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STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Docket No. 480

Application of SectorSite LLC and T-Mobile
Northeast, LLC for a Certificate of Environmental
Compatibility and Public Need for the
construction, maintenance, and operation of a
telecommunications facility located on town-owned
property behind the Southwest Fire Station located
at 2 Westwoods Drive, Farmington, Connecticut

Public Hearing held at the Farmington Town
Hall, Council Chambers, 1 Monteith Drive,
Farmington, Connecticut, on Thursday, February 22,
2018, beginning at 3 p.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

3 Council Members:

4 ROBERT SILVESTRI

5 EDWARD EDELSON

6 DANIEL P. LYNCH, JR.

7 DR. MICHAEL W. KLEMENS

8 MICHAEL HARDER

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 the Applicants:

19 CUDDY & FEDER LLP

20 445 Hamilton Avenue, 14th Floor

21 White Plains, New York 10601

22 BY: LUCIA CHIOCCHIO, ESQ.

23

24

25

1 THE CHAIRMAN: Good afternoon, ladies
2 and gentlemen. I'd like to call to order a
3 meeting of the Connecticut Siting Council, Docket
4 480, today, Thursday, February 22, 2018, at
5 approximately 3 p.m. My name is Robin Stein. I'm
6 Chairman of the Connecticut Siting Council.

7 Other members of the Council present
8 are Mr. Silvestri, Dr. Klemens, Mr. Edelson,
9 Mr. Harder, and Mr. Lynch. Members of the staff
10 present are Melanie Bachman, our executive
11 director and staff attorney; and Robert Mercier,
12 our siting analyst.

13 This hearing is held pursuant to the
14 provisions of Title 16 of the Connecticut General
15 Statutes and of the Uniform Administrative
16 Procedure Act upon an application from SectorSite
17 LLC and T-Mobile Northeast, LLC for a Certificate
18 of Environmental Compatibility and Public Need for
19 the construction, maintenance, and operation of a
20 telecommunications facility located on town-owned
21 property behind the Southwest Fire Station located
22 at 2 Westwoods Drive, Farmington, Connecticut.
23 This application was received by the Council on
24 December 22, 2017.

25 As a reminder to all, off-the-record

1 communication with a member of the Council or a
2 member of the Council staff, upon the merits of
3 this application, is prohibited by law.

4 The applicant is, as I mentioned,
5 SectorSite LLC and T-Mobile Northeast, and
6 Attorney Chiocchio of Cuddy & Feder.

7 We will proceed in accordance with the
8 prepared agenda, copies of which are available
9 here. Also available are copies of the Council's
10 Citizens Guide to Siting Council Procedures. At
11 the end of this afternoon evidentiary session, we
12 will recess and resume again at 6:30 p.m. for the
13 public comment session.

14 The 6:30 p.m. public comment session
15 will be reserved for the public to make brief oral
16 statements into the record. I wish to note that
17 the applicants, including their representatives
18 and witnesses, are not allowed to participate in
19 the public comment session. I also wish to note
20 for those of you who are here and for the benefit
21 of your friends and neighbors who are unable to
22 join us for the public comment session that you or
23 they may send written statements to the Council
24 within 30 days of the date hereof, and such
25 written statements will be given the same weight

1 as if spoken at the hearing.

2 A verbatim transcript will be made of
3 this hearing and deposited with the Town Clerk's
4 Office in Farmington for the convenience of the
5 public.

6 I wish to call your attention to the
7 items shown on the hearing program marked as Roman
8 Numeral I-D, Items 1 through 69.

9 Does the applicant have any objection
10 to the items that the Council has administratively
11 noticed?

12 MS. CHIOCCHIO: No objection.

13 THE CHAIRMAN: Thank you. The Council
14 hereby administratively notices these existing
15 documents, statements and comments.

16 Will the applicant please now present
17 its witness panel for the purposes of taking the
18 oath? And the Council's staff attorney will
19 administer the oath.

20 MS. CHIOCCHIO: Thank you, Chairman.

21 I'll start on my left with Dean
22 Gustafson of APT; next to Dean is Chris Baird of
23 EBI Consulting; to my immediate left is David
24 Weisman of Smartlink. To my right, Mr. Dan
25 Gechtman of SectorSite; next to him, Mr. Russell

1 Dasta of Virtual Site Simulations; Scott Heffernan
2 just in time from Centerline Communications; and
3 Mr. Douglas Roberts of Hudson Design Group.

4 D E A N G U S T A F S O N,
5 C H R I S T O P H E R B A I R D,
6 D A V I D W E I S M A N,
7 D A N I E L R. G E C H T M A N,
8 R U S S E L L D A S T A,
9 S C O T T H E F F E R N A N,
10 D O U G L A S R O B E R T S,

11 called as witnesses, being first duly sworn
12 by Ms. Bachman, were examined and testified
13 on their oaths as follows:

14 THE CHAIRMAN: We will continue by
15 numbering the exhibits of the filing, making
16 requests to administratively notice the documents.

17 MS. CHIOCCHIO: Thank you, Chairman.
18 We have several exhibits, as identified in the
19 hearing program. Exhibit Number 1, the
20 application by the applicants, including the bulk
21 filing; Exhibit Number 2, our affidavit of
22 publication of notice; Exhibit Number 3, the lease
23 agreements applicable to the facility; Exhibit
24 Number 4, the applicant's responses to Siting
25 Council interrogatories; the applicant's affidavit

1 of sign posting is Exhibit Number 5; Exhibit
2 Number 6 are the resumes of our witnesses; and
3 finally, Exhibit 7, our supplemental submission.

4 So I'm going to ask each of my
5 witnesses a series of questions and ask that they
6 each respond to each question as I go through.

7 DIRECT EXAMINATION

8 MS. CHIOCCHIO: I'll start with Mr.
9 Gustafson. Did you prepare and assist in the
10 preparation of the materials identified as the
11 applicant's exhibits?

12 THE WITNESS (Gustafson): Yes, I did.

13 MS. CHIOCCHIO: Mr. Baird?

14 THE WITNESS (Baird): Yes, I did.

15 THE WITNESS (Weisman): Yes, I did.

16 THE WITNESS (Gechtman): Yes, I did.

17 THE WITNESS (Dasta): Yes, I did.

18 THE WITNESS (Heffernan): Yes, I did.

19 THE WITNESS (Roberts): Doug Roberts.

20 Yes, I did.

21 MS. CHIOCCHIO: Do you have any
22 corrections or clarifications to the information
23 contained therein?

24 Mr. Gustafson?

25 THE WITNESS (Gustafson): No.

1 MS. CHIOCCHIO: Mr. Baird?

2 THE WITNESS (Baird): Yes, I do, to
3 make one clarification to the watershed memorandum
4 included in Exhibit 1, attachment 5, beginning on
5 page 25. I'd like to clarify that the proposed
6 facility location is not within a public water
7 supply watershed. The nearest public water supply
8 watershed is located approximately 1.25 miles to
9 the west-northwest of the site. Further, the site
10 is not located within an aquifer protection area.
11 The nearest aquifer protection area is the Johnson
12 APA located at approximately 0.55 miles south of
13 the site.

14 MS. CHIOCCHIO: Thank you.

15 Mr. Weisman, any corrections?

16 THE WITNESS (Weisman): No.

17 MS. CHIOCCHIO: Mr. Gechtman?

18 THE WITNESS (Gechtman): No.

19 THE WITNESS (Dasta): Russ Dasta. No.

20 THE WITNESS (Heffernan): Scott
21 Heffernan. No.

22 THE WITNESS (Roberts): Doug Roberts.
23 Yes. I have a half dozen or so corrections,
24 modifications and updates. I guess my first one
25 is under tab 3, second page. There was a typo in

1 the coordinates. The location coordinate should
2 be 72-52-54.90 instead of 09.

3 My second correction or update would be
4 on page 4 of that where it talks about the size of
5 the compound on the facilities. We have 2,500
6 square feet of compound area, and we have an
7 access road of 600 square feet, and we have
8 utilities of roughly 500 square feet for a total
9 of 3,600 square feet. And that holds true on any
10 document that has those numbers.

11 On the facilities and equipment
12 specifications we received the new dated antenna
13 req from T-Mobile which changed the size of their
14 antennas from 96 high, 12 wide to 9 deep to 74.8
15 high by 24 inches wide by 8.7 inches deep. So
16 they're substantially wider.

17 And on that same page under 11, there's
18 a reference to the Connecticut State Building
19 Code. And, in fact, we'll be using the 2016
20 Connecticut State Building Code, which TIA/EIA-22G
21 is part of, as well as the 2012 International
22 Building Code from a reference point of view.

23 One update. There was a new daycare
24 facility updated. So our sheet C-4 we reference
25 the nearest daycare, Little Angels Daycare, as

1 3,338 feet from our site. And, in fact, there's a
2 new daycare at 470 -- 740, excuse me, Plainville
3 Avenue, which is 1,162 from our site. So that's
4 just some of the new facilities that are there.

5 And on my sheet A-1, they have a change
6 to a 5-carrier pole, T-Mobile taking the top two
7 spots, and then there will be three additional
8 locations for a total of five. So there's a RAD
9 center of 87 feet on that.

10 And under Tab 5 under "Land," that
11 3,600 under C goes to that location as well. And
12 under "Noise," our generator is going to be
13 running approximately once a week for testing in
14 the neighborhood of 15 to 30 minutes. So that is
15 a correction on that.

16 The other item I did have is under
17 interrogatory responses under Question 6. They
18 talked about the size and diameter of the
19 flagpole. And we're planning on a 62 inch
20 diameter at the base and a 42 inch diameter
21 cannister at the top, as opposed to the 36 inch
22 diameter, due to the fact that the T-Mobile
23 antennas are becoming 2 foot wide, as opposed to
24 what we normally have seen over the years. That's
25 going to change.

1 And under Question Number 8, we have,
2 instead of three flood lights, I used four with 90
3 degrees apart on the flagpole. And that's all I
4 have.

5 MS. CHIOCCHIO: Thank you.

6 Next question, is the information
7 contained therein true and accurate to the best of
8 your belief?

9 Mr. Gustafson?

10 THE WITNESS (Gustafson): Yes.

11 THE WITNESS (Baird): Yes.

12 THE WITNESS (Weisman): David Weisman.
13 Yes.

14 THE WITNESS (Gechtman): Dan Gechtman.
15 Yes.

16 THE WITNESS (Dasta): Russ Dasta. Yes.

17 THE WITNESS (Heffernan): Scott
18 Heffernan. Yes.

19 THE WITNESS (Roberts): Doug Roberts.
20 Yes.

21 MS. CHIOCCHIO: And do you adopt it as
22 your testimony in this proceeding?

23 THE WITNESS (Gustafson): Dean
24 Gustafson. Yes.

25 THE WITNESS (Baird): Chris Baird.

1 Yes.

2 THE WITNESS (Weisman): Dave Weisman.

3 Yes.

4 THE WITNESS (Gechtman): Dan Gechtman.

5 Yes.

6 THE WITNESS (Dasta): Russ Dasta. Yes.

7 THE WITNESS (Heffernan): Scott

8 Heffernan. Yes.

9 THE WITNESS (Roberts): Doug Roberts.

10 Yes.

11 MS. CHIOCCHIO: We ask that the Council
12 accept the exhibits identified.

13 THE CHAIRMAN: The exhibits are
14 admitted.

15 (Applicant's Exhibits II-B-1 through
16 II-B-7 received in evidence - described in index.)

17 THE CHAIRMAN: We'll now begin with the
18 cross-examination by Mr. Mercier.

19 MR. MERCIER: Thank you.

20 CROSS-EXAMINATION

21 MR. MERCIER: Let's start off with the
22 field review that we attended at 2 o'clock. Can
23 anybody on the panel describe the balloon fly that
24 occurred during that time?

