STATE OF NEW HAMPSHIRE
SITE EVALUATION COMMITTEE

June 1, 2017-9:12 a.m. 49 Donovan street Concord, New Hampshire

DAY 11
Morning Session ONLY
\{Electronically filed with SEC on 06-12-17\}

IN RE: SEC DOCKET NO. 2015-06 Joint Application of Northern Pass Transmission, LLC, and Public Service Company of New Hampshire $d / b / a$ Eversource Energy for a Certificate of Site and Facility.
(Hearing on the merits)
PRESENT FOR SUBCOMMITTEE/SITE EVALUATION COMMITTEE:
Chrmn. Martin P. Honigberg Public Utilities Comm. (Presiding as Presiding Officer)

Cmsr. Kathryn M. Bailey Public Utilities Comm. Dir. Craig Wright, Designee Dept. of Environ. Serv. Christopher Way, Designee Dept. of Resources \& Economic Development Patricia Weathersby Public Member Rachel Whitaker Alternate Public Member

ALSO PRESENT FOR THE SEC:
Michael J. Iacopino, Esq., Counsel to the SEC Iryna Dore, Esq.
(Brennan, Caron, Lenehan \& Iacopino)
Pamela G. Monroe, SEC Administrator
COURT REPORTER: Susan J. Robidas, N.H. LCR No. 44
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}


$$
\begin{gathered}
\text { P R O C E E D I N G S } \\
\text { CHAIRMAN HONIGBERG: We're } \\
\text { picking up again this morning with the } \\
\text { construction panel. Mr. Palmer's group is } \\
\text { going to resume questioning. } \\
\text { Mr. Palmer, are you going to } \\
\text { be going now for your group? } \\
\text { MR. PALMER: Yes. } \\
\text { CHAIRMAN HONIGBERG: All right. }
\end{gathered}
$$

While Mr. Palmer comes up, I'll do one quick scheduling thing. Again, because Commissioner Bailey and I have some PUC business to do, we're going to break this morning around 11:30 and do the lunch break then because we have to meet with some folks back on Fruit Street on another matter, and we'll probably try and get back here just about 1:00. That's today's lunch plan.

So is there anything else we need to do before Mr. Palmer resumes?
[No verbal response]
CHAIRMAN HONIGBERG: All right.
Mr. Palmer, you may proceed.
MR. PALMER: Thank you, Mr.
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}

Chairman.
CROSS-EXAMINATION
BY MR. PALMER:
Q. My name is Walter Palmer. I'm a spokesperson for the abutters group on the underground portion of the proposed project from Bethlehem to Plymouth, and I am an abutter to the project. My farm is in Franconia, and Route 116 runs right through the center of my farm. So the proposed project runs right through the center of my farm as well. I'd like to start with a couple questions that were handed to me by other members of the group. On Route 3, south of Plymouth -- I'm sorry. Let me start with a question.

The letter from New Hampshire Department of Transportation, dated April 3rd, requires that Northern Pass provide a certified survey of the boundaries of the right-of-way on the underground portion of the Project survey by a licensed land surveyor. Can you tell me what is the progress in getting that survey completed?
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
A. (Johnson) That has been completed and filed. It should be available on the SharePoint site -- or ShareFile site.
Q. Are you referring to the report by Meridian Land Services, dated April 12th?
A. (Johnson) I think there's two files, I believe. One is from BL Companies and one is from Meridian, both certified.
Q. So it's your contention that you have completed a certified survey and you now know exactly where the legal bounds are to the right-of-way on the entire underground route?
A. (Johnson) Our surveyors have certified that document, so yes.
Q. Surveys we've seen so far show that there's a 4-rod right-of-way along Route 3 south of Plymouth. It's the understanding, based on our research, that the right-of-way there is really only 3 rods wide. Can you reconcile that?
A. (Johnson) So, again, I'm relying on my surveyors and the information that they provided. If you have additional information that would help us determine that, then we
would certainly be willing to look at that information.
Q. We have provided the information that we used as a basis of the results of our research. And specifically, Bruce Ahern's property, he's demonstrated that the right-of-way on his property is --
(Court Reporter inquiry)
Q. (Johnson) The survey, at least the one produced by Meridian, shows that it's a 4-rod-wide right-of-way at that location. So I guess the question is one of -- it appears that the survey is in error in that location. And what happens when you begin construction and you start encroaching on Mr. Ahern's private property?
A. (Johnson) So I believe in that particular area we are on the opposite side of the road from Mr. Ahern's barn, but well within the disturbed area of the road. So whether it's three rods or 4 rods, I believe that we'll still be well within the DOT easement. As far as the actual measurements of 3 rods or 4 rods, I will go back and check with our
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
surveyors. But I believe that they have certified that they believe it's 4 rods.
Q. Okay. Again, that doesn't agree with the research that we've done, so we would need to sit down and resolve that.

A second thing. You say it's going to be within the right-of-way; yet, it appears that you've proposed to build a splice vault in that area. Splice vaults are going to be 12 feet wide. And the plans that we've seen so far show that it's going to be on the edge of the pavement, with part of it in the roadway and part of it in the disturbed shoulder of the roadway. Is that still the plan, do you know?
A. (Johnson) So, a couple things. I think we've always stated that we were attempting to install our facilities within the disturbed areas, so whether that's the ditch line, the shoulder or the roadway itself. And the width I believe is 7-foot 10 inches. Is that correct? So the width of the vault itself is 7-foot 10 inches, with some excavation to the side as we discussed yesterday to install the
actual installation. But I am unfamiliar with that particular vault. I can certainly look it up and see whether it's going to be in the place that is on the maps or whether it'll be slightly further off the roadway.
Q. Well, I know the width is approximately 8 feet wide. But when you're digging a trench to put it in, it's going to have to be much wider than eight feet. It's going to be impossible to have vertical walls on your trench. I know myself, from trenching on my farm, by the time you dig a trench 12 feet wide, the top has to be twice as wide as the bottom. If you have a trench that's 8 feet wide at the bottom, the top is going to be much wider than 8 feet.

So our question is: If you're going to be digging a trench big enough to put a splice vault in and there's only 12 feet of space outside of the pavement between the pavement and private property, and your proposal is to put the splice vault partially outside of the pavement, how is that going to fit? It doesn't appear that it's going to be
possible to do that without encroaching on private property.
A.
(Scott) So I believe the description you're providing for the excavation on your farm is not really applicable to how the contractor would install these splice pits. They wouldn't be doing sloped installation for the excavation. They would be shoring it and doing straight slopes. There would be no one-to-one excavation for their sloping. So essentially you would have 12 feet width for your excavation, including the shoring, to put in the splice pit.
Q. So, if in fact this has to be installed outside the edge of the pavement, it's going to occupy the entire 12 -foot width of disturbed roadway between the edge of the pavement and private property?
A. (Scott) In the scenario you're describing, yes, if it was 12 feet and it was entirely out of the paved area. However, you'd have to give me the specific location you're discussing to go further into detail.
Q. Okay. So it's still your contention that you
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
would be able to do this, put a splice vault in without encroaching on private property on that location.
A. (Scott) Well, you haven't given me a specific location. But yes, that is our contention.
Q. Let me move on to a different topic area, and that is the timing of construction.

In Franconia and in Plymouth, the business owners in these two towns are starting to become more and more concerned about the impact of the construction phase on their businesses. They're concerned that the closure of roads or the slow-down of traffic on roads, the impediment to travel on these roads is going to result in difficulty for their clients to get to their businesses. Especially in Franconia, there are a large number of businesses that are not only located on the route, not only abutters, but located some distance from the route, but their customers need to come through Route 116 or Route 18 in order to get to their businesses. So they're asking me and they're asking our group how long is there going to
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
be construction. How long will construction last? How long will there be closures of roads? How long will we inconvenience the travelers? The reason $I$ ask is because, as we discussed yesterday and previously, the amount of time required for each component, we said three to five weeks for one HDD site, for example, and a certain number of months for the intersection of Route 18 and 116 in Franconia. But the question is: In between these different phases of construction, how long from the day you break ground until the day you finally drive away and the job is completely finished?
A. (Bowes) So, for the underground portions we've stated -- and we went through a couple of examples, one with the attorney from Grafton, and one yesterday with the DOT representative -- two full construction cycles, from April 15th through

November 15th. So, be two construction years. And we accepted their analysis. They were very similar, actually, of the number of work locations, the number of work crews.
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}

And, you know, after hearing the DOT comments and questions yesterday, we actually did some calculations, and surprisingly enough, it was exactly the scenario you just proposed: How long would it take to go from Bethlehem on Route 18 and go all the way across to Route 116? And our traffic engineer has done that analysis, and accepting the conditions that were provided yesterday, the number of work zones, the length of distance, we calculated what the travel delay would be.

MR. BOWES: And Lynn, you want to go through that calculation for us?
A. (Farrington) Sure. So, assuming the distance was $16-1 / 2$ miles and that there would be six construction zones --

MR. IACOPINO: You need to speak into the mic or speak up or something. Pull it closer.
A. (Farrington) So, based on the DOT representative's assumptions, there would be six construction zones along that 16-1/2 miles of roadway. Assuming a worst-minute scenario of one minute at each construction
site, that would add six minutes to what would have previously been a 25-minute drive. Of course, it's highly unlikely that every one of those six construction zones you would experience that full one-minute delay.
Q. Okay. We heard Mr. Ogdenburg's [sic] calculation yesterday that it would probably be about a 20-minute delay if someone were to drive this entire route.
A. (Bowes) I think we accept that 20-minute delay for the entire route. The scenario you just proposed, it was 18 and 116. That's about a -- you know, depending on how many traffic lights you hit or traffic work zones you hit, it's maximum of six minutes.
Q. Fair enough, fair enough. Still, business owners in Franconia are concerned because many of our customers and many of the clients in Franconia come from the south on these state highways, and so they would encounter most of the delays described yesterday.

So, anyway, you're saying two
construction seasons. Will the roads be repaved and all of the construction
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
impediments removed in between those two seasons.
A. (Bowes) Between?
Q. From November to April, for example, between the two seasons.
A. (Bowes) Yes, they will.
Q. So the roads will be entirely open just as they are right now during that period?
A. (Bowes) Yes, with the temporary patches that have been placed. They're the only the difference between --
Q. I'm sorry?
A. (Bowes) The only difference is there would be temporary patches placed on the roads rather than how they are today.
Q. Oh, I see. Okay. Temporary patches.

And how about during the construction seasons, in between phases? I mean, you're going to be dong HDD at one site, wrapping that up, move to another site. In between those construction operations, will the roads be reopened at that time, or will they remain partially closed?
A. (Bowes) So, for the individual location, the
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}

[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
traffic control measures would be removed, but they would be reinstalled at the next location. So it would be kind of a hopscotch going along the route.
Q. So there would probably be during the construction seasons pretty much constant impediments on the roads, but in different locations as they move along.
A. (Bowes) Yes.
Q. Okay. So I think that clarifies that, which I can report back to the business owners in Franconia.
A. (Johnson) I will add that if individual business owners have questions, we've sent them notifications, and we're willing to discuss with any business owner about the Project and inform them on exactly this type of information.
Q. Well, they seem to be only now coming to understand what some of the impacts of this project are going to be. And the business owners are becoming much more focused on it and much more interested and are starting to meet and discuss this and trying to decide
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
what needs to be done. So I'm sure you will be hearing from them.

All right. I wanted to touch on a topic that Dr. McLaren talked about a little bit yesterday, but $I$ wanted to go into a little bit more detail, and that was a question about the cold fly ash being used in the fluidized thermal backfill that's going to be used in the underground portion of the Project.

MR. NEEDLEMAN: Mr. Chairman, I'm going to object to this line of questioning. This is now tag-teaming from the same witness group.

MR. PALMER: You haven't heard my question yet.

CHAIRMAN HONIGBERG: Mr. Palmer, you introduced it with, "I'm going to cover the same ground that another member of my group covered yesterday."

Tell me what you want to know, briefly, from this group that Mr. -- that Dr. McLaren couldn't do yesterday.

MR. PALMER: Okay. I wanted to
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
get into more detail about why it's being used, whether there are alternatives, and what the likely environmental impacts are going to be.

CHAIRMAN HONIGBERG: All right. Well, I already know what the answer to the last question you're going to ask is.

Mr. Bowes, what's going to be answer to the last question -- the last round of questions Mr. Palmer just identified.

MR. BOWES: Same answer I provided yesterday.

CHAIRMAN HONIGBERG: Which is?
MR. BOWES: Probably a better topic for the environmental panel, and I don't have any direct knowledge of the health aspects of this product.

CHAIRMAN HONIGBERG: All right.
Now, with respect why are they using it? Is that what you want to know and not something else?

MR. PALMER: Yes.
CHAIRMAN HONIGBERG: You may proceed.

BY MR. PALMER:
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
Q. Okay. Mr. Bowes, yesterday you made a statement that this material has been used for decades, and your implication being that it's safe, perfectly safe to use; correct?
A. (Bowes) I indicated that it was not an experiment. It's been used for decades. That was the context of the question and the response.

CHAIRMAN HONIGBERG: Mr. Palmer, you were given lead to ask questions about why they're using it. Proceed with that line of questions.

BY MR. PALMER:
Q. Why are you using cold fly ash as a constituent of the thermal backfill in the trench?
A. (Bowes) So I can start with a high-level explanation, and maybe one of the other panel members has more details.

My understanding is it's a bonding agent that is used in concrete. It's used in fluidized thermal backfill, gypsum wallboard. It's all around us. It's used in, as far as I know, almost every state in the union. And
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
it's a product used in all road building and concrete products that are available today.
Q. You stated yesterday that there are no studies of leaching toxic constituents from this material; right?
A. (Bowes) I don't have any is what I said, or I'm not aware of any.
Q. So if you're not aware of any studies, then you have no basis for stating whether or not it's safe to use.
A. (Scott) I believe the EPA has classified this material as "non-hazardous."

CHAIRMAN HONIGBERG: What else you got on this topic?

BY MR. PALMER:
Q. Are there any alternatives to cold fly ash?
A. (Bowes) I don't know if there are.
A. (Johnson) I will -- I don't know either, but I will guess that there probably are chemical additives that would provide the same properties as coal ash does. But again, I'm not a hundred-percent certain.
Q. Coal fly ash is a waste product, is it not, of combustion?
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}

CHAIRMAN HONIGBERG: Now you're in the areas that Dr. McLaren talked about yesterday. If you want to know what else they considered, which I believe is the other thing you identified, you can ask them that. Mr. Palmer, these were your breakdowns of the topics. We didn't make them up. You provided them to us.

MR. PALMER: And I understood that $I$ would be allowed to ask questions.

CHAIRMAN HONIGBERG: On survey right-of-way boundaries, location of the power line on Route 3, impacts on groundwater on Route 116, time frame for the entire underground component, and the iterative process of planning for underground component. Those are -- I'm reading your notes to us about the topics you were going to be asking about.

MR. PALMER: And new issues came up as a result of questions that $I$ wanted to try to resolve, as a result of questions that were asked yesterday.

CHAIRMAN HONIGBERG: And I asked you what you wanted to ask, and you gave me
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}


#### Abstract

three topics. And I'm allowing you to ask questions about two of them. The third is specifically what Dr. McLaren was talking to this panel about yesterday. And I assumed you identified Dr. McLaren to do that because he knows something about this stuff, and he chose not to follow up.


MR. PALMER: So I'm following up today.

CHAIRMAN HONIGBERG: No, You're not. You're going to ask questions about the topics that you identified on your list that you provided to us that would be the topics you would be asking questions about. The alternative, Mr. Palmer, is that we go to one spokesperson per group, and only one spokesperson gets to ask questions for that entire group. That's the alternative.

MR. PALMER: And I appreciate your flexibility on allowing us to have several people ask questions --

CHAIRMAN HONIGBERG: And the deal in exchange is that you have to break the topics up so we don't repeat topics within a
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
group, because your group has already taken almost four hours of questioning of this panel.

MR. PALMER: All right. If you would just allow me to proceed, I have questions that $I$ feel are not duplicative.

CHAIRMAN HONIGBERG: Let's see what your next question is.

BY MR. PALMER:
Q. So your statement was that there are no alternatives to using cold fly ash, even though cold fly ash is a waste material from coal combustion and is -- your statement is, coincidentally, "This waste material is the only material on earth that can be used in this Application."

CHAIRMAN HONIGBERG: That's not even close to what the answer to that last question was. Not even close.

MR. PALMER: No, but he did say that there were no alternatives.

CHAIRMAN HONIGBERG: No, that's not what any of them said. It's not.

MR. PALMER: All right.
BY MR. PALMER:
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
Q. Are there any alternatives -- I'm sorry. Did you say that or not?
A. (Johnson) I am unaware of any specific, but I'm assuming that there are some chemical additives that would perform the same function that fly ash would, just cost more.
Q. So it's not possible to use backfill that has neither fly ash nor chemical additives. You can't just use thermal sand which is what was stated earlier in this Project?
A. (Scott) I believe it is possible to use various backfill materials, as long as they meet the thermal resistivity requirements for the cable rating, as well as the requirements for compaction for the installation within the road right-of-way.
Q. So it could be done without coal fly ash and without chemical additives.
A. (Scott) It's entirely dependent upon the mix design for that particular fill material.
Q. All right. Are you aware of the geomorphology of the route in Easton Valley on Route 116? What we have -- let me just set the scene very quickly.
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}

What we have is the Kinsman Ridge. We have Ham Branch River running parallel to it on the other side of the valley. And in between those two locations is Route 116 running parallel to the Kinsman Ridge and Ham Branch, transecting a large aquifer which flows down the Kinsman Ridge across the valley towards Ham Branch. So the proposed project therefore transects this aquifer. This is a aquifer that all of us in the valley use as our water supply.

When I sink fence posts into my field, I sink them about 2-1/2 feet deep. Bottom 8 inches is in the aquifer. It's in the water. You are planning to build a trench which will have a bottom level of about 7 feet deep. That means it's going to be in the aquifer. That means the material that you place in this trench as fluidized backfill will be suspended in the shallow aquifer that all of us are using for our farms. There's no lining on this trench; am I right?
A. (Bowes) No lining? No, there's not a lining
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
in it.
Q. So that any material you put in the trench will be suspended in the aquifer and will be available to have aquifer water flowing through it and will be porous and will be leaching material into the aquifer; is that correct?
A. (Bowes) So I can't say it's going to leach any material in. But it sounds, based on your description which I'll accept, that it will be in the water portions of the year.
Q. Can I turn on the screen quickly, please? (Pause in proceedings)
Q. I just did a quick survey yesterday of the Internet, and there are many studies showing the leaching of toxic materials from fly ash into groundwater. If I could just -- because I'm under time constraint, I'll just flip through them quickly.
(Documents shown on screen.)
A. Studies from the Environmental Protection Agency and from various other organizations showing that there has been -- there have been hundreds of damage cases where toxic
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
materials have leached into the aquifer from coal ash, especially including in places where it was stored as an unconsolidated dry material in the soil, exactly as what you're planning on doing here in this trench.

So, therefore, looking at these studies and results of these studies, would you not agree that there is a potential for the leaching of toxic constituents from fly ash into the aquifers of our farms?

MR. NEEDLEMAN: I'm going to object to the question. It mischaracterizes the situation. Mr. Palmer pointed to studies of leaching of coal ash, open piles, and then said that's what we intend to do in this trench, which is not what we intend to do. It's bound up in the material. It's completely different.

MR. PALMER: The similarity is that we are using coal ash in an unconsolidated manner and depositing it into soil where it will be available to leaching by water passing through it, which is exactly as the situation that was studied in some of these studies --
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]

CHAIRMAN HONIGBERG: This is your testimony, Mr. Palmer, regarding environmental issues.

MR. PALMER: Yes.
CHAIRMAN HONIGBERG: You're not under oath right now. Your job right now is to ask this panel questions about its areas of responsibility on this project.

MR. PALMER: Okay. I'm sorry.
BY MR. PALMER:
Q. Are you willing to assume that these studies do exist and that they do show there has been leaching to groundwater from coal fly ash?
A. (Bowes) So, without reviewing the studies and the basis for the circumstances of the study, they all appear to be power plants, as you flip through them quickly. If I have a chance to review them, I might have a more credible answer to provide. But it seems like we're talking about apples and oranges in these cases.
A. (Johnson) If I may add, Mr. Palmer. Coal ash in itself is the bottom ash, where fly ash is what goes up the stack. So there's a
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
fundamental difference between the two types of ashes that you're speaking about here. The difference being the size of the grain. Fly ash is what's captured in the exhaust. Other ash is what falls to the bottom during burning. Chemical constituents are very similar. Physical descriptions are different.

In any case, these studies did look at the storage of fly ash because fly ash is one of the largest waste materials. It's the second largest waste material in the country. Certainly there's been plenty of studies of leaching constituents from them. I'm going to move on. I'm going to get away from the question of fly ash.

Yesterday it seemed as if some of the questioning revealed the fact that a lot of the information, a lot of the description of the project that you intend to build in the underground portion has still not really been resolved. We don't know -- there's a lot we still don't know.
A. (Bowes) So I would say that we filed a
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
complete Application, a complete set of maps and drawings with the DOT. They have issued a set of conditions of approval, and we're going through those conditions of approval in making, $I$ would say, a small amount of changes based upon those conditions.
Q. For example, you mentioned that you don't know whether or where there's going to be any blasting.
A. (Bowes) So we have said, I think many times the topic on blasting, we've identified two substation locations where blasting will be needed. The geotech on the underground route has not identified any locations at this point, and we have yet to perform the geotech on the right-of-way for foundations for the overhead. However, the overhead lines, we have several ongoing projects in New Hampshire right now. None of the overhead lines are requiring blasting.
Q. You said yesterday that blasting plans would be developed during construction and preblast surveys would be carried out; is that right?
A. (Bowes) So in Mr. Kayser's testimony, his
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
prefiled, he goes into great detail about the process we would use for getting approval of a blasting plan.
Q. You've asked for many variances for construction in the underground route, and you have yet to hear from DOT whether or not those variances are going to be granted.
A. (Bowes) That's my understanding, yes.
Q. So at least in the question of those variances, we don't know yet what the Project is going to look like; is that right? We don't know what the final resolution is going to be of those variances or how the Project is going to be built in those areas.
A. (Bowes) So I would say that there is a list of variances that have been requested. I think it's relatively minor compared to the 60 miles of underground. And the plans as provided still provide an accurate depiction of what we intend to build. There may be variations as we negotiate and discuss with the DOT, and as we talked yesterday, potentially even the DES, what the final outcome of those limited number of variances
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
would be.
Q. You are not able to say right now whether or not there are going to be trees cut along the route; is that right?
A. (Bowes) So, there'll clearly be tree clearing along the overhead portions of the Project --
Q. No, I mean -- I'm sorry. I'm asking specifically about the underground portion of the route.
A. (Bowes) So, based upon the variances that we have asked the DOT for, there likely could be some tree clearing, based upon their requirements for us to move the splice enclosures, as well as the trench to the side of their road right-of-way.
Q. Do you recall during the discovery phase I asked this very panel whether there would be any tree cutting, and I was assured that there would be no tree cutting?
A. (Bowes) Based upon the design at that time, that was an accurate statement. Since that time we've got conditions for approval from the DOT that may change that.
Q. So my question is: Even at this stage,
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
within months of the final decision by the SEC, we still don't know something as basic as whether or not you're going to be cutting trees along the route and in our yards; is that correct?
A. (Bowes) So I think there's a limited number of locations where there may be tree clearing. And I say "may" because we don't have a final determination for the variances or exceptions we've requested from the DOT.
Q. All right. So, even though you're putting it in technical terms, basically what you're saying is that there are a lot of locations where we don't know yet what the Project -how the Project is going to be built.
A. (Bowes) Those are your words, not mine.
Q. No. Your words are that we still have to wait to see what happens with the variances, but the variances will determine how the Project will be built.
A. (Bowes) In those limited number of locations, yes.
Q. Okay. So, then we are -- would you agree that we're going into --- we're approaching
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
the final decision point for the SEC process without complete knowledge of how the Project is going to be built?
A. (Bowes) I don't think $I$ would characterize it that way. I think there is a limited number of locations that the final design will be determined, most likely after a certificate is issued, where the Project will have some minor changes based upon DOT and DES negotiations.
Q. Our concern as abutters to the Project is that what you are actually doing is attempting to get a permit which provides you a blank slate. The permitting process is supposed to describe a priority before the permit is granted exactly how the Project is going to be carried out. Once the permit is granted, then those conditions are to be enforced, and yet what we seem to be doing is a process in which we are trying to have a permit granted before we even know how the Project is going to be designed and how it's going to be built --

MR. NEEDLEMAN: Objection.
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
Q. -- which would give you complete freedom to do whatever you wish once you've got the permit. That's our concern. There will be no clear description in the permit of what you will be doing and that you will have too much latitude to do whatever you want once you get out there on the construction site. CHAIRMAN HONIGBERG: All right. Mr. Needleman.

MR. NEEDLEMAN: First of all, I think Mr. Palmer is testifying. Second of all, we have already been through this multiple times, in terms of "having too much latitude." And I think the panel has testified multiple times that the permits are going to specify precisely what they're going to be required to do based on the conditions from the agencies.

BY MR. PALMER:
Q. All right. Let me ask this: If the variances have not been resolved by the time of the permitting, when the permit is granted, how will we specify exactly how the Project going is to be built in the permit?
A. (Bowes) It would be delegated to the DOT to
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
resolve any outstanding issues, or the DES, or any of the other state agencies. That's a very common process.
Q. It's a very common process, you say. And yet it seems the idea of a permitting process, which is supposed to describe a priority before the permit is granted, what the Project is going to be done -- what's going to be done under the Project. It seems to me, and let me know if you agree with this, what you are seeking is a permit which provides you a blank slate to do once you wish once construction is started.

