

STATE OF NEW HAMPSHIRE

Inter-Department Communication

DATE: March 24, 2021

AT (OFFICE): NHPUC

FROM: Joseph M. Vercellotti, P.E.
Utility Engineer, Safety Division

SUBJECT: Docket No. DG 21-006 Petition of Liberty Utilities (Energy North Natural Gas) Corp. d/b/a Liberty Utilities for a License to Construct and Maintain a Natural Gas Pipeline beneath Lake Winnisquam in Tilton New Hampshire
Staff Recommendation

TO: Debra Howland, Executive Director
Randy Knepper, Director, Safety Division
Steve Frink, Director, Gas and Water Division
Lynn Fabrizio, Staff Attorney

The Safety Division's review of the above petition consisted of the following elements:

- Petition contents, project overview and history
- Review of land ownership on each side of the lake crossing.
- Review of 49 CFR Part 192 and Puc 500 rule requirements.
- Review of public need and public impact, including applicability of other State regulations
- Conclusions and Recommendations

Petition Contents, Project Overview and History

On January 20, 2021, Liberty Utilities (Energy North Natural Gas) Corp. d/b/a Liberty Utilities ("Liberty") filed a petition, pursuant to RSA 371:17 and RSA 371:20, to construct and maintain a gas distribution main beneath a portion approximating 35 feet of Lake Winnisquam in Tilton, New Hampshire. The natural gas distribution main will provide additional pipeline capacity for the City of Laconia. The water crossing involves a 400-foot section of Lake Winnisquam along the western edge of Laconia Road (Route 3) near Chapman Road. (See Attachment A)

In the petition, Liberty states that the construction of the new gas distribution main is part of a five-year plan to increase the gas supply to Laconia. This plan involves installation of a second, parallel main from the Company's 33 Tilton Road, Tilton facility to a proposed future regulator station to be installed near the Mosquito Bridge, also in Tilton, extending approximately five miles along Route 3.

The existing main along Route 3 is currently the only source of supply for the Laconia area. This second main will allow for greater capacity and increased reliability. During the upcoming construction season the Company intends to complete Phase 3 of the five-phase project. Phase 3 consists of installing 4,600 feet of 8-inch nominal diameter polyethylene gas main in the section of Laconia Rd (US Route 3) involved in this petition, and 1,600 feet of 8-inch nominal diameter polyethylene gas main in the section closer to Liberty's Tilton facility. Liberty indicated the project is necessary in order to provide safe natural gas service to Laconia consistent with RSA 371:17.

Liberty further indicated this crossing of public waters, as described in its petition, can be exercised without substantially affecting public rights in said waters as required by RSA 371:20.

Liberty indicated the gas main will consist of 8-inch nominal diameter high density polyethylene (HDPE) SDR-11 plastic pipe installed up to 7 feet below the lake bed and up to 17 feet below the existing road grade. Liberty intends to operate the gas main at approximately 125 psig, the current maximum allowable design pressure per 49 CFR Part 192.121(c)(2)(i). Liberty's proposes to install a 400-foot segment of main under a portion of Lake Winnisquam using Horizontal Directional Drilling (HDD) equipment. HDD is a trenchless pipe installation method, which allows the installation of a new main under the lake bed without surface water impacts. Liberty proposes installing the main at a minimum 250-foot pipe bend radius. A 250-foot minimum pipe bend radius should be adequate and not impose stresses exceeding allowable levels. The Attachment B layout plan shows a proposed pipeline profile and general site features.

Land Ownership

The State of New Hampshire owns the land on both sides of the proposed crossing. Liberty intends to obtain the necessary permits from NH DOT to construct the pipeline on state property. The termination points will be within the Route 3 right of way. The project location and flood plain delineation are shown on Attachment A.

Review of Safety Requirements as Described in Puc 500

N.H. Code Admin. Rules Puc 506.01, Pipeline Safety Standards, provides that:

(a) All utilities shall comply with those pipeline safety regulations established by the United States Department of Transportation which are set forth in 49 C.F.R. Parts 191, 192, 193, 198 and 199, including future amendments thereto.