25 THE WITNESS (Dasta): Yes. Russ Dasta.

1 VSS was there doing it. We put it up at 7 o'clock
2 this morning, actually 10 of 7. We had light
3 winds, roughly around 6 miles an hour, with gusts
4 to roughly 10 miles an hour. Around 10 o'clock
5 this morning we started to get higher winds
6 roughly in the 8 to 10 mile an hour range, so we
7 were getting some significant blowing and then
8 some gusts in the 12 to 14 mile an hour range, so
9 it was moving around quite a bit. And it started
10 to rain at that point. We did not lose the
11 balloon, although at certain times it was blowing
12 down considerably.

13 MR. MERCIER: And what color was the
14 balloon?

15 THE WITNESS (Dasta): The balloon was a
16 red balloon, and it's 40 inches in diameter.

17 MR. MERCIER: And what height did you
18 fly it to today?

19 THE WITNESS (Dasta): It's 130 feet
20 AGL.

21 MR. MERCIER: One thing I noticed in
22 your visibility report, the initial balloon fly
23 for the report, it said 120 feet that the balloon
24 was flown at.

25 THE WITNESS (Dasta): That is correct.

1 MR. MERCIER: I'm just curious why it
2 was flown at 120 feet rather than 130.

3 THE WITNESS (Dasta): The original
4 paperwork that we got to do the balloon float was
5 at 120.

6 MR. MERCIER: And how long ago did you
7 receive the paperwork to do the balloon float?

8 THE WITNESS (Dasta): It was done in, I
9 believe, July of last year.

10 MR. MERCIER: Now, at the field review,
11 you know, the site is in a cornfield. Looking
12 south from the fire house, there's a, it looks
13 like an older-style building. I'm not sure if
14 that's on town property or not.

15 THE WITNESS (Dasta): I believe that is
16 on town property.

17 MR. MERCIER: And there's also an
18 associated, it looked like a small, kind of old
19 water tank behind the house?

20 THE WITNESS (Dasta): There is. I'm
21 not familiar if it's historic or not.

22 MR. MERCIER: Do you know if that's a
23 museum or anything of that nature?

24 THE WITNESS (Dasta): I do not believe
25 it is.

1 MR. MERCIER: Do you know if that's the
2 Joseph Fagan house that was described in the --

3 THE WITNESS (Dasta): I can find out
4 for you. I do not know.

5 THE WITNESS (Baird): I believe it was.
6 The description matches the SHPO's comments from
7 the email correspondence.

8 MR. MERCIER: Great. Thank you.
9 That's what I wanted to confirm. Again, that's
10 town property.

11 Now, looking north from the site across
12 the cornfield, can you tell me what the land use
13 is beyond the cornfield?

14 THE WITNESS (Dasta): The current land
15 use is now a daycare, that it was not in the
16 original -- it was not originally there. It was
17 just put up recently and recently licensed.

18 MR. MERCIER: Now, is that the building
19 that fronts Plainville Avenue?

20 THE WITNESS (Dasta): It does.

21 MR. MERCIER: And how about, I guess, a
22 little bit west of that building, were there
23 structures visible across the cornfield?

24 THE WITNESS (Dasta): As far as from
25 the site?

1 MR. MERCIER: Yes.

2 THE WITNESS (Dasta): Yes, through the
3 trees there are a couple of residences that can be
4 seen.

5 MR. MERCIER: Okay.

6 THE WITNESS (Dasta): But they are
7 through the trees, and it actually lines up well
8 with our viewshed.

9 MR. MERCIER: Would you describe the
10 tree line right there in that location where the
11 cornfield abuts those residences as kind of thin?

12 THE WITNESS (Dasta): I would say it's
13 -- I don't think so. I would say it's in the 30
14 to 50 foot range. Most of the trees within that
15 area are leaved trees, so at this time of year you
16 can see them.

17 MR. MERCIER: Okay. So someone living
18 in those residences looking out their back door or
19 out on their property, they could probably see
20 through the trees and see the site, pretty much
21 the entire site?

22 THE WITNESS (Dasta): I would expect
23 so, yes.

24 MR. MERCIER: Okay. Thank you. Do you
25 have any idea how many residences that might be?

1 THE WITNESS (Dasta): From what we
2 could see, it was two residences that were not
3 blocked by the new daycare facility.

4 MR. MERCIER: Okay. And a little bit
5 to the northeast, reading your description,
6 there's a farm across the street on Plainville
7 Avenue to the northeast?

8 THE WITNESS (Dasta): Yes, sir.

9 MR. MERCIER: And would you anticipate
10 that area also would have pretty much full
11 visibility?

12 THE WITNESS (Dasta): It has full
13 visibility.

14 MR. MERCIER: Around the base of the
15 compound that's in the cornfield, what type of
16 fence is there, is it just a chain-link fence?

17 THE WITNESS (Roberts): Yes, it is.

18 MR. MERCIER: Okay. There's no slats
19 or anything; 2 inch mesh, is that what you said?

20 THE WITNESS (Roberts): It's a standard
21 2 inch mesh. We haven't proposed any slats or
22 anything of that nature.

23 MR. MERCIER: Is there any landscaping
24 proposed around the fence?

25 THE WITNESS (Roberts): No. We're kind

1 of limited. We have a 50 by 50 compound in a 50
2 by 50 lease area -- or 48 by 48 compound. So we
3 have very limited ability to plant on our lease
4 area. We certainly could plant outside our lease
5 area.

6 MR. MERCIER: Well, as just described,
7 it's pretty visible from passersby in certain
8 locations and also from residential use north of
9 the site and from historic homes south of the
10 site. So I was wondering if anything could be
11 done to hide some of the equipment within the
12 compound.

13 THE WITNESS (Roberts): We certainly
14 can either plant plantings or in some way use
15 slats or a stockade fence.

16 MR. MERCIER: Thank you. Looking at
17 the site today, you know, looking pretty much
18 slightly northwest, it appears there was some golf
19 course maintenance buildings across from the site,
20 is that correct, golf course maintenance
21 structures?

22 THE WITNESS (Roberts): I believe it
23 is.

24 MR. MERCIER: Is there any thought of
25 putting the tower over in that direction where the

1 maintenance buildings are?

2 THE WITNESS (Weisman): Based on the
3 fact that this was an older existing site that was
4 executed in the early 2000s with the Town of
5 Farmington, and based on that, we just
6 determined -- redetermined with the town that
7 that's the location that they wanted the site.

8 MR. MERCIER: So when you assumed the
9 lease, just so I understand, you went back with
10 the town during the new lease process?

11 THE WITNESS (Weisman): Correct.

12 MR. MERCIER: And this is the site --

13 THE WITNESS (Weisman): They had
14 determined they would like, yes. So we
15 reconfirmed that with them.

16 MR. MERCIER: There was no discussion
17 of it elsewhere on this large parcel?

18 THE WITNESS (Weisman): There really
19 was not.

20 MR. MERCIER: Now, since the lease date
21 is 2006, I believe at that time it was a flagpole,
22 is that right, the original lease?

23 THE WITNESS (Weisman): Correct.

24 MR. MERCIER: You just assumed that
25 lease and build a flagpole again?

1 THE WITNESS (Weisman): Well, we
2 reconformed with the town that that is what they
3 wanted. I know there were alternative proposals
4 as far as, I believe, a tree, and I'm not sure
5 what else was -- and a regular monopole, and they
6 had come back and said it had to be a flagpole.

7 MR. MERCIER: Was T-Mobile included in
8 the conversation with the town, or was it just
9 between SectorSite and the town?

10 THE WITNESS (Weisman): No, they were
11 consulted based on, you know, this is -- we're
12 trying to satisfy their need here for the site, so
13 they were consulted every step of the way of this
14 installation.

15 MR. MERCIER: During that process did
16 the town indicate they might want to locate any
17 kind of equipment on this tower?

18 THE WITNESS (Weisman): I believe it
19 had been mentioned, but they did not.

20 MR. MERCIER: Earlier I mentioned at
21 the field review the initial balloon fly was 120
22 feet in the application. So I'm just wondering
23 was this originally contemplated during the lease
24 renewal as a 120 foot tower?

25 THE WITNESS (Weisman): I believe what

1 occurred is there was just -- when we went back to
2 look at the site, the additional height was
3 required to meet T-Mobile's coverage objectives.
4 Also, I think, you know, it increased by 10 feet,
5 and also they went from one RAD center to two RAD
6 centers. And just for clarification, 130 feet was
7 in the lease agreement with the town.

8 MR. MERCIER: Thank you. I was just
9 getting to the flagpole. Is it going to be white,
10 is it a white flagpole painted white?

11 THE WITNESS (Weisman): I actually have
12 to look at the photos sims. I believe so. I
13 believe that is correct.

14 MR. MERCIER: I guess my question is,
15 no matter what the color is -- I'm just going to
16 assume it's white -- do you know if that's a
17 factory applied color, or is that something that
18 has to be maintained in the future going forward
19 once it's constructed?

20 THE WITNESS (Roberts): It's a factory
21 applied color, yes.

22 MR. MERCIER: Is there any issues
23 with -- based on anybody's experience here -- any
24 flagpole issues ten years later of paint peeling
25 off?

1 THE WITNESS (Roberts): Sure. Better
2 than that, we did, I think Dean and I worked on
3 the other flagpole down at the waste treatment
4 plant in Farmington -- that also was a flagpole --
5 and it looks pretty much the same as it did when
6 we put it up at least 10 years ago, maybe 15.

7 THE CHAIRMAN: A follow-up question
8 from Mr. Lynch.

9 MR. LYNCH: While we're on the
10 flagpole -- I'll come back to it later when we
11 talk about the engineering -- but this is for
12 Mr. Heffernan. We have heard in the past from
13 other RF engineers that a flag that is flown when
14 it's wet or in certain conditions, it wraps around
15 the pole, it interferes with your coverage. Will
16 that be the case here?

17 THE WITNESS (Heffernan): I don't know
18 if "interferes" is the best word, but it does add
19 attenuation to the RF signal.

20 MR. LYNCH: I just didn't use the right
21 word. Explain how that works then or doesn't
22 work, attenuation.

23 THE WITNESS (Heffernan): Well, at a
24 higher frequency, more so with PCS and then
25 getting into microwave, the higher microwave

1 frequencies, objects such as foliage, even getting
2 down to water-drenched flags or materials, what
3 they'll do is they'll attenuate the frequencies as
4 the frequencies try to get through them. So it
5 creates something similar to the frequencies
6 trying to get through a concrete wall or through a
7 metal wall. It does apply a little bit of
8 attenuation to it. Now, is it that great? No,
9 but it is a factor of attenuation that has to be
10 taken into account.

11 One of the bigger concerns with the
12 flag and when it gets wet and when it gets wrapped
13 around is also damage to the pole, as well as the
14 inability to maintain the antennas. So there are
15 a lot of factors that go into that.

16 MR. LYNCH: Thank you. I just wanted
17 to make sure I had that correctly. Thank you.

18 MR. MERCIER: Thank you.

19 Mr. Heffernan, based on this flagpole
20 design, is this the least optimal design for
21 T-Mobile's network needs?

22 THE WITNESS (Heffernan): By far, yes.

23 MR. MERCIER: I think there was another
24 hearing where I heard there was issues with heat
25 exchange, and sometimes it affects the performance

1 of the antennas. Is that a problem at all
2 flagpole facilities? If you can just elaborate a
3 little more as to what happens with very hot
4 situations.

5 THE WITNESS (Heffernan): Well, a lot
6 of the new antennas that T-Mobile is deploying are
7 active units, meaning radios and the receivers
8 will be right at the antennas themselves. So the
9 elements that create the RF energy, and thus they
10 create a lot of heat as well, are located, if you
11 were to put them in a flagpole, are located inside
12 of a concealed space. As with any active object
13 like that, you really need to be cognizant of the
14 temperature level of the device itself, as well as
15 the air around it. If it gets too hot, the radios
16 can go into rollback, they become nonlinear, which
17 creates an interference issue. So heat exchange
18 is a very important part of design there.

