



Transcript of the Hearing of

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STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Docket No. 448

Cellco Partnership d/b/a Verizon Wireless
Application for a Certificate of
Environmental Compatibility and Public Need
for the Construction, Maintenance and
Operation of a Telecommunications Facility
Located at 831 Derby Milford Road, Orange,
Connecticut

Continued Council Meeting held at the
Connecticut Siting Council, 10 Franklin
Square, New Britain, Connecticut, Thursday,
October 23, 2014, beginning at 11:05 a.m.

H e l d B e f o r e:
 ROBERT STEIN, Chairman

1 **A p p e a r a n c e s:**
2 **Council Members:**
3 PHILIP T. ASHTON
4 DR. MICHAEL W. KLEMENS
5 DR. BARBARA C. BELL
6 DANIEL P. LYNCH, JR.
7 ROBERT HANNON, DEEP Designee
8 SENATOR EILEEN M. DAILY
9
10 **Council Staff:**
11 MELANIE BACHMAN, ESQ.,
12 Executive Director and
13 Staff Attorney
14
15 ROBERT MERCIER
16 Siting Analyst
17
18 For Cellco Partnership, d/b/a Verizon
19 Wireless:
20 ROBINSON & COLE LLP
21 280 Trumbull Street
22 Hartford, Connecticut 06103-3597
23 By: KENNETH C. BALDWIN, ESQ.
24
25

1 **THE CHAIRMAN:** Good afternoon,
2 ladies and gentlemen. I'd like to call to
3 order the meeting of the Connecticut Siting
4 Council, today, Thursday, October 23, 2014,
5 approximately 11:05. My name is Robin Stein.
6 I'm chairman of the Connecticut Siting
7 Council.
8 This hearing is a continuation
9 of a hearing initially held on July 17th of
10 this year, at the Shelton City Hall
11 Auditorium in Shelton, continued August 12,
12 2014, and September 16, 2014, at the council
13 offices in New Britain.
14 It's held pursuant to the
15 provisions of Title 16 of the Connecticut
16 General Statutes and of the Uniform
17 Administrative Procedure Act on an
18 application from Cellco Partnership, d/b/a
19 Verizon Wireless, for certificate of
20 environmental compatibility and public need
21 for the construction, maintenance and
22 operation of a telecommunication facility
23 located at 831 Derby Milford Road, in Orange,
24 Connecticut. The application was received by
25 the Council on May 13th of 2014.

1 **A p p e a r a n c e s: (Cont'd.)**
2 **For the Intervenor:**
3 BERCHEM, MOSES AND DEVLIN, P.C.
4 1221 Post Road East
5 Westport, Connecticut 06880
6 By: MARIO F. COPPOLA, ESQ.
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1 A verbatim transcript will be
2 made of this hearing and deposited with the
3 clerk's office in the Orange Town Hall and
4 Shelton City Hall for the convenience of the
5 public. We will proceed in accordance with
6 the prepared agenda, copies of which are
7 available there on the table.
8 The Council is in receipt of a
9 request to submit additional information and
10 a report prepared by David Maxson, dated
11 October 20, 2014; from the Intervenor, dated
12 October 21, 2014.
13 Attorney Bachman may wish to
14 comment.
15 **MS. BACHMAN:** Thank you,
16 Mr. Chairman.
17 On September 17th, the day
18 after our last evidentiary hearing for this
19 matter, the Council had issued a memo
20 indicating to the parties and intervenors
21 that if they sought to submit additional
22 exhibits, prefiled testimony or interrogatory
23 questions pursuant to regulations of
24 Connecticut State Agency Section 16-50-j-22a,
25 to request written permission from the

1 Council.
 2 So just the other day Attorney
 3 Coppola had hand-delivered that written
 4 request as well as the additional report from
 5 Mr. Maxson.
 6 My recommendation would be to
 7 let the report in for what it's worth, as
 8 well as we do have the benefit of Mr. Maxson
 9 attending the hearing today, so that the
 10 Council and the Applicant do have the
 11 opportunity to cross-examine on that report.
 12 THE CHAIRMAN: Okay.
 13 The Chair will entertain a
 14 motion to allow the report for what it's
 15 worth.
 16 MR. ASHTON: I will so move,
 17 Mr. Chairman.
 18 DR. KLEMENS: Second.
 19 THE CHAIRMAN: I have a
 20 motion, second.
 21 Any discussion?
 22 All those in favor signify by
 23 saying aye.
 24 THE COUNCIL: Aye.
 25 THE CHAIRMAN: Opposed?

1 sorry. You managed, by your late edition, to
 2 totally confuse the Chair about the -- as to
 3 the procedure here.
 4 Before we get to that, we're
 5 also going to take action on a motion to --
 6 you know, for an order to compel production
 7 of documents from the Intervenors, dated
 8 October 10, 2014.
 9 We also have an opposition to
 10 the motion from the Applicant, dated -- I'm
 11 sorry -- that was dated October 10, 2014. We
 12 have opposition to the motion from Applicant,
 13 dated October 14, 2014, and a reply brief
 14 from the Intervenors, dated October 17, 2014,
 15 and a staff report regarding this motion has
 16 been prepared and is available.
 17 And, Attorney Bachman, I will
 18 ask for comment.
 19 MS. BACHMAN: Thank you,
 20 Mr. Chairman.
 21 It should be noted that, as of
 22 Tuesday, the FCC has issued a final order on
 23 promulgating regulations pursuant to the
 24 Middle Class Tax Relief and Job Creation Act.
 25 Certainly, the staff report, it doesn't

1 Abstention?
 2 The motion carries.
 3 Okay. The report is admitted.
 4 So, Mr. Mercier, do you have
 5 any questions relative to the report that you
 6 want to -- hold on a second.
 7 MS. BACHMAN: What I would
 8 recommend, Mr. Chairman, to proceed, we had
 9 originally indicated that the hearing would
 10 commence with the continued cross-examination
 11 of the Applicant by the Intervenors.
 12 However, perhaps what we could
 13 do is reorder that now and have Mr. Maxson
 14 verify his report and then be subject to
 15 cross-examination by the Council and the
 16 Applicant first. And once that's completed,
 17 we can then move onto the continued
 18 cross-examination of the Applicant by the
 19 Intervenors.
 20 THE CHAIRMAN: Okay.
 21 Attorney Coppola, would you
 22 please have your -- your witness verify?
 23 MR. COPPOLA: And,
 24 Mr. Chairman, if I may just ask --
 25 THE CHAIRMAN: Wait. I'm

1 change the conclusion in that staff report.
 2 And so it's the Council's decision whether or
 3 not to grant or deny the motion.
 4 THE CHAIRMAN: Okay.
 5 So this is -- I'd ask for a
 6 motion, and then we'll -- and a second. Then
 7 we'll have discussion on the motion for an
 8 order to compel production of documents.
 9 MR. ASHTON: I'll move that
 10 that motion be denied.
 11 DR. BELL: Second.
 12 THE CHAIRMAN: Okay. I have a
 13 motion and a second.
 14 Before voting, is there a
 15 discussion?
 16 MS. BACHMAN: I'd like to add,
 17 Mr. Chairman, that around ten o'clock this
 18 morning a letter in support of the motion
 19 from the legislator intervenors was
 20 submitted, and it should be in your
 21 paperwork.
 22 THE CHAIRMAN: Yes. Yes, it
 23 is. It's signed by Senator Slossberg and, I
 24 guess, the other representatives are also on
 25 that so -- okay.

1 Mr. Ashton?
 2 MR. ASHTON: Mr. Chairman,
 3 I've been in -- in the energy and regulated
 4 industries for over 50 years, 14 and a half
 5 as a regulator, and prior to that as an
 6 applicant. And I have -- my -- my career has
 7 focused on, one way or another, the question
 8 of public need, which is not the exact
 9 wording here. It's public benefit.
 10 But public need is something
 11 that has been before me for years. I have
 12 qualified as an expert witness and testified
 13 at just about every superior court in
 14 Connecticut, before the DPUC, the DEP, the
 15 Federal Energy Regulatory Commission, the
 16 National Energy Board of Canada, and I don't
 17 know how many other boards and agencies.
 18 They just slip my mind at this stage.
 19 Every time an applicant has
 20 been asked to produce a support for the issue
 21 of public need, they have done so. And in
 22 all my experience, I can't recall a single
 23 instance where, having presented a prima
 24 facie case for public need, there has been
 25 examination of the technology behind that so

1 methods, technical methods, that they conform
 2 to FERC or FCC or IEEE standards, that's
 3 sufficient. And I think that we've reached
 4 that point, and that's why I made the motion.
 5 THE CHAIRMAN: Okay.
 6 Any other comments?
 7 Dr. Bell?
 8 DR. BELL: Mr. Chairman, I
 9 seconded the motion because of another line
 10 of argument in -- in my mind which has to do
 11 with the material from Mr. Maxson that we
 12 just let into the -- the record.
 13 I feel that his comments
 14 actually render the motion to disclose or
 15 compel moot since he, without arguing so
 16 explicitly, basically shows that he does not
 17 need the information to present his side of
 18 the argument.
 19 Thank you, Mr. Chair.
 20 THE CHAIRMAN: Mr. Hannon.
 21 MR. HANNON: Thank you,
 22 Mr. Chairman.
 23 This is sort of a unique
 24 situation where you have the Applicant saying
 25 that the Intervenor can't render a decision

1 long as it conforms with generally accepted
 2 practices, those practices being established,
 3 in part, by the -- the Institute for
 4 Electrical/Electronic Engineers or general
 5 industry practices.
 6 In this case I'm fearful that
 7 we're going well beyond that. And if we
 8 asked the Applicant to produce documents,
 9 albeit under a confidentiality agreement, the
 10 next question will be, well, to challenge the
 11 theory behind the application. And this can
 12 be like an onion, and you peel it back until
 13 you're ready to challenge Ohm's Law, or other
 14 basic laws that relate to engineering.
 15 And I think the Applicant has,
 16 in this instance, provided sufficient
 17 information, from its standpoint, to
 18 demonstrate need. And I think the Intervenor
 19 has the opportunity to challenge that, to
 20 present it's own case, but I think we just
 21 have to say enough is enough in terms of
 22 demonstrating it.
 23 If the Applicant, under
 24 cross-examination, testifies that the methods
 25 used were generally accepted professional

1 without having this information, but you have
 2 the expert of the Intervenor saying he
 3 doesn't need the information to render the
 4 decision.
 5 Like Dr. Bell, I went back and
 6 I was looking at it. And my understanding is
 7 the three specific issues that were raised
 8 dealt with the drive data, the link budget,
 9 and the traffic map. And I believe that
 10 there is language in Mr. Maxson's report
 11 which basically says none of that is really
 12 required for him to reach the conclusions
 13 that he has. So, for that reason, I will
 14 vote against the motion.
 15 THE CHAIRMAN: Any other?
 16 MR. COPPOLA: Mr. Chairman?
 17 THE CHAIRMAN: Excuse me.
 18 We're in the process of voting. You've had
 19 your chance. And right now I -- I see no
 20 reason why you should interrupt the
 21 deliberations of this vote, so...
 22 MR. COPPOLA: I just wanted to
 23 ask --
 24 THE CHAIRMAN: No. No. No.
 25 No.

1 MR. COPPOLA: Ask the question
 2 on the record, if the parties are -- had an
 3 opportunity --
 4 THE CHAIRMAN: I'm sorry.
 5 MR. COPPOLA: Okay.
 6 THE CHAIRMAN: I'm sorry, sir.
 7 We're in the process of voting. I think we
 8 have the right to deliberate and vote without
 9 being interrupted. Thank you.
 10 Any -- anybody else?
 11 (No response.)
 12 THE CHAIRMAN: I -- I
 13 concur -- agree totally with Dr. Bell. And I
 14 guess we'll discuss Mr. Maxson's interesting
 15 report in a few minutes. But I think its
 16 clear that he did not feel constrained by
 17 this lack of information.
 18 So, with that, if there are no
 19 more discussions, all those in favor of the
 20 motion to deny signify by saying, aye.
 21 THE COUNCIL: Aye.
 22 THE CHAIRMAN: Opposed?
 23 Abstentions? No?
 24 The motion to deny carries.
 25 Okay. Also, the Council has

1 THE WITNESS (Maxson): My name
 2 is David Maxson.
 3 MR. COPPOLA: Did you prepare
 4 and -- and/or assist in the -- so everybody
 5 can hear me --
 6 MR. ASHTON: Yeah, move the
 7 mic closer to you, please. This room is
 8 dead, as far as sound goes, and I think the
 9 other things, too.
 10 MR. COPPOLA: Mr. Maxson, did
 11 you prepare the report, dated October 20,
 12 2014, entitled "Report by David Maxson, WCT,"
 13 on the missed opportunities and
 14 misinformation contained within the technical
 15 evidence and/or lack thereof in the record?
 16 THE WITNESS (Maxson): Yes, I
 17 did.
 18 MR. COPPOLA: Do you have any
 19 additions, clarifications, solutions or
 20 modifications to that document?
 21 THE WITNESS (Maxson): I do
 22 not.
 23 MR. COPPOLA: And is that
 24 document true and accurate to the best of
 25 your knowledge?

1 added two items to its administrative notice
 2 list, listed as Roman Numerals I D, Item 20,
 3 the FCC wireless infrastructure report, and
 4 Item 28, Docket Number 169, Bell Atlantic
 5 Mobile.
 6 Does the Applicant or
 7 Intervenors have any objection?
 8 MR. BALDWIN: No,
 9 Mr. Chairman.
 10 MR. COPPOLA: No,
 11 Mr. Chairman.
 12 THE CHAIRMAN: Okay. Then
 13 they will be noticed.
 14 Okay, so we've got -- okay,
 15 Attorney Coppola, will you please have your
 16 witness verify the material that was
 17 submitted on October 21st, 2 days ago.
 18 D A V I D M A X S O N,
 19 having been previously duly sworn, was
 20 examined and testified further on his
 21 oath as follows:
 22 MR. COPPOLA: Yes,
 23 Mr. Chairman.
 24 Would you please state your
 25 Name for the record.

1 THE WITNESS (Maxson): Yes, it
 2 is.
 3 MR. COPPOLA: All right.
 4 And do you offer this
 5 document, also an exhibit here in this
 6 record, as your testimony here today?
 7 THE WITNESS (Maxson): Yes, I
 8 do.
 9 MR. COPPOLA: Do you offer
 10 this document as a full exhibit?
 11 THE WITNESS (Maxson): Yes, I
 12 do.
 13 MR. COPPOLA: I have no
 14 further questions, Mr. Chairman.
 15 THE CHAIRMAN: Are there any
 16 objections by the Applicant to the --
 17 MR. BALDWIN: Yes,
 18 Mr. Chairman. We'd -- we'd like to get our
 19 objection on the record.
 20 As the Council stated at the
 21 beginning of this proceeding, this is the
 22 fourth hearing on this docket. We've been at
 23 this for four months now. We've submitted
 24 more than 150 interrogatories and requests
 25 and responses. The Council has dealt with

1 numerous motions of requesting extensions of
2 time and postponement of hearings.

