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of New Hampshire**

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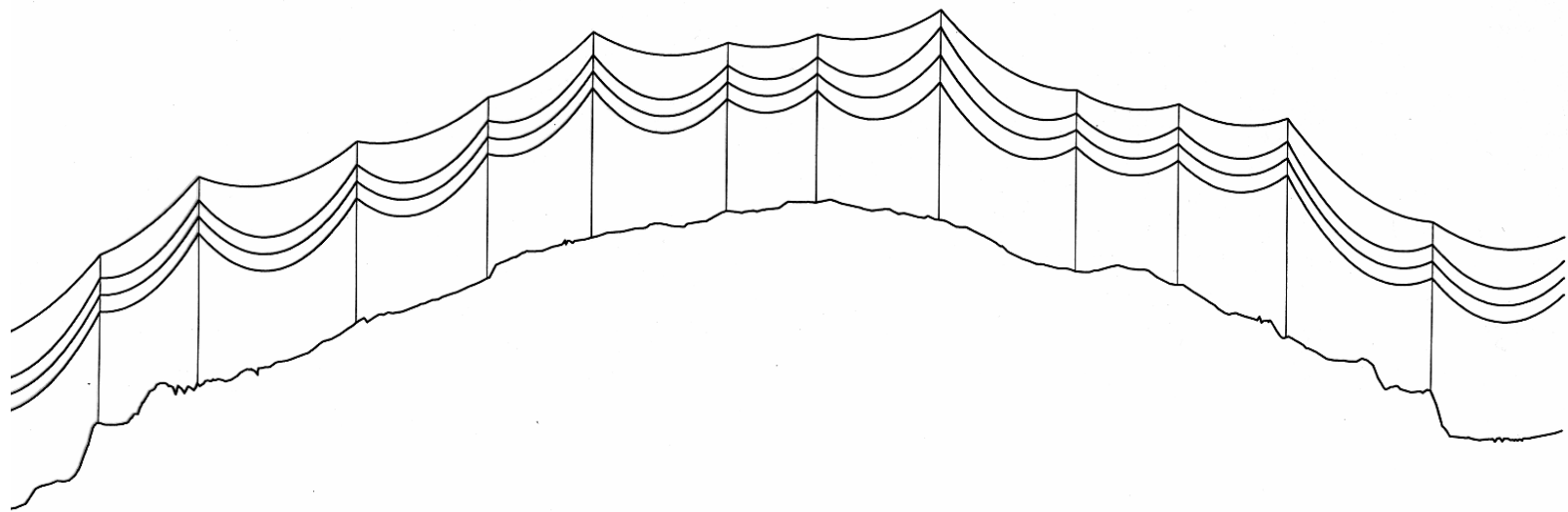
# **PUBLIC SERVICE OF NEW HAMPSHIRE**

## **TRANSMISSION LINE EASEMENTS**

### **PROCEDURE**

**&**

### **SURVEY REQUIREMENTS**



## RIGHT-OF-WAY ENCROACHMENT PROCEDURE

The following are excerpts from a Public Service Company of New Hampshire (PSNH) Engineering Division Bulletin which covers Right-Of-Way (ROW) Encroachment Procedures.

1. PSNH has no right to grant uses within an easement ROW to anyone without interest in the land involved. This remains the prerogative of the landowner.
2. PSNH can agree or acquiesce to uses as listed below. Such agreement shall be incorporated into an "Agreement and Consent to Joint Use" (hereinafter "Agreement") to be signed by PSNH, the landowner, and encroaching party.
3. All requests for the use of PSNH's easement ROW will be reviewed in light of sound engineering, environmental, and legal practice, and any specific conditions will be required in the Agreement. All Agreements for use of ROW will be processed by the Transmission Line Engineering Department after appropriate consulting with the Law, Real Estate, and Environmental Departments.
4. On fee-owned ROW, PSNH has the right (subject to regulatory approval in certain instances) to permit uses as listed below. Any uses permitted shall be subject to an easement or Agreement. When rights are granted, all costs including the fair value of the right, additional construction costs, engineering, surveying, legal, future assessments, and other relevant items will be paid by the applicant.
5. Any request for use of ROW shall be accompanied by a plan indicating the proposed use as well as a copy of the deed showing ownership to the land the encroachment will be located on. The plan shall conform to PSNH's "Survey Requirements for Transmission Line Encroachments".