19 When looking at using a flagpole,
20 knowing that the antennas are going to be
21 internally mounted, we now have to look at a
22 completely passive configuration here, meaning the
23 radios are going to have to be externally mounted,
24 either ground level or somewhere else where they
25 can get proper air exchange which does reduce --

1 it adds extra loss with the cabling. It pulls the
2 receivers and the transmitters further from the
3 antenna, so it does decrease the performance of
4 the system itself. So really when we say it's not
5 an optimal design configuration, that has a lot to
6 do with it because we're not able to get peak
7 performance out of it. We're also not able to
8 really adjust azimuths, mechanical downtilt,
9 things like that, that it could be different from
10 antenna to antenna even on the same sector.

11 So yes, this really does limit what we
12 can put out there. And unfortunately getting
13 into -- because the lease was negotiated so long
14 ago, we knew going into this that we're really
15 going to have to live with that design, but
16 luckily there's enough to cover in the immediate
17 area that T-Mobile can satisfactorily cover the
18 objective. We're not going to get five, six,
19 seven miles from the site on a radius, but I
20 think, you know, I think you put it well that it's
21 not optimal.

22 THE CHAIRMAN: Dr. Klemens.

23 DR. KLEMENS: I hate to take away
24 Mr. Mercier's cross-examination time, but this
25 really brings me to a fundamental question.

1 You've just testified that the problems,
2 mechanical problems in creating this flagpole
3 design, it's not optimal. And I guess I'm
4 somewhat troubled by the concept there's a lease
5 that has been negotiated sometime ago that demands
6 that the flagpole be the choice. I'm used to
7 seeing leases come to us where leaseholders have
8 preferred areas on the site where they would like
9 the lease area to be. I'm a little bit troubled,
10 I've got to say, that it's the Council that
11 generally in the past has determined the type of
12 tower that is most appropriate in balancing both
13 visual aspects, as well as our duty to provide
14 reliable service and the ability to collocate.

15 So I find this a very odd situation
16 that we're being asked to from the get-go approve
17 a design that if you came to me personally and
18 asked me what I think should go there might very
19 well be a monopole, not this tower, which frankly
20 I think looks ridiculous at the scale that your
21 drawing shows. It's a massive flag pole. And
22 maybe our attorney will say something, but I find
23 this to be a very odd and unworkable -- sort of an
24 odd situation for us to be placed in. I don't
25 know if anyone can address that.

1 MS. CHIOCCHIO: I'd be happy to address
2 that, Dr. Klemens. You're correct, it is unusual.
3 It's not your typical Siting Council application.
4 I think what we're dealing with here is a balance
5 with respect to the town and their preference for
6 use of town-owned property and their strong desire
7 to see a flagpole designed facility.

8 AS Mr. Weisman indicated, when
9 SectorSite assumed the lease, they reached out to
10 the town to discuss whether there was another
11 design option. Given the changes in technology
12 from when the lease was first negotiated and went
13 through an 824 process to now, there's some
14 concerns that the RF engineers have to deal with
15 and design with. And the town considered it and
16 said, no, we'd like to move forward with the
17 flagpole, and we have a flag pole facility, as
18 Doug talked about, and that's what they preferred.

19 So I think here it's, like I said, a
20 balance of what the town preferred, what they
21 negotiated as part of a lease that was negotiated
22 in early -- started in the early 2000s, and
23 provided service where service is needed.

24 DR. KLEMENS: So basically our choice
25 is to approve the tower -- or the flagpole or not

1 the flagpole, but we can't design something that
2 we feel in our wisdom actually meets the goals of
3 reliable service and balances these needs?

4 MS. CHIOCCHIO: Based on the lease that
5 SectorSite has with the town, we would not be able
6 to build anything but a flagpole.

7 DR. KLEMENS: Thank you.

8 Thank you, Mr. Chairman.

9 MR. MERCIER: Thank you.

10 Just to follow up on that, I saw in the
11 site search summary there was a water tank over
12 near the Farmington/Bristol line. That was tab 2,
13 Connecticut Water tank, 98 feet tall, number 2, on
14 Songbird Lane in Farmington. It said it was
15 rejected because it was too close to another site
16 over in Bristol. I'm looking at the coverage
17 plots, and I kind of see where the water tank is.
18 It's near the center of your search ring, which is
19 identified as CTHA112 with a little dot, and the
20 water tank is a little bit south of there,
21 according to cross-referencing the maps.

22 So I'm just trying to understand why
23 the water tank would not actually work because it
24 seems like there's a large area of white between
25 the proposed site and its coverage models and the

1 site over in Bristol, the closest site on Route 6
2 there, if someone would please elaborate.

3 THE WITNESS (Heffernan): Sure. You're
4 right, there is a lot of white space out here, a
5 lot of area that's unreliably covered by T-Mobile
6 service. If we look at where the original CTHA112
7 search ring is, and that's what shows up on your
8 map as just the dot that says CTHA112, we'll
9 notice that the candidate we're talking about
10 tonight, it's not too far away from there.

11 One of the key objectives of this ring
12 was to provide coverage to the intersection of 177
13 and Route 6 and, more importantly, the Tunxis
14 Community College. Looking at candidates that
15 came in and were ruled out, even though that
16 candidate did have good coverage qualities, a lot
17 of residences in that area that could use the
18 coverage and is part of a bigger design plan, it
19 didn't provide the coverage that we needed to the
20 southeast of that intersection to get the
21 in-building coverage at the college. And that was
22 a very important target for this. And it's one of
23 the reasons why, even with the kind of reduced
24 design that we have to go with here, we were still
25 able to make it work with the two RAD centers and

1 be able to get coverage to the college because it
2 is in such close proximity, as well as close
3 proximity to the intersection that the site was
4 really designed to cover.

5 So it doesn't mean that that area that
6 you identified is any less important to the
7 overall plan of providing coverage for the entire
8 state, for this particular objective it didn't
9 quite fit what we needed to get out of it.

10 MR. MERCIER: Okay. Thank you. Over
11 at that intersection -- I'm familiar with the
12 college. You just described where it is -- are
13 there other commercial uses in that general
14 vicinity that are being covered, or is it
15 residential?

16 THE WITNESS (Heffernan): I know that
17 there's a Five Guys. There's small businesses
18 like that over there that definitely will need
19 increasing in-building coverage.

20 MR. MERCIER: Thank you. And just
21 looking at the plot here, you describe some of the
22 limitations you have with a flagpole. Is that
23 accounted for on the plots, or is it too minimal?
24 Say if it was a monopole, would it extend farther
25 out the coverage footprint lines, or is that

1 something that's not really modeled, the type of
2 actual installation?

3 THE WITNESS (Heffernan): No. The
4 extra losses that will be encountered on the site
5 are factored into the modeling, so there are a few
6 extra dB of loss on each of the RF paths.

7 MR. MERCIER: Okay. Again, these plots
8 were modeled at 2100. Is that correct?

9 THE WITNESS (Heffernan): Correct.

10 MR. MERCIER: And the 1900 service is
11 pretty much a similar footprint to this?

12 THE WITNESS (Heffernan): Exactly.

13 MR. MERCIER: Okay. What does the 700
14 megahertz frequency band, how does that play into
15 this site or just in T-Mobile's network in
16 general? I don't really understand because
17 usually say Verizon may have a larger footprint
18 they show at their sites because obviously they
19 have a lot more -- I wasn't sure how it interplays
20 with T-Mobile's network.

21 THE WITNESS (Heffernan): Well,
22 T-Mobile is licensed to operate in the 700
23 megahertz band. Unfortunately, in Connecticut
24 T-Mobile only has 5 megahertz of spectrum. So
25 while they do have the ability to broadcast in the

1 700 megahertz band, they don't have the ability to
2 really carry the bulk of the traffic on the
3 network. So the 700 megahertz spectrum is used
4 very sparingly, and that's why every site that we
5 design is really designed down to the 1900 and
6 2100 megahertz spectrum, because that's really
7 where the bulk of the traffic resides. We will
8 deploy 700 here, but the impact is marginal.

9 MR. MERCIER: It just has very limited
10 capacity to carry customer traffic?

11 THE WITNESS (Heffernan): Exactly. We
12 only have 5 megahertz of spectrum in Connecticut.

13 MR. MERCIER: Now, is it set up so it
14 would try to carry traffic that's farther away
15 from the site?

16 THE WITNESS (Heffernan): It will try
17 to kick over for traffic that is experiencing
18 lower signal quality. It's not so much a distance
19 factor, it's more of a -- now typically the
20 further away you go, the lower your signal
21 strength is. Typically that equates to lower
22 signal quality, but not only so. It could be an
23 interference issue, or it could just be a pure
24 capacity issue. There are certain reasons why it
25 will kick over.

1 THE CHAIRMAN: Excuse me. Mr. Lynch
2 has a question.

3 MR. LYNCH: Just a follow-up on the
4 700. Now, in your limited capacity with T-Mobile
5 to use it, are they using it -- separate capacity,
6 but is it transporting data, or is that voice
7 also, or one or the other?

8 THE WITNESS (Heffernan): Well, it's
9 primarily data right now.

10 MR. LYNCH: Thank you. That's what I
11 thought.

12 MR. MERCIER: I just wanted to clarify
13 something in the application. I believe it was on
14 page 16 where it talks about the town's preference
15 for a flagpole. It's page 16, Section B. It
16 basically states, "A tower camouflaged within a
17 flagpole is ranked first as the most preferred
18 type of location." But in reading the regulation,
19 correct me if I'm wrong, but I think it says
20 within an existing flagpole. Is that correct
21 terminology, it has to be an existing flagpole,
22 it's not like this flagpole is preferred over a
23 monopole or a tree tower?

24 MS. CHIOCCHIO: Yes, I believe the
25 preference would be -- the highest preference

1 would be to collocate with an existing structure.

2 MR. MERCIER: Okay. And so the tower
3 with the least preference would be a new tower in
4 a residential system?

5 MS. CHIOCCHIO: Correct.

6 MR. MERCIER: Thank you. I just have a
7 couple of questions on the Federal Aviation
8 Administration letter that was issued with the
9 interrogatories. I think that's behind tab number
10 2 of the interrogatories. Just so I understand
11 the letter, was the 130 feet determination, was
12 that a recommendation to do tower lighting, or is
13 it required? Because reading through the letter,
14 it says "recommend," "recommend," "recommend," so
15 I'm a little confused as to really what they want.

16 THE WITNESS (Roberts): Under the
17 determination it says, "As a condition to this
18 determination, the structure is to be
19 marked/lighted with floodlights." So I took that
20 as a requirement, you know.

21 MR. MERCIER: Okay. I don't know if
22 you spoke to anybody or have any other
23 documentation. Is there a tower height where
24 lighting would not be required?

25 THE WITNESS (Roberts): I have not had

1 that discussion.

2 MR. MERCIER: Now, I saw the letter and
3 it stated, you know, we want three floodlights,
4 and now SectorSite is going to be given four
5 floodlights. Why do you want the additional
6 floodlight?

7 THE WITNESS (Roberts): And again, I
8 made that as a change to the interrogatory
9 responses. But the four gives me coverage.
10 They're looking for 15 foot candles. And what I
11 plan to do is place them at 90 degrees apart and
12 10 feet off the ground so that they wouldn't be
13 obstructed by snow, ice, bridge equipment, also,
14 you know, for vandalism, such like that. So that
15 overlap, if you will, of 90 degrees I'll get my 15
16 foot candles.

17 MR. MERCIER: Okay.

18 THE CHAIRMAN: Mr. Lynch has a
19 question.

20 MR. LYNCH: To get rid of another one
21 of my questions here, as far as lighting is
22 concerned, I'm not talking about the tower, now
23 I'm talking about the flag and flag etiquette.
24 There's a flag on the tower. Will that also be
25 lit, or will we get letters from veterans?

1 THE WITNESS (Roberts): The requirement
2 was I believe the top third or one half -- forgive
3 me for not knowing exactly -- but we would place
4 15 foot candles at the top where the flag itself
5 is located. So, in fact, the flag would be lit.