MR. NEEDLEMAN: Objection. It's been asked and answered.

MR. PALMER: I'm sorry?
CHAIRMAN HONIGBERG: The
objection was that they've already answered that question. They can answer again.
A. (Bowes) I don't agree with your -- with the premise of the question.

MR. PALMER: All right. I have no further questions.

CHAIRMAN HONIGBERG: Is Ms.
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]

Meyers here, Mr. Palmer?
MR. PALMER: No. I'm sorry, she's not.

CHAIRMAN HONIGBERG: Next up is the Ashland to Concord Abutters, Mr. Judge, and then also Ms. Lee and Mr. Kucman, not together. I think Mr. Judge is going to go first.

MR. JUDGE: That's correct.
CHAIRMAN HONIGBERG: Mr. Judge, you may proceed.

MR. JUDGE: Thank you. Can you hear me all right?

CROSS-EXAMINATION
BY MR. JUDGE :
Q. Hi, my name is Steven Judge, and I represent McKenna's Purchase. I'm joined today by Michelle Kleindienst, who is the office -the property manager. I have reviewed all four previous days of your testimony, and I was able to enjoy all day yesterday, so I'm not going to be asking questions about things that you've already testified about, except to the extent that $I$ want to clear some things up.
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]

I want to thank all those who've gone before me -- sounds like a Memorial Day speech -- because you've made my job much easier, especially Danielle, City of Concord. Way to go.

As I said, my main focus is going to be McKenna's Purchase. I just want to make sure I have a sense of you.

So, Mr. Bowes, I understand you're an Eversource vice-president. You've made some commitments during your testimony. You have the authority to do that; is that correct?
A. (Bowes) I would say, yes, that's correct.
Q. And Mr. Johnson, you're a senior for Burns, and you've made some commitments. And you have the authority to do that?
A. (Johnson) So I have the authority to follow up on commitments on behalf of the Project. Mr. Bowes is the -- would be the person who would make ascertations.
Q. Maybe I can make a distinction that the commitments I think you were making were for design issues: Yes, we can move this a little better. This should be moved over
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
there, or this isn't exactly correct and we'll fix it. That's what I'm talking about.
A. (Johnson) That's correct. Yes.
Q. Ms. Farrington, you work for PAR?
A. (Farrington) Actually work for Louis Berger, but I am under contract with PAR to create the traffic control plans and the Transportation Management Plan.
Q. Okay. Let's just spend a minute talking about -- and it's clearly PAR is the one who's the general contractor here, because at one point it was Quanta. But it's PAR; is that right?
A. (Bowes) So, PAR actually holds the contract. Quanta is the holding company that owns PAR.
Q. Quanta is in Texas?
A. (Bowes) I believe they have their headquarters in Texas. I believe we established that in previous days of testimony.

MR. JUDGE: If you could put on this screen, please.
(Pause in proceedings)
MR. JUDGE: I'm sure it's
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
something I'm doing or not doing.
(Document shown on screen.)
BY MR. JUDGE :
Q. This is testimony from May 3rd in the afternoon, Page 41. Can you see the testimony?

MS. MONROE: No, it's not up.
MR. JUDGE: No?
CHAIRMAN HONIGBERG: Let's go off the record for a minute and sort it out.
(Pause in proceedings)
CHAIRMAN HONIGBERG: Mr. Judge, you may proceed.

BY MR. JUDGE:
Q. Can you see the testimony there?
A. (Bowes) Yes.
Q. This is from May 3rd, P.M., Page 41. The question was asked by Mr. Thompson. As you can see there, it says, "You mentioned PAR. Are they involved in any of these projects?" And Mr. Bowes, that's your answer. I want to be careful and go through your answer and ask you some questions about it.

Can we establish, first of all, that
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
when you said in response to, "Are they involved in any of these projects?" you said, "Yes, they are," that the "they" you're referring to is PAR?
A. (Bowes) I would say yes. But there's two other companies, I believe, further in that response. I think one is JCR and one is Seaward. Seaward may have been totally absolved or consumed within PAR. I'm not sure if JCR has been. But those are the three companies involved. They're all owned by PAR.
Q. And you hit exactly on the point $I$ was going to make, and that is where you say "they," PAR, "and predecessor companies have for... more than the 32 years I've worked at the company," constructed and maintained transmission structures. In fact, PAR has not worked for the company for 32 years; is that correct?
A. (Bowes) I would say that is definitely correct, or at least to my knowledge. The first work I'd done with PAR I think was in the mid-2000s. Seaward, though, was the
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
predecessor company, and that's the company in New Hampshire that's provided transmission construction and maintenance services for the 32 years I've been in the company.
Q. And in the next sentence, when you say they've managed all the construction and maintenance activities in the transmission network for more than 30 years, that's not PAR.
A. (Bowes) Seaward, who's now owned by PAR.
Q. The question was -- you mentioned PAR. Are they involved in any of these projects? Does this answer contain Seaward or JCR anywhere?
A. (Bowes) It does not. But I think by implication I meant to include those when I said the "predecessor companies." It's really the same as Eversource, Northeast Utilities and Public Service of New Hampshire. Public Service of New Hampshire has been the local distribution company here for a hundred years. They were purchased by Northeast Utilities in the '90s, and then we changed our name in 2015 to Eversource.
Q. But you would agree with me that $P A R$ is not a
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}

|  |  |
| :--- | :--- |
|  | 2. |

[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]

New Hampshire-based company; isn't that correct?
A. (Bowes) I believe they own one or more New Hampshire-based companies, but they are not.
Q. Right. If you go to their web site, they say they're based in Kansas City, Missouri. Do you know that?
A. (Bowes) I'll accept that, yes.
Q. So you wouldn't want the Committee to look at this answer and come to the conclusion that the contractor you're working with is a New Hampshire-based company, because they're not.
A. (Bowes) They own New Hampshire-based companies that do our routine construction, line maintenance.
Q. So they are not a New Hampshire-based company. When they were hired to do this, they were not a New Hampshire-based company.
A. (Bowes) So, again, the analogy $I$ just gave, you could say Eversource is not a New Hampshire-based company. We're a Massachusetts-based company, but we own a New Hampshire-based company called Public Service New Hampshire. I don't think there's any
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
dispute that Public Service New Hampshire is a New Hampshire-based company.
Q. Do you remember my question?
A. (Bowes) Not specifically. I guess maybe I misunderstood.
Q. PAR is not a New Hampshire-based company. It was not a New Hampshire-based company when it got the contract. Isn't that true?
A. (Bowes) I believe you just established that they're from Kansas City is their headquarters.
Q. Okay. So you wouldn't want the Site Evaluation Committee to look at this answer and think that PAR was a New Hampshire-based company; right?
A. (Bowes) I don't think $I$ ever said that they are. If you read the statement here, they own two New Hampshire affiliates today. It's very clear in my response what $I$ said.
Q. All right, all right. We'll move on. Let's talk about the property purchases for a moment. Yesterday I believe you testified that

Renewable Properties is an Eversource
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
$\square$
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
subsidiary; is that correct?
A. (Bowes) Yes.
Q. And properties were purchased by Renewable Properties in 2015.
A. (Bowes) Yes.
Q. And the Eversource subsidiary, Renewable Properties, relied on a Quanta recommendation to hire a person or to use a person to purchase those properties; is that correct?
A. (Bowes) Yes.
Q. You used the Quanta reference to help purchase the properties before the award of the contract in January of 2016; isn't that correct?
A. (Bowes) Yes, that timing sounds correct.
Q. Let's go off for a moment. When you testified earlier, you said there was a project team that made the decisions about purchasing these properties. Is that no longer true?
A. (Bowes) No, that's still true.
Q. What's the relationship between the project team and Renewable Properties?
A. (Bowes) So, Renewable Properties is an
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
affiliate that was created to purchase property for Northern Pass and for other uses in New Hampshire.
Q. Okay. That's who Renewable Properties is. What's the relationship between the project team and Renewable Properties?
A. (Bowes) They worked hand-in-hand to acquire easements and properties for Northern Pass. "Project team" I'm saying is Northern Pass.
Q. The project team is Northern Pass. Okay. Who's on the Project Team?
A. (Bowes) So we went through that in some detail yesterday. Mr. Quinlan's responsible for the overall project; Mr. Fortier is the Project Director, responsible for siting and permitting --
Q. I'm sorry. I'm talking about the project team. Maybe I'm confused. I thought there was a specific project team tasked on purchasing properties, and that's who was making this decision. You're talking about the overall project team.
A. (Bowes) Yes, I am.
Q. So is there a specific project team that's
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
related to purchasing properties?
A. (Bowes) I'm sure it still follows up to Jerry Fortier. But yes, we have real estate professionals that work on the project team, and we have a legal team that works on purchasing properties.
Q. And those people work with Renewable Properties in the Quanta reference; right?
A. (Bowes) I believe they did, yes.
Q. McKenna's Purchase. Where is McKenna's Purchase?
A. (Bowes) It's in Concord, New Hampshire.
Q. What is it?
A. (Bowes) My understanding is it's a condominium association located next to one of our rights-of-way.
Q. Has anyone on the panel been there?
A. (Bowes) Yes. I have.
Q. How many units are there?
A. (Bowes) I would estimate probably in the 40 to 50 range.
Q. Let me suggest to you it's 148. Do you accept that, subject to check?
A. (Bowes) Yes, I would.
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
Q. Would you agree with me that the greatest density of people next to the path of the Project is in McKenna's Purchase, with 148 units?
A. (Bowes) $I$ haven't done the analysis, but I'll accept that.
Q. When you were on McKenna's Purchase property, is that where you were? Were you in the right-of-way, or were you on the McKenna's Purchase property?
A. (Bowes) Both.
Q. What did you see in terms of the buildings?
A. (Bowes) I saw two-story, multi-unit condominiums on several cul-de-sacs, some close to the right-of-way, some not as close to the right-of-way, or some abut the right-of-way. And then there's a road that leads onto the right-of-way where there's people storing some materials and equipment.
Q. McKenna's Purchase brand is that it is a "quiet, private setting." Was it a quiet, private setting when you were there?
A. (Bowes) Yes.
Q. Impact on traffic. Ms. Farrington, I believe
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
you've testified -- and $I$ don't mean to belabor this, but you have not completed the Traffic Management Plan.
A. (Farrington) That is correct.
Q. And you don't intend to complete one until after the SEC has acted.
A. (Farrington) It won't be finalized until after the SEC has acted. But we have begun it, and we will continue to work on it in the months to come.
Q. So we won't have a final plan.
A. (Farrington) Correct.
Q. And in terms of foundations, kind of going through the -- Mr. Pappas kind of divided these things up into different categories.

As I understand it, in order to determine the type of foundation, you have to do some soil sampling. And that soil sampling hasn't been done yet, so you can't really say exactly what kind of foundation you're going to use for each of these structures. Am I right about that?
A. (Bradstreet) The geotech sampling has not occurred yet, so the final foundation design
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
has not been completed.
Q. We talked about road design. Particularly yesterday, one of the questions was from Mr. Oldenburg, if I'm pronouncing his name correctly. What is the vehicle that you were using to design the roads? And I believe, Mr. Bowes, you testified that it was the cranes. Do I have that correct?
A. (Bowes) I think Mr. Kayser actually made that statement, and I would agree with it.
Q. Okay.
A. (Bowes) The limiting factor, or the largest piece of equipment for the right-of-way would be a crane.
Q. And this is one of those moments of synergy. I ran a 50-ton rotating crane once upon a time. In the testimony that I reviewed, there was a discussion about over-the-road cranes, a crane that can transport itself as opposed to a crane that had to be built on the spot. Do you remember that conversation?
A. (Bradstreet) Yes. I believe that was me, yes.
Q. And I want to double-check on that. The
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]

50-ton rotating crane that I operated was on a Navy warship, and it got around because the ship got around.

Are you literally talking about a crane that's going to drive on the road, or are you talking about a crane that's going to be on the back of the flatbed and is going to be taken to a spot?
A. (Bradstreet) I believe the majority of this work would involve rubber tire crane.
Q. So they're going to drive the length of New Hampshire to get to wherever they need to be.
A. (Bradstreet) Correct.
Q. You discussed the structures going over 393 with Attorney Pacik. Do you remember that conversation?
A. (Bowes) Yes.
Q. The plan submitted to the SEC involves structures that are 105 and 115 feet tall for that particular area. Can we agree on that?
A. (Bowes) I believe that's accurate, yes.
Q. Those plans you submitted to the Department of Transportation are structures with a height of 165 feet. I see heads nodding. Is
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
that correct?
A. (Bowes) Approximately, yes.
Q. Approximately is fine. That would be the tallest structures proposed for the project?
A. (Bradstreet) Yes.
Q. And you have not submitted any documents to the SEC regarding the 165-foot-tall structures; is that correct?
A. (Bowes) I would say that's accurate. It's not part of our SEC Application.

MR. JUDGE: Mr. Chairman, I would move admission of that DOT report, and I'll make it available in the way that the Committee wants it done. And I'm mindful of Mr. Oldenburg feeling that he was sequestered, but it seems to me that's a document the SEC should have.

CHAIRMAN HONIGBERG: Has it been marked and submitted somewhere? I mean, as a state entity, we can probably take administrative notice of the existence of a report filed somewhere else.

MR. JUDGE: That makes perfect
sense. It was a report submitted to the DOT.
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}

What I'm suggesting is, rather than have you search for it, we can identify it and provide it to you. But it's up to you.

MR. IACOPINO: Has it already been provided to us by one of the parties?

MR. JUDGE: I don't believe so. No one's provided it to the SEC. That was the testimony a couple days ago.

MR. IACOPINO: And this is a report from the Applicant or one of its contractors to the DOT?

MR. JUDGE: That's correct.
MR. IACOPINO: Do we know what date that is so we can at least identify it somehow?

MR. NEEDLEMAN: Maybe Mr.
Johnson could clarify. I think he knows.
CHAIRMAN HONIGBERG: Mr.
Johnson.
MR. JOHNSON: So this was, I believe, three 11 -by-17 maps created at the request of the DOT to explore opportunities for getting away from the bridge abutments.

There's no report. There's no -- any other
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
documentation around it. It's three 11-by-17 maps.

MR. NEEDLEMAN: And I think they were provided to Ms. Pacik, if I recall correctly.

MR. JOHNSON: That is correct.
MR. JUDGE: Then it will be easy to provide them to the Committee.

MR. IACOPINO: Why don't you get your hands on them and we'll mark them. Thank you.

MR. JUDGE: Thank you.
BY MR. JUDGE:
Q. Part of the process is going to be removing the right-of-way access, restoring
vegetation; is that correct?
A. (Bowes) So, clearly removing right-of-way
access. Vegetation, I think we're looking at developing a screening plan with abutters. So I'm not sure we're just going to replace all the vegetation that was already in the right-of-way. But in general, I think you're accurate.
Q. And having in mind where McKenna's Purchase
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
is, and the fact that you've been there, will the Project destroy habitat for the Karner blue butterfly?
A. (Bowes) I think we're just hesitating because we don't typically identify the habitat of the Karner blue butterfly in public, so...
A. (Johnson) Yeah, I mean, that's a confidential piece of information. I'm sure half the people in here have signed the confidentiality statement. I will add that we are aware of where the Karner blue butterfly habitat is, and we have a mitigation plan that has been submitted to the DES and accepted, I believe, as to the -if we do as part of the Project damage some of that habitat, then it will be replaced in kind as part of the process. Again, the environmental team is the one that will have all the information regarding that.
Q. Thanks. I didn't mean to go into anything confidential. My kids went to school in Concord. The school kids in Concord planted lupine in that area. It's not particularly secret as far as Concord is concerned.
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]

But moving along, my sense of the testimony that I have read and what I was listening to is that this group is willing to consider suggestions. Is that fair?
A. (Bowes) Yes.
Q. Attorney Pacik made a suggestion that you contact Alton Woods to seek a right-of-way to lessen the height of the 393 structures. Has anyone acted on that?
A. (Bowes) So I know Derek's done some analysis around what could be done at that location. Maybe he can speak to that.
A. (Bradstreet) I guess if we had a map it might be easier to discuss. But in general, looking at the --
Q. Excuse me. My question is: Has anyone contacted Alton Woods to talk about it?
A. (Bradstreet) I haven't had specific conversations with the owners of the property, no.

MR. JUDGE: Is that exhibit up now? This is JT Muni 193. It's exactly Page 93 of that exhibit. It's Sheet 162 from February 26, 2016, and Attachment 2.
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}

BY MR. JUDGE :
Q. Can you see that exhibit?
A. (Bowes) Yes.
Q. Can you see it well enough, or are you familiar enough with it so that we can establish that of these four categories --s1-6 does not apply to an appurtenance, so we don't need to talk about it.

MR. JUDGE: Is it large enough
for you to see, Mr. Chairman?
A. (Bowes) So on the north part of the right-of-way adjacent to McKenna's Purchase there is a distribution line and a couple poles.
Q. From my looking at the list on the left and of all of the towers, none of the towers that are in SI-6 [sic] are in the right-of-way for McKenna's Purchase. I could be wrong about that.
A. (Bradstreet) You're correct. S1-6 is generally north of the angle point of the right-of-way on the north side of -- the name of the road's not coming to me. But it's north of McKenna's Purchase.
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
Q. So we just need to talk about S1-7, S1-8 and S1-7T.

My first question is on S1-8. Why isn't the existing structure shown?
A. (Bradstreet) So the biggest reason why we aren't talking about the existing -- you're talking about the existing distribution line or the existing structures, period?
Q. The existing structures, period.
A. (Bradstreet) So we created this. And I guess the biggest reason is it got a little hard to see what was going on.
Q. Well, if I look at the one, SI-7, you can see existing structures in the background there. SI-7T, you can see existing structures. But that's your answer, that it would be confusing?
A. (Bradstreet) So I think the fact that the berm is shown on this drawing is the biggest reason why it's not shown. There's an actual proposed change to the service conditions, I guess.
Q. Looking at SI-8, the distance between the structure and the edge of the right-of-way is
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]

75 feet; is that correct?
A. (Bradstreet) To the relocated 115 line, that's correct.

MR. IACOPINO: We lost the exhibit.
(Pause in proceedings)
BY MR. JUDGE:
Q. So P145-92, if you look on the list to the left -- let me know if you can see it or not -- is 88 feet tall --
A. (Bradstreet) Correct.
Q. -- and 75 feet from the edge of the right-of-way.
A. (Bradstreet) That's right.
Q. This is also Sheet 162 as part of the Muni Exhibit 193, an aerial attachment in Attachment 2. If we look at P145-92, we sort of have yellow -- strike all that.

You see where Loudon Road is, or Route 9 on the left of this exhibit?
A. (Bradstreet) Yes.
Q. And to the right of that are two pink dots, purple dots. And those dots signify businesses; is that correct?
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
A. (Bradstreet) That's right.
Q. Happens to be Joseph A. Banks and Starbucks, just for the record. And then we have the property line for McKenna's Purchase; is that correct?
A. (Bradstreet) Yeah. Directly right of the two pink dots, is that what you're --
Q. That's correct?
A. (Bradstreet) Yes.
Q. All of the yellow circles signify units that belong to McKenna's Purchase.
A. (Bradstreet) I believe that's correct, yes.
Q. Can you tell me what the white dotted line is?
A. (Bradstreet) If you could zoom out, I'm sure the legend would tell us, but... so it looks like that's the extent of estimated features.
Q. The extent of estimated features. What does that mean?
A. (Bradstreet) Personally, I do not know.
Q. Well, the extent of estimated features includes a number of units in McKenna's Purchase.
A. (Bradstreet) I believe it's a buffer that's
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
used to do analysis for various calculations that were included in the Application.

Will you, Mr. Bowes and Mr. Johnson, commit to me that there will be no construction between the white dotted line and the edge of the right-of-way?
A. (Johnson) Absolutely.
Q. No activity at all?
A. (Johnson) None.
A. (Bowes) I would agree.
Q. Thank you.

So, going back to P145-92, we're now in the last scoop of the yellow structures for McKenna's Purchase. Trying to see if there's a better way. It's green -- P145-92, does the panel know have that is? I see heads nodding.
A. (Johnson) Yes.

MR. JUDGE: As to the Committee, do you see where I'm talking about? Thank you. BY MR. JUDGE:
Q. And that is related to the green, same colored green square that's immediately above it.
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
A. (Bradstreet) Correct.
Q. So we've established that square is 88 feet tall; is that correct?
A. (Bradstreet) Yes.
Q. And the edge of the right-of-way is 75 feet away; is that correct?
A. (Bradstreet) That should be correct, yes.
Q. And I know we had conversations about structures falling and hypothetical tornadoes and ice storms and conductors and lines. But it's possible that that tower, if it fell, would land on a structure in McKenna's Purchase; is that correct?
A. (Bradstreet) I can't see the physical outline of a building.
Q. It's the yellow dot.
A. (Bowes) We can measure it. Hold on just a second.
(Pause in proceedings)
A. (Bowes) So the closest location is 140 feet away.
Q. So we've got about 20 feet, give or take, between a 88-foot tower and 120 -- 140 feet. It's in the neighborhood.
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
A. (Johnson) It's about 50 feet, yeah.
Q. Let's talk about c189-51. Let me see if I can orient you. If you know where Home Depot is, kind of the upper edge of this, Shaw's is to the left. Just see the beginning of Home Depot. Does the panel see where I'm talking about? c189-51.
A. (Bowes) Yes.

MR. JUDGE: Committee, do you see where I'm talking about?

BY MR. JUDGE:
Q. It appears from this drawing that that is right on the property line for McKenna's Purchase. Do you see the property line comes straight from above and then takes a right-hand turn? Can I have a commitment from this panel to move that structure off McKenna's Purchase property?
A. (Bowes) Our plans already show it off McKenna's Purchase.
Q. So is this plan not -- is it just not showing up?
A. (Bowes) No, I was mistaken. It is on, just over the line.
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
Q. Can you move it off the property?
A. (Bradstreet) We can evaluate the impact, if any. And if there is no impact, $I$ think we could.
A. (Bowes) Appears to be about 5 feet in distance. It would be -- so we'd have to get -- we'd have to have a discussion with the other landowner. But we'll certainly consider that.
Q. And I'm looking for a commitment and not getting one.
A. (Bowes) Well, I think we want to talk with the other landowner first.
Q. I hear you. I'm just making a distinction that you have made commitments about some things and you're not making a commitment about this.
A. (Bowes) That is correct.
Q. Mr. Bowes, you've testified that you have been out on the right-of-way there and you have a sense of the clearing that's going on. You couldn't specifically identify which trees, but you understand the general clearing; is that correct?
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
A. (Bowes) Yes.
Q. And so, again, $I$ would ask for a plan that specifically shows exactly what is going to be cleared and when it's going to be cleared.

Do you know what the height is of the existing trees?
A. (Bowes) I would say 60,80 feet, probably.
Q. And all of the towers are taller than that?
A. (Bowes) Except for the distribution line, yes.
Q. Yes, you're correct.

This is Exhibit 308. It's part of the Municipal Exhibit 193. And I believe the blue circle was added by the City, but I don't have questions about that. This is showing, as I understand it -- the red is access roads; is that correct?
A. (Bradstreet) That's correct, yes.
Q. And there's no access road coming from the Loudon Avenue -- the Route 9 side of this access road is from Pembroke Road. Am I correct about that?
A. (Bradstreet) Correct.
Q. And the yellow structures are crane pads?
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]

What are they?
A. (Bradstreet) Yeah, those are the work pads.
Q. Is there a distinction between $a$ work pad and a crane pad?
A. (Bradstreet) So the work pad itself can be used as a crane pad. It's also proposed to be used as a staging area, as we've discussed previously.
Q. And the orange ones are temporary pads?
A. (Bradstreet) You're going to have to clarify the orange. There's a lot going on here.
Q. All right. So you see the blue circle?
A. (Bradstreet) Yes.
Q. Right outside of the blue circle where $I$ have the cursor, if you can see that right now --
A. (Bradstreet) Right.
Q. -- that's whatever color you want to call it.
A. (Bradstreet) It's just another work pad.

It's the same as the others.
Q. Down here it says "temporary construction pad."
A. (Bradstreet) Right. If you scroll back up, all of those have orange around. They're all temporary work pads.
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
Q. And my question is: Why are so many temporary work pads on the McKenna's Purchase side of the right-of-way?
A. (Bradstreet) Because we have to remove that existing distribution line.
Q. So that's where the existing poles are?
A. (Bradstreet) Like where you had your mouse earlier on that little orange square that's to the right of the blue circle, that's a work pad that's going to be used specifically to remove that existing distribution line.
Q. All right. Then $I$ won't ask for commitment to move those.
A. (Bradstreet) We will.
Q. Well, you're going to use them and then you're going to move them.

