

NORTHERN PASS PROJECT Public Water Crossings - DE 15-460

Legend

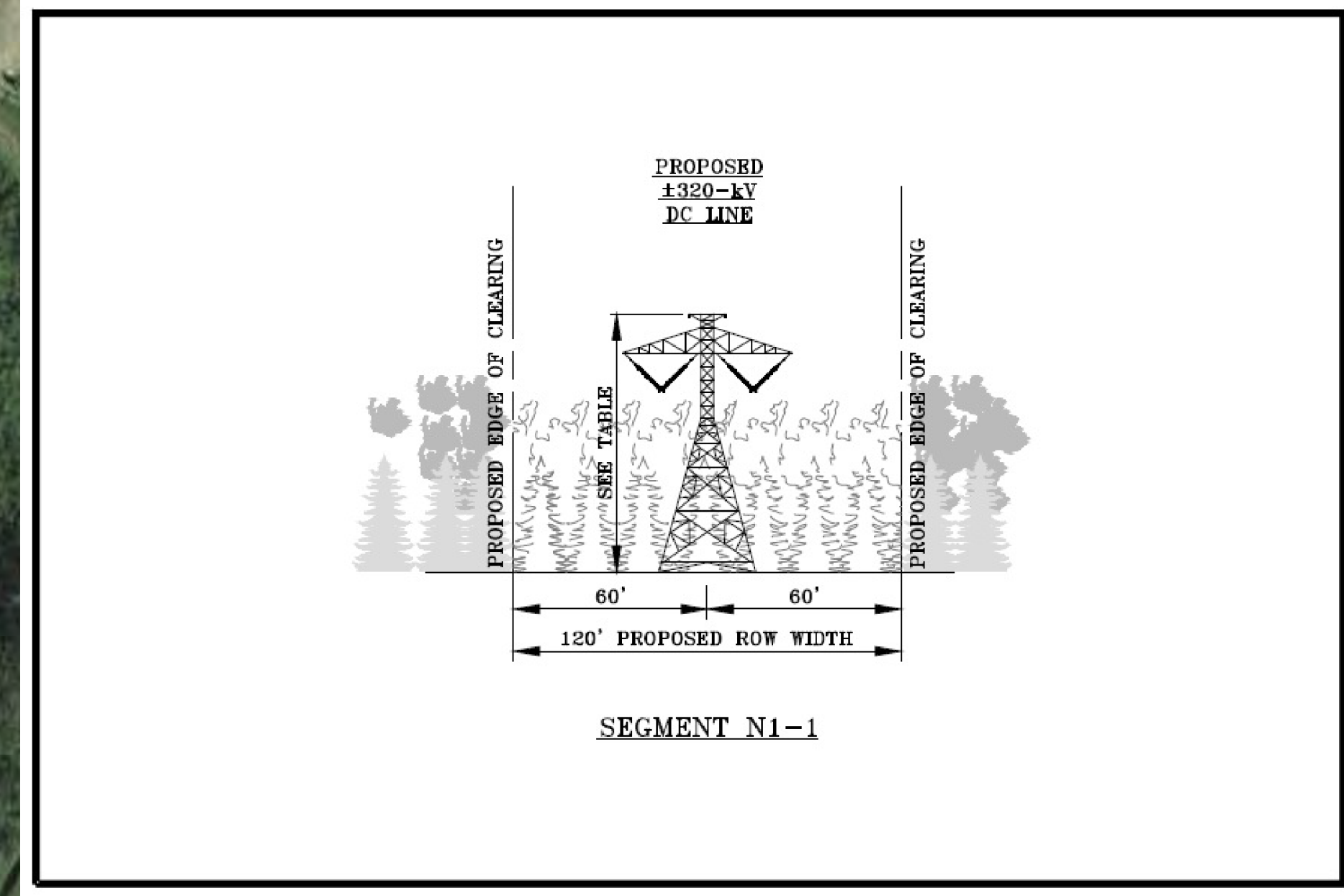
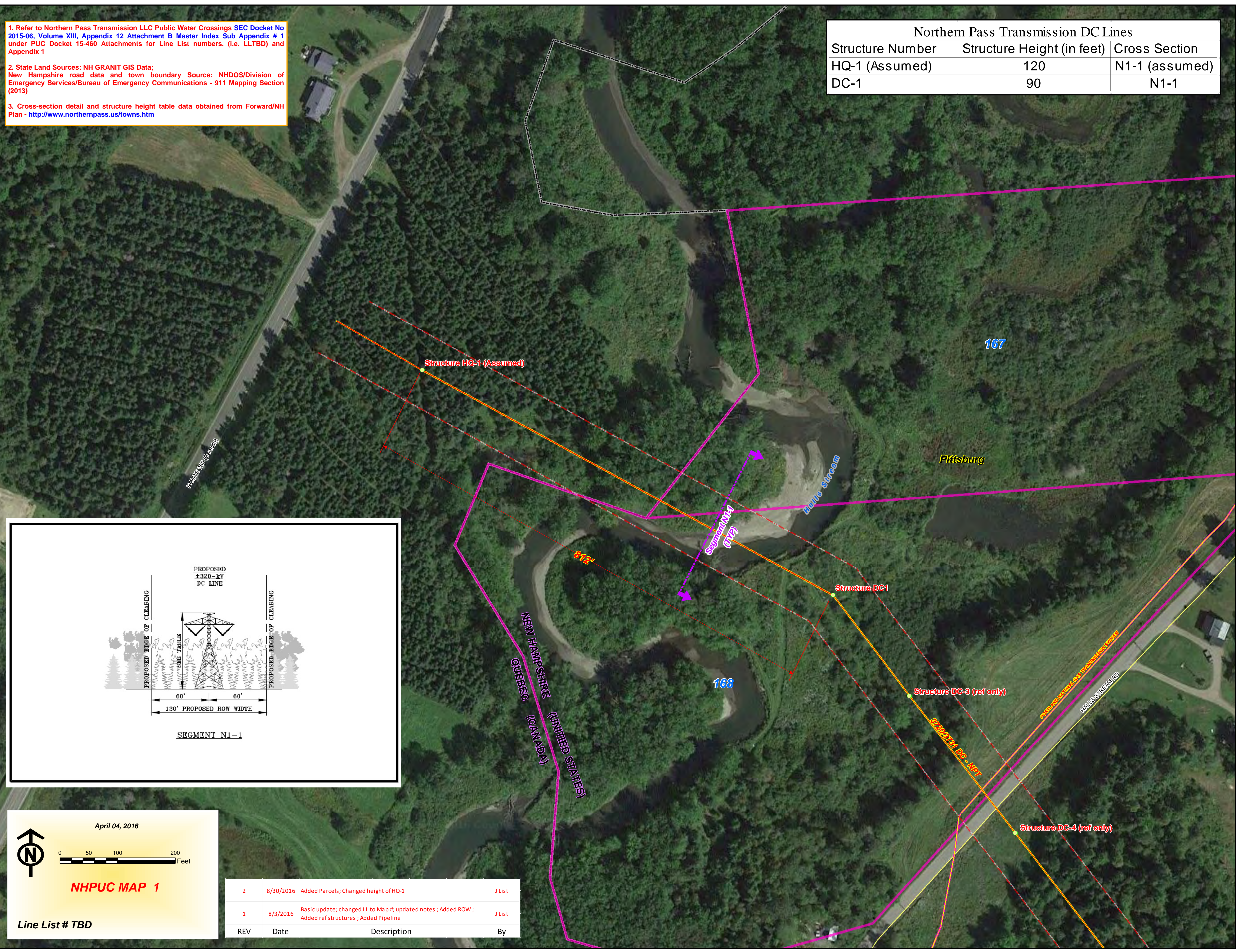
- Pole/Structure Location
 - Northern Pass**
 - 320 kV Line
 - Transition Station
 - Eversource Owned Parcel
 - Eversource Lines**
 - 115 kV
 - Right-of-way
 - Town Boundary
 - State Land
-
- Interstate
 - US Route
 - State Route
 - Public Road
 - Driveway
 - Ramp/Crossover
 - Railroad
 - Abandoned Railroad



Prepared By:
N.H. Public Utilities Commission
Safety Division : GIS Section

1. Refer to Northern Pass Transmission LLC Public Water Crossings SEC Docket No 2015-06, Volume XIII, Appendix 12 Attachment B Master Index Sub Appendix # 1 under PUC Docket 15-460 Attachments for Line List numbers. (i.e. LLTBD) and Appendix 1
2. State Land Sources: NH GRANIT GIS Data; New Hampshire road data and town boundary Source: NHDOS/Division of Emergency Services/Bureau of Emergency Communications - 911 Mapping Section (2013)
3. Cross-section detail and structure height table data obtained from Forward/NH Plan - <http://www.northernpass.us/towns.htm>

Northern Pass Transmission DC Lines		
Structure Number	Structure Height (in feet)	Cross Section
HQ-1 (Assumed)	120	N1-1 (assumed)
DC-1	90	N1-1



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NHPUC MAP 1

Line List # TBD

REV	Date	Description	By
2	8/30/2016	Added Parcels; Changed height of HQ-1	J List
1	8/3/2016	Basic update; changed LL to Map #; updated notes ; Added ROW ; Added ref structures ; Added Pipeline	J List