6 MR. LYNCH: All right. I just didn't
7 want you to get veteran letters. Thank you.

8 THE WITNESS (Roberts): Thank you.

9 MR. MERCIER: What's the power source
10 for the lights?

11 THE WITNESS (Roberts): The power
12 source would be commercial power. What my
13 thoughts were, we were either going to have to a
14 UPS battery back-up for that, or a back-up
15 generator that, in fact, would kick on if there is
16 a loss of commercial power.

17 MR. MERCIER: Is there any way to share
18 T-Mobile's generator to light the lights during an
19 emergency situation?

20 THE WITNESS (Roberts): I will offer
21 this: It becomes a liability issue. If
22 T-Mobile's generator doesn't start, they don't
23 have customers; but if my client's lights don't go
24 on, we have an FAA notice for a hazard navigation
25 that has to be acted upon. So I think that we

1 wouldn't necessarily -- I wouldn't necessarily
2 think it would be in our best interest to tag
3 along with them due to we want to have control of
4 our destiny.

5 MR. MERCIER: You brought up an
6 interesting point. How are the lights monitored?
7 So, let's say you lose power and they don't go on,
8 who's going to notify the FAA or the airport or
9 this number that's in the letter?

10 THE WITNESS (Roberts): I haven't
11 gotten through all the details of that, but my
12 assumption would be it would be through a POTS
13 line that we would have a constant monitoring of
14 the power lighting situation. And if any one of
15 those failed, that it would notify SectorSite that
16 there is a failure, and they'll deploy someone out
17 and notify the FAA immediately.

18 MR. MERCIER: So it's a remote
19 monitoring?

20 THE WITNESS (Roberts): It would have
21 to be, yes.

22 MR. MERCIER: So at SectorSite do you
23 have personnel available 24/7 to monitor
24 situations such as this?

25 THE WITNESS (Gechtman): Hi, it's Dan

1 Gechtman from SectorSite. We do, we have someone
2 that's on call 24/7, maintenance people. So if a
3 call was to come in, that would be something that
4 would be addressed as quick as possible.

5 MR. MERCIER: Is the tower with your
6 lease limited to 130 feet? Can you go higher?

7 THE WITNESS (Weisman): I believe it is
8 limited to the 130 feet, correct.

9 MR. MERCIER: So if a carrier wanted to
10 come on, I guess they would have to redesign or
11 strengthen the foundation of the tower if they
12 were allowed to go on. I understand you're saying
13 the lease says 130. Let's say there's another
14 mechanism for it to go higher, they would have to
15 strengthen the tower themselves, I mean, you're
16 not designing it to be expandable. Correct?

17 THE WITNESS (Gechtman): Actually,
18 generally we do design the tower foundation and
19 the structural integrity of the tower to be
20 extended if at any time in the future there is a
21 need for that, and the required board or landlord
22 approves it, generally the tower will be designed
23 to receive an extension. With flagpoles you are
24 somewhat limited with the number of cannisters you
25 can put up, but it will be structurally sound to

1 handle an extension.

2 MR. MERCIER: Okay. I saw also in the
3 FAA letter it was limited to 130 feet. So you
4 would have to refile?

5 THE WITNESS (Gechtman): Everything
6 would be subject to necessary local, state and
7 governmental approvals should an extension be
8 needed in the future.

9 MR. MERCIER: We'll just say if it went
10 up 10 feet, I mean, is it possible that you would
11 have to put a strobe light on it, or something, or
12 flashing red light?

13 THE WITNESS (Gechtman): It's
14 impossible for me to answer that question. It
15 would be up to the FAA.

16 THE WITNESS (Roberts): I just wanted
17 to weigh in that, you know, typical flagpoles are
18 four carrier, you know, the ones I've done before
19 the Council before. This is a five carrier. And
20 as we expand vertically, that pipe that's in the
21 center, in fact, that the antennas are mounted to,
22 becomes bigger and bigger. So it reaches a point
23 where we don't have any room for antennas and
24 cables because we're ending up with a fairly large
25 diameter. So to expand the flagpole another 10,

1 20 feet is very difficult to do structurally. If
2 it was designed as a two carrier with an expansion
3 above with a two carrier, you know, or three
4 carrier expansion, that would be much more logical
5 and constructible.

6 MR. MERCIER: When you say "carrier," I
7 think you mean just antenna slots, we'll call it.

8 THE WITNESS (Roberts): Correct.

9 MR. MERCIER: T-Mobile has two?

10 THE WITNESS (Roberts): Yes.

11 MR. MERCIER: And I think Cellco
12 submitted a letter in the record that they may go
13 here for two slots, so that just leaves one
14 antenna slot down to the 87 foot level. Is that
15 right; is that correct?

16 THE WITNESS (Roberts): It's designed
17 as a five carrier, so we have 127, 117, 107, 97
18 and 87.

19 MR. MERCIER: So if Cellco did locate
20 on it, it would take two slots, according to the
21 letter, so it's really, you've got one tower level
22 left for somebody. And given their technology
23 needs, they might not even -- they can't even use
24 one. Is that a fair statement?

25 THE WITNESS (Roberts): Very possibly.

1 The only other option would be similar to what we
2 did at the Round Hill Church in Greenwich is put a
3 second one. That was designed initially as two
4 poles with identical RAD centers. But, you know,
5 you have -- visibility is the same, only you have
6 two instead of one. And then that would be,
7 obviously, all subject to lease negotiations for a
8 second one.

9 MR. MERCIER: Thank you. I guess my
10 last question is, given the FAA restriction of 130
11 feet in its letter, we'll just say if the town
12 wanted to use the top of the tower to install a
13 whip antenna -- well, first of all, can a flagpole
14 accommodate a whip antenna; was it designed that
15 way?

16 THE WITNESS (Roberts): Yes. Basically
17 it would have to be mounted at the top above the
18 flag itself because they would be external to the
19 cannisters themselves.

20 MR. MERCIER: And in this case, if a,
21 I'll say, a 12 foot whip went up there, would you
22 have to refile with FAA because it's a whip
23 antenna?

24 THE WITNESS (Roberts): Correct. It
25 would be the highest appendage at that location.

1 MR. MERCIER: Thank you. I'm all set.
2 All done.

3 THE CHAIRMAN: Mr. Lynch.

4 MR. LYNCH: As far as other carriers
5 going on the tower actually below T-Mobile,
6 someone like Cellco Verizon, would they more or
7 less use it for capacity rather than coverage,
8 especially if they're going below and going down
9 in height?

10 THE WITNESS (Roberts): I don't think
11 any one of us at this table can answer that
12 question.

13 MR. MERCIER: Actually, I have one more
14 question. You brought up the term "vandals"
15 earlier. I saw in the interrogatories it said
16 that the 2 inch mesh was not climbable. Is it
17 possible to make it even more difficult for
18 someone to climb by putting another type of
19 anti-climb treatment on the fence?

20 THE WITNESS (Roberts): Certainly. We
21 can use a tighter weave on that mesh which
22 basically is referred to as anti-climb.

23 THE CHAIRMAN: You should know. If you
24 don't, one and a quarter is the standard, like Mr.
25 Ashton has --

1 MR. MERCIER: Would the tighter weave
2 also make the equipment less visible within the
3 compound?

4 THE WITNESS (Roberts): It would. Some
5 of the limitations are the 2 inch mesh is geared
6 to having privacy slats where the smaller, tighter
7 weave isn't. That might change, but so far it
8 hasn't.

9 MR. MERCIER: Thank you. One other
10 question I had, actually, was about T-Mobile's
11 emergency generator. There's a propane generator
12 to be installed. Is there a separate tank for
13 that, or is that within the unit itself?

14 THE WITNESS (Roberts): There is a
15 propane tank, NFPA 54, I believe calls for -- I
16 guess I'll go to our sheet A-1 where we show a 10
17 foot buffer in a round circle in the southeast
18 corner. That would be the propane tank. And that
19 10 foot clear is a spark, if you will, a
20 clearance, so that propane --

21 MR. MERCIER: Okay. I didn't see that.
22 I saw the buffer, but I didn't actually see the
23 tank. Do you need bollards around that to protect
24 that?

25 THE WITNESS (Roberts): Not

1 necessarily. It's within the compound itself.
2 And that is a DC generator; it's not an
3 alternating current generator.

4 MR. MERCIER: Do you know the
5 approximate run time under normal conditions?

6 THE WITNESS (Roberts): 80 hours.

7 MR. MERCIER: Before refueling?

8 THE WITNESS (Roberts): Correct.

9 MR. MERCIER: Thank you.

10 THE CHAIRMAN: Okay. We'll now go to
11 questions from the Council.

12 Mr. Edelson.

13 MR. EDELSON: I just wasn't clear on
14 the lighting. Because the question on the
15 lighting in the interrogatory referred to, or
16 asked the question about an automatic switch. If
17 I understand the answer, it sounded like it's
18 going to be on 24/7. Would you just clarify when
19 the lights are going on and off?

20 THE WITNESS (Roberts): Sure. The plan
21 is to have them on on a dusk to dawn photocell so
22 that they would in fact go on at the appropriate
23 time in the evening and go off at daylight.

24 MR. EDELSON: So to ensure operation at
25 all times, you mean every day, not all the time?

1 THE WITNESS (Roberts): Correct.

2 Correct. I'm sorry.

3 MR. EDELSON: Going back to this
4 question about the flagpole, have you gone back to
5 the town to try to discuss with them the
6 limitations of a flagpole; and if so, when did
7 that happen, and can you describe how that
8 conversation went?

9 THE WITNESS (Gechtman): Yes. When we
10 took assignment of the lease at the beginning of
11 last year, approximately June or July we sent a
12 letter to the town requesting a change in design
13 and discussed options, both verbally and in
14 writing, and at that point the town made it clear
15 that the flagpole design was what they would
16 approve.

17 MR. EDELSON: Who in the town was that
18 with, the town council?

19 THE WITNESS (Gechtman): The planner, I
20 believe, the town planner, the town planner and
21 town manager.

22 MR. EDELSON: Mr. Heffernan, you
23 mentioned -- this is just for my information --
24 that at 700, a frequency of 700, that T-Mobile has
25 5 megahertz of capacity. What is it at 1900 and

1 2100, just to give myself a sense of how big or
2 small is 5 megahertz?

3 THE WITNESS (Heffernan): Well,
4 typically most of the markets they'll have 10 or
5 15 meg at 1900, and 15 to 20 meg in the 2100
6 megahertz spectrum.

7 MR. EDELSON: So two to three times as
8 much?

9 THE WITNESS (Heffernan): Yes, a
10 significant increase; yes.

11 MR. EDELSON: And I'm pretty sure I
12 know the answer to this question. But the flag is
13 going to be owned by who? Who owns the flag if
14 the flag is damaged in a wind storm? Who's
15 responsible for putting it back up? It's a big
16 flag.

17 THE WITNESS (Gechtman): It is a very
18 large flag. I believe, as per the lease
19 agreement, the maintenance of the flag is
20 SectorSite's responsibility.

21 MR. EDELSON: So if it becomes damaged
22 in any way, there is a provision in there to, in
23 an expeditious way -- I guess what I'm after is,
24 we don't want a torn flag up there, you know, just
25 kind of looking like nobody cares about it.

1 THE WITNESS (Gechtman): Absolutely.
2 And as we know, in time it will deteriorate, it
3 will need to be replaced. They generally, I've
4 seen them last two years, somewhere around there.

5 MR. EDELSON: So it's understood to be
6 your responsibility?

7 THE WITNESS (Gechtman): It is. I
8 believe it's a lease obligation of ours.

9 MR. EDELSON: Thank you.

10 THE CHAIRMAN: Mr. Silvestri.

11 MR. SILVESTRI: Just as a follow-up to
12 that. Who's responsible for the flag etiquette
13 part of it as far as a raising and lowering it for
14 half staff purposes?

15 THE WITNESS (Gechtman): I'd have to
16 refer back to the lease. I believe there were
17 some discussions about an automatic lifting system
18 for this particular flag. And I believe it's our
19 responsibility to do it, but I'd have to check the
20 lease. I'm not sure if the town is actually
21 raising it and lowering it at appropriate times.