(b) Where Puc 500 or Puc 800 establishes more stringent requirements than those pipeline safety regulations adopted pursuant to (a) above, the more stringent requirement set forth in Puc 500 or Puc 800 shall apply.

Liberty's petition does not explicitly state that the administrative rules of Puc 500 will be met, but does provide engineering details that show overall compliance with 49 CFR Part 192, which is referenced in Puc 506.01.

The Safety Division review of the petition and attachments submitted to date found the proposed crossing to be in conformance with the applicable requirements of Puc 500 and 49CFR Part 192.

Public Need and Public Impact

Liberty stated that this gas main is needed to serve additional load in Laconia and to increase reliability. Liberty further indicated that absent completion of this five phase project, the Company would not be able to serve future customers in the Laconia area. The Safety Division concludes any impact to the public from this water crossing will be negligible as a result of completing the directional bore at the prescribed depth below the lake bottom.

Safety Division Staff Conclusion and Recommendation:

The Safety Division recommends approval of Liberty's petition under RSA 371:17 and RSA 371:20 with the following conditions:

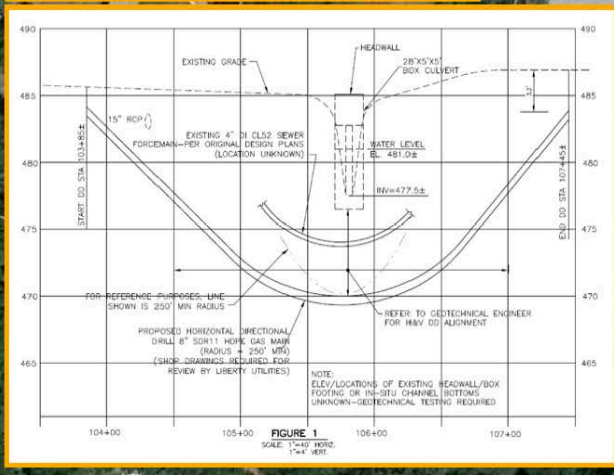
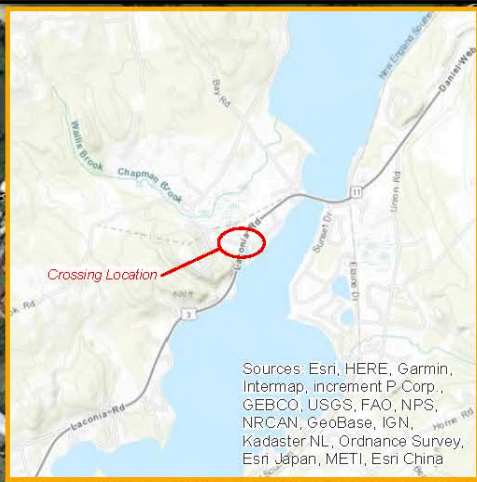
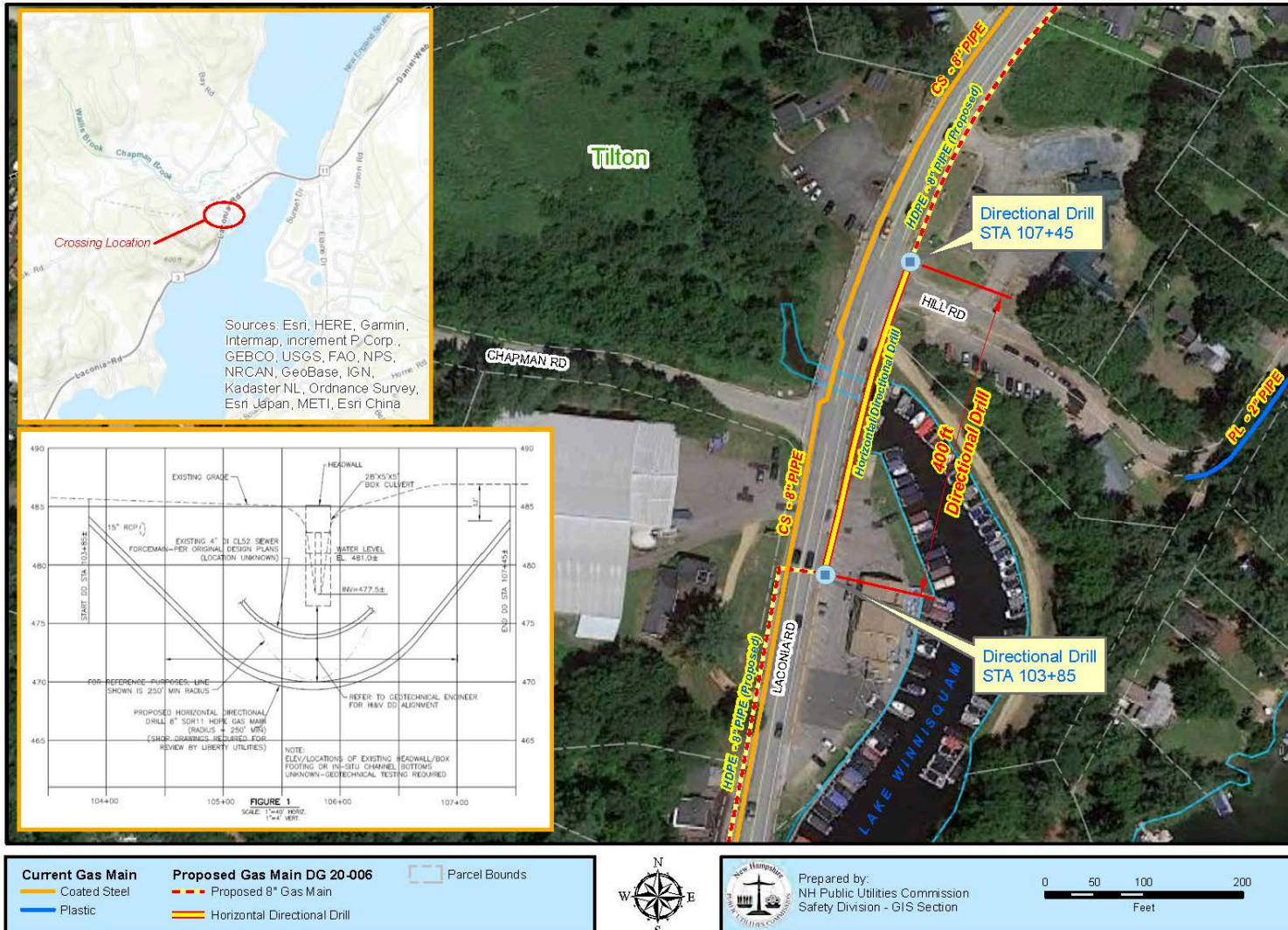
- a. Staff recommends that the approval be limited to the Liberty natural gas pipeline under consideration in this docket.
- b. Liberty is required to construct, operate, and maintain the piping consistent with both Puc 506.02 and 49 CFR Part 192 requirements and the North American Society for Trenchless Technology's (NASTT's) Horizontal Directional Drilling Good Practices Guidelines (4th edition).
- c. Liberty should be directed to operate and maintain the crossing in conformance with the latest 49 CFR Part 192 amendments. Any and all future alterations to the crossing that may impact the public shall conform to the most current 49 CFR Part 192 amendments in effect at the time of submittal of the alteration.
- d. Liberty should use aboveground pipeline markers to identify the pipeline location with appropriate warning and company contact information on each side of the Lake Winnisquam crossing. The gas main must be locatable for future excavations using a tracer wire or other suitable equivalent means.
- e. Continuous monitoring for possible hydro fracture situations shall be provided during the HDD operation.
- f. Containment measures shall be implemented immediately during a hydro fracture situation that at a minimum include notifications to be made in the event a hydro fracture occurs to the NH PUC Safety Division and NH DES; and clean up procedures to be implemented in the event a hydro fracture occurs shall be onsite prior to the beginning of the HDD operation.

