

1 STATE OF NEW HAMPSHIRE

2 SITE EVALUATION COMMITTEE

3 September 17, 2018 - 1:17 p.m. DAY 3
4 49 Donovan Street Afternoon Session ONLY
5 Concord, New Hampshire

6 {Electronically filed with SEC 09-27-18}

7 IN RE: SEC DOCKET NO. 2015-04
8 Application of Public Service
9 Company of New Hampshire, d/b/a
10 Eversource Energy, for a
11 Certificate of Site and
12 Facility.
13 (Adjudicative Hearing)

14 PRESENT FOR SUBCOMMITTEE/SITE EVALUATION COMMITTEE:

15 Patricia Weathersby Public Member
16 (Presiding Officer)
17 David Shulock, Esq. Public Utilities Commission
18 Elizabeth Muzzey, Dir. Div. of Historic Resources
19 Charles Schmidt, Admin. Dept. of Transportation
20 Christopher Way, Dep. Dir. Div. of Economic Dev.
21 Michael Fitzgerald, Dir. Dept. of Env. Services
22 Susan Duprey Public Member

23 ALSO PRESENT FOR THE SEC:

24 Michael J. Iacopino, Esq., Counsel for SEC
(Brennan, Lenehan, Iacopino & Hickey)

Pamela G. Monroe, SEC Administrator

(No Appearances Taken)

COURT REPORTER: Susan J. Robidas, LCR No. 44

I N D E X

WITNESS PANEL: LYNN FRAZIER
NICHOLAS STRATER
DAVID PLANTE
KENNETH BOWES
MARC DODEMAN
WILLIAM WALL

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1 AFTERNOON SESSION
2 (Resumed at 1:32 p.m.)

3 PRESIDING OFFICER WEATHERSBY: We'll
4 resume our hearing and we'll have examination by
5 Counsel for the Public, Attorney Aslin.

6 MR. ASLIN: Thank you, Madam Chair.

7 CROSS-EXAMINATION

8 BY MR. ASLIN:

9 Q. Good afternoon.

10 A. (Plante) Good afternoon.

11 Q. Is Ms. Frazier coming back as well?

12 A. (Bowes) I hope so.

13 Q. Okay. Just checking. I do have some
14 questions for her as well.

15 For the record, my name is Chris Aslin.
16 I'm designated as the Counsel for the Public
17 for this proceeding. I interacted with you
18 in prior instances. So, good afternoon
19 again.

20 I want to pick up on a few things we
21 heard about this morning and also dive into
22 some new areas, aerial road crossings. And
23 so what I'm showing you is a page out of
24 Appendix 17A, the Application, which is

1 Applicant's Exhibit 92. And this is the
2 third page of the PDF, which does not have a
3 number on it. It's Attachment A. And this
4 lists -- well, it states that it's all the
5 aerial crossings of state highways in this
6 project. And it looks like there are seven;
7 is that correct?

8 A. (Plante) Looks like seven, yes.

9 Q. And am I correct that these aerial crossings
10 over state highways require a license or
11 other permit from DOT?

12 A. (Plante) Yes.

13 Q. And has that been granted at this point, or
14 is it still pending?

15 A. (Plante) I believe that it's still pending.
16 We've had some recent correspondence back and
17 forth regarding these crossings.

18 Q. Okay. So we're still waiting on that, but
19 it's in the works.

20 There was some testimony earlier about
21 how the road crossings are accomplished. And
22 one thing that's unclear to me is whether the
23 conductors are actually laid across the road
24 or if they are aerial at all times.

1 A. (Plante) They are aerial at all times, yes.
2 We don't lay them across the road and lift
3 them up. We place them in rollers that are
4 mounted at the upper levels of the
5 structures, initially with the rope that is
6 placed through those rollers, and then
7 subsequently are conductors are pulled in
8 with the ropes, at all times under tension so
9 they are off the traveled way. As I
10 mentioned earlier, we do provide protective
11 measures in the event that something does go
12 wrong.

13 Q. Thank you. And to accomplish that, I assume
14 there are construction equipment, whether
15 it's bucket trucks or others, that are in the
16 edges of the roadway?

17 A. (Plante) That's correct. Sometimes we use
18 vehicles, sometimes we use wood pole
19 structures that are temporarily placed there.

20 Q. Okay. So while that process is going on --
21 Ms. Frazier, I think this goes to you -- am I
22 correct that this -- what I'm showing you is
23 a portion of Applicant's Exhibit 93, and it's
24 PDF Page 29. Am I correct that this is the

1 traffic control plan or scheme that's
2 proposed for that type of road crossing?

3 A. (Frazier) Correct. Yes. So we don't plan to
4 actually stop traffic. But if the line were
5 to lose tension, this is set up, and the
6 flaggers are there ready if needed.

7 Q. Okay. So, for safety purposes, the flaggers
8 are there, but traffic would be able to keep
9 going through --

10 A. (Frazier) Correct. Yup.

11 Q. -- during installation? And that is not the
12 case, I believe, for the Spaulding Turnpike
13 crossing; is that correct? If we go back two
14 pages up to 27 in Applicant's 93, you have
15 the traffic control plan for the Spaulding
16 Turnpike; is that correct?

17 A. (Frazier) Yup. So this is what we call
18 "rolling closure." So we would slow traffic
19 along the interstate while we are pulling
20 that into tension for a brief, couple-minute
21 period, and then let traffic go through again
22 once it's solidified.

23 A. (Plante) So let me clarify just a little bit
24 there. For this particular location, since

1 the distance is so great, we will need to
2 pass at road level with the rope. So we'll
3 have workers from both ends, or both sides,
4 approach the middle during the time that
5 traffic is being slowed by the rolling
6 roadblock. They'll join the ropes in the
7 middle, and then immediately the cables or
8 ropes are pulled into tension and raised
9 above the traffic. And assuming that it all
10 takes place during the window that's created
11 by the rolling closure, the troopers would
12 then just speed up and traffic would
13 continue. If for some reason the ropes are
14 still within the traveled way, they would
15 stop until our workers secured the rope and
16 got it up out of the way.

17 Q. And a rough estimate on the time that process
18 would take for this particular crossing,
19 Spaulding Turnpike?

20 A. (Plante) Just a few minutes.

21 Q. And so the goal is for traffic not to
22 actually come to a halt, but just to slow
23 down.

24 A. (Plante) That's the goal. Correct.

1 Q. Okay. And for the state aerial crossings, I
2 understand that there is an exception request
3 that's been submitted to DOT for I believe
4 the Route 4 crossing; is that correct?

5 A. (Plante) That's correct.

6 Q. And if we turn to Applicant's Exhibit 140,
7 which is Mr. Bowes' and Mr. Plant's combined
8 supplemental testimony, one of the
9 attachments to that is the request to DOT; is
10 that correct? It appears at Page 88 of the
11 PDF.

12 A. (Bowes) That is correct.

13 Q. Okay. That request is dated July 27th of
14 this year. Has there been any response from
15 DOT at this point?

16 A. (Bowes) Yes, we -- want to clarify?

17 Q. And what was the response from DOT?

18 A. (Frazier) This is for the -- okay. Yeah, the
19 DOT accepted the condition.

20 Q. And just high level, this request is an
21 exception from the Utility Accommodation
22 Manual, which is a set of regulations for
23 utilities crossing state highways or state
24 roads. And this had to do with a setback

1 from existing highway structures?

2 A. (Plante) Correct.

3 A. (Bowes) Correct. So there was an existing
4 Utility Accommodation Manual to which the
5 project was designed to. It was since
6 updated. So we looked at what had changed
7 throughout the entire manual and how that
8 would apply to the project. We identified a
9 single location where we couldn't -- we
10 didn't have the existing rights and
11 constraints with the railroad to set back
12 from this bridge. So it's really a question
13 for future bridge replacement or maintenance.
14 And we would accommodate the DOT's wishes at
15 that time either with additional land rights
16 or with additional temporary structures,
17 whatever was needed for them to accomplish
18 their work. But as of today, we only have --
19 we don't have the full 50 feet. I think it's
20 24 feet, the distance away from the bridge
21 above.

22 Q. Thank you. Just to look at the map, this is
23 Applicant's Exhibit 148, which is an
24 environmental map. And this is Map 2. And

1 am I correct that this exception applies to
2 the Structure 107-9 that is on the south side
3 of Route 4 there?

4 A. (Bowes) Yes.

5 Q. And so the bridge -- the highway structure at
6 issue is the bridge over the railroad tracks
7 there?

8 A. (Bowes) Correct.

9 A. (Plante) Yes.

10 Q. And you said that that exception request had
11 been granted by DOT. Do you recall what
12 date?

13 A. (Frazier) So they sent an e-mail implying
14 that they will grant it when they issue their
15 final conditions.

16 Q. Okay. So we don't have an actual grant in
17 hand, but indication that it's coming.

18 A. (Frazier) Correct.

19 Q. Okay. Thank you.

20 All right. In addition to state roads,
21 there are municipal roads that are being
22 crossed; is that correct?

23 A. (Frazier) Yes.

24 A. (Plante) Yes.

1 Q. And those are shown in Applicant's Exhibit 93
2 at Page 3 of the PDF, what you're seeing on
3 the screen?

4 A. (Frazier) Yes.

5 Q. And as far as traffic control, it would be
6 the same approach as for everything other
7 than Spaulding Turnpike; is that fair?

8 A. (Frazier) Yes. Correct. For all the
9 overhead aerial.

10 Q. Correct. Yes, specific to aerial crossings.

11 A. (Frazier) Yeah.

12 Q. Associated with those crossings, how much --
13 is it anticipated that in any of those
14 crossings there will be a work zone within
15 the right-of-way of the road, in terms of
16 guard structures or otherwise?

17 A. (Plante) For the overhead crossings, yes, the
18 guard structures would potentially be within
19 the road right-of-way, depending on what the
20 slopes are on one side or the other, but
21 certainly out of the traveled way.

22 Q. Okay. So, no traffic control or flagging is
23 necessary, or anticipated to be necessary for
24 those work areas?

1 A. (Plante) It would be case by case. If it
2 were close enough to the traveled way, then
3 certainly we would have traffic control in
4 place. We would try to get them far enough
5 back to avoid that. If it was bucket trucks,
6 for instance, those would likely be close
7 enough to the traveled way that they would
8 need traffic control.

9 Q. Would you anticipate at any time a lane
10 restriction during that aerial crossing
11 maneuver?

12 A. (Plante) Typically, no.

13 Q. All right. And in addition to the aerial,
14 there are also some underground crossings in
15 municipal highways. The next Exhibit 93
16 appears to list just two, Gundalow Landing
17 and Nimble Hill Road; is that correct? Or is
18 that updated at this point?

19 A. (Plante) I think we're missing the Main
20 Street crossing.

21 Q. That was going to be my question, whether
22 that constituted an underground crossing or
23 something else because it's pipe jacking.

24 A. (Plante) I think we considered it an

1 underground crossing.

2 Q. Okay. And am I also correct that when
3 Gundalow Landing is referenced here, that
4 includes crossing of Little Bay Road?

5 A. (Frazier) Yes, but it should have been more
6 clear. It should actually say "Little Bay
7 Road."

8 Q. So, four underground municipal road
9 crossings, including Main Street in Durham.
10 Sounds like that's the consensus?

11 A. (Plante) Yeah.

12 Q. Okay. I want to take a look at the
13 particulars of the underground through
14 Durham. So, in Applicant's Exhibit 149,
15 which are the engineering design drawings --
16 let me back up for a second.

17 Am I correct that Applicant's
18 Exhibit 148 for environmental drawings and
19 149 for the engineering drawings, those are
20 the most current sets of plans that we have
21 for this project?

22 A. (Plante) Yes.

23 Q. Because there are some other ones that are
24 older --

1 A. (Plante) They're dated July 27, 2018.

2 Q. Okay. Make sure we're using the most
3 accurate pieces of -- all right.

4 So, starting at Page 18 of that
5 Applicant's Exhibit 149 is the detail for the
6 underground portions of Durham. And we start
7 on PDF Page 19, which I think has -- I can't
8 read it from here.

9 All right. And so I'd like to walk
10 through this briefly to understand the
11 different pieces of these engineering
12 drawings. We'll try to zoom in a little bit
13 so it's easier to see. All right. So,
14 starting on the left of the page, this would
15 be the transition structure from the overhead
16 portion of the Project coming down from
17 Madbury, going underground at --

18 A. (Plante) That's correct.

19 Q. -- at the Durham location in the A Lot
20 parking lot?

21 A. (Plante) Yes, that's correct.

22 Q. Okay. And then entering -- coming off the
23 riser structure, the cable goes down into a
24 trench; is that correct?

1 A. (Plante) That's correct.

2 Q. And the trench is shown down here as -- well,
3 maybe you can explain. This designation on
4 the bottom that says "10-foot radius," what
5 is that referencing?

6 A. (Plante) Yeah, so this portion of the drawing
7 is what we call the "profile version," so it
8 shows it vertically or vertical plane. The
9 10-foot radius is the reference to a bending
10 radius for the cables so that it's not too
11 tight, such that it would damage the
12 insulation.

13 Q. Okay. So that's the curve of the cable
14 coming down off the riser into the ground?

15 A. (Plante) And into the trench, yes.

16 Q. And how deep is the trench through here?

17 A. (Plante) Through here, it's 3-foot 5 inches
18 wide by 5-foot deep.

19 Q. Five-foot deep you said? Okay. I see a note
20 on here that the duct bank minimum cover is
21 30 inches.

22 A. (Plante) Yes.

23 Q. So 5 feet is the 30-inch cover plus the
24 height of the duct bank itself?

1 A. (Plante) Correct.

2 Q. And shown here are a couple of what I assume
3 are the water pipes referenced.

4 A. (Plante) Correct.

5 Q. And it says "size and depth unknown." Can
6 you explain where the information comes from
7 to identify that there is a pipe here and
8 why's there's no greater specificity to their
9 location?

10 A. (Plante) I can't explain exactly where it
11 came from, but it's probably from the Dig
12 Safe process that we had initially undertaken
13 so we know where it is. We just don't know
14 what the depth is because we didn't expose
15 it.

16 Q. And I assume, based on this, that the intent
17 is to go underneath those pipes?

18 A. (Plante) That's correct.

19 Q. And the trench is just dug by excavation --
20 by excavator?

21 A. (Plante) Yes.

22 Q. And is there shoring that goes into the
23 trench to maintain its opening during
24 installation?

1 A. (Plante) Depending whether it's sloped back
2 or not, it may or may not require excavation
3 bracing. And that's all dictated by OSHA
4 criteria.

5 Q. Okay. Thank you. And then in this case,
6 this Main Street crossing is proposed to be
7 done by pipe jacking; is that correct?

8 A. (Plante) Correct.

9 Q. Well, I won't try to characterize it. I'll
10 let you do it. Can you explain how pipe
11 jacking differs from other types of drilling
12 that is used to install cables underneath
13 other structures?

14 A. (Plante) Yeah, I'll try to give a CliffsNote
15 version.

16 So, in this location we're proposing
17 jack and bore method, where we would be
18 creating a pit on the north side of Main
19 Street to be designated as the jacking pit,
20 and the pit on the south side, which is a
21 little bit smaller, to be designated as the
22 receiving pit. We propose to use a
23 42-inch-diameter casing, which would be
24 delivered to the site in 10- or 20-foot

1 lengths. I can't remember which. And those
2 are placed in position for the alignment for
3 the tunnel, if you will, and pressed in. And
4 the inside of that casing is then reamed out
5 using mechanical methods. As the spoils are
6 removed, the casing gets pushed further in.
7 And the cycle repeats until it gets through
8 to the other side. As the casing gets near
9 the entrance, another piece of casing is
10 brought in, connected, and the process
11 continues.

12 Q. And I think this morning you testified that
13 there's a cutting head or some cutting edge
14 used for this, proposed in this location as
15 opposed to a ram?

16 A. (Plante) Yes. Yes, like a drill.

17 Q. Okay. So that the front edge of the pipe
18 casing is sharp and used to cut through the
19 ground? Can you explain how that operates?

20 A. (Plante) No. I think it's the cutting heads
21 that go inside it that actually create the
22 void for the casing to go to get pressed
23 into.

24 Q. Okay. And to force the casing through, is it

1 just a physical force?

2 A. (Plante) Hydraulic jack.

3 Q. Is that a noisy process?

4 A. (Plante) No.

5 Q. How does the hydraulic jack -- is it just
6 pushing continuously?

7 A. (Plante) Yeah, pushing with hydraulic
8 pressure. So there's a pump that would
9 create the hydraulic pressure.

10 Q. And is there much vibration impact from that
11 type of construction?

12 A. (Plante) Not from that portion. The actual
13 mechanical removal of the material that's
14 inside the bore could potentially have some
15 minor vibrations, yes.

16 Q. And I believe you testified earlier today
17 that the south side, so the receiving pit,
18 anticipates some blasting to --

19 A. (Plante) Yes. Not so much for the pit, but
20 for the cable trench that proceeds south from
21 the pit, because there is exposed ledge there
22 on the surface.

23 Q. Okay. Thank you.

24 And this pipe jacking process for this

1 location, I believe it's in testimony
2 somewhere, that that's a one- to two-month
3 process?

4 A. (Plante) Yes. We're working with a
5 constraint with the University to get it done
6 between the time frame between Commencement
7 and freshman move-in day of the following
8 academic year. And our contractors feel that
9 they can accomplish that.

10 Q. All right. Thank you.

11 And in the trench there is a duct bank
12 proposed to be placed in the bottom of the
13 trench; is that correct?

14 A. (Plante) Correct.

15 Q. And is this one of the details that shows how
16 that is constructed?

17 A. (Plante) It is.

18 Q. Okay. So if I understand you correctly,
19 these are spacers that hold the different
20 cables into configuration, and they're placed
21 periodically through the duct -- through the
22 trench to hold everything in place?

23 A. (Plante) That is correct.

24 Q. And it looks like they are about two and a

1 half feet tall?

2 A. (Plante) Yes.

3 Q. And there are three cables being placed in
4 this duct bank; is that correct?

5 A. (Plante) That's correct.

6 Q. How large are those cables for the
7 trenching -- the trenched, underground
8 portion?

9 A. (Plante) Hold on one second.

10 A. (Bowes) You mean mechanically large?

11 Q. Yes.

12 A. (Bowes) About 5 inches in diameter.

13 Q. And these are 8-inch HDPE conduits that fit
14 inside; is that correct?

15 A. (Bowes) Yes.

16 Q. All right. So, going a little bit farther
17 south, there are a number of stream crossings
18 throughout the project, some of which are in
19 the underground portion. And one example of
20 that is the College Brook crossing here in
21 Durham; is that correct?

22 A. (Plante) Yes.

23 Q. Okay. In order to go underneath -- well, let
24 me ask a different way.

1 For most stream crossings that are on
2 the underground portion, does the cable go
3 underneath the stream or just through the
4 stream? How is that set up?

5 A. (Plante) Under.

6 Q. Underneath. And to install it, does the
7 stream have to be diverted in all cases, or
8 is there another approach?

9 A. (Plante) I think it shows in this drawing
10 here a little bit our proposal there to
11 temporarily at least allow for the passage of
12 the stream flow during construction of the
13 trench.

14 Q. Okay.

15 A. (Plante) We're not proposing to detour, for
16 instance, the alignment of the stream during
17 construction.

18 Q. All right. Could you explain that a little
19 more?

20 A. (Plante) Proposing to provide provisions to
21 allow for the stream to continue in its
22 current alignment, I guess, for lack of a
23 better term.

24 Q. Okay. And is that through a conduit or

1 artificial --

2 A. (Plante) Yeah, a conduit or culvert.

3 Q. And then underneath which you placed the
4 cable?

5 A. (Plante) Yes.

6 Q. On the other side of Newington, you've got
7 some additional undergrounding sections, one
8 of which goes underneath a portion of
9 Gundalow Landing; is that correct?

10 A. (Plante) That's correct.

11 Q. So it crosses Gundalow Landing in two places,
12 and that's also by trench burial?

13 A. (Plante) Yes.

14 Q. And then again crosses Little Bay Road as it
15 comes out of Gundalow Landing?

16 A. (Plante) Yes.

17 Q. And for each of those, I assume the process
18 is simply to excavate a trench and put the
19 cable in and re-cover the trench.

20 Will there be plating in place
21 temporarily after the trench and cables are
22 installed?

23 A. (Plante) So the process would be done half of
24 a lane at a time to allow for traffic to

1 pass. The initial construction with
2 trenching would be to install the duct bank,
3 not the cable. So we would get half of the
4 duct bank done and get that backfilled and
5 then do the other half and get that
6 backfilled. We would provide plating or
7 whatever was necessary to maintain traffic.
8 And it's open over night, and we can
9 certainly plate that.

10 Q. The goal being to maintain one lane open at
11 all times --

12 A. (Plante) Yes.

13 Q. -- at least for Little Bay Road. Gundalow
14 may be a little different. In Gundalow, I
15 believe --

16 A. (Bowes) Yeah, to be clear, Gundalow will
17 still be available to all the residents all
18 the time.

19 Q. So, Gundalow you have different traffic
20 controls proposed to maintain access. But
21 you do have to close down at least some areas
22 for some of the construction; is that
23 correct?

24 A. (Plante) Yes.

1 Q. Okay. And I put on the screen Applicant's
2 Exhibit 93, PDF Page 31. It's the beginning,
3 I think, of the traffic control planning for
4 the Gundalow Landing section. And it shows
5 on the first page -- well, it shows through
6 several pages a phased approach. Is that a
7 fair representation?

8 A. (Frazier) Yes.

9 Q. Okay. And so Phase 1, looks like you have
10 one lane closed on the west side of Gundalow
11 Landing?

12 A. (Frazier) Yup.

13 Q. All right. And then Phase 2 appears to close
14 the entire southeast side of the loop; is
15 that correct?

16 A. (Frazier) So, Phase 1 and 2 are both shown on
17 the one you have up.

18 Q. Okay.

19 A. (Frazier) It's just each side of that
20 crossing portion. And then Phase 3 I think
21 is what you mean when you say closing the
22 entire southeast part of the loop.

23 Q. All right. Yes. So this is now Phase 3.
24 And during that Phase 3, the proposal is just

1 to route people around the loop to provide
2 access is; that fair?

3 A. (Frazier) Yup.

4 Q. About how long is it anticipated that that
5 detour will be in place?

6 A. (Plante) Good question. I'll have to dig
7 that out of the project schedule. I don't
8 know if the project schedule has enough
9 detail for that.

10 A. (Bowes) Yeah. So, in general, it's not
11 broken out in the project schedule yet.
12 Figure a hundred feet per day. This is just
13 several hundred feet. I would say one to two
14 weeks this activity will take place.

