - NEW RESTORATION AREAS - PADS (P TREES TO BE PLANTED)
- TIER 2 - NEW RESTORATION AREAS WITH LIMITED NATURAL TREE GROWTH (P TREES TO BE PLANTED)
- TIER 3 - NEW RESTORATION AREAS WITH NATURAL TREE GROWTH (P TREES TO BE PLANTED)
- TIER 4 - NEW RESTORATION AREAS WITH NATURAL TREE GROWTH (P TREES TO BE PLANTED)
- TIER 5 - NEW RESTORATION AREAS WITH NATURAL TREE GROWTH (P TREES TO BE PLANTED)



WAGON LINES - TREE SEEDS
 BEGIN TAPER FROM 16' TO 20'
 END TAPER FROM 20' TO 16' ROADWAY TO REMAIN

WAGON LINES - TREE SEEDS

WAGON LINES - TREE SEEDS



- LEGEND**
- EXISTING ROADWAY TO REMAIN
 - ORGANIC MATERIAL - TREES MAY BE IMPACTED
 - ORGANIC MATERIAL WITH PLANTED SEEDLINGS WHERE NO IMPACTS TO TREES DUE TO FUTURE MAINTENANCE ARE ANTICIPATED
 - CRANE ASSEMBLY AND/OR CRANE WALK AREA
 - POTENTIAL TREE PLANTING AREAS FROM NH FISH & GAME 2012 SITE VISIT
 - #12 TIER 1 - NEW RESTORATION AREAS - PAIDS (# TREES TO BE PLANTED)
 - #11 TIER 2 - NEW RESTORATION AREAS WITH LIMITED NATURAL TREE GROWTH (# TREES TO BE PLANTED)
 - #22 TIER 3 - NEW RESTORATION AREAS WHERE NATURAL TREE SEEDLINGS MAY EXIST (# OF TREES TO BE PLANTED)

COUNTY OF ROCKINGHAM, NEW HAMPSHIRE
 PROJECT: RESTORATION AND PROPOSED EROSION CONTROL SITE PLAN
 SHEET NO. R302
 DATE: 3/30/2014

RMT
 RMT CONSULTANTS, INC.
 1000 WINDY HILL ROAD
 CONCORD, NH 03301
 TEL: 603-271-1100
 FAX: 603-271-1101
 WWW.RMTCONSULTANTS.COM

