PUBLIC SPACE COMMITTEE

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PUBLIC SPACE COMMITTEE HEARING

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MONDAY OCTOBER 15, 2018

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The Hearing convened on the 2nd Floor at 1100 4th Street, S.W., Washington, D.C.

BEFORE:

MATTHEW MARCOU, Chairperson ANNA CHAMBERLIN, Member CHRIS SHAHEEN, Member ANDREW WILEY, Member JULIA HUDSON, Member

STAFF:

CATRINA FELDER, Public Space Committee

Coordinator

KISHA ALLEN, Public Space Committee Technician

GLENN DUBIN, DDOT

BERNADETTE EDWARDS, Acting Executive Secretary

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ALSO PRESENT:
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ANN BROKETT, HPO ANN MLADINOV, ANC 3B BETH PURCELL, Committee of 100 BETSY EMES, Chair, Trees for Georgetown BRIAN ENKAMIT CARLEY DIDDEN, Government Relations Manager, Crown Castle CYNTHIA POLS, Kalorama Citizens Association DAVID CLOW, Associate Chief Technology Officer, OCTO, DC-NET DANIEL FOX, USCFA DENIS JAMES ELSA SANTOYO, Director, Citizens Association of Georgetown ERIKA WADLINGTON, Director of Public Policy and Programs, DC Chamber of Commerce ERIN WAITZ, Government Relations, Mobility GUS VITERI, on behalf of Ms. Mederano JAMES MCCLAIN JENNIFER MCCALLEN, Verizon JENNIFER VAN RIPER JIM WILCOX, ANC 2E06 JOE GIBBONS, ANC 2E KATHRYN ROOS, DDOT LATARA HARRIS, AT&T MATTHEW FLIS, Senior Urban Designer, NCPC NICOLE QUIROGA, President/CEO, Greater Washington Hispanic Chamber of Commerce OWEN STROHMER, Verizon RICHARD HEINS, General Counsel, Citizens Association of Georgetown STEPHEN BUKO, CEO, Kerb Technologies THEODORA SCARATO, Executive Director, Environmental Health Trust TIMOTHY MAHER, DC OP

I	
1	P-R-O-C-E-E-D-I-N-G-S
2	(1:10 p.m.)
3	CHAIR MARCOU: Good afternoon
4	everybody.
5	(Chorus of good afternoon.)
6	CHAIR MARCOU: Okay. One more time.
7	Good afternoon everybody.
8	(Chorus of good afternoon.)
9	CHAIR MARCOU: Great. We've had
10	lunch, so some might be a little somnambulistic
11	from that, but this is always time to have good
12	energy.
13	So if you need to, walk around. The
14	room will become a little warm because it's
15	pretty full. So do feel free to walk around, get
16	some air.
17	My name is Matthew Marcou. I am the
18	Associate Director of the Public Space Regulation
19	Division and the chair of the Public Space
20	Committee of the District of Columbia.
21	The time is now 1:10 in the afternoon
22	of Thursday, October 15th, 2018. We are in Room

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1	200 of 1100 4th Street S.W., and I am calling the
2	Public Space Committee roundtable to order.
3	The Public Space Committee is a
4	committee established through an order of the
5	mayor. Just so everybody knows, we're not the
6	District of Columbia Department of
7	Transportation's public space committee.
8	Though it might seem that way because
9	there are two members from the District
10	Department of Transportation and the staff is
11	from the District Department of Transportation.
12	But actually is an independent body of the
13	Department of Transportation.
14	It is established through a mayor's
15	order and has a history that goes back 80 years
16	or more with a responsibility to hear
17	applications for and to issue public space
18	permits for the use of public space by a variety
19	of entities. What brings us here today is small
20	cell technology and its implementation in public
21	space.
22	With me on the dais from my left, your

1	right is Mr. Wiley with the Department of
2	Consumer and Regulatory Affairs, Mr. Shaheen with
3	the Office of Planning, Ms. Chamberlin with the
4	District Department of Transportation.
5	And now starting from my right, your,
6	still your, to my, to my right but still moving
7	forward from your right to left is Ms. Hudson
8	with the Office of the Secretary of State in the
9	executive office of the Mayor.
10	We have all five members of the Public
11	Space Committee present, so we certainly have a
12	quorum to conduct business. We also are joined
13	by Bernadette Edwards who the acting Public Space
14	Committee secretary, executive secretary for
15	today's meeting.
16	On the dais with us we also have Glenn
17	Dubin with the District Department of
18	Transportation and working in the audience to
19	check you in were Kisha Allen who is the Public
20	Space Committee technician and Catrina Felder who
21	is the Public Space Committee coordinator, so we
22	have, also on our side as well.

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The purpose of today's meeting is to 1 2 consider draft guidelines that have been developed by a variety of stakeholders regarding 3 the implementation of small cell technology in 4 5 the District of Columbia. The reason this is so important is 6 7 because small cell technology reflects the next, 8 let's call it the next generation of utility 9 infrastructure going into public space. And as a result the deployment of it will have an impact 10 11 in the public space and it's a private use of 12 public space, which therefore subjects it to requirements and responsibilities to obtain 13 permits and to follow certain standards for the 14 uses of public space in the District of Columbia. 15 And as we know the District of 16 17 Columbia has limited public space. Apparently, 18 they're not making more so we have all the public 19 space that we have. 20 As a result, it has a lot of very 21 complex and ever evolving uses, both as a roadway and a transit network, sidewalks, parking, street 22

1 lights, traffic signals, street trees and then 2 the public parking area in front of the properties across the District of Columbia, which 3 4 give the District a very unique landscape and a 5 very unique streetscape. I often use this example when I watch 6 7 HGTV, and I see a show like Curb Appeal, I 8 immediately know whether it's in the District of 9 Columbia or not. It doesn't matter, they don't have to tell me, I just look at the streetscape 10 11 and I go, oh, that's totally a District of 12 Columbia streetscape. 13 And it doesn't matter what neighbor 14 it's in, it's going to share similar characteristics, but it will have a unique flavor 15 16 for each of the individual neighbors across the District of Columbia. 17 18 It's really amazing because even when they film shows in Baltimore or Toronto, they 19 20 clearly are not the District of Columbia. In addition, the District of Columbia 21 22 is uniquely situated as the nation's capital. It

1 is a very deliberately planned city. It is a 2 city that grew from two small port towns, Georgetown and Alexandria, and now they went back 3 4 to Virginia, so let's not even talk about them again. 5 And it grew and evolved from that, but 6 7 it evolved from that in a very contemplated, 8 purposeful way. And that means that any of the 9 uses of public space should be equally contemplative and planned. 10 They can't be ad hoc. 11 They can't be willy-nilly. But they also have to 12 be adaptable and they also have to recognize the 13 ever-present needs of public space. 14 So as a result, we have a situation where -- everybody, raise your hand if you have a 15 16 cell phone. Really, like a little higher, 17 please. Yes. Look, the whole audience, 18 everybody has a cell phone. 19 Ten years ago, did you have a cell 20 phone? Probably only the people -- right. A few people. Right. Mr. Viteri, I'm not surprised. 21 It's V-I-T-E-R-I, in case you need to spell it. 22

