



Chester Planning Board

Eighty-Four Chester Street
Chester, NH 03036
Office: (603) 887-5629 Fax: (603) 887-4404
E-Mail: chstrpl@gsinet.net

Notice of Public Hearing

April 27, 2022

The Chester Planning Board will hold a Public Hearing on Wednesday, **April 27, 2022**, at 7:15 P.M. in the main meeting room at the Municipal Office Building, 84 Chester Street to act on the following:

Note: Hearing was originally scheduled for April 13th, however, a postponement was requested in writing until April 27th.

1. Conditional Use Permit application by Eversource Energy (PSNH) for replacement of select utility poles on transmission lines 373 & 391 in Chester. The structures require replacement due to age and weathering so the transmission lines can continue to function safely and reliably. This work will require temporary impacts to wetlands.

These documents can be viewed online or during regular business hours in the Planning Board's Office and the Town Clerk's Office at the Municipal Office Building. Questions and/or comments should be directed to the Planning Board Office.

The meeting will also be broadcast live on Channel 20, and available on the Town's cable TV streaming service - go to <http://www.vod.chesterctv.com> and click "Watch Now".

Brian Sullivan
Chairman

Posted: ALH 3/25/22



Chester Conservation Commission

Municipal Office Building
Eighty-Four Chester Street
Chester, NH 03036
consvationcommission@chesternh.org

April 20, 2020

Planning Board Members,

At the April 12, 2022 Chester Conservation meeting, Conor Madison from GZA presented plans in regards to an application for a Conditional Use Permit for work on Eversource Energy's Transmission Lines 391, 385 and 373 in Chester.

The few questions and concerns expressed by members of the Conservation Commission were promptly addressed and the Conservation Commission agreed to communicate its approval of this CUP to the Planning Board before its April 27, 2022 meeting.

In addition, one week later, GZA added replacement of two additional structures to the scope of work - one structure on Line 391 and the other on Line 373. This additional scope of work was approved by the Conservation Commission via email vote on April 20, 2022.

Please accept this letter as the Conservation Commission's approval of the project work on Lines 391, 385 & 373.

Thank you,
Victor Chouinard
Chairman, Chester Conservation Commission



To Protect the natural heritage of Chester for the enjoyment of the public,
the benefit of the community, and the health of the ecosystem



Known for excellence.
Built on trust.

GEOTECHNICAL

ENVIRONMENTAL

ECOLOGICAL

WATER

CONSTRUCTION
MANAGEMENT

5 Commerce Park North
Suite 201
Bedford, NH 03110
T: 603.623.3600
F: 603.624.9463
www.gza.com



April 18, 2022
File No. 04.0190999.86

Town of Chester
Planning Board
Attn: Brian Sullivan, Chairman
84 Chester Street
Chester, New Hampshire 03036

Re: Conditional Use Permit Application
Eversource Energy
391 and 373 Transmission Line Structure Replacement Project
Chester, New Hampshire

Dear Chairman Sullivan:

This letter transmits a Conditional Use Permit Application on behalf of Public Service Company of New Hampshire doing business as Eversource Energy (Eversource), for the 391 and 373 Transmission Line Structure Replacement Project (see attached **Figure 1, Locus Plan**). On behalf of Eversource, GZA GeoEnvironmental, Inc. (GZA) is requesting consideration of a Conditional Use Permit Application for required temporary impacts within the Town of Chester Wetlands Conservation District.

The proposed project involves the replacement of select existing utility structures, including eight along the 373 Transmission Line, and three along the 391 Transmission Line. The utility poles are approximately 50 years old and have been subject to environmental damage (weathering, woodpecker holes, etc.), and must be replaced for the lines to continue to function safely and reliably. The proposed 2022 pole replacements were selected based on site visit evaluations.

The 373 and 391 Transmission Lines run parallel to each other in an existing approximate 270-foot-wide utility right-of-way (ROW) from the Scobie Pond Substation to the Deerfield Substation, where the 373 Transmission Line terminates. In the Town of Chester, the proposed work areas are located west of Bridle Path Road, south of Chester Street, and east of Candia Road.

Tighe and Bond delineated wetlands in 2018 and GZA reviewed wetland boundaries in 2022 within the immediate vicinity of proposed work areas. In addition, GZA will be submitting a separate wetlands permit application to the New Hampshire Department of Environmental Services for the proposed temporary wetland impacts in Chester.

In total eleven utility poles including 373 Structures 300, 299, 298, 297, 296, 295, 276, 275 and 391 Structures 394, 274 and 272 are proposed to be replaced in Chester along the 373 Transmission Line and 391 Transmission Line (see **Figure 2, Permitting and Impact Plans**). The utility poles will be approximately 5-10 feet higher than the existing utility poles due to updated National Electrical Safety Code requirements.



In the Town of Chester, the proposed project requires approximately 35,589 sq. ft. of temporary wetland impact to palustrine emergent and scrub-shrub wetlands that are located within the existing maintained utility ROW for construction access and temporary work pad placement (see **Table 1**). In addition, the project requires approximately 12,881 sq. ft. of wetland buffer impact for access to work locations and for work pad placement. GZA and Eversource worked closely to review the pole locations and construction access during the design of the project to minimize impacts in the Wetland Conservation District. Wherever possible, temporary access is proposed using existing access routes to limit disturbance to natural wetlands and wetland buffers.

Table 1 – Summary of wetlands and associated temporary wetland and buffer impacts.

Wetland ID	Classification	Temporary Wetland Impact (SF)	Local Buffer Impact (SF)
CHW-10	PSS1E/EM1E	30,501	1,525
CHW-12	PEM1F/PUB3Fb	2,093	1,158
CHW-13	PSS1E	1,308	1,033
CHW-14	PSS1E	779	2,212
CHW-15	PEM1E	0	96
CHW-17	PSS1E	0	598
CHW-18	PEM1E	0	2,046
CHW-19.1	PSS1E	0	2,166
CHW-36	PSS1E	908	2,047
Total		35,589	12,881

(1) Key to classifications:

- P = palustrine wetland system
- UB = unconsolidated bottom
- 3 = mud
- SS = scrub-shrub
- 1 = broad-leaved deciduous
- EM = emergent
- 1=persistent

Modifiers:

- b = beaver
- B = saturated
- C = seasonally flooded
- E = saturated or seasonally flooded

In accordance with *Article 5.7.6 of the Chester Zoning Ordinance*, a Conditional Use Permit may be issued by the Planning Board for the construction of roads and other access ways for pipelines, power lines and other transmission lines provided that all of the following conditions are found to exist:

- A. **The proposed construction is essential to the productive use of land not within the Wetlands Conservation District.** The project proposes to maintain the existing 373 Transmission Line, located within an existing and maintained ROW. The proposed utility pole replacements within the Wetlands Conservation District are required to ensure the 373 and 391 Transmission Lines continue to function safely and reliably. The utility poles will be replaced in their current alignment, and there is no expansion of the existing ROW, or installation of new utility lines. As a result, the proposed project is necessary for the productive use of land within the existing and maintained ROW.
- B. **Design and construction methods will be such as to minimize detrimental impact upon the wetlands and will include restoration of the site as nearly as possible to its original gradient condition.** The access for the project has been sited to avoid areas within wetlands and wetland buffers to the greatest extent practicable. Proposed impacts have been avoided in Wetlands CHW-20.1, CHW-19.1, CHW-18, CHW-17, CHW-15 and CHW-13. In addition, the project utilizes existing access routes within the ROW to limit and



prevent new disturbance. Where access routes temporarily cross a wetland, the proposed project has been designed to minimize temporary wetland impacts by using wetland matting. Matting will be temporarily placed in narrow sections of wetlands where available and within existing access routes in order to provide appropriate access and prevent rutting.

Temporary wetland impacts will be restored upon completion of work. Eversource has retained GZA to complete regular erosion control inspections during construction and provide guidance to the contractor to maintain compliance with local, state, and federal environmental permits. In addition, GZA will coordinate with the contractor to complete best management practices (BMPs) to protect rare, threatened, and/or endangered species during construction.

After construction activities are complete, upland work areas will be re-contoured to minimize slopes and to re-establish gradients of the adjacent landscape to the greatest extent possible. Wetland areas will be mulched and restored using a native seed mix as necessary. Erosion controls will be removed when adjacent areas are stabilized.

- C. **No alternative route, which does not cross a wetland or has less detrimental impact on the wetland is feasible.** As previously mentioned, impacts were avoided and minimized to the greatest extent practicable by utilizing existing access roads and avoiding unnecessary temporary impacts to wetlands by placing utility poles outside of wetland boundaries and wetland buffers where possible. Timber matting will be used where wetlands must be crossed to limit and prevent rutting and maintain a buffer between tracked vehicles and wetland vegetation. There are no alternative routes that both provide access to poles and minimize impacts to wetlands and wetland buffers.
- D. **Economic advantage alone is not a reason for the proposed construction.** The proposed project involves replacement of seven poles along the 373 Transmission Line and two poles along the 391 Transmission Line. This line is approximately 50 years old and have been subject to environmental damage. Upon field investigations, it was determined that the replacement of these poles is necessary for the lines to continue to function safely and reliably. As a result, the proposed project will ultimately ensure public health and safety and the reason for the proposed construction is not for economic advantage.

Please feel free to contact us with any questions.

Very truly yours,
GZA GEOENVIRONMENTAL, INC.

