

**THE STATE OF NEW HAMPSHIRE  
BEFORE THE  
PUBLIC UTILITIES COMMISSION**

PETITION OF PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE FOR LICENSE TO CONSTRUCT AND MAINTAIN ELECTRIC LINES UNDER AND ACROSS PERKINS POND IN THE TOWNS OF JAFFREY AND TROY, NEW HAMPSHIRE.

TO THE PUBLIC UTILITIES COMMISSION:

Public Service Company of New Hampshire (“PSNH”), a public utility engaged in the generation, transmission, distribution and sale of electricity in the State of New Hampshire, hereby petitions the Public Utilities Commission (“Commission”), pursuant to RSA 371:17, for a license to construct and maintain electric lines under and across the public waters of Perkins Pond in the Towns of Jaffrey and Troy, New Hampshire, and in support of its petition states as follows:

1. In order to meet the reasonable requirements of service to the public, PSNH has previously constructed and currently operates and maintains two separate three-phase 7.2 kV distribution lines, designated as the 3120 and W15 circuits, in Troy and Jaffrey, New Hampshire, respectively. These lines are an integral part of PSNH’s electric distribution system in the area. These circuits currently terminate on either side of Perkins Pond, along Route 124, and there is no existing water crossing.

2. Load growth in the section of Marlborough near the Jaffrey/Troy town line resulted in fuses melting under load in two different locations during a heat wave in July 2010. To relieve the potential overload and improve reliability, a portion of this load will be fed from the 3120 Line near Perkins Pond, which will involve extending the 3120 Line across the Pond. Consideration was given to installing a new overhead line of poles and wires crossing Perkins Pond for that purpose. However, based on discussions with abutting property owners, it was determined that an underground connection was a more appropriate option to preserve the scenic nature of the Route 124 roadway, and the Town Conservation Commissions have expressed support for this approach. As proposed, both existing lines will be expanded to include new riser poles and the 3120 Line will be extended via an underground cable under and across Perkins Pond to complete a connection between the 3120 and W15 circuits.

3. The location of this proposed underground crossing of Perkins Pond is shown on the attached location map, marked as Exhibit 1.

4. The design and proposed construction of the crossing is shown on the attached PSNH Distribution Business Plan Drawing entitled “3120 CIRCUIT – BETWEEN STRUCTURES 102B/2 & 102B/PBOX, PERKINS POND WATER CROSSING, PLAN VIEW”, marked as Exhibit 2.

5. The required technical information provided in this petition is based on the 2007 National Electrical Safety Code (NESC) C2-2007.

6. The proposed underground crossing will be installed via directional drilling below the bottom bed of the Pond. The length of line between the proposed pull box on the north side of the crossing and the riser pole on the south side of the crossing is approximately 832± feet. There is an additional 292± feet of underground line from the pull box to proposed riser pole number 102B/3 on the north side of the crossing. The pull box structure on the north side is identified as structure number 102B/PBOX, and is constructed out of a precast concrete box set below grade. The construction detail for the pull box structure is attached as Exhibit 3. The structure on the south side of the river, number 102B/2, is a dead end riser pole structure, constructed with a single class 2, 45 foot tall pole. The construction detail for dead end riser pole structures is attached as Exhibit 4. Three phase 1/0 35 kV Hendrix cable will be installed in a 5" conduit for the length of the underground water crossing. The typical depth of the line will be 15' below the bottom bed of the Pond.

7. A New Hampshire Department of Environmental Services wetlands permit is required for this project. PSNH is currently in the process of acquiring the necessary wetlands permit approval. To date, the project has been reviewed with the Conservation Commissions for both municipalities.

8. The proposed crossing has been designed and will be constructed, maintained and operated by PSNH in accordance with the NESC.

9. The poles associated with this crossing are located within the roadway right of way for Route 124, and PSNH has obtained licenses from the New Hampshire Department of Transportation for the installation and maintenance of the poles and underground conduit and wires. A portion of the underground crossing is located on private property, and an appropriate easement has been obtained by PSNH from the land owner.

10. PSNH submits that the license petitioned for herein may be exercised without substantially affecting the rights of the public in the public waters of Perkins Pond. The use and enjoyment by the public of the Pond will not be diminished in any material respect as a result of the underground line crossing.

WHEREFORE, PSNH respectfully requests that the Commission:

- a. Find that the license petitioned for herein may be exercised without substantially affecting the public rights in the public waters which are the subject of this petition;
- b. Grant PSNH a license to construct and maintain electric lines under and across the public waters of Perkins Pond in Jaffrey and Troy, New Hampshire, as specified in the petition; and
- c. Issue an Order Nisi and orders for its publication.