3 The clear motivation, I think,
4 of the Intervenor is to delay this
5 proceeding as much as possible, and they've
6 been successful so far. Now, on the eve,
7 literally two days before this last
8 hearing -- what we hope will be the last
9 hearing -- additional evidence is submitted
10 to the Council.

11 I, as of the time I left my
12 office this morning at 10:15, still have not
13 received a hard copy in the mail of that --
14 of that report. The only reason I got an
15 e-mail copy of that report is because I asked
16 Mr. Coppola, by e-mail on Tuesday evening,
17 for a copy of that report. And the only
18 reason I knew the report was even submitted
19 in the first place was because Ms. Bachman
20 was nice enough to copy me on an e-mail she
21 sent back to Attorney Coppola's office.

22 That report was distributed to
23 our witness panel yesterday. And I can tell
24 you that that is simply not enough time to
25 digest, to review, and to put ourselves in a

1 I have a long drive, and to
2 spend half the night reading a report that
3 comes in just a day or two before, when
4 you've had plenty of time, I think, is most
5 unfortunate, but we do our job, and we'll
6 continue to do our job.

7 And I don't really need a
8 reply to that. I'm just saying that I
9 think -- I don't know what the word is, but
10 given the number of hearings we've had, I
11 think Mr. Maxson has had ample time to
12 prepare a report and to put it -- to -- to
13 send it at -- at such a late date is -- is
14 unfortunate. But we're going to go ahead
15 and, hopefully, this -- this hearing will
16 move in an expeditious way.

17 I'm looking at you, Attorney
18 Coppola. I think we've had enough time for
19 this so, hopefully, we'll continue to move it
20 in an expeditious way. But since we have
21 this report, we're now going to have to spend
22 some time, to the extent staff and council
23 members have questions, so I'll start with
24 Mr. Mercier if you -- staff.

25 MR. MERCIER: Thank you.

1 position to rebut and produce
2 cross-examination of Mr. Maxson's report.

3 Standard Siting Council
4 procedure is that these reports be submitted
5 at least a week in advance to avoid those
6 problems. That didn't occur here. I
7 understand that the Council has already made
8 its decision to admit this additional
9 information, but I just wanted to make sure
10 that our objection was noted on the record.

11 Lastly, with respect to the
12 new administrative notice item that the
13 Council adopted this morning, the FCC's
14 order, I think this flies right in the face
15 of that order, in that that order looks to
16 expedite, remove barriers to the deployment
17 of wireless facilities, and the further delay
18 of this proceeding runs afoul of this federal
19 requirement.

20 Thank you.
21 THE CHAIRMAN: Yes, duly
22 noted.

23 We have agreed to accept this
24 into the record for what it's worth, however,
25 I will speak for the Chair.

1 By reading your supplementary
2 report, Mr. Maxson, are you agreeing that
3 Verizon is exhausting capacity on the four
4 700 megahertz sectors that were identified in
5 the September 9th report?

6 THE WITNESS (Maxson): I'm not
7 recalling exactly which sectors were
8 identified in the September 9th report, but
9 in the general sense, where they have
10 presented evidence of capacity loading
11 trends, historical trends, on 700 megahertz,
12 I agree that those trends are an indicator.

13 I did challenge the
14 perspective that 2100 megahertz traffic is --
15 is supposedly somehow disconnected from the
16 700 megahertz traffic. I think it has to be
17 looked at in total, looking at the 2100 and
18 the 700 and the distribution of users and
19 user devices in the marketplace.

20 I'm sorry for the -- the
21 roundabout answer but, basically, I -- I
22 don't agree that the 700 megahertz evidence,
23 in and of itself, is indicative of a capacity
24 problem.

25 MR. MERCIER: Okay.

1 I think there was one
 2 sector -- I'll have to look it up. It might
 3 have been Milford Northeast Alpha -- that did
 4 not have a 21-megahertz system deployed on
 5 that tower and that was projected to be
 6 exhausted this year.
 7 So by not having the
 8 21-megahertz system on that tower, would you
 9 believe Verizon's contention that the -- the
 10 sector is exhausted?
 11 THE WITNESS (Maxson): By
 12 design, I would -- I would agree. The
 13 applicant is -- has testified that they're
 14 consistently building out their
 15 2100-megahertz network now. And I see no
 16 reason why that could not be applied to the
 17 Milford Northeast facility in -- in --
 18 promptly to add capacity to that sector.
 19 MR. MERCIER: Okay.
 20 Just -- if it was added and --
 21 how would that affect the capacity of the
 22 700-megahertz system if it's already filled?
 23 THE WITNESS (Maxson): How
 24 would the addition of 2100 --
 25 MR. MERCIER: Yes.

1 users?
 2 THE WITNESS (Maxson): Yeah.
 3 I would be careful with the phrase, "can't
 4 accept any more users," because people are
 5 coming on and off all the time. The data
 6 we're looking at is the peak hour
 7 utilization.
 8 So it's not that a new user
 9 would come on and be diverted from 700
 10 because it's full. It's that the network --
 11 and this was explained by the Applicant in
 12 testimony -- the network will attempt to
 13 relocate users dynamically to 2100 megahertz,
 14 if they have a good 21-megahertz signal, in
 15 order to preserve 700-megahertz capacity for
 16 those users at the cell edge.
 17 MR. MERCIER: Now, we'll just
 18 assume there was a capacity issue for the
 19 four sectors that were identified. And --
 20 and I have them listed in front of me to list
 21 them out for you.
 22 I understand you -- you did
 23 your own server mapping. It was most likely
 24 the "server mapping," term you used. And,
 25 according to your mapping, it indicated that,

1 THE WITNESS (Maxson): --
 2 megahertz LTE service --
 3 MR. MERCIER: That's right.
 4 THE WITNESS (Maxson): -- to
 5 the Milford Northeast facility affect the
 6 loading on the 700 megahertz system at the
 7 Milford Northeast facility?
 8 MR. MERCIER: Yes. Yes.
 9 Thank you.
 10 THE WITNESS (Maxson): It
 11 would relieve the -- the traffic of those
 12 wireless devices that are capable of
 13 operating both on 700 megahertz and
 14 2100 megahertz. There is twice as much
 15 spectrum available to Verizon at
 16 2100 megahertz as at 700 megahertz. So by
 17 adding 2100 megahertz, they could triple the
 18 capacity of that Milford Northeast cell site.
 19 MR. MERCIER: Okay.
 20 So I guess another way to look
 21 at it is the 700 megahertz is at capacity.
 22 It cannot accept any users. So, essentially,
 23 you're saying is a -- a user will be directed
 24 to the 2100-megahertz system while the 700
 25 runs at capacity and can't accept any more

1 you know, the placement of this -- this
 2 proposed Orange cell -- north cell tower
 3 would not do an adequate job of relieving
 4 capacity needs on -- on the four overloading
 5 sectors.
 6 Is there one location that --
 7 that -- that would serve those four
 8 overloading sectors that you can present to
 9 us? Is there a specific area of a specific
 10 town where this one tower should go, tower
 11 facility should go, to relieve capacity on
 12 those four sectors that have been identified
 13 and overloaded?
 14 THE WITNESS (Maxson): In my
 15 original report and my follow-up supplement,
 16 I comment that there's a spread, because
 17 there are two Derby sectors in question and
 18 two -- actually one Milford section -- sector
 19 in question, and then the Applicant, at the
 20 last hearing, added a Shelton sector.
 21 So in order to get close
 22 enough to Milford Northeast Alpha to relieve
 23 capacity in a significant way -- and I'm not
 24 talking 10 percent, I'm talking more like
 25 50 percent overlap -- a new facility has to

1 be quite close to that. So it has to be
 2 in -- in southwestern Orange or in northern
 3 Milford or in southeastern Shelton, at which
 4 point, it would also be able to provide a
 5 potentially significant overlap to the
 6 Shelton 2 that they added to the list at the
 7 last hearing.
 8 And then, secondarily, in
 9 order to address the demands to the north
 10 with Derby North Gamma and Derby Beta, you
 11 have to be closer to those facilities in
 12 order to have significant server overlap
 13 to -- to relieve the capacity demands of
 14 those, so it would have to be two -- two
 15 locations at least.
 16 MR. MERCIER: Now, there was a
 17 discussion at the last hearing regarding the
 18 term "significant."
 19 What, to you, does significant
 20 capacity over -- relief constitute? I see
 21 you used the term "50 percent" in some of
 22 your documents.
 23 THE WITNESS (Maxson): Yes.
 24 I, in looking at the -- at the growth rates,
 25 which is forward looking, not just at the

1 So it -- it just does not make
 2 any sense to me that in the -- the mapping
 3 that I've done, where I'm seeing less than
 4 10 percent geographic relief, that we're
 5 going to get -- the Applicant is going to get
 6 truly significant capacity relief on those
 7 sectors.
 8 MR. MERCIER: Now, you just
 9 mentioned the date of 2021 for the
 10 1900-megahertz spectrum to be available. I
 11 think you said well before, I think, in your
 12 document, the spectrum will be available.
 13 THE WITNESS (Maxson): Yes.
 14 MR. MERCIER: What you mean by
 15 that? Next year? Two years? How -- how do
 16 you know this information?
 17 THE WITNESS (Maxson): Well,
 18 the Applicant has testified that they intend
 19 to make the 1900-megahertz spectrum available
 20 for LTE service in advance of completely
 21 shutting off their CDMA technology at
 22 850 megahertz.
 23 With the -- the Verizon
 24 announced target date -- it's not necessarily
 25 a hard date -- but a target date of 2021,

1 trends on these particular cell sites, but
 2 that we're looking at growth rates that are
 3 still likely to be a factor of about 1.5, or
 4 150 percent per year. And if you relieve
 5 10 percent of a sector that's in the process
 6 of overloading, that's a drop in the bucket.
 7 That's -- that's not the least bit
 8 significant. You really need to have a
 9 multiplier going, just as when 1900-megahertz
 10 PCS spectrum becomes available for LTE, that
 11 will double the capacity compared to the
 12 700 megahertz.
 13 The addition of 2100 megahertz
 14 to the cell site, before the 1900 megahertz
 15 is added, that triples the capacity on that
 16 cell site. So, in total, you can multiply by
 17 four the amount of capacity just by adding
 18 spectrum in the next several years.
 19 And if we're talking about
 20 multiples of two or four in order to keep up
 21 with the spectrum demands, we have to be
 22 looking at dividing sectors by a factor of
 23 two, for instance, to relieve capacity in a
 24 geographic fashion rather than in adding
 25 spectrum.

1 that clears both the 850 and the
 2 1900 megahertz.
 3 We can expect that perhaps two
 4 or three years, and depending on how quickly
 5 LTE phones are adopted, even less, that the
 6 1900 megahertz will become available. So
 7 it's not an immediate solution, but I do see
 8 that it's something that will -- will be
 9 migrated to, and the Applicant has said so as
 10 well, in the not-too-distant future.
 11 MR. MERCIER: Okay. Thank
 12 you.
 13 I have no further questions at
 14 this time.
 15 THE CHAIRMAN: Okay.
 16 We'll now proceed to questions
 17 from the Council.
 18 Mr. Ashton.
 19 MR. ASHTON: Yeah.
 20 I did not have the benefit,
 21 Mr. Maxson, of being able to read this till I
 22 got here today. And in quickly scanning it,
 23 it reads more like a brief than it does a
 24 submission of evidence. A lot of opinion in
 25 here, which is okay, but shouldn't that have

1 come out earlier?
2 It would have been much more
3 helpful to come out earlier on
4 cross-examination rather than as a statement
5 in this stage of the game. And I truthfully
6 don't quite know what to do with it because
7 it is so very late in the game and subject to
8 rebuttal, I would guess.

9 You know, modeling is an art,
10 as well as a science, and I'm not really as
11 qualified as I -- some might be that -- to go
12 looking at your modeling techniques. I
13 understand them, generally, but it's very
14 argumentative, and that's what's -- what's
15 troubling me a little bit.

16 I guess, I -- one of the
17 fundamental questions is, why in the world
18 didn't some of this come out in
19 cross-examination earlier?

20 THE WITNESS (Maxson): Well,
21 there was a raft of new information that came
22 out in testimony at the last hearing. For
23 instance, Mr. Latorre completely changed the
24 meaning of the coverage maps for LTE that
25 Verizon had submitted in this application.

1 THE WITNESS (Maxson): I'm
2 sorry. I would leave -- leave that to others
3 to consider. My point is that it is
4 surprising to see that, in this docket,
5 something that has been a consistent practice
6 of the Applicant for five years has just
7 changed willy-nilly.

8 MR. ASHTON: I see. Okay.
9 That's it. Thanks.

10 THE WITNESS (Maxson): And I'm
11 referring to the -- the maps in Attachment 6
12 of the application.

13 THE CHAIRMAN: Dr. Bell.

14 DR. BELL: Thank you,
15 Mr. Chair.

16 Mr. Maxson, in the matter of
17 how to map capacity issues, you say, in a
18 general way, that the Applicant has simply
19 overlaid on one coverage plot another
20 coverage plot to try to indicate where there
21 would be capacity relief, and you say that's
22 not an accurate way of mapping.

23 I think I understand what you
24 are objecting to, and you have provided, from
25 your software that you have available to you,

1 And, by extension, I believe, that changes
2 the meaning of the LTE coverage maps the
3 Applicant has submitted in 15 other dockets
4 before the Siting Council.

5 This is -- to me, this is just
6 egregious.

7 MR. ASHTON: Well --

8 THE WITNESS (Maxson): And I
9 needed to comment on that in a -- in a way
10 that is factual. You know, I know you
11 commented that I do present opinions -- and I
12 do -- but I back up every opinion I give with
13 facts.

14 MR. ASHTON: Subject to
15 arguments. But anyway, I noticed the 15
16 dockets. And we're not proposing to reopen
17 those dockets, are we? They go back to 2009,
18 '10, '10, '10, '10, the last five years,
19 roughly, covered by those dockets. You're
20 not proposing that we re-reopen those, are
21 you?

22 THE WITNESS (Maxson): Well, I
23 was --

24 MR. ASHTON: What's the
25 relevance?

1 what you regard to be capacity mapping that's
2 more -- that's more correct in terms of how
3 capacity relief works.

4 My question is, is the
5 software that you use in doing your capacity
6 mapping similar to what the Applicant has
7 available to them to do mapping that you feel
8 would be more accurate?

9 THE WITNESS (Maxson): My
10 software is carrier-class software. It is
11 used by wireless carriers. It's by a company
12 called EDX. And all the software that I have
13 either used or seen specifications of -- and
14 it's probably perhaps as many as a dozen
15 different packages -- rely on well-tested
16 algorithms that are in the technical
17 literature, they're in IEEE publications, and
18 those sorts of things. They are taught in
19 college courses on -- on this kind of work.
20 It is part of propagation science. And all
21 of the software packages use these -- these
22 techniques.