Conor Madison, CPESC, CESSWI
Project Manager

Tracy Tarr, CWS, CWB, CESSWI
Consultant/Reviewer

Deborah M. Zarta Gier, CNRP
Principal

CEM/DMZ/TLT

Attachments: Conditional Use Permit Application Form



April 18, 2022

04.0190999.86

2022 373 and 391 Transmission Line Structure Replacement Project

Page | 4

Photo Log

List of Abutters

Figure 1 – Locus Plan

Figure 2 – Permitting and Impact Plans

Application Fee

5.6 - Flood Plain Conservation District (Zone FP) (5/10/2016)

5.6.4 - Conditional Uses

A conditional use permit may be granted by the Planning Board for the construction of roads and other access ways and for pipelines, power lines and other transmission lines provided that all of the following conditions are found to exist:

5.6.4.1 - The proposed construction is essential to the productive use of land not within the Flood Plain Conservation District.

5.6.4.2 - Design and construction methods will be such as to minimize detrimental impact upon the Flood Plain and will include restoration of the site as nearly as possible to its original gradient condition.

5.6.4.3 - No alternative route which does not cross a Flood Plain or has less detrimental impact on the Flood Plain is feasible.

5.6.4.4 - Economic advantage alone is not a reason for the proposed construction.

5.6.4.5 - Prior to the granting of conditional use permit use under this subsection, the applicant may be required to submit a performance security to the Planning Board in a form acceptable to the Board. The security shall be submitted in a form and amount with surety and conditions satisfactory to the Planning Board to ensure that the construction has been carried out in accordance with the approved design. The security shall be submitted and approved prior to the issuance of any permit authorizing construction.

5.6.4.6 - The Planning Board with the concurrence of the Conservation Commission may require the applicant to submit an environmental impact assessment when necessary to evaluate an application made under this part. The cost of this assessment shall be borne by the applicant. The Planning Board may also assess the applicant reasonable fees to cover the cost of other special investigative studies and for the review of documents required by particular applications.

Application for a Conditional Use Permit

Chester Planning Board

(Required if applying to NH DES Wetlands Board)

Map # _____ Lot # _____

DATE _____

APPLICANT:

ADDRESS:

TELEPHONE NUMBER: _____

LOCATION OF PARCEL UNDER CONSIDERATION:

(Road Name)

- A. Provide in writing and in as much detail as possible, the reason(s) for requesting a "Conditional Use Permit". (Attach a separate document).
- B. Provide the Planning Board with any engineering plans which support the request for a "Conditional Use Permit". (Attach a separate document).
- C. Additional data:

1. Is this request associated with a recent subdivision, site plan or excavation operation?

Yes ____ No ____

2. If "Yes", name of the activity



Signature of Applicant _____

PHOTO LOG
373 Transmission Line Structure Replacement Project
Chester, New Hampshire

Photos Taken: February 10 & 11, 2022



Photograph No. 1: Looking westerly at proposed access towards 373 & 391 Right-of-Way, off of Candia Road.



Photograph No. 2: Looking northeasterly at proposed access route and Wetland CHW-18 (left). No impacts are proposed to this this wetland system.

PHOTO LOG
373 Transmission Line Structure Replacement Project
Chester, New Hampshire

Photos Taken: February 10 & 11, 2022



Photograph No. 3: Looking northerly at proposed access towards 391 Structure 299.



Photograph No. 4: Looking northerly at proposed access associated with Wetland CHW-14 towards 391 Structure 297 (right) and 373 Structure 300 (left). Timber matting will be used in the wetland portion of the access route.

PHOTO LOG
373 Transmission Line Structure Replacement Project
Chester, New Hampshire

Photos Taken: February 10 & 11, 2022



Photograph No. 5: Looking northwesterly at proposed access route associated with Wetland CHW-13 and 373 Structure 300. Timber matting will be used in the wetland portion of the access route.



Photograph No. 6: Looking northerly at proposed access route associated with Wetland CHW-12 towards 373 Structure 299 to be replaced. Timber matting will be used in the wetland portion of the access route.

PHOTO LOG
373 Transmission Line Structure Replacement Project
Chester, New Hampshire

Photos Taken: February 10 & 11, 2022



Photograph No. 7: Looking northerly at proposed access towards 373 Structure 299 to be replaced.



Photograph No. 8: Looking westerly at proposed access route towards 373 Structure 298 to be replaced.

PHOTO LOG
373 Transmission Line Structure Replacement Project
Chester, New Hampshire

Photos Taken: February 10 & 11, 2022



Photograph No. 9: Looking southerly at proposed access associated with Wetland CHW-10 towards 391 Structure 294 (left) and 373 Structure 297 (right) to be replaced. Timber matting will be used in the wetland portion of the access route.



Photograph No. 10: Looking southerly at proposed access and work pad location for 373 Structure 296 to be replaced.

PHOTO LOG
373 Transmission Line Structure Replacement Project
Chester, New Hampshire

Photos Taken: February 10 & 11, 2022



Photograph No. 11: Looking southerly at proposed access route for 373 Structure 296 to be replaced.



Photograph No. 12: Looking southerly at proposed access route towards 391 Structure 292 (left) and 373 Structure 295 (right) to be replaced.

PHOTO LOG
373 Transmission Line Structure Replacement Project
Chester, New Hampshire

Photos Taken: February 10 & 11, 2022



Photograph No. 13: Looking southerly at proposed access from Chester Street for 373 Structure 295 to be replaced.



Photograph No. 14: Looking easterly at proposed access route from Candia Road for 373 Structure 275 to be replaced.

PHOTO LOG
373 Transmission Line Structure Replacement Project
Chester, New Hampshire

Photos Taken: February 10 & 11, 2022



Photograph No. 15: Looking northeasterly at proposed access route associated with Wetland CHW-36. Timber matting will be used in the wetland portion of the access route.



Photograph No. 16: Looking at proposed alternative access route associated with Wetland CHW-36.

PHOTO LOG
373 Transmission Line Structure Replacement Project
Chester, New Hampshire

Photos Taken: February 10 & 11, 2022



Photograph No. 17: Looking westerly at proposed access to 373 Structure 275 to be replaced.



Photograph No. 20: Looking northerly at proposed access towards 391 Structure 273 (right) and 373 Structure 275 (left) to be replaced.

PHOTO LOG
373 Transmission Line Structure Replacement Project
Chester, New Hampshire

Photos Taken: February 10 & 11, 2022



Photograph No. 19: Looking westerly at proposed pad location for 373 Structure 276 to be replaced.



391 Transmission Line Structure Replacement Project
Eversource Energy
Abutters List
Chester, New Hampshire

Wetland Scientist

GZA GeoEnvironmental, Inc.
Attn: Tracy Tarr, CWS, CWB, CESSWI
5 Commerce Park North, Suite 201
Bedford, NH 03110

Owner/Applicant

**Tax Map 1-98-0, 4-7-0, 4-9-0,
4-20-0, 4-21-0, 7-33-0, 11-46-1**
Eversource Energy (a.k.a. PSNH)
PO Box 270
Hartford, CT 06141

Tax Map 1-5-1, 1-66-0

Connelly, Patrick
522 Haverhill Road
Chester, NH 03036

Tax Map 1-6-0, 1-7-0

Mathews, Eleanor & Denis
331 Harantis Lake Road
Chester, NH 03036

Tax Map 1-8-0

Simard, Alan & Trina
95 Pingree Hill Road
Derry, NH 03038

Tax Map 1-65-0, 1-69-1

USA Federal Aviation Adm
12 New England Exec. Park Drive
Burlington, MA 01803

Tax Map 1-69-0

Vaughn Farms II, LLC.
C/O DBR Holdings Inc.
3000B East Main Street #265
Columbus, OH 43209