22 MR. SILVESTRI: Even with the
23 automatic, somebody is going to have to press the
24 button.

25 THE WITNESS (Gechtman): Correct. And

1 someone on a day-to-day basis will have to monitor
2 it and make sure. So I believe the town does, but
3 we'll have to check the lease agreement.

4 MR. SILVESTRI: Thank you.

5 MR. EDELSON: I think this is a
6 T-Mobile question, but I'll put it out there. In
7 terms of the height and the coverage, that's not
8 what T-Mobile would prefer, but it's really what
9 the town has limited you to, like 130 feet. If
10 you look at the coverage diagram, there's just a
11 lot of white area --

12 THE WITNESS (Heffernan): Correct.

13 MR. EDELSON: -- around there that
14 would seem, based on the mapping, there's a lot
15 more residents you could really go after or serve
16 if you could go up more footage?

17 THE WITNESS (Heffernan): Correct. The
18 way we look at it from an RF standpoint is,
19 because the town really set the limits of what
20 they were willing to allow, it almost becomes an
21 existing structure to us, almost like a water tank
22 or a rooftop, those limits are already set. So it
23 wasn't a clean canvas for us to come in, give a
24 minimum height, and look for a larger percentage
25 of that coverage objective. Fortunately, in this

1 case with the two antenna slots we are able to
2 provide coverage to the primary objective. We may
3 lose some of the fringe coverage that we would get
4 with a taller structure, but that leads to future
5 design.

6 MR. EDELSON: If we could go back to a
7 prior point I forgot to pursue. So you spoke to
8 the planner and possibly also the town manager.
9 Did you think of going any further as to the town
10 council or to the elected people to see if they
11 would recognize this, or they basically said that
12 -- the staff said there was no benefit in going
13 any further?

14 THE WITNESS (Gechtman): Well, we felt
15 that the town planner was the person with the
16 authority and was speaking on behalf of the town.
17 We did, as I said, send a letter in writing and
18 spoke to them both verbally, and we didn't go any
19 further to the town council.

20 MS. CHIOCCHIO: Our initial contact was
21 through the town planner to discuss the potential
22 for different designs, indicating what the
23 limitations were at this point with the flagpole
24 and so forth, provided some photo simulations of a
25 monopole, a monopine, given that the motivation

1 for the flagpole was really visual impacts, right.

2 The town planner indicated that it
3 would require another 824 local leasing process,
4 but had discussed it with the town manager who was
5 pretty emphatic that it would not be worth our
6 time to go through that process.

7 THE CHAIRMAN: Mr. Harder.

8 MR. HARDER: Yes. Thank you, Mr.
9 Chairman.

10 I just have one question, or one issue,
11 I guess, and a couple questions probably, and
12 that's the photo simulations. I guess a general
13 question is, how do you decide, or how do you
14 choose the locations for where you want photo
15 simulations to represent? Do you try to at least
16 identify, you know, worst-case scenarios or the
17 most --

18 THE WITNESS (Dasta): Russ Dasta,
19 Virtual Site Simulations. We did simulations for
20 this package. And prior to going out, we do a
21 viewshed analysis, a preliminary one, to see where
22 we believe where it would be visible from. And we
23 look for areas of interest, areas of interest to
24 you and the public, to make sure that we get the
25 most shots from the most people so they can see

1 what it's actually going to look like and be able
2 to make a valid determination.

3 MR. HARDER: So what you have here --
4 what we have here represents at least the worst,
5 potentially, situation?

6 THE WITNESS (Dasta): That is what we
7 tried to portray.

8 MR. HARDER: I guess the only other
9 question is, for some of the photos they're
10 identified -- I assume most of them are
11 residential situations or locations, but for some
12 of them they're identified with a fairly broad
13 range of addresses, the most significant being one
14 thing, 1 through 99 Pine Hollow Road. Are these
15 representations supposed to -- those addresses,
16 for example, supposed to be what we see in front
17 of us looking down a particular street, for
18 example, or is the 1 through 99 behind and is what
19 is supposed to be seen from those locations?

20 THE WITNESS (Dasta): I can see where
21 that would be a little confusing. We actually
22 provided a GPS location so that you can know
23 exactly where we took the photo from. The address
24 is really more of a broad range in this area, and
25 you would be looking from that location at

1 whatever bearing we cite in the report.

2 Does that answer your question, sir?

3 MR. HARDER: Yes, it does. Yes.

4 Okay. That's all I have. Thank you,
5 Mr. Chairman.

6 MS. BACHMAN: Mr. Silvestri.

7 MR. SILVESTRI: Thank you.

8 Mr. Roberts, I wanted to go back to the
9 correction that you mentioned on the antenna
10 dimensions earlier today. And my question for you
11 is, does the change in the dimensions affect the
12 frequency emissions analysis that's reported under
13 tab 8?

14 THE WITNESS (Roberts): No, those are
15 just physical sizes, and that's the antenna that's
16 in model that would be used at that frequency.

17 MR. SILVESTRI: Thank you.

18 THE WITNESS (Roberts): You're welcome.

19 MR. SILVESTRI: And also back to the
20 lights, if another generator is needed as a
21 back-up for power for the lights, do you have a
22 handle on what type of generator size, what type
23 of fuel type, and what type of fuel requirements
24 or storage requirements?

25 THE WITNESS (Roberts): We haven't gone

1 down that path yet. Obviously, I'm using LEDs,
2 energy efficient lighting, so we don't have a huge
3 draw, and we certainly can look at, you know,
4 whether it's propane, which probably would be the
5 best, most cost-effective approach to that.

6 MR. SILVESTRI: Is there any potential
7 for a battery storage for the lights?

8 THE WITNESS (Roberts): As in like a
9 UPS system?

10 MR. SILVESTRI: Uh-huh.

11 THE WITNESS (Roberts): Yes. And we
12 probably would have that as a first line of loss
13 of commercial power. We do have some time to
14 deploy our person out there before the lights, in
15 fact, go out, so to make sure that it's not a loss
16 of power but in fact a light bulb out, which we
17 would get a jump on.

18 MR. SILVESTRI: So, in general, that
19 would still have to be worked out?

20 THE WITNESS (Roberts): Yes.

21 MR. SILVESTRI: Going back to the
22 original generator that's proposed, the propane
23 tank is above ground, correct?

24 THE WITNESS (Roberts): That is
25 correct.

1 MR. SILVESTRI: What's the size?

2 THE WITNESS (Roberts): I believe it's
3 120 gallon.

4 MR. SILVESTRI: Thank you.

5 And I want to have you reference
6 drawing A-1. And I'll start the question with a
7 comment. When we were in the parking lot doing
8 the field review earlier today, if you look at the
9 proposed area for the compound, it seems to be
10 lower than either the parking lot itself, the
11 access road that goes around towards the golf
12 course, so much that I could kind of see
13 stormwater being pitched down through your
14 compound. I think you're trying to do something
15 with the stormwater regarding the proposed swale?

16 THE WITNESS (Roberts): That is
17 correct.

18 MR. SILVESTRI: That's kind of running
19 east to north, I believe, or northwest?

20 THE WITNESS (Roberts): Northeast to
21 southwest, yes.

22 MR. SILVESTRI: Could you comment a
23 little bit more about that, what you see for
24 stormwater runoff?

25 THE WITNESS (Roberts): Well, we're

1 trying not to -- you know, we have an FAA
2 determination for lighting of this at 130 feet.
3 Normally what I would try to do is build up the
4 site slightly two or three feet higher than the
5 surrounding grade. That does one of two things:
6 It takes care of the spoils of the concrete
7 foundation, and builds up the grade around it a
8 little bit. In this case we're kind of building
9 it up a little bit, about 6 inches to a foot, not
10 dramatically.

11 MR. SILVESTRI: I could see the swale
12 that you have marked kind of in the middle of the
13 drawing there on A-1. If you look below just
14 above the graphic scale at the bottom of the page,
15 it almost looks like there's a second swale that's
16 proposed. Is that the case with the other arrow
17 that's there, or am I misreading that?

18 THE WITNESS (Roberts): No, that is
19 correct. The solid lines are proposed contours,
20 so there's a line with a swale down the middle
21 with an arrow, and that is a proposed swale to
22 divert water from the driveway down to the
23 southwest.

24 MR. SILVESTRI: Okay. Got you. Thank
25 you.

1 THE WITNESS (Roberts): You're welcome.

2 MR. SILVESTRI: Two other questions for
3 you. The first one, have any comments been
4 received from neighbors?

5 MS. CHIOCCHIO: No, no comments from
6 neighbors.

7 MR. SILVESTRI: Then the last one I
8 have concerns the proposed height of the pole. Is
9 the driver for the height really coming from the
10 1900 and 2100 megahertz frequencies and what you
11 proposed for coverage going further up from that?

12 THE WITNESS (Heffernan): Well, the
13 height isn't being driven by the frequency. The
14 deployment of the antennas at the two different
15 antenna RAD centers is being driven by the
16 frequency. We know that designing the site we're
17 capped at 130 feet, so naturally we want to put
18 the high band antennas at the top antenna slot and
19 the lower band, the 700 meg, 10 feet below that.
20 So the site itself wasn't driven by an optimal
21 footprint at a given frequency. It was just our
22 design for a site that we needed to fit into our
23 design at a given height. It's kind of backing
24 into it since we know what the top of the tower is
25 going to be.

1 MR. SILVESTRI: All right. Let me turn
2 it around then. Could the tower be lower and
3 still provide the coverage that you need?

4 THE WITNESS (Heffernan): Well, we did
5 run plots down at 107 feet, and at that point we
6 start to lose the potential to provide coverage,
7 in-building coverage to the college itself. So
8 for us this really is the minimum height that we
9 would want to go at. Could we go 8, 10 feet
10 lower? Maybe overall, but again, we're really
11 starting to lose that coverage southeast of the
12 interchange at an in-building level.

13 MR. SILVESTRI: So if I understand, as
14 far as coverage to the college, 127 would be
15 quote/unquote optimal?

16 THE WITNESS (Heffernan): Within a
17 slight tolerance. I'm not going to say that it
18 just happened to be that 127 is the magic number.
19 But once we started to get below another 10 feet
20 below that, we really did start to run into
21 problems with obstructions. In reality, we'd like
22 to go the other direction, not significant, but,
23 you know, 20 extra feet here would be a dramatic
24 increase in coverage.

25 MR. SILVESTRI: My last question. The

1 town owns the cornfield. Is that correct?

2 MS. CHIOCCHIO: Yes.

3 MR. SILVESTRI: Who farms it?

4 MS. CHIOCCHIO: I'm not sure.

5 MR. SILVESTRI: Do you know if it's a
6 consumable product from the corn standpoint for
7 people or for animals or for whatever?

8 MS. CHIOCCHIO: I don't know.

9 MR. SILVESTRI: Okay. That's all I
10 have. Thank you.

11 THE CHAIRMAN: Dr. Klemens.

12 DR. KLEMENS: Thank you, Mr. Chairman.

13 I'll start discussing the flag. When I
14 was there today, I saw there was a flag flying at
15 the building nearby. How much larger is this
16 flag? What is the dimension of this flag going to
17 be?

18 THE WITNESS (Roberts): Our response to
19 interrogatory Question Number 7 is 12 by 18 feet.

20 DR. KLEMENS: It's a 12 by 18 flag?

21 THE WITNESS (Roberts): Correct.

22 DR. KLEMENS: Do you have any rough
23 idea what the size of the flag that is flying, the
24 standard flag that is flying by the building is?

25 THE WITNESS (Roberts): To be honest, I

1 didn't note that.

2 DR. KLEMENS: These are very, very
3 large pieces of fabric that are whipping in the
4 wind. What do you know about the impacts? And I
5 imagine they're going to be flying day and night,
6 correct?

7 THE WITNESS (Roberts): That is
8 correct.

9 DR. KLEMENS: So what do we know about
10 the impact? We have a lot of discussion, for
11 example, what happens with wind turbines. What is
12 the impact to birds and bats of these large pieces
13 of fabric flapping in the wind 24 hours a day?

