

1 STATE OF NEW HAMPSHIRE

2 SITE EVALUATION COMMITTEE

3 **May 4, 2017** - 9:02 a.m. DAY 9
4 49 Donovan Street MORNING SESSION ONLY
5 Concord, New Hampshire

6 {Electronically filed with SEC 05-11-17}

7 **IN RE: SEC DOCKET NO. 2015-06**
8 **NORTHERN PASS TRANSMISSION -**
9 **EVERSOURCE; Joint Application of**
10 **Northern Pass Transmission LLC and**
11 **Public Service of New Hampshire d/b/a**
12 **Eversource Energy for a**
13 **Certificate of Site and Facility**
14 **(Hearing on the Merits)**

15 **PRESENT FOR SUBCOMMITTEE/SITE EVALUATION COMMITTEE:**

16 Chmn. Martin Honigberg <i>(Presiding Officer)</i>	Public Utilities Comm.
17 Cmsr. Kathryn M. Bailey	Public Utilities Comm.
18 Dir. Christopher Way, Des.	Dept. of Resources & Economic Development
19 Craig Wright, Designee	Dept. of Environmental Services
20 William Oldenburg, Des.	Department of Transportation
21 Patricia Weathersby	Public Member
22 Rachel Whitaker	Alternate Public Member

23 **ALSO PRESENT FOR THE SEC:**

24 Michael J. Iacopino, Esq. Counsel to the SEC
Iryna Dore, Esq.
(Brennan, Caron, Lenehan & Iacopino)

Pamela G. Monroe, SEC Administrator

COURT REPORTER: Cynthia Foster, LCR No. 14

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I N D E X

WITNESS PANEL NATHAN SCOTT
 LYNN FARRINGTON
 SAMUEL JOHNSON
 KENNETH BOWES
 DERRICK BRADSTREET
 JOHN KAYSER

(Resumed)

Cross-Examination Continued by Mr. Reimers	3
Cross-Examination by Ms. Pastoriza	68
Cross-Examination by Ms. Fillmore	97

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P R O C E E D I N G S

PRESIDING OFFICER HONIGBERG: Good morning, everyone. Day 9 begins. We're where Day 8 left off unless there's anything we need to deal with before Mr. Reimers continues? All right, seeing nothing, Mr. Reimers, you may proceed.

MR. REIMERS: Mr. Chair, just kind of a road map, I expect that I will end either at lunch or soon after lunch. Just so you know what to expect. I think I'd be within my four hours?

PRESIDING OFFICER HONIGBERG: Okay.

CROSS-EXAMINATION CONTINUED

BY MR. REIMERS:

Q Welcome back. Yesterday when we left we were at Sheets 45 and 46 of the Project maps which are Appellant's Exhibit 2, Attachment 6. And we were talking about the Kauffmann Forest owned by the Forest Society and the various tracts that make up that Forest; do you recall that?

A (Johnson) I do.

Q Okay. And I believe you said when we were talking about the Kauffmann Tract itself which is here on Sheet 45 right here, and extends onto

1 Sheet 46, that you said that the tallest
2 structure currently is about 50 feet tall.

3 A (Johnson) I believe it's 52 feet but close
4 enough.

5 Q And the relocated towers on the Kauffmann Tract
6 would range in height from -- or the Northern
7 Pass and the relocated towers on the Kauffmann
8 Tract would range in height from 80 feet to 110
9 feet; is that right?

10 A (Johnson) That seems about right, yes.

11 Q I had asked whether there would be 24 Northern
12 Pass or relocated 115 kV towers in the Kauffmann
13 Tract and Mr. Bradstreet counted 20 and he was
14 correct because we were looking at Sheet 45.
15 But if you count the towers on the Kauffmann
16 Tract, beginning on Sheet 45 and continuing on
17 to Sheet 46, I believe that there would be 24.
18 Would you agree with that? 1, 2, 3, 4, 5, 6, 7,
19 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19,
20 20, 21, 22, 23, 24?

21 A (Johnson) You went off the page from our view,
22 but 24 is the correct number. There are two
23 tracts that are both Kauffmann.

24 Q And of the 12 Northern Pass towers in those

1 Kauffmann Tracts, all 12 would be taller than
2 100 feet in height or 100 feet or taller; is
3 that correct?

4 A (Johnson) Yes.

5 Q And when those towers are constructed, you would
6 have to build a crane pad for each one; is that
7 right?

8 A (Johnson) Correct.

9 Q And is that one crane pad, would you use the
10 same crane pad to build the Northern Pass tower
11 and the relocated tower?

12 A (Johnson) No.

13 Q Okay. So it's one crane pad per tower?

14 A (Johnson) I take that back. There are several
15 that overlap each other. So we may have a
16 larger crane pad for the Northern Pass and a
17 smaller crane pad for the relocated 15 line.
18 Some of them do overlap each other, however, so
19 not necessarily uniquely would crane pads per.

20 Q And what staging areas will you use when you're
21 constructing in the Kauffmann Forest?

22 A (Johnson) So, again, we discussed this a couple
23 day ago. Most likely the staging areas will be
24 the crane pads themselves, and, effectively,

1 what the contractor will do will lay down the
2 structure on the pad ahead, and as they finish
3 the foundation, they will then go and pick up
4 that structure and bring it back and erect it
5 with the crane.

6 Q And do you yet have a designated laydown area
7 that will be used for this portion?

8 A (Johnson) Not in this area at this time. We
9 have the three that weren't part of original
10 Application.

11 Q Right. Are any of those three going to be the
12 laydown area that you use to construct in the
13 Kauffmann Forest?

14 A Do not believe so. No.

15 Q So after the Kauffmann Forest, the right-of-way
16 traverses some nonconservation land and then on
17 Sheet 47, here, it enters the White Mountain
18 National Forest; do you see that?

19 A I do.

20 Q And prior to it entering the Forest, it crosses
21 Route 110; do you see that?

22 A (Johnson) That is correct.

23 Q And we're still in Stark, aren't we?

24 A (Johnson) Yes.

1 Q And in this stretch of the right-of-way on Sheet
2 47, there are some residences in this general
3 vicinity, aren't there?

4 A (Johnson) Yes.

5 Q And when you get to the White Mountain National
6 Forest, there would be 9 proposed Northern Pass
7 towers; is that correct?

8 A So the sheet that you just showed was a little
9 triangle or a point?

10 Q Right.

11 A (Johnson) There's one structure there.

12 Q I'm showing you Sheet 48 which includes that
13 triangle and then includes additional. And
14 actually goes on to Sheet 49.

15 A (Johnson) I count 8, but -- and that one makes
16 9.

17 Q So we'd have one here?

18 A (Johnson) Yes.

19 Q Two.

20 A (Johnson) Um-hum.

21 Q 3, 4, 5, 6, 7, 8, and then the 9th is on Sheet
22 49; is that right?

23 A (Johnson) That is correct.

24 Q And then there would be also relocated 115 kV

1 towers in the White Mountain National Forest
2 here, wouldn't there?

3 A (Johnson) There is.

4 Q And there would be 1, 2, 3, 4, 5, 6, 7, 8, 9 of
5 those as well?

6 A (Johnson) That is correct.

7 Q So you're proposing to build 18 towers in this
8 section of the White Mountain National Forest?

9 A (Johnson) That is correct.

10 Q And these appear to range in height from 70 feet
11 to 101 and a half feet? Does that sound right?

12 A (Johnson) Appears that way, yes.

13 Q What is currently the tallest tower existing in
14 that section of the White Mountain National
15 Forest?

16 A (Johnson) 52 feet.

17 Q That would be below the tree line if the tree
18 line were 60 feet tall?

19 A (Johnson) If the tree line were 60 feet, yes.

20 Q And if the tree line were 60 feet, all new 18
21 towers would rise above the tree line, wouldn't
22 they?

23 A (Johnson) Portions of it, yes.

24 Q After Stark, the next town is Northumberland; is

1 that right?

2 A (Johnson) That is correct.

3 Q And the Northern Pass would run six miles
4 through Northumberland?

5 A (Johnson) That is correct.

6 Q And there's an existing 115 kV line in
7 Northumberland?

8 A (Johnson) That is correct.

9 Q And the height of the existing 115 kV lines, the
10 towers, are 42 to 55 feet?

11 A (Johnson) I'll take your word for it but okay.
12 Sure.

13 Q Based on the Project maps that were revised in
14 February 2016?

15 A (Johnson) Yes.

16 Q And all of those towers that exist now in
17 Northumberland would be below a 60-foot tree
18 line; is that right?

19 A (Johnson) If it was 60 feet, then yes.

20 Q Do you know what the tree line is in any part of
21 Northumberland?

22 A (Johnson) We do, but I don't have that
23 information with me today.

24 Q And the new 115 kV towers in Northumberland

1 would range from 74 to 105 feet in height?

2 A (Johnson) Sounds about right.

3 Q Okay. And if the Project maps show that the
4 Northern Pass towers would range from 70 feet to
5 130 feet in height, would that be correct?

6 A (Johnson) Again, I don't have that in front of
7 me, but it sounds reasonable.

8 Q The existing right-of-way in Northumberland is
9 150 feet wide; is that right?

10 A (Johnson) I can check that. Yes.

11 Q And it's currently cleared to 140 feet?

12 A (Johnson) I believe portions of it are cleared
13 to the full 150, but --

14 Q What additional clearing will occur in
15 Northumberland?

16 A (Johnson) It looked like some selective trimming
17 or clearing on either side of the right-of-way.

18 Q Would this statement be true? In Northumberland
19 the right-of-way would be cleared an additional
20 ten feet?

21 A (Johnson) I wouldn't say everywhere because
22 there are some spaces where it's cleared
23 already, edge to edge, but there are areas where
24 the ten feet will be cleared.

1 Q In Northumberland, the right-of-way crosses the
2 Cape Horn State Forest; is that right?

3 A (Johnson) That is correct.

4 Q And I'm looking at Sheet 51 of Applicant's
5 Exhibit 2, Attachment 2, which is the 2016
6 Project maps. And is this here where the
7 project enters the Cape Horn State Forest?

8 A (Johnson) It looks that way, yes.

9 Q And if the project maps indicate that 43
10 Northern Pass and relocated 115 kV towers are
11 proposed for the Cape Horn State Forest, would
12 that be accurate?

13 A (Johnson) Subject to check, sounds about right.

14 Q And those 43 towers in Cape Horn would range in
15 height from 70 feet to 101 feet in height, is
16 that right?

17 A (Johnson) Again, subject to check, but sounds
18 about right.

19 Q Of those 43 towers that range from 70 to 101
20 feet in height, only two would be 70 feet tall.
21 Is that right?

22 A (Johnson) Again, subject to check.

23 Q I'll show you on Sheet 53. Do you see here that
24 there's two 70-foot towers?

1 A (Johnson) I do.

2 Q And according to the project maps of the 42
3 towers in Cape Horn, those are the two shortest
4 ones, but those are right next to towers that
5 are 88 feet and 83 and a half feet tall, aren't
6 they?

7 A (Johnson) It appears that way, yes.

8 Q What is the tallest current tower in Cape Horn?

9 A (Johnson) I believe 52 feet.

10 Q 52 feet?

11 A (Johnson) Um-hum.

12 PRESIDING OFFICER HONIGBERG: Mr. Reimers,
13 I have a question for you. I'm hearing a lot of
14 information that's coming straight out of the
15 Application. Straight out of their submissions.
16 Is there some reason to expect them to disagree
17 with what's in their Application? Presumably,
18 you plan to use this information for some
19 purpose down the road.

20 MR. REIMERS: You're exactly right.

21 PRESIDING OFFICER HONIGBERG: Do you need
22 them to commit to something that's in their
23 Application? Isn't that sufficiently committed
24 that you can use it?

1 MR. REIMERS: Well, there are instances
2 where portions of the Application conflict with
3 this information.

4 PRESIDING OFFICER HONIGBERG: Okay. Are we
5 going to highlight those because I think they
6 would probably stipulate to the heights in the
7 Application unless there's some conflict that
8 you'd highlight for us and so we don't
9 necessarily have to go through every map and
10 confirm that the heights that are on the map or
11 the heights that are in the diagrams match up
12 with those towers. Because it's taking a long
13 time for you to do that.

14 MR. REIMERS: It is. If you don't mind,
15 I'll continue going through the maps, but I will
16 do it at a much quicker pace.

17 PRESIDING OFFICER HONIGBERG: Because I
18 don't think they're going to disagree with you.
19 Highlight the conflicts, they'll resolve it for
20 you, and we'll move on, okay?

21 BY MR. REIMERS:

22 Q So Cape Horn State Forest was in Northumberland,
23 is that right?

24 A (Johnson) That is correct.

1 Q And the next town would be Lancaster?

2 A (Johnson) Yes.

3 Q And the existing right-of-way is 150 feet wide
4 in Lancaster?

5 A I believe so. Yes.

6 Q And it's cleared to 140 feet?

7 A Again, I believe portions of it are cleared to
8 the edge, but some of it is not so yes.

9 Q And there will be additional clearing?

10 A (Johnson) Yes.

11 Q And in Lancaster, would you agree that all of
12 the existing towers are below the tree line?

13 A (Johnson) Again, if you're using our
14 hypothetical of 60 feet then yes.

15 Q And would you agree that all of the new 115 kV
16 and Northern Pass towers would be above the tree
17 line in Lancaster?

18 A (Johnson) Portions of it would be, yes.

19 Q And the tallest new tower at 115 feet, that
20 would be approximately 54 feet taller than the
21 tallest existing tower?

22 A (Johnson) Subject to check.

23 Q Now, in Lancaster the right-of-way would cross
24 multiple conservation properties; are you aware

1 of that?

2 A (Johnson) I am.

3 Q On Sheet 56, for example, the right-of-way would
4 cross the Lancaster Town Forest?

5 A (Johnson) Correct.

6 Q And the proposed structures in the Lancaster
7 Town Forest would be 90 to 97 feet in height, is
8 that correct?

9 A (Johnson) I believe 90 to 95, but again, subject
10 to check.

11 Q And what is the tallest existing structure in
12 the Lancaster State Forest?

13 A (Johnson) It appears to be 52 feet.

14 Q And then after the Lancaster State Forest, the
15 right-of-way on Sheet 56 crosses the Campon
16 conservation easement; do you see that?

17 A (Johnson) I do.

18 Q And two structures are proposed at heights of 80
19 to 92 and a half feet; is that right?

20 A (Johnson) I only see one structure at 80 feet,
21 but it could be a nuance of the map that I'm
22 looking at versus what you have.

23 Q Aren't there two, if you're looking at Sheet 56,
24 aren't there two proposed towers in the Campon,

1 one relocated kV line?

2 A (Johnson) Yes. I'm sorry. I was counting just
3 the DC line.

4 Q So there's two new structures that would be
5 proposed.

6 A (Johnson) That's correct.

7 Q And what, currently, what is the tallest tower
8 on that easement?

9 A (Johnson) 43.

10 Q And then from the Campon easement, the
11 right-of-way enters the Barto and Baker
12 easement?

13 A (Johnson) That's correct.

14 Q With towers ranging from 85 to 101 feet in
15 height. What is the current tallest tower on
16 that easement?

17 A (Johnson) Appears to be 43 feet.

18 Q And on Sheets 57 and 48, the right-of-way enters
19 another conservation easement which is the CRP
20 Savage easement; do you see that?

21 A (Johnson) I do.

22 Q And the heights of the proposed Northern Pass
23 would be 85 to 95 feet there?

24 A (Johnson) Again, subject to check, but sure.

1 Q What is the tallest tower currently on the CRP
2 Savage easement in this area?

3 A (Johnson) It looks like 52 feet.

4 Q After Lancaster, the right-of-way continues to
5 Whitefield; is that right?

6 A (Johnson) That's correct.

7 Q And in Whitefield there would be two Northern
8 Pass sections, a northern section and then the
9 right-of-way enters Dalton and then reenters
10 Whitefield?