Tax Map 4-10-0, 4-12-0

H. Rand Revoc. Trust,
Rand Hobart & Barbara
2783 Elm Street
Manchester, NH 03104

Tax Map 4-11-0

Gagnon, Marilyn &
Theole, James & Christina
125 Lowell Road
Windham, NH 03087

Tax Map 4-17-0

Toomy, William & Kathleen
61 Pond View Drive
Auburn, NH 03032

Tax Map 4-18-0

Rockwell Family Revoc. Trust
444 Chester Street
Chester, NH 03036

Tax Map 4-23-0

Richardson, Jeffrey & Sharon
397 Main Street
Fremont, NH 03044

Tax Map 7-28-0, 7-29-0, 11-1-0,

Carroll, Scott F
360 Hatch Road
Potsdam, NY 03036

Tax Map 11-46-0

Klier, Eric
74 East Main Street
East Hampstead, NH 03826

Tax Map 11-7-13

Laporte, Thomas & Kristine
44 Mcintosh Lane
Chester, NH 03036

Tax Map 11-7-12

Travers, Marvin & Christina
30 Mcintosh Lane
Chester, NH 03036

**Tax Map 1-65-1, 4-8-0, 4-19-0,
7-29-1**

Town of Chester
84 Chester St
Chester, NH 03036

Tax Map 7-32-0

Fortin, Denis P
183 Barnard Hill Road
Weare, NH 03281

Tax Map 11-7-11

Scichilone, Vincent & Agnieska
20 Mcintosh Lane
Chester, NH 03036

Tax Map 11-7-9

Jasper, Michael & Judith
476 Candia Road
Chester, NH 03036

Tax Map 7-19

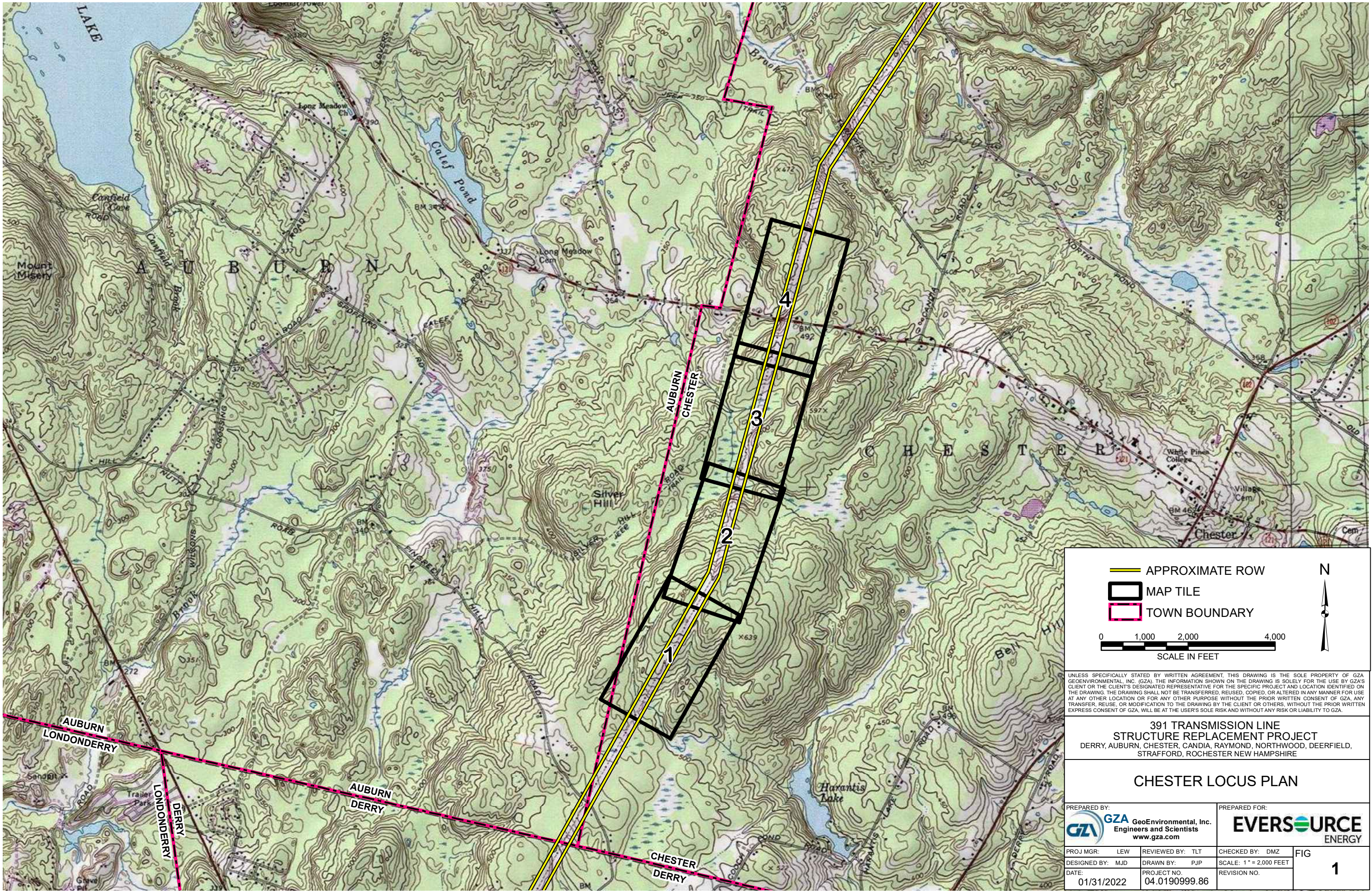
Knapp Revocable Trust, Robert
50 Clark Road,
Chester, NH 03036

Tax Map 7-31-0

Marks, Brian
440 Candia Road,
Chester, NH 03036

Tax Map 7-34-0

Myrick, Andrew & Denise
322 Candia Rd
Chester, NH 03036



— APPROXIMATE ROW
 MAP TILE
 TOWN BOUNDARY

0 1,000 2,000 4,000
 SCALE IN FEET

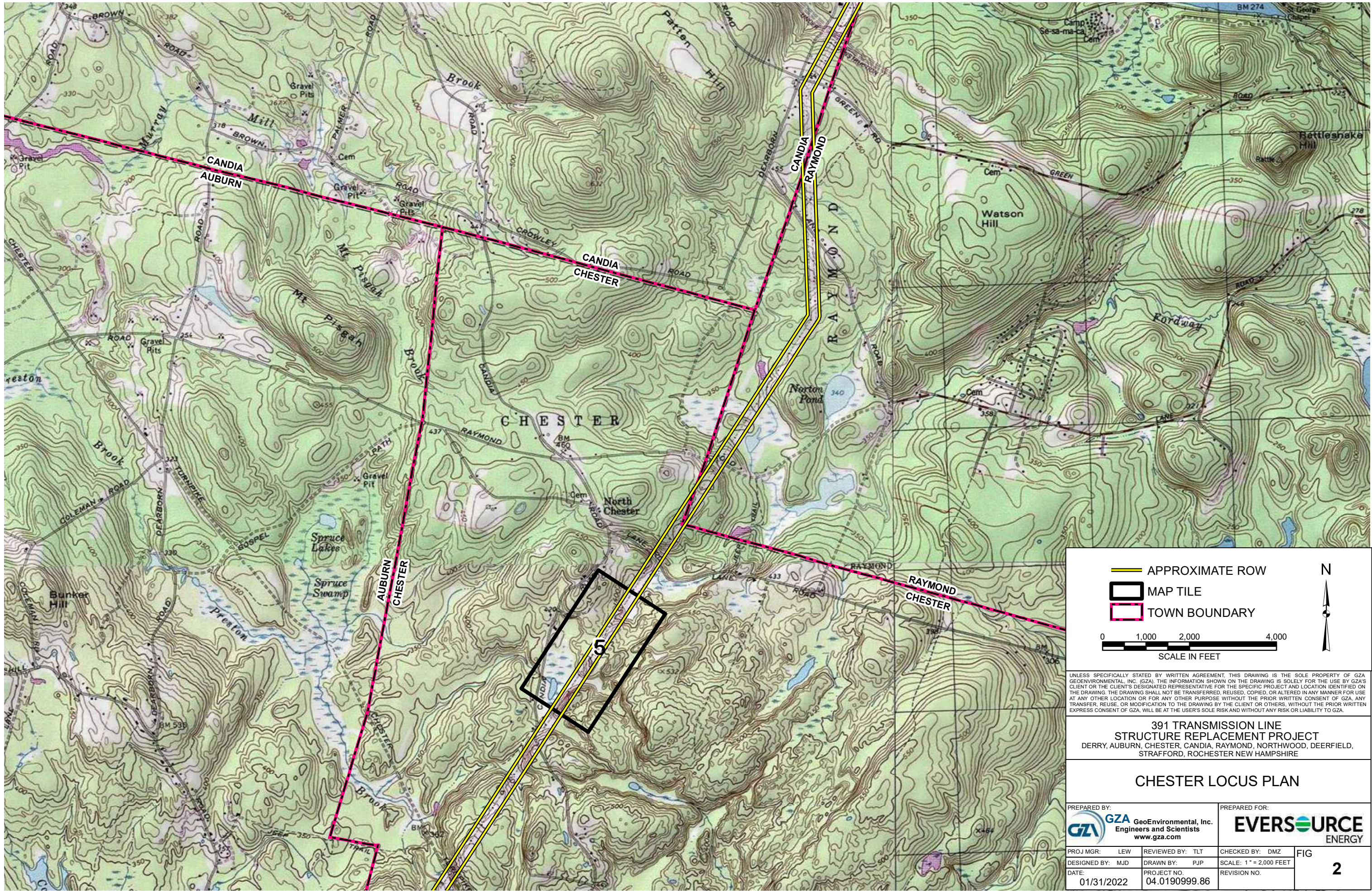
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**391 TRANSMISSION LINE
 STRUCTURE REPLACEMENT PROJECT**
 DERRY, AUBURN, CHESTER, CANDIA, RAYMOND, NORTHWOOD, DEERFIELD,
 STRAFFORD, ROCHESTER NEW HAMPSHIRE

CHESTER LOCUS PLAN

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: 	
PROJ MGR: LEW DESIGNED BY: MJD DATE: 01/31/2022	REVIEWED BY: TLT DRAWN BY: PJP PROJECT NO.: 04.0190999.86	CHECKED BY: DMZ SCALE: 1" = 2,000 FEET REVISION NO.	FIG 1



— APPROXIMATE ROW
 MAP TILE
 TOWN BOUNDARY

0 1,000 2,000 4,000
 SCALE IN FEET

N

UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA GEOENVIRONMENTAL, INC. (GZA). THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR THE USE BY GZA'S CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY THE CLIENT OR OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.

