STATE OF NEW HAMPSHIRE

SITE EVALUATION COMMITTEE

August 30, 2018 - 1:17 p.m.
DAY 2
49 Donovan Street Concord, New Hampshire
\{Electronically filed with SEC 09-14-18\}
IN RE: SEC DOCKET NO. 2015-04
Application of Public Service Company of New Hampshire,d/b/a Eversource Energy, for a Certificate of Site and Facility.
(Adjudicative Hearing)

PRESENT FOR SUBCOMMITTEE/SITE EVALUATION COMMITTEE:

Patricia Weathersby
(Presiding Officer) David Shulock, Esq.
Elizabeth Muzzey, Dir.
Historic Resources
Charles Schmidt, Admin. Dept. of Transportation Christopher Way, Dep.Dir. Div. of Economic Dev. Michael Fitzgerald, Dir. Dept. of Env. Services Susan Duprey Public Member

ALSO PRESENT FOR THE SEC:
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
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}

RECORD REQUESTS BY MR. IRWIN:
All documents providing evidence related 30 to the rights to cross Little Bay for purposes of the cable and any documents related to approval for the use of concrete mattresses in Little Bay

Marine calculations and analysis47 undertaken to conclude that the larger-size cable could not be transported to the Project site for the Little Bay crossing and any analyses of the number of splices $t$ necessary to use larger cable

RECORD REQUEST BY MS. BROWN
1949 easement agreement that included 110 access and purchase of the Getchell property, which includes deeded access for this access road
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)

AFTERNOON SESSION
(Resumed at 1:17 p.m.)

PRESIDING OFFICER WEATHERSBY: Okay. Welcome back, everyone. We'll resume our hearing and proceed with cross-examination by Attorney Ratigan for the Town of Newington. CROSS-EXAMINATION

BY MR. RATIGAN:
Q. Good afternoon. My name is John Ratigan. I represent the Town of Newington. I think I'll start my questions directly to Mr . Bowes. But if you feel that you need to consult with someone else, please feel free to do so. I'd just like to get the information on the record.

I've got a historical question for you. Back on January 29 of 2015, Eversource made a presentation to the Newington Planning Board. And I'll represent to you that they, at the presentation, they proposed -- there was a proposal for crossing Little Bay with six underwater cables. And I wondered, now that it's been reduced down to three, if you could explain what the rationale was for going from
six down to three. If you know.
A. (Bowes) Do you have a copy of the presentation?
Q. Yeah. Dennis, could you please. Could we approach the witness?

MR. RATIGAN: By way of background, this is part a PowerPoint presentation handout that was also handed to the planning board on January 29th, 2015.

MR. WAY: Do we have this as an exhibit already or --

MR. RATIGAN: NO, I'm just asking a question. He asked me for information to refresh his recollection, I assume.

MR. WAY: Okay.
A. (Bowes) Yes, I see it and I understand the context. At that time, it was a pre-application submittal, and it was our understanding at that time that we could not procure individual cables, or three cables that would have the necessary ampacity. Since that time, and for the filing, we've learned that we can, from LS Cable, they can design and build submarine cable that will
meet the requirements and only require three cables and not six.
Q. Thank you very much. Moving on from that question. Yesterday you testified that the Company would be installing some roadside screening in conjunction with aerial road crossings?
A. (Bowes) That is correct.
Q. And once those screenings are established and the plants grow and mature, if you had to go back in and take some of them down in order to provide access for maintenance and repairs, would you be replanting them again when you're done?
A. (Bowes) Yes, we would.
Q. Thank you.

Another historical question. It's my understanding, and if you can confirm this, when the original plan and the Project processes were presented to the Town of Newington, I think it was at a time frame when Eversource believed that they'd have to bury the cable, really starting from Gundalow, going all the way up through to

Hannah Lane because of FAA height requirements. Does that strike a cord as recollecting that requirement?
A. (Bowes) Yeah, I know we had FAA height restrictions for some of the Town of Newington alternatives that we studied. I don't believe at that distance that there would be FAA restrictions for the structures from Gundalow Landing to Hannah Lane.
Q. So, no recollection, at least at this time, that there was -- it was the flight path area that governed the height restrictions. So you don't have a recollection that there was a wider area that the FAA was requiring.

And I understand that later you talked with the FAA and worked with the FAA, and they relieved you of having to bury it all because of their height restrictions, because you presented information that showed that you could satisfy their height restrictions and still meet their design criteria.
A. (Bowes) I think the simple answer to that is yes.
Q. Okay. Do you have -- because that was the \{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}

## (Frazier|Strater|Plante|Bowes|Dodeman|Wall)

original presentation that was made, you know, to the planning board, that there was going to be a long area of burial, and then you were relieved on it. I know that when you made those presentations to the board, it included a cost budget. And so do you have any idea of what the savings were once you realized that you were relieved of having to basically go from the Flynn Pit area to Hannah Lane underground to meet FAA requirements?
A. (Bowes) I can answer in general terms what the cost differential is between overhead and the underground.
Q. Sure.
A. (Bowes) I'm not sure we had the precision in the estimate at that point to say how much would be saved. But in general, it's probably a savings of, say, $\$ 8$ million a mile to go overhead versus underground.
Q. So if that's roughly a mile, you were relieved of basically $\$ 8$ million of cost that was in the original budget.
A. (Bowes) Or within -- so, again, I'm not sure
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}

## (Frazier|Strater|Plante|Bowes|Dodeman|Wall)

it would be the original budget. But it would be within an overall project cost, I would agree.
Q. Okay. Good. Thank you.

And with respect to the testimony that you made yesterday about the crushed gravel that would be necessary to establish the work pads around the structures along the line, I think you mentioned that during -- I think I'd requested that perhaps the gravel could be removed and it could be loamed and seeded after the work pad piece was done and you'd moved on. Was that a correct summary of what I think your discussion was?
A. (Bowes) What I recall was talking about the MOU we have with the Town of Newington that talked about removal of the access roads at the end of the Project.
Q. Okay. So that's what you were referring to.
A. (Bowes) Yeah, I don't remember about Durham, about reseeding the work pads. Although, the work pads will be removed. And I'm not sure reseeding would be the proper restoration at each location, but it could be at many
locations.
Q. Okay. I'd like to draw your attention to your March 29, 2017 testimony, which is Applicant's Exhibit 7, if you have that handy. And when you pull that up, if you could turn to Page 6, please.

Now, in that testimony, on Exhibit 7, Page 6, Lines 10 to 11, you state that Public Service remains committed to working with the Town of Newington to reduce concerns and potential impacts, and that based on Public Service's continued outreach with the Town of Newington, it is the Company's position that the amendment, the plan amendment, addresses the concerns raised by the town and reflects a more effective project design as it traverses, you know, the transmission line route.

You're aware that the Town of Newington has master plan requirements that require the burial of transmission lines in town?
A. (Bowes) I know there's a master plan that talks about transmission lines in residential areas. I didn't know if it required

## (Frazier|Strater|Plante|Bowes|Dodeman|Wall)

|  | undergrounding. |  |
| :---: | :---: | :---: |
| 1 |  |  |
| 2 | Q. | Okay. If I represent to you that it does |
| 3 |  | require that, is Public Service/Eversource |
| 4 |  | committed to work with the town on burying |
| 5 |  | the line through both the residential |
| 6 |  | district and the historic district? |
| 7 | A. | (Bowes) Beyond what has already been done? |
| 8 | Q. | Beyond what's already been committed to. |
| 9 |  | That's correct. |
| 10 | A. | (Bowes) No, I don't believe we are making |
| 11 |  | that commitment today. |
| 12 | 2. | Okay. So the commitments that you have, they |
| 13 |  | wouldn't -- it's your position that they |
| 14 |  | wouldn't extend towards allowing the town to |
| 15 |  | comply with its regulations with respect to |
| 16 |  | line burial in the residential and historic |
| 17 |  | districts. |
| 18 | A. | (Bowes) My only pause is you used the word |
| 19 |  | "regulation." |
| 20 | Q. | Yeah. |
| 21 | A. | (Bowes) It's a plan, I believe, right, not a |
| 22 |  | regulation? |
| 23 | 2. | Yes, it is a master plan requirement. Right. |
| 24 | A. | (Bowes) So we would not comply with that part |
|  |  | \{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\} |

(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
of the master plan for Newington.
Q. Directing your attention -- you've addressed -- you've adopted Mr. Jiottis's testimony?
A. (Bowes) Yes, I have.
Q. Okay. So his testimony appears in Applicant's' Exhibit 6. If I could direct your attention to Page 16 --
A. (Bowes) Just a moment.
Q. Sure.
A. (Bowes) Okay. I have the page.
Q. Yeah. Oh, Page 16. Sorry.
A. (Bowes) Yes, I have it.
Q. Okay. So at Lines 5 to 6, the testimony provides that the Project is designed to reduce potential visual and environmental impacts to the greatest extent possible as constrained by existing property rights, existing infrastructure and geography.

Would you agree with me that, if the line were buried, it would reduce potential visual impacts in the Town of Newington?
A. (Bowes) So you're asking me to parse out the first part, but not the second part. We
don't have existing land rights along the right-of-way for that portion, so it's a combined sentence.
Q. Yes, but you've not sought to acquire them, have you?
A. (Bowes) Yes, we have.
Q. Oh, really? From whom have you sought to acquire -- Mr. Plante is nodding "No."
(Discussion among panel members)
A. (Bowes) So we proposed to relocate the transition structure off the Frink Farm and outside the historic district -- I'm sorry -outside the historic district, but we were denied the underground property rights to do that. That's the one example I have for you.
Q. All right. So I know the Frizzells have been intervenors in this Application. They are the property owners who are adjacent to the beautiful, open field that's further to the east beyond Fox Point Road. Did you seek to acquire those land rights for undergrounding?
A. (Bowes) We did not.
Q. No. And if you were given those rights for undergrounding, would you put the line
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
underground in that area?
A. (Bowes) We would not.
Q. So then it's probably not accurate to say the Project is designed to reduce potential visual and environmental impacts to the greatest extent possible, because you're putting self-imposed limitations on this.
A. (Bowes) Maybe you can be more clear about what limitations I'm placing on those.
Q. Well, there is no constraint if the property owner is willing to give to you or sell you at a commercially reasonable price the underground rights. Then you would have no constraint putting the line underground across that open field area, would you?
A. (Bowes) So that would reduce the visual impacts, yes. It might not reduce the environmental impacts.
Q. Oh, it would increase environmental impacts?
A. (Bowes) Yes.
Q. And are you suggesting that's a reason not to put the line underground?
A. (Bowes) No. I'm just saying that it's a limitation that you described, and I'm just \{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
saying it's visual, yes, but environmental, no.
Q. Are you familiar with the Northern Pass Project?
A. (Bowes) Yes, I am.
Q. Did the Company commit to place 60 miles of that project underground as part of its project proposal?
A. (Bowes) Ultimately, yes, $I$ think it did.
Q. And if Newington and the impacted residents supported the undergrounding of just not even the entire line, just say a portion across from Fox Point Road across that beautiful field, is that something that you might be willing to consider?
A. (Bowes) It is not.
Q. Are you familiar with the proposed easement route as it crosses Little Bay to Portsmouth, the entirety of the route in Newington?
A. (Bowes) Yes, I am.
Q. And is it a correct statement to say that for a portion of that route, Gundalow Landing, anyway, within the easement rights that you've historically owned out there, there's \{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
no transmission or distribution line out there, is there?
A. (Bowes) Which portion of the --
Q. The first part coming up from Little Bay up to Little Bay Road, the initial portion as you leave Little Bay.
A. (Bowes) So there's an easement which was acquired for a transmission line across that property, or set of properties.
Q. Yeah, but there's no line there.
A. (Bowes) It was removed, I believe, in the 1980s.
Q. That's right. And the line that traverses from Little Bay Road to, I think it goes at least to Fox Point Road, that's a distribution line, isn't it?
A. (Bowes) That's actually -- again, you mentioned a historical fact. Up until the early 2000s, Public Service New Hampshire classified its 34 kV system on rights-of-way as a transmission asset. So if you look at the original easements for these, for this line, it references a transmission line rather than a distribution line. In early

2000s, we reclassified as part of the ISO-New England Regional Network Service Tariff. We re-classified that 34 kV transmission line to become distribution. So it was originally sited, permitted, constructed and operated as a transmission line. It was reclassified -or would have been reclassified in the early 2000s as a distribution asset.
Q. And it's been referred to consistently within, by your testimony and Mr. Jiottis's testimony, it's referred to as a "distribution line," isn't it?
A. (Bowes) Correct. That's the definition today is as a distribution line.
Q. What's the kV threshold that normally distinguishes distribution from transmission?
A. (Bowes) Well, again, up until around the year 2000, each state had a different definition of "transmission." Around the year 2000, right after the ISO-New England Tariff was formed, we consolidated those for all three states. And 69 kV is now the differentiator or break point between transmission and distribution.
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
Q. Thank you.

Are you aware that the Town of Newington and Eversource signed a Memorandum of Understanding that addresses, you know, road restoration and related protocols, as well as blasting?
A. (Bowes) Yes, and many other things. Yes.
Q. Yes, and many other things. And one of the things I noted in your July 27, 2018 testimony, which I believe is Exhibit 140, and that's at lines or Page 8, and it's at Lines 12 to 15, I think that's where you describe the number of -- or the names of the roads which Eversource has identified as roads that will be used for the construction project. Is that correct?
A. (Bowes) I haven't called it up yet. I'm sorry.
Q. Oh, I'm sorry. Didn't mean to rush you.
A. (Bowes) And that was Page 8 I believe you said.
Q. Yeah, Page 8, Lines 12 through 15.
A. (Bowes) Yes, I have it.
Q. Okay. And then I'll also refer you to -- and \{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
in that description there's a number of roads. There's Little Bay, Fox Point, Nimble Hill and other roads. And I'll represent to you that in Applicant's Exhibit 168, which is the Memorandum of Understanding that's been executed by the Town and by Eversource, that in that document, on Page 4, on Paragraph 4, it says that -- let's see. Oh, excuse me. It's Paragraph 5. It says at the conclusion of the paragraph that the only roads expected to be used by Eversource are Nimble Hill Road, Gundalow Landing and Little Bay Road.

To the extent that you've disclosed there are additional roads, I assume that you're in agreement that all the provisions of the Memorandum of Understanding would apply to those new roads that you've identified as being needed for construction.
A. (Bowes) Yes, I would agree to that.
Q. Okay. One other -- can you describe how equipment and materials, once the Project starts, will be moved to the site? In other words, you're going to have a lot of large equipment, a lot of bulky, long equipment
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
that has to make its way to the site. Can you describe briefly how that will be accomplished?
A. (Bowes) Sure. Maybe I'll start and go through the various phases of the Project as well.
Q. Sure.
A. (Bowes) So the first phase I would say would be staking the right-of-way and identifying the trees that have to be removed. So that would be done with, $I$ would say, light-duty equipment. And possibly the next activities would be the road-building activities, which would probably require dump trucks, graders, fairly typical road construction equipment.
Q. Excuse me. When you say "staking and identifying the trees," do you mean cutting into the area where you're going, or are you also talking about trees that could be elsewhere along the right-of-way that might have lower hanging branches or be too close on a corner, you know, because you have a large truck that might need a different turning radius?
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
A. (Bowes) So it would be trees that have been identified in the areas identified on the environmental maps. So it would include all those types of activities, both clearing the right-of-way to the necessary width. But also, if you need access, there would be some tree-clearing or tree-trimming as well. After the roads are built, and possibly some of the access may be available today to bring on vegetation management equipment, again, there would be a large truck with wood chippers and things like that, that would remove the trees and trim the trees along the right-of-way.

The next phase of the Project would be the foundation portion, which would be where we'd be drilling holes for the direct, embedded structures or drilling holes for the concrete installations.

The next phase would be the structure erection, which would be using trucks that would deliver the steel poles, some in sections, obviously, based on their length. But that's typically done with a
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
tractor-trailer type vehicle.
After that, there would be smaller line trucks that would be used, smaller than the tractor-trailers, at least, where we would be framing and possibly rigging for the conductor pulling.

And then at various segments along probably 4- to 5,000 feet, we'd be setting wire-pulling equipment, which, again, is a trailer and tensioner equipment, where we would maintain tension of the conductors while we pull them in.

And the last phase would be the line vehicles where we would connect the conductors to the insulator strings.

The final phase, for example, in
Newington would then be road removal. So, similar equipment as we installed the roads with we'd use to remove those roads, which would include graders or bulldozers, as well as dump trucks that would remove the material.
Q. And I take it that not really knowing when any of this is going to start, there would be
coordination with public safety officials
about time of day, you know, best time to
travel, all those kinds of things for
vehicles that might present, you know, a
challenge to traffic, say in the morning rush
hour or evening rush hour, if they're on the
road at the same time?
(Bowes) Yes, that's accurate. We'll publish
a schedule and then we'll review the schedule
at our weekly meeting with the Town of
Newington and go through those types of
activities. In addition to that is also
going to be recreational use along some of
these roadways which we'd have to take into
consideration, and obviously the bus routes
for school children at the beginning of the
day and the end of the day. So all of those
types of activities would be coordinated in
that weekly construction meeting.
Thank you. There is a fair amount of
testimony about the marine cables. Once
they're installed, if they have to be
repaired, what's that process like, and how
$\{2015-04\}$ [Day 2 Afternoon onLY] \{08-30-18\}
long would something be out of service?
for
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
A. (Bowes) Sure. I can start, and Mark may be able to add additional details if I don't cover it. I know he has not spoken yet, so...

So the length of interruption -- I'll start with the second question first -- is going to be several weeks to months. The one advantage of an undersea cable is it's highly reliable. But when it does fault or become damaged from an external "aggression" I guess is the word used, the repair cycle is quite long. And it may require the manufacture of cable, it may require time-of-year restrictions again to do the work. And obviously the process itself, which I'll go into the first part of the question next.

So the first part would be locating the faulted area, and that could be done, you know, at least initially would be done by the monitoring equipment on both ends of the cable, at Madbury substation and Portsmouth substation. We'd try to indicate a precise location. That's probably accurate to within tens of feet, at best, maybe hundreds of
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
feet. After that we would have to place divers into the water to unearth the cable and also to identify the precise location of the break.

The next phase would be understanding how much of the cable section we'd have to replace. If it's a single-point failure or if it's a longer failure, possibly from an anchor drag, that could impact a longer piece or longer section of the cable. Ultimately, we'd have to move a barge out to the work site and excavate enough of the cable back to be able to bring the entire cable up onto the barge, cut out the section, splice a section on, on both ends, lower the section back into the bay and then re-cover the cable itself.
Q. And is this easier or more complicated if the area of repair is underneath the concrete mattress area?
A. (Bowes) So I would say in general it's probably harder to repair just because there's another sequence of activities. And at those locations, the cables are physically closer together. This is where they're
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}

## (Frazier|Strater|Plante|Bowes|Dodeman|Wall)

starting to taper down from 30 feet apart to a few feet apart. So you have that restriction to deal with. It's also somewhat easier because it's maybe shallower water and out of any currents you have in the channel. So there's positives and negatives. But it's not a desirable location, regardless of where it is in Little Bay.
Q. So what's the range of time frame when the line could be out?
A. (Bowes) So, minimum three months. And maximum could be a whole year, a whole cycle.
Q. Given that this is a reliability project, do you have any built-in redundancy that you plan for that would accommodate, you know, the unlikely event that the cable goes out and then you had to make a repair?
A. (Bowes) So there is redundancy in the system. And this actually provides some of that redundancy, another line into Madbury substation and improvements at Portsmouth substation. So this becomes part of that redundancy. But there would be exposure during that repair cycle for the same types
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
of events that could occur today.
MR. RATIGAN: I have no further
questions. Thank you very much.
PRESIDING OFFICER WEATHERSBY: Next up is the Conservation Law Foundation, Attorney Irwin.

MR. IRWIN: Thank you, Madam Chair. CROSS-EXAMINATION

BY MR. IRWIN:
Q. Good afternoon. My name is Tom Irwin. I represent the Conservation Law Foundation. Mr. Bowes, I have a few initial questions for you related to Mr. Jiottis's testimony. And that is Applicant's' Exhibit 6. Specifically, if you could turn to Page 3, Lines 7 through 9. Mr. Jiottis states there that PSNH currently owns or has the legal rights secured for all the property, or the property rights necessary to construct the entire project as proposed in the Application. Did I read that correctly?
A. (Bowes) Yes, you did.
Q. And that statement is important because, pursuant to the SEC's rules, an Applicant is

## (Frazier|Strater|Plante|Bowes|Dodeman|Wall)

required to provide evidence that the Applicant has a current right, an option or other legal basis to acquire the right to construct, operate and maintain the facility on, over and under the site; is that correct?
A. (Bowes) Yes, it is.
Q. Obviously, this project involves a significant use of land submerged beneath tidal waters. Are you familiar with the fact that land beneath tidal waters is owned by the State, subject to the Public Trust?
A. (Bowes) Yes.
Q. And has Eversource gone through the necessary processes to acquire all rights for use of submerged lands beneath tidal waters?
A. (Bowes) Yes.
Q. And could you describe that process that you've gone through, please.
A. (Bowes) Maybe I should back up as well and say this statement concerns the original Application to the SEC. It has since been amended. So I can make an affirmative statement that when the Application was filed, this was accurate. When we amended
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
the Application, it was accurate. And today it is still accurate.
Q. Okay. Thank you.
A. (Bowes) As far as the Project requirements for the crossing of Little Bay, that's a license agreement that the Company has to use those public lands, I think is the way you described it. So it's a license actually to cross that.
Q. And when did Eversource or PSNH obtain that license, and from whom?
A. I don't have the documents in front of me. I know we've gone through a process with, I believe it's New Hampshire Public Utility Commission, to obtain that license. And there may be successor licenses to that as well. I know the original crossing here was in 1902. It was a crossing along the same corridor I believe in the 1950s, and then obviously the rights were for this project.
Q. I'd like to show you a document I've marked as CLF Exhibit 23.
(Witness reviews document.)
Q. What I've provided is correspondence from the
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)

New Hampshire Attorney General's Office, dated February 9, 2012, related to a proposal for natural gas line involving bedrock boring under tidal waters between Newington and Dover. And I'll draw your attention to the third paragraph in which the Attorney General's Office states that case law -"Pursuant to New Hampshire RSA 1:14 and case law, the land beneath tidal waters is owned by the state, subject to the public trust." we've already agreed that that is the case. It goes on to describe the process that ultimately involves Governor and Council review and approval for the use of tidally submerged lands.

Has Eversource obtained approval from the Governor and his Executive Council for this project?
A. (Bowes) Probably a question for our attorneys. I don't have an answer to that, nor do $I$ know if it's required. So...
Q. If $I$ could please make a record request for any and all documents providing evidence related to the rights to cross Little Bay for
purposes of the cable and any documents related to approval for the use of concrete mattresses in Little Bay.
A. (Bowes) Sure. That's fine.
Q. Thank you.

MR. NEEDLEMAN: Sure, but I believe this was provided.

BY MR. IRWIN:
Q. Let me just back up. You indicated familiarity with public trust principles related to land beneath tidal waters. I assume you will agree that the concrete mattresses are intended to be permanent?
A. (Bowes) For the life of the cable system. I'm not sure if that's your definition of "permanent."
Q. Okay. Well, I think that's a term that's used in the Application. I assume you'll agree there is a proposal to use several thousand square feet of concrete mattresses in Little Bay, or potentially?
A. (Bowes) I would say "potentially." Again, we identified the areas where concrete mattresses might be needed and wanted to make
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
sure that our New Hampshire DES permit -- our calculations were conservative, to make sure that we didn't understate potential need for those. So I would say at this point it's clearly not a guaranty that the full amount of mattresses would be needed, or if any mattresses would be need.
Q. If mattresses are needed, though, I assume you agree they will be on subtidal lands?
A. (Bowes) Yes, below the mean high water mark.
Q. And in areas where people boat?
A. (Bowes) I would say, based on testimony I've heard at the tech sessions, certainly kayakers use these areas.
Q. Also places where people fish?
A. (Bowes) I would assume so. I don't really have any firsthand knowledge if this is an area where people fish.
Q. But you have knowledge of people fishing in Little Bay generally?
A. (Bowes) Oh, certainly, yes.
Q. And I assume you would agree that the subtidal land that would be filled with concrete mattresses otherwise would be
natural habitat on the surface?
A. (Bowes) I think I understand the question. But when you added "the surface" -- I think they're natural lands -- the land is actually under the water. The surface is the surface of the water. So I don't want to parse words here, but you kind of confused me at the end of that.
Q. I'll restate the question. I assume you will agree that the subtidal land that concrete mattresses will be placed on otherwise will be natural habitat?
A. (Bowes) I believe so, yes. Probably a better group would be the environmental group to answer that question. But my understanding is yes.
Q. And there's a potential for concrete mattresses to be visible at low tide; is that correct?
A. (Bowes) There is a potential of that, yes.
Q. Just shifting gears briefly, Mr. Bowes. You were here yesterday when Mr. Quinlan testified; is that correct?
A. (Bowes) Yes, I was.
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}

## (Frazier|Strater|Plante|Bowes|Dodeman|Wall)

Q. And do you agree with Mr. -- related to the ISO-New England process during which the Seacoast Solution option and the Gosling autotransformer option were considered, do you agree with Mr. Quinlan's assessment of that ISO New England process as one in which stakeholder input was critical and an ongoing part of the ISO-New England process?
A. (Bowes) So $I$ know he got many questions about this process. I will agree with the statement that you just made. I'm not sure that necessarily characterizes what he said. But I agree with what you said.
Q. Okay. I was reading fairly closely from Mr. Quinlan's testimony at Applicant's Exhibit 2, Page 4, Line 17.

Did Eversource ever -- this is a question I asked Mr. Quinlan, and he deferred it to you or Mr. Andrew. Did Eversource ever reach out itself to Seacoast communities that it knew, that Eversource knew would be affected by the options that were under discussion before the ISO-New England process?
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
A. (Bowes) So we did talk yesterday about this New Hampshire-Vermont study that was done which covered a very large area of the two states. We did have participation in that from the State of New Hampshire. Both the Office of Consumer Advocate, and we had participation from the New Hampshire Public Utilities Commission in that process. And as you well know, we had participation of the Conservation Law Foundation in that process. So, although we didn't notify every town in those two states, we did have many parts that were part of that stakeholder process.
Q. So I'll ask the question again, and slightly differently. Once the Seacoast Solution alternative was identified as an option by Eversource, and the Gosling autotransformer alternative was identified as an option by Eversource, did Eversource reach out to any of the communities that would be affected by those projects during the ISO-New England process?
A. (Bowes) Again, not to my knowledge.
Q. Okay. Thank you.
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}

## (Frazier|Strater|Plante|Bowes|Dodeman|Wall)

Shifting gears, I have questions for David, for Mr. Plante. This relates as well to maintenance of the cables. Your prefiled testimony, Exhibit 8, Page 21, Lines 11 through 19, your testimony there describes what I guess I would sum up as the "splicing-in process." Could you describe that briefly.
A. (Plante) Sure. And as Mr. Bowes has already touched on, much of this process -- and certainly Mr. Dodeman is the expert on actually doing it -- but the process involves, as Mr . Bowes alluded to, identifying the location of the fault or the failure in the cable system and raising it to the surface on a barge where the cable would then be -- you know, the damaged portion of the cable would be cut out and a new piece of contain would be spliced in, and then the entire system would then be laid back onto the floor of the bay.
Q. Mr. Dodeman or Mr. Wall, do you have anything to add with respect to the splicing-in of a new segment of cable?
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
A. (Dodeman) No, I think a very simple explanation has already been given.
Q. Mr. Wall, do you have anything to add?
A. (Wall) I agree with that.
Q. Thank you.

Mr. Bowes, I have another question related to Mr. Jiottis's testimony, again, Applicant's 6. This is at Page 19, Lines 9 through 15.
A. (Bowes) Could you repeat the page number again.
Q. It's Page 19 --
A. (Bowes) Yes, I have it.
Q. -- and Lines 9 through 15. And I just have to get there myself.

I'd just like to read a portion of that, starting at Line 9. Mr. Jiottis testifies, "The entire length" -- and I'm sorry. Let me back up. This relates to transportation of cable to the Project site for purposes of installing it at the Little Bay crossing; is that right?
A. (Bowes) Yes, it does.
Q. So Mr. Jiottis states, "The entire length of \{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
each individual cable, approximately 1.1-mile, will be transported to the Project site on the barge as a single length of cable. The barge must be able to cross underneath the General Sullivan Bridge, Route 4/Spaulding Turnpike Bridge, which only allows for approximately a 30-foot clearance. This clearance limits the size and type of barge that can be used for the Project. The limitations of the barge result in a design utilizing three single cables, one cable per phase, versus one cable with all three phases in a common bundle."

Does this mean that Eversource is proposing three cables to cross Little Bay because it can't get the larger-size cable under the General Sullivan Bridge?
(Discussion among panel members)
Q. There's some conversation going on. If you'd like to speak, Mr. Dodeman.
A. (Dodeman) Yes, if I may, only because I was involved during the design phase as well for this project.

The limitation of height underneath the
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)

General Sullivan Bridge is more of a question of what type of laying equipment we're using on top of the barge. Typically you would use a very high gantry and a coiling arm. And that gantry can be sometimes 70-plus feet high. And for bigger cables, that would require a bigger draw pipe. This is to control the torsion and the cable coming out of the tank. That method is not feasible. The question of whether or not we looked at a three-cord cable, which is much heavier, is the limitation of actually the depth of the bay. That's why we had to split it up into three phases.
Q. Thank you. Was there consideration of bringing in multiple reels of the larger, heavier cable?
A. (Dodeman) Yes. Again, during the planning phase, we looked at every available option to try to limit the number of crossings we have to do and shorten the Project duration, which is always a factor for the construction company. We try to keep the construction duration as short as possible. But with the
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
weights and volumes that were calculated originally, which go back to Caldwell Marine, which was one of the original bidders on this project, we limited it to a single reel per phase run. And that's the depth -- that's the draft of the barge limitation again.
Q. So was there consideration of bringing in smaller, less cable in multiple reels -- less of the larger-size cable in multiple reels for splicing?
A. (Dodeman) Yes. However, again, that is a design issue. Wherever possible you try to avoid putting splices into a cable. Splices are the most common failure point. They tend to be looked at as a weaker point in a cable system. So you always want a continuous
length. Again, the continuous length of a three-cord cable system is too heavy to put onto a barge to work in this bay. So that's, again, another reason why we went to the three, single-cord phase.
Q. So a decision was made not to use the heavier cable to avoid a splice.
A. (Dodeman) To a avoid a splice or splices.
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)

The other thing is there are limitations in the ampacity and voltage ratings on the three-cord cables that would require most likely a much bigger three-cord cable size.
Q. Sitting here today, can you say whether it would have been a matter of a splice, two splices?
A. (Dodeman) I don't have the marine calculations. I would have to look that up. I certainly couldn't do it offhand. And that usually requires the assistance of someone like a marine engineer or someone. So I don't have the resources available as a cable manufacturer.
Q. The analysis that took place with respect to the larger-size cable and any other analyses to reduce the number of crossings of Little Bay, are those documents -- is that analysis in the record?
A. (Dodeman) I don't know offhand.
Q. If not, I'd like to make a record request.
A. (Dodeman) If the record exists. Yeah, I'd have to confer with attorneys on whether or not that documentation does exist.
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}

## (Frazier|Strater|Plante|Bowes|Dodeman|Wall)

MS. MONROE: What's the request, Tom?
MR. IRWIN: The request is for the analysis that was undertaken to conclude that the larger-size cable could not be transported to the Project site for the Little Bay crossing; and as part of that, any analyses of the number of splices that might be necessary to use that larger cable.