14 THE WITNESS (Baird): The impact is, we
15 have evaluated it to be negligible relative to
16 birds.

17 DR. KLEMENS: Do you have studies to
18 demonstrate that?

19 THE WITNESS (Baird): I'm not aware of
20 any studies.

21 DR. KLEMENS: So that's conjectural.
22 And bats?

23 THE WITNESS (Baird): Same.

24 DR. KLEMENS: So you really don't know
25 what the impact of a large piece of fabric blowing

1 in the wind might be to wildlife?

2 THE WITNESS (Baird): Not by any
3 studies I've done, no.

4 DR. KLEMENS: Let's talk about the
5 whole concept of the flagpole. Is it the town's
6 desire to have the flagpole for an exhibition of
7 patriotism, or is it a desire to hide the antennas
8 in a tall capsule? What is motivating the town's
9 desire?

10 MS. CHIOCCHIO: It's a visibility or
11 design concern. So I would presume it's to hide
12 the antennas so that the facility doesn't look
13 like a typical monopole.

14 DR. KLEMENS: I would tend to think
15 you're correct.

16 Have you considered whether that
17 objective may be more appropriately met given the
18 landscape that it's in, given the presence of the
19 tower nearby, that a silo design may accomplish
20 these goals without all the concomitant problems
21 of raising and lowering the flag, repairing the
22 flag, and impacts that the flag might cause to
23 wildlife; has that ever been discussed?

24 THE WITNESS (Gustafson): Dr. Klemens,
25 while the board is looking to respond to your

1 question, I just wanted to make some comment about
2 your concerns about potential impacts to birds and
3 bats with the flag material. I did look at the
4 existing flagpole facility that's located at 1
5 Westerberg Drive, and that's the tower facility --
6 flagpole facility that's located behind the town's
7 wastewater treatment plant. And it's a similar
8 structure and probably similar flag size that this
9 facility would have.

10 I spoke with the planning department in
11 town to see if they have had any reports of any
12 bird strikes at that facility, and also talked
13 with the -- or corresponded with the facility
14 manager at the wastewater treatment plant, and
15 there were no reports of bird strikes. Now, that
16 may not be statistically significant, but it's at
17 least anecdotal evidence that it doesn't appear to
18 be a significant concern at that existing flagpole
19 facility.

20 In addition, I corresponded with
21 T-Mobile and their technician who regularly visits
22 that facility to see what their observations were,
23 and there again they have never had any
24 observations of dead birds or bird strikes at that
25 facility. So for what it's worth, I want to pass

1 along that information.

2 DR. KLEMENS: Thank you. And, as you
3 know, one of the big concerns at the wind turbine
4 facility in Petition 983 actually is bat
5 mortality. So have they any information on bat
6 mortality at that facility? Would they even
7 recognize a small dead bat on the ground?

8 THE WITNESS (Gustafson): It's entirely
9 possible they don't. One of the concerns about
10 turbines is the extra percussive waves that
11 are produced by the actual turbines that can
12 create bat mortality. It's not necessarily always
13 a direct impact strike that kills the bats.
14 Sometimes they get caught in those waves which,
15 you know, a flagpole flapping in the wind isn't
16 going to produce those strong wind waves.

17 DR. KLEMENS: That's very helpful. But
18 I guess I do want to go back to the fact that this
19 is an agricultural landscape of sorts with a silo
20 like structure, water tower, stone across the
21 street. Couldn't these objectives be met with a
22 silo type facility that would hide the antennas,
23 possibly being somewhat larger may mitigate some
24 of the issues of heating, and maybe that would be
25 a better solution than what is being proposed both

1 from a visual, from a maintenance standpoint, as
2 well as from a functional standpoint?

3 THE WITNESS (Gechtman): Dr. Klemens, I
4 could address the question you asked earlier as to
5 whether we had proposed the silo to the
6 municipality when we made the proposal to change
7 the design, and we did not. We proposed either a
8 monopole or a monopine at that time. Silo designs
9 have their challenges as well. I think that they
10 come with limitations. I'm not an expert as far
11 as limitations. Maybe Doug can speak to them as
12 well regarding design and size and such. But it
13 was not something that we proposed to the town.

14 I will also say that while this is a
15 cornfield, I think there's a fire department in
16 the front and a golf course in the back. I think
17 that's the only aspect of the property that is a
18 farm is the cornfield. But we did not address the
19 silo. And maybe, Doug, you can talk more about
20 the limitations of a silo as well.

21 DR. KLEMENS: Versus the flagpole, yes.
22 I'd like to understand whether some of the issues
23 that you've identified in the flagpole
24 configuration are less issues with a silo because
25 they're wider, there's more space.

1 THE WITNESS (Roberts): Surely. In
2 Hamden at the Connecticut Agricultural Center we
3 did a silo for that site a few years ago. And you
4 are correct, what that would allow would be
5 T-Mobile to have one RAD center as opposed to two,
6 and basically prepare the site so the collocators
7 would have 10 foot diameter, 10 foot RAD centers.

8 One of the disadvantages of a silo is
9 from a visibility point of view is we're talking 3
10 and a half feet in diameter flagpole, which is
11 fairly robust for a flagpole, but a silo is 21
12 feet, 22 feet in diameter, so it's a huge item on
13 the skyline.

14 And the other side of that equation,
15 certainly in New England, Vermont, Massachusetts,
16 Connecticut, we don't necessarily see 130 foot,
17 140 foot silos. You get out to the midwest and
18 corn country, Pennsylvania, Ohio, you know,
19 Rochester, New York, out into I'll call it east
20 midwest, you'll see fairly large structures. But
21 we don't really have that kind of size. I can't
22 recall how tall the Hamden one is, but I know it's
23 not 130.

24 MR. LYNCH: 110.

25 THE WITNESS (Roberts): 110. Okay.

1 Thank you.

2 DR. KLEMENS: You can't shrink the size
3 of this by -- the design couldn't shrink because
4 it is -- would you be able to lower it in a silo
5 design because some of your objectives would be
6 met within the silo?

7 THE WITNESS (Roberts): I would have to
8 say if your RAD center is at 127, if you were at
9 117 with both RAD centers, would your objectives
10 be met. Sorry.

11 THE WITNESS (Heffernan): Well, like I
12 was stating before, because we're already starting
13 from a reduced potential standpoint, any reduction
14 in height will reduce that footprint a little
15 more. But I also did mention that we did model
16 down to 107. At 107 we were really starting to
17 shrink that in-building coverage footprint.

18 Could we utilize a site with all of the
19 antennas at one RAD center maybe 10 feet lower?
20 We could. It's going to open up a little more
21 area out in the fringe that may require a closer
22 proximity design for the next site in all
23 directions. But at 117 we could still cover the
24 majority of what we're trying to cover there. But
25 again, getting much below 117 we're starting to

1 get into that area where we're losing that
2 in-building coverage, especially at the college,
3 so we're kind of at that break point.

4 DR. KLEMENS: And the silo has to be 21
5 feet wide -- must be?

6 THE WITNESS (Roberts): Well, that kind
7 of equates into the platform size of the
8 triangular platforms and slipping a cylinder over
9 the top of that, keeping the 4 foot spacing or
10 however it gets broken out, the spacing of the
11 antennas. But typically a platform is 12 and a
12 half feet face so that you have separation
13 diversity for the antennas.

14 DR. KLEMENS: Well, it would have been
15 nice to maybe have at least had that conversation.

16 Let's move to the actual location of
17 what you're planning. As you know, we have heard
18 a lot and continue to hear a lot about protection
19 of agriculture. So I looked at the location of
20 where you have this proposed, and in my mind I can
21 say let's just move it to the very edge of the
22 cornfield, you know, the grass area, because the
23 reality is, I think where you're putting it --
24 you're really not only affecting the agricultural
25 use there, I think it's going to be very

1 impractical, at least in my opinion, to farm that
2 little piece between the tower lease area and the
3 road. It's almost going to be lost. Why can't it
4 be moved to minimize the impact to the cornfield?
5 I can't directionalize it. It would be to the
6 west, is that correct, I think, further west?

7 THE WITNESS (Gustafson): I believe the
8 south is the direction you're looking at.

9 DR. KLEMENS: South, you're right.
10 Could it be moved further south, right to the very
11 edge of this, rather than drop it right in the
12 center of the cornfield -- not in the center, but
13 certainly it's in the area that's being used.

14 THE WITNESS (Roberts): Doug Roberts.
15 I just wanted to say it can be moved anywhere.
16 One of the guidelines that we used for locating
17 that was it was already a planned site location
18 and lease that was acquired, so that was kind of
19 how it was placed initially and designed today.
20 And part of the town's requirements under 16 was
21 they were looking for a tower height from property
22 line to be the height of the tower, not to say
23 that we're far beyond that but --

24 DR. KLEMENS: Whose property is it
25 across the street?

1 THE WITNESS (Roberts): Well, the
2 public -- the Westwoods Road itself would be the
3 property line. That figure coming in is a town
4 road.

5 DR. KLEMENS: Because we've experienced
6 another matter in Hamden when we come in with a
7 lease site, this is the lease site that was the
8 lease site, and it turned out it wasn't really a
9 great lease site, and ultimately in the Hamden
10 matter we ended up finding a much better place for
11 it. So often starting at the lease site,
12 historical lease site, is not always the best.
13 But okay.

14 THE WITNESS (Dasta): Just a note on
15 visibility for that particular place. There is a
16 bore view down the street right across, directly
17 across from Westwood, if you were to move it south
18 in that direction, just an observation. So you
19 would have, coming up that street, you have people
20 that live along that street that don't currently
21 have a view would end up with views.

22 DR. KLEMENS: Maybe a very beautiful
23 silo --

24 THE WITNESS (Dasta): It's entirely
25 possible.

1 DR. KLEMENS: All right. Mr.
2 Gustafson, the rest of these questions are going
3 to be for you. The Farmington River Biodiversity
4 Plan you're familiar with?

5 THE WITNESS (Gustafson): Yes, I am.

6 DR. KLEMENS: Can you tell us what type
7 of area this is in that plan, what is this plot
8 labeled at in that plan?

9 THE WITNESS (Gustafson): I don't
10 recall the specific designation, but we are in a
11 glacial outwash deposit, you know, that's
12 primarily utilized for recreational use in this
13 particular property. Scott Swamp Brook is an
14 important resource within the town that has a fair
15 amount of biodiversity associated with it. This
16 facility would be located approximately 700 feet,
17 750 feet to the southeast, and it's within,
18 obviously, as we've discussed, a cultivated
19 agricultural field. So we don't feel that
20 development of this facility would have any
21 adverse affect on the biodiversity in this locale.

22 DR. KLEMENS: Possibly during the
23 dinner break you can consult the map. I have the
24 answer, but I can't testify. It would be nice to
25 have is it a primary conservation area, a

1 secondary conservation area, an interconnected
2 conservation area, or a nonconservation area. So
3 possibly you can inform us of that after the
4 dinner break.

5 THE WITNESS (Gustafson): I will take
6 that up as homework.

7 DR. KLEMENS: Thank you.

8 Now, you testified or told us in the
9 field that you did wetlands work on the site?

10 THE WITNESS (Gustafson): That is
11 correct. I actually performed a field inspection
12 a week ago today on February 15th to determine if
13 there were any wetland resources on the site or in
14 proximity to the site.

15 DR. KLEMENS: So in the application we
16 have something from Northeast Land & Water, LLC.
17 That is the wetland report that I am seeing in the
18 application.

19 THE WITNESS (Gustafson): That's
20 correct.

21 DR. KLEMENS: So are you able to answer
22 questions that I might have about that report?

23 THE WITNESS (Gustafson): I have
24 reviewed that report, so I think I should be able
25 to answer them.

1 DR. KLEMENS: Thank you. Let's go to
2 page 1 of the report. Observation was made about
3 the excellence of the corn crop with upland weeds
4 observed between the rows. Can you opine why that
5 has any value or importance or relevance to be in
6 a wetlands report?