There was testimony at one point that --
and we've kind of gone back and forth about this -- and I'm almost done. Famous last words. There's going to be blasting that's going to be used at some points, but you don't know the extent of that because you haven't done the geotech; is that correct?
A. (Bowes) For the overhead portion, that's
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]

[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
hole in this case.
Q. How deep will the hole be?
A. (Bowes) Eight to 10 feet, probably.
A. (Bradstreet) Yeah, maybe a little more. Again, it depends on the final geotech.
Q. So, all told, how many days will the Project work happen in the McKenna's right-of-way? I understand that there will be days when there's no one there and there'll be days when there'll be more than one crew. But how many days, best opinion, of work will be going on there?
A. (Bowes) Sixty days.
Q. Sixty days spread out over two construction periods?
A. (Bowes) Probably, yes, because we have to do a relocation here. So there might be two work periods at least.
Q. And we talked earlier that McKenna's Grant is a quiet and private setting. Do you remember that conversation?
A. (Bowes) Yes.
Q. And this project is going to involve, briefly: Noise, dirt, digging, blasting,
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}

| hole in this case. |  |
| :---: | :---: |
|  |  |
| Q. How deep will the hole be? |  |
| A. | (Bowes) Eight to 10 feet, probably. |
| A. | (Bradstreet) Yeah, maybe a little more. |
|  | Again, it depends on the final geotech. |
| Q. | So, all told, how many days will the Project |
|  | work happen in the McKenna's right-of-way? I |
|  | understand that there will be days when |
|  | there's no one there and there'll be days |
|  | when there'll be more than one crew. But how |
|  | many days, best opinion, of work will be |
|  | going on there? |
| A. | (Bowes) Sixty days. |
| Q. | Sixty days spread out over two construction |
|  | periods? |
| A. | (Bowes) Probably, yes, because we have to do |
|  | a relocation here. So there might be two |
|  | work periods at least. |
| Q. | And we talked earlier that McKenna's Grant is |
|  | a quiet and private setting. Do you remember |
|  | that conversation? |
| A. | (Bowes) Yes. |
| Q. | And this project is going to involve, |
|  | briefly: Noise, dirt, digging, blasting, |
| [SEC | 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17 |

[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
heavy equipment, backup beeping, tree trimming, clearing, taking down structures and wires, erecting structures, adding wires, restoring right-of-way. Is that some of the features of it?
A. (Bowes) I would say, yes, you've covered most of them.
Q. There is a claims process; is that correct?
A. (Bowes) Yes.
Q. Based on your expertise, this panel's expertise in construction and traffic management, what amount of compensation would be fair to owners of units at McKenna's for loss of that quiet, private setting?
A. (Bowes) We don't have a history of compensating people for construction noise, so it would be zero.
Q. There is a claims process for lost property values. Mr. Quinlan testified that that process does not apply to McKenna's; it only applies to single-family homes. Is there any claim process that applies to McKenna's? Let me strike that.

Is there any claim process that you're
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}

[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
aware of for loss of economic property that applies to McKenna's?
A. (Bowes) I'm not aware of one, no.
Q. Is there any claim process at all that applies to McKenna's?
A. (Bowes) The normal claims process applies to McKenna's Purchase.
Q. The normal claims process is loss of business, I understand. So if you damage the property of McKenna's outside the right-of-way, that would be covered?
A. (Bowes) Yes.
Q. What else?
A. (Bowes) I think that's the extent of it. There may be other circumstances. I can't think of any right now.
Q. I understand from the testimony that there's no comprehensive schedule yet developed. That's something that $P A R$ is going to do?
A. (Bowes) In the process of doing that, yes.
Q. And it may be a couple months before we see those plans?
A. (Bowes) It's probably a reasonable estimate, yes.
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
Q. The roads are not designed yet?
A. (Bowes) Yes.
Q. In the contract with PAR, there's an opportunity to true-up after the design is over. That would be after the SEC has made its decision; isn't that correct?
A. (Johnson) That only applies to the underground portion of the Project.
Q. But nevertheless, is what I said accurate?
A. (Johnson) Yes.

MR. JUDGE: Two things. Mr. Chairman, first of all, $I$ want to make a legal note for the record. There was some discussion the other day about arguing insufficient evidence and that the Intervenors were allowed to argue that the information that has been provided to the Committee is insufficient for the Committee to make its decision. I just want to make the point that that's fair, but that the Applicant shouldn't be allowed to add any information to that unless we have the chance to cross-examine them on it. So where we are is the Applicant has got a proposition that we know a lot of moving parts are in, that
at some point you're going to be asked to make a decision, and in between this hearing process and then there's going to be new information that comes in that we're not, as I understand, going to be able to cross-examine. That may not come out. But if it does, $I$ just want to put that point on the record. Saying we're stuck with the evidence and you can make your argument about the evidence that is presented to the Committee is perfectly legitimate, as long as we have an opportunity to cross-examine about that evidence.

CHAIRMAN HONIGBERG: I
understand the legal point you've just made. I have a sneaking suspicion others probably agree with you, and some probably don't agree with the nuances. I don't think it's necessary for us to get into it right now.

MR. JUDGE: I agree.
CHAIRMAN HONIGBERG: I think it
would be better for you to finish questioning these witnesses so we can move on.

MR. JUDGE: I agree. I just
wanted to put it in the record so that it was
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
out there.
CHAIRMAN HONIGBERG: Okay.
MR. JUDGE: Okay. Good.
BY MR. JUDGE :
Q. Last thing. This is the revision legend from February 26, 2016, Attachment 2. It's unpaginated, but it's right before Sheet 1. And I want you to tell me if I'm reading the top line correctly. "Northern Pass Project Maps, Preliminary Design." Is that correct?
A. (Bradstreet) That's what it says.
Q. Not the final design.
A. (Bradstreet) It's not issued for construction design. Correct.
Q. And if you look at the notes on the left-hand side of the page, tell me if I'm reading this correctly. "Exact structure heights and placement are subject to change based on detailed designs." Did I read that correctly?
A. (Bradstreet) That's what the note says.
Q. I just want to repeat something that Mr .

Oldenburg said yesterday. I think this plan
is disconnected from the reality. That's all
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]

I have.
A. (Bowes) So I'll comment on that. The fact that you asked us to move a structure 5 feet today, if this was an issue for construction final design, we couldn't do that. Now we'll have the opportunity to take your request under consideration and move a structure 5 feet.
Q. And I would have preferred that you moved the structure before you gave me that plan and that it wasn't on the property. So we can go back and forth about this.

CHAIRMAN HONIGBERG: Yeah, and you're not going to. So do you have any other questions, Mr. Judge?

MR. JUDGE: I do not.
CHAIRMAN HONIGBERG: All right.
Ms. Lee, Mr. Kucman.
(Discussion off the record.)
CHAIRMAN HONIGBERG: All right.
Why don't we take a ten-minute break.
(Brief recess was taken at 10:21 a.m.,
and the hearing resumed at 10:36 a.m.)
CHAIRMAN HONIGBERG: You may
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
proceed.
CROSS-EXAMINATION
BY MS. LEE:
Q. Hi, guys. I have a couple of maps. And I realize as I'm sitting here for several days that $I$ don't have the most recent, current maps. And I have a list of questions using the old maps that were available as part of the outreach. And I'm going to go through the maps first, and then I'll do the questions related to the run-through with the maps.

I have right now one of the tax maps. And by the way, on the ShareFiles I was looking for any current maps, and I was cut out of using Sharefiles. I don't know if it's because when you're doing the maps they're too large to access, so then I get shut out. And I can't find any current maps using the ShareFiles. So I just want you to be aware that we may be working from incomplete or not current maps.

The first one has not changed, as far as I know. This one is a map of Northfield,
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
BY MS. LEE. -
where I live. And I'm Mary Lee, intervenor from Northfield. This is dated April 1st, 2014, and it's on the ShareFiles under the tax maps. My property is 7405 in the center, in the red. The red, I don't know what you call that shape, 48A, it says 6.47 acres.

I'll try to --
A. (Johnson) We can see it.
Q. Can you see it?
A. (Johnson) Yes.
Q. I'd like you to note that the caption on the note says, "Conservation Zone begins 500 feet West and 500 feet East of Oak Hill Road." And Oak Hill Road is over here where you see Zone R1. Here's my property. And here is that transmission line that's going to go through right at the corner of my property. And I have a granite bound right here. I had it surveyed several years ago. And it's been knocked down by the trim crew of last fall.

I went out there and marked it with neon
orange tape, the survey tape, around the
bush. And the granite bound is sunk, so it's
level -- it's following the grade of the
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
soil, very, very sandy, because it leads down to the Merrimack River.

Here's the town line with Boscawen, and also you can see the Merrimack right here. And I can actually walk down to the Merrimack.

So just to get the lay of the land, I have a granite bound right at the corner right here. I walked it a couple of days ago, on the 25 th of May, with Donna Keeley, the community outreach specialist, and an engineer named Ovid Rochon, and we staked it. Now, what we found was it had been knocked down, and all the ribbons were kind of ground up and chewed by those tree-eating machines that they use to clear trim at the power line. And so I asked Donna to make sure that Eversource comes back and helps me put this granite bound back in its little place. And I really didn't understand how they couldn't see it, because the bush was about my height with all these yellow -- I mean neon orange ribbons on it. So I walked out there to put one of those 5-feet tall green metal stakes
and also tied ribbons to that, but it was still knocked down, actually.

MR. NEEDLEMAN: Mr. Chairman, I'm going to object at this point.

CHAIRMAN HONIGBERG: Ms. Lee, is there going to be a question at some point? MS. LEE: Oh, yes.

BY MS. LEE:
How can I mark these things so that you don't disturb boundary markers in trimming and clearing? And I can't imagine that if a tree-trim crew is going to eat up my markers, what about when you come out and you're going to be building this construction pad right at this corner right here? That's one of the construction pads.

I'm going to show you a different map where you have the construction pads, and it's right at that corner.

I'm concerned. How do you prevent people's property markers from being knocked down or destroyed or moved?

CHAIRMAN HONIGBERG: Okay. So that's a question. Why don't we let them
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
answer that question.
BY MS. LEE:
Q. How come --

CHAIRMAN HONIGBERG: Don't say any more. They've got that question.
A. (Bowes) So in this particular case, we'll mark this on our maps, and we'll get this corrected for you as well. We'll replace or reset the granite marker, and we'll identify it on our data base system so that we're at least aware of it in the future. And we'll try to maintain it in the condition that it should be.
Q. Okay. So I'm waiting for a response or a result from speaking to Ovid Rochon, the engineer who works for Burns \& McDonnell, and also awaiting a response in writing from Donna Keeley. And that was only on May 25th I met with them.
A. (Bowes) Well, now I've given them some direction on how we're going to respond.
Q. Okay. Thank you.

The other concern is, as you look at this map, my note -- well, it's the town's
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
note. It says conservation zone is east and west 500 feet of Oak Hill Road. And if you follow the legend to this, it also gives you -- Note 2 says the groundwater protection district extends from limits shown to the Merrimack River. So if you look at this map, it's a funny little shape. This here, it begins, this long dashed line. You can see my little crosshairs. It says "groundwater," and then you follow it around and it makes kind of like a hairpin turn and goes onto my property here. And you'll see that I'm well within the Groundwater Protection District, because if you follow this line all the way through, it says here's groundwater and here's... all the way around here. And it says "protection," and then it goes all the way here onto my neighbor's property. And right here is the outline of the Groundwater Protection District. And you can see I'm also in the conservation zone for Northfield. And I know that we just added another piece of conservation zone. Seems like every year at annual town meeting there's only two
things we talk about, okay: Conservation and then -- all right. There's always a new truck. And then there's also road work. That's about it. So $I$ know that our district for zoning here is protected. And I only glanced at the ordinances yesterday for our town. I realized they're pretty extensive. And the zoning is pretty strict for groundwater protection. We participate in the Merrimack, the upper Merrimack River -CHAIRMAN HONIGBERG: Miss Lee, what's the question going to be at the end of this?

BY MS. LEE:
Q. Yes. The question is: Are you aware that we have a conservation zone and also we have a Groundwater Protection District for where this line runs through in Northfield, as far as my property and my neighbor's property?
A. (Bowes) We are today, yes.
Q. Okay. Thank you so much.

The other thing $I$ have a concern about is if you look at the access, as I was coming to my road today, there are huge puddles
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
because we had a hail storm yesterday. And Fiddler's Choice Road -- if you look at it here, it says Fiddler's Choice Road. This is how I access from Oak Hill Road right here. And how you get to Oak Hill Road would be... actually, I take the shortcut, Exit 18. But when you get to Fiddler's Choice Road, unless you took Union Road which is paved, Oak Hill Road leads directly into Franklin. This is also paved. But when you arrive here... you see on the left here it says "Class VI" road. This little line separates this dog leg which goes down as part of Fiddler's Choice Road. And this part is still unpaved. I've lived here since 1981, and the highway department will not pave it. So this is a very, very tender road. As I passed it today, there were ruts after last night's storm. And the question I have is: There was mention from you engineers that you would make the dirt roads, gravel roads, passable for all the heavy construction. And what do you do with the Class $V$ roads that are barely passable today for my little subcompact SUV?

What do you do about the construction passage when you have to bring heavy equipment down that dirt, gravel road?
A. (Johnson) So the current plans that we have submitted show that we are staying within that right-of-way and not using Fiddler -I'm sorry. I don't know the --
Q. Fiddler's Choice Road?
A. (Johnson) Fiddler's Choice Road. Thank you.
Q. So you're not using that?
A. (Johnson) So as of right now, it shows that we are not. If we were to choose to use that, obviously we would have to work with the road agent to make sure that that road was to the standards that would support the type of equipment that we would bring in. We talked about cranes being the heaviest piece of equipment that we would bring in.

Regardless, the crossing of that road in that particular area, basically where your driveway begins, we would have to do some sort of mitigation to maintain the integrity of the road for the equipment that we would be crossing at that point.
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
Q. All right. I just wanted to let you know. I don't know if you all suffered through a hail storm in Concord but --
A. (Johnson) I drove through it last night, yes.
Q. All right. The hail storm damaged my road. And one of my to-do's today is to call the highway department and say, "Come see what happened to Fiddler's Choice Road. You have to do something to repair it." And that's only from hail, hardly the size of a marble. So I'm really concerned about heavy construction.

The other thing I have a question about is on your engineering map. I'm going to show that one to you.
(Pause in proceeding)
Q. This is your engineering map. Latest one I have was submitted as part of your wetlands app and to the USACE, and it's dated -- I mean the sheet number is...?

MR. ROTH: Excuse me, Ms. Lee.
Have you identified this as an exhibit? Over here. Have you identified these
documents as --
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]

MS. LEE: ExCuse me. This is part of the USACE permit.

MR. ROTH: But have you identified them in particular as an exhibit of yours?

MS. LEE: No, because I put it in my disclaimer when I put my exhibits in that I'm using everybody else's so we can --

CHAIRMAN HONIGBERG: So this is somebody else's exhibit. This is part of the Application?

MS. LEE: This is part of the Applicant's maps under the USACE. It's called Application, Volume IV, Appendix 1, Page 301, Sheet 149 out of 180, and also Sheet 150 out of 180.

CHAIRMAN HONIGBERG: And what do you want to ask them about this?

BY MS. LEE:
Q. I'm going to ask you about this legend and the placement of the construction pads.
A. (Johnson) So I'm familiar with that drawing.
Q. Bear with me. This one is sheet number...
well, it's Page 43, Sheet 561 on the permit
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
application. New Hampshire DES/USACE, and it's Sheet 561. It shows the power line is going to be moved. The little green lines here, you see a strip that's about a quarter-inch wide on the actual map. I understand this is going to be the buffer that I'm going to lose. It's going to be cleared. And on my property here, as you enter, Fiddler's Choice Road is here. You have to turn in right here. And as you turn in, you're putting -- the solid red lines represent, it says here, new access route. The dashed red lines show existing access route. And then there's a temporary construction pad which is pink and then the light yellow designates temporary area of disturbance construction pad.

What's the difference between the temporary construction pad and the temporary area of disturbance construction pad?
A. (Bradstreet) Sure. So if you could zoom out a little bit and maybe go to one of those locations.
Q. All right.
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
A. (Bradstreet) So, for example, if you look at Structure 3132-10 where your mouse is, so the pink represents the area that we plan to do work within. The yellow represents an area that might have to be developed to support that work pad space. So if there was some grading to make the work pad flat or something, it might expand out into that yellow zone, which is slightly larger than the pink.
Q. So as I understand it from talking to Ovid Rochon, the engineer, he says when you put these designs together -- and this is dated -- I don't really see a date on this. Oh, the date is October.
A. (Bradstreet) Should be 2016, I think.
Q. I believe -- yup. No, this one.
A. (Bradstreet) February 2016.
Q. 2/19/16. So is this the latest version? Because all during the testimony of the construction panel there was mention of "One Touch." So my question is: As of today, is there an updated engineering map that property owners should have -- should have --
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
as on May 3rd, somebody on the construction panel said that there are on other maps the edge of the right-of-way was expanded. But those maps were not available to us. So is there an updated engineering map beyond what we see that's dated 2/19/16, which is last winter?
A. (Johnson) So $I$ believe the discussion back on May 3rd was specifically in the areas of Pembroke, where there was an incorrect line that was drawn on our drawings. I believe Mr. Bowes testified that we would have a new set of drawings available as of the end of May. I can confirm that those drawings are in the final stages of quality review and will be available in the next week or so. So we will publish those. There are substantially no changes to any of the drawings. We've just gone and redid other ones. Other than the commitments we made to Concord regarding the access roads, as well as that one particular line in Pembroke where we shifted what we had incorrectly noted where the edge of the boundary was. For your
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
particular property here, I believe there are no changes to what you're going to see on the maps today.
Q. Okay. So as of today, June 1, there are no changes to this map.
A. (Johnson) That is correct.
Q. A property owner can have real information that's current and that's real.
A. (Johnson) That is correct.
Q. Okay. The other question $I$ have is when you come up right now on Fiddler's Choice, this is all dirt road. And as I approach, you see that in this area. You're actually following the right-of-way cut over the open corridor. So my mailbox is right here. The dashed flat lines that are right here, if you look on the legend, "Erosion and sedimentation control BMPs" -- is that Best Management Practice?
A. (Bradstreet) That's correct.
Q. What does that mean when you see it at my mailbox? If I'm standing and I walk two tenths of a mile out here and I stand right here, collect my mail, I look across and I can see about five -- depending on the
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
weather, $I$ can see five or six of the current configuration of wooden H-frames, as well as monopoles. They're all wooden. So if you are standing here and you see these little erosion controls, what does that mean? What does it represent at my mailbox?
A. (Bradstreet) So I guess an example could be like a silt fence. Are you familiar with what a silt fence looks like?
Q. Yes.
A. (Bradstreet) During construction we would -one of the first I guess stages of construction before we start doing all the access road development would be to put in some sort of erosion control. It could be a silt fence. And that dashed $X$ line that you're pointing to is where we would install that silt fence to make sure that erosion did not leave our work space.
Q. Okay. So that's because of this blue area which depicts there's a little creek right here. And if you look at these blue diagonal lines, this whole area is wetlands. And if I look on your legend here, would that be an
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
intermittent water body? It says perennial or intermittent or ephemeral, depending on the shade of blue and the direction of diagonal. So which one is this? Is this on the perennial hit list?
A. (Bradstreet) So I think in general the green bodies that are shown are the actual wetlands, and those erosion controls are in place to keep sedimentation from going into the wetlands themselves. I think what's shown, if you scroll back over to the right, I believe what's shown over there is more of a -- it might be a flood plane.
Q. This area?
A. (Bradstreet) Yeah, it's a stream buffer. So that where your mouse is now, looks like there's kind of a darker blue line. I believe that shows where the stream actually is. And then the shaded area would -- we'd have to go back to the legend to see if it's intermittent or whatnot. But I believe it's intermittent stream.
Q. According to this, it shows it as
intermittent. It never dries up. What is
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
the NF13SR4S? What does that stand for? Is that a designation of that particular little creek?
A. (Johnson) Yes. And the green letters beside it are the designation of a wetland.
Q. Okay. So this is a wetland.

Now, as you take a walk, walk with me, walk this way, you're going through under the power line. And this is the way I drive here. You're following the parallel corridor, or the open area. This is all sandy. And today it's full of puddles. We only took down the mud warning signs on Fiddler's Choice Road at the end of April.

So as you walk here, you're going to be following this. Or if you're driving it, you pass another wetlands area. And that's the vegetation area, this green NF28PSS1. And this right here, that stands for vegetation on the legend; is that right? Is that what the "RTE" stands for? Vegetation is green. It says "RTE bars." And then if you go up here, you see the edge of the outline.
A. (Johnson) So the RTE is actually a filled-in
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
area. That stands for rare, threatened and endangered species. What you have outlined there are the designators for specific wetlands. And that is our wetland identifier number that's contained within.
Q. The NF?
A. (Johnson) 15. Correct, in this case. The PSS1B, I believe, describes the type of wetland.
Q. And if I look in the legend, is this what you're talking about, this wetland?
A. (Johnson) Yes.
Q. The green area with the green dots inside versus the USACE-reviewed wetlands -- what does that mean, the "reviewed wetlands," which has little orange dots inside?
A. (Johnson) So in some cases when the Army Corps of Engineers has done their own wetlands evaluation, we've incorporated those wetlands on our maps as a courtesy.
Q. Okay. Thank you.
A. (Johnson) Typically our wetlands are much larger than what the Army Corps --
Q. Okay. One of my questions regards the
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
wetlands. On May 11th, I encountered a wetlands surveyor who works for GZA, as a contractor to Eversource. And she parked her car at the end of my driveway. So I looked in her car, and she had all kinds of maps. So I figured it was mapping for Eversource or for you guys to update your maps, so we have current maps.

And my question is when -- she told me that the wetlands have expanded, according to her walking in the woods. My question is: When the survey, so-called "expanded wetlands" map, is complete for my area, will I receive a copy of the map of the expanded wetlands area, and will NPT resubmit the expanded wetlands map to New Hampshire DES? Because that's just done as of May 11th --
A. (Johnson) So the activities that you're describing are not anything that's part of the Project. GZA is not a firm that the Project has contracted with to do wetlands delineation. We can certainly coordinate with whatever Eversource project this is to obtain that wetland information. It would
depend on what they're delineating $I$ guess is the answer. We'd have to receive that information and judge whether it would be applicable to this project or not. I just don't know what the scope of that work is.
Q. So you don't know if you would ordinarily, as a matter of course, always work with the most current version of wetlands? Because as I understand it, Eversource comes over, and they'll trim or cut on a regular schedule. And I assume that every so many years -- I was told every four to five years -- they will trim and cut because of the power lines --
A. (Johnson) That is correct.
Q. -- edge of right-of-way to the edge of clearing. So I see those guys periodically. But if you have an expansion of the wetlands, can you commit to using a current map to do your work so that you're not destroying wetlands or impacting my well and my watershed and my groundwater protection district in the conservation zone?
A. (Johnson) So as we've discussed earlier
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
regarding other things, the Application before the Committee stands as it is. I will commit to you that we will find out what this project is, and if it can provide relevant information, then we will seek to include it. But I can't promise you that we will or will not at this time.
Q. But isn't Eversource working with NPT? Aren't you all under like the big umbrella of knowledge about wetlands and how you impact through the power line maintenance and operation? I mean, aren't you all coordinating things so that we as landowners get the current information available when you're trying to make an impact -- or you will be making impact? So are you committing to checking out with Eversource about this particular expansion of the wetlands?
A. (Johnson) This is the only one that I've been made aware of. So, yes, I will go and find out about this particular area.
Q. Continuing on with this map. So as you walk in -- oops. Sorry.

As you walk in, right here you're
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
following along the power line corridor. And then when you come into this area, I call it "the dunes," it's all sand. And as you can see right here, the yellow dot represents... existing structures is yellow dots right here. If you have a tan or okra color dot, it's an existing structure to be removed. And I understand that the 115 line is removed. So, for example, this is the okra dot that's going to be removed. And I understand that this yellow rectangle represents a construction, what do you recall call it, construction area.
A. (Bradstreet) It's a work pad.
Q. Work pad. Thank you.

So you're going to construct a yellow area work pad to remove. How long will it take to have an outage? I understand from yesterday's information that you're going to have to take that 115-kilovolt existing line out, and then you're going to move it over closer towards the west.
A. (Bradstreet) So the actual sequence will be there's adequate room for us to construct the
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
relocated line first and then transfer -basically, the existing line would remain in service until the relocated line was constructed. Then we would transfer that power to the new line and then demolish the existing line to make room for the Northern Pass 345 kV line.
Q. Can you repeat that sequence?
A. (Bradstreet) Yeah. So as it sits today, we would come in and basically construct our access roads so that we could construct the relocated line first. There's adequate space for us to construct the relocated line without taking out the existing line to be relocated. So we would construct the relocated line first, energize it, and then demolish the existing 115 kV line that's being relocated.
Q. So in other words, there is no disruption or outage when you take out the existing 115 line then you're going to move it over. I'm not going to be out --
A. (Bradstreet) No, there'll be no disruption to customers at all during our construction.
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
Q. Okay.
A. (Bradstreet) We'll be able to sequence our construction activities and any outages to maintain service to all customers.
Q. $O h, I$ see.

The other question I have related to this movement of the 115 line. As you go through past the dunes, you can see the dashed red line represents existing access route. Now, you're building -- I have learned that the solid red line represents the new access route. And this trumpet shape here at the end represents a turnout for large construction vehicles during the construction work and that you're going to take new areas of this road -- this is my road right here. And you're going to make a new cut over here. And I know right here, this yellow dot represents existing line. That's one of those big, laminated, newer wooden structures, and it says "Danger" on it. But you're cutting into the danger pole. How come?
A. (Johnson) So the line, the red line is not
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
meant to intersect with the structure itself. It will go around the base of the structure, and presumably there will be some protection put there to make sure that any turning truck does not hit that structure. Clearly, we don't want that to happen.