### A. Examples of Permitted Uses

1. Existing uses where covered by a written agreement.
2. Rights reserved in an easement.

### B. Potential Uses Requiring Transmission Line Engineering Department Approval (But Not Limited To)

1. Construction activities such as temporary access to a construction site, excluding the stockpiling or storage of materials.
2. Excavation, fill and/or grading for aesthetic purposes or in preparation for another potential use.
3. Parking areas and parking lots with appurtenant structures such as lighting, drainage, barriers, directional devices, etc.

4. Road and driveway crossings that are substantially at right angles to the ROW or longitudinal within ten (10) feet of the edge of the ROW.
5. Crossings by water and sewer lines, or other utilities that are substantially at right angles to the ROW, or longitudinal within ten (10) feet of the edge of the ROW.
6. Landscaping/agricultural uses such as retaining walls, gardens, crops, pastures, etc.
7. Fences or barriers, regardless of materials used, which partially or entirely obstruct access to the ROW, or are used for any special confining use, such as fencing for a corral.
8. Moderate recreational activities not requiring hard surfaces, bleachers or fences. It is intended that all uses be predominantly by the owner, and not associated with organized sports or other programs.
9. Drainage and/or the impoundment of water.
10. Other uses that may be approved by the Transmission Line Engineer.

C. Uses Not Permitted on ROW (But Not Limited To)

1. Storage of material (including piles of snow, dirt, logs, flammable materials, etc.).
  2. Man-made structures such as houses (including additions), garages, trailers, decks, storage sheds, etc. Swimming pools are discouraged, but may be allowed with special permission from the Transmission Line Engineer.
  3. Septic systems, except fill extensions and side slope for the leaching area.
  4. Wells.
  5. Junk yards and other objectionable material (automobiles, automobile parts, appliances and any type of residential, commercial or industrial wastes).
  6. Other uses that may be designated by the Transmission Line Engineer.
6. PSNH will require the developer to bear full cost, in advance, for any construction required to maintain National Electrical Safety Code requirements.

**PUBLIC SERVICE OF NEW HAMPSHIRE**  
**SURVEY REQUIREMENTS**  
**FOR TRANSMISSION LINE**  
**RIGHT OF WAY ENCROACHMENTS**

These guidelines summarize the topographic survey and details required by the Public Service of NH (PSNH) Transmission Line Department for their review of Right-Of-Way (ROW) encroachments. The extent of survey data needed may vary according to the nature of the encroachment, its location on the Right-Of-Way, and the intensity of land use. Consequently, potential ROW uses (uses that may be permitted by PSNH) are addressed under the categories of major and moderate impact. Survey requirements are also addressed for existing non permitted uses that must be reviewed.

A copy of the landowner's deed must also be submitted with the survey information.

**POTENTIAL ROW USES - MAJOR IMPACT**

These uses include, but are not limited to the following: construction activities, excavation, fill, parking lots, roads, and utilities. This category is intended to include activities associated with a planned development (for example: site development for single/multi-family residences, site development for commercial or industrial uses, mobile home/trailer parks, subdivisions, etc.) and/or other commercial projects. For these uses, the landowners have retained, or should have retained, a professional consultant to plan the proposed development or activity.

For major impact uses the following two submittals are required:

a) a scaled survey plan prepared by a licensed surveyor or engineer is required. The plan shall encompass the full width of the ROW and the length of the ROW necessary to show all transmission structures supporting conductors that pass over or by the encroachment. If the length of ROW to be shown on the plan is less than 600 feet, the scale shall be one inch per 20 feet; otherwise, a scale of one inch per 40 feet is acceptable. The data noted below must be shown on the plan.

b) a line profile section shall also be submitted for each PSNH line in the ROW showing the conductor(s) having the most critical ground clearance at a vertical scale of 1"=20' and a horizontal scale of 1"= 200'. (Important safety note, see item #3 below.) On lower voltage lines (34.5 kV), the neutral wire attachments, the single wire below the main conductors, must also be shown on the profile as it must also be checked for clearances. Additional information to be noted on the profile sections is the date of the field survey, approximate time of day and the air temperature. PSNH, in addition to the plans and profile on paper may request the same field survey data information electronically in an AutoCad file format compatible to the current version it is using.