**391 TRANSMISSION LINE
 STRUCTURE REPLACEMENT PROJECT**
 DERRY, AUBURN, CHESTER, CANDIA, RAYMOND, NORTHWOOD, DEERFIELD,
 STRAFFORD, ROCHESTER NEW HAMPSHIRE

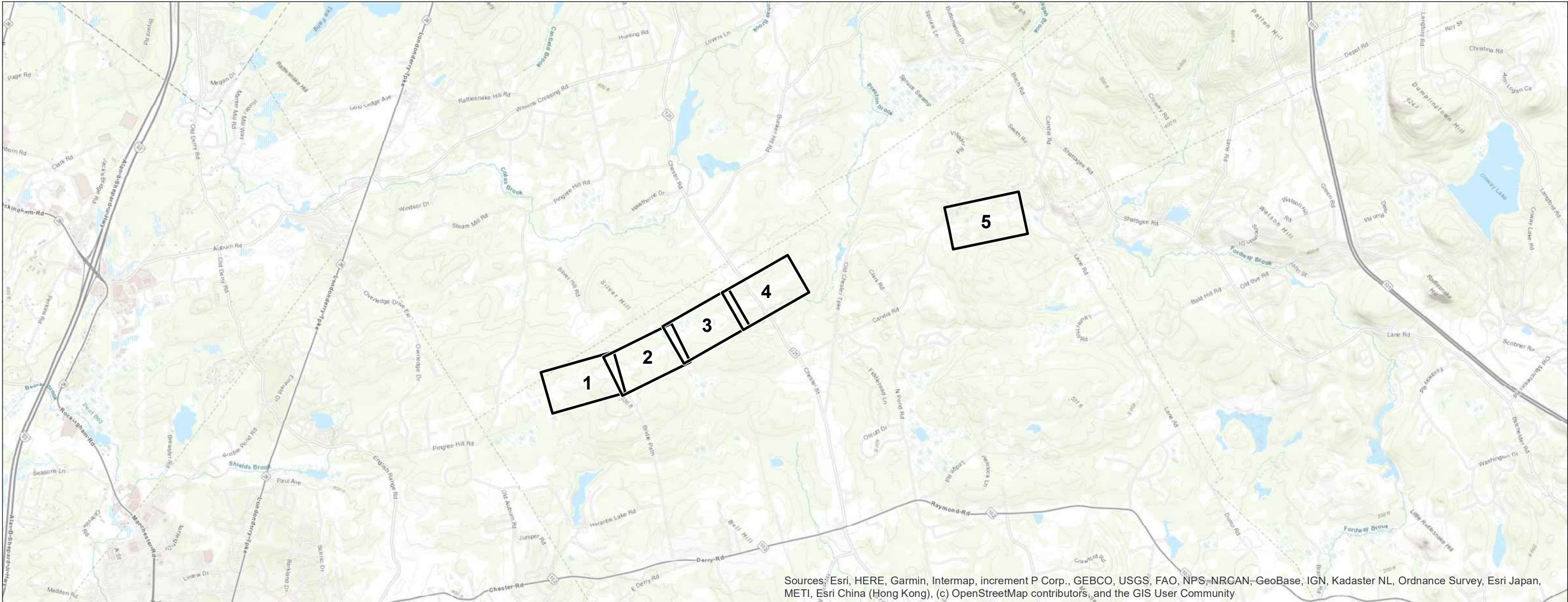
CHESTER LOCUS PLAN

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: 	
PROJ MGR: LEW	REVIEWED BY: TLT	CHECKED BY: DMZ	FIG 2
DESIGNED BY: MJD	DRAWN BY: PJP	SCALE: 1" = 2,000 FEET	
DATE: 01/31/2022	PROJECT NO: 04.0190999.86	REVISION NO.	

391, 385, 373 Transmission Line - Structure Replacement Project

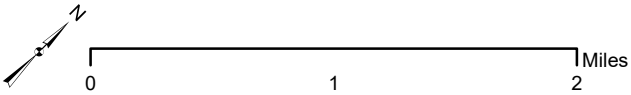
Chester, New Hampshire
Environmental Permitting Plans

Date: April 18, 2022



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Legend



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Notesheets 1-2

NO.	DATE	REVISIONS

PREPARED FOR:

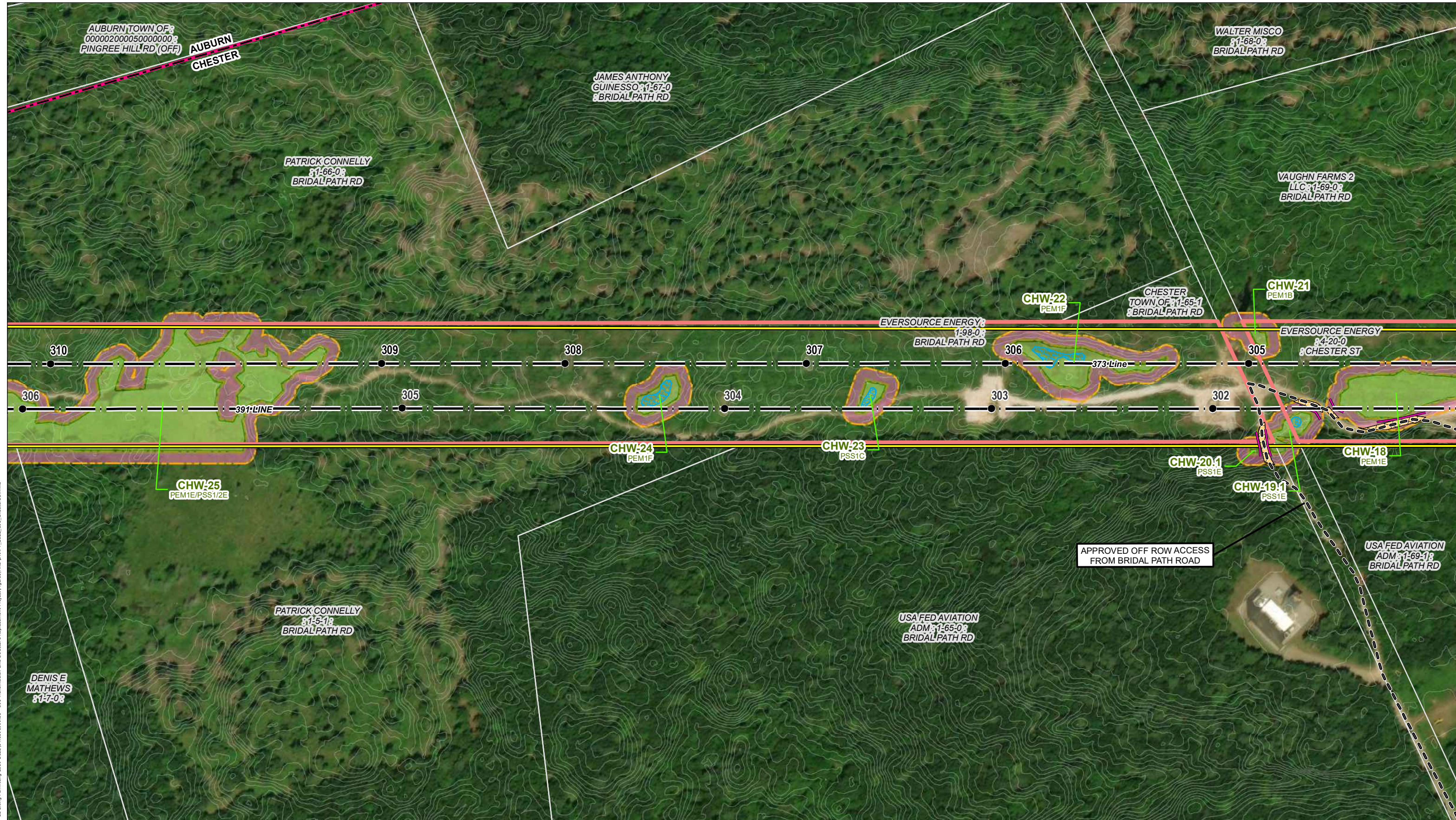


13 Legends Drive
Hooksett, NH 03106

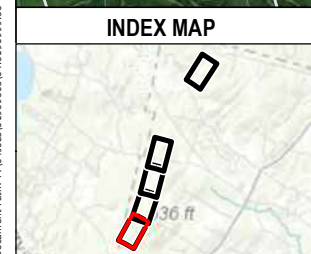
PREPARED BY:



GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com



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|--|------------------------------------|---------------------------|
| ● EXISTING STRUCTURE - NO WORK PROPOSED | ▭ TOWN BOUNDARY | ▭ PARCEL BOUNDARY |
| ● EXISTING STRUCTURE - TO BE REPLACEMENT | ▭ INTERMITTENT STREAM CHANNEL BANK | ▭ EVERSOURCE OWNED PARCEL |
| ▬ TRANSMISSION LINE | ▬ PERENNIAL STREAM CHANNEL BANK | ▭ STATE OWNED PARCEL |
| ▬ EXISTING ACCESS | ▬ TIER 3 FLOODPLAIN | ▬ NHDOT ROADS |
| ▬ OFF-ROW ACCESS | ▬ POTENTIAL VERNAL POOL | |
| ▬ PRIMARY ACCESS | ▬ PEATLAND | |
| ▬ APPROXIMATE ROW | ▬ PRIME WETLAND | |
| ▬ EROSION AND SEDIMENT CONTROL | ▬ WETLAND | |
| ▬ TEMPORARY WETLAND BUFFER IMPACTS | ✕ FENCE | |
| ▬ LOCAL WETLAND BUFFER | ○ ROCK WALL | |
| ▬ 2FT ELEVATION CONTOUR | | |
| ▬ TEMPORARY WETLAND IMPACT | | |
| ▬ WORK AREA | | |