15 Q. Okay. And this section, if I pulled it up, I
16 believe the proposal is not to follow
17 precisely through the road the entire length,
18 but to come in and out of it?

19 A. (Plante) That's correct.

20 Q. Is it anticipated that that area will be
21 closed for the entire period of trenching
22 through that section, or could it be open for
23 some portions?

24 A. (Plante) Could you restate the question and

1 help me with where you're at, where you are
2 in the drawing?

3 Q. Sure. So the proposed closure of Gundalow
4 Landing stretches from the bottom of the loop
5 here on the left side of the page up to the
6 main entrance part. But the cable -- the
7 trench only appears to come into the roadway
8 at the northwest -- sorry -- northeast side
9 of that loop. Is it anticipated that that
10 stretch will be closed for the entire
11 trenching of that area for safety purposes or
12 otherwise?

13 A. (Bowes) I would say we would prefer to do
14 that just to keep the vehicles there as well.
15 We're not moving vehicles on and off this
16 section of road. Obviously we'll work with
17 the towns, as far as their requirements go.
18 But it's probably best to get in and out as
19 quickly as possible, and that would be
20 leaving the vehicles and conduit in place to
21 move through this very quickly.

22 Q. Okay. Thank you.

23 And so as the Project progresses out,
24 there's another lane closure, but not a

1 complete closure of the sort of neck of
2 Gundalow Landing; is that correct?

3 A. (Frazier) Correct.

4 Q. And then crossing Little Bay Road.

5 We talked a little bit earlier that
6 you'd do one half of the road first to keep
7 one lane open and then the other half.

8 A. (Frazier) Yes.

9 Q. Is that generally -- and that's all shown in
10 those pages in Applicant's 93.

11 In terms of the crossing of Little Bay
12 Road, can you give an estimate of the amount
13 of time that will take and whether there will
14 be traffic control?

15 A. (Plante) Yeah, obviously it's a two-stage
16 process. We'll probably be a couple days to
17 a week in each direction.

18 Q. Okay. So could be as much as two weeks.

19 A. (Plante) Could be two weeks.

20 Q. So, for the folks living in Gundalow Landing,
21 they can expect some kind of traffic control
22 for a period of several weeks?

23 A. (Plante) That's correct.

24 Q. More than a month or two or --

1 A. (Plante) Probably more than a month, but
2 probably not more than two.

3 Q. Thank you.

4 And then, again, moving along to the
5 east, there's a crossing proposed at Nimble
6 Hill Road as well; correct?

7 A. (Frazier) Yes.

8 Q. And for this, it appears there's a proposed
9 detour to close a portion of Old Post Road?

10 A. (Frazier) Yes.

11 Q. Okay. So the detour would be to have people
12 drive around Fox Point Road and Nimble Hill
13 Road; is that correct?

14 A. (Frazier) Yes.

15 Q. And again at this crossing, are we looking
16 similarly at a week or two for that closure
17 to be in place?

18 A. (Plante) Yes, that's correct.

19 Q. And Ms. Frazier, you prepared a traffic
20 analysis; is that correct?

21 A. (Frazier) Yes.

22 Q. And as part of that analysis, you were
23 looking at potential delays that would be
24 caused from construction through these

1 various portions of the project,
2 representative?

3 A. (Frazier) Yes, I did two locations. Little
4 Bay Road and Gundalow Landing, what we just
5 looked at, was one of them.

6 Q. Generally speaking, you performed traffic
7 counts to develop an understanding of the
8 current amount of traffic at each of those
9 locations --

10 A. (Frazier) Yes.

11 Q. -- and then estimated -- well, did you
12 estimate or measure the queue lengths and
13 delays at the current, existing conditions?

14 A. (Frazier) So we ran the analysis with the
15 existing traffic counts and conditions, and
16 then we calibrated it to what we saw when we
17 were actually up there counting.

18 Q. And for Little Bay and Gundalow Landing, you
19 designated the current, existing conditions
20 as a free-flowing condition.

21 A. (Frazier) Yes, based on the highway capacity
22 level of service definitions, yes.

23 Q. And based on this table, which is in
24 Applicant's Exhibit 141, which is your

1 supplemental testimony -- and this is at PDF
2 Page 13; it's an attachment to your
3 supplemental testimony -- it looks like
4 you've estimated a delay as people are
5 leaving Gundalow Landing at the stop sign
6 waiting to turn left or right?

7 A. (Frazier) Yes. So, existing conditions
8 today, this would be the average time a
9 vehicle could be expected to wait. And it's
10 during the AM peak hour, 2.3 seconds, and 2.7
11 seconds during PM peak hour.

12 Q. And then you conducted an analysis of what it
13 would look like during construction; is that
14 correct?

15 A. (Frazier) Yes.

16 Q. And that's shown on the same page at Table 4?

17 A. (Frazier) Yes.

18 Q. And to generalize greatly, it increased the
19 delays and the queuing length, but not so
20 much as to downgrade the intersection from
21 the free-flowing intersection?

22 A. (Frazier) Correct.

23 Q. And is it -- well, my understanding of what
24 your testimony is, is that this is a

1 representative example of all of the
2 different municipal road crossings.

3 A. (Frazier) The underground crossings where a
4 flagger will control alternating traffic.

5 Q. So your testimony is you don't anticipate any
6 greater or disproportionately greater delays
7 at other underground road crossings.

8 A. (Frazier) Correct.

9 Q. As part of your analysis, did you factor in
10 construction vehicles, such as flatbed trucks
11 bringing in structure pieces?

12 A. (Frazier) Yes, we did add in the estimated
13 number of construction vehicles arriving. In
14 the westbound overhead right-of-way, the ROW
15 in Table 4, those are all construction
16 vehicles actually coming off the overhead
17 right-of-way and turning into, with traffic,
18 using the flagger.

19 Q. What type of truck did you use in the
20 modeling?

21 A. (Frazier) So the analysis only has three
22 options for me: A passenger vehicle, a dump
23 truck or school bus-size, and tractor-trailer
24 trucks. So I believe we used all

1 tractor-trailer trucks to be conservative.

2 Q. Okay. And drill rigs and other heavier
3 equipment that might be accessing the
4 right-of-way through there, the access
5 points, you say that's a similar amount of
6 delay, or could it be a little greater than a
7 tractor-trailer truck?

8 A. (Frazier) More like a dump truck. So it
9 would probably be a little less.

10 Q. So you believe these estimates are the most
11 conservative?

12 A. (Frazier) Yes.

13 Q. And you did an analysis as well for the
14 proposed laydown area?

15 A. (Frazier) Correct.

16 Q. And that's accessing in and out of the
17 laydown area onto Route 4 in Lee; is that
18 correct?

19 A. (Frazier) We had Route 125 but --

20 Q. Sorry. Yes, Route 125. And the results of
21 that were similar, that there would not be a
22 significant impact?

23 A. (Frazier) Actual impacts to Route 125 were
24 not measurable. It's the traffic actually

1 using the laydown area will have to stop and
2 wait for the through traffic on Route 125.

3 Q. That's shown on Page 14 of Applicant's 141,
4 Table 6?

5 A. (Frazier) Yes.

6 Q. Are there any other locations of the project
7 that, in your opinion, deviate from those two
8 examples, in terms of traffic flows caused by
9 the Project?

10 A. (Frazier) I would say the detour for Nimble
11 Hill Road. But it's not something that we
12 can analyze so much as measure the worst-case
13 length of the detour and try to understand
14 the number of people affected.

15 Q. Okay. Thank you. In your testimony, you
16 referenced, on Page 3, Line 8, that you
17 anticipated a final decision from DOT -- wait
18 a second -- yeah, final decision from DOT by
19 the end of August. From your answer earlier,
20 I assume that hasn't happened yet?

21 A. (Frazier) No, but I think we're close.

22 Q. So, maybe in the next month?

23 A. (Frazier) I hope so.

24 Q. Mr. Bowes, I believe it's your testimony

1 which is Applicant's 140, I believe at
2 Page 9. You testified that part of the
3 Application -- or part of the Applicant's
4 request here is for permission through the
5 Site Evaluation Committee certificate to
6 construct portions of this project within the
7 municipally-maintained roads; is that
8 correct?

9 A. (Bowes) That is correct.

10 Q. And so you're asking the SEC rather than the
11 towns for that permission.

12 A. (Bowes) Correct. We believe that's within
13 their jurisdiction to do that.

14 Q. And we don't need to get into the legality.
15 I just wanted to make sure I understood what
16 the request was.

17 In engaging with the towns through the
18 MOU process, am I correct that that is not
19 attempted to address any municipal approval
20 of construction within municipally-controlled
21 roads?

22 A. (Bowes) Correct. We believe the SEC should
23 have jurisdiction for that. That said, we
24 have met with all four towns and have MOUs

1 either in draft form or final form. With
2 Madbury and Portsmouth, no need for an MOU to
3 deal with the use of local roads.

4 Q. Okay. Thank you. All right. We had some
5 testimony, I guess in August, about the
6 designations of the structures. And I just
7 want to go over it real quick one more time.

8 There are two different structure
9 numbers shown on these environmental maps for
10 each structure. One is the original
11 designation -- I believe that's the sort of
12 darker, black-outlined numbers -- and then
13 the yellow-outlined numbers represent the
14 current designation for the Project for each
15 structure?

16 A. (Plante) That's correct.

17 Q. Okay. And that's due to changes that were
18 made during the process of this proceeding --
19 or this Application?

20 A. (Plante) That's correct.

21 Q. Okay.

22 A. (Plante) And there is a table in front of the
23 supplement that does a cross-reference.

24 Q. That's where I was going next. So, on

1 Applicant's 149, at the beginning there's
2 this table that -- I can blow it up so you'll
3 be able to read -- shows the two different
4 numbers and the cross-reference table,
5 essentially?

6 A. (Plante) Correct.

7 Q. And in the current, updated design
8 drawings -- so this is Applicant's 149 -- the
9 structure numbers shown are the construction
10 numbers; is that correct?

11 A. (Plante) Yes --

12 Q. So the only --

13 A. (Plante) -- because the permitting structure
14 numbers are no longer representative of the
15 design because some numbers have been
16 eliminated.

17 Q. Okay. So the only place that the permitting
18 numbers appear is in the environmental maps
19 where they show both numbers?

20 A. (Plante) I think that's correct.

21 Q. And on the environmental maps, if we were --

22 A. (Plante) Excuse me. They may also be
23 referenced in the permit applications that
24 are part of the filing.

1 Q. Thank you for that clarification.

2 In the environmental maps, there's no
3 indication of structure heights; is that
4 correct?

5 A. (Plante) On the environmental maps, that's
6 correct.

7 Q. So in order to determine the height of a
8 particular structure, you'd have to go to the
9 design drawing maps and make sure you're
10 cross-referencing the correct numbered
11 structure --

12 A. (Plante) Yes.

13 Q. -- and that's where you find that
14 information. And structure heights are
15 listed down here on the bottom half of the
16 pages, at the top of each structure. Is
17 that --

18 A. (Plante) Yes.

19 Q. Okay. In discovery, you produced a list of
20 all the structures with the proposed
21 structure height. Do you recognize that?

22 A. (Plante) Yes.

23 Q. Just for reference, this is found in Counsel
24 for the Public Exhibit 7. It's in response

1 to Counsel for the Public Data Request 1, and
2 it has a listing of each structure and the
3 proposed height.

4 Am I correct that these are the
5 permitting numbers and not the construction
6 numbers? I believe these were produced in
7 2016. You can see the name of the files has
8 a date of 2016.

9 A. (Plante) Yeah, if it was produced in 2016,
10 it's probably permitting numbers versus the
11 current structure numbers.

12 Q. Thank you. So, using this, we'd have to use
13 the cross-reference table in Applicant's
14 Exhibit 149 to translate to the correct
15 construction numbers for each structure?

16 A. (Plante) Yeah, I think so. I mean, I'd have
17 to look at it close to verify that, but I
18 believe that's the case.

19 Q. Okay. Thank you.

20 On the engineering design drawings, the
21 top half of the drawing shows the mapped
22 location of each of the structures; is that
23 fair?

24 A. (Plante) Yes. That represents the plan view

1 of the corridor and the structure locations
2 identified, as well as other features.

3 Q. And then at the bottom it shows the profile
4 view of both the elevation of the land and
5 the height of the towers and conductors?

6 A. (Plante) Yes, it does.

7 Q. And the red lines are the actual conductors
8 that are energized?

9 A. (Plante) Yes.

10 Q. And the structure types for each of these
11 structures are listed in a chart at the back
12 of the table -- of the exhibit; is that
13 correct?

14 A. (Plante) Yes.

15 Q. And in order to correlate those, you have to
16 look at the designation of each structure
17 here? For example, Structure 4 got a
18 designation of ST-1. Is that the correct --

19 A. (Plante) Correct.

20 Q. And then you'd return to the back of the
21 exhibit, starting on Page 54, and find the
22 corresponding structure type?

23 A. (Plante) That's how you would do it, yes.

24 Q. Am I correct that the transition riser

1 monopoles that's been sort of a new addition
2 to the Project are not shown in these
3 drawings? I didn't see it, but I could be
4 wrong.

5 A. (Plante) Yeah, I think you're correct. I
6 think they're not shown here.

7 Q. Do we have in the record somewhere an
8 engineer-designed drawing for those
9 structures at this point?

10 A. (Plante) I'm not sure if it's in the record.
11 We have it. I'm not certain if it's actually
12 already in the record.

13 Q. Is that something that would typically be
14 updated and presented to the SEC at some
15 point during the proceedings?

16 A. (Plante) It certainly can be.

17 Q. Okay.

18 A. (Plante) In fact, the drawings that get
19 issued for construction would have that as
20 part of the final construction set.

21 Q. Okay. Thank you.

22 And in terms of structure heights, the
23 current distribution line that's in place
24 along the corridor, am I correct that the

1 existing heights are roughly 38 to 43 feet?

2 A. (Plante) That's correct. There could be some
3 variations where we cross over Madbury Road
4 and Route 4. However, the great majority are
5 in the 38- to 43-foot range.

6 Q. Okay. Thank you.

7 I wanted to take a quick look at Map 11
8 in Applicant's Exhibit 148 and specifically
9 look at Structure 53. Do you see that? I
10 can make it bigger.

11 A. (Plante) Yeah, I see it.

12 Q. It appears that that structure is surrounded
13 by stone walls, at least on three sides?

14 A. (Plante) Yes.

15 Q. To construct a structure that's in that kind
16 of location, what construction technique do
17 you use in order to access the pole and to
18 erect it without interfering with the stone
19 walls?

20 A. (Plante) So this is a direct-embed structure.
21 So the access here would be not necessarily
22 directly on top of it. We would have the
23 drilling equipment be able to reach inside
24 the boundary of the wall, if you will, to

1 excavate the hole. And then setting the
2 structure inside it also is reaching over.
3 So we wouldn't necessarily need to be
4 removing the stone wall to do the
5 construction. And I believe we agreed that
6 we would use mats to protect the walls in
7 this location.

8 Q. Okay. But your assumption is that you
9 wouldn't need to actually bring equipment in
10 to those walls; you could reach over the
11 walls to do the installation?

12 A. (Plante) Yes.

13 Q. And would it be correct to say there are a
14 number of places along the Project that have
15 somewhat unique challenges like that, that
16 you would have to overcome for stone walls or
17 other objects that are in the right-of-way?

18 A. (Plante) Yes.

19 Q. But you believe you can accomplish all those
20 as set forth in the plans?

21 A. (Plante) We do.

22 Q. On these environmental maps there's the
23 access roads shown with the dotted red line;
24 is that correct?

1 A. (Plante) Yes.

2 Q. And there are some that come from off the
3 corridor, but most of the access roads are
4 within the corridor; is that fair?

5 A. (Plante) Yes.

6 Q. Can you give us a sense of how much of the
7 within-corridor access roads are existing
8 today and how much are going to have to be
9 created?

10 A. (Plante) I'd have to make a guess on that.
11 So... 50 percent.

12 Q. Fair to say that there's not currently an
13 access road that's useable by construction
14 vehicles along the entire length of the
15 right-of-way?

16 A. (Plante) Not along the entire length, no.

17 Q. But there are segments where you can use --

18 A. (Plante) Yes. And we have been maintaining
19 this for decades for veg management and
20 normal line maintenance.

21 Q. So in some areas you'll be creating
22 essentially a new access road within the
23 right-of-way and other areas you may be
24 upgrading what's there.

1 A. (Plante) Yes.

2 Q. And that would be by laying gravel or
3 other --

4 A. (Plante) Yeah, laying gravel, laying mats, or
5 perhaps none of the above because the
6 existing conditions are suitable.

7 Q. And to the extent you are laying gravel or
8 upgrading to create access roads within the
9 right-of-way, is the proposal to remove all
10 those at the end of construction, or only in
11 certain locations?

12 A. (Plante) Only in certain locations. We
13 prefer to leave the hard-bottom access that
14 gets created and placed, to the extent that's
15 agreeable to everyone. We would certainly
16 restore, loam, seed and allow the area to
17 vegetate. However, our preference is to
18 leave the gravels in place.

19 Q. Okay. Thank you.

20 A. (Plante) Obviously, that doesn't apply to
21 wetland areas.

22 Q. Right. In the underground sections of the
23 Project -- for example, I'm showing you
24 Applicant's 148, Map 25, which shows the part

1 of the Frink Farm underground section and the
2 Hannah Lane underground section. The
3 environmental maps show two different access
4 roads paralleling each other. Is that what's
5 intended, or is that just a strange issue on
6 the maps?

7 A. (Plante) I'm not sure if that's what's
8 intended or if that's a typo.

9 Q. Because it appears in the other underground
10 sections as well as two parallel red lines.

11 A. (Plante) Yeah, I'm not sure if it's shown
12 that way to depict width of the cable
13 installation. I'd have to consult with our
14 mapping folks.

15 Q. Sitting here today, do you have any reason to
16 believe that you would need two parallel
17 access roads for the underground section?

18 A. (Plante) No.

19 Q. With regard to tree trimming and vegetative
20 clearing, on the environmental maps it's
21 shown in a light green stippling; is that
22 correct?

23 A. (Plante) Yes.

24 Q. Where I think it says "tree clearance"

1 specifically in the key, does that include
2 cutting vegetation that's shrubby or
3 lower-level vegetation?

4 A. (Plante) No. In general, our objective is to
5 remove the tall-growing vegetation that could
6 become a problem for the security of our
7 electric infrastructure and allow the
8 scrub-shrub-type growth to persist.

9 Q. Along the edges of the right-of-way where
10 clearing is proposed, are the trees proposed
11 to be limbed kind of straight up from the
12 edge of the right-of-way?

13 A. (Plante) Generally that's the method that's
14 employed, yes.

15 Q. So, any branch that's extending into the
16 right-of-way potentially is going to be
17 trimmed back.

18 A. (Plante) Potentially, yes.

19 Q. All right. I'd like to get back to our most
20 favorite subject, which is the Little Bay
21 crossing. There was some discussion earlier
22 about the cable, charted cable corridor
23 across Little Bay. And what I'm showing you
24 is a map that's attached to Mr. Wall's

1 amended prefiled testimony, which is
2 Applicant's 73. It appears at PDF Page 28.
3 And am I correct that these dotted lines show
4 the roughly thousand-foot-wide cable area
5 that's been designated within Little Bay?

6 A. (Wall) That's correct.

7 Q. Okay. Thank you. And do I understand
8 correctly that the underground -- or sorry --
9 the submarine portion of the Project is
10 proposed to be installed entirely within that
11 charted area?

12 A. (Wall) Correct.

13 Q. Can you, Mr. Wall, or anyone else, tell me
14 when this cable area was created?

15 A. (Bowes) So the records that we've been able
16 to find date back to some predecessor
17 companies. We believe it was created around
18 1902, with installation in 1906. The actual
19 records when the thousand-foot was created
20 are less certain. So we're not quite sure
21 what permitting was done in 1902 for this, if
22 there even was permitting. We do know the
23 first legal requirements the State of New
24 Hampshire had for crossing either state lands

1 or state waters didn't occur until 1921. So
2 that's the information we have.

3 Q. Okay. And this chart, I believe, well, may
4 not say it on the chart, but I think in the
5 testimony it's referenced as a NOAA chart; is
6 that correct?

7 A. (Wall) That's correct.

8 Q. The National Oceanographic and Atmospheric
9 Association. So that's a federal agency as
10 opposed to a state agency.

11 A. (Wall) Correct.

12 Q. Do we have an understanding of what rights
13 exist for using this cable area under either
14 federal or state law?

15 A. (Dodeman) There's no rights associated with
16 it. This is effectively a charted notice to
17 mariners that there's cables in the area. So
18 that would be like a no anchor zone, so
19 people know.

20 A. (Bowes) For this project, we have New
21 Hampshire PUC approval for a license to use
22 this corridor.

23 Q. Right. And that license is limited to the
24 proposed location of this project and not a

1 general license for use of the entire cable
2 corridor; is that fair?

3 A. (Bowes) So I would agree with that, the way
4 you stated it.

5 Q. Okay. Now, this map isn't perhaps the best,
6 but it does show what I believe to be some
7 water or channel depths. Am I correct that
8 these numbers that are shown in the center of
9 the channel represent rough depths?

10 A. (Dodeman) They're depths in feet, and they're
11 usually in reference to low low water or
12 astronomical low water.

13 Q. When you say "low low water," could you
14 explain what that is?

15 A. (Dodeman) In an area with essentially two
16 high tides and two low tides a day, low low
17 water is the lowest of the low tides that
18 occur in a day during a semidiurnal tide.

19 Q. Conversely, the highest high water would be
20 the highest of the high tides in a day?

21 A. (Dodeman) Correct.

22 Q. Okay. Thank you. So I think we established
23 before that there are these intertidal zones
24 or either side of Little Bay that are very

1 shallow; is that correct?

2 A. (Dodeman) Correct.

3 Q. And the intertidal zone on the west side is
4 much larger in extent than on the east side.

5 A. (Dodeman) That's also correct.

6 Q. And we have in the record from discovery some
7 environmental maps that have been updated to
8 show the depth of water at mean low low
9 water, and those appear in Counsel for the
10 Public Exhibit 7, at PDF Pages 111, I think
11 for three or four pages. And just for
12 additional reference there, Bates Stamp
13 CFP00367 through 369.

14 Am I correct, based on these maps, that
15 the depth in the tidal flats at low low water
16 is less than a foot?

17 A. (Dodeman) I think that's a safe assessment.

18 Q. And then that is true, it appears, based on
19 these maps, out a fairly significant distance
20 from the west shore, and then it drops down
21 into the channel. Is that --

22 A. (Dodeman) That's correct.

23 Q. And on the east shore it comes up pretty
24 quickly, and then you've got a relatively

1 small area of less than one foot mean low low
2 water depth.

