MAINE POWER
RELIABILITY PROGRAM

A CENTRAL MAINE POWER COMPANY PROGRAM

TOWN OF CHELSEA, MAINE
SHORELAND ZONING APPLICATION

Sections 3025, 60, 88 Transmission Line Construction

Prepared for:

Central Maine Power Company
83 Edison Drive
Augusta, Maine 04336

Prepared by:

TRC
TRC Engineers, LLC
14 Gabriel Drive
Augusta, Maine 04330

October 2009

TOWN OF CHELSEA
SHORELAND ZONING PERMIT APPLICATION

GENERAL INFORMATION

1. **Applicant**	2. **Applicant's Address**	3. **Applicant's Tel. #**
Central Maine Power Company	83 Edison Drive Augusta, Maine 04336	(207) 623-3521
4. Property Owner	**5. Owner's Address**	**6. Owner's Tel. #**
Central Maine Power Company	83 Edison Drive Augusta, Maine 04336	(207) 623-3521
7. Contractor	**8. Contractor's Address**	**9. Contractor's Tel. #**
To be determined		
10. Location/Address of Property	**11. Tax Map/Page & Lot #**	**12. Zoning District**
Existing transmission line corridor from the Kennebec River at Browns Crossing to the Augusta municipal boundary	See Deed Reference Table attached as Exhibit 4	The project traverses the Limited Residential District in four places (see Maps 2,3,5, and 7 attached as Exhibit 1)

13. DESCRIPTION OF PROPERTY INCLUDING A DESCRIPTION OF ALL PROPOSED CONSTRUCTION, E.G. LAND CLEARING, ROAD BUILDING, SEPTIC SYSTEMS, AND WELLS (PLEASE NOTE THAT A SITE PLAN SKETCH IS REQUIRED).

The Maine Power Reliability Program (MPRP) is a Central Maine Power Company ("CMP") program to upgrade Maine's bulk power system. The vast majority of Maine's bulk power transmission system was placed into service in the early 1970s and is now reaching the limits of its ability to meet the growing electrical demand of Maine customers. Since the last major transmission infrastructure was completed more than 30 years ago, the patterns of both available generation and customer load have shifted significantly. For example, population has become more concentrated in the southern part of the state, while the generation needed to serve that load is now more distant and dispersed. When these changes are combined with increasing peak demand, the current transmission infrastructure in Maine will, in very few years, become inadequate and unsafe. In addition, the reliability and security standards mandated by law and administered by the North American Electric Reliability Corporation (NERC), the Northeast Power Coordinating Council, Inc. (NPCC), and ISO New England (ISO-NE) have changed significantly in recent years. CMP must upgrade its bulk power system with this proposed project to meet the mandatory standards and to provide reliable electric service to Maine customers into the future. In all, MPRP will encompass nearly 80 Maine communities, and will require approvals from the Maine Public Utilities Commission, the Maine Department of Environmental Protection, and numerous municipalities.

Project Description in the Town of Chelsea

The part of the program located in the Town of Chelsea involves work in and adjacent to the existing 150-225 foot wide transmission line corridor that traverses the central portion of the town (see Exhibits 1 and 2). In this corridor, which extends for approximately 5.9 miles from the Kennebec River at Browns Crossing to the Augusta municipal boundary, the project involves:

- Rebuilding the existing 115 kV line (Section 60) within the same corridor. This will involve removing the existing line and constructing a new one in its place. Most of the rebuilt line will be relocated to the northwest side of the corridor and will be primarily constructed using 77 wooden single pole structures that are typically 75 feet above ground. Where the transmission line crosses the Kennebec River, one steel single pole structure approximately 87 feet above ground will be installed. Eight of the above-mentioned wooden single pole structures will be installed within the shoreland zone. A ninth pole will be located on or just outside the shoreland zone boundary;
- Installing a new 345 kV transmission line (Section 3025). The new line will be carried on 53 structures. In all but a few instances these structures will be wooden H-frame (2-pole) structures with a typical aboveground height of 75 feet. Where the transmission line crosses the Kennebec River, one steel single pole approximately 132 feet above ground will be installed. Five of the above-mentioned H-frame structures will be installed within the shoreland zone;
- Rebuilding the existing 34.5 kV line (Section 19) and distribution circuit (263D1) where the two lines cross the Kennebec River. These structures will not be within the shoreland zone. The rebuilt lines will be constructed using two steel single pole structures that are approximately 87 feet above ground; and
- Rebuilding the existing 115 kV line (Section 88) near the Augusta municipal boundary. The rebuilt line will constructed using three wooden single pole structures approximately 75 feet above ground. These structures will not be within the shoreland zone.

The project also involves the acquisition of an additional 40-65 feet of property from abutting land owners along most of the northwest side of the corridor. To meet mandated line clearance and safety standards for installation of the new and rebuilt transmission lines, the clearing of vegetation within this additional property will be required. Some selective vegetation clearing may be needed within the existing corridor along the southeast side.

Please note that structure heights vary due to varying terrain and the need to achieve spans which will avoid or minimize impacts to natural resources. Typical above ground structure heights are described above (See also Exhibit 2), although some structures may exceed those heights in specific instances (see the attached table in Exhibit 3 for a description of the number of structures within specific height ranges for the new and rebuilt transmission line sections).

The proposed upgrades in the Town of Chelsea, as outlined above, are a part of the program to improve the reliability, safety, and security of the bulk power transmission system in Maine, while at the same time meeting the increasing demands for electrical power.

14. Proposed Use of Project	**15. Estimated Cost Of Construction**
See Project Description above	Approximately $29 million for the entire MPRP project in the Town of Chelsea