HIGH ELEVATION RESTORATION PLANS
AMENDMENT PLAN SHEETS

R302
 3/30/2014

**HIGH ELEVATION RESTORATION PLANS
AMMENDMENT PLAN SHEETS**

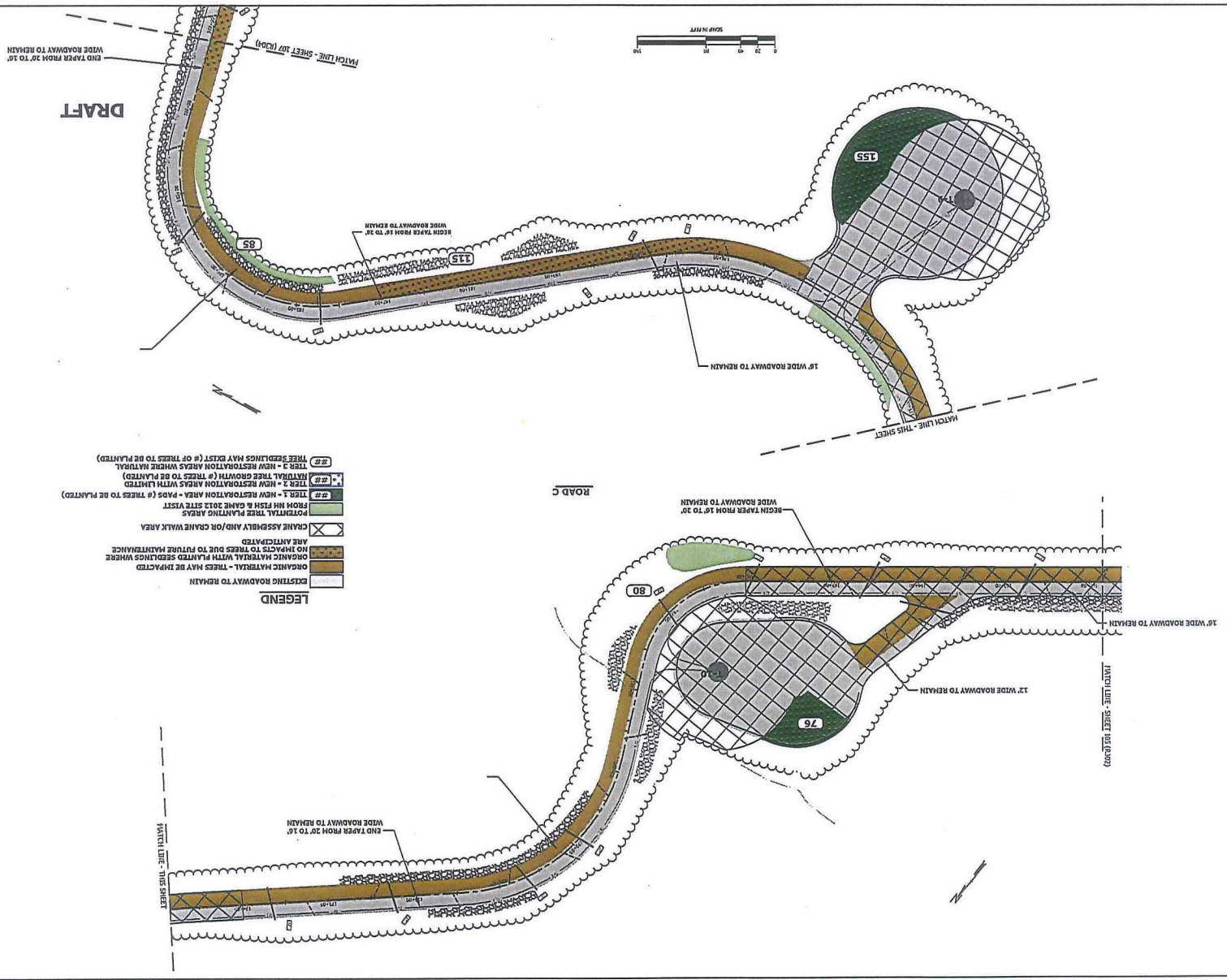
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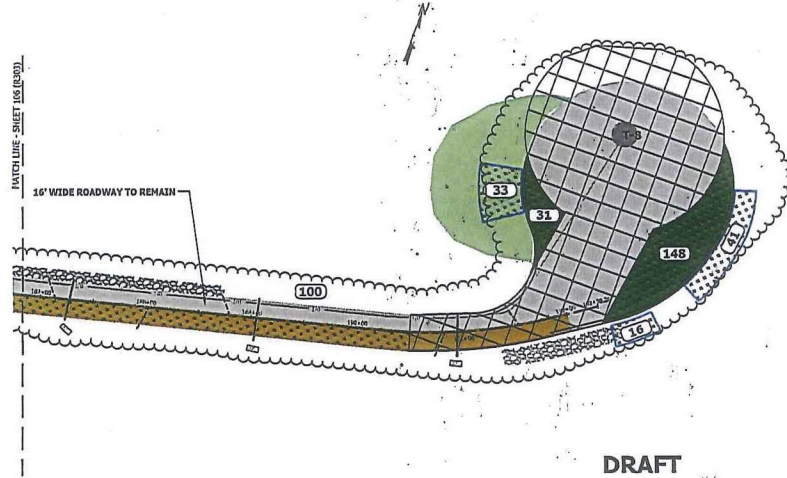
RMT
RURAL METRO
LANDSCAPE ARCHITECTURE
INCORPORATED
11000 W. 11TH AVENUE, SUITE 100
DENVER, CO 80233
TEL: 303.751.1100
WWW.RMT-ARCH.COM

QUARTER DEGREE POWER WOODS
PROPOSED ROAD GRADING, DRAINAGE, AND
EROSION CONTROL PLAN SHEET
NO. 13
DATE: 12/11/13
SHEET NO. 13
SHEET TOTAL: 33

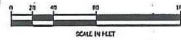
R300
3/2/2014

DRAFT





DRAFT



ROAD C

LEGEND

- EXISTING ROADWAY TO REMAIN
- ORGANIC MATERIAL - TREES MAY BE IMPACTED
- ORGANIC MATERIAL WITH PLANTED SEEDLINGS WHERE NO IMPACTS TO TREES DUE TO FUTURE MAINTENANCE ARE ANTICIPATED
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- POTENTIAL TREE PLANTING AREAS FROM NH FISH & GAME 2012 SITE VISIT
- TIER 1 - NEW RESTORATION AREA - PADS (# TREES TO BE PLANTED)
- TIER 2 - NEW RESTORATION AREAS WITH LIMITED NATURAL TREE GROWTH (# TREES TO BE PLANTED)
- TIER 3 - NEW RESTORATION AREAS WHERE NATURAL TREE SEEDLINGS MAY EXIST (# OF TREES TO BE PLANTED)