Right, because it would fall right here on my mailbox, and on me if I stand there long enough ignoring the danger sign.
A. (Bradstreet) I think the danger sign is just to identify that it's a high-voltage structure.
Q. Okay. The other question I have is: As you walk in toward the dunes here, and that's supposedly the existing access route, you're building a new -- right here. And this is another little construction pad. These are all removed, as I understand from your previous information.
A. (Johnson) That is correct.
Q. All of these construction pads are removed?
A. (Johnson) That is correct.
Q. I do have a request from the walk-through on -- with your contact liaison, Donna and
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]

Ovid Rochon from Burns \& McDonnell, that sometimes when you see this yellow line that designates a construction pad, that designates a construction pad, and then you see within it the salmon-colored one, they will plan for a particular size, but they may not actually use the entire area; is that true?
A. (Johnson) Yes. As we've mentioned several times over the course of this, we are permitting what we're classifying as our "most conservative impacts." So the contractor, when they get out there, will have the opportunity to use a much smaller size if they so choose. We're giving them the optionality.
Q. So what I see right here, for example, this is so close to my well and my house, this yellow rectangle representing the construction pad and this salmon-colored one and then this one here as you go around. So is the permit that you seek from USACE and also from the DES permits to use the full area of the yellow?
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
A. (Johnson) That is correct.
Q. But you may not use it all --
A. (Johnson) That is correct.
Q. -- depending on what you find there.
A. (Johnson) That is correct.
Q. Because $I$ just want you to know, if you can make a note to your updating progress, that this is my tree buffer. And you see on the scale on the legend about a quarter of an inch right there, it says it's 25 miles -- I mean 25 feet. So we walked with the engineer and with Donna, and we put stakes in and marked from this line, which is the existing on this map -- this is more or less going north and south right here. This goes north and south. And if you come to on your walk past the dunes and you snake through, and now you're crossing through the open cut area, you're going to go through a canopy right here where it's all dark. This is what I call my tree buffer. And so you're walking under this canopy of trees. And when you bring in construction vehicles -- I don't think we discussed how tall those vehicles
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
were. I think we discussed how wide the access road would have to be, which I believe somebody mentioned 20 feet wide to accommodate construction vehicles. Is that right?
A. (Johnson) It's 20 feet wide at the base of the road. If it requires stepping out, I believe the top of our roads are 16 feet.
Q. The top of what?
A. (Johnson) The top of the roads are 16 feet wide. And they can -- as you build up a road, if you need to flare it to keep it flat, we're asking for a 20-foot all the way to the side.
Q. So you require 20 -feet-wide roads to access for construction?
A. (Johnson) Again, we've permitted the most conservative application across the entire -in this particular area, where it's very flat and very sandy, we will only be using 16 feet.

CHAIRMAN HONIGBERG: Ms. Lee,
how much more do you have?
MS. LEE: I'm going to go
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
through my questions.
CHAIRMAN HONIGBERG: How much more do you have?

MS. LEE: I got one page, but I think the most important part is this map.

CHAIRMAN HONIGBERG: How many pages have you gone through so far?

MS. LEE: I'm halfway through.
CHAIRMAN HONIGBERG: We're breaking in ten minutes.

MS. LEE: Okay.
BY MS. LEE:
Q. So on the sandy road that I live on, it's going to be 16 feet minimal to accommodate?
A. (Johnson) Yes.
Q. And as far as traveling here, when you cut into the screened area, this is representing -- this whole strip here represents your clearing my tree buffer. So do I understand someone mentioned that once you take the screens down, you're going to replace this trim area or cut area? Because that's my buffer not only aesthetically for noise and also for sand that blows back onto
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
my driveway, and also for, in the wintertime, if there's a powder snow condition and there's very, very high winds, I've had to call the plow back to replow. And that costs a lot of money. So the buffer isn't just for aesthetics. It acts as a -- what do you call those orange -- snow fences. It's like a snow fence, but it's natural.
A. So do you replace -- when you look at where my house is located right here, and you come in and there's a circle of trees, you walk out here, right here is about right there. My well is right there, but you can't see it on this map. The well is right there because that's pretty damn close -- excuse me -pretty darn close to the construction area. So can you make a note on your maps, so you have a current version, that's where my well is?

And I took a quick look at the ordinances for Northfield for the groundwater protection district, and it's pretty lengthy. If you could tell me if anybody checked the groundwater protection district for this
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
construction work in my area?
A. (Bowes) So I have not. Our environmental panel may have. I can't speak for them. But what $I$ will do is mark this on our maps. And we'll also encourage the construction contractor not to use the left side of this pad. The way we've permitted it is so they can work from either right or left side of the structures. But in this case, we can make a note and encourage them to work it only from the right side; that way, we wouldn't have to create this disturbed area in the first place.
Q. So when you say "left" and "right," you're talking about this part of the pad being the right side of the pad and not the left side, which the corner would strike into probably my well?
A. (Bowes) Exactly. Yeah.
Q. And you can't see it. When you come through the driveway and you face this canopy of trees, you're going to be breaking some of those canopy trees. Do you replace those for me as a screen? I think there was some
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
discussion on screens. So if you destroy my screen, either for wind, weather, snow, sand, aesthetics, environment, habitat for the wildlife, do you replace those?
A. (Bowes) So it's not going to be replacement in kind, but we will provide vegetative screening. And we will come out and work with you. We'll have an arborist come out and work with you on what you'd like to have replanted there. Provided it doesn't or won't grow into the power lines, we will provide that to you at no cost.
Q. Thank you.

The other question $I$ have regarding this map is at this corner you'll see this white line represents the edge. Just about here I see you're using the access route. It's very heavily graded as you go down here. It goes down. Right here is another construction area or pad, the yellow. And I believe where the existing square is, that is where there's a, I believe it's a monopole. It's wooden. And when I see that, I go down the embankment below this right here, and that's where my
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
marker, my boundary marker is.
So can you make a note that you're building into -- I believe, you have a construction pad going right over my boundary marker, the granite bound. So that's really important for someone in construction engineering, surveying, to walk out there with me, and I can show them where that yellow dot is and show them how far you walk below that to find the boundary marker. So that's very important to me. And if it's not found -- I hope it is found because we just saw it the other day. But it's just knocked down. Everything is knocked down, and it's been chewed up by the tree eater.

So can somebody make a notation on your maps that there is a granite bound there?
A. (Johnson) So, yes, we have written some notes here, and that's something we're going to follow up on.
Q. And you can adjust the perimeter of that construction pad. Is that adjustable?
A. (Johnson) If we cannot adjust it due to whatever reasons, and I'm not saying we
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
can't, we will replace your monument once the construction activities are complete so that there is -- no matter what, there's a reference point for you.
Q. You're going to replace the monument? You mean you're going to replace for the survey -- survey to have it replaced?
A. (Johnson) We can GPS that particular point and find it for you, yes.
Q. You can "GPS it"? What does that mean?
A. (Johnson) It's a type of survey, that we'll go out prior to construction and we'll ping that point. That will tell us where it is geo-spatially. When the Project is complete, if we have for some reason had to move your monument, we will put it back where it needs -- where it's supposed to be.
Q. Okay. Are you making notes so you can update this map, as far as the placement and things to watch out for?
A. (Johnson) Yeah, we're writing notes here.
Q. And how does this connect and coordinate with the fact that we have a Memorandum of Understanding with my town? I'm going to be
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
meeting with my town administrator, where you all meet -- not you all. But NPT has a meeting scheduled to talk about Memorandum of Understanding. What's the connection or coordination between what we just talked about, which is where's my marker, expansion of wetlands, access on the very tender access road and the Memorandum of Understanding? Is that coordinated? Which one is a tighter, stickier contract?
A. (Bowes) So I'm not sure the wording is "tighter" or "stickier." We would honor both of those commitments, whether it's to an individual landowner or whether to a town. So I think they're both the same importance to us, which is a high level.
Q. Okay. But you're committed to this --
A. (Bowes) Yes.
Q. -- to making sure that whatever commitments are made on the Memorandum of Understanding and the individual landowner. You have current information -- that I would have current information, and I would trust that you have the current information, too?
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
A. (Bowes) I understand. Yes.
Q. Thank you.

The other question I had is who's going to contact -- I understand that flow chart yesterday that was shown. You all aren't actually being in my field or walking the access road; is that right? Nobody on the panel is going to be at my property when this is permitted, if it's permitted?
A. (Johnson) I'm sorry. I don't understand the question.
Q. None of you all there are going to be on the property to make sure this happens; right?
A. (Johnson) During construction?
Q. Right.
A. (Johnson) Most likely you're correct.

However, we do have construction
superintendents and supervisors that will be out there in the field. And part of their job is to make sure that anything that we've discussed here is followed.
Q. Okay. So we'll have names and cell phone numbers we can contact?
A. (Johnson) There will be ways to contact
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
crews. I don't know that we'll be giving out names or cell phone numbers. There will be representatives that will be made available for you to contact, and those representatives will interface with the actual crews that are there.
Q. Do we have the contact numbers before the construction starts so that --
A. (Johnson) Absolutely. Those will all be available and communicated to every abutter and every municipality prior to construction beginning.
Q. And by what means will you be communicating that information to landowners?
A. (Johnson) So there will be a letter sent. Potentially there will be phone calls made. If you request one, we can certainly do that to you personally. We will inform the municipalities and have them post it either in the municipal offices or on their own web site. And lastly, the Project web site will be updated not only with contact information, but with construction schedules as we get closer to the actual construction process.
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}
[SCOTT|FARRINGTON|JOHNSON|BOWES|BRADSTREET|KAYSER]
Q. All right. Thank you.

So, in other words, you're going to have current information, current maps, and it's going to be communicated directly to each landowner.
A. (Johnson) To each abutter, yes. CHAIRMAN HONIGBERG: Ms. Lee, we're going to break for lunch now. We'll be back at 1:00.

MS. LEE: Okay. Thank you. (Lunch recess taken at 11:30 a.m. and concludes the Day 11 Morning Session. The hearing continues under separate cover in the transcript noted as Day 11 Afternoon Session.)
\{SEC 2015-06\} [Day 11 MORNING Session ONLY] \{06-01-17\}

|  | $\begin{gathered} \mathbf{6 0 : 8} \\ \text { acts (1) } \\ 105: 6 \end{gathered}$ | $\begin{aligned} & 7: 3 ; 26: 8 ; 32: 23 ; \\ & 35: 10,20 ; 41: 24 ; 47: 1 \\ & 49: 10 ; 50: 20 ; 60: 10 \\ & 72: 15,16,19,23 \end{aligned}$ | $\begin{aligned} & \text { 96:1;103:18 } \\ & \text { applies }(\mathbf{6}) \\ & \text { 69:21,22;70:2,5,6; } \\ & 71: 7 \end{aligned}$ | $\begin{aligned} & \text { 8,17;25:16;26:2,9,14, } \\ & \text { 20;27:13,22,23,23; } \\ & \text { 28:4,5,10,10,16 } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| [No | $\begin{aligned} & \text { actual }(\mathbf{8}) \\ & 6: 23 ; 8: 1 ; 57: 20 \\ & 86: 5 ; 91: 7 ; 97: 23 ; \\ & 112: 5,24 \\ & \text { actually }(\mathbf{1 4}) \end{aligned}$ |  |  | hes (1) |
| [ |  |  |  | 28:2 |
| [sic] (2) |  | $\begin{array}{\|r} \text { Ahern's (3) } \\ 6: 5.15 .19 \end{array}$ | 56:7;69:20 | $\begin{array}{\|c} \hline \text { Ashland (1) } \\ \hline 36: 5 \end{array}$ |
| 13:6;56:17 |  |  | appreciate (1) |  |
| A | $\begin{aligned} & 11: 23 ; 12: 2 ; 33: 12 \\ & 38: 5,14 ; 49: 9 ; 77: 5 \end{aligned}$ | $22: 4$ | $\begin{gathered} 21: 19 \\ \text { approach (1) } \end{gathered}$ | aspects ( 17:15 |
|  |  | allowed (3) | 89:12 | association (1) |
| able (5) | $\begin{aligned} & 78: 2 ; 82: 6 ; 89: 13 ; \\ & 91: 18 ; 92: 24 ; 101: 7 ; \\ & 111: 6 \end{aligned}$ | 20:10;71:15,20 allowing (2) |  | 46: |
| 10:1;31:2;36:20 |  | allowing (2) |  | assume (2) |
| $72: 5 ; 99: 2$ |  | $21: 1,2$ | approva | $27: 11 ; 95:$ |
| above (2) 60:23;62 | $\begin{aligned} & 13: 1 ; 15: 13 ; 27: 22 \text {; } \\ & 54: 10 ; 71: 20 \end{aligned}$ | $\begin{aligned} & \text { 18:24;22:2;66:19 } \\ & \text { along (9) } \end{aligned}$ | approximately (3) 8:6:51:2,3 | 21:4 |
| Absolutely (2) 60:7:112.9 |  |  |  | $12: 14,23 ; 23: 4$ |
|  | added (2) | 5:16;12:22;15:4,8; | appurtenance (1) |  |
| absolved (1) | 64:14;80: | $\begin{aligned} & 31: 3,6 ; 32: 4 ; 55: 1 \text {; } \\ & 97: 1 \end{aligned}$ | April (6) | $12: 21$ |
| abut (1) | $\begin{gathered} 69: 3 \\ \text { additional (1) } \end{gathered}$ | alternative (2) | $\begin{aligned} & 4: 18 ; 5: 5 ; 11: 20 \\ & 14: 4 ; 76: 2 ; 92: 14 \end{aligned}$ | $\begin{gathered} \text { assured (1) } \\ 31: 18 \end{gathered}$ |
| 47:16 |  |  |  |  |
| abutments | $\begin{gathered} 5: 23 \\ \text { additives (4) } \end{gathered}$ | $\begin{aligned} & \text { alternatives (5) } \\ & 17: 2 ; 19: 16 ; 22: 10, \\ & 20 ; 23: 1 \end{aligned}$ | $\begin{aligned} & \text { aquifer }(10) \\ & 24: 6,9,10,14,18,21 ; \\ & 25: 3,4,6 ; 26: 1 \end{aligned}$ | Attachment (4) |
| 52:23 |  |  |  | 55:24;58:16,17; 73:6 |
| $4: 7 ; 112: 10 ; 113: 6$ <br> abutters (5) | 19:20;23:5,8,18 adequate (2) | $\begin{gathered} 20 ; 23: 1 \\ \text { although (1) } \end{gathered}$ | $25: 3,4,6 ; 26: 1$ | attempting (2) |
|  | adequate (2) | although (1) 67:18 | aquifers (1) 26:10 | attempting (2) $7: 17 ; 33: 13$ |
| abutters (5) $4: 5 ; 10: 19 ; 33: 11 ;$ | $\begin{array}{\|c} \text { adjacent (1) } \\ 56: 12 \end{array}$ | Alton (2) | arborist (1) | attorney (3) |
| 36:5;53: |  | 55:7,1 | 107:8 | 11:17;50:15;55 |
| accept (5) | adjust (2) | always (3) | area (40) | uthority (3) |
| 13:10;25:10;42:8 | $108: 21,23$ <br> adjustable (1) | $\begin{aligned} & 7: 17 ; 81: 2 ; 95 \text { : } \\ & \text { amount }(3) \end{aligned}$ | $\begin{aligned} & 6: 18,20 ; 7: 9 ; 9: 21 \\ & 10: 6 ; 50: 20 ; 54: 23 \end{aligned}$ | 37:12,16,17 |
| 46:23;4 | $\begin{aligned} & \text { 108:22 } \\ & \text { administrative (1) } \\ & 51: 21 \end{aligned}$ | $\begin{aligned} & \text { 11:6;29:5;69:12 } \\ & \text { analogy }(\mathbf{1}) \end{aligned}$ |  | .2.19.2.25-4 |
| accepted |  |  | $\begin{aligned} & \text { 65:7;83:20;86:16,20; } \\ & \text { 87:3,4;89:13;90:20, } \end{aligned}$ | $\begin{aligned} & 5: 2 ; 19: 2 ; 25: 4 ; \\ & 26: 22 ; 51: 13 ; 75: 8 \end{aligned}$ |
| cceptin |  | $42: 19$ <br> analysis | $\begin{aligned} & \text { 23;91:14,19;92:11, } \\ & \text { 17,18;93:1,13;94:13, } \end{aligned}$ | $\begin{aligned} & 88: 4,13,16 ; 96: 14 ; \\ & 112: 3,10 \end{aligned}$ |
| 12:8 | $\begin{aligned} & 51: 21 \\ & \text { administrator (1) } \end{aligned}$ |  |  |  |
| access (22) | $\begin{gathered} \text { 110:1 } \\ \text { admission (1) } \end{gathered}$ | $\begin{aligned} & 11: 22 ; 12: 8 ; 47: 5 \\ & 55: 10 ; 60: 1 \end{aligned}$ | 15;96:21;97:2,13,17; | $\begin{array}{\|c} \hline \text { Avenue (1) } \\ 64: 20 \end{array}$ |
| 53:15,18;64:17,19, |  |  | $103: 19 ; 104: 17,22,22$ |  |
| 21;75:18;81:23;82:4; | $51: 12$aerial (1) | angle (1) |  | awaiting (1) |
| 86:12,13;88:21; |  |  | 5:16;106:1,12; | 79:17 |
| 90:14;98:11;99:9,12; | $\begin{aligned} & 58: 16 \\ & \text { aesthetically (1) } \end{aligned}$ | annual (1) | 107:20 | $44: 12$ |
| 100:15;103:2,15; |  | 80.2 | areas (6) |  |
| 107:17;110:7,7 | 104:23 aesthetics (2) | answered (2) | $\begin{aligned} & 7: 19 ; 20: 2 ; 27: 7 \\ & 30: 14 ; 88: 9 ; 99: 1 \end{aligned}$ | aware (10) |
| 111:7 | 105:6;107:3 |  |  | $\begin{aligned} & \text { 19:7,8;23:21; } \\ & \text { 54:11;70:1,3;75:21; } \end{aligned}$ |
| accommodate (2) | affiliate (1) | 84:19 |  | $79: 11 ; 81: 15 ; 96: 20$ |
| According (2) | $\begin{gathered} 45: 1 \\ \text { affiliates (1) } \end{gathered}$ | appear (2) <br> $8: 24 ; 27: 1$ | $\underset{71: 14}{\operatorname{arguing}}$ | away (5) |
| 91:23;94:10 |  |  |  | $\begin{aligned} & 11: 13 ; 28: 15 ; 52: 23 \\ & 61: 6,21 \end{aligned}$ |
| accurate (6) | $\begin{gathered} 43: 18 \\ \text { afternoon (2) } \end{gathered}$ | $\begin{aligned} & \text { appears }(4) \\ & 6: 12 ; 7: 7 ; 62: 12 ; \\ & 63: 5 \end{aligned}$ | $\underset{72: 9}{\operatorname{argument}}$ (1) |  |
| $\begin{aligned} & 30: 19 ; 31: 21 ; 50: 21 ; \\ & 51: 9: 53: 23: 71: 9 \end{aligned}$ | afternoon (2) 39:5;113:15 |  | $\begin{gathered} 72: 9 \\ \text { Army (2) } \end{gathered}$ | B |
| acquire (1) | again (11) | Appendix (1) | $\begin{gathered} 93: 17,23 \\ \text { around (12) } \end{gathered}$ | back (18) |
| $45: 7$ | 3:3,11;5:21;7:3 |  |  |  |
| acres | 19:21;35:19;42:1 | app | 3:18:23;50:2, | 3:15,17;6:24; |
| 76:6 | 54:17;64:2;68:5; $103 \cdot 17$ |  | $\begin{aligned} & : 1 ; 55: 11 ; 65: 2 \\ & : 22 ; 80: 10,16 \end{aligned}$ | $\begin{aligned} & 15: 11 ; 50: 7 ; 60: 12 \\ & 65: 2 ; 66: 18: 74: 12 . \end{aligned}$ |
| across | $\begin{gathered} \text { 103:17 } \\ \text { agencies (2 } \end{gathered}$ | $\begin{array}{\|c} \mathbf{a p p} \\ 9 \end{array}$ | $\begin{aligned} & 76: 22 ; 80: 10,16 \\ & 100: 2 ; 101: 21 \end{aligned}$ | $\begin{aligned} & \text { 65:22;66:18;74:12; } \\ & 77: 18,19 ; 88: 8 ; 91: 11, \end{aligned}$ |
| $\begin{aligned} & \text { 12:6;24: } \\ & \text { 103:18 } \end{aligned}$ | 34:17;35:2 | Applicant | arrive (1) | 20;104:24;105: |
| acted (3) | $\underset{25: 22}{\text { Agency (1) }}$ | 52:10;71:20,2 | 82:10 | 109:16;113:9 |
| $48: 6,8 ; 55: 9$ |  | Applicant's (1) | ascertations (1) | backfill (6) |
| activities (4) | agent (2)18:20;83:1 | Application (9) | $\begin{array}{r} 37: 20 \\ \text { ash }(24) \end{array}$ | $\begin{aligned} & 16: 8 ; 18: 15,22 ; \\ & 23: 7,12 ; 24: 20 \\ & \text { background (1) } \\ & 57: 14 \end{aligned}$ |
| 41:7;94:18 |  |  |  |  |
| $109: 2$ | ago (3) | 22:15;29:1;51:10 | $16: 7 ; 18: 14 ; 19: 16$ |  |
| activity (1) | 52:8;76:19;77:10 | 60:2;85:11,14;86:1; | 21,23;22:10,11;23:6, |  |


| backup (1) | beyond (1) | 24;45:7,12,23;46:2,9, | 30:14;32:15,20; | 76:11 |
| :---: | :---: | :---: | :---: | :---: |
| 69:1 | 88:5 | 12,14,18,20,24;47:5, | 33:3,23;34:23;49:20 | captured (1) |
| Bailey (1) | big (3) | 11,13,23;49:7,9,12; | burning (1) | 28:4 |
| 3:12 | 8:18;96:9;99:20 | 50:17,21;51:2,9; | 28:6 | car (2) |
| Banks (1) | biggest (3) | 53:17;54:4;55:5,10; | Burns (3) | 94:4,5 |
| 59:2 | 57:5,11,19 | 56:3,11;60:3,10; | 37:14;79:16;101:1 | careful (1) |
| barely (1) | bit (3) | 61:17,20;62:8,19,23; | bush (2) | 39:22 |
| 82:23 | 16:4,6;86:22 | 63:5,12,18,19;64:1,7, | 76:23;77:21 | carried (2) |
| barn (1) | BL (1) | 9;66:24;67:5,10,24; | business (8) | 29:23;33:17 |
| 6:19 | 5:7 | 68:3,13,16,22;69:6,9, | 3:12;10:9;13:16; | case (5) |
| bars (1) | blank (2) | 15;70:3,6,12,14,20, | 15:11,14,16,21;70:9 | 28:9;68:1;79:6; |
| 92:22 | 33:14;35:12 | 23;71:2;74:2;79:6, | businesses (5) | 93:7;106:9 |
| base (3) | blast (1) | 20;81:20;88:12; | 10:12,16,18,23; | cases (3) |
| 79:10;100:2;103:6 | 67:7 | 106:2,19;107:5; | 58:24 | 25:24;27:21;93:17 |
| based (12) | blasting (10) | 110:11,18;111:1 | butterfly (3) | categories (2) |
| 5:17;12:20;25:9; | 29:9,11,12,20,21; | Bradstreet (59) | 54:3,6,12 | 48:15;56:6 |
| 29:6;31:10,12,20; | 30:3;66:20;67:3,11; | 48:23;49:22;50:9, | C | cell (2) $111: 22: 112: 2$ |
| 33:9;34 | $68$ | 13;51:5;55:13,18; | C | 111:22;112:2 |
| basic (1) | 104:24 | 58:2,11,14,21;59:1,6, | C189-51 (2) | 4:9,11;76:4 |
| 32:2 | blue (11) | 9,12,15,20,24;61:1,4, | 62:2,7 | certain (2) |
| basically (4) | 54:3,6,11;64:14; | 7,14;63:2;64:18,23; | cable (1) | 11:8;19:22 |
| 32:12;83:20;98:2, | 65:12,14;66:9;90:20, | 65:2,5,10,13,16,18, | 23:14 | certainly (6) |
| 10 | 22;91:3,17 | 22;66:4,7,14;67:17; | calculated (1) | 6:1;8:2;28:13; |
| basis (3) | BMPs (1) | 68:4;73:11,13,21; | 12:11 | 63:8;94:22;112:17 |
| 6:4;19:9;27:15 | 89:18 | 86:21;87:1,16,18; | calculation (2) | certificate (1) |
| Bear (1) | bodies (1) | 89:19;90:7,11;91:6, | 12:13;13:7 | 33:7 |
| 85:23 | 91:7 | 15;97:14,23;98:9,23; | calculations (2) | certified (5) |
| become (1) | body (1) | 99:2;100:10 | 12:3;60:1 | 4:19;5:8,10,13;7:2 |
| 10:10 | 91:1 | Branch (3) | call (8) | CHAIRMAN (53) |
| becoming (1) | bonding (1) | 24:2,6,8 | 65:17;76:6;84:6; | 3:2,9,22;4:1;16:11, |
| 15:22 | 18:20 | brand (1) | 97:2,13;102:21; | 17;17:4,12,17,22; |
| beeping (1) | Boscawen (1) | 47:20 | 105:4,6 | 18:9;19:13;20:1,11, |
| 69:1 | 77:3 | break (6) | called (2) | 23;21:10,22;22:6,16, |
| begin (1) | both (4) | 3:13,14;11:12; | 42:23;85:13 | 21;27:1,5;34:8; |
| 6:14 | 5:8;47:11;110:12, | 21:23;74:21;113:8 | calls (1) | 35:17,24;36:4,9;39:9, |
| beginning (2) | 15 | breakdowns (1) | 112:16 | 12;51:11,18;52:18; |
| 62:5;112:12 | bottom (6) | 20:6 | came (1) | 56:10;71:12;72:13, |
| begins (3) | 8:14,15;24:13,16; | breaking (2) | 20:19 | 20;73:2;74:13,17,20, |
| 76:12;80:8;83:21 | 27:23;28:5 | 104:10;106:22 | Can (73) | 24;78:3,5,23;79:4; |
| begun (1) | bound (7) | bridge (1) | 4:22;5:19;8:2; | 81:11;85:9,17; |
| 48:8 | 26:17;76:18,23 | 52:23 | 15:11;18:17;20:5; | 103:22;104:2,6,9; |
| behalf (1) | 77:8,19;108:5,17 | Brief (1) | 22:14;25:12;35:19; | 113:7 |
| 37:18 | boundaries (2) | 74:22 | 36:11;37:21,23;39:5, | chance (2) |
| belabor (1) | 4:20;20:12 | briefly (2) | 15,19,24;49:19; | 27:18;71:22 |
| 48:2 | boundary (5) | 16:22;68:24 | 50:20;51:20;52:2,14; | change (3) |
| belong (1) | 78:10;88:24;108:1, | bring (4) | 55:12;56:2,4,5;57:13, | 31:23;57:21;73:18 |
| 59:11 | 4,10 | 83:2,16,18;102:23 | 15;58:9;59:13;61:17; | changed (2) |
| below (2) | bounds (1) | Bruce (1) | 62:3,16;63:1,2;65:5, | 41:23;75:23 |
| 107:24;108:10 | 5:11 | 6:5 | 15;67:2,5;72:8,22; | changes (5) |
| Berger (1) | Bowes (128) | buffer (8) | 74:11;76:8,9;77:4,5; | 29:6;33:9;88:18; |
| 38:5 | 11:15;12:12;13:10; | 59:24;86:6;91:15; | 78:9;80:8,20;85:8; | 89:2,5 |
| berm (1) | 14:3,6,9,13,24;15:9; | 102:8,21;104:19,23; | 88:14;89:7,24;90:1; | characterize (1) |
| 57:19 | 17:7,10,13;18:1,5,17; | 105:5 | 94:22;95:19;96:4; | 33:4 |
| beside (1) | 19:6,17;24:24;25:8; | build (5) | 97:3;98:8;99:8; | chart (1) |
| 92:4 | 27:14;28:24;29:10, | 7:8;24:15;28:20 | 102:6;103:11; | 111:4 |
| best (2) | 24;30:8,15;31:5,10, | 30:20;103:11 | 105:17;106:8,9; | check (2) |
| 68:11;89:18 | 20;32:6,16,21;33:4; | building (6) | 108:2,8,16,21;109:8, | 6:24;46:23 |
| Bethlehem (2) | 34:24;35:20;37:9,13, | 19:1;61:15;78:14; | 10,18;111:23;112:17 | checked (1) |
| 4:7;12:5 | 19;38:14,17;39:16, | 99:10;100:16;108:3 | canopy (4) | 105:23 |
| better (4) | 21;40:5,21;41:10,14; | buildings (1) | 102:19,22;106:21, | checking (1) |
| 17:13;37:24;60:15; | 42:3,8,13,19;43:4,9, | 47:12 | 23 | 96:17 |
| 72:21 | 16;44:2,5,10,15,21, | built (7) | caption (1) | chemical (5) |