23 Then, as far as the specifics
24 as to whether you're representing signal
25 strength or you're representing most likely

1 server, I have not seen a software package
 2 that does not offer the most likely server
 3 method because it is a tried-and-true and
 4 well-relied upon technique for determining
 5 where a proposed facility, geographically
 6 speaking, will take over from an existing
 7 facility.
 8 DR. BELL: Thank you.
 9 I have one more question on
 10 another issue.
 11 In your -- in your
 12 recommendations about how to handle this
 13 matter differently, you referred to splitting
 14 up the sectors in the Milford northeast cell
 15 site.
 16 My question is, since you're
 17 not privy to how the Verizon network works in
 18 other areas, other than the one we're
 19 discussing right this instant, this
 20 collection of areas, is it your contention
 21 that Verizon could do that splitting at the
 22 Milford cell site without regard to what's
 23 going on with their needs in other parts of
 24 what the Milford cell site covers?
 25 THE WITNESS (Maxson): I would

1 that you testified on Docket 370, which was a
 2 Derby docket. Can you remember which
 3 particular location that -- that is in Derby?
 4 THE WITNESS (Maxson): Yes.
 5 That was the -- what the Applicant is
 6 calling, I believe, "the Derby North
 7 facility" which is actually in the south of
 8 Derby. It's on top of the hill. It's a
 9 unipole, I believe, that's on a, perhaps, a
 10 church property or -- or near a church.
 11 DR. BELL: Okay. Thank you.
 12 Those are my questions, Mr.
 13 Chair.
 14 THE CHAIRMAN: Dr. Klemens.
 15 DR. KLEMENS: Thank you,
 16 Mr. Chairman.
 17 I, like Mr. Ashton, I was
 18 traveling, and I haven't really had a chance
 19 to read most of the report. I tried to do it
 20 when I arrived here, but I just have some --
 21 some questions.
 22 Mr. Maxson, is -- is it
 23 possible, in your opinion, for experts to
 24 look at two sets of identical facts and reach
 25 different conclusions?

1 say, in a general sense, yes, with a
 2 qualification. We have a -- a ring of cell
 3 sites that have been presented in this
 4 docket. And the Applicant is working within
 5 that ring to place a facility to try to
 6 provide some capacity relief for future
 7 demands.
 8 If we relocate that facility
 9 so that it's closer to the facilities that
 10 are indeed experiencing high-capacity
 11 demands, we provide them with more relief
 12 geographically.
 13 As we get closer to that
 14 boundary, that circle, connecting all the
 15 dots of the existing sectors, there may be
 16 some effect on adjacent sites that are not in
 17 the model. And it would be prudent to look
 18 more closely at -- at those adjacent sites to
 19 be sure that an alternative location is
 20 optimal, not just with respect to the sectors
 21 in question in this matter, but to the rest
 22 of network.
 23 DR. BELL: Okay. And just one
 24 other minor question.
 25 You mentioned that you were --

1 THE WITNESS (Maxson): That's
 2 a broad question. If -- if all of the facts
 3 are relevant, necessary and sufficient for
 4 arriving at a conclusion, such as one plus
 5 one is two, no, no, I disagree, it's three,
 6 then it's not possible.
 7 But if there are other
 8 assumptions that are being put into play, in
 9 addition to the facts on the record, yes, it
 10 is possible.
 11 DR. KLEMENS: I would -- I
 12 would -- would you agree that this is
 13 actually quite much more complex than one and
 14 one equals two, that, in fact, there are many
 15 facts, many assumptions, and it would be
 16 possible that learned men or women would look
 17 at a set of these facts and reach different
 18 conclusions or outcomes?
 19 THE WITNESS (Maxson): If the
 20 suggestion is that the Applicant is doing
 21 that, I -- I would disagree.
 22 DR. KLEMENS: I'm -- I'm
 23 asking you a theoretical question. You
 24 lectured quite extensively here about
 25 theoretical aspects of opinions, and I'm

1 asking you, theoretically, to answer the
 2 question please, sir.
 3 THE WITNESS (Maxson): Would
 4 you kindly repeat the question so I'm sure I
 5 have it.
 6 DR. KLEMENS: Is it possible
 7 for learned men or women to look at a series
 8 of facts and reach different conclusions?
 9 THE WITNESS (Maxson): Yes, it
 10 is.
 11 DR. KLEMENS: Thank you.
 12 Could you please distinguish
 13 what's the difference between opinion versus
 14 conclusion?
 15 THE WITNESS (Maxson): Good
 16 question. I do not have any legal definition
 17 in mind. Generally, I think, if someone is
 18 giving an opinion, it is the result of
 19 arriving at a conclusion, although some
 20 conclusions are conclusory as opposed to
 21 fact-based.
 22 DR. KLEMENS: Would you agree
 23 that to certain problems, particularly
 24 complex problems, that there may be, in fact,
 25 various solutions to that same problem or

1 THE WITNESS (Maxson): Just to
 2 be clear, we're not testifying specifically
 3 about this matter, but in general, that's
 4 a -- a statement I would agree with.
 5 DR. KLEMENS: Thank you.
 6 Okay.
 7 This has been very helpful.
 8 And I'm trying to understand what -- what --
 9 some of the preamble to your memorandum.
 10 Now, you state, under
 11 footnote -- you footnoted, gave us a lot of
 12 valuable footnotes, including a definition of
 13 what fustigate is, but let me get back to
 14 Footnote Number 1, that you worked for
 15 finders of fact, proponents and opponents.
 16 Have you ever reviewed --
 17 working for an opponent of a wireless
 18 telecommunications facility, have you ever
 19 reviewed and that -- ever found the
 20 application to be without a problem?
 21 THE WITNESS (Maxson):
 22 Materially, as an -- as someone working for
 23 opponents, sometimes I have found only small
 24 problems. But, I'm -- yeah, my role in that
 25 case is to look for facts that may be counter

1 various conclusions to that problem?
 2 THE WITNESS (Maxson): That
 3 was rather abstract to me. Could you repeat
 4 it?
 5 DR. KLEMENS: Absolutely.
 6 Maybe I'll try to rephrase it to make it
 7 clearer.
 8 THE CHAIRMAN: It sounded very
 9 clear to me, but go ahead.
 10 DR. KLEMENS: Basically, you
 11 have a set -- other various solutions based
 12 on a complex series of facts. Are there
 13 various -- could there be different solutions
 14 arrived to the same problem?
 15 THE WITNESS (Maxson):
 16 Different solutions to resolve the same
 17 problem? Yes, I would -- I would agree
 18 that's -- that's possible, yes.
 19 DR. KLEMENS: So you -- you
 20 would then accept that it might -- that
 21 although some -- that there are problems and
 22 that, at times, there could be solutions that
 23 may not be your preferred outcome for a
 24 client or for your position, but they may be
 25 effective at achieving those goals?

1 to the facts that the Applicant has placed on
 2 the record.
 3 DR. KLEMENS: So, to rephrase,
 4 when you have worked for opponents, there's
 5 never been a case when you've said this
 6 actually is all okay. There's always an item
 7 or two that you find that could be improved
 8 upon.
 9 THE WITNESS (Maxson): Based
 10 on recollection of many years and not having
 11 all of them in front of me to review
 12 specifically, I think it's -- it's fair to
 13 say that, yes, there are -- there are times
 14 where I'm poking holes and times where I have
 15 very significant material issues that I can
 16 identify.
 17 DR. KLEMENS: And Footnote
 18 Number 2 is somewhat curious to me. You're
 19 saying that you actually have examined more
 20 dockets than the Council. Is that correct?
 21 THE WITNESS (Maxson): Not
 22 dockets, no.
 23 DR. KLEMENS: Well, tell --
 24 will you explain that to me and what you're
 25 actually trying to tell us with Footnote

1 Number 2?
 2 THE WITNESS (Maxson): I'm
 3 suggesting that I have seen 150 different --
 4 at least 150 different finders of fact,
 5 reviewed applications for at least 500
 6 different wireless facilities, and I've seen
 7 how they collectively respond to their
 8 obligations under their state laws and under
 9 their -- the Telecommunications Act.
 10 DR. KLEMENS: So I understand
 11 that. What -- what is the point of -- of
 12 that?
 13 MR. ASHTON: That's not what
 14 two says.
 15 DR. KLEMENS: Huh?
 16 MR. ASHTON: Two doesn't say
 17 that.
 18 THE WITNESS (Maxson): Well,
 19 I'm just making a comparison that I have a
 20 substantial amount of experience, as does the
 21 Council.
 22 DR. KLEMENS: Well, the
 23 Council has substantial experience. Then you
 24 don't say that we're not able to evaluate
 25 this, that we have the capacity to evaluate

1 MR. HANNON: Have you ever
 2 been involved in a situation where you're
 3 required to prepare an analysis of the
 4 coverage area? Would you say, if you have
 5 done that, would you tend to be a little more
 6 on the conservative side rather than, maybe,
 7 the outer limits of what that service would
 8 provide so that there's a safety factor built
 9 in, and then, you verify that after the
 10 facility is built and figure out just exactly
 11 what your coverage is?
 12 THE WITNESS (Maxson): I would
 13 try very hard not to over or underdesign
 14 something. And if there were a question, I
 15 can always conduct a continuous wave drive
 16 test, where I erect a mast or a crane with a
 17 test antenna to see what my proposed
 18 facility's coverage will be and compare it to
 19 my computer models.
 20 MR. HANNON: Okay.
 21 Then the other question I have
 22 is your report talks consistently -- and I
 23 think you placed a lot of emphasis on the
 24 dominant server analysis. Is that a fair
 25 statement?

1 this in a fair and objection manner then?
 2 THE WITNESS (Maxson): I think
 3 you do, yes.
 4 DR. KLEMENS: Thank you.
 5 I have no further questions,
 6 Mr. Chairman.
 7 THE CHAIRMAN: Thank you.
 8 Mr. Hannon.
 9 MR. HANNON: Thank you,
 10 Mr. Chairman.
 11 I do have a couple of
 12 questions, one on page 2. You state, for
 13 example, the Applicant fortunately caught
 14 such a mistake in Docket 430 and withdrew.
 15 So that has to do with the telecommunications
 16 facility in Burlington. Can you please
 17 explain what you mean by "mistake"?
 18 THE WITNESS (Maxson): Well,
 19 the Applicant, based on the -- my reading of
 20 the record, said that when they built a new
 21 facility to the south and put it on the air
 22 and conducted some drive testing, apparently,
 23 they determined that the facility they were
 24 proposing in Burlington was indeed no longer
 25 necessary, and they withdrew the application.

1 THE WITNESS (Maxson): Yes, I
 2 do.
 3 MR. HANNON: Are there other
 4 ways of exploring where to put cell towers, I
 5 mean, or is this the only way where one can
 6 analyze where towers go?
 7 THE WITNESS (Maxson): Well,
 8 this way is not so much analyzing where
 9 towers go but analyzing the geographic
 10 distribution of replacement service from a
 11 proposed tower site. So if there are a
 12 number of different choices, they can be
 13 compared by doing the dominant server
 14 mapping.
 15 And keeping in mind the
 16 context here is, in what is essentially a
 17 full coverage environment where you're adding
 18 a site for capacity purposes, that's the role
 19 of the dominant server map.
 20 MR. HANNON: But is that the
 21 only way to reach a conclusion as to where a
 22 new facility should go?
 23 THE WITNESS (Maxson): In a
 24 capacity environment, I can't -- I can't see
 25 any other way to identify geographically

1 where -- using the mapping service
 2 technology, I can't see any other way to
 3 evaluate the effect of a capacity site on the
 4 existing network.
 5 MR. HANNON: I have no further
 6 questions.
 7 THE CHAIRMAN: Senator Daily.
 8 SENATOR DAILY: Thank you very
 9 much. The questions that I had, basically,
 10 have been asked and answered. But I must say
 11 I'm still very perplexed and, I guess,
 12 troubled by the timing of this report.
 13 THE WITNESS (Maxson): Thank
 14 you.
 15 THE CHAIRMAN: Thank you.
 16 Yeah. Just for the record,
 17 the last hearing was held on September 16th,
 18 so presumably one had -- would have had ample
 19 time to take into account what one heard
 20 and -- and provide, as in this case, a
 21 rebuttal report providing ample time for both
 22 the Applicant and the Council to review it.
 23 Mr. Maxson, how many times
 24 have you appeared before the Council? Do you
 25 know roughly? I don't need an exact number,

1 number of footnotes, which if you had the
 2 opinion where it should have been the text,
 3 which is just providing, again, arguments and
 4 opinions. So it just makes it -- that less
 5 of a late date, it makes it a little harder
 6 to follow the facts, as you apparently are
 7 lecturing us on what we should be following,
 8 the facts. But we are --
 9 THE WITNESS (Maxson): Thank
 10 you.
 11 May -- may I respond?
 12 THE CHAIRMAN: Sure.
 13 THE WITNESS (Maxson): Yes,
 14 I -- I appreciate the difficulty that this
 15 presents, the timing that it was received.
 16 And, as far as footnotes are concerned, it's
 17 my understanding that footnotes are also a
 18 valuable way to provide a more detailed
 19 parenthetical rather than simply a reference.
 20 So I -- I trust that I'm using footnotes in
 21 an appropriate fashion.
 22 And with respect to the --
 23 the -- my speaking about facts versus
 24 opinion, as I said at the opening of my
 25 submission, there was a fair amount of talk

1 but I know it's hard, and 500 separate
 2 wireless facility applications to remember,
 3 but, I mean, I know you've been here a number
 4 of times.
 5 THE WITNESS (Maxson): I would
 6 estimate in the vicinity of ten.
 7 THE CHAIRMAN: Okay.
 8 Have you ever felt necessary,
 9 in previous presentations, to provide, for
 10 example, a heading of teaching over opinion
 11 making and to sort of lecture the Council on
 12 the difference between facts and opinions?
 13 This seems to be a new twist,
 14 talking about twists. And in the way I
 15 remember you, my memory is you usually
 16 present very factual reports and information,
 17 but this seems to be over the top.
 18 And I'll just -- you don't
 19 have -- I guess you don't have to answer the
 20 question that's -- but the other thing is I
 21 find -- and maybe where I went to school it
 22 was -- it was different, but I usually
 23 remember that footnotes in general provide
 24 citations and not just added arguments and
 25 opinions. So I am quite surprised at the

1 on the record of this last session which gave
 2 me pause because there seemed to be an awful
 3 lot of focus on generalities on the part of
 4 the Applicant. And it seemed that that was
 5 not being challenged by the members of the
 6 Council. So I thought it would be helpful to
 7 discuss how I view my role as an expert in
 8 presenting fact and presenting opinions
 9 supported by those facts.
 10 THE CHAIRMAN: Okay. Thank
 11 you.
 12 We'll now go to
 13 cross-examination by the Applicant.
 14 MR. BALDWIN: Thank you,
 15 Mr. Chairman.
 16 Just a few questions.
 17 Mr. Maxson, do you recall,
 18 back in the 2008 time frame, working on
 19 behalf of the Borough of Paramus, New Jersey,
 20 as a municipal wireless consultant?
 21 THE WITNESS (Maxson): I do.
 22 MR. BALDWIN: In the court's
 23 decision -- this is the U.S. District Court
 24 for the District of New Jersey decision, the
 25 case of Sprint Spectrum LP versus the Zoning

1 Board of Adjustment for the Borough of
 2 Paramus -- the court refers to some of your
 3 testimony in that case. And I just wanted to
 4 refresh your recollection of that and make
 5 sure that that is still accurate in this
 6 docket.
 7 MR. ASHTON: Keep your voice
 8 up, please, Mr. Baldwin.
 9 MR. BALDWIN: I will. Thank
 10 you, Mr. Ashton.
 11 In that case --
 12 MR. COPPOLA: Objection.
 13 MR. BALDWIN: In that case,
 14 you --
 15 THE CHAIRMAN: Excuse me?
 16 MR. COPPOLA: I have an
 17 objection with regard to relevancy.
 18 THE CHAIRMAN: Well, it's
 19 premature to object because I haven't even
 20 heard what the -- what he's about to say
 21 so --
 22 MR. COPPOLA: Fair enough.
 23 MR. BALDWIN: Mr. Maxson, in
 24 that case you testified that you did not hold
 25 any agrees -- degrees in engineering. Is

1 THE WITNESS (Maxson): I have
 2 not.
 3 MR. BALDWIN: And isn't it
 4 true that, in another instance where you
 5 acted as a municipal wireless consultant for
 6 the City of Cranston, Rhode Island, that the
 7 court in that case found that your opinions
 8 and your conclusions were, quote, completely
 9 unreliable and unpersuasive?
 10 THE WITNESS (Maxson): Yes.
 11 And thank you for bringing that up because
 12 that's where I learned specifically what the
 13 federal rules of evidence require to make
 14 testimony reliable.
 15 MR. BALDWIN: Are the federal
 16 rules applicable --
 17 THE WITNESS (Maxson): And I
 18 made sure -- and I'm sorry, I haven't
 19 finished answering.
 20 MR. BALDWIN: You've answered
 21 my question.
 22 THE WITNESS (Maxson): And I
 23 made sure in my -- my responses here, my
 24 input here, that my testimony is reliable and
 25 does conform to those standards.