1. Contours at an interval of two feet, based on a stadia survey. All ground elevations taken to determine the contours shall be shown on the plan to the nearest 0.1 foot. If the ROW slopes steeply, five foot contours may be shown, but the ground elevations taken must be adequate to reasonably determine two foot contours.

2. The location, PSNH number, and elevation (ground elevation at each pole) of all transmission structures.
3. The elevation of structure pole tops, the bottom of all crossarms, and the elevation of all conductor attachment points, (bottom of the insulators or direct attachment of the static/neutral wires to the poles) on all transmission structures. **This must be done by trigonometric leveling as no other means of measuring, i.e. rods, can be done safely.**
4. The location, size, and height of all boulders or other objects that might compromise conductor clearance.
5. The location, description, and height of any other man-made objects.
6. The location of any streams and visual wetland limits.
7. Details of the encroachment as discussed below.

#### Construction Activities (Including Logging Operations)

The limits of all proposed construction within the ROW shall be shown on the plan, as well as final contours depicting any planned fill/excavation. An accompanying letter shall describe the purpose of the construction, methods, materials to be handled, equipment to be used, construction schedule, and any other pertinent information.

If the ROW is only to be used for access to a construction or logging site, and/or the proposed activities are not considered to be major in scope, the requirements for a moderate impact encroachment may be considered at the discretion of the Transmission Line Engineer.

Note: The storage of materials (including the piling of snow, dirt, logs, flammable materials, etc.) is not permitted.

#### Excavation and Fill

The requirements for excavation and/or fill in a PSNH ROW are the same as for construction activities, and a similar letter is required. If the fill/excavation operation is being done to prepare the area for a subsequent encroachment, that too should be stated in the letter. Again, certain operations may be considered as moderate impact at the discretion of the Transmission Line Engineer.

#### Parking Lots

Final grade contours (two foot intervals) and spot elevations to reflect the finish grade of the lot shall be shown on the plan. All access lanes, parking spaces, and walkways shall be shown on the plan. Also, all appurtenant structures (railings, lighting, drainage, etc.) shall be shown. The heights of all structures shall be noted, and appropriate details and/or catalog cuts provided. An accompanying letter detailing construction activities, as discussed previously, is required.

### Roadways

The additional plan requirements for roadways are the same as for parking lots, including the letter detailing construction activities. The elevations to reflect finish grade shall be shown centerline of road at quarter station.

### Utilities

All dimensions, details, vertical alignment, and horizontal alignment for all proposed utilities shall be shown on the plan, as well as finish grade contours (two foot intervals) and spot final grades to denote level areas. For significant above ground utilities (penstocks, pad mounted equipment, pumping stations, etc.), catalog cuts of the equipment and/or final design plans are required. An accompanying letter (or construction specifications) detailing construction activities, as discussed previously, is required.

## **POTENTIAL ROW USES - MODERATE IMPACT**

These uses include, but are not limited to the following: driveways, fencing, landscaping, recreational uses, and subsurface disposal systems (fill extension only). This category is intended to include the common uses associated with single-family residential development and subsequent land uses. For these uses, the landowner does not necessarily retain a surveyor or engineer; however, septic system plans are required, and sometimes site plans and/or driveway plans are required (State and Municipal permitting).

For moderate impact uses, the owner shall submit a copy of an existing plan in their possession (boundary line survey plan, septic system plan, driveway permit plan, copy of tax map, or other site plan) which shows the area of the proposed encroachment. On this plan, the owner shall show the PSNH structures (by number) either side of the encroachment, and the location and description of the encroachment as later discussed. In the absence of an existing plan, the owner shall submit a sketch showing the PSNH structures (by number), the encroachment (later discussion), and the relative distances between the structures and encroachments. Also required on the sketch is the approximate location of roads, buildings, and other landmarks that will help establish the location of the encroachment.