NORTHERN PASS PROJECT Public Water Crossings - DE 15-460

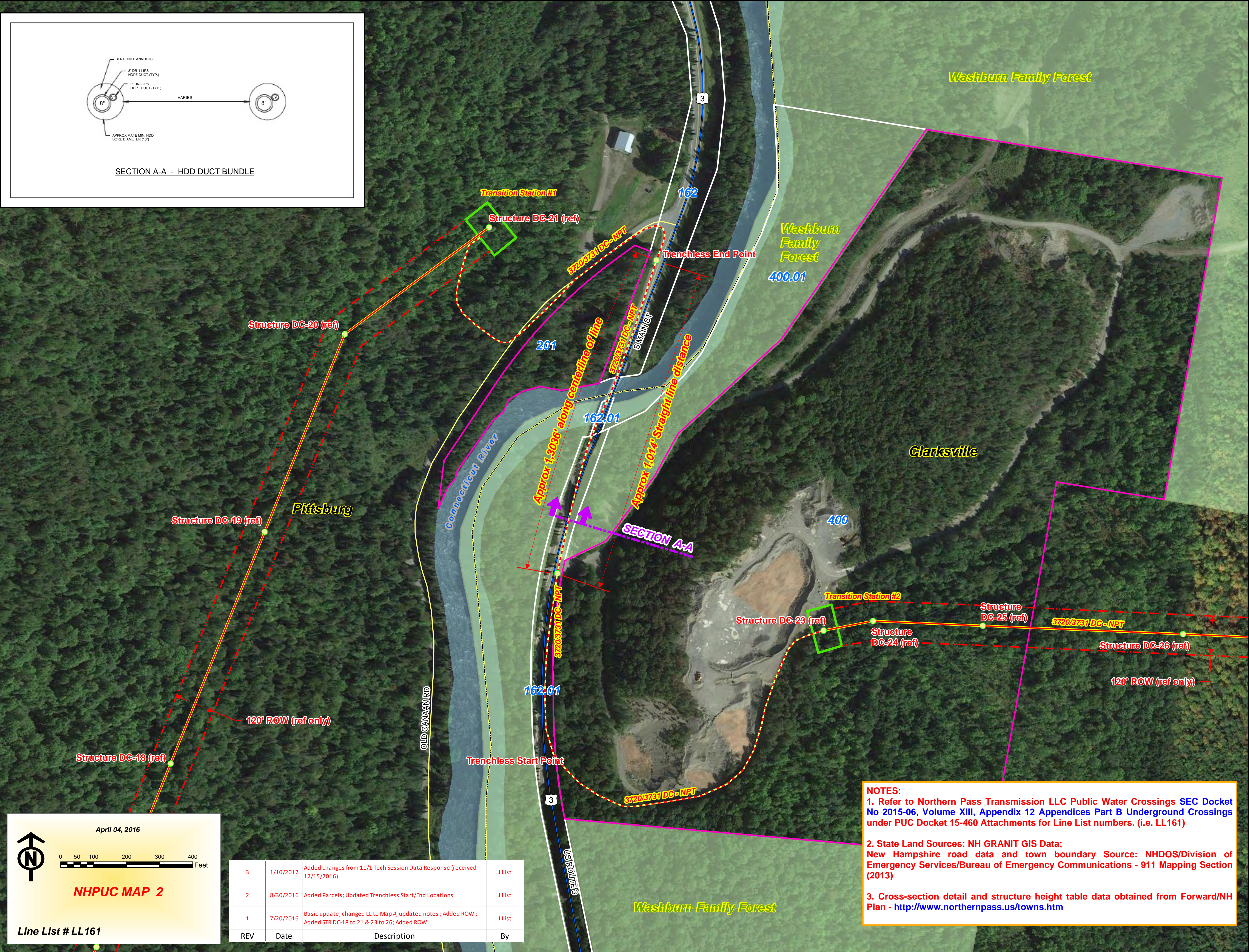
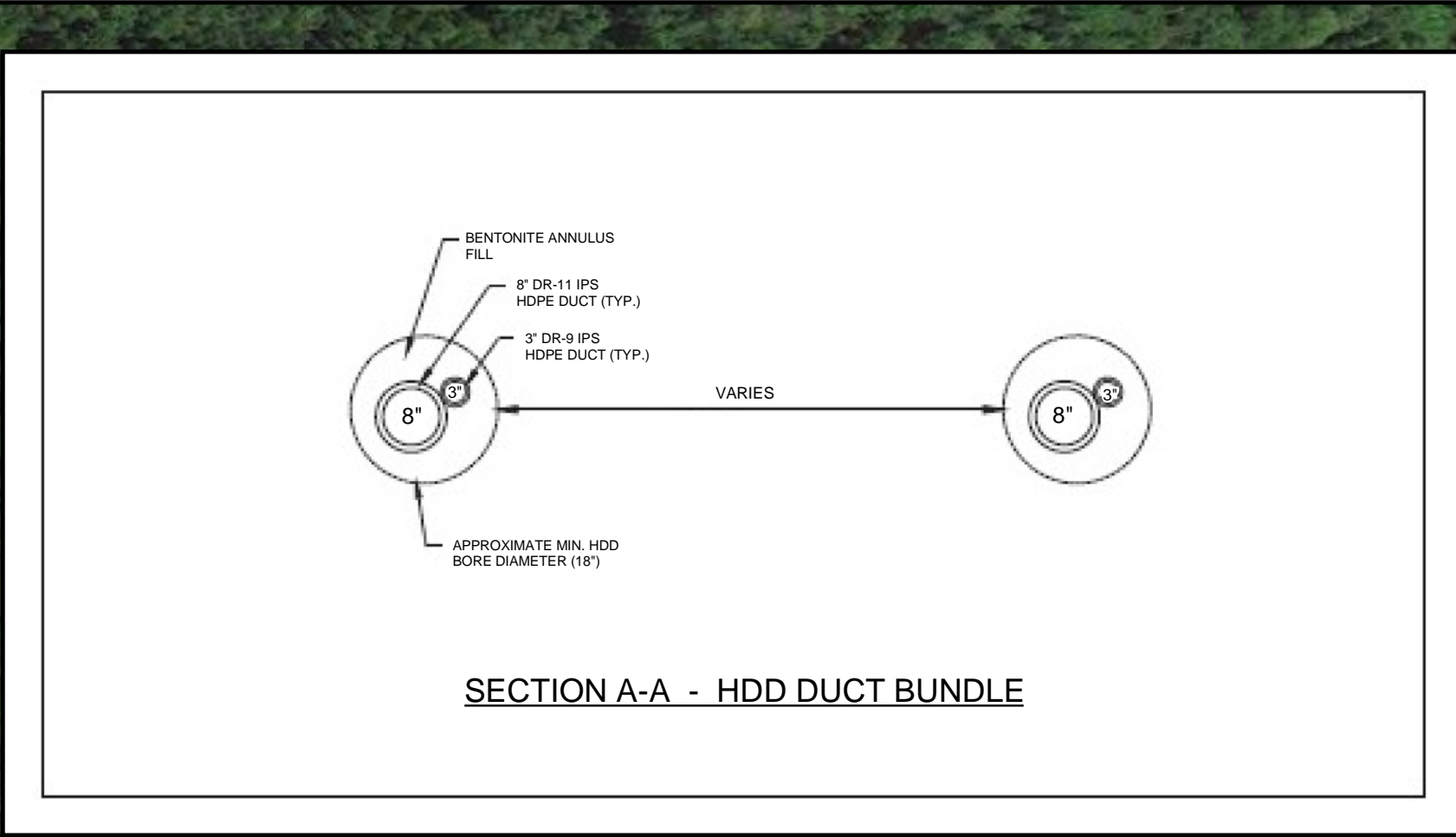
Legend

- Pole/Structure Location
- ROW
- Northern Pass**
- 320 kV Line
- 320 kV Line (Underground)
- Transition Station
- Eversource Owned Parcel
- Parcel (Owned by Other)
- Town Boundary
- State Land

- Interstate
- US Route
- State Route
- Public Road
- Driveway
- Ramp/Crossover
- Railroad
- Abandoned Railroad



Prepared By:
N.H. Public Utilities Commission
Safety Division - GIS Section



April 04, 2016

NHPUC MAP 2

Line List # LL161

REV	Date	Description	By
3	1/10/2017	Added changes from 11/1 Tech Session Data Response (received 12/15/2016)	J List
2	8/30/2016	Added Parcels; Updated Trenchless Start/End Locations	J List
1	7/20/2016	Basic update; changed LL to Map #; updated notes ; Added ROW ; Added STR DC-18 to 21 & 23 to 26; Added ROW	J List

NOTES:

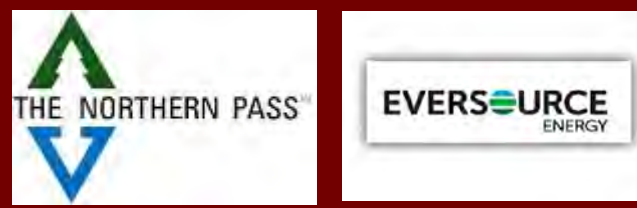
1. Refer to Northern Pass Transmission LLC Public Water Crossings SEC Docket No 2015-06, Volume XIII, Appendix 12 Appendices Part B Underground Crossings under PUC Docket 15-460 Attachments for Line List numbers. (i.e. LL161)
2. State Land Sources: NH GRANIT GIS Data; New Hampshire road data and town boundary Source: NHDOS/Division of Emergency Services/Bureau of Emergency Communications - 911 Mapping Section (2013)
3. Cross-section detail and structure height table data obtained from Forward/NH Plan - <http://www.northernpass.us/towns.htm>