MR. IACOPINO: What he referred to as "marine calculations," that's what you're looking for?

WITNESS BOWES: We understand the request.

MR. IRWIN: Okay. Yeah, I'm not sure that --
A. (Dodeman) Typically, just for the sake of clarification to the panel, when you're designing an installation, you have to pick a barge that can work in the area. So we have to look at the draft of the barge -- that's how much barge is actually under the waterline -- to make sure you're working in a safe working depth. So that's priority

No. 1, is keep enough water under the boat.
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)

And that's a big deal when you're working in areas of rock and mud flats.

The second thing we have to look at is aerial clearance of the -- again, the General Spaulding -- sorry -- the Spaulding Pike --
A. (Bowes) General Sullivan.
A. (Dodeman) The General Sullivan Bridge does create what we call an "air draft" situation, which limited us from using three-cord cable because of the drop height. You need a very large gantry with the coiling arm that takes the tension out of the cable. And it's far too big to work in this type of -- in this scenario. And it can't fit under the bridge. The other thing we look at is the dimensions of the barge -- and I believe that a 180-by-50 was selected -- because we have to make sure that we can work in the confines of the work area, so that we can make the approach towards Welsh Cove on the eastern landing and we can make the approach towards the tidal flats on the western landing. So that was also looked at.

The cable that we can put onboard is

## (Frazier|Strater|Plante|Bowes|Dodeman|Wall)

then limited to the engineering, based on -which we have to look at the deck-loading capacity for these barges. So the decision goes back to -- one of the final calculations we have to look at is the deck loading to see how much weight we can put on the barge. And I think the happy number that we came up with resulted in a weight that sort of not forced us, but made us select a single-cord cable system where we can do three, separate runs of single cables.
Q. So, thank you for that clarification, Mr . Dodeman.

MR. IRWIN: And Mr. Iacopino, for your clarifying question, so $I$ would say in terms of a request record, I'm interested in these marine calculations, but also in any analysis that was conducted to determine whether the three-cord cable could be brought in, in multiple spools or reels.

MR. NEEDLEMAN: Madam Chair, what is the relevance of this, first of all? And second of all, why were these requests not made during the normal course of discovery,

## (Frazier|Strater|Plante|Bowes|Dodeman|Wall)

considering this is precisely the sort of thing that could have and should have been requested? I'm just concerned that we're being subjected to a wide range of data requests here that are not what $I$ understand to be customary during the adjudicative process, but seem to just be more discovery, so to speak.

PRESIDING OFFICER WEATHERSBY: Mr.
Irwin, do you have an answer?
MR. IRWIN: You know, I think with the back and forth with the witnesses -- and this has been evolving for some time -- you know, there are facts -- we're getting discovery daily, still. This is an evolving process. And this is critical information, and it is absolutely relevant to whether three cable crossings of Little Bay as opposed to one are necessary.

MR. NEEDLEMAN: I didn't hear anything in that explanation that in any way talked about anything that has changed or why it was that any of that couldn't have been requested during the normal course of discovery. That's what discovery deadlines in
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
the procedures are for, to gather this information.

MR. RICHARDSON: Ms. Chair, can I just --
(Court Reporter interrupts.)
MR. RICHARDSON: I think it's
important information relative to whether this is a least-impacting alternative, whether it's the best choice, the one that the Applicant has selected. I think it's very important, and I think it relates directly to the Project's impact. So I would join in the request for the information. Obviously, I agree it could have been requested earlier, but, you know, we don't live in a perfect world.

MR. IRWIN: And I would add, in terms of the evolving process here, you know, Mr. Wall testified yesterday to not yet having seen the final wetlands permit from DES because there are negotiations happening right now.

MR. NEEDLEMAN: Well, I'm not sure that's accurate. But you could ask him that again. Nevertheless, I said what I need to say. I'm concerned about this ongoing
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
discovery process.
PRESIDING OFFICER WEATHERSBY: I'm going to overrule your objection. I do think the information is very relevant. It could have and should have been asked for before. But I think that, given its relevancy and the nature of these proceedings, that in this instance the record request will be allowed. MR. IRWIN: Thank you.

BY MR. IRWIN:
Q. Shifting gears. Mr. Wall, I have some questions for you about the concrete mattresses. You testified yesterday that mattresses will be placed wherever the jet plow cannot achieve 42-inch coverage; is that correct?
A. (Wall) Correct.
Q. And actually, these questions may or may not be appropriate for you. I have some questions about the $H D D$ and jet plow report. This is Applicant's Exhibit 133, and more specifically, Exhibit D, related to the concrete mattresses. Do you have that report in front of you?
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
A. (Wall) Yes.
A. (Bowes) We believe we do, yes.
Q. Okay. So, Attachment D, or Appendix D, again relates to concrete mattresses. So should I be directing these questions to Mr . Dodeman or to Mr. Wall?
A. (Wall) Either one. We'll look and -- sorry. Appendix B?
Q. $D$, as in dog.

MR. PATCH: Could we just have the exhibit number again?

MR. IRWIN: Exhibit 133.
MR. IACOPINO: We don't have an Appendix D to Exhibit 133. Is this the HDD comparison?

MR. IRWIN: I'm sorry. It's
Appendix A. I apologize. So it's in Appendix A, titled, "Articulated Concrete Mattress Installation..."

WITNESS BOWES: I believe it's also Page 58 in the report.

MR. IACOPINO: Thank you.
MR. IRWIN: I have 53, Page 53 of the report.
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}

BY MR. IRWIN:
Q. So, actually just turning directly to Page 57, Section 1.1, around the middle of the page there's some narrative about conditions on the western landing. I assume that refers to the west side of Little Bay; is that correct?
A. (Dodeman) Correct.
Q. And the observations there are that there's exposed basement/bedrock, boulders, and stiff clays. Then the next paragraph relates to conditions on the eastern landing. And I assume that would be the Newington side of Little Bay; is that correct?
A. (Dodeman) Correct.
Q. Then below that, in bold it says, "Western Landing Approach," and there's a suggestion of allowing for the conditional installation of approximately 160 linear feet. Is that what "LF" stands for?
A. (Dodeman) Yes, it does.
Q. One hundred sixty linear feet of mattresses between intertidal zone and mud flat areas. Each mattress covers 20 linear feet of cable
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
times 3 cable runs, totaling 24 mattresses. So, 24 mattresses on the western side of Little Bay.
A. (Dodeman) Correct. And I do have to point out for the record, this is from a 2016 document. This was still very early in the Project. The environmental panel may have recalculated the actual linear footages covered for permanent impacts on Little Bay. So I'm not sure these calculations are still 100 percent correct.
Q. Okay. Thank you. And this is an appendix to the July 1st, 2018 report; is that correct?
A. (Dodeman) Correct.
Q. The specifications for the concrete mattresses, in terms of surface area, they are 8 by 20 feet; is that right? So, 160 square feet each?
A. (Dodeman) Correct.
Q. So, according to these calculations, the western side would have involved 3,840 square feet, and the eastern side, 1,920 square feet?
A. (Dodeman) I believe your interpolation. I
have no reason to doubt your mathematics.
However --
Q. You should.
A. (Dodeman) However, I'll give you the benefit of the doubt. Again, for the actual, final calculations, I would like to defer that to the environmental panel who did the permanent impact report and calculations.
Q. Okay. Thank you.

So, in terms of the concrete mattresses,
showing you first this is Appellant's -- or sorry -- Applicant's Exhibit 122, Page 23.
A. (Dodeman) We have the document. Oh, wait.

Stand by. Sorry. I misspoke.
Q. Okay. Can you see these documents on the screens in front of you?
A. (Dodeman) We can, but my eyesight is like your math.
Q. Okay. I just wanted to know.
A. (Dodeman) Okay. We have it.
Q. So this is the western landing; is that correct?
A. (Dodeman) That's correct.

MR. IACOPINO: What's the page number
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
on that one?
MR. IRWIN: Page 23.
BY MR. IRWIN:
Q. I'm pointing to an area that is near the western shoreline. It's sort of a coarsely shaded area. Is this a representation of the concrete mattresses?
A. (Dodeman) Yes, it is.
Q. And do you have a sense of whether there are 24 concrete mattresses in this drawing or -which was the number provided in the report you just went through?
A. (Bowes) So it looks like it's indicating about 100 linear feet in this diagram. And it looks like it's still three mattresses, or one mattress per cable is probably a better way to say it. So, 20 feet, that would be 5 mattresses per cable, times 3 cables; so, 15 mattresses looks like is displayed here.
Q. Five mattresses per cable times three. Okay.

Next I'll show you from the same
exhibit, Applicant's Exhibit 22 [sic],
Page 28. This is the eastern shore; is that correct?
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
A. (Dodeman) That's correct.
Q. Again, roughly shaded areas over the cables I'm pointing to them now. Are these -- is this area of concrete mattresses?
A. (Dodeman) Yes, it is.
Q. And I'll ask the same question in terms of linear feet. Are we talking more than the originally projected 12 mattresses here?
(Discussion among panel members)
A. (Dodeman) That looks to be about correct. But still, for the final numbers, I'd like to defer to the environmental group.
Q. Is it correct that that is a representation of 12 mattresses on the eastern side?
A. (Bowes) No.
A. (Dodeman) No, I believe that's more, from what I'm seeing. It looks like more. But I'd like to defer that to the environmental panel.
Q. Okay. Thank you.

And the last number I've seen related to square footage coverage of concrete mattresses is in the text of appendix -- or sorry -- Applicant's 133, the HDD report, \{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)

Page 16, where there's a reference to 8,681 square feet of concrete mattresses. Is that the latest number that you're aware of?
A. (Dodeman) This is Exhibit 133, what page? I'm sorry.
Q. Page 16. It's the first line under "Wetlands."
(Witness reviews document.)
A. (Dodeman) I believe these numbers are the numbers that were produced by the environmental panel, so $I$ would say these are correct.
Q. Okay. So, 8,681 square feet --
A. (Dodeman) Correct.
Q. -- in tidal waters. Thank you. Is it fair to say that the effect of these mattresses on, say navigation, will be greater than the actual square footage of the mattresses themselves?
A. (Dodeman) I would say it's negligible. There's no -- from what we know of Little Bay and the traffic going through Little Bay, the traffic is mostly recreational. I can't see
a 9-inch difference from --
(Court Reporter interrupts.)
A. (Dodeman) The mattresses proposed are 9 inches in height, which for recreational boaters would only make a difference at the nearest portions to shore where most likely people wouldn't be taking boats.
Q. Is there any anticipation of having to mark off areas that have been -- to mark off areas for navigation purposes where these mattresses will be placed?
A. (Dodeman) As far as $I$ know, it wasn't anticipated. The proposal, I believe, was looked at by the proper authorities. Whether or not that would be dictated, I'm not sure.
Q. So, turning briefly to the wetlands permit. You know, Mr. Wall, I was struck by your testimony yesterday where you indicated you hadn't seen the final wetland permit, the final New Hampshire DES wetland permit.
A. (Wall) No. I'd seen the final list, but I don't think the actual -- there's still negotiation going on between our environmental group and DES.
Q. So have you seen --
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
A. (Wall) I have read the permits.
Q. Mr. Wall, have you seen the February 28, 2018 correspondence from New Hampshire DES to Ms. Monroe, Administrator of the Site Evaluation Committee?
A. (Wall) I have seen that. I wouldn't say I know every line, but $I$ have seen it.
Q. And that is Applicant's Exhibit 166. Do you have that in front of you? I can bring it up.
A. (Wall) I don't have it.
(Document handed to witness.)
A. (Wall) Thank you.
Q. So the first sentence of this letter states, and I'll read it, "This letter is to notify you that the New Hampshire Department of Environmental Services Water Division Staff have completed their technical review of the Application, and we have made a final decision on the parts of the Application that relate to NHDES permitting for regulatory authority related to a wetland permit," and it names other DES approvals. Did I read that correctly?
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
A. (Wall) I believe you did read it correctly.
Q. And if you flip to the next page and the following pages, at the top of each page it states "NHDES Final Decision," doesn't it?
A. (Wall) It does say that. One thing I must add, though. I have not been involved in any discussion between our environmental group and DES. And that is really the purview of our environmental group, not the construction group. So I would really have to leave any answers on that type of question to our environmental group.
Q. Okay. Thank you.

Is any other member of this panel
involved in ongoing discussions with New Hampshire DES?
A. (Bowes) I don't believe any of us are, no.
Q. Okay. But Mr. Wall, have you reviewed this document?
A. (Wall) I have reviewed that document.
Q. Okay.
A. (Bowes) I have as well.
A. (Plante) Me, too.
Q. Okay. So, Page 7 -- and again we're at --
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
well, you have it in front of you. The exhibit number on this?
A. (Wall) Page 7?
Q. Exhibit 166, Page 7, that is the "Wetlands Bureau, February 28, 2018 Final Decision"; correct? That's the title?
A. (Wall) That's what it says at the top of the page. Correct.
Q. The first paragraph is a project description. And seven lines down in that paragraph there is reference to "placement of concrete mattresses over shallow cable installation in Little Bay, 5,336 square feet." Did I read that correctly?
A. (Wall) You did read it correctly, yes.
Q. Turning to Page 9, these are the general conditions within this final decision document. Page 9, Paragraph 25 states, "Any further alteration impact areas" -- there seems to be a word missing. "Any further alteration impact areas for the Project beyond the Application materials received September, 2017, that are subject to RSA 482-A jurisdiction" -- I'll represent to you
that's wetlands jurisdiction -- "will require a new application and further permitting." Did I read that correctly?
A. (Wall) You read it correctly.
Q. Would you agree that going from 5,336 square feet of concrete mattress coverage to more than 8,000 square feet of concrete mattress coverage is further alteration of an impact area within DES's wetlands jurisdiction?
A. (Wall) As I stated before, my involvement is in the physical construction, not the permitting of the Project. So I would defer that to our environmental group.
Q. Okay. Thank you.

Mr. Wall, I have a few questions about out-of-service cables. I assume you're the right person who I might direct questions?
A. (Wall) Either myself or Mr. Dodeman.
Q. Okay. So, Caldwell Marine conducted a study of out-of-service cables within the Little Bay crossing channel; is that correct?
A. (Dodeman) That's correct.
Q. Actually, it's Applicant's Exhibit 73, Attachment D. Do you have that report in
front of you?
A. (Dodeman) Attachment D? Yes, sir, I think we do. We're just getting to that page.
A. (Wall) Yes, "F107 Cable Survey Final Report."
Q. And that's dated July 21, 2014?
A. (Dodeman) Correct.
Q. So this was an assessment of basically what cables, what PSNH-owned cables are in Little Bay right now; is that correct?
A. (Dodeman) Eversource. Yes.
Q. How many linear feet of cables currently lie on the floor of Little Bay out of service?
A. (Dodeman) Let me see this. It's difficult to say with accuracy. Most of these cables -as you know, having read the report, the entire survey had to be relatively non-invasive, as in divers can only do visual inspections. And much of this cable is still buried underneath the substrate on the bottom. So you can interpolate from the OSI data, which is overlaid in Figure 3 on that document, where the magnetometer hits, you'd have to do linear calculations. But that data is not really available. Again, that's
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
all interpolated data for non-invasive techniques.
Q. So, some of those cables contain lead; is that correct?
A. (Dodeman) $I$ can't answer that. I can't answer that question.
(Discussion among panel members)
DIR. MUZZEY: Madam Chair, could we just get a point of clarification whether we're working with Exhibit 73 as titled or Exhibit 73 as labeled, because 73 is labeled "173."

MR. IRWIN: I've made that mistake myself. So is it 73 or 173?

DIR. MUZZEY: What's the title of what you're referring to?

MR. IRWIN: This is -- okay. Let
me... Exhibit 73 is Mr. Wall's prefiled testimony, and I believe it is Attachment D. WITNESS WALL: D, yeah.

MR. WAY: Which date?
DIR. MUZZEY: What is the date of
that?
MR. IRWIN: Let me get there myself.
WITNESS WALL: The date of the survey
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
report is 31 st of July, 2014. The date of the exhibit is March 29, 2017.

MR. RICHARDSON: I think there's just a typo. I have the first page of that exhibit that says "173," but the PDF file is actually labeled "073."

MS. MONROE: I think I Can clear this up. So the initial submittal, the Bates Stamp from the Applicant is incorrect. Everything had a "1" in front of it. And they've since been resubmitted, and it was sent to the service list. And I just got the updated files, and I just need to update the thumb drives for the Committee. So you should all have them corrected.

MR. IRWIN: So this is actually Exhibit 73?

MS. MONROE: That is correct.
MR. IRWIN: And it's the substituted prefiled testimony of Mr. Wall. And we're talking about Attachment D.
A. (Bowes) So this report does not include the chemical analysis of the cable samples. That is in the docket. It's in another document.

## (Frazier|Strater|Plante|Bowes|Dodeman|Wall)

BY MR. IRWIN:
Q. Yes, that's in the existing cable removal plan. And I'll have some questions about that shortly.
A. (Bowes) That is correct.
Q. Thank you.

So, Page 7 of this report on out-of-service cables includes a table. And it indicates cable condition for each cable. And for $I$ believe every one of them, with the potential exception of one, cable condition is described as, among other things, "recoverable."
A. (Dodeman) Correct.
Q. Does that mean those cables could be removed from Little Bay?
A. (Dodeman) This was when Caldwell Marine was contracted to have divers do a visual inspection. The "recoverable" designation was to say if the cable looks like it's in good enough condition that it could be winched aboard in one piece without falling apart and creating problems. So the "recoverable" is an actual diver saying this

## (Frazier|Strater|Plante|Bowes|Dodeman|Wall)

cable looks good. We think we can recover it in one piece. And the recoverable -- the criteria they used was the condition of the armor wires on the cable.
Q. Okay. Thank you. But only sections of existing cables will actually be removed, according to the Application; is that correct?
A. (Dodeman) That's correct.
Q. And how many linear feet are proposed for removal?
A. (Dodeman) I'm not sure. I'm not sure offhand. But this has been submitted in other sections of testimony, so I'd have to take a look.
Q. Okay. And while you're doing that, perhaps, Mr. Wall, could you confirm that what I have on the Projector now is from your prefiled testimony? Can you confirm that the yellow lines are out-of-service, existing cables?
A. (Wall) That's correct.
A. (Dodeman) If I can go back to answer the linear feet calculation for cable intended on being removed? Somewhere in this document I
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
did make an estimate. This is while I was still employed at Caldwell Marine. I did make a mathematical estimate, which I can't seem to easily find. But later on, when the environmental people took a look at the work during the filing -- this is the 2014 document we're reading from -- they did a recalculation, and I believe their recalculations were what was used for the actual data required for the Application. So I would have to defer the final number again to that number from the environmental panel.
Q. Okay. Thank you.

So what I have on the Projector is from Applicant's Exhibit 106 --
A. (Wall) Yeah, okay.
Q. -- Page 4. So, just few questions about this then. Actually, if you could just describe it. There's a description of a Clearance Area 2. You already stated the yellow lines are existing out-of-service cables already in Little Bay.
A. (Wall) Correct.
Q. Could you describe what Clearance Area 1 and \{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}

## (Frazier|Strater|Plante|Bowes|Dodeman|Wall)

2 are about?
A. (Dodeman) These areas have been -- are shown. This is the corridor that Eversource is planning on using, or the right-of-way they're allowed to use. And what was done was a green box was put over the areas of old cable that exist in the corridor that needs to be used for the new cable installation. So this highlights the areas where cable needs to be removed. Those yellow lines that are intersecting the green box need to be removed to give us a working corridor.
Q. So any of the yellow lines not within those clearance areas will remain in Little Bay.
A. (Dodeman) That's correct.
Q. Turning to Page 5 of the report we were discussing, do you have that in front of you? It's the Caldwell Marine report.
A. (Dodeman) Yes.
Q. It states, "This survey identified the four existing out-of-service cables, as well as other anomalies within the corridor. Due to the existing cables being located mostly in the northern half of the cable area, CMI" --

## (Frazier|Strater|Plante|Bowes|Dodeman|Wall)

I assume Caldwell Marine -- "advised PSNH that the most feasible route for a new cable would be in the southern part of the corridor." Did I read that correctly?
A. (Dodeman) You're reading that correctly. I do have to make a slight clarification, however. I believe this -- at the time the plan was for six cables, with a certain amount of separation between the cables. The new configuration, which was a development that happened long after Caldwell was involved with the Project, the new configuration of three cables would also, I believe, be still trending towards the southern half of the corridor. But there is not six cables with that separation anymore.
Q. Does that mean less of the out-of-service cable will be removed?
A. (Dodeman) That I can't say. I need to defer to the environmental panel in terms of linear distance.
Q. Okay. On the Projector is a NOAA chart. This is from your testimony, your prefiled testimony, Mr. Dodeman, Attachment C.
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}

## (Frazier|Strater|Plante|Bowes|Dodeman|Wall)

A. (Dodeman) Yes.
Q. The dashed lines on either side, are these the boundaries of the transmission channel?
A. (Dodeman) This is the boundaries, the charted boundaries. And this is an old NOAA document that has now been -- it's still a NOAA document, but it goes all the way back to what was called the "DMA charts." So at one point $I$ was able to access older charts, which I can't do anymore. But these lines are actually part of the NOAA chart system that designates a known cable corridor. So this indicates to boaters that this is non-anchoring, non-stopping, don't play in this area.
Q. And the continuous, bold red lines crossing Little Bay, is that an overlay of the path of the proposed new cable?
A. (Dodeman) I believe that is. This actual line set is not something I put together. I think I provided the background chart for this.
Q. And would you agree that it trends towards the southern part of the corridor?
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
A. (Dodeman) Certainly for the eastern half of the corridor as we look at this chart, yes.
Q. And it certainly avoids a lot of the need to remove a lot of the existing cable that's existing already in Little Bay?
A. (Dodeman) Yes. During the design we tried not to have to do any more work than you need to do. And cable recovery work is typically another time-consuming activity which would create cost. So from a construction standpoint, that's what we're looking at.
Q. I assume this question is probably best directed to you, Mr. Wall, perhaps Mr. Bowes as well.

Has Eversource, or has anyone on behalf of Eversource, assessed the potential to reduce reliance on concrete mattresses by altering the course of the cable crossing?
A. (Wall) Not that $I$ know of, from a cable route point of view, no. I'll defer to others on the panel.
A. (Dodeman) I have to add that in terms of cost, and this is from the cable
manufacturing side, in terms of cost, you
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
want the amount of cable to be the least amount. And that goes for everything. Because that affects how much burial has to be done, it affects the overall copper and product price, obviously, of the system. So you want the shortest distance between two straight lines and as straight a line as possible. So route alterations, if you look at the route, the way it was laid out, it's avoiding as much of the existing old cables as possible and trying to keep the straightest line possible with being able to work in the parameters of both the cable corridor and the bending radius that you're capable of making with a plow and the barge.
Q. If you were to take existing out-of-service cables out of the equation and you could move that line, you could shorten the distance, couldn't you?
A. (Dodeman) We could. But the turns that are represented during the -- at the approach to the eastern landing as we head into that notch called Welsh Cove, which is the permitted landing or the expected landing for
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
this project, those turns have to be reasonably constructable. So if we were to turn it any shorter and make that line any shorter between the eastern and western landing, that turn would then be laying right on the rocks in the shallows in the northern part of Welsh Cove. So we had to avoid that, which is why we swing a little bit to the southwest and then go up into Welsh Cove in a northeasterly fashion.
Q. So your testimony, I take it, is based on landing where PSNH has acquired an easement.
A. (Dodeman) That's correct.
Q. Okay. But I assume you would agree with me that easement rights can be acquired in different locations?
A. (Dodeman) I have no understanding of real estate.
Q. So I'd like to turn to Exhibit 106 now. This is the Eversource report titled, "Existing Cable Removal Plan." To whom on the panel should I direct questions?
A. (Bowes) I can certainly start and then maybe Mark can help.
Q. Okay. Do you have that report in front of you?
A. (Bowes) Yes, I do.
Q. So, according to this report, three out of four cables currently in Little Bay showed high levels of lead; is that correct?
A. (Bowes) Three out of the four cables were originally designed with a lead sheath. So that's part of the construction of the cable, so that would obviously have lead in them.
Q. Okay. So the report indicates that samples that were taken showed levels as high as $2,400 \mathrm{milligrams}$ per liter of lead. There were other samples as high as $1,900,2,000$, 2,200 milligrams per liter of lead; is that correct?
A. (Bowes) Are you looking at Page 3?
Q. Actually, farther into the report there's a lab report. I'll try to find the page for you. It's Appendix C, and it's a laboratory report on Page 4, on the bottom right-hand corner.

MR. IACOPINO: Which exhibit you
said?
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}

MR. IRWIN: This is Exhibit 106.
A. (Bowes) I have the page, yes.

BY MR. IRWIN:
Q. I assume you would agree with the numbers in this report, in terms of levels of lead detected through sampling of various cables or cable segments.
A. (Bowes) Yes, I would.
Q. And the report indicates that two of the cables also contain oil-impregnated cellulose paper; is that correct?
A. (Bowes) So this goes back to Page 2 or 3?
Q. I believe so. Actually, even Page 1.
(Witness reviews document.)
A. (Bowes) So, yes, on Page 1 it identifies each of the four cables that was found in the construction technique or the design of each of those cables.
Q. And it indicates that the 1940s cable contains oil-impregnated cellulose paper and the lead sheath, among other components, and the 1970s oil-impregnated cellulose paper with the lead sheath, among other components; is that correct?
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
A. (Bowes) Yes, it does.
Q. So, despite the cables having been analyzed for their constituents and their condition, am I correct in reading this report, that Eversource isn't certain exactly which cable is located where on the floor of Little Bay?
A. (Bowes) So the diagram you have up on the screen right now indicates what we know of the cable locations.
Q. Right. But am I correct that you have not been able to match up which cable, for example, has the higher lead levels, which cable has which constituents?
A. (Bowes) I would say that's probably accurate in some cases, yes.
Q. So on Page 2, the final paragraph of Page 2 states, "While OSI's survey identified the geospatial presence of the existing cables, there is some uncertainty as to the cable type at each location. Based on diver reconnaissance, the southernmost cable, which requires portions to be removed, is believed to be the 1940 s cable." Did I read that correctly?
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
A. (Bowes) Yes, you did.
Q. A little further up on that page it states, "Eversource reviewed sediment data collected from the two proposed cable clearance areas, Clearance Area 1 and Clearance Area 2. The sediment data was generated in... 2016 and ... 2017 during the sediment investigation performed by Normandeau Associates. Based on the sediment testing results, total lead concentrations in the shallow sediments in each of the clearance areas was less than the Effect Range Low concentrations, indicating that the presence of the cables is not exacerbating contaminant conditions." Did I read that correctly?
A. (Bowes) Yes, you did.
Q. To be clear, the sediment sampling that was done in Clearance Area 1 wasn't done to determine whether lead might be leaching into the sediments from these out-of-service cables, was it?
A. (Bowes) I would say not directly. My understanding, the sampling was done to understand what was in the sediment for the
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
jet plow analysis. There may have been also desire to understand the integrity of the cables and if their deterioration was leading to a sediment issue. Probably a better question for the environmental panel.
Q. Okay. But I'll ask you the question. Sediments directly under the portions of the cable to be removed were not sampled, were they?
A. (Bowes) I don't believe so. But the locations are identified on the map that you have in front of us.
Q. And would you agree that, even if sediments were not found -- so, even if you had conducted an analysis to specifically determine whether these out-of-service lines were contributing lead in sediments, wouldn't you agree that sediments -- that lead could also be leaching into the water column, not ending up in the sediments?
A. (Bowes) Probably a better question for the environmental panel.
Q. But the plan is to leave these cables alone, essentially, in perpetuity; is that correct?
A. (Bowes) We will comply with all the New Hampshire DES requirements. If at some time in the future they ask us to remove them, we will.
Q. But right now there is no plan to remove these other cables, just the cable needed to construct the proposed new crossing.
A. (Bowes) And that is the guidance we have from the New Hampshire DES, yes.
Q. So this report -- and again we're in Exhibit 106, Appendix D -- includes a remedial -- an analysis of remedial debris recovery. Who can best speak to that? And this is at page -- the remedial debris topic is specifically on Page 6 of -- this is what the page looks like, if it helps you locate it more quickly.
A. (Bowes) So $I$ would say if there are questions about the environmental aspects, the environmental panel would be best. If there are questions about how the removal would take place, we're probably the best panel for that.
Q. Mr. Bowes, I believe this is probably best
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
directed to you. Shifting gears away from the existing cables, it's been suggested that if this project is not built, that rolling brown-outs may need to occur. That hasn't happened yet, has it?
A. (Bowes) It has not.
Q. Has Eversource conducted any analysis of the likelihood of rolling brown-outs if this project is not built, taking into account the fact that you've got a lot of the Seacoast Solution constructed already?
A. (Bowes) So I don't believe we do that for any of the Projects in the ISO-New England Regional System Plan. We go through the process with them, become the backstop to building the Projects and then complete them in a timely manner, trying to meet the year of need. In this situation, year of need has long since passed, so we would continue to operate the system and take whatever actions are necessary, including emergency actions. But we don't do an analysis of what might occur, other than at certain levels we could pre-stage certain activities to occur. For
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
example, in a long heat wave, if we exceed certain load levels, we might pre-position or pre-configure the system to make that load shedding as seamless as possible. I know that doesn't sound necessarily like a good way of articulating it. But to try to minimize the fewest number of customers for the shortest amount of time that would be impacted by a disconnection of power.
Q. Are you aware of an analysis by ISO-New England or any other entity of the likelihood of brown-outs or rolling brown-outs if this project is not constructed?
A. (Bowes) I am not.
Q. Thank you.

MR. IRWIN: I have no further questions.

PRESIDING OFFICER WEATHERSBY: I think we'll take a ten-minute break and come back at 3:15, and we will resume with the Durham Residents. Thank you.
(Recess was taken at 3:06 p.m.
and the hearing resumed at 3:20 p.m.)
PRESIDING OFFICER WEATHERSBY: I just
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
wanted to mention that from time to time a Committee member may need to leave before the proceedings are finished for the day, or perhaps there's a time that a member is sick or cannot come for some reason. That doesn't mean that we need to suspend our business. As long as we have a quorum of five members, we will carry on as scheduled. And any member who needs to leave or is absent does review the transcripts to catch up on anything. So that would be the case this afternoon. We will have at least one member who'll need to leave before the end of the day, before we conclude today. So, that said, Ms. Brown, you may question the witnesses.