11 A (Johnson) That's correct.

12 Q And there is an existing 115 kV line in these
13 sections?

14 A (Johnson) As you get closer towards the
15 Whitefield substation, the right-of-way becomes
16 much larger and there are many more lines in
17 that area.

18 Q And in some portions there are two existing kV
19 lines?

20 A (Johnson) And some distribution lines as well.

21 Q In Whitefield, the kV lines range from 43 to 101
22 feet in height. Would you agree if the Project
23 maps indicate that?

24 A (Johnson) Sorry, which?

1 Q The kV lines, between the two sets.

2 A (Johnson) kV means kilovolt?

3 Q I'm sorry. The 115 kV lines. There are two 115
4 kV lines in some portions of the right-of-way in
5 Whitefield.

6 A (Johnson) That's correct. I'm sorry. What
7 heights did you mention?

8 Q Between all of the 115 kV lines, the tallest
9 would be 101.5 feet, would that be accurate?

10 A (Johnson) I'll take your word for it, sure,
11 subject to check.

12 Q And the Northern Pass towers would range from 60
13 to 100 feet, according to the Project maps so
14 some of the new relocated 115 kV towers would
15 actually be taller than the Northern Pass
16 towers.

17 A (Johnson) Appears that way, yes. By a foot or
18 so, according to your map.

19 Q Foot and a half.

20 A (Johnson) Yes.

21 Q How wide is the existing right-of-way,
22 rights-of-way in Whitefield, and how much is
23 currently cleared?

24 A (Johnson) So again, it varies. Depending which

1 length or leg you're on, if you will.

2 Q How much additional clearing will there be?

3 A (Johnson) I believe the majority of the
4 right-of-way is cleared edge to edge. There is
5 some that will need some trimming or selective
6 clearing. If we refer back to similar to where
7 we were in Lancaster there could be areas where
8 there's five to ten feet of additional clearing
9 along one edge. But at this height of these
10 trees that ends up being trimming as opposed to
11 wholesale clearing.

12 Q In Whitefield the right-of-way crosses the
13 Pondicherry unit of the Silvio O. Conte Wildlife
14 Refuge?

15 A (Johnson) It does.

16 Q And what is the tallest existing tower in the
17 wildlife refuge?

18 A (Johnson) There's a lot of them so -- it appears
19 to be 52 feet.

20 Q And so clearly shorter than the proposed
21 Northern Pass towers of 65 to 125 feet?

22 A (Johnson) Correct.

23 Q After the first Whitefield section, the line
24 would go through Dalton?

1 A (Johnson) Correct.

2 Q And in Dalton, what is the tallest existing
3 tower in Dalton?

4 A (Johnson) Again, there are several so just bear
5 with me.

6 Q Would any be taller than the shortest Northern
7 Pass tower of 65 feet?

8 A (Johnson) There is a few that are in the high
9 50s, but the answer would be no.

10 Q Okay. After the Dalton section goes back into
11 Whitefield, and then the next town would be
12 Bethlehem; is that correct?

13 A (Johnson) That's correct.

14 Q And Transition Station 5 is in Bethlehem, would
15 be in Bethlehem?

16 A (Johnson) That's correct.

17 Q And that would be the area of the Baker Brook
18 Cabins?

19 A (Johnson) That's correct.

20 Q Has the location of this transition station
21 since it was depicted on the Project maps in
22 February 2016?

23 A (Johnson) It has not.

24 Q Has there been discussion with a property owner

1 there about making changes to the transition
2 station or potentially moving it?

3 A (Johnson) We have had some discussions with an
4 abutting land owner, but at this time those
5 discussions are private.

6 Q Do you see any scenario where that transition
7 station would be moved to a different location?

8 A (Johnson) I believe, as Mr. Bowes opined
9 yesterday, we are always willing to listen to
10 offers or suggestions.

11 Q In Bethlehem, there are two sections; there's
12 the 4.9-mile overhead section and the 3.1-mile
13 underground section; is that right?

14 A (Johnson) That is correct.

15 Q And the underground section after the transition
16 station would go through the Rocks Estate owned
17 by the Forest Society; are you familiar with
18 that?

19 A The underground section would go along Route 302
20 and Route 18.

21 Q Adjacent to the rocks and through a portion of
22 it.

23 A (Johnson) The roads go -- yes.

24 Q I'm looking at Sheet 77, and we're talking

1 about this area along 302, and then where it
2 turns on 18.

3 A (Johnson) That's correct.

4 Q So along 302 and 18, what will be the road
5 closures in this specific area?

6 A (Johnson) So I don't believe there are any road
7 closures. There is going to be potentially lane
8 closures but no permanent road closures in this
9 area.

10 Q Can you describe in more detail the lane
11 closures?

12 A (Farrington) So it would be a single lane
13 closure with alternating traffic. At locations
14 where we're doing trenching installation, it
15 would be controlled by a flagger. For smaller
16 sections during long-term either -- I'm sorry.
17 So for either splice box, splicing operations
18 where we come back at a later date for a shorter
19 period of time, there would be a temporary
20 traffic signal so they haul them in on trailers
21 and alternate traffic on the open lane using
22 that configuration.

23 Q Okay.

24 A (Farrington) Same with HDD. Since it's longer

1 term, those are temporary signals.

2 Q From the transition station in Bethlehem, the
3 project goes underground until Bridgewater. Is
4 that right?

5 A (Johnson) That is correct.

6 Q And soon after returning to overhead and
7 Bridgewater, the right-of-way would cross the
8 Pemigewasset River into Ashland, and then from
9 Ashland into New Hampton, and then in New
10 Hampton the right-of-way of way crosses the
11 Pemigewasset River again; is that correct?

12 A (Johnson) That is correct.

13 MR. REIMERS: Dawn, would you turn it over
14 to hard wire, please?

15 Q Is this a photograph of that second
16 Pemigewasset crossing?

17 A (Johnson) It appears to be a photograph from,
18 I'm unclear which side of the river it is. But
19 it's labeled New Hampton so --

20 Q I'm showing you a photograph from an Applicant's
21 Exhibit 1, Appendix 17, and this is Mr. DeWan's
22 photograph at page 4-19.

23 A (Johnson) I recognize it. As I mentioned, this
24 slide right before this would show you the

1 orientation of where this photograph was taken
2 from, but, regardless, it says New Hampton so
3 I'll believe you.

4 Q I understand it's taken from the New Hampton
5 side looking into Bridgewater.

6 A (Bowes) That would be the first crossing and not
7 the second. We were looking at the second
8 crossing you directed us to.

9 Q Right.

10 MR. IACOPINO: While we're at it, are you
11 looking at a simulation or actual photo?

12 MR. REIMERS: This is the stimulation
13 actually, and here is the photograph. And this
14 is at page 4-18.

15 Q So looking at 4-18, this photograph, the
16 existing 115 kV line is not very visible, is it?

17 A (Johnson) You can see the conductor.

18 Q Can't see any towers though, can you?

19 A (Johnson) You can, but they're right in the tree
20 line. There's a crossarm that I can see. The
21 second tree in just to the left of that, it
22 looks like a crossarm to me.

23 Q I'll take your word for it.

24 A (Johnson) I'm in the business so --

1 Q I know.

2 A (Johnson) -- I can see these things.

3 Q I'll defer to your eye on that. And then so
4 we're looking at this photograph and then this
5 would be the photo simulation that Mr. DeWan
6 made. Would you agree that the new towers would
7 dominant the view?

8 A (Johnson) These structures are definitely more
9 visible.

10 Q And to put these towers up, would there be two
11 1200-square-foot crane pads constructed?

12 A (Johnson) No. Again, similar to what we talked
13 about earlier, there is some overlap on these
14 crane pads.

15 Q So you're saying there would be one larger crane
16 pad?

17 A (Johnson) Not necessarily larger, but a DC crane
18 pad is definitely larger than the AC crane pad
19 in there, but the AC crane pad overlaps the
20 significant portion of the DC or either way
21 around.

22 Q That's what I meant by a larger one. You've got
23 two that overlap in some way to form a
24 contiguous surface?

1 A (Johnson) That's correct.

2 Q And how will the vegetation be cleared down to
3 the river?

4 A (Johnson) So I believe we've been working with
5 the Pemigewasset River Advisory Council and
6 other folks to limit the amount of clearing that
7 would happen here, and actually, depending on
8 clearances, there could be a situation where we
9 didn't have to clear at all. Clearly, it would
10 depends on the type of species and how tall that
11 future growth would be, and I believe that there
12 are also some plans of replanting that slope
13 with some shrub or lower growing height species
14 as well.

15 Q So the simulation that we're looking at may not
16 depict what you may end up planting?

17 A (Johnson) Correct. It looks like that slope has
18 been completely cleared. Again, I believe the
19 plan is to selectively cut any species on that
20 slope that would interfere with the clearances
21 and to leave any of the low growth that would be
22 there. Again, our arborist has been involved or
23 the Eversource arborist has been involved in
24 these discussions, and as a general matter there

1 are several locations across the project where I
2 believe that Department of Environmental
3 Services has requested that when we're spanning
4 long areas such as this that we consider leaving
5 the undergrowth so that we're not disturbing
6 completely the land, and this is one of the
7 areas.

8 Q And after that river crossing, the right-of-way
9 continues, I guess, in New Hampton and traverses
10 the Franklin Falls Reservation conserved land.
11 Do you see that on the map?

12 A (Johnson) I do.

13 Q And then do you see where it clips the Conkling
14 Conservation Easement land?

15 A (Johnson) I do.

16 Q Are you aware that the Forest Society holds the
17 easement on the Conkling property?

18 A (Johnson) I'm aware it's privately held. I did
19 not know it was the Forest Society.

20 Q And then on Sheet 136, the right-of-way reenters
21 the Franklin Falls Reservoir Conservation Area
22 again. You see that?

23 A (Johnson) I do.

24 Q And then on Sheet 137, the right-of-way crosses

1 the Pemigewasset River again. Do you see that?

2 A (Johnson) I do.

3 Q Would that be the third or the fourth crossing?

4 A (Johnson) I believe that is the third.

5 Q How many crossings of the Pemigewasset are
6 there total?

7 A (Johnson) Five, I believe, off the top of my
8 head.

9 Q And do any of the existing towers in the
10 Franklin Falls conservation area rise above 60
11 feet?

12 A (Johnson) In this particular area, it looks like
13 they're 74 and a half.

14 Q The existing ones are?

15 A (Johnson) Yes.

16 Q Okay. And the proposed Northern Pass towers
17 would be 95, between 70 and 95 feet?

18 A (Johnson) That looks about right.

19 Q And then after --

20 A (Johnson) So, in general, the structures are
21 higher here because they're spanning the river
22 and it's just a longer span so you have to have
23 taller structures, both existing and new.

24 Q After the Franklin Falls Conservation Area, the

1 right-of-way enters the William H. Thomas State
2 Forest?

3 A (Johnson) That is correct.

4 Q The right-of-way then enters Hill; the town of
5 Hill, that is. Is that right?

6 A (Johnson) I believe you're already in Hill when
7 you cross the river but yes.

8 Q Right here.

9 A (Johnson) Correct. As you cross the river,
10 that's the town boundary.

11 Q Now, on Sheet 138, as it leaves the Franklin
12 Falls Reservation Area, it traverses near
13 several, a cluster of residences, is that right,
14 in Hill?

15 A (Johnson) That's correct.

16 Q And then when the right-of-way continues into
17 Bristol, I believe, the right-of-way again
18 enters the Franklin Falls Reservation land; is
19 that correct?

20 A (Johnson) It looks like it clips it, yes.

21 Q And then a few sheets later in Franklin, the
22 right-of-way goes through the Great Gains
23 Memorial Forest. Do you see that?

24 A (Johnson) I do. You want the same answer?

1 Q Sure.

2 A Existing structures are 83 and a half feet.

3 Q The existing structures in the Great Gains
4 Memorial Forest?

5 A (Johnson) Yes. There's two lines that are
6 there.

7 Q You say 83 and a half?

8 A (Johnson) 83 and a half is the tallest, yes.

9 Q And the 6 proposed 115 kV towers would range
10 from 79 to 97 feet?

11 A (Johnson) Yes.

12 Q And the five proposed Northern Pass towers would
13 range from 75 to 95 feet?

14 A (Johnson) That is correct. There's another line
15 in that right-of-way which has the higher
16 structures.

17 Q The 83 and a half?

18 A (Johnson) Yes. In this particular drawing the
19 blue line with the purple dots or squares.

20 Q In this section in the Great Gains Memorial
21 Forest, for example, with the rebuilt 115 kV
22 line ranging from 79 to 97 feet and the Northern
23 Pass line ranging from 75 to 95 feet in height,
24 you're basically building two transmission lines

1 of roughly equal height, aren't you?

2 A (Johnson) Thereabouts, yes.

3 Q And this is just one example along the route
4 where that's the case?

5 A (Johnson) Correct.

6 Q The right-of-way continues through Franklin,
7 crossing into Northfield, through Canterbury and
8 into Concord. In Concord, are you aware that
9 the right-of-way passes through the Spear
10 Conservation Easement?

11 A (Johnson) I am.

12 Q And where the towers would be, the Northern Pass
13 towers would be 95 feet, 95 feet and 80 feet?

14 A (Johnson) Sure.

15 Q Okay. What is the tallest tower currently in
16 this Spear Conservation Easement?

17 A (Johnson) 83 and a half feet.

18 Q And then also in Concord, are you aware that the
19 right-of-way would cross another SPNHF easement
20 which is on the Blood property?

21 A (Johnson) I am.

22 Q And the Northern Pass towers would be 100 feet,
23 90 feet and 95 feet; is that right?

24 A (Johnson) Looks correct, yes.

1 Q And then also in Concord --

2 A (Johnson) Just for reference, the tallest
3 existing structure is 88 feet in that area.

4 Q 88? And then in Concord the right-of-way also
5 goes through the Turtle Pond Conservation Area?

6 A (Johnson) Yes.

7 Q Now, in Turtle Pond, you would use crane pads
8 that would be on top of timber matting; is that
9 right?

10 A (Johnson) So there are many options that we can
11 use here. Two involve winter construction so
12 assuming that the pond froze to a depth that
13 would support equipment, we would certainly use
14 winter construction and have no matting or
15 anything. We'd do all the activities on the
16 actual snow or ice, as it would be. As I recall
17 the pond is relatively shallow along the edges,
18 but then has a relatively deep organic mass
19 below that before you get to some sort of solid
20 type ground. So matting is an option that you
21 could use if you were doing it in the summer
22 months or in the winter months you could use
23 frozen conditions. A third option would be to
24 use a flotation device that would support a

1 drilling rig, and a fourth option could be
2 driving sheet pilings and then doing the work
3 inside of those pilings. Again, the actual
4 methodology will be determined by PAR as they
5 get more towards their constructability.

6 Q So you haven't determined how that would work
7 yet, which method you will use?

8 A (Johnson) That is correct.

9 MR. REIMERS: Dawn, could you turn it over
10 to the hard wire, please?

11 A (Johnson) Just for continuity, the largest
12 existing structure there is 92 feet.

13 Q Thank you. I'm showing you Applicant's Exhibit
14 1, Appendix 6 C, Sheets 303 and 304, which are
15 attached to the Applicant's Alteration of
16 Terrain Permits. Are you familiar with these?

17 A (Johnson) I am.

18 Q Now, do you see where on Sheet 303 in Turtle
19 Pond it shows a crane pad on temporary wetlands
20 matting?

21 A (Johnson) It is. Yes.

22 Q But that's not necessarily the method that will
23 be used?

24 A (Johnson) So, again, as we've talked about a few

1 times in the last couple days, the Applicant has
2 chosen to permit basically the worst case
3 scenario or the most impactful scenario so that
4 we're basically covered, if you will, if we
5 choose to use a less impactful type of
6 construction. So you can see we've permitted an
7 access road through the swamp as well as crane
8 pads. Clearly, the contractor is going to
9 review this and choose the most optimal solution
10 from their perspective as long as it is less
11 than the impact of what we've permitted.