1 that still the case?
 2 THE WITNESS (Maxson): That's
 3 correct.
 4 MR. BALDWIN: And that you had
 5 no formal training with respect to the
 6 placement, construction or modification of
 7 personal wireless service facilities. Is
 8 that still the case?
 9 THE WITNESS (Maxson): Yes.
 10 MR. BALDWIN: You also
 11 testified that you had taken just one
 12 nongraded course via CD-ROM on cellular CDMA
 13 technology. Is that still the case?
 14 THE WITNESS (Maxson): In
 15 terms of course work, since then, I have
 16 taken the occasional webinar on various
 17 matters of wireless communications
 18 technology.
 19 MR. BALDWIN: Have you taken
 20 any courses or webinars that relate to LTE
 21 technology?
 22 THE WITNESS (Maxson): I have.
 23 MR. BALDWIN: Have you ever
 24 designed a wireless system or network using
 25 LTE technology?

1 MR. BALDWIN: I'll take that
 2 as a yes.
 3 Thank you, Mr. Chairman. I'm
 4 all set.
 5 (Witness was excused.)
 6 THE CHAIRMAN: Okay.
 7 Attorney Coppola, will you
 8 please continue with your cross-examination
 9 of the Applicant.
 10 J A I M E L A R E D O,
 11 J U A N L A T O R R E,
 12 having been previously duly sworn, were
 13 examined and testified further on their
 14 oaths as follows:
 15 MR. COPPOLA: Mr. Laredo, in
 16 your professional experience, have you done
 17 work for AT&T Wireless either as an employee
 18 or a contractor?
 19 THE WITNESS (Laredo): Yes.
 20 MR. COPPOLA: On page 2 of
 21 your CV, does it state that you worked on
 22 various things, including capacity
 23 optimization, for AT&T up until
 24 December 2011?
 25 THE WITNESS (Laredo): That's

1 correct.
 2 MR. COPPOLA: Does your resume
 3 also state that you worked on the AT&T
 4 Louisiana market from May 2012 to May 2013?
 5 If it's easier, I could just
 6 retract the question and let me just ask you
 7 a more basic question.
 8 Did you work on AT&T's
 9 Louisiana market, at some point, in the last
 10 few years?
 11 THE WITNESS (Laredo): Yes.
 12 MR. COPPOLA: Among other
 13 things that you worked for with regard to
 14 AT&T, did you work on capacity issues?
 15 THE WITNESS (Laredo): Yes.
 16 MR. COPPOLA: So did you solve
 17 network performance issues for AT&T?
 18 THE WITNESS (Laredo): Yes.
 19 MR. COPPOLA: And how long
 20 ago -- approximately, how long ago did you
 21 leave AT&T?
 22 THE WITNESS (Laredo): It's
 23 roughly a year ago.
 24 MR. COPPOLA: Is it unusual
 25 for RF engineers like yourself to work for

1 I mean, this is an expert
 2 witness who Verizon is putting out as an
 3 expert to give opinions in this application
 4 and testimony. I'm asking questions about
 5 his -- his employment over the last few
 6 years, but more importantly with regard to
 7 some specific -- his experience with regard
 8 to some specific issues that are relevant to
 9 this application.
 10 THE CHAIRMAN: Well, let's get
 11 to those, please.
 12 MR. COPPOLA: I'm trying to.
 13 So when you were working for
 14 AT&T, were you aware of AT&T's link budget
 15 information?
 16 THE WITNESS (Laredo): I was
 17 not aware.
 18 MR. COPPOLA: You were not?
 19 THE WITNESS (Laredo): I was
 20 not, because the reason for that is I was a
 21 system performance engineer specifically for
 22 North California and Louisiana markets of
 23 AT&T. So I am not directly exposed to link
 24 budget calculations, though, I had experience
 25 doing propagation predictions using tools

1 different wireless companies during your
 2 career?
 3 THE WITNESS (Laredo): I can
 4 say it's -- it's common, especially during
 5 those times when I was working for AT&T as a
 6 contractor, because presently I'm a regular
 7 employee of Verizon Wireless.
 8 MR. COPPOLA: So, today,
 9 you're a -- an employee of Verizon Wireless.
 10 Correct?
 11 THE WITNESS (Laredo): That's
 12 correct.
 13 MR. COPPOLA: When you were
 14 working for AT&T, were you aware of AT&T's
 15 link budget information?
 16 MR. BALDWIN: Objection, Mr.
 17 Chairman. We've answered some questions
 18 regarding Mr. Laredo's background. I'm
 19 trying to understand what AT&T's link budget
 20 information has to do with anything in this
 21 proceeding.
 22 MR. COPPOLA: If I'm able to
 23 just finish my questions, it's pretty clear
 24 to what I'm getting at. So if I could just
 25 ask the question.

1 used by AT&T.
 2 MR. COPPOLA: That includes
 3 some of the same information that's included
 4 in those link budgets?
 5 THE WITNESS (Laredo): I'm
 6 sorry. Can you --
 7 MR. COPPOLA: And does that
 8 include some of the same information that's
 9 generally included in link budgets?
 10 THE WITNESS (Laredo): A
 11 portion of it, yes.
 12 MR. COPPOLA: Okay.
 13 So now you're working for
 14 Verizon Wireless. Correct?
 15 THE WITNESS (Laredo): That's
 16 correct.
 17 MR. COPPOLA: And can you tell
 18 me how an engineer like yourself might use
 19 some of the knowledge you have of -- of, for
 20 example, of another competitor's link budget,
 21 such as AT&T, when doing work for Verizon.
 22 THE CHAIRMAN: Excuse me.
 23 He just answered the question
 24 that he was not aware of the link budget for
 25 AT&T, so I don't know where -- where you're

1 going.
 2 MR. COPPOLA: He just -- he --
 3 he also -- he just testified that some of the
 4 information --
 5 THE CHAIRMAN: Some of the
 6 information, but come on.
 7 MR. COPPOLA: Well, but that's
 8 what he testified to. He testified that some
 9 of the same information that's in the --
 10 THE CHAIRMAN: But he answered
 11 the question that he was not -- he did not
 12 have the entire package of information. So,
 13 I think -- I think, unless you can get to a
 14 specific -- something specific that's
 15 relevant, I think you should go on to
 16 something else. We've -- we've spent a lot
 17 of time already.
 18 MR. COPPOLA: So when -- when
 19 you were working for AT&T, were you able to
 20 do propagation productions without --
 21 predictions -- I'm sorry -- so were you able
 22 to do propagation predictions without knowing
 23 the link budgets?
 24 THE WITNESS (Laredo): I was
 25 able to review coverage predictions, but to

1 appropriate person for me to ask questions
 2 about regarding that mapping, correct, since
 3 you produced them?
 4 MR. BALDWIN: We have -- we
 5 have a team of experts that can answer your
 6 questions.
 7 MR. COPPOLA: Okay.
 8 Mr. Latorre, did you produce
 9 the maps that were submitted as Attachment 6
 10 to the application?
 11 THE WITNESS (Laredo): Jay
 12 Latorre.
 13 I did not.
 14 MR. COPPOLA: Okay.
 15 So, Mr. Laredo, since you
 16 produced the maps which were attached as
 17 Exhibit 6 to the application, did you use the
 18 link budget information to establish your
 19 receive single level threshold?
 20 THE WITNESS (Laredo): Yes.
 21 MR. COPPOLA: Mr. Laredo, if
 22 another engineer relies on your signal level
 23 threshold of negative 85 dBm to do an
 24 analysis, does that same engineer need to
 25 know the details of your link budget

1 generate them, we have a separate team doing
 2 that.
 3 MR. COPPOLA: In this
 4 application, is it correct that you provided
 5 a negative 85 dBm as a single threshold?
 6 THE WITNESS (Latorre): Jay
 7 Latorre.
 8 In this application, the maps
 9 that were originally submitted did say neg 85
 10 dBm threshold. At the previous hearing for
 11 this docket, we verbally, during the course
 12 of the hearing, corrected that to state the
 13 120 dB reverse link operational path loss as
 14 our threshold, RLOPL.
 15 THE COURT REPORTER: What was
 16 that last one? R-L --
 17 THE WITNESS (Latorre): RLOPL,
 18 which stands for Reverse Link Operational
 19 Path Loss.
 20 MR. COPPOLA: Who produced the
 21 maps that were submitted as Attachment 6 to
 22 the application?
 23 THE WITNESS (Laredo): I did.
 24 MR. COPPOLA: You did. Okay.
 25 So you'd probably be the

1 information?
 2 MR. BALDWIN: Mr. Chairman, I
 3 object to -- to the effort to get Mr. Laredo
 4 to speculate what another engineer might or
 5 might not do.
 6 MR. COPPOLA: Mr. Chairman,
 7 he's -- he's testifying within his capacity
 8 as an expert witness. It's a completely
 9 appropriate question to ask.
 10 THE CHAIRMAN: I'm not sure it
 11 is. He's --
 12 MR. COPPOLA: He --
 13 THE CHAIRMAN: -- saying --
 14 wait a minute. I really don't appreciate --
 15 he's saying what he did. You're asking him
 16 to speculate, I suppose. We could ask him to
 17 speculate, but we're trying -- we're trying
 18 to get facts here. And I think the facts are
 19 what -- what he is aware of.
 20 MR. COPPOLA: Then I could --
 21 I could certainly ask the question, then,
 22 if -- to Mr. Laredo, I guess.
 23 Mr. Laredo, if -- if you
 24 were -- you know, let me retract the question
 25 and move on.

1 (Pause.)
 2 THE CHAIRMAN: Can we get on
 3 with this, please?
 4 MR. COPPOLA: Yes.
 5 Mr. Laredo, is it necessary to
 6 have the link budget information in order to
 7 produce coverage maps at the negative 85 dBm?
 8 THE WITNESS (Laredo): Can you
 9 repeat the question for me, please?
 10 MR. COPPOLA: Was it necessary
 11 to have the link budget information in order
 12 to produce coverage maps which showed a
 13 negative 85 dBm?
 14 THE WITNESS (Laredo): That's
 15 true. I just want to comment that, like,
 16 what we presented earlier, those plots that
 17 we submitted are based from 120 DBRLOPL.
 18 MR. COPPOLA: Okay. And that
 19 was -- and that change in the mapping was
 20 noticed to the Council and all interested
 21 parties at the last hearing. Correct?
 22 THE WITNESS (Laredo): Correct.
 23 MR. COPPOLA: And as a result
 24 of that -- and -- and, Mr. Laredo, as a
 25 result of that -- that change in the mapping,

1 THE WITNESS (Laredo): I
 2 honestly cannot answer the question.
 3 MR. COPPOLA: Mr. Laredo, does
 4 Verizon ever test coverage from a proposed
 5 location before a tower is built?
 6 THE WITNESS (Laredo): Yes.
 7 MR. COPPOLA: It's my
 8 understanding that people call that kind of a
 9 testing a "CW Test" or a continuous wave
 10 test. Is that correct?
 11 THE WITNESS (Laredo): That's
 12 correct.
 13 MR. COPPOLA: Did Verizon
 14 Wireless perform a CW drive test at the
 15 subject property?
 16 THE WITNESS (Laredo): Not at
 17 this site, no.
 18 MR. COPPOLA: If I may refer
 19 you to your testimony at the last hearing on
 20 September 16th, I believe it was at page 467
 21 of the transcript.
 22 (Pause.)
 23 MR. COPPOLA: Is it correct,
 24 Mr. Laredo, that you explained that you
 25 conduct drive -- that you had conducted drive

1 did it have an effect on any other documents
 2 that were submitted as part of this
 3 application?
 4 Would you like me to rephrase
 5 the question?
 6 THE WITNESS (Laredo): Yes,
 7 please.
 8 MR. COPPOLA: Okay.
 9 So you -- you changed the
 10 mapping that was initially submitted as
 11 Attachment 6 to -- to the application. Is
 12 that correct?
 13 THE WITNESS (Laredo): That's
 14 not totally true. We changed the legend,
 15 yes, but the content remains the same --
 16 MR. COPPOLA: Okay.
 17 So is it --
 18 THE WITNESS (Laredo): --
 19 because of all the plot surveys from 120
 20 DBRLOPL.
 21 MR. COPPOLA: As a result of
 22 the change of the legend in the mapping, was
 23 it necessary for you to change any other
 24 documents that were submitted as part of this
 25 application?

1 tests, and you said, from actual drive tests,
 2 we can pinpoint and confirm with the help of
 3 traffic data location where a facility will
 4 be offloading a sector or not?
 5 THE WITNESS (Laredo): Based
 6 around my testimony and just explaining that
 7 we look at drive data, and based from our
 8 statistical data, we also look at our traffic
 9 data locations, so those are two separate
 10 entities.
 11 MR. COPPOLA: But when you
 12 were asked questions at the last hearing
 13 by -- I believe it was Mr. Mercier, with
 14 regard to what was done to make the -- your
 15 determinations in this application, is it
 16 correct that you said we also evaluate the
 17 area based from other data, like drive tests
 18 and actual traffic locations. Is that
 19 correct?
 20 THE WITNESS (Laredo): That's
 21 correct.
 22 MR. COPPOLA: Okay.
 23 But you didn't do that here.
 24 Correct?
 25 THE WITNESS (Laredo): We did.