3 A. (Dodeman) Also correct.

4 Q. And I think we've seen some photos through
5 this process that show at low tide
6 significant extents of the tidal flats are
7 essentially mud with some pockets of water.
8 Is that a fair representation?

9 A. (Dodeman) That's correct.

10 Q. Okay. So that's low low water. Do you have
11 an estimation of the depth of water at high
12 tide? I think there's a chart that might
13 help. So, in Applicant's Exhibit 125, PDF
14 Page 43, there's a chart of, I guess, the
15 tidal cycle.

16 A. (Dodeman) Yeah, that's the tidal range. So
17 it would go anywhere from plus four down to
18 minus three. So you'd see a tidal range of
19 probably six, six and a half feet.

20 Q. And when it says minus three, what's the
21 elevation of zero represent?

22 A. (Dodeman) Elevation of zero, I believe that
23 may represent slack tide, or the time in
24 between tides.

1 Q. So, minus three is not three feet below the
2 ground, it's three feet below some water
3 level.

4 A. (Dodeman) Below slack tide.

5 Q. Okay. So if we know that in the intertidal
6 zone at low tide we're essentially at zero,
7 at high tide we could be somewhere in the 6-
8 to 7-foot depth, is that reasonable?

9 A. (Dodeman) Not -- depends how far up shore
10 you're talking about. I mean, obviously it
11 goes up to the land level very quickly. But
12 on the west side it's very shallow for quite
13 a ways, and on the east side it's pretty
14 shallow for quite a ways.

15 Q. Do you have a sense of how deep the water is
16 in the work area that's proposed within the
17 tidal or intertidal zones at high tide?

18 A. (Dodeman) At high tide, I think we may have
19 been basing things on probably an average
20 tidal height 4 or 5 feet.

21 Q. And for the hand jetting that's going to be
22 conducted by divers, am I correct that in
23 order to do hand jetting, first of all, you
24 need to be in water?

1 A. (Dodeman) Actually, you don't necessarily
2 need to be in the water. We can have divers
3 doing hand jetting in knee-deep water. It
4 just depends on the pump, where the pump is
5 getting its water source from.

6 Q. So you need to have access to water, but it
7 doesn't have to be in the exact location.

8 A. (Dodeman) Correct. We can run hoses out into
9 the bay to pull water.

10 Q. Is it anticipated that the diver burial
11 that's proposed may involve divers who are
12 not submerged for some portion of the work?

13 A. (Dodeman) Yeah, you will see divers walking
14 up and down the beach that are not submerged.

15 Q. And I believe the proposal, if I remember
16 correctly, is four hours to either side of
17 the high tide?

18 A. (Dodeman) I believe that's correct. Yeah,
19 they're limited to the current associated
20 with the tide. To be safe, the divers can't
21 be getting, you know, blown off the work
22 area. So I think we approximated four hours.

23 Q. In the shallow areas of the western
24 intertidal zone, is there any reason that the

1 divers couldn't operate at lower tide, I
2 mean, basically walk around with the hand
3 jet?

4 A. (Dodeman) Yeah. I mean, hopefully the
5 mechanical excavation limits how much diver
6 burial there is. So the excavators can, "on
7 the dry," as we call it. When the tide is
8 out, the excavators are going to do the best
9 they can do to create the trench, and the
10 divers will only have to fill in the gap
11 between where the plow starts and where the
12 land trench ends.

13 Q. So let's take a look at that. I'm looking at
14 Applicant's 148, Map 20, PDF Page 21. And
15 this is the western shore land -- or shore of
16 Little Bay where the Project is proposed to
17 enter Little Bay. And you're just talking
18 about trenching "in the dry" to the extent
19 possible.

20 A. (Dodeman) To the extent possible. Correct.

21 Q. It appears on this map that that's not a
22 great distance. I would say maybe 60 or
23 75 feet, based on the scale.

24 A. (Dodeman) I think that's about right, yeah.

1 Q. Okay. And if I understand what you're
2 saying, that's based -- or that is conducted
3 by an excavator coming onto the shore and
4 reaching as far as it can. Or is there
5 timber matting or other proposals to use to
6 get farther out?

7 A. (Dodeman) I'd have to check my older
8 documentation or the plan. There may have
9 been a mention of some mattresses somewhere
10 or timber mats. But I think the excavators
11 may actually just run out onto the tidal
12 flats, too. I'd have to defer that to our
13 environmental group.

14 Q. Okay. So when it's referenced to be working
15 "in the dry," that means at low tide when the
16 water is out, not necessarily staying out of
17 the tidal flat itself?

18 A. (Dodeman) Correct.

19 Q. Okay. Once the trench is dug into the tidal
20 flat, the tides are going to come back in;
21 correct?

22 A. (Dodeman) That's correct.

23 Q. Is something done to maintain the trench as
24 an open trench during higher water?

1 A. (Dodeman) Not necessarily. There is going to
2 be a certain amount of accretion that occurs
3 on a tidal cycle, but the trench stays
4 relatively open. It may fill back slowly,
5 but the operators maintain that trench every
6 day that they need to, to make sure it's at
7 the proper depth before the next cable comes
8 in to be landed.

9 Q. Okay. Thank you.

10 So the time between digging that trench
11 on the edge of the shore and the actual jet
12 plow and connecting of the cables, if I
13 understand correctly, that's going to be over
14 a number of weeks?

15 A. (Dodeman) Again, the trench will be
16 maintained literally up until the barge shows
17 up on site. There will still be excavators
18 on site trying to keep the trench open. The
19 idea is to minimize diver burial where you
20 can.

21 Q. Right. Now, also shown on these maps is a
22 barge laydown area?

23 A. (Dodeman) Correct.

24 Q. And there's two -- let's see if it's better

1 on this. So, on Map 21, the barge laydown is
2 further out in the tidal flat, and on Map 20
3 there's a barge laydown area in the diver
4 burial section. Do I understand correctly
5 that that is a location where there are two
6 different barges, but the barge will sit --
7 it will float at high tide, but it will
8 actually sit on the bay floor at low tides?

9 A. (Dodeman) The barge will not be sitting on
10 the bay floor directly. The barge will be
11 brought into as shallow an area as it can
12 safely be floating. These barges are not
13 designed to touch bottom.

14 Q. Okay. There was reference in some of the
15 earlier Application materials to the barge
16 actually sitting on the bay floor.

17 A. (Dodeman) During the very beginning phases of
18 the Project, when Caldwell Marine was
19 involved, there was a difference in
20 engineering procedures. The Caldwell plan
21 which was put together by Troy Godfrey
22 originally actually had the nose of the
23 barge, you know, the shallow end of the
24 barge, possibly touching, where the Durocher,

1 or Kokosing plan, they would rather not have
2 the barge touching the bottom at all.

3 Q. So, for diver burial, they bring the barge in
4 at high tide and the divers do their work,
5 and when the tide starts to come down, they
6 remove the barge?

7 A. (Dodeman) Well, no. The diver burial is
8 going to occur with a different vessel. This
9 barge laydown area we're seeing is just in
10 terms of cable-laying operations and plowing
11 operations. Divers will be working inside of
12 a silt fence that's created around them with
13 a smaller dive boat. And that can be
14 something as small as a 26-foot skiff,
15 flat-bottom skiff.

16 Q. And that silt fence is this red line with the
17 Xs as shown on this --

18 A. (Bowes) I actually think it's orange.

19 A. (Dodeman) Yes. Yes, it is.

20 Q. Okay.

21 A. (Dodeman) So if the divers are working off of
22 the barge, the silt fence will go right out
23 around the end of the barge. If they're
24 working on smaller vessels or doing just some

1 dive work from land, et cetera, they will be
2 inside of the silt curtain closer in shore.

3 Q. But if I understand what you just said a
4 minute ago, the barge laydown area is not
5 actually a laydown, it's just a work area at
6 this point.

7 A. (Dodeman) It's a work area. And I believe
8 the reason we call it a "laydown area" is
9 because it may be holding station there when
10 it's not moving. When they're doing the plow
11 launching preparations, et cetera, it will be
12 sitting there on anchors.

13 Q. Okay. Thank you.

14 And for the second barge laydown area
15 that's shown, my understanding was originally
16 that that was for the jet plow operation.
17 But it sounds like the jet plow barge may
18 move all the way in to the diver burial area?

19 A. (Dodeman) As close as it can to shore, yes.

20 Q. Is this barge laydown area -- what does that
21 represent?

22 A. (Dodeman) To be perfectly honest with you,
23 I've lost track of what that represents
24 because that's an area where we should be

1 moving.

2 Q. Okay. With regard to the jet plow operation,
3 how much water depth does it require for a
4 jet plow to operate?

5 A. The jet plow itself can operate almost in the
6 dry. Again, they're limited to the water
7 intake for the pump that feeds water through
8 the plow. Those hoses can only be extended
9 for probably a maximum of 150 feet
10 comfortably. So, again, you're taking -- you
11 need water under the barge to get water to
12 the plow. The plow itself, we've actually
13 done projects where the plow was launched way
14 up shore and towed out on a winch while
15 operating.

16 Q. Is that an option in this case?

17 A. (Dodeman) It's not an option in this case
18 because it's too far in shore away from the
19 landing. And it's impossible to set the
20 barge up on the ledge on land because the
21 elevation changes are so great so quickly.

22 Q. So one of the big factors is getting the
23 barge in as close as you can to shore --

24 A. (Dodeman) Correct.

1 Q. -- and then you can leave the jet plow some
2 distance behind the barge, but not far enough
3 to get to shore.

4 A. (Dodeman) Correct.

5 Q. Conversely, how close can the jet plow be to
6 the barge?

7 A. (Dodeman) The jet plow can operate literally,
8 directly, probably within 20 feet of the back
9 of the barge. But during recovery times, the
10 plow can be recovered directly to the barge,
11 which means it can be working literally just
12 under the stern of the barge.

13 Q. So when you reach the eastern shore landing,
14 again you're limited as to how far the barge
15 can go towards shore --

16 A. (Dodeman) Correct.

17 Q. -- and then the plow can come essentially up
18 to the back of the barge.

19 A. (Dodeman) Correct.

20 Q. In terms of actual plowing operation -- I'll
21 pull up the diagram.

22 All right. So I'm showing you a
23 photograph from Mr. Wall's testimony,
24 Applicant's Exhibit 73, PDF Page 45. This is

1 a photograph of a jet sled; is that correct?

2 A. (Dodeman) Correct.

3 Q. And is this exact model going to be used, or
4 is it just a representative model?

5 A. (Dodeman) This is the exact model.

6 Q. Okay. If we go back up a page, sort of a
7 technical diagram I'll say, this kind of the
8 arm of the plow is what cuts down into the
9 sediment and lays the cable?

10 A. (Wall) Yes, that's called the "stinger."

11 Q. Okay. Thank you.

12 And if I understand how this operates
13 correctly, when you're starting the
14 operation, you lower the stinger to the
15 desired depth into the sediment and then
16 start pulling the plow?

17 A. (Dodeman) So before you lower the stinger or
18 the plow blade into the sediment, you have to
19 turn on the water pumps because the leading
20 edge has nozzles, water nozzles, that are
21 high-volume-designed water nozzles. For you
22 to rotate into the bottom, you need to turn
23 the bottom into essentially a fluid. You
24 demulsify the bottom, if you will.

1 Q. And so once you've done that, you're able to
2 drop the stinger into the sediment.

3 A. (Dodeman) That's correct. As you rotate the
4 stinger into the sea floor, you have to keep
5 moving while you're doing it. So as you're
6 moving forward, it takes about a hundred
7 feet, according to the Durocher calculations,
8 to rotate it to full depth.

9 Q. Okay. And then once you're down into the
10 full depth, what is the operation if you run
11 into something that's either heavier sediment
12 that are causing it to slow down or ledge?

13 A. (Dodeman) If you run into ledge, we operate
14 on, it's called a "reasonable endeavors
15 basis." If you run into ledge and you're
16 sitting there for long enough that you're no
17 longer getting any forward movement, then you
18 start rotating the plow blade up out of it
19 until you're over the ledge. Worst-case
20 scenario is you have exposed ledge where you
21 actually have to raise the blade all the way
22 and the cable to the surface. And in those
23 areas, then we do supplemental protection.

24 Q. Okay. And so it sounds like there could be

1 instances where the plow slows or even stops
2 temporarily while you're raising the stinger
3 or the blade up to get past an obstruction?

4 A. (Dodeman) That certainly can happen.

5 Q. And am I correct that the advance rate of the
6 plow varies depending on the substrate?

7 A. (Dodeman) It does. In a worst-case scenario,
8 we typically look at 150 meters per hour.

9 Q. Feet. I think feet is --

10 A. (Dodeman) Excuse me. It's 150 feet per hour.

11 Q. And that's an average.

12 A. (Dodeman) That's an average. Typically we
13 can move faster, which is ideal for everyone.
14 But in a worst-case scenario, we limit it to
15 probably 150 feet per hour. If we fall below
16 that progress rate, that's when we start
17 discussing raising the movement rate and
18 rotating the blade up.

19 Q. Now, as part of the process of crossing the
20 bay, the barge needs to be stabilized to pull
21 the plow; is that correct?

22 A. (Dodeman) The barge is motivated by an anchor
23 system.

24 Q. And am I correct that the anchor system has

1 to be moved periodically as the barge
2 progresses across the bay?

3 A. (Dodeman) That's correct, and that's done
4 with a support tug boat that's in the area at
5 all times.

6 Q. During that process, is the plow stopped?

7 A. (Dodeman) The plow does hold station during
8 anchor moves, yes.

9 Q. When the plow is stationary, does the jetting
10 need to continue, or is turned off?

11 A. (Dodeman) When the plow is stationary, the
12 jet pump or pumps are turned way down, but
13 you still keep positive pressure on the
14 nozzles so they're just idling.

15 Q. Okay. Thank you.

16 In order to advance as far as possible
17 into the eastern shore, is the goal to arrive
18 at high tide?

19 A. (Dodeman) That is the goal. But if we arrive
20 below that tidal range, then we do have to
21 hold station until we get more water under
22 the barge.

23 Q. So if you got there early, you would wait for
24 the tide cycle to come up.

1 A. (Dodeman) That's correct.

2 Q. And similar to the repositioning of the
3 anchor cables, I assume that the plow jetting
4 would be reduced to a minimum while you're
5 waiting; is that correct?

6 A. (Dodeman) That's correct.

7 Q. Okay. Thank you.

8 When the trenching is being done on the
9 shores -- sorry. When the trenching is being
10 done on the shores, is the trench -- I guess
11 the question is how wide is the trench. I
12 understand it starts out with, I assume, the
13 same width as the regular underground portion
14 of the cable, which is I think three and a
15 half feet wide. But then it's going to have
16 to spread out as the cables move to their
17 eventual 30-foot separation in the bay. So,
18 on the shore trenching portion, is this
19 trench getting wider as you move away from
20 the shore?

21 A. (Dodeman) It actually fans out once you hit
22 the water -- or excuse me -- once you hit
23 somewhere on the tidal flat. We're allowed
24 to move the cables close together in a single

1 trench up until that point.

2 Q. Okay. When you say "at the tidal flat," when
3 you hit sort of the -- I guess we're talking
4 doing this at low tide, so at the mean low
5 low water level?

6 A. (Dodeman) Maybe a little bit seaward of that.
7 If you look at the drawing, you're actually
8 looking at the land profile. And they start
9 to fan out while you're still on the tidal
10 flat, right on the edge.

11 Q. In this area at Station 398+34.99?

12 A. (Dodeman) I believe I'm looking at Station
13 397+00 is where they really start fanning out
14 significantly.

15 Q. Okay. So right in at the shore.

16 A. (Dodeman) Correct.

17 Q. But it looks like they don't get too wide
18 until farther out, close to Station 399.

19 A. (Dodeman) Correct.

20 Q. So as drawn here, there's sort of two
21 different inflexion points?

22 A. (Dodeman) Yes. And it's really the width
23 associated -- where they start getting really
24 wide, that's where we start being able to

1 launch the plow comfortably because the
2 plow -- the danger is plowing in an area
3 where you've already laid one cable is
4 hitting a cable that you just laid with the
5 second cable. So that's why we have to have
6 the distance. That's one of the construction
7 reasons why we have to have the distance
8 between the cables.

9 Q. Okay. Thank you.

10 In terms of diver burial, do I
11 understand correctly that the trenches are
12 wider for diver burial than for jet plowing?

13 A. (Dodeman) No, that's not necessarily the way
14 it works. So when a diver is burying with a
15 jet nozzle, it's literally a brass nozzle
16 with a backward-facing jet so that -- it's a
17 balanced nozzle. So there's water going into
18 the bottom and there's water coming back out,
19 which is where the turbidity comes from.
20 When they're doing that kind of trench, that
21 nozzle is actually being jammed into the
22 bottom in and around that cable and it's
23 being worked. So you never really see a
24 trench in the diver burial area where you

1 have tidal flow because it just kind of
2 collapses. You're just turning the bottom
3 into a fluid, and the cable sinks into that
4 fluid.

5 Q. So just like jet plowing, you're laying the
6 cable at the same time you're fluidizing the
7 bed.

8 A. (Dodeman) Yeah. When you're jet plowing,
9 it's simultaneous. When the divers are
10 working, the cable's in place sitting on the
11 bottom, and divers come and start working
12 that cable in with the jet nozzle.

13 Q. Okay. Thank you.

14 That process I believe is expected to
15 take about a month for hand jetting, is that
16 correct, on the western side?

17 A. (Dodeman) I believe that's what we have in
18 the schedule. It is a slow process.

19 Q. Is there any cable protection in place while
20 the cable is laying on the floor during hand
21 jetting?

22 A. (Dodeman) No. The cable itself has armor
23 wires around it that provide some protection.
24 And those armor wires are fine to protect the

1 cable while there's work crews in the area
2 acting as guard boats.

3 Q. Okay. Thank you.

4 And for this project, the proposal is to
5 use concrete mattresses where you can't
6 achieve a 42-inch burial?

7 A. (Dodeman) That's correct.

8 Q. And that 42-inch burial is dictated by the
9 National Electric Safety Code?

10 A. (Dodeman) That's also correct.

11 Q. And am I correct that concrete mattresses is
12 one form of supplemental protection that's
13 going to be used?

14 A. (Dodeman) That's a widely recognized
15 supplemental form of protection that covers
16 you for NERC code -- or N-E -- National
17 Electrical Safety Code.

18 Q. But it's not the only protective measure
19 that's possible; is that correct?

20 A. (Dodeman) It's not the only measure that's
21 possible. In this case, it's the only
22 measure that's possible that allows us to
23 maintain ampacity.

24 Q. I'll come back to that in a minute. First I

1 want to talk about the mattresses
2 specifically.

3 These are 8-foot-by-20-foot mattresses
4 of concrete --

5 A. (Dodeman) About 9 inches --

6 Q. -- 9 inches tall. And they weigh roughly
7 8,000 pounds?

8 A. (Dodeman) I believe that's correct as well.

9 Q. Okay. As shown on this drawing, and based on
10 the testimony, I believe the proposal is to
11 lay a single mattress on top of each cable?

12 A. (Dodeman) There are several mattresses that
13 are slightly overlapped over each other.

14 Q. So at the beginning of this section going
15 into the bay, the cables are closer together.
16 And I think you just said the mattresses will
17 overlap to some extent?

18 A. (Dodeman) Yes.

19 Q. So, if each are 9 inches tall, they'll be
20 essentially 18 inches?

21 A. (Dodeman) Correct.

22 Q. And then as far as the cable itself, I
23 believe the cable's around 5 inches in
24 diameter?

1 A. (Dodeman) Correct.

2 Q. And I think there's a drawing.

3 A. (Dodeman) There is a minimum spacing that we
4 use, too, inside that trench.

5 Q. The mattresses go on top of the cable. And I
6 believe there's a drawing showing sandbags
7 placed to either side of the cable to protect
8 it from the mattress. Is that to create a
9 space?

10 (Pause in proceedings)

11 Q. This is Applicant's 149, and it's PDF Page
12 32. And in the bottom right-hand corner
13 there's a detailed cross-section for the
14 concrete mattresses. It appears to show the
15 cable in the center with the sandbags to
16 either side underneath the mattress?

17 A. (Dodeman) That's what is depicted in the
18 drawing, yes. I'm not sure if sandbags are
19 planned to actually be used or if that's just
20 an area where the bottom is non-conformal.
21 I'm not sure if we're going to use sandbags
22 along every part of the route that has
23 mattresses.

24 Q. Okay. Is there a need for some cushioning

1 for the cable so that an 8,000-pound mattress
2 doesn't hurt it?

3 A. (Dodeman) No. No, these mattresses are
4 designed for this type of cable.

5 Q. But will there at least be a small bulge in
6 the mattress where the cable is --

7 A. (Dodeman) Certainly, unless the cable is
8 hopefully partially buried at least. Ideally
9 you want the mattresses to sit very flat on
10 the bottom.

11 Q. And so, then, do I take it that the goal
12 would be to bury the cable as far as you can
13 and then place a mattress over it if it
14 didn't achieve the 42-inch depth?

15 A. (Dodeman) That's correct. So what we do when
16 we're laying -- when you're laying a cable
17 through a jet plow, the jet plow is very
18 heavily instrumented. So we have a very good
19 idea of where the cable's final burial depth
20 is. So we keep a log of that during the
21 whole entire cable lay until we stop. We
22 analyze the log and then look at the burial
23 depths that were achieved, and that's when we
24 can go back and see where we need to put

1 mattresses where we didn't achieve the
2 42-inch coverage.

3 Q. And is there similar data logging for hand
4 jetting, or is that --

5 A. Hand jetting is typically just verified with
6 a diver's probe, which is just literally a
7 gauge that they push into the bottom and
8 touch the cable with it.

9 Q. Okay. Thank you.

10 So as we sit today, we don't know
11 exactly how deep we'll be able to get the
12 cable in any particular location. So that
13 means we also don't know exactly where
14 concrete mattresses will be required or what
15 sort of configuration they may be; is that
16 correct?

17 A. (Dodeman) That is correct. So the mattress
18 numbers and lineal-feet coverage shown in the
19 drawings is what we have evaluated as a
20 realistic scenario, but definitely based on
21 conservative estimates.

22 Q. And that conservative estimate has changed,
23 though, during the course of this project to
24 date. I believe it was originally estimated

1 at the 5,000 square-foot range and bumped up
2 to 8,000 and change?

3 A. (Dodeman) That's correct. And I know there's
4 a difference in numbers between one or two of
5 these reports that have been submitted.