1	I'm not surprised that you're one of the first to
2	have one, but I didn't. Right?
3	So ten years ago very few people had
4	them. And now they are ubiquitous. And not only
5	ubiquitous, but I actually have two. I have a
6	work cell phone and I have a personal cell phone,
7	a play cell phone if you will.
8	So all of this constant evolution in
9	technology requires an infrastructure to support
10	it. And that's why we're here because the
11	infrastructure to support small cell, to support
12	telecommunications, which is a vital utility is
13	ever evolving and needs to adapt to the current
14	needs of the users, which includes all of us.
15	So with that said, I'm going to turn
16	to any other committee members if they are
17	interested in making any comments before we begin
18	today's meeting. Okay. I do want to reiterate,
19	we are here to take in a lot of information and
20	we are here to hear from all interested parties
21	and stakeholders.
22	This is an open meeting and as a

1	result it is being transcribed by Neal R. Gross
2	Company. If anybody is interested a
3	transcription of this meeting afterward, they can
4	contact the Neal R. Gross Company.
5	Also as a public meeting, people who
6	are here are subject to being recorded, both
7	audio recordings and visual recordings. So we
8	just want to make sure that everybody is fully
9	aware of that as you are here and as you both
10	hear from others and present any information that
11	you'd like.
12	And to that last point, the committee
13	will be here to hear from everybody. If anybody
14	
	is here who wants to speak and it turns out it's
15	is here who wants to speak and it turns out it's 7 o'clock at night, we will happily, gladly and
15 16	
	7 o'clock at night, we will happily, gladly and
16	7 o'clock at night, we will happily, gladly and be very interested to hear what you have to say.
16 17	7 o'clock at night, we will happily, gladly and be very interested to hear what you have to say. Because ultimately, as I said at the
16 17 18	7 o'clock at night, we will happily, gladly and be very interested to hear what you have to say. Because ultimately, as I said at the beginning, we can't make the best decision unless
16 17 18 19	7 o'clock at night, we will happily, gladly and be very interested to hear what you have to say. Because ultimately, as I said at the beginning, we can't make the best decision unless we have the best information and that best

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So with that, why don't we start with 1 2 our first presentation. This is a presentation from the District Department of Transportation, 3 Kathryn Roos. And when you come to the front, 4 5 please state your name, spell your last name for the record and present your information to the 6 7 committee. 8 There's one thing I want to do before 9 When you do, the recording that's you start. actually occurring through Neal R. Gross is 10 occurring using the cell phone-ish looking thing. 11 12 So that's the piece to talk into. Ms. Roos. 13 MS. ROOS: Good afternoon. My name is 14 Kathryn Roos, R-O-O-S. I am the P3 manager at DDOT as well as the Street Light manager at DDOT. 15 16 I have a PowerPoint presentation that I believe 17 will be brought up now, that I would like to take 18 you through the basics of the draft design 19 quidelines for small cell installations within the District of Columbia. 20 Next slide. 21 In today's presentation, I'd like to 22 go over three basic things. I'd like to provide

you with the background of why we have created 1 2 these design guidelines. I would like to go over the purpose, as well as some general highlights 3 of the guidelines. 4 5 My hope is that you've had a chance to review the guidelines in depth. I will not be 6 7 going page by page, line by line, et cetera, but 8 will be giving a highlight of the design 9 guidelines, and then I'm more than happy to 10 answer any questions that you might have. 11 CHAIR MARCOU: Thank you. 12 MS. ROOS: Thank you. Next slide. Just an aside for 13 CHAIR MARCOU: 14 everybody, the small cell guidelines, the presentations that have already been made and the 15 16 presentations that we will be receiving that are 17 new here, will all be available at our website, 18 ddot.dc.gov. 19 Thank you. MS. ROOS: Great. So the 20 background of the design guidelines, this came 21 about as a new technology has been requested to be integrated within the public right of way. 22

1	And as such, we felt that it was
2	appropriate given the unique nature of D.C., to
3	come up with some design guidelines to help the
4	installation of this technology within our
5	community that also respects the nature of the
6	District and the public right of way.
7	You might be asking, what is small
8	cell technology? There will be other presenters
9	later today that will go much more in depth, but
10	I just wanted to give a very basic overview of
11	the technology to kind of give a basis for the
12	design guidelines.
13	So as Mr. Marcou mentioned, there has
14	been an increase of cell phone activity
15	throughout the nation, and thus an increased need
16	for more capacity on our networks, our cellular
17	networks.
18	Small cell technology is one that is
19	taking it from what is now typically on macro
20	towers or rooftops, down to the ground level
21	where the user is, in close proximity. This
22	small cell technology includes antennas, as well

as related power equipment, radios and cabinets. 1 2 The small cell technology is being installed in cities across the nation, as well as 3 countries around the world. 4 So we are not unique 5 in this request for the installations. Next slide. 6 7 The guidelines have been drafted with 8 an input from a variety of stakeholders that are 9 critical to the public space of the District of Columbia. 10 This includes various divisions within 11 12 the Department of Transportation, the Office of 13 Planning, the Historic Preservation Office, the 14 staff from the U.S. Commission of Fine Arts, as well as the staff from the National Capital 15 16 Planning Commission. 17 All of us have formed a working group 18 to start to put together these guidelines and 19 their input has very much been included in this. 20 They've also been informed by the 21 technology itself and from interactions and information that we have received from small cell 22

providers themselves in accordance with what
 their needs are required.

We, as part of the design guideline 3 4 process, we did a best practices research review. 5 So we looked at what are other cities doing? What are the cities that are ahead of us that 6 7 have already started installing this, as well as 8 what are cities around the world doing, 9 particularly the capital cities of countries across the world? 10 11 So all of this has been informed. You 12 can see a few of the specific cities that we've researched that are included in here. 13 But we 14 really did do a best practices approach as to what could we learn from the installations that 15 16 have already occurred. It should be noted that these 17 18 quidelines are not all inclusive in the fact that 19 they are supplemental to the guidelines and 20 things that already exist, such as the design and 21 engineering manual, all of the other District of 22 Columbia codes, et cetera that are applicable.

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1	So this is additional information on
2	top of all of those guidelines that already exist
3	that must be applied to. So this is an
4	additional supplemental specific to small cell
5	technology and by no means excludes other laws,
6	codes, et cetera that must be abided by. Next
7	slide.
8	So the purpose of this guideline is to
9	set forth requirements and specifications for the
10	placement and design of small cell infrastructure
11	within the District's public right of way.
12	It's intended to fit both the
13	functional needs of the carriers themselves and
14	the technology, while also protecting the
15	character and function of the capital city's
16	public space.
17	We have some very specific goals given
18	the very unique nature of the District, including
19	avoiding impact on vistas and views such as
20	within the L'Enfant plan, minimizing the impact
21	on the character of designated historic districts
22	and landmarks.