CROSS-EXAMINATION
BY MS. BROWN:
Q. Good afternoon, Panel. My name is Marcia Brown. I am representing Donna Heald, but I am also the spokesperson for the Durham Residents. And I would like to follow up on an issue about bridge clearance that Attorney Irwin had asked about. So, Mr. Dodeman, I'd like to follow up with you. And I'm going to
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
put up -- okay.
So, on Exhibit 6, Page 19 of 31, Lines 12 and 13, you had stated that the barge was limited -- or the clearance of the bridge limited the barge, and therefore the barge limited aspects of the Project. And in your testimony, you had stated that the bridge clearance was 30 feet. Do you recall that?
A. (Dodeman) I'm not sure that I actually stated the bridge height. I'm relying on the engineers and what was told to me. So I kept my description general in saying that the bridge clearance limited the height of the barge.
Q. Okay. I'm going to cut to the chase. Do you recall that 30 -- actually, did you just tell me that you are aware of the use of 30 feet as the bridge clearance in the design?
A. (Dodeman) I honestly can't recall the exact height that $I$ was referring to. You say Exhibit 6. I have to get Exhibit 6 in front of me. Do we have Exhibit 6?
(Discussion among panel members)
Q. So you have Exhibit 6 in front of you. On
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}

Page 19 of 31 , Line 12 , at the end it says, "which only allows for approximately 30-foot clearance. This clearance limits the size and type of the barge." Do you see that? You can look at it or I can just -MR. IACOPINO: It's the Jiottis testimony.
A. (Dodeman) Yeah, it's Jim Jiottis.

BY MS. BROWN:
Q. Yeah, my mistake in saying it was your filed testimony.
A. (Bowes) It's actually the testimony that I've adopted. What page was that?
Q. Page 19 of 31 . It's the physical document Page 19, and it's the last two words on Line 12, "30-foot." Do you see that?
A. (Bowes) Yes, I do.
Q. Okay. And I apologize to your counsel for not seeing this earlier, but I'm going to -I could not find the NOAA chart, but I found a Great Bay Marine, which is in Great Bay -or Little Bay, if you're familiar with that. And they have the bridge clearance cited on their web site. And if you, as an offer of
proof, would take --
A. (Dodeman) No, I understand the 52-foot listed bridge clearance, and I could -- I have the NOAA charts on my computer on a chart program.
Q. So the question is: The reference in the testimony is 30 feet. And we know that the mean low tide allows a 52 clearance. What does that change in clearance do to your calculation of or use of or selection of the barge?
A. (Dodeman) When you're talking about these big submarine cables that are stored in some sort of cylindrical object like a cable pan, which is very typical, or a cable tank that's installed on a barge, due to the torque associated with moving that cable in and out of that pan with a tensioning device or a linear cable engine, that cable will tend to twist and create all sorts of kinks. There's no way to get it out of the pan without using a very high gantry. In order to avoid that, we opted to go with a reel, a powered reel stand, which does not generate torque. You
can pull the cable directly off of the reel and then off of an overboard chute. The reel is much lower in stature -- and forgive me for not knowing the exact height -- than a cable gantry. A cable gantry is typically in the realm of 70 -feet plus, maybe more. So, in effect, you are pulling the cable off of the barge horizontally to the water surface and not up; is that correct?
A. (Dodeman) Correct.
Q. So the height of the bridge clearance then becomes a non-issue; is that correct?
A. (Dodeman) That's correct. By using the reel, the height of the bridge becomes -- it's not a non-issue because we have to watch the height of the reel as well and the powered reel stand. But it becomes effectively a non-issue.
Q. Thank you for that clarification.
A. (Dodeman) Sure.
(Pause in proceedings)
Q. Sorry for that delay. I'd like to talk about the construction time period. And I believe this may be to David Plante.
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}

What I have pulled up is Applicant's Exhibit 1. I am on Page 51, for the record. And in this section it talks about the sequencing of the construction activities. And can you provide -- actually, Mr. Plante, there's a proposed schedule associated with the -- my mistake. I thought I had this all organized. I'm going to go back to Page 51, for the record.

So, Mr. Plante, can you walk through these sequences and give us an estimated time in perhaps months of how long these sequences will take?
A. (Plante) Certainly I could do that. I mean, concurrently --

MR. RICHARDSON: ExCuse me. Point of order. What page are you on?

MS. BROWN: I am on electronic
Page 51 of Exhibit 1. It is document Page 21.
MR. RICHARDSON: Thank you.
BY MS. BROWN:
Q. Mr. Plante?
A. (Plante) Okay. So, generally what we would anticipate, were we to receive a Certificate \{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
of Site and Facility through this process on the current glide path towards a decision, which will be somewhere in the first quarter of next year, we would anticipate a construction period of approximately nine months, culminating in completion by the end of 2019 , which obviously is out of sync with the matrix that you showed earlier with 2018.

So, initially the establishment of
marshaling areas. You know, we have already secured a marshaling area for our material storage and laydown, so that's essentially behind us now. But upon commencement of construction-related activities, starting with surveying and flagging of boundaries, as Mr. Bowes alluded to, that's a fairly brief process. You know, in probably a couple of weeks we could complete all of the final layout of those areas and commence with establishment of accesses and begin our right-of-way vegetation management, which would probably take on the order of a couple of months in its entirety. However, it wouldn't need to be entirely completed before
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
we could begin ensuing activities in other parts of the corridor. Essentially a line construction project is a serial effort that engages a number of different resources with different crew complements and equipment types and tasks.

So, as I mentioned, vegetation activities would be first. And then we would install erosion and sediment controls as soon as they're done in the various areas, followed by construction access roads and the work pads. The next item there, relocation of existing utility infrastructure, this is an activity that can go on in parallel with a lot of the other activities and will, you know, likely take place earlier on in the Project, but may not complete until later in the Project.

In terms of major construction activities, the installation of foundations is the next -- or the first, true construction activity. And we have foundations that are both concrete foundations for the engineered steel
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
structures that I mentioned yesterday, and we also have a type of foundation that we use for our direct embedded structures, which involves -- it's a similar activity of drilling a hole. We put a sealed culvert vertically into that hole to stabilize it and allow for a stable foundation for the direct embedded structures. So, in one way or another, every structure on the transmission line will receive some type of foundation-type activity.

Following that, we would deliver materials to each structure location and assemble each structure. They come in multiple pieces, so we would assemble it at the location and begin the erection process, which again involves a different crew complement and different equipment. And that crew would move along the line and complete structure erection. The next crew to arrive would be a conductor installation crew, which, again, different equipment, different crew expertise. And they would begin by installing -- pulling ropes to then attach
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
the conductors and pull the conductors in. The conductors are then attached to the structures and the insulators to complete the actual electrical components of the line.

Concurrently, to some degree, with the overhead line construction is the submarine and underground construction because they, again, involve totally different crew complements and construction methods. The underground cable has certain time-of-year restrictions, particularly with respect to the UNH Durham/Main Street crossing, trying to complete that all during the period between commencement and moving day of the following academic year.

The submarine cable has preparation activities that will begin as soon as early summer, but the actual construction of the cable installation is planned for the fall time frame.
Q. Okay. Thank you. I understand things can be concurrent. If I could just ask you to break this down a little bit more. With respect to the work pads, how quickly can those be

## (Frazier|Strater|Plante|Bowes|Dodeman|Wall)

established on a property?
A. (Plante) The establishment of the work pads is a variable that depends upon what the exact conditions are at each location. It could be locations that really don't require any physical work to establish anything. Those areas would be dry upland areas that are reasonably flat and unimpeded by boulders or whatever so that our equipment could position itself safely and perform the work. There are other areas that may have some slope to them that would require minor grading or installation of timber mats to create a safe working area for the crews. So, depending on the degree of which is required, it will dictate the amount of time that it takes. But generally it's not a particularly long duration to establish those in any one location.
Q. Okay. I'm going to go to a specific example. I thank you for the general response.

So what I am pulling up for you to take a look at is Exhibit 148. These are the 2017 environmental maps. And I have electronic

Page 19, although it is document Page 18. And I'm going to blow it up a little bit more so you can see it better. Now what I am showing you is my client's property, Heald McCosker. Do you see that in the center?
A. (Plante) Yes.
Q. There are -- and correct me if I'm wrong -two work pads that are expected on this property?
A. (Plante) Yes.
Q. From the road, and building the access road, can you walk us through how long it's going to take to build the road to get to the work pad; how long the work pad is going to take; how long the next traverse is going to take, noting that there are wetlands? If you could walk us through very briefly?
A. (Plante) Sure. Obviously, the first thing to do is establish access off of the Longmarsh Road. And the first activity there is the first small wetland that is shown as being crossed with timber mats. So the contractor would place a series of timber mats across that wet area to provide stable construction
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
passage. And then a short distance ahead is the first work pad. And this does demonstrate a little bit of topographical change around that structure. So we would need to establish a little bit more of a level work surface there, and that would probably take on the order of a day or maybe two days to complete that.

And then moving on to the right is a little bit longer wetland crossing which would require, again, timber mats to provide a stable surface for the equipment to pass. And that would probably be another day, plus or minus, to install those mats.

And then the final work pad also has some topographical change, so it'd probably be a day or so of either light grading or installation of mats to provide a stable surface. So, all in all, this would probably be a week or less of access preparation.
Q. Now, noting that you had said that things could be sequenced in the broader project, with respect to a single parcel like Ms. Heald's, after the access road and the
work pads are constructed, will there be a break before other equipment comes in?
A. (Plante) I would say yes, it's likely that there would be some slack time between the completion of the access and the arrival of the next work crew, which would be the foundation drilling crew. It's possible that it could occur directly afterwards. It's also possible it could be a period of days or weeks in between.
Q. Okay. With that variation in when Eversource personnel will be on the property, how will Ms. Heald be notified of the comings and goings? Is this a daily notification?
A. (Plante) It's possible that we could have a daily notification process, if that's what Ms. Heald would prefer. We do have an open and ongoing relationship between our outreach team and Ms. Heald.
Q. Thank you.

And this is a general question. I don't know necessarily, Mr. Plante, if this is something that you can respond to. In Ms. Heald's testimony, she had asked for an
inventory of her plant stock within the right-of-way --
A. (Plante) Correct. She has and --
Q. -- be conducted.
A. (Plante) -- and we have offered.
Q. I didn't mean to interrupt your response. So the question is: With an inventory that has to be -- in order to be accurate, which would need to be in the growing season immediately prior to the construction, and knowing that you don't know when you're going to start construction yet, do you have any -- does the panel have any comment on how to fit in a plant inventory?
A. (Plante) Well, $I$ would envision that that is something that could take place at the very beginning of the growing season. This particular portion of the Project is not necessarily something that has to take place at the very beginning of our construction.

So we do have, I would say, sufficient flexibility to fit in an inventory time period at the beginning of the growing season, prior to the commencement of
construction activities in this area of the Project.
Q. Thank you.

I want to ask a few questions about the marshaling and laydown yards. In the Application, it seemed that Eversource needed flexibility on determining when or how many marshaling and laydown yards there would be. Is that an accurate characterization?
A. (Plante) Yes.
Q. So could there be any laydown or marshaling yards placed within the Longmarsh Road area as you're seeing on this map?
A. (Plante) No, we have no intention of seeking any additional project footprint in this area of the Project.
Q. I'm going to follow up on an earlier question that you were asked and that you responded to regarding the type of equipment that would be in each stage. So, with respect to creating the access road and the work pads, what size equipment is going to be coming in on the property?
A. (Plante) $I$ guess size is kind of a -- it's a \{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}

## (Frazier|Strater|Plante|Bowes|Dodeman|Wall)

tough question. But it's construction equipment. So the equipment that's used to, for instance, move timber mats is heavy construction equipment. You can maybe liken it to a skidder. They're typically rubber-tired and they have an articulated arm. And they'll move the mats up and down the corridor and place them. Occasionally there'll be a small bulldozer if necessary, occasionally dump trucks, either rubber-tired or tracked to move any gravels, and a small dozer to spread those gravels.
Q. And with respect to installation of the poles and wires, what size equipment is needed for that?
A. (Plante) Okay. So the first step would be to drill the holes for poles. And that's pretty significant equipment. It's a relatively large, track-mounted drill. It will have to position itself on both work pads, drill the hole, and then it moves along. And then replace the casing in the hole with an excavator and then backfill around that. So that's, again, relatively big equipment.

## (Frazier|Strater|Plante|Bowes|Dodeman|Wall)

The next stage would be to erect the poles. Actually, you have to place them in the area of the work pad first; assemble the structure, second. And that's all kind of more hand work. It's light equipment. And then erecting the pole would be a light-duty crane. These structures are not particularly heavy. They're just unwieldy. So, light-duty, most likely rubber-mounted crane, hydraulic crane, would be used to erect poles.

Beyond that, the effort would be to install conductors, and that's largely an aerial effort in this area because we don't have a wire setup location in this area. So there will be no wire installation equipment on this part of the Project. So it's a matter of pulling the rope in. And we would probably pull initial rope in with a helicopter. That goes in very quickly. And then the wire gets pulled back with the rope. So those are activities that are, I would say, zero footprint on the property. And then the final effort would be to
actually fasten the conductor to the insulator assemblies on the structures. And that may or may not be done using helicopter assistance. It's possible to place linemen on each structure from the helicopter, and they can do that activity without approaching the structures from the ground. Or they could do it with a bucket truck, which would set up on the work pad that's defined in the plan set here and raise the linemen up to each conductor location. They would fasten the conductor to the insulators and come back to the ground, and the bucket truck moves on to the next location. At that point, we can begin removal of the work pads and accesses.
Q. Now, you mentioned rubber-tired vehicles. Are any of these going to be tracked?
A. (Plante) Yes. The hydraulic excavators that are used for setting the casings, those would be track equipment. The drill rig that's used to drill the hole for the casings is tracked. The rubber-tired equipment is generally the equipment that's used to establish the construction access and move
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
mats. So it would be moving mats along upland areas, creating wetland crossings using these mats, and then using those mats to get to the next location.
Q. I assume it is not --
A. (Dodeman) Mr. Bowes has something he'd like to add.
Q. Yeah.
A. (Bowes) There is one other activity that you have not talked about. It's to the right of the screen that you're showing right now. I noticed, looking over, still on the same page, it's just -- yeah, that's it, right there. So if you notice to the right of the second work pad, there's another wetland area, a very large one. And there's --
Q. Is that where my cursor is now?
A. (Bowes) Yes. Exactly. So there's timber mats that would be added there. And that other, looks like a triangle, is the existing distribution pole. So that would also have to be removed as part of this. So there is another area of influence across this piece of property. It's really for access to the
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
next property. And there's a single pole removal there.
Q. Appreciate that completeness.

I had a question about ruts. I
understand that the intent is for these access roads to allow equipment to access the property so that you won't create wet ruts on other parts. If ruts are created on the property, will Eversource be restoring property topography back to its original condition?
A. (Plante) We could certainly work with the property owner to restore the accessways through the property to their pre-existing condition. Our intent is not to create ruts in the first place, hence the use of the mates. However, it's obvious that at certain times the weather may make some areas that are not necessarily wetlands, but could make them wet. And obviously it's a little easier to create ruts in upland areas that have been recently rained on, for instance. So we would be happy to restore that to pre-existing conditions.
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
Q. Okay. I'd like to revisit an issue with Ms. Heald's property that I think Eversource is aware of, of past ruts that have created wetness, lasting wetness in the area. And I believe Eversource's position is that they cannot fill those ruts. Didn't know if you had any explanation to why.
A. (Plante) I'm not particularly familiar with why we can't fill them, unless they're actually in jurisdictional wetland areas where we would need a permit to have them filled. So that may be the explanation there. I'm not certain.
Q. Okay. I believe from your -- the Application, the work pads are estimated to be 100 feet by 100 feet. But can that change?
A. (Plante) Actually, there are two different sizes of work pads. There's a 100 feet by a 100 feet $I$ believe is what we elected to use for foundation structures, concrete foundations. And the direct embedded structures I believe is 60 by 80 . That might be what's shown here, Structure 90. I think
that's a 60 by 80.
Q. So, Structure 90 you said is likely a 60 by 80, although it shows --
A. (Plante) Yeah, that's what that looks like to me. Ninety-one looks a little bit bigger.
Q. Oh, okay. Let me return to another question. What is the difference between when you have the two numbers -- I could go to the legend on how these poles are.
A. (Plante) So when we submitted our Application in 2016, we had a design that was provided. And those numbers are the top left in this case.
Q. I have just pulled the legend where it says --
A. (Plante) The higher numbers are the original numbers. The lower numbers are the current construction numbers. We've eliminated some structures over the course of design modifications since 2016. And there is a chart in the beginning of Appendix 2B in the environmental maps. Wait a second. That's not it. It's the engineering maps. Sorry. 5B engineering design drawings. And there's

[^0](Frazier|Strater|Plante|Bowes|Dodeman|Wall)
a matrix there that compares the construction number, which is our current design, with the permitting number, which would be the original submittal structure numbering.
Q. Thank you for that clarification.

So, again, looking at Pole No. 90, that looks like it's going to be 100 by 100? I'm sorry, 91.
A. (Plante) Yes. Looks like it's approximately that, about 100 wide. And it looks to be about 80 in the other dimension.
Q. Okay. Now, are there standard design specifications for these work pads?
A. (Plante) There's kind of a standard that we've adopted -- or not adopted, but tried to use. And each structure location, however, has its peculiarities. So we have invited our potential constructors to look at each of these and help us ensure that we're defining the work pads sufficiently to allow construction to complete. So, some of them are a little bit different than the standards that might have been indicated earlier in the filing.
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
Q. So it's site-specific?
A. (Plante) Yes.
Q. And is it that like 6 inches of gravel will be brought in for the work pads?
A. (Plante) As I mentioned earlier, it's not necessary that we dictate a 6-inch gravel base for 100 feet by 100 feet in order to create a work pad. Our desire is to keep the civil construction, for lack of a better term, to a minimum just so that we can allow a safe work area. So, as I mentioned earlier, some areas will require almost no effort to create a work pad, where other areas will require grading, gravels or more mating to create a safe work area.
Q. Now, the work pads on Ms. Heald's property, she was given an estimate of a year and a half to two years of disturbance and existence of construction activity on the property. And I know you gave a nine-month construction time frame. How long can she expect these access roads and work pads to be on this property?
A. (Plante) Again, depending on how soon we get
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
it in there and get the construction started will determine the total duration. As I mentioned, we're expecting to have construction done by the end of 2019, if we receive approval to begin construction sometime by the end of the first quarter of next year. So that's a nine-month line construction duration. That doesn't include the time it will take to complete all the restorations. Obviously we can't complete all of that until all of the line construction is done. So, call it "reclamation" for lack of a better term, will commence as soon as we complete conductor insulation in various areas of the Project. But it's not likely that we'll complete all our conductor installation until very late in the year. So some will carry over into 2020 -- or the following year, whichever year it may be. And depending on where in the sequence of wire installation this particular area falls will determine how quickly the reclamation begins.
Q. Thanks for that explanation.
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)

I'd like to pull up and have you comment on Durham Historic Association Exhibit 4, electronic Page 12. Do you see this?
A. (Plante) I do.
Q. Is this a typical access road?
A. (Plante) This is not typical of the type of construction that we're proposing here, but this is typical of what's been necessary in order to complete another type of project that's been ongoing in our system for a little over a year now. This is all 345kV line construction work, and it's being done under "live line" conditions. So, while all this construction is taking place, we are not able to take the line out of service. So that requires the use of very large, very specified equipment because it needs to actually connect to the energized conductors and move them outside of the footprint of the structure in order to allow the actual line work to take place. So these structures are quite tall, quite heavy. So the equipment is quite large, and that's why these roads have been constructed in the fashion that they
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
have been.
Q. So with respect to this example of an access road, is it fair to say that this is overbuilt?
A. (Plante) Overbuilt for what was required to complete the construction activities that took place in this area. In this area, there's also a significant side hill where the topography drops off quite a bit from right to left in this case. So it was necessary to cut in a little bit on the right and fill in a little bit on the left in order to create a level accessway.
Q. I should have asked that question a little more targeted.

With this example here, can you give us a sense of what the typical -- well, what Ms. Heald would see on her property, to use her as an example, and what these access roads are going to look like with vegetation clearing, et cetera?
A. (Plante) What $I$ would envision in this particular area, because in general there's not a lot of topography in this area, so I
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
wouldn't envision us building what amounts to several hundred feet of gravel road. There may be some gravel road, but I would envision very little of that.
Q. Fair enough. Thank you.

Now I'm going to go back to the legend for the environmental maps. It's Exhibit 148 I'm looking at, and in particular, the roads. And I don't know who should be responsive to this. But the question is -- there's a type of mark for not-maintained roads. And the question is: Is that for the Class VI roads?
A. (Plante) I think you'd have to point me to a place where it's being used in order for you to help me answer that.
Q. I'm looking for a definition in the legend of these maps under roads as "local," "not maintained," "private." I'm trying to get an understanding on when Eversource is using the term "not maintained" on these maps, what is it referring to.
A. (Plante) I can't answer that. I'd have to get clarification from our mapping folks.
Q. So should I ask the environmental folks this
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
instead of the construction panel? Mr. Boughs [sic]?
A. (Bowes) We could probably read it in the next time we appear.
Q. Fine. I'll move on.

Now, next question $I$ have pertains to the access road near the Frink and Miller properties. And I am looking at Exhibit 148, and I am at electronic Page 21. This is the environmental map that shows the last segment of the right-of-way going through Durham to Little Bay. And the question is: Where this red dashed line represents an access road, were there any other designations to depict driveways?
A. (Plante) No.
Q. Okay. So this access road is not to say it's not a driveway then -- or I'm sorry. This designation of the red dash is not to be interpreted that it is not a driveway?
A. (Plante) That's correct.
Q. Okay. Thank you.

So, to the extent that you can provide a non-legal response to the question, in 2016,
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)

|  |  |  | 109 |
| :---: | :---: | :---: | :---: |
| 1 |  | when this section of the driveway was |  |
| 2 |  | designated as an access road, what basis did |  |
| 3 |  | Eversource have to know that it could use |  |
| 4 |  | this property -- or use this way, I guess? |  |
| 5 | A. | (Bowes) There are two sources of documents |  |
| 6 |  | for this access road: Historically, the |  |
| 7 |  | first being a 1949 easement agreement that |  |
| 8 |  | included access along this path; and the most |  |
| 9 |  | recent was the purchase of the Getchell |  |
| 10 |  | property, which includes deeded access for |  |
| 1 |  | this access road. |  |
| 2 | Q. | I believe you already answered or may have |  |
| 3 |  | answered the question, but I'll make sure. |  |
| 4 |  | There was a question on whether deeded |  |
| 15 |  | access included non-residential use. |  |
| 6 | A. | (Bowes) Yesterday $I$ did not have that |  |
| 17 |  | information, or the information $I$ just gave |  |
| 18 |  | you. The deeded access and the easement |  |
| 9 |  | access do not have restrictions. |  |
| 20 | Q. | Okay. This 1949 easement agreement giving |  |
| 21 |  | you access over this driveway, is that in the |  |
| 22 |  | record already? |  |
| 3 | A. | (Bowes) I don't believe either document is in |  |
| 24 |  | the record. |  |

\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)

MS. BROWN: I'd like to make a record request for those documents. Thank you.

BY MS. BROWN :
Q. With respect to this access road on this electronic Page 21, does Eversource plan to improve it for its construction vehicles?
A. (Plante) I would think that there would be minimal improvements to this road. It's a fairly sound road at this time. However, we would not want to diminish that, so we would make sure that it was suitable for whatever vehicles would need to pass along it for our project. It may require some minor side-trimming of some trees to allow passage of some vehicles. Beyond that, I would not envision any major improvements are necessary.
Q. Will Eversource be reaching out to the landowner that shares access along this driveway to discuss the improvements?
A. (Plante) Certainly. I believe we already have.
Q. Is it your understanding that's Intervenors Jeff and Vivian Miller?
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
A. (Plante) Yes.
Q. Question about restoration. If this access road is improved, what is Eversource's plans for returning it to its original condition? And by "original condition," I mean pre-project.
A. (Plante) I would imagine that the improvements that get made would probably be desirable to the other parties who use it.

However, if there's some agreement among those parties that it needs to be returned to the exact condition it's in today, then we could agree to do that.
Q. Okay. In light of the record request, this question may be moot, but I'll ask it anyway.

Is it Eversource's intent to continue using this driveway as an access road to its right-of-way?
A. (Plante) Yes. This is the primary access to that location down by Little Bay.
Q. Mr. Plante, $I$ have an additional question for you. In your testimony, Exhibit 8, on Page 4, and this is on Lines 14 and 15, you state that vegetation will be cleared the full
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}

## (Frazier|Strater|Plante|Bowes|Dodeman|Wall)

width of the right-of-way. And I want to reconcile that with statements Eversource has made to Ms. Heald about retaining certain cedar trees for screening purposes within her right-of-way.
A. (Plante) Yes, $I$ am aware of that discussion.
Q. Do you have a comment?
A. (Plante) I don't have a comment, other than if we've agreed to certain cedar trees to be retained, then that's what we will comply with.
A. (Bowes) We have provided a draft landscaping plan to her and are awaiting comments.
Q. Mr. Plante, I'll stick with you. On

Appendix -- I'm sorry -- Applicant
Exhibit 148, on Page 19 of 32 , it shows the access road along the western edge of the right-of-way. Is it fair to say that this access road will be using -- or will be pretty much adjacent to that western limit of the --
A. (Plante) I'm sorry. I'm not on the same page with you right now.
Q. I'm looking at Exhibit 148 that I've got up
here. It's the environmental maps. And I am looking at Ms. Heald's property, which is on electronic Page 19, but the document is Map 18.
A. (Plante) Yup, I'm with you. Got you. Sorry.
Q. So how close is this access road to the edge of the right-of-way?
A. (Plante) Based on the visual scale here, I would guess that it's probably 10 feet or so.
Q. Ten feet away from the edge?
A. (Plante) Approximately, yes.
Q. Okay. I'm going to show you another document. It's Durham Residents Exhibit 1. You may have seen this already. It is Ms. Heald's direct testimony, and it's a picture of woods. But if $I$ blow it up a little bit, I want to point out this orange tape here. And I'm going to, because I think it's a little distorted having it blown up... the question is -- and I guess I'll step back and make an offer of proof.

This orange tape was set by Eversource employees during a site walkover. And Ms.

Heald had asked for a visual depiction of
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
where the edge of the right-of-way was, so this is what we got. It's not surveyed, but this is what we have. So that's the history of this orange tape.

So my question is: The right-of-way access road will be 10 feet, likely 10 feet beyond this orange tape?
A. (Plante) Well, actually, I have seen this picture before, but I never saw the orange tape in it. I'm not really sure where this picture vantage point is, so I'm not sure what I'm looking at.
Q. I can make an offer of proof that this was taken from the corner of Ms. Heald's house. That's why I'll back that picture out.
A. (Plante) So the picture is taken from off the right-of-way looking toward the right-of-way?
Q. Oh, I understand. This is looking toward the right-of-way. This is at the corner of Ms. Heald's house looking east toward the right-of-way. Let me pull up another document here.
A. (Plante) Okay. I'm with you.
Q. So I'm looking at the engineering plans,
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}

Exhibit 149, Page 52 of 55. You will see her residence.
A. (Plante) Yes.
Q. This picture is taken from the vantage point from that residence looking directly toward the right-of-way. And so the question is: How close visually is the right-of-way access road going to be?
A. (Plante) I would say that the edge of the access could be as close as right on the edge of the easement, though $I$ would envision that it would be probably at least 5 feet from the edge and extend another, you know, 12 or 14 feet further in.
Q. Sorry. What was the last part of that sentence?
A. (Plante) So the near edge would likely be 5-ish feet from the edge of the right-of-way, and the total width would extend another 12 or 14 feet further into the corridor.
Q. Are you aware that this orange tape is about 45 to 50 feet away from her house?
A. (Bowes) I just scaled it off the map, and it's actually 60 feet to the closest corner, \{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
edge of the right-of-way.
Q. Thank you. So it's within 100 feet then.
A. (Plante) Yes.
Q. Mr. Plante, on Page 4 of your testimony, and this is April 2016 -- it's Exhibit 8, Page 4, Lines 16 through 18 -- you state that additional vegetation may be removed along the corridor. Do you see that?
A. (Plante) Could you recite the lines, please.
Q. Page --
A. (Plante) I got the page. I just --
Q. Line 16 through 18.
A. (Plante) Thank you.
(Witness reviews document.)
A. (Plante) Okay.
Q. What does "along the corridor" mean in particular? Will trees beyond the right-of-way toward Ms. Heald's house need to be cut?
A. (Plante) In general, the answer to that is no. The exceptions occur only when there is a tree that's deemed an immediate hazard to the electric system. And that never occurs without a direct conversation with the
property owner. So, for instance, if there was, you know, a 100-foot-tall dead pine tree that was 5 feet outside the corridor, our arborist would likely deem that to be a hazard to the electric system and would then seek permission from the property owner to remove that tree.
Q. Thank you. What is a typical construction day going to look like, in terms of start times and end times?
A. (Plante) So, for the Town of Durham, we have tentatively agreed through an MOU of 7 a.m. through 6 p.m., with some exceptions as have been noted earlier. So the crews would show up probably at their show-up area, wherever that is, a little prior to seven and then depart around seven to get to their work sites. So, work would be commencing shortly after seven and could go as late as six.
Q. Looking back at the environmental map on Exhibit 148, Page 19, are you aware that halfway through the right-of-way on Longmarsh Road it transitions to a Class VI road?
A. (Plante) Halfway through where? Between
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
the --
Q. At the intersection of the right-of-way easement that Eversource has and Longmarsh Road on this Page 19 of 32 , are you aware or is Eversource aware that the road is a Class VI road?
A. (Plante) I am not personally aware, but I'm fairly certain that our design team is aware.
Q. That your what?
A. (Plante) The design team and the environmental team.
Q. And does a Class $V$ or Class VI road change how you set up a work pad?
A. (Plante) No. We don't have any work pads that are in the road.
Q. That's my next question. With respect to -let me blow this up. And maybe it's just a function of design. The work pad associated with pole F107-89 technically shows that its boundary is going to be in Longmarsh Road.

Do you see that?
A. (Plante) I do see that.
Q. And so can you clarify whether it is anticipated that this work pad will impinge
on the road or not?
A. (Plante) My estimation is that we would probably shift this work pad to the left to avoid any impacts at all to the roadway.
Q. This looks like it's maybe larger than the 60 by 80? Would you agree with that?
A. (Plante) I don't think so. I think it looks to be 60 by 80 to me.
Q. Now, do you see the stone walls on either side --
A. (Plante) I do.
Q. -- of this road? And so would the stone wall inside the work pad on the north side of Longmarsh Road -- what is Eversource's efforts to protect that?
A. (Plante) So with these situations, and there are quite a few of them along the course of the Project, we will either be avoiding the walls altogether or bridging them with timber mats. So we wouldn't be dismantling the walls or otherwise damaging them with our construction. There are a couple exceptions that were mentioned earlier, and we have secured property owner permissions to make
those modifications.
Q. All right.
A. (Plante) And these walls are not on that list.
Q. Okay. Thank you.

Are you aware on Ms. Heald's property there is a restriction to not cut trees within a 100 feet of the road?
A. (Plante) I am not aware of that. Could you provide a reference?
Q. So I'm pulling up Durham Residents Exhibit 2, Page 10 of 11. And this is Donna Heald's supplemental testimony. And obviously it says "unofficial copy." This is a screen capture of a deed -- the registry of deeds plan. And I will blow up this section of the road while we're here. And it shows a Class V and Class VI designation. But then - well, perhaps $I$ will need to refile this exhibit with a clearer copy.