12 Q After Turtle Pond, the right-of-way continues
13 through Concord.

14 MR. REIMERS: Dawn, you can go back to the
15 ELMO, please.

16 Q And into Pembroke, is that right?

17 A (Johnson) It does.

18 Q After Pembroke would be Allenstown, and in
19 Allenstown the right-of-way enters Allenstown in
20 the Bear Brook State Park; is that right?

21 A (Johnson) That is correct.

22 Q So with regard to Bear Brook State Park, the
23 right-of-way enters in the park and then soon
24 afterward exits the park. Not soon afterward.

1 On Sheet 116 is what we're looking at here where
2 it enters. And then on Sheet 170, it continues
3 through the park, is that right?

4 A (Johnson) That is correct.

5 Q And then here leaves the park, then continues
6 kind of adjacent to the park. Is that right?

7 A (Johnson) That is correct.

8 Q The heights of the towers in Bear Brook are some
9 of the tallest or are the tallest along the
10 line, aren't they?

11 A (Johnson) I don't know if they're the tallest,
12 but they are taller than the ones that we've
13 been discussing to this point.

14 Q Within Bear Book, the proposed Northern Pass
15 towers would range from 115 feet to 145 feet.
16 Would you agree with that?

17 A (Johnson) Subject to check, sure. Yes.

18 Q So far in my questioning, we haven't gone
19 through a period of, let's say, ten poles that
20 all range in that height, have we?

21 A (Johnson) That's correct.

22 Q And you would build a 1200-square-foot crane pad
23 for each one?

24 A (Johnson) Yes. Again, the contractor could

1 choose to make those smaller if they chose.

2 Again, we're permitting on a conservative basis.

3 Q The final tower just east of the park which is
4 Tower 3132-232, you see that?

5 A (Johnson) I do.

6 Q And the proposed tower is 125 feet tall?

7 A (Johnson) Correct.

8 Q Do you know what the height of that existing
9 tower there is?

10 A (Johnson) 72 feet.

11 Q And that 125-foot-tall tower would be relatively
12 close to this residence, wouldn't it?

13 A (Johnson) Sorry. Which residence are you
14 pointing to?

15 Q Pointing to the residence, the yellow circle
16 just below the proposed tower on New Rye Road?

17 A (Johnson) That is correct.

18 Q Continuing through Allenstown on Sheet 173, the
19 right-of-way crosses the WRP Conservation
20 Easement; do you see that?

21 A (Johnson) I do. My sheet is --

22 Q Here it is. Here's the WRP Conservation
23 Easement?

24 A (Johnson) Um-hum. And the proposed towers

1 either in or right next to it would be 130 feet
2 or 140 feet tall?

3 A (Johnson) Correct.

4 Q It would be more than twice the tree line,
5 wouldn't it?

6 A (Johnson) Again, I don't know the tree line. We
7 could look it up for you if you'd like.

8 Q We'll use our assumed -- unless you have better
9 data here.

10 A (Johnson) What we have is Lydar which is sort of
11 a digital survey by airplane that would give us
12 the tree heights in any specific location, but
13 we'd have to go back to that data to
14 specifically pull the information off. The
15 existing structures there are 88 feet tall.

16 Q The existing transmission structures.

17 A (Johnson) Yes. So if we're using our 60 foot
18 again, portions of it would both be taller.

19 Q And then when the line enters Deerfield, it
20 would go through the Alvah Chase Town Forest on
21 Sheet 175?

22 A (Johnson) That is correct.

23 Q And then on Sheets 178 to 179, the right-of-way
24 crosses more conservation parcels; do you see

1 that?

2 A (Johnson) I do.

3 Q Starting with the Levesque property? And then
4 the WRP Conservation Easement, the Menard
5 Forest. I believe this is the Menard Forest as
6 well.

7 A (Johnson) I have it as the Melinda L. Geddes
8 Trust but sure.

9 Q Could be. I'm not sure where that line ends.

10 A (Johnson) Either way, it's conserved land, yes.

11 Q Thank you. When Mr. Pappas was asking you about
12 crane pads the other day and it's come up here
13 again, it was testified that a general crane pad
14 is 100 feet by 120 feet.

15 A (Johnson) For the DC portion, yes.

16 Q For the DC portion. So how many DC towers, how
17 many crane pads or how many towers on the DC
18 portion are there?

19 A (Johnson) Approximately 800 say. Approximately
20 800.

21 Q And is a roller used to flatten the area?

22 A (Kayser) It may be. The contractor will have
23 their, as they determine what they need to
24 develop the area, it may be used.

1 MR. REIMERS: Dawn, could you go back to
2 hard wire, please?

3 BY MR. REIMERS:

4 Q When Mr. Pappas was asking you about that list
5 of vehicles and equipment that would be used
6 along the right-of-way and to construct a crane
7 pad, I thought I heard someone say, because a
8 roller was listed, I thought I heard someone say
9 no, a roller won't be used. Am I wrong?

10 A (Johnson) I recall the conversation or the list.
11 But I'm not sure the exact -- we could go back
12 in the record if you want and look. I
13 personally have been involved in crane pads
14 where the contractor chose not to use a roller
15 and deemed it suitable once he'd laid the gravel
16 and removed his equipment that it was flat and
17 level enough for him to use. I've also been
18 there when chosen to use a roller so I've seen
19 it both ways.

20 Q I'm showing you what is Applicant's Exhibit 1,
21 page 27. Page 27 of the Application. And in
22 that center paragraph, it discusses the building
23 of crane pads, and right about in the middle
24 there's a sentence that begins, "Finally, a

1 roller is used to flatten and compact the pad."

2 So you're saying that's just an option?

3 A (Johnson) I've seen it done both ways from a
4 constructability perspective.

5 Q But you're proposing to build this particular
6 project, and your Application says that a roller
7 is used to flatten and compact the pad, but
8 that's not necessarily how it will be?

9 A (Johnson) So, again, as we've stated, we're
10 trying to put an Application forth that has the
11 conservativeness that would allow a contractor
12 some means and methods that they could choose to
13 build. Clearly, a roller is an extra piece of
14 equipment that would have to be brought on to
15 the site. If they choose not to use that
16 methodology, I believe that it's up to the
17 contractor to decide how flat or how compact
18 that crane pad is for them to get their cranes
19 to be able to be stabilized. As I mentioned
20 earlier, I've seen that construction technique
21 used both ways, with or without a roller.

22 Q And, Mr. Johnson, the other day, Mr. Pappas was
23 asking about work within wetlands, and you
24 mentioned timber mats that would be laid down,

1 and you stated that these mats are intended to
2 prevent permanent damage to wetlands. Do you
3 remember that?

4 A (Johnson) I do.

5 Q And do the mats in fact prevent all permanent
6 damage to wetlands?

7 A (Johnson) To my knowledge, yes. I believe
8 that's a standard practice that's approved by
9 the DES for, if you will, protection of a
10 wetland.

11 Q But my question was, do you know whether timber
12 matting does in fact prevent all permanent
13 impacts to wetlands?

14 A (Johnson) So I'm not an environmentalist. I
15 believe that panel is coming, but to my
16 knowledge, I believe what it does is it allows
17 the wetland to restore itself over a period of
18 time, whatever that time period is. Again, I'm
19 not the expert in that field.

20 Q So looking at that same paragraph on page 27,
21 and there's a sentence that begins with, "in
22 areas where crane pads," do you see that?

23 A (Johnson) Yes, I do.

24 Q "In areas where crane pads must unavoidably be

1 located in wetlands, layers of removable timber
2 mats are typically used to construct the pads.
3 Alternatively, a large rock base layer may be
4 used to allow water to flow underneath the pad
5 with smaller rock layered on top of larger rock,
6 followed by the final layer of gravel intermixed
7 with soil."

8 So I read that to understand, to mean, that
9 either layers of timber mats are going to be
10 placed on the wetlands or there's going to be a
11 large rock base layer and a smaller rock layer
12 followed by a final layer of gravel, all on top
13 of the wetlands. Do you read it that way?

14 A (Johnson) I do, yes.

15 Q And then for the crane pad is, and then concrete
16 is poured on top of all of that, right?

17 A (Johnson) No.

18 Q What is the --

19 A (Johnson) The gravel is the top layer of a crane
20 pad. Effectively, it's enough to support and
21 spread the weight of whatever drill equipment or
22 crane equipment is required to work on the
23 structure.

24 Q How much does the crane weigh?

1 A (Johnson) It depends widely depending on the
2 size of the structure that you're putting in.
3 John, I don't know if you have them.

4 A (Kayser) I don't know the exact weights. We'd
5 have to look that up.

6 A (Johnson) Okay.

7 Q If you're putting in a 60-foot-tall Northern
8 Pass tower, you're saying the crane would be
9 different than the crane that would be used for
10 an 80-foot-tall tower?

11 A (Johnson) Sure. So structures are limited by
12 the allowable trucking capacity. So the maximum
13 truck, I believe, is, the truck length is 53
14 feet. So for a structure that was 60 feet, it
15 may come in two sections of 30 feet. They would
16 then erect the first one, depending on the type
17 of structure, they would erect the first 30 feet
18 and then a crane would pick up the second 30
19 feet and slide it over the top.

20 If it was a bolted structure they would
21 bolt the two together and a single crane would
22 then pick up the 60 foot. For structures that
23 are taller, there may be more segments. You
24 could have, for 120-foot structure, for example,

1 you could have three 40-foot lengths that would
2 then slide over each other as they build it.

3 Now, for a lattice structure? I was
4 speaking then of monopole. For a lattice
5 structure, the actual components could be built
6 from the ground up, meaning sort of as an
7 erector set and you just continue to lift pieces
8 up. Or it could be prefabricated, and then part
9 of it's brought in on site and lifted in one
10 complete lift. Obviously, for the lattice
11 structures, you would need a much lighter crane
12 than you would for a monopole structure.

13 Q But you don't know what any of these cranes
14 weigh?

15 A (Johnson) Off the top of my head. Like I said,
16 we can certainly go research that for you.

17 A (Bradstreet) I guess one point, although we
18 don't have a specific weight, it's safe to say
19 that the majority, if not all, of the cranes on
20 this Project will be over-the-road cranes.

21 A (Johnson) As opposed to those that have to be
22 built on site which you see on a vertical
23 building type of construction.

24 MR. IACOPINO: Could you repeat what you

1 said about them being over-the-road cranes?

2 A (Bradstreet) So more a crane that could
3 transport itself over the road without having to
4 have, say, an oversized permit or something like
5 that.

6 A (Bowes) Versus some cranes that are actually
7 brought in on sections and then built on site
8 and those are used for, say, like a wind turbine
9 project.

10 PRESIDING OFFICER HONIGBERG: So to be
11 clear, your testimony is that the cranes are the
12 type of cranes that do not need to be assembled
13 on site. They can be driven across the roads to
14 the site.

15 A (Bradstreet) Yes, sir.

16 A (Kayser) Yes.

17 MR. ROTH: Mr. Chairman, I think he said
18 something a little more nuanced than that.

19 PRESIDING OFFICER HONIGBERG: I don't know
20 what he said before, but I know what he just
21 said no.

22 MR. ROTH: He said "the majority if not
23 all" before.

24 PRESIDING OFFICER HONIGBERG: Okay. Mr.

1 Bradstreet, are there any places where the
2 cranes will have to be assembled on site?

3 A (Bradstreet) For the overhead transmission line,
4 I can say I don't believe there are any. Now,
5 I'm not 100 percent certain on the converter
6 itself. The converter site in Franklin. But I
7 do not believe so.

8 BY MR. REIMERS:

9 Q Now, going back to the Forest Society's
10 Kauffmann Forest, are you familiar with the
11 extensive wetlands complex that the right-of-way
12 goes through there?

13 A (Johnson) Again, I'm not the environmental
14 scientists that have done that work. I'm aware
15 that there are wetlands in that area, but I'm
16 not particularly knowledgeable about the type or
17 quality of such wetlands.

18 Q I'm showing you what is Applicant's Exhibit 1,
19 Appendix 6 C, which are the maps regarding the
20 Alteration of Terrain Permit and I'm showing you
21 the section of the maps that includes the
22 Kauffmann Forest. And do you see those blocks
23 of color?

24 A (Johnson) I do.

1 Q And those are depicted as crane pads in
2 temporary wetlands matting. Is that right?

3 A (Johnson) Yes.

4 Q So at least for the purpose of the Alteration of
5 Terrain Permit, the Applicants were proposing to
6 do timber matting and then crane pads on top of
7 those for a significant portion throughout the
8 Kauffmann wetlands; is that right? Showing you
9 two back-to-back pages.

10 A (Johnson) Yes, from a construction perspective,
11 all of that length it looks like is in a wetland
12 area, and it looks like crane pads and matting
13 will be used for the access roads. And the
14 crane pads, sorry. Just to be clear, there are
15 several locations along the project length where
16 this is a necessity. There's some very wet
17 areas.

18 Q Now, right now through the Kauffmann Forest is a
19 45- to 55-foot-tall 115 kV line; is that right?

20 A (Johnson) Again, I'll take your word for it. I
21 believe we established earlier what the heights
22 were.

23 Q And it's a 150 foot right-of-way.

24 A (Johnson) That's correct.

1 Q If any of those, let's take the 55-foot-tall
2 tower. If a 55-foot-tall tower were to collapse
3 in an ice storm, for example, the tower's fall
4 zone would be within the right-of-way which is
5 150 feet; is that right?

6 A (Johnson) I'll defer to Mr. Bradstreet on these
7 questions.

8 A (Bradstreet) So I think your question was under
9 an extreme ice event, if a structure were to
10 collapse, which is a very rare occurrence, it
11 would fall within the 150 foot right-of-way?

12 Q Correct.

13 A (Bradstreet) So I think the answer to that is
14 most likely, yes.

15 Q What would be the scenario where it wouldn't be
16 most likely? If it were carried away?

17 A (Bradstreet) Carried away by what?

18 Q I'm asking you. You said most likely it would
19 fall within the 150 foot right-of-way. Is there
20 a scenario where a 55-foot-tower could fall
21 within that right-of-way and not land within the
22 right-of-way?

23 A (Bradstreet) I'm not aware of one under an
24 extreme ice event.

1 PRESIDING OFFICER HONIGBERG: Mr.
2 Bradstreet, I think he's asking a fairly simple
3 question. You said most likely it will fall
4 within the right-of-way or under most
5 circumstances. Under what circumstances would
6 it not fall in the right-of-way?

7 A (Bradstreet) In the condition he asked me about,
8 I'm not aware of any. Maybe I should be more
9 clear and not general in my response.

10 PRESIDING OFFICER HONIGBERG: Yes. If you
11 feel you need to hedge, the next question is
12 going to be, okay, why did you just hedge that
13 answer. If you think the answer is no, say
14 that. If you think the answer is yes, say that.
15 If you're not sure, say that.

16 A (Bradstreet) For an ice storm, I don't think
17 there is ever a case. Under, say, a tornado of
18 some kind, maybe.

19 Q Okay.

20 A (Bradstreet) Sorry, Chairman.

21 PRESIDING OFFICER HONIGBERG: It just
22 shortens the process for you, too.

23 BY MR. REIMERS:

24 Q So in the most likely event, barring a tornado

1 or something like that, you wouldn't expect the
2 tower to fall off of the right-of-way on to
3 property owned by the Forest Society that is not
4 encumbered by the right-of-way?

5 A (Bradstreet) That's correct.

6 Q Under the proposed configuration, the relocated
7 115 kV line would be on towers ranging in height
8 from 83.5 to 77 feet in height, and they would
9 be 25 feet from the right-of-way?

10 A (Bradstreet) I can't remember. It's 25 or 30.

11 Q All right. No matter. We're talking about
12 details like that.

13 A (Bradstreet) Yes.

14 Q So even if it were 30 feet, in the event of a
15 tower collapse, that tower could potentially
16 fall off of the right-of-way, a portion of it
17 could fall off the right-of-way.

18 A (Bradstreet) I would say in general, in the
19 event there is a tower failure or a structure
20 failure, the conductors that are attached to
21 that structure and attached to all the other
22 remaining structures provide longitudinal
23 support such that if the structure itself in
24 that specific location did fail, which, again,

1 is a very rare instance, those conductors would
2 keep it within the right-of-way.