NORTHERN PASS PROJECT State Land Crossings - DE 15-461 & DE 15-463

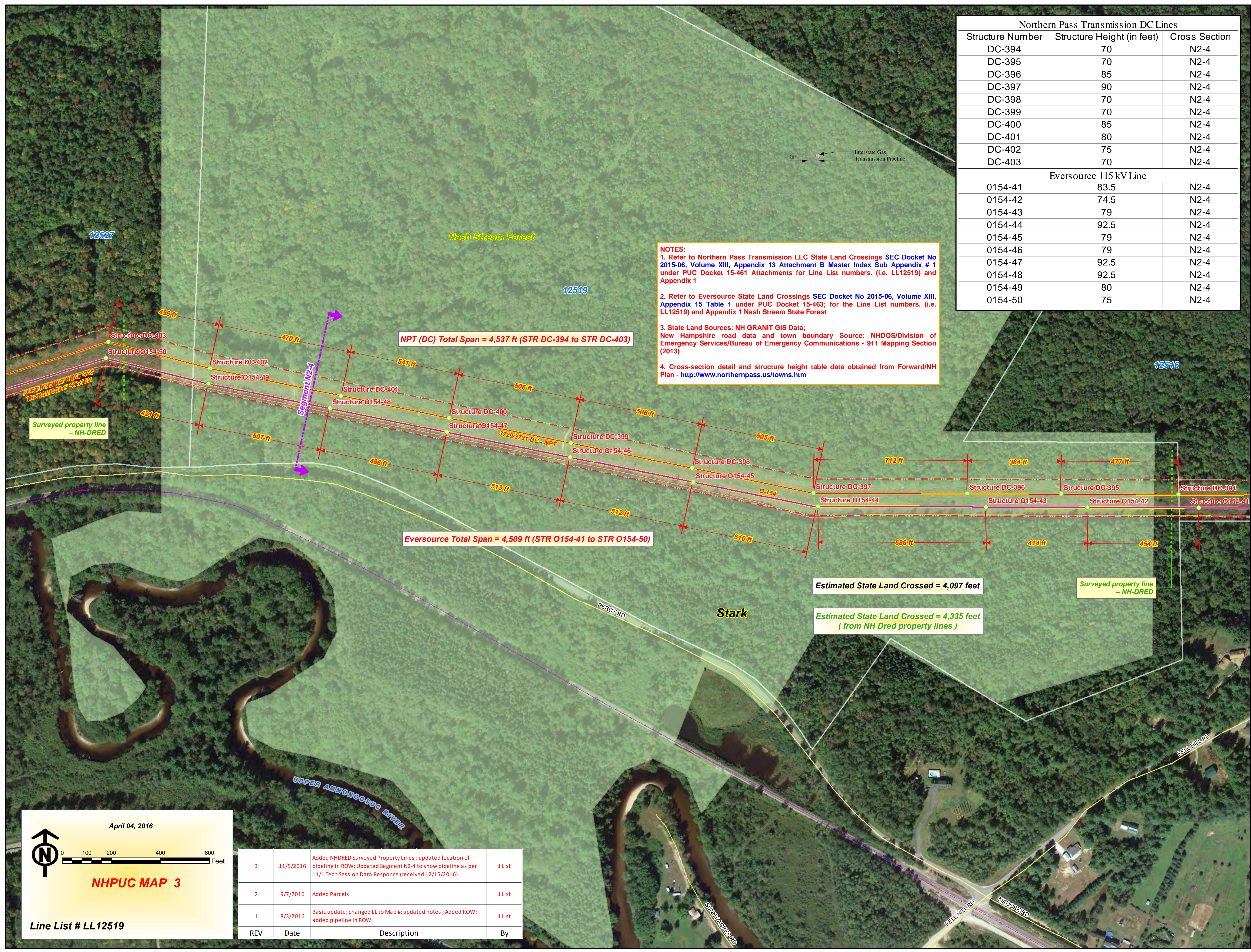
Legend

- Pole/Structure Location
- Northern Pass**
 - 320 kV Line
 - Transition Station
 - Parcel Boundary
- Eversource Lines**
 - 115 kV
 - Right-of-way
 - Town Boundary
 - State Land

- Interstate
- US Route
- State Route
- Public Road
- Driveway
- Ramp/Crossover
- Railroad
- Abandoned Railroad



Prepared By:
N.H. Public Utilities Commission
Safety Division : GIS Section



Northern Pass Transmission DC Lines		
Structure Number	Structure Height (in feet)	Cross Section
DC-394	70	N2-4
DC-395	70	N2-4
DC-396	85	N2-4
DC-397	90	N2-4
DC-398	70	N2-4
DC-399	70	N2-4
DC-400	85	N2-4
DC-401	80	N2-4
DC-402	75	N2-4
DC-403	70	N2-4
Eversource 115 kV Line		
0154-41	83.5	N2-4
0154-42	74.5	N2-4
0154-43	79	N2-4
0154-44	92.5	N2-4
0154-45	79	N2-4
0154-46	79	N2-4
0154-47	92.5	N2-4
0154-48	92.5	N2-4
0154-49	80	N2-4
0154-50	75	N2-4

NOTES:
 1. Refer to Northern Pass Transmission LLC State Land Crossings SEC Docket No 2015-06, Volume XIII, Appendix 13 Attachment B Master Index Sub Appendix # 1 under PUC Docket 15-461 Attachments for Line List numbers. (i.e. LL12519) and Appendix 1
 2. Refer to Eversource State Land Crossings SEC Docket No 2015-06, Volume XIII, Appendix 15 Table 1 under PUC Docket 15-463; for the Line List numbers. (i.e. LL12519) and Appendix 1 Nash Stream State Forest
 3. State Land Sources: NH GRANIT GIS Data; New Hampshire road data and town boundary Source: NHDOS/Division of Emergency Services/Bureau of Emergency Communications - 911 Mapping Section (2013)
 4. Cross-section detail and structure height table data obtained from Forward/NH Plan - <http://www.northernpass.us/towns.htm>

April 04, 2016

NHPUC MAP 3

Line List # LL12519

REV	Date	Description	By
3	11/5/2016	Added NHDRED Surveyed Property Lines ; updated location of pipeline in ROW; Updated Segment N2-4 to show pipeline as per 11/1 Tech Session Data Response (received 12/15/2016)	J List
2	9/7/2016	Added Parcels	J List
1	8/3/2016	Basic update; changed LL to Map #; updated notes ; Added ROW; added pipeline in ROW	J List

NORTHERN PASS PROJECT

State Land Crossings

DE 15-461 & DE 15-463

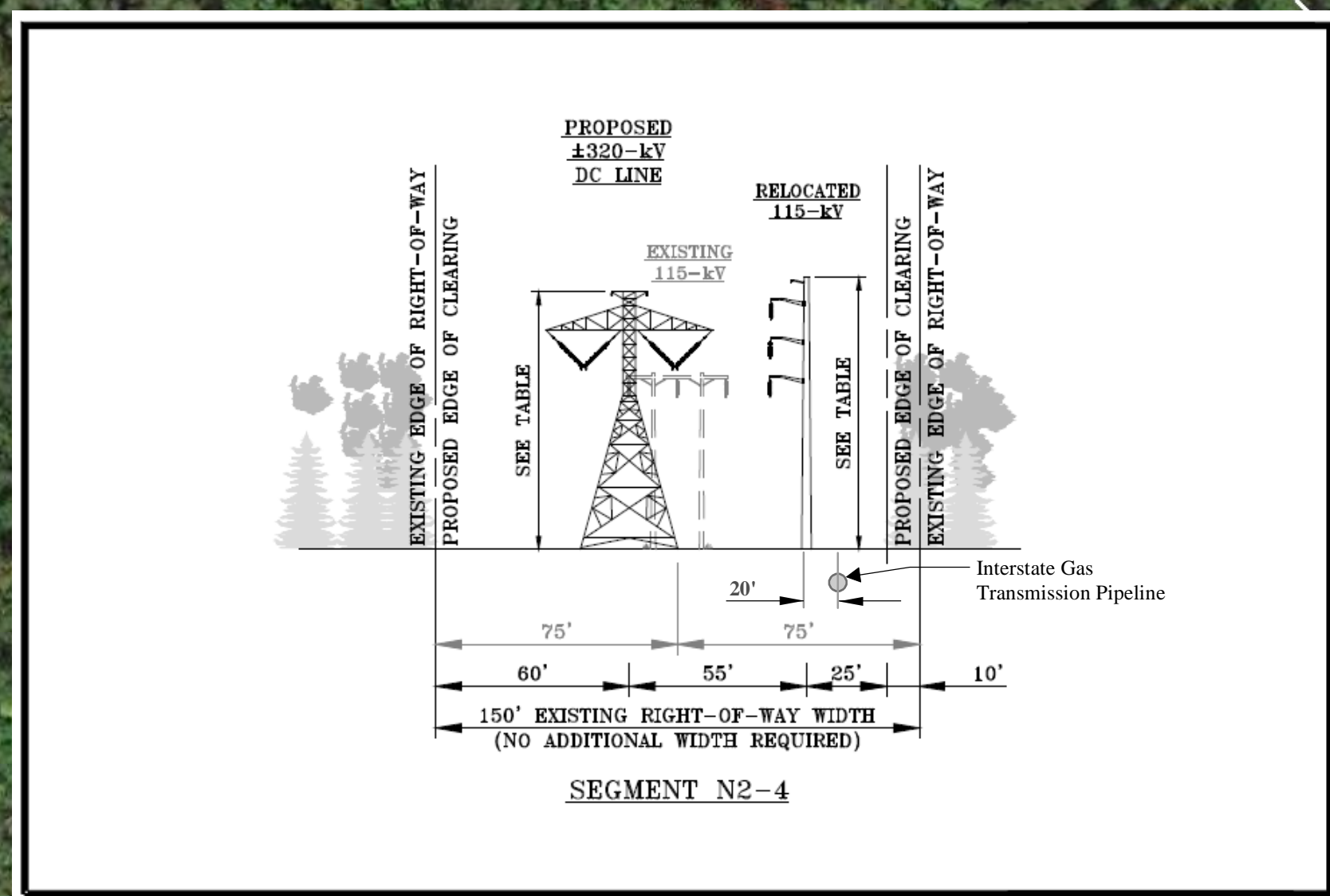
Legend

- Pole/Structure Location
- Northern Pass**
- 320 kV Line
- Transition Station
- Parcel Boundary
- Eversource Lines**
- 115 kV
- Right-of-way
- Town Boundary
- State Land