But assuming in the conditions of approval on this subdivision, if there is a restriction to not cut trees within a 100 feet of Longmarsh Road, how does Eversource

## (Frazier|Strater|Plante|Bowes|Dodeman|Wall)

either address, accommodate, avoid?
A. (Plante) I don't believe that Eversource or its predecessors are a party to this subdivision, so I don't believe that it supercedes our easement rights.
Q. Are you aware of whether historic -- roads that are designated as historic roads, historic scenic roads, have a vegetation cutting prohibition?
A. (Bowes) Yes, and I spoke to that this morning with the lawyer for Durham and indicated, for our distribution projects, we normally go through the scenic road process. For the transmission rights-of-way, and for this project, we're seeking the SEC's approval to do this trimming, as well as the installation of the line. And that is covered under I think three different statutes in the state of New Hampshire --
Q. Thank you.
A. (Bowes) -- that was discussed this morning.
Q. I think I talked over you.

MS. BROWN: Did the stenographer get
that?
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}

## (Frazier|Strater|Plante|Bowes|Dodeman|Wall)

STENOGRAPHER: Yes.
BY MS. BROWN:
Q. Will there be blasting needed for Ms. Heald's property, for the construction project?
A. (Plante) No, we do not anticipate any blasting on Ms. Heald's property.
Q. I am now showing you Exhibit 149, Page 52. It's an engineering plan that includes Ms. Heald's property. And it now shows a residence on her property and a water line; is that correct?
A. (Plante) Yes.
Q. And are you aware that prior plans did not show the water line or the residence?
A. (Plante) Yes, $I$ am vaguely aware that those did not show up on prior plans.
Q. This engineering plan, I believe, if you can speak to this, I believe it shows that Ms. Heald's correct property boundary is along this edge of the right-of-way. I ask for your agreement on that only because at one point it was shown as cutting into the right-of-way.
A. (Plante) Yeah, I guess $I$ can't disagree that
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
it's shown as being along the edge of the right-of-way. I am aware that in previous drawings there was a discrepancy between the property line location.
Q. Thank you. Because it looks like with these maps that discrepancy has been corrected. Okay.

Mr. Boughs [sic] -- I'm sorry. Bowes, is it? Relating to your testimony in July of 2018, and that's Exhibit 140 -- my mistake. I don't have the right page reference here. There's only ten pages here, and my reference is Page 16. That doesn't make sense.

Do you recall making a statement that the poles along -- or a pole along Longmarsh Road was relocated to reduce visibility from the road?
A. (Bowes) I do believe one was relocated along that general area.
Q. Thank you.

What is the height of this proposed pole that was relocated? Let me just blow this up to get the pole number. It is F107-89.
A. (Bowes) Just a minute. We'll find out.
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
Q. Didn't know if it was noted on this, on the engineering plans, perhaps.
A. (Bowes) So, just to be clear, since the numbers are sequential and they are -there's two 89s on the diagram. Which set of numbers are you -- that pole? Okay.
(Witness reviews document.)
A. (Bowes) That structure is 88-1/2 feet tall.
Q. That's the proposed structure; right?

Correct?
A. (Bowes) The final design as it stands today, yes.
Q. Now $I$ want to show you a visual of that pole, and I believe it's on Durham Historic Association Exhibit 4. And I'm at Page 6. And this is the pole, is it correct, that we are talking about Eversource relocated to reduce the visibility of it?
A. (Plante) We thought you were referring to a pole that was relocated in our proposed design, not a pole that was relocated on the existing distribution line. So we're confused.
Q. Looking back at Exhibit 148, Page 19, Pole \{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}

F107-89, this white triangle would be the existing pole that has been moved back; correct?
A. (Bowes) So the existing white triangle is a distribution circuit that's on the right-of-way today. The yellow -- yes, that structure.
Q. So it's not this pole shown on Page 6 of Durham Historic Association Exhibit 4 then?
A. (Bowes) That is the white triangle we just had on the previous map.
Q. It is?
A. (Bowes) Yes.
Q. Okay. So this is visually the pole that you had stated the proposed location has been pushed back away from the road to reduce visibility; is that correct?
A. (Plante) I'm still confused. Are you referring to our proposed design where it replaces -- that white triangle is moved back from the road to reduce visibility, or are you talking about some effort that has been undertaken recently to physically move that pole that's shown in that picture?
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
Q. Oh, I see the confusion. I am just talking about what's depicted on these maps. And it's accurate --
A. (Plante) Okay. Then yes.
Q. -- that these white triangles are the existing locations; is that correct?
A. (Bowes) Yes.
Q. And the yellow circles depict the proposed poles?
A. (Bowes) Yes.
Q. And the white ones are intended, the white triangles are intended to be removed?
A. (Bowes) Yes.
Q. Okay. Thank you.

PRESIDING OFFICER WEATHERSBY:
Attorney Brown, just for planning purposes, could tell me roughly how much more you have. You said you had 30 minutes, and it's been an hour and 15. So $I$ was wondering if we're going to get to other witnesses.

MS. BROWN: Within the half-hour.
PRESIDING OFFICER WEATHERSBY: In the
future, perhaps you could take a look at your estimates, and if they need to be revised, let

Ms. Monroe know.
MS. BROWN: Thank you.
PRESIDING OFFICER WEATHERSBY: Thank you.

BY MS. BROWN:
Q. Mr. Bowes, what -- to reduce the visibility of this pole, what did Eversource consider? Was it the traffic that would see it from the road?
A. (Bowes) So now $I$ will affirm Mr. Plante's confusion. So this pole is existing there today as it was depicted in the picture. We never intended to replace the transmission structure that close to the roadway. We always were going to have it offset in the approximate location that it is today. It may have moved slightly. But I still think we're talking about apples and oranges.
Q. Understood, because there are two poles there. I was trying to suss out on that visual whether that visual was the pole that was the white triangle or it was a regular electric line -- a pole with an electric line.
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
A. (Bowes) It is the latter today.
Q. Yeah. Okay. All right. Thank you.
A. (Bowes) So it was not a view sim. It was a real photograph.
Q. Pardon me?
A. (Bowes) It's not a visual simulation. That's a real photograph of what's there today.
Q. Yes, but it is not of the white triangle on your engineering -- your environmental maps; correct?
A. (Bowes) Yes, I think it is.
Q. Now, with respect to the yellow triangles, those represent poles that would have been -well, they're relocations of yellow dots; is that right, if $I$ use the legend accurately?
A. (Bowes) So, yes, the yellow triangles are relocations of existing distribution circuit that is in this area. So you'll see it going along the roadway.
Q. So with respect to the yellow triangle to the far right of this Page 19, that's a relocated pole?
A. (Plante) Yes.
Q. And it now impacts a wetland; is that
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
correct?
A. (Bowes) I can't tell because it looks like it's on the edge. But you can't really tell with the overlay of the pink work pad that overlays the green wetland area. We can certainly check.
Q. Well, I'm just going to the next Page 20, which shows the match line. Is that a better picture of it for you to show that that's a relocated pole closer to a wetland?
A. (Bowes) Yes, it is a little bit better depiction, and it looks like it is a relocated pole. And it's just on the edge of the wetlands, but outside of it.
Q. Okay. With any of the -- with respect to the relocated poles on this Map 20, were any of these relocations at the request of landowners?
A. (Plante) I believe the overall design in this area was modified at the request of landowners to try to keep structure heights lower. So, in this particular location, on Page 19 of 31 , that particular section of the design has the proposed transmission line

## (Frazier|Strater|Plante|Bowes|Dodeman|Wall)

mounted on single-circuit structures, with the existing distribution line alongside it on its own single-circuit structures, which allows for a somewhat shorter, overall design. However, it does result in two separate lines of poles. So it's a trade-off between height and ground impact --
Q. Okay.
A. (Plante) -- or footprint.
Q. So with the relocation of poles on property adjacent to Ms. Heald, does that limit Eversource's ability to relocate poles on her property?
A. (Plante) It doesn't necessarily limit it in terms of overall ability to install
structures; however, it does limit it in terms of overall economics of the Project and cost-effective design, total numbers of structures and whatnot.
Q. I'm going back to show you the revised engineering plan on Exhibit 149, Page 52. And do you agree that with respect to Ms.

Heald's property, that during the construction phase she will not be able to

## (Frazier|Strater|Plante|Bowes|Dodeman|Wall)

access the land encumbered by the right-of-way, nor the land to the east of the right-of-way?
A. (Plante) I would disagree that she'd not be able to access it. There may be certain periods of time when there's construction activity going on, where the safe work area boundaries would preclude anybody from entering them. However, it's not likely that that would totally preclude passage from one side to the other of the right-of-way. Certainly safety considerations need to be kept in mind, and proper communication with the work crews is essential. However, I'm certain that can be worked out.
Q. That's enheartening because Ms. Heald is under the impression from talking to Eversource personnel that she will not be able to access this part, this easterly portion of her property, during the entirety of the Project -- that being up to restoration -- which could be a year and a half. So could you speak to that a little bit.
A. (Plante) I'm not certain where that message would have come from.
Q. With respect to the safety of her water line from her well across the right-of-way to her home, is it going to be the responsibility of the contractor or Eversource to ensure that she does not have -- that that water line is not interrupted?
A. (Plante) So we will specify to the contractor that it needs to be maintained. Obviously the contractor works for us, so ultimately we're responsible for that. And we have actually even offered to provide a separate water source for her during the course of the construction in the event that there is an interruption so that she's not impacted.
Q. Thank you. Ms. Frazier, with respect to traffic moving around this work pad that at this point on Exhibit 148, Page 19, shows encroaching on the Longmarsh Road, is there going to be any special traffic -- I guess safety personnel that will be brought to this place or to this junction of the road in the right-of-way during construction?
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
A. (Frazier) Can you repeat the question for us?
Q. As it stands now, it looks like the work pad associated with Pole F107-89 encroaches Longmarsh Road. And the question is: How will traffic be impeded or not impeded by that work pad?
A. (Frazier) Mr. Plante decided construction -(Court Reporter interrupts.)
A. (Frazier) Sorry. I think the drawing is a little misleading. The work equipment won't actually be on the roadway.
Q. Thank you for that clarification.

Do you anticipate the traffic flow in this intersection of Longmarsh Road in the right-of-way to be restricted or partially restricted at any point during the construction?
A. (Frazier) Not noticeably. I mean, there may be a chance where a truck is turning in and has to swing wide. But I don't see it being an issue.
Q. General question for the panel regarding stone walls. And I'd like to draw your attention to Exhibit 148, Page 19, of the
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
stone wall that's on the south side of the right-of-way, representing the border of Ms. Heald's property and Longmarsh Road. Do you see that? I don't know who on the panel is going to speak to this, but I'm looking to you, Mr. Plante and Mr. Boughs [sic].
A. (Plante) Can you run your cursor over whichever wall you're speaking of? Yeah, got it.
Q. This wall here. It's our understanding that this is a protected wall, and any damage to this wall will need to be restored. I just wanted to know what Eversource's plan is going to be with respect to this wall and needing to traverse the area with the access road.
A. (Plante) So it's not our intention to impact this wall at all, hence the alignment of the access road around the end of it. We will obviously take great care to make sure we don't affect that wall.
Q. Currently the wall still hasn't been restored from prior work in the right-of-way. Is it Eversource's intent that, if this wall or
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
this stone wall needs to be restored pursuant to state law, that it will be done?
A. (Plante) I guess I'm not specifically privy to information about prior damage by our company of the wall. I'm not saying that that hasn't happened, but I'm not specifically aware of that.
Q. I'm going to move on to page -- to Exhibit 148, Page 20. Actually, it's 21. There's a notation of "mean low tide" -"mean low water mark." Was this layer grabbed from like the State's Granite System? Or how did Eversource come up with this location of the mean low water mark?
A. (Bowes) I don't think we know the underlying source. We can also read this in along with the delineation of the road issue that we had before. We can get the sources of both of those and locations for --
(Court Reporter interrupts.)
A. (Bowes) So we can certainly read into the record the source of this particular item at the same time we read in the previous request for the access roads -- or the private roads.
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
Q. Thank you.

Mr. Wall, I have a follow-up from your earlier testimony and examination from Town of Durham. You had mentioned burial depth of 42 inches may not be possible at times. Do you remember that discussion?
A. (Wall) Correct. If possible. It possibly may not be.
Q. And that if adequate burial depth is not possible, that would mean additional concrete mattresses may be required; is that accurate?
A. (Wall) The plan is where 42 inches is not acquired, concrete mats would be placed.
Q. Okay. And how is Eversource going -- if additional concrete mattresses are required, how is Eversource going to get approval? Is it -- are they requesting a specific number of mattresses to be approved by DES?
A. (Wall) For the interface with DES, I'd have to say that that question should probably go to the environmental panel. But there is a margin given in those figures. So we don't know that there would be required extra mats at this point.
\{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
Q. So you're anticipating a margin of discretion to be approved with the permit?
A. (Wall) I believe, although I'm not involved with the discussion with DES, I believe that to be the case. But you should check that with the environmental panel.
Q. Do you know what the useful life of the concrete mattresses are?
A. (Wall) They're designed for -- I mean, we expect them to last the life of the cable system, which is 30 years.
Q. Thank you. Was there any concern that the concrete could leach and change the pH of the surrounding waters?
A. (Wall) Again, that's more of an environmental question than a construction question.

MS. BROWN: I just need to confer with the client group to make sure I asked all the questions.
(Pause in proceedings)
MS. BROWN: I believe I am done.
Thank you for your time.
PRESIDING OFFICER WEATHERSBY: SO we're scheduled to go another ten minutes, and \{2015-04\} [Day 2 Afternoon ONLY] \{08-30-18\}
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)
we have Durham Historic Association scheduled for 20 minutes of cross-examination. How realistic is that? You think you'll be longer? Okay.

First, if everyone can look at their estimates, and if you need to revise them, let Ms. Monroe know. If you can get as close to them by really focusing on the questions that you're asking and having yourself really organized -- we're way behind schedule already. We want to get through this in the days that are allotted so it doesn't get too delayed because it's hard to get everybody together.

So that's it. We will adjourn for the day. We'll be back on September 17th at 9:00 a.m. We will continue with the construction panel and starting with cross-examination by the Durham Historic Association. And then hopefully later in the day we'll also get to Mr. Andrew. Thank you.
(Whereupon the Day 2 Afternoon
Session was adjourned at 4:53
p.m., and the hearing will resume
(Frazier|Strater|Plante|Bowes|Dodeman|Wall)

(Frazier|Strater|Plante|Bowes|Dodeman|Wall)


#### Abstract

C ERTITICATE 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)


|  | ```accurately (1) 128:15 achieve (1) 46:15 acquire (5) 12:4,8,21;27:3,14 acquired (4) 15:8;70:12,15;``` | $\begin{array}{\|c} \text { 130:11 } \\ \text { adjourn (1) } \\ 138: 15 \end{array}$ | $\begin{array}{r} \mathbf{9 1}: \mathbf{1} \\ \operatorname{air}(\mathbf{1}) \\ 42: 8 \end{array}$ | $\begin{aligned} & \text { 69:1,2;78:8;89:16 } \\ & \text { amounts }(\mathbf{1}) \\ & 107: 1 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| \$ |  |  |  |  |
|  |  |  |  |  |
| $\begin{aligned} & \$ 8(\mathbf{2}) \\ & 7: 19,22 \end{aligned}$ |  | adjourned (1) | alignment (1) | ampacity (2) |
|  |  |  |  | 1, ${ }^{\text {(2) }}$ |
|  |  |  |  |  |
|  |  | 44:6 | 138:12 | 40 |
|  |  |  |  |  |
| $\begin{aligned} & \text { [sic] (4) } \\ & 51: 22 ; 108: 2 ; 123: 8 \\ & 134: 6 \end{aligned}$ | 136:13 |  | 87:7,99:6,102:20 |  |
|  | $\begin{aligned} & \text { across (7) } \\ & 13: 15 ; 14: 12,13 ; \\ & 15: 8 ; 90: 23 ; 98: 23 ; \\ & 132: 4 \\ & \text { actions }(2) \end{aligned}$ | 11:3;81:13;102:15, 15 advantage (1) | 110:14 | $\begin{aligned} & \text { 76:12;77:7,22;78:10 } \\ & \text { analyzed (1) } \end{aligned}$ |
|  |  |  |  |  |
| A |  |  | 46:8;65:5 | 73:2 |
|  |  | advised (1) |  |  |
| ability (2) <br> 130:12,15 | $\begin{gathered} 77: 20,21 \\ \text { activities (17) } \end{gathered}$ |  | $\begin{aligned} & 10: 14 ; 48: 18 \\ & \text { allows (4) } \end{aligned}$ | 24:9 |
|  | activities (17) 19:12,13;20:4 | Advocate (1) | $\begin{aligned} & 37: 7 ; 81: 2 ; 82: 8 \\ & 130: 4 \end{aligned}$ | 33:19;138:21 |
| $\begin{aligned} & 23: 2 ; 24: 13 ; 37: 4 \\ & \text { 67:9;69:12;73:11; } \\ & 105: 15 ; 130: 24 ; \\ & 131: 5,19 \end{aligned}$ | $\begin{aligned} & 22: 12,18 ; 24: 22 ; \\ & 77: 24 ; 84: 4 ; 85: 14 ; \\ & \text { 86:1,8,15,20;88:17; } \\ & 94: 1 ; 96: 22 ; 106: 6 \end{aligned}$ | $34: 6$ |  |  |
|  |  | aerial (3) | alluded (2) | 65:22 |
|  |  | affect (1) | 35:13;85:16 almost (1) | 109:12,13 |
|  |  |  | almost (1) |  |
| aboard (1) | $\begin{aligned} & \text { 68:9;86:14,22; } \\ & \text { 87:4,11;90:20;97:6; } \end{aligned}$ | affected (2) | alone (1) | 84:24;85:4;122:5; |
| absent (1) |  | 33:22;34:20 | $\begin{gathered} 75: 23 \\ \text { along (24 } \end{gathered}$ | $\begin{gathered} 133: 13 \\ \text { anticipated (2) } \end{gathered}$ |
| 79:9 | $\begin{aligned} & \text { 87:4,11;90:20;97:6; } \\ & \text { 98:9;103:19;131:7 } \end{aligned}$ | affects (2) |  |  |
| absolutely (1) | actual (10) | 69:3,4 | 8:8;12:1;19:20; | 54:12;118: |
| 44:16 | $\begin{aligned} & \text { 49:8;50:5;53:18; } \\ & 54: 21 ; 62: 24 ; 64: 10 \end{aligned}$ | affirm | 20:13;21:7;22:13; | anticipating (1) |
| academi | $\begin{aligned} & \text { 54:21;62:24;64:10; } \\ & \text { 67:19;88:4,18; } \end{aligned}$ | 127:10 | 28:18;87:19;95:21; | anticipation (1) |
| access (49) | 105:20 actually (31) | $\begin{array}{\|l} \text { affirmative (1) } \\ 27: 22 \end{array}$ | $119: 17 ; 122: 19$ |  |
| 5:12;8:17;20:6,9 | actually (31) | afternoon (4) | 123:1,15,15,18 |  |
| $\begin{aligned} & 67: 9 ; 86: 11 ; 90: 11,19 \\ & 91: 20.24: 92 \cdot 5: 94: 21 \end{aligned}$ | $15: 17 ; 25: 19 ; 28: 8$ | 26:10;79:11,18; $138: 22$ |  | 66:16;67:10 |
| 97:24;98:24 | $32: 4 ; 35: 12 ; 38: 12 ;$ $41 \cdot 21: 46: 18 \cdot 48 \cdot 2$ | 138:22 afterwards (1) | alongside (1)$130: 2$ | 25:1,2;62:23 |
| 103:22;105:5;106:2, | 41:21;46:18;48:2; 58:23;61:5,16;63:6; | $92: 8$ |  | apologize (2) |
| 19;108:7,13,17; | $\begin{aligned} & 58: 23 ; 61: 5,16 ; 63: 6 ; \\ & 64: 18 ; 67: 11 ; 71: 18 ; \end{aligned}$ | again (35) | alteration (3) | 47:17;81:18 |
| 109:2,6,8,10,11,15 | 72:13;80:9,16;81:12 | $\begin{aligned} & 5: 15 ;: 24 ; 15: 17 ; \\ & 16: 17 ; 20: 11 ; 21: 9 \end{aligned}$ | 57:19,21;58:8 | 108:4 |
| 18,19,21;110 | $\begin{aligned} & 84: 5 ; 96: 2 ; 97: 1 \\ & 100: 10,18 ; 105 \end{aligned}$ | $\begin{aligned} & 16: 17 ; 20: 11 ; 21: 9 \\ & 23: 14 ; 30: 22 ; 34: 1 \end{aligned}$ | alter | $\begin{aligned} & \text { 108:4 } \\ & \text { appears (1) } \end{aligned}$ |
| $\begin{aligned} & 111: 2,17,19 ; 112: 17 \\ & 19 ; 113: 6 ; 114: 6 ; \end{aligned}$ | 114:8;115:24 | $23 ; 36: 7,11 ; 38: 18$ | altering | 11:6 |
| 15:7,10;131:1,5,19; | 132:13;133:11;135:9 | 39:6,11,17,20;42:4; | 68:18 | Appellant's |
| 134:15,19;135:24 | add (7) | 45:23;47:3, 11;50:5; | alternative (3) | 50:11 |
| accesses (2) | 23:2;35:23;36:3 | 52:2:56:24:59:24 | 34:16,18;45:8 | Appendix (11) |
| 85:20;97 | 16;56:6;68:22 | (87:17 | alternatives (1) | 7:3,8,14,17, |
| accessway |  | 103.24 |  |  |
| 06:13 | 32:3;98:1addition (1) | $\begin{array}{\|c} \operatorname{aggression~(1)~} \\ 23: 10 \end{array}$ | $\begin{aligned} & 8: 21 ; 34: 11 ; 90: 1 ; \\ & 101: 3 ; 137: 3 \end{aligned}$ | apples (1)$127: 18$ |
| 99:13 |  |  |  |  |
| accommod | 22:12additional | agree (23) | altogether (1) | $\begin{gathered} \text { Applicant (5) } \\ \text { 26:24;27:2;45:9; } \\ 61: 9: 112: 15 \end{gathered}$ |
| 25:15;121: |  | $\begin{aligned} & 30: 12,19 ; 31: 9,22 \\ & 32: 10 ; 33: 1,5,10,13 \end{aligned}$ | $119: 19$ always (3) |  |
| accomplished (1) | 18:14;23:2;94:15 |  | always (3) | Applicant's (12) |
| 19:3 | $\begin{aligned} & 111: 21 ; 116: 7 ; \\ & 136: 10,15 \end{aligned}$ | $\begin{aligned} & 36: 4 ; 45: 13 ; 58: 5 ; \\ & 67: 23 ; 70: 14 ; 72: 4 ; \end{aligned}$ | 127:15 |  |
| according (3) | address (1) |  |  | $\begin{aligned} & \text { 9:4;18:4;33:15; } \\ & \text { 36:8;46:21;50:12 } \end{aligned}$ |
| account (1) | 121:1 addressed | $\begin{aligned} & 75: 13,18 ; 111: 13 ; \\ & 119: 6 ; 130: 22 \end{aligned}$ | $\begin{aligned} & \text { 27:22,24 } \\ & \text { amendment (2) } \end{aligned}$ | $\begin{aligned} & \text { 51:22;52:24;55:8; } \\ & 58: 23 ; 64: 15 ; 84: 1 \end{aligned}$ |
| 77:9 | 11:3addresses (2) | agreed (3) | $\begin{array}{r} 9: 14,14 \\ \text { among (9) } \end{array}$ |  |
| accuracy <br> 59:14 |  |  |  | $\begin{gathered} \text { Applicant's' (2) } \\ 11: 7 ; 26: 14 \end{gathered}$ |
| accurate | $\begin{gathered} 9: 14 ; 17: 4 \\ \text { adequate (1) } \end{gathered}$ | $117: 12$agreement (6) | $\begin{aligned} & 12: 9 ; 37: 18 ; 52: 9 \\ & 60: 7 ; 62: 12 ; 72: 21,23 \end{aligned}$ | Application (15) |
| 13:3;22:8 |  |  |  | $\begin{aligned} & 12: 17 ; 26: 21 ; 27: 21, \\ & 23 ; 28: 1 ; 30: 18 ; 55: 19 \\ & 20 ; 57: 22 ; 58: 2 ; 63: 7 \\ & 64: 10 ; 94: 6 ; 100: 15 \end{aligned}$ |
| 27:24;28 | 136:9 | $\begin{aligned} & 18: 15 ; 28: 6 ; 109: 7, \\ & 20 ; 111: 10 ; 122: 21 \\ & \text { ahead (1) } \end{aligned}$ | $\begin{aligned} & 80: 23 ; 111: 10 \\ & \text { amount }(7) \\ & 22: 20 ; 31: 5 ; 66: 9 \end{aligned}$ |  |
| 73:14;93 | adjacent (3) |  |  |  |
| 126:3;136:11 | 12:18;112:20; |  |  |  |


| 101:10 | 92:5 | 82:22;119:4;121:1 | 18:2,12;24:16;25:8; | 113:16;129:11; |
| :---: | :---: | :---: | :---: | :---: |
| apply (1) | arrive (1) | avoiding (2) | 28:5;29:24;30:3,21; | 131:24 |
| 18:17 | 87:20 | 69:10;119:18 | 31:20;35:21;36:21; | blasting (3) |
| Appreciate (1) | Articulated (2) | avoids (1) | 37:15;38:13;39:19; | 17:6;122:3,6 |
| 99:3 | 47:18;95:6 | 68:3 | 40:18;41:5;44:17; | blow (5) |
| approach (5) | articulating (1) | awaiting (1) | 48:6,14;49:3,9;53:21, | 90:2;113:16; |
| 4:5;42:20,21; | 78:6 | 112:13 | 22;57:13;58:21;59:9, | 118:17;120:16; |
| 48:17;69:21 | aspects (2) | aware (20) | 12;62:16;64:22; | 123:22 |
| approaching (1) | 76:19;80:6 | 9:19;17:2;53:3 | 65:14;67:17;68:5; | blown (1) |
| 97:6 | assemble (3) | 78:10;80:17;100:3; | 71:5;73:6;81:21,21, | 113:19 |
| appropriate (1) | 87:14,15;96:3 | 112:6;115:21; | 22;108:12;111:20 | board (3) |
| 46:19 | assemblies (1) | 117:21;118:4,5,7,8; | beautiful (2) | 4:8;7:2,5 |
| approval (7) | 97:2 | 120:6,9;121:6; | 12:19;14:13 | boat (2) |
| 29:14,16;30:2; | assessed | 122:13,15;123:2; | become (3) | 31:11;41:24 |
| 104:5;120:22; | 68:16 | 135:7 | 16:4;23:9;77:15 | boaters (2) |
| 121:15;136:16 | assessment (2) | away (4) | becomes (4) | 54:4;67:13 |
| approvals (1) | 33:5;59:7 | 77:1;113:10 | 25:22;83:12,14,17 | boats (1) |
| 55:23 | asset (2) | 115:22;125:16 | bedrock (1) | 54:6 |
| approved (2) | 15:21;16:8 |  | 29:3 | bold (2) |
| 136:18;137:2 | assistance (2) | B | begin (7) | 48:16;67:16 |
| approxima | 40:11;97:4 |  | 85:20;86:1;87:16, | border (1) |
| 127:16 | associated (4) | back (28) | 23;88:17;97:15; | 134:2 |
| approximately (7) | 82:17;84:6;118:18 | 5:11;24:12,15 | 104:5 | boring (1) |
| 37:1,7;48:19;81:2; | 133:3 | 27:19;30:9;35:20 | beginning (5) | 29:3 |
| 85:5;102:9;113:11 | Associates | 36:19;39:2;43:4; | 22:16;93:17,20,23; | both (9) |
| April (1) | 74:8 | 44:11;63:22;67:7; | 101:21 | 10:5;20:4;23:20; |
| 116:5 | Association | 72:12;78:20;84:8; | begins (1) | 24:15;34:5;69:13; |
| arborist (1) | 105:2;124:15 | 96:21;97:12;99:10; | 104:23 | 86:23;95:20;135:18 |
| 117:4 | 125:9;138:1,20 | 107:6;113:20; | behalf (1) | bottom (2) |
| area (52) | assume (16) | 114:15;117:20; | 68:15 | 59:20;71:21 |
| 6:11,14;7:3,9;13: | 4:14;18:14;30:12 | 124:24;125:2,16,20; | behind (2) | Boughs (3) |
| 15;19:18;23:18; | 18;31:8,16,22;32:9; | 130:20;138:16 | 85:13;138:10 | 108:2;123:8;134:6 |
| 24:18,19;31:18;34:3; | 48:5,13;58:16;66:1; | backfill (1) | below (2) | boulders (2) |
| 41:19;42:19;49:16; | 68:12;70:14;72:4; | 95:23 | 31:10;48:1 | 48:10;89:8 |
| 51:4,6;52:4;58:9; | 98:5 | background (2) | bending (1) | boundaries (5) |
| 64:20,24;65:24; | assuming | $4: 6 ; 67: 21$ | 69:14 | 67:3,4,5;85:15 |
| 67:15;74:5,5,18; | 120:21 | backstop (1) | beneath (5) | 131:8 |
| 85:11;89:14;90:24; | attach (1) | 77:15 | 27:8,10,15;29:9 | boundary (2) |
| 94:1,12,15;96:3,14, | 87:24 | barge (24) | 30:11 | 118:20;122:19 |
| 15;98:16,23;100:4; | attached (1) | 24:11,14;35:16; | benefit (1) | Bowes (153) |
| 103:11,15;104:22; | 88:2 | 37:3,4,9,10;38:3; | 50:4 | 4:2,16;5:8,15; |
| 106:7,7,23,24; | Attachment (6) | 39:6,19;41:19,20,21; | best (8) | 22;7:12,16,24;8:15, |
| 117:15;123:19; | 47:3;58:24;59:2; | 42:16;43:6;69:15; | 22:2;23:24;45:9; | 20;9:22;10:7,10,18, |
| $\begin{aligned} & 128: 18 ; 129: 5,20 ; \\ & 131: 7 ; 134: 15 \end{aligned}$ | 60:18;61:21;66:24 | $\begin{aligned} & 80: 3,5,5,14 ; 81: 4 \\ & 82: 11,16 ; 83: 8 \end{aligned}$ | 68:12;76:13,20,22,24 <br> better (9) | $\begin{aligned} & \text { 21,24;11:5,9,11,13, } \\ & 23 ; 12: 6,10,22 ; 13: 2,8 \end{aligned}$ |
| areas (31) | attention (5) $9: 2 ; 11: 2,8 ; 29: 5$ | barges (1) | - 32:13;51:16;75: | 16,20,23;14:5,9,16, |
| 9:24;20:2;30:23; | 133:24 | 43:3 | 21;90:3;103:9; | 20;15:3,7,11,17; |
| 31:11,14;42:2;48:23; | Attorney (5) | base (1) | 104:13;129:8,11 | 16:13,17;17:7,17,20, |
| 52:2;54:8,8;57:19, | 26:5;29:1,6;79:22; | 103:7 | Beyond (8) | 23;18:19;19:4,8; |
| 21;65:2,6,9,14;74:4, | 126:16 | based (8) | 10:7,8;12:20; | 20:1;22:8;23:1; |
| 11;85:10,19;86:10; | attorneys (2) | 9:11;20:23;31:12; | 57:22;96:12;110:15; | 24:20;25:11,18; |
| 89:7,7,11;98:2;99:18, | 29:20;40:23 | 43:1;70:11;73:20; | 114:7;116:17 | 26:12,22;27:6,12,16, |
| 21;100:10;103:12, | authorities (1) | 74:8;113:8 | bidders (1) | 19;28:4;29:19;30:4, |
| 14;104:15 | 54:13 | basement/bedrock (1) | 39:3 | 14,22;31:10,12,16, |
| arm (3) | authority ( | 48:10 | big (4) | 21;32:2,13,20,21,24; |
| 38:4;42:11;95:7 | 55:22 | basically (3) | 42:1,13;82:1 | 33:9;34:1,23;35:9, |
| armor (1) | autotransformer (2) | 7:9,22;59:7 | 95:24 | 13;36:6,10,13,23; |
| 63:4 | 33:4;34:17 | basis (2) | bigger (4) | 41:12;42:6;47:2,20; |
| around (9) | available (4) | 27:3;109:2 | 38:6,7;40:4;101: | 51:13;52:15;56:17, |
| 8:8;16:17,19;48:3; | 20:9;38:19;40:13; | Bates (1) | bit (14) | 22;61:22;62:5;68:13; |
| 91:4;95:23;117:17; | 59:24 | 61:8 | 70:8;88:23;90:2; | 70:23;71:3,7,17;72:2, |
| 132:18;134:19 | avoid (7) | Bay (44) | 91:3,5,10,101:5; | 8,12,15;73:1,7,14; |
| arrival (1) | 39:13,23,24;70:7; | 14:18;15:4,5,6,14; | 102:22;106:9,11,12; | 74:1,16,22;75:10,21; |