| 19:19;23:4,8,18; | 11:2 | compare (1) | 110:4 | continues (1) |
| :---: | :---: | :---: | :---: | :---: |
| 28:6 | coal (9) | 67:15 | Conservation (7) | 113:13 |
| chewed (2) | 19:21,23;22:12; | compared (1) | 76:12;80:1,21,23; | Continuing (1) |
| 77:15;108:15 | 23:17;26:2,14,20; | 30:17 | 81:1,16;95:23 | 96:22 |
| Choice (10) | 27:13,22 | compensating (1) | conservative (2) | contract (6) |
| 82:2,3,7,13;83:8,9; | coincidentally (1) | 69:16 | 101:12;103:18 | 38:6,14;43:8; |
| 84:8;86:9;89:11; | 22:13 | compensation (1) | consider (2) | 44:13;71:3;110:10 |
| 92:14 | cold (5) | 69:12 | 55:4;63:9 | contracted (1) |
| choose (2) | 16:7;18:14;19:16; | complete (8) | consideration (1) | 94:21 |
| 83:12;101:15 | 22:10,11 | 29:1,1;33:2;34:1; | 74:7 | contractor (6) |
| chose (1) | collect (1) | 48:5;94:13;109:2,14 | considered (1) | 9:5;38:11;42:11; |
| 21:6 | 89:23 | completed (5) | 20:4 | 94:3;101:13;106:6 |
| circle (5) | color (2) | 4:24;5:1,10;48:2; | constant (1) | contractors (1) |
| 64:14;65:12,14; | 65:17;97:6 | 49:1 | 15:6 | 52:11 |
| 66:9;105:11 | colored | completely (2) | constituent (1) | control (4) |
| circles (1) | 60:23 | 11:14;26:17 | 18:15 | 15:1;38:7;89:17 |
| 59:10 | combustion (2) | component (3) | constituents (4) | 90:15 |
| circumstances (2) | 19:24;22:12 | 11:6;20:15,16 | 19:4;26:9;28:6,14 | controls (2) |
| 27:15;70:15 | coming (4) | comprehensive (1) | constraint (1) | 90:5;91:8 |
| City (4) | 15:19;56:23;64:19; | 70:18 | $25: 18$ | conversation (3) |
| $37: 4 ; 42: 6 ; 43: 10$ | 81:23 | concern (4) | construct (6) | $49: 21 ; 50: 16 ; 68: 21$ |
| 64:14 | comment (1) | 33:11;34:3;79:23; | 97:16,24;98:10,11, | conversations (2) |
| claim (3) | 74:2 | 81:22 | 13,15 | 55:19;61:8 |
| 69:22,24;70:4 | comments | concerned (6) | constructed (2) | coordinate (2) |
| claims (4) | 12:1 | 10:10,12;13:17 | 40:17;98:4 | 94:22;109:22 |
| $69: 8,18 ; 70: 6,8$ | Commissioner (1) | 54:24;78:20;84:11 | construction (76) | coordinated (1) |
| clarifies (1) | 3:11 | concludes (1) | 3:4;6:14;10:7,11 | 110:9 |
| 15:10 | commit (5) | 113:12 | 11:1,1,11,19,21 | coordinating (1) |
| clarify (2) | 60:3;67:2,5;95:19; | conclusion (1) | 12:16,22,24;13:4,23, | 96:13 |
| 52:17;65:10 | 96:3 | 42:10 | 24;14:17,21;15:6; | coordination (1) |
| Class (2) | commitment (4) | Concord (8) | 29:22;30:5;34:7; | 110:5 |
| 82:11,23 | 62:16;63:10,16 | 36:5;37:4;46:12; | 35:13;41:3,6;42:14 | copy (1) |
| classified (1) | 66:12 | 54:22,22,24;84:3; | $60: 4 ; 65: 20 ; 68: 14$ | 94:14 |
| 19:11 | commitments (8) | 88:21 | 69:11,16;73:13;74:4; | corner (6) |
| classifying (1) | 37:11,15,18,22; | concrete (2) | 78:14,16,18;82:22; | 76:17;77:8;78:15, |
| 101:11 | 63:15;88:20;110:13, | 18:21;19:2 | 83:1;84:12;85:21; | 19;106:17;107:15 |
| clear (5) | 19 | condition (2) | 86:15,17,19,20; | Corps (2) |
| 34:4;36:23;43:19 | committed | $79: 12 ; 105: 2$ | 87:21;88:1;90:11,13; | 93:18,23 |
| 67:24;77:16 | $110: 17$ | conditions (8) | $97: 12,13 ; 98: 24 ; 99: 3,$ | corrected (1) |
| cleared (3) | Committee (10) | 12:8;29:3,4,6; | 14,15;100:17,21; | 79:8 |
| 64:4,4;86:8 | 42:9;43:13;51:14 | 31:22;33:18;34:17; | 101:3,4,20;102:23; | correctly (5) |
| clearing (9) | 53:8;60:19;62:9; | 57:21 | 103:4,16;105:16; | 49:5;53:5;73:9,17, |
| 31:5,12;32:8; | 71:17,18;72:10;96:2 | condominium (1) | 106:1,5;107:19; | 20 |
| 63:21,24;69:2;78:11; | committing (1) | 46:15 | 108:4,6,22;109:2,12; | corridor (3) |
| 95:17;104:19 | 96:16 | condominiums (1) | 111:14,17;112:8,11, | 89:14;92:11;97:1 |
| clearly (4) | common (2) | 47:14 | 23,24 | cost (2) |
| 31:5;38:10;53:17; | 35:3,4 | conductors (1) | consumed (1) | 23:6;107:12 |
| 100:5 | communicated (2) | 61:10 | 40:9 | costs (1) |
| clients (2) | 112:10;113:4 | confidential (2) | contact (8) | 105:4 |
| 10:16;13:18 | communicating (1) | 54:7,21 | 55:7;100:24;111:4, | country (1) |
| close (7) | 112:13 | confidentiality (1) | 23,24;112:4,7,22 | 28:12 |
| 22:17,18;47:15,15; | community (1) | 54:10 | contacted (1) | couple (8) |
| 101:18;105:15,16 | 77:11 | configuration (1) | 55:17 | 4:12;7:16;11:16; |
| closed (1) | compaction (1) | 90:2 | contain (1) | 52:8;56:13;70:21; |
| 14:23 | 23:15 | confirm (1) | 41:13 | 75:4;77:9 |
| closer (3) | Companies (7) | 88:14 | contained (1) | course (3) |
| 12:19;97:22; | 5:7;40:6,11,15 | confused (1) | 93:5 | 13:3;95:7;101:10 |
| 112:24 | 41:16;42:4,14 | 45:18 | contention (3) | Court (1) |
| closest (1) | company (18) | confusing (1) | 5:9;9:24;10:5 | 6:8 |
| 61:20 | 38:15;40:17,19; | 57:17 | context (1) | courtesy (1) |
| closure (1) | 41:1,1,4,20;42:1,12, | connect (1) | 18:7 | 93:20 |
| 10:13 | 17,18,21,22,23;43:2, | 109:22 | continue (1) | cover (2) |
| closures (1) | 6,7,15 | connection (1) | 48:9 | 16:18;113:14 |


| covered (3) | dark (1) | depending (4) | determine (3) | distribution (6) |
| :---: | :---: | :---: | :---: | :---: |
| 16:20;69:6;70:11 | 102:20 | 13:13;89:24;91:2; | 5:24;32:19;48:17 | 41:20;56:13;57:7; |
| crane (11) | darker (1) | 102:4 | determined (1) | 64:9;66:5,11 |
| 49:14,16,19,20; | 91:17 | depends (1) | 33:7 | district (8) |
| 50:1,4,6,10;64:24; | darn (1) | 68:5 | developed (3) | 80:5,13,20;81:4, |
| 65:4,6 | 105:16 | depiction (1) | 29:22;70:18;87:5 | 17;95:23;105:22,24 |
| cranes (3) | dashed (5) | 30:19 | developing (1) | disturb (1) |
| 49:8,19;83:17 | 80:8;86:13;89:15; | depicts (1) | 53:19 | 78:10 |
| create (2) | 90:16;99:9 | 90:21 | development (1) | disturbance (2) |
| 38:6;106:12 | data (1) | depositing (1) | 90:14 | 86:17,20 |
| created (3) | 79:10 | 26:21 | diagonal (2) | disturbed (5) |
| 45:1;52:21;57:10 | date (3) | Depot (2) | 90:22;91:4 | 6:20;7:13,18;9:17; |
| credible (1) | 52:14;87:14,15 | 62:3,6 | difference (5) | 106:12 |
| 27:19 | dated (6) | Derek's (1) | 14:11,13;28:1,3; | ditch (1) |
| creek (2) | 4:18;5:5;76:2; | 55:10 | 86:18 | 7:19 |
| 90:21;92:3 | 84:19;87:14;88:6 | DES (6) | different (7) | divided (1) |
| crew (3) | day (8) | 30:23;33:9;35:1; | 10:6;11:11;15:7 | 48:14 |
| 68:10;76:20;78:12 | 11:12,13;36:20; | 54:14;94:16;101:23 | 26:18;28:8;48:15; | document (3) |
| crews (3) | 37:2;71:14;108:13; | DES/USACE (1) | 78:17 | 5:14;39:2;51:16 |
| 11:24;112:1,5 | 113:12,14 | 86:1 | difficulty (1) | documentation (1) |
| CROSS-EXAMINATION (3) | days (11) | describe (2) | 10:15 | 53:1 |
| 4:2;36:13;75:2 | 36:19;38:19;52:8; | 33:15;35:6 | dig (1) | Documents (3) |
| cross-examine (3) | 68:6,8,9,11,13,14; | described (1) | 8:12 | 25:20;51:6;84:24 |
| 71:22;72:5,11 | 75:5;77:9 | 13:21 | digging (3) | dog (1) |
| crosshairs (1) | deal (1) | describes (1) | 8:7,18;68:24 | 82:12 |
| 80:9 | 21:23 | 93:8 | direct (2) | done (17) |
| crossing (3) | decades (2) | describing (2) | 17:15;67:20 | 7:4;12:7;16:1; |
| 83:19,24;102:18 | 18:3,6 | 9:19;94:19 | direction (2) | 23:17;35:8,9;40:23; |
| cul-de-sacs (1) | decide (1) | description (4) | 79:21;91:3 | 47:5;48:19;51:14; |
| 47:14 | 15:24 | 9:3;25:10;28:19; | Directly (3) | 55:10,11;66:19,23; |
| current (17) | decision (6) | 34:4 | 59:6;82:9;113:4 | 67:11;93:18;94:17 |
| 75:6,15,19,22; | 32:1;33:1;45:21; | descriptions (1) | Director (1) | dong (1) |
| 83:4;89:8;90:1;94:8; | 71:6,18;72:2 | 28:7 | 45:15 | 14:19 |
| 95:8,19;96:14; | decisions (1) | design (12) | dirt (4) | Donna (5) |
| 105:18;110:22,23,24; | 44:18 | 23:20;31:20;33:6; | 68:24;82:21;83:3; | 77:10,17;79:18; |
| 113:3,3 | deep (4) | 37:23;48:24;49:2,6; | 89:12 | 100:24;102:12 |
| cursor (1) | 24:13,17;67:23; | 71:4;73:10,12,14; | disclaimer (1) | DOT (22) |
| 65:15 | 68:2 | 74:5 | 85:7 | 6:22;11:18;12:1, |
| customers (4) | definitely (1) | designates (3) | disconnected (1) | 20;29:2;30:6,22; |
| 10:21;13:18;98:24; | 40:21 | 86:16;101:3,4 | 73:24 | 31:11,23;32:10;33:9; |
| 99:4 | delay (4) | designation (2) | discovery (1) | 34:24;51:12,24; |
| cut (9) | 12:11;13:5,8,11 | 92:2,5 | 31:16 | 52:11,22;61:16;97:4, |
| 31:3;75:15;89:14; | delays (1) | designators (1) | discuss (4) | 6,10;99:19;108:9 |
| 95:10,13;99:18; | 13:21 | 93:3 | 15:16,24;30:21 | dots (7) |
| 102:18;104:16,22 | delegated (1) | designed (2) | 55:14 | 58:22,23,23;59:7; |
| cutting (4) | 34:24 | 33:22;71:1 | discussed (8) | 93:13,16;97:5 |
| 31:18,19;32:3; | delineating (1) | designs (2) | 7:24;11:5;50:14; | dotted (2) |
| 99:22 | 95:1 | 73:19;87:13 | 65:7;95:24;102:24; | 59:13;60:5 |
| cycles (1) | delineation (1) | destroy (2) | 103:1;111:21 | double-check (1) |
| 11:20 | 94:22 | 54:2;107:1 | discussing (1) | 49:24 |
| D | demolish (2) | destroyed (1) | 9:23 | down (19) |
| D | 98:5,17 demonstra | 78:22 <br> destroying | discussion (6) 49:18;63:7;71:13 | $\begin{aligned} & 7: 5 ; 24: 7 ; 65: 20 \\ & \text { 69:2;76:20;77:1,5, } \end{aligned}$ |
| damage (3) | 6:6 | $95: 21$ | 74:19;88:8;107:1 | 14;78:2,22;82:13; |
| 25:24;54:15;70:9 | density (1) | detail (5) | dispute (1) | 83:2;92:13;104:21; |
| damaged (1) | 47:2 | 9:23;16:6;17: | $43: 1$ | 107:18,19,23;108:14 |
| 84:5 | Department (4) | 30:1;45:13 | disruption (2) | $14$ |
| damn (1) | 4:17;50:22;82:15; | detailed (1) | 98:19,23 | Dr (5) |
| 105:15 | 84:7 | 73:19 | distance (5) | 16:4,22;20:2;21:3, |
| Danger (4) | depend (1) | details (1) | 10:20;12:10,14 | 5 |
| 99:21,22;100:9,10 | 95:1 | 18:19 | 57:23;63:6 | drawing (3) |
| Danielle (1) | dependent (1) | determination (1) | distinction (3) | $57: 19 ; 62: 12 ; 85: 22$ |
| 37:4 | 23:19 | 32:9 | 37:21;63:14;65:3 | drawings (5) |


| 29:2;88:11,13,14, | 107:16 | 19:11 | exchange (1) | Fair (5) |
| :---: | :---: | :---: | :---: | :---: |
| 19 | eight (2) | ephemeral (1) | 21:23 | 13:16,16;55:4; |
| drawn (1) | 8:9;68:3 | 91:2 | Excuse (4) | 69:13;71:19 |
| 88:11 | either (4) | equipment (7) | 55:16;84:21;85:1; | fall (2) |
| dries (1) | 19:18;106:8;107:2; | 47:19;49:13;69:1; | 105:15 | 76:20;100:7 |
| 91:24 | 112:19 | 83:2,16,18,23 | exhaust (1) | falling (1) |
| drilled (1) | else (6) | erecting (1) | 28:4 | 61:9 |
| 67:24 | 3:19;17:20;19:13; | 69:3 | exhibit (11) | falls (1) |
| drive (6) | 20:3;51:22;70:13 | Erosion (5) | 55:21,23;56:2; | 28:5 |
| 11:13;13:2,9;50:5, | else's (2) | 89:17;90:5,15,18; | 58:5,16,20;64:12,13; | familiar (3) |
| 11;92:9 | 85:8,10 | 91:8 | 84:22;85:4,10 | 56:5;85:22;90:8 |
| driveway (4) | embankment (1) | error (1) | exhibits (1) | Famous (1) |
| 83:21;94:4;105:1; | 107:23 | $6: 13$ | 85:7 | 66:19 |
| $106: 21$ | embed (1) | Especially (3) | exist (1) | far (11) |
| driving (1) | 67:20 | 10:17;26:2;37:4 | 27:12 | 5:15;6:23;7:11; |
| 92:16 | enclosures (1) | essentially (1) | existence (1) | 18:23;54:24;75:23; |
| drove (1) | 31:14 | 9:11 | 51:21 | 81:18;104:7,16; |
| 84:4 | encounter (1) | establish (2) | existing (25) | 108:9;109:19 |
| dry (1) | 13:20 | 39:24;56:6 | 57:4,6,7,8,9,14,15; | farm (5) |
| 26:3 | encountered (1) | established (3) | 64:6;66:5,6,11; | 4:8,10,11;8:12;9:4 |
| due (1) | 94:1 | 38:19;43:9;61:2 | 86:13;97:5,7,20;98:2, | farms (2) |
| 108:23 | encourage (2) | estate (1) | 6,14,17,20;99:9,19; | 24:22;26:10 |
| dunes (4) | 106:5,10 | 46:3 | 100:15;102:13; | Farrington (8) |
| 97:3;99:8;100:14; | encroaching (3) | estimate (2) | 107:21 | 12:14,20;38:4,5; |
| 102:17 | 6:15;9:1;10:2 | 46:20;70:23 | Exit (1) | 47:24;48:4,7,12 |
| duplicative (1) | end (5) | estimated (3) | 82:6 | features (4) |
| 22:5 | 81:12;88:13;92:14; | 59:17,18,21 | expand (1) | 59:17,18,21;69:5 |
| during (12) | 94:4;99:13 | evaluate (1) | 87:8 | February (3) |
| $\begin{aligned} & 14: 8,17 ; 15: 5 ; 28: 5 ; \\ & 29: 22 ; 31: 16 ; 37: 11 \end{aligned}$ | endangered (1) 93:2 | E | expanded (5) <br> 88:3;94:10,12,14 | 55:24;73:6;87: |
| 87:20;90:11;98:24; | energize (1) | 43:13;93:19 | 16 | 22:5 |
| 99:14;111:14 | 98:16 | even (8) | expansion (3) | feeling (1) |
|  | enforced (1) | 22:10,17,18;30:23; | 95:18;96:18;110:6 | 51:15 |
| E | 33:19 | $31: 24 ; 32: 11 ; 33: 21$ | experience (1) | feet (37) |
| earlier (5) | 12:7;77:12;79:16; | Eversource (13) | experiment (1) | $16,19 ; 9: 11,20 ; 24: 13$ |
| 23:10;44:17;66:8; | 87:12;102:11 | $37: 10 ; 41: 17,23$ | 18:6 | $17 ; 50: 19,24 ; 58: 1,10$ |
| 68:19;95:24 | engineering (5) | $42: 20 ; 43: 24 ; 44: 6$ | expertise (2) | $12 ; 61: 2,5,20,22,23$ |
| earth (1) | 84:14,17;87:23 | 77:18;94:3,6,23; | $69: 10,11$ | 62:1;63:5;64:7;68:3; |
| 22:14 | 88:5;108:7 | 95:9;96:8,17 | explanation (1) | 74:3,8;76:12,13; |
| easement (1) | engineers (2) | everybody (1) | $18: 18$ | 80:2;102:11;103:3,6, |
| 6:22 | 82:20;93:18 | 85:8 | explore (1) | 8,10,21;104:14 |
| easements (1) | enjoy (1) | evidence (4) | 52:22 | fell (1) |
| 45:8 | 36:20 | 71:15;72:8,9,12 | extends (1) | 61:11 |
| easier (2) | enough (8) | Exact (1) | 80:5 | fence (6) |
| 37:4;55:14 | 8:18;12:3;13:16, | 73:17 | extensive (1) | 24:12;90:8,9,16, |
| East (2) | 16;56:4,5,9;100:9 | exactly (13) | 81:7 | 18;105:8 |
| 76:13;80:1 | enter (1) | 5:11;12:4;15:17; | extent (6) | fences (1) |
| Easton (1) | 86:9 | 26:4,23;33:16;34:22; | $36: 23 ; 59: 17,18,21$ | 105:7 |
| 23:22 | entire (8) | $38: 1 ; 40: 13 ; 48: 20$ | $66: 22 ; 70: 14$ | Fiddler (1) |
| easy (1) | 5:12;9:16;13:9,11; | 55:22;64:3;106:19 |  | 83:6 |
| 53:7 | 20:14;21:18;101:7; | example (7) | F | Fiddler's (10) |
| $\begin{aligned} & \text { eat (1) } \\ & 78: 12 \end{aligned}$ | $\begin{gathered} \text { 103:18 } \\ \text { entirely (3) } \end{gathered}$ | $\begin{aligned} & \text { 11:8;14:4;29:7; } \\ & \text { 87:1;90:7;97:9; } \end{aligned}$ | face (1) | $\begin{aligned} & \text { 82:2,3,7,13;83:8,9; } \\ & \text { 84:8;86:9;89:11; } \end{aligned}$ |
| eater (1) | 9:20;14:7;23:19 | 101:17 | 106:21 | 92:14 |
| 108:15 | entity (1) | examples (1) | facilities (1) | field (3) |
| economic (1) | 51:20 | 11:17 | 7:18 | 24:12;111:6,19 |
| 70:1 | environment (1) | excavation (5) | fact (7) | figured (1) |
| edge (14) | 107:3 | 7:23;9:4,8,10,12 | 9:14;28:18;40:18; | 94:6 |
| 7:11;9:15,17; | environmental (6) | except (2) | 54:1;57:18;74:2; | filed (3) |
| $57: 24 ; 58: 12 ; 60: 5$ | $17: 3,14 ; 25: 21 ;$ | $36: 22 ; 64: 9$ | 109:23 | 5:1;28:24;51:22 |
| 61:5;62:4;88:3,24; | 27:3;54:18;106:2 | exceptions (1) | factor (1) | files (1) |
| 92:23;95:16,16; | EPA (1) | 32:10 | 49:12 | 5:6 |