- Interstate
- US Route
- State Route
- Public Road
- Driveway
- Ramp/Crossover
- Railroad
- Abandoned Railroad

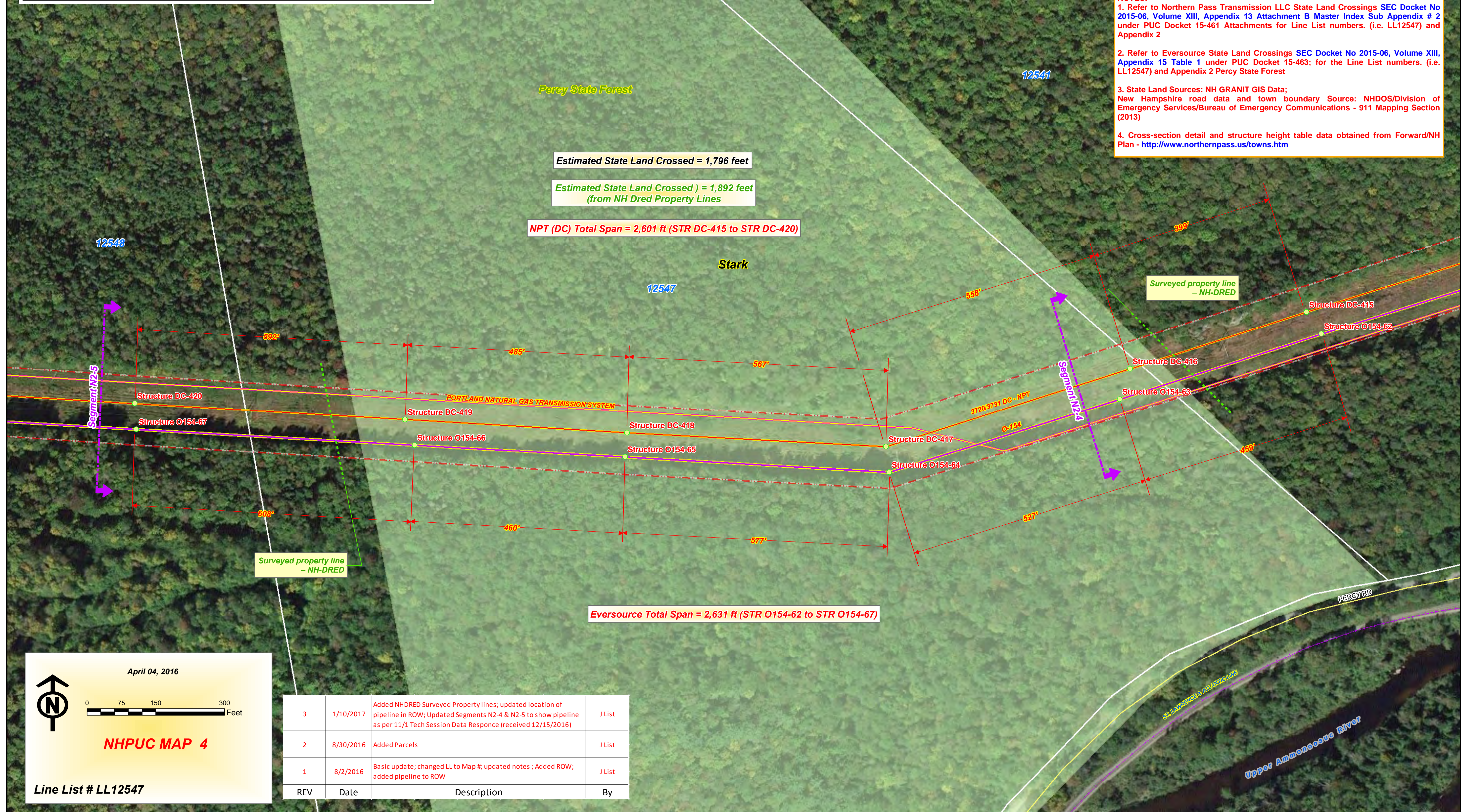


Prepared By:
N.H. Public Utilities Commission
Safety Division : GIS Section



Northern Pass Transmission DC Lines		
Structure Number	Structure Height (in feet)	Cross Section
DC-415	85	N2-4
DC-416	100	N2-4
DC-417	90	N2-5
DC-418	110	N2-5
DC-419	115	N2-5
DC-420	110	N2-5
Eversource 115 kV Line		
O154-62	95.5	N2-4
O154-63	97	N2-4
O154-64	95	N2-5
O154-65	88	N2-5
O154-66	88	N2-5
O154-67	97	N2-5

- NOTES:**
1. Refer to Northern Pass Transmission LLC State Land Crossings SEC Docket No 2015-06, Volume XIII, Appendix 13 Attachment B Master Index Sub Appendix # 2 under PUC Docket 15-461 Attachments for Line List numbers. (i.e. LL12547) and Appendix 2
 2. Refer to Eversource State Land Crossings SEC Docket No 2015-06, Volume XIII, Appendix 15 Table 1 under PUC Docket 15-463; for the Line List numbers. (i.e. LL12547) and Appendix 2 Percy State Forest
 3. State Land Sources: NH GRANIT GIS Data; New Hampshire road data and town boundary Source: NHDOS/Division of Emergency Services/Bureau of Emergency Communications - 911 Mapping Section (2013)
 4. Cross-section detail and structure height table data obtained from Forward/NH Plan - <http://www.northernpass.us/towns.htm>



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NHPUC MAP 4

Line List # LL12547

REV	Date	Description	By
3	1/10/2017	Added NHDRED Surveyed Property lines; updated location of pipeline in ROW; Updated Segments N2-4 & N2-5 to show pipeline as per 11/1 Tech Session Data Response (received 12/15/2016)	J List
2	8/30/2016	Added Parcels	J List
1	8/2/2016	Basic update; changed LL to Map #; updated notes; Added ROW; added pipeline to ROW	J List

NORTHERN PASS PROJECT Public Water Crossings DE 15-460 & DE 15-462

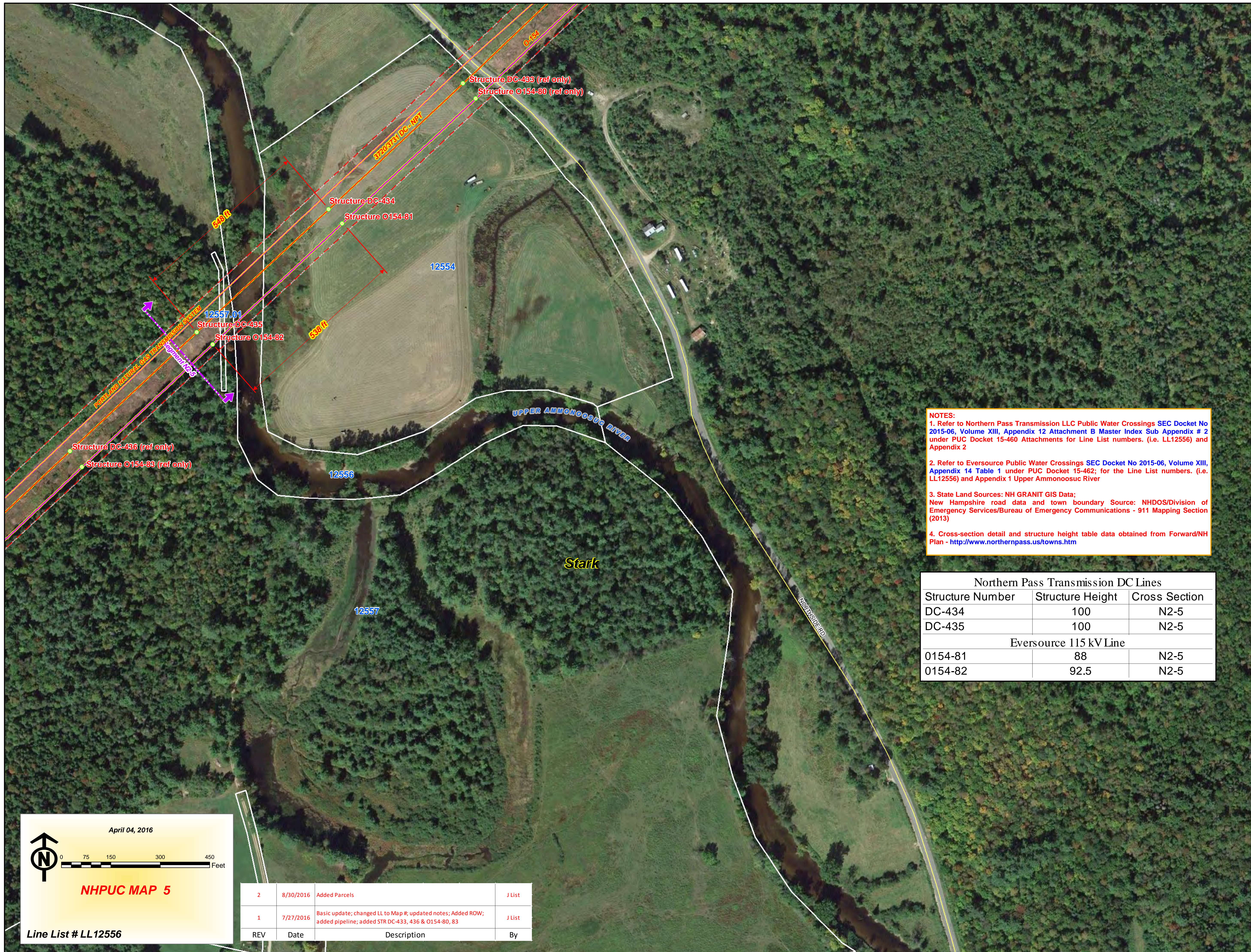
Legend

- Pole/Structure Location
- Northern Pass**
 - 320 kV Line
 - Transition Station
 - Parcel Boundary
- Eversource Lines**
 - 115 kV
 - Right-of-way
 - NH_Pipelines
 - Town Boundary