As well as protecting access and 1 2 circulation to public space and minimizing the visual and physical clutter in what is a very 3 4 precious asset that the District oversees. Next 5 slide. Can we stop you there 6 CHAIR MARCOU: 7 one second? Because I always get an opportunity 8 to say this, and this is the perfect opportunity 9 to say it. This is the most valuable asset owned by the citizens of the District of Columbia. 10 11 The right of way is more valuable than 12 every other collectively owned asset combined. 13 If you take everything else the citizens own as a 14 collective group through the government, when you put it on a balance scale, bam, it is nothing 15 16 compared to the right of way. 17 The right of way is more valuable, 18 literally valuable as an asset than any other 19 asset they own. Okay. 20 MS. ROOS: So what does the guidelines 21 access? Generally here's a list of the basic 22 things that it addresses. The appearance, so

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1	what color does this equipment need to be? How
2	big can it be? What is the overall height?
3	Where can you place the equipment and the
4	antennas? Where can new poles be installed
5	within the public right of way?
6	It also addresses location. Are there
7	specific requirements regarding historic areas,
8	which there are. And the difference between
9	existing infrastructure versus new
10	infrastructure.
11	So what I mean by that is attaching to
12	existing street lights, versus installing new
13	poles with this infrastructure attached to it.
14	It also talks about the placement within the
15	streetscape, so where do you need to be in
16	relation to things like trees? Making sure that
17	we maintain handicap access, et cetera. Those
18	are just some broad overviews.
19	Another very important thing that I
20	think you'll hear a lot of comments on today, is
21	the frequency. How far apart from each other can
22	these installations occur? And that's something

1 that we've looked at very carefully and have 2 thoughtfully put into the design guidelines. Next slide please. 3 This chart here -- and I apologize for 4 5 the small font, but hopefully you can see it better in the design guidelines in front of you. 6 But this addresses the permissible types of 7 8 installations, as well as the locations. 9 So you can see in the second column 10 going from top to bottom, you have -- starting 11 with asset that are owned by the District and DDOT, specifically our street light. 12 This 13 includes five A poles, which are typically found 14 in alleys. It includes exiting wood poles, as 15 16 well as existing pendant poles that have cobra head attachments. Here's one clarification that 17 18 I would like to make for those that aren't as 19 familiar as I am, being the street light manager, 20 with our assets. 21 A pendant pole is literally just the pole type and what it looks like. It is a very 22

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1	simple six fluted pole that tapers towards the
2	top. Attached to the pendant pole are two
3	different types of fixture, one of which is
4	called the cobra head that has a very simple arm
5	on which a cobra head fixture is attached.
6	The second type of fixture that is
7	attached to a pendant pole is what we call the
8	tear drop. This includes a much more articulated
9	and designed arm, as well as an articulated
10	fixture and a finial on top of the pendant pole
11	itself. This at this moment has been excluded
12	from the design guidelines given its articulated
13	and very specifically designed nature.
14	Continuing down the second column, you
15	will see that we have new standalone poles. This
16	will be for areas in which there is no street
17	light pole that they're able to attach to given
18	the restrictions of the design guidelines or
19	there are no poles to which they can attach in
20	general. So this allows the carriers to install
21	new poles within the right of way.
22	The third and last one that you will

find, category, is poles that are owned by thirdparties. So these are your typical utility poles that you see quite often in neighborhoods that are typically wood poles. So that it the last type of pole type.

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6 You can also see that this chart 7 addresses how cabinetry can be attached or placed 8 that is needed for this equipment and it also 9 gives specific areas such as the monumental core, 10 which in this document, we have defined the 11 monumental core as the L'Enfant plan.

Everything within the Shipstead-Luce Act, that boundary, there's a map that I'll show you later that has this very specifically articulated, as well as Old Georgetown.

We also have some areas that are specific to historic districts and how you can attach in those areas as well. Next slide, please.

Here are some illustration to show you what currently the design guidelines contemplate in terms of attachments to DDOT owned street

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lights.

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2	The first pole that you will see is
3	the DDOT 5A pole. It is a simple round pole and
4	attached to the top, you will see two different
5	types of antennas. The first one is about a two-
6	foot tall antenna that you can see is attached to
7	the top.
8	The second is what I will refer to as
9	a collar antenna, which is below the fixture of
10	the arm. So that is two different types of
11	radios and/or antennas that are attached. You
12	will notice that this picture does not look at
13	the cabinetry because the design guidelines
14	currently state that all power equipment and
15	related cabinetry needs to be put in vaults.
16	That is why this is not currently
17	pictured within these images. The second one
18	that you see is the DDOT pendant pole that I had
19	mentioned previously, and this is with the cobra
20	head arm and attachment. Again, you'll see
21	about, I think it's actually a two-foot, six-inch
22	antenna on top, along with the radio collar

antenna below the arm. Next slide, please. 1 2 So these are what we have proposed for permissible installation types of new poles. 3 One of the considerations was we have multiple 4 5 carriers here and they're all going to be installing new poles of some type. How do we 6 keep that consistent to the public realm and the 7 8 design nature of the streets where they're 9 installing? The way that we have decided to 10 11 address that and to be consistent amongst 12 carriers as well as street character is to 13 utilize existing types of poles that are already 14 in the District's public right of way. So the first one that you will see is 15 16 the Washington standalone pole. This is a pole that would be further articulated and extended in 17 18 height given the needs of the carriers. 19 Our Washington standalone poles, the 20 highest that we have right now is an 18-foot 21 pole, which isn't fully sufficient for the needs 22 of the carriers, hence why you see a taller pole.

The idea though is that it has a very similar
 base. It has very similar articulated fluting at
 the top.

And instead of light at the top, you 4 5 would find an antenna attached, as you can see in the two different types of antennas that we have 6 7 in that picture. We are currently proposing that 8 the Washington standalone pole be used for 9 installations where you currently see Washington globes or twin-20s, within the District of 10 Columbia. 11

So if you're on a street in which you have Washington globes or twin-20s, which are not allowed to be attached to given their articulated nature, and their historic significance, then the carriers would be permitted to install this type of standalone pole along those streets.

18 The second standalone pole type that 19 you will see is the pendant pole. So it's, 20 again, taking our standard pendant pole at the 21 same exact height, but instead of attaching an 22 arm and a fixture to it, the carriers would

attach their antennas to this.

2	I should note that both of these pole
3	types will not be owned by the District of
4	Columbia. These would be owned solely by the
5	carriers themselves when they install them.
6	It should also be noted that to any
7	District-owned asset that they attach to, that we
8	permit them to attach to, such as the D.C. street
9	lights, those will be able and continue to be
10	owned and the D.C. part of the infrastructure
11	maintained. The carriers will be responsible for
12	maintaining their own attachments on those poles.
13	Next slide, please.
14	This is a map that currently shows the
15	permissible types of poles that are owned by
16	DDOT. Again, you have a clear print off in your
17	design guidelines but just showing generally
18	where we own poles and in what areas.
19	You can see that the green dots are
20	the 5A alley poles. The purple dots, which is
21	the most prominent are pendant poles. It should
22	be noted that the poles that occur in this map do

not include tear drops. So this map only shows pendant poles that have cobra head attached to them.

4 So this is only showing what the 5 design guidelines currently permit. The last one 6 is the orange-yellow-golden dot, which is our 7 DDOT-owned wood poles. It should be noted that 8 the majority of wood poles that are in the 9 District are not owned by the Department of 10 Transportation.

11 They are owned by third-party 12 carriers, namely Pepco and Verizon. So these are 13 just the wood poles that are owned and maintained by the District of Columbia. You can see an 14 overall count in the bottom right-hand corner 15 16 that shows the total number of poles with over 17 11,000 pendant poles available within the 18 District. Next slide, please.

19 This chart shows the permissible 20 spacing and frequency of installations. As I 21 mentioned previously, this is something that a 22 lot of thought went into in terms of how do we

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address equitable spacing along the streetscape to avoid clustering of poles and to make sure that there's enough spacing between these installations.