TOWN OF CHELSEA
SHORELAND AND PROPERTY INFORMATION

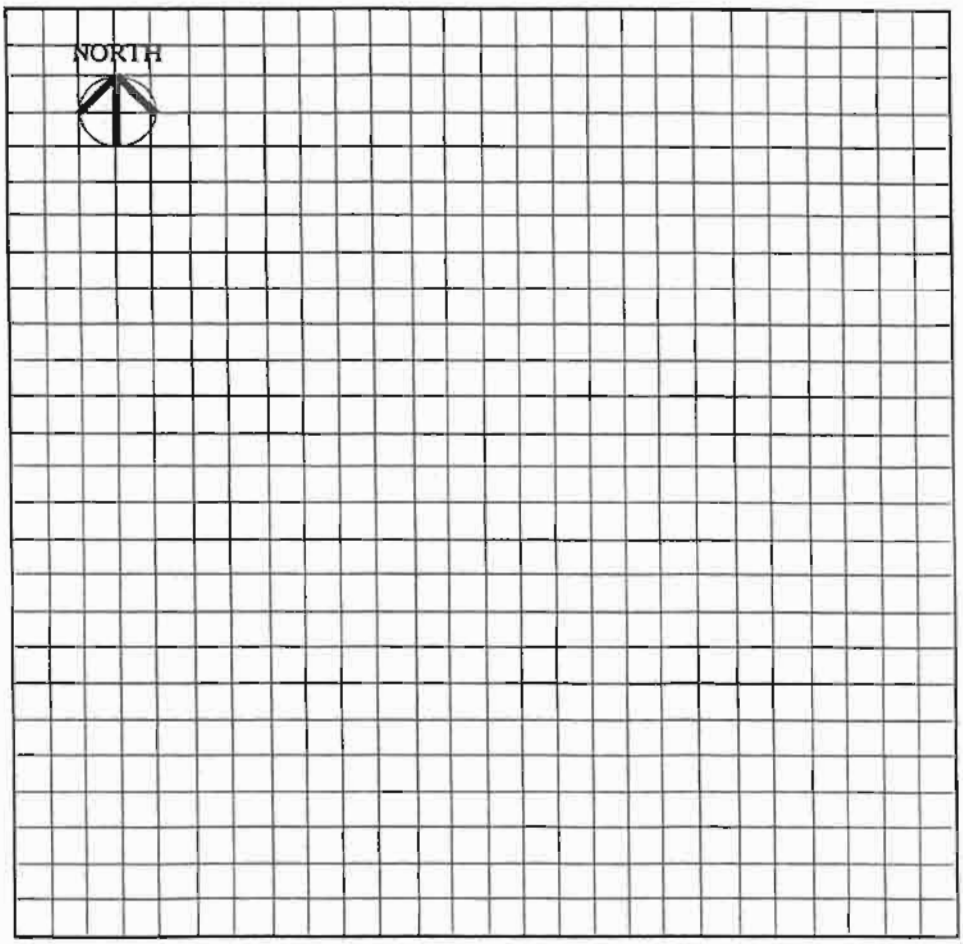
16. LOT AREA The CMP corridor, once expanded as part of the MPRP, will cover approximately 203 acres within the Town of Chelsea.	**17. FRONTAGE ON ROAD (FT.)** The transmission line corridor crosses 7 public roads. The width of the corridor at each of these crossings will be at least 200 feet. See maps attached as Exhibit 1.
18. SQ. FT. OF LOT TO BE COVERED BY NON-VEGETATED SURFACES. The transmission line poles will cover less than 0.01% of the entire corridor and project area; the remainder will remain vegetated.	**19. ELEVATION ABOVE 100 YR. FLOOD** Portions of the project area will traverse 100-year floodplain areas along the Kennebec River and Togus Stream; however, all structures will be installed outside of these areas. See discussion on pages 11 and 18.
20. FRONTAGE ON WATERBODY (FT.) The transmission line corridor crosses the Kennebec River (corridor width of 200 feet) and Togus stream (corridor width of 215 feet). See maps attached as Exhibit 1.	**21. HEIGHT OF PROPOSED STRUCTURE(S)** Within the shoreland zone, above ground structure heights will range from 65 feet to 92 feet. (See maps 2, 3, and 5 in Exhibit 1 and the structure height table on Exhibit 3. Note that the table in Exhibit 3 shows the height of all structures proposed in Chelsea, not just the structures within the shoreland zone.)
22. EXISTING USE OF PROPERTY The property has been used as a transmission line corridor since 1961.	**23. PROPOSED USE OF PROPERTY** Improvements to transmission system capacity and reliability as part of the Maine Power Reliability Program. See Project Description above.
Note: Questions 24 & 25 apply only to expansions of portions of existing structures which are less than the required setback	
A) SQ. FT. OF PORTION OF STRUCTURE WHICH IS LESS THAN REQUIRED SETBACK AS OF 1/1/89: **N/A**	**A) CU. FT. OF PORTION OF STRUCTURE WHICH IS LESS THAN REQUIRED SETBACK AS OF 1/1/89:** **N/A**
B) SQ. FT. OF EXPANSIONS OF PORTION OF STRUCTURE WHICH IS LESS THAN REQUIRED SETBACK FROM 1/1/89 TO PRESENT: **N/A**	**B) CU. FT. OF EXPANSIONS OF PORTION OF STRUCTURE WHICH IS LESS THAN REQUIRED SETBACK FROM 1/1/89 TO PRESENT:** **N/A**
C) SQ. FT. OF PROPOSED EXPANSION OF PORTION OF STRUCTURE WHICH IS LESS THAN REQUIRED SETBACK: **N/A**	**C) CU. FT. OF PROPOSED EXPANSION OF PORTION OF STRUCTURE WHICH IS LESS THAN REQUIRED SETBACK:** **N/A**
D) % INCREASE OF SQ. FT. OF ACTUAL AND PROPOSED EXPANSIONS OF PORTION OF STRUCTURE WHICH IS LESS THAN REQUIRED SETBACK SINCE 1/1/89: (% INCREASE = $\underline{(B+C)}$ /A x 100) N/A	**D) % INCREASE OF CU. FT. OF ACTUAL AND PROPOSED EXPANSIONS OF PORTION OF STRUCTURE WHICH IS LESS THAN REQUIRED SETBACK SINCE 1/1/89:** (% INCREASE = $\underline{(B+C)}$ /A x 100) N/A

(See Exhibits 1 and 2)

SITE PLAN

PLEASE INCLUDE: LOT LINES; AREA TO BE CLEARED OF TREES AND OTHER VEGETATION; THE EXACT POSITION OF PROPOSED STRUCTURES, INCLUDING DECKS, PORCHES, AND OUT BUILDINGS WITH ACCURATE SETBACK DISTANCES FROM THE SHORELINE, SIDE AND REAR PROPERTY LINES; THE LOCATION OF PROPOSED WELLS, SEPTIC SYSTEMS, AND DRIVEWAYS; AND AREAS AND AMOUNTS TO BE FILLED OR GRADED. IF THE PROPOSAL IS FOR THE EXPANSION OF AN EXISTING STRUCTURE, PLEASE DISTINGUISH BETWEEN THE EXISTING STRUCTURE AND THE PROPOSED EXPANSION.

NOTE: FOR ALL PROJECTS INVOLVING FILLING, GRADING, OR OTHER SOIL DISTURBANCE YOU MUST PROVIDE A SOIL EROSION CONTROL PLAN DESCRIBING THE MEASURES TO BE TAKEN TO STABILIZE DISTURBED AREAS BEFORE, DURING AND AFTER CONSTRUCTION (See attached guidelines)



SCALE: ____ = ____ FT.

ADDITIONAL PERMITS, APPROVALS, AND/OR REVIEWS REQUIRED

CHECK IF REQUIRED:

- ☐ PLANNING BOARD REVIEW APPROVAL
  (e.g. Subdivision, Site Plan Review)
- ☐ BOARD OF APPEALS REVIEW APPROVAL
- ☐ FLOOD HAZARD DEVELOPMENT PERMIT
- ☐ EXTERIOR PLUMBING PERMIT
  (Approved HHE 200 Application Form)
- ☐ INTERIOR PLUMBING PERMIT
- X DEP PERMIT (Site Location,
  Natural Resources Protection Act)
- X ARMY CORPS OF ENGINEERS PERMIT
  (e.g. Sec. 404 of Clean Waters Act)

OTHERS:

- ☐
- ☐ **Maine Public Utilities Commission - Certificate of Public Convenience and Need**
- ☐ _____
- ☐ _____
- ☐ _____

NOTE: APPLICANT IS ADVISED TO CONSULT WITH THE CODE ENFORCEMENT OFFICER AND APPROPRIATE STATE AND FEDERAL AGENCIES TO DETERMINE WHETHER ADDITIONAL PERMITS, APPROVALS, AND REVIEWS ARE REQUIRED

I CERTIFY THAT ALL INFORMATION GIVEN IN THIS APPLICATION IS ACCURATE. ALL PROPOSED USES SHALL BE IN CONFORMANCE WITH THIS APPLICATION AND THE _____ SHORELAND ZONING ORDINANCE. I AGREE TO FUTURE INSPECTIONS BY THE CODE ENFORCEMENT OFFICER AT REASONABLE HOURS.