Dated at Manchester this 26<sup>th</sup> day of August, 2011.

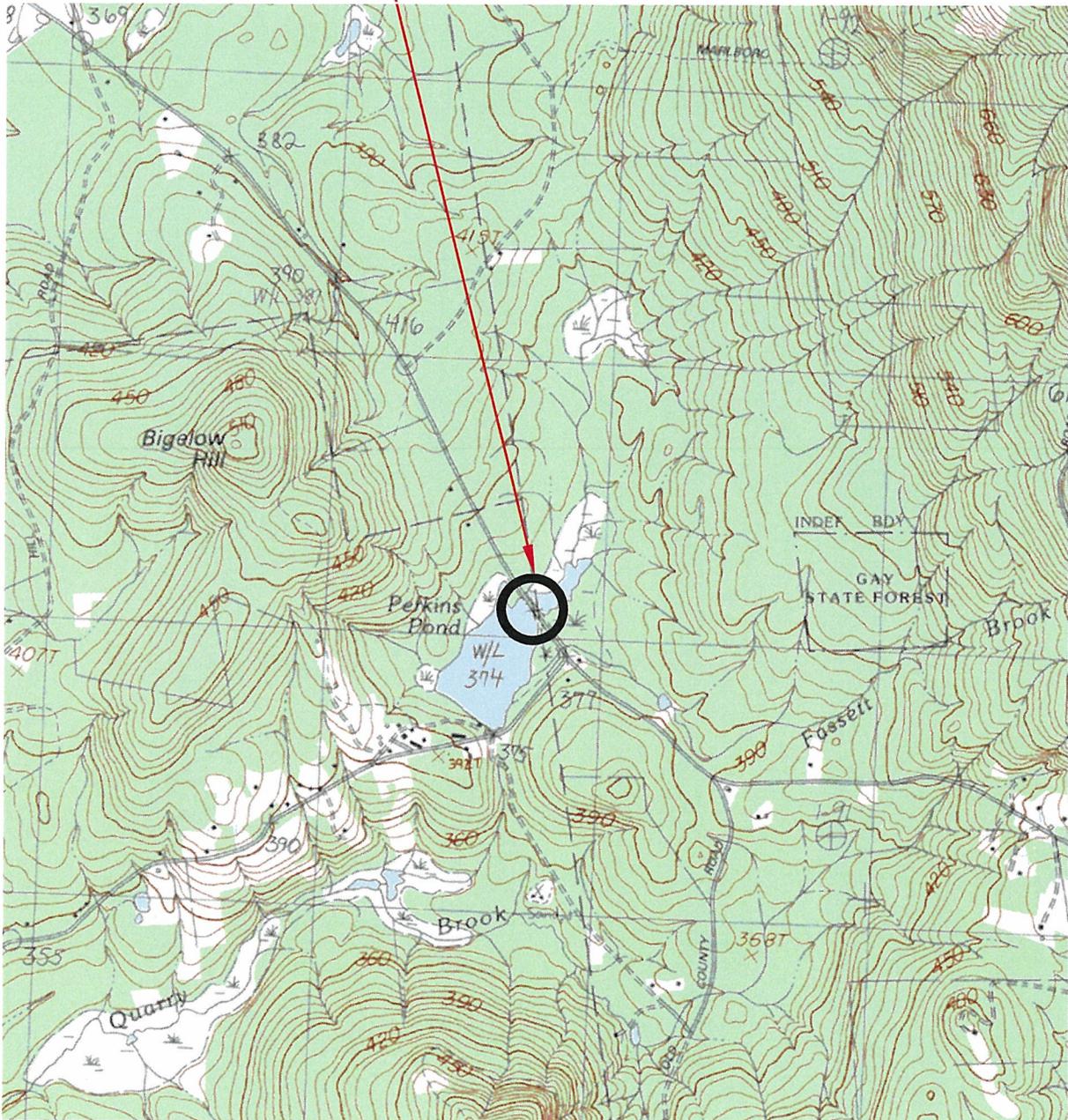
Respectfully submitted,

PUBLIC SERVICE COMPANY OF NEW  
HAMPSHIRE  
By Its Attorney

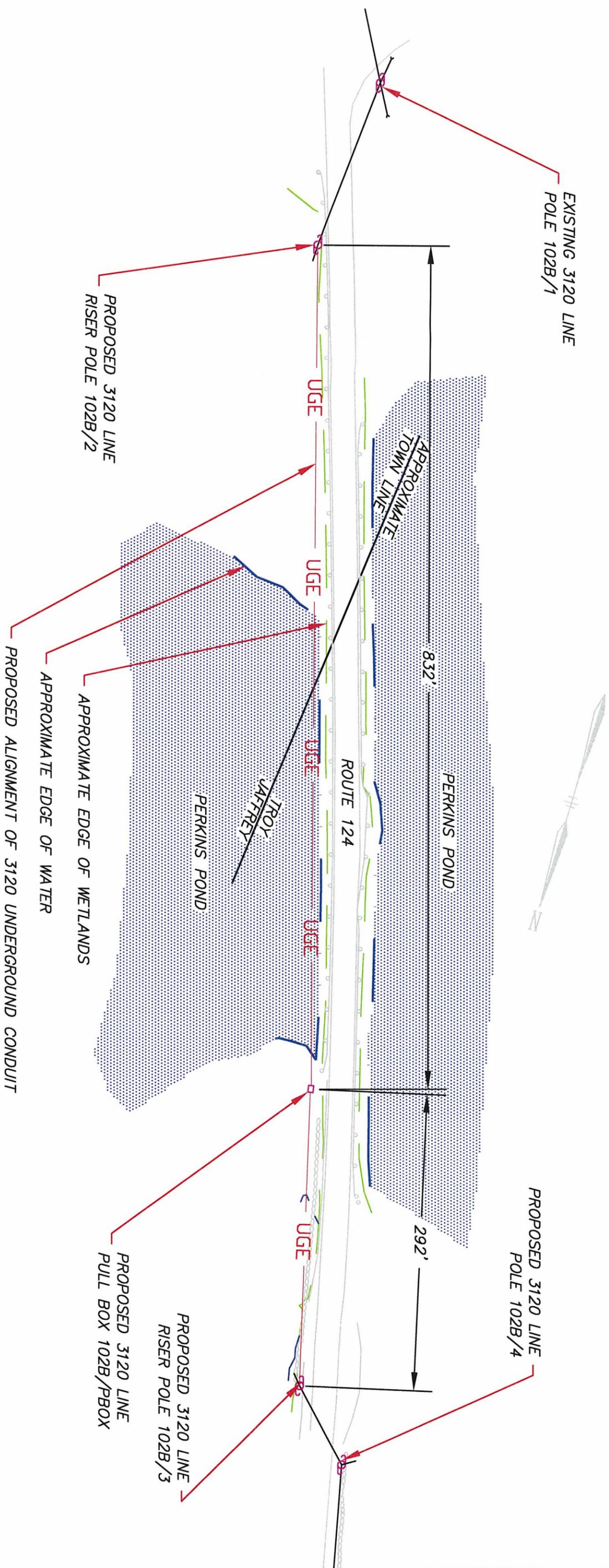
A handwritten signature in black ink, appearing to read "C. J. Allwarden", written over a horizontal line.

Christopher J. Allwarden  
Senior Counsel, Legal Department  
PSNH Energy Park  
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Manchester, NH 03101  
(603) 634-2459

PROJECT LOCATION



						DRAWN DRM	Public Service of New Hampshire	System Projects
						DESIGNED DRM	<b>3120 CIRCUIT - BETWEEN STRUCTURES 102B/2 &amp; 102B/PBOX PERKINS POND WATER CROSSING PLAN VIEW</b>	
						CHECKED		
						APPROVED		
NO.	REVISION	DATE	DRWN	CHCK	APPR	SCALE 1"=2000'±	DATE 05/24/11	SHEET 1 of 1
								DRAWING NO. <b>EXHIBIT 1</b>