| fill (1) | focus (1) | generally (1) | 16:14,19,22;21:16, | 30:6;36:12;63:14 |
| :---: | :---: | :---: | :---: | :---: |
| 23:20 | 37:6 | 56:21 | 18;22:1,1;55:3 | heard (2) |
| filled-in (1) | focused (1) | geomorphology (1) | grow (1) | 13:6;16:15 |
| 92:24 | 15:22 | 23:22 | 107:11 | hearing (5) |
| final (12) | folks (1) | geo-spatially (1) | guess (9) | 12:1;16:2;72:2; |
| 30:12,23;32:1,9; | 3:15 | 109:14 | 6:12;19:19;43:4; | 74:23;113:13 |
| 33:1,6;48:11,24; | follow (6) | geotech (6) | 55:13;57:10,22;90:7, | heaviest (1) |
| 68:5;73:12;74:5; | 21:7;37:17;80:3, | 29:13,15;48:23; | 12;95:1 | 83:17 |
| 88:15 | 10,14;108:20 | 66:23;67:7;68:5 | guys (3) | heavily (1) |
| finalized (1) | followed (1) | gets (1) | 75:4;94:7;95:17 | 107:18 |
| 48:7 | 111:21 | 21:17 | gypsum (1) | heavy (4) |
| finally (1) | following (6) | given (3) | 18:22 | 69:1;82:22;83:2; |
| 11:13 | 21:8;76:24;89:13; | 10:4;18:10;79:20 | GZA (2) | 84:11 |
| find (6) | 92:10,16;97:1 | gives (1) | 94:2,20 | height (4) |
| $75: 19 ; 96: 3,20 ;$ $102 \cdot 4 \cdot 108 \cdot 10 \cdot 109 \cdot 9$ | follows (1) | 80:3 |  | 50:24;55:8;64:5; |
| 102:4;108:10;109:9 | $46: 2$ | giving (2) | H | $77: 21$ |
| fine (1) | forth (2) | 101:15;112:1 |  | heights (1) |
| 51:3 | 66:18;74:12 | glanced (1) | habitat (5) | 73:17 |
| finish (1) | Fortier (2) | 81:6 | 54:2,5,12,16;107:3 | help (2) |
| 72:21 | 45:14;46:3 | goes (7) | hail (4) | 5:24;44:11 |
| finished (1) | found (3) | 27:24;30:1;80:11, | 82:1;84:2,5,10 | helps (1) |
| 11:14 | 77:13;108:12,12 | 17;82:13;102:15; | hairpin (1) | 77:18 |
| firm (1) | foundation (5) | 107:18 | 80:11 | Here's (4) |
| 94:20 | 48:17,20,24;67:21, | Good (1) | half (1) | 76:15;77:3;80:15, |
| First (14) | 23 | 73:3 | 54:8 | 16 |
| 34:10;36:7;39:24; | foundations (3) | GPS (2) | halfway (1) | hesitating (1) |
| 40:23;57:3;63:13; | 29:16;48:13;67:20 | 109:8,10 | 104:8 | 54:4 |
| 71:12;75:10,23; | four (4) | grade (1) | Ham (3) | H-frames (1) |
| 90:12;98:1,12,16; | 22:2;36:19;56:6; | 76:24 | 24:2,5,8 | 90:2 |
| 106:13 | 95:12 | graded (1) | Hampshire (13) | Hi (2) |
| fit (1) | frame (1) | 107:18 | 4:17;29:19;41:2, | 36:15;75:4 |
| 8:24 | 20:14 | grading (1) | 19,19;42:24;43:1,18; | high (2) |
| five (4) | Franconia (7) | 87:7 | 45:3;46:12;50:12; | 105:3;110:16 |
| 11:7;89:24;90:1; | 4:8;10:8,17;11:10; | Grafton (1) | 86:1;94:16 | high-level (1) |
| 95:12 | 13:17,19;15:12 | 11:18 | Hampshire-based (12) | 18:17 |
| fix (1) | Franklin (1) | grain (1) | 42:1,4,12,13,16,18, | highly (2) |
| 38:2 | 82:9 | 28:3 | 21,23;43:2,6,7,14 | 13:3;67:6 |
| flare (1) | freedom (1) | granite (7) | handed (1) | high-voltage (1) |
| 103:12 | 34:1 | 76:18,23;77:8,19; | 4:13 | 100:11 |
| flat (4) | Fruit (1) | 79:9;108:5,17 | hand-in-hand (1) | highway (2) |
| 87:7;89:15;103:13, | 3:15 | Grant (1) | 45:7 | 82:15;84:7 |
| 19 | full (4) | 68:19 | hands (1) | highways (1) |
| flatbed (1) | 11:19;13:5;92:12; | granted (6) | 53:10 | 13:20 |
| 50:7 | 101:23 | 30:7;33:16,18,21; | happen (2) | Hill (6) |
| flexibility (1) | function (1) | 34:22;35:7 | 68:7;100:6 | 76:13,14;80:2; |
| 21:20 | 23:6 | gravel (2) | happened (1) | 82:4,5,8 |
| flip (2) | fundamental (1) | 82:21;83:3 | 84:8 | hire (1) |
| 25:18;27:17 | 28:1 | great (1) | happens (4) | 44:8 |
| flood (1) | funny (1) | 30:1 | 6:14;32:18;59:2; | hired (1) |
| 91:13 | 80:7 | greatest (1) | 111:13 | 42:17 |
| flow (1) | further (4) | 47:1 | hard (1) | history (1) |
| 111:4 | 8:5;9:23;35:23; | green (11) | 57:11 | 69:15 |
| flowing (1) | 40:6 | 60:15,22,23;77:24; | hardly (1) | hit (5) |
| 25:4 | future (1) | 86:3;91:6;92:4,18, | 84:10 | 13:14,15;40:13; |
| flows (1) | 79:11 | 21;93:13,13 | HDD (2) | 91:5;100:5 |
| 24:7 |  | ground (3) | 11:7;14:19 | Hold (1) |
| fluidized (3) | G | 11:12;16:19;77:14 | headquarters (2) | 61:17 |
| 16:8;18:22;24:19 |  | groundwater (13) | 38:18;43:11 | holding (1) |
| fly (17) | gave (3) | 20:13;25:17;27:13; | heads (2) | 38:15 |
| 16:7;18:14;19:16, | 20:24;42:19;74:10 | 80:4,9,13,15,19;81:9, | 50:24;60:16 | holds (1) |
| 23;22:10,11;23:6,8, | general (5) | 17;95:22;105:21,24 | health (1) | 38:14 |
| 17;25:16;26:9;27:13, | 38:11;53:22;55:14; | group (13) | 17:15 | hole (2) |
| 23;28:4,10,10,16 | 63:23;91:6 | 3:4,7;4:5,14;10:24; | hear (3) | 68:1,2 |


| Home (2) | 10:11;47:24;63:2, | 8:1;9:7;23:15 | 46:2 | Kinsman (3) |
| :---: | :---: | :---: | :---: | :---: |
| 62:3,5 | 3;96:10,15,16 | installed (1) | job (4) | 24:1,5,7 |
| homes (1) | impacting (1) | 9:14 | 11:13;27:6;37:3; | Kleindienst (1) |
| 69:21 | 95:21 | insufficient (2) | 111:20 | 36:17 |
| HONIGBERG (47) | impacts (4) | 71:14,17 | Johnson (69) | knocked (6) |
| 3:2,9,22;16:17; | 15:20;17:3;20:13; | integrity (1) | 5:1,6,13,21;6:9,17; | 76:20;77:13;78:2, |
| 17:4,12,17,22;18:9; | 101:12 | 83:22 | 7:16;15:13;19:18; | 21;108:13,14 |
| 19:13;20:1,11,23; | impediment (1) | intend (5) | 23:3;27:22;37:14,17; | knowledge (4) |
| 21:10,22;22:6,16,21; | 10:14 | 26:15,16;28:20; | 38:3;52:17,19,20; | 17:15;33:2;40:22; |
| 27:1,5;34:8;35:17, | impediments (2) | 30:20;48:5 | 53:6;54:7;60:3,7,9, | 96:10 |
| 24;36:4,9;39:9,12; | 14:1;15:7 | interested (1) | 18;62:1;71:7,10; | knows (2) |
| 51:18;52:18;72:13, | implication (2) | 15:23 | 76:8,10;83:4,9,11; | 21:6;52:17 |
| 20;73:2;74:13,17,20, | 18:3;41:15 | interface (1) | 84:4;85:22;88:8; | Kucman (2) |
| 24;78:5,23;79:4; | importance (1) | 112:5 | 89:6,9;92:4,24;93:7, | 36:6;74:18 |
| 81:11;85:9,17; | 110:15 | intermittent (5) | 12,17,22;94:18; | kV (2) |
| 103:22;104:2,6,9; | important (3) | 91:1,2,21,22,24 | 95:15,24;96:19; | 98:7,17 |
| 113:7 | 104:5;108:6,11 | Internet (1) | 99:24;100:20,22; |  |
| honor (1) | impossible (2) | 25:15 | 101:9;102:1,3,5; | L |
| 110:12 | 8:10;67:10 | intersect (1) | 103:6,10,17;104:15; |  |
| hope (1) | inch (1) | 100:1 | 108:18,23;109:8,11, | laminated (1) |
| 108:12 | 102:10 | intersection (1) | 21;111:10,14,16,24; | 99:20 |
| hopscotch (1) | inches (3) | 11:9 | 112:9,15;113:6 | land (4) |
| 15:3 | 7:21,23;24:14 | intervenor (1) | joined (1) | 4:22;5:5;61:12; |
| hours (1) | include (2) | 76:1 | 36:16 | 77:7 |
| 22:2 | 41:15;96:5 | Intervenors (1) | Joseph (1) | landowner (5) |
| house (2) | included (1) | 71:15 | 59:2 | 63:8,13;110:14,21; |
| 101:18;105:10 | 60:2 | into (24) | JT (1) | 113:5 |
| huge (1) | includes (1) | 9:23;12:18;16:5; | 55:22 | landowners (2) |
| 81:24 | 59:22 | 17:1;24:12;25:6,17; | Judge (36) | 96:13;112:14 |
| hundred (1) | including (2) | 26:1,10,21;30:1; | 36:5,7,8,9,11,14, | large (5) |
| 41:21 | 9:12;26:2 | 32:24;48:15;54:20; | 15;38:21,24;39:3,8, | 10:17;24:6;56:9; |
| hundred-percent (1) | incomplete (1) | 72:18;82:9;87:8; | 12,14;51:11,23;52:6, | 75:18;99:14 |
| 19:22 | 75:22 | 91:9;97:2;99:22; | 12;53:7,12,13;55:21; | larger (3) |
| hundreds (1) | inconvenience (1) | 104:17;106:17; | 56:1,9;58:7;60:19, | 67:19;87:9;93:23 |
| 25:24 | 11:3 | 107:11;108:3 | 21;62:9,11;71:11; | largest (3) |
| hypothetical (1) | incorporated (1) | introduced (1) | 72:19,23;73:3,4; | 28:11,12;49:12 |
| $61: 9$ | $93: 19$ | 16:18 | 74:15,16;95:3 | last (12) |
|  | incorrect (1) | involve (2) $50 \cdot 10 \cdot 68 \cdot 23$ | June (1) | 11:2,17:6,8,8; |
| I | 88:10 | 50:10;68:23 | 89:4 | 22:17;60:13;66:19; |
| IACOPINO (6) | 88:23 | 39:20;40:2,11; | K | 84:4;88:6 |
| 12:17;52:4,9,13; | indicated (1) | 41:12 |  | lastly (1) |
| 53:9;58:4 | 18:5 | involves (1) | Kansas (2) | 112:21 |
| ice (1) | individual (4) | 50:18 | 42:6;43:10 | Latest (2) |
| 61:10 | 14:24;15:13; | issue (1) | Karner (3) | 84:17;87:19 |
| idea (1) | 110:14,21 | 74:4 | 54:2,6,11 | latitude (2) |
| 35:5 | inform (2) | issued (3) | Kayser (1) | 34:6,13 |
| identified (9) | 15:17;112:18 | 29:2;33:8;73:13 | 49:9 | lay (1) |
| 17:9;20:5;21:5,12; | information (24) | issues (4) | Kayser's (1) | 77:7 |
| 29:11,14;84:22,23; | 5:22,23;6:2,3; | 20:19;27:3;35:1; | 29:24 | leach (1) |
| 85:4 | 15:18;28:19;54:8,19; | 37:23 | Keeley (2) | 25:8 |
| identifier (1) | 71:16,21;72:3;89:7; | iterative (1) | 77:10;79:18 | leached (1) |
| 93:4 | 94:24;95:3;96:5,14; | 20:15 | keep (2) | 26:1 |
| identify (6) | 97:19;100:19; | IV (1) | 91:9;103:12 | leaching (8) |
| 52:2,14;54:5; | 110:22,23,24;112:14, | 85:14 | kids (2) | 19:4;25:6,16;26:9, |
| 63:22;79:9;100:11 ignoring (1) | $\begin{array}{r} 22 ; 113: 3 \\ \text { inquiry (1) } \end{array}$ | J | 54:21,22 | 14,22;27:13;28:14 |
| $100: 9^{\circ}$ | 6:8 | J | 15:3;48:13,14,20; | $18: 10$ |
| imagine (1) | inside (2) | January (1) | 54:17;62:4;66:18; | leads (3) |
| 78:11 | 93:13,16 | 44:13 | 77:14;80:11;91:17; | 47:18;77:1;82:9 |
| immediately (1) | install (4) | JCR (3) | 107:6 | learned (1) |
| 60:23 | 7:18,24;9:6;90:17 | 40:7,10;41:13 | kinds (1) | 99:11 |
| impact (7) | installation (3) | Jerry (1) | 94:5 | least (6) |


| 6:9;30:9;40:22; | 20:13;42:15;56:13; | 105:9,20 | many (12) | 45:18;52:16;55:12; |
| :---: | :---: | :---: | :---: | :---: |
| 52:14;68:18;79:11 | 57:7;58:2;59:4,13; | looked (1) | 13:13,18,18;25:15; | 68:4;86:22 |
| leave (1) | 60:5;62:13,14,24; | 94:4 | 29:10;30:4;46:19; | McDonnell (2) |
| 90:19 | 64:9;66:5,11;67:18, | looking (7) | 66:1;68:6,11;95:11; | 79:16;101:1 |
| Lee (23) | 19;73:9;76:16;77:3, | 26:6;53:18;55:15; | 104:6 | McKenna's (31) |
| 36:6;74:18;75:3; | 17;80:8,14;81:18; | 56:15;57:23;63:10; | $\boldsymbol{m a p}$ (21) | 36:16;37:7;46:10, |
| 76:1;78:5,7,8;79:2; | 82:12;86:2;88:10,22; | 75:15 | 55:13;75:24;78:17; | 10;47:3,7,9,20;53:24; |
| 81:11,14;84:21;85:1, | 90:16;91:17;92:9; | looks (3) | 79:24;80:6;84:14,17; | 56:12,18,24;59:4,11, |
| 6,12,19;103:22,24; | 96:11;97:1,8,20;98:1, | 59:16;90:9;91:16 | 86:5;87:23;88:5; | 22;60:14;61:12; |
| 104:4,8,11,12;113:7, | 2,3,5,6,7,12,13,14,16, | lose (1) | 89:5;94:13,14,16; | 62:13,18,20;66:2; |
| 10 | 17,21;99:7,9,11,19, | 86:7 | 95:20;96:22;102:14; | 67:3;68:7,19;69:13, |
| left (9) | 24,24;101:2;102:13; | loss (3) | 104:5;105:14; | 20,22;70:2,5,7,10 |
| 56:15;58:9,20; | 107:16 | 69:14;70:1,8 | 107:15;109:19 | McLaren (5) |
| 62:5;82:11;106:6,8, | lines (13) | lost (2) | mapping (1) | 16:4,23;20:2;21:3, |
| 14,16 | 29:17,20;61:10; | 58:4;69:18 | 94:6 | 5 |
| left-hand (1) | 67:11,14,15;86:3,11, | $\boldsymbol{\operatorname { l o t }}$ (7) | maps (29) | mean (16) |
| 73:15 | 13;89:16;90:23; | 28:18,19,22;32:13; | 8:4;29:1;52:21; | 14:18;31:7;48:1; |
| $\mathbf{l e g}(1)$ | 95:14;107:11 | 65:11;71:24;105:5 | 53:2;73:10;75:4,7,8, | 51:19;54:7,20;59:19; |
| 82:12 | lining (3) | Loudon (2) | 10,12,13,15,17,19,22; | 77:22;84:20;89:20; |
| legal (4) | 24:22,24,24 | 58:19;64:20 | 76:4;79:7;85:13; | 90:5;93:15;96:12; |
| 5:11;46:5;71:12; | list (6) | Louis (1) | 88:2,4;89:3;93:20; | 102:11;109:6,10 |
| 72:14 | 21:12;30:15;56:15; | 38:5 | 94:5,7,8;105:17; | means (3) |
| legend (10) | 58:8;75:7;91:5 | lunch (4) | 106:4;108:17;113:3 | 24:17,18;112:13 |
| 59:16;73:5;80:3; | listening (1) | 3:14,18;113:8,11 | marble (1) | meant (2) |
| 85:20;89:17;90:24; | 55:3 | lupine (1) | 84:10 | 41:15;100:1 |
| 91:20;92:20;93:10; | literally (1) | 54:23 | mark (4) | measure (1) |
| 102:9 | 50:4 | Lynn (1) | 53:10;78:9;79:7; | 61:17 |
| legitimate (1) | little (18) | 12:12 | 106:4 | measurements (1) |
| 72:10 | 16:4,5;37:24; |  | marked (3) | 6:23 |
| length (2) | 57:11;66:8;68:4; | M | 51:19;76:21; | measures (1) |
| 12:10;50:11 | 77:19;80:7,9;82:12, |  | 102:13 | 15:1 |
| lengthy (1) | 24;86:3,22;90:4,21; | machines (1) | marker (6) | meet (4) |
| 105:22 | 92:2;93:16;100:17 | 77:15 | 79:9;108:1,1,5,10; | 3:15;15:24;23:13; |
| less (1) | live (2) | mail (1) | 110:6 | 110:2 |
| 102:14 | 76:1;104:13 | 89:23 | markers (3) | meeting (3) |
| lessen (1) | lived (1) | mailbox (4) | 78:10,12,21 | 80:24;110:1,3 |
| 55:8 | 82:14 | 89:15,21;90:6; | Mary (1) | member (1) |
| letter (2) | local (1) | 100:8 | 76:1 | 16:19 |
| 4:17;112:15 | 41:20 | main (1) | Massachusetts-based (1) | members (2) |
| letters (1) | located (4) | 37:6 | 42:22 | 4:14;18:19 |
| 92:4 | 10:19,20;46:15; | maintain (3) | material (14) | Memorandum (4) |
| level (3) | 105:10 | 79:12;83:22;99:4 | 18:2;19:5,12; | 109:23;110:3,8,20 |
| 24:16;76:24; | location (10) | maintained (1) | 22:11,13,14;23:20; | Memorial (1) |
| 110:16 | 6:11,13;9:22;10:3, | 40:17 | 24:18;25:2,6,9;26:4, | 37:2 |
| liaison (1) | 5;14:24;15:3;20:12; | maintenance (4) | 17;28:12 | mention (2) |
| 100:24 | 55:11;61:20 | 41:3,7;42:15;96:11 | materials (5) | 82:20;87:21 |
| licensed (1) | locations (10) | majority (1) | 23:12;25:16;26:1; | mentioned (6) |
| 4:22 | 11:24;15:8;24:4; | 50:9 | 28:11;47:19 | 29:7;39:19;41:11; |
| light (1) | 29:12,14;32:7,13,21; | makes (2) | matter (3) | 101:9;103:3;104:20 |
| 86:16 | 33:6;86:23 | 51:23;80:10 | 3:16;95:7;109:3 | Meridian (3) |
| lights (1) | long (11) | making (8) | maximum (1) | 5:4,8;6:10 |
| 13:14 | 10:24;11:1,2,3,12; | 29:5;37:22;45:21; | 13:15 | Merrimack (6) |
| likely (4) | 12:5;23:12;72:11; | 63:14,16;96:16; | may (27) | 77:2,4,6;80:6; |
| 17:3;31:11;33:7; | 80:8;97:17;100:8 | 109:18;110:19 | 3:23;17:22;27:22 | 81:10,10 |
| 111:16 | longer (1) | managed (1) | 30:20;31:23;32:7,8; | met (1) |
| limited (4) | 44:20 | 41:6 | 36:10;39:4,13,17; | 79:19 |
| 30:24;32:6,21;33:5 | look (22) | Management (4) | 40:8;70:15,21;72:5; | metal (1) |
| limiting (1) | 6:1;8:3;28:9; | 38:8;48:3;69:12; | 74:24;75:21;77:10; | 77:24 |
| 49:12 | 30:11;42:9;43:13; | 89:18 | 79:18;88:1,9,14;94:1, | Meyers (1) |
| limits (1) | 57:13;58:8,17;73:15; | manager (1) | 17;101:6;102:2; | 36:1 |
| 80:5 | 79:23;80:6;81:23; | 36:18 | 106:3 | mic (1) |
| line (58) | 82:2;87:1;89:16,23; | manner (1) | maybe (8) | 12:18 |
| 7:19;16:12;18:11; | 90:22,24;93:10; | 26:21 | 18:18;37:21;43:4; | Michelle (1) |


| 36:17 | morning (3) | needed (1) | normal (2) | 87:15 |
| :---: | :---: | :---: | :---: | :---: |
| mid-2000s (1) | 3:3,13;113:12 | 29:13 | 70:6,8 | off (7) |
| 40:24 | most (9) | NEEDLEMAN (9) | north (6) | 8:5;39:10;44:16; |
| might (6) | 13:21;33:7;69:6; | 16:11;26:11;33:24; | 56:11,21,22,24; | 62:17,19;63:1;74:19 |
| 27:18;55:13;68:17; | 75:6;95:7;101:12; | 34:9,10;35:14;52:16; | 102:15,15 | office (1) |
| 87:5,8;91:13 | 103:17;104:5;111:16 | 53:3;78:3 | Northeast (2) | 36:17 |
| mile (1) | mouse (3) | needs (2) | 41:17,22 | offices (1) |
| 89:22 | 66:7;87:2;91:16 | 16:1;109:17 | Northern (7) | 112:20 |
| miles (4) | move (18) | negotiate (1) | 4:19;45:2,8,9,10, | Ogdenburg's (1) |
| 12:15,23;30:18; | 10:6;14:20;15:8; | 30:21 | 73:9;98:6 | 13:6 |
| 102:10 | 28:15;31:13;37:23; | negotiations (1) | Northfield (5) | okra (2) |
| mind (1) | 43:20;51:12;62:17; | 33:10 | 75:24;76:2;80:21; | 97:6,9 |
| 53:24 | 63:1;66:13,16;72:22; | neighborhood (1) | 81:18;105:21 | old (1) |
| mindful (1) | 74:3,7;97:21;98:21; | 61:24 | notation (1) | 75:8 |
| 51:14 | 109:15 | neighbor's (2) | 108:16 | Oldenburg (3) |
| mine (1) | moved (4) | 80:18;81:19 | note (11) | 49:4;51:15;73:23 |
| 32:16 | 37:24;74:9;78:22; | neither (1) | 71:13;73:21;76:11, | Once (8) |
| minimal (1) | 86:3 | 23:8 | 12;79:24;80:1,4; | 33:17;34:2,6; |
| 104:14 | movement (1) | neon (2) | 102:7;105:17; | 35:12,13;49:16; |
| minor (2) | 99:7 | 76:21;77:22 | 106:10;108:2 | 104:20;109:1 |
| 30:17;33:9 | moving (2) | network (1) | noted (2) | one (57) |
| minute (3) | 55:1;71:24 | 41:8 | 88:23;113:14 | 3:10;5:7,7;6:9,12; |
| 12:24;38:9;39:10 | much (13) | nevertheless (1) | notes (5) | 11:7,17,18;12:24; |
| minutes (3) | 8:9,16;15:6,22,23; | 71:9 | 20:17;73:15; | 13:4;14:19;18:18; |
| 13:1,15;104:10 | 34:6,13;37:3;81:21; | New (35) | 108:18;109:18,21 | 21:15,16;28:10; |
| mischaracterizes (1) | 93:22;101:14; | 4:17;20:19;29:18; | notice (1) | 38:10,12;40:7,7; |
| 26:12 | 103:23;104:2 | 41:2,18,19;42:1,3,11, | 51:21 | 42:3;46:15;48:5; |
| Miss (1) | mud (1) | 13,16,18,20,22,24; | notifications (1) | 49:3,15;52:5,10; |
| 81:11 | 92:13 | 43:1,2,6,7,14,18; | 15:15 | 54:18;57:13;63:11; |
| Missouri (1) | multiple (2) | 45:3;46:12;50:11; | November (2) | 66:17;68:9,10;70:3; |
| 42:6 | 34:12,14 | 72:3;81:2;86:1,12; | 11:21;14:4 | 75:13,23,24;77:24; |
| mistaken (1) | multi-unit (1) | 88:12;94:16;98:5; | NPT (3) | 78:15;84:6,15,17; |
| 62:23 | 47:13 | 99:12,16,18;100:16 | 94:15;96:8;110:2 | 85:23;86:22;87:17, |
| misunderstood (1) | Muni (2) | newer (1) | nuances (1) | 21;88:22;90:12;91:4; |
| 43:5 | 55:22;58:15 | 99:20 | 72:17 | 93:24;96:19;99:20; |
| mitigation (2) | Municipal (2) | next (7) | number (13) | 101:5,20,21;104:4; |
| 54:13;83:22 | 64:13;112:20 | 15:2;22:7;36:4; | 10:18;11:8,23,24; | 110:9;112:17 |
| mix (1) | municipalities (1) | 41:5;46:15;47:2; | 12:9;30:24;32:6,21; | one-minute (1) |
| 23:19 | 112:19 | 88:16 | 33:5;59:22;84:20; | 13:5 |
| moment (2) | municipality (1) | NF (1) | 85:23;93:5 | ones (2) |
| 43:22;44:16 | $112: 11$ | 93:6 | numbers (3) | 65:9;88:20 |
| moments (1) | myself (1) | NF13SR4S (1) | 111:23;112:2,7 | one's (1) |
| 49:15 | 8:11 | 92:1 |  | 52:7 |
| money (1) |  | NF28PSS1 (1) | 0 | one-to-one (1) |
| 105:5 | N | 92:18 |  | 9:10 |
| monopole (1) |  | night (1) | Oak (6) | ongoing (1) |
| 107:22 | name (5) | 84:4 | 76:13,14;80:2; | 29:18 |
| monopoles (1) | 4:4;36:15;41:23; | night's (1) | 82:4,5,8 | only (21) |
| 90:3 | 49:4;56:22 | 82:18 | oath (1) | 5:19;8:19;10:18, |
| MONROE (1) | named (1) | Nobody (1) | 27:6 | 19;14:10,13;15:19; |
| 39:7 | 77:12 | 111:7 | object (3) | 21:16;22:14;69:20; |
| months (4) | names (2) | nodding (2) | 16:12;26:12;78:4 | 71:7;79:18;80:24; |
| 11:8;32:1;48:10; | 111:22;112:2 | 50:24;60:17 | Objection (3) | 81:5;84:10;92:13; |
| 70:21 | natural (1) | Noise (3) | 33:24;35:14,18 | 96:19;103:20; |
| monument (3) | 105:8 | 68:24;69:16; | obtain (1) | 104:23;106:11; |
| 109:1,5,16 | Navy (1) | 104:24 | 94:24 | 112:22 |
| more (19) | 50:2 | None (4) | obviously (1) | onto (4) |
| 10:10,10;15:22,23; | necessary (2) | 29:19;56:16;60:9; | 83:13 | $47: 18 ; 80: 11,18$ |
| 16:6;17:1;18:19; | $67: 13 ; 72: 17$ | $111: 12$ | occupy (1) | $104: 24$ |
| 23:6;27:18;40:16; | need (9) | non-hazardous (1) | 9:16 | oops (1) |
| 41:8;42:3;68:4,10; | 3:20;7:4;10:21; | 19:12 | occurred (1) | 96:23 |
| 79:5;91:12;102:14; | 12:17;50:12;56:8; | nor (1) | 48:24 | open (5) |
| 103:23;104:3 | 57:1;67:6;103:12 | 23:8 | October (1) | 14:7;26:14;89:14; |