3 A (Bowes) Also the type of event you're talking
4 about in a severe ice storm would cause
5 extensive tree damage in this area as well. So
6 the most likely scenario would be trees falling
7 on to the right-of-way, taking the conductors
8 down and then pulling structures in the same
9 direction as the conductors, but there would be
10 probably widespread damage to the Kauffmann
11 Forest in an ice storm like that.

12 Q I think what I've heard in prior testimony is
13 that there are mechanisms like on a monopole
14 that if it's going to collapse, it's going to
15 collapse in a particular direction. Did I hear
16 that correctly?

17 A (Bradstreet) I think that's sort of what I just
18 explained as far as the conductors holding it
19 together or in the right-of-way since they are
20 all connected in line.

21 Q I took that to mean that the conductors are
22 actually going to hold it up somehow rather than
23 keep it within the right-of-way?

24 A (Bradstreet) Well, they can hold it up, but they

1 also will train it from going, I guess, either
2 way from the conductors that are in line with
3 the rest of the line.

4 Q Now --

5 A (Bowes) The way they would hold it up, again, if
6 it's an AC line, there would be three conductors
7 on either side of the structure. So there's
8 tensions and stresses would be shared between
9 those conductors. That's why you'd get some
10 benefit of having the conductors. For the DC
11 portion, of course there's only two conductors
12 per structures on either side.

13 Q In the event that a tower or a portion of a
14 tower falls, and it hit the ground, is it
15 possible that any part of that tower or
16 component could pierce the ground at all? Stick
17 into the ground?

18 A (Bradstreet) I guess I'm not aware of a specific
19 instance where that has happened. I don't know
20 the answer to your question, I guess. I guess
21 I'll point out that these aren't necessarily
22 pointy objects, but --

23 Q They're made of metal, aren't they?

24 A (Bradstreet) They're made of metal.

1 Q And in the Kauffmann Forest you're aware that
2 there's a buried natural gas pipeline?

3 A (Bradstreet) Yes, sir.

4 Q Is it possible that in the event of a tower
5 failure that the natural gas pipeline could be
6 compromised?

7 A (Bradstreet) I do not believe there is.

8 Q It's not possible?

9 A (Bradstreet) I just answered your question. I
10 do not believe there is.

11 Q Switching gears a little bit, I wanted to get
12 more information about potential changes to the
13 project because of a data request response that
14 the Applicants made that I don't quite
15 understand. The Forest Society asked the
16 following question to the Construction Panel
17 following their Technical Session. And this is
18 SPNHF 167.

19 At the Technical Session on February 21st,
20 2017, witnesses stated to the effect that
21 revisions were being made to the various sets of
22 underground engineering plans. Now, with
23 respect to those revisions, are the revisions
24 contemplated to show any project structure

1 relocated more than ten percent away from the
2 where the current plans show it?

3 A (Johnson) Could you repeat that again?

4 Q Sure. The question was regarding revisions made
5 to various sets of underground engineering
6 plans. And in the response, it states, "At this
7 time the Applicants do not expect major project
8 structure components to shift more than ten
9 percent." See that answer?

10 A (Johnson) Yes.

11 Q So with respect to those revisions, do you
12 expect shifts of less than ten percent?

13 A (Johnson) So as we've discussed earlier, the
14 types of shifts that we're discussing are taking
15 the alignment or splice pits from basically at
16 the shoulder or slightly into the road to off of
17 the road and potentially changing an alignment
18 in the similar way. So the types of shifts
19 we're talking about are relatively small over
20 the 60 miles.

21 The DOT has requested in one or two cases
22 that we move a splice vault 50 to 100 feet
23 either up or down the road, depending on
24 specific circumstances. The Project is

1 reviewing those case by case. But if you're
2 asking if, I think the intent of this question
3 was are you discussing moving any of the routes
4 to different routes, first and foremost? And
5 secondly, are you moving some of the, an HDD,
6 for example, or a trenchless crossing up or down
7 the road, the answer is for the most part no.
8 Again, pending one or two that the DOT has
9 suggested that we move. So this question would
10 still be answered as we do not expect them to
11 shift more than ten percent.

12 Q And in the response it says you do not expect
13 major structure components to shift more than
14 ten percent. What about minor components?

15 A (Johnson) So, again, as we've just discussed,
16 there are fluctuations of the alignments in the
17 splice pits that would move into the shoulder or
18 not so those are the minor ones that we're
19 discussing.

20 Q So what do you consider a major Project
21 structure versus a minor Project structure?

22 A (Johnson) So there's three major components, I
23 would guess, and it's the trenchless crossings,
24 the splice pits, and the alignment itself. So I

1 would agree there are no minor in this case.

2 MR. REIMERS: Mr. Chair, would now be an
3 okay time to take a break? I know it's a little
4 early, but I think I forgot a piece of paper in
5 our room.

6 PRESIDING OFFICER HONIGBERG: Sure, we'll
7 break for 15 minutes.

8 (Recess taken 10:20 - 10:37 a.m.)

9 PRESIDING OFFICER HONIGBERG: If we could
10 return to our seats, Mr. Reimers will be able to
11 resume.

12 BY MR. REIMERS:

13 Q I want to ask you about the part of the Project
14 south of Deerfield. In your Project maps, I'm
15 looking at the February 2016 version. Sheets
16 181 through 189 show work beyond the substation
17 in Deerfield, Candia, Raymond, Auburn, Chester,
18 Londonderry and Derry; is that right?

19 A (Johnson) I don't believe there's any in Auburn,
20 but there are ten structures between Deerfield
21 and Scobie Pond that will need heightened, if
22 you will, heightening of the structure by
23 somewhere between five and ten feet.

24 Q So you're agreeing that there's Project work in

1 all of those towns, but you're not sure about
2 Auburn?

3 Q (Johnson) So as part of the study of
4 interconnecting into that location at Deerfield,
5 ISO New England has determined that there are
6 some upgrades that need to be done to the
7 system. The work in that corridor is to ten
8 structures, I believe, in the towns that we've
9 discussed?

10 Q Okay. And those are all included, the work
11 that's going to be done is included in the
12 Project maps for the Northern Pass?

13 A (Johnson) That is correct.

14 Q So the Scobie Pond substation, that's in
15 Londonderry?

16 A (Johnson) That is correct.

17 Q And it will be upgraded as part of the proposed
18 Project?

19 A (Johnson) So I wouldn't say necessarily
20 upgraded, but there will be an addition to the
21 substation, a small addition of some capacitor
22 banks that will hook into or attach to the
23 substation.

24 Q And there are two 345 kV lines that run between

1 Deerfield and Scobie Pond substations?

2 A (Johnson) That is correct.

3 Q And those two lines will be upgraded as part of
4 the Project; wouldn't they?

5 A (Johnson) No. Just those ten structures as I
6 discussed earlier. So not the entire line, just
7 the ten structures.

8 Q The purpose of the upgrades to the substation
9 and replacement of those ten towers would be so
10 that these lines and associated structures would
11 carry a greater level of power associated with
12 the Northern Pass?

13 A (Bowes) A greater level of power, yes. Those
14 ten structures that Mr. Johnson talked about are
15 shorter than are needed. As the power flows on
16 those two lines, they will tend to sag more and
17 the structure elevation, changes in elevation
18 will prevent that sag from being a clearance
19 violation underneath the line.

20 Q So to avoid a clearance violation, you need to
21 replace those ten structures.

22 A (Bowes) Replace or -- there's another way to do
23 it without replacing them. It's called "raising
24 the phases," but, in essence, it's either

1 replacement or raising the structure heights.

2 Q What does raising it entail? Can you describe
3 how that works?

4 A (Bowes) So a direct replacement would be
5 changing the existing pole five to ten feet
6 higher. In this case, I believe they're H-frame
7 so it would be two structures. Two extra poles
8 would be replaced. And the crossarm that they
9 support would be raised a few feet as well. If
10 it's phase raising, in this case they're wood
11 structures, you actually brace each of the wood
12 poles, cut the pole, jack it up, and then
13 reattach the brace at a higher level.

14 Q Will these ten structures be taller than they
15 currently are?

16 A (Bowes) Yes.

17 Q All of them?

18 A (Bowes) Yes.

19 Q And what are their current heights?

20 A (Bowes) Hold on just a sec.

21 Q While you're looking, my next question would be
22 and then what would be the new heights.

23 A (Johnson) So I can answer the second one very
24 quickly. I believe nine of the ten structures

1 will increase by five feet, and one will
2 increase by, I think, nine or nine and a half
3 feet.

4 So the existing structure is unknown
5 height. It doesn't tell me in my particular
6 database. I could look that up for you.

7 Q Okay.

8 A (Johnson) But the delta increase is five feet to
9 nine and a half for one structure.

10 Q And a 345 kV capacitor bank would be constructed
11 at the Scobie Pond substation?

12 A (Johnson) That is correct.

13 Q And 345 kV breakers would also be installed?

14 A (Bowes) That's correct.

15 Q And these additions would require expansion of
16 an existing fence at the Scobie Pond substation?

17 A (Bowes) So there's work inside the existing
18 fence line which are the circuit breakers, and
19 then there's a new fenced area adjacent to the
20 existing substation. So I wouldn't say it's an
21 expansion. It's actually kind of a new portion
22 of a substation for the capacitor bank.

23 Q An expansion of it.

24 A (Bowes) It's not physically attached to it.

1 That's what I'm saying. It's physically remote
2 so you'd now have two fenced closures, not one.

3 Q What's the size of the existing fenced area?

4 A (Bowes) Hold on just a minute. In acres it's
5 approximately ten acres today.

6 Q What will the second one be?

7 A (Bowes) Approximately one acre.

8 Q So the kV line, the two kV lines coming into the
9 Scobie Pond substation will not be upgraded, but
10 the Scobie Pond substation will be upgraded? Is
11 that what your testimony was?

12 A (Bowes) So I guess we're getting into what the
13 definition of upgrade is. So for the two 345 kV
14 lines coming from Deerfield to Scobie Pond, ten
15 of the structures will be raised in height. No
16 change in the conductors which is normally what
17 we call an upgrade. So it has a greater
18 electrical capacity. In this case, they're
19 being uprated which means we're just changing
20 the electrical clearance issues. At Scobie
21 Pond, there are additions in Scobie Pond, both
22 inside the existing fence line which are the
23 capacitor banks, and then a new one-acre site
24 adjacent to the existing substation for the

1 capacitor bank.

2 Q Do you recognize -- this is SPNHF 169. This is
3 from the Forward NH website. Have any of you
4 seen this page on your website? Do you have it
5 on your screens?

6 A (Johnson) Yes. We do. Sorry.

7 Q Have any of you seen this page on from your
8 website?

9 A (Johnson) Yes.

10 Q Where it begins with describing the Northern
11 Pass Project and the components of it. Moving
12 on to the DC line, the AC transmission line, the
13 converter terminal, and here are the substation
14 upgrades that we're talking about. Is that
15 right?

16 A (Johnson) That's correct.

17 Q And we were just talking about what the term
18 "upgraded" means, and here it says, "This review
19 by ISO conducted as part of what is an I.3.9
20 request has determined that the two 345 kV lines
21 between Deerfield substation and the Scobie Pond
22 substation in Londonderry, New Hampshire, will
23 need to be upgraded along with the minor
24 upgrades at each substation. This upgrade

1 involves replacing a total of ten structures
2 along the existing transmission line to allow
3 the existing lines to carry a greater level of
4 power." Is that accurate?

5 A (Bowes) Yes.

6 Q Leaving aside Deerfield, the Project has
7 excluded the municipalities along this section
8 from this Project; is that right?

9 A (Johnson) Are you asking if we've made direct
10 communications or have discussed parts of the
11 Project with some of these towns? The answer is
12 we have not specifically targeted these towns as
13 part of our normal communications. We have had
14 some communications with some of these towns
15 regarding the Project as a course of the normal
16 communications that PSNH or Eversource would
17 have with these towns.

18 Q But these towns have not been included on this
19 list of communication on your website. Is that
20 right?

21 A (Johnson) You are correct.

22 Q So Londonderry is not listed, neither is Derry,
23 Auburn, Chester, Raymond or Candia; is that
24 right?

1 A (Johnson) That is correct.

2 Q I'm showing you SPNHF Exhibit 170, and all those
3 towns that I just listed are down in the
4 southern portion of the state?

5 A (Johnson) Correct.

6 Q And these towns have not been included in
7 Mr. DeWan's Aesthetics evaluation, have they?

8 A (Bowes) I don't know.

9 A (Johnson) Neither do I.

10 Q And have these towns been evaluated as part of
11 Mr. Varney's and Normandeau's evaluation of
12 Orderly Development?

13 A (Bowes) I don't know.

14 Q I'm showing you what is Applicant's Exhibit 1,
15 Appendix 46, the table of contents page, page
16 iii. This is from Mr. Varney's report. Do you
17 see Auburn, Londonderry, Derry, or Candia on
18 that list?

19 A (Bowes) I do not.

20 Q Yet, these towns that we're talking about down
21 near the Scobie Pond substation, they were
22 included in your Project maps, right?

23 A (Johnson) Correct.

24 Q And they were not included, for example, in

1 Mr. Varney's report, correct?

2 A (Bowes) That would appear so, yes.

3 Q Now I'm showing you what is SPNHF 172 which is a
4 letter from Attorney Needleman to Chairman
5 Honigberg including copies of Notice of Public
6 Information Sessions, and if I turn the page to
7 the actual notice that was in the newspaper,
8 bear with me. This is very small print. Do you
9 see the highlighted portion where it discusses
10 Raymond, Candia, Chester, Auburn and
11 Londonderry?

12 A (Bowes) Yes.

13 Q So those towns were part of the Public Notice in
14 this instance, weren't they?

15 A (Bowes) Yes.

16 Q And if you read that, it is in relation to the
17 replacement of a number of structures as well as
18 the Scobie Pond substation upgrades; is that
19 right?

20 A (Bowes) Yes.

21 Q And there's no question that there will actually
22 be construction in those towns; is that right?

23 A (Johnson) Again, I'm uncertain about Auburn, but
24 there will be single structures or several

1 structures, depending which town, that will need
2 to be either replaced or have their height
3 increased as we discussed. And in Londonderry,
4 there will be a small addition to the existing
5 substation.

6 Q And this construction is required by ISO to
7 avoid a clearing violation?

8 A (Bowes) So it's part of the analysis that was
9 done to make sure there was no adverse system
10 impact. We have chosen to make these
11 modifications and presented them to ISO, and
12 they have accepted them.

13 Q You could have suggested other modifications?

14 A (Bowes) That is correct.

15 Q I don't have any further questions. Thank you.

16 PRESIDING OFFICER HONIGBERG: All right.
17 Next up, I believe, is Municipal Group 2. Ms.
18 Fillmore.

19 MS. FILLMORE: Thank you, Mr. Chairman.

20 (Discussion off the record)

21 MS. FILLMORE: This is a little unorthodox.
22 We would like to split up questioning for
23 Municipal Group 2, and the town of Easton would
24 like to have Kris Pastoriza ask a few questions

1 before I do the rest of them.

2 PRESIDING OFFICER HONIGBERG: How are the
3 topics being split up?

4 MS. FILLMORE: She will be asking specific
5 questions about Easton, and they're topics that
6 I'm not going to cover.

7 PRESIDING OFFICER HONIGBERG: We'll see how
8 that goes.

9 MS. FILLMORE: Thank you, Mr. Chairman. I
10 appreciate it.

11 **CROSS-EXAMINATION**

12 **BY MS. PASTORIZA:**

13 Q Kris Pastoriza. I'm on Easton Conservation
14 Commission. Part of Central Municipal's
15 Intervenor Group.

16 MR. HONIGBERG: We're having trouble
17 hearing you.

18 Q Is that better?

19 MR. HONIGBERG: It is.

20 Q So more than a year ago, in April 2016, DOT
21 produced comments on the first Northern Pass
22 Permit packages. They made several requests of
23 Northern Pass. Among these were, number one,
24 the right-of-way type shall be shown on the

1 plans to help identify the type of road being
2 impacted by the Project. Two, the road needs to
3 be accurate in order to approve the location of
4 the proposed facility. Three, the clearing
5 limit should be shown on the plans. Four, all
6 waterways shown on the plans should be labeled.
7 And five, ledge limits shall be shown on the
8 Plan and Profile.