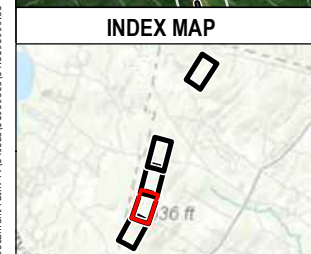
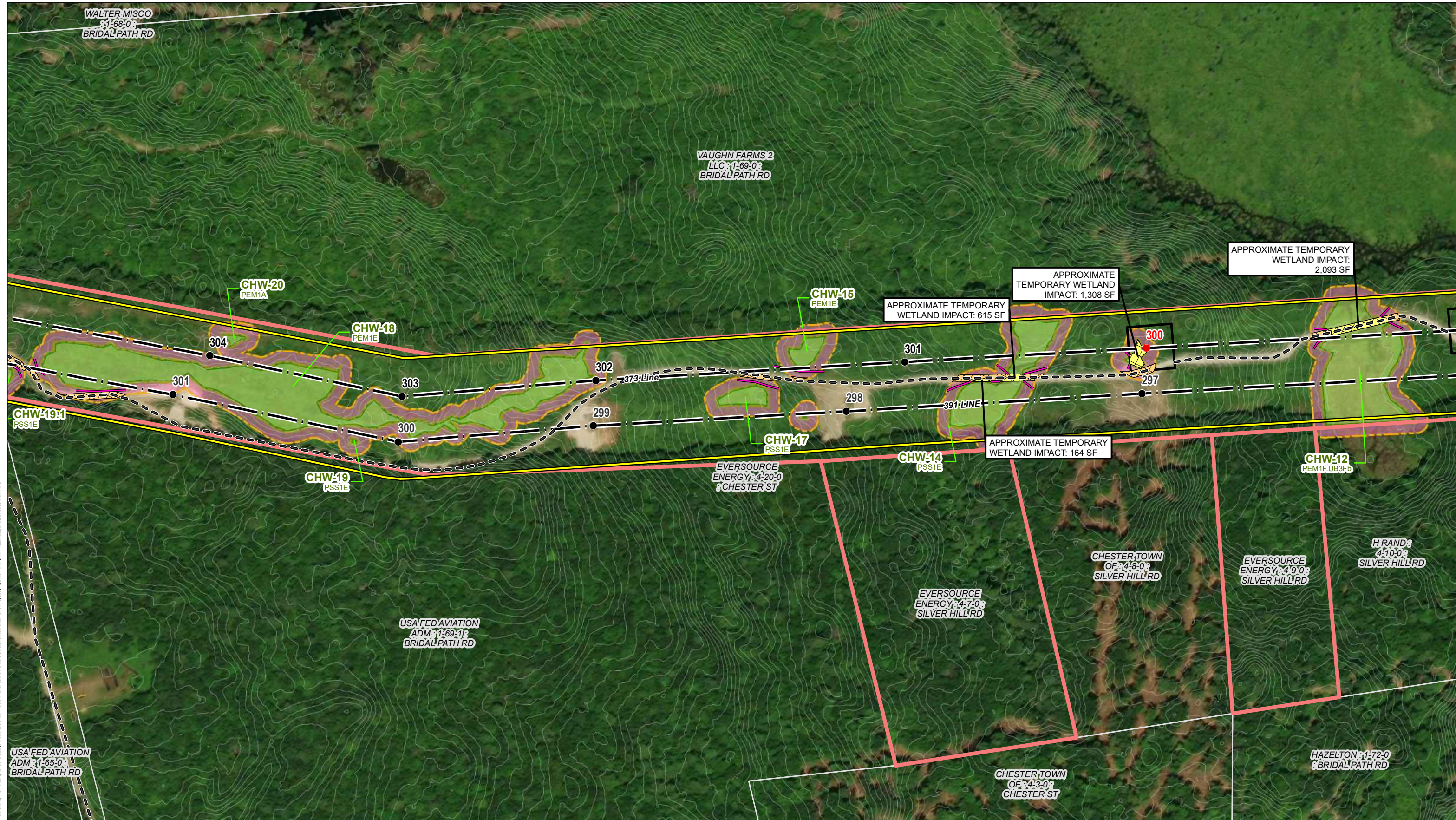
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1 inch = 200 feet
 0 50 100 200 Feet

NO.	DATE	REVISIONS

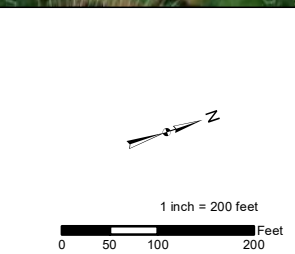
EVERSOURCE ENERGY
391, 385, 373 Transmission Line Structure Replacement Project

AUBURN/CHESTER, NH	MAP SHEET
Date: April, 2022	
1 OF 5	



● EXISTING STRUCTURE - NO WORK PROPOSED	▭ TOWN BOUNDARY	▭ PARCEL BOUNDARY
● EXISTING STRUCTURE - TO BE REPLACEMENT	--- INTERMITTENT STREAM CHANNEL BANK	▭ EVERSOURCE OWNED PARCEL
— TRANSMISSION LINE	— PERENNIAL STREAM CHANNEL BANK	▭ STATE OWNED PARCEL
— EXISTING ACCESS	— TIER 3 FLOODPLAIN	▭ NHDOT ROADS
— OFF-ROW ACCESS	▭ POTENTIAL VERNAL POOL	
— PRIMARY ACCESS	▭ PEATLAND	
— APPROXIMATE ROW	▭ PRIME WETLAND	
— EROSION AND SEDIMENT CONTROL	▭ WETLAND	
▭ TEMPORARY WETLAND BUFFER IMPACTS	✕ FENCE	
▭ LOCAL WETLAND BUFFER	○ ROCK WALL	
— 2FT ELEVATION CONTOUR		
▭ TEMPORARY WETLAND IMPACT		
▭ WORK AREA		

This mapping product has been created to comply with submittal requirements to obtain certain regulatory approvals and, as such, there is no reliance on the information contained herein for any other purpose.



NO.	DATE	REVISIONS

EVERSOURCE ENERGY

391, 385, 373 Transmission Line Structure Replacement Project

CHESTER, NH MAP SHEET

Date: April, 2022

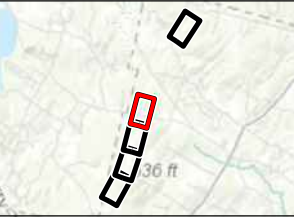
2 OF 5

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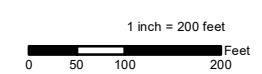
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INDEX MAP



- EXISTING STRUCTURE - NO WORK PROPOSED
- EXISTING STRUCTURE - TO BE REPLACEMENT
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- EXISTING ACCESS
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- PRIMARY ACCESS
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- WETLAND
- FENCE
- ROCK WALL
- PARCEL BOUNDARY
- EVERSOURCE OWNED PARCEL
- STATE OWNED PARCEL
- NHDOT ROADS

This mapping product has been created to comply with submittal requirements to obtain certain regulatory approvals and, as such, there is no reliance on the information contained herein for any other purpose.



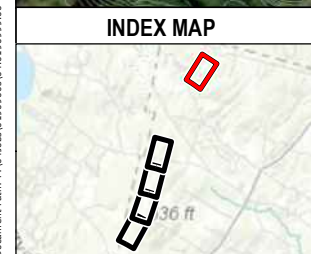
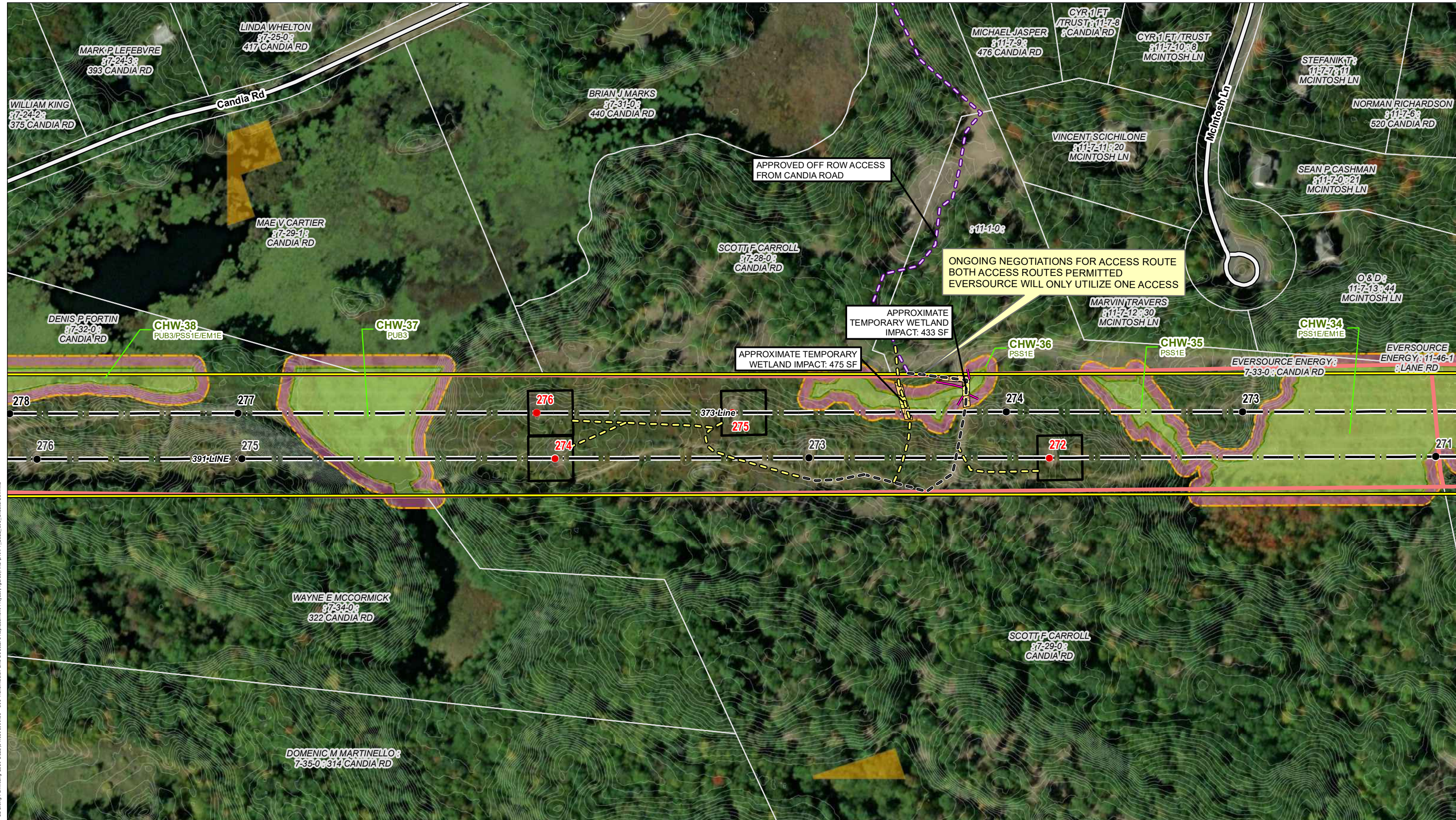
NO.	DATE	REVISIONS