If these conditions are met, the Safety Division is of the opinion that the proposed natural gas pipeline crossing will meet current safety standards (Puc 506.02 and 49 CFR Part 192).

The Safety Division believes the construction of the new gas distribution main under a portion of Lake Winnisquam, as proposed, may be exercised without substantially affecting the public rights in said waters and lands (RSA 371:20).

The Safety Division is also of the opinion that the proposed natural gas pipeline crossing is necessary to meet the reasonable requirements of service to the public (RSA 371:17).

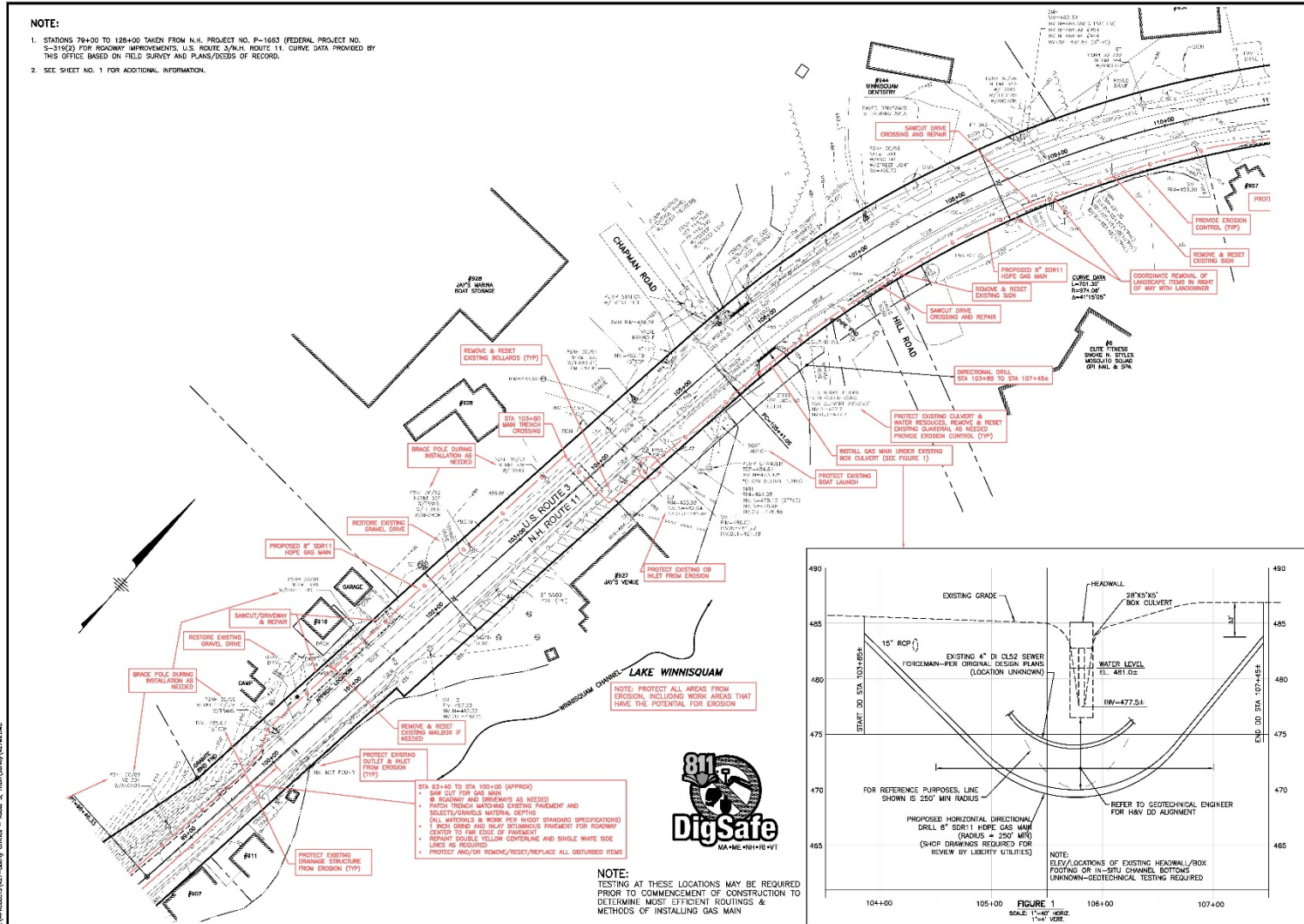
Lake Winnisquam - DG 21-006 Liberty (Natural Gas) Crossing