| 92:11;102:18 | outreach (2) | 17:9,21,24;18:9,13; | patches (3) | picking (1) |
| :---: | :---: | :---: | :---: | :---: |
| operated (1) | 75:9;77:11 | 19:15;20:6,9,19;21:8, | 14:9,14,16 | 3:3 |
| 50:1 | outside (5) | 15,19;22:3,8,19,23, | path (1) | piece (4) |
| operation (1) | 8:20,23;9:15; | 24;26:13,19;27:2,4,9, | 47:2 | 49:13;54:8;80:22; |
| 96:12 | 65:14;70:10 | 10,22;34:11,18; | Pause (6) | 83:17 |
| operations (1) | outstanding (1) | 35:16,22;36:1,2 | 25:13;38:23;39:11; | piles (1) |
| 14:21 | 35:1 | Palmer's (1) | 58:6;61:19;84:16 | 26:14 |
| opinion (1) | over (16) | 3:4 | pave (1) | ping (1) |
| 68:11 | 37:24;50:14;62:24; | panel (16) | 82:16 | 109:12 |
| opportunities (1) | 68:14;71:5;76:14; | 3:4;17:14;18:18; | paved (3) | pink (5) |
| 52:22 | 84:22;89:14;91:11, | 21:4;22:2;27:7; | 9:21;82:8,10 | 58:22;59:7;86:15; |
| opportunity (4) | 12;95:9;97:21;98:21; | 31:17;34:14;46:17; | pavement (6) | 87:3,10 |
| 71:4;72:11;74:6; | 99:18;101:10;108:4 | 60:16;62:6,17;87:21; | 7:12;8:20,21,23; | pit (1) |
| 101:14 | overall (2) | 88:2;106:3;111:8 | 9:15,18 | 9:13 |
| opposed (1) | 45:14,22 | panel's (1) | Pembroke (3) | pits (1) |
| 49:20 | overhead (5) | 69:10 | 64:21;88:10,22 | 9:6 |
| opposite (1) | 29:17,17,19;31:6; | Pappas (1) | people (6) | place (5) |
| 6:18 | 66:24 | 48:14 | 21:21;46:7;47:2, | 8:4;24:19;77:19; |
| optionality (1) | over-the-road (1) | PAR (21) | 19;54:9;69:16 | 91:9;106:13 |
| 101:16 | 49:18 | 38:4,6,10,12,14,15; | people's (1) | placed (2) |
| orange (8) | Ovid (4) | 39:19;40:4,9,12,15, | 78:21 | 14:10,14 |
| 65:9,11,23;66:8; | 77:12;79:15;87:11; | 18,23;41:9,10,11,24; | per (1) | placement (3) |
| 76:22;77:22;93:16; | 101:1 | 43:6,14;70:19;71:3 | 21:16 | 73:18;85:21; |
| 105:7 | own (6) | parallel (3) | perennial (2) | 109:19 |
| oranges (1) | 42:3,13,22;43:18; | 24:2,5;92:10 | 91:1,5 | places (1) |
| 27:20 | 93:18;112:20 | parked (1) | perfect (1) | 26:2 |
| order (2) | owned (2) | 94:3 | 51:23 | plan (15) |
| 10:22;48:16 | 40:11;41:10 | part (20) | perfectly (2) | 3:18;7:15;30:3; |
| ordinances (2) | owner (2) | 7:12,13;51:10; | 18:4;72:10 | 38:8;48:3,11;50:18; |
| 81:6;105:21 | 15:16;89:7 | 53:14;54:15,17; | perform (2) | 53:19;54:13;62:21; |
| ordinarily (1) | owners (8) | 56:11;58:15;64:12; | 23:5;29:15 | 64:2;73:23;74:10; |
| 95:6 | 10:9;13:17;15:11, | 75:8;82:13,14;84:18; | perimeter (1) | 87:3;101:6 |
| organizations (1) | 14,22;55:19;69:13; | 85:2,10,12;94:19; | 108:21 | plane (1) |
| 25:22 | 87:24 | 104:5;106:15;111:19 | period (3) | 91:13 |
| orient (1) | owns (1) | partially (2) | 14:8;57:8,9 | planning (3) |
| 62:3 | 38:15 | 8:22;14:23 | periodically (1) | 20:16;24:15;26:5 |
| original (2) $67: 11,14$ | P | $\begin{aligned} & \text { participate (1) } \\ & 81: 9 \end{aligned}$ | 95:17 periods (2) | $\begin{aligned} & \text { plans (8) } \\ & 7: 10 ; 29: 21 ; 30: 18 ; \end{aligned}$ |
| others (2) |  | particular (15) | 68:15,18 | 38:7;50:22;62:19; |
| 65:19;72:15 | P145-92 (4) | 6:17;8:2;23:20; | permit (13) | 70:22;83:4 |
| out (38) | 58:8,17;60:12,15 | 50:20;79:6;83:20; | 33:13,16,17,21; | planted (1) |
| 9:21;29:23;33:17; | Pacik (3) | 85:4;88:22;89:1; | 34:3,4,21,23;35:7,11; | 54:22 |
| 34:7;39:10;59:15; | 50:15;53:4;55:6 | 92:2;96:18,21;101:6; | 85:2,24;101:22 | plants (1) |
| 63:20;67:22;68:14; | pad (27) | 103:19;109:8 | permits (2) | 27:16 |
| 72:6;73:1;75:16,19; | 65:3,4,5,6,18,21; | Particularly (2) | 34:15;101:23 | please (2) |
| 76:21;77:23;78:13; | 66:10;78:14;86:15, | 49:2;54:23 | permitted (4) | 25:12;38:22 |
| 85:15,15;86:21;87:8; | 17,19,20;87:6,7; | parties (1) | 103:17;106:7; | plenty (1) |
| 89:22;96:3,17,21; | 97:14,15,17;100:17; | 52:5 | 111:9,9 | 28:13 |
| 97:21;98:14,20,22; | 101:3,4,20;106:7,15, | parts (1) | permitting (5) | plow (1) |
| 101:13;103:7; | 16;107:20;108:4,22 | 71:24 | 33:14;34:21;35:5; | 105:4 |
| 105:12;107:7,8; | pads (9) | Pass (8) | 45:16;101:11 | Plymouth (4) |
| 108:7,109:12,20; | 64:24;65:2,9,24; | 4:19;45:2,8,9,10; | person (3) | 4:7,15;5:17;10:8 |
| 111:19;112:1 | 66:2;78:16,18;85:21; | 73:9;92:17;98:7 | 37:19;44:8,8 | PM (1) |
| outage (2) | 100:21 | passable (2) | Personally (2) | 39:17 |
| 97:18;98:20 | Page (7) | 82:21,24 | 59:20;112:18 | point (16) |
| outages (1) | 39:5,17;55:23; | passage (1) | phase (2) | $29: 15 ; 33: 1 ; 38: 12$ |
| 99:3 | 73:16;85:14,24; | 83:1 | 10:11;31:16 | 40:13;56:21;66:17; |
| outcome (1) | 104:4 | passed (1) | phases (2) | 71:19;72:1,7,14;78:4, |
| 30:24 | pages (1) | 82:17 | 11:11;14:18 | 6;83:24;109:4,8,13 |
| outline (3) | 104:7 | passing (1) | phone (3) | pointed (1) |
| 61:14;80:19;92:23 | Palmer (41) | 26:22 | 111:22;112:2,16 | 26:13 |
| outlined (1) | 3:6,8,10,20,23,24; | past (2) | Physical (2) | pointing (1) |
| 93:2 | 4:3,4;16:15,17,24; | 99:8;102:17 | 28:7;61:14 | 90:17 |


| points (1) | 33:15;35:6 | 18;10:2;36:18;43:21; | $58: 23$ | 41:17;48:20;77:20; |
| :---: | :---: | :---: | :---: | :---: |
| 66:21 | private (9) | 45:2;47:7,10;55:20; | put (19) | 84:11;87:14;108:5 |
| pole (1) | 6:16;8:21;9:2,18; | 59:4;62:13,14,18; | 8:8,18,22;9:13; | reason (5) |
| 99:22 | 10:2;47:21,22;68:20; | 63:1;69:18;70:1,10 | :1;25:2;38:21; | 11:4;57:5,11,20 |
| poles (2) | 69:14 | 74:11;76:4,15,17; | 67:12;72:7,24;77:18, | 109:15 |
| 56:14;66:6 | probably | 78:21;80:12,18; | 23;85:6,7;87:12; | reasonable (1) |
| porous (1) | 3:16;13:7;15:5 | 81:19,19;86:8;87:24; | 90:14;100:4;102:12; | 70:23 |
| 25:5 | 17:13;19:19;46:20 | 89:1,7;111:8,13 | 109:16 | reasons (1) |
| portion | 51:20;64:7;68:3,16; | proposal (1) | putting (3) | 108:24 |
| 4:6,21;16:9;28:21 | 70:23;72:15,16; | 8:22 | 32:11;67:15;86:11 | recall (3) |
| 31:8;66:24;71:8 | 106:17 | proposed (11) |  | 31:16;53:4;97:12 |
| portions (3) | proce | 4:6,10;7:8;12 | Q | receive (2) |
| 15,25:1 | 3:23;17:23 | 13:12;24:8;51:4 |  | 94:14;95 |
| possible (4) | 22:4;36:10;39:13 | 57:21;65:6;67:18,19 | quality | recent (1) |
| 9:1;23:7,11;61:11 | 75:1 | proposition (1) | 8:1 | 75:6 |
| post (1) | proceeding | 71:23 | Quanta (6) | recess (2) |
| 112:19 | 84:16 | protected | 38:12,15,16;44:7, | 74:22;113 |
| posts (1) | proceedings (5) | 81:5 | 11;46:8 | recommendation (1) |
| 24:12 | 25:13;38:23;39:11 | Protection (11) | quarter (1) | 44:7 |
| potential | 58:6;61:19 | 25:21;80:4,13,17, | 102:9 | reconcile (1) |
| 26:8 | process (21) | 20;81:9,17;95:22; | quarter-inch (1) | 5:19 |
| potentially (2) | 20:16;30:2;33: | 100:3;105:22,24 | 86:5 | record (6) |
| 30:23;112:16 | 14,20;35:3,4,5;53:14; | provide (9) | quick (3) | 39:10;59:3;71:1 |
| powder (1) | 54:17;69:8,18,20,22, | 4:19;19:20;27:1 | 3:10;25:14;105:20 | 72:7,24;74:19 |
| 105:2 | 24;70:4,6,8,20;72:2; | 30:19;52:2;53:8 | quickly (4) | rectangle (2) |
| power (10) | 112:24 | 96:4;107:6,12 | 23:24;25:12,19; | 97:11;101:19 |
| 20:12;27:16;77:16 | produced | provided (13) | 27:17 | red (8) |
| 86:2;92:9;95:13; | 6:10 | 5:23;6:3;12:9 | quiet | 64:16;76:5,5 |
| 96:11;97:1;98:5; | product (3) | :11;20:7;21:13 | 47:21,21;68:2 | 86:11,13;99:9,11,24 |
| 107:11 | 17:16;19:1,23 | 30:19;41:2;52:5,7; | $69: 14$ | redid (1) |
| Practice (1) | products (1) | 53:4;71:17;107:10 | Quinlan (1) | 88:19 |
| 89:18 | 19:2 | provides (2) | 69:19 | reference (3) |
| preblast (1) | professional | 33:13;35:12 | Quinlan's (1) | 44:11;46:8;109:4 |
| 29:22 | 46:4 | providing (1) | 45:13 | referring (2) |
| precisely | pr |  |  | 5:4;40:4 regarding (6) |
| 34:16 | 4:23;102:7 | PSS1B | R | regarding (6) |
| 40:15;41:1,16 | 4:6,8,10,21;15:17, | Public (5) |  | 88:21;96:1;107:14 |
| preferred (1) | 21;16:10;23:10;24:9; | 41:18,19;42:23 | 76:15 | Regardless (1) |
| 74:9 | 27:8;28:20;30:10,13; | 43:1;54:6 | ran (1) | 83:19 |
| prefiled | 31:6;32:14,15,20; | publish (1) | 49:16 | regards (1) |
| 30:1 | 33:2,8,11,16,22; | 88:17 | range (1) | 93:24 |
| Preliminary (1) | 34:23;35:8,9;37:18; | PUC (1) | 46:21 | regular (1) |
| 73:10 | 44:18,22;45:5,9,10, | 3:12 | rare (1) | 95:10 |
| premise | 11,14,15,17,19,22,24; | puddles (2) | 93:1 | reinstalled (1) |
| 35:21 | 46:4;47:3;51:4;54:2, | 81:24;92:1 | rather (2) | 15:2 |
| presented | 15;68:6,23;71:8; | Pull (1) | 14:14;52: | related (4) |
| 72:9 | 73:9;94:20,21,23; | 12:18 | rating (1) | 46:1;60:22;75:11; |
| presumably (1) | 95:4;96:4;109:14; | Purchase (26) | 23:14 | 99:6 |
| 100:3 | 112:21 | 36:16;37:7;44:9, | read (3) | relationship (2) |
| pretty (6) | projects (4) | 12;45:1;46:10,11 | 43:17;55:2;73:19 | 44:22;45:5 |
| 15:6;81:7 | 29:18;39:20;40:2 | 47:3,7,10,20;53:24; | reading (3) | relatively (1) |
| 105:15,16,22 | 41:12 | 56:12,18,24;59:4,11, | 20:17;73:8,1 | 30:17 |
| prevent (1) | promise | 23;60:14;61:13; | real (3) | relevant (1) |
| 78:20 | 96:6 | 62:14,18,20;66:2; | 46:3;89:7 | 96:4 |
| previous (3) | pronounc | 67:3;70:7 | reality (1) | relied (1) |
| 36:19;38:19 | 49:4 | purchased (2) | 73:24 | 44:7 |
| 100:19 | properties (17) | 41:21;44:3 | realize (1) | relocated (8) |
| previously (3) | $19: 21 ; 43: 24 ; 44: 3,$ | purchases (1) | $75: 5$ | $58: 2 ; 98: 1,3,12,13,$ |
| 11:5;13:2;65:8 | $4,7,9,12,19,23,24$ | $43: 21$ | realized (1) | $15,16,18$ |
| prior (2) | 45:4,6,8,20;46:1,6,8 | purchasing (4) | $81: 7$ | relocation (1) |
| 109:12;112:11 | property (36) | $44: 19 ; 45: 20 ; 46: 1,6$ | really (9) | 68:17 |
| priority (2) | 6:5,7,16;8:21;9:2, | purple (1) | 5:19;9:5;28:21; | relying (1) |


| 5:21 | 11:6;34:16 | right (105) | 88:21;98:11;103:8, | 60:22;65:19;67:21; |
| :---: | :---: | :---: | :---: | :---: |
| remain (2) | requirements (3) | 3:9,22;4:9,10;14:8; | 10,15 | 110:15 |
| 14:22;98:2 | 23:13,14;31:13 | 16:3;17:4,17;19:5; | road's (1) | sampling (3) |
| remember (4) | requires (2) | 22:3,23;23:21;24:23; | 56:23 | 48:18,19,2 |
| 43:3;49:21;50:15; | 4:18;103:7 | 27:6,6;29:19,23; | roadway (6) | sand (4) |
| 68:20 | requiring (1) | 30:11;31:2,4;32:11; | 7:13,14,20;8:5 | 23:9;97:3;104:24; |
| remove (3) | 29:20 | 34:8,19;35:22;36:12; | 9:17;12:23 | 107:2 |
| 66:4,11;97:17 | research (3) | 38:13;42:5;43:15,20, | Rochon (4) | sandy (4) |
| removed (7) | 5:18;6:4;7: | 20;46:8;48:22;58:14, | 77:12;79:15;87:12; | 77:1;92:12;103:20; |
| 14:1;15:1;97:7,9, | reserve (1) | 22;59:1,6;62:13; | 101:1 | 104:13 |
| 10;100:18,21 | 67:8 | 65:12,14,15,16,22 | rods (6) | saw (2) |
| removing (2) | reset (1) | 66:9,12;67:8,9; | 5:19;6:21,21,23 | 47:13;108: |
| 53:14,17 | 79:9 | 70:16;72:18;73:7; | 24;7:2 | saying (5) |
| Renewable (8) | resistivity (1) | 74:17,20;75:13; | room (2) | 13:22;32:13;45:9; |
| 43:24;44:3,6,23, | 23:13 | 76:17,18;77:4,8,9; | 97:24;98:6 | 72:7;108:24 |
| 24;45:4,6;46:7 | resolution | 78:14,15,19;80:19 | rotating (2) | scale (1) |
| reopened (1) | 30:12 | 81:2;82:4;83:11; | 49:16;50: | 102:9 |
| 14:22 | resolve (3) | 84:1,5;86:10,24; | ROTH (2) | scenario (4) |
| repair (1) | 7:5;20:21;35: | 89:11,15,16,22; | 84:21;85:3 | 9:19;12:4,24;13:11 |
| 84:9 | resolved (2) | 90:21;91:11;92:19, | round (1) | scene (1) |
| repaved (1) | 28:22;34:20 | 20;96:24;97:4,5; | 17:8 | 23:24 |
| 13:24 | respect (1) | 99:17,18;100:7,7,16; | Route (32) | schedule (2) |
| repeat (3) | 17:18 | 101:17;102:10,15,19; | 4:9,14;5:12,16; | 70:18;95:10 |
| 21:24;73:22;98:8 | respond (1) | 103:5;105:10,12,12, | 10:19,20,21,22;11:9; | scheduled (1) |
| replace (9) | 79:21 | 13,14;106:8,11,14, | 12:6,7;13:9,11;15:4; | 110:3 |
| 53:20;79:8;104:22; | response (6) | 16;107:19,24;108:4; | 20:13,14;23:22,23; | schedules (1) |
| 105:9;106:23;107:4; | 18:8;40:1,7;43:19; | 111:7,13,15;113:1 | 24:4;29:13;30:5; | 112:23 |
| 109:1,5,6 | 79:14,17 | right-hand (1) | 31:4,9;32:4;58:19; | scheduling (1) |
| replaced (2) | response] (1) | 62:16 | 64:20;86:12,14; | 3:11 |
| 54:16;109:7 | 3:21 | right-of-way (38) | 99:10,12;100:15; | school (2) |
| replacement (1) | responsibility (1) | 4:20;5:12,16,18; | 107:17 | 54:21,22 |
| 107:5 | $27: 8$ | 6:6,11;7:7;20:12; | routine (1) | scoop (1) |
| replanted (1) | responsible (2) | 23:16;29:16;31:15; | 42:14 | 60:13 |
| 107:10 | 45:13,15 | 47:9,15,16,17,18; | RTE (3) | scope (1) |
| replow (1) | restoring (2) | 49:13;53:15,17,22; | 92:21,22,2 | 95:5 |
| 105:4 | 53:15;69:4 | 55:7;56:12,17,22; | rubber (1) | Scott (6) |
| report (7) | resubmit (1) | 57:24;58:13;60:6; | 50:10 | 9:3,19;10:4;19:11; |
| 5:4;15:11;51:12, | 94:15 | 61:5;63:20;66:3; | running (2) | 23:11,19 |
| 22,24;52:10,24 | result (4) | 67:4;68:7;69:4; | 24:2,5 | screen (6) |
| Reporter (1) | 10:15;20:20,21 | 70:11;83:6;88:3 | runs (3) | 25:12,20;38:22; |
| 6:8 | 79:15 | 89:14;95:16 | 4:9,10;81: | 39:2;106:24;107:2 |
| represent (3) | results (2) | rights-of-way (1) | run-through (1) | screened (1) |
| 36:15;86:12;90:6 | 6:4;26:7 | 46:16 | 75:11 | 104:17 |
| representative (1) | resume (1) | River (4) | ruts (1) | screening (2) |
| 11:19 | 3:5 | 24:2;77:2;80:6 | 82:18 | 53:19;107:7 |
| representatives (2) 112:3,4 | resumed (1) | $81: 10$ road (48 | S | screens (2) 104:21:107:1 |
| $\begin{aligned} & 112: 3,4 \\ & \text { representative's (1) } \end{aligned}$ |  | road (48) | S | $\begin{aligned} & \text { 104:21;107:1 } \\ & \text { scroll (2) } \end{aligned}$ |
| 12:21 | 3:20 | 23:16;31:15;47:1 | S1-6 (2) | 65:22;91:11 |
| representing (2) | revealed (1) | 49:2;50:5;58:19; | 56:7,20 | search (1) |
| 101:19;104:18 | 28:18 | 64:19,21,21;76:13 | S1-7 (1) | 52:2 |
| represents (10) | review (2) | 14;80:2;81:3,24; | 57:1 | seasons (5) |
| 87:3,4;97:4,12; | 27:18;88:15 | 82:2,3,4,5,7,8,9,11, | S1-7T (1) | 13:23;14:2,5,18 |
| 99:9,11,13,19; | reviewed (3) | 13,17;83:3,8,9,14,14, | 57:2 | 15:6 |
| 104:19;107:16 | 36:18;49:17;93:15 | 19,23;84:5,8;86:9; | S1-8 (2) | Seaward (5) |
| request (4) | reviewing (1) | 89:12;90:14;92:14; | 57:1,3 | 40:8,8,24;41:10,13 |
| 52:22;74:6;100:23; | 27:14 | 99:16,17;103:2,7,12; | safe (3) | SEC (10) |
| 112:17 | revision (1) | 104:13;110:8;111:7 | 18:4,4;19:1 | 32:2;33:1;48:6,8; |
| requested (2) | 73:5 | roads (20) | salmon-colored (2) | 50:18;51:7,10,16; |
| 30:16;32:10 | ribbons (3) | 10:13,14,15;11:3; | 101:5,20 | 52:7;71:5 |
| require (1) | 77:14,23;78:1 | 13:23;14:7,14,21; | same (10) | second (4) |
| 103:15 | Ridge (3) | 15:7;49:6;64:17 | $16: 14,19 ; 17: 10$ | $7: 6 ; 28: 12 ; 34: 11$ |
| required (2) | 24:1,5,7 | 71:1;82:21,21,23; | 19:20;23:5;41:17 | 61:18 |