The following is a further discussion of the various moderate impact encroachments and additional information to be shown on the plan or sketch.

### Driveways

The term “driveway” applies to an access to a single tract of land for the purposes of single-family residential development. Access to multiple lots or for more extensive development has been addressed previously under “roadways”.

The plan or sketch showing a proposed driveway, shall show the location of the driveway in relationship to PSNH structures, the width of the driveway, how it crosses the easement, and how much the final grade will differ (that is, how many feet of excavation or fill will be required under the PSNH lines).

### Fences

This encroachment category shall include any construction, regardless of the materials used, which partially or entirely obstructs access to the ROW or is used for any special confining use, such as fencing for a corral. PSNH may require that a gateway be provided for access.

The plan or sketch shall show the location of all fences in relationship to PSNH structures, the materials used to construct the fence, and the height of all proposed fences.

### Landscaping

Landscaping shall include any proposed changes to a ROW for aesthetic purposes and/or the use of a ROW for gardens, crops, pastures, etc.

The plan or sketch shall show all proposed changes to the ROW (especially any changes in elevation due to fill, retaining walls, etc.), the location and height of all proposed encroachments (gardens and plantings, for example), and a full explanation of the intended uses. The full growth height for all shrubs and trees shall be indicated.

### Recreational Uses

This category shall include moderate recreational activities not requiring hard surfaces, bleachers, or fences. It is intended that all uses be predominately by the owner and not associated with organized sports or other programs.

The plan or sketch shall show the location of all proposed activities in relationship to PSNH structures, a description (including all dimensions and heights) of proposed structures to be erected, and a description of all proposed recreational activities.

### Subsurface Disposal Systems

This category shall only include fill extensions for leaching fields. All other components of a septic system (the leaching field itself, chambers, piping, septic tanks, pumping stations, etc.) are strictly prohibited from PSNH ROWs. PSNH will consider the installation of gravity piping and force mains for the purpose of crossing a ROW to access an acceptable leaching site.

A plan of the proposed system, prepared by an individual holding a Designers Permit as issued by the N.H. Department of Environmental Services (or equivalent permit from the State of Maine, if applicable) shall be submitted for PSNH review. The plan shall include the location of all PSNH structures adjacent to the proposed system and the ground elevations at each pole.

Upon receipt of a request for a moderate impact encroachment, the Transmission Line Department will review the submitted plan or sketch to determine if the information submitted is adequate. If not, a site visit will be conducted and/or additional survey information will be requested. Depending upon the circumstances and the parties involved, the Transmission Line Department may request additional survey information from the owner; however, it is possible that some of this work will have to be performed by a PSNH survey crew (Survey Request Form). The intent, however, is to minimize survey requests of the Real Estate Department.

When PSNH is contacted concerning a potential encroachment, the owner should be encouraged to submit a plan/sketch and description of the proposed encroachment, regardless of the level of detail that the owner feels they can supply.

### **USES NOT PERMITTED**

The following uses (but not limited to) are not permitted in PSNH's ROWs.

1. Subsurface Disposal Systems (except fill extensions as discussed above).
2. Swimming Pools (discouraged, but may be allowed with special permission from the Transmission Line Engineer).
3. Buildings/Dwellings (intending to include all structures, camp sites, garages, out-buildings, additions, trailers, campers, etc.).
4. Storage of materials such as snow, dirt, logs, flammable materials, etc.
5. Junk Yards (automobiles, automobile parts, appliances and any type of residential, commercial or industrial wastes).
6. Wells.
7. Other (any use precluded by these requirements).

### **EXISTING, NON PERMITTED ENCROACHMENTS**

When the Transmission Line Department becomes aware of an existing encroachment that is not permitted, a site inspection will be performed to determine what survey information is required to be submitted. If survey is required, it will generally conform to the requirement discussed above under major impact encroachments. The full width ROW topographic survey, however, may be replaced by a profile(s) taken under the conductor(s) having the most critical ground clearance, with side shots on any obstructions. All encroachments will be fully detailed; for example, for a swimming pool, all dimensions and heights will be shown for any fences, decks, aprons, diving boards, etc.

All survey related questions should be directed to the PSNH Transmission Line Engineer at 669-4000.