6 A. (Bowes) On that note, there was I believe a
7 typographical error in the first DES response
8 to the Company. I think the number's been
9 fairly consistent, around 8600. We brought
10 that to their attention, and they
11 subsequently corrected the data error they
12 had.

13 Q. And that's part of the recent filing by DES
14 in response to the April 27th letter?

15 A. (Bowes) Correct. So I think the Company's
16 position has been unchanged, but we did go
17 through a process with the DES to make sure
18 it was consistent with what we originally
19 filed.

20 Q. Okay. Thank you.

21 As part of the Project, there was a
22 survey, a marine survey report done by
23 Durocher in 2017. Do you recall that?

24 A. (Dodeman) Yes. I believe they subcontracted

1 that out to OSI.

2 Q. And this appears in Applicant's 125, starting
3 at PDF Page 15. And based on the text, it
4 appears that this was conducted using a steel
5 rod and/or a water jet probe to test depths
6 that could be achievable?

7 A. (Dodeman) Correct.

8 Q. And I think I understand that this was done
9 across the entire channel in samples, not
10 every location.

11 A. (Bowes) I think there were a dozen locations
12 or so. I think that's what's shown here.

13 Q. We could take a quick look. The first probe
14 logs I believe are shown in these red -- the
15 locations I believe are shown in the red
16 designations, and they appear to cross the
17 entire bay as we scroll through these maps,
18 which is PDF Pages 19 through 21. And then
19 there's subsequent, more detailed testing
20 along each shore, I believe, which is shown
21 on the second set of logs. Well, we'll get
22 to that in a second.

23 So, starting on Page 24 of this exhibit,
24 there are -- this is a survey report I guess

1 we'll call it. If I understand correctly,
2 this is showing the depths for each of the
3 probes and indicating in color coding where
4 there were issues. So green was, great, we
5 could get to 8 feet; orange,
6 yellowish-orange, was 4 feet or less; and red
7 was little or no penetration. And it appears
8 in this first set of logs that there are only
9 a couple of trouble spots, one being at
10 Station 429+71, and another being at Station
11 437+13.

12 Do I understand correctly that those two
13 locations are shown on the environmental maps
14 as these small concrete mattresses proposed
15 in the mid-channel? Probably easier to see
16 on the other map.

17 A. (Dodeman) I think that's correct. I'm not
18 sure if those mattress locations are based on
19 original, older survey data or the Durocher
20 data.

21 Q. So, for example, Applicant's Exhibit 149, PDF
22 Page 28, there's a mattress shown at Station
23 437, which I believe corresponds to this
24 NPL-10 location in the probe logs, which is

1 also Station 437?

2 A. (Dodeman) There was -- I misspoke before when
3 I said Durocher subcontracted OSI. There was
4 an OSI survey done, which is a remote survey
5 which is done with side-scan sonar,
6 sub-bottom profiler and magnetometer. That
7 is called a "remote sensing survey." And you
8 get some idea of how tough the bottom is
9 using that equipment.

10 The probe survey is an actual invasive
11 survey where Durocher went in, stuck a diver
12 in the water with either a jet lance or piece
13 of rebar, half-inch rebar, to see how deep
14 they can stab it in the bottom.

15 The drawings that you're referencing
16 now, I'm not sure if these mattresses,
17 potential mattress locations, were based on
18 the probe survey or the OSI survey.

19 Q. Thank you.

20 And in terms of this particular location
21 in the Durocher survey -- again, it's
22 Applicant's 125, PDF Page 26 -- this one
23 appears to be a jet probe. And you just used
24 the term "jet lance"?

1 A. (Dodeman) Same, same.

2 Q. It's essentially just a hand jet?

3 A. (Dodeman) It's essentially a piece of pipe
4 with a hose at the end of it, and a diver
5 stabs it into the bottom. And they run water
6 through it for the same exact reason, to
7 fluidize the bottom to see how deep they can
8 get it.

9 Q. Is the jet probe or lance going to give you a
10 more accurate representation of how the jet
11 plow might do in that location than rebar?

12 A. (Dodeman) It may. However, due to the lack
13 of volume of water in a jet lance, you don't
14 know. A jet lance can stop on a cobblestone
15 if it's 3 feet down, where a jet plow uses a
16 much higher volume of water and the
17 cobblestones would tend to fall out.

18 Q. Would it be accurate to say that it's likely
19 that the jet plow would be able to achieve
20 more depth than the jet probe?

21 A. (Dodeman) Yes.

22 Q. So these would be conservative --

23 A. (Dodeman) Yes. Everything that we're doing
24 in terms of coming up with where mattresses

1 have to be put, or may likely be put, was the
2 result of doing the study of permanent
3 impacts, which is significant. Obviously
4 it's a huge portion of what the DES is
5 concerned with is permanent impacts. In
6 light of that, that's why we have to be so
7 conservative with the mattress numbers.

8 Q. Okay. Thank you.

9 Moving further down this exhibit, this
10 probe report, there's a second set of probes
11 that were done in the shores. So this, I
12 believe, on PDF Page 29 of Exhibit 125, shows
13 the west probe logs. So that would be the
14 western tidal flats. And based on the
15 station numbers, these are fairly close
16 together; is that correct?

17 A. (Dodeman) Yes, they are.

18 Q. What's the distance between 396 and 397?

19 A. (Dodeman) Some of them are 5 feet, some are
20 10 feet.

21 Q. These are all feet, the plus --

22 A. (Dodeman) Yes.

23 Q. And the penetration depth shown in the column
24 fourth from the right, it appears that you

1 don't achieve 42 inches until approximately,
2 well, until exactly Station 397+81.

3 Is that the basis -- would it be
4 reasonable to say that these probe logs
5 support the extent of concrete mattresses
6 shown in the plans?

7 A. (Dodeman) Yes, certainly they support that.

8 Q. And these probe logs go on for a few pages.
9 There's a log for the north, the center and
10 the south cable location.

11 A. (Dodeman) Correct.

12 Q. And then the same thing on the eastern side,
13 northeast, center east, southeast.

14 And these were done in 2017, so these
15 are relatively recent?

16 A. (Dodeman) Correct.

17 Q. So, looking at the northwest cable location,
18 if there's 6 inches of penetration depth
19 basically at the shoreline, is it your
20 anticipation that the cable would be able to
21 be buried at least 6 inches there?

22 A. (Dodeman) My anticipation is that an
23 excavator, when it shows up on site, is going
24 to be able to get deeper than that. Again,

1 when they're talking about using a probe
2 here, this is literally a piece of rebar with
3 a guy pushing on it. So, hopefully knowing
4 that cables have been buried on this
5 shoreline before, hopefully some bigger
6 excavation machinery can do better than that.

7 Q. Forgot about the trench. Sorry.

8 Do you know how far out you're
9 anticipating trenching?

10 A. (Dodeman) I can't say for sure. I don't know
11 what's represented on the drawings. But the
12 idea is to get the excavators to do their job
13 as far out as they can in the dry while
14 working low tides.

15 Q. Okay. So if the tide line is at 396+80, if
16 you were able to get out 45 feet, you'd be
17 out to probe Location 5, 50 feet, 6.

18 A. (Dodeman) Correct.

19 Q. So it's possible that the trenching could get
20 almost all the way out to where the 42-inch
21 burial is indicated as possible here?

22 A. (Dodeman) Correct. And that's our hope as
23 well.

24 A. (Bowes) I think in one of the previous charts

1 we showed an estimate, your question, about
2 60 feet or so. So we'd certainly hope to
3 get, you know, all the way out to 74 feet.

4 Q. So if you were able to do that, would that
5 eliminate the need for concrete mattresses on
6 this one cable on the western shore?

7 A. (Dodeman) Yes, certainly on the one cable,
8 but hopefully for all three. But the goal
9 is, if 42 inches is achieved over the top of
10 the cable, which means we have to dig a
11 little bit deeper because the burial depth of
12 42 inches is at the top of the cable, which
13 is about 5 inches around, so we have to get a
14 little deeper than that.

15 Q. Earlier you made a comment about alternative
16 means of supplemental protection being not
17 feasible. In this exhibit, actually, there's
18 a discussion on Page 7, PDF Page 7, which is
19 actually Page 3 of the report, about
20 alternatives, and that included trenching
21 further into the tidal flats, which sounds
22 like you go as far as you can.

23 A. (Dodeman) Correct.

24 Q. Blasting and split pipes are discussed.

1 A. (Dodeman) Correct.

2 Q. I'm not going to go into blasting because it
3 seems like an inappropriate thing to do in
4 the bay. But in terms of split pipes,
5 according to the testimony here, they require
6 a 1-foot burial.

7 A. (Dodeman) That's correct. But I could
8 explain very quickly why split pipes can't be
9 used on this system.

10 Q. Right. You mentioned earlier that ampacity
11 would be a concern.

12 A. (Dodeman) Yeah. Any metallic ring structure
13 around this type of cable causes a loss of
14 ampacity. You cannot put any metallic ring
15 structure around any of the cables.

16 Q. And why wasn't ampacity one of the reasons
17 that were given for rejecting split pipes in
18 this report, which is the Little Bay Impact
19 Assessment report? It wasn't your report
20 but --

21 A. (Dodeman) Probably because it was put
22 together by environmental people and not
23 construction people. Short answer.

24 Q. Fair enough. I can ask the environmental

1 people.

2 A. (Bowes) Yeah, I would say, to add to that, is
3 it has been used successfully on Eversource
4 projects in the past. It's certainly
5 something to consider. When we ran the
6 calculations as an option, it was our
7 preferred option, but unfortunately we just
8 can't seem to make the math work in this
9 case. This is a very high-capacity cable in
10 comparison to the ones where we used split
11 pipe before. About three or four times the
12 ampacity is needed for the circuit than what
13 we've done in the past. It's really just
14 unfortunately a mathematical, ampacity
15 limitation. Obviously, it would be easier to
16 accomplish, much less hand jetting as well,
17 but it just isn't available to us.

18 Q. Thank you.

19 In terms of excavating further into the
20 bay to try to get past the shallow
21 penetration areas, what are the limitations
22 from a construction feasibility standpoint
23 for doing that?

24 A. (Dodeman) We are not allowed to take an

1 excavator into the water. On other projects
2 in other states I've seen excavators working
3 with the tracks underwater. Literally, the
4 cap is the only thing sticking out. Here
5 we're not allowed to do that.

6 Q. And is that based on DES regulations?

7 A. (Dodeman) My understanding of the DES
8 regulations, correct.

9 Q. Is there any alternative for essentially a
10 barged excavator, putting that onto a
11 floating platform?

12 A. (Dodeman) Again, we're in an area where even
13 a small construction barge with an excavator
14 on it is probably going to draw somewhere
15 between 4 and 6 feet of water. So that puts
16 us out of reach.

17 Q. And are there larger excavators with a larger
18 reach that could be -- have you looked at
19 that alternative?

20 A. (Dodeman) I think we're going to be using as
21 large of an excavator as we can get into the
22 work area.

23 Q. Okay. Thank you.

24 There was some reference in some of the

1 early Application materials about the cable
2 giving off heat. And my understanding is
3 that if it's buried at 42 inches, it's not
4 going to be an issue. But if it's unable to
5 be buried at a sufficient depth, perhaps as
6 little as 6 inches near shore, will the cable
7 heat up the sediment or heat up the water?
8 Is that something that's been looked at?

9 A. (Bowes) It's certainly not going to cause
10 difficulty for the cable itself. The area
11 directly around the cable, there'd probably
12 be some nominal amount of heating, probably
13 very similar to what you'd see with a cable
14 underground cable on land. I mean, there's
15 minimal impacts that usually dissipate within
16 a couple feet. In this case, you have water
17 as a source to sink the heat away. It's
18 probably going to be less of an impact than
19 it would be on land.

20 Q. And there's no suggestion to using any kind
21 of thermal backfill to protect it.

22 A. (Bowes) Not in -- no.

23 Q. Not in the sea.

24 A. (Bowes) No.

1 Q. Okay. Thank you.

2 A. (Bowes) Just to be clear, it's normally when
3 you go deeper on land is when you have the
4 thermal constraint, not close to the surface.

5 Q. Right. We had a little bit of testimony
6 earlier this morning about the manhole or
7 splice vault that's proposed on the eastern
8 shore. And am I correct that this is 32 feet
9 long and 10 feet wide?

10 A. (Dodeman) Yeah. I believe there's a drawing
11 that's been submitted for that. I believe
12 that's correct, 35 by 10.

13 Q. Okay. Thank you. And those drawings appear,
14 I believe, in Applicant's Exhibit 149, at PDF
15 Pages 33 and 34.

16 Installation of that -- and I think you
17 testified earlier that it was 12 feet deep
18 that is buried. Installation requires a
19 fairly large crane to drop that in?

20 A. (Bowes) Yes. I think we're looking at
21 multiple pieces for this vault as well to
22 limit the need for a very, very large crane.

23 Q. Roughly how long does it take to install?

24 A. (Bowes) I would say I would plan on an

1 evolution of mobilizing equipment on Monday,
2 begin excavating. Probably by midweek you'll
3 be bringing in pieces of the vault, probably
4 be backfilling on that Saturday. So,
5 probably about a week. I mean, obviously if
6 we get into ledge or rock it could extend it
7 a few days. But one to two weeks probably is
8 typical.

9 Q. Fairly involved process for that piece.

10 A. (Bowes) Yes. I would say so, yeah.

11 Q. Okay. Thank you.

12 I want to turn briefly to the HDD review
13 that was done. And I'll summarize.

14 You did two different analyses, one for
15 crossing of the entire bay in a single bore
16 and then another analysis looking at a shore
17 landing approach on both shores where you
18 would HDD drill out into the deeper part of
19 the bay and then emerge into a jet plow. Is
20 that roughly a fair summary?

21 A. (Strater) We did.

22 Q. Okay. Thank you.

23 And the conclusion was essentially it
24 would be much more expensive. Both scenarios

1 were much more expensive and had
2 significantly more land-side impacts, is that
3 fair?

4 A. (Strater) Among other things. Definitely
5 more land-side impacts, more expensive, more
6 time-consuming, more construction risks.

7 Q. And one of the reasons that the shore landing
8 approach was both expensive and had land-side
9 impacts was the distance that was proposed?

10 A. (Strater) The distance and the subsurface
11 conditions, both of them would involve
12 drilling in rock.

13 Q. And through the tech sessions, I believe I
14 understand that to do a shorter HDD was not
15 deemed feasible because you couldn't get
16 equipment into the shallow tidal areas; is
17 that correct?

18 A. (Strater) One of the limiting factors
19 controlling the geometry was the location of
20 the exit point, which would be controlled by
21 where we could get a barge -- the point being
22 that you need sufficient depth of water for
23 that barge to be accessible by boat so that
24 you're not stranding the construction crew in

1 the event of an accident. You need to be
2 able to evacuate.

3 Q. And is it correct that the difference between
4 the jet plow barge which will operate in the
5 shallow waters and the construction barge is
6 that the jet plow barge could get out of the
7 area for low tides?

8 A. (Strater) I can speak to the construction
9 barge for directional drilling. It needs to
10 be -- sorry. If we're assuming a barge with
11 legs or with spuds, lower to the bottom, they
12 need to be stable. You don't want that in
13 the intertidal zone. You don't want the
14 water moving, to be eroding beneath the legs
15 of the barge, if you will. So you want it to
16 be fairly static.

17 Q. Okay.

18 A. You also don't want it -- for the sake of any
19 fixed point -- at the end of the drill, you
20 don't want that barge to move at all once
21 they start connecting to it.

22 Q. Okay. And so for those reasons you propose
23 shore landing approaches that went all the
24 way past the intertidal areas into the deeper

1 water.

2 A. (Strater) Correct. I believe we had a
3 minimum water depth of about 10, 10 to
4 12 feet, for that purpose.

5 Q. Okay. And I believe, though you modeled
6 doing both shore landings, you could do one
7 or the other by themselves; correct?

8 A. (Strater) Yes.

9 Q. And that's all summarized in the report that
10 was filed as Appendix 133.

11 A. (Strater) Yes.

12 Q. And at this point the Applicant's proposal
13 remains to do the jet plowing approach and
14 not to consider HDD; correct?

15 A. (Bowes) Yes, it does. We really looked at --
16 Nick mentioned some of the factors. It's
17 really based upon the construction risk, and
18 was it a project that we could be comfortably
19 permitting, siting and then going forward and
20 constructing. We're just very concerned that
21 we would not be successful with HDD
22 operations and it would lead us back to, you
23 know, where we are, or some other alternative
24 that couldn't be supported.

1 We also had some permitting concerns.
2 The Army Corps did not support it. So,
3 though not necessarily for this project, it
4 certainly sets the stage with us going head
5 to head with an agency that we would prefer
6 not to unless there's good reason to. We
7 already had the permit from DES.

8 And Nick mentioned the final thing, that
9 obviously the cost was significantly more
10 than the total project cost for this. It
11 more than doubled the total project cost,
12 which would be an impact to ratepayers.

13 MR. IACOPINO: You said Appendix 133.
14 You meant Exhibit 133?

15 MR. ASLIN: Yes. Sorry. Applicant's
16 133.

17 A. (Bowes) So the final factor being cost and
18 the concern about how those costs would be
19 allocated.

20 Q. Okay. Thank you.

21 I want to turn briefly to the issue of
22 property rights, and more specifically to
23 those portions of the Project where new
24 rights have been acquired or under contract.

1 If I understand you correctly, there are
2 maybe a half-dozen parts of the Project that
3 required some acquisition of new rights, and
4 I want to kind of walk through it to
5 understand where those are.

6 If I have it correct, the first area,
7 starting from the west in Madbury, the
8 Applicants obtained an additional easement
9 area parallel to their current right-of-way
10 along the railroad section in Durham?

11 A. (Bowes) That is correct.

12 Q. And that's a 25-foot-wide additional
13 easement?

14 A. (Bowes) Yes.

15 Q. Is that easement already purchased or is that
16 under contract?

17 A. (Plante) It's already purchased.

18 A. (Bowes) We believe that first segment has
19 already been acquired. It may also have been
20 a purchase of a property there, too.

21 A. (Plante) Yes.

22 Q. Oh, in Madbury you mean?

23 A. (Bowes) Correct.

24 Q. So, to that point, the Madbury property that

1 was purchased, is that this parcel shown on
2 Applicant's Exhibit 148, Map 1, Parcel 104,
3 labeled "Public Service Company of New
4 Hampshire"?

5 A. (Plante) Yes.

6 A. (Bowes) Yes, that's the one.

7 Q. Moving to Map 2, can you give me an
8 approximate location of where the 25-foot
9 additional easement starts?

10 A. (Plante) Starts at the south side of Route 4
11 and continues all the way down to the UNH
12 residential area.

13 Q. Okay.

14 A. (Bowes) That section is also identified on
15 the construction map, the plan profile.

16 Q. Oh, as an additional right-of-way?

17 A. (Bowes) Yeah, it shows it.

18 Q. Okay. Thank you.

19 And Mr. Plante, you said that that's
20 been acquired. Do you know approximately
21 when that was acquired?

22 A. (Plante) I don't have the date off the top of
23 my head.

24 Q. Was it since the Application was filed or

1 before the Application?

2 A. (Plante) I think before.

3 Q. Okay. Thank you.

4 I believe the next section would be the
5 underground rights through UNH campus that
6 starts on Page 5 of the environmental maps.
7 Am I correct that those are new rights
8 acquired by the Applicant or are under
9 contract to be acquired?

10 A. (Bowes) I believe the latter, under contract
11 to be acquired.

12 Q. And that extends all the way from the A lot
13 area where it transitions to underground,
14 through Map 5 and Map 6 to where it comes
15 back above ground?

16 A. (Bowes) In essence, where the transmission
17 is -- sorry -- transition structure is.

18 Q. Okay. And you said that is under contract.
19 It has not actually been acquired at this
20 point.

21 A. (Bowes) Correct.

22 Q. Is that stretch of the Project currently a
23 PSNH overhead right-of-way, or is it just a
24 UNH distribution line there?

1 A. (Plante) It's a Eversource overhead corridor,
2 and there is some UNH electric facility
3 within there as well.

4 Q. So it's both.

5 I believe, if I am correct, the next new
6 rights that were acquired were at the shore
7 of Little Bay on the Durham side where you
8 acquired the Getchell property?

9 A. (Plante) Correct.

10 Q. And since you own it, you don't need any
11 additional underground rights; correct?

12 A. (Bowes) We would ultimately place an easement
13 on that property for underground and overhead
14 rights.

15 Q. So that's on Map 20. And then the next
16 section would be on the other side of Little
17 Bay. We had some testimony about this
18 earlier, on Map 22, you have a newer easement
19 through the Beswick property at Gundalow
20 Landing.

21 A. (Bowes) It's actually an option for an
22 easement, but yes.

23 Q. Okay. And then, in addition to that, I
24 believe the testimony is that you acquired

1 some additional rights from other landowners
2 within Gundalow Landing to extend the
3 underground section off of the roadway and
4 through private property?

5 A. (Bowes) Correct. All the way out to the
6 road, to the cross street.

7 Q. And those rights are also options or --

8 A. (Bowes) Those are option agreements.

9 Q. Okay. And then across Little Bay Road to
10 avoid the Flynn Pit vernal pool, I believe
11 there was an exchange of easements with the
12 Town; is that correct?

13 A. (Bowes) I believe that's correct, yes.

14 Q. And so am I correct that the original
15 easement ran more or less straight across
16 what's depicted as NW-4, that wetland area,
17 to the pole that's to be removed?

18 A. (Bowes) Yes.

19 Q. And is the exchange essentially that you're
20 relinquishing your easement rights through
21 that section to the Town and obtaining the
22 new proposed easement area?

23 A. (Bowes) That is the agreement, yes.

24 Q. And is that option agreement, or has that

1 been acquired at that point?

2 A. (Bowes) I believe it's an option agreement at
3 this point.

4 Q. Okay. Thank you.

5 And then I think the last one would be
6 the underground section through Frink Farm
7 and Hannah Lane, which is on Maps 25 and 26.
8 And those are new underground easement rights
9 that either have been acquired or are under
10 option?

11 A. (Bowes) Under option as well.

12 Q. And I believe Ms. Frink made the point
13 earlier that the overhead rights over the
14 Frink Farm property would be released, but
15 that the overhead rights over Hannah Lane are
16 to remain?

17 A. (Bowes) And I actually had a homework
18 assignment to read in the response to that.
19 So thank you for giving me the opportunity.

20 Q. Go ahead.

21 A. (Bowes) At this point, PSNH is not going to
22 relinquish the overhead rights for this
23 portion along Hannah Lane. We don't have any
24 plans to use them, but we're going to retain

1 those for the time being. That's the
2 overhead rights.