_____ _____
APPLICANT'S SIGNATURE DATE

_____ _____
AGENT'S SIGNATURE (if applicable) DATE

FRONT OR REAR ELEVATION

SIDE ELEVATION

DRAW A SIMPLE SKETCH SHOWING BOTH THE EXISTING AND PROPOSED STRUCTURES WITH DIMENSIONS

APPROVAL OR DENIAL OF APPLICATION _____ MAP ___ LOT #
(For Office Use Only)

THIS APPLICATION IS: _____APPROVED _____DENIED

IF DENIED, REASON FOR DENIAL:

_____
_____
_____
_____

IF APPROVED, THE FOLLOWING CONDITIONS ARE PRESCRIBED:

_____
_____
_____
_____
_____

NOTE: IN APPROVING A SHORELAND ZONING PERMIT, THE PROPOSED USE SHALL COMPLY WITH THE PURPOSES AND REQUIREMENTS OF THE SHORELAND ZONING ORDINANCE FOR THE TOWN OF_____.

_____ _____
CODE ENFORCEMENT OFFICER DATE

INSPECTION CHECK LIST
☐ Prior to Clearing and Excavation
☐ Prior to Foundation Pour
☐ Prior to Final Landscaping
☐ Prior to Occupancy

PERMIT #
FEE AMOUNT

NOTE: THIS CHECKLIST IS INTENDED TO ASSIST THE CEO IN TRACKING A SHORELAND ZONING PERMIT THROUGH THE REVIEW PROCESS

Appendix 1

SHORELAND ZONING PERMIT CHECKLIST

CHECKOFF FOR ALL STRUCTURES:

- ☐ COMPLETE SHORELAND ZONING PERMIT APPLICATION
- ☐ PAY APPROPRIATE FEE
- ☐ LOT AREA
- ☐ % OF LOT COVERED BY NON-VEGETATED SURFACES
- ☐ HEIGHT OF STRUCTURE
- ☐ SETBACK FROM HIGH WATER LINE
- ☐ ELEVATION SETBACK FROM SIDE AND REAR LOT LINES
- ☐ % INCREASE OF EXPANSIONS OF PORTION OF STRUCTURE WHICH IS LESS THAN REQUIRED SETBACK
- ☐ COPY OF INTERIOR AND EXTERIOR PLUMBING PERMITS
- ☐ COPY OF DEED
- ☐ ELEVATION OF LOWEST FLOOR TO 100 YEAR FLOOD ELEVATION
- ☐ COPY OF ADDITIONAL PERMIT(S) AS REQUIRED (See Page 5 of Application Form)
- ☐ SOIL EROSION CONTROL PLAN PROVIDED

CHECKOFF FOR FURTHER REVIEW:

- ☐ COPY OF FILE TO BOARD OF APPEALS IF VARIANCE OR SPECIAL EXCEPTION IS REQUIRED
- ☐ COPY OF FILE TO PLANNING BOARD IF PLANNING BOARD REVIEW IS REQUIRED

CHECK OFF FOR SITE VISITS BY CEO:

- ☐ PRIOR TO CLEARING AND EXCAVATION
- ☐ PRIOR TO FOUNDATION POUR
- ☐ PRIOR TO FINAL LANDSCAPING
- ☐ PRIOR TO OCCUPANCY

Summary of Applicable Ordinances and Zoning Districts

The proposed project will cross the shoreland zone in four locations; each location is zoned Limited Residential. Consistent with the Town's Shoreland Zoning Ordinance, CMP seeks approval of the portions of the project within the shoreland zone.

The proposed project traverses 100-year floodplain areas along the Kennebec River and Togus Stream according to the Flood Insurance Rate Map for the Town of Chelsea, Maine, Kennebec County revised June 15, 1994. However, no new structures will be installed within these areas. As a result, approvals under the Town's Floodplain Management Ordinance should not be required.

SHORELAND ZONING ORDINANCE FOR THE TOWN OF CHELSEA

Based on the Official Shoreland Zoning Map for the Town of Chelsea the proposed transmission line project traverses the shoreland zone in four locations:

The Limited Residential District along the Kennebec River (see Exhibit 1, Map 7),

The Limited Residential District along a tributary of Togus Stream and associated wetland west of Togus Stream (see Exhibit 1, Map 5),

The Limited Residential District along Togus Stream (see Exhibit 1, Map 3), and

The Limited Residential District along a tributary of Togus Stream and associated wetland, east of Togus Stream (see Exhibit 1, Map 2).

Permitted Land Uses

Transmission lines are "essential services," as defined on page 34, Section 17 of the Town's Shoreland Zoning Ordinance. Essential services are an allowed use within the Limited Residential District with Planning Board approval (see the Land Use Table at page 12 of the Shoreland Zoning Ordinance).

Zoning Districts Impacted

As noted above, the proposed project will traverse the shoreland zone in four locations. A description of the activity proposed in these four locations follows:

1. **Limited Residential District along the east shoreline of the Kennebec River (Exhibit 1, Map 7)**

   The project area traverses the Limited Residential District along the east shoreline of the Kennebec River. No new structures will be installed within the District. Approximately ⅓-acre of vegetation clearing within the existing corridor to remove "capable species" (i.e., trees capable of growing into the safety zone around the conductors) will be required.

2. **Limited Residential District along a tributary of Togus Stream and associated wetland west of Togus Stream (Exhibit 1, Map 5)**

   The project area traverses the Limited Residential District along a tributary of Togus Stream and associated wetland west of Togus Stream. One wooden H-frame structure as part of the new 345 kV line (Section 3025) will be located within the District; another H-Frame structure that is part of Section 3025 will be located in the wetland surrounded by the Limited Residential District, but not in the District itself as identified on the Town's shoreland zoning map. As part of the rebuilt 115 kV transmission line (Section 60) two wooden single pole structures will be installed within the district; a third pole (pole number 60-117) will be located on or just outside the District boundary. Three wooden H-frame structures as part of the existing 115 kV line will be removed. Approximately ⅓-acre of vegetation clearing within the existing and expanded corridor on the northwest side to remove "capable species" will be required. There may be selective clearing of vegetation on the southeast side of the corridor.

3. **Limited Residential District along Togus Stream (Exhibit 1, Map 3)**

   The project area traverses the Limited Residential District along Togus Stream. One wooden H-frame structure as part of the 345 kV line (Section 3025), and two wooden single pole structure as part of the rebuilt 115 kV line (Section 60) will be installed within District. One wooden H-frame structure as part of the existing 115 kV line will be removed. Approximately ¼-acre of vegetation clearing within the existing and expanded corridor on the northwest side to remove "capable species" will be required. There may be selective clearing of vegetation on the southeast side of the corridor.

4. **Limited Residential District along a tributary of Togus Stream and associated wetland east of Togus Stream (Exhibit 1, Map 2)**

   The project area traverses the Limited Residential District along a tributary of Togus Stream and associated wetland east of Togus Stream. Three wooden H-frame structures as part of the new 345 kV line (Section 3025) and four wooden single pole structures as part of the rebuilt 115 kV line (Section 60) will be installed within the District. Four wooden H-frame structures as part of the existing 115 kV line will be removed. Approximately ⅓-acre of vegetation clearing within the existing and expanded corridor on the northwest side to remove "capable species" will be required. There may be selective clearing of vegetation on the southeast side of the corridor.

Land Use Standards: Shoreland Zoning Ordinance Section 15 (page 13)

A. Minimum Lot Standards

Not applicable.

B. Principal and Accessory Structures

Not applicable.

C. Piers, Docks, Wharfs, Bridges, etc.

Not applicable.

D. Campgrounds

Not applicable.