9 And my question is were any of these
10 requests fulfilled in your permit packages that
11 we have access to, 12, 18, 16?

12 A (Bowes) Could I see a copy of the document?

13 Q Hard copy is with the Committee. I think there
14 may be extra copies.

15 MS. FILLMORE: I'm looking to see, Mr.
16 Chairman, which exhibit that was numbered as.

17 PRESIDING OFFICER HONIGBERG: Is it
18 unnumbered? Is that what I'm being told?

19 MS. FILLMORE: The hard copies that you're
20 getting are unnumbered. They have subsequently
21 been numbered, and they're on the ShareFile site
22 marked, and I'm going to look right now and
23 figure out which one.

24 PRESIDING OFFICER HONIGBERG: Let's go off

1 the record while we find what number we're
2 talking about.

3 (Discussion off the record)

4 PRESIDING OFFICER HONIGBERG: We're back on
5 the record. Ms. Pastoriza, you may continue.

6 BY MS. PASTORIZA:

7 Q So on the screen is Joint Muni 199.

8 A (Bowes) We have it.

9 Q Do you want me to repeat my question?

10 A (Bowes) I think there were several questions in
11 there so yes, please.

12 Q All right. There were five requests made in
13 this comment from DOT to NPT, among others.
14 Number one, the right-of-way type shall be shown
15 on the plans to help identify the type of road
16 being impacted by the Project. Number 2, the
17 right-of-way needs to be accurate in order to
18 approve location of the proposed facility.
19 Number 3, the clearing limits should be shown on
20 the plans. Number 4, all waterways shown on the
21 plans should be labeled. And 5, ledge limits
22 shall be shown on the Plan and Profile.

23 A (Bowes) So I must have a different document.

24 Q They're not listed by the numbers I put on them.

1 I had them marked out in red on the hard copy.
2 They're spread out throughout that document.

3 A (Bowes) So maybe we'll take them one at a time.
4 I think number one was number 1? Or is number
5 1?

6 Q Yes.

7 A (Johnson) So the right-of-way type is being
8 incorporated into the next revision of the
9 drawings.

10 A (Bowes) I'm sorry. What was the second one?

11 Q Number 3 is number 4 as on the document. The
12 clearing limits. That's number 4.

13 A (Johnson) So, again, the clearing limits will be
14 shown on the revised plans.

15 Q And the waterways question is number 5.

16 A (Johnson) Same answer. They will be shown.

17 Q So question that I labeled number 2 is number 1
18 on the Underground Comments. Page 2.

19 A (Johnson) Again, those will be added. I will
20 add that the Applicant has provided Applicant
21 Exhibit number 130 which is what we're calling
22 the stick plans of the survey for the entire
23 underground of the 52 underground miles. I
24 believe it's for all of them, the full 60 miles.

1 Q And the ledge limit question is number 32. Page
2 4.

3 A (Johnson) Again, those will be included on the
4 next revision of the drawings.

5 Q And when might that next revision be available
6 to us?

7 A (Johnson) So as we discussed on Monday, I
8 believe, we are in an iterative process with the
9 DOT, and those design drawings are going back
10 and forth on the design revisions. We are in
11 the midst of the variance requests for exception
12 requests to the Utility Accommodation Manual.
13 Once all of those are resolved, then the design
14 engineer will be creating the next revision.
15 We're really sort of in that iterative phase.
16 It will probably be more than a month before the
17 next set of drawings are available.

18 Q So more than a month being one month and a week,
19 two months?

20 A (Johnson) Undetermined at this time. It could
21 be several months, yes.

22 Q On April 3rd, 2017, and this is document CS 30
23 on the ShareFile site, DOT issued a Conditional
24 Permit to NPT. One of the conditions of this

1 permit was, quote, "The Applicant shall provide
2 a certified survey report delineating means and
3 methods of determining the right-of-way shown on
4 the plans. The report shall include notations
5 on all records and plans used. The report shall
6 be certified by the licensed land surveyor in
7 charge that the right-of-way lines shown on the
8 submitted plans are accurate locations defined
9 by ground survey and all pertinent research."

10 A (Johnson) That documentation is Applicant's
11 Exhibit number 130.

12 Q And you're familiar with that?

13 A (Johnson) I have it here in front of me, yes.

14 Q So Meridian submitted a survey report on April
15 17th, 2017. This report covered Bridgewater to
16 North Woodstock and has a surveyor's seal on it.
17 Is that correct?

18 A (Johnson) That is correct.

19 Q And this report was followed by several short
20 reports for towns north of North Woodstock, on
21 the site it is undated and they do not have
22 surveyor's seals on them. Is that correct?

23 A (Johnson) I believe that those are part of a
24 letter with four attachments, and the cover

1 letter has been signed and sealed by a surveyor.

2 Q So that seal applies to those short town
3 summaries?

4 A (Johnson) Yes.

5 Q So Applicant Exhibit 62433 which is Meridian's
6 Land Survey Summary of Easton and Franconia
7 states, in quotes, "Research was conducted at
8 the New Hampshire State Archive Records for the
9 original roadway layout. We could not find a
10 volume or page reference, only a map prepared in
11 April 1903 showing no defined width or geometry.
12 Research was conducted at the County Registry
13 and many existing maps were recovered and each
14 one is labeled on the prepared map."

15 You're familiar with that report.

16 A (Johnson) Could you possibly put that up on the
17 screen?

18 Q Do you have that? It's in with --

19 A (Johnson) I have the maps. Unfortunately, I
20 don't have any of the accompanying
21 correspondence.

22 The only reason I'm questioning is because
23 I don't believe that Meridian did the work in
24 Easton. I believe that was BL Companies, and as

1 far as the land research itself, it was done by
2 Arago Land Services. So I'm a little confused
3 as to document you're describing. So I'm just
4 looking to see if I can see a copy of it.

5 Q On the ShareFile site it follows the one we were
6 just speaking about. The survey report. April
7 17th.

8 PRESIDING OFFICER HONIGBERG: It is
9 actually the first page of the packet was handed
10 out coincidentally. So Ms. Monroe is going to
11 give Mr. Johnson one of the ones that is up
12 here.

13 A (Johnson) So this is from BL Companies, not
14 Meridian.

15 Q And the first one was from BL or from Meridian?

16 A (Johnson) So in general, the work as you noted
17 that was done between Bridgewater and North
18 Woodstock that the actual physical survey work
19 was done by Meridian, the physical survey work
20 that was done from North Woodstock all the way
21 to Bethlehem was done by BL Companies. And the
22 research or the record research that was done
23 was done by Arago Land Services for the entire
24 length.

1 Q So the first document that has the surveyor's
2 seal is applying to what towns?

3 A (Johnson) So I'll just say in general, the
4 document on BL Companies' letterhead is for
5 North Woodstock through Bethlehem and then the
6 North Country. And the document that is sealed
7 on Meridian letterhead is for Bridgewater to
8 North Woodstock.

9 Q So the short town summaries do not have the
10 surveyor's seal on them?

11 A (Johnson) Correct. There was a cover document
12 from BL Companies that had the seal and these
13 were accompanying documents to those.

14 Q So when this short summary of Easton and
15 Franconia mentions many existing maps, are these
16 private property survey maps?

17 A (Johnson) I believe so. Yes.

18 Q And is there a short survey summary for
19 Bethlehem and Sugar Hill?

20 A (Johnson) I believe there is, yes.

21 Q Could you point that out?

22 A (Johnson) It's the exact same document as this.
23 I believe the title is different, and says
24 Bethlehem and Sugar Hill. Again, my records

1 aren't here so I just have the actual maps.

2 Q So have any of you been to the New Hampshire
3 State Archives?

4 A (Johnson) I have not. As I said earlier, the
5 Arago Land Services was the company that did
6 that research.

7 Q So are you aware that on their website as well
8 as at the Archives they have a 535-page guide to
9 their holdings?

10 A (Johnson) I do not know.

11 Q So Muni Exhibit 196 shows the listings at the
12 Archives for the irrelevant towns. Referring
13 back to the summary for Easton/Franconia, they
14 stated that they went to the Archives and could
15 not find anything but a 1905 road map, and this
16 document shows what is in the Archives Guide for
17 those towns.

18 A (Johnson) I'll take your word for it. Again,
19 I'm not familiar with this document.

20 Q And the SEC has this. I didn't think it was
21 worth putting up there. But the first page, let
22 me back up a bit. At the Archives, they have
23 road layouts for every town in New Hampshire,
24 and those are listed in these town listings,

1 road highway layouts. So Franconia is listed as
2 having a road highway layout if you look in the
3 Archives documentation. And Easton is not
4 listed as having road highway layout, but if you
5 actually look in the section of the Archives
6 that has these layouts, you will find the town
7 of Easton there, and it will point you to the
8 fact that Easton used to be Landaff as well as
9 Lincoln. So anyone who went to the Archives in
10 search of road layouts would find these
11 documents. So are you aware of how the Archives
12 works? The process for searching for documents
13 in and road layouts?

14 A (Johnson) Again, I'm not, but it sounds like
15 you're educating me on where we would find
16 Easton.

17 Q For the record here, these are my copies of
18 what's at the Archives for town road layouts.
19 So did Meridian or BL land research for Easton,
20 Franconia, Woodstock, Sugar Hill and Bethlehem
21 include any of these road layout records that
22 are available at the Archives?

23 A (Johnson) So, again, I'm not a survey expert,
24 and I'm representing the stamped product that

1 our surveyors have put forth, but I believe that
2 they did indeed go to the Archives, including
3 not only the State Archives but the DOT
4 Archives, and any of the archives that they
5 could find from a municipality to determine
6 where these right-of-ways, when they were
7 established and how they were established and
8 then they, how they were upgraded over time as
9 we get to the 2000s and where we are today.

10 Q Does the documentation provided on your site
11 show any of the road layouts?

12 A (Johnson) I believe the Exhibit number 130 is
13 exactly that. It's the road layouts. And as
14 surveyed. So the right-of-way boundaries as we
15 provided on these stick plans detailed the road
16 boundaries as they exist today.

17 Q I mean the historic road layouts. What was
18 collected from town records where a town in
19 their Town Report states what roads that they
20 laid out in their town.

21 A (Johnson) No. I don't know that that's even
22 pertinent, if you will. The surveyors have
23 certified the conditions as they exist today.

24 Q So are you aware that these road layouts are the

1 first order of documentation for the width of a
2 road?

3 A (Johnson) I would agree that they are how a road
4 was established back in the 1800s or early
5 1900s. However, through time, those road
6 layouts have changed and been modified as
7 different projects and/or the roads themselves
8 changed course. So I would agree with you that
9 those would be a starting point, but as I
10 mentioned earlier, our surveyors have provided
11 us with documentation that they believe is
12 correct, and they've stamped those drawings such
13 that they are basically saying that they are
14 accurate as of what's in the drawings today.

15 Q So does your documentation put forth by these
16 surveyors include a 1797 two rod layout from the
17 Easton/Franconia border over the bridge to the
18 Gale River?

19 A (Johnson) Again, the surveyors are producing
20 reports that are what they believe is the
21 conditions of the roads today where the
22 right-of-way extends today. And again, it's
23 just me because I'm not a licensed surveyor by
24 any means, but I believe the original layouts

1 would be at baseline, and if there was evidence
2 of more recent road widths and/or plans that
3 describe a road width those would supersede the
4 original road widths back from whatever you
5 mentioned.

6 PRESIDING OFFICER HONIGBERG: Ms.
7 Pastoriza, would you repeat the question,
8 please?

9 Q Did your surveyors incorporate into their
10 research the 1797 two-rod layout from the
11 Easton/Franconia border to the bridge over the
12 Gale River?

13 PRESIDING OFFICER HONIGBERG: Mr. Johnson,
14 do you understand the question?

15 A (Johnson) I do. I do not know whether they
16 incorporated that.

17 Q Did they incorporate the 1797 three-rod layout
18 from Landaff to Easton?

19 A I do not know.

20 Q Did they incorporate the 1804 layout from the
21 Franconia/Easton border to the former Landaff
22 line in which no width was stated?

23 A I do not know.

24 Q Did they incorporate the 1811 layout from

1 Kendall Brook to Steven Kinsmill's sawmill which
2 is now Center Easton, and it was a 450-foot-wide
3 layout?

4 A I do not know.

5 Q Did they incorporate the 1829 three-rod layout
6 from the Jackman Cemetery near the Woodstock
7 Town Offices to the junction of Route 3?

8 A I do not know.

9 Q Did they incorporate the 1833 layout from
10 Franconia Ironworks to Haverhill?

11 A I do not know.

12 Q Did they incorporate the 1838 expansion of Route
13 116 from the Franconia Meetinghouse to the
14 Easton border at 3 rods wide?

15 A I do not know.

16 Q Did they incorporate the 1840 layout of the
17 Moosilauke New Road, present Route 112, from
18 Moosilauke Brook south?

19 A I do not know.

20 Q Do they incorporate the 1855 three-rod layout
21 from the 116 and 112 junction in Easton east to
22 the Woodstock town line?

23 A I do not know.

24 Q Do they incorporate the 1856 three-rod reroute

1 just south of Gibson Road for 55 rods south on
2 present Route 116?

3 A (Johnson) I do not know.

4 PRESIDING OFFICER HONIGBERG: How many more
5 you got?

6 MS. PASTORIZA: Two.

7 BY MS. PASTORIZA:

8 Q Did they incorporate the 1871 two- and three-rod
9 layout from Littleton through Bethlehem, Sugar
10 Hill and Franconia?

11 A I do not know.

12 Q Do they incorporate the 1905 transferral of the
13 Lost River Road to the State of New Hampshire
14 three rods wide?

15 A I do not know.

16 Q And are you aware that if there is not new
17 construction by DOT where they do a taking that
18 the original layout width is what the
19 right-of-way width is?

20 A So, again, I'm not a survey person, but I
21 believe that there are prescriptive rights of a
22 road that has not been able to be defined, if
23 you will, by an existing right-of-way. And,
24 effectively, what that means is if a road exists

1 with shoulders and/or drainage ditches, then the
2 width of whatever the accepted travel lane or
3 travel area is is then prescribed to be the
4 width of that road.

5 Q And are you aware that when the width has been
6 prescribed, that that width is good until DOT
7 may come in and make a taking for a construction
8 project?

9 A (Johnson) I wouldn't doubt you. I do not know.

10 Q So did your surveyors go to the Landaff, Easton,
11 Lincoln, Sugar Hill, Franconia, Lisbon or
12 Bethlehem town halls to look at their records
13 for road layouts that were not in the
14 collections at the Archives?

15 A (Johnson) I believe they did, yes.

16 Q And did they present any of that evidence for
17 the record?

18 A (Johnson) Again, the record is the stick
19 drawings, Applicant's Exhibit 130, which
20 describes their final product of the layout as
21 we believe it exists today.

22 Q And was it not required by DOT that all plans
23 that were referenced in that layout be on the
24 layout?

1 A (Johnson) I believe they are on the layout.

2 Q So if it's not on the layout, then you're not
3 providing documentation for it.

4 A (Johnson) I don't believe their request was to
5 provide the actual documentation. I believe the
6 request was to provide the reference.

7 Q So if there is no reference on the layout, then
8 there is no documentation it's referring to?

9 A (Johnson) It's my understanding.

10 Q Did the surveyors go to the New Hampshire State
11 Library which has copies of all town records?

12 A (Johnson) I do not know.

13 Q Did the surveyors do research on all the land
14 deeds at the Grafton County Registry of Deeds to
15 find the locations of people referenced in the
16 old layouts so as to determine where they were?