3 Q. Okay. Thank you.

4 Are there any other new easement rights
5 that were needed for this project that you're
6 aware of?

7 A. (Bowes) Yes, there are.

8 Q. What were those?

9 A. (Bowes) The last property where we enter
10 Portsmouth substation, with the sale of the
11 generation plants, I believe we also have
12 some new easement area right adjacent to the
13 substation for those structures that exit the
14 substation.

15 Q. Has that been acquired or is it an option?

16 A. (Bowes) I believe it's been acquired.

17 Q. Okay. So, looking at the whole project, it
18 is largely within existing overhead
19 right-of-way. There are some sections that
20 are now going underground, which are new
21 rights. And there's at least the one section
22 through Gundalow Landing and around the Flynn
23 Pit through new easements. Is that a fair
24 summary?

1 A. (Bowes) As well as I think purchasing the
2 other two properties.

3 Q. When I said "new easements," that meant a new
4 right-of-way, physically different from the
5 original right-of-way.

6 A. (Bowes) Yes, I think that's accurate.

7 Q. All right. Thank you. I want to touch on
8 environmental monitors.

9 PRESIDING OFFICER WEATHERSBY: Mr.
10 Aslin?

11 MR. ASLIN: Maybe like five more
12 minutes.

13 PRESIDING OFFICER WEATHERSBY: That was
14 my question. Thank you.

15 MR. ASLIN: Maybe ten. Sorry.

16 BY MR. ASLIN:

17 Q. In terms of environmental monitors, I
18 understand that DES is requiring that the
19 environmental monitors for the Little Bay
20 crossing be independent monitors that are
21 approved by DES. And I believe your
22 testimony or, rather, one of the reports
23 states that the other environmental monitors
24 for the land portions of the Project will be

1 independent, meaning not part of the Company;
2 is that correct?

3 A. (Plante) That's correct, not part of the
4 Company; however, part of the Project team.

5 Q. So, retained by Eversource.

6 A. (Plante) Correct.

7 Q. And for those not -- for those environmental
8 monitors outside of Little Bay, will they
9 report directly to the construction manager
10 or someone else on the team?

11 A. (Plante) Yes, to the construction manager.
12 Ultimately their reports would go directly to
13 DES as well at the end of each week.

14 Q. Okay. And do you have at this time an
15 estimate of how many environmental monitors
16 will be needed?

17 A. (Plante) Not exactly. It would vary,
18 depending on the amount of work sites that
19 are open at any given time.

20 Q. Okay.

21 A. (Plante) So we have the potential of working
22 all four towns at the same time, all four
23 towns and the bay crossing, potentially. So
24 what we typically do is we flex the size of

1 our field monitoring resources based on the
2 amount of effort that's being undertaken at
3 any given time. And that's not to say we'll
4 have an environmental monitoring team with
5 every person who's out on the Project at any
6 given time. They have the ability to cover
7 during the work week all of the activities
8 that are being undertaken.

9 Q. Okay. Thank you.

10 Will the same firm or subcontractor be
11 responsible for both environmental monitoring
12 and historical resources monitoring?

13 A. (Plante) It's possible if that consultant has
14 the specific background to do that. We
15 haven't selected those people yet.

16 Q. At what point in the Project would you
17 typically select environmental monitors?

18 A. (Plante) Shortly before construction.

19 Q. And they get trained through --

20 A. (Plante) It's probably a pretty safe bet that
21 Normandeau will be heavily involved in the
22 field-compliance monitoring, so the training
23 would be self-administered.

24 Q. Okay. Thank you.

1 Last area of discussion briefly is
2 decommissioning. We had some testimony
3 earlier that the Project's sort of paper
4 lifetime is 40 years. But I believe there's
5 also testimony stating that the Company has
6 no plan to retire the Project in the future.
7 Can you reconcile those two statements?

8 A. (Bowes) So each facility that we build, we
9 plan on a life of 40 years. In my three-plus
10 decades with the Company, I'm not sure I can
11 think of a transmission line we've retired
12 without its rebuild or replacement. It's a
13 very rare occurrence. It's certainly
14 possible. And at that point we'd could go
15 through a process with the regulators at that
16 time, siting and environmental. We'd remove
17 the facilities per the existing regulations.
18 I know New Hampshire has some new regulations
19 for below-grade and above-grade removal. If
20 those were still in effect, we would go
21 forward and execute those. I think we've had
22 some discussion around what does that mean.
23 It means down to 48 inches we'd remove if it
24 was concrete. Vaults, for example, would

1 either be cut and left; duct banks would
2 probably be left; cable would be removed; the
3 amount of overhead on the right-of-way would
4 be completely removed. But the chances of
5 that happening in even 40 years I think are
6 relatively small.

7 Q. So when you say a 40-year lifetime or life
8 span for the Project, that's for the
9 components of the Project?

10 A. (Bowes) Correct, for the physical assets.
11 And we'd look at probably some major
12 maintenance on the overhead system at 20 to
13 30 years, some of the hardware and some of
14 the insulators. If the underground system is
15 properly operated, we could get twice the
16 40-year life out of it. So that would be our
17 desire because that would be the least
18 readily available replacement item, working
19 in Little Bay again.

20 Q. Okay. Thank you.

21 And given that this is a reliability
22 project, are you able to decommission it
23 without going through some sort of FERC
24 approval process or with the ISO?

1 A. (Bowes) It's clearly with ISO-New England.
2 And no, we're not just able to retire
3 something. We would have to show that
4 there's no adverse impact to do it, and they
5 would have to support that.

6 Q. Okay. Thank you. That's all the questions I
7 have. Thank you all.

8 PRESIDING OFFICER WEATHERSBY: Okay.
9 Let's take a 10-minute break. When we come
10 back, we'll have the questions from the
11 Committee and redirect from the Applicant and
12 then see where we are with time. Thank you.

13 (Brief recess was taken at 3:49 p.m.,
14 and the hearing resumed at 4:04 p.m.)

15 PRESIDING OFFICER WEATHERSBY: Okay.
16 We're going to resume. And procedurally, we're
17 going to have questions from the Committee and
18 then have redirect by the Applicant. And then,
19 depending where we are with time, if it doesn't
20 take us all that long, we probably won't do
21 Mr. Andrew because he's got a fair amount of
22 time allotted to him, but we may be able to
23 squeeze in Mr. Cullen. So we're just going to
24 have to see where we are after we're finished

1 with the Committee questions and redirect. I
2 think it's safe to say we will not get to
3 Mr. Andrew today.

4 WITNESS BOWES: I also have a couple
5 corrections to make.

6 PRESIDING OFFICER WEATHERSBY: Go
7 ahead.

8 WITNESS BOWES: In the last set of
9 questions from the Counsel for the Public, I
10 believe we made two errors. One was the
11 discussion of 150 feet or meters. It should be
12 meters is the minimum speed. The second was
13 around the easements, the overhead easements at
14 UNH. We have an option agreement on those
15 easements. We don't have the easements as of
16 today.

17 PRESIDING OFFICER WEATHERSBY: Thank
18 you.

19 Mr. Aslin, do you have any questions
20 concerning that?

21 MR. ASLIN: No, that's fine. Thank
22 you.

23 PRESIDING OFFICER WEATHERSBY: Okay.
24 Questions from the Committee. Who would like to

1 start?

2 QUESTIONS BY MR. SCHMIDT:

3 Q. Good afternoon. I've got a few questions.

4 Regarding the stone walls, I know some
5 of them were most likely property lines. And
6 I need -- I want to get a clear
7 understanding. Will they be -- on those,
8 will they be re-established under the
9 direction of a licensed land surveyor so that
10 property lines are re-established? What's
11 your plan on that?

12 A. (Plante) For the walls that are being
13 impacted, there are property lines. And
14 there are a couple of them we have agreements
15 with the underlying property owners to make
16 those modifications. And yes, we will use
17 the direction from a licensed land surveyor
18 to make sure that they're back in the
19 appropriate locations.

20 Q. Thank you.

21 Regarding the traffic analysis, I
22 noticed you used the Highway Capacity Manual.
23 Was there any reason that you chose that over
24 some of the simulation software that might be

1 more appropriate?

2 A. (Frazier) No, sir. I actually used the
3 Synchro SimTraffic software. And we may have
4 actually used Vissim. It's all just based on
5 the Highway Capacity Manual.

6 Q. So you did compare it to the Synchro? Is
7 that what you said?

8 A. (Frazier) Yes, that's what we did our
9 analysis with.

10 Q. Thank you.

11 And on the right-of-ways, I noticed
12 you've got that table where you have the
13 types identified. But have you determined
14 the widths of all of them? Specifically I'm
15 starting with the easement right-of-ways
16 where you're crossing, some of them going
17 underground versus aerial.

18 (Court Reporter interrupts.)

19 A. (Plante) I'm not quite sure what the question
20 is and whether it's directed toward traffic
21 control or --

22 Q. I'm sorry. No, it's more directed probably
23 to you, Mr. Plante.

24 Regarding the types of right-of-way, I

1 know you have controlled access, you have a
2 couple of limited access, you have easement
3 right-of-ways. On the easement
4 right-of-ways, have you determined what width
5 are publicly controlled?

6 A. (Plante) I believe all of those widths are
7 surveyed widths that are on our plans. I
8 don't know individually what width each of
9 those is off the top of my head. I'd
10 probably be able to get that from our
11 surveyors.

12 Q. Okay. Thank you.

13 On that same line, it looked from your
14 engineering plans that you may have had some
15 sliver widening areas for your detours. I
16 wasn't a hundred percent sure, though. Do
17 you have -- when you're necking it down to
18 one lane, are you widening that pavement at
19 all?

20 A. (Frazier) No, that's not our intention.

21 Q. So there's one intersection in particular, I
22 think it's Gundalow Road -- or Little Bay
23 Road, where your work area is actually
24 outside the pavement area. I was just

1 wondering what you've done to address the --
2 if any of that is on private property? And
3 I'm sorry I don't have the exhibit number.

4 A. (Bowes) We'll look at the map for it.

5 A. (Frazier) In the meantime, I'm sorry. I
6 misspoke. We didn't use Synchro. We used
7 Vissim, which is similar. It just tends to
8 work for stop control, where Synchro works
9 better for signal control.

10 Q. All right. Thank you.

11 (Panel members reviewing documents.)

12 A. (Bowes) Yeah, so as we exit Gundalow Landing
13 to the cross streets on Little Bay, we are on
14 private property at that location. And your
15 question is -- does that answer it or --

16 Q. Well, I didn't hear that as one of the areas
17 that you had acquired rights to.

18 A. (Bowes) We have an option to acquire the
19 underground rights from that landowner.

20 Q. Okay. Thank you.

21 And then along Gundalow Landing Road,
22 there was a comment made where you go in and
23 out of the roadway. I'm just curious how far
24 outside of the roadway portion is your

1 maximum offset.

2 (Mr. Bowes reviews document.)

3 A. (Bowes) Yeah, I would say it's right at the Y
4 as you enter the circle, and it looks like
5 it's about 20 feet.

6 Q. And you've secured those rights as well or --

7 A. (Bowes) Yes, we have rights from that
8 landowner as well.

9 Q. Thank you.

10 In areas like Nimble Hill Road, are
11 those crossings, are they all going to be
12 encased? I know you're going -- you're
13 encasing 155, I believe it is -- 155A.
14 Excuse me. But when you're going underneath
15 even the town roads, are you encasing those?

16 A. (Plante) Yeah, there will be a conduit and
17 duct bank. So it'll be concrete duct bank
18 encasing the plastic conduit.

19 Q. So the whole duct bank will go under the
20 road.

21 A. (Plante) Correct.

22 Q. And as far as the crossing, I believe it was
23 under Route 4 you said there was going to be
24 a 42-inch casing?

1 A. (Plante) That's correct.

2 Q. Can you --

3 A. (Plante) Well, under Main Street.

4 Q. Main Street. Excuse me.

5 A. (Plante) Yeah.

6 Q. Can you explain to me how that will be
7 filled? It looks like at your cross-section
8 you just have on top of each other two
9 eight-inch conduits. I'm just curious what
10 the rest of that void will contain.

11 A. (Bowes) There are four, as you mentioned,
12 8-inch conduits for the transmission circuit;
13 three to be used, one spare. There are two
14 distribution conduits being placed for UNH's
15 future use, and there are at least two
16 communication conduits that are 4-inch
17 conduits. The two for UNH are 6-inch
18 conduits. So there's a bundle of four
19 transmission, two distribution, two
20 communication conduits, and one smaller
21 conduit for a grounding system, and a second,
22 smaller conduit -- these are both 1-inch
23 conduits -- for temperature monitoring. So
24 it's a fairly large bundle with all of those

1 conduits together.

2 Q. It sounded excessive, but maybe not.

3 A. (Bowes) The real issue is because it is so
4 difficult to go under a highway, we want to
5 make sure that there's capability in the
6 future for both UNH and for Eversource.

7 Q. Yeah, very good. Thank you.

8 And when we were talking about ledge
9 removal, did I understand you correctly that
10 there won't be any blasting, they'll all be
11 by alternative methods of removal?

12 A. (Plante) With the exception of the cable
13 trench south of Main Street, it's our
14 intention to do all of the ledge removal via
15 mechanical methods. We can't really rule out
16 the possibility of needing to use blasting.
17 However, in previous projects, you know,
18 these same types of questions came up, and we
19 represented that core boring was our method
20 of choice. And in that particular project,
21 we were able to achieve all of the ledge
22 removal using core-boring methods. So, you
23 know, we're not finding the need to do any
24 blasting. And that's our intention here as

1 well.

2 Q. And just how would you feel if there was a
3 condition placed on removal of the mattresses
4 would be evaluated when you took the line out
5 of service?

6 A. (Bowes) That would be fine.

7 Q. That's all I have.

8 PRESIDING OFFICER WEATHERSBY: Thank
9 you.

10 Ms. Duprey.

11 MS. DUPREY: Thank you.

12 QUESTIONS BY MS. DUPREY:

13 Q. Moving to the concrete mattresses, can you
14 direct me to some place in the record where
15 there's an image from the manufacturer or
16 somewhere that I can see what this might look
17 like? Sorry. I just figured you could do
18 this faster than I can.

19 A. (Bowes) So, on July 2nd, 2018 -- it's under
20 the Application section for this project
21 that's called "Applicant's Supplemental
22 Testimony and Information Pertaining to HDD
23 Studies." And there's three sets of joint
24 testimony. Then the last is actually the

1 horizontal directional drilling and jet plow
2 comparison. That's a report. And Appendix A
3 of that report, which begins on Page 54,
4 shows both the concrete mattress in picture
5 form -- it's actually being installed,
6 lifted, and then followed by several pages of
7 discussion of how it's installed, some
8 specification figures and the methodology to
9 do the installation.

10 Q. And if I look at that more closely, which
11 we're just trying to pull it up now, but I
12 will look at it more closely, will we be able
13 to understand the interlocking that we were
14 talking about earlier? Because I don't
15 understand that, and I don't understand if it
16 builds sequentially. Are the mattresses --
17 is the top layer of them essentially at the
18 same level, or is it going up 9 inches with
19 each interlocking? I don't understand how
20 the interlocking happens.

21 A. (Bowes) Maybe I can have Mark explain that --

22 Q. Thank you.

23 A. (Bowes) -- 'cause the pictures in here just
24 show a single mattress.

1 Q. Okay.

2 A. (Bowes) They don't show how it would actually
3 be installed.

4 MR. IACOPINO: Do you have a page
5 number for that?

6 WITNESS BOWES: Yeah, it begins on
7 Page 54 of the report, or Appendix A.

8 MR. NEEDLEMAN: That's Exhibit 133.

9 MR. ASLIN: It's PDF Page 62, if that's
10 helpful.

11 BY MS. DUPREY (CONT'D):

12 Q. Just before you say that, I'm looking at this
13 picture of it. So it looks like it's
14 bending.

15 A. (Dodeman) Yes, it's an articulated concrete
16 mattress.

17 Q. Okay. So I don't know what that means.

18 A. (Dodeman) So it's 9 -- or excuse me -- 8-foot
19 by 20-foot by 9 inches high. It's actually
20 made of concrete biscuits that are woven
21 together with --

22 Q. Each biscuit is that size, 8 by 20 feet by --

23 A. (Dodeman) No, no, no. A biscuit is, you
24 know, Frisbie size.

1 Q. Ah, okay.

2 A. (Dodeman) They're locked together with, I
3 believe, some sort of nylon or plastic rope,
4 and it makes the whole mattress articulate;
5 so that way when you lay it over a cable or
6 something that you want to cover on the sea
7 floor, it conforms to the bottom.

8 In terms of the overlapping that I was
9 talking about, when you lay a mattress down
10 on the bottom, I think we used something like
11 a 20-percent overlap. So when you put the
12 next mattress down, you put the end of the
13 new mattress over the end of the last
14 mattress, and that's just so they sort of
15 lock each other in place.

16 Q. And is that happening both horizontally as
17 well as vertically to the shore line, that
18 laying on top of --

19 A. (Dodeman) End to end. It is, yes.

20 Q. End to end. So I guess my question is what
21 starts as perhaps 9 inches --

22 A. (Dodeman) Can be 18. Correct.

23 Q. Can be 18. Why couldn't it be 48, depending
24 on -- or whatever four times nine is --

1 36 inches, depending on how many rows out it
2 is into the --

3 A. (Bowes) Yeah, so there's a 20-percent
4 overlap. So if you figure it's 4 feet wide,
5 the first foot of that would overlap with the
6 next one.

7 Q. Okay. So we start at 9 inches --

8 A. (Bowes) So, for a foot there'd be an overlap
9 of 18, then you go back to just 9 inches.
10 And then a third cable, there'd be a foot
11 overlap of 18, back to 9 inches. Then end to
12 end at 20 feet, there would be two to three
13 feet of overlap to the next end-to-end
14 segment. So they do kind of overlay
15 themselves, but they don't build up. It's
16 not like a set of stairs.

17 Q. Okay. Good.

18 A. (Bowes) It's only two stairs high, maximum.

19 Q. So the highest it would be above the floor of
20 the bay would be?

21 A. (Bowes) Eighteen inches --

22 Q. Eighteen inches --

23 A. -- less what it would settle in.

24 Q. Okay. All right. Thank you.

1 PRESIDING OFFICER WEATHERSBY: Can I
2 ask a follow-up question on that same subject?

3 Is the top surface, then, of the
4 articulated mattress -- so that also -- it's
5 rough? It's not a smooth surface --

6 WITNESS DODEMAN: Correct.

7 PRESIDING OFFICER WEATHERSBY: -- as it
8 contours to the bay.

9 WITNESS BOWES: Correct. It's going to
10 collect everything that the bottom does.
11 Actually, it's probably going to be a better
12 collector. So it's going to get filled up with
13 the same mud and sediment that's there fairly
14 quickly.

15 PRESIDING OFFICER WEATHERSBY: Seems as
16 though it would be a better surface for
17 organisms to attach to or things to grow than if
18 it was smooth.

19 WITNESS BOWES: Again, that's probably
20 better for the environmental panel --

21 PRESIDING OFFICER WEATHERSBY: It's an
22 environmental question.

23 WITNESS BOWES: But obviously concrete
24 is oftentimes used to create artificial reefs.

1 So there is an attachment, adhesion capability
2 that concrete offers that other materials don't.

3 PRESIDING OFFICER WEATHERSBY: Thank
4 you.

5 Mr. Way.

6 MR. WAY: Follow-up for me as well.

7 So, in terms of the biscuits that
8 you talked about, you mentioned they're held
9 together with like a nylon or plastic rope.
10 But these things are meant to have a pretty
11 long life span. Is that material sufficient
12 enough to keep it in place and last with the
13 concrete?

14 WITNESS DODEMAN: Yes. According to
15 the manufacturer, they will last the life of the
16 system. So they are designed for long-term use,
17 which is one of the reasons why the Army Corps
18 uses them so frequently in their projects as
19 well.

20 MR. WAY: All right. Thank you.

21 MS. DUPREY: Thank you.

22 BY MS. DUPREY (cont'd):

23 Q. So I just want to ask some summary questions
24 to be sure I understood your testimony.

1 Am I right in understanding that it is
2 not definite that you're going to need to use
3 concrete mattresses, or is it now definite
4 that you will need to use them?

5 A. (Dodeman) I have to say that in some of the
6 areas, after reviewing the survey data, it is
7 very likely that there will be some concrete
8 mattresses used. However, when creating the
9 numbers for permanent impact, we were forced
10 to use conservative numbers.

11 Q. Can you just, when you say "conservative" --

12 A. (Dodeman) Conservative as in --

13 Q. -- meaning fewer or more?

14 A. (Dodeman) -- hopefully we have designed the
15 system with a lot more than we will need --

16 Q. Thank you.

17 A. (Dodeman) -- and hopefully that number goes
18 down.

19 Q. Because people use "conservative"
20 differently. Thank you for that.

21 And when you said -- I think you might
22 have testified earlier that the area where
23 you might not need them was the western side?
24 Is that so, or did I misunderstand you?

1 Let's talk in terms of Durham and Newington.

2 A. (Bowes) Yeah, so we were certainly talking
3 about the western side. And we thought we
4 could get the mechanical excavator out to a
5 good portion of where we've identified with
6 the probe we couldn't get 42 inches. So that
7 was clearly a discussion we had with Counsel
8 for the Public, that we were very hopeful
9 that we could go further out into the bay
10 with the excavator and get those locations to
11 avoid having to do locations on the west
12 side.

13 Q. That's the Durham side.

14 A. (Bowes) The Durham side, yes.

15 As far as the Newington side, I'm not
16 sure we had any more conversation about that,
17 based upon the probe information.

18 A. (Dodeman) That's correct. I mean, for the
19 time being, I have to assume -- I can't just
20 be hopeful. I have to assume we're going to
21 have a certain amount of mattresses on both
22 sides.

23 Q. So I had some questions about the visibility
24 of them, particularly from houses along the

1 shoreline. So let's talk about the Newington
2 side since there's been more of a discussion
3 on that side. And these may be more
4 appropriate for Mr. Raphael, and you can just
5 say so.

6 Do we know from whose homes -- I mean
7 inside the house, not standing out on
8 whatever, the lawn or whatever area outside
9 the house -- from inside the home, do we know
10 who will have visibility of these concrete
11 mattresses, to the extent of what your
12 conservative view of the situation is?

13 A. (Bowes) I think, based on discussions this
14 morning, the Crowley property will probably
15 have visual sight of these at low tide.