| 76:1,8,18,24;77:6,12; | bulldozers (1) | 43:4,17;49:10,20; | certainly (13) | 118:23 |
| :---: | :---: | :---: | :---: | :---: |
| 78:14;81:12,17; | 21:20 | 50:6,8;59:23 | 31:13,21;35:11; | clarifying (1) |
| 85:16;98:6,9,18; | bundle (1) | Caldwell (7) | 40:10;68:1,3;70:23; | 43:15 |
| 108:3;109:5,16,23; | 37:13 | 39:2;58:19;62:17; | 84:14;99:12;110:21; | Class (7) |
| 112:12;115:23; | Bureau (1) | 64:2;65:18;66:1,11 | 129:6;131:12;135:21 | 107:12;117:23; |
| 121:10,21;123:8,18, | 57:5 | call (2) | Certificate (1) | 118:5,12,12;120:17, |
| 24;124:3,8,11;125:4, | burial (6) | 42:8;104:12 | 84:24 | 18 |
| 10,13;126:7,10,13; | 7:3;9:21;10:16; | called (3) | cetera (1) | classified (1) |
| 127:6,10;128:1,3,6, | 69:3;136:4,9 | 17:17;67:8;69:23 | 106:21 | 15:20 |
| 11,16;129:2,11; | buried (2) | came (1) | Chair (4) | clays (1) |
| 135:15,21 | 11:21;59:19 | 43:7 | 26:7;43:21;45:3; | 48:11 |
| box (2) | bury (2) | can (64) | 60:8 | clear (4) |
| 65:6,11 | 5:23;6:17 | 4:23,23;5:18;7:12 | challenge (1) | 13:8;61:7;74:17; |
| branches (1) | burying (1) | 13:8;18:20;19:1; | 22:5 | 124:3 |
| 19:21 | 10:4 | 23:1;27:22;37:9; | chance (1) | clearance (23) |
| break (5) | bus (1) | 38:5;40:5;41:19; | 133:19 | 37:7,8;42:4;64:19, |
| 16:23;24:4;78:19; | 22:15 | 42:18,19,21,24;43:6, | change (6) | 24;65:14;74:4,5,5,11, |
| 88:22;92:2 | business (1) | 10;45:3;50:15,17; | 82:9;91:4,16; | 18;79:22;80:4,8,13, |
| Bridge (16) | 79:6 | 55:9;59:17,20;61:7; | 100:17;118:12; | 18;81:3,3,23;82:3,8, |
| $\begin{aligned} & 37: 5,6,17 ; 38: 1 ; \\ & \text { 42:7,14;79:22;80:4 } \end{aligned}$ | C | 63:1,19,22;70:15,23, 24;76:13;81:5,5; | 137:13 changed (1) | $9 ; 83: 11$ |
| $10,13,18 ; 81: 23 ; 82: 3$ | C | 83;76:13;81:5,5; | $44: 21$ | 111:24 |
| 83:11,14 | Cable (104) | 88:21,24;90:3,12; | channel (3) | clearer (1) |
| bridging (1) | 4:23,24;5:23;23:8, | 92:23;95:4;97:6,14; | 25:5;58:21;67:3 | 120:20 |
| 119:19 | 13,21;24:2,6,10,12, | 100:16;103:10,21; | characterization (1) | clearing (2) |
| brief (1) | 13,16;25:16;30:1,14; | 106:16;108:23; | 94:9 | 20:4;106:21 |
| 85:16 | 35:15,16,18,24; | 114:13;118:23; | characterizes (1) | clearly (1) |
| briefly (5) | 36:20;37:1,4,11,12, | 122:17;129:5; | 33:12 | 31:5 |
| 19:2;32:21;35:8; | 16;38:8,11,17;39:8,9, | 131:15;133:1;134:7; | chart (7) | CLF (1) |
| 54:15;90:17 | 13,15,18,23;40:4,13, | 135:16,18,21;138:5,7 | 66:22;67:11,21; | 28:22 |
| bring (3) | 16;41:4,8;42:9,12,24; | capable (1) | 68:2;81:20;82:4; | client (1) |
| 20:10;24:13;55:9 | 43:9,19;44:17;48:24; | 69:15 | 101:21 | 137:18 |
| bringing (2) | 49:1;51:16,18,20; | capacity (1) | charted (1) | client's (1) |
| 38:16;39:7 | 57:12;59:4,18;61:23; | 43:3 | 67:4 | 90:4 |
| broader (1) | 62:2,9,9,11,20;63:1, | capture (1) | charts (3) | close (6) |
| 91:22 | 4,23;65:7,8,9,24; | 120:15 | 67:8,9;82:4 | 19:21;113:6;115:7, |
| brought (3) | 66:2,18;67:12,18; | care (1) | chase (1) | 10;127:14;138:8 |
| 43:19;103:4; | 68:4,8,18,19,23;69:1, | 134:20 | 80:15 | closely (1) |
| 132:22 | 13;70:21;71:9;72:7, | carry (2) | check (2) | 33:14 |
| Brown (16) | 19;73:5,9,11,13,19, | 79:8;104:18 | 129:6;137:5 | closer (2) |
| 79:14,17,19;81:9; | 21,23;74:4;75:8; | case (7) | chemical (1) | 24:24;129:10 |
| 84:18,21;110:1,3; | 76:6;82:14,15,17,19, | 29:7,8,11;79:11; | 61:23 | closest (1) |
| 121:23;122:2; | 19;83:1,5,5,7;88:10, | 101:13;106:10;137:5 | children (1) | 115:24 |
| 126:16,21;127:2,5; | 16,19;137:10 | cases (1) | 22:16 | CMI (1) |
| 137:17,21 | cables (48) | 73:15 | chippers (1) | 65:24 |
| brown-outs (4) | 4:20,20;5:2;22:21; | casing (1) | 20:12 | coarsely (1) |
| 77:4,8;78:12,12 | 24:23;35:3;37:11,15; | 95:22 | choice (1) | 51:5 |
| bucket (2) | 38:6;40:3;43:11; | casings (2) | 45:9 | coiling (2) |
| 97:8,13 | 51:18;52:2;58:16,20; | 97:19,21 | chute (1) | 38:4;42:11 |
| budget (3) | 59:8,8,11,14;60:3; | catch (1) | 83:2 | collected (1) |
| 7:6,23;8:1 | 62:8,15;63:6,20; | 79:10 | circles (1) | 74:3 |
| build (2) | 64:21;65:21,23;66:8, | cedar (2) | 126:8 | column (1) |
| 4:24;90:13 | 9,13,16;69:10,17; | 112:4,9 | circuit (2) | 75:19 |
| building (3) | 71:5,7;72:6,10,16,18; | cellulose (3) | 125:5;128:17 | combined (1) |
| 77:16;90:11;107:1 | 73:2,18;74:13,21; | 72:10,20,22 | cited (1) | 12:3 |
| built (3) | 75:3,23;76:6;77:2; | center (1) | 81:23 | coming (3) |
| 20:8;77:3,9 | 82:13 | 90:5 | civil (1) | 15:4;38:8;94:22 |
| built-in (1) | calculated (1) | certain (14) | 103:9 | comings (1) |
| 25:14 | 39:1 | 66:8;73:5;77:23, | clarification (8) | 92:13 |
| bulky (1) | calculation (2) | 24;78:2;88:10;99:17; | 41:17;43:12;60:9; | commence (2) |
| 18:24 | 63:23;82:10 | 100:13;112:3,9; | 66:6;83:19;102:5; | 85:19;104:14 |
| bulldozer (1) | calculations (10) | 118:8;131:5,15; | 107:23;133:12 | commencement (3) |
| 95:9 | 31:2;40:9;41:10; | 132:1 | clarify (1) | 85:13;88:14;93:24 |


| commencing (2) | 137:12 | consider (2) | continuous (3) | coverage (4) |
| :---: | :---: | :---: | :---: | :---: |
| 117:18;139:2 | concerned (2) | 15;127:7 | 39:16,17;67:16 | 46:15;52:22;58:6,8 |
| comment (4) | 44:3;45:24 | consideration (3) | contracted (1) | covered (3) |
| 93:13;105:1;112:7, | concerns (3) | 22:15;38:15;39:7 | 62:18 | 34:3;49:9;121:17 |
| 8 | 9:10,15;27:20 | considerations (1) | contractor (4) | covers (1) |
| comments (1) | conclude (2) | 131:12 | 90:22;132:6,9,11 | 48:24 |
| 112:13 | 41:3;79:13 | considered (1) | contributing (1) | crane (3) |
| commercially (1) | conclusion (1) | 33:4 | 75:17 | 96:7,9,10 |
| 13:12 | 18:9 | considering (1) | control (1) | create (11) |
| Commission (2) | concrete (31) | 44:1 | 38:8 | 42:8;68:10;82:20; |
| 28:15;34:8 | 20:19;24:18;30:2 | consistently (1) | controls (1) | 89:14;99:7,15,21; |
| commit (1) | 12,20,23;31:24; | 16:9 | 86:9 | 103:8,13,15;106:13 |
| 14:6 | 32:10,17;46:12,23 | consolidated (1) | conversation (2) | created (2) |
| commitment (1) | 47:4,18;49:15;50:10; | 16:21 | 37:19;116:24 | 99:8;100:3 |
| 10:11 | 51:7,10;52:4,22; | constituents (2) | coordinated (1) | creating (3) |
| commitments (1) | 53:2;57:11;58:6,7; | 73:3,13 | 22:18 | 62:23;94:20;98:2 |
| 10:12 | 68:17;86:23;100:21; | constrained (1) | coordination (1) | crew (9) |
| committed (3) | 136:10,13,15;137:8, | 11:18 | 22:1 | 86:5;87:17,19,20, |
| 9:9;10:4,8 | 13 | constraint (2) | copper (1) | 21,23;88:8;92:6,7 |
| Committee (3) | concurrent (1) | 13:10,14 | 69:4 | crews (3) |
| 55:5;61:14;79:2 | 88:22 | construct (3) | copy (3) | 89:14;117:14; |
| common (2) | concurrently (2) | 26:19;27:4;76:7 | 4:2;120:14,2 | 131:14 |
| 37:13;39:14 | 84:15;88:5 | constructable (1) | cord (1) | criteria (2) |
| communication (1) | condition (10) | 70:2 | 6:2 | 6:21;63:3 |
| 131:13 | 62:9,11,21;63:3; | constructed (5) | corner (5) | critical (2) |
| communities (2) | 73:3;99:11,15;111:4, | 16:5;77:11;78:13 | 19:22;71:22 | 33:7;44:15 |
| 33:20;34:20 | 5,12 | 92:1;105:24 | 114:14,19;115:2 | cross (4) |
| Company (5) | conditional (1) | construction (58) | corrected (2) | 28:9;29:24;37:4,15 |
| 5:5;14:6;28:6; | 48:18 | 17:15;18:18;19:15; | 61:15;123:6 | crossed (1) |
| 38:23;135:5 | conditions (8) | 22:19;38:22,23;56:9; | correctly (11) | 90:22 |
| Company's (1) | 48:5,12;57:17; | 58:11;68:10;71:9; | 26:21;55:24;56:1; | crosses (1) |
| 9:13 | 74:14;89:4;99:24; | 72:17;83:23;84:4; | 57:14,15;58:3,4;66:4, | 14:18 |
| compares (1) | 105:13;120:21 | 85:5;86:3,11,19,22; | 5;73:24;74:15 | CROSS-EXAMINATION (4) |
| 102:1 | conducted (5) | 88:6,7,9,18;90:24; | correspondence (2) | 26:8;79:16;138:2, |
| comparison (1) | 43:18;58:19;75:15; | 93:10,12,20;94:1; | 28:24;55:3 | 19 |
| 47:15 | 77:7;93:4 | 95:1,4;97:24;101:18; | corridor (17) | crossing (11) |
| complement (1) | conductor (7) | 102:1,21;103:9,19, | 28:19;65:3,7,12, | 28:5,17,18;36:21; |
| 87:18 | 21:6;87:21;97:1, | 21;104:1,4,5,8,12; | 22;66:4,15;67:12,24; | 41:6;58:21;67:16; |
| complements (2) | 11,12;104:14,17 | 105:7,12,14;106:6; | 68:2;69:14;86:2; | 68:18;76:7;88:12; |
| 86:5;88:9 | conductors (7) | 108:1;110:6;117:8; | 95:8;115:20;116:8, | 91:10 |
| complete (14) | 21:11,15;88:1,1,2; | 119:22;122:4; | 16;117:3 | crossings (5) |
| 77:16;85:18;86:17; | 96:13;105:18 | 130:24;131:6; | cost (7) | 5:7;38:20;40:17; |
| 87:19;88:3,13;91:8; | confer (2) | 132:15,24;133:7,17; | 7:6,13,22;8:2 | 44:17;98:2 |
| 102:21;104:9,10,14, | 40:23;137:17 | 137:16;138:18 | 68:10,23,24 | crushed (1) |
| 16;105:9;106:6 | configuration (2) | construction-related (1) | cost-effective (1) | 8:6 |
| completed (2) | 66:10,13 | 85:14 | 130:18 | culminating (1) |
| 55:18;85:24 | confines (1) | constructors (1) | Council (2) | 85:6 |
| completeness (1) | 42:18 | 102:18 | 29:13,17 | culvert (1) |
| 99:3 | confirm (3) | Consumer (1) | counsel (1) | 87:5 |
| completion (2) | 5:18;63:17,19 | 34:6 | 81:18 | current (4) |
| 85:6;92:5 | confused (3) | contain (3) | couple (3) | 27:2;85:2;101:17 |
| complicated (1) | 32:7;124:23 | 35:19;60:3;72:10 | 85:17,22;119:22 | 102:2 |
| 24:17 | 125:18 | contains (1) | course (6) | currently (4) |
| comply (4) | confusion (2) | 72:20 | 43:24;44:23;68:18; | 26:17;59:11;71:5; |
| 10:15,24;76:1; | 126:1;127:11 | contaminant (1) | 101:19;119:17; | 134:22 |
| 112:10 | conjunction (1) | 74:14 | 132:14 | currents (1) |
| components (3) | 5:6 | context (1) | Court (4) | 25:5 |
| 72:21,23;88:4 | connect (2) | 4:17 | 45:5;54:1;133: | cursor (2) |
| computer (1) | 21:14;105:18 | continue (3) | 135:20 | 98:17;134:7 |
| 82:4 | Conservation (3) | 77:19;111:16; | Cove (4) | customary (1) |
| concentrations (2) | 26:5,11;34:10 | 138:17 | 42:20;69:23;70:7,9 | 44:5 |
| 74:10,12 | conservative (1) | continued (1) | cover (1) | customers (1) |
| concern (1) | 31:2 | 9:12 | 23:3 | 78:7 |


| cut (7) | 120:15 | describes (1) | differential (1) | 113:19 |
| :---: | :---: | :---: | :---: | :---: |
| 24:14;35:18;80:15; | deem (1) | 35:5 | 7:13 | distribution (15) |
| 106:11;116:19; | 117:4 | description (4) | differentiator (1) | 15:1,16,24;16:4,8, |
| 120:7,23 | deemed (1) | 18:1;57:9;64:19; | 16:22 | 2,14,16,24;98:21; |
| cutting (3) | 16:22 | 0:12 | differently (1) | $1: 12,124: 2$ |
| 19:17;121:9 | defer (7) | design (24) | 34:15 | 125:5;128:17;130:2 |
| 122:22 | 50:6;52:12,18; | 4:24;6:21;9:16 | difficult (1) | district (4) |
| cycle (3) | 58:12;64:11;66:19; | 37:10,22;39:12;68:6; | 59:13 | 10:6,6;12:12,13 |
| 23:11;25:12,24 | 68:20 | 72:17;80:18;101:11, | dimension (1) | districts (1) |
| cylindrical (1) | deferred (1) | 19,24;102:2,12; | 102:11 | 10:17 |
| 82:14 | 33:18 | 118:8,10,18;124:11, | dimensions (1) | disturbance (1) |
|  | defined | ;125:19;129:19, | 42:16 | 103:18 |
| D | 97:9 | 4;130:5,18 | diminish | diver (2) |
|  | defining | designated (2) | 110:10 | 62:24;73:20 |
| daily (3) | 102:19 | 109:2;121:7 | DIR (3) | divers (3) |
| $44: 14 ; 92: 14,16$ | definition (4) | designates (1) | 60:8,14,21 | 24:2;59:17;62:18 |
| damage (2) | 16:13,18;30:15 | 67:12 | direct (9) | Division (1) |
| 134:11;135: | 107:16 | designation (3) | 11:7;20:17;58:17 | 55:17 |
| damaged (2) | degree (2) | 62:19;108:19; | 70:22;87:3,7;100:22; | DMA (1) |
| $23: 10 ; 35: 17$ | 88:5;89:1 | 120:18 | 113:15;116:24 | 67:8 |
| damaging (1) | delay (1) | designations (1) | directed (2) | docket (1) |
| 119:21 | 83:22 | 108:14 | 68:13;77: | 61:24 |
| dash (1) | delayed (1) | designed (4) | Directing (2) | document (26) |
| 108:19 | 138:13 | 11:15;13:4;71:8 | 11:2;47:5 | 18:7;28:21,23; |
| dashed (2) | delineation | 137:9 | directly (7) | 49:6;50:13;53:8; |
| $67: 2 ; 108: 13$ | 135:17 | designing (1) | $45: 11 ; 48: 2 ; 74: 22$ | $55: 12 ; 56: 19,20$ |
| data (7) | $\begin{array}{\|r} \text { deliver (2 } \\ 20: 22 ; 8 \end{array}$ | $41$ | 75:7;83:1;92:8;115:5 | 7:18;59:22;61:24; |
| 60:1;64:10;74:3,6 | demonstrate (1) | 25:7;111:9 | 122:24;131: | 72:14;81:14;84:19; |
| date (4) | 91:3 | desire (2) | disclosed (1) | $90: 1 ; 109: 23 ; 113: 3 \text {, }$ |
| 60:20,21,24;61:1 | denied (1) | 75:2;103: | 18:13 | 13;114:22;116:14; |
| dated (2) | 12:14 | despite (1) | disconnection (1) | 124:7 |
| 29:2;59:5 | Dennis (1) | 73:2 | 78:9 | documentation (1) |
| David (2) | $4: 4$ | DES's (1) | discovery (6) | $40: 24$ |
| $35: 2 ; 83: 24$ | depart (1) | 58:9 | 43:24;44:7,14,24, | documents (7) |
| day (13) | 117:17 | details (1) | 24;46:1 | 28:12;29:23;30:1; |
| 22:2,17,17;79:3, | Department (1) | 23:2 | discrepancy (2) | 40:18;50:15;109:5; |
| 13;88:14;91:7,13,17, | 55:16 | detected (1) | 123:3,6 | 110:2 |
| 117:9;138:16,21,22 | depending (3) | 72:6 | discretion (1) | Dodeman (75) |
| days (3) | 89:15;103:24 | deterioration (1) | 137:1 | 35:11,22;36:1; |
| 91:8;92:9;138:12 | 104:20 | 75:3 | discuss (1) | 37:20,21;38:18; |
| $\begin{gathered} \text { dead (1) } \\ 117: 2 \end{gathered}$ | $\begin{array}{\|c} \text { depends }( \\ 89: 3 \end{array}$ | determine (5) $43: 18 ; 74: 19 ; 75: 16 ;$ | $\begin{gathered} \text { 110:20 } \\ \text { discussed (1) } \end{gathered}$ | $\begin{aligned} & 39: 11,24 ; 40: 8,20,22 \\ & 41: 16 ; 42: 7 ; 43: 13 \end{aligned}$ |
| deadlines (1) | depict (2) | 104:2,22 | 121:21 | 47:5;48:8,15,21;49:4, |
| 44:24 | 108:14;126: | determining (1) | discussing (1) | 14,19,24;50:4,13,17, |
| deal (2) | depicted (2) | 94:7 | 65:17 | 20,23;51:8;52:1,5,10, |
| 25:3;42:1 | 126:2;127:12 | development | discussion (11) | 16;53:4,9,14,20;54:2, |
| debris (2) | depiction (2) | 66:1 | 8:14;12:9;33:23 | 11;58:18,22;59:2,6, |
| 76:12,14 | 113:24;129:12 | device (1) | 37:18;52:9;56:7; | 10,13;60:5;62:14,17; |
| $\begin{gathered} \text { decided (1) } \\ 133: 7 \end{gathered}$ | $\begin{gathered} \text { depth (5) } \\ 38: 12 ; 39 \end{gathered}$ | 82:18 <br> diagram | $\begin{aligned} & \text { 60:7;80:23;112:6; } \\ & 136: 6 ; 137: 4 \end{aligned}$ | $\begin{aligned} & \text { 63:9,12,22;65:2,15, } \\ & 19 ; 66: 5,19,24 ; 67: 1,4, \end{aligned}$ |
| decision (7) | $\begin{aligned} & 38: 12 ; 3 \\ & 136: 4,9 \end{aligned}$ | diagram (3) ${ }^{\text {514;73:7;124: }}$ | 136.6,137 discussions (1) | $\begin{aligned} & \text { 19; ;6:5,19,24;67:1,4 } \\ & 19 ; 68: 1,6,22 ; 69: 20 ; \end{aligned}$ |
| 39:22;43:3;55:20; | DES (13) | dictate (2) | 56:15 | 70:13,17;79:23;80:9, |
| 56:4;57:5,17;85:2 | 31:1;45:19;54:19, | 89:16;103:6 | dismantling | 19;81:8;82:2,12; |
| deck (1) | 23;55:3,23;56:8,16; | dictated (1) | 119:20 | 83:10,13,20;98:6 |
| 43:5 | 76:2,9;136:18,19; | 54:14 | displayed (1) | $\boldsymbol{\operatorname { d o g }}(\mathbf{1})$ |
| deck-loading (1) | 137:4 | difference (3) | 51:19 | 47:9 |
| 43:2 | describe (8) | 53:24;54:4;101 | distance (5) | done (20) |
| deed (1) | 17:13;18:20;19:2; | different (13) | 6:7;66:21;69:6,18; | 5:14;8:12;10:7; |
| 120:15 | 27:17;29:12;35:7; | 16:18;19:23;70:16; | 91:1 | 19:11;20:24;23:18, |
| deeded (3) | 64:18,24 | 86:4,5;87:17,18,22, | distinguishes (1) | 19;34:2;65:5;69:4; |
| $\begin{aligned} & 109: 10,14,18 \\ & \text { deeds (1) } \end{aligned}$ | $\begin{array}{\|l\|} \hline \text { described (3) } \\ 13: 24 ; 28: 8 ; 62: 12 \end{array}$ | $\begin{aligned} & \text { 22;88:8;100:18; } \\ & \text { 102:22;121:18 } \end{aligned}$ | $\begin{gathered} \text { 16:16 } \\ \text { distorted (1) } \end{gathered}$ | $\begin{aligned} & 74: 18,18,23 ; 86: 10 \\ & 97: 3 ; 104: 4,12 \end{aligned}$ |


| 105:12;135:2;137:21 | 34:21;37:22;38:18; | 127:23,23 | entering (1) | 7:17;64:1,3;103:17 |
| :---: | :---: | :---: | :---: | :---: |
| Donna (2) | 43:24;44:5,23;64:6; | electrical (1) | 131:9 | estimated (2) |
| 79:19;120:12 | 68:6;69:21;74:7; | 88:4 | entire (7) | 84:11;100:15 |
| dots (1) | 88:13;113:23; | electronic (6) | 14:12;24:13;26:20; | estimates (2) |
| 128:14 | 130:23;131:20; | 84:18;89:24;105:3; | 35:20;36:18,24; | 126:24;138:6 |
| doubt (2) | 132:14,24;133:16 | 108:9;110:5;113:3 | 59:16 | estimation (1) |
| 50:1,5 |  | eliminated (1) | entirely (1) | 119:2 |
| Dover (1) | E | 101:18 | 85:24 | et (1) |
| 29:5 |  | elsewhere (1) | entirety (3) | 106:21 |
| down (7) | earlier (11) | 19:20 | 14:19;85:23 | Evaluation (1) |
| 4:1;5:11;25:1; | 45:14;81:19;85:8; | embedded (4) | 131:20 | 55:5 |
| 57:10;88:23;95:7; | 86:16;94:17;102:23; | 20:18;87:3,8 | entity (1) | even (5) |
| 111:20 | 103:5,12;117:14; | 100:22 | 78:11 | 14:11;72:13;75:13, |
| dozer (1) | 119:23;136:3 | emergency (1) | environmental (37) | 14;132:13 |
| 95:12 | early (5) | 77:21 | 11:16;13:5,18,19; | evening (1) |
| draft (4) | 15:19,24;16:7 | employed (1) | 14:1;20:3;32:14; | 22:6 |
| 39:6;41:20;42:8; | 49:6;88:17 | 64:2 | $49: 7 ; 50: 7 ; 52: 12,18$ | event (2) |
| 112:12 | easement (11) | employees (1) | 53:11;54:23;55:17; | 25:16;132:15 |
| drag (1) | 14:17,23;15:7 | 113:23 | 56:7,9,12;58:13;64:5, | events (1) |
| 24:9 | 70:12,15;109:7,18, | encroaches (1) | 12;66:20;75:5,22; | 26:1 |
| draw (4) | 20;115:11;118:3; | 133:3 | 76:19,20;89:24; | Eversource (44) |
| 9:2;29:5;38:7 | 121:5 | encroaching (1) | 101:22;107:7,2 | 5:22;17:3,14;18:6, |
| 133:23 | easements (1) | 132:20 | 108:10;113:1; | 11;27:13;28:10; |
| drawing (2) | 15:22 | encumbered (1) | 117:20;118:11; | 29:16;33:17,19,21; |
| 51:10;133:9 | easier (3) | 131:1 | 128:9;136:21;137:6, | 34:17,19,19;37:14; |
| drawings (2) | 24:17;25:4;99:20 | end (10) | 15 | 59:10;65:3;68:15,16; |
| 101:24;123:3 | easily (1) | 8:18;22:17;32:7 | envision (6) | 70:20;73:5;74:3; |
| drill (5) | 64:4 | 79:13;81:1;85:6; | 93:15;106:22; | 77:7;92:11;94:6; |
| 95:17,19,20;97:20, | east (3) | 104:4,6;117:10; | 107:1,3;110:16; | 99:9;100:2;107:19; |
| 21 | 12:20;114:20 | 134:19 | $115: 11$ | 109:3;110:5,18; |
| drilling (4) | 131:2 | ending (1) | equation (1) | 112:2;113:22;118:3, |
| 20:17,18;87:5;92:7 | easterly (1) | 75:20 | $69: 17$ | 5;120:24;121:2; |
| drives (1) | 131:19 | ends (2) | equipment (34) | 124:17;127:7; |
| 61:14 | eastern (8) | 23:20;24:15 | 18:21,24,24;19:12, | 131:18;132:6; |
| driveway (6) | 42:20;48:12;49:22; | energized (1) | 15;20:10;21:9,10,18; | 135:13;136:14,16 |
| $108: 18,20 ; 109: 1,$ | 51:23;52:14;68:1; | 105:18 | $23: 20 ; 38: 2 ; 86: 5$ | Eversource's (7) |
| $21 ; 110: 20 ; 111: 17$ | 69:22;70:4 | engages (1) | 87:18,22;89:9;91:12 | 100:5;111:3,16; |
| driveways (1) | economics (1) | 86:4 | 92:2;94:19,22;95:2,2, | 119:14;130:12; |
| 108:15 | 130:17 | engine (1) | 4,14,18,24;96:5,16; | 134:13,24 |
| drop (1) | edge (14) | 82:19 | 97:20,22,23;99:6; | everybody (1) |
| 42:10 | 112:17;113:6,10; | engineer (1) | 105:17,22;133:10 | $138: 14$ |
| drops (1) | 114:1;115:9,10,13, | 40:12 | erect (2) | everyone (1) |
| 106:9 | 17,18;116:1;122:20; | engineered (1) | 96:1,10 | 138:5 |
| dry (1) | 123:1;129:3,13 | 86:24 | erecting (1) | evidence (2) |
| 89:7 | effect (3) | engineering (9) | 96:6 | 27:1;29:23 |
| Due (2) | $53: 16 ; 74: 12 ; 83: 7$ | 43:1;101:23,24; | erection (3) | evolving (3) |
| $65: 22 ; 82: 16$ | effective (1) | 114:24;122:8,17; | 20:21;87:16,20 | 44:12,14;45:17 |
| dump (3) | 9:16 | 124:2;128:9;130:21 | erosion (1) | exacerbating (1) |
| 19:14;21:21;95:10 | effectively (1) | engineers (1) | 86:9 | 74:14 |
| duration (5) | 83:17 | 80:11 | essential (1) | exact (4) |
| 38:21,24;89:18; | effort (6) | England (9) | 131:14 | 80:19;83:4;89:4; |
| 104:2,8 | 86:3;96:12,14,24 | 16:2,20;33:2,6,8 | essentially (3) | 111:12 |
| Durham (14) | 103:13;125:22 | 23;34:21;77:13; | 75:24;85:12;86:2 | exactly (2) |
| 8:20;78:21;79:20; | efforts (1) | 78:11 | establish (6) | 73:5;98:18 |
| 105:2;108:11; | 119:15 | enheartening (1) | 8:7;89:6,18;90:19; | examination (1) |
| 113:13;117:11; | Either (9) | 131:16 | 91:5;97:24 | 136:3 |
| 120:11;121:11; | 47:7;58:18;67:2; | enough (4) | established (2) | example (8) |
| 124:14;125:9;136:4; | 91:17;95:10;109:23; | $24: 12 ; 41: 24 ; 62: 21 ;$ $107 \cdot 5$ | 5:9;89:1 | 12:15;21:16;73:12; |
| 138:1,19 Durham/Main (1) | 119:9,18; $121: 1$ elected (1) | 107:5 ensuing | $\begin{gathered} \text { establishment (3) } \\ 85: 9,20 ; 89: 2 \end{gathered}$ | 78:1;89:20;106:2,16, 19 |
| 88:12 | 100:20 | 86:1 | estate (1) | excavate (1) |
| during (20) | electric (4) | ensure (2) | 70:18 | 24:12 |
| 8:9;25:24;33:2; | 116:23;117:5; | 102:19;132:6 | estimate (4) | excavator (1) |