1 MR. COPPOLA: You did?
 2 THE WITNESS (Laredo): I did.
 3 MR. COPPOLA: Okay.
 4 But you -- did you do a drive
 5 test?
 6 THE WITNESS (Laredo): We did
 7 a drive test, yes.
 8 MR. COPPOLA: Okay.
 9 So you -- you conducted a
 10 drive test, but you didn't conduct a CW drive
 11 test. Is that correct?
 12 THE WITNESS (Laredo): Those
 13 that's -- are two different things, yes.
 14 MR. COPPOLA: Okay.
 15 So could you tell me about the
 16 type of drive test that you conducted as part
 17 of this application?
 18 THE WITNESS (Latorre): Yeah.
 19 Okay. Jay Latorre.
 20 To clarify, a CW test is
 21 typically a test where Verizon Wireless would
 22 contract with, typically, a third-party
 23 contractor, and they would deploy an antenna
 24 system. Sometimes in a facility like this,
 25 they would need a crane to put the antennas

1 THE WITNESS (Latorre): Just
 2 restate the question for me, please.
 3 MR. COPPOLA: Sure. Based on
 4 what you just stated then, is it correct to
 5 say that the CW drive test is the only type
 6 of drive test that would provide evidence of
 7 the proposed new coverage?
 8 THE WITNESS (Latorre): From
 9 the -- from the aspect of it being a drive
 10 test specifically going out in the field?
 11 Based on my current knowledge of, you know,
 12 testing for those types of services, I'd say
 13 that's accurate.
 14 MR. COPPOLA: Okay.
 15 And -- and that type of test
 16 was not done here. Correct?
 17 THE CHAIRMAN: Excuse me.
 18 Mr -- Mr. Lynch has a clarification question.
 19 MR. LYNCH: Mr. Latorre, just
 20 as a follow-up, when you're doing your drive
 21 test, you know, with your -- with a vehicle
 22 and you're testing just for signal strength,
 23 it doesn't really matter what kind of data is
 24 coming or what type of data or calling is
 25 coming over the network then, does it?

1 at the same height of the proposal to then
 2 allow them to drive a predefined drive route
 3 to identify whether or not if a facility was
 4 placed in that location to better identify
 5 what the overall coverage and signal strength
 6 of that facility may be.
 7 When we at Verizon Wireless
 8 typically refer to drive testing, what we're
 9 really talking is driving in a vehicle with
 10 our phones and other devices that are capable
 11 of connecting to either our 4G LTE network or
 12 any of our other networks to determine in
 13 real time, based on all the other various
 14 environmental factors, what the current, you
 15 know, conditions of the network are today.
 16 And that allows us to have
 17 accurate interpretations of signal strength
 18 of all of our existing transmitter stations,
 19 as well as understanding, you know, other
 20 factors such as the -- the quality of the
 21 signal and things like that.
 22 MR. COPPOLA: So would you say
 23 then that a CW test is the only test that
 24 provides evidence of the proposed new
 25 coverage?

1 THE WITNESS (Latorre): Yeah.
 2 When -- when you're doing a CW test and
 3 you're just --
 4 MR. LYNCH: No, no, not a CW
 5 test.
 6 THE WITNESS (Latorre): Oh,
 7 I'm sorry.
 8 MR. LYNCH: I'm talking about
 9 your local drive around in your vehicle with
 10 your iPad and your phone, and so on.
 11 THE WITNESS (Latorre):
 12 Gotcha.
 13 No. I would say it would
 14 matter and -- and here's the reason.
 15 They're, you know -- in -- in a complex
 16 network, there can be some differences in how
 17 the mobile determines, you know, which signal
 18 is -- is the best signal and which one to use
 19 depending on what it's doing.
 20 So, for example, I think the
 21 crux of your question is, if your -- if your
 22 phone is in idle mode and you're just moving
 23 around in your vehicle and it's just kind of
 24 evaluating different signals, yeah, I'd agree
 25 with you.

1 But if your phone, as would --
2 another type of drive test, as we do
3 oftentimes, is when we're conducting, you
4 know, different kinds of tests, uploads and
5 downloads to determine the quality and speed
6 of our network, certainly the various
7 conditions, not only of the different
8 channels, but also the loading and -- and
9 other factors can impact whether, you know,
10 you're -- you're using the same sector, same
11 cell, same frequency, you know, at a
12 particular point in time based on the -- the
13 operating mode of the mobile device.

14 MR. LYNCH: I understand.
15 Thank you.

16 Thank you, Mr. Coppola.

17 MR. COPPOLA: So, here, did
18 Verizon conduct an actual drive test to
19 pinpoint and -- and confirm where this Orange
20 north facility would be offloading other
21 sectors or not?

22 THE WITNESS (Laredo): We did
23 not perform CW tests in this one.

24 MR. COPPOLA: Okay.
25 So then, therefore, you -- you

1 don't -- I don't have that information right
2 now.

3 MR. COPPOLA: Do you know
4 specifically what Verizon's findings were as
5 a result of those drive tests?

6 THE WITNESS (Laredo): I can
7 be sure that, based from the actual drive
8 tests, we need the -- the proposed facility
9 to enhance the coverage immediately in the
10 area. And it does -- some of the exhausting
11 sectors are overpropagating because of the
12 lack of good coverage in the area.

13 MR. COPPOLA: Mr. Laredo, is
14 it correct that your CV states that you have
15 technical proficiency in the design
16 simulation tool Geoplan?

17 THE WITNESS (Laredo): That's
18 correct.

19 MR. COPPOLA: Is Geoplan the
20 software tool you use at Verizon to map
21 coverage?

22 THE WITNESS (Laredo): That's
23 correct.

24 MR. COPPOLA: Mr. Laredo, is
25 it correct that you were assigned the Orange

1 did not produce a drive test which was able
2 to pinpoint and confirm where the Orange
3 north facility would be offloading other
4 sectors. Correct?

5 THE WITNESS (Laredo): We did
6 do a drive test based from the current
7 coverage situation in the area provided by
8 our network. And somewhat based from my
9 experience and familiarity with the area, I
10 was able to justify the need for the facility
11 to be located on the current proposed one.

12 MR. COPPOLA: Okay.

13 But were you able -- by --
14 based on those drive tests, were you able to
15 pinpoint and confirm where the Orange north
16 facility would be offloading other sectors?

17 THE WITNESS (Laredo): I can
18 say that's a yes.

19 MR. COPPOLA: That's a yes?

20 THE WITNESS (Laredo): Based
21 from the drive test that we've done.

22 MR. COPPOLA: Do you know what
23 the approximate date of those drive tests
24 were?

25 THE WITNESS (Laredo): I

1 north cell site in October of 2013?

2 THE WITNESS (Laredo): That's
3 correct.

4 MR. COPPOLA: So, at that
5 time, in October of 2013, you became the RF
6 design engineer responsible for the Orange
7 north cell site. Is that correct?

8 THE WITNESS (Laredo): That's
9 correct.

10 MR. COPPOLA: And before you
11 were at Verizon, were there other engineers
12 who were assigned the Orange north cell site?

13 THE WITNESS (Laredo): There
14 are other engineers, yes.

15 MR. COPPOLA: Do you recall
16 who the other engineers were that were
17 assigned to this project?

18 THE CHAIRMAN: Do you plan to
19 ask somebody else to be a witness? Is there
20 a point to this?

21 THE WITNESS (Laredo): I was
22 not sure which among my teammates used to
23 handle it.

24 MR. COPPOLA: Okay.
25 Mr. Laredo, to the best of

1 your recollection, was the subject property,
 2 831 Derby Milford Road, already selected at
 3 the time you were reassigned the Orange north
 4 cell site in the fall of 2013?
 5 (Pause.)
 6 THE WITNESS (Laredo): I just
 7 want to make sure I'm giving the accurate
 8 answer. Can you please rephrase the question
 9 for me?
 10 MR. COPPOLA: I believe the
 11 question was, to the best of your
 12 recollection, was the subject property at 831
 13 Derby Milford Road already selected at the
 14 time you were reassigned the Orange north
 15 cell site in the fall of 2013?
 16 THE WITNESS (Laredo): Given
 17 the situation that I was new in the team
 18 during that time, we continuously review all
 19 candidates, especially the site that's part
 20 of those that's being transitioned to me.
 21 So, to be honest, I'm not sure
 22 if it was already decided during that time,
 23 but I was asked to confirm if the site is
 24 ideal for what we intend to enhance in the
 25 area.

1 THE WITNESS (Laredo): I
 2 need -- I need to ensure that I simulate that
 3 the -- the current coverage, the future
 4 coverage, and incorporate that -- all future
 5 sites that I plan in the area other than the
 6 subject site that I want to -- I want to see
 7 in terms of how they interact with the
 8 existing network.
 9 THE WITNESS (Latorre):
 10 There's also a couple of
 11 additional factors that come into play that
 12 we can look at. One is verifying that the
 13 appropriate technology and powers of all of
 14 the test -- or transmitter sites, whether
 15 they be proposed or in production, are
 16 accurate.
 17 There's verifying that the
 18 antenna models, there are gains, their
 19 orientations, their electrical and mechanical
 20 tilts are accurate; depending on, you know,
 21 whether the technology is new and a
 22 fiber-based solution or legacy and a coaxial
 23 cable-based solution, we need to verify
 24 whether or not the appropriate line losses
 25 that can occur in between when the radio RF

1 MR. COPPOLA: Okay.
 2 But your recollection is you
 3 don't remember whether or not it had already
 4 been selected at that point in time.
 5 Correct?
 6 THE WITNESS (Laredo): Correct.
 7 MR. ASHTON: Had it been
 8 identified but not selected?
 9 THE WITNESS (Laredo): It was
 10 identified.
 11 THE CHAIRMAN: Okay.
 12 MR. COPPOLA: Mr. Laredo, when
 13 you use the Geoplan system to make a coverage
 14 map, do you set Geoplan up to show the cell
 15 sites you want to -- you want to model?
 16 THE WITNESS (Laredo): Yes.
 17 MR. COPPOLA: Once you set up
 18 your cell sites on Geoplan, do you select a
 19 particular frequency band to model?
 20 THE WITNESS (Laredo): That's
 21 correct.
 22 MR. COPPOLA: And once you
 23 have chosen your cell sites and frequency
 24 bands on Geoplan, what else do you have to do
 25 to generate a coverage map?

1 is created and when it leaves the antenna is
 2 accurate to -- to best model, you know,
 3 different losses in each transmitter site,
 4 whether existing or proposed; making sure
 5 that our clutter models are in play to most
 6 accurately depict vegetation and other types
 7 of buildings in the area to ensure that sites
 8 are propagating as accurately as can be with
 9 this type of tool.
 10 Other things I would think of
 11 as -- as even just, you know, mentioning,
 12 making sure that the centerlines of the
 13 antennas are accurate to depict, you know,
 14 how high the antennas are off the ground.
 15 There may be more, but there
 16 are quite a few other things that we do to
 17 verify that when we put together maps that
 18 they represent as much information about each
 19 transmitter station as possible.
 20 MR. COPPOLA: And Mr. Latorre,
 21 do you have any experience in using the
 22 Geoplan software tool?
 23 THE WITNESS (Latorre): Yes.
 24 MR. COPPOLA: And what's your
 25 experience?

1 THE WITNESS (Latorre): I've
2 been with Verizon Wireless for about three
3 and half years now, close to four, all in an
4 RF engineering role. So since, let's say,
5 the -- the first month of working at Verizon
6 Wireless, I've been actively using the
7 Geoplan tool on a daily basis. So to answer
8 very simply, three and a half to four years
9 of experience.

10 MR. COPPOLA: Okay. Thank
11 you.

12 Mr. Laredo, is it fair to say
13 that one of the things you do to create a
14 coverage map in Geoplan is to select a -- a
15 received signal level threshold to display on
16 the map?

17 THE WITNESS (Laredo): That's
18 correct.

19 MR. COPPOLA: And just to be
20 clear, when you produce coverage maps for
21 public presentation, is it correct to say you
22 are modeling the downlink from the base
23 station to the user?

24 THE WITNESS (Laredo): Yeah,
25 we do.

1 path loss threshold instead of a receive
2 signal strength threshold, there's something
3 you need to do. Is that correct?

4 THE WITNESS (Latorre): In the
5 Geoplan tool, when you have a set of
6 different truss transmitter locations, and
7 you verified, you know, which sites you'd
8 like to see propagated, we just have a simple
9 analysis to determine the various types of
10 ways we can show either, you know, coverage
11 from the transmitter to the mobile device
12 or -- or path loss, you know -- you know,
13 between the mobile device back to the
14 transmitter.

15 And there's a couple of other
16 things we can do to see, for example, you
17 know, projected, you know, signal quality,
18 you know, for example, of that. And
19 basically what happens, if you identify your
20 sectors, you can have different layers, is
21 what we call them. And if you click on one
22 you can see one sort of analysis. And then
23 when you're done looking at it, you can
24 unclick it and then run a new analysis based
25 on the type of data you want to look at.

1 MR. COPPOLA: Okay.

2 Is there a way, Mr. Laredo, in
3 Geoplan to select a reverse link operational
4 path loss threshold instead of a received
5 signal strength threshold.

6 THE WITNESS (Laredo): Can you
7 repeat that for me, please?

8 MR. COPPOLA: Is there a way
9 in -- in Geoplan to select a reverse link
10 operational path loss, also known as an
11 RLOP -- I'm sorry -- RLOPL threshold instead
12 of a received signal strength threshold?

13 THE WITNESS (Laredo): Yes,
14 there is.

15 MR. COPPOLA: There is? How
16 does that work?

17 THE WITNESS (Laredo): Those
18 plots are -- can be generated separately.

19 MR. COPPOLA: And were they in
20 this case?

21 THE WITNESS (Laredo): The
22 plots we submitted are based from RLOPL.

23 MR. COPPOLA: But you -- I
24 think you just previously stated, in -- in
25 order to select the reverse link operational

1 MR. COPPOLA: Mr. Laredo, in
2 your time at Verizon, in producing these
3 types of maps, have you ever produced a
4 coverage map that uses a reverse link
5 operational path loss threshold?

6 THE WITNESS (Laredo): Yes.

7 THE CHAIRMAN: Attorney
8 Coppola, I'm really looking for the point
9 other than to educate everybody in the room
10 about -- about this type of software and
11 various elements. Could you please get to
12 the point of this -- these questions.

13 We're -- again, we're in the
14 fourth session. I think, by now, you should
15 be able to get to the points of your
16 questions as opposed to --

17 MR. COPPOLA: I'm -- I'm
18 trying to. But please keep in mind, Mr.
19 Chairman, that at the last hearing, they
20 changed the legend of the maps, which are
21 extremely important to this application,
22 which were set forth as Attachment 6 to the
23 application.