- Interstate
- US Route
- State Route
- Public Road
- Driveway
- Ramp/Crossover
- Railroad
- Abandoned Railroad



Prepared By:
N.H. Public Utilities Commission
Safety Division - GIS Section



NOTES:
 1. Refer to Northern Pass Transmission LLC Public Water Crossings SEC Docket No 2015-06, Volume XIII, Appendix 12 Attachment B Master Index Sub Appendix # 2 under PUC Docket 15-460 Attachments for Line List numbers. (i.e. LL12556) and Appendix 2
 2. Refer to Eversource Public Water Crossings SEC Docket No 2015-06, Volume XIII, Appendix 14 Table 1 under PUC Docket 15-462; for the Line List numbers. (i.e. LL12556) and Appendix 1 Upper Ammonoosuc River
 3. State Land Sources: NH GRANIT GIS Data; New Hampshire road data and town boundary Source: NHDOS/Division of Emergency Services/Bureau of Emergency Communications - 911 Mapping Section (2013)
 4. Cross-section detail and structure height table data obtained from Forward/NH Plan - <http://www.northernpass.us/towns.htm>

Northern Pass Transmission DC Lines		
Structure Number	Structure Height	Cross Section
DC-434	100	N2-5
DC-435	100	N2-5
Eversource 115 kV Line		
0154-81	88	N2-5
0154-82	92.5	N2-5

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NHPUC MAP 5

Line List # LL12556

REV	Date	Description	By
2	8/30/2016	Added Parcels	J List
1	7/27/2016	Basic update; changed LL to Map #; updated notes; Added ROW; added pipeline; added STR DC-433, 436 & O154-80, 83	J List

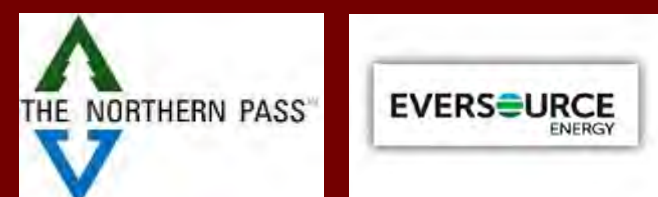
NORTHERN PASS PROJECT

State Land Crossings

DE 15-461 & DE 15-463

Legend

- Pole/Structure Location
- Northern Pass**
 - 320 kV Line
 - Transition Station
 - Parcel Boundary
- Eversource Lines**
 - 115 kV
 - Right-of-way
 - State Boundary
 - Town Boundary
 - State Land
- Interstate
- US Route
- State Route
- Public Road
- Driveway
- Ramp/Crossover
- Railroad
- Abandoned Railroad

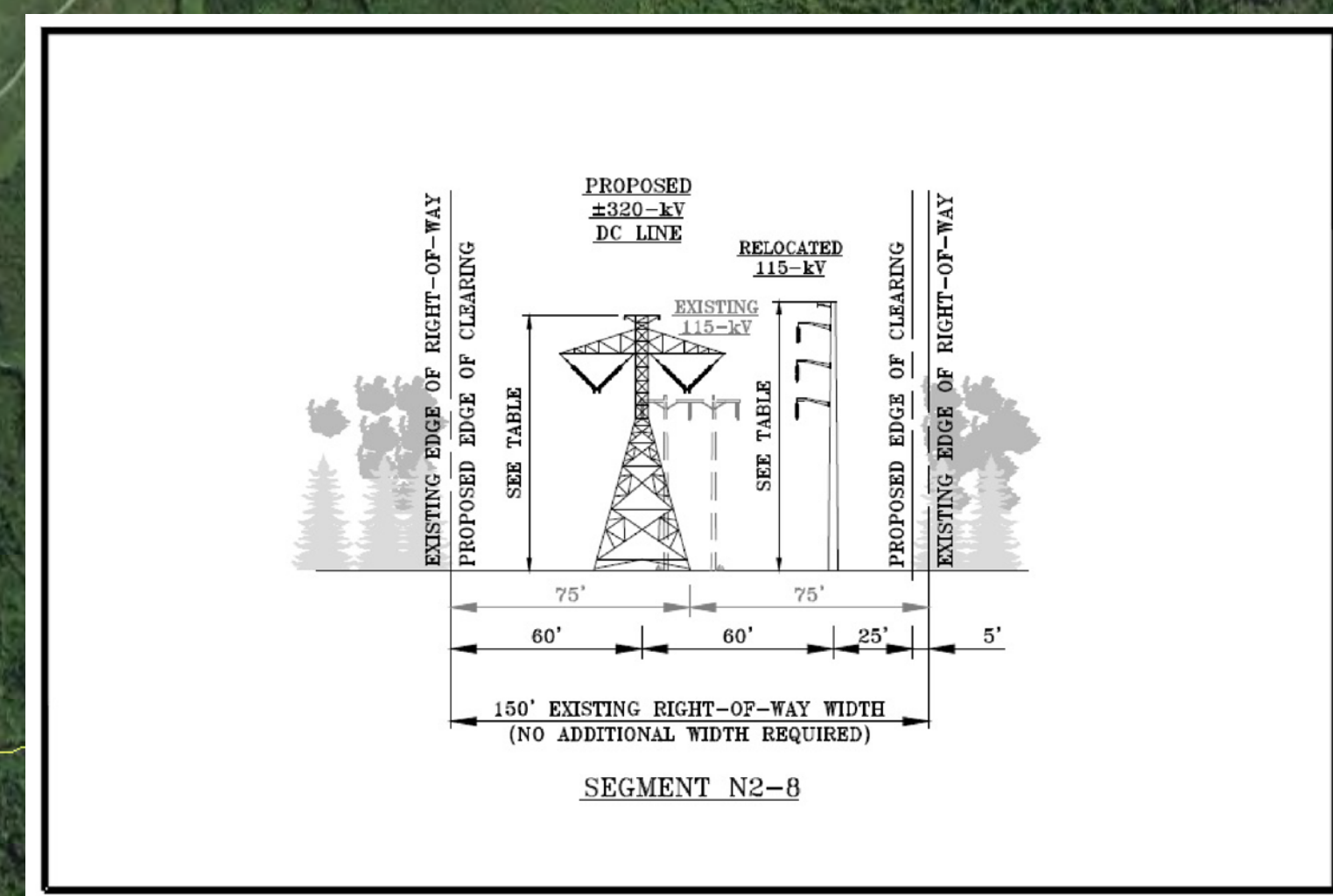


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Safety Division - GIS Section

Northern Pass Transmission DC Lines		
Structure Number	Structure Height (in feet)	Cross Section
DC-486	80	N2-8
DC-487	80	N2-8
DC-488	85	N2-8
DC-489	80	N2-8
DC-490	85	N2-8
DC-491	80	N2-8
DC-492	80	N2-8
DC-493	85	N2-8
DC-494	80	N2-8
DC-495	80	N2-8
DC-496	75	N2-8
DC-497	70	N2-8
DC-498	70	N2-8
DC-499	85	N2-8
DC-500	85	N2-8
DC-501	95	N2-8
DC-502	80	N2-8
DC-503	80	N2-8
DC-504	80	N2-8
DC-505	90	N2-8
DC-506	85	N2-8
DC-507	75	N2-8

Eversource 115 kV Line		
Structure Number	Structure Height (in feet)	Cross Section
D142-322	88	N2-8
D142-323	97	N2-8
D142-324	92.5	N2-8
D142-325	79	N2-8
D142-326	97	N2-8
D142-327	88	N2-8
D142-328	92.5	N2-8
D142-329	92.5	N2-8
D142-330	92.5	N2-8
D142-331	97	N2-8
D142-332	88	N2-8
D142-333	88	N2-8
D142-334	83.5	N2-8
D142-335	88	N2-8
D142-336	88	N2-8
D142-337	101.5	N2-8
D142-338	97	N2-8
D142-339	88	N2-8
D142-340	92.5	N2-8
D142-341	88	N2-8
D142-342	83.5	N2-8
D142-343	88	N2-8
D142-344	92.5	N2-8

REV	Date	Description	By
3	1/10/2017	Added NHDRED Surveyed Property Lines	J List
2	8/30/2016	Added Parcels	J List
1	8/2/2016	Basic update; changed LL to Map #; updated notes ; Added ROW; changed NPT(DC) total span	J List