7 THE WITNESS (Gustafson): I wouldn't
8 necessarily consider it important primary
9 evidence, but it could be anecdotal evidence. If
10 there were some poorly drained soil conditions
11 within the cornfield, the corn would typically be
12 stunted in growth, and, you know, you may see
13 wetland plants or hydrophytes amongst the weed
14 species. So, at face value it doesn't add a lot
15 to a wetland inspection report, but if you're
16 seeing strong corn growth, I'm probably pretty
17 confident -- I wouldn't rely on it -- but it would
18 provide additional evidence that it's an upland
19 area and not a wetland area.

20 DR. KLEMENS: That's extremely helpful
21 because that sort of closes the loop on which was
22 like a non sequitur to me. I mean, the man is not
23 an agronomist, as best I know, but I see what
24 you're getting at now, that the presence of weeds
25 and corn, healthy corn, indicates it's not a

1 wetland.

2 THE WITNESS (Gustafson): Yes. It
3 would have been more helpful if he specified what
4 type of weeds, because then you could determine if
5 there were any wetland or upland indicators, but I
6 would agree.

7 DR. KLEMENS: On the second page of the
8 report it talks about review of the Connecticut
9 Natural Heritage Maps. Now, you work in
10 Connecticut; this gentleman works in
11 Massachusetts. Do we have Natural Heritage Maps
12 or a Natural Heritage program in Connecticut?

13 THE WITNESS (Gustafson): We do not,
14 and I believe that that's a reference to what's
15 known in Massachusetts as the Natural Heritage
16 Endangered Species Program, and they develop a
17 Natural Heritage Map through that Massachusetts
18 program. So it's not equivalent in Connecticut.
19 The equivalent would be the Natural Diversity Data
20 Base that's published by the Connecticut
21 Department of Energy and Environmental Protection.

22 DR. KLEMENS: Correct. And you realize
23 there's strong historical reasons why we don't
24 have the Heritage program in Connecticut?

25 THE WITNESS (Gustafson): I appreciate

1 those, Dr. Klemens.

2 DR. KLEMENS: Thank you. Likewise,
3 Figure Number 3, labeled the Connecticut Natural
4 Heritage Map, that really should be the
5 Connecticut Natural Diversity Data Base map?

6 THE WITNESS (Gustafson): That's
7 correct. That would be the proper reference.

8 DR. KLEMENS: So those are things we
9 should correct, possibly, in the record, or amend
10 or make note of. Correct?

11 THE WITNESS (Gustafson): Yes.

12 DR. KLEMENS: Lastly, Figure Number 2,
13 the study area picture. It appears to be an area
14 that is well beyond where your compound is, at
15 least from what I saw at the site inspection. We
16 parked in the parking lot, walked over. This
17 study area that referred to the excellent corn
18 crop that is growing does not appear to be where
19 the proposed compound is. Is that correct?

20 THE WITNESS (Gustafson): That is. I
21 agree with your assessment that that arrow that's
22 pointed to the study area is the north/northeast
23 of the proposed compound.

24 DR. KLEMENS: But you're still
25 confident that where they're putting the compound

1 is not a wetland?

2 THE WITNESS (Gustafson): I do. And I
3 have a possible explanation for the location that
4 was pointed out in that graphic that I could offer
5 you.

6 DR. KLEMENS: Sure. I'd love to hear
7 it.

8 THE WITNESS (Gustafson): So back in
9 2006 this area was investigated by another wetland
10 consultant, and in the location of that arrow they
11 determined that there was a small isolated wetland
12 resource at that locale in the field. It's
13 located due north from the northwest corner of the
14 fire station parking lot. It's a very small
15 depressional area in the field. I took a look at
16 the -- I reviewed the original wetland report.
17 There was not sufficient information in there to
18 discern how they made that determination that it
19 was a wetland resource, but nonetheless, I
20 investigated that particular area a week ago
21 today. And through some extensive soil profile
22 descriptions and digging test pits, including one
23 to a depth of 42 inches, I determined that there
24 was nothing in that soil profile or any evidence
25 of hydrology that that area would be considered a

1 wetland resource.

2 DR. KLEMENS: No mottling at all?

3 THE WITNESS (Gustafson): There's no
4 mottling at all. The entire cornfield is
5 underlying by Manchester gravelly sandy loam,
6 glacial, a very coarse glacial outwash deposit,
7 and actually the sand and gravel deposit extends
8 all the way to the surface in the majority of the
9 field except for that low spot where there are
10 some more loamy textures that extend to a depth of
11 approximately 32 inches, and then you get into the
12 underlying sand and gravel parent material. That
13 deposition could have occurred from the original
14 glacial deposit, or it could be in combination
15 with colluvium deposition from eroding -- the
16 eroding agricultural field flowing into this low
17 spot in the field. But either way, the soil
18 colorations did not exhibit any significant
19 mottling. There were some very slight
20 redoximorphic or oxidized rhizospheres in the
21 topsoil, but they aren't indicative of a poorly
22 drained condition. And there was no active
23 groundwater or groundwater seepage down to 42
24 inches. So there is no active hydroles, not a
25 wetland at all. The nearest wetland resource --

1 sorry.

2 DR. KLEMENS: I was just going to ask
3 you what you said in the field. Could you repeat
4 for the record what you told me in the field?

5 THE WITNESS (Gustafson): I would be
6 happy to. So after making that determination, I
7 wanted to confirm where the nearest wetland
8 resource was to this project, and confirmed that
9 it is located approximately 600 feet to the
10 southeast. It's associated with an intermittent
11 stream system that flows across the golf course
12 and eventually discharges into Scott Swamp Brook.
13 And Scott Swamp Brook is approximately 750 feet to
14 the southeast.

15 I'll just interject at this point that
16 as I had indicated during our field walk, that the
17 drainage in the parking lot does connect to a
18 closed drain system on Westwoods Drive that
19 eventually discharges to that channel, and then
20 eventually makes its way to Scott Swamp Brook.
21 And if you happen to notice, there are a couple of
22 catch basins in that parking lot.

23 DR. KLEMENS: I saw them.

24 THE WITNESS (Gustafson): I've made
25 recommendations to the team, and I think the

1 applicant has agreed, that we'll provide silt sock
2 protection, or something equivalent, during
3 construction in case any mud gets tracked out
4 during construction so we avoid any type of
5 siltation to Scott Swamp Brook or any of the
6 associated wetlands.

7 DR. KLEMENS: Thank you. You've been
8 very responsive to my questions.

9 THE WITNESS (Gustafson): You're
10 welcome.

11 DR. KLEMENS: Thank you, Mr. Chairman.

12 THE CHAIRMAN: Mr. Lynch.

13 MR. LYNCH: Just a couple of questions,
14 Mr. Chairman. Going last, most of them have been
15 answered already. I want to start with
16 Mr. Roberts. In the application behind Exhibit
17 Number 3, A-1, could you just explain a couple
18 things to me? As I'm looking -- I'll start off
19 with the tower itself. Internally, if I was going
20 to add a couple carriers below, or if I was going
21 to do some maintenance to my existing antenna, how
22 do I access these antennas? Is the skin, is it
23 removable, or is it replaced, or how does it work?

24 THE WITNESS (Roberts): Very good
25 question. Yes, the RF transparent skins come off

1 in shelves, if you will. Each section or each
2 antenna, it gets disassembled and antenna work is
3 performed, and then that gets placed back.

4 MR. LYNCH: That's what I was going to
5 ask, whether it was a section or not.

6 THE WITNESS (Roberts): Yes.

7 MR. LYNCH: And also for the tower
8 itself, with some standard monopoles there is a
9 built-in fault to the tower. Is that also
10 something that is in place in a monopole for a
11 flag?

12 THE WITNESS (Roberts): Normally we've
13 done that in the past to address local property
14 lines, things like that. In this case we're far,
15 far beyond the tower height from any local
16 property line.

17 MR. LYNCH: That includes the driveway
18 to the fire house?

19 THE WITNESS (Roberts): That is a
20 private driveway, so it would be a property line.
21 It can be designed with an entry or a fault.

22 MR. LYNCH: I'm not asking you to do
23 it. I'm just wondering if there is one there.

24 THE WITNESS (Roberts): No, there
25 isn't. The property line is actually the street.

1 I think it best gets demonstrated on C-4 where you
2 see Westwood Drive coming in roughly 400 feet, and
3 that's the property line. Our compound is 154
4 feet from that nearest property line.

5 MR. LYNCH: While we're still on A-1,
6 inside the compound you have your emergency
7 generator and your propane tank. Now, a lot of
8 towns and a lot of manufacturers for propane tanks
9 say there has to be a standard distance between
10 the tank and any existing facility. Do we know if
11 there's any distance here that this tank has to be
12 from your equipment buildings in the tower?

13 THE WITNESS (Roberts): Yes. NFPA
14 requires a 10 foot separation between anything
15 that could produce a spark, whether it's a light
16 switch or a plug outlet. It doesn't necessarily
17 need to be a structure, but in this case we have
18 the T-Mobile equipment on slab. That would be our
19 nearest source of ignition.

20 MR. LYNCH: So as I'm looking at where
21 your propane tank is, I see the circle around it.
22 That's your 10 foot buffer you're saying?

23 THE WITNESS (Roberts): That is
24 correct.

25 MR. LYNCH: So I guess your equipment

1 buildings are the ones that would be most impacted
2 if there was a problem?

3 THE WITNESS (Roberts): That would be
4 correct. Again, with the T-Mobile equipment it's
5 outside equipment on a slab. So in that case we
6 look at on the face of the equipment if the door
7 opens, is there anything on it that's electrified
8 that we would potentially need to be clear of.

9 MR. LYNCH: Now, I think Mr. Mercier's
10 questions earlier about maintenance or the propane
11 tank, does that include the checking -- not just
12 refilling, but the checking of the regulators? It
13 was my understanding in cold weather some of these
14 regulators can freeze and fail to work.

15 THE WITNESS (Roberts): That would be
16 part of the T-Mobile equipment. I'm assuming
17 their cell tech who does his monthly inspections
18 would fact check that. That's normally what's
19 done.

20 MR. LYNCH: And as I'm reading your
21 application, you're kind of -- this would be more
22 for Mr. Heffernan -- you're stressing coverage.
23 But as I'm reading the application, I get the
24 feeling that you're also looking to cover a lot of
25 capacity. And as I'm looking at C-1 here, I see

1 all the residents around here. I'm wondering how
2 are you going to deliver your -- are you looking
3 to deliver data to surrounding areas so all these
4 millennials can get all the apps that they need
5 and delivered to them, so that would be a capacity
6 issue, would it not, or is that coverage?

7 THE WITNESS (Heffernan): In this area
8 it just happens to be more coverage, even though
9 we look at the college where we do have quite a
10 few complaints that come in from not so much from
11 a capacity issue or from a slow data issue, it's
12 more of a lack of coverage indoors. So that is
13 one of the big focuses of this site. So we were
14 able to live with a reduction in coverage towards
15 certain directions from the site as long as we're
16 able to keep that main objective a part of what
17 gets covered under the site.

18 MR. LYNCH: That's what I was
19 wondering. Thank you.

20 Let me go through and check off some of
21 the questions that have been answered already.

22 Now, I guess some of the other
23 questions I have aren't really capacity related.

24 Oh, yes. I noticed here that your GPS antenna
25 would be installed on the ice bridge. Is that a

1 common thing, or it's usually on the tower, or is
2 that just because this is an internal design?

3 THE WITNESS (Heffernan): Typically
4 they'll go on the ice bridge unless for some
5 reason there's a visibility issue and it cannot
6 get good visibility to the satellites. At that
7 point we would look at minimum height on the tower
8 for that.