E. Individual Private Campsites

Not applicable.

F. Commercial and Industrial Uses

Not applicable.

G. Parking Areas

There will be no parking areas associated with the project.

H. Roads and Driveways

There will be no new permanent roads or driveways associated with the project, other than CMP-maintained access points and ways suitable for routine and urgent maintenance by its own vehicles. Temporary access ways, which do not add any impervious surface area, and may be located in the shoreland zone, will be established for use during the construction phase (see maps in Exhibit 1 depicting the access ways). This will be an ongoing process as access will be established to areas undergoing immediate construction. Determinations surrounding the exact nature of the construction of these temporary access ways will be made by the contractor in consultation with an environmental representative. All access paths are temporary and will be removed once construction is complete. For general access to the corridor for construction purposes, temporary access ways will be in place for more than one growing season, but will be removed once all aspects of construction in that area are complete. Access to pole sites, either for removal or construction, will be achieved by temporary access ways which will be in place for no more than one growing season. Areas where soils have been disturbed will then be mulched with hay. Vegetation will be allowed to reestablish itself once the temporary access ways have been removed.

Measures will be taken to avoid and minimize impacts to streams and wetlands through the use of crane mats, temporary bridges, geo-textile fabrics, and culverts, when necessary. Appropriate erosion controls will be installed wherever necessary. If necessary, mats will be placed parallel to the upland edge as abutments to further protect bank stability and establish stability (See *Environmental Guidelines for Construction and Maintenance Activities* in Exhibit 5). No extensive grubbing (grading to remove root systems) within wetland crossing areas will be done. However, some minor grading may

be required to ensure mat stability and construction access safety. All such grading will be performed on a limited basis and only with prior approval by CMP's environmental representatives. Streams that are too wide to cross with crane mats or temporary bridges will be avoided.

I. Signs

There will be no signage associated with the project.

J. Storm Water Runoff

The construction and development of the MPRP have been designed to minimize storm water runoff. With the exception of the immediate area occupied by the support structures, there is no additional increase in impervious surface area associated with the transmission line upgrades. This, combined with the fact that the corridor will remain vegetated (see discussion of Standard P below) and steps will be taken to control erosion and sedimentation (see discussion of Standard Q below), will result in the project having no adverse impact on storm water run-off.

K. Septic Waste Disposal

Not applicable.

L. Essential Services

A guiding principle in the design of the MPRP transmission line upgrades has been to utilize the existing transmission line corridors to the maximum extent possible. Co-location of the transmission line upgrades, as opposed to the creation of new corridors, has multiple benefits, including the minimization of impacts to communities, individual property owners, and the environment. Within the Town of Chelsea, the construction of the new 345 kV transmission line and rebuilding of the existing 115 kV transmission lines will occur within the existing transmission line corridor, except that a 40-65 foot wide expansion of the corridor is necessary to meet clearance standards for the new and rebuilt transmission lines. Widening the existing corridor is favorable to creating an entirely new corridor to accommodate the new 345 kV line.

Because the project will occur within and adjacent to the existing transmission line corridor, and because this corridor crosses the shoreland zone in four places, these shoreland areas could not be avoided. While these areas must be crossed, CMP has designed the upgrades to minimize the number of poles in the shoreland zone and minimize the impact on the resources, including visual impacts.

M. Mineral Exploration and Extraction

Not applicable.

N. Agriculture

Not applicable.

O. Timber harvesting.

Not applicable.

P. Clearing of Vegetation for Development

Some clearing of vegetation will be required within the transmission corridor to accommodate the transmission line upgrades and ensure that the project meets federal reliability and safety standards. The amount of clearing will be limited to that which is necessary for development of the project, and is generally limited to removal of species that are capable of growing tall enough to interfere with the transmission lines (so-called "capable species"), and, in some instances, the occasional removal of mature "danger trees." Danger trees are trees that are large enough and positioned in such a manner that they could fall into the conductor, thereby posing a severe reliability risk. The removal of danger trees is a relatively infrequent activity.

The vegetation management work is performed using equipment typical of logging operations including cable and hook skidders, forwarders, tree movers, chain saws, and logging trucks. In general all trees, saplings of capable species, and sometimes tall shrubs are cut at ground level. All root systems are left intact. All slash (i.e., limbs, tree trunks, wood chips, etc.) from the cutting operation is disposed of in accordance with the Maine Slash Law (12 M.R.S.A. § 9333). The remaining vegetation is typically composed of scattered growth of small shrubs of non-capable species and herbaceous plants. After initial clearing, the condition of these cleared areas generally resembles that of a high-quality forestry operation.

After construction is completed, non-capable species are allowed to grow to ensure that the corridor is vegetated, which prevents erosion and provides wildlife habitat. Over a relatively short period of time (generally within one calendar year), the newly cleared portions of the corridors will exhibit the early-successional habitat type that is typical of existing transmission line corridors in Maine. See attached maps in Exhibit 1 and the sections related to specific Shoreland Zone Districts on page 12 for more detailed information.

Q. Erosion and Sedimentation Control

With the exception of the immediate area around the base of the support structures there is no increase in impervious surface area associated with the transmission line. The amount of ground disturbance associated with this project will be limited to the immediate vicinity of the pole placements and the impacts associated with temporary access roads. CMP has developed a standard manual, "Environmental Guidelines for Construction and Maintenance Activities on Transmission line and Substation Projects" (2007), which it uses as a routine part of all transmission projects (a copy of which is attached as Exhibit 5). This manual contains erosion and sedimentation control requirements, standards, and methods that will be used to protect soil and water resources during construction of the various MPRP components. The manual was developed in consultation with the Maine Department of Environmental Protection (DEP) is largely based on DEP's *Maine Erosion and Sediment Control BMPs*, dated March 2003, and DEP's Chapter 500, and contains specific Best Management Practices appropriate for electric transmission line and substation construction. These guidelines will be followed in the construction of transmission lines.

R. Soils

Based on the applicants' analysis of the Soil Survey Geographic Database compiled by the United States Department of Agriculture Natural Resources Conservation Service, soils within the transmission line corridor will accommodate the proposed MPRP construction activities. Soil constraints within the transmission line corridor will be managed and mitigated through implementation of erosion and sediment control measures, proper site and project design, and special construction procedures. If concrete foundations for specific poles should need to be constructed, soil borings will be conducted and the foundations will be designed in accordance with soil characteristics.

S. Water Quality

To minimize spill potential during construction, no fueling or maintenance of vehicles and equipment will be performed within 100 feet of wetlands, streams or other sensitive natural resources. After construction, the transmission line corridor is maintained to encourage the growth of scrub-shrub vegetation. Trees within the corridor that are capable of growing up into the conductors ("capable species") must be removed for safety and reliability reasons. CMP uses a selective herbicide program to treat an area once every four years to maintain an early successional stage of growth. Herbicide is selectively applied (using a low-pressure backpack applicator) to capable species to prevent growth (or re-growth of a cut plant) of individual plants. CMP does not use herbicides within 25 feet of any waterbody or wetland with standing water. Crew forepersons are certified by the Maine Pesticide Control Board, and all herbicides are EPA registered. The selective use of herbicides within the transmission line corridor does not pose a threat to groundwater quality.

T. Archaeological and Historic Resources

Following consultation with the Maine Historic Preservation Commission (MHPC), CMP has conducted comprehensive investigations of cultural resources along the entire scope of the MPRP. Survey reports have been submitted to the State Historic Preservation Officer (SHPO) and findings of effect from the SHPO have been completed for all required reports (Phase 0 and Phase IA/IB). There have been three types of Cultural Resource Surveys completed along the scope of the MPRP including: pre (European) contact archaeology, post (European) contact (or Historic) archaeology, (both subsurface), and a historic architecture survey which is concerned largely with the visual and/or physical impacts affecting functioning, historically relevant structures, districts and landscapes.