24 So I'm asking questions to try
25 to get some clarification about what happened

1 there. And -- and so I apologize that I
2 can't be more precise in doing so. I -- I
3 obviously don't have a opportunity to depose
4 anyone in advance of the hearing, so this is
5 my opportunity to ask these questions. I'm
6 trying my best.

7 THE CHAIRMAN: Yeah, but they
8 explained that they made an error. They
9 explained they changed it. Your expert
10 witness, despite the fact that he had a
11 month, was able to provide documentation
12 challenging this.

13 I'm not -- I'm still not at
14 all clear where we're going, so I wish you
15 would get to wherever it is you're going.

16 MR. COPPOLA: Okay.
17 (Pause.)

18 MR. COPPOLA: Mr. Laredo, did
19 you provide the table of transmitter
20 information that was in Attachment 1 of the
21 supplemental responses of Cellco Partnership,
22 d/b/a Verizon, to the Intervenor's prehearing
23 interrogatories and request for production?
24 I believe the Cellco responses were dated
25 August 7, 2014.

1 MR. BALDWIN: Mr. Chairman --
2 MR. COPPOLA: I apologize.
3 Let me -- let me --

4 MR. BALDWIN: -- I think he
5 answered the question.

6 THE CHAIRMAN: He answered
7 that question already.

8 MR. COPPOLA: And -- and, Mr.
9 Laredo, did the information in the
10 transmitter table come from Geoplan?

11 THE WITNESS (Latorre): Yes,
12 that's correct. The Geoplan is the database
13 that the RF design engineers used to keep
14 track of our antenna models, the lat and
15 longs of the site locations, the names, gains
16 of the antennas, et cetera, et cetera.

17 MR. COPPOLA: Mr. -- Mr.
18 Laredo, do you see there's a column that you
19 have in your -- in your table that says
20 "antenna model" and one that says "with
21 normal gain?"

22 THE WITNESS (Laredo): Yes.

23 MR. COPPOLA: So, Mr. Laredo,
24 are there other columns with information
25 about how high the antennas are, which

1 THE WITNESS (Laredo): Yes, I
2 did.

3 MR. COPPOLA: Okay. I'm just
4 going to refer to that document as the
5 transmitter table, if that's okay?

6 Looking at the transmitter
7 table, do you see there's a column labeled
8 "the antenna input lots?"

9 I believe it's the last column
10 on the right-hand side.

11 THE WITNESS (Laredo): Yes, I
12 see it.

13 MR. COPPOLA: Does that column
14 indicate the maximum power available to the
15 LTE signal as a whole?

16 THE WITNESS (Laredo): It's
17 actually the -- the maximum transmit power
18 that the sector can transmit up for -- yes,
19 at full utilization.

20 MR. COPPOLA: So the answer is
21 yes?

22 THE WITNESS (Laredo): Yes.

23 MR. COPPOLA: Does that column
24 indicate the maximum power available to the
25 LTE signal as a whole?

1 directions they are pointed, and if they are
2 tilted or not?

3 THE WITNESS (Laredo): Yes.

4 MR. COPPOLA: Is it fair to
5 say that when an RF engineer has the
6 information on the -- on the -- the
7 transmitter table, that the engineer can use
8 modeling software to make a coverage map of
9 the cell sites listed on the table?

10 THE WITNESS (Laredo): Yes.

11 THE WITNESS (Latorre): So as
12 long as he had all of the other appropriate
13 information that I discussed before, such as
14 things like, you know, coaxial losses and,
15 you know, our link budget, but this is a good
16 starting point to make a basic coverage map.

17 MR. COPPOLA: But I -- but I
18 asked the question of Mr. Laredo who created
19 the table. Correct, Mr. Laredo, you created
20 the table?

21 THE WITNESS (Laredo): Yes.

22 MR. COPPOLA: Okay.

23 MR. BALDWIN: The question has
24 been answered, Mr. Chairman.

25 MR. COPPOLA: Mr. Laredo, did

1 Verizon use the values in the transmitter
 2 table to produce Verizon's LTE coverage maps
 3 of the eight existing sectors and three
 4 Orange north sectors?
 5 THE WITNESS (Laredo): That's
 6 true, and so as the clutter models that we
 7 have in our propagation application tool,
 8 which is not -- it can't -- it cannot be
 9 visible from here or even translatable to a
 10 table like this.
 11 MR. COPPOLA: And did you have
 12 an opportunity to review the initial report
 13 that was submitted by Mr. Maxson, which was
 14 dated August 27, 2014?
 15 THE WITNESS (Laredo): Yes.
 16 MR. COPPOLA: Okay.
 17 And I wanted to just draw your
 18 attention to Exhibit 1, or I should say
 19 Attachment 1, page 30, of the Maxson report,
 20 dated August 27, 2014.
 21 MR. MERCIER: I'm sorry. What
 22 page?
 23 MR. COPPOLA: Page 30.
 24 Mr. Laredo, just please let me
 25 know when you have that in front of you.

1 level?
 2 THE WITNESS (Laredo): That's
 3 correct.
 4 MR. COPPOLA: Okay.
 5 During the September 16th
 6 hearing, Mr. Latorre changed the description
 7 of your LTE maps which were submitted as
 8 Attachment 6 of the original application.
 9 Do you agree with that change
 10 to your LTE maps?
 11 THE WITNESS (Laredo): Yeah, I
 12 agree.
 13 MR. COPPOLA: Okay.
 14 And is it correct, that as a
 15 result of the change, the LTE maps were
 16 described as showing a signal threshold of
 17 120 dB RLOPL which, I believe, is a reverse
 18 link operational path loss?
 19 THE WITNESS (Laredo): Yes.
 20 MR. COPPOLA: Okay.
 21 And, Mr. Laredo, in fact, is
 22 the reverse link operational path loss
 23 reported in dB?
 24 THE WITNESS (Laredo): Yes.
 25 MR. COPPOLA: And is it

1 MR. BALDWIN: It's Attachment
 2 1 of the report that we're talking about?
 3 MR. COPPOLA: It was
 4 Attachment 1. It's also described as page
 5 30.
 6 THE WITNESS (Laredo): Yeah, I
 7 have it.
 8 MR. COPPOLA: Okay.
 9 Mr. Laredo, did you see the
 10 label on the Verizon map where it says
 11 "700 megahertz LTE RSRP?"
 12 THE WITNESS (Laredo): Yes, I
 13 see it.
 14 MR. COPPOLA: Okay.
 15 I don't expect you to remember
 16 the wording of every acronym that's used by
 17 an RF design engineer, but do you recall what
 18 RSRP refers to?
 19 THE WITNESS (Laredo): It's a
 20 reference signal received power.
 21 MR. COPPOLA: Yes, thank you.
 22 I think that's correct.
 23 And, Mr. Laredo, is it correct
 24 that reference signal received power, also
 25 known as RSRP, is an LTE received power

1 correct that the reference signal received
 2 power, also known as RSRP, is reported in
 3 dBm. Is that correct?
 4 THE WITNESS (Laredo): That's
 5 correct.
 6 MR. COPPOLA: And, Mr. Laredo,
 7 is that because RLOPL, also known as Reverse
 8 Link Operational Path Loss, is a path loss
 9 and the RSRP is a receive signal level?
 10 THE WITNESS (Laredo): That's
 11 correct.
 12 MR. COPPOLA: So, Mr. Laredo,
 13 when you make Verizon LTE coverage maps, do
 14 you use RSRP or something else?
 15 THE WITNESS (Laredo): For the
 16 purpose of presentations and reports, I use
 17 RLOPL, though I do simulate all possible
 18 coverage layers as I do the plan.
 19 MR. COPPOLA: Okay.
 20 And just going back to this
 21 transmitter table, which, again, was
 22 Attachment 1 to Celco's supplemental
 23 responses to the interrogatories and request
 24 for production, dated August 7, 2014 --
 25 (Pause.)

1 MR. COPPOLA: So, Mr. Laredo,
 2 when you use Geoplan to model LTE coverage,
 3 do you adjust the transmitted power shown on
 4 the transmitter table to account for the
 5 difference between the maximum power of the
 6 LTE signal and the reference signal power?
 7 (Pause.)
 8 THE WITNESS (Latorre): When
 9 we -- when we're looking at -- let me
 10 actually take that back.
 11 Could you say your question
 12 one more time, please? Thank you.
 13 MR. COPPOLA: Sure.
 14 When you use the Geoplan to
 15 model LTE coverage, do you adjust the
 16 transmitted power, as shown on the
 17 transmitter table, to account for the
 18 difference between the maximum power of the
 19 LTE signal and the reference signal power?
 20 THE WITNESS (Latorre): Okay.
 21 I can answer your question.
 22 For the purposes of generating
 23 maps that we would have for reports such as
 24 this, the maps always represent the maximum
 25 power of the transmitter. In this case, for

1 know, going through buildings, vegetation, et
 2 cetera.
 3 MR. COPPOLA: So is it fair to
 4 say, then, that the power levels in the
 5 table, the transmitter table, which, again,
 6 you referenced as Attachment 1 to the
 7 supplemental responses to the discovery
 8 request, that -- that the power levels in
 9 that table are irrelevant to the LTE coverage
 10 maps?
 11 THE WITNESS (Latorre): Yeah.
 12 I mean, I think, for operational path loss,
 13 power is not one of the most important
 14 factors.
 15 But I think we put it in there
 16 because it's important for everyone to
 17 understand the -- the power output of the
 18 proposed facility.
 19 MR. BALDWIN: Mr. Chairman, I
 20 should also point out it was put in the table
 21 because that's what was asked for.
 22 THE CHAIRMAN: Thank you.
 23 MR. COPPOLA: Mr. Laredo, when
 24 you refer to actual traffic locations, do you
 25 use traffic maps to -- to do that?

1 example, for 700 megahertz, it's 40 watts.
 2 In our analysis that we may do
 3 while evaluating, you know, proposed
 4 locations, existing locations, or
 5 optimizations, we will, from time to time,
 6 look into, you know, adjustments of power as
 7 we see fit to, you know, determine how they
 8 may help or hurt the network. But, again,
 9 for our maps that we present for reports or
 10 for a hearing such as this, our transmitters
 11 are all set to the maximum power, for
 12 example, for 700 megahertz, 40 watts.
 13 MR. COPPOLA: Okay.
 14 Does changing the transmitted
 15 power have any impact on the RLOPL coverage?
 16 THE WITNESS (Latorre): No, it
 17 does not. The path loss is -- is really
 18 talking about all of the different factors
 19 that are coming into play in between a UE or
 20 user device, a cell phone, and back to the
 21 transmitter or antenna.
 22 So it looks into the various,
 23 you know, reflections, refractions, of an RF
 24 signal as well as things like clutter and,
 25 you know, a whole host of other factors, you

1 THE WITNESS (Laredo): Yes.
 2 MR. COPPOLA: Okay.
 3 So the actual traffic
 4 locations that you referenced during your
 5 testimony on September 16th -- actually, let
 6 me rephrase that question.
 7 So are the actual traffic
 8 locations that you referenced during your
 9 testimony on September 16th, what you
 10 referred to in your prefiled testimony as
 11 where there are capacity problems relating to
 12 a specific use or customer?
 13 THE WITNESS (Laredo): Can you
 14 repeat that for me, please?
 15 MR. COPPOLA: Sure.
 16 During your testimony at the
 17 last hearing, you -- you referred to actual
 18 traffic locations. And I'm asking: Is that
 19 consistent with what you referred to in your
 20 prefiled testimony, which, I believe, was
 21 dated July 8, 2014, where you stated there
 22 are capacity problems relating to a specific
 23 use or customer?
 24 MR. BALDWIN: Do have a page
 25 number from the transcript last time?

1 MR. COPPOLA: It was -- I
 2 believe question -- with regard to the --
 3 with regard to the prefiled testimony, I
 4 believe it was Question 7, and that document
 5 was dated July 8, 2014.
 6 (Pause.)
 7 MR. COPPOLA: I believe it was
 8 page 467 of the transcript of the hearing on
 9 September 16th.
 10 (Pause.)
 11 THE WITNESS (Latorre): Is it
 12 Question 7?
 13 MR. COPPOLA: Question 7.
 14 (Pause.)
 15 THE WITNESS (Latorre): I'm
 16 going to -- I'm going to answer your
 17 question, and then what I'll just say is it
 18 was -- it was a little bit long for me, and
 19 I -- and I apologize. I'm just trying to get
 20 all our notes here. So if I don't answer it,
 21 you know, the way you were looking for, I'll
 22 be happy to further elaborate.
 23 But, on page 467 here -- and
 24 this is of the previous September 16th
 25 testimony -- when Mr. Laredo was talking

1 So -- so I really do
 2 apologize. But if you -- now that I know
 3 where we're at, if could you just verify
 4 Question 7 one more time for me, please, sir.
 5 I apologize for that.
 6 (Pause.)
 7 MR. COPPOLA: I was asking if
 8 the actual traffic locations that Mr. Laredo
 9 referenced during his testimony on
 10 October 16th were consistent with what he
 11 referred to in this prefiled testimony as
 12 where there are capacity problems relating to
 13 a specific use or customer.
 14 THE WITNESS (Laredo): Okay.
 15 Okay. So...
 16 MR. COPPOLA: And I believe
 17 that was on page 5 of his prefiled testimony
 18 in response to Question Number 7.
 19 (Pause.)
 20 THE WITNESS (Latorre): To
 21 answer your question, I -- I think when we're
 22 talking on Question 7 of Exhibit 4, you know,
 23 if the capacity problems relate to a specific
 24 use or customer, you know, we analyze the
 25 data looking at various exhaust in the areas

1 about -- I just want to add that, other than
 2 the coverage plots that we normally look at,
 3 we also evaluate the area based from other
 4 data, like drive tests and actual traffic
 5 locations.
 6 We're looking at, you know, to
 7 the -- to the best of the data we have
 8 available to us, the origination of LTE
 9 traffic from the distant spaced from a
 10 particular sector to identify, you know,
 11 how -- how far away some of the traffic may
 12 be from a sector.
 13 Now, in Question 7, and this
 14 is prefiled testimony from July. I just want
 15 to look here. And maybe if I could ask you
 16 again, if you wouldn't mind, just the
 17 specific point of Question 7, because I think
 18 there's a -- we're talking about two
 19 different things here, but I just want to
 20 make sure on Question 7 I -- I know exactly
 21 what you're elaborating about.
 22 MR. COPPOLA: Well, I think
 23 it's -- I guess the -- the answer is, to
 24 Question 7, was what I was referring to.
 25 THE WITNESS (Latorre): Okay.