17 A (Johnson) I do not know.

18 Q Two days ago there was discussion of the 1833
19 layout. Do you recall that?

20 A (Johnson) Vaguely, yes.

21 Q Was there an assertion that the layout was four
22 rods throughout Franconia/Easton?

23 A (Johnson) I do not recall. We can check the
24 record.

1 Q So are you aware that Mr. Hodgdon has been in a
2 conversation with DOT about the central proposed
3 burial route for four years?

4 A I know Mr. Hodgdon has been employed by the
5 Project for about that length of time, and,
6 naturally, his expertise is with the DOT. I'm
7 not necessarily knowledgeable of all discussion
8 that he's had with the DOT.

9 Q So you know he's had some discussions?

10 A (Johnson) Yes.

11 Q But you don't know the extent of them?

12 A (Johnson) Correct. Mr. Hodgdon does participate
13 in the monthly meetings that we have with the
14 DOT, and that's about the extent of the
15 knowledge I have regarding his communications
16 with them.

17 Q So in Joint Muni Exhibit 198, in 2016 DOT gave
18 Mr. Hodgdon references for several historical
19 layouts and maps as well as DOT plans for the
20 central proposed burial route meaning DOT plans
21 which covered portions of that route. With them
22 came the caveat, and I quote, "As with all the
23 plans I will be sending you, I want to caution
24 you with the right-of-way lines existing and

1 proposed shown on those plans. Confirming all
2 the accurate right-of-way lines shown would take
3 extensive research and time not all lines shown
4 are accurate."

5 So were you aware of this communication to
6 Mr. Hodgdon by DOT?

7 A (Johnson) I was not.

8 Q How did your surveyors confirm the accuracy of
9 DOT plans specifically in the vicinity of the
10 two-rod layout near the Profile School on Route
11 18?

12 A (Johnson) Again, I do not know the specifics of
13 that. We hired the surveyors to do their work,
14 and they have produced this drawing which I'm
15 relying on because they've stamped it.

16 Q So you have no idea if they went through the
17 effort of confirming the accuracy of DOT plans
18 as DOT cautioned them to do?

19 A (Johnson) I have no idea.

20 Q So are you aware that Mr. Hodgdon sent 26 emails
21 to DOT between 2012 and 2016 and received 115
22 documents from them including references to
23 historical layouts, DOT plans and layout maps?

24 A (Johnson) I am not aware of that.

1 Q And do you know whether any of these documents
2 made it into your surveyor's plan survey?

3 A (Johnson) I would assume they did as he is part
4 of the team that is discussing the survey
5 rights, but, again, I cannot confirm or deny.

6 Q Given that none of the documents submitted for
7 Easton contain anything other than private
8 property surveys, it would be reasonable to
9 assume they did not make it in.

10 A (Johnson) Again, I don't know.

11 Q So on Tuesday it was brought to our attention,
12 at least mine, for the first time Meridian and
13 BL's survey and their three-level survey
14 technique. That's Applicant's Exhibit 62271 and
15 2. So is this a standard road survey method?

16 A (Johnson) I'm not sure I follow your question.

17 Q Is this three level survey method, is that
18 standard, is that used?

19 A (Johnson) Again, I'm not an expert in the survey
20 field, but I would ascertain that if they can't
21 specifically verify that they would tend to
22 classify the, for lack of better words, the
23 assertiveness or the validity, if you will, of
24 their comfort with the survey lines that they've

1 drawn.

2 Q So can you provide an example of another place
3 where this survey method was used?

4 A (Johnson) Again, I'm not a survey person
5 normally. This is not under my type of watch.

6 Q Would you say that the right-of-way research by
7 Meridian, Arago and BL included, as required by
8 DOT, quote, "all pertinent research"?

9 A (Johnson) I would assume that they did the
10 research that was required to lay out the
11 drawings as they've done.

12 Q They were required to look at all pertinent
13 research. Do you feel that they did that?

14 A (Johnson) Again, they're the professionals so
15 I'm going to rely on the fact that they've done
16 the research that they deem required to stamp
17 the actual drawings that they've given to us.

18 Q Given what I've showed you and spoken about in
19 terms of documentation regarding road width that
20 didn't make it into their survey, can you
21 reasonably conclude that all pertinent research
22 was in that document?

23 A (Johnson) I can't confirm or deny. So the
24 answer is I don't know.

1 Q So on Monday someone in the panel stated, I
2 think, 200 private survey markers were used in
3 your survey. Is that correct?

4 A (Johnson) I don't recall that, but, again, it's
5 a matter of record. We could find it.

6 So given that your surveyor could not find
7 any historical evidence for right-of-way width
8 in Easton and Franconia, and given that some
9 sections of the road have unknown layouts or
10 layouts of unstated width, do you have any
11 evidence that the surveyors placing these
12 private property markers at the road boundary
13 knew the road layout width?

14 A (Johnson) I'm sorry. Could you ask that
15 question again?

16 Q Given that your surveyor could not find any
17 historical evidence for right-of-way widths in
18 Easton and Franconia, and given that some
19 sections of the road have unknown layouts or
20 layouts of unstated width, do you have any
21 evidence that the surveyors placing these
22 private property markers at the road boundary
23 knew the road layout width?

24 A (Johnson) Okay. There was some confusion.

1 That's why I asked you to repeat the question.

2 I believe that our surveyors did not place
3 any markers anywhere along the route. They were
4 simply looking for the historical existing
5 markers. I believe they found several
6 properties within Franconia and Easton that are
7 clearly defined as what the right-of-way
8 boundary is, and that's shown on the maps where
9 they detailed that they found iron pins that
10 matched the records or deeds that have been
11 filed at the towns or wherever the research
12 place was.

13 For those that are unknown or uncertain if
14 you will, and I know there are several lengths
15 of the alignment that are uncertain, I believe
16 they've chosen to use a historical four-rod
17 right-of-way or they've chosen to use the
18 prescriptive rights of the road width that
19 they've measured. But, again, that's the extent
20 of my knowledge of how this was prepared.

21 Q So you're talking about the historical four-rod
22 layout. Are you assuming that that went through
23 Franconia and Easton at four rods throughout?

24 A (Johnson) No. That's not what I was

1 ascertaining. I believe that there's enough
2 evidence in Franconia to delineate a line,
3 whatever the right-of-way width is. I know that
4 in parts of Easton and south towards Woodstock
5 that there was a four-rod layout. I believe
6 you've mentioned it earlier in one of your
7 lines. I don't know how it's been incorporated
8 into the drawings themselves.

9 Q So a few survey markers confirming what?

10 A (Johnson) I believe there's more than a few, but
11 I believe that the iron pins and/or drawings
12 that they found matched the deeds of land owners
13 as they are today which establishes the
14 right-of-way width if you have them on both
15 sides of the road.

16 Q How could a private property survey establish a
17 right-of-way width on the road unless the
18 surveyor happened to know that right-of-way
19 width when they were doing the survey?

20 A (Johnson) So our surveyors are finding physical
21 evidence of the established property boundaries,
22 if you will, of the private landowners. When
23 those property boundaries are along the roadway,
24 it establishes the edge of that boundary.

1 Q Why would it establish the edge of the boundary
2 given that the surveyor probably did not know
3 the width of the right-of-way?

4 A (Johnson) If you establish a boundary on one
5 side of the road and establish a boundary on
6 another side of the road, by default what's left
7 is the road.

8 Q I would submit that a private surveyor has to
9 place two of the private survey markers on the
10 road boundary when a property is on the road.
11 By default, he has to place them somewhere. If
12 that surveyor does not know the width of the
13 right-of-way, is it not reasonable he would
14 place that survey marker at a distance where it
15 could be easily found without being a problem to
16 traffic?

17 A (Johnson) Again, our surveyors didn't place any
18 markers. Just to be clear. We were finding
19 markers that other surveyors had put closer.
20 Again, I'm not a surveyor so I can't dispute or
21 refute your ascertainment.

22 Q Are you aware that a private property survey is
23 not connected to the width of the right-of-way
24 unless that surveyor happened to know the

1 right-of-way?

2 A (Johnson) I guess I'm confused because I would
3 assume that a private property owner who staked
4 their boundary or had a licensed surveyor stake
5 their boundary would be staking their boundary
6 at the edges of the road. So a road that's laid
7 out in 1790 or 180-whatever wouldn't necessarily
8 be the same 200 years later.

9 Q How could a private surveyor mark a road
10 boundary without knowing the width of the road
11 right-of-way?

12 A (Johnson) I don't know that the road boundary
13 has anything to do with it. The surveyor is
14 going to mark the boundaries of the deed of that
15 plot of land, and that whatever that deed says
16 is where he's going to put the corner
17 boundaries.

18 Q And if the deed simply says the road is the
19 boundary as is common on many properties, he
20 will have to place the marker somewhere?

21 A (Johnson) So I believe in this case our
22 surveyors chose not to use that as a boundary
23 line. They chose to use that as an
24 indeterminate. And when they find iron pits or

1 other physical evidence that they could use as
2 an edge of boundary that they've chosen to use
3 that as the certification.

4 Q So you're saying the only iron pins referenced
5 were ones from land surveys where the boundary
6 was defined in such a way that it ended at a
7 certain distance from the road?

8 A (Johnson) That's correct. If you look at our
9 drawings, you'll see that they match exactly
10 with the plan drawings that are the deed
11 records. So, for example, farther south where
12 the Forest Service has taken a 500-foot width,
13 clearly there are no iron pins because that 500
14 foot width is in the middle of the forest, but
15 they've taken a road width to be 500 feet wide
16 prescriptively, they just determined that, and
17 that's what the plans now say.

18 Q So several months ago in response to a Northern
19 Pass discovery request, Central Abutters Group
20 submitted historical documentation on the
21 right-of-way widths in Franconia and Easton.
22 Was this information incorporated into your
23 survey?

24 A (Johnson) I do not know.

1 Q A week ago or maybe more, I submitted 53 pages
2 of historical and on-the-ground documentation of
3 right-of-way width in Bethlehem, Sugar Hill,
4 Franconia, Easton and Woodstock. That's Exhibit
5 APOBP 16. Since it appears that the surveying
6 is an iterative process, do you anticipate
7 incorporating this information into your survey?

8 A (Johnson) I believe the surveyors are finished
9 with their work, and they have certified their
10 work so if they have not already incorporated
11 the information that you've provided, I don't
12 think they will be theirs going forward.

13 Q Do you expect the survey to satisfy the data
14 request from the Central Abutters Group for
15 proof of right-of-way width?

16 A (Johnson) We do.

17 Q Even though the majority of the survey shows an
18 uncertain right-of-way width?

19 A (Johnson) I believe that the survey is showing
20 what our surveyors have certified is the
21 right-of-way width. Again, whether it's from a
22 plan, whether it's from historical documentation
23 or whether it's from the prescriptive rights of
24 the roads.

1 Q What about the majority of the survey where the
2 line is uncertain?

3 A (Johnson) Again, I believe they've chosen to use
4 the prescriptive rights of the roads.

5 Q Has the Meridian survey data been submitted to
6 DOT?

7 A (Johnson) I believe so. Yes. Very recently.

8 Q And have they accepted the survey?

9 A (Johnson) I do not know the answer to that.

10 Q That's it. Thank you.

11 PRESIDING OFFICER HONIGBERG: Ms. Fillmore?

12 MS. FILLMORE: I just need one minute to
13 set up my visual aid.

14 **CROSS-EXAMINATION**

15 **BY MS. FILLMORE:**

16 Q On the screen right now is Joint Muni 200 which
17 was uploaded to the ShareFile site just
18 recently. It is a compilation of documents from
19 several other exhibits so there are other
20 exhibit markings as we go through here, but they
21 are all gathered together in one document which
22 I will get the Committee as quickly as possible.

23 MR. IACOPINO: Is this one on the
24 ShareFile?

1 MS. FILLMORE: Yes. About 35 minutes ago.

2 And we will have printed copies available.

3 BY MS. FILLMORE:

4 Q So on the screen right now is a Sample
5 Specification for Horizontal Directional
6 Drilling Contractors, and I'm not sure to whom I
7 should direct this question. I think it might
8 be Mr. Bowes.

9 A (Bowes) Or Mr. Kayser. I think there's actually
10 a similar document attached to his Prefiled.

11 Q Well, you guys can decide who would like to
12 speak to it. So I assume that both of you are
13 familiar with this document, is that correct?

14 A (Bowes) Generally familiar, yes. Mr. Kayser may
15 be more specifically familiar.

16 A (Kayser) I'm generally familiar. Mr. Scott may
17 be more familiar with it.

18 Q Can you tell me what it's used for, please?

19 A (Scott) Essentially, this document is an example
20 of the specification that would be provided at
21 each HDD location to an HDD contractor, this
22 document being prepared by Brierly Associates
23 for those specific locations.

24 Q And when contractors are being selected, are

1 they required to meet all of the qualifications
2 that are listed in this document?

3 A (Scott) I would assume so, yes.

4 Q Is one of those qualifications a clean record,
5 free of any safety or environmental violations?

6 A (Scott) I don't know what a clean record free of
7 those things requirements is for the Project,
8 but it would be required to meet the Project
9 requirements.

10 Q Section 1.04 of this document, Quality
11 Assurance. 1.04 B, there we go. Company
12 Qualifications. That's what I was looking for.

13 So that list does not include anything
14 about safety or environmental records, does it?

15 A (Scott) I believe this is a technical
16 specification.

17 Q So it doesn't.

18 A (Scott) I don't believe that's listed for the
19 technical specification portion though.

20 Q Is that listed in any list of qualifications
21 that are required?

22 A (Scott) When it's put out, it would be, yes.

23 A (Bowes) So along with the technical
24 specification, there would be commercial terms

1 and conditions, there would be safety and
2 environmental conditions, and in the case if
3 Eversource had a work practice or work method,
4 that would also be included, and it would be
5 required to follow that.

6 Q Thank you. Section 1.04 L talks about daily
7 reports that will be required, and I'd like to
8 draw your attention to number 1 which says
9 "drill fluid daily required data." Can you
10 explain to me what that is?

11 A (Scott) I believe it's, not being a specific
12 expert on how this is logged in the field, I
13 believe the intent of this is to define how much
14 fluid would be used during the drilling process
15 for that day.

16 Q And does anyone on the Panel know approximately
17 how much drill fluid would be used on average
18 during a day?

19 A (Scott) Not off the top of my head. It's a
20 volumetric calculation based upon the bore size
21 and the length to be drilled per day.

22 A (Bowes) Typically 3 to 5 percent would be lost
23 during the drill phase so if you were drilling a
24 certain number of feet with a certain diameter

1 of bore, it would be a calculated quantity.

2 Q You said 3 to 5 percent would be lost?

3 A (Boves) Correct. That lines the hole itself.

4 Q So the list of the drill fluid daily data would
5 include the amount that was lost?

6 A (Boves) The amount used for the amount of length
7 that was bored that day. Yes.

8 Q Okay. Can you turn to page 7? Section 1.06.
9 Section J.

10 Under the heading of Special Requirements,
11 one of the specifications, Section J, says
12 "Contractor shall stop all drilling operations
13 and shall notify engineer at the earliest
14 opportunity and no longer than 1 hour after
15 first observation of a drill fluid release at
16 the ground surface or into a wetland or waterway
17 outside of the designated entry/exit pit laydown
18 areas."

19 Do you see that?

20 A (Kayser) Yes.

21 Q Why can they wait up to an hour before reporting
22 it?

23 A (Kayser) The contractor, if they have any
24 release, they're going to need to start working

1 on that to minimize that release so it's once
2 they start that work, then they will start their
3 contact, but it's -- you expect immediately, but
4 they do have some time to get that contact out
5 there.

6 A (Scott) I'd also like to add that there's a
7 specific inadvertent release plan in your
8 testimony.

9 A (Kayser) Correct. Attached to my Prefiled
10 Testimony, Attachment A, there is a Monitoring
11 and Operations Plan that goes through the
12 different things the contractor will do for the
13 conditions of normal drilling, loss of
14 circulation, or a drilling fluid release. And
15 also, one of the conditions of DES approval is
16 that we have an approved monitoring and
17 operations plan prior to construction.