16 Q. And you think they're the only ones who will?

17 A. (Bowes) I don't know of others beyond that.
18 Beswicks obviously will have sight from their
19 property -- from their home. I can't say --

20 Q. Okay. So the Crowleys will. And then my
21 next question is --

22 A. (Bowes) Want me to do the Durham side as
23 well?

24 Q. Sure. Yes. Thank you.

1 A. (Bowes) We've got indications that Vivian
2 Miller, which is the property beyond the
3 Getchell property, would have visual impacts,
4 at least from her dock, possibly from the
5 inside of her home as well.

6 Q. Thank you.

7 I'm wondering what the height of the
8 water gets to when the tide is in. How many
9 feet are we talking?

10 A. (Bowes) So is it in relation to will these be
11 covered at high tide?

12 Q. Yes, but not only that. But yes. I mean,
13 I'm assuming they're going to be covered at
14 high tide. But I'm wondering how much
15 coverage there's going to be.

16 A. (Dodeman) Well, a tide is not a fixed thing.

17 Q. Correct.

18 A. (Dodeman) So it changes all the time. And
19 depending on where we are in the lunar cycle,
20 it changes day to day as well. So, with any
21 luck, we will -- you know, ideally we want to
22 be able to excavate. So if we see them --
23 and I doubt we'd be able to see them at high
24 tide. But again, that's a loose term, "high

1 tide."

2 Q. Okay. So I'm just trying to get a sense of
3 the impact on the folks who might be able to
4 see it from their home. And so we have --
5 and I don't live on the ocean -- two high
6 tides and two low tides in the day, generally
7 speaking?

8 A. (Dodeman) Generally speaking, yeah.

9 Q. So, twice a day, parts of the day these would
10 be visible for a couple hours.

11 A. (Dodeman) Potentially. The potential is
12 there, certainly.

13 Q. But not all the time, in all likelihood.

14 A. (Dodeman) Not all the time, in all
15 likelihood.

16 Q. Okay.

17 PRESIDING OFFICER WEATHERSBY: Mind if
18 Mr. Way goes? Mr. Way.

19 MR. WAY: You mentioned that there
20 would be markings in the charts for these
21 mattresses. In other words, there would be
22 notification --

23 WITNESS DODEMAN: Once the as-builts
24 for this system are created, Eversource would

1 have to submit the as-builts to NOAA. So NOAA
2 would have to mark where these cables are in the
3 charts. I'm sure we can do something -- or
4 Eversource can do something, I should say,
5 during the submittal of those as-builts to note
6 that there are concrete mattresses along the
7 route.

8 WITNESS BOWES: And just to confirm
9 that, we do that for all of our projects. We do
10 it as part of the Project close-out, to provide
11 the as-builts and make sure they are properly
12 charted onto the navigation charts.

13 MR. WAY: And that's not an immediate
14 thing. So what I hear you saying is that, in
15 the interim, you would be having some sort of
16 marker there?

17 WITNESS BOWES: Yes, certainly on a
18 temporary basis. And we would obviously work
19 with the DES to do that. But that would be
20 appropriate. If it's a new condition that we've
21 created, we want to mark it for a period of time
22 at least.

23 MR. WAY: And typically, are there
24 long-term markers of any type that go over a

1 mattress, or is there any need that you found?
2 I'm thinking about that area where it might be
3 18 inches that was brought up earlier.

4 WITNESS DODEMAN: Typically not. But,
5 again, the charting is critical. I mean, to
6 have a boat in New Hampshire, you have to have a
7 Safe Boater Card, which means you understand
8 you're responsible for your vessel. However,
9 during the Project we are going to be issuing
10 notice to mariners. So this will be sort of
11 publicized in boating communities. Certainly,
12 all vessels are supposed to know to listen to
13 notice to mariners and to read the notices to
14 mariners to be a boat operator. But, you know,
15 typically on land, there would be a sign that
16 this is a cable crossing or no anchor area.
17 That may be done. But for the actual
18 mattresses, where they are, their final
19 condition, that would be noted on the charts.
20 So, typically you don't want to put anything in
21 the water, buoying things off, because that
22 tends to be more of a hassle than good. So if
23 it's charted, that typically is what's used as a
24 safety measure.

1 MR. WAY: And in your experience -- I'm
2 not a boat owner. But in your experience, do
3 people actually look at the charts, read the
4 charts? Or have you had experiences where
5 people, even though they should be -- and you're
6 absolutely right, they have the safe card, they
7 should be having the training, best laid
8 plans -- do you ever have problems with that?

9 WITNESS DODEMAN: I have certainly had
10 experiences where I can't believe someone's
11 operating a vessel.

12 MR. WAY: That's what I'm talking
13 about.

14 WITNESS DODEMAN: However, I can't
15 speak to the responsibility of individual
16 boaters. It's understood that to be a boater,
17 you're supposed to know how to be a boater.
18 That's what the NASBLA program, NASBLA, is for.

19 MR. WAY: Fair enough.

20 PRESIDING OFFICER WEATHERSBY: While
21 we're on the subject of mattresses, what color
22 do they typically come in, and are you willing
23 to have the concrete tinted so it would match
24 the color of the mud flats or the area that

1 they're in?

2 WITNESS BOWES: So the typical color is
3 the color, you know, dry concrete. So it's a
4 light, white-gray color. And yes, we looked
5 into the fact that we can have them tinted to
6 look that dark brown-green-gray color initially,
7 so there would be no -- so the visual impact
8 would be minimized from the beginning. So there
9 would be no change in that. It will happen
10 relatively quickly as well. So you're buying a
11 couple months, less than a season probably, of
12 full adhesion of other things to it. But still,
13 I think it would be helpful, and it's something
14 we're willing to do.

15 BY MS. DUPREY (CONT'D):

16 Q. I believe that there are photo simulations in
17 Exhibit C of Mr. Raphael's prefiled testimony
18 at Applicant's Exhibit 142 that show the
19 concrete mattresses if you were boating out
20 in the waters. And I'm wondering who
21 developed those photo simulations. Did
22 LandWorks do it, or did Eversource do the
23 photo simulations?

24 A. (Bowes) I believe LandWorks did that with

1 specifications that we provided.

2 Q. Okay. And you may not know the answer to
3 this, but I couldn't find it in the record.
4 Are the photo simulations from the shore, or
5 are they only from out in the middle of the
6 water?

7 A. (Bowes) I believe they're only from the
8 resource -- so, from the water to the shore.

9 Q. Okay. I'm wondering --

10 MS. DUPREY: And I'm new here. So if
11 I'm asking anything inappropriate, Attorney
12 Needleman, feel free to jump to your feet.

13 Q. Have you had any -- has Eversource had any
14 meetings with the Crowleys, the Crowley Trust
15 folks?

16 A. (Bowes) Yes, we have.

17 Q. And have you actually entered into any
18 negotiations with them? I'm not asking about
19 the specificity. I'm just wondering --

20 A. (Bowes) Yes.

21 MS. DUPREY: And again, feel free to
22 say "Don't answer that question."

23 Q. Have they been offered any money?

24 A. (Bowes) I believe our discussions have not

1 included any financials at this point. But
2 they've talked about some landscaping
3 options, and they're still ongoing.

4 Q. Thank you.

5 MS. DUPREY: Okay. I want to switch
6 for a moment to the Frink property and the
7 transition structure, unless there's anyone else
8 who wants to join in right now on other
9 questions on the concrete mattresses.

10 MR. IACOPINO: Can I ask one question?
11 I have one question about the concrete
12 mattresses -- actually, it's two.

13 Has Eversource used them before?

14 WITNESS BOWES: Not in this form. I
15 know we've used split pipe and we've used
16 physical protection, but not this type of
17 concrete mattress, that I'm aware of.

18 MR. IACOPINO: And there was a question
19 before about whether there's any thermal
20 conductivity for the concrete mattresses -- in
21 other words, whether they're going to sort of
22 spread the heat from the cable underneath. Are
23 you at all concerned about that, either from the
24 Company's viewpoint or from the cable

1 manufacturer's viewpoint?

2 WITNESS DODEMAN: We actually had our
3 engineer, when we were going over the different
4 methods of protection, let us know that the
5 mattresses are the only thing that won't affect
6 the thermal properties of the cable. So they're
7 designed not to affect the cable or create a hot
8 spot.

9 MR. IACOPINO: And has Eversource, best
10 of your knowledge, had any different experience?

11 WITNESS BOWES: No, we have not. If
12 you think about it, we actually put the on-land
13 underground conduits into concrete. So in some
14 ways it's an added benefit, not a detriment.

15 MR. IACOPINO: Thank you.

16 BY MS. DUPREY (CONT'D):

17 Q. So, switching to the --

18 MS. DUPREY: Oh, oh, sorry. Sorry.

19 PRESIDING OFFICER WEATHERSBY:
20 Director Muzzey.

21 DIR. MUZZEY: Regarding the mattresses,
22 we talked about the views from adjacent
23 properties. Is there any concern -- and I'm
24 sorry if this came up this morning when I wasn't

1 here -- that they become navigational hazards as
2 well? Boaters, you know, with a certain type of
3 habit assume that there's a certain depth to the
4 water at certain times in the tide. Any concern
5 along those lines?

6 WITNESS DODEMAN: There's absolutely
7 concern along those lines. Again, these are
8 going to be charted. So the mattress locations
9 will be charted on the NOAA charts. But yes, it
10 is a concern. We are changing where these
11 mattresses are. If the mattresses don't sink
12 all the way down into the soupy, soft bottom,
13 you're creating a difference in charted burial
14 depth -- or charted depth, I should say. So,
15 yes, there is a concern. That's something we
16 would have to notify NOAA about, and they would
17 alter charts.

18 WITNESS BOWES: And also we were just
19 talking just before your question about the
20 temporary marking, if the New Hampshire DES
21 would allow that. So maybe for a season we mark
22 them as well.

23 DIR. MUZZEY: Do we have a sense of how
24 often NOAA updates its charts, and do we know if

1 a season would be sufficient, or is longer
2 needed?

3 WITNESS DODEMAN: I use a charting
4 program that every single time I turn it on, my
5 entire chart collection is updated. And NOAA
6 issues chart corrections very often, but not on
7 any fixed schedule. It's when they have changes
8 to a chart. So it's difficult to say. The
9 Little Bay chart we used, and I think everyone
10 on the panel has now seen that in several
11 different displays during the hearings and the
12 technical hearings, that chart picture has not
13 changed very much in the last four years, for
14 instance. But we know when we give them a new
15 cable route and where these mattresses
16 eventually end up, we know that the chart
17 corrections will happen pretty quickly, and it's
18 usually in a matter of months.

19 DIR. MUZZEY: Okay. Thank you.

20 PRESIDING OFFICER WEATHERSBY: Mr. Way.

21 MR. WAY: One last follow-up on that.
22 If I'm a boat owner, how do I know that there's
23 been a chart update?

24 WITNESS DODEMAN: If you're a boat

1 owner, if you're a responsible boat owner, you
2 look at the charts for any area you are
3 navigating. Technically, you're supposed to
4 know where you're going with the boat, so you're
5 supposed to have charts. Especially people like
6 sailboaters, people who are very concerned about
7 the draft, which was brought up earlier today,
8 if someone has a sailboat. Sailboat owners are
9 supposed to have charts of all the areas they're
10 navigating to, especially as you make an
11 approach to shore. If you have a sailboat,
12 you're supposed to know that if you have a keel
13 underneath you and you draw a certain amount of
14 depth, you leave yourself a safety margin,
15 typically. So if you're a boater, you're
16 supposed to look at your charts. It's part of
17 being a responsible boater.

18 MR. WAY: So if I'm a boater, like
19 Director Muzzey was saying, if I'm a boater, I
20 do this all the time, I come back every summer
21 or something like that, is there anything that
22 would -- and I feel like I know the area like
23 the back of my hand -- is there anything to let
24 me know there's been some changes or --

1 WITNESS DODEMAN: There is. During the
2 project period, there is an issuance by the
3 Coast Guard, which the installer sets up with
4 the Coast Guard. It's a process called
5 "notification to mariners." During the
6 construction period, that notification to
7 mariners is announced over the VHF system, which
8 every boat has to have on it. It's announced
9 during the entire construction period. So if
10 you are a regular boater in an area, and you're
11 within a -- operating correctly with a VHF
12 onboard, then you're supposed to be listening to
13 the notice to mariners, because it's typically
14 notified on Channel 16, which is the standard
15 monitoring channel for VHF on a boat.

16 MR. WAY: Thank you.

17 PRESIDING OFFICER WEATHERSBY: Mr.
18 Fitzgerald.

19 MR. FITZGERALD: Yeah, just to
20 follow-up on these. I think I just heard that
21 it's possible that there could be a
22 several-month period in which the maps are down,
23 but there's -- and the charts haven't been
24 updated yet. And I also thought that I heard on

1 the one side, that putting something, some kind
2 of buoy or warning or whatever was discouraged.
3 But I thought that I heard Mr. Bowes say that
4 that was a possibility. Would it seem -- it
5 seems to me that, in that period of time,
6 interim period of time when nobody -- you know,
7 when those charts are not updated, that some
8 type of above-surface warning or something that
9 there's a new structure here would be
10 appropriate.

11 WITNESS BOWES: That's what I was
12 agreeing with. I thought it was a good idea.
13 Again, it'd be subject to New Hampshire DES
14 allowing us to do that. But it would seem
15 reasonable to me until the charts were updated,
16 and possibly even for a period of time after
17 that.

18 WITNESS DODEMAN: If I can add just one
19 more thing. There is a navigable -- or there is
20 a charted waterway here that boaters technically
21 are supposed to be using as they cruise through
22 Little Bay in the deepest part of the channel,
23 which is why this is charted. So if people
24 start going outside of these channels to go into

1 shallow waters, they are doing so very much at
2 their own risk. In terms of leaving marker
3 buoys, I'm a big fan of that. I would look to
4 do that. I would love to say the bottom is --
5 you know, shallow bottom area warning, keep out,
6 et cetera. However, the rules of leaving buoys,
7 unattended buoys or marker buoys, are pretty
8 onerous. These have to be maintained. You
9 know, you have to get approval from -- what's
10 the --

11 WITNESS WALL: It's called ATON, Aids
12 to Navigation. It's a Coast Guard rule.

13 WITNESS DODEMAN: So you can't just
14 willy-nilly put in buoys that aren't -- that
15 don't go through a process of approval by the
16 Coast Guard. So, that being said, we rely on
17 the charting method because people are going
18 outside of the regularly traveled navigation
19 channel to go into the shallows, which is done
20 at their own risk.

21 PRESIDING OFFICER WEATHERSBY: Director
22 Muzzey.

23 DIR. MUZZEY: Is the channel marked by
24 buoys in this location?

1 WITNESS DODEMAN: I have to look at the
2 chart. But I think there is -- actually, there
3 might be a red and green buoy set on the
4 northern part of the channel. But I would have
5 to have the chart in front of me to --

6 DIR. MUZZEY: Yeah, we saw this
7 afternoon, but none of us --

8 WITNESS DODEMAN: Yeah, because we were
9 all looking at the thousand-foot corridor, which
10 is what we focus on for this project.

11 DIR. MUZZEY: Right.

12 WITNESS DODEMAN: But there are
13 certainly aids to navigation as you make the
14 approach into the bay. But I'd have to look for
15 the charted buoy numbers.

16 DIR. MUZZEY: Thank you.

17 PRESIDING OFFICER WEATHERSBY: Mr.
18 Schulock.

19 MR. SCHULOCK: Are you aware that when
20 the Public Utilities Commission grants a license
21 to cross public water, it has to determine
22 whether the rights granted under the license can
23 be exercised without substantially affecting the
24 public rights in the waters? Well, I guess my

1 question is: Do you know whether Eversource
2 provided the Public Utilities Commission with
3 information about using these concrete
4 mattresses close to the shore where it would
5 reduce the draft for boating?

6 WITNESS BOWES: I don't know if it was
7 in our Application. We can certainly check.

8 MR. SCHULOCK: And then the purpose of
9 the mattresses, as I understand it, is to
10 protect the cable.

11 WITNESS BOWES: That's correct.

12 MR. SCHULOCK: And protecting the cable
13 is a requirement of the National Electric Safety
14 Code.

15 WITNESS BOWES: That is correct also.

16 MR. SCHULOCK: And this is your only
17 alternative for doing that, as I understand it,
18 in that area.

19 WITNESS BOWES: That is also correct.

20 MR. SCHULOCK: Thank you.

21 PRESIDING OFFICER WEATHERSBY: Ms.
22 Duprey.

23 BY MS. DUPREY (CONT'D):

24 Q. I'm not going to go to the Frink Farm yet

1 because I started thinking about something
2 else, and that is the Gosling Road discussion
3 that we had the other day, and also the suite
4 of products -- or suite of projects that this
5 is a part of, which we had discussion on a
6 couple weeks ago. And I want to confirm just
7 a couple points.

8 I'm right in understanding that the
9 individual projects that have already been
10 accomplished can stand on their own, have
11 value on their own, but they're supercharged,
12 in effect, by this one being constructed; is
13 that correct?

14 A. (Bowes) This is a key component to complete
15 that family of projects, yes.

16 Q. But they still have independent value; yes?

17 A. (Bowes) Yes, they do.

18 Q. And if it's appropriate to tell me, how much
19 did the rest of those projects together all
20 cost, ballpark?

21 A. (Bowes) Approximately \$50 million, I believe.

22 Q. Okay. Thank you.

23 And in preparing for today -- and I'm
24 sorry. I left my notes at home by mistake

1 this morning -- I remember reading about the
2 Gosling Road alternative, that in fact, since
3 ISO has determined that this project will be
4 a project that is approving and setting
5 forward in motion, that in fact other things
6 since its approval by ISO have been also set
7 in motion and that at this point Gosling Road
8 really isn't an alternative, in the sense
9 that other things have started happening in
10 other parts of the network, if you will, that
11 actually preclude what would be, in effect,
12 wasted projects that already occurred or
13 under construction or whatever were there
14 would be some reversion to the Gosling Road
15 alternative. Did I understand that
16 correctly?

17 A. (Bowes) I think you have, yes. ISO evaluated
18 alternatives. No non-transmission
19 alternatives came forward after their
20 solicitation for them. We looked at a couple
21 different transmission alternatives, families
22 of them. ISO selected the Seacoast
23 Reliability Project, as well as that whole
24 family of projects. They did not support the

1 Gosling Road. It did solve the electrical
2 needs, but it also did more things that
3 weren't needed at the time. And now, as you
4 say, things have changed with load forecasts,
5 so that year of need for Gosling Road is now
6 well past the 10-year. It was already and it
7 is much more expensive than this project.

8 Q. That wasn't exactly where I was going,
9 although that's useful to know.

10 My specific recollection was that ISO
11 has since approved other projects that rely
12 on this project, as opposed to Gosling Road,
13 which would undercut, if you will, those
14 other projects were somehow or other this to
15 be switched from here to Gosling Road.

16 A. (Bowes) Yeah, this is definitely a question
17 that Mr. Andrew can get more in depth with --

18 Q. Okay. Maybe Mr. --

19 A. (Bowes) I will say that once you have done a
20 planning study -- in this case, the Vermont
21 and New Hampshire planning study, and it's
22 not just the Seacoast Project, but there are
23 40 or 50 other projects in both states --
24 that now becomes the baseline that they plan

1 future things for. So you're absolutely
2 right. What you heard was accurate. That
3 becomes foundational to all the other studies
4 that they do subsequently. And also other
5 generation, you know, renewable projects that
6 want to come forward, they have to fit into
7 the assumption that the Seacoast Reliability
8 Project will be built.

9 Q. Thank you.

10 And my last area of inquiry, which is
11 back now to the Frink Farm and the transition
12 structure there. Again, you all may not be
13 the right people, but since this is the end
14 of your day, I want to be sure that I'm
15 asking the right folks in case that you are.

16 From where -- by whom will the
17 transition structure be seen? For instance,
18 will it be seen from inside the Frink home?
19 What roadways that people are driving down
20 might the transition structure be seen? Is
21 that something that you know? And if it is,
22 can you tell me?

23 A. (Bowes) So we have provided -- this is the
24 one right on the Frink-Pickering border?

1 Q. Yeah.

2 A. (Bowes) So, yes, we've done a photo
3 simulation. So, looking across the field
4 where the existing distribution line is, on
5 the horizon there's an elevation. At that
6 point there will be visibility of that
7 transition structure.

8 Q. From where?

9 A. (Bowes) From --

10 Q. From a road?

11 A. (Bowes) -- Nimble Hill Road is where that's
12 taken from. So it is quite a distance. And
13 it's probably a less visual impact than the
14 distribution line is today because that is
15 much closer.

16 Q. And will it be visible from the home on the
17 property?

18 A. (Bowes) I don't know. I don't know.

19 Q. Okay. That's all the questions I have.

20 PRESIDING OFFICER WEATHERSBY: Mr. Way?

21 Or who would like to go next?

22 MR. WAY: Sure.

23 QUESTIONS BY MR. WAY:

24 Q. I've actually had a lot of my questions

1 answered between the last set of questions
2 and the Counsel for the Public discussion. I
3 had a lot of questions on the underwater
4 portion, so I think I'm all set. But I'm
5 going to go in a different direction.

6 Ms. Frazier, in looking at your
7 supplemental, I noticed at the end that you
8 had a series of recommendations.

9 A. (Frazier) Yes.

10 Q. And were those recommendations that you
11 wanted us to consider on our end, or were
12 those recommendations that you wanted
13 Eversource to consider, or both of us?

14 A. (Frazier) I suppose both.

15 Q. Both of us.

16 A. (Frazier) Sure.

17 Q. Mr. Bowes, did you look at those
18 recommendations that were made by Ms.
19 Frazier?

20 A. (Bowes) I'm not sure that I did. So before I
21 commit to them, I better.

22 (Mr. Bowes reviews document.)

23 Q. I believe they're on Page 3 of her
24 supplemental, exhibit number... I'm actually

1 using paper here.

2 MR. ASLIN: It's Exhibit 141.

3 BY MR. WAY:

4 Q. I think it's Exhibit 141.

5 MR. FITZGERALD: Page 3.

6 A. (Bowes) Yes, I have seen these
7 recommendations.

8 Q. Are those acceptable to you?

9 A. (Bowes) Yes, they are.

10 Q. Very good.

11 Ms. Frazier, you talked about possibly
12 choosing construction -- or at least
13 impacting construction with UNH graduation.
14 Are there other events that happen after
15 graduation? Because I think that's the major
16 construction is after graduation. Are there
17 other events that you might have to consider?

18 A. (Frazier) None that I know of or that have
19 come up in discussions with UNH, no.

20 Q. So that was my next question. You've had the
21 discussions with UNH about other activities
22 that occur after that?