1 that would be assisted by Orange north, and
 2 we did not find any evidence that suggested
 3 there was any particular specific use or
 4 customer or building directly correlated to
 5 the exhaust of any one of the particular
 6 sectors.
 7 MR. COPPOLA: And is that like
 8 an actual traffic location?
 9 THE WITNESS (Latorre): So
 10 if -- if we were able to have found something
 11 that suggested that a particular sector's
 12 exhaust is somehow related to, you know, a
 13 specific use or customer, you know, we would
 14 have been able to, you know, potentially find
 15 that there was some correlation to seeing
 16 where was traffic coming from in relation to
 17 the sector.
 18 In this particular
 19 circumstance, we didn't see anything that
 20 said a majority of traffic from a particular
 21 exhausting sector or otherwise was coming
 22 from a very centralized pinpoint location.
 23 MR. COPPOLA: So are you
 24 saying that the capacity problems that
 25 Verizon claims are relevant in this

1 application do not relate to a specific use
2 or customer?
3 THE WITNESS (Latorre): Well,
4 I think from a specific use, I mean, it's
5 users using our 4G LTE data. And to a
6 specific customer, we're talking about
7 Verizon Wireless customers. But in terms of,
8 like, one particular person or one particular
9 building, we're testifying that we find that
10 our traffic demand on our exhaust is -- is
11 spread and, you know, necessitates the use of
12 a facility that can provide resources in
13 multiple directions, orientations, to help
14 better meet the demands of traffic imposed on
15 us by our customers and their expectations
16 for wireless service in -- in multiple
17 directions versus, you know, just trying
18 to -- to fix one small building or -- or one
19 small customer.
20 MR. COPPOLA: So just to
21 confirm, because I'm a little confused by the
22 answer, are you saying that -- are you
23 confirming, then, that the capacity problems
24 that Verizon claims do not relate to a
25 specific use or customer?

1 problems relate to a specific use or
2 customer" -- use spelled, u-s-e -- and I'll
3 ask Mr. Laredo to verify this. I believe you
4 meant, if the capacity problems relate to a
5 specific user, u-s-e-r, or customer, and we
6 apologize for that discrepancy.
7 Again, to restate, the
8 capacity problems are related to the fact
9 that many of our users are actively using our
10 4G LTE network at rates, you know, consistent
11 with the testimony that you've heard from us,
12 as well as what you've -- you and the Council
13 have been able to read in the administrative
14 notice, Number 49, that capacity demand is
15 rampant and it's based on the use of LTE
16 technologies.
17 However, this answer should
18 have more correctly said "If the capacity
19 problems relate to a specific user." And I
20 apologize for that letter omission.
21 MR. COPPOLA: Okay.
22 And, Mr. Laredo, since this is
23 actually your prefiled testimony that you
24 signed under oath, do you agree with what
25 Mr. Latorre just said?

1 THE WITNESS (Latorre): The --
2 the capacity problems that Verizon is
3 experiencing do not -- are not related to a
4 specific customer or location.
5 MR. COPPOLA: Or use.
6 Correct?
7 THE WITNESS (Latorre): Or
8 user, correct.
9 MR. COPPOLA: Okay.
10 Mr. Laredo, if there's no
11 capacity problems related to a specific use
12 or customer, then is it correct that there's
13 no need to discuss traffic maps in this case?
14 THE WITNESS (Laredo): Can you
15 repeat the question for me, please?
16 MR. COPPOLA: If there's no
17 capacity problems relating to a specific use
18 or customer, then would you agree that there
19 is no need to discuss traffic maps in this
20 case?
21 THE WITNESS (Latorre): I
22 think you've discovered a -- just a small
23 variation in our -- in our prefiled testimony
24 for Mr. Laredo.
25 He states: "If the capacity

1 THE WITNESS (Laredo): Yes.
2 MR. COPPOLA: Okay.
3 And I still would like a
4 question, Mr. Laredo, from you with regard to
5 my question, which was, if there's -- if you
6 believe there's no capacity problems relating
7 to a specific use or customer, then do you
8 believe the -- would you -- would you say
9 that there's no need to discuss traffic maps
10 in this case?
11 THE WITNESS (Laredo): There
12 is a need, especially if the traffic maps
13 actually denotes the locations of those
14 traffic, so it is necessary.
15 MR. COPPOLA: But do they, in
16 this case, those traffic maps?
17 THE WITNESS (Laredo): Can you
18 elaborate your question?
19 MR. COPPOLA: Sure.
20 So the -- I believe you just
21 testified that the traffic maps might be
22 relevant if they give information about
23 specific -- a specific user or customer.
24 Correct?
25 THE WITNESS (Laredo): Yes.

1 MR. COPPOLA: Okay.
 2 So if that's the case then, my
 3 question to you is, in this case, were the
 4 traffic maps specific as to users or
 5 customers?
 6 THE WITNESS (Laredo): The way
 7 we see the data, it's a bulk of a lot of
 8 information. So we'll see there what type of
 9 usage, the location, servings and
 10 information, so all those come into one
 11 place.
 12 MR. COPPOLA: I'm just a
 13 little bit confused because my understanding
 14 was that the testimony of Verizon has been
 15 that the capacity problems that Verizon is
 16 claiming are not related to a specific use or
 17 customer in the Orange north area. So I'm
 18 just confused about how the traffic maps
 19 become relevant.
 20 MR. BALDWIN: Just -- just to
 21 clarify, Mr. Chairman. What -- what I think
 22 Mr. Laredo and Ms. Latorre just commented on
 23 was the fact that there was a correction.
 24 It's user.
 25 Mr. Coppola keeps going back

1 THE CHAIRMAN: All right.
 2 We're going to break for lunch. Resume at
 3 1:45.
 4 (Whereupon, the witnesses were
 5 excused, and a recess for lunch was taken at
 6 12:59 p.m.)
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1 to the term "use" when we've already made
 2 that correction. And I think that's an
 3 important point to bring out.
 4 And -- and now we're on about
 5 the fifth iteration of the same question.
 6 I'm not sure what else Mr. Latorre and
 7 Mr. Laredo can say in response to that
 8 question.
 9 THE CHAIRMAN: I'm not sure
 10 either.
 11 MR. COPPOLA: This is a good
 12 time to break, Mr. Chairman, before I move
 13 onto another area.
 14 THE CHAIRMAN: So we're
 15 finished with this line of -- this particular
 16 line?
 17 MR. COPPOLA: Yes.
 18 THE CHAIRMAN: Is that -- did
 19 I hear yes?
 20 MR. COPPOLA: Yes.
 21 THE CHAIRMAN: And how many
 22 other --
 23 MR. COPPOLA: I don't have
 24 much left -- a lot left, Mr. Chairman, if
 25 that's what you're asking.

1 AFTERNOON SESSION
 2 1:47 P.M.
 3
 4 THE CHAIRMAN: Excuse me,
 5 ladies and gentlemen. I'd like to resume. I
 6 didn't bring my sleeping bag tonight, so I
 7 would like to get out in short order, please.
 8 Attorney Coppola, will you
 9 please resume your cross-examination.
 10 MR. COPPOLA: Yes.
 11 J A I M E L A R E D O,
 12 J U A N L A T O R R E,
 13 having been previously duly sworn, were
 14 examined and testified further on their
 15 oaths as follows:
 16 MR. COPPOLA: Mr. Laredo, on
 17 the September -- at the September 16th
 18 hearing, and I reference you to page 540 of
 19 the transcript, did you testify that you
 20 consulted a dominant server analysis with
 21 regard to this application?
 22 THE WITNESS (Laredo): Yes.
 23 MR. ASHTON: Can I remind both
 24 attorneys and their staffs that the state
 25 spent a lot on a PA system here, and it would

1 be really helpful if you guys would use those
 2 mics, jack it up. This room is terrible as
 3 far as us being able to hear up here. It's
 4 not just me. It's others. But speak into
 5 the mics and project your voice.
 6 I'm sorry, Mr. Coppola.
 7 You -- you get a free whack at the -- at
 8 the -- at the apple.
 9 MR. COPPOLA: Would you like
 10 me to repeat the question?
 11 THE WITNESS (Laredo): Yes,
 12 please.
 13 MR. COPPOLA: Okay.
 14 Mr. Laredo, at the
 15 September 16th hearing, and I reference you
 16 to page 540 of the transcript, is it correct
 17 that you consulted a dominant server analysis
 18 with regard to this application?
 19 THE WITNESS (Laredo): Yes.
 20 MR. COPPOLA: Why did you
 21 consult a dominant server analysis as part of
 22 your work in this application?
 23 THE WITNESS (Laredo): It is
 24 one of the ways to quantify how much traffic
 25 can be offloaded based from -- based from how

1 THE WITNESS (Laredo): Correct.
 2 MR. COPPOLA: I believe that
 3 was dated August 27th.
 4 So, in addition to reviewing
 5 the report, there were attachments to the
 6 report. Did you have an opportunity to -- to
 7 review the dominant server maps that were in
 8 the report?
 9 THE WITNESS (Laredo): Yes.
 10 MR. COPPOLA: And do you
 11 believe that the -- the dominant server maps
 12 that Mr. Maxson has in that report provide a
 13 reasonable representation of where the
 14 proposed Orange north facility will provide
 15 replacement service to existing sectors?
 16 THE WITNESS (Laredo): There
 17 are areas that are similar to our version of
 18 the dominance plots, but there are some
 19 portions that are not consistent with ours.
 20 MR. COPPOLA: Okay.
 21 Would you say that the
 22 majority of his mapping there is consistent
 23 with your findings as to where the dominant
 24 server would be?
 25 THE WITNESS (Laredo): In

1 dominant the proposed facility will be once
 2 it's put on air.
 3 MR. COPPOLA: So does that
 4 type of an analysis give you an opportunity
 5 to determine where a new facility will take
 6 over service from existing sectors?
 7 THE WITNESS (Laredo): That's
 8 correct.
 9 MR. COPPOLA: Have you had an
 10 opportunity to review Mr. Maxson's reports
 11 that have been submitted in this application?
 12 THE WITNESS (Laredo): Yes.
 13 MR. COPPOLA: Okay.
 14 And, as part of his reports,
 15 did you have an opportunity to review the
 16 dominant server maps that he has provided?
 17 THE WITNESS (Laredo): Just --
 18 I want to clarify that. Are you referring to
 19 the first report that Mr. Maxson submitted?
 20 MR. COPPOLA: Well, there's
 21 two reports. Let's start with the first one.
 22 THE WITNESS (Laredo): Okay.
 23 MR. COPPOLA: So you've
 24 obviously had an opportunity to review the
 25 first report. Correct?

1 terms of the entire area, I can say the
 2 majority of those are consistent.
 3 MR. COPPOLA: Okay.
 4 If I could just ask a couple
 5 brief questions of Mr. Latorre with regard
 6 to -- with regard to testimony pertaining to
 7 the 1900-megahertz PCS spectrum.
 8 Mr. Latorre, does Verizon have
 9 20 megahertz of 1900-megahertz PCS spectrum
 10 licensed in New Haven County?
 11 THE WITNESS (Latorre): Could
 12 you please clarify whether or not you were
 13 referring to the uplink spectrum or downlink
 14 spectrum?
 15 MR. COPPOLA: I believe --
 16 well, I shouldn't say I believe. I'm
 17 referring to both the uplink and downlink.
 18 THE WITNESS (Latorre): Okay.
 19 So, to answer your question,
 20 between both uplink and downlink, we have
 21 approximately 20 megahertz of spectrum.
 22 MR. COPPOLA: Okay.
 23 If I could refer you to the
 24 transcript, at page 521, of your testimony on
 25 September 16th. If that's the case, I just

1 want to clarify one point.
 2 So around Line 13 to Line 17
 3 of page 521, could you please test -- could
 4 you please repeat what the testimony is right
 5 there?
 6 THE WITNESS (Latorre): Sure.
 7 It says: "As the RF design
 8 engineers, we can only today testify to what
 9 we know we own today, and we don't own 20
 10 megahertz of 1900-megahertz spectrum, so we
 11 can't. I deem that inaccurate."
 12 MR. COPPOLA: Okay.
 13 So would you like to now
 14 retract that statement, as far as the amount
 15 of megahertz that you have on the
 16 1900-megahertz PCS spectrum?
 17 THE WITNESS (Latorre): I
 18 don't need to retract it, but I'm happy to
 19 clarify it.
 20 MR. COPPOLA: Okay.
 21 Could you please clarify then
 22 the inconsistencies between the statement you
 23 just made today and the statement that you
 24 made on September 16th?
 25 THE WITNESS (Latorre):

1 up, 10 down in the A band, and 10 up, 10 down
 2 in the B band.
 3 So when I said we don't own
 4 20 megahertz of 1900-megahertz spectrum, I
 5 stand by that because what we own is 2
 6 discontinuous 5-megahertz spectrum in the PCS
 7 band, the F block and the C3 block. And
 8 currently, from the standpoint of Verizon
 9 Wireless' plans today in regards to PCS LTE,
 10 we're literally looking at deploying the F
 11 block, which is 5 megahertz up and 10
 12 megahertz down.
 13 So when we would refer to it
 14 in our daily work, we would really say we're
 15 deploying 5 megahertz of PCS spectrum. And
 16 that's kind of based on the fact that, with
 17 all of our licenses and with wireless
 18 technologies, it's implied that your services
 19 allow for both uplink from the user device to
 20 the cell and downlink from the cell to the
 21 user device.
 22 So you really -- we don't talk
 23 about them as if we have a 10-megahertz
 24 channel. It's -- it's five for uplink and
 25 five for downlink. And that's how we

1 Certainly.
 2 Typically, when describing an
 3 LTE network within the -- the wireless
 4 industry, you oftentimes talk about the
 5 channel bandwidth size, which is the amount
 6 of contiguous spectrum that you own.
 7 The reason for that is
 8 because, with an LTE network, the wider
 9 amount or more contiguous spectrum you have,
 10 the greater the size of your channel. And
 11 there's a correlation to the potential
 12 throughputs you can gain through that
 13 channel.
 14 So, for example, as we've
 15 discussed today, our AWS holdings in New
 16 Haven County are the A band and B band, and
 17 each of which is 10 megahertz uplink and 10
 18 megahertz downlink. When you combine them
 19 together, we have a total of a 20-megahertz
 20 channel size in the uplink and in the
 21 downlink.
 22 And that's typically how we
 23 would refer to our spectrum holding, even
 24 though, if you added it all up, you would
 25 technically get to 40, because you have 10

1 characterize it day to day.
 2 MR. COPPOLA: On page 521,
 3 your testimony from September 16th, at Lines
 4 4 and 5, is it correct that you say we can
 5 provide the 5 megahertz F block that we
 6 currently own?
 7 THE WITNESS (Latorre): That's
 8 correct.
 9 MR. COPPOLA: All right.
 10 Should that be 10 megahertz?
 11 Well, yes or no is sufficient.
 12 THE WITNESS (Latorre): Oh.
 13 No.
 14 MR. COPPOLA: Okay.
 15 So you stand by the statement
 16 then that you made on September 16th, that
 17 you could provide the 5 megahertz F block
 18 that we currently own, and that it's not
 19 10 megahertz. Is that correct?
 20 THE WITNESS (Latorre): I
 21 stand by that statement, sir. Yes.
 22 MR. COPPOLA: And when you
 23 testified on September 16th, you mentioned
 24 the F block, but did you not mention the C
 25 block with regard to your description of the