| secret (1) | Sheet (9) | site (11) | 36:2;45:17;83:7; | standing (2) |
| :---: | :---: | :---: | :---: | :---: |
| 54:24 | 55:23;58:15;73:7; | 5:2,3;11:7;13:1; | 96:23;111:10 | 89:21;90:4 |
| sedimentation (2) | 84:20;85:15,15,23, | 14:19,20;34:7;42:5; | sort (4) | stands (4) |
| 89:17;91:9 | 24;86:2 | 43:12;112:21,21 | 39:10;58:17;83:22; | 92:19,21;93:1;96:2 |
| seek (3) | shifted (1) | siting (1) | 90:15 | Starbucks (1) |
| 55:7;96:5;101:22 | 88:23 | 45:15 | sounds (3) | 59:2 |
| seeking (1) | ship (1) | sits (1) | 25:9;37:2;44:1 | start (5) |
| 35:11 | 50:3 | 98:9 | south (5) | 4:12,15;6:15; |
| seem (2) | shoring (2) | sitting (1) | 4:14;5:16;13:19; | 18:17;90:13 |
| 15:19;33:19 | 9:8,12 | 75:5 | 102:15,16 | started (1) |
| seemed (1) | shortcut (1) | situation (2) | space (4) | 35:13 |
| 28:17 | 82:6 | 26:13,23 | 8:20;87:6;90:19; | starting (2) |
| seems (5) | shoulder (2) | six (6) | 98:12 | 10:10;15:23 |
| 27:19;35:5,9; | 7:14,20 | 12:15,22;13:1,4, | speak (4) | starts (1) |
| 51:16;80:23 | show (10) | 15;90:1 | 12:17,18;55:12 | 112:8 |
| senior (1) | 5:15;7:11;27:12; | Sixty (2) | 106:3 | state (4) |
| 37:14 | 62:19;78:17;83:5; | 68:13,14 | speaking (2) | 13:20;18:24;35:2; |
| sense (4) | 84:15;86:13;108:8,9 | size (4) | 28:2;79:15 | 51:20 |
| 37:8;51:24;55:1; | showing (4) | 28:3;84:10;101:6, | specialist (1) | stated (4) |
| 63:21 | 25:15,23;62:21; | 15 | 77:11 | 7:17;11:16;19:3; |
| sent (2) | 64:16 | slate (2) | species (1) | 23:10 |
| 15:14;112:15 | shown (10) | 33:14;35:12 | 93:2 | statement (7) |
| sentence (1) | 25:20;39:2;57:4, | slightly (2) | specific (7) | 18:2;22:9,12; |
| 41:5 | 19,20;80:5;91:7,11, | 8:5;87:9 | 9:22;10:4;23:3; | 31:21;43:17;49:10; |
| separate (1) | 12;111:5 | sloped (1) | 45:19,24;55:18;93:3 | 54:10 |
| 113:13 | shows (6) | 9:7 | specifically (8) | stating (1) |
| separates (1) | 6:10;64:3;83:11; | slopes (1) | 6:5;21:3;31:8; | 19:9 |
| 82:12 | 86:2;91:18,23 | 9:9 | 43:4;63:22;64:3; | staying (1) |
| sequence (3) | shut (1) | sloping (1) | 66:10;88:9 | 83:5 |
| 97:23;98:8;99:2 | 75:19 | 9:10 | specify (2) | stepping (1) |
| sequestered (1) | SI-6 (1) | slow-down (1) | 34:15,22 | 103:7 |
| 51:15 | 56:17 | 10:13 | speech (1) | Steven (1) |
| Service (7) | SI-7 (1) | small (1) | 37:3 | 36:15 |
| 41:18,19;42:23; | 57:13 | 29:5 | spend (1) | stickier (2) |
| 43:1;57:21;98:3;99:4 | SI-7T (1) | smaller (1) | 38:9 | 110:10,12 |
| Services (2) | 57:15 | 101:14 | splice (8) | still (13) |
| 5:5;41:3 | SI-8 (1) | snake (1) | 7:8,9;8:19,22;9:6, | 6:22;7:14;9:24; |
| Session (2) | 57:23 | 102:17 | 13;10:1;31:13 | 13:16;28:21,23; |
| 113:12,15 | side (14) | sneaking (1) | spokesperson (3) | 30:19;32:2,17;44:21; |
| set (4) | 6:18;7:24;24:3; | 72:15 | 4:4;21:16,17 | 46:2;78:2;82:14 |
| 23:24;29:1,3;88:13 | 31:14;56:22;64:20; | snow (4) | spot (2) | storage (1) |
| setting (4) | 66:3;73:16;103:14; | 105:2,7,8;107:2 | 49:21;50:8 | 28:10 |
| 47:21,22;68:20; | 106:6,8,11,16,16 | so-called (1) | spread (1) | stored (1) |
| 69:14 | sign (2) | 94:12 | 68:14 | 26:3 |
| several (6) | 100:9,10 | soil (5) | square (4) | storing (1) |
| 21:20;29:18;47:14; | signed (1) | 26:4,21;48:18,18; | 60:23;61:2;66:8; | 47:19 |
| 75:5;76:19;101:9 | 54:9 | 77:1 | 107:21 | storm (4) |
| shade (1) | signify (2) | solid (2) | stack (1) | 82:1,18;84:3,5 |
| 91:3 | 58:23;59:10 | 86:11;99:11 | 27:24 | storms (1) |
| shaded (1) | signs (1) | somebody (4) | stage (1) | 61:10 |
| 91:19 | 92:13 | 85:10;88:1;103:3; | 31:24 | straight (2) |
| shallow (1) | silt (4) | 108:16 | stages (2) | 9:9;62:15 |
| 24:20 | 90:8,9,16,18 | somehow (1) | 88:15;90:12 | stream (3) |
| shape (3) | similar (3) | 52:15 | staging (1) | 91:15,18,22 |
| 76:6;80:7;99:12 | 11:23;28:7;67:18 | someone (3) | 65:7 | Street (1) |
| ShareFile (1) | similarity (1) | 13:8;104:20;108:6 | staked (1) | 3:15 |
| 5:3 | 26:19 | sometimes (1) | 77:12 | strict (1) |
| ShareFiles (4) | single-family (1) | 101:2 | stakes (2) | 81:8 |
| 75:14,16,20;76:3 | 69:21 | somewhere (2) | 77:24;102:12 | strike (3) |
| SharePoint (1) | sink (2) | 51:19,22 | stand (3) | 58:18;69:23; |
| 5:2 | 24:12,13 | sorry (11) | 89:22;92:1;100:8 | 106:17 |
| Shaw's (1) | sit (1) | 4:15;14:12;23:1; | standards (1) | strip (2) |
| 62:4 | 7:5 | 27:9;31:7;35:16; | 83:15 | 86:4;104:18 |


| structure (14) | 53:20;54:8;59:15; | 75:13;76:4 | 101:10 | transfer (2) |
| :---: | :---: | :---: | :---: | :---: |
| 57:4,24;61:12; | 77:17;83:14;86:21; | team (13) | timing (2) | 98:1,4 |
| 62:17;73:17;74:3,7, | 90:18;100:4;110:11, | 44:18,23;45:6,9,10, | 10:7;44:15 | transmission (4) |
| 10;87:2;97:7;100:1, | 19;111:13,20 | 11,18,19,22,24;46:4, | tire (1) | 40:18;41:2,7;76:16 |
| 2,5,12 | surprisingly (1) | 5;54:18 | 50:10 | transport (1) |
| structures (20) | 12:3 | technical (1) | today (17) | 49:19 |
| 40:18;48:22;50:14, | survey (13) | 32:12 | 14:15;19:2;21:9; | Transportation (3) |
| 19,23;51:4,8;55:8; | 4:19,21,23;5:10; | temporary (11) | 36:16;43:18;67:22; | 4:18;38:8;50:23 |
| 57:8,9,14,15;60:13; | 6:9,13;20:11;25:14; | 14:9,14,16;65:9,20, | 74:4;81:20,24;82:17, | travel (2) |
| 61:9;64:24;69:2,3; | 76:22;94:12;109:7,7, | 24;66:2;86:14,16,19, | 24;84:6;87:22;89:3, | 10:14;12:11 |
| 97:5;99:21;106:9 | 11 | 19 | 4;92:12;98:9 | travelers (1) |
| stuck (1) | surveyed (1) | ten (1) | today's (1) | 11:4 |
| 72:8 | 76:19 | 104:10 | 3:17 | traveling (1) |
| studied (1) | surveying (1) | tender (2) | to-do's (1) | 104:16 |
| 26:24 | 108:7 | 82:17;110:7 | 84:6 | tree (10) |
| studies (12) | surveyor (2) | ten-minute (1) | together (2) | 31:5,12,18,19; |
| 19:4,8;25:15,21; | 4:22;94:2 | 74:21 | 36:6;87:13 | 32:7;69:1;102:8,21; |
| 26:6,7,13,24;27:11, | surveyors (3) | tenths (1) | told (3) | 104:19;108:15 |
| 14;28:9,13 | 5:13,22;7:1 | 89:22 | 68:6;94:9;95:12 | tree-eating (1) |
| study (1) | Surveys (2) | terms (4) | took (3) | 77:15 |
| 27:15 | 5:15;29:23 | 32:12;34:13;47:12; | 82:8;92:13;105:20 | trees (8) |
| stuff (1) | suspended (2) | 48:13 | top (6) | 31:3;32:4;63:23; |
| 21:6 | 24:20;25:3 | testified (9) | 8:13,15;73:9; | 64:6;102:22;105:11; |
| subcompact (1) | suspicion (1) | 34:14;36:22;43:23; | 103:8,9,10 | 106:22,23 |
| 82:24 | 72:15 | 44:17;48:1;49:7; | topic (5) | tree-trim (1) |
| subject (2) | SUV (1) | 63:19;69:19;88:12 | 10:6;16:3;17:14; | 78:12 |
| 46:23;73:18 | 82:24 | testifying (1) | 19:14;29:11 | trench (13) |
| submitted (8) | synergy (1) | 34:11 | topics (7) | 8:8,11,12,14,18; |
| $50: 18,22 ; 51: 6,19$, $24 \cdot 54 \cdot 13 \cdot 83 \cdot 5 \cdot 84 \cdot 18$ | 49:15 | testimony (14) | 20:7,18;21:1,12,13, | 18:16;24:15,19,22; |
| 24;54:13;83:5;84:18 | system (1) | 27:2;29:24;36:19; | 24,24 | 25:2;26:5,16;31:14 |
| subsidiary (2) | 79:10 | 37:11;38:20;39:4,6, | tornadoes (1) | trenching (1) |
| 44:1,6 |  | 15;49:17;52:8;55:2; | 61:9 | $8: 11$ rrim (5) |
| substantially (1) | T | 66:17;70:17;87:20 | totally (1) | trim (5) |
| 88:18 |  | Texas (2) | 40:8 | 76:20;77:16;95:10, |
| substation (1) | tag-teaming (1) | 38:16,18 | touch (2) | 13;104:22 |
| $29: 12$ | 16:13 | Thanks (1) | 16:3;87:22 | trimming (2) |
| suffered (1) | talk (8) | 54:20 | toward (1) | 69:2;78:10 |
| 84:2 | 43:21;55:17;56:8; | therefore (2) | 100:14 | truck (2) |
| suggest (1) | 57:1;62:2;63:12; | 24:9;26:6 | towards (2) | 81:3;100:4 |
| 46:22 | 81:1;110:3 | there'll (4) | 24:8;97:22 | true (4) |
| suggesting (1) | talked (7) | 31:5;68:9,10;98:23 | tower (2) | 43:8;44:20,21; |
| 52:1 | 16:4;20:2;30:22; | thermal (5) | 61:11,23 | 101:8 |
| suggestion (1) | 49:2;68:19;83:17; | 16:8;18:15,22 | towers (3) | true-up (1) |
| 55:6 | 110:5 | 23:9,13 | 56:16,16;64:8 | 71:4 |
| suggestions (1) | talking (16) | third (1) | town (6) | trumpet (1) |
| $55: 4$ | 21:3;27:20;38:2,9; | 21:2 | 77:3;80:24;81:7; | 99:12 |
| sunk (1) | 45:17,21;50:4,6;57:6, | Thompson (1) | 109:24;110:1,14 | trust (1) |
| 76:23 | 7;60:20;62:6,10; | 39:18 | towns (1) | 110:23 |
| superintendents (1) | 87:11;93:11;106:15 | though (3) | 10:9 | $\boldsymbol{t r y ~ ( 4 )}$ |
| 111:18 | tall (5) | 22:11;32:11;40:24 | town's (1) | 3:16;20:21;76:7; |
| supervisors (1) | 50:19;58:10;61:3; | thought (1) | 79:24 | 79:12 |
| 111:18 | 77:24;102:24 | 45:18 | toxic (4) | trying (4) |
| supply (1) | taller (1) | threatened (1) | 19:4;25:16,24;26:9 | 15:24;33:20;60:14; |
| 24:11 | 64:8 | 93:1 | traffic (9) | 96:15 |
| support (2) | tallest (1) | three (6) | 10:13;12:7;13:14, | turn (5) |
| 83:15;87:5 | 51:4 | 6:21;11:7;21:1; | 14;15:1;38:7;47:24; | 25:12;62:16;80:11; |
| supposed (3) | $\boldsymbol{\operatorname { t a n }}$ (1) | 40:11;52:21;53:1 | 48:3;69:11 | 86:10,10 |
| 33:15;35:6;109:17 | 97:6 | tied (1) | transcript (1) | turning (1) |
| supposedly (1) | tape (2) | 78:1 | 113:14 | 100:4 |
| 100:15 | 76:22,22 | tighter (2) | transecting (1) | turnout (1) |
| Sure (18) | tasked (1) | 110:9,12 | 24:6 | 99:13 |
| 12:14;16:1;37:7; | 45:19 | times (4) | transects (1) | twice (1) |
| 38:24;40:10;46:2; | $\boldsymbol{\operatorname { t a x }}$ (2) | 29:10;34:13,15; | 24:9 | 8:13 |


| two (20) | 94:7;109:18 | 49:5 | 103:13;106:7,11 | 105:1 |
| :---: | :---: | :---: | :---: | :---: |
| 5:6;10:9;11:19,21; | updated (3) | vehicles (4) | ways (1) | wires (2) |
| 13:22;14:1,5;21:2; | 87:23;88:5;112:22 | 99:14;102:23,24; | 111:24 | 69:3,3 |
| 24:4;28:1;29:11; | updating (1) | 103:4 | weather (2) | wish (2) |
| 40:5;43:18;58:22; | 102:7 | verbal (1) | 90:1;107:2 | 34:2;35:13 |
| 59:6;68:14,17;71:11; | upon (7) | 3:21 | web (3) | within (13) |
| 80:24;89:21 | 23:19;29:6;31:10, | version (3) | 42:5;112:20,21 | 6:19,22;7:7,18; |
| two-story (1) | 12,20;33:9;49:16 | 87:19;95:8;105:18 | week (1) | 21:24;23:15;32:1; |
| 47:13 | upper (2) | versus (1) | 88:16 | 40:9;80:13;83:5; |
| type (6) | 62:4;81:10 | 93:14 | weeks (1) | 87:4;93:5;101:5 |
| 15:17;48:17;67:21; | USACE (4) | vertical (1) | 11:7 | without (7) |
| 83:16;93:8;109:11 | 84:19;85:2,13; | 8:10 | West (3) | 9:1;10:2;23:17,18; |
| types (1) | 101:22 | VI (1) | 76:13;80:2;97:22 | 27:14;33:2;98:14 |
| 28:1 | USACE-reviewed (1) | 82:11 | wetland (6) | witness (1) |
| typically (2) | 93:14 | vice-president (1) | 92:5,6;93:4,9,11; | 16:14 |
| 54:5;93:22 | use (17) | 37:10 | 94:24 | witnesses (1) |
|  | 18:4;19:10;23:7,9 | Volume (1) | wetlands (24) | 72:22 |
| U | 11;24:11;30:2;44:8 | 85:14 | 84:18;90:23;91:8, | wooden (4) |
| umbrella (1) | $83: 12 ; 101: 7,14,23$ | W | $\begin{aligned} & 10 ; 92: 17 ; 93: 4,14,15, \\ & 19,20,22 ; 94: 1,2,10, \end{aligned}$ | $\begin{aligned} & 90: 2,3 ; 99: 21 ; \\ & 107: 22 \end{aligned}$ |
| 96:9 | 102:2;106:6 |  | 13,15,16,21;95:8,19, | Woods (3) |
| unaware (1) | used (18) | wait (1) | 21;96:10,18;110:7 | 55:7,17;94:11 |
| 23:3 | 6:3;16:7,9;17:1; | 32:18 | whatnot (1) | wording (1) |
| unconsolidated (2) | 18:2,6,21,21,23;19:1; | waiting (1) | 91:21 | 110:11 |
| 26:3,20 | 22:14;44:11;60:1; | 79:14 | what's (11) | words (5) |
| under (11) | 65:6,7;66:10,21; | walk (13) | 17:7;28:4;35:8; | 32:16,17;66:20; |
| 25:18;27:6;35:9; | 67:21 | 77:5;89:21;92:7,7, | 44:22;45:5;67:22; | 98:19;113:2 |
| 38:6;74:7;76:3; | uses (1) | 8,15;96:22,24; | 81:12;86:18;91:10, | work (39) |
| 85:13;92:8;96:9; | 45:2 | 100:14;102:16; | 12;110:4 | 11:24,24;12:10; |
| 102:22;113:13 | using (17) | 105:11;108:7,9 | where's (1) | 13:14;38:4,5;40:23; |
| underground (13) | $17: 18 ; 18: 11,14 ;$ $22 \cdot 10 \cdot 24 \cdot 21 \cdot 26 \cdot 20$. | walked (3) | 110:6 | 46:4,7;48:9;50:10; |
| 4:5,21;5:12;11:15; $16 \cdot 9 \cdot 20 \cdot 15,16 \cdot 28 \cdot 21$. | $\begin{aligned} & 22: 10 ; 24: 21 ; 26: 20 \\ & 49: 6: 67: 20: 75: 7.16 \end{aligned}$ | $77: 9,23 ; 102: 11$ | wherever (1) 50:12 | $65: 2,3,5,18,24 ; 66: 2,$ 10:68:7.11.18:81:3: |
| $\begin{aligned} & \text { 16:9;20:15,16;28:21; } \\ & \text { 29:13;30:5,18;31:8; } \end{aligned}$ | $\begin{aligned} & \text { 49:6;67:20;75:7,16, } \\ & \text { 20;83:6,10;85:8; } \end{aligned}$ | $\begin{array}{\|l\|} \hline \text { walking (3) } \\ 94: 11 ; 102: 21 ; \end{array}$ | $\begin{array}{\|c\|} \hline 50: 12 \\ \text { white (3) } \end{array}$ | $\begin{aligned} & 10 ; 68: 7,11,18 ; 81: 3 ; \\ & 83: 13 ; 87: 4,6,7 \end{aligned}$ |
| 71:8 | 95:19;103:20;107:17 | 111:6 | 59:13;60:5;107:15 | 90:19;95:5,7,20; |
| understood (1) | Utilities (2) | walk-through (1) | whole (2) | 97:14,15,17;99:15; |
| 20:9 | 41:18,22 | 100:23 | 90:23;104:18 | 106:1,8,10;107:7,9 |
| unfamiliar (1) |  | wallboard (1) | who's (4) $38 \cdot 11 \cdot 41 \cdot 10 \cdot 45 \cdot 11$ | worked (3) |
| 8:1 | V | 18:22 | 38:11;41:10;45:11; | 40:16,19;45:7 |
| union (2) |  | walls (1) | 111:3 | working (3) |
| 18:24;82:8 | Valley (4) | 8:10 | who've (1) | 42:11;75:21;96:8 |
| units (5) | 23:22;24:3,8,11 | Walter (1) | 37:1 | works (3) |
| 46:19;47:4;59:10, | values (1) | 4:4 | wide (11) | 46:5;79:16;94:2 |
| 22;69:13 | 69:19 | wants (1) | 5:19;7:10;8:7,13, | worst-minute (1) |
| unless (2) | variances (11) | 51:14 | 13,15;86:5;103:1,3,6, | $12: 23$ |
| 71:21;82:7 | 30:4,7,10,13,16,24; | warning (1) | 11 | wrapping (1) |
| unlikely (2) | 31:10;32:9,18,19; | 92:13 | wider (2) | 14:19 |
| 13:3;67:6 | 34:20 | warship (1) | 8:9,16 | writing (2) |
| unpaginated (1) | variations (1) | 50:2 | width (5) | $79: 17 ; 109: 21$ |
| $73: 7$ | 30:21 | waste (5) | 7:21,22;8:6;9:11, | written (1) |
| unpaved (1) | various (3) | 19:23;22:11,13; | 16 | 108:18 |
| 82:14 | 23:12;25:22;60:1 | 28:11,12 | wildlife (1) | wrong (1) |
| up (30) | vault (6) | watch (1) | 107:4 | 56:18 |
| $3: 3,10 ; 8: 3 ; 12: 18$ $14: 20: 20: 7.20: 21: 7.8$ | $7: 8,22 ; 8: 2,19,22 ;$ $10 \cdot 1$ | $109: 20$ water (6) | willing (4) 6:1;15:15;27:11; | Y |
| $\begin{aligned} & 14: 20 ; 20: 7,20 ; 21: 7,8, \\ & 4 \cdot 26 \cdot 17 \cdot 27 \cdot 24 \cdot 36 \cdot 4 \end{aligned}$ |  | $24: 11.1$ | $\begin{aligned} & 6: 1 ; 15: 15 ; 27: 11 ; \\ & 55: 3 \end{aligned}$ | Y |
| 24;37:18;39:7;46:2; | 7:9 | 26:22;91:1 | wind (1) | yards (1) |
| 48:15;52:3;55:21; | vegetation (6) | watershed (1) | 107:2 | 32:4 |
| 62:22;65:22;77:15; | 53:16,18,21;92:18, | 95:22 | winds (1) | year (2) |
| 78:12;89:11;91:24; | 19,21 | way (14) | 105:3 | 25:11;80:23 |
| 92:22;103:11; | vegetative (1) | 12:6;33:5;37:5; | winter (1) | years (9) |
| $108: 15,20$ | $\begin{gathered} \text { 107:6 } \\ \text { vehicle (1) } \end{gathered}$ | $\begin{aligned} & 51: 13 ; 60: 15 ; 75: 14 \\ & 80: 14,16,18 ; 92: 8,9 \end{aligned}$ | $\begin{aligned} & 88: 7 \\ & \text { wintertime (1) } \end{aligned}$ | $\begin{aligned} & 11: 22 ; 40: 16,19 \\ & 41: 4,8,21 ; 76: 19 \end{aligned}$ |
| update (2) | vehicle (1) | 80:14,16,18;92:8,9; | wintertime (1) | 41:4,8,21;76:19; |


| 95:11,12 | 11-by-17 (2) | 87:16,18 | 46:21;62:1 |
| :---: | :---: | :---: | :---: |
| yellow (19) | 52:21;53:1 | 20-feet-wide (1) | 500 (3) |
| 58:18;59:10;60:13; | 11th (2) | 103:15 | 76:12,13;80:2 |
| 61:16;64:24;77:22; | 94:1,17 | 20-foot (1) | 50-ton (2) |
| 86:16;87:4,9;97:4,5, | 12 (5) | 103:13 | 49:16;50:1 |
| 11,16;99:19;101:2, | 7:10;8:12,19;9:11, | 20-minute (2) | 561 (2) |
| 19,24;107:20;108:9 | 20 | 13:8,10 | 85:24;86:2 |
| yesterday (28) | 120 (1) | 2-1/2 (1) | 5-feet (1) |
| 7:24;11:5,18;12:2, | 61:23 | 24:13 | 77:24 |
| 9;13:7,21;16:5,20,23; | 12-foot (1) | 25 (2) |  |
| 17:11;18:1;19:3; | 9:16 | 102:10,11 | 6 |
| 20:3,22;21:4,25:14; | 12th (1) | 25-minute (1) |  |
| 28:17;29:21;30:22; | 5:5 | 13:2 | 6.47 (1) |
| 36:20;43:23;45:13; | 140 (2) | 25th (2) | 76:6 |
| 49:3;73:23;81:6; | 61:20,23 | 77:10;79:18 | 60 (2) |
| 82:1;111:5 | 148 (2) | 26 (2) | 30:18;64:7 |
| yesterday's (1) | 46:22;47:3 | 55:24;73:6 | 7 |
| yup (1) | 149 $85: 15$ | 3 |  |
| 87:17 | 15 (1) |  | 7 (1) |
|  | 93:7 | 3 (5) | 24:17 |
| Z | 150 (1) | 4:14;5:16,19;6:23; | 7405 (1) |
|  | 85:15 | 20:13 | 76:4 |
| zero (1) | 15th (2) | 30 (1) | 75 (3) |
| 69:17 | 11:20,21 | 41:8 | 58:1,12;61:5 |
| Zone (8) | 16 (4) | 301 (1) | 7-foot (2) |
| 76:12,15;80:1,21, | 103:8,10,21; | 85:14 | 7:21,23 |
| $\begin{aligned} & \text { 23;81:16;87:9;95:23 } \\ & \text { zones (5) } \end{aligned}$ | $104: 14$ $\mathbf{1 6 - 1 / 2}(2)$ | 308 (1) | 8 |
| 12:10,16,22;13:4, | 12:15,22 | 3132-10 (1) |  |
| 14 | 162 (2) | 87:2 | 8 (4) |
| zoning (2) | 55:23;58:15 | 32 (3) | 8:7,14,16;24:14 |
| 81:5,8 | 165 (1) | 40:16,19;41:4 | 80 (1) |
| zoom (2) | 50:24 | 345 (3) | 64:7 |
| 59:15;86:21 | 165-foot-tall (1) | 67:18,19;98:7 | 88 (2) |
| 1 | 51:7 | 393 (2) $50 \cdot 14 \cdot 55 \cdot 8$ | 58:10;61:2 |
| 1 | 18 (5) $10: 22 ; 11: 9 ; 12: 6 ;$ | $\begin{aligned} & \text { 50:14;55:8 } \\ & \text { 3rd (5) } \end{aligned}$ | $\begin{gathered} \text { 88-foot (1) } \\ 61: 23 \end{gathered}$ |
| $\begin{aligned} & 1(3) \\ & \quad 73: 7 ; 85: 14 ; 89: 4 \end{aligned}$ | $\begin{aligned} & 13: 12 ; 82: 6 \\ & \mathbf{1 8 0}(\mathbf{2}) \end{aligned}$ | $\begin{aligned} & 4: 18 ; 39: 4,17 ; 88: 1, \\ & 9 \end{aligned}$ | 9 |
| 1:00 (2) | 85:15,16 |  |  |
| 3:17;113:9 | 193 (3) | 4 | 9 (2) |
| 10 (3) | 55:22;58:16;64:13 |  | 58:19;64:20 |
| 7:21,23;68:3 | 1981 (1) | 4 (3) | 90s (1) |
| 10:21 (1) | 82:15 | 6:21,24;7:2 | 41:22 |
| 74:22 | 1st (1) | 40 (1) | 93 (1) |
| 10:36 (1) | 76:2 | 46:20 | 55:23 |
| 74:23 |  | 41 (2) |  |
| 105 (1) | 2 | 39:5,17 |  |
| 50:19 |  | 43 (1) |  |
| 11 (2) | 2 (4) | 85:24 |  |
| 113:12,14 | 55:24;58:17;73:6; | 48A (1) |  |
| 11:30 (2) | 80:4 | 76:6 |  |
| 3:13;113:11 | 2/19/16 (2) | 4-rod (1) |  |
| 115 (6) | 87:19;88:6 | 5:16 |  |
| $\begin{aligned} & \text { 50:19;58:2;97:8; } \\ & 98: 17,20 ; 99: 7 \end{aligned}$ | $\begin{array}{\|l\|}  \\ 20(3) \\ \quad 61: 22 ; 103: 3,6 \end{array}$ | $\begin{aligned} & \text { 4-rod-wide (1) } \\ & 6: 11 \end{aligned}$ |  |
| 115-kilovolt (1) | $2014 \text { (1) }$ |  |  |
| 97:20 | 76:3 | 5 |  |
| 116 (8) | 2015 (2) |  |  |
| 4:9;10:22;11:9; | 41:23;44:4 | 5 (3) |  |
| 12:7;13:12;20:14; | 2016 (5) | 63:5;74:3,8 |  |
| 23:23;24:4 | 44:13;55:24;73:6; | 50 (2) |  |