TRC Engineers, LLC confirmed, on behalf of CMP, that these surveys documented no archaeological or historic resources impacted within the project area in the Town.

Approval Standards: Shoreland Zoning Ordinance Section 16D (pages 28 and 29)

The proposed use will:

1. **Maintain safe and healthful conditions**

   The project will maintain the same safe and healthful conditions which are already present in the transmission line corridor. The transmission line corridor and the structures within it are maintained to established industry standards so as to ensure the safety of utility workers and the general public. Maintaining sufficient clearances around the conductors is paramount to the safe operation of the line. These clearances are achieved through appropriate siting of the structures themselves and through vegetation maintenance practices as described above. All construction will be in accordance with CMP's transmission standards, general industry standards, and "Good Utility Practice," including all necessary live line working clearances, strength factors, and reliability factors as governed by the National Electrical Safety Code (NESC). In all instances, the line will be designed to meet or exceed the NESC and other standards, as applicable. The transmission line and all facilities will be operated in full compliance with CMP safety standards, which fully comply with Federal Occupational Safety & Health Administration requirements.

2. **Not result in water pollution, erosion or sedimentation to surface waters.**

   As described above with respect to Shoreland Zoning Ordinance Sections 15(J) and (S) on pages 14 and 16, the MPRP project will not result in water pollution, erosion, or sedimentation to surface waters.

3. **Adequately provide for the disposal of all wastewater.**

   There will be no wastewater disposal required for this project, and therefore this standard has been met.

4. **Not have an adverse impact on spawning grounds, fish, aquatic life, bird, or other wildlife habitat.**

   Impacts to wildlife and wildlife habitat are largely avoided through the use of the existing service corridor, which has been in place for several decades. In general, given the existing landscape characteristics of the site, construction and maintenance of the project is not expected to create conditions that are not already common to the project area. It is fully anticipated that local wildlife populations will adapt and respond to any additional alterations much as they already do to ongoing land uses within the vicinity of the proposed project. Therefore, impacts to wildlife are expected to be minimal to non-existent. Identified significant wildlife habitats and natural areas, such as vernal pools and rare plant locations, will be avoided and minimized to the extent practicable through careful siting and placement of poles. Once installed the transmission line structures, due to the minimal amount of ground surface area they occupy, will have no significant impact on these critical natural areas. Significant wildlife habitats and natural areas will be avoided to the greatest extent practicable during construction, including measures that are taken to ensure any impacts will be minimal and temporary. Thus, this standard has been met; the project will not have an adverse impact on spawning grounds, fish, aquatic life, bird or other wildlife habitat.

5. **Conserve shore cover and visual, as well as actual, points of access to inland waters.**

   The proposed project will take place within and adjacent to the existing corridor, and since the corridor already contains structures of a similar nature, the proposed project will not significantly affect visual points of access to inland waters, and will have no impact on actual points of access to inland waters. The corridor will continue to be maintained in a vegetated state, thereby preserving a similar degree of shore cover which currently exists.

6. **Protect archaeological and historic resources as designated in the comprehensive plan.**

   As discussed above on page 16 with respect to Shoreland Zoning Ordinance Section 15(T), the project will not impact any archaeological and historic resources, including any such resources designated in the comprehensive plan.

7. **Will avoid problems associated with floodplain development and use.**

   A portion of the project area traverses 100-year floodplain areas in two locations: (i) approximately 50 feet along the east sheoreline of the Kennebec River and (ii) 100 feet along Togus Stream. No new structures will be installed within the floodplain areas. Approximately 0.15 acres of vegetation clearing (topping) along the Kennebec River and 0.10 acres along Togus Stream will be required to remove or control "capable species," or trees capable of growing into the safety zone around the conductors.

   Because of the nature of a transmission line and the minimal disturbance to these areas associated with the project, construction and maintenance of the proposed transmission line will not cause or increase flooding or cause a flood hazard to any neighboring structures. Furthermore, the program will not affect runoff or infiltration relationships. Thus, the project will avoid problems associated with floodplain development and use.

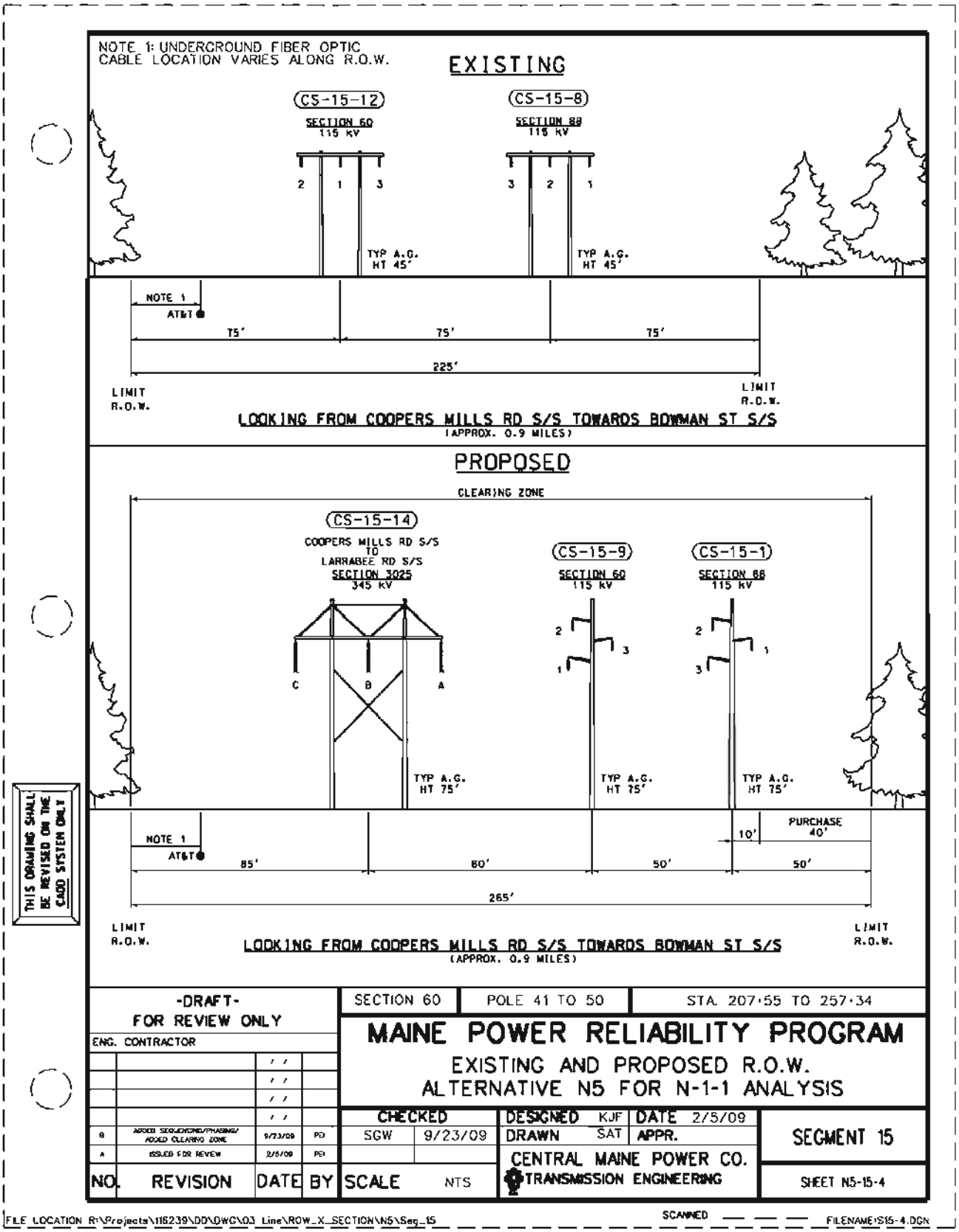
8. **Be in conformance with the provisions of Section 15, Land Use Standards.**