391, 385, 373 Transmission Line Structure Replacement Project

CHESTER, NH MAP SHEET

Date: April, 2022 **4 OF 5**



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1 inch = 200 feet

0 50 100 200 Feet

NO.	DATE	REVISIONS

EVERSOURCE ENERGY

391, 385, 373 Transmission Line Structure Replacement Project

CHESTER, NH MAP SHEET

Date: April, 2022

5 OF 5

Document Path: P:\04\Jobs\1909095\04_0190995_00 - EE Siting Permitting_2019-2022\04_0190995_86 - 391 Transmission Line Structure Replacement Project\Figures\KXD\DKRAFT_2022_391_Chester\CI\mxd

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CONSTRUCTION SEQUENCE:

1. WETLAND BOUNDARIES TO BE CLEARLY MARKED PRIOR TO THE START OF CONSTRUCTION.
2. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAIL PROVIDED, AS NECESSARY, AND CONSISTENT WITH THE NHDES MARCH 2019 BMP MANUAL FOR UTILITY MAINTENANCE.
3. WETLAND IMPACTS ASSOCIATED WITH WETLAND CROSSINGS ARE REQUIRED FOR ACCESS BETWEEN STRUCTURES WITHIN THE RIGHT OF WAY.
4. ADEQUATE PRECAUTION SHALL BE EXERCISED TO AVOID SPILLAGE OF FUEL OILS, CHEMICALS, OR SIMILAR SUBSTANCES; NO FUELS, LUBRICANTS, CHEMICALS OR SIMILAR SUBSTANCES SHALL BE STORED BENEATH TREES OR IN THE VICINITY OF ANY WETLANDS, RIVER, STREAM OR OTHER BODY OF WATER; OR IN THE VICINITY OF NATURAL OR MAN-MADE CHANNELS LEADING THERETO. NO POWER EQUIPMENT SHALL BE STORED, MAINTAINED, OR FUELED IN ANY AREA ADJACENT TO A WETLAND, RIVER, STREAM OR OTHER BODY OF WATER.
5. REMOVE COMPLETELY ALL CONTAMINATION FROM ANY SPILLAGE OF CHEMICALS OR PETROLEUM PRODUCT WITH COMPLETE REHABILITATION OF THE AFFECTED AREA.
6. ACCESS ROUTES HAVE BEEN SELECTED TO PREVENT DEGRADATION OF THE RIGHT-OF-WAY AND MINIMIZE ENVIRONMENTAL IMPACT. OPERATIONS SHALL BE CONFINED TO THE SPECIFIED ACCESS ROUTES WITHIN THE PROPOSED WETLAND IMPACT AREA. ACCESS ROUTES SHALL NOT EXCEED A 16 FOOT-WIDTH.
7. IMPACT TO VEGETATION WITHIN WETLANDS WILL BE LIMITED TO THE EXTENT NECESSARY TO PLACE THE SWAMP MATS WHERE REQUIRED.
8. LOW GROWING VARIETIES OF VEGETATION ADJACENT TO WETLANDS SHALL BE PRESERVED TO THE EXTENT POSSIBLE. STUMPS AND ROCKS SHALL NOT BE REMOVED, AND THERE SHALL BE NO EXCAVATIONS, FILLS OR GRADING DONE ADJACENT TO WETLANDS, UNLESS MINOR EXCAVATIONS IS NEEDED FOR ACCESS.
9. TIMBER MATS AND PERIMETER CONTROLS WILL BE USED ALONG ACCESS ROUTES AND WORK PADS WITHIN WETLAND AREAS. THESE MATS ARE CONSTRUCTED OF HEAVY TIMBERS OR COMPOSITE MATERIAL, BOLTED TOGETHER, AND ARE PLACED END-TO-END IN THE WETLAND TO SUPPORT HEAVY EQUIPMENT. ALL SWAMP MATS SHALL BE PLACED AND REMOVED SO AS NOT TO CAUSE ANY RUTS, CHANNELS OR DEPRESSIONS, OR OTHERWISE CAUSE ANY UNDUE DISTURBANCE TO WETLANDS.
10. IF TIMBER MAT BMP IS NOT SUFFICIENT DUE TO HIGH WATER, ADDITIONAL BMP'S MAY INCLUDE THE PLACEMENT OF GEOTEXTILE FABRIC, 3"-4" STONE, AND GRAVEL TO PROVIDE A SUITABLE ROAD BED. A TEMPORARY CULVERT MAY BE REQUIRED IN AREAS OF HIGH FLOW TO MAINTAIN HYDROLOGIC CONNECTIVITY. ALL MATERIAL WILL BE REMOVED FROM JURISDICTIONAL AREAS AFTER CONSTRUCTION COMPLETION.
11. NO MATERIAL SHALL BE PLACED IN ANY LOCATION OR IN ANY MANNER SO AS TO IMPAIR SURFACE WATER FLOW INTO, THROUGH OR OUT OF ANY WETLAND AREA. NO INSTALLATION SHALL CREATE AN IMPOUNDMENT THAT WILL IMPEDE THE FLOW OF WATER OR CAUSE FLOODING.
12. NO MATERIAL SHALL BE TAKEN FROM THE WETLANDS AREA EXCEPT THAT WHICH MUST NECESSARILY BE REMOVED FOR THE STRUCTURE OR FOUNDATION PLACEMENT OR STABILIZATION. ALL EXCESS MATERIAL TAKEN FROM THE WETLAND WILL BE REMOVED FROM THE SITE.
13. ANY PROPOSED SUPPORT FILLS SHALL BE CLEAN GRAVEL AND STONE, FREE OF WASTE METAL PRODUCTS, ORGANIC MATERIALS AND SIMILAR DEBRIS AND SHALL NOT EXCEED THE AMOUNT PERMITTED. THIS ALLOWABLE FILL IS THE ONLY FILL THAT MAY REMAIN IN THE WETLAND AFTER CONSTRUCTION. ALL CUT AND FILLS SLOPES SHALL BE SEEDED/LOAMED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
14. INSTALL NEW POLES IN THE LOCATIONS DESIGNATED ON THE PERMITTING PLANS.
15. CABLE INSTALLATION WILL BE PERFORMED IN A MANNER SO AS TO AVOID, OR LIMIT TO THE MAXIMUM EXTENT POSSIBLE, TRAVERSING WETLANDS WITH HEAVY EQUIPMENT. IN SOME CASES, A HELICOPTER MAY BE USED DURING THE INSTALLATION TO MINIMIZE IMPACTS.
16. REMOVAL OF THE OLD POLE WILL OCCUR ONCE THE CABLE HAS BEEN INSTALLED ON THE NEW STRUCTURE. THE OLD STRUCTURES WILL BE REMOVED FROM THE SITE. POLES WILL BE CUT AT THE GROUND SURFACE. FOOTINGS WILL BE ABANDONED IN PLACE TO MINIMIZE IMPACTS.
17. ALL TIMBER MATS, MATERIAL, AND DEBRIS WILL BE REMOVED FROM THE WORK AREA UPON THE COMPLETION OF CONSTRUCTION.
18. UPLAND DISTURBED AREAS SHALL BE RESTORED AND STABILIZED UPON COMPLETION OF CONSTRUCTION. WORK PAD RESTORATION SHOULD INCLUDE REDUCING THE WORK PAD TO A 30 BY 60 FOOT AREA, AND REDUCING SLOPES TO A MAXIMUM OF 25%. STOCKPILED MATERIAL SHOULD BE SPREAD TO REDUCE ANY UNNECESSARY SLOPES. GRAVEL WORK PADS AND SLOPES SHOULD BE SCARIFIED TO A MINIMUM OF 3" BEFORE SPREADING TOPSOIL/LOAM.
19. ALL TEMPORARY WETLAND IMPACTS WILL BE RE-GRADED TO ORIGINAL CONTOURS FOLLOWING CONSTRUCTION. NEW ENGLAND EROSION CONTROL/RESTORATION MIX, AVAILABLE THROUGH NEW ENGLAND WETLAND PLANTS, INC., 820 WEST STREET, AMHERST, MA 01002, 413-548-8000, OR EQUIVALENT SEED MIX SHALL BE APPLIED IN WETLAND AREAS THAT ARE NOT INUNDATED, AS NECESSARY.
20. MULCH USED FOR STABILIZATION SHALL CONSIST OF SEEDLESS STRAW.
21. SEDIMENT AND EROSION CONTROL MEASURES WILL BE EVALUATED AND REMOVED IF NECESSARY UPON THE COMPLETION OF CONSTRUCTION.
22. COMMERCIAL LOAM WILL NOT BE USED AS PART OF RESTORATION. ONLY IN-SITU TOPSOIL WILL BE USED TO RESTORE DISTURBED AREAS.
23. WHERE OPTIMAL TURTLE BREEDING AREAS OVERLAP WITH DISTURBANCE (AS DETERMINED BY AN ENVIRONMENTAL MONITOR), MINERAL SOILS WILL BE SCARIFIED TO ALLEVIATE COMPACTION AND BECOME MORE SUITED FOR TURTLE BREEDING.
24. NATURALLY VEGETATED LOCAL WETLAND BUFFER AREAS OUTSIDE OF EXISTING TRAILS MUST BE RESTORED UPON COMPLETION OF WORK.