| 95:23 | 12;104:24 | fasten (2) | 23:6,16,17;43:22; | $72: 16 ; 75: 14 ; 81: 20$ |
| :---: | :---: | :---: | :---: | :---: |
| excavators (1) | exposed (1) | 97:1,11 | 50:11;53:6;55:14; | foundation (8) |
| 97:18 | 48:10 | fault (2) | 57:9;61:4;85:3;86:8, | 20:16;26:5,11; |
| exceed (1) | exposure (1) | 23:9;35:14 | 21;90:18,20,21;91:2; | 34:10;87:2,7;92:7; |
| 78:1 | 25:23 | faulted (1) | 95:16;96:3;99:16; | 100:21 |
| exception (1) | extend (3) | 23:18 | 104:6;109:7;138:5 | foundations (4) |
| 62:11 | 10:14;115:13,19 | feasible (2) | firsthand (1) | 86:20,23,24; |
| exceptions (3) | extent (4) | 38:9;66:2 | 31:17 | 100:22 |
| 116:21;117:13; | 11:17;13:6;18:13; | February (3) | fish (2) | foundation-type (1) |
| 119:22 | $108: 23$ | 29:2;55:2;57:5 | 31:15,18 | 87:11 |
| excuse (3) | external (1) | feet (50) | fishing (1) | four (4) |
| 18:8;19:16;84:16 | 23:10 | 21:8;23:24;24:1; | 31:19 | 65:20;71:5,7;72:16 |
| executed (1) | extra (1) | 25:1,2;30:20;38:5; | fit (3) | Fox (4) |
| 18:6 | 136:23 | 48:19,22,24;49:17, | 42:14;93:13,22 | 12:20;14:13;15:15; |
| Executive (1) | eyesight (1) | 18,22,23;51:14,17; | Five (2) | $18: 2$ |
| 29:17 | 50:17 | 52:7;53:2,13;57:13; | 51:20;79:7 | frame (4) |
| $\begin{array}{r}\text { exhibit (63) } \\ 4: 11: 9: 4 \\ \hline 1\end{array}$ | F | $\begin{aligned} & 58: 6,7 ; 59: 11 ; 63: 10, \\ & 23: 80: 8.17: 82: 7: \end{aligned}$ | $\underset{85.15}{\operatorname{flagging}(1)}$ | $\begin{aligned} & 5: 21 ; 25: 9 ; 88: 20 ; \\ & 103: 21 \end{aligned}$ |
| $17: 10 ; 18: 4 ; 26: 14$ | F | $100: 16,16,19,20$ | flat (2) | framing (1) |
| 28:22;33:15;35:4; | F107 (1) | 103:7,7;107:2;113:9, | 48:23;89:8 | 21:5 |
| 46:21,22;47:11,12, | 59:4 | 10;114:6,6;115:12, | flats (2) | Frazier (5) |
| 14;50:12;51:22,22; | F107-89 (4) | 14,18,20,22,24; | 42:2,22 | 132:17;133:1,7,9, |
| 53:4;55:8;57:2,4; | 118:19;123:23; | 116:2;117:3;120:8, | flexibility (2) | 18 |
| 58:23;60:10,10,17; | 125:1;133:3 | 24;124:8 | 93:22;94:7 | Frink (2) |
| 61:2,4,17;64:15; | FAA (7) | few (6) | flight (1) | 12:11;108:7 |
| 70:19;71:23;72:1; | 6:1,4,8,14,16,16; | 25:2;26:12;58:15; | 6:11 | Frizzells (1) |
| 76:11;80:2,21,21,22, | 7:10 | 64:17;94:4;119:17 | flip (1) | 12:16 |
| 24;84:2,19;89:23; | facility (2) | fewest (1) | 56:2 | front (12) |
| 105:2;107:7;108:8; | 27:4;85:1 | 78:7 | floor (3) | 28:12;46:24;50:16; |
| 111:22;112:16,24; | fact (3) | field (3) | 35:21;59:12;73:6 | 55:9;57:1;59:1; |
| 113:13;115:1;116:5; | 15:18;27:9;77:10 | 12:19;13:15;14:14 | flow (1) | 61:10;65:17;71:1; |
| 117:21;120:11,19; | factor (1) | Figure (1) | 133:13 | 75:12;80:21,24 |
| 122:7;123:10; | 38:22 | 59:21 | Flynn (1) | full (2) |
| 124:15,24;125:9; | facts (1) | figures (1) | 7:9 | 31:5;111:24 |
| 130:21;132:19; | 44:13 | 136:22 | focusing (1) | function (1) |
| 133:24;135:9 | failure (4) | file (1) | 138:8 | 118:18 |
| exist (2) | 24:7,8;35:15;39:14 | 61:5 | folks (2) | further (10) |
| 40:24;65:7 | fair (5) | filed (2) | 107:23,24 | 12:19;26:2;57:19, |
| existence (1) | 22:20;53:16;106:3; | 27:24;81:10 | follow (3) | $20 ; 58: 2,8 ; 74: 2$ |
| $103: 19$ | 107:5;112:18 | files (1) | 79:21,24;94:17 | $78: 16 ; 115: 14,20$ |
| existing (25) | fairly (5) | 61:13 | followed (1) | future (2) |
| 11:18,19;12:1; | 19:15;33:14;85:16; | filing (3) | 86:11 | 76:3;126:23 |
| $\begin{aligned} & \text { 62:2;63:6,20;64:21; } \\ & 65: 21,23 ; 68: 4,5 ; \end{aligned}$ | $\begin{aligned} & \text { 110:9;118:8 } \\ & \text { fall (1) } \end{aligned}$ | $\begin{aligned} & \text { 4:22;64:6;102:24 } \\ & \text { fill (3) } \end{aligned}$ | $\begin{array}{\|l} \text { following (4) } \\ 56: 3 ; 87: 12 ; 88: 1 . \end{array}$ | G |
| $69: 10,16 ; 70: 20$ | 88:19 | $100: 6,9 ; 106: 12$ | $104: 19$ |  |
| 73:18;77:2;86:13; | falling (1) | filled (2) | follow-up (1) | gantry (6) |
| 98:20;124:22;125:2, | 62:22 | 31:23;100:1 | 136:2 | 38:4,5;42:11; |
| 4;126:6;127:11; | falls (1) | final (19) | footage (2) | 82:22;83:5,5 |
| 128:17;130:2 | 104:22 | 21:16;43:4;45:19; | 52:22;53:18 | gas (1) |
| exists (1) | familiar (5) | 50:5;52:11;54:18,19, | footages (1) | 29:3 |
| 40:22 | 14:3,17;27:9; | 20;55:19;56:4;57:5, | 49:8 | gather (1) |
| expect (2) | 81:22;100:8 | 17;59:4;64:11;73:16; | footprint (4) | 45:1 |
| 103:22;137:10 | familiarity (1) | 85:18;91:15;96:24; | 94:15;96:23; | gave (2) |
| expected (3) | 30:10 | 124:11 | 105:19;130:9 | 103:20;109:17 |
| 18:10;69:24;90:8 | far (4) | find (4) | forced (1) | gears (4) |
| expecting (1) | 28:4;42:12;54:11; | 64:4;71:19;81:20; | 43:8 | 32:21;35:1;46:11; |
| 104:3 | 128:21 | 123:24 | forgive (1) | 77:1 |
| expert (1) | Farm (1) | fine (2) | 83:3 | general (17) |
| 35:11 | 12:11 | 30:4;108:5 | formed (1) | 7:12,18;24:20; |
| expertise (1) | farther (1) | finished (1) | 16:21 | 37:5,17;38:1;42:4,6, |
| 87:23 | 71:18 | 79:3 | forth (1) | 7;57:16;80:12;89:21; |
| explanation (5) | fashion (2) | first (25) | $44: 11$ | $92: 21 ; 106: 23 ;$ |
| 36:2;44:20;100:7, | 70:10;105:24 | 11:24;15:4;19:8; | found (3) | 116:20;123:19; |


| 133:22 | 97:7,13;130:7 | HDD (3) | 14:24;109:6 | impeded (2) |
| :---: | :---: | :---: | :---: | :---: |
| generally (4) | group (10) | 46:20;47:14;52:24 | history (1) | 133:5,5 |
| 31:20;84:23;89:17; | 32:14,14;52:12; | head (1) | 114:3 | impinge (1) |
| 97:23 | 54:23;56:7,9,10,12; | 69:22 | hits (1) | 118:24 |
| General's (2) | 58:13;137:18 | Heald (10) | 59:22 | important (3) |
| 29:1,7 | grow (1) | 79:19;90:4;92:13, | hole (5) | 26:23;45:7,10 |
| generate (1) | 5:10 | $17,19 ; 106: 18 ; 112: 3$ | 87:5,6;95:21,22; | impression (1) |
| 82:24 | growing (3) | 113:24;130:11; | 97:21 | 131:17 |
| generated (1) | 93:9,17,23 | 131:16 | holes (3) | improve (1) |
| 74:6 | guaranty (1) | Heald's (17) | 20:17,18;95:17 | 110:6 |
| geography (1) | 31:5 | 91:24;92:24;100:2; | home (1) | improved (1) |
| 11:19 | guess (9) | 103:16;113:2,15; | 132:5 | 111:3 |
| geospatial (1) | 23:10;35:6;94:24; | 114:14,20;116:18; | honestly (1) | improvements (5) |
| 73:18 | 109:4;113:9,20; | 120:6,12;122:3,6,9, | 80:19 | 25:21;110:8,16,20; |
| Getchell (1) | 122:24;132:21;135:3 | 19;130:23;134:3 | hopefully (1) | 111:8 |
| 109:9 | guidance (1) | hear (1) | 138:20 | inches (4) |
| gets (1) | 76:8 | 44:19 | horizontally (1) | 54:3;103:3;136:5, |
| 96:21 | Gundalow (4) | heard (1) | 83:8 | 12 |
| given (6) | $5: 24 ; 6: 9 ; 14: 22$ | 31:13 | hour (3) | include (4) |
| $12: 23 ; 25: 13 ; 36: 2 ;$ $46 \cdot 6 \cdot 103: 17 \cdot 136: 2$ | $18: 12$ | hearing (2) | 22:6,6;126:19 | 20:3;21:20;61:22; |
| $\begin{aligned} & \text { 46:6;103:17;136:22 } \\ & \text { giving (1) } \end{aligned}$ | H | 78:23;138:24 | $\begin{aligned} & \text { house (4) } \\ & \quad 114: 14,20 ; 115: 22 ; \end{aligned}$ | 104:8 <br> included (3) |
| 109:20 |  | 78:1 | 116:18 | 7:6;109:8,15 |
| glide (1) | habitat (2) | heavier (3) | hundred (2) | includes (4) |
| 85:2 | 32:1,12 | 38:11,17;39:22 | 48:22;107:2 | 62:8;76:11;109:10; |
| goes (8) | half (5) | heavy (4) | hundreds (1) | $122: 8$ |
| 15:14;25:16;29:12; | 65:24;66:15;68:1; | 39:18;95:3;96:8; | $23: 24$ | including (1) |
| 43:4;67:7;69:2; | 103:18;131:23 | 105:22 | hydraulic (2) | 77:21 |
| 72:12;96:20 | half-hour (1) | height (17) | 96:10;97:18 | incorrect (1) |
| $\begin{gathered} \text { goings (1) } \\ 92: 14 \end{gathered}$ | $\begin{array}{r} \text { 126:21 } \\ \text { halfway } \end{array}$ | $\begin{aligned} & \text { 6:1,4,12,18,20; } \\ & 37: 24 ; 42: 10 ; 54: 3 \end{aligned}$ | I | 61:9 <br> increase (1) |
| Good (6) | 117:22,24 | 80:10,13,20;83:4,11, |  | 13:19 |
| 8:4;26:10;62:21; | Hampshire (14) | 14,16;123:21;130:7 | IACOPINO (7) | indicate (1) |
| 63:1;78:5;79:18 | 15:19;28:14;29:1, | heights (1) | 41:9;43:14;47:13, | 23:22 |
| Gosling (2) | 8;31:1;34:5,7;54:19; | 129:21 | 22;50:24;71:23;81:6 | indicated (4) |
| 33:3;34:17 | 55:3,16;56:16;76:2, | helicopter (3) | idea (1) | 30:9;54:17;102:23; |
| governed (1) | 9;121:19 | 96:20;97:3,5 | 7:7 | 121:11 |
| 6:12 | Hampshire-Vermont (1) | help (3) | identified (10) | indicates (6) |
| Governor (2) | 34:2 | 70:24;102:19; | 17:14;18:18;20:2, | $62: 9 ; 67: 13 ; 71: 11$ |
| 29:13,17 | hand (1) | $107: 15$ | 2;30:23;34:16,18; | $72: 9,19 ; 73: 8$ |
| grabbed (1) | 96:5 | helps (1) | 65:20;73:17;75:11 | indicating (2) |
| 135:12 | handed (2) | 76:16 | identifies (1) | 51:13;74:12 |
| graders (2) | 4:8;55:12 | hence (2) | 72:15 | individual (2) |
| 19:14;21:20 | handout (1) | 99:16;134:18 | identify (1) | $4: 20 ; 37: 1$ |
| grading (3) | 4:7 | high (7) | 24:3 | influence (1) |
| 89:13;91:17; | handy (1) | 31:10;38:4,6;71:6, | identifying (3) | 98:23 |
| 103:14 | 9:5 | 12,14;82:22 | 19:9,17;35:14 | information (10) |
| Granite (1) | hanging (1) | higher (2) | imagine (1) | 4:13;6:19;44:15; |
| 135:12 | $19: 21$ | 73:12;101:16 | $111: 7$ | 45:2,7,13;46:4; |
| gravel (6) | Hannah (3) | highlights (1) | immediate (1) | 109:17,17;135:4 |
| 8:6,10;103:3,6; | 6:1,9;7:10 | 65:9 | 116:22 | infrastructure (2) |
| 107:2,3 | happened (3) | highly (1) | immediately (1) | 11:19;86:13 |
| gravels (3) | 66:11;77:5;135:6 | 23:8 | 93:9 | initial (4) |
| 95:11,12;103:14 | happening (1) | Hill (3) | impact (8) | 15:5;26:12;61:8; |
| Great (3) | 45:20 | 18:3,11;106:8 | 24:9;45:12;50:8; | $96: 19$ |
| 81:21,21;134:20 | happy (2) | historic (12) | 57:19,21;58:8;130:7; | initially (2) |
| greater (1) | 43:7;99:23 | $10: 6,16 ; 12: 12,13$ | 134:17 | 23:19;85:9 |
| 53:18 | hard (1) | 105:2;121:6,7,8; | impacted (3) | input (1) |
| greatest (2) | 138:13 | 124:14;125:9;138:1, | 14:10;78:9;132:16 | 33:7 |
| 11:17;13:6 | harder (1) | 19 | impacts (10) | inside (1) |
| green (3) | 24:21 | historical (2) | 9:11;11:17,22; | 119:13 |
| 65:6,11;129:5 | hazard (2) | 5:17;15:18 | 13:5,17,18,19;49:9; | inspection (1) |
| ground (3) | 116:22;117:5 | historically (2) | 119:4;128:24 | 62:19 |

inspections (1) 59:18
install (4)
86:9;91:14;96:13; 130:15
installation (15) 41:18;47:19;48:18; 57:12;65:8;86:20; 87:21;88:19;89:13; 91:18;95:13;96:16; 104:17,21;121:16
installations (1) 20:19
installed (3) 21:18;22:22;82:16
installing (3) 5:5;36:21;87:24
instance (4) 46:8;95:3;99:22; 117:1
instead (1) 108:1
insulation (1) 104:15
insulator (2) 21:15;97:2
insulators (2) 88:3;97:12
integrity (1) 75:2
intended (5) 30:13;63:23; 126:11,12;127:13
intent (4) 99:5,15;111:16; 134:24
intention (2) 94:14;134:17
interested (1) 43:16
interface (1) 136:19
interpolate (1) 59:20
interpolated (1) 60:1
interpolation (1) 49:24
interpreted (1) 108:20
interrupt (1) 93:6
interrupted (1) 132:8
interruption (2) 23:5;132:16
interrupts (4) 45:5;54:1;133:8; 135:20
intersecting (1) 65:11
intersection (2) 118:2;133:14
intertidal (1) 48:23
intervenors (2) 12:17;110:23
into (19)
19:18;22:14;23:16; 24:2,15;25:20;38:13; 39:13;69:22;70:9; 71:18;74:19;75:19; 77:9;87:6;104:18; 115:20;122:22; 135:21
inventory (4) 93:1,7,14,22
investigation (1) 74:7
invited (1) 102:17
involve (1) 88:8
involved (6) 37:22;49:21;56:6, 15;66:12;137:3
involvement (1) 58:10
involves (5) 27:7;29:13;35:13; 87:4,17
involving (1) 29:3
Irwin (29) 26:6,7,9,10;30:8; 41:2,14;43:14;44:9, 10;45:16;46:9,10; 47:12,16,23;48:1; 51:2,3;60:12,16,23; 61:16,19;62:1;72:1, 3;78:16;79:23
ISO (1) 33:6
ISO-New (8) 16:1,20;33:2,8,23; 34:21;77:13;78:10
issue (6) 39:12;75:4;79:22; 100:1;133:21;135:17
item (2)
86:12;135:22

| $\mathbf{J}$ |
| :---: |

January (1) 4:9
Jeff (1) 110:24
jet (3) 46:14,20;75:1
Jim (1) 81:8
Jiottis (5) 26:16;36:17,24; 81:6,8
Jiottis's (4)

11:3;16:10;26:13; 36:7
join (1) 45:12
July (5) 17:9;49:13;59:5; 61:1;123:9
junction (1) 132:23
jurisdiction (3) 57:24;58:1,9
jurisdictional (1) 100:10

| $\mathbf{K}$ |
| :---: |

kayakers (1) 31:14
keep (5) 38:23;41:24;69:11; 103:8;129:21
kept (2)
80:11;131:13
kind (4)
32:7;94:24;96:4;
102:14
kinds (1) 22:3
kinks (1) 82:20
knew (2) 33:21,21
knowing (3) 21:23;83:4;93:10
knowledge (3) 31:17,19;34:23
known (1) 67:12
kV (1) 16:15
$\mathbf{L}$
lab (1) 71:19
labeled (3) 60:11,11;61:6
laboratory (1) 71:20
lack (2) 103:9;104:13
laid (2) 35:20;69:9
land (11) 12:1,21;27:8,10; 29:9;30:11;31:23; 32:4,10;131:1,2
Landing (14) 6:9;14:22;18:12; 42:21,22;48:5,12,17; 50:21;69:22,24,24; 70:5,12
landowner (1)

110:19
landowners (2)
129:18,21
lands (5)
27:15;28:7;29:15;
31:9;32:4
landscaping (1) 112:12
Lane (3)
6:1,9;7:10
large (9)
18:23;19:23;20:11;
34:3;42:11;95:19;
98:16;105:16,23
largely (1) 96:13
larger (3) 38:16;41:8;119:5
larger-size (4) 37:16;39:9;40:16; 41:4
last (6) 21:13;52:21;81:15; 108:10;115:15; 137:10
lasting (1) 100:4
late (2) 104:17;117:19
later (4) 6:15;64:4;86:17; 138:20
latest (1) 53:3
latter (1) 128:1
Law (6) 26:5,11;29:7,9; 34:10;135:2
lawyer (1) 121:11
laydown (4) 85:12;94:5,8,11
layer (1) 135:11
laying (2) 38:2;70:5
layout (1) 85:19
leach (1) 137:13
leaching (2) 74:19;75:19
lead (14) 60:3;71:6,8,10,13, 15;72:5,21,23;73:12; 74:9,19;75:17,18
leading (1) 75:3
learned (1) 4:23
least (7) 6:10;15:15;21:4;

23:19;69:1;79:12; 115:12
least-impacting (1) 45:8
leave (6)
15:6;56:10;75:23; 79:2,9,12
left (4) 101:12;106:10,12; 119:3
legal (2) 26:17;27:3
legend (5) 101:9,14;107:6,16; 128:15
length (7) 20:23;23:5;36:18, 24;37:3;39:17,17
less (5)
39:8,8;66:17;
74:11;91:20
letter (2) 55:14,15
level (2) 91:6;106:13
levels (6) 71:6,12;72:5; 73:12;77:23;78:2
LF (1) 48:20
license (4) 28:6,8,11,15
licenses (1) 28:16
lie (1) 59:11
life (3) 30:14;137:7,10
light (3) 91:17;96:5;111:14
light-duty (3) 19:11;96:6,9
likelihood (2) 77:8;78:11
likely (11) 40:4;54:5;86:16; 92:3;96:9;101:2; 104:16;114:6; 115:17;117:4;131:9
liken (1) 95:4
limit (5)
38:20;112:20;
130:11,14,16
limitation (4) 13:24;37:24;38:12; 39:6
limitations (4) 13:7,9;37:10;40:1
limited (7) 39:4;42:9;43:1; 80:4,5,6,13
limits (2)

| 37:8;81:3 | loading (1) | $\boldsymbol{l o t}(7)$ | marine (12) | 100:12;104:20; |
| :---: | :---: | :---: | :---: | :---: |
| line (62) | 43:5 | 18:23,24;68:3,4; | 22:21;39:2;40:8, | 107:3;109:12; |
| 8:8;9:17;10:5,16; | loamed (1) | 77:10;86:15;106:24 | 12;41:10;43:17; | 110:13;111:15; |
| 11:21;12:24;13:14, | 8:11 | low (6) | 58:19;62:17;64:2; | 113:14;116:7; |
| 22;14:12;15:1,8,10, | local (1) | 32:18;74:12;82:8; | 65:18;66:1;81:21 | 127:17;131:5; |
| 13,16,23,23,24;16:3, | 107:17 | 135:10,11,14 | Mark (8) | 133:18;136:5,8,11 |
| 6,12,14;21:2,13; | locate (1) | lower (5) | 23:1;31:10;54:7,8; | Maybe (11) |
| 25:10,20;29:3;33:16; | 76:16 | 19:21;24:15;83:3; | 70:24;107:11; | 13:8;19:4;23:24; |
| 36:17;53:6;55:7; | located (2) | 101:17;129:22 | 135:11,14 | 25:4;27:19;70:23; |
| 67:20;69:7,12,18; | 65:23;73:6 | LS (1) | marked (1) | 83:6;91:7;95:4; |
| 70:3;81:1,16;86:2; | locating (1) | 4:23 | 28:21 | 118:17;119:5 |
| 87:10,19;88:4,6; | 23:17 |  | marshaling (5) | McCosker (1) |
| 104:7,11;105:12,13, | location (21) | M | 85:10,11;94:5,8,11 | 90:5 |
| 15,20;108:13; | 8:24;23:23;24:3; |  | master (4) | mean (18) |
| 116:12;121:17; | 25:7;35:14;73:20; | Madam (3) | 9:20,22;10:23;11:1 | 17:19;19:17;31:10; |
| 122:10,14;123:4; | 87:13,16;89:4,19; | 26:7;43:21;60:8 | match (2) | 37:14;62:15;66:17; |
| 124:22;127:23,24; | 96:15;97:11,14;98:4; | Madbury (2) | 73:11;129: | 79:5;82:8;84:14; |
| 129:8,24;130:2; | 102:16;111:20; | 23:21;25:20 | material (2) | 93:6;111:5;116:16; |
| 132:3,7 | 123:4;125:15; | magnetometer (1) | 21:22;85:11 | 133:18;135:10,11,14; |
| linear (12) | 127:16;129:22; | 59:22 | materials (3) | 136:10;137:9 |
| 48:19,22,24;49:8; | 135:14 | maintain (2) | 18:21;57:22;87:13 | meet (4) |
| 51:14;52:7;59:11,23; | locations (8) | 21:11;27:4 | mates (1) | 5:1;6:21;7:10; |
| 63:10,23;66:20; | 9:1;24:23;70:16; | maintained (3) | 99:17 | 77:17 |
| 82:19 | 73:9;75:11;89:5; | 107:18,20;132:10 | math (1) | meeting (2) |
| linemen (2) | 126:6;135:19 | maintenance (2) | 50:18 | 22:10,19 |
| 97:4,10 | long (14) | 5:12;35:3 | mathematical (1) | member (5) |
| Lines (26) | 7:3;18:24;22:24; | major (2) | 64:3 | 56:14;79:2,4,8,12 |
| 9:8,21,23;11:14; | 23:12;66:11;77:19; | 86:19;110:16 | mathematics (1) | members (6) |
| 17:11,12,22;26:16; | 78:1;79:6;84:12; | making (3) | 50:1 | 12:9;37:18;52:9; |
| 35:4;36:8,14;57:10; | 89:18;90:12,14,15; | 10:10;69:15 | mating (1) | 60:7;79:7;80:23 |
| 63:20;64:20;65:10, | 103:21 | 123:14 | 103:15 | Memorandum (3) |
| 13;67:2,10,16;69:7; | longer (5) | management (2) | matrix (2) | 17:3;18:5,16 |
| 75:16;80:2;111:23; | 24:8,9,10;91:10; | 20:10;85:21 | 85:8;102:1 | mention (1) |
| 116:6,9;130:6 | 138:3 | manner (1) | mats (16) | 79:1 |
| list (3) | Longmarsh (12) | 77:17 | 89:13;90:22,23; | mentioned (10) |
| 54:20;61:12;120:4 | 90:19;94:12; | manufacture (1) | 91:11,14,18;95:3,7; | 8:9;15:18;86:7; |
| listed (1) | 117:22;118:3,20 | 23:12 | 98:1,1,3,3,19;119:20; | 87:1;97:16;103:5,11; |
| 82:2 | 119:14;120:24; | manufacturer (1) | 136:13,23 | $104: 3 ; 119: 23 ; 136: 4$ |
| liter (2) | 123:15;132:20; | 40:14 | matter (2) | message (1) |
| 71:13,15 | 133:4,14;134:3 | manufacturing (1) | 40:6;96:18 | 132:1 |
| Little (59) | look (19) | 68:24 | mattress (6) | method (1) |
| 14:18;15:4,5,6,14; | 15:21;40:9;41:20; | many (8) | 24:19;47:19;48:24 | 38:9 |
| 18:2,12;25:8;28:5; | 42:3,15;43:2,5;47:7; | 8:24;17:7,8;33:9; | 51:16;58:6,7 | methods (1) |
| 29:24;30:3,21;31:20; | 63:15;64:5;68:2; | 34:12;59:11;63:10; | mattresses (40) | 88:9 |
| 36:21;37:15;40:17; | 69:8;81:5;89:23; | 94:7 | 30:3,13,20,24;31:6, | middle (1) |
| 41:5;44:17;48:6,14; | 102:18;106:20; | $\boldsymbol{m a p}(8)$ | 7,8,24;32:11,18; | 48:3 |
| 49:3,9;53:21,22; | 117:9;126:23;138:5 | 75:11;94:13; | 46:13,14,23;47:4; | might (13) |
| 57:13;58:20;59:8,12; | looked (5) | 108:10;113:3; | 48:22;49:1,2,16; | 13:17;14:14;19:20, |
| 62:16;64:22;65:14; | 38:10,19;39:15 | 115:23;117:20 | 50:10;51:7,10,15,18, | 23;22:4;30:24;41:7; |
| 67:17;68:5;70:8; | 42:23;54:13 | 125:11;129:16 | 19,20;52:4,8,14,23; | 58:17;74:19;77:22; |
| 71:5;73:6;74:2; | looking (19) | mapping (1) | 53:2,17,19;54:2,10; | 78:2;100:23;102:23 |
| 81:22;88:23;90:2; | 41:11;68:11;71:17; | 107:23 | 57:12;68:17;136:11, | mile (2) |
| 91:3,5,10;99:20; | 98:12;102:6;107:8, | maps (11) | 15,18;137:8 | 7:19,21 |
| 101:5;102:22; | 16;108:8;112:24; | 20:3;89:24;101:22, | mature (1) | miles (1) |
| 105:11;106:11,12,14; | 113:2;114:12,17,18, | 23;107:7,17,20 | 5:10 | 14:6 |
| 107:4;108:12; | 20,24;115:5;117:20; | 113:1;123:6;126:2; | maximum (1) | Miller (2) |
| 111:20;113:16,19; | 124:24;134:5 | 128:9 | 25:12 | 108:7;110:24 |
| 117:16;129:11; | looks (20) | March (2) | may (33) | milligrams (2) |
| 131:23;133:10 | 51:13,15,19;52:10, | 9:3;61:2 | 20:9;23:1,12,13; | 71:13,15 |
| live (2) | 17;62:20;63:1;76:16; | Marcia (1) | 28:16;37:21;46:18, | million (2) |
| 45:15;105:13 | 98:20;101:4,5;102:7, | 79:18 | 18;49:7;75:1;77:4; | 7:19,22 |
| $\mathbf{l o a d}$ (2) | 9,10;119:5,7;123:5; | margin (2) | 79:2,14;83:24;86:17; | mind (1) |
| 78:2,3 | 129:2,12;133:2 | 136:22;137:1 | 89:11;97:3,3;99:18; | 131:13 |