GRADUATE ENGINEER FOR PROFESSIONAL ENGINEERING CONSULTANTS AND PROFESSIONAL LANDSCAPE ARCHITECTS
 PROFESSIONAL ENGINEERING AND LANDSCAPE ARCHITECTURE
 RMT
 1000 WEST 10TH AVENUE, SUITE 100
 DENVER, COLORADO 80202
 TEL: 303.733.8800
 FAX: 303.733.8801
 WWW.RMT.COM

RMT

CONFORMANCE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

HIGH ELEVATION RESTORATION PLANS
 AMENDMENT PLAN SHEETS

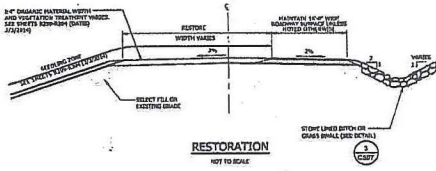
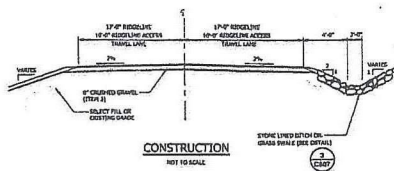
R304
 3/3/2014

Attachment 3- RMT Sheet No.C599 (amended and renamed R599)

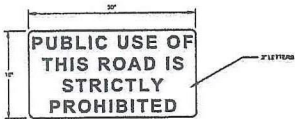
SEEDING RECOMMENDATIONS

1. GRADING AND SHAPING
 - A. SLOPES SHALL NOT BE STEEPER THAN 2:1 UNLESS IN ROCK CUTS; 3:1 SLOPES OR FLATTER ARE PREFERRED. WHERE MOWING WILL BE DONE, 3:1 SLOPES OR FLATTER ARE RECOMMENDED.
2. SEEDBED PREPARATION
 - A. SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING OF THE PLANTS.
 - B. STONES LARGER THAN 4 INCHES AND TRASH SHOULD BE REMOVED BECAUSE THEY INTERFERE WITH VEGETATION ESTABLISHMENT AND FUTURE MAINTENANCE OF THE AREA.
 - C. LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT THE TIME OF PLANTING AND INCORPORATED INTO THE SOIL. KINDS AND AMOUNTS OF LIME AND FERTILIZER MUST BE BASED ON AN EVALUATION OF SOIL TESTS. APPLICATION OF FERTILIZER SHOULD ACCOUNT FOR STORM WATER CONTAMINATION CONCERNS AND THE STORM WATER POLLUTION PREVENTION PLAN.
3. ESTABLISHING TREE SEEDLINGS FOR RESTORATION
 - A. THE FOLLOWING SEEDLING SPECIES SHOULD BE MULCHED IN WITHIN THE SEEDLING ZONE (SEE RESTORATION DETAIL):

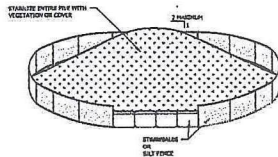
SPECIES	%	MATURITY
BALCONY FIR	50	3-4 YEARS
RED SPRUCE	50	3-4 YEARS
 - B. SEEDLINGS SHOULD BE PLANTED AT A SPACING OF APPROXIMATELY 7-FT ON CENTER IN LOCATIONS SHOWN ON PLAN SHEETS R299-R304.
 - C. SEEDLING SURVIVAL SHALL BE A MINIMUM OF 75%, MEASURED ONE YEAR AFTER PLANTING. INSPECTIONS SHALL BE COMPLETED ONCE PER YEAR FOLLOWING TERMINATION OF CONSTRUCTION. MONITORING WILL EXTEND NO MORE THAN 2-YEARS AFTER PLANTING.
4. MULCH
 - A. STRAW MULCH SHOULD BE APPLIED AT 3000 LBS/ACRE IMMEDIATELY AFTER PLACEMENT OR RE-DISTURBANCE OF ORGANIC MATERIAL THAT OVERLIES GRAVEL SURFACES.
 - B. MULCH WILL BE HELD IN PLACE USING APPROPRIATE TECHNIQUES FROM THE BEST MANAGEMENT PRACTICE FOR MULCHING, IF NEEDED.
5. MAINTENANCE TO ESTABLISH A STAND
 - A. PLANTED AREAS SHOULD BE PROTECTED FROM DAMAGE AND TRAFFIC.
 - B. IN WATERWAYS, CHANNELS OR SWALES WHERE UNIFORM FLOW CONDITIONS ARE ANTICIPATED, OCCASIONAL MOWING MAY BE NECESSARY TO CONTROL GROWTH OF WOODY VEGETATION.