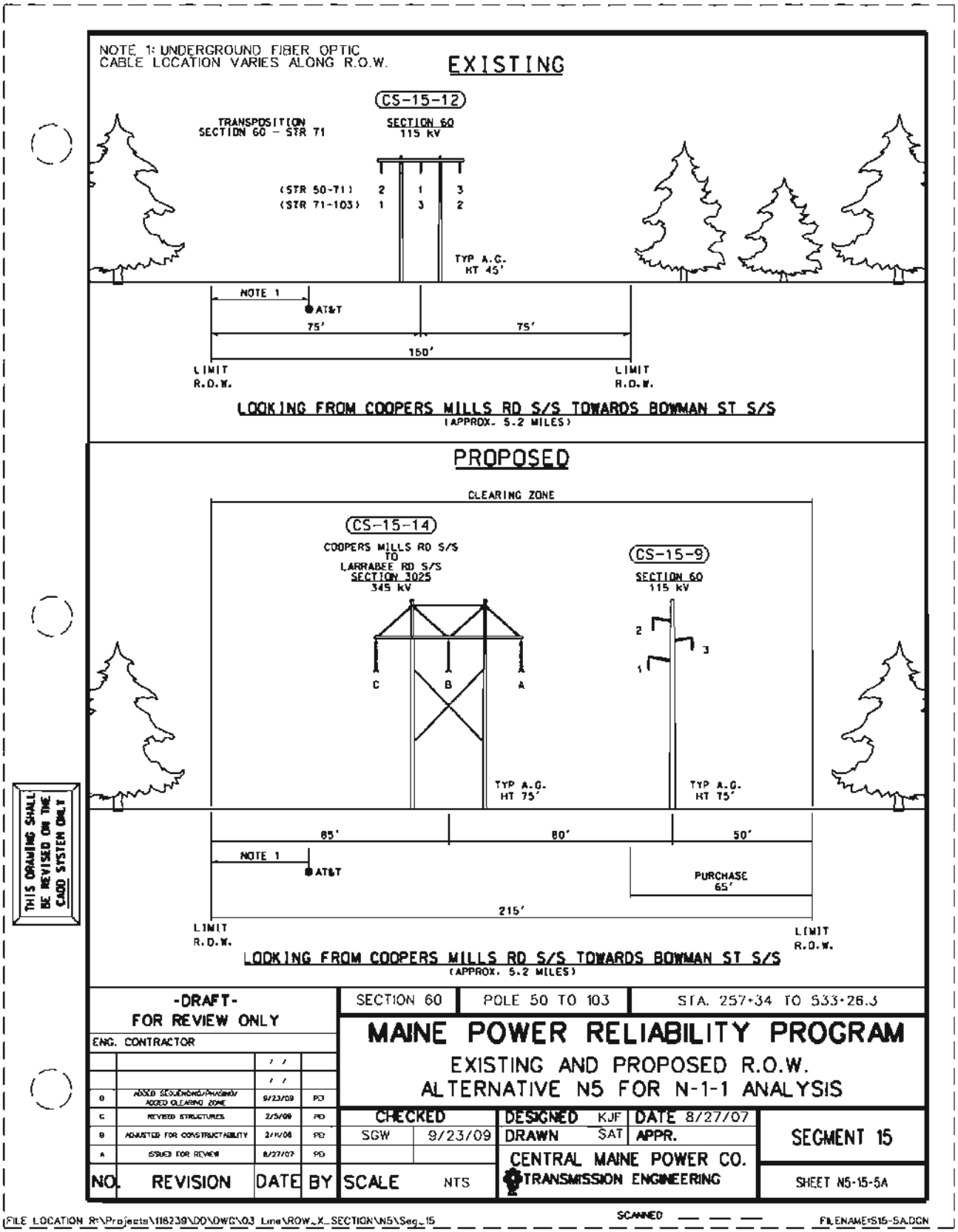
   As discussed above with respect to Shoreland Zoning Ordinance Sections 15(A) through (T), above, this project complies with all of the provisions of Section 15 of the Shoreland Zoning Ordinance.

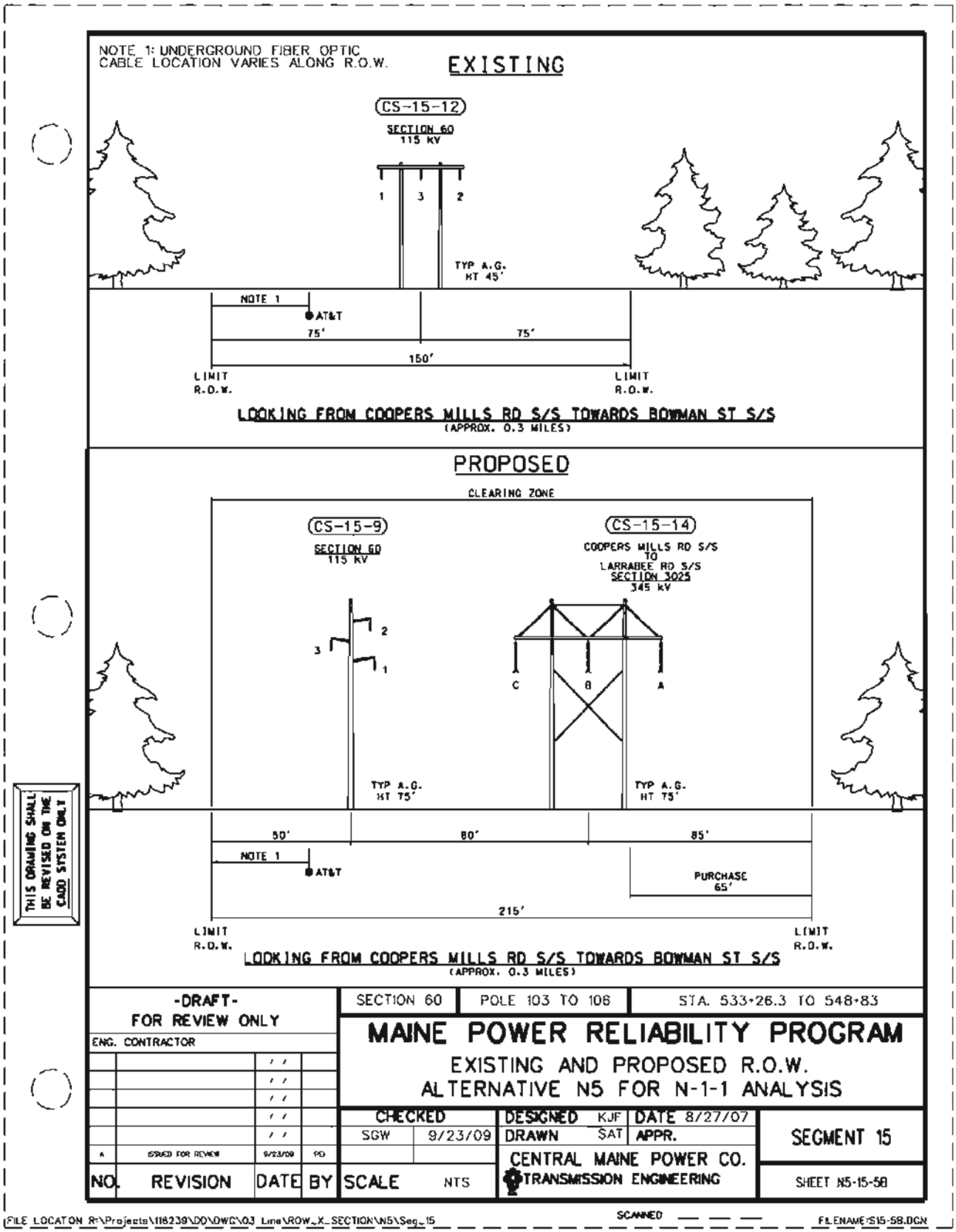
   .