WINTER CONSTRUCTION NOTES

1. PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED. STABILIZATION METHODS SHALL INCLUDE SEEDING AND MULCH, AND INSTALLATION OF EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
2. DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE TEMPORARILY STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.

3. AFTER NOVEMBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL (NHDOT 304.3).

GENERAL NOTES:

OWNER: EVERSOURCE ENERGY
13 LEGENDS DRIVE
HOOKSETT, NH 03106

1. BASE PLAN PROVIDED BY EVERSOURCE ENERGY. EVERSOURCE ENERGY PROVIDED THE WETLAND DATA. EVERSOURCE ENERGY PROVIDED THE UTILITY DESIGN.
2. JURISDICTIONAL WETLANDS WERE DELINEATED BY TIGHE AND BOND IN 2018, IN ACCORDANCE WITH THE 1987 U.S. ARMY CORPS OF ENGINEERS' "WETLANDS DELINEATION MANUAL, TECHNICAL REPORT Y-87-1," AND REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTH CENTRAL AND NORTHEAST REGION," JANUARY 2012. WETLANDS WILL BE REVIEWED BY GZA GEOENVIRONMENTAL, INC. PRIOR TO START OF WORK.
3. GZA WILL EVALUATED WETLANDS AS POTENTIAL VERNAL POOLS IN 2022 IN ACCORDANCE WITH "IDENTIFICATION AND DOCUMENTATION OF VERNAL POOLS IN NEW HAMPSHIRE," 1997, NEW HAMPSHIRE FISH AND GAME DEPARTMENT, NONGAME AND ENDANGERED WILDLIFE PROGRAM.
4. GZA WILL COMPLETED WETLANDS FUNCTION AND VALUES ASSESSMENT IN 2022 IN ACCORDANCE WITH THE ACOE'S "HIGHWAY METHODOLOGY WORKBOOK SUPPLEMENT," SEPTEMBER 1999.
5. SITE PLAN IS FOR PERMITTING PURPOSES ONLY AND DOES NOT REPRESENT A PROPERTY BOUNDARY SURVEY.
6. THE PROJECT WILL BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.
7. IN ACCORANCE WITH ENV-WQ 1505.02, THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT IN NO CASE SHALL EXCEED 5 ACRES AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - A MINIMUM 85 PERCENT VEGETATED GROWTH HAS BEEN ESTABLISHED
 - A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL HAS BEEN INSTALLED
 - OR, EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
8. IN THE EVENT THAT A RARE OR THREATENED SPECIES IS OBSERVED, THE NEW HAMPSHIRE FISH AND GAME AND NEW HAMPSHIRE NATURAL HERITAGE BUREAU WILL BE NOTIFIED. TURTLE NESTING SEASON EXTENDS FROM LATE MAY THROUGH THE BEGINNING OF JULY. IF WOOD, BLANDING'S OR SPOTTED TURTLES ARE FOUND LAYING EGGS IN THE WORK AREA, CONTACT MELISSA DOPERALSKI AT 603-271-1738 OR JOSH MEGYESY AT 603-271-1125 FOR FURTHER INSTRUCTIONS. OBSERVATIONS OF NORTHERN BLACK RACER SNAKES SEEN IN ANY AREA FROM THE END OF SEPTEMBER THROUGH THE MONTH OF APRIL MUST BE IMMEDIATELY REPORTED TO THE NHFG DEPARTMENT (BRENDAN CLIFFORD AT 603-271-0463 OR MELISSA DOPERALSKI AT 603-271-1738). IF NORTHERN BLACK RACER IS FOUND IN A WORK AREA FROM NOVEMBER THROUGH THE MONTH OF APRIL, WORK SHALL IMMEDIATELY CEASE AND THE OBSERVATION MUST BE REPORTED TO THE NHFG (BRENDAN CLIFFORD OR MELISSA DOPERALSKI).


EROSION CONTROL NOTES:

1. INSTALLATION OF EROSION CONTROL GRINDINGS AND/OR SILT FENCES SHALL BE COMPLETE PRIOR TO THE START OF WORK IN ANY GIVEN AREA. EROSION CONTROLS SHALL BE USED DURING CONSTRUCTION AND REMOVED WHEN ALL SLOPES HAVE A HEALTHY STAND OF VEGETATION COVER. EROSION CONTROL MEASURES SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER .25" OR GREATER RAINFALL EVENTS.
2. AS REQUIRED, CONSTRUCT TEMPORARY BERMS, SILTATION FENCES, SEDIMENT TRAPS, ETC. TO PREVENT EROSION & SEDIMENTATION OF WETLANDS.
3. THE WORK AREA SHALL BE GRADED AND OTHERWISE SHAPED IN SUCH A MANNER AS TO MINIMIZE SOIL EROSION, SILTATION OF DRAINAGE CHANNELS, DAMAGE TO EXISTING VEGETATION, AND DAMAGE TO PROPERTY OUTSIDE LIMITS OF THE WORK AREA. EROSION CONTROL GRINDINGS WILL BE NECESSARY TO ACCOMPLISH THIS END.
4. ANY STRIPPED TOPSOIL SHALL BE STOCKPILED, WITHOUT COMPACTION, AND STABILIZED WITH BMPS.
5. PERMANENT OR TEMPORARY COVER MUST BE IN PLACE BEFORE THE GROWING SEASON ENDS. WHEN SEEDED AREAS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20 OR FROM AUGUST 15 TO SEPTEMBER 15. NO DISTURBED AREA SHALL BE LEFT EXPOSED DURING WINTER MONTHS, PLANT ANNUAL RYEGRASS PRIOR TO OCTOBER 15TH.
6. EROSION CONTROLS SHALL BE INSPECTED WITH FREQUENCY OUTLINED IN THE 2022 CGP SECTION 4.2.
7. EROSION CONTROL MATTING, IF REQUIRED, WILL CONSIST OF JUTE MATTING. MATTING WITH WELDED PLASTIC OR 'BIODEGRADABLE PLASTIC' NETTING OR THREAD WILL BE AVOIDED TO LIMIT UNINTENTIONAL MORTALITY TO SNAKES.

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391, 385, 373 TRANSMISSION LINE
STRUCTURE REPLACEMENT PROJECT
AUBURN, CANDIA, CHESTER, DEERFIELD, DERRY, NORTHWOOD,
RAYMOND, ROCHESTER AND STRAFFORD
NEW HAMPSHIRE

NOTES

PREPARED BY:  GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: EVSOURCE ENERGY	
PROJ MGR: LEW	REVIEWED BY: TLT	CHECKED BY: DMZ	SHEET 1 1 OF 2
DESIGNED BY: MJD	DRAWN BY: MJD	SCALE:	
DATE: 3/17/22	PROJECT NO: 04.0190999.86	REVISION NO.	

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Best Management Practices (BMP's) for Straw wattles

Definition and purpose:

Straw wattles are burlap rolls filled with straw that trap sediment and interrupt water flow by reducing slope lengths.

Applications:

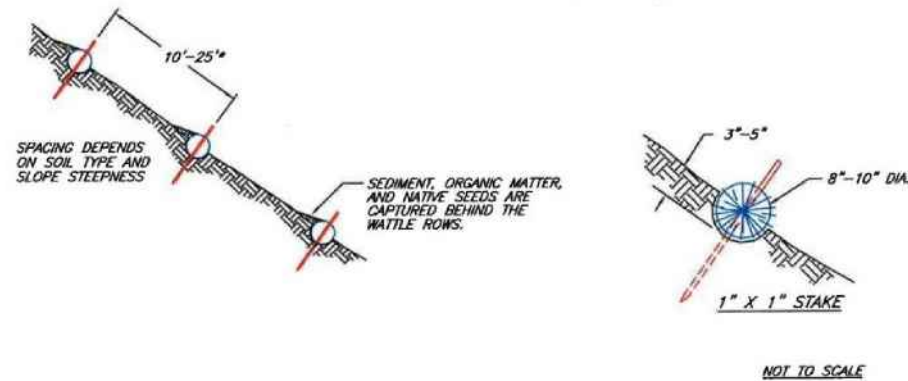
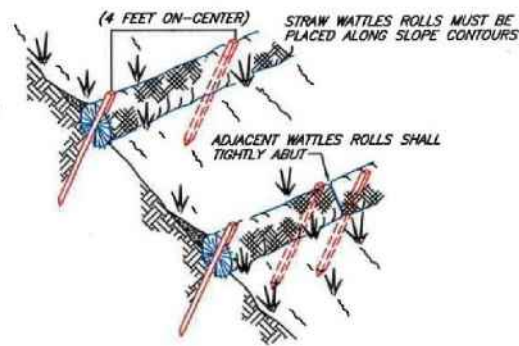
- * Along erodible or unstabilized slopes
- * Spread overland waterflow
- * Trap sediment
- * Around storm drain inlets to slow water and settle out sediment

Installation:

Straw wattles are installed parallel to slope contours and perpendicular to sheet flow.