9 MR. LYNCH: So it is common to go on
10 the ice bridge?

11 THE WITNESS (Heffernan): It is very
12 common, yes.

13 MR. LYNCH: And my last question has to
14 do with the super storms that we've had over the
15 last few years, the Halloween snowstorm, Hurricane
16 Sandy, for power back-up. I know when you lose
17 power from the electric company, your generators
18 are going to kick in. My question is, if you lose
19 power from the phone company, in this case I
20 guess it's -- it's not AT&T anymore but -- what
21 happens to your service if your trunk phone
22 service is out?

23 THE WITNESS (Heffernan): If we lose
24 our backhaul capability?

25 MR. LYNCH: Yes.

1 THE WITNESS (Heffernan): The site
2 itself is down unless we deploy a microwave
3 backup.

4 MR. LYNCH: Thank you. That's all my
5 questions, Mr. Chairman.

6 THE CHAIRMAN: Thank you.

7 One of the questions was regarding the
8 maintenance, I guess, of the flag. It's pretty
9 well spelled out -- I won't go into detail -- on
10 page 8 of the lease. It's both very specific and
11 very complicated. If this were to be built, the
12 applicant and the town will be joined by the hip
13 every time something happens to the flag, but it's
14 spelled out.

15 The other question, which I guess seems
16 to be sort of obvious, but you say your prime
17 concern is the community college. Did you look
18 into putting a facility at the college?

19 THE WITNESS (Heffernan): No.

20 THE CHAIRMAN: And I guess if not,
21 which I guess is the answer, why not?

22 THE WITNESS (Heffernan): At the
23 college itself, that was not one of the alternate
24 candidates that I was aware of. My coming into
25 the mix here was after the site was already leased

1 and this was a primary candidate for T-Mobile.

2 THE CHAIRMAN: Let me ask you about the
3 lease because I know the lease dates back a number
4 of years. But was T-Mobile originally involved in
5 that original -- in that lease back in 2004, or
6 was that just --

7 THE WITNESS (Heffernan): I believe
8 T-Mobile was, or at least aware of it.

9 THE CHAIRMAN: And I guess my question,
10 if another site, what is it, 14 years later, or
11 whatever the -- had not been found to be better,
12 were you so bound by the original lease with the
13 town that you couldn't just say let's pick another
14 site that better serves and has less limitations?
15 I guess you can certainly get the sense of the
16 Council we're just perturbed that what, at least
17 in some areas, as you've already testified, is not
18 an optimal situation, but that you didn't --
19 apparently you looked at some other sites, but I'm
20 just not clear as to whether in 2004 this was
21 really determined.

22 THE WITNESS (Heffernan): Well, I think
23 that question is going to have to be answered in a
24 few different parts. Part of the reason that the
25 site was not -- or put on hold or not pursued as

1 heavily as it was, was because at different phases
2 obviously T-Mobile goes through a lot of new site
3 build, and then it goes into different types of
4 upgrades on the network for LTE, different
5 capacity rollouts. So different build plans come
6 in and they phase out over time.

7 At one time this site was brought in as
8 a primary candidate at the time T-Mobile was
9 predominantly a GSM 2G provider. So really the
10 requirements for a network in an established
11 footprint were much different than they are today,
12 that the requirements for robust service, data
13 speeds, very high bandwidth applications, was
14 nonexistent back then. Mostly what people used
15 their phones for were voice communications or
16 texting, and there was not very heavy requirements
17 on the network.

18 In reactivating the ring out here for
19 new site development, once a lot of the upgrades
20 were made to the network for rolling out new
21 frequency bands, rolling out LTE for higher data
22 capacity, this site was still showing up as an
23 area that does need an introduction of coverage.
24 We do need to enhance the coverage in this area.
25 That need didn't go away. The ability for us to

1 build new sites did go away.

2 So the funding came in for new sites.
3 We then analyzed it, knowing full well that the
4 site was leased for 130 feet. We did have to go
5 back and look at it. And that's why I said before
6 we almost had to analyze it as if it was an
7 existing structure because we knew it was capped
8 at 130 feet. Unfortunately, the flagpole design
9 that worked many years ago was what was dictated
10 in the lease. So we had to look at it and say,
11 okay, can we back into this, how can we make this
12 work so that it complies with the wishes of the
13 town. The town was very explicit that from an
14 aesthetic standpoint they wanted a flagpole. And
15 we really wanted to honor that and try to work
16 with them as best as we could to work with what
17 was already in the binding lease.

18 So we did come up with a passive
19 design, not our optimal design, not what we would
20 design from scratch if you just handed me a blank
21 canvas right here, but it was an existing leased
22 property with a solution that we could come up
23 with that could provide coverage to a couple of
24 our primary targets in the area; however, we knew
25 that it was going to impact what was going to have

1 to go around it for future sites.

2 So the site did still have a lot of
3 positive potential for coverage in the network,
4 and that is why we still chose to go forward with
5 it. It did provide coverage to the university, it
6 was a site that was already leased, and it was a
7 site that T-Mobile already had the ability to
8 install its antennas on.

9 THE CHAIRMAN: I guess the question is,
10 but it's, I think, academic, as have been a number
11 of them, given this lease, if you didn't have the
12 lease, would you have picked this site, I mean,
13 under the lease constraints? You don't have to
14 answer that if you don't want to, but just --

15 THE WITNESS (Heffernan): I don't know
16 that we wouldn't pick it. Would we go in with a
17 different minimum height requirement knowing that
18 we could maybe provide coverage to some of the
19 other residential areas nearby or some of the
20 facilities on the other side of the college, we
21 would have to look at that. Unfortunately, our
22 analysis really had to stop at 130 feet and say
23 does this still have some merit to the network,
24 does it still give us coverage and capacity to an
25 area that we know needs it. It doesn't give us a

1 hundred percent, but it does give us a good chunk
2 of that 100 percent.

3 THE CHAIRMAN: Dr. Klemens has a
4 follow-up. I'm sorry, somebody else wants to
5 respond.

6 THE WITNESS (Gechtman): Yes, Mr.
7 Chairman. If I may, I'll just try and address a
8 couple questions that you posed. One of the
9 earlier ones was about the lease and if T-Mobile
10 was involved in selecting the location. The
11 answer to that is yes they were. This lease was
12 entered into by T-Mobile at the time it was
13 assigned to SectorSite within the last 18 months.
14 So they did choose the site, to answer your
15 question.

16 The other question about would this
17 site be chosen today in today's landscape, I
18 believe the answer would be most likely yes. One
19 of the things that was considered was has anything
20 changed surrounding the site, new structures
21 constructed, anything that has changed
22 substantially with any properties in the area.
23 And it would be my opinion that it would be
24 chosen. And also I believe that it gives benefits
25 to the town as well. The income is to the town,

1 it is a town-owned property.

2 To address the question about going
3 higher as well, again, I'll leave that to the RF
4 engineers, but from a lighting perspective, if it
5 did go above 130, we'd probably be talking about a
6 strobe light from an FAA perspective.

7 THE CHAIRMAN: Okay. Thank you.

8 Dr. Klemens.

9 DR. KLEMENS: I just can't get some of
10 this out of my head quite right. The town has
11 asked for a flagpole. Have you considered a
12 flagpole without a flag? Because, you know, I
13 think the goal is here that the town doesn't want
14 to see an antenna, standard monopole antenna with
15 platforms. One way of achieving that is having a
16 flagpole to which you attach a large piece of very
17 important fabric, but certainly in terms of trying
18 to be a stealth, it's hardly a stealth. I mean,
19 it screams there is a cell tower here.

20 So I ask you, the town is really
21 concerned with the visual aspects of a monopole
22 with platforms. Can it be achieved with a
23 flagpole without a flag, or a flagpole, maybe a
24 bit bigger, though not silo size? I mean, it's
25 clear that from what I'm understanding the town

1 doesn't want to see a standard monopole with
2 antenna platforms. But do we have to go to all
3 this extent, something that to me, at least, is
4 very visually large, out of scale with the
5 surrounding landscape, and is only there because
6 it contains a cell tower?

7 THE CHAIRMAN: Let me -- because
8 obviously the entity that's not here, and they've
9 chosen perhaps wisely not to be a party, is the
10 town, and those questions -- a lot of these
11 questions are really addressed to the town. But
12 let me just try to rephrase the question. Does
13 the lease agreement require that it be a flagpole
14 with a flag?

15 THE WITNESS (Gechtman): I believe it
16 does. If you refer to paragraph 8, as you pointed
17 out earlier, regarding the flag, I could read
18 through it a little bit further, but it's clear
19 that that paragraph talks about SectorSite, the
20 lessee, providing the flag, the town will maintain
21 the flag, they will raise it and lower it. We
22 will provide a new one once the flag has met its
23 useful life. So by way of having that language in
24 there, I would say yes. You can confer with our
25 attorney a little bit further. The lease exhibit

1 also shows a flag on the pole. Again, as you
2 pointed out, the party who can answer that
3 question is not a part of this application at this
4 time. It's maybe a question we could ask them.

5 THE CHAIRMAN: We're going to adjourn,
6 and we will reconvene at 6:30 for the public
7 comment part.

8 (Whereupon, the witnesses were excused,
9 and the above proceedings were adjourned at 4:56.)

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CERTIFICATE

I hereby certify that the foregoing 91 pages are a complete and accurate computer-aided transcription of my original stenotype notes taken of the Public Hearing in Re: DOCKET NO. 480, APPLICATION OF SECTORSITE LLC AND T-MOBILE NORTHEAST, LLC FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE, AND OPERATION OF A TELECOMMUNICATIONS FACILITY LOCATED ON TOWN-OWNED PROPERTY BEHIND THE SOUTHWEST FIRE STATION LOCATED AT 2 WESTWOODS DRIVE, FARMINGTON, CONNECTICUT, which was held before ROBERT STEIN, CHAIRMAN, at the Farmington Town Hall, Council Chambers, 1 Monteith Drive, Farmington, Connecticut, on February 22, 2018.



Lisa L. Warner, L.S.R., 061
Court Reporter

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I N D E X

WITNESSES DOUGLAS ROBERTS PAGE 6

RUSSELL A. DASTA

DAVID WEISMAN

CHRISTOPHER BAIRD

DEAN GUSTAFSON

SCOTT HEFFERNAN

DANIEL R. GECHTMAN

EXAMINERS:

Ms. Chiocchio (Direct) 7

Mr. Mercier (Start of cross) 12

Mr. Edelson 44

Mr. Harder 50

Mr. Silvestri 52

Dr. Klemens 58

Mr. Lynch 77

The Chairman 83

APPLICANT'S EXHIBITS

(Received in evidence)

EXHIBIT DESCRIPTION PAGE

II-B-1 Application for a Certificate of 12

Environmental Compatibility and Public

Need filed by SectorSite LLC and

T-Mobile Northeast, LLC, received

1 I n d e x (Cont'd):

2
3 December 22, 2017, and attachments and
4 bulk file exhibits including:

5 a. Town of Farmington Plan of
6 Conservation and Development, amended
7 through November 5, 2016

8 b. Town of Farmington zoning map,
9 amended to July 2, 2015

10 c. Town of Farmington zoning code
11 amended to September 30, 2017

12 d. Town of Farmington Designated
13 Inland Wetlands and Watercourses map

14 e. Town of Farmington regulations
15 for inland wetlands

16 II-B-2 Applicant's affidavit of publication, 12
17 dated January 9, 2018

18 II-B-3 Applicant's lease agreement, dated 12
19 January 9, 2018

20 II-B-4 Applicant's responses to Council 12
21 interrogatories, dated February 8, 2018

22 II-B-5 Applicant's affidavit of sign 12
23 posting, dated February 14, 2018

24

25

1 I n d e x (Cont'd):

2

3 II-B-6 Resumes, professional biographies, 12

4 received February 14, 2018:

5 a. Douglas J. Roberts

6 b. Russell A. Dasta

7 c. David Weisman

8 d. Christopher Baird

9 e. Dean Gustafson

10 f. Scott Heffernan

11 g. Daniel R. Gechtman

12 II-B-7 Applicant's supplemental information 12

13 regarding Interrogatory Response #12 and

14 details regarding FAA required lighting,

15 dated February 14, 2018, with attachments

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