EXHIBIT 1
Transmission Line Corridor on Topo Maps, Sensitive Habitat, and Hydrographic Features

EXHIBIT 2
Transmission Line Configuration Cross Sections


NOTE 1: UNDERGROUND FIBER OPTIC CABLE LOCATION VARIES ALONG R.O.W.
EXISTING
CS-15-12
SECTION 60
115 kV
2 1 3
TYP A.G. HT 45'
CS-15-8
SECTION 88
115 kV
3 2 1
TYP A.G. HT 45'
NOTE 1
AT&T
75'
75'
75'
225'
LIMIT R.O.W.
LIMIT R.O.W.
LOOKING FROM COOPERS MILLS RD S/S TOWARDS BOWMAN ST S/S
(APPROX. 0.9 MILES)
PROPOSED
CLEARING ZONE
CS-15-14
COOPERS MILLS RD S/S TO LARRABEE RD S/S
SECTION 3025
345 kV
C B A
TYP A.G. HT 75'
CS-15-9
SECTION 60
115 kV
2 3 1
TYP A.G. HT 75'
CS-15-1
SECTION 88
115 kV
2 1 3
TYP A.G. HT 75'
NOTE 1
AT&T
85'
80'
50'
10'
PURCHASE 40'
50'
265'
LIMIT R.O.W.
LIMIT R.O.W.
LOOKING FROM COOPERS MILLS RD S/S TOWARDS BOWMAN ST S/S
(APPROX. 0.9 MILES)
THIS DRAWING SHALL BE REVISED ON THE CADD SYSTEM ONLY
-DRAFT-
FOR REVIEW ONLY
ENG. CONTRACTOR
NO. REVISION DATE BY
B ADDED SEQUENCING/PHASING/ ADDED CLEARING ZONE 9/23/09 PEI
A ISSUED FOR REVIEW 2/5/09 PEI
SECTION 60 POLE 41 TO 50 STA. 207+55 TO 257+34
MAINE POWER RELIABILITY PROGRAM
EXISTING AND PROPOSED R.O.W.
ALTERNATIVE N5 FOR N-1-1 ANALYSIS
CHECKED SGW 9/23/09
DESIGNED KJF DATE 2/5/09
DRAWN SAT APPR.
SCALE NTS
CENTRAL MAINE POWER CO.
TRANSMISSION ENGINEERING
SEGMENT 15
SHEET N5-15-4
FILE LOCATION: R:\Projects\116239\DD\DWG\03_Line\ROW_X_SECTION\N5\Seg_15
SCANNED
FILENAME: S15-4.DGN


NOTE 1: UNDERGROUND FIBER OPTIC CABLE LOCATION VARIES ALONG R.O.W.
EXISTING
CS-15-12
TRANSPOSITION SECTION 60 – STR 71
SECTION 60 115 kV
(STR 50-71) 2 1 3
(STR 71-103) 1 3 2
TYP A.G. HT 45'
NOTE 1
AT&T
75'
75'
150'
LIMIT R.O.W.
LIMIT R.O.W.
LOOKING FROM COOPERS MILLS RD S/S TOWARDS BOWMAN ST S/S
(APPROX. 5.2 MILES)
PROPOSED
CLEARING ZONE
CS-15-14
COOPERS MILLS RD S/S TO LARRABEE RD S/S
SECTION 3025 345 kV
C B A
TYP A.G. HT 75'
CS-15-9
SECTION 60 115 kV
2 3 1
TYP A.G. HT 75'
85'
80'
50'
NOTE 1
AT&T
PURCHASE 65'
215'
LIMIT R.O.W.
LIMIT R.O.W.
LOOKING FROM COOPERS MILLS RD S/S TOWARDS BOWMAN ST S/S
(APPROX. 5.2 MILES)
THIS DRAWING SHALL BE REVISED ON THE CADD SYSTEM ONLY
-DRAFT-
FOR REVIEW ONLY
ENG. CONTRACTOR
NO. REVISION DATE BY
D ADDED SEQUENCING/PHASING/ ADDED CLEARING ZONE 9/23/09 PD
C REVISED STRUCTURES 2/5/09 PD
B ADJUSTED FOR CONSTRUCTABILITY 2/11/08 PD
A ISSUED FOR REVIEW 8/27/07 PD
SECTION 60 | POLE 50 TO 103 | STA. 257+34 TO 533+26.3
MAINE POWER RELIABILITY PROGRAM
EXISTING AND PROPOSED R.O.W.
ALTERNATIVE N5 FOR N-1-1 ANALYSIS
CHECKED SGW 9/23/09
DESIGNED KJF DATE 8/27/07
DRAWN SAT APPR.
SCALE NTS
CENTRAL MAINE POWER CO.
TRANSMISSION ENGINEERING
SEGMENT 15
SHEET N5-15-5A
FILE LOCATION R:\Projects\116239\DO\DWG\03 Line\ROW_X_SECTION\N5\Seg_15
SCANNED
FILENAME:S15-5A.DGN


NOTE 1: UNDERGROUND FIBER OPTIC CABLE LOCATION VARIES ALONG R.O.W.
EXISTING
CS-15-12
SECTION 60
115 kV
1
3
2
TYP A.G. HT 45'
NOTE 1
AT&T
75'
75'
150'
LIMIT R.O.W.
LIMIT R.O.W.
LOOKING FROM COOPERS MILLS RD S/S TOWARDS BOWMAN ST S/S
(APPROX. 0.3 MILES)
PROPOSED
CLEARING ZONE
CS-15-9
SECTION 60
115 kV
CS-15-14
COOPERS MILLS RD S/S
TO
LARRABEE RD S/S
SECTION 3025
345 kV
3
2
1
C
B
A
TYP A.G. HT 75'
TYP A.G. HT 75'
50'
80'
85'
NOTE 1
AT&T
PURCHASE 65'
215'
LIMIT R.O.W.
LIMIT R.O.W.
LOOKING FROM COOPERS MILLS RD S/S TOWARDS BOWMAN ST S/S
(APPROX. 0.3 MILES)
THIS DRAWING SHALL BE REVISED ON THE CADD SYSTEM ONLY
-DRAFT-
FOR REVIEW ONLY
ENG. CONTRACTOR
NO. REVISION DATE BY
A ISSUED FOR REVIEW 9/23/09 PD
SECTION 60
POLE 103 TO 106
STA. 533+26.3 TO 548+83
MAINE POWER RELIABILITY PROGRAM
EXISTING AND PROPOSED R.O.W.
ALTERNATIVE N5 FOR N-1-1 ANALYSIS
CHECKED SGW 9/23/09
DESIGNED KJF DATE 8/27/07
DRAWN SAT APPR.
SCALE NTS
CENTRAL MAINE POWER CO.
TRANSMISSION ENGINEERING
SEGMENT 15
SHEET N5-15-58
FILE LOCATION R:\Projects\118239\DO\DWG\03 Line\ROW_X_SECTION\N5\Seg_15
SCANNED
FILENAME:S15-58.DGN