23 A. (Frazier) I haven't personally, but
24 Eversource has, yes.

1 Q. Eversource has?

2 A. (Bowes) Yeah, we've had many meetings with
3 the University of New Hampshire.

4 Q. Okay. So in terms of events that might have
5 traffic-related issues, the one that rises
6 out of that is primarily just graduation?

7 A. (Bowes) I think it's beyond just the traffic
8 as well. They want to make sure the campus
9 looks its best during that time frame. So
10 they'd like us to start the construction
11 after that and then try to complete it, I
12 think mostly for employee and public safety,
13 to make sure we're finished with the
14 underground construction on the campus before
15 students return in the fall. It seems to be
16 logical to us, and I can certainly appreciate
17 their requirements for that.

18 Q. And Ms. Frazier, I notice you said in one of
19 your recommendations about working it out a
20 little bit with the mall, in terms of some
21 specific activities there. Do you have any
22 updates on that situation? How is that
23 discussion going?

24 A. (Frazier) No updates. I don't think there

1 are any outstanding concerns.

2 A. (Bowes) So I would say the mall has been a
3 little bit of a challenge for us. We
4 continue to outreach to them, and they also
5 have some on-site lighting that we're trying
6 to deal with as well, making sure the correct
7 clearances are there, as well as making sure
8 we don't interrupt any underground circuits.
9 We'll continue that outreach and work through
10 the issues. But it hasn't been as
11 cooperative a relationship as UNH has.

12 Q. And so when you said it hasn't been
13 productive, are they just not returning your
14 calls, or is it --

15 A. (Bowes) It's been a challenge to get meetings
16 together and to have the right people at
17 those meetings. We won't stop, though. We
18 will be successful with it.

19 Q. All right. Very good. Bear with me one
20 moment.

21 Refresh my memory, Mr. Bowes. When you
22 were talking about the option at UNH
23 versus -- the option easement at UNH versus
24 an existing easement, what's the difference?

1 Refresh my memory.

2 A. (Bowes) So the difference is we would
3 actually put a restriction on that deeded
4 property, and we would have that and be able
5 to show it to you. The option agreement is,
6 if this project is approved and goes forward,
7 we'll execute an easement with the University
8 of New Hampshire with these conditions. So,
9 one is a kind of contract to have an easement
10 and the other is actually the deed
11 restriction itself.

12 Q. All right.

13 MR. WAY: I'm all set. Thank you.

14 PRESIDING OFFICER WEATHERSBY: Mr.
15 Iacopino.

16 QUESTIONS BY MR. IACOPINO:

17 Q. Just to follow up on that quickly, are any of
18 the options for the easements that you
19 mentioned, are any of them in danger of
20 expiring in any short period of time?

21 A. (Bowes) I think they are good through the end
22 of this year. And I think many of them have
23 already been renewed to reflect so many days
24 after the SEC rules. I think we still have

1 one or two that are outstanding. But if the
2 schedule holds, that should not be a problem.
3 But we'll continue to work on those to change
4 the language to be contingent upon your
5 approval, plus a period of time after to
6 execute them.

7 Q. And I assume that all of the easements that
8 you've negotiated, and all the options for
9 the easements, are all in perpetuity. None
10 of them are time-limited; is that correct --
11 in other words, the easement's only good for
12 40 years or 50 years?

13 A. (Bowes) I believe they're all permanent
14 easements.

15 Q. Thank you.

16 PRESIDING OFFICER WEATHERSBY: Ms.
17 Muzzey.

18 QUESTIONS BY DIR. MUZZEY:

19 Q. Back in, I think it was back in August when
20 we were here last, there was some discussion
21 of removing portions of the older cable that
22 now goes under Little Bay. There's also a
23 cable that seems to be leading to one of the
24 marine cable houses on the Durham side. Just

1 in some of the photographs in Applicant
2 Exhibit 106, I'm wondering -- I believe
3 that's the cable house that's slated to be
4 moved and rebuilt. Are there any concerns
5 regarding the cable in that location, whether
6 it's hazardous, whether it would interfere
7 with the possibility of moving that building
8 and rebuilding it?

9 A. (Bowes) I would say I don't have any concerns
10 with the relocation of the cable house with
11 regard to those existing cables. As you
12 said, they are visible from the surface. You
13 can walk down them. I think they should be
14 removed as part of that cable house
15 relocation, at least the ones that are right
16 there near the shore line. And we will plan
17 to do that. As far as disposal, again, we
18 deal with lead sheath cables every single
19 day. So it's a very common conductor on our
20 system, so we have the proper disposal
21 methods to deal with that.

22 Q. Thank you.

23 PRESIDING OFFICER WEATHERSBY: Can I
24 ask a follow-up? Do you mind me jumping in?

1 With the old cables, I understand
2 they'll be cut into sections, those that are
3 coming out, cut into sections and moved. Do
4 you anticipate any adverse impacts to the
5 environment from that? Will there be debris
6 or extra sediment or metals being dispersed?
7 Any impacts to the environment from cutting
8 the cables and removing them?

9 WITNESS BOWES: I would say that there
10 will be minimal impacts. And again, it's a
11 trade-off between the temporary impacts of the
12 removal, which there will be some sediment,
13 versus the permanent impacts as they continue to
14 deteriorate. There is a balance there. The DES
15 has weighed that balance and decided that remove
16 the cables where you need to, but leave the
17 other cables in place. So...

18 BY DIR. MUZZEY (CONT'D):

19 A. So, thinking again on the Little Bay
20 crossing, there was some discussion that, in
21 the future, if this project receives its
22 certificate and is constructed, there's a
23 chance that the cable may need to be repaired
24 for some reason, some sort of failure in the

1 submerged portion of the Project. And there
2 was some discussion that the cable would be
3 pulled up, spliced with new cable and then
4 dropped back in and covered up again. I'm
5 just wondering, how is the cable retrieved.
6 And the trench column that that cable comes
7 out of, do you assume that it will remain in
8 place, or will more jet plow technology be
9 needed to re-establish it? If you could just
10 walk through that process in a little more
11 detail, I'd appreciate it.

12 A. (Dodeman) All right. So what I would
13 consider the unlikely event of a fault on the
14 submarine cable, there's methods to locate
15 the fault, both from the substations. And
16 there's toning and there's all sorts of
17 remote sensing ways to find the fault
18 accurately.

19 Eversource at that point would have to
20 mobilize a repair barge with a dive team.
21 Divers would have to go down and pinpoint the
22 fault. They can do that, again, remotely
23 with using like 25-hertz tone location.
24 Divers have a probe that they can actually

1 find a fault very accurately with that. Once
2 that fault is located, divers would then be
3 used to get that cable exposed. If it's
4 under an area that has mattresses on it, for
5 instance, the divers would have to remove the
6 mattresses, move them off to the side. If
7 not, the divers would use some sort of
8 jetting probe to get that cable liberated
9 from the bottom. They would then have to cut
10 the cable at the fault or near the fault.
11 Typically when you have a cable fault, due to
12 insurance requirements, we have to save the
13 portion of cable that's broken. The
14 insurance companies need to know what
15 happened.

16 That cable would then be -- one end
17 would be capped and left on the bottom so
18 that salt water doesn't intrude into the
19 cable any further than it needs to. One end
20 would be brought to the surface. A section
21 of cable would then be spliced onto the end
22 you have on the surface. The barge would
23 move forward to the other end, at the end of
24 where the damaged cable is. That end would

1 determine whether localized project costs can
2 be recovered. And if I'm remembering this
3 correctly, it's ISO who determines which are
4 regional costs and which are localized costs?

5 A. (Bowes) That is correct.

6 Q. So once ISO has decided which are regional
7 and which are localized, is it FERC that then
8 considers -- FERC is the entity that decides
9 whether or not they can be recovered, the
10 localized costs can be recovered?

11 A. (Bowes) In effect, I would say yes. I can
12 explain the process in a little bit more
13 detail with an example from Connecticut.

14 In one of our projects in Connecticut,
15 there was a considerable amount of siting
16 opposition, which ultimately led to a
17 settlement with some towns. And the
18 Connecticut Siting Council approved that,
19 which included a couple sections of
20 underground in the project. ISO looked at
21 that project and said, we had approved an
22 all-overhead project, as the Seacoast was an
23 all-overhead project, and we are determining
24 that there is an incremental cost here that

1 should not be part of the regional network
2 service tariff and not be borne by all the
3 New England customers. It's a local siting
4 decision, therefore you need to find recovery
5 of these costs elsewhere. We worked with, in
6 this case, the Connecticut Public Utilities
7 Commission, got their input into it, and they
8 asked us to spread the costs across all of
9 Connecticut ratepayers, not just Eversource
10 ratepayers. So that included the municipals,
11 and it included another investor-owned
12 utility in the state, United Illuminating
13 Company. We went forward and did that
14 petition to FERC. FERC approved that, and
15 now that is part of the Local Network Service
16 tariff for customers in Connecticut. To the
17 best of my knowledge, that process has never
18 been exercised in New Hampshire. So, today
19 there are no localized parts of a Regional
20 Network Service project. There are
21 localized, or Local Network Service costs,
22 however.

23 Q. Okay. And having gone through that process,
24 do you know whether FERC considers the

1 opinions of other entities, whether it's
2 communities, other ratepayers, that type of
3 thing, in making its decision? Does it have
4 set criteria? How does FERC come to that
5 type of decision?

6 A. (Bowes) So there's clearly -- it's another
7 process like a rate case or a hearing. There
8 is the opportunity to intervene. There's an
9 opportunity for both witnesses and testimony
10 in that process. So it's a docket similar to
11 a regulatory docket. They do take input from
12 stakeholders. But ultimately their
13 determination is based upon were the costs
14 prudently incurred by the utility. And if
15 prudence is not an issue, and typically it's
16 not in a siting project, then they decide in
17 favor of the company's filing. There may be
18 changes to that filing. But ultimately, to
19 the best of my knowledge, they've always
20 approved the company's proposal for
21 localizing costs. They certainly have in all
22 the cases Eversource has brought forward.

23 Q. And just a few minutes ago, I think someone
24 asked a question about the 2012 Solution

1 Study Report. Is that the New
2 Hampshire-Vermont report you were talking
3 about a few minutes ago?

4 A. (Bowes) Yes, it is.

5 Q. And that was the first report that identified
6 thermal and voltage criteria violations in
7 the Seacoast Area?

8 A. (Bowes) That is correct.

9 Q. How often are those types of solution studies
10 done, and has ISO done one since for the
11 seacoast?

12 A. (Bowes) Again, I know Bob Andrew is very
13 familiar with this topic.

14 Q. Okay. That's fine. I can certainly wait.

15 A. (Bowes) I believe there's another one that's
16 about to be issued. I believe it's a 2017
17 report. And that will probably be issued
18 later this year, or possibly even early next
19 year. It's definitely a periodic process.

20 We also file an annual report with the
21 New Hampshire PUC, which is a 10-year
22 look-ahead of projects in New Hampshire.

23 Q. Okay. I can ask him about that as well. I
24 know the day is getting late.

1 My final question is in regard to timber
2 mats. They've been suggested a number of
3 times as a way to protect stone walls in a
4 number of different locations. And I'm just
5 wondering, is this a common process that
6 Eversource uses?

7 A. (Bowes) It's a very common process. I think
8 we've created an industry here in New
9 Hampshire with the amount of timber mats that
10 we use. So we do a lot of work on
11 rights-of-way. Many in New Hampshire are
12 very wet as well, so we're using timber mats
13 on a daily basis.

14 Q. And does Eversource do any type of monitoring
15 or checking post-construction to see whether
16 or not the timber mats provide sufficient
17 protection for the stone wall?

18 A. (Bowes) Yes, we do. Most of the permit
19 requirements require us to go back and do a
20 post-construction analysis to ensure that the
21 soil erosion and wetland impacts are as we
22 described them to be.

23 Q. But not just in wetland locations, but also
24 in stone wall locations?

1 A. (Bowes) Good question. I don't know if we've
2 actually looked at stone walls.

3 A. (Plante) Not yet. Hasn't been an issue until
4 recently.

5 Q. Would it potentially be agreeable to put some
6 sort of condition, if this project does
7 receive a certificate, that there would be a
8 post-construction analysis of the success of
9 the timber matting to protect stone walls?

10 A. (Bowes) Yeah, I believe that would be
11 certainly acceptable to the Company.

12 Q. So, although you used this before, you don't
13 really have any available before and after
14 photos of other locations.

15 A. (Bowes) I know there's at least one from
16 MVRP, but I think it's fairly minimal. So I
17 think that's a condition we could accept.

18 Q. Okay. Thank you.

19 DIR. MUZZEY: That's all I have.

20 PRESIDING OFFICER WEATHERSBY: Mr.
21 Fitzgerald.

22 QUESTIONS BY MR. FITZGERALD:

23 Q. Good afternoon. I'll be very short here.
24 I'd like to follow up on some of the

1 questions and your responses relative to the
2 property right-of-way this morning.

3 Attorney Richardson referenced
4 Appendix 166, which is the NHDES wetlands
5 final study. And bear in mind, I'm in the
6 air program, I'm not a wetlands person. He
7 referenced Page 20, Item 10(f). "Impacts to
8 estuarine wetlands are restricted to an
9 existing cable crossing corridor which has
10 been utilized in the past and contains
11 de-energized cables that are obsolete." I
12 wanted to get a little more detail as to what
13 your understanding of the term "estuarine
14 wetlands" means; and second, what your
15 understanding of that "existing cable
16 crossing corridor."

17 I guess my first question would be: Was
18 the decision to not go directly over to the
19 old cable house that you'd shown the dock and
20 so on, was that an original route that was
21 proposed, or was that a subsequent change
22 after the initial proposal?

23 A. (Dodeman) I can say, having been at Caldwell
24 Marine on the bidding team during the first

1 round of this project, originally the plan
2 was to look at landing on the -- and this is
3 on the eastern shore -- look at landing at
4 the original landing by the cable house. The
5 older cables that go in to that route are
6 much smaller, much more pliable and much
7 lighter. The newer cables, the 115kV cables
8 we're talking about which were permitted for
9 this project, are much bigger, much harder to
10 handle, and much more difficult to possibly
11 think about putting up that scarp face on the
12 eastern landing. It would create a lot of
13 engineering problems.

14 By the time this project went out for
15 its second round of bidding, that is when we
16 started looking at alternate landings because
17 the landing on the eastern shore where that
18 original cable house is, is so difficult that
19 nobody wanted to entertain it.

20 Q. Okay. So, in looking at that condition, 10
21 (F), is it your understanding that the
22 current path is within what DES refers to as
23 an "existing cable crossing corridor," which
24 has been utilized in the past? I believe

1 there was some testimony this morning about a
2 thousand-foot-wide corridor that encompassed
3 everything. So --

4 A. (Bowes) That's what I believe they're
5 describing here is that thousand-foot
6 corridor and not the specific route that the
7 previous set of cables used.

8 Q. Okay. Is there something -- I assume that
9 DES, in their response in this final
10 decision, based that on something, some
11 information that Eversource provided to them
12 that would lead them to include this
13 Paragraph F.

14 A. (Bowes) I would say certainly there was
15 information not only in this Application, but
16 in previous applications to the New Hampshire
17 DES, about removing the old cables.
18 Approximately 20 years ago there was a
19 proposal when we started to go forward with
20 those removals, and it ended up being stopped
21 because of an inability to remove them in
22 that area. So, yeah, we clearly provided
23 information to them. And I think they know a
24 lot about these cables as well.

1 Q. So if I refer to Exhibit 106, Applicant's
2 Exhibit 106, the cable removal plan, PDF
3 Page 4, which is a map, I think, if I
4 remember, there was testimony a couple weeks
5 ago that showed the existing cable corridor
6 and the squiggly lines being the older
7 cables. Is all of this, the blue and the
8 yellow, within what you consider to be that
9 thousand-foot existing corridor?

10 A. (Dodeman) If you can give me a moment, I have
11 to look at that chart.

12 (Mr. Dodeman reviews document.)

13 A. (Dodeman) I don't see a scale with regard to
14 that photo, so I'm just wondering where that
15 1,000 feet would be.

16 A. (Bowes) So all of these cables, both the old
17 cables and the proposed new cables, are
18 within that thousand-foot corridor, and they
19 still remain there. You can see the one at
20 the top of the page is migrating quite a bit
21 away from its original path, but it's still
22 within the thousand-foot --

23 Q. Including the entrance, the land arrival on
24 the eastern shore?

1 A. (Bowes) Yes.

2 Q. Okay. Going back to Appendix 166, Page 20,
3 and the next page, Page 21 I think it is, you
4 were asked about Item No. 25 at the bottom of
5 the page that says, "All work is within the
6 Applicant's existing ROW which convey the
7 right to construct and replace transmission
8 lines in support of the reliability... The
9 majority of the wetland impacts are temporary
10 and restored," et cetera. But that first
11 line, could you clarify your understanding of
12 that again?

13 A. (Bowes) As I said before, I think I would
14 have used a more complete description, saying
15 that there are sections of underground that
16 are possibly different than the existing
17 right-of-way, that there was an amendment to
18 our original application.

19 Q. Okay.

20 A. (Bowes) Now, granted, most of that is still
21 within the general area of the right-of-way,
22 but there's clearly a different alignment
23 than was there originally, both the onshore
24 in Newington through Gundalow Bay, now it's

1 an underground, and then obviously right at
2 the transition station in Newington as well,
3 the transition structure at the pit area. So
4 there's been some realignments of the
5 right-of-way in several locations, I would
6 agree.

7 Q. Okay. So would you suggest this needs to be
8 modified somehow? Have you responded to this
9 document at all?

10 A. (Bowes) The one from February? I believe we
11 have.

12 Q. And in your response, did you suggest
13 revising these items?

14 A. (Bowes) I don't believe this was part of the
15 response we provided. But we could certainly
16 do that.

17 Q. And last, I can't remember who it was that
18 raised an issue last time we were here
19 indicating that in order to have this
20 right-of-way under Great Bay, that there had
21 to be not only PUC approval, but there had to
22 be Governor and Executive Council approval as
23 well. Is that your understanding? And are
24 you seeking that or -- where does that stand?

1 A. (Bowes) So the simple answer is it's not my
2 understanding. And we have done research on
3 this. The first legislation I mentioned
4 before, earlier today, was the New Hampshire
5 statute for public water crossing by the PUC
6 and notification to the Attorney General.
7 That statute went on the books in 1921. In
8 1923, it added the lands of New Hampshire.
9 And that's the first reference to empowering
10 the Governor and the Executive Council. In
11 1929, an amendment was done to require the
12 petition be filed at the Public Service
13 Commission, predecessor to what is now the
14 New Hampshire PUC. In 1951, all of those
15 statutes were re-enacted and became the
16 public utilities statutes and under the
17 jurisdiction of the Public Service
18 Commission. There has never been a
19 requirement for the deed of easement in any
20 water crossing statute in the state of New
21 Hampshire. In 2013, the deed requirement for
22 state-owned land, which there has been a
23 requirement, was rescinded. In 2016, we
24 filed our Application, both with the SEC and

1 also with the New Hampshire PUC. In March of
2 2017, the New Hampshire PUC issued its order
3 in Docket No. DE 16-441 granting the license
4 to PSNH, and its order became effective on
5 April 10 of 2017. So we have all of the
6 rights we need to cross Little Bay, and they
7 do not require the Governor or Executive
8 Council to act.

9 Q. Is that documented somewhere in the
10 Application, that sequence of statutes and so
11 on?

12 DIR. MUZZEY: I think that was a new
13 request for information that he's providing to
14 us right now.

15 PRESIDING OFFICER WEATHERSBY: I think
16 it's now part of the record.

17 MR. FITZGERALD: Okay.

18 BY MR. FITZGERALD (cont'd):

19 Q. Can you be specific as to what the governing
20 statute is right now?

21 A. (Bowes) That I could not tell you. But I bet
22 I could get that for you, yes.

23 Q. I would appreciate it.

24 A. (Bowes) I think part of the PUC Application

1 will have that information in there also.

2 MR. FITZGERALD: Am I allowed to ask a
3 question to Counsel for the Public?

4 MR. IACOPINO: What kind of question?

5 MR. FITZGERALD: I just wanted to ask
6 if he agreed with that statutory declaration or
7 if he's even looked into it.

8 PRESIDING OFFICER WEATHERSBY: Why
9 don't you ask the question.

10 MR. FITZGERALD: Do you agree with that
11 statutory declaration, or have you even looked
12 into it?

13 MR. ASLIN: I would say I have not done
14 a full analysis of the requirements for rights
15 in state waters. There are -- I think Mr. Bowes
16 gave, you know, without checking, a fairly
17 accurate description of the PUC process for
18 approval of utility crossings of state waters.
19 I also believe that it was Mr. Irwin who raised
20 the issue a couple weeks ago --

21 MR. FITZGERALD: Yes.

22 MR. ASLIN: -- and he may have been
23 referencing other approvals that are required,
24 not necessarily for utility crossings, but for

1 structures being placed in state waters, which
2 would be a DES statutory thing, which I have not
3 analyzed at this point.

4 MR. FITZGERALD: Okay. Thank you.

5 I'm all set.

6 PRESIDING OFFICER WEATHERSBY: Okay. I
7 have a couple questions.

8 QUESTIONS BY PRESIDING OFFICER WEATHERSBY:

9 Q. You indicated there would be at least one
10 location where there will be some blasting.
11 In that location, and if there's any others,
12 do you do pre- and post-blasting surveys --

13 (Court Reporter interrupts.)

14 Q. Do you do pre- and post-blasting surveys and
15 agree to mediate any damage that may occur?

16 A. (Plante) Yes, we do.

17 Q. In the testimony, it was indicated that the
18 final engineering drawings are about
19 90 percent complete. Do you anticipate any
20 non-minor changes to those drawings?

21 A. (Plante) No, we don't. The only changes that
22 we would really anticipate are changes that
23 are the outcome of this process. If, for
24 instance, you asked us to move Structure 14

1 50 feet to the west, then we might evaluate
2 that and do that.

3 Q. Thank you.

4 Am I correct that all of the tower poles
5 that will be used in this project are
6 monopoles and are self-weathering steel?

7 A. (Plante) No. We have a combination of
8 monopole structures and multipole structures.
9 There are some areas where we have two-pole,
10 H-frame structures, and these are things that
11 we've negotiated with landowner groups to
12 help mitigate the visual concerns. And we've
13 also adopted some galvanized steel structures
14 in the area of the football stadium at UNH.