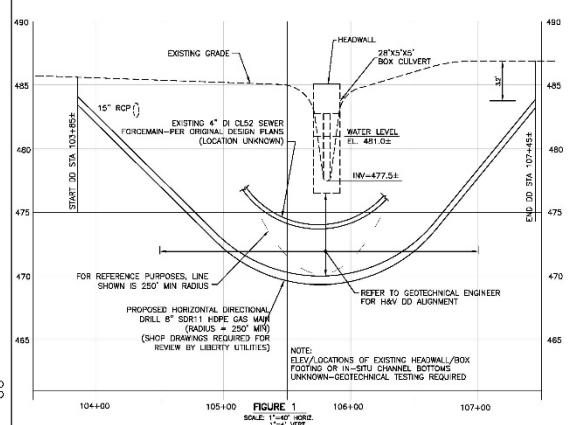
Prepared by:
NH Public Utilities Commission
Safety Division - GIS Section




- NOTE:**
- STATIONS 79+00 TO 128+00 TAKEN FROM N.H. PROJECT NO. P-1683 (FEDERAL PROJECT NO. 3-319(2)) FOR ROADWAY IMPROVEMENTS, U.S. ROUTE 3/N.H. ROUTE 11. CURVE DATA PROVIDED BY THIS OFFICE BASED ON FIELD SURVEY AND PLANS/DEEDS OF RECORD.
 - SEE SHEET NO. 1 FOR ADDITIONAL INFORMATION.



NOTE:
TESTING AT THESE LOCATIONS MAY BE REQUIRED PRIOR TO COMMENCEMENT OF CONSTRUCTION TO DETERMINE MOST EFFICIENT ROUTINGS & METHODS OF INSTALLING GAS MAIN





The Dubay Group, Inc.
10 Conway Road, Suite 200
Londonderry, NH 03053
Tel: 603.888.1111
www.dubaygroup.com

Engineers
Planners
Surveyors
The Dubay Group, Inc.


0 20 40 80
SCALE: 1 IN = 40 FEET

REVISIONS:

REV.	DATE	COMMENTS	BY
1	10/30/20	WISC. REV'S	JAG
2	11/18/20	WISC. REV'S	WA

DRAWN BY: TWS
CHECKED BY: TWS
DATE: AUGUST 27, 2020
SCALE: 1"=40'
DEED REF:

PROJECT:

 Liberty Utilities
PHASE 3 GAS MAIN CONSTRUCTION PROJECT
LACONIA ROAD (NH ROUTE 11)
TILTON & SANDBORO, NEW HAMPSHIRE

LIBERTY UTILITIES
15 BUTTRICK ROAD
LONDONDERRY, NH 03053

SHEET TITLE:
NORTH SECTION LAYOUT PLAN
STA 99+00 TO STA 116+00

PROJECT #4278 SHEET 4 of 7

Executive.Director@puc.nh.gov
amanda.noonan@puc.nh.gov
catherine.marsellos@puc.nh.gov
jayson.laflamme@puc.nh.gov
joseph.vercellotti@puc.nh.gov
karen.sinville@libertyutilities.com
lynn.fabrizio@puc.nh.gov
maureen.karpf@libertyutilities.com
michael.sheehan@libertyutilities.com
ocalitigation@oca.nh.gov
Paul.Kasper@puc.nh.gov
Peter.Chivers@LibertyUtilities.com
randy.knepper@puc.nh.gov
steve.frink@puc.nh.gov
steven.mullen@libertyutilities.com
susan.gagne@puc.nh.gov