| minimal (1) | 105:19;108:5; | 116:18;120:19; | nodding | 17,18;124:4,6;130:18 |
| :---: | :---: | :---: | :---: | :---: |
| 110:8 | 125:23;135:8 | 126:24;131:12; | 12 |  |
| minimize (1) | moved (5) | 134:12;137:17;138:6 | non-anchoring (1) | 0 |
| 78:7 | 8:13;18:22;125:2, | needed (8) |  |  |
| minimum (2) | 20;127:17 | 18:18;30:24;31:6 | non-invasive (2) | object (1) |
| 25:11;103:10 | moves (2) | 8;76:6;94:6;95:14 | 59:17;60:1 | 82:14 |
| minor (2) | 95:21;97:13 | 122:3 | non-issue (3) | objection (1) |
| 89:12;110:13 | Moving (6) | needing (1) | 83:12,15,18 | 46:3 |
| minus (1) | 5:3;82:17;88:14 | 134:15 | non-legal (1) | observations (1) |
| 91:14 | 91:9;98:1;132:18 | NEEDLEMAN (4) | 108:24 | 48:9 |
| minute (1) | much (15) | 30:6;43:21;44:19; | non-residential (1) | obtain (2) |
| 123:24 | 5:3;7:17;24:6 | 45:21 | 109:15 | 28:10,15 |
| minutes (3) | 26:3;35:10;38:11; | needs (7) | non-stopping (1) | obtained (1) |
| 126:18;137:24 | 40:4;41:21;43:6; | 65:7,10;79:9; | 67:14 | 29:16 |
| 138:2 | 59:18;69:3,10;83:3; | 105:17;111:11 | nor (2) | obvious (1) |
| misleading (1) | 112:20;126:17 | 132:10;135:1 | 29:21;131:2 | 99:17 |
| 133:10 | mud (2) | negatives (1) | normal (2) | obviously (15) |
| missing (1) | 42:2;48:23 | 25:6 | 43:24;44:23 | 20:23;22:15;23:15; |
| 57:20 | multiple (5) | negligible (1) | normally (2) | 27:7;28:20;45:13; |
| misspoke (1) | 38:16;39:8,9 | 53:20 | 16:15;121:12 | 69:5;71:10;85:7; |
| 50:14 | 43:20;87:15 | negotiation (1) | Normandeau (1) | 90:18;99:20;104:10; |
| mistake (4) | must (2) | 54:22 | 74:8 | 120:13;132:10; |
| 60:12;81:10;84:7; | 37:4;56:5 | negotiations (1) | north (1) | 134:20 |
| 123:10 | MUZZEY (3) | 45:20 | 119:13 | Occasionally (2) |
| modifications (2) | 60:8,14,21 | Network (1) | northeasterly (1) | 95:8,10 |
| 101:20;120:1 | myself (4) | 16:2 | 70:10 | occur (6) |
| modified (1) | 36:15;58:18;60:13, | Nevertheless (1) | Northern (3) | 26:1;77:4,23,24; |
| 129:20 | 23 | 45:23 | 14:3;65:24;70:6 | 92:8;116:21 |
| moment (1) |  | New (26) | notation (1) | occurs (1) |
| 11:9 | N | 15:19;18:17;28:14 | 135:10 | 116:23 |
| monitoring (1) |  | 29:1,8;31:1;33:6; | notch (1) | off (10) |
| 23:20 | name (2) | 34:2,5,7;35:18,24; | 69:23 | 12:11;54:8,8;83:1, |
| MONROE (6) | 26:10;79 | 54:19;55:3,16;56:15; | noted (3) | 2,7;90:19;106:9; |
| 41:1;55:4;61:7,18 | names (2) | 58:2;65:8;66:2,10, | 17:9;117:14;124:1 | 114:16;115:23 |
| 127:1;138:7 | 17:13;55:23 | 12;67:18;76:1,7,9; | notice (1) | offer (3) |
| months (5) | narrative (1) | 121:19 | 98:14 | 81:24;113:21; |
| 23:7;25:11;84:12; | 48:4 | Newington (15) | noticeably (1) | $114: 13$ |
| 85:6,23 | natural (4) | 5:21;6:6;8:16;9:10, | 133:18 | offered (2) |
| moot (1) | 29:3;32:1,4,12 | 13,19;11:1,22;14:10, | noticed (1) | 93:5;132:13 |
| 111:15 | nature (1) | 19;17:2;21:17;22:11; | 98:12 | offhand (3) |
| more (21) | 46:7 | 29:4;48:13 | notification (2) | 40:10,20;63:13 |
| 9:16;13:8;24:17; | navigation (2) | next (24) | 92:14,16 | Office (3) |
| 38:1;44:7;46:21; | 53:17;54:9 | 19:12;20:15,20; | notified (1) | 29:1,7;34:6 |
| 52:7,16,17;58:6; | near (3) | 23:16;24:5;26:4; | 92:13 | OFFICER (9) |
| 68:7;76:17;83:6; | 51:4;108:7;115:17 | 48:11;51:21;56:2; | notify (2) | 26:4;44:8;46:2 |
| 88:23;90:2;91:5; | nearest (1) | 85:4;86:12,21;87:20; | 34:11;55:15 | 78:18,24;126:15,22; |
| 96:5;103:14;106:15; | 54:5 | 90:15;92:6;96:1; | noting (2) | 127:3;137:23 |
| 126:17;137:15 | necessarily (6) | 97:14;98:4;99:1; | 90:16;91:21 | officials (1) |
| morning (3) | 33:12;78:5;92:22; | 104:7;108:3,6; | not-maintained (1) | 22:1 |
| 22:5;121:10,21 | 93:19;99:19;130:14 | 118:16;129:7 | 107:11 | offset (1) |
| most (7) | necessary (13) | NHDES (2) | number (21) | 127:15 |
| 39:14;40:3;54:5; | 4:21;8:7;20:5; | 55:21;56:4 | 17:13;18:1;36:10; | oil-impregnated (3) |
| 59:14;66:2;96:9; | 26:19;27:13;41:7; | Nimble (2) | 38:20;40:17;41:7; | 72:10,20,22 |
| 109:8 | 44:18;77:21;95:9; | 18:2,11 | 43:7;47:11;50:24; | old (3) |
| mostly (2) | 103:6;105:8;106:11; | nine (1) | 51:11;52:21;53:3; | 65:6;67:5;69:10 |
| 53:23;65:23 | 110:17 | 85:5 | 57:2;64:11,12;78:7; | older (1) |
| MOU (2) | need (29) | nine-month (2) | 86:4;102:2,3;123:23; | 67:9 |
| 8:16;117:12 | 19:23;20:6;31:3,7; | 103:20;104:7 | 136:17 | onboard (1) |
| mounted (1) | 42:10;45:23;61:13; | Ninety-one (1) | numbering (1) | 42:24 |
| 130:1 | 65:11;66:19;68:3,7; | 101:5 | 102:4 | once (5) |
| move (11) | 77:4,18,18;79:2,6,12; | NOAA (6) | numbers (13) | 5:9;7:7;18:21; |
| $\begin{aligned} & \text { 24:11;69:17;87:19; } \\ & 95: 3,7,11 ; 97: 24 \end{aligned}$ | 85:24;91:5;93:9; $100: 11: 110: 12$ | $\begin{aligned} & \text { 66:22;67:5,6,11; } \\ & 81: 20: 82: 4 \end{aligned}$ | $\begin{aligned} & 52: 11 ; 53: 9,10 \\ & 72: 4: 101: 8.12 .16 .17 \end{aligned}$ | 22:21;34:15 |
| 95:3,7,11;97:24; | 100:11;110:12; | 81:20;82:4 | 72:4;101:8,12,16,17, | one (29) |


| $12: 15 ; 17: 8 ; 18: 20$ | $31: 24 ; 32: 11$ | $13,18,24 ; 119: 3,$ | 11:23;32:6 | perhaps (8) |
| :---: | :---: | :---: | :---: | :---: |
| 23:7;33:6;37:11,12 | 19:2 | 29:4;132:18; | part (22) | 8:10;63:16; |
| 39:3;43:4;44:17; | out (3) | 133:2 | 4:7;10:24;11:2 | :4;84:12;120:19; |
| 45:9;47:7;48:22; | 11:23;14:24;15:1 | pads (19) | ;15:4;16: | 4:2;126:23 |
| 51:1,16;56:5;62:10 | 22:24;24:11,14;25:5, | 8:8,21,22;86:1 | 6,17;25:22;33:8; | period (5) |
| 11,22;63:2;67:8; | 0,16;33:20;34:19; | 88:24;89:2;90:8 | 34:13;41:6;66:3; | 83:23;85:5;88:13 |
| 79:12;87:8;89:19 | :18;38:8;42:12; | 92:1;94:21;95:20 | 7:11,24;70:7;71:9; | 92:9;93:23 |
| 98:9,16;122:21; | :5;59:12;69:9,17 | 100:15,19 | :17;98:22;115:15; | periods (1) |
| 123:18;131:10 | 1:4,7;82:17,21; | 102:13,20;103:4,1 | 131:19 | 131:6 |
| nes (1) | 5:7;105:15;110:18; | 22;118:14 | partially | permanent (4) |
| 126:11 | 113:17;114:15; | Page (94) | 133:15 | 30:13,16;49:9;50:7 |
| goin | 23:24;127:20; | 9:6,8;11:8 | participati | permission (1) |
| 33:7;45:24;56 | 31:15 | 1,20,22;18: | 34:4,7,9 | 117:6 |
| 92:18;105:10 | out-of-service (10) | 26:15;33:16;35:4 | particular (8) | permissions (1) |
| ly (12) | 58:16,20;62:8; | 36:8,10,12;47:21,23; | 93:18;104:2 | 119:24 |
| 5:1;10:18;18:10 | 63:20;64:21;65:21 | 48:3,4;50:12,24;51:2, | 106:23;107:8 | permit (8) |
| 37:6,21;54:4;59:17 | 66:17;69:16;74:20; | 23;53:1,4,6;56:2,3, | 116:17;129:22,23; | 31:1;45:19;54:1 |
| 63:5;81:2;116:21; | 75:16 | 24;57:3,4,8,16,1 | 135:22 | 8,19;55:22;100:11; |
| 122:21;123:12 | outreach | 59:3;61:4;62:7; | particularly (4) | 137:2 |
| nto (3) | 12;92:18 | 64:17;65:16;71:17 | 88:11;89:18;96:7; | permits (1) |
| 24:13;35:20;39:19 | outside (5) | 19,21;72:2,12,13,15; | 100:8 | 55:1 |
| en (3) | 12:12,13;105: | 73:16,16;74:2;76:14, | parties | permitted (2) |
| 12:19;13: | 7:3;129:14 | 15,16;80:2;81:1,13, | 111:9, | 16:5;69:24 |
| perate (2) | over | 14,15;84:2,8,17,19, | parts (4) | permitting (4) |
| 27:4;77:20 | 27:5;52:2 | 19;90:1,1;98:13; | 34:12;55:20;86:2; | 55:21;58:2,1 |
| perated (1) | 65:6;98:12;101:19 | 105:3;108:9;110:5 | 9 8 | 102:3 |
| 16:5 | 104:18;105:11; | 111:22;112:16,22; | party (1) | perpetuity (1) |
| pposed | 109:21;121:22;134:7 | 113:3;115:1;116:4,5, | 121:3 | 75:24 |
| 44:17 | overall (6) | 10,11;117:21;118:4; | Pass (3) | person (1) |
| pted (1) | ; 69:4;129:19 | 120:12;122:7; | 14:3;91:12;110:12 | 58:17 |
| 82:23 | 130:4,15,17 | 123:11,13;124:15,24; | passage (3) | personally (1) |
| option (6) | overboard (1) | 125:8;128:21;129:7, | 91:1;110:1 | 118:7 |
| 27:2;33:3,4;34: | 83:2 | 23;130:21;132:19; | 31:10 | personnel (3) |
| 18;38:19 | overbuilt | 133:24;135:8,9 | passed (1) | 92:12;131:18 |
| options (1) | 106:4,5 | pages (2) | 77:19 | 32:22 |
| 33:22 | overhead (3) | 56:3;123:1 | past (1) | pertains (1) |
| range | 13,20;88: | pan (3) | 00:3 | 108:6 |
| 113:17,22;114:4,7 | overlaid (1) | 82:14,18 | PATCH | pH (1) |
| 9;115:21 | . 21 | panel (27) | 47:10 | 137:13 |
| oranges (1) | overla | 12:9;37:18;41:17 | path (4) | phase (12) |
| 127:18 | 7:17;129 | 49:7;50:7;52:9,19 | 6:11;67:17;85 | 19:8;20:15,20 |
| rder (11) | ove | 0:7 | 109:8 | 1:13,16;24:5;37: |
| 5:11;82:22;84:17; | 29: | 64:12;66:20;68:21; | pause (3) | 2;38:19;39:5,21; |
| 85:22;91:7;93:8; | overrule | 70:21;75:5,22;76:20, | 10:18;83:2 | 130:24 |
| 103:7;105:9,20; | 46:3 | 22;79:18;80:23; | 137:20 | phases (3) |
| 106:12;107:14 | own (1) | 93:13;108:1;133:22; | PDF (1) | 19:5;37:12;38 |
| organized | 130:3 | 134:4;136:21;137:6; | 61.5 | hotograph (2) |
| 84:8;138:10 | owned (3) | 138:1 | , | 128:4,7 |
| original (13) | 14:24;27 | pape | 102:17 | physical (3) |
| 5:19;7:1,23;8:1; | owner (5) | 72:11,20,22 | people (6) | 58:11;81:14;89 |
| 15:22;27:20;28:17; | 13:11;99 | Paragraph (9) | 31:11,15,18,1 | physically (2) |
| 39:3;99:10;101:16; | 6;119:24 | 18:7,9,10;29:6; | 54:6;64:5 | 24:23;125:23 |
| 102:4;111:4,5 | owners ( | 48:11;57:9,10,18; | per (7) | pick (1) |
| originally (4) | 12:18 | $73: 16$ parallel | 37:11;39:4;51:1 | 41:18 |
| 16:4;39:2;52:8; | owns (1) | parallel | 18,20;71:13, | picture (9) |
| 71:8 | 26:17 | 86:14 | percent (1) | 113.15.11 |
| OSI (1) 59:20 | $\mathbf{P}$ | parameters (1) | $\begin{array}{r} \text { 49:11 } \\ \text { nerfect } \end{array}$ | $\begin{aligned} & 15,16 ; 115: 4 ; 125: 24 \\ & 127: 12 ; 129: 9 \end{aligned}$ |
| OSI's (1) |  | parcel (1) | 45:1 | piece (6) |
| 73:17 | , | P | perform | 8:12;24:9;35:18; |
| others (1) | 8:12; | Pardon (1) | 89:10 | 62:22;63:2;98:23 |
| 68:20 | 91:2,15;96:3;97:9 | 128:5 | performed (1) | pieces (1) |
| otherwise (3) | $98: 15 ; 103: 8,13$ | parse (2) | 74:8 | 87:15 |

Pike (1)
42:5
pine (1)
117:2
pink (1)
129:4
pipe (1)
38:7
Pit (1)
7:9
place (17) 14:6;24:1;40:15; 76:22;86:16;90:23; 93:16,19;95:8;96:2; 97:4;99:16;105:14, 21;106:7;107:14; 132:23
placed (5) 32:11;46:14;54:10; 94:12;136:13
placement (1) 57:11
places (1) 31:15
placing (1) 13:9
plan (23) 5:19;9:14,20,22; 10:21,23;11:1;25:15; 62:3;66:8;70:21; 75:23;76:5;77:14; 97:10;110:5;112:13; 120:16;122:8,17; 130:21;134:13; 136:12
planned (1) 88:19
planning (5) 4:8;7:2;38:18; 65:4;126:16
plans (5) 111:3;114:24; 122:13,16;124:2
plant (2) 93:1,14
Plante (102) 12:8;35:2,9;56:23; 83:24;84:5,10,14,22, 23;89:2;90:6,10,18; 92:3,15,22;93:3,5,15; 94:10,14,24;95:16; 97:18;99:12;100:8, 18;101:4,10,16; 102:9,14;103:2,5,24; 105:4,6;106:5,22; 107:13,22;108:16,21; 110:7,21;111:1,7,19, 21;112:6,8,14,22; 113:5,8,11;114:8,16, 23;115:3,9,17;116:3, 4,9,11,13,15,20; 117:11,24;118:7,10, 14,22;119:2,7,11,16;

120:3,9;121:2;122:5,
12,15,24;124:19; 125:18;126:4;
128:23;129:19;
130:9,14;131:4;
132:1,9;133:7;134:6,
7,17;135:3
Plante's (1)
127:10
plants (1)
5:10
play (1)
67:14
please (5)
4:4;9:6;27:18;
29:22;116:9
plow (4)
46:15,20;69:15;
75:1
plus (2) 83:6;91:13
pm (4)
78:22,23;117:13; 138:24
point (23)
7:17;12:20;14:13; 15:15;16:23;18:2; 31:4;39:14,15;49:4; 60:9;67:9;68:20; 84:16;97:14;107:13; 113:17;114:11; 115:4;122:22; 132:19;133:16; 136:24
pointing (2) 51:4;52:3
pole (26) 96:6;98:21;99:1; 102:6;118:19; 123:15,21,23;124:6, 13,16,20,21,24; 125:2,8,14,24;127:7, 11,21,23;128:22; 129:10,13;133:3
poles (14)
20:22;95:13,17;
96:2,11;101:9; 123:15;126:9; 127:19;128:13; 129:16;130:6,10,12
portion (10) 12:2;14:12,22; 15:3,5;20:16;35:17; 36:16;93:18;131:20
portions (3) 54:5;73:22;75:7
Portsmouth (3) 14:18;23:21;25:21
position (5) 9:13;10:13;89:10; 95:20;100:5
positives (1) 25:6
possible (15)
11:17;13:6;38:24; 39:12;69:8,11,12;
78:4;92:7,9,15;97:4; 136:5,7,10
possibly (5) 19:12;20:8;21:5; 24:8;136:7
potential (10)
9:11;11:16,21; 13:4;31:3;32:17,20; 62:11;68:16;102:18
potentially (2)
30:21,22
power (1) 78:9
powered (2) 82:23;83:16
PowerPoint (1) 4:7
pre-application (1) 4:18
precise (2) 23:22;24:3
precisely (1) 44:1
precision (1) 7:16
preclude (2) 131:8,10
pre-configure (1) 78:3
predecessors (1) 121:3
pre-existing (2) 99:14,24
prefer (1) 92:17
prefiled (5) 35:3;60:17;61:20; 63:18;66:23
preparation (2) 88:16;91:20
pre-position (1) 78:2
pre-project (1) 111:6
presence (2) 73:18;74:13
present (1) 22:4
presentation (3) 4:3,7;7:1
presentations (1) 7:5
presented (2) 5:20;6:19
PRESIDING (9) 26:4;44:8;46:2; 78:18,24;126:15,22; 127:3;137:23
pre-stage (1) 77:24
pretty (2)
95:17;112:20
previous (3) 123:2;125:11; 135:23
price (2) 13:12;69:5
primary (1) 111:19
principles (1) 30:10
prior (7) 93:10,24;117:16; 122:13,16;134:23; 135:4
priority (1) 41:23
private (2) 107:18;135:24
privy (1) 135:3
probably (29) 7:19;13:3;19:14; 21:8;23:23;24:21; 29:19;32:13;51:16; 68:12;73:14;75:4,21; 76:22,24;85:17,22; 91:7,13,16,19;96:19; 108:3;111:8;113:9; 115:12;117:15; 119:3;136:20
problems (1) 62:23
procedures (1) 45:1
proceedings (4) 46:7;79:3;83:21; 137:20
process (27) 22:23;23:15;27:17; 28:13;29:12;33:2,6,8, 10,24;34:8,10,13,22; 35:7,10,12;44:6,15; 45:17;46:1;77:15; 85:1,17;87:16;92:16; 121:13
processes (2) 5:20;27:14
procure (1) 4:20
produced (1) 53:10
product (1) 69:5
program (1) 82:5
prohibition (1) 121:9
Project (53) 5:19;8:2,18;9:16; 11:15;13:4;14:4,7,8; 17:16;18:21;19:5; 20:15;25:13;26:20;

27:7;28:4,20;29:18; 36:20;37:2,9,23;
38:21;39:4;41:5;
49:7;57:9,21;58:12; 66:12;70:1;77:3,9; 78:13;80:6;86:3,17, 18;91:22;93:18;94:2, 15,16;96:17;104:15; 105:9;110:13;
119:18;121:15; 122:4;130:17;131:21
projected (1) 52:8
Projector (3) 63:18;64:14;66:22
projects (4)
34:21;77:13,16; 121:12
Project's (1) 45:11
proof (3) 82:1;113:21; 114:13
proper (3) 8:23;54:13;131:13
properties (2) 15:9;108:8
property (43) 11:18;12:14,18; 13:10;15:9;26:18,19; 89:1;90:4,9;92:12; 94:23;96:23;98:24; 99:1,7,9,10,13,14; 100:2;103:16,20,23; 106:18;109:4,10; 113:2;117:1,6; 119:24;120:6;122:4, 6,9,10,19;123:4; 130:10,13,23;131:20; 134:3
proposal (4) 14:8;29:2;30:19; 54:12
proposed (16) 12:10;14:17;26:20; 54:2;63:10;67:18; 74:4;76:7;84:6; 123:21;124:9,20; 125:15,19;126:8; 129:24
proposing (2) 37:15;105:7
protect (1) 119:15
protected (1) 134:11
protocols (1) 17:5
provide (9) 5:12;27:1;84:5; 90:24;91:11,18; 108:23;120:10; 132:13

| $\begin{aligned} & \text { provided (6) } \\ & \quad 28: 24 ; 30: 7 ; 51: 11 ; \\ & 67: 21 ; 101: 11 ; 112: 12 \end{aligned}$ |  | ```receive (3) 84:24;87:10;104:5 received (1)``` | $\begin{aligned} & \text { referred (3) } \\ & 16: 9,11 ; 41: 9 \\ & \text { referring (6) } \end{aligned}$ | $\begin{aligned} & 12: 10 ; 130: 12 \\ & \text { relocated (10) } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | R |  |  |  |
|  |  |  |  | 123:16,18,22; |
| provides (2) | radius (2) | 57:22 | 8:19;60:15;80:20; | 124:17,20,21;128:21; |
| 11:15;25:19 | 19:24;69:14 | recent (1) | 07:21;124:19; | 129:10,13,16 |
| providing (1) | rained (1) | 109:9 | 125:19 | relocation (2) |
| 29:23 | 99:22 | recently (2) | refers (1) | 86:12;130:10 |
| provisions (1) | raise (1) | 99:22;125:23 | 48:6 | relocations (3) |
| 18:15 | 97:10 | Recess (1) | refile (1) | 128:14,17;129:17 |
| PSNH (4) | raised (1) | $78: 22$ | $120: 19$ | relying (1) |
| 26:17;28:10;66:1; | $9: 15$ | recite (1) | reflects (1) | $80: 10$ |
| 70:12 | raising (1) | 116:9 | 9:15 | remain (1) |
| PSNH-owned (1) | 35:15 | reclamation (2) | refresh (1) | 65:14 |
| Pub | range (3) | 104:13,23 | 4:14 | remains (1) |
| $\begin{array}{r} \text { Pub } \\ 9 \end{array}$ | 25:9;44:4;74:12 | $\begin{aligned} & \text { assifieg } \\ & \text { 6:1,6,7 } \end{aligned}$ | $\begin{array}{r} \mathbf{g a r d 1} \\ 94: 19 \end{array}$ |  |
| 22:1;27:11;28:7,14; | $\begin{array}{r} \text { rather (1) } \\ 15: 24 \end{array}$ | re-classified (1) | regardless (1) | 76:12,12,14 |
| 29:10;30:10;34:7 | RATIGAN (3) | 16:3 | 25:7 | remember (2) |
| publish (1) | 4:6,12;26:2 | recollecting (1) | Regional (2) | 8:20;136:6 |
| 22:8 | ratings (1) | 6:3 | 16:2;77:14 | removal (8) |
| pull (7) | 40:2 | recollection (3) | registry (1) | 8:17;21:17;62:2; |
| $\begin{aligned} & 9: 5 ; 21: 12 ; 83: \\ & 88: 1 ; 96: 19 ; 10 \end{aligned}$ | reach (2) | $\begin{aligned} & 4: 14 ; 6: 10,1 \\ & \text { reconcile (1) } \end{aligned}$ | 120:15 | 63:11;70:21;76:21 |
| 114:21 |  | 112:2 | 127:22 | remove (7) |
| pulled (3) | 110:18 | reconnaissance (1) | regulation (2) | 20:13;21:19,21 |
| 84:1;96:21;101:14 | read (18) | 73:21 | 10:19,22 | 68:4;76:3,5;117:7 |
| pulling (6) | $26: 21 ; 36: 16 ; 55: 1,$ | record (14) | regulations (1) | removed (15) |
| 21:6;83:7;87:24; | 15,23;56:1;57:13,15; | $29: 22 ; 40: 19,21,22$ | $10: 15$ | $8: 11,22 ; 15: 11$ |
| 89:22;96:18;120:11 | 58:3,4;59:15;66:4; | 43:16;46:8;49:5; | regulatory (1) | 19:10;62:15;63:6,24; |
| purchase (1) | 73:23;74:15;108:3; | $84: 2,9 ; 109: 22,24 ;$ $110 \cdot 1 \cdot 111 \cdot 14 \cdot 135 \cdot 22$ | $55: 21$ relate (1) | 65:10,12;66:18; $73 \cdot 22 \cdot 75 \cdot 8 \cdot 98 \cdot 22$. |
| 109:9 <br> purposes (5) | 135:16,21,23 reading (4) | 110:1;111:14;135:22 <br> recover (1) | relate (1) $55: 21$ | $\begin{aligned} & 73: 22 ; 75: 8 ; 98: 22 \\ & 116: 7 ; 126: 12 \end{aligned}$ |
| $30: 1 ; 36: 20 ; 54: 9$ | reading (4) <br> 33:14;64:7;66:5 | 63:1 | $\underset{\text { related (11) }}{ }$ | repair (5) |
| 112:4;126:16 | 73:4 | re-cover (1) | 17:5;26:13;29:2, | 23:11;24:18,21; |
| pursuant (3) | real (3) | $24: 16$ | $24 ; 30: 2,11 ; 33: 1$ | 25:17,24 |
| 26:24;29:8;135:1 | $70: 17 ; 128: 4,7$ | recoverable (4) | 36:7;46:22;52:21; | repaired (1) |
| purview (1) | realistic (1) | 62:13,19,24;63:2 | 55:22 | $22: 23$ |
| 56:8 | 138:3 | recovery (2) | relates (5) | repairs (1) |
| pushed (1) | realized (1) | 68:8;76:13 | 35:2;36:19;45:11; | 5:13 |
| 125:16 | 7:8 | recreational (3) | 47:4;48:11 | repeat (2) |
| put (9) | really (13) | 22:13;53:23;54:3 | Relating (1) | 36:10;133:1 |
| 12:24;13:22;39:18; | $5: 23 ; 12: 7 ; 21: 23$ | red (3) | 123:9 | replace (3) |
| $\begin{aligned} & \text { 42:24;43:6;65:6; } \\ & \text { 67:20;80:1;87:5 } \end{aligned}$ | 31:16;56:8,10;59:24; | $\begin{aligned} & \text { 67:16;108:13,19 } \\ & \text { reduce }(13) \end{aligned}$ | $\begin{array}{\|l} \text { relationship (1) } \\ 92: 18 \end{array}$ | $24: 7 ; 95: 22 ; 127: 13$ <br> replaces (1) |
| putting (3) | 89:5;98:24;114:10; | reduce (13 | 92:18 relative (1) | $125: 20$ |
| 13:7,14;39:13 | realm (1) | 13:4,16,17;40:17; | 45:7 | replanting (1) |
| Q | 83:6 reason | $\begin{aligned} & 68: 17: 123: 16 ; \\ & 124 \cdot 18 \cdot 125 \cdot 1 \end{aligned}$ | relatively (3) 59:16;95:18 | $\begin{aligned} & \text { 5:13 } \\ & \text { report (27) } \end{aligned}$ |
| Q | reas | 127:6 |  | $46: 20.23:$ |
| quarter (2) | $\begin{aligned} & 13: 21 ; 39: 20 ; 50: 1 ; \\ & 79: 5 \end{aligned}$ | redundancy (4) | $43: 22$ | $49: 13 ; 50: 8 ; 51: 1$ |
| 85:3;104:6 | reasonable (1) | 25:14,18,20,23 | relevancy (1) | 52:24;58:24;59:4,15; |
| quickly (4) | 13:12 | reel (8) | 46:6 | 61:1,22;62:7;65:16, |
| 76:17;88:24;96:20; | reasonably (2) | 39:4;82:23,23 | relevant (2) | 18;70:20;71:1,4,11, |
| 104:22 | 70:2;89:8 | 83:1,2,13,16,17 | 44:16;46:4 | 18,19,21;72:5,9;73:4; |
| Quinlan (2) | recalculated (1) | reels (4) | reliability (1) | 76:10 |
| 32:22;33:18 | 49:8 | 38:16;39:8,9;43:20 | 25:13 | Reporter (4) |
| Quinlan's (2) | recalculation (1) | refer (1) | reliable (1) | 45:5;54:1;133:8; |
| 33:5,15 | 64:8 | 17:24 | 23:9 | 135:20 |
| quite (6) | recalculations (1) | reference (6) | reliance (1) | represent (5) |
| 23:11;105:22,22, | 64:9 | 53:1;57:11;82:6; $120 \cdot 10 \cdot 123 \cdot 11,12$ | $68: 17$ relieved (4) | $\begin{aligned} & 10: 2 ; 18: 3 ; 26: 11 ; \\ & 57 \cdot 24 \cdot 128 \cdot 13 \end{aligned}$ |
| 23;106:9;119:17 | recall (5) | 120:10;123:11,12 | relieved (4) | 57:24;128:13 |
| $\underset{79: 7}{\underset{\text { quorum }}{ }(\mathbf{1})}$ | 8:15;80:8,16,19; | references (1) <br> 15:23 | $6: 17 ; 7: 4,8,22$ relocate (2) | representation (2) 51:6;52:13 |
| 79:7 | 123:14 |  | relocate (2) | 51:6;52:13 |