Just as our street lights are spaced at a specific distance to create a rhythm walking down, so they're less noticeable, so this is something that again we've put a lot of time to.

9 So there are a couple of terms that I 10 would like to define for you. They are defined 11 within the design guidelines as well, but I would 12 just like to put out there. One term that we use 13 is block-face.

So this is one side of a street. 14 Let's say the north side of a street. And it is 15 the one block from corner to corner. 16 That is what we refer to as a block-face. Whereas in the 17 18 last column, you will see that we use the term, 19 This is an entire block, corner to corner block. that includes both faces of the street. 20 21 So to explain that further and read

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the chart, the first column addresses what is the

average length of the blocks within the District 1 2 of Columbia. We felt that because our streets do vary in the length that it was important to, in 3 4 the same way, be proportional to how many 5 installations we allow. We wouldn't want multiple 6 7 installations on a very short block that was, 8 let's say, 150 feet long, but at the same time, 9 there are longer blocks that are over 700 feet, where it might be appropriate or fine to have 10 11 more than a handful of installations. 12 And thus we have proportionally 13 defined how the frequency and spacing of installations can occur. You will also notice 14 15 that we have separated out what is allowed within 16 the monumental core, as well as what is allowed 17 outside the monumental core. 18 Given the historic nature of the 19 historic districts and the monumental core, we felt that reducing the overall number that were 20 21 allowed was an appropriate restriction within the 22 design guidelines.

So you can see in the second column, 1 2 this is the number of small cell facilities that are permitted per block-face, again, one side of 3 4 the street, let's say the north side of the 5 street outside of the monumental core and historic districts. 6 7 So an average block size within the 8 District of Columbia is approximately, let's say, 9 500 feet. That is one of our most frequent block So on that, according to this chart, if 10 sizes. 11 you are outside of the core and historic 12 districts there can be four installations on a block-face. 13 14 That means there can be a total of eight installations on that block, four on the 15 16 north side and four on the south side for a total 17 eight installations. 18 We also have set out a minimum 19 distance between the installations on the same 20 block-face. So we have made this consistent, if 21 you are outside of the monumental core and the historic districts for a distance of 60 feet. 22

1	In relation to how our spacing of our
2	street lights, that's about half the distance.
3	So we have been generous in terms of the
4	frequency that we have allowed these to be spaced
5	with in there.
6	Typically street lights are spaced
7	anywhere between, typically 120 is our minimum.
8	You will see some that are less, but 120 feet is
9	a typical spacing.
10	You will also see in the second to
11	last column that we have further increased that
12	within the monumental core and historic
13	districts.
14	The last column addresses the total
15	number of installations that any one carrier can
16	install on a block. So this includes again, as
17	my example, both the north and the south face of
18	a block. A carrier on a long block, which we
19	have determined is anything over 600 feet, can
20	only install two.
21	This is basically to reduce the
22	overall number and to ensure that monopolies

aren't created by taking up space where they 1 2 don't necessarily need this coverage. We feel, given the information that 3 4 we've been provided by the carriers and the 5 distance between installations that are needed, that this is more than sufficient to address 6 7 their needs. 8 And again, helps us to restrict the overall numbers so that we don't have clutter and 9 cluster that we might have otherwise. It should 10 11 be noted that this entire chart is agnostic to 12 the type of attachment. 13 So you have 60 feet between an 14 installation, whether it's yours or someone else's, you have 60 feet between an installation 15 16 whether it's a new, free-standing pole or whether it is attached to a street light. It is agnostic 17 to the type of installation that is being put 18 19 into place. Next slide, please. 20 This last one, again it's a little bit 21 easier to see within your design guidelines, address some of the boundaries that I've referred 22

1 to previously. The hatched green sections 2 include all historic areas within the District of Columbia, which you can see there are several. 3 4 There is also a pink dotted line that 5 starts at the north most hip and it goes down around Rock Creek Park, into Georgetown and into 6 the monumental core. This is addressed in the 7 8 Shipstead-Luce Act. 9 So these are boundaries of that act 10 that has special provisions and guidelines that 11 must be followed. The large purple boundary 12 might be a familiar shape to you. This is the 13 L'Enfant plan. We have included all of those to 14 define what we're saying is historic areas and 15 16 the monumental core. Next slide, please. 17 That's the end of my presentation. 18 I'd be happy to address anything that I spoke of 19 today, as well as any specific questions that you 20 might have on the design guidelines. 21 CHAIR MARCOU: Thank you very much. 22 That was a very thorough presentation but gave us

1	a good overview as well. Truly appreciate it.
2	I'll leave it for other committee members to be
3	asking questions right now they have of Ms. Roos.
4	Mr. Shaheen.
5	MEMBER SHAHEEN: I do have some
6	questions about the purpose sections of the
7	goals.
8	MS. ROOS: Sure.
9	CHAIR MARCOU: They're asking us to
10	speak up. There are microphones so let's make
11	sure that they're turned on. This one's not.
12	MEMBER SHAHEEN: This one is now
13	turned on.
14	CHAIR MARCOU: In the meantime, Mr.
15	Shaheen, your question?
16	MEMBER SHAHEEN: I'm just making
17	can you hear me? Can you hear this. Oh,
18	perfect. Great.
19	So my question was about the purpose
20	section of the guidelines and what sort of
21	background discussion went into that. So in
22	terms of Office of Planning, we have a big

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concern about aesthetics and character.

2 And it seems like that purpose section is what is queuing up all of the, what is driving 3 a lot of the design guidelines. 4 So we did have 5 some questions about where those priorities came from in the current graph? 6 So I can say that those 7 MS. ROOS: 8 sections specific to the draft, and just for clarification of those in the audience, I believe 9 that you're referring to the guidelines 10 themselves versus my presentation. 11 12 MEMBER SHAHEEN: That's correct. 13 MS. ROOS: Okay. So the Section 3 14 within the design guidelines, this was a lot of the language that was actually provided by our 15 16 working group partners at NCPC as well as CFA, 17 and language that they helped provide that we 18 obviously at DDOT and as a working group also 19 provided some edits and some additions to. 20 But I would say that the majority of 21 that language was driven from comments provided 22 by them. If there are specific comments that

would be helpful or specific questions, I'd be 1 2 happy to address those specific questions as well. 3 4 MEMBER SHAHEEN: Okay. I think our 5 agency will probably be preparing more formal comments after the hearing. 6 7 MS. ROOS: Okay. 8 With their, that MEMBER SHAHEEN: 9 focus on the -- that's what I've got for now. Thank you. Mr. Wiley? 10 CHAIR MARCOU: Ms. Chamberlin? Ms. Hudson, any questions for 11 12 Ms. Roos? Mr. Shaheen? 13 MEMBER SHAHEEN: We did have questions 14 about more the process and how its administered, 15 like ensuring when the technology's obsolete, how 16 does it get removed, or if there are some 17 installations on a block and then the city comes 18 in and reinstalls street lights and all the 19 spacing changes, who would be responsible for reinstalling the small cells? 20 21 MS. ROOS: So while I'm not the permit expert, you have those on your dais with you, as 22

well as other members of Director Marcou's staff, 1 2 I can address a couple of those items in terms of, if we were to do an upgrade of what -- what 3 4 we refer to as an upgrade of our street lighting 5 system, in which we were either changing the pole type or we were addressing spacing by adding new 6 poles, all equipment would have to be removed at 7 8 the cost of the carrier that existed on any 9 poles. As well as if there were new 10 11 standalone poles in the public right of way that 12 were now in conflict with a new plan, they would 13 have to be removed at the cost and expense of the 14 carriers themselves. And they would have to apply for new 15 16 permits on any new assets that went into the 17 So that is not a cost that the District space. 18 incurs, aside from the normal permitting and 19 inspections that go alongside that. The cost would be incurred completely 20 21 by the carriers, that is one of, as I believe --22 and Associate Director Marcou can address more,