18 Q Section 2.01 C 7, on the screen now, requires
19 that the "Drill fluid system shall have
20 connections between the pump and the drill pipe
21 that are relatively leak-free."

22 What exactly is relatively leak-free?

23 A (Scott) I believe that's essentially saying that
24 it should operate similar to any plumbed system

1 where leaking is not intended to occur.

2 However, there are occasionally leaks. As it's
3 noted, it would be fixed.

4 Q Why wouldn't the specifications simply say
5 leak-free?

6 A (Scott) I believe that any plumbing system has
7 the potential to leak.

8 Q All right. I'm looking now at 3.01 Section H 1
9 which is on the screen. And it talks about the
10 Drill Fluid Management and Contingency Release
11 Plan which needs to include, among other things,
12 that someone notify the Engineer of circulation
13 losses greater than 25 percent of downhole pump
14 volumes and for all observable drill fluid
15 releases.

16 And so that refers to the slurry that goes
17 into the hole and isn't recovered later, is that
18 right?

19 A (Scott) That's referring to the drilling mud
20 itself, not necessarily the "not recovered" part
21 but the entire volume of it.

22 Q I'm sorry. I'm not sure I understood your
23 answer.

24 A (Scott) So if in the drilling process, as

1 Mr. Bowes has stated, you would expect not have
2 three percent or so return. So this would be if
3 25 percent did not return.

4 Q So does that mean that if 24 percent were lost,
5 it wouldn't need to be reported?

6 A (Scott) I believe this is based upon typically
7 if you're drilling along and then you go
8 through, say, a rod of drilling, and you're not
9 getting as much returns as typical, and then you
10 continue drilling and the returns start going
11 back, then you haven't encountered a major
12 issue. Yes. But once you're getting past that
13 25 percent number, then there's an issue that
14 should be addressed.

15 Q So I think if I understand your answer, a
16 significant amount of drill fluid could be lost
17 in a day and wouldn't need to be reported as a
18 special incident of any kind?

19 A (Scott) I believe it's, it may find a location
20 that's not in the drill hole itself, a void
21 space, if you will, to fill. And if as you're
22 drilling along, as long as it's not continuing
23 to flow out of the drilling hole and returns
24 continue, then you're all right. If that does

1 not continue to occur, then it should be
2 addressed. And if you see any above grade
3 example of an inadvertent release, then it
4 should be addressed.

5 Q How long would you wait to find out if it were
6 simply filling a void?

7 A (Kayser) And I think Attachment A, the
8 Monitoring & Operations Plan, that is Condition
9 2 which is Loss of Circulation and the actions
10 that are bulletized on the first page are "Slow
11 down drilling and adjust drill operation to
12 regain circulation, perform focused visual
13 monitoring." So that's why the contractor would
14 be looking to see, are there any inadvertent
15 returns that are coming to the surface and then,
16 "Restart or continue drilling if no release is
17 detected but continue to visually observe the
18 drill" so to seek to regain the circulation so
19 they're going to be monitoring that to make sure
20 there are no inadvertent releases.

21 Q Thank you. I'd like to switch gears a little
22 bit and ask some questions about the height of
23 the towers, and I think this again may be
24 Mr. Bowes, but I'm not sure.

1 A (Bowes) Yes. Okay.

2 Q In your Supplemental Testimony from April, your
3 Track 2 testimony, you listed 18 areas in which
4 the company considered reducing the height of
5 the towers. Is that correct?

6 A (Bowes) We certainly, many locations. I'm not
7 sure it was 18, but I can check that.

8 Q I'll represent to you that it was 18.

9 A (Bowes) I accept that.

10 Q Do you know if any of those locations were in
11 Bethlehem?

12 A (Bowes) So this is covered on pages 5, 6,
13 actually goes all the way through to page 11 of
14 my testimony. It does indicate the town where
15 we considered changes in each location, and I do
16 not see Bethlehem among the ones where we
17 considered avoidance, minimization or
18 mitigation.

19 I do see it on page 5 where we have
20 considered visual buffer plantings as suggested
21 by the expert for the Council for the Public,
22 and in that section, lines 20 through 26, there
23 are, looks like two locations in Bethlehem.

24 Q Okay. I'd like to talk a little bit about the

1 overhead towers. The overhead portion through
2 Bethlehem. On the screen now is a portion of
3 the Revised Overhead Plans submitted in February
4 of 2016, and these Sheets show the existing and
5 proposed transmission towers in this location.
6 Can you tell me how wide the right-of-way is in
7 this area?

8 A (Bowes) Just a moment.

9 Q I'll represent to you that it's 265 feet.

10 A (Bowes) Yes.

11 Q And so can you go back to the map?

12 There are three different sheets that I
13 have here that show the overhead, most of the
14 overhead route through Bethlehem, and the purple
15 dots on the blue line are the existing
16 transmission line. Is that correct?

17 A (Bowes) Yes.

18 Q And the purple solid line on the other side is
19 the existing distribution line?

20 A (Bowes) Yes.

21 Q And then the orange line would with the red dots
22 in the middle is the proposed tower locations,
23 correct?

24 A (Bowes) For the new DC line, yes.

1 Q Okay. And so the proposed one goes in between
2 the other two. And the heights as indicated on
3 the specification sheets that are part of, also
4 here, let's see, the next page. Three pages.
5 So there are three pages with specifications
6 about the heights of the towers and instead of
7 going through all of it I'd like to save time
8 and represent to you that the heights of the
9 towers are between 60 and 105 feet as proposed
10 in that area. Average of about 84, 85.

11 A (Bowes) I will accept that. Yes.

12 Q As you can see on at the detail sheet, the
13 current height of the transmission towers is 55
14 feet.

15 A (Bowes) I would say that's a typical height. We
16 went through it earlier this morning, and many
17 of them are shorter than that.

18 Q So would it be fair to say that the proposed
19 tower heights in this area would be
20 approximately 30 feet higher on average than
21 what's there right now?

22 A (Bowes) Yes.

23 Q Okay. Would it be possible to accomplish the
24 same thing with more towers and a lower height?

1 A (Bowes) I think I'm going to defer to
2 Mr. Bradstreet on design.

3 A (Bradstreet) So I guess to answer your question,
4 additional structures could reduce structure
5 height for the proposed line. However, at some
6 point there's a limitation, I guess, on how
7 short you can go.

8 Q Has that been looked at in this area?

9 A (Bradstreet) Adding structures?

10 Q Yes.

11 A (Bradstreet) I don't believe we've specifically
12 looked at adding structures in this area. We've
13 done some analysis to determine, I guess, how
14 short could the structures be, assuming there
15 was no environmental limitation or whatever as
16 far as putting structures extremely close
17 together. About the shortest the DC line could
18 be is 60 feet and maintain all the electrical
19 clearance requirements.

20 Q So if it could be as short as 60 feet, would it
21 be possible to have the line be 60 feet in this
22 area?

23 A (Bradstreet) I believe if we put structures very
24 near each other then yes.

1 Q Would there need to be more than there are now
2 for the existing line?

3 A (Bradstreet) No.

4 Q Given that so much of the concern about this
5 Project relates to the imposition of new taller
6 invasive structures, is there a reason that that
7 design was not given consideration in this area?

8 A (Bradstreet) Other impacts would drive us to
9 think that's, I guess, not the right solution
10 for the Project. Environmental impacts,
11 specifically.

12 Q Do you know that or are you guessing?

13 A (Bradstreet) Looking at the maps that you had
14 up, we would have significantly more wetlands
15 impacts, yes. We know that for a fact.

16 Q Thank you. Okay. I'd like to shift gears and
17 talk a little bit about municipal permits and
18 ordinances for a few minutes. And, again,
19 anyone who feels comfortable answering, please
20 go ahead.

21 Are you aware that the Town of Bristol has
22 a noise ordinance?

23 A (Bowes) I'm aware that many of the towns in New
24 Hampshire have noise ordinances. Some have

1 regulations and then some have specific
2 regulations. I do believe Bristol has one, yes.
3 I think it's just an ordinance though. Not a
4 regulation.

5 Q Is there a difference between an ordinance and a
6 regulation?

7 A (Bowes) Yes. So in ordinance is for nuisance
8 noise, and it allows the police or other legal
9 authority to stop nuisances from occurring. A
10 regulation, at least in my mind, is when you
11 have a specific sound pressure level that's
12 dictated with, say, hours of 7 a.m. to 7 p.m.,
13 something like that. And then there's more
14 detailed regulations that get into specific
15 types of noises.

16 Q Okay. We can use your definition.

17 Then this indeed would be an ordinance
18 that's up on the screen now, and this comes from
19 Joint Muni Exhibit 118, although it is part of
20 200 as well. And we can just look at a few
21 sections here. Section III(A)(3)(a). There we
22 go. One of the things that is prohibited by
23 this ordinance is, I'm looking at Section 3(a)
24 now the screen. "Making loud or unreasonable

1 noises in a public place or in a private place
2 which can be heard in a public place," et
3 cetera, et cetera. And then Item (b),
4 "Disrupting the orderly conduct of business in
5 any public or private facility."

6 Do you see that?

7 A (Bowes) Yes, I do.

8 Q And then go down to Section V. No, regular 5.
9 Item C. There is a list of exemptions in this
10 ordinance and one of them here is in Section C;
11 do you see that?

12 A (Bowes) I do.

13 Q So that would be "Noises resulting from
14 emergency maintenance work as performed by the
15 Town, State or public utility companies, to
16 include snow removal operations."

17 Is that correct?

18 A (Bowes) That's what it says, yes.

19 Q Would this Project fit under emergency or
20 maintenance work?

21 A (Bowes) I don't believe it would, no.

22 Q And then there is another at the bottom of that
23 page and continuing on to the next page, another
24 exemption for "Any other noise resulting from

1 activities of a temporary duration permitted by
2 law or for which a license or permit has been
3 granted by the Town."

4 Did you or anyone else contact the town to
5 see about obtaining a permit?

6 A (Bowes) So I know we've had some discussions
7 about municipal permits over the last few days,
8 and this would be an area we would try to do
9 under an MOU agreement, and then have that MOU
10 agreement as part of the overall SEC process.
11 If we couldn't reach agreement with a
12 municipality, then we would look to the SEC for
13 jurisdiction for things like construction noise,
14 even though it's not clear to me that that may
15 actually be exempted from this ordinance.

16 Q Let me take your answer in a couple of different
17 places. So it's not clear that it wouldn't be
18 exempted?

19 A (Bowes) I think it is exempted. Construction
20 noise.

21 Q Assume for the moment that it's not.

22 A (Bowes) Okay.

23 Q So instead of getting a permit from the town,
24 this town or any town, the company's approach is

1 to try to reach agreements with the towns about
2 the parts of the ordinances that are not
3 convenient?

4 A (Bowes) No.

5 Q Even if the company were to reach an agreement
6 with a town about such an ordinance, and I'll
7 represent that there are several towns along the
8 route that do have noise ordinances, some of
9 them have what you would refer to as
10 regulations, even if an agreement were reached,
11 what would happen if you encountered a
12 circumstance in which that limit or that
13 agreement was going to cause an inconvenience
14 for the Project?

15 A (Bowes) Maybe you could be more specific?

16 Q If there were an agreement about construction
17 hours, and it turned out that the work needed to
18 be done for the next two weeks at 6 o'clock in
19 the morning instead of after 7 or after 8, but
20 you had agreed with the town that it would be
21 six. Sorry. You had agreed with the town it
22 would be 7 or 8, but you need to start earlier.

23 A (Bowes) So we'd try to define those conditions
24 as part of the MOU process. I mean, it's

1 possible there could be an exception to that.
2 We would go back to the town and seek their
3 concurrence that that change could occur. I'm
4 thinking, as an example, we mentioned in Concord
5 previously, where there would be some wire
6 stringing operations, the DOT would probably
7 require us to do that say at two a.m. in the
8 morning to cross I-393. That would be an
9 exception to the work hours, but we'd try to
10 define those up front.

11 In certain towns, we may want to move large
12 oversized loads in periods of time that would be
13 outside that 7 a.m. to 7 p.m. construction work
14 hours. We'd try to define those up front, but
15 there could be a circumstance where it did come
16 up because of whatever reason. We would go back
17 to the town and say we believe it's more
18 convenient for you as well as us to do this at
19 five a.m. before the start of commuter traffic,
20 and if we didn't have that then we would stick
21 with the original plan of 7 a.m.

22 Q You would. So if the Committee were to make a
23 condition of approval of this Project that the
24 Applicant would have to comply with all of those

1 agreements that were reached with the towns, the
2 company would do that?

3 A (Bowes) Yes, we would.

4 Q On a slightly different but not unrelated note,
5 I'd like to talk a little bit about permit
6 conditions from DOT. And what's on the screen
7 now is the permit letter of April 3rd, 2017,
8 from DOT. This is also Applicant's Exhibit 107,
9 Page 5. Can you go to condition number 10?

10 At the top of the screen now is condition
11 number 10 which says, "The NHDOT permits concern
12 only the type and manner of work to be performed
13 within the NHDOT right-of-way. The Department
14 cannot and does not grant permission to enter
15 upon or use any privately owned land."

16 Do you see that?

17 A (Bowes) Yes, I do.

18 Q Okay. Do you know whether any of the access
19 roads, staging or laydown areas will be located
20 outside of DOT's right-of-way?

21 A (Bowes) Yes. I believe there was some we looked
22 at yesterday.

23 Q And reading condition number 10, does it make
24 sense that NHDOT says specifically here that its

1 permits concern only the type and manner of work
2 to be performed within DOT's right-of-way?

3 A (Bowes) Yes.

4 Q But some of the work will be done outside of
5 DOT's right-of-way?

6 A (Bowes) So the first question is yes, it does
7 make sense that they would only talk about
8 access for the Project for the New Hampshire DOT
9 because that's the regulating agency. If we
10 have private property lines or own the property,
11 then we could also use those access roads.
12 Those are the ones we talked about yesterday.

13 A (Johnson) If I may clarify, I believe that the
14 Department is providing a permit which is the
15 occupancy and use permit and the excavation
16 permit specific to their right-of-way. I
17 believe that this number 10 is intended to say
18 that they do not have the ability to grant us
19 permission to work in either a trenching, a
20 trenchless or a splice vault location on private
21 property or any of the work zone areas
22 associated with that type of work. Laydown
23 areas and things as I believe you're referring
24 to would be agreements that the Project has made

1 with private land owners and/or municipalities
2 to store material and/or stage equipment in
3 other places, and the DOT, I believe, in this is
4 basically saying that they're not giving a
5 permit for that particular use of land or
6 material.

7 Q So if any of the access roads, staging or
8 laydown areas involved a municipally controlled
9 road or municipal property, the company would
10 seek an agreement or permission from the
11 municipality before doing that?

12 A (Bowes) So this is access off of a municipal
13 road. We covered that in some detail yesterday.
14 And the Project would look to the SEC for that
15 approval if we could not come to agreement with
16 the town through an MOU.

17 Q But, according to condition number 10, DOT says
18 that it doesn't have jurisdiction. Its permit
19 does not apply to anything other than NHDOT's
20 right-of-way.

21 A (Bowes) That is correct. That's why I said the
22 SEC.

23 Q And can you point me to a law that gives the SEC
24 jurisdiction over municipal roads?

1 MR. NEEDLEMAN: Objection. I think that
2 calls for a legal conclusion.

3 MS. FILLMORE: Withdrawn.

4 BY MS. FILLMORE:

5 Q I think this may have come up before so I'll
6 make this short. Are you aware that towns and
7 cities have authority under RSA 231:191 to
8 impose weight limits on municipal roads to
9 prevent unreasonable damage or excessive
10 municipal maintenance expense?

11 A (Bowes) Yes. We covered this again in detail
12 yesterday. And we agree that we will follow the
13 Class V and Class VI requirements for towns and
14 schedule our construction activities around
15 those limitations.