15 Q. Okay. Thank you. I had forgotten about
16 that. But there aren't any lattice
17 structures?

18 A. (Plante) No, there are not.

19 Q. And any of the towers, are they required by
20 the FAA for any nighttime lighting?

21 A. (Plante) No, they're not.

22 Q. When clearing a right-of-way, you talked
23 about the vegetative cutting of tree limbs.
24 If a homeowner approached you and asked for

1 the tree to be taken down or trimmed a little
2 differently, is that something you'd be
3 willing to work with the homeowner on?

4 A. (Plante) We absolutely do. We do anyways.

5 Q. Concerning the underground, I think most of
6 my questions have been answered.

7 I understand the water source for the
8 jet plow is the bay itself, the water of the
9 bay. Are there some sort of filters on that?
10 Or how do like the minnows and other
11 organisms not get sucked in and plowed out?

12 A. (Dodeman) We've actually received, and it's
13 in the DES requirements, that we can't have a
14 mesh size of less than two -- sorry -- it
15 can't be bigger than 2 inches. So the actual
16 intake that goes into the pumps, which is a
17 pipe that goes over the side of the barge,
18 has a box that is essentially a mesh box, and
19 it has a 2-inch maximum hole size all around
20 it. So it's sort of a filter.

21 Q. So DES has approved that 2-inch size?

22 A. (Dodeman) Yes, they have.

23 Q. Do you anticipate that the crossing of Little
24 Bay will interfere with the Crowley or

1 Beswick access to the bay for their boating
2 purposes on either a temporary or permanent
3 basis?

4 A. (Dodeman) Possibly on a temporary basis. But
5 our crews know to escort people around
6 especially danger areas. But we would -- any
7 impact would be temporary. Now, we're not
8 anticipating having to tell people, no, you
9 can't put your boat in today because we're
10 here. But if we do, we'll try to give them a
11 heads-up or a notice. And if we can escort
12 them around to make sure they're safe to do a
13 launch, then we'll do so.

14 Q. And you'll have someone on site to be able to
15 do that should they wish to access the bay?

16 A. (Dodeman) We will have plenty of people on
17 site.

18 Q. Concerning roads and traffic, Ms. Frazier,
19 there were four locations off of Route 16,
20 Spaulding Turnpike, where Eversource proposed
21 access roads by Gosling Road in Portsmouth.
22 And I was just concerned because it seems --
23 I know that area very well. Cars are
24 traveling at a pretty high rate of speed, and

1 there's a lot of lane switching going on
2 there. And then I'm envisioning four access
3 roads coming off of that with trucks. How is
4 that going to be kept safe for motorists?

5 A. (Frazier) So DOT had the same comment. And I
6 think we have just recently revised the
7 access roads to limit the access directly off
8 the Spaulding Turnpike. I don't know if we
9 have the most recent version of the permits.

10 Q. So there'll be fewer access roads?

11 A. (Frazier) Yes. Yup.

12 Q. Do you know how many there will be?

13 A. (Frazier) I want to say we got it down to
14 one.

15 Q. So it'll be one of those engineering drawing
16 changes that we were talking about. Okay.

17 Some residents, typically those from
18 Durham, have raised concerns about losing
19 access to their property. Will access be
20 eliminated or restricted for any period of
21 time for any residents or businesses during
22 construction?

23 A. (Frazier) No.

24 Q. There will be --

1 A. (Frazier) Oh, good point. Sorry. UNH, I
2 think there's one building with a driveway
3 that we would need to use alternative access.
4 But they would have access.

5 Q. They'll have access, but alternate access.
6 Okay.

7 A. (Bowes) We have been having ongoing
8 discussions with UNH about that specific
9 topic, so it's not a surprise to them.

10 Q. And are there no road closures, or there's
11 one road closure by Nimble Hill?

12 A. (Frazier) So, technically two road closures.
13 Nimble Hill, just because that intersection
14 is so narrow, we have to cross it halfway
15 quickly. And the other one is kind of half
16 of Gundalow Landing, where you'll have to go
17 around the loop the other way.

18 Q. So those would be closed for a period of
19 time, but people will always have a detour
20 route to access their homes?

21 A. (Frazier) Yes. Absolutely. Yup.

22 Q. And as I recall, those detours are not long.

23 A. (Frazier) No, not now.

24 Q. Certainly the Gundalow Landing is not.

1 A. (Frazier) Yeah, I think the --

2 Q. And Nimble Hill is less than a mile or so?

3 A. (Frazier) Right around a mile, maybe a little
4 more.

5 Q. Thank you. I have nothing else.

6 PRESIDING OFFICER WEATHERSBY: Do you,
7 Attorney Iacopino?

8 QUESTIONS BY MR. IACOPINO:

9 Q. I have one construction safety question. In
10 Exhibit 125, the Durocher report, you have
11 this caution in there that the information
12 contained in this report must not be
13 interpreted as burial depth. Burial depths
14 are provided from plow telemetry data during
15 burial operations and spot-checked real-time
16 using divers.

17 Do you have divers in the water the
18 entire time that you're jet plowing?

19 A. (Dodeman) No, we do not. Divers go in, in
20 the case that the plow hits an obstruction.
21 Sometimes we'll have them go in and look at
22 the plow and find out what's happening. But
23 it's actually not common to have divers in
24 the water, certainly not while you're

1 operating the jet plow.

2 Q. But are they used to spot-check the depths,
3 or is that sort of they're in the water and
4 they do that as part of being in the water?

5 A. (Dodeman) If they're in the water, they go
6 check things. In the shallow water areas
7 where the plow is not working, that's where
8 we have the divers checking the depths using
9 a graded rod or a graded jet lance.

10 Q. Thank you.

11 PRESIDING OFFICER WEATHERSBY: Mr. Way.

12 MR. WAY: One last question, I promise.

13 BY MR. WAY (CONT'D):

14 Q. With regards to the markings that we talked
15 about earlier, Mr. Wall, I'm sensitive to
16 what you were saying about maintaining these
17 markings long term.

18 But one of the things I'm wondering, and
19 Mr. Bowes, you mentioned that during the
20 construction period you might be willing --
21 or you would consider putting markings in
22 place, obviously in lieu of the charts being
23 updated. But also knowing I think what Mr.
24 Dodeman was saying, an aggressive external

1 force can be the biggest danger to these
2 types of activities, is it in your best
3 interest to maybe -- or for us to have a
4 condition that might say for a set period of
5 time, could be a year, a season, something,
6 that we could talk about that it might be
7 good to have a marking in place until you
8 have the education reinforced?

9 A. (Bowes) So I think we would have no issue
10 with a condition like that. I think it would
11 have to be worded such that it was subject to
12 approval of the U.S. Coast Guard.

13 Q. Right. Not in perpetuity --

14 A. (Bowes) Right.

15 Q. -- but something for a reasonable period of
16 time.

17 A. (Bowes) Because they may have other
18 requirements or restrictions that wouldn't
19 allow us to do that.

20 Q. Very good. Thank you.

21 PRESIDING OFFICER WEATHERSBY: Any
22 other questions from the Committee or counsel?

23 [No verbal response]

24 PRESIDING OFFICER WEATHERSBY: Attorney

1 Needleman.

2 And for procedural purposes, I think
3 it's safe to say that we will not be getting
4 to Mr. Andrew or Mr. Cullen today. We'll
5 finish after redirect.

6 MR. NEEDLEMAN: Thank you. I'll try to
7 be brief.

8 REDIRECT EXAMINATION

9 BY MR. NEEDLEMAN:

10 Q. Mr. Bowes, I want to pull up Exhibit 196,
11 which is a new exhibit. Mr. Patch and
12 various other parties during the course of
13 their questioning at points suggested or
14 implied that it might be possible that this
15 project is not needed anymore because so much
16 time has passed since ISO first looked at it.

17 (The document, as described, was
18 herewith marked as Applicant's
19 Exhibit 196 for identification.)

20 Does this -- first of all, can you tell
21 us what this exhibit is?

22 A. (Bowes) Yeah. So ISO-New England updates its
23 project lists several times per year. And
24 this is the June 2018 ISO-New England Project

1 List Update.

2 Q. And does this exhibit shed any light on that
3 question?

4 A. (Bowes) Yes. If you look at, you know,
5 again, on the left-hand side, it be the
6 second, third and fourth projects. Those are
7 the termination at Madbury Substation, the
8 termination at Portsmouth Substation. And
9 then the fourth line is the new
10 Madbury-Portsmouth overhead submarine cable
11 circuit, or the Project we call the Seacoast
12 Reliability Project. They're both still in
13 the plan stage. They both -- or all three
14 have an in-service date of December of next
15 year. And ISO still expects us to be
16 building these projects.

17 MR. NEEDLEMAN: And Dawn, if you move
18 further over so that the next columns are
19 visible.

20 BY MR. NEEDLEMAN:

21 Q. Those are the planned columns above; is that
22 correct?

23 A. (Bowes) That is correct.

24 MR. NEEDLEMAN: And if you move up a

1 little bit, Dawn, there's a June 18 Status
2 column.

3 BY MR. NEEDLEMAN:

4 Q. Is that right, the green one?

5 A. (Bowes) So you can see that they have
6 continued to list them as a "planned" project
7 as of June of this year.

8 MR. NEEDLEMAN: Next topic. I want to
9 introduce Exhibit 197. Per the discussion we
10 had last time, this is the August 14th version
11 of the draft MOU that Eversource and Durham have
12 at this point.

13 (The document, as described, was
14 herewith marked as Applicant's
15 Exhibit 197 for identification.)

16 BY MR. NEEDLEMAN:

17 Q. First of all, Mr. Bowes, do you know if
18 Eversource has provided comments to Durham on
19 this MOU?

20 A. (Bowes) Yes, we have. We actually talked at
21 the last hearing about I had the latest
22 version in front of me. This is an earlier
23 version, but it's the one we agreed to file.
24 We do have some comments back to Durham and

1 to UNH. There's a corresponding one to UNH
2 on some of the conditions that we mutually
3 wanted to have in a MOU.

4 Q. And so is it your understanding, at this
5 point in time, that the ball is in their
6 court with respect to responding to
7 Eversource's comments?

8 A. (Bowes) To the best of my knowledge, as of
9 last Friday, yes, that's true.

10 Q. Could you briefly summarize for the Committee
11 what you believe the outstanding issues are
12 to get this document finalized.

13 A. (Bowes) I think there's two major ones.
14 There was a request to be able to shut down
15 our use of local roads at any time. We'd
16 like to work through that in a more
17 collaborative basis.

18 And the other one was going through a
19 town permitting process for use of the local
20 roads. And again, we think that's the -- the
21 SEC has jurisdiction in that area. And
22 again, we're very willing to work with the
23 Town of Durham to have a condition similar to
24 what we have with Newington.

1 Q. Next topic. When Mr. Ratigan, on behalf of
2 the Town of Newington, was questioning you,
3 he asked you at one point about a provision
4 of the Newington Master Plan, and in
5 particular about a provision requiring
6 transmission lines in a portion of town to be
7 buried. Do you recall that?

8 A. (Bowes) Yes, I do.

9 Q. And at the time he asked you those questions,
10 you said you were not familiar with that
11 provision; is that right?

12 A. (Bowes) Yes.

13 Q. Have you since had the opportunity to look at
14 that provision?

15 A. (Bowes) Yes, I have.

16 MR. NEEDLEMAN: And so I want to pull
17 up, if we could, Dawn, Newington Exhibit 1-4,
18 which is Mr. Hebert's exhibit. And in
19 particular, it's the Utility Easement section.

20 BY MR. NEEDLEMAN:

21 Q. And if we go to the bottom of this, Mr.
22 Bowes, is this the section right at the
23 bottom, I think the last sentence, that Mr.
24 Ratigan was referring to?

1 (Mr. Bowes reviews document.)

2 A. (Bowes) Yes, I believe it is.

3 Q. This is a sentence that talks about a utility
4 transmission infrastructure being buried in a
5 residential district; is that right?

6 A. (Bowes) Yes.

7 MR. NEEDLEMAN: Now, Dawn, if you could
8 pull up our new Exhibit 198, please.

9 (The document, as described, was
10 herewith marked as Applicant's
11 Exhibit 198 for identification.)

12 BY MR. NEEDLEMAN:

13 Q. This is Newington's response to a data
14 request that Eversource served on them. And
15 the request was to identify when the master
16 plan provision was adopted. Based on this
17 response, what is your understanding, Mr.
18 Bowes, of when that provision we just looked
19 at was adopted?

20 MR. RICHARDSON: Madam Chair, I
21 apologize for interrupting, but I'm trying to
22 find these exhibits. Were they e-mailed? The
23 last one I see is I got e-mailed 195 today.
24 Don't know where 198 is.

1 PRESIDING OFFICER WEATHERSBY: I think
2 198 is a new exhibit?

3 MR. NEEDLEMAN: These are new exhibits.

4 PRESIDING OFFICER WEATHERSBY: They're
5 new exhibits.

6 MR. RICHARDSON: So we just -- I
7 haven't seen them before.

8 MR. PATCH: They haven't been provided
9 to us.

10 PRESIDING OFFICER WEATHERSBY: You have
11 copies for --

12 MR. NEEDLEMAN: They'll be circulated.

13 MR. IACOPINO: You've probably seen
14 this one before. It appears to be a data
15 request that you should have probably received
16 during discovery.

17 MR. NEEDLEMAN: It's their answer.

18 MR. RATIGAN: Ms. Chair --

19 PRESIDING OFFICER WEATHERSBY: Attorney
20 Ratigan.

21 MR. RATIGAN: I'm curious. This panel
22 is going to conclude today. For the
23 witnesses -- for the attorneys who haven't seen
24 these exhibits, how are they to prepare?

1 (Presiding Officer Weathersby and SEC
2 Counsel discuss off the record.)

3 PRESIDING OFFICER WEATHERSBY: So these
4 issues were raised in cross-examination.
5 They're proper within the scope of the redirect,
6 and Attorney Needleman is entitled to present
7 exhibits to elicit testimony from his panel.

8 MR. NEEDLEMAN: Thank you.

9 BY MR. NEEDLEMAN:

10 Q. So, Mr. Bowes, my question again: Based on
11 Newington's response to the data request,
12 what is your understanding of when that
13 master plan provision that we just looked at
14 was adopted?

15 A. (Bowes) So the revision was adopted
16 February 23rd, 2015.

17 Q. And based on your understanding, when was
18 this project first introduced to the Town of
19 Newington?

20 A. (Bowes) I believe we started discussions in
21 late 2013.

22 Q. So, based on that time line, is it correct,
23 then, that Newington adopted that amendment
24 requiring the underground approximately 14

1 months after Eversource introduced the
2 Project to them?

3 A. (Bowes) I think that's correct, yes.

4 Q. Is there anything --

5 MR. NEEDLEMAN: Dawn, if we can go back
6 to the amendment for a moment.

7 BY MR. NEEDLEMAN:

8 Q. Is there any language in that amendment that
9 suggests to you that the amendment was made
10 with this particular project in mind?

11 (Mr. Bowes reviews document.)

12 A. (Bowes) Sure. The first paragraph at the top
13 of the page here is talking about... no, it's
14 the second paragraph. The proposed
15 installation of electric transmission line
16 between Gundalow Landing, Frink Farm and
17 Hannah Lane, it's trying to limit the
18 structure heights as well. So...

19 Q. During the course of looking at documents
20 associated with this issue, did you also have
21 the chance to review the master plan
22 section -- the Utility Easement section of
23 the master plan that was in effect when you
24 first began your discussions with Newington?

1 A. (Bowes) Yes, I did.

2 MR. NEEDLEMAN: Dawn, can we put up
3 Exhibit 199, please.

4 (The document, as described, was
5 herewith marked as Applicant's
6 Exhibit 199 for identification.)

7 BY MR. NEEDLEMAN:

8 Q. And is this that document?

9 A. (Bowes) Yes, it is.

10 MR. NEEDLEMAN: And Dawn, if you could
11 go to the Utility Easement section of that plan
12 and highlight that.

13 BY MR. NEEDLEMAN:

14 Q. And during the course of your review of that,
15 did you notice any sections in there that
16 required transmission lines to be
17 underground?

18 A. (Bowes) There were none.

19 Q. Next topic, picking up on the issue that Mr.
20 Fitzgerald raised a few minutes ago
21 pertaining to that CLF letter that was
22 introduced. Did you have a chance in
23 preparing today to look at Applicant's
24 Exhibit 187, which is the PUC records with

1 respect crossings in this docket?

2 A. (Bowes) Yes, I did.

3 Q. And Mr. Fitzgerald I think asked about the
4 relevant statute. Is the statute contained
5 in those documents?

6 A. (Bowes) Yes, it is.

7 Q. Is it RSA 371:17?

8 A. (Bowes) Yes, it is.

9 Q. And did you also review the final PUC order
10 that was contained in those documents?

11 A. (Bowes) I did.

12 Q. To the best of your understanding, did
13 Conservation Law Foundation, or any parties
14 here, participate in that PUC crossing
15 docket?

16 A. (Bowes) They did not.

17 Q. So, to the best of your knowledge, did those
18 issues that Conservation Law Foundation
19 raised here with respect to the crossing get
20 raised in that docket?

21 A. (Bowes) No.

22 Q. Do you know if any parties, including
23 Conservation Law Foundation, appealed that
24 PUC order?

1 A. (Bowes) There's been no appeal taken.

2 Q. Mr. Wall, just one question for you. And
3 I'll come back to you, Mr. Bowes.

4 You'll recall that when Mr. Patch was
5 questioning you, he stated -- or there was a
6 question about the time that each jet plow
7 run would take. And I think in response to
8 his question you said that each jet plow run
9 would take one to two days; is that right?

10 A. (Wall) Correct.

11 Q. In answering that question, were you
12 including mobilization and demobilization
13 time in your estimate?

14 A. (Wall) Yes, that did include mobe and
15 de-mobe.

16 Q. So I just want to sharpen that a bit. If you
17 were to take out mobilization and
18 demobilization time and focus only on the
19 actual jet plow run itself, what would be
20 that estimated time?

21 A. (Wall) Approximately 10 hours.

22 Q. Mr. Plante, earlier today Ms. Frink asked you
23 about soil compaction on her property. And
24 you made reference to an agreement, but you

1 couldn't recall at the time where that
2 agreement was in the record; is that right?

3 A. (Plante) That's correct.

4 Q. Do you now know -- can you now identify for
5 the Committee where that agreement is and
6 what it is?

7 A. (Plante) I still don't have it right in front
8 of me.

9 Q. If I told you that it was Applicant's
10 Exhibit 145, Attachment B, Appendix A, would
11 that ring a bell?

12 A. (Plante) It does ring a bell.

13 Q. And that is a Soil and Groundwater Management
14 Plan that Eversource and the Frinks, and I
15 believe Rockingham County Conservation
16 District, agreed upon; correct?

17 A. (Plante) That's correct.

18 Q. Was that the document you had in mind --

19 A. (Plante) Yes, it is.

20 Q. -- when you were talking with Mrs. Frink?

21 And then Exhibit 195, which was
22 introduced earlier today --

23 MR. NEEDLEMAN: If you could put that
24 up on the screen, Dawn, and maybe focus in on

1 that toward the middle.

2 BY MR. NEEDLEMAN:

3 Q. So this is the document that we agreed to
4 produce earlier that focuses on the Crowley
5 property. And Mr. Bowes, I just wanted you
6 to take one minute to explain to the
7 Committee in particular what the significance
8 of this is in relation to the questions you
9 were answering.

10 A. (Bowes) So this shows a blow-up of the area
11 that we had a lot of discussion about this
12 morning between the Beswick property and the
13 Crowley property. It's based upon the
14 existing subdivision documents for property
15 lines. It's based upon the new easement
16 option we have with the Beswicks and
17 overlays, the engineering documents, in a
18 precise manner where they would be located in
19 Little Bay and as they come out of the Little
20 Bay. And this is why I was able to say with
21 some assurance this morning they will be
22 12 feet away from the Crowley property. This
23 was developed in the last couple weeks
24 because of the discussion the attorney had

1 with Mr. Quinlan. And we wanted to make sure
2 we were able to respond in an affirmative
3 manner and lay out exact locations of the
4 various property lines, as well as our
5 electric facilities that have been proposed
6 for this project.

7 Q. Mr. Bowes, just one final question. I can't
8 remember who it was who asked you about
9 trenching in the rock so that you could
10 possibly avoid the need to use concrete
11 mattresses, and you described all of the
12 issues associated with that. And one of the
13 things you mentioned was an increase in costs
14 if you were to do that sort of trenching and
15 blasting in the rock. But you never said
16 what you thought the increase in cost might
17 be. Do you have any estimate of that for the
18 Committee?

19 A. (Bowes) Yeah, so the costs are fairly
20 extensive. They would require us to do an
21 excavation, approximately 100 days in
22 duration, with the largest part being on the
23 west side of the bay. The costs would be an
24 incremental \$3- to \$5 million over the

1 existing proposal we have with the concrete
2 mattresses.

3 MR. NEEDLEMAN: Thank you. Nothing
4 more, Madam Chair.

5 PRESIDING OFFICER WEATHERSBY: Thank
6 you. We'll adjourn for the day and dismiss the
7 construction panel.

8 MR. RATIGAN: Excuse me, Madam Chair.

9 PRESIDING OFFICER WEATHERSBY: Yes,
10 Attorney Ratigan.

11 MR. RATIGAN: Do I have an opportunity
12 to re-cross if there were issues that were
13 raised and documents that were raised that we
14 haven't had an opportunity to see?

15 PRESIDING OFFICER WEATHERSBY: So all
16 the documents were raised in response to
17 cross-examination.

18 MR. RATIGAN: But they don't tell the
19 whole story.

20 PRESIDING OFFICER WEATHERSBY: When
21 your witnesses are on, when your witnesses are
22 there, you can ask them about it.

23 MR. RATIGAN: Thank you.

24 (Hearing adjourned at 5:52 p.m.)

C E R T I F I C A T E

I, Susan J. Robidas, a Licensed
Shorthand Court Reporter and Notary Public
of the State of New Hampshire, do hereby
certify that the foregoing is a true and
accurate transcript of my stenographic
notes of these proceedings taken at the
place and on the date hereinbefore set
forth, to the best of my skill and ability
under the conditions present at the time.

I further certify that I am neither
attorney or counsel for, nor related to or
employed by any of the parties to the
action; 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.

Susan J. Robidas, LCR/RPR
Licensed Shorthand Court Reporter
Registered Professional Reporter
N.H. LCR No. 44 (RSA 310-A:173)

SEC 2015-04 PSNH,D/B/A EVERSOURCE ENERGY JUDICATIVE HEARING - DAY 3AFTERNOON SESSION ONLY
APPLICATION FOR CERTIFICATE OF SITE & FACILITY
September 17, 2018

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APPLICATION FOR CERTIFICATE OF SITE & FACILITY**

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