| represented (1) | 132:5 | 20 | 106:20;107:8,11,12, | 75:8 |
| :---: | :---: | :---: | :---: | :---: |
| 69:21 | responsible (1) | rig (1) | 17;121:6,7,8;135:24, | samples (3) |
| representing (2) | 132:12 | 97:20 | 24 | 61:23;71:11,14 |
| 79:19;134:2 | responsive (1) | rigging (1) | roadside (1) | sampling (3) |
| represents (1) | 107:9 | 21:5 | 5:5 | 72:6;74:17,23 |
| 108:13 | restate (1) | right (31) | roadway (4) | satisfy (1) |
| request (13) | 32:9 | 10:21,23;12:16; | 119:4;127:14; | 6:20 |
| 29:22;40:21;41:1, | restoration (4) | 15:13;16:20;27:2,3; | 128:19;133:11 | saved (1) |
| 2,13;43:16;45:12; | 8:23;17:5;111:2; | 36:22;45:20;49:17; | roadways (1) | 7:18 |
| 46:8;110:2;111:14; | 131:22 | 58:17;59:9;70:5; | 22:14 | savings (2) |
| 129:17,20;135:23 | restorations (1) | 73:8,10;76:5;91:9 | rock (1) | 7:7,19 |
| requested (4) | 104:10 | 98:10,11,13,14; | 42:2 | saw (1) |
| 8:10;44:2,23;45:14 | restore (2) | 106:10,11;112:23; | rocks (1) | 114:9 |
| requesting (1) | 99:13,23 | 115:10;120:2; | 70:6 | saying (6) |
| 136:17 | restored (3) | 123:11;124:9;128:2, | rolling (3) | 13:23;14:1;62:24; |
| requests (2) | 134:12,22;135:1 | 15,21 | 77:3,8;78:12 | 80:12;81:10;135:5 |
| 43:23;44:4 | restoring (1) | right-hand (1) | rope (3) | scale (1) |
| require (15) | 99:9 | 71:21 | 96:18,19,21 | 113:8 |
| 5:1;9:20;10:3; | restricted (2) | right-of-way (39) | ropes (1) | scaled (1) |
| $19: 14 ; 23: 12,13 ; 38: 7$ | 133:15,16 | 12:2;19:9,20;20:5, | 87:24 | 115:23 |
| $40: 3 ; 58: 1 ; 89: 5,12$ | restriction (3) | 14;65:4;85:21;93:2; | roughly (3) | scenario (1) |
| 91:11;103:12,14; | 25:3;120:7,23 | 108:11;111:18; | 7:21;52:2;126:17 | 42:14 |
| 110:13 | restrictions (8) | 112:1,5,18;113:7; | route (9) | scenic (2) |
| required (9) | 6:5,8,12,18,20; | 114:1,5,17,17,19,21; | 9:18;14:18,19,22; | 121:8,13 |
| 9:24;27:1;29:21; | 23:14;88:11;109:19 | 115:6,7,18;116:1,18; | 37:6;66:2;68:19; | schedule (4) |
| 64:10;89:16;106:5; | resubmitted (1) | 117:22;118:2; | 69:8,9 | 22:9,9;84:6;138:11 |
| 136:11,15,23 | 61:11 | 122:20,23;123:2; | routes (1) | scheduled (3) |
| requirement (2) | result (2) | 125:6;131:2,3,11; | 22:15 | 79:8;137:24;138:1 |
| 6:3;10:23 | 37:10;130:5 | 132:4,24;133:15; | RSA (2) | school (1) |
| requirements (6) | resulted (1) | 134:2,23 | 29:8;57:23 | 22:16 |
| $5: 1 ; 6: 2 ; 7: 11 ; 9: 20$ | 43:8 | rights (14) | rubber-mounted (1) | screen (3) |
| 28:4;76:2 | results (1) | 11:18;12:1,14,21, | 96:9 | 73:8;98:11;120:14 |
| requires (3) | 74:9 | 23;13:13;14:23; | rubber-tired (4) | screening (2) |
| 40:11;73:22; | resume (2) | 26:18,19;27:14; | 95:6,10;97:16,22 | 5:6;112:4 |
| 105:16 | 78:20;138:24 | 28:20;29:24;70:15; | rules (1) | screenings (1) |
| requiring (1) | resumed (1) | 121:5 | 26:24 | 5:9 |
| 6:14 | 78:23 | rights-of-way (2) | run (2) | screens (1) |
| reseeding (2) | retained (1) | 15:20;121:14 | 39:5;134:7 | 50:16 |
| 8:21,23 | 112:10 | road (67) | runs (2) | Seacoast (4) |
| residence (4) | retaining (1) | 5:6;12:20;14:13; | 43:10;49:1 | 33:3,20;34:15; |
| 115:2,5;122:10,14 | 112:3 | 15:5,14,15;17:4; | rush (3) | 77:10 |
| residential (3) | return (1) | 18:12,12;19:15; | 17:19;22:5,6 | sealed (1) |
| 9:23;10:5,16 | 101:6 | 21:17;22:7;90:11,11, | ruts (7) | 87:5 |
| residents (5) | returned (1) | 13,20;91:24;94:12, | 99:4,7,8,15,21; | seamless (1) |
| 14:10;78:21;79:21; | 111:11 | 21;105:5;106:3; | 100:3,6 | 78:4 |
| 113:13;120:11 | returning (1) | 107:2,3;108:7,13,17; |  | season (3) |
| resources (2) | 111:4 | 109:2,6,11;110:4,8,9; | S | 93:9,17,24 |
| 40:13;86:4 | review (4) | 111:3,17;112:17,19; |  | SEC (1) |
| respect (19) | 22:9;29:14;55:18; | 113:6;114:6;115:8; | safe (5) | 27:21 |
| 8:5;10:15;35:23; | 79:9 | 117:23,23;118:4,5,6, | 41:23;89:14; | second (7) |
| 40:15;88:11,23; | reviewed (3) | 12,15,20;119:1,12, | 103:11,15;131:7 | 11:24;23:6;42:3; |
| 91:23;94:20;95:13; | 56:18,20;74:3 | 14;120:8,17,24; | safely (1) | 43:23;96:4;98:15; |
| 106:2;110:4;118:16; | reviews (5) | 121:13;123:16,17; | 89:10 | 101:22 |
| 128:12,20;129:15; | 28:23;53:8;72:14; | 125:16,21;127:9; | safety (4) | SEC's (2) |
| 130:22;132:3,17; | 116:14;124:7 | 132:20,23;133:4,14; | 22:1;131:12;132:3, | 26:24;121:15 |
| 134:14 | revise (1) | 134:3,16,19;135:17 | 22 | section (10) |
| respond (1) | 138:6 | road-building (1) | sake (1) | 24:6,10,14,14,15; |
| 92:23 | revised (2) | 19:13 | 41:16 | 48:3;84:3;109:1; |
| responded (1) | 126:24;130:20 | roads (25) | same (8) | 120:16;129:23 |
| $94: 18$ | revisit (1) | 8:17;17:14,15; | 22:7;25:24;28:18; | sections (3) |
| response (3) | 100:1 | 18:2,3,10,14,17;20:8; | $51: 21 ; 52: 6 ; 98: 12$ | 20:23;63:5,14 |
| 89:21;93:6;108:24 | RICHARDSON (5) | 21:18,19;86:11;99:6; | $112: 22 ; 135: 23$ | secured (3) |
| responsibility (1) | 45:3,6;61:3;84:16, | 103:22;105:23; | sampled (1) | 26:18;85:11; |


| 119:24 | 90:23 | 113:12;117:14; | 42:8;77:18 | south (1) |
| :---: | :---: | :---: | :---: | :---: |
| sediment (8) | Service (7) | 122:14,16;124:13; | situations (1) | 134:1 |
| 74:3,6,7,9,17,24; | 9:9;15:19;16:2; | 129:9;130:20 | 119:16 | southern (3) |
| 75:4;86:9 | 22:24;59:12;61:12; | showed (4) | $\boldsymbol{\operatorname { s i x }}$ (5) | 66:3,15;67:24 |
| sediments (7) | 105:15 | 6:19;71:5,12;85:8 | 4:1;5:2;66:8,16; | southernmost (1) |
| 74:10,20;75:7,13, | Service/Eversource (1) | showing (4) | 117:19 | 73:21 |
| 17,18,20 | 10:3 | 50:11;90:4;98:11; | sixty (1) | southwest (1) |
| seeded (1) | Services (1) | 122:7 | 48:22 | 70:9 |
| 8:11 | 55:17 | shown (7) | size (6) | Spaulding (2) |
| seeing (3) | Service's (1) | 65:2;90:21;100:24; | 37:8;40:4;81:3; | 42:5,5 |
| 52:17;81:19;94:13 | 9:12 | 122:22;123:1;125:8, | 94:21,24;95:14 | speak (6) |
| seek (2) | Session (1) | 24 | sizes (1) | 37:20;44:7;76:13; |
| 12:20;117:6 | 138:23 | shows (9) | 100:19 | 122:18;131:23;134:5 |
| seeking (2) | sessions (1) | 101:3;108:10; | skidder (1) | speaking (1) |
| 94:14;121:15 | 31:13 | 112:16;118:19; | 95:5 | 134:8 |
| seem (2) | set (7) | 120:17;122:9,18; | slack (1) | special (1) |
| 44:6;64:4 | 15:9;67:20;97:9, | 129:8;132:19 | 92:4 | 132:21 |
| seemed (1) | 10;113:22;118:13; | show-up (1) | slight (1) | specific (2) |
| 94:6 | 124:5 | 117:15 | 66:6 | 89:20;136:17 |
| seems (1) | setting (2) | sick (1) | slightly (2) | Specifically (6) |
| 57:20 | 21:8;97:19 | 79:4 | 34:14;127:17 | 26:15;46:22;75:15; |
| segment (2) | setup (1) | side (13) | slope (1) | $76: 15 ; 135: 3,7$ |
| 35:24;108:10 | 96:15 | 48:6,13;49:2,21, | 89:12 | specifications (2) |
| segments (2) | seven (4) | 22;52:14;67:2;68:24; | small (3) | 49:15;102:13 |
| 21:7;72:7 | 57:10;117:16,17, | 106:8;119:10,13; | 90:21;95:9,11 | specified (1) |
| select (1) | 19 | 131:11;134:1 | smaller (3) | 105:17 |
| 43:9 | several (3) | side-trimming (1) | 21:2,3;39:8 | specify (1) |
| selected (2) | 23:7;30:19;107:2 | 110:14 | Solution (3) | 132:9 |
| 42:17;45:10 | shaded (2) | signed (1) | 33:3;34:15;77:11 | splice (4) |
| selection (1) | 51:6;52:2 | 17:3 | someone (2) | 24:14;39:23,24; |
| 82:10 | shallow (2) | significant (3) | 40:11,12 | 40:6 |
| self-imposed (1) | 57:12;74:10 | 27:8;95:18;106:8 | sometime (1) | spliced (1) |
| 13:7 | shallower (1) | $\boldsymbol{\operatorname { s i m }}$ (1) | 104:6 | 35:19 |
| sell (1) | 25:4 | 128:3 | sometimes (1) | splices (5) |
| 13:11 | shallows (1) | similar (2) | 38:5 | 39:13,13,24;40:7; |
| sense (3) | 70:6 | 21:18;87:4 | somewhat (2) | 41:7 |
| 51:9;106:17; | shares (1) | simple (2) | 25:3;130:4 | splicing (1) |
| 123:13 | 110:19 | 6:22;36:1 | Somewhere (2) | 39:10 |
| sent (1) | sheath (3) | simulation (1) | $63: 24 ; 85: 3$ | splicing-in (2) |
| 61:11 | 71:8;72:21,23 | 128:6 | soon (4) | 35:7,23 |
| sentence (3) | shedding (1) | single (6) | 86:9;88:17;103:24; | split (1) |
| 12:3;55:14;115:16 | 78:4 | 37:3,11;39:4; | 104:14 | 38:13 |
| separate (3) | shift (1) | 43:11;91:23;99:1 | Sorry (22) | spoke (1) |
| 43:10;130:6; | 119:3 | single-circuit (2) | $11: 12 ; 12: 12 ; 17: 18$ | 121:10 |
| 132:13 | shifting (4) | 130:1,3 | 19;36:18;42:5;47:7, | spoken (1) |
| separation (2) | 32:21;35:1;46:11; | single-cord (2) | 16;50:12,14;52:24; | 23:3 |
| 66:9,16 | 77:1 | 39:21;43:9 | 53:5;83:22;101:23; | spokesperson (1) |
| September (3) | shore (2) | single-point (1) | 102:8;108:18; | 79:20 |
| 57:23;138:16; | 51:23;54:5 | 24:7 | 112:15,22;113:5; | spools (1) |
| 139:1 | shoreline (1) | site (11) | 115:15;123:8;133:9 | 43:20 |
| sequence (2) | 51:5 | 18:22;19:1;24:12; | sort (4) | spread (1) |
| 24:22;104:21 | short (2) | 27:5;36:20;37:3; | 43:8;44:1;51:5; | 95:12 |
| sequenced (1) | 38:24;91:1 | 41:5;55:4;81:24; | 82:13 | square (11) |
| 91:22 | shorten (2) | 85:1;113:23 | sorts (1) | 30:20;49:18,21,22; |
| sequences (2) | 38:21;69:18 | sited (1) | 82:20 | 52:22;53:2,13,18; |
| 84:11,12 | shorter (3) | 16:5 | sought (2) | 57:13;58:5,7 |
| sequencing (1) | 70:3,4;130:4 | sites (1) | 12:4,7 | stabilize (1) |
| 84:4 | shortest (2) | 117:18 | sound (2) | 87:6 |
| sequential (1) | 69:6;78:8 | site-specific (1) | 78:5;110:9 | stable (4) |
| 124:4 | shortly (2) | 103:1 | source (3) | 87:7;90:24;91:12, |
| serial (1) | 62:4;117:18 | Sitting (1) | 132:14;135:16,22 | 18 |
| 86:3 | show (9) | 40:5 | sources (2) | Staff (1) |
| series (1) | 28:21;51:21; | situation (2) | 109:5;135:18 | 55:17 |

stage (2)
94:20;96:1
stakeholder (2)
33:7;34:13
staking (2) 19:9,16
Stamp (1) 61:8
Stand (3) 50:14;82:24;83:17
standard (2) 102:12,14
standards (1) 102:22
standpoint (1) 68:11
stands (3) 48:20;124:11; 133:2
start (7) 19:4;21:24;23:1,6; 70:23;93:11;117:9
started (1) 104:1
starting (5) 5:23;25:1;36:17; 85:14;138:18
starts (1) 18:22
state (9) 9:8;16:18;27:11; 29:10;34:5;111:23; 116:6;121:18;135:2
stated (6) 58:10;64:20;80:3, 7,9;125:15
statement (6) 14:21;26:23;27:20, 23;33:11;123:14
statements (1) 112:2
states (12) 16:22;26:16;29:7; 34:4,12;36:24;55:14; 56:4;57:18;65:20; 73:17;74:2
State's (1) 135:12
stature (1) 83:3
statutes (1) 121:18
steel (2) 20:22;86:24
stenographer (2) 121:23;122:1
step (2) 95:16;113:20
stick (1) 112:14
stiff (1) 48:10
still (16)

6:21;28:2;44:14; 49:6,10;51:15;52:11;
54:21;59:18;64:2;
66:14;67:6;98:12;
125:18;127:17;
134:22
stock (1)
93:1
stone (5)
119:9,12;133:23;
134:1;135:1
storage (1) 85:12
stored (1)
82:13
straight (2) 69:7,7
straightest (1)
69:12
Street (1)
88:12
strike (1)
6:2
strings (1) 21:15
struck (1) 54:16
structure (19)
12:11;20:20;87:9,
13,14,20;91:4;96:4;
97:5;100:24;101:2;
102:4,16;105:20;
124:8,9;125:7;
127:14;129:21
structures (18)
6:8;8:8;20:18;87:1, 3,8;88:3;96:7;97:2,7;
100:21,23;101:19;
105:21;130:1,3,16,19
studied (1) 6:6
study (2) 34:2;58:19
subdivision (2) 120:22;121:4
subject (3) 27:11;29:10;57:23
subjected (1) 44:3
submarine (4) 4:24;82:13;88:6,16
submerged (3) 27:8,15;29:15
submittal (3) 4:18;61:8;102:4
submitted (2) 63:13;101:10
substation (4) 23:21,22;25:21,22
substituted (1) 61:19
substrate (1) 59:19
subtidal (3) 31:9,23;32:10
successor (1) 28:16
sufficient (1) 93:21
sufficiently (1) 102:20
suggested (1) 77:2
suggesting (1) 13:21
suggestion (1) 48:17
suitable (1) 110:11
Sullivan (5) 37:5,17;38:1;42:6, 7
sum (1) 35:6
summary (1) 8:13
summer (1) 88:18
supercedes (1) 121:5
supplemental (1) 120:13
supported (1) 14:11
Sure (32) 7:15,16,24;8:22; 11:10;19:4,7;23:1; 30:4,6,15;31:1,2; 33:11;35:9;41:14,22; 42:18;45:21;49:10; 54:14;63:12,12;80:9; 83:20;90:18;109:13; 110:11;114:10,11; 134:20;137:18
surface (10) 32:1,3,5,5;35:16; 49:16;83:9;91:6,12, 19
surrounding (1) 137:14
Survey (5) 59:4,16;60:24; 65:20;73:17
surveyed (1) 114:2
surveying (1) 85:15
suspend (1) 79:6
suss (1) 127:20
swing (2) 70:8;133:20
sync (1) 85:7
system (18)

| $15: 20 ; 25: 18 ; 30: 14 ;$ |
| :--- |
| $35: 15,20 ; 39: 16,18 ;$ |
| $43: 10 ; 67: 11 ; 69: 5 ;$ |
| $77: 14,20 ; 78: 3 ;$ |
| $105: 10 ; 116: 23 ;$ |
| $117: 5 ; 135: 12 ; 137: 11$ |
| $\mathbf{T}$ |

## table (1)

62:8
talk (2)
34:1;83:22
talked (5)
6:15;8:17;44:21;
98:10;121:22
talking (10)
8:15;19:19;52:7;
61:21;82:12;124:17;
125:22;126:1;
127:18;131:17
talks (2)
9:23;84:3
tall (2)
105:22;124:8
tank (2)
38:9;82:15
tape (6)
113:17,22;114:4,7, 10;115:21
taper (1) 25:1
targeted (1) 106:15
Tariff (2)
16:2,20
tasks (1) 86:6
team (4) 92:19;118:8,10,11
tech (1) 31:13
technical (1) 55:18
technically (1) 118:19
technique (1) 72:17
techniques (1) 60:2
Ten (3) 113:10;123:12; 137:24
tend (2) 39:14;82:19
ten-minute (1) 78:19
tens (1) 23:24
tension (2) 21:11;42:12
tensioner (1) 21:10
tensioning (1) 82:18
tentatively (1) 117:12
term (4)
30:17;103:10; 104:13;107:20
terms (14)
7:12;43:16;45:16;
49:16;50:10;52:6;
66:20;68:22,24;72:5;
86:19;117:9;130:15, 17
testified (4)
5:4;32:23;45:18; 46:13
testifies (1) 36:17
testimony (36)
8:5;9:3,7;11:4,6,
14;16:10,11;17:10; 22:21;26:13;31:12; 33:15;35:4,5;36:7; 54:17;60:18;61:20; 63:14,19;66:23,24;
70:11;80:7;81:7,11,
12;82:7;92:24;
111:22;113:15;
116:4;120:13;123:9; 136:3
testing (1) 74:9
Thanks (1) 104:24
therefore (1) 80:5
there'll (1) 95:9
third (1) 29:6
though (3)

$$
31: 8 ; 56: 6 ; 115: 11
$$

thought (2) 84:7;124:19
thousand (1) 30:20
three (18)
4:1,20;5:1;16:21; 25:11;37:11,12,15; 38:14;39:21;43:10; 44:16;51:15,20; 66:13;71:4,7;121:18
three-cord (6)
38:11;39:18;40:3, 4;42:9;43:19
threshold (1) 16:15
thumb (1)
61:13
tidal (8)
27:9,10,15;29:4,9;
30:11;42:22;53:15
tidally (1)

32:18;82:8;135:10
timber (7)
89:13;90:22,23; 91:11;95:3;98:18; 119:19
time-consuming (1) 68:9
timely (1) 77:17
time-of-year (2) 23:13;88:10
times (7) 49:1;51:18,20; 99:18;117:10,10; 136:5
title (2) 57:6;60:14
titled (3) 47:18;60:10;70:20
today (14) 10:11;16:13;20:9; 26:1;28:1;40:5; 79:13;111:12; 124:11;125:6; 127:12,16;128:1,7
together (3) 24:24;67:20; 138:14
told (1) 80:11
Tom (2) 26:10;41:1
took (3) 40:15;64:5;106:7
top (4)
38:3;56:3;57:7;
101:12
topic (1) 76:14
topographical (2) 91:3,16
topography (3) 99:10;106:9,24
torque (2) 82:16,24
torsion (1) 38:8
total (4) 74:9;104:2;115:19; 130:18
totaling (1) 49:1
totally (2) 88:8;131:10
touched (1) 35:10
tough (1) 95:1
toward (5) 114:17,18,20; 115:5;116:18
towards (6)
10:14;42:20,21;
$66: 14 ; 67: 23 ; 85: 2$
Town (17)
5:20;6:5;8:16;9:10,
12,15,19,21;10:4,14; 11:22;17:2;18:6; 22:10;34:11;117:11; 136:3
track (1) 97:20
tracked (3) 95:11;97:17,22
track-mounted (1) 95:19
tractor-trailer (1) 21:1
tractor-trailers (1) 21:4
trade-off (1) 130:6
traffic (8) 22:5;53:22,23; 127:8;132:18,21; 133:5,13
trailer (1) 21:10
transcripts (1) 79:10
transition (1) 12:11
transitions (1) 117:23
transmission (17) 9:17,21,23;15:1,8, 21,23;16:3,6,16,19, 23;67:3;87:9;121:14; 127:13;129:24
transportation (1) 36:19
transported (2) 37:2;41:4
travel (1) 22:3
traverse (2) 90:15;134:15
traverses (2) 9:17;15:13
tree (3) 116:22;117:2,7
tree-clearing (1) 20:7
trees (12) 19:10,17,19;20:1, 13,13;110:14;112:4, 9;116:17;120:7,23
tree-trimming (1) 20:7
trending (1) 66:14
trends (1) 67:23
triangle (8)

98:20;125:1,4,10,
20;127:22;128:8,20
triangles (4)
126:5,12;128:12,
16
tried (2) 68:6;102:15
trim (1)
20:13
trimming (1) 121:16
truck (5)
19:23;20:11;97:8, 13;133:19
trucks (5)
19:14;20:21;21:3, 21;95:10
true (1)
86:21
Trust (3) 27:11;29:10;30:10
try (7)
23:22;38:20,23; 39:12;71:19;78:6; 129:21
trying (5)
69:11;77:17;88:12; 107:18;127:20
turn (5) 9:6;26:15;70:3,5, 19
turning (6) 19:24;48:2;54:15; 57:16;65:16;133:19
Turnpike (1) 37:6
turns (2) 69:20;70:1
twist (1) 82:20
two (16) 34:3,12;40:6;69:6; 72:9;74:4;81:15; 90:8;91:8;100:18; 101:8;103:18;109:5; 124:5;127:19;130:5
type (13) 21:1;37:8;38:2; 42:13;56:11;73:20; 81:4;87:2,10;94:19; 105:6,9;107:10
types (5)
20:4;22:11,18; 25:24;86:6
typical (7) 19:15;82:15;105:5, 6,8;106:17;117:8
typically (6)
20:24;38:3;41:16; 68:8;83:5;95:5
typo (1) 61:4

| $\mathbf{U}$ |
| :---: |

131:21;135:13
update (1) 61:13
updated (1) 61:12
upland (3) 89:7;98:2;99:21
upon (2) 85:13;89:3
use (26) 21:19;22:13;27:8, 14;28:6;29:14;30:2, 19;31:14;38:3;39:22; 41:8;65:5;80:17; 82:10;87:2;99:16; 100:20;102:16; 105:16;106:18; 109:3,4,15;111:9; 128:15
used (16) 10:18;17:15;18:11; 21:3;23:11;30:18; 37:9;63:3;64:9;65:8; 95:2;96:10;97:19,21, 23;107:14
useful (1) 137:7
using (12) 20:21;38:2;42:9; 65:4;82:21;83:13; 97:3;98:3,3;107:19; 111:17;112:19
usually (1) 40:11
Utilities (1) 34:8
Utility (2) 28:14;86:13
utilizing (1) 37:11

| $\mathbf{V}$ |
| :---: |
| vaguely (1) |
| $122: 15$ |
| vantage (2) |
| $114: 11 ; 115: 4$ |
| variable (1) |
| $89: 3$ |
| variation (1) |
| $92: 11$ |
| various (5) |
| $19: 5 ; 21: 7 ; 72: 6 ;$ |
| $86: 10 ; 104: 15$ |
| vegetation (7) |
| $20: 10 ; 85: 21 ; 86: 7 ;$ |
| $106: 20 ; 111: 24 ;$ |
| $116: 7 ; 121: 8$ |
| vehicle (1) |
| $21: 1$ |
| vehicles (6) |
| $21: 14 ; 22: 4 ; 97: 16 ;$ |
| $110: 6,12,15$ |


| versus (2) | 41:22 | 39:12;46:14; | 86:12;88:24;89:2,6, | 84:2,19;113:13 |
| :---: | :---: | :---: | :---: | :---: |
| 7:20;37:12 | waters (8) | 117:15 | 10;90:8,13,14;91:2,6, | 1,900 (1) |
| vertically (1) | 27:9,10,15;29:4,9; | whichever (2) | 15;92:1,6;94:21; | 71:14 |
| 87:6 | 30:11;53:15;137:14 | 104:19;134:8 | 95:20;96:3,5;97:9, | 1,920 (1) |
| VI (5) | wave (1) | white (9) | 15;98:15;99:12; | 49:22 |
| 107:12;117:23; | 78:1 | 125:1,4,10,20; | 100:15,19;102:13,20; | 1.1 (1) |
| 118:6,12;120:18 | way (16) | 126:5,11,11;127:22; | 103:4,8,11,13,15,16, | 48:3 |
| view (2) | 4:6,10,15;5:24; | 128:8 | 22;105:12,21;117:17, | 1.1-mile (1) |
| 68:20;128:3 | 19:1;28:7;44:20; | whole (2) | 18;118:13,14,18,24; | 37:2 |
| visibility (5) | 51:17;60:20;67:7; | 25:12,12 | 119:3,13;129:4; | 1:14 (1) |
| 123:16;124:18; | 69:9;78:6;82:21; | who'll (1) | 131:7,14;132:18; | 29:8 |
| 125:17,21;127:6 | 87:8;109:4;138:10 | 79:12 | 133:2,6,10;134:23 | 10 (5) |
| visible (1) | weaker (1) | wide (3) | worked (2) | 9:8;113:9;114:6,6; |
| 32:18 | 39:15 | 44:4;102:10; | $6: 16 ; 131: 15$ | 120:12 |
| visual (13) | weather (1) | 133:20 | working (7) | 100 (14) |
| 11:16,22;13:5,16; | 99:18 | wider (1) | 9:9;41:22,23;42:1; | 49:11;51:14; |
| 14:1;59:17;62:18; | WEATHERSBY (9) | 6:14 | 60:10;65:12;89:14 | 100:16,16,19,20; |
| 113:8,24;124:13; | 26:4;44:8;46:2; | width (3) | works (1) | 102:7,7,10;103:7,7; |
| 127:21,21;128:6 | 78:18,24;126:15,22; | 20:5;112:1;115:19 | 132:11 | 116:2;120:8,23 |
| visually (2) | 127:3;137:23 | willing (2) | world (1) | 100-foot-tall (1) |
| 115:7;125:14 | web (1) | 13:11;14:15 | 45:15 | 117:2 |
| Vivian (1) | 81:24 | winched (1) | wrong (1) | 106 (4) |
| 110:24 | week (1) | 62:22 | 90:7 | 64:15;70:19;72:1; |
| voltage (1) | 91:20 | wire (4) |  | 76:11 |
| 40:2 | weekly (2) | 96:15,16,21; | Y | 11 (3) |
| volumes (1) | 22:10,19 | 104:21 |  | 9:8;35:4;120:12 |
| 39:1 | weeks (3) | wire-pulling (1) | yards (3) | 12 (10) |
| W | $\begin{array}{\|l} \text { 23:7;85:18;92:10 } \\ \text { weight (2) } \end{array}$ | $\begin{gathered} 21: 9 \\ \text { wires (2) } \end{gathered}$ | $\begin{aligned} & 94: 5,8,12 \\ & \text { year (14) } \end{aligned}$ | $\begin{aligned} & \text { 17:12,22;52:8,14; } \\ & \text { 80:3;81:1,16;105:3; } \end{aligned}$ |
|  | 43:6,8 | 63:4;95:14 | 16:17,19;25:12; | 115:13,19 |
| wait (2) | weights (1) | within (17) | 77:17,18;85:4;88:15; | 122 (1) |
| 50:13;101:22 | 39:1 | 7:24;8:2;14:23; | 103:17;104:7,18,19, | 50:12 |
| walk (3) | Welsh (4) | 16:10;23:23;57:17; | 19;105:11;131:22 | 13 (1) |
| $84: 10 ; 90: 12,17$ | 42:20;69:23;70:7,9 | 58:9,20;65:13,22; | years (2) | 80:3 |
| walkover (1) | west (1) | 93:1;94:12;112:4; | 103:18;137:11 | 133 (5) |
| 113:23 | 48:6 | 116:2;120:8,23; | yellow (10) | 46:21;47:12,14; |
| Wall (57) | western (10) | 126:21 | 63:19;64:20;65:10, | $52: 24 ; 53: 4$ |
| $35: 22 ; 36: 3,4$ | 42:22;48:5,16; | without (4) | $13 ; 125: 6 ; 126: 8$ | $14 \text { (3) }$ |
| $45: 18 ; 46: 11,17 ; 47: 1$ | $49: 2,21 ; 50: 21 ; 51: 5$ | $62: 22 ; 82: 21 ; 97: 6$ | $128: 12,14,16,20$ | $111: 23 ; 115: 14,20$ |
| $6,7 ; 54: 16,20 ; 55: 1,2$ | $70: 4 ; 112: 17,20$ | $116: 24$ | Yesterday (9) | 140 (2) |
| $6,11,13 ; 56: 1,5,18,20$ | wet (3) | witness (11) | $5: 4 ; 8: 6 ; 32: 22$ | 17:10;123:10 |
| 57:3,7,15;58:4,10,15, | 90:24;99:7,20 | 4:5;28:23;41:12; | $34: 1 ; 45: 18 ; 46: 13 ;$ | $148 \text { (10) }$ |
| 18;59:4;60:19,24; | wetland (11) | 47:20;53:8;55:12; | 54:17;87:1;109:16 | 89:23;107:7;108:8; |
| 61:20;63:17,21; | 54:18,19;55:22; | 60:19,24;72:14; | Yup (1) | 112:16,24;117:21; |
| 64:16,23;68:13,19; | 90:21;91:10;98:2,15; | 116:14;124:7 | 113:5 | 124:24;132:19; |
| 119:12;134:1,8,10, | 100:10;128:24; | witnesses (3) |  | 133:24;135:9 |
| $\begin{aligned} & \text { 11,12,14,18,21,22,24; } \\ & 135: 1,5 ; 136: 2,7,12, \end{aligned}$ | $129: 5,10$ wetlands (9) | $\begin{aligned} & 44: 11 ; 79: 15 \\ & 126: 20 \end{aligned}$ | $\mathbf{Z}$ | $\begin{array}{\|l\|} \mathbf{1 4 9}(3) \\ 115: 1 ; 122: 7 ; \end{array}$ |
| 19;137:3,9,15 | 45:19;53:7;54:15; | wondering (1) | zero (1) | 130:21 |
| walls (5) | 57:4;58:1,9;90:16; | 126:19 | 96:23 | 15 (7) |
| 119:9,19,21;120:3; | 99:19;129:14 | wood (1) | zone (1) | 17:12,22;36:9,14; |
| 133:23 | wetness (2) | 20:11 | 48:23 | 51:18;111:23;126:19 |
| Wall's (1) | 100:4,4 | woods (1) |  | $16(7)$ |
| 60:17 | whatnot (1) | 113:16 | 0 | $11: 8,12 ; 53: 1,6$ |
| watch (1) | 130:19 | word (3) |  | 116:6,12;123:13 |
| 83:15 | what's (11) | 10:18;23:11;57:20 | 073 (1) | 160 (2) |
| water (16) | 10:8;16:15;22:23; | words (3) | 61:6 | 48:19;49:18 |
| 24:2;25:4;31:10; | 25:9;41:1;50:24; | 18:23;32:6;81:15 |  | 166 (2) |
| 32:5,6;41:24;55:17; | 60:14;100:24;105:8; | work (66) | 1 | 55:8;57:4 |
| 75:19;83:8;122:10, | 126:2;128:7 | 8:7,12,21,22;10:4; |  | 168 (1) |
| $14 ; 132: 3,7,14$ | Whereupon (1) | 23:14;24:11;39:19; |  | 18:4 |
| 135:11,14 | $138: 22$ | 41:19;42:13,18,19; | 41:24;61:10;64:24; | 17 (2) |
| waterline (1) | Wherever (3) | 64:5;68:7,8;69:13; | 72:13,15;74:5,18; | 33:16;139:1 |

SEC 2015-04 PSNH,D/B/A EVERSOURCE ENERDXDICATIVE HEARING - DAY 2 AFTERNOON SESSION ONLY APPLICATION FOR CERTIFICATE OF SITE \& FACILITY



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