1	is that is a condition of the permit that they
2	have to, this cannot impede upon our ability to
3	put in safety elements into the streetscape, such
4	as street lights.
5	CHAIR MARCOU: Right. So thank you.
6	Can you all hear me, because I talk with my
7	outdoor voice all the time. And this is a good
8	place to use your outdoor voice just to make sure
9	that you're heard.
10	So this is both something new. This
11	is small cell technology. It's a different
12	method of providing telecom services. It
13	involves new types of equipment. It involves,
14	you know, space age technology that George Jetson
15	is using. Okay.
16	But it's also very much like Fred
17	Flintstone, to complete the Hanna Barbera
18	connection of cartoons. This is just another
19	piece of utility equipment going into public
20	space and its use and its maintenance and its
21	impact both on and when DDOT is doing streetscape
22	work is always subject to the utility owner's

duty to relocate, remove and reinstall at their 1 2 own costs and only with, in coordination with the District based on both its programs, as well as 3 4 what the streetscape will look like at the end. 5 So this is very much another type, 6 just another type of permit in that regard. So 7 in terms, Mr. Shaheen, to your question, it's 8 simply going to be treated like any other utility 9 line, any other pole, any other piece of utility equipment in public space. 10 11 Okay. Thank you. Further questions 12 for Ms. Roos from committee members? 13 MEMBER CHAMBERLIN: I'm guess 14 following up on what you just mentioned, I saw we got a lot of comments about health concerns. 15 16 Were health concerns considered in the 17 quidelines? 18 MS. ROOS: So that is not something 19 that DDOT or the District of Columbia regulates. 20 That is something that the FCC regulates in terms 21 of the permitted radio waves. I'm assuming that that's what you're referring to when it comes to 22

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health concerns.

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2	So that's not something that we
3	regulate. As we have stated both in the master
4	license agreement, as well as within the design
5	guidelines, all state, local and federal
6	regulations must be abided by, in addition to
7	these guidelines.
8	So that's something that we just don't
9	have purview over.
10	CHAIR MARCOU: Correct. Let me also
11	again back to the point I just made, while this
12	is a different type of utility use, there are
13	many utility operations in the District of
14	Columbia that require a public space permit, that
15	is approved either by the Public Space Committee
16	or by its delegation of authority to the
17	Department of Transportation by the Department of
18	Transportation, Public Space Permitting Office
19	that are subject to other industry other
20	regulators.
21	So for example, we do not regulate the
22	material that goes into a Washington Gas Line.

That's not the authority or jurisdiction either
 of the Public Space Committee or the District
 Department of Transportation.

What goes into a Washington gas line is subject to regulation by other appropriate regulators. The same thing is appropriate here.

7 The frequency use of radio waves is 8 not subject to the jurisdiction of or the 9 responsibility of the Public Space Committee or 10 the District's Department of Transportation. 11 There are other regulators who have looked into 12 that.

Those regulators are the ones to whom questions related to radio frequency and radio wave health should be addressed, but they are not part of this process. So they will not be addressed specifically in the guidelines, nor will they be part of the public space permitting process.

20Okay. Further questions for Ms. Roos?21Great, thank you very much, Ms. Roos.

MS. ROOS: Thank you.

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1	CHAIR MARCOU: At this time we would
2	like to bring up a group of presenters to be one
3	panel. We have representatives from the
4	Historical Preservation Office, the National
5	Capital Planning Commission, the Commission of
6	Fine Arts and the Office of Planning.
7	Our next panelist after this will be
8	OCTO to talk about the wireless access points but
9	it's a slightly different element than these
10	four. So if the four groups that I just
11	mentioned would like to come forward and take a
12	seat at the table.
13	And if you have material that you'd
14	like to present to the committee, we're more than
15	happy to take it and distribute it. If you
16	don't, you don't. Okay. So why don't we begin
17	as they're listed.
18	So we'll begin with the Historic
19	Preservation Office. I believe the microphone is
20	on. I can see the green light from here.
21	MS. BROCKETT: It's not coming out of
22	the speaker. So I will try and speak loud.

CHAIR MARCOU: And so we have our AV
 group looking at that. Yes. So please use your
 outdoor voice.
 MS. BROCKETT: Good afternoon. My

name is Ann Brockett. I am with the Historic
Preservation Office, which is part of the Office
of Planning. You'll hear from my colleagues at
the, representing the rest of the office as well
momentarily.

10 CHAIR MARCOU: So just a reminder, 11 when you say your name, spell your last name for 12 the transcriber. Yeah, let's try this 13 microphone. Thank you. Can you hear that one? 14 Okay.

MS. BROCKETT: Okay. Better? Yes?
Okay. Thank you for the reminder. My name is
Ann Brockett. That's B-R-O-C-K-E-T-T.

18 I'm with the Historic Preservation
19 Office with the Office of Planning and you will
20 hear from my colleague regarding the Office's
21 comments on this. But I did want to offer
22 something to the record, just on behalf of the

1 Historic Preservation Office.

2	We have participated in the developed
3	of the draft guidelines under Section 9B of our
4	act, which is the Historic Landmark and Historic
5	District Protection Act, which requires DDOT to
6	take into account the effect of its undertakings
7	on any property that is listed in or eligible for
8	listing in the District of Columbia inventory of
9	historic sites, and to consult with and afford
10	the state Historic Preservation Officer a
11	reasonable opportunity to comment on the
12	undertaking.
13	So we find that our collaborative
14	process to date in developing these draft
15	guidelines has satisfied that requirement. We do
16	have a few comments on the draft, which are
17	really more of technical edits than substantive
18	content related ones, and we will send those to
19	staff.
20	But otherwise, I would just like to
21	say that the Historic Preservation Office is
22	looking forward to the continued consultation

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1	with our sister D.C. and federal agency partners
2	as this process moves ahead. Thank you.
3	CHAIR MARCOU: Thank you very much,
4	Ms. Brockett. Next on our list is the National
5	Capital Planning Commission.
6	MR. FLIS: Good afternoon. My name is
7	Matthew Flis. I'm a senior urban design with the
8	National Capital Planning Commission, and the
9	last name is F-L-I-S. Can you hear me pretty
10	well?
11	CHAIR MARCOU: Yes. I checked in the
12	background and they could.
13	MR. FLIS: Okay. Well thank you again
14	for the opportunity to provide comments on the
15	draft small cell design guidelines. We
16	appreciate those collaboration with DDOT staff as
17	well as the other District and federal agencies
18	represented here.
19	There are thoughtful questions and
20	insight along with staff and NCPC staff analysis
21	have been critical in our understanding of the
22	issues that are related to this important topic.