1 megahertz -- the amount of megahertz that you
 2 had on the 1900-megahertz PCS spectrum?
 3 THE WITNESS (Latorre): I just
 4 want to clarify that, previously, I said the
 5 C3 block. And to your question, yes, I did
 6 not mention that.
 7 MR. COPPOLA: Okay.
 8 So in trying to determine the
 9 usefulness of Verizon's 1900-megahertz
 10 spectrum in the future, I just want to ask a
 11 couple quick questions.
 12 In the future, is it correct
 13 that Verizon will no longer use the
 14 1900-megahertz spectrum for CDMA?
 15 THE WITNESS (Latorre): In the
 16 future, yes.
 17 MR. COPPOLA: And once the
 18 1900-megahertz spectrum is available, is it
 19 correct that Verizon will use the
 20 1900-megahertz spectrum for LTE service?
 21 THE WITNESS (Latorre): To the
 22 best of my knowledge, yes.
 23 MR. COPPOLA: And the greater
 24 the bandwidth that is available at
 25 1900-megahertz spectrum, the greater LTE

1 question on the subject.
 2 Are the F and C3 blocks
 3 contiguous?
 4 THE WITNESS (Latorre):
 5 Contiguous? No, they are not, sir.
 6 MR. COPPOLA: I have no
 7 further questions at this time.
 8 THE CHAIRMAN:
 9 Council members, have any
 10 further questions?
 11 Dr. Klemens.
 12 DR. KLEMENS: Yes.
 13 We've heard a lot of testimony
 14 about these maps and different ways to create
 15 them. I'd like to ask Mr. Laredo and --
 16 first, you heard my earlier questions to
 17 Mr. Maxson about that people, experts, can
 18 look at the same facts and reach potentially
 19 different opinions.
 20 Can experts in your field look
 21 at the same sets of data and map them in
 22 different ways?
 23 THE WITNESS (Laredo): It is
 24 possible, yes.
 25 DR. KLEMENS: And do you feel

1 capacity that Verizon would be able to have
 2 once the 1900-megahertz spectrum is converted
 3 for LTE service is correct. Right?
 4 THE WITNESS (Latorre): So as
 5 long as either the spectrum is contiguous,
 6 meaning that the blocks are next to each
 7 other in the frequency domain, or that
 8 technologies emerge that allow for equipment
 9 to take two discontinuous blocks and merge
 10 them together for the purposes of signaling,
 11 your answer is correct.
 12 MR. COPPOLA: Okay.
 13 And it's your testimony that
 14 the 1900-megahertz PCS spectrum would have --
 15 would -- would have a capacity of
 16 20 megahertz. Correct?
 17 THE WITNESS (Latorre): I
 18 would characterize it that, if equipment is
 19 available to allow for what we call "carrier
 20 aggregation," where the two frequencies that
 21 are discontinuous are used as one, then we
 22 would have capacity for a 10-megahertz LTE
 23 signal downlink and a 10-megahertz LTE signal
 24 uplink.
 25 MR. COPPOLA: And my last

1 that the maps that you've submitted, you
 2 stand behind them? Do they support your case
 3 for this application still?
 4 THE WITNESS (Laredo): Yes,
 5 sir.
 6 DR. KLEMENS: Okay. And the
 7 same questions to Mr. Latorre.
 8 Mr. Latorre, do you believe
 9 that experts, learned people, can look at
 10 sets of data and create maps that are -- that
 11 are different with the same data?
 12 THE WITNESS (Latorre): Yes.
 13 DR. KLEMENS: And do you stand
 14 behind that the maps that you have produced
 15 for this application support this
 16 application?
 17 THE WITNESS (Latorre): I do.
 18 DR. KLEMENS: Thank you.
 19 THE CHAIRMAN: Anybody else?
 20 No?
 21 MR. COPPOLA: If I may?
 22 THE CHAIRMAN: We will close
 23 the hearing. You just told me you were
 24 finished.
 25 MR. COPPOLA: That's fine. I

1 just had one final question, but otherwise --
 2 THE CHAIRMAN: Mr. Mercier.
 3 MR. MERCIER: I apologize.
 4 Thank you.
 5 I think I just heard something
 6 a few minutes ago that, in regards to Mr.
 7 Maxson's most likely server mapping, in
 8 general terms, for mapping is accurate? Is
 9 that the term I'm -- I'm looking for? It
 10 kind of mimics what Verizon's site would do?
 11 THE WITNESS (Laredo): Sir, I
 12 actually used term "consistent."
 13 MR. MERCIER: Okay. Thank
 14 you.
 15 Where would the
 16 inconsistencies be?
 17 THE WITNESS (Laredo): The
 18 best way for me to describe it is in the --
 19 especially in the location where the
 20 proposed --
 21 THE WITNESS (Latorre): Refer
 22 to the figure.
 23 THE WITNESS (Laredo): Yeah.
 24 Yeah. If you refer to exhibit --
 25 Intervenors' Exhibit 6 --

1 capability than he has indicated for this
 2 particular sector?
 3 THE WITNESS (Laredo): Can you
 4 repeat that for me, please?
 5 MR. MERCIER: If you read the
 6 heading Number 10, it says "Orange north has
 7 no material impact on Milford Northeast." I
 8 just --
 9 THE WITNESS (Laredo): Sir,
 10 I --
 11 MR. MERCIER: This is page 18
 12 of the Isotope report.
 13 How do you respond to that
 14 statement, I guess, based on some of the
 15 descriptions you just had?
 16 THE WITNESS (Laredo): I
 17 understand his plots might really suggest
 18 that it has no significant -- or shall we say
 19 material impact. But if we'll combine the
 20 traffic data and our own version of the
 21 dominant plot, it is beyond what Mr. Maxson
 22 is claiming in terms of how much upload it
 23 can do for Milford northeast alpha.
 24 MR. MERCIER: Okay.
 25 So on the next page, page 19,

1 MR. MERCIER: Yes.
 2 THE WITNESS (Laredo): -- Page
 3 15.
 4 MR. MERCIER: Okay.
 5 THE WITNESS (Laredo): You'll
 6 see there that for the Derby north beta site,
 7 for example, its complete dominance in terms
 8 of how it serves that immediate area.
 9 There are some portions of
 10 that section that the -- the surrounding
 11 sectors, especially some of the exhausting
 12 ones, are also serving that area. And the
 13 same is true with some sections along Route
 14 110 on the eastern side of Shelton and some
 15 portions of south -- southwestern Orange.
 16 In general, I can say they are
 17 pretty much the same, but some details,
 18 specifically to those local bridged areas,
 19 it's not consistent with ours.
 20 MR. MERCIER: Okay.
 21 So if you just turn to page
 22 18, to make this, I guess, simpler, when it
 23 says "Orange north has no material impact on
 24 the Milford northeast," you're stating that
 25 there would be -- there would be more offload

1 it is a hatched area which shows areas he
 2 believes it will offload. And, essentially,
 3 I believe what you just stated, that -- that
 4 your hatched area, if you did plot one, would
 5 be larger.
 6 THE WITNESS (Laredo): That's
 7 correct.
 8 MR. MERCIER: Now, would that
 9 be the same case for -- on page 20, Section
 10 11, "Orange north has no material impact on
 11 Derby north gamma"?
 12 THE WITNESS (Laredo): That's
 13 partially true.
 14 In his plot, it doesn't show
 15 any overshooting samples from Derby beta
 16 sector. I can say what he -- shown here is
 17 partially true. In -- in addition, there are
 18 some samples towards -- east of this map
 19 that's being dominantly served by Derby.
 20 MR. MERCIER: I guess my final
 21 question is something Mr. Maxson stated
 22 earlier. I believe I have his testimony
 23 correct. That you basically -- I believe you
 24 stated that the 2100-megahertz system is --
 25 only exists in this particular location to

1 off the surrounding locations, that is --
2 boy, boy, boy, hold on for a second -- Derby
3 beta, Derby north gamma, and Shelton 2 beta,
4 those are the overloading sectors. And I
5 believe, according to your information
6 provided, that you have 21-megahertz systems
7 on -- on those three sectors.

8 Is the only purpose of the
9 21 -- 2100-megahertz system on those three
10 sectors, is that just to offload to the --
11 from the 700?

12 THE WITNESS (Laredo): That's
13 correct.

14 MR. MERCIER: Okay.
15 And, by doing so, why is the
16 700 still being exhausted there?

17 THE WITNESS (Laredo): It's
18 because of the fact that some of the users,
19 or traffic data, is way beyond what the AWS
20 can -- can cover.

21 THE WITNESS (Latorre): Let
22 me -- if I may add to that.

23 You know, earlier you -- you
24 heard some testimony that suggested that
25 simply by adding AWS frequencies to a

1 capacity that's available. The only thing it
2 really triples is the fact that we go from,
3 you know, a 10 megahertz, you know, downlink
4 LTE channel to having that channel plus a
5 20-megahertz AWS downlink channel and
6 corresponding uplink channel.

7 MR. MERCIER: Thank you.
8 I have no other questions.

9 MR. COPPOLA: Mr. Chairman,
10 may I just ask a few follow-up questions and
11 then I'm finished?

12 THE CHAIRMAN: Okay. You told
13 us you were finished, so I'll go -- I'll let
14 you have a few follow-up, but let's keep them
15 to a few.

16 MR. COPPOLA: Mr. Laredo, you
17 just answered a number of questions that Mr.
18 Mercier had with regard to Mr. Maxson's
19 dominant server mapping in comparison to your
20 dominant server map. Is that correct?

21 THE WITNESS (Laredo): Correct.

22 MR. COPPOLA: All right.

23 And when you were answering
24 those questions, did you have your dominant
25 server map in front of you to refer to when

1 700-megahertz site, you know, effectively
2 tripled the capacity.

3 And that could be conceivably
4 true if, for example, (a) 700 megahertz and
5 2100 megahertz had exactly the same general
6 coverage footprint and (b) if all Verizon
7 Wireless users had phones that were capable
8 of 700 and 2100-megahertz users.

9 A, we know from coverage maps
10 and data and testimony that you've heard
11 here, that 2100 megahertz, by nature of the
12 wavelength, has a smaller footprint than 700.
13 So there will be some users that are AWS
14 capable that are outside of the range of the
15 AWS footprint that can't use it. And B,
16 there will be some users who are in the range
17 of AWS, but may have an older phone that is
18 not AWS capable. And even though they're in
19 good RF for AWS, the phone lacks the
20 technology to do so.

21 So AWS does provide some
22 capacity relief as a -- as a means to its,
23 you know, addition to cell sites, but it's
24 limited in -- in what it can provide. And
25 it's not effectively tripling the amount of

1 you were comparing it to Mr. Maxson's
2 dominant server map?

3 THE WITNESS (Laredo): No.
4 The reason for that is I know it very well
5 since I was reviewing it for a couple -- a
6 couple of months now.

7 MR. COPPOLA: All right.
8 So -- so you gave those

9 comparisons, with regard to your map versus
10 Mr. Maxson's map, purely by your memory of
11 what your map provides?

12 THE WITNESS (Laredo): That's
13 correct.

14 MR. COPPOLA: Even though you
15 don't have it in front of you. Is that
16 correct?

17 THE WITNESS (Laredo): That's
18 correct.

19 MR. COPPOLA: Okay.
20 And -- and that dominant

21 server map that you were referring to that
22 was the property of Verizon is not something
23 that has been submitted into this record.
24 Correct?

25 THE WITNESS (Laredo): Correct.

1 MR. COPPOLA: So any
 2 representations with regard to what
 3 information is on that map would have to be
 4 provided by your testimony. Correct?
 5 THE WITNESS (Laredo): That's
 6 right.
 7 MR. COPPOLA: Okay.
 8 And, Mr. Latorre, at the last
 9 hearing, I believe, on page 503, you
 10 testified that Mr. Maxson does not have all
 11 the data that is available to the Applicant,
 12 which -- which could allow him to make an
 13 accurate and truthful depiction of what
 14 potential coverage and capacity benefits for
 15 this site would -- would be. After --
 16 MR. BALDWIN: Mr. Chairman, is
 17 a follow-up question to Mr. Mercier's --
 18 MR. COPPOLA: Just one quick
 19 question, if I may?
 20 MR. BALDWIN: -- to Mr.
 21 Mercier's question?
 22 MR. COPPOLA: In fact, if I
 23 could just -- if I could just finish my
 24 question.
 25 THE CHAIRMAN: Just finish

1 within 30 days of the date hereof.
 2 The Council will issue draft
 3 findings of fact, and thereafter, parties and
 4 intervenors may identify errors or
 5 inconsistencies between the Council's draft
 6 findings of fact in the record; however, no
 7 new information, no new evidence, no argument
 8 and no reply briefs without our permission
 9 will be considered by the Council.
 10 Copies of the transcript of
 11 this hearing will be filed with the Orange
 12 Town Clerk's Office and the Shelton City
 13 Clerk's Office.
 14 I hereby declare this hearing
 15 adjourned. Thank you all.
 16 (Whereupon, the witnesses were
 17 excused, and the above proceedings were
 18 adjourned at 2:13 p.m.)
 19
 20
 21
 22
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 25

1 your question.
 2 MR. COPPOLA: It's my last
 3 question, please.
 4 Mr. Latorre, now that we're at
 5 this end of the hearing, is that still your
 6 position?
 7 THE WITNESS (Latorre): That's
 8 correct.
 9 MR. COPPOLA: I have nothing
 10 further. Thank you.
 11 THE CHAIRMAN: Okay. Thank
 12 you.
 13 Before closing this hearing,
 14 the Connecticut Siting Council announces that
 15 briefs and proposed findings of fact may be
 16 filed with the Council by any party or
 17 intervenor no later than November 24, 2014.
 18 Submission of briefs or
 19 proposed findings of fact are not required by
 20 the Council, rather we leave it to the choice
 21 of parties and intervenors.
 22 Anyone who has not become a
 23 party or intervenor, but who desires to make
 24 his or her views known to the Council, may
 25 file written statements with the Council

1 CERTIFICATE
 2 I hereby certify that the foregoing 128
 3 pages are a complete and accurate
 4 computer-aided transcription of my original
 5 verbatim notes taken of the Continued Council
 6 Meeting in Re: DOCKET NO. 448, CELLCO
 7 PARTNERSHIP D/B/A VERIZON WIRELESS
 8 APPLICATION FOR A CERTIFICATE OF
 9 ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED
 10 FOR THE CONSTRUCTION, MAINTENANCE AND
 11 OPERATION OF A TELECOMMUNICATIONS FACILITY
 12 LOCATED AT 831 DERBY MILFORD ROAD, ORANGE,
 13 CONNECTICUT, which was held before ROBERT
 14 STEIN, Chairman, at the Connecticut Siting
 15 Council, 10 Franklin Square, New Britain,
 16 Connecticut, on October 23, 2014.
 17
 18
 19
 20 -----
 21 Robert G. Dixon, CVR-M 857
 22 Court Reporter
 23 UNITED REPORTERS, INC.
 24 90 Brainard Road, Suite 103
 25 Hartford, Connecticut 06114

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