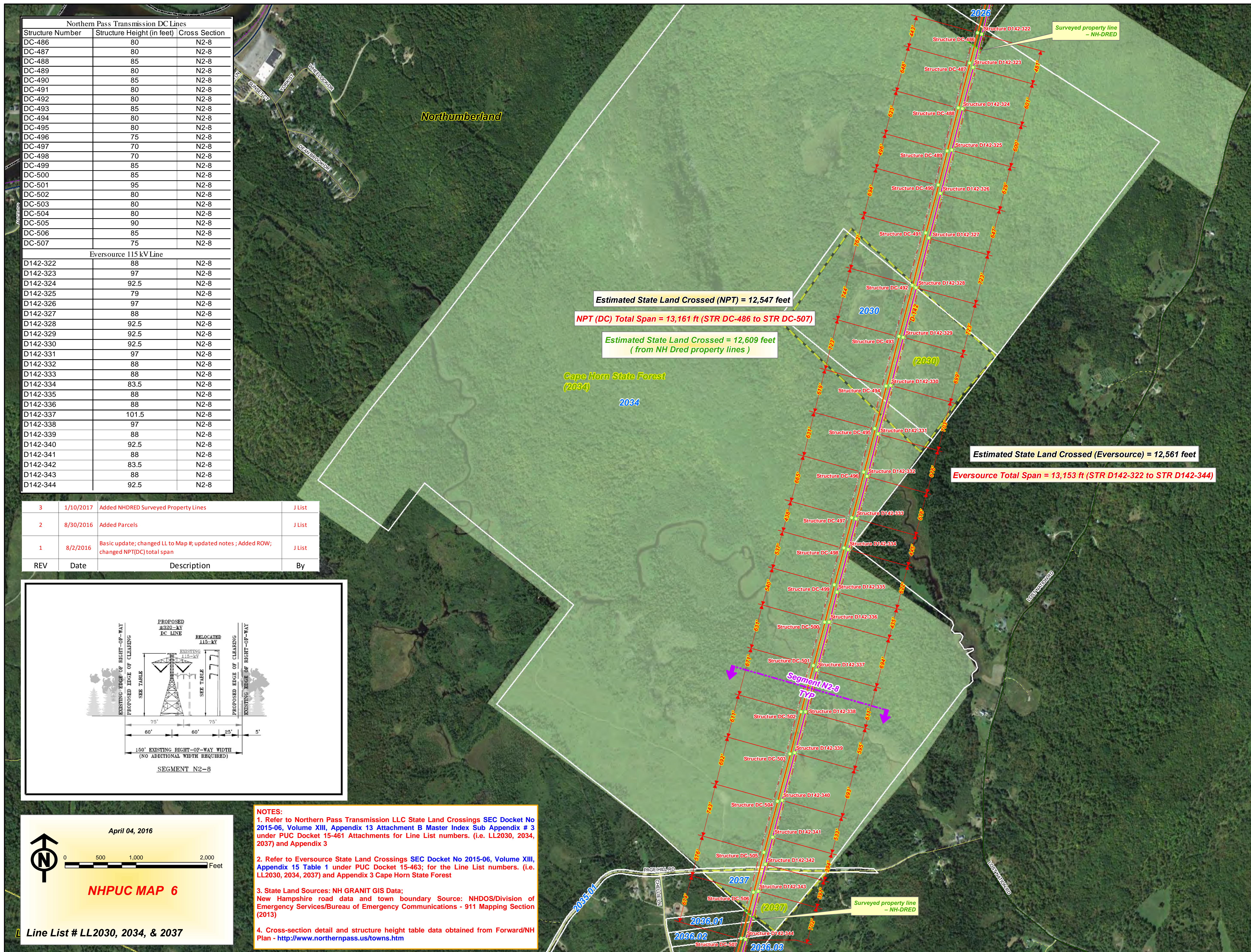


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NHPUC MAP 6

Line List # LL2030, 2034, & 2037

- NOTES:**
- Refer to Northern Pass Transmission LLC State Land Crossings SEC Docket No 2015-06, Volume XIII, Appendix 13 Attachment B Master Index Sub Appendix # 3 under PUC Docket 15-461 Attachments for Line List numbers. (i.e. LL2030, 2034, 2037) and Appendix 3
 - Refer to Eversource State Land Crossings SEC Docket No 2015-06, Volume XIII, Appendix 15 Table 1 under PUC Docket 15-463; for the Line List numbers. (i.e. LL2030, 2034, 2037) and Appendix 3 Cape Horn State Forest
 - State Land Sources: NH GRANIT GIS Data; New Hampshire road data and town boundary Source: NHDOS/Division of Emergency Services/Bureau of Emergency Communications - 911 Mapping Section (2013)
 - Cross-section detail and structure height table data obtained from Forward/NH Plan - <http://www.northernpass.us/towns.htm>



NORTHERN PASS PROJECT Public Water & Rail Crossings DE 15-460, DE 15-461, DE 15-462, & DE 15-463

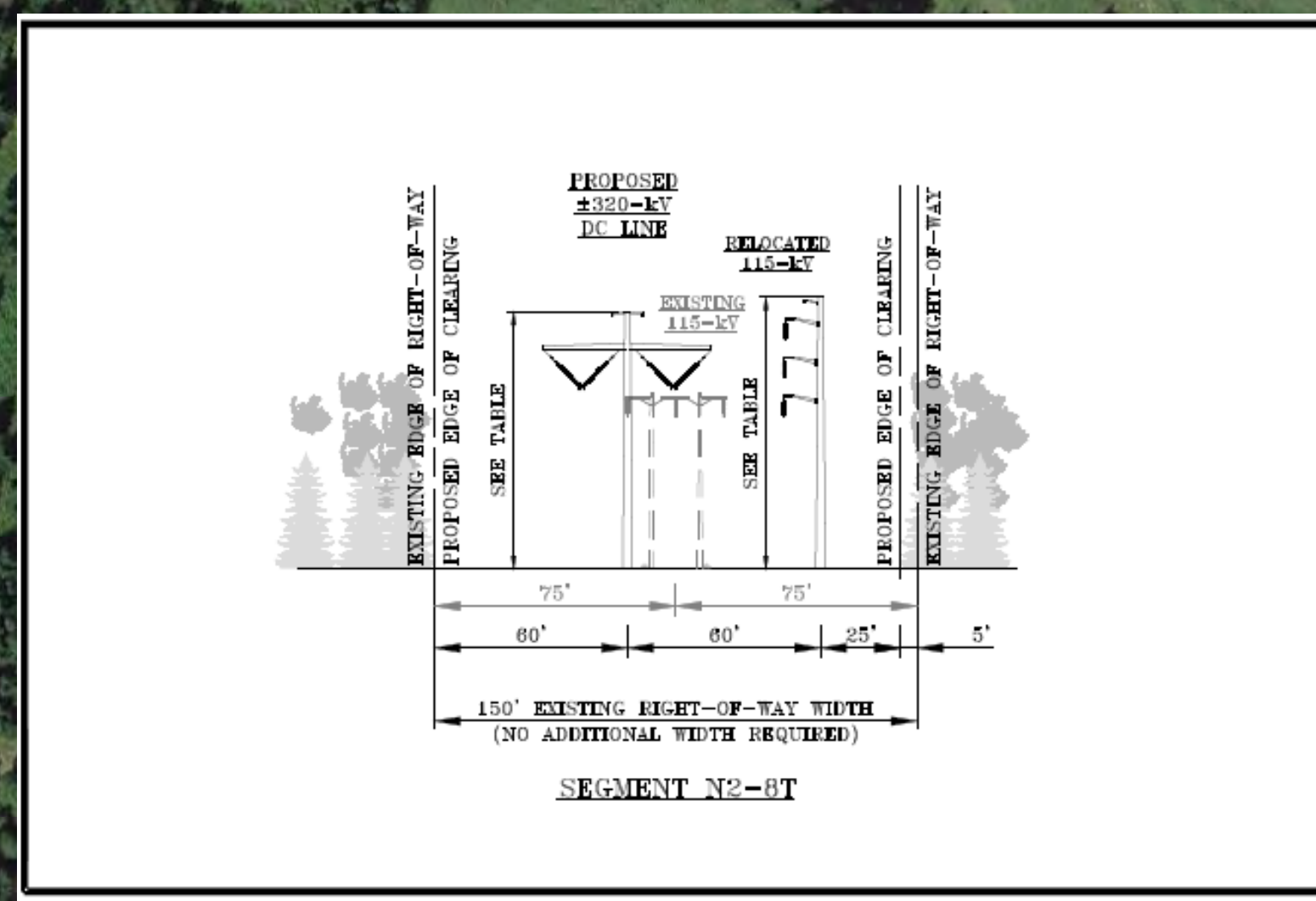
Legend

- Pole/Structure Location
- Northern Pass**
- 320 kV Line
- Transition Station
- Parcel Boundary
- Eversource Lines**
- 115 kV
- Right-of-way
- Town Boundary
- State Land

- Interstate
- US Route
- State Road
- Public Road
- Driveway
- Ramp/Crossover
- Railroad
- Abandoned Railroad



Prepared By:
N.H. Public Utilities Commission
Safety Division : GIS Section



Northern Pass Transmission DC Lines		
Structure Number	Structure Height (in feet)	Cross Section
DC-536	85	N2-8T
DC-537	85	N2-8T
DC-538	95	N2-8T
DC-539	90	N2-8T
DC-540	70	N2-8T
Eversource 115 kV Line		
D142-373	90	N2-8T
D142-374	97	N2-8T
D142-375	115	N2-8T
D142-376	110.5	N2-8T
D142-377	80.0	N2-8T