1	I will note that our comments today do
2	not reflect our commission's office position but
3	are a preview of the issues staff will bring to
4	our commission for their meeting in November.
5	NCPC staff recognizes the growing
6	demand for wireless technology, and more
7	importantly, that the need to relieve congestion
8	on existing networks is essentially for people
9	living and working in Washington D.C.
10	We are also aware that the
11	installation of small cell infrastructure will
12	affect the function and esthetics of the public
13	spaces we experience every day.
14	Balancing the need the accommodate
15	increasing cellular demand while preserving
16	public space character and function is critical
17	important, as is the need to design and place
18	proposed infrastructure in an appropriate way.
19	This is especially true in Washington
20	D.C., the nation's capital where the public
21	spaces both streets and reservations are defining
22	elements of the city.

1	As the federal planning agency for the
2	nation's capital, NCPC has a focused interest on
3	preserving and enhancing the form, character and
4	experience of the nation's capital, particularly
5	within the historic L'Enfant city, and around the
6	significant concentration of federal interests
7	and prominent national resources found in the
8	core.
9	These include the views and settings
10	of the U.S. capital, the White House, the
11	National Mall, nationally significant civic
12	spaces and its institutions, national memorials
13	and parks, and those streets, avenues and
14	reservations, as well as the experiences that
15	link these elements and reflect the framework of
16	the original plan for the city of Washington.
17	Over the last month, NCPC staff
18	undertook an evaluation of the draft guidelines
19	to understand potential impacts to the federal
20	interests.
21	We selected a study area, which I
22	believe you have a copy of that map and our
I	•

comments today that focus on the area around the 1 2 National Mall and those areas with the highest concentration of federal facilities and other 3 areas of national importance, including the 4 museums, memorials and open spaces. 5 The study area also includes a number 6 7 of important streets that provide critical views 8 and vistas to and from landmarks, such as the 9 White House and the U.S. Capitol. Through field visits and GIS analysis, 10 staff evaluated potential small cell 11 12 infrastructure locations as would be permitted by 13 the guidelines, including installations on 14 existing poles, as well as new standalone poles. The map shows the result of that work. 15 16 We've also provided the sequence of 17 steps that NCPC staff has used to draft this map, 18 and they are also included in our comments that I 19 provided today. 20 As DDOT has recognized with the 21 protection of federal buildings and reservations 22 in the draft guidelines, the study area is

inherently unique in the District due to its
 unprecedented number of monumental Beaux Arts
 buildings, historic Washington globe and twin-20
 light fixtures, landscaped building yards,
 terminating view sheds, integrated perimeter
 security and tree coverage.

7 Every aspect of the public realm is
8 purposely planned to reflect its role as the seat
9 of the nation's capital. We truly appreciate the
10 sensitivity that the draft guidelines show for
11 federal properties, both buildings and
12 reservations.

We also note that this might result in areas without enough small cell coverage based upon statements by the carriers indicating that they need increased coverage downtown to meet demand.

Overall, the application of the draft guidelines indicates that there are possible gaps around the National Mall, including the Federal Triangle, portions of the Northwest Rectangle and also the Southwest Federal Center.

1	This is largely because the guidelines
2	would not allow small cell infrastructure in
3	front of federal buildings or adjacent to
4	reservations, but also because they're not
5	allowed on Washington globe or twin-20 light
6	fixtures and this is the guideline that staff
7	strongly supports.
8	Therefore, the challenge is how to
9	create a set of guidelines for this unique area
10	around the National Mall that allows for modern
11	technology and innovation, while preserving the
12	defining characteristics of the nation's most
13	important public realm and buildings.
14	So in preparation for our commission's
15	review of the guidelines in November, NCPC staff
16	will analyze the guidelines regarding four
17	important topics.
18	First, the spacing and frequency of
19	standalone poles. Our analysis that indicates
20	that new standalone poles tend to cluster along
21	certain block-faces while other block-faces may
22	have less due to a combination of various

criteria related to set backs and spacing. 1 2 The introduction of new poles in the study area, in conjunction with the existing 3 streetscape elements could contribution to 4 additional visual clutter in front of buildings 5 and with view corridors. 6 7 The size and repetition of the new poles may also feel intrusive to pedestrians and 8 9 could appear relentless when interspersed with existing light poles. 10 11 This may be particularly true in the 12 study area that we focused on due to the 13 frequency of highly designed streetscapes, 14 perimeter security and other features that occupy the public spaces around federal buildings. 15 16 The second topic is related to the 17 location of standalone poles in regard to 18 building architecture and entrances. If the 19 current guidelines allow standalone poles in 20 front of federal buildings many could be located 21 at entrances to significant buildings such as the National Archives, Department of Commerce, 22

1	Portrait Gallery and National Building Museum.
2	This is largely because there are no
3	trees in these areas and they're also open to
4	allow for high volumes of pedestrian traffic.
5	The guidelines may also need to address how
6	placement might related to important
7	architectural elements or features, particularly
8	in our civic buildings and public spaces.
9	Third, given the unique historic
10	setting of much of central Washington D.C., and
11	the presence of many nationally significant
12	historic buildings and landscapes, we strong
13	support underground cabinetry and other related
14	equipment.
15	Above ground cabinetry would
16	unnecessarily distract from the views of many
17	historic federal buildings and sites particularly
18	around the National Mall. It is also
19	understanding that the providers have significant
20	concerns with this regarding vaulting, but NCPC
21	staff will look at the possible impacts of
22	equipment above ground in this area.

1	And then fourth related to pole
2	attachments, we understand that each
3	telecommunication provider may have a unique
4	antenna style and configuration.
5	For example, an antenna may be top
6	mounted or also installed as a collar.
7	Installations of varying designs on multiple
8	poles within a block-face may look disjointed to
9	cluttered particularly when set against the
10	backdrop of monumental federal buildings.
11	We also want to echo the recent points
12	made by the Commission of Fine Arts at their
13	September meeting when they advised the
14	development of an elegant and holistic design
15	topology for small cell installations.
16	So as I mentioned earlier our
17	commission will provide formal analysis and
18	recommendations of the guidelines at their
19	November meeting.
20	We anticipate there our commission
21	will make recommendations regarding potential
22	revisions or clarifications to the guidelines and

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given this unique setting, which I have 1 2 described. Alternative solutions may be necessary, including a map designating allowed 3 4 standalone pole locations to meet future coverage 5 needs but also to protect our nation's most important public spaces. 6 7 Thank you for the opportunity to 8 provide comments on the draft guidelines. We look forward to additional discussion and 9 coordinating regarding this important issues and 10 11 also welcome future questions and discussion. 12 Thank you. 13 CHAIR MARCOU: Thank you. And now we 14 will move to the next group on our agenda, the 15 Commission of Fine Arts. 16 MR. FOX: Good afternoon. My name is 17 Daniel Fox, F-O-X, and I'm on the staff of the 18 U.S. Commission of Fine Arts. Thank you for the opportunity to provide brief remarks regarding 19 the small cell initiative. 20 21 The Commission appreciates the role that each agency as well as the public has had in 22

1	the development of the guidelines and the
2	Commission has endorsed the programmatic approach
3	to reviewing the small cells as has been
4	discussed, including the guidelines.
5	As you may know, the CFA was
6	established by Congress in 1910 and its seven
7	members appointed by the president provide expert
8	advice to the congress, the president and the
9	federal and D.C. government on matters of design
10	and esthetics as they affect the federal interest
11	and preserve the dignity of the nation's capital.
12	As the role of federal government in
13	the District has changed over the years, we've
14	continued to work closely with our partners in
15	the D.C. government, not just to guide the
16	development of the city as a national symbol but
17	to help create a beautiful, livable and equitable
18	city for all of the District's residents and
19	workers.
20	The commission has seen two
21	presentations on small cells, a general
22	information presentation by NCPC in July and a

more detailed presentation by DDOT in September
 about the draft guidelines.