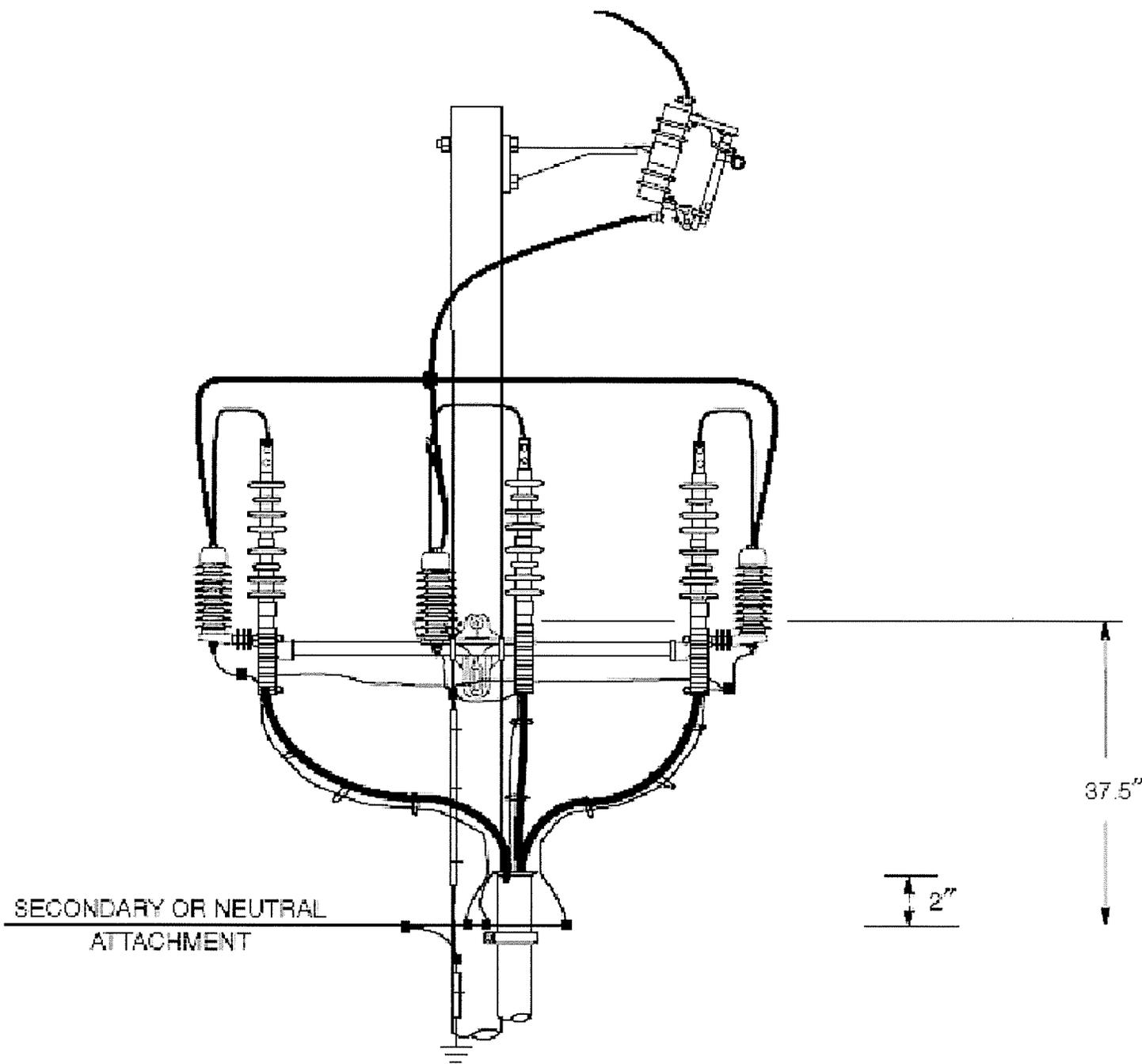


**PLAN**  
SCALE: 1" = 100'

NO.	REVISION NOTES	DATE	DMS	DMS	DMS	DMS
1	REVISION	9/22/11	DMS	DMS	DMS	DMS

	DRAWN	DMS	<b>3120 CIRCUIT – BETWEEN STRUCTURES 102B/2 &amp; 102B/PBOX PERKINS POND WATER CROSSING PLAN VIEW</b>	SCALE 1" = 100'	DATE 5/24/11	SHEET 2 OF 3	DRAWING NO. EXHIBIT 2
	DESIGNED	DMS					
	CHECKED	DMS					
	APPROVED	DMS					
<b>Public Service of New Hampshire</b>		Distribution Business					





SECONDARY OR NEUTRAL  
ATTACHMENT

37.5"

2"

						DRAWN <b>DMS</b>	Public Service of New Hampshire		System Projects	
						DESIGNED <b>DMS</b>	3120 CIRCUIT – BETWEEN STRUCTURES 102B/2 & 102B/PBOX <b>PERKINS POND WATER CROSSING</b> TYPICAL RISER POLE DETAIL			
						CHECKED				
						APPROVED				
NO.	REVISION	DATE	DRWN	CHKD	APPR	SCALE	DATE	SHEET	DRAWING NO.	
						NTS	05/25/11	1 of 1	EXHIBIT 4	