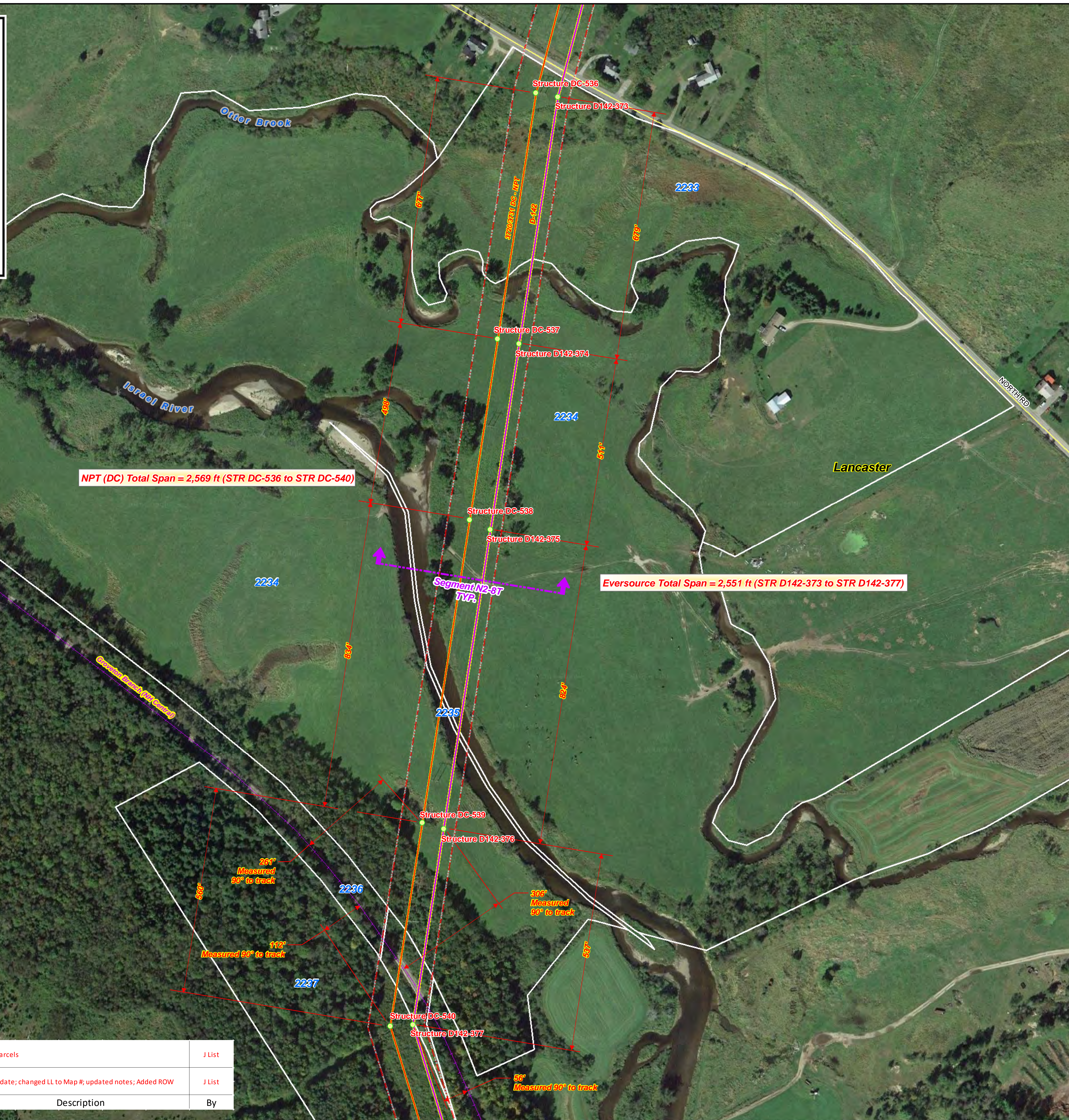
- NOTES:**
- Refer to Northern Pass Transmission LLC Public Water Crossings SEC Docket No 2015-06, Volume XIII, Appendix 12 Attachment B Master Index Sub Appendices # 3, 4 under PUC Docket 15-460 Attachments for Line List numbers. (i.e. LL2233, 2235) and Appendix 3, 4
 - Refer to Eversource Public Water Crossings SEC Docket No 2015-06, Volume XIII, Appendix 14 Table 1 under PUC Docket 15-462 for the Line List numbers. (i.e. LL2233, 2235) and Appendix 2, 3; Otter Brook, Israel River
 - Refer to Northern Pass Transmission LLC State Land Crossings SEC Docket No 2015-06, Volume XIII, Appendix 13 Attachment B Master Index Sub Appendix # 4 under PUC Docket 15-461 Attachments for Line List numbers. (i.e. LL2236) and Appendix 4
 - Refer to Eversource State Land Crossings SEC Docket No 2015-06, Volume XIII, Appendix 15 Table 1 under PUC Docket 15-463 for the Line List numbers. (i.e. LL 2236) and Appendix 4 Groveton Branch RR Crossing
 - State Land Sources: NH GRANIT GIS Data;
New Hampshire road data and town boundary Source: NHDOS/Division of Emergency Services/Bureau of Emergency Communications - 911 Mapping Section (2013)

April 04, 2016

NHPUC MAP 7

Line List # LL2233, 2235, & 2236

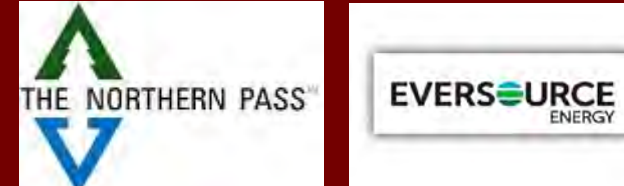
REV	Date	Description	By
2	8/30/2016	Added Parcels	J List
1	7/27/2016	Basic update; changed LL to Map #; updated notes; Added ROW	J List



Legend

- Pole/Structure Location
- Northern Pass**
 - 320 kV Line
 - Transition Station
- Eversource Lines**
 - 115 kV
 - 34.5 kV
 - Right-of-way
- Parcel Boundary (Owned by Other)
- Eversource Owned Parcel
- Town Boundary
- State Land

- Interstate
- US Route
- State Route
- Public Road
- Driveway
- Ramp/Crossover
- Railroad
- Abandoned Railroad