In both July and September, the 3 Commission didn't take an action, but it has 4 offered many suggestions and recommendations for 5 the small cell initiative in general and for the 6 7 development of the guidelines in particular. You should have before you the letters 8 9 that the Commission -- the letters that detail the Commissions comments, hopefully. And I'll 10 11 summarize them for you now. 12 The Commission members have generally 13 observed that small cells are essentially 14 privately-operated public infrastructure like 15 electricity, natural gas, water and sewers and 16 that they should be regulated as such. 17 They have therefore emphasized that 18 the small cells require a public advocate to 19 protect public values, not just a facilitator to 20 implement private sector enterprise. 21 The CFA recognizes the potential benefits of improved 4G service and 5G 22

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technology, however, the Commission has expressed 1 2 concern about the great impact from multiple new poles and other installations in public space, 3 especially on streets with narrow sidewalks. 4 In particular, they voiced concern 5 about the potential visual impact of many 6 7 thousands of installations on both the monumental core and the residential areas of the District 8 9 and especially the size and appearance of the components that comprise the installations. 10 11 Regarding the city's existing lamp 12 posts and fixtures, the Commission has noted that 13 they were developed at particular times with 14 particular performance standards ranging from iconic early 20th century Beaux Arts designs such 15 16 as the twin-20, which was designed by the Lincoln Memorial architect and CFA commission member 17 18 Henry Bacon to more functional modern designs. 19 And the Commission has affirmed that 20 these historic fixtures are not suitable for 21 small cell equipment installations. Overall, the Commission has identified that there is a 22

fundamental inconsistency between the elegance and precision of contemporary consumer cellular devices and the obtrusive appearance of the infrastructure systems in public space required to support them.

6 While most residents would likely 7 welcome the increased service capacity, the 8 Commission has heard little support from the 9 community in its meetings or otherwise for the 10 imposition of more visual clutter, among other 11 concerns.

12 The Commission has therefore 13 repeatedly emphasized that the successful 14 integration of this new technology into the public realm is a design problem that requires a 15 holistic design solution and have advised the 16 17 development of a new typology for small cell 18 installations, rather than allowing a discordant 19 kit of parts, buoy and pizza shaped boxes --20 pizza box shaped antennas, refrigerator sized 21 equipment cabinets and a tangle of cables to be 22 clumsily attached to existing or new street light

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2	Developing a design that would make a
3	positive contribution to the city streetscapes
4	could be achieved by directly engaging outside
5	industrial designers, architects and other design
6	professional both in the refinement of the
7	guidelines and in the design of the poles and the
8	equipment.
9	Or perhaps by the project sponsors
10	holding a design competition to develop the best
11	solution. The commission members themselves have
12	also offered to participate in a collaborative
13	design workshop.
14	Regarding the draft guidelines
15	themselves, the Commission has noted that the
16	city is composed of numerous types of public
17	space with unique experiential qualities and has
18	therefore advised the development of 3-
19	dimensional design drawings to test the proposed
20	pole type, location and spacing matrices set
21	forth in the guidelines.
22	The Commission has commented that the

guidelines also require further refinement to 1 2 meet the state goal of treating all areas of the city equitably in cellular service and in design. 3 They've suggested further refinements 4 5 to the allowable small cell installation matrix you saw earlier with consideration to applying 6 7 consistent standards across the entire city, perhaps by requiring underground equipment vaults 8 9 in all locations and providing more nuanced criteria for regulating varying areas such as our 10 commission's Shipstead-Luce Act jurisdiction. 11 12 Finally, the Commission has requested the construction of full-scale mock ups to 13

14 evaluate the design details and overall impact of 15 the completed assemblies. Thank you again for 16 the opportunity to present the Commission's 17 comments and recommendations.

18 And we anticipate the continued review
19 of the guidelines for this major public
20 infrastructure project and look forward to
21 developing a solution that appropriately
22 integrates this promising technology into the

1	public realm.
2	Thank you.
3	CHAIR MARCOU: Thank you. And now,
4	we'll hear from the Office of Planning.
5	MR. MAHER: Thank you, all. My name
6	is Timothy Maher with the D.C. Office of
7	Planning. That's M-A-H-E-R. And the Office of
8	Planning largely supports the draft guidelines.
9	We do appreciate the close
10	collaboration between DDOT, National Capital
11	Planning Commission, Historic Preservation and
12	the Commission of Fine Arts on the input and the
13	bringing us all together that sort of crafting
14	and brought about these guidelines. I
15	(Off microphone comments.)
16	MR. MAHER: All right. Can everybody
17	hear me now? All right, great. There are four
18	sort of key points I would like to highlight for
19	the Committee today, and they are, in OP's
20	opinion, the current allowances and limitations
21	for locations of small cells.
22	We do feel they are appropriate and

possibly not nearly as restrictive as they may seem, and that more analysis may be needed to determine the real and lasting impact to the public streetscape, and I'll highlight that in more detail in a moment.

6 My second point is that we deeply 7 support the prioritization of cell locations in 8 alleys, first and foremost, prior to locating 9 them within the streetscape, and that's part of 10 the current guidelines, as drafted.

We also want to highlight our deep support for the prioritization of all the cell, small cell equipment outside of the antennas themselves into underground vaults in those locations where they're highlighted in the guidelines. We have strong support over that aspect.

And then, lastly, I do want to make a point of prevalence, or, but make a point on the prevalence of wood poles, specifically thirdparty wood poles throughout the District. And I would like to sort of highlight a need to ensure

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quality design for the installed equipment on these poles as well.

I think a lot of this discussion today 3 4 will primarily be focused on the downtown area, 5 and for DDOT's streetlight poles, but those poles that represent the wooden ones throughout the 6 7 city roughly account for, once you remove all of 8 the prohibited poles, based on pole type, based 9 on location, so if you remove all of the Twin-20s from consideration, all of the Washington globes, 10 all of the streetlights on bridges, all of the 11 12 streetlights on medians, what you roughly come up with is, out of the total 74,000 streetlights in 13 14 the District, possibly 50,000 locations that are still opportunities for citing small cells. 15 16 And of those remaining, approximately 17 36 percent of them are DDOT's. The remaining 64 18 percent are wooden poles, and they are primarily

19 located in the outlying wards of the city. So in20 Ward 3, Ward 4, Ward 5, Ward 7 and Ward 8.