16 Q Did you discuss that the statute gives
17 municipalities the option to require a bond to
18 ensure restoration?

19 A (Bowes) I'm not sure if we discussed that
20 specifically, but one of the examples I think
21 Mr. Johnson used was around using a bond.

22 Q All right. I'd like to talk a little bit about
23 construction impacts, and in particular, the way
24 that they might impact the town of Plymouth. On

1 the screen right now, this is from Counsel for
2 the Public's Exhibit 133, and it is Map 48 which
3 is a map of Plymouth, and it shows the proposed
4 route in orange, orange dotted lines that go
5 through. Do you see that?

6 A (Bowes) Yes.

7 Q Thank you. Do you see where the fire station is
8 on this map?

9 A (Bowes) Yes.

10 Q Do you know whether Plymouth has a professional
11 or a Volunteer Fire Department?

12 A (Bowes) I guess I'm only pausing because I
13 consider Volunteer Fire Departments professional
14 as well. They may not be paid, but I just have
15 a different definition, I guess. So you're
16 saying they are compensated and full-time or if
17 they're voluntary, I don't know.

18 Q I was really referring more to where they might
19 be when the fire alarm goes off. I'll represent
20 to you that a Volunteer Fire Department tends to
21 use firefighters who are not hanging around at
22 the Fire Department all day.

23 A (Bowes) So again, I wouldn't agree with the
24 characterization that firefighters hang around

1 all day.

2 Q I apologize to anyone in your family who might
3 be a firefighter.

4 Could you agree with me that it's possible
5 that when an emergency occurs, firefighters
6 might need to come from somewhere else to the
7 fire station?

8 A (Bowes) Yes. Typically volunteers have another
9 job or another employment, and they travel to
10 the fire station, pick up the necessary
11 equipment and respond to the emergency.

12 Q In fewer words, that's exactly what I just
13 asked.

14 So if there were road closures or lane
15 closures on Route 3 which is all along the
16 proposed route on this map, and firefighters
17 needed to come from different places to get to
18 the fire station on Route 3 in Plymouth at the
19 orange dot, if they needed to get there and some
20 of those intersections were blocked off, would
21 that possibly delay a firefighter's getting to
22 the fire station?

23 A (Bowes) Lynn's going to handle that.

24 Q Okay.

1 A (Farrington) Yes.

2 Q And then to get the engines back out to the site
3 where the emergency is, if the emergency were
4 at, say, Plymouth State University which on this
5 map is above the orange line where it says
6 Holderness Road. It's in that area. If there
7 were a road closure or a large lane closure or a
8 significant delay on Route 3 in that area and a
9 fire truck needed to get across the river to the
10 other side, might that create a delay in
11 response time?

12 A (Farrington) Yes, it may, other than the example
13 we used for the traffic signals and flaggers.
14 They generally give emergency vehicles with
15 their lights on the right-of-way.

16 Q If they needed to use a detour -- in this case
17 have you looked at what the detours might be?

18 A (Farrington) Yes.

19 Q And where did you find that would be the most
20 reasonable place to get from one side of the
21 river to the other?

22 A (Farrington) So I believe that's in our
23 Application, specifically WBR 3, the TCP
24 section.

1 Q And would that involve -- assuming you that you
2 could not go from Route 3 over Bridge Street.

3 A (Farrington) We have no intentions of closing
4 access from Route 3 to Bridge Street. It's
5 Route 3 southbound on this map that there may be
6 a detour. Going north on Route 3 to Bridge
7 Street you have access.

8 Q So this is south on Route 3. Can you point out
9 where on this map on your screen the detour
10 would be if there were a lane closure?

11 A (Farrington) It was actually right at the
12 roundabout where you were. So because
13 construction at the roundabout, it will just
14 close a few of the turning movements that you
15 could normally make, not the entire roadway.
16 The northbound lane will always be open. You
17 just can't go northbound to west at the time of
18 the construction, directly at the roundabout.

19 Q Thank you.

20 A (Farrington) Sure.

21 Q All right. On the screen right now is an
22 excerpt from Counsel for the Public's Exhibit
23 148 which is the Supplemental Testimony of Kavet
24 and Rockler from April 17th, 2017, and on the

1 screen now is the answer to the question of
2 "What will be the economic impact to businesses
3 in Plymouth." Is anyone on the panel familiar
4 with this section of testimony?

5 A (Johnson) I am not.

6 A (Bowes) No, I am not either.

7 Q All right. Well, as we can see, this paragraph
8 goes through the "best case construction period
9 of about 70 days, which would include road
10 closures and a total loss of parking spaces, a
11 30 percent reduction in business during this
12 period could lead to direct income reductions of
13 \$1.2 million and the loss of more than 50 direct
14 jobs." Do you see that?

15 A (Bowes) I do. I don't know the underlying data
16 that supports that.

17 Q Understood. Does the company have any plan to
18 avoid the impacts described in this paragraph?

19 A (Bowes) So specifically for Plymouth, yes.
20 Although it's probably too late to go back to
21 this, we had proposed three alternative routes
22 to the downtown area. Worked and developed one
23 to a point where we had intended to list it as
24 an alternative but were told by the City of

1 Plymouth they were no longer interested in that.

2 But aside from that, we have hired a
3 company that did a project recently for downtown
4 Concord where they did some construction, I
5 think it's Louis Karno, who will be working with
6 local businesses in several towns that are
7 agreeable to minimize the business impact, and
8 we have talked about nighttime construction
9 hours or extended construction hours that would
10 minimize what -- I'll accept the 70 days
11 although not necessarily agree with it -- but
12 for purposes of this that could dramatically
13 reduce the time in that downtown area.

14 We've also talked about some things the
15 Project could do and we've started that outreach
16 with the businesses along not just this part but
17 the entire route for a discussion about how the
18 Project could accommodate them both for always
19 having access to their facility, but things like
20 minimizing the parking that would be temporarily
21 lost.

22 And we've actually talked about and I think
23 in the Technical Sessions about guiding our
24 workers and our Project resources towards some

1 of those local businesses by providing them an
2 incentive to eat at local establishments, to
3 shop at local businesses. So those are some of
4 the things that we would try to do to minimize
5 the impact to businesses.

6 If we were not able to, we've also talked
7 about, Mr. Quinlan talked about a claims process
8 which not only includes residential issues with
9 property damage or impacts but also loss of
10 business, and we've been pretty up front with
11 saying if businesses have data they should start
12 collecting it now pre-project so that it makes
13 that process much easier to process a claim in
14 the future.

15 Q Are you aware that the key employee with Louis
16 Karno is no longer employed by that company?

17 A (Bowes) I was not. No.

18 PRESIDING OFFICER HONIGBERG: Off the
19 record.

20 (Discussion off the record)

21 BY MS. FILLMORE:

22 Q All right. Back to Plymouth again, downtown,
23 and then can you go to the next one? One more?

24 Okay. This is the roundabout area. I'd

1 like to look a little bit more closely at the
2 projections that Counsel for the Public's expert
3 made for what construction in downtown Plymouth
4 would actually look like. And in here, you can
5 see the roundabout.

6 And go to the next one.

7 This is an actual view. So where is the
8 parking on this road?

9 A (Bowes) Presently?

10 Q Yes.

11 A (Bowes) It's on both sides of the road.

12 Q Right.

13 Can you go to the next one?

14 And where is the parking in this picture?

15 A (Bowes) There is no longer any parking along
16 Main Street. This is one of the photos that we
17 characterized as being inaccurate yesterday or
18 the day before.

19 Q Where would the parking go?

20 A (Johnson) So this picture as we described, I
21 believe, on Tuesday effectively is showing a
22 two-lane construction technique. There is an
23 opportunity here to have a one-lane construction
24 technique. We also believe that the location of

1 the trench here is slightly closer to the
2 centerline than it actually is, and we believe
3 that under further refinement of the actual
4 construction that we could maintain a single
5 parking lane where those cars are today on the,
6 to the left of the photograph as well as a
7 travel lane next to the construction zone.

8 Q And is that a commitment that the company is
9 making? To maintain one lane of parking?

10 A (Bowes) That was our plan, yes.

11 Q To commit to it?

12 A (Bowes) No, that was the original plan that we
13 filed is to maintain both the travel lane here
14 as well as a parking lane.

15 Q Has DOT approved that?

16 A (Johnson) That's part of the process we're going
17 through right now.

18 Q So if I understand your response, the company is
19 committed to asking for it but not doing it.

20 A (Bowes) Part of the plan that we're filing. If
21 it's approved that would be the plan we follow.

22 Q I see. This picture is an aerial view a little
23 bit farther down Route 3.

24 Can you back up a little bit?

1 MR. IACOPINO: Ms. Fillmore, all of the
2 pictures that you're referring to, just for
3 ease, are in your Exhibit 200, correct?

4 MS. FILLMORE: Yes. They are. I was only
5 providing the other numbers in case somebody
6 wanted to look at more of the document.

7 BY MS. FILLMORE:

8 Q Can anyone tell me where the bus station or the
9 bus stop is here?

10 A (Johnson) I'm not familiar with it, no.

11 Q Okay. I'll represent to you that on the right
12 side of the screen where there is a crosswalk is
13 where the Concord Coach bus stops presently.
14 The ticket office is across the street on the
15 other side of that crosswalk. And has that been
16 factored into the plans for construction in
17 downtown Plymouth?

18 A (Farrington) It has not. I'm not sure that
19 other than creating a provision where the bus
20 ticketing counter and stop needs to be
21 accessible and available at all times there's
22 anything particular that we would do in addition
23 to that.

24 Q Has anyone approached Concord Coach and asked

1 them about this?

2 A (Bowes) I think only by letter at this point.
3 We can certainly check the records to see if we
4 have had interaction with them. We can do that
5 at the break.

6 Q If that wasn't part of the planning and a letter
7 went out and for some reason wasn't received,
8 then would any further attempt be made?

9 A (Bowes) Yes.

10 Q Thank you. I was not here on other days but
11 it's my understanding that someone brought up a
12 parking lot in the vicinity of Main Street where
13 alternate parking might occur?

14 A (Johnson) Yes. I believe that was me, and it
15 was off of Green Street or behind all these
16 buildings.

17 Q And how far away from the businesses on Main
18 Street is that parking lot?

19 A (Johnson) Several hundred feet.

20 Q And are you aware of how often that parking lot
21 is used?

22 A (Johnson) I believe daily.

23 Q Has anyone looked to see if there are, in fact,
24 any extra spaces that are not being used on a

1 regular basis in that parking lot?

2 A (Johnson) I don't believe we've done that
3 analysis, no. When I was there, there were
4 extra spots, but --

5 Q I'm going to assume that this is another photo
6 that you believe is inaccurate, but going back
7 to your assertion from a little bit earlier, if
8 half of the parking on this street were lost
9 during the construction process, are you
10 confident that there is enough alternate parking
11 in Plymouth that's accessible that could be
12 used?

13 A (Johnson) As I mentioned earlier, we haven't
14 done that analysis.

15 Q Is this hearing the first time that difficulty,
16 that might be experienced by businesses in
17 downtown Plymouth has come up?

18 A (Farrington) No. I think part of the assumption
19 rather than saying we'll just keep all of the
20 parking open all the time, what we were looking
21 to do was come up with kind of creative ways
22 that we could work around the business peak
23 hours and peak seasons in a way that we could
24 time construction in front of a business when it

1 would have the least impact.

2 Q What if different businesses located next door
3 to one another had different peak seasons? Some
4 of them would be out of luck; is that right?

5 A (Farrington) We would certainly be happy to work
6 with everyone to try to find the best possible
7 solution.

8 MS. FILLMORE: I think this might be a
9 great time to take a break.

10 PRESIDING OFFICER HONIGBERG: Then that's
11 what we'll do. We'll try to come back at close
12 to 20 minutes after 1 as we can.

13 (Lunch recess taken at 12:30
14 p.m. and concludes the **Day 9**
15 **Morning Session**. The hearing
16 continues under separate cover
17 in the transcript noted as **Day**
18 **9 Afternoon Session ONLY**.)

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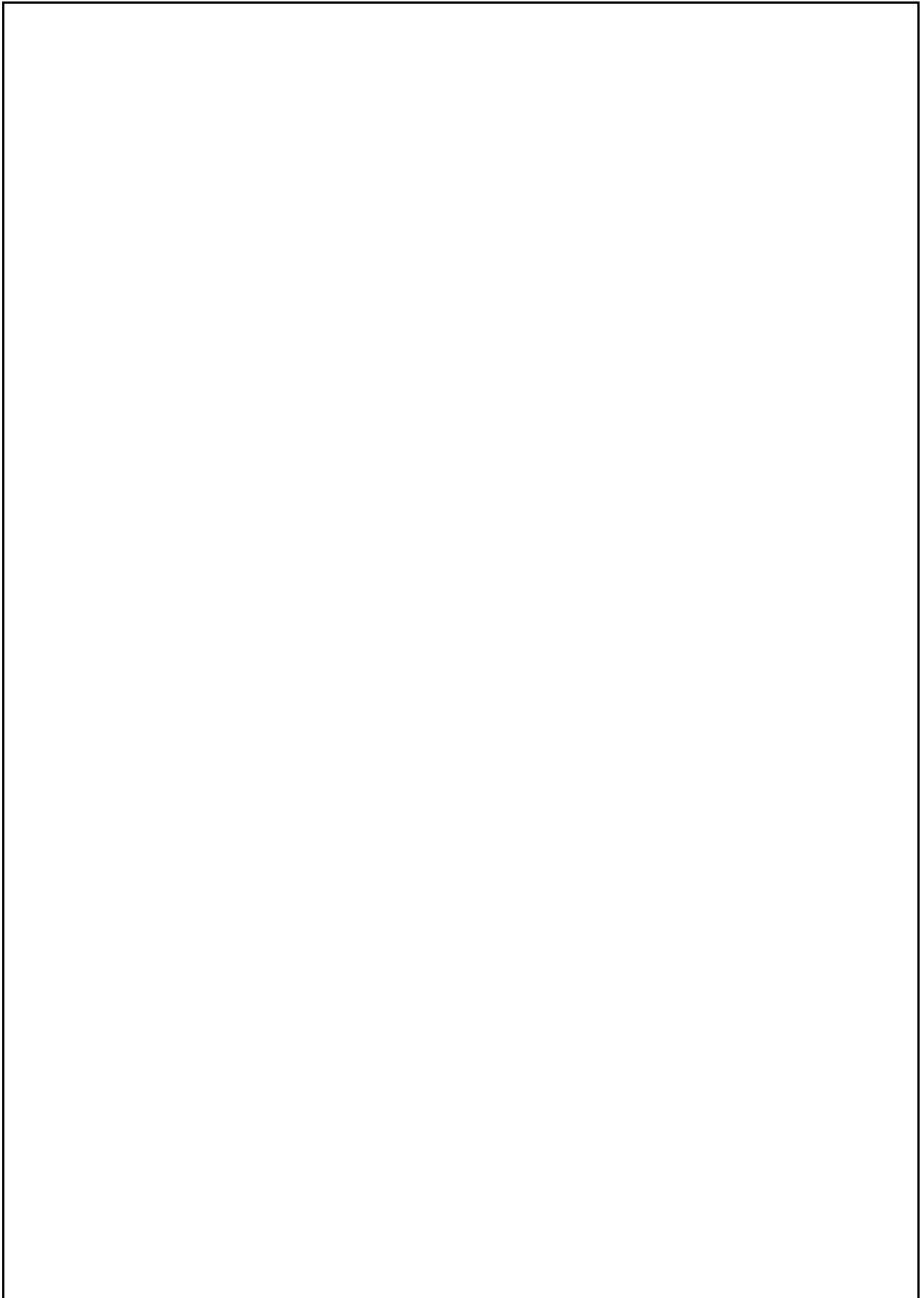
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I further certify that I am neither attorney nor counsel for, nor related to or employed by any of the parties to the action in which this transcript was produced, and further that I am not a relative or employee of any attorney or counsel employed in this case, nor am I financially interested in this action.

Dated at West Lebanon, New Hampshire, this 10th day of May, 2017.

Cynthia Foster, LCR

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