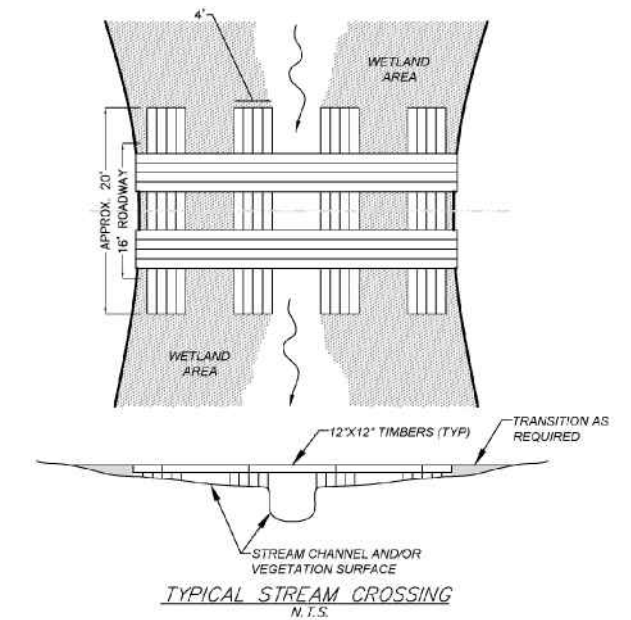
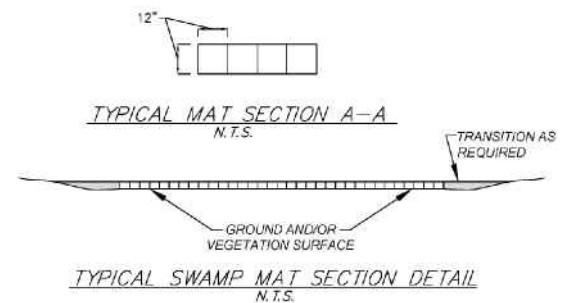
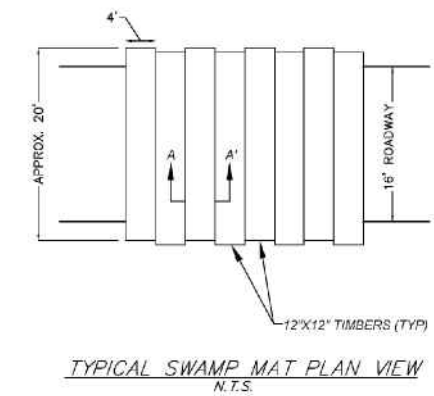
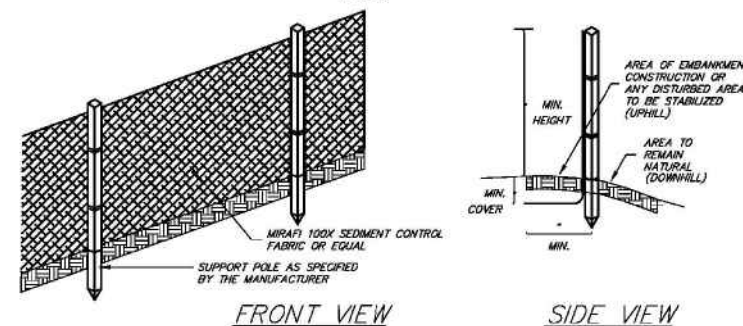
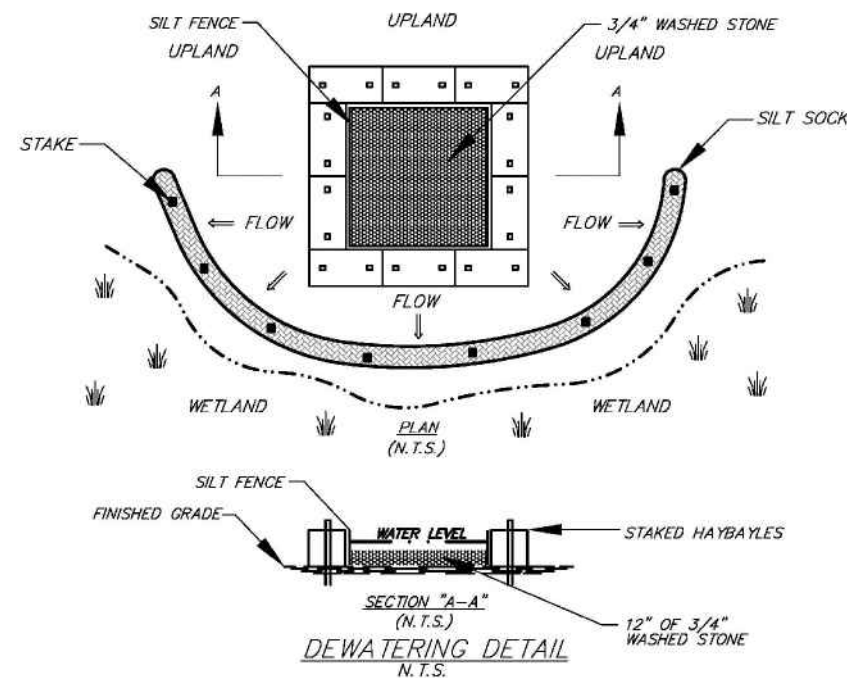
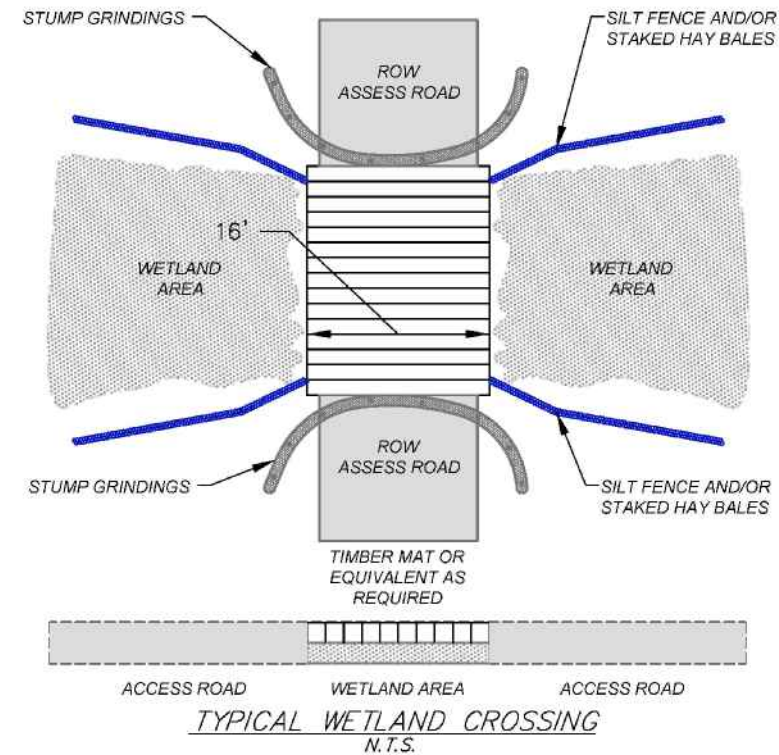
Spacing* - Dependent on slope length, soil steepness and soil type (general range 10 - 25').

Trenching - 2"-5" inch trench
Stacking - at each end and four foot on center (i.e. 25 foot wattle uses 6 stacks)



NOTES (SILT FENCE)

1. THE HEIGHT OF THE BARRIER SHALL NOT EXCEED 36 INCHES.
2. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND SECURELY SEALED. SEE MANUFACTURER'S RECOMMENDATIONS.
3. POSTS SHALL BE PLACED AT A MAXIMUM OF 10 FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 12 INCHES). WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL BE AS MANUFACTURER RECOMMENDS.
4. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 6 INCHES WIDE AND 6 INCHES DEEP ALONG THE LINE OF POSTS AND UPSLOPE OF THE BARRIER IN ACCORDANCE WITH RECOMMENDATIONS
5. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE, AND WILL EXTEND A MINIMUM OF 8 INCHES INTO THE TRENCH. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
6. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.
7. FABRIC BARRIERS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
8. FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST ONCE DAILY DURING PROLONGED RAINFALL AND ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
9. SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
10. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
11. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.



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**391, 385, 373 TRANSMISSION LINE
STRUCTURE REPLACEMENT PROJECT**
AUBURN, CANDIA, CHESTER, DEERFIELD, DERRY, NORTHWOOD,
RAYMOND, ROCHESTER AND STRAFFORD
NEW HAMPSHIRE

DETAILS

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: EVERSOURCE ENERGY	
PROJ MGR: LEW	REVIEWED BY: TLT	CHECKED BY: DMZ	SHEET 2
DESIGNED BY: MJD	DRAWN BY: MJD	SCALE: NTS	
DATE: 3/17/22	PROJECT NO.: 04.0190999.86	REVISION NO.	