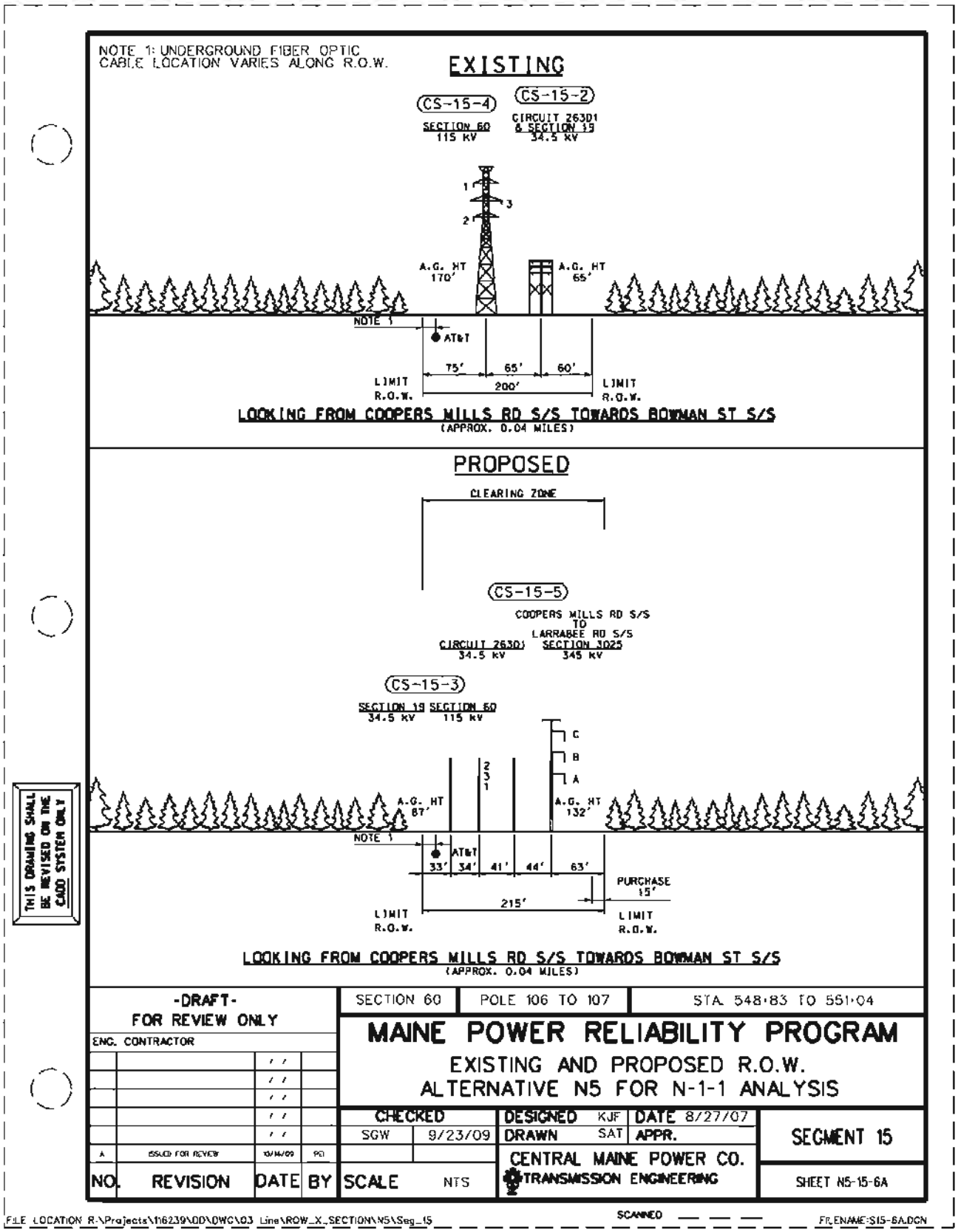

NOTE 1: UNDERGROUND FIBER OPTIC CABLE LOCATION VARIES ALONG R.O.W.
EXISTING
CS-15-4
SECTION 60
115 kV
CS-15-2
CIRCUIT 2630 1
& SECTION 19
34.5 kV
A.G. HT 170'
A.G. HT 65'
NOTE 1
AT&T
75'
65'
60'
200'
LIMIT R.O.W.
LIMIT R.O.W.
LOOKING FROM COOPERS MILLS RD S/S TOWARDS BOWMAN ST S/S
(APPROX. 0.04 MILES)
PROPOSED
CLEARING ZONE
CS-15-5
COOPERS MILLS RD S/S
TO
LARRABEE RD S/S
CIRCUIT 2630 1
34.5 kV
SECTION 3025
345 kV
CS-15-3
SECTION 19
34.5 kV
SECTION 60
115 kV
A.G. HT 87'
A.G. HT 132'
NOTE 1
AT&T
33'
34'
41'
44'
63'
PURCHASE 15'
215'
LIMIT R.O.W.
LIMIT R.O.W.
LOOKING FROM COOPERS MILLS RD S/S TOWARDS BOWMAN ST S/S
(APPROX. 0.04 MILES)
THIS DRAWING SHALL BE REVISED ON THE CADD SYSTEM ONLY
-DRAFT-
FOR REVIEW ONLY
ENG. CONTRACTOR
NO. REVISION DATE BY
A ISSUED FOR REVIEW 10/14/09 PD
SECTION 60
POLE 106 TO 107
STA. 548+83 TO 551+04
MAINE POWER RELIABILITY PROGRAM
EXISTING AND PROPOSED R.O.W.
ALTERNATIVE N5 FOR N-1-1 ANALYSIS
CHECKED SGW 9/23/09
DESIGNED KJF
DRAWN SAT
DATE 8/27/07
APPR.
SCALE NTS
CENTRAL MAINE POWER CO.
TRANSMISSION ENGINEERING
SEGMENT 15
SHEET N5-15-6A
FILE LOCATION R:\Projects\16239\DD\DWG\03 Line\ROW_X_SECTION\N5\Seg_15
SCANNED
FILENAME:S15-6A.DGN

EXHIBIT 3
New Transmission Pole Height Ranges

Above Ground Height Range for New Transmission Poles
(Figures are approximate)

Pole Height (in feet)	**Number of Poles**	**Section 3025** (new 345 kV)	**Section 60** (rebuilt 115kV)	**Section 88** (rebuilt 115 kV)	**Section 14** (rebuilt 34.5 kV)	**Dist. Circuit 263D1**
41 - 50	2		2			
51 - 60	1			1		
61 - 70	34		33	1		
71 - 80	52	18	33	1		
81 - 90	33	23	8		1	1
91 – 100	13	11	2			
101 - 110						
110 - 120	1	1				
121 - 130						
131 - 140	1	1				
Total	**137**	**54**	**78**	**3**	**1**	**1**

EXHIBIT 4
Abutting Landowners and
Demonstration of CMP's Title, Right, or Interest

EXHIBIT 5

Central Maine Power Company
Environmental Guidelines for Construction and Maintenance Activities on Transmission Line and Substation Projects