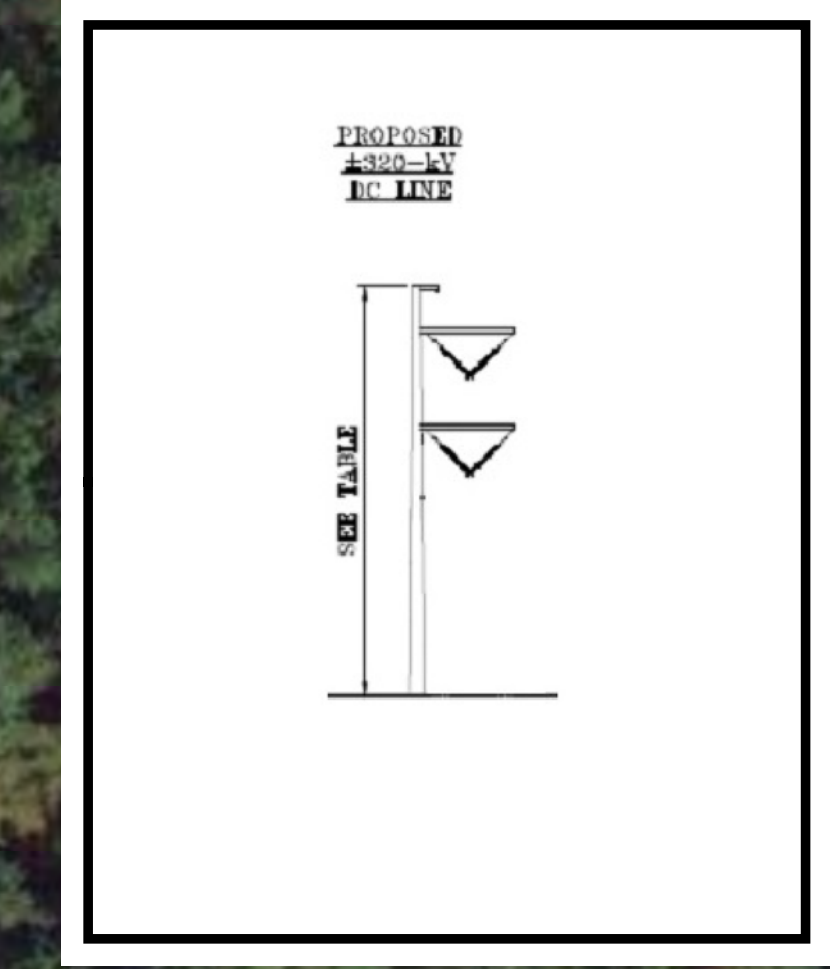
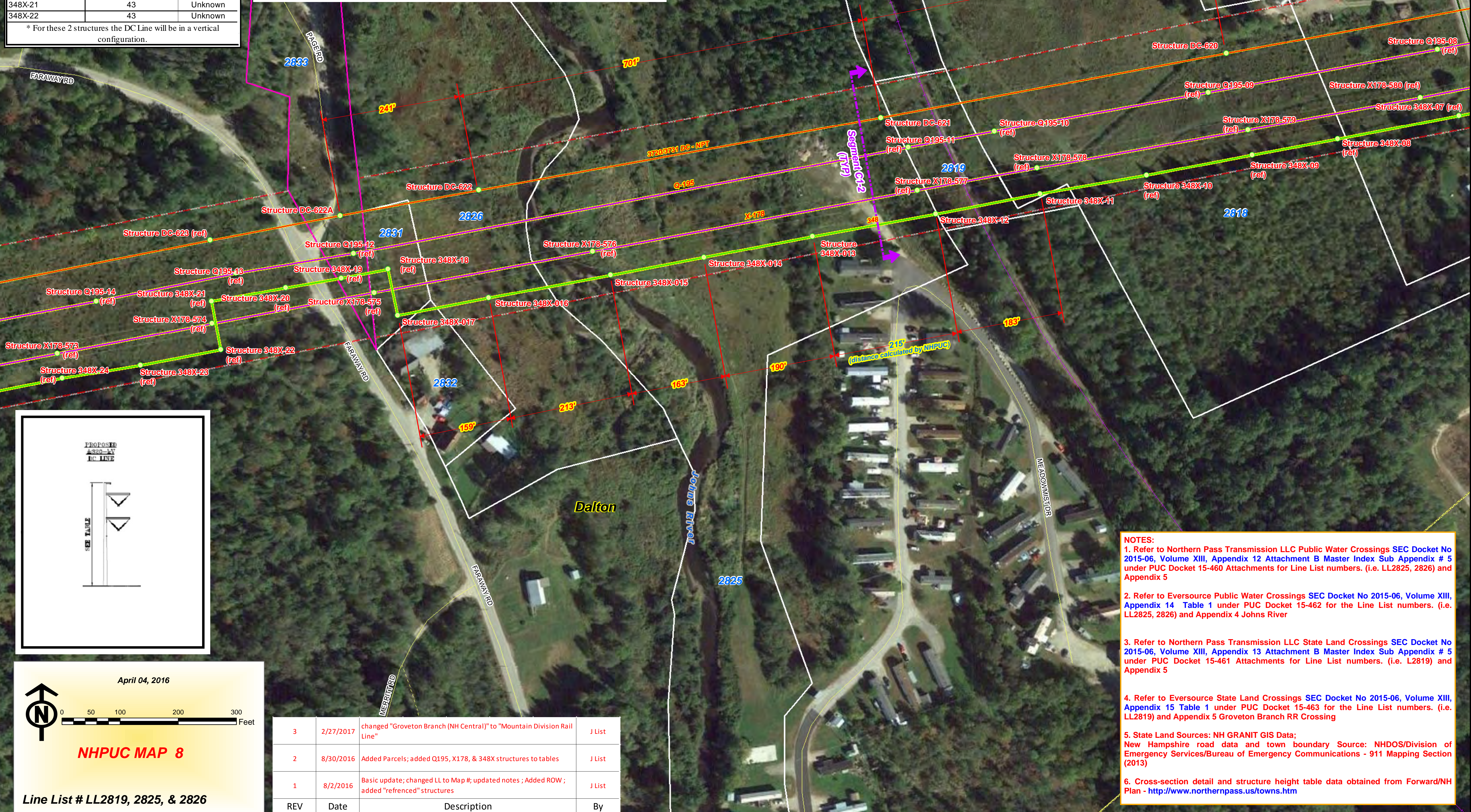
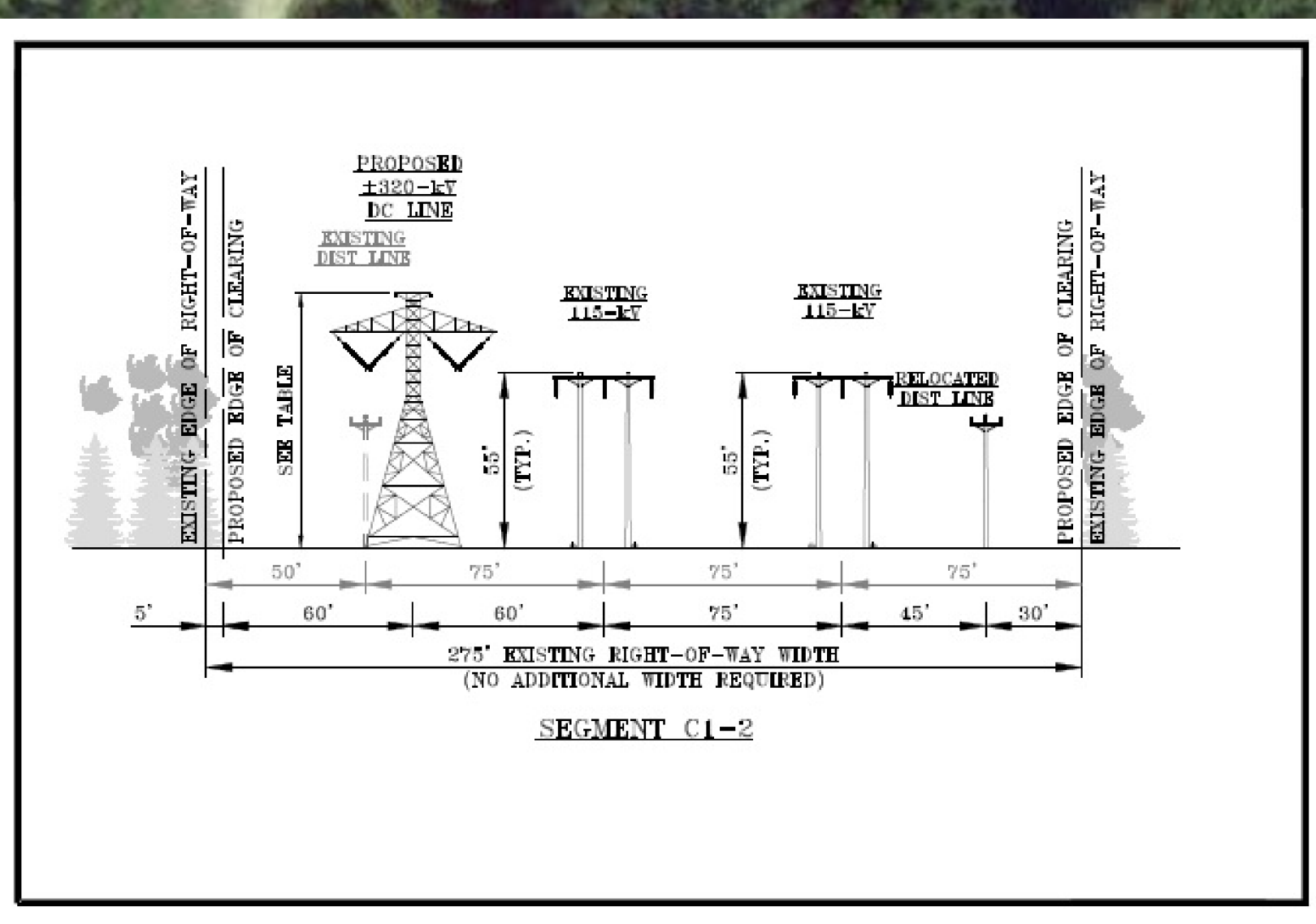


Prepared By:
N.H. Public Utilities Commission
Safety Division - GIS Section

NORTHERN PASS PROJECT Public Water & Rail Crossings DE 15-460, DE 15-461, DE 15-462, & DE 15-463

Northern Pass Transmission DC Lines		
Structure Number	Structure Height (in feet)	Cross Section
DC-620	90	C1-2
DC-621	100	C1-2
DC-622	110	C1-2*
DC-622A	105	C1-2*
Eversource 115 kV Line		
Q195-8	52	C1-2
Q195-9	47.5	C1-2
Q195-10	47.5	C1-2
Q195-11	45.5	C1-2
Q195-12	62	Unknown
X178-575	52	Unknown
X178-576	42	C1-2
X178-577	56.5	C1-2
X178-578	52	C1-2
X178-579	43	C1-2
X178-580	47.5	C1-2
Eversource 34.5 kV Line		
348X-17	43	Unknown
348X-17A	30	Unknown
348X-17B	40	Unknown
348X-17C	40	Unknown
348X-17D	35	Unknown
348X-19	43	Unknown
348X-20	43	Unknown
348X-21	43	Unknown
348X-22	43	Unknown

* For these 2 structures the DC Line will be in a vertical configuration.



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NHPUC MAP 8

Line List # LL2819, 2825, & 2826

REV	Date	Description	By
3	2/27/2017	changed "Groveton Branch (NH Central)" to "Mountain Division Rail Line"	J List
2	8/30/2016	Added Parcels; added Q195, X178, & 348X structures to tables	J List
1	8/2/2016	Basic update; changed LL to Map #; updated notes ; Added ROW ; added "referenced" structures	J List

NOTES:

1. Refer to Northern Pass Transmission LLC Public Water Crossings SEC Docket No 2015-06, Volume XIII, Appendix 12 Attachment B Master Index Sub Appendix # 5 under PUC Docket 15-460 Attachments for Line List numbers. (i.e. LL2825, 2826) and Appendix 5
2. Refer to Eversource Public Water Crossings SEC Docket No 2015-06, Volume XIII, Appendix 14 Table 1 under PUC Docket 15-462 for the Line List numbers. (i.e. LL2825, 2826) and Appendix 4 Johns River
3. Refer to Northern Pass Transmission LLC State Land Crossings SEC Docket No 2015-06, Volume XIII, Appendix 13 Attachment B Master Index Sub Appendix # 5 under PUC Docket 15-461 Attachments for Line List numbers. (i.e. L2819) and Appendix 5
4. Refer to Eversource State Land Crossings SEC Docket No 2015-06, Volume XIII, Appendix 15 Table 1 under PUC Docket 15-463 for the Line List numbers. (i.e. LL2819) and Appendix 5 Groveton Branch RR Crossing
5. State Land Sources: NH GRANIT GIS Data; New Hampshire road data and town boundary Source: NHDOS/Division of Emergency Services/Bureau of Emergency Communications - 911 Mapping Section (2013)
6. Cross-section detail and structure height table data obtained from Forward/NH Plan - <http://www.northernpass.us/towns.htm>