TYPICAL ROAD CROSS SECTION (NOT TO SCALE)



GATE SIGN DETAIL (NOT TO SCALE)



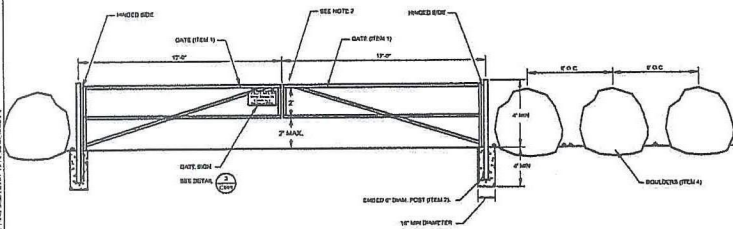
SOIL STOCKPILING IS TO BE USED WHERE TOPSOIL IS NECESSARY FOR RESTORATION AND VEGETATION DISTURBED AREAS.

TOPSOIL STOCKPILE ESTABLISHMENT MEASURES INCLUDE: VERIFY THE GENERAL PRACTICE, VERIFY THE SOILS, AND PROTECTIVE STRAPPING MATERIAL. THE STOCKPILE SHOULD BE ESTABLISHED AS APPROPRIATE FOR THE TYPE OF SOIL, SITE CONDITIONS, AND REQUIRED RISE OF L.S.

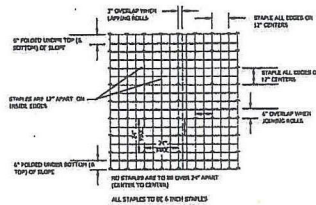
INSTALLATION NOTES:

1. AREA CHURN FOR STOCKPILE OPERATIONS SHALL BE 10' AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2:1.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE REINFORCED WITH COVER BEST PRACTICE OR STRAPPIES AND THEN ESTABLISHED WITH VEGETATION OR GRASSES.

SOIL STOCKPILING DETAIL (NOT TO SCALE)



ACCESS ROAD DOUBLE GATE (NOT TO SCALE)



MULCH NETTING DETAIL (NOT TO SCALE)

MATERIALS LIST

ITEM	DESCRIPTION
1	GATE: 1-12'0" O.D. GALVANIZED STEEL, SCH 80 OR ENGINEER APPROVED EQUIVALENT.
2	POST: 12' O.D. SCH 80, GALVANIZED STEEL POST OR ENGINEER APPROVED EQUIVALENT.
3	GRAVEL: 12' O.D. SCH 80, GALVANIZED STEEL POST OR ENGINEER APPROVED EQUIVALENT (PH 007 ITEM 04-3).
4	BOULDER: 12'-4" DIAMETER

NOTES

- ACCESS ROAD GATE
1. GATE REQUIRED PRIOR TO HIGH ELEVATION AREAS AND TURBINE. SEE PLANS FOR LOCATIONS. FINAL LOCATIONS TO BE DETERMINED BY THE FIELD BY FIRST OWNER.
 2. PROVIDE LATCHES AND LOCKS AS ACCEPTABLE BY OWNER.
 3. PLACE GATE SIGN ON GATE.
 4. PLACE BOULDERS 5 FEET ON CENTER STARTING AT GATE POST AND EXTENDING APPROXIMATELY 25 FEET FROM THE POST OR AS NEEDED TO PREVENT PUBLIC ACCESS TO HIGH ELEVATION ROAD.

REVISIONS

1. MODIFIED ROADWAY WIDTH ON TYPICAL ROAD CROSS SECTION - RESTORATION.
2. CALLED OUT SEEDLING ZONE ON TYPICAL ROAD CROSS SECTION - RESTORATION.
3. REMOVED REFERENCES TO HIGH ELEVATION CLASS SEED AND HWY PAVLX.

HIGH ELEVATION RESTORATION PLANS
AMENDMENT PLAN SHEETS