Each of those wards, having roughly 70
to 80 percent of their poles in those wards are

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the wooden, either Pepco or Verizon poles. 1 And 2 so I think, because they take up such a prevalent, they are so common throughout so many 3 District neighborhoods, that I do think there is, 4 5 there ought to be some level or some design requirement regarding those poles so that we 6 don't have sort of eyesores in most of the city's 7 8 neighborhoods. 9 I would like to, and Matt, if you could pull up my presentation really quick --10 11 CHAIR MARCOU: Sure. 12 MR. MAHER: There's actually just a 13 few slides in it I'd like to highlight. 14 MR. MACNICHOL: I think it's the PDF, 15 correct? 16 MR. MAHER: Correct. And if you could 17 go to page 4. Okay. The PDF isn't interested in 18 cooperating today? 19 CHAIR MARCOU: Apparently not. 20 MR. MAHER: Okay. I have a copy with 21 me today. I would be happy to provide that to the Committee. 22

1 CHAIR MARCOU: And I'm just trying to 2 see if it, let me take it out of there, because we were able to see it a second ago. 3 4 (Off microphone comments.) 5 Say it again. MR. MAHER: (Off microphone comments.) 6 7 MR. MAHER: I don't quite understand 8 what you're --9 CHAIR MARCOU: So it's on the thumb 10 drive, correct? 11 MR. MAHER: Yes. 12 CHAIR MARCOU: Is the thumb drive still in there? 13 14 MR. MAHER: It is not. 15 CHAIR MARCOU: We'll try this one more 16 time. We appreciate your patience. I am good at 17 the audio part. It's the visual part that I 18 probably need some assistance with. No, 19 unfortunately the Pierre is like that, for 20 whatever reason, it's not reading it. It's just 21 reading a few pages, but not others. 22 Okay. All right. MR. MAHER: Then,

I would be happy to provide some of the visuals
 to the Committee and to the public after this
 meeting. I can just talk to, through them really
 quickly.

I did a very brief analysis of Rush 5 6 Street, just east of Dupont Circle, P Street 7 between 19th and 16th Streets, just to compare 8 existing streetlight locations with the 9 guidelines. And roughly speaking, it shows the possibility of, and all, the possibility that 10 11 each streetlight that exists on that three-block 12 stretch has the potential to have a small cell on 13 it, and still meet the guidelines.

14 So I think, if we start to hear comments that some of these are a little too 15 16 restrictive, I think it's very dependent on the 17 specific block and the specific type of 18 infrastructure that exists on a street, but there 19 are some streets that do exist in the District 20 where the guidelines do mean, potentially, and 21 I'm not saying that this is what the carriers would do. 22

1	It may be too much of an overlap in
2	coverage, but there is the possibility that, on
3	these three blocks, each streetlight that exists
4	would have small cells on them, and still comply
5	with the guidelines.
6	And then, just really quickly, I did
7	want to highlight that, once more, Ward 1, Ward
8	2, and Ward 6, and those predominantly make up
9	the downtown core through Columbia Heights, I
10	think just shy of Petworth, and also all of
11	Capitol Hill, heading towards the Anacostia.
12	These three wards, once you remove the
13	types of poles and locations prohibited under the
14	guidelines, roughly, in each, 92 up to 94 percent
15	of all of the remaining poles in those, in those
16	wards are DDOT poles.
17	However, in each of them, between 30
18	and 40 percent of those poles are located in
19	alleys. So I think prioritizing alleyways as the
20	sort of first hierarchy as to where small cells
21	should be installed are still, they still provide
22	a sufficient, in our opinion, a sufficient amount

of coverage and even spread throughout those wards.

In the outlying wards, 3, 4, 5, 7 and 3 4 8, that actually reverses. Between 70 and 85 5 percent of the poles in those wards are thirdparty wooden poles, not DDOT poles. 6 However, the 7 number of poles located in those wards, though 8 slightly less than the more downtown wards, alley 9 poles range from between 20 percent and 40 percent of the available poles. 10 11 And so based on those wards being less 12 densely populated, but also having slightly fewer 13 percentage of alley poles, I still feel, and it 14 is in OP's opinion that locating poles first and foremost in alleyways is sufficient to provide 15 16 the kind of coverage, at least in the next 10 17 years, that we've been sort of anticipating on 18 this. I'll close that out now and open it up to 19 the Committee for questions. Questions 20 CHAIR MARCOU: Thank you.

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MEMBER CHAMBERLIN: So can, I guess

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from Committee Members for the presenters?

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can you guys hear me?

2	CHAIR MARCOU: Is this one on?
3	MEMBER CHAMBERLIN: So Tim, I had a
4	question about the design guidelines for wooden
5	poles. So I heard there aren't any. Is that
6	because they would be owned by Pepco, or would
7	there, would there be any design guidelines
8	subject from DDOT for the poles? And if it's
9	just because they're owned by Pepco, is there any
10	permitting authority over wooden poles or not?
11	MR. MAHER: The permitting authority,
12	I would leave to the permitting group.
13	CHAIR MARCOU: Hold on. Yes, let me
14	hi, I'm Matthew Marcou, Associate Director of
15	the Public Space Regulation Division. Yes. If
16	anything gets attached to that pole, it requires
17	a new permit from the Public Space Permitting
18	Division.
19	MEMBER CHAMBERLIN: For Pepco-owned
20	poles?
21	CHAIR MARCOU: For Pepco-owned poles.
22	It doesn't matter who owns it. If you're putting

a new piece of infrastructure on it, it requires
 a public space permit. Thank you for your time
 and attention.

MEMBER CHAMBERLIN: Okay. I guess my
question is then, why aren't there any design
guidelines for the wooden poles?

7 MR. MAHER: I'm not sure. I think 8 it's only been through more recent analysis on my 9 office's part that we've come to really grasp and 10 understand the true prevalence of wood poles 11 throughout most of the District.

I think, early on, leading into sort of the working group that put a lot of these together there was a focus on sort of the more dense locations, the areas where NCPC and CFA and HB have the most concern.

I think OP took a step back and tried to do a more holistic view across the city. And as of, as of right now, right, I'm not aware that the guidelines have specific design criteria for the wooden poles.

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I would like to advocate that at least

1	there is some consideration for how they look,
2	rather than allowing just anything that may be of
3	varying sizes, varying wires that stick out sort
4	of thing.
5	It may not need the level of design
6	guidance that poles on, within historic
7	districts, or within the monumental core may
8	need, but I do think that some small minimal
9	level of design is necessary to ensure that our
10	communities throughout the District are not where
11	we force a lot of the eyesore equipment.
12	MEMBER CHAMBERLIN: So will OP be
13	submitting any recommendations for the wooden
14	poles?
15	MR. MAHER: We can.
16	CHAIR MARCOU: For the record, that
17	would be helpful.
18	MEMBER CHAMBERLIN: Thank you.
19	CHAIR MARCOU: Hi, if anybody is
20	interested in the public with giving us notes or
21	comments, this is a discussion between the Public
22	Space Committee and the individual presenters

1	right now. So every time there's a panelist,
2	we'll be asking them questions.
3	If you have questions that you'd like
4	us to be aware of, please feel free to reach out
5	to Ms. Felder in the back, and she'll be happy to
6	give them to us.
7	In addition, when it's your time to
8	speak to us, we look forward to hearing what
9	questions you'll have, because, again, this is
10	not a final action. This is the next step in a
11	discussion to create final guidelines.
12	So we definitely appreciate, and I,
13	and I guarantee you, you aren't the only one who
14	has a question in the audience. Ms. Roos has
15	something she wants to speak to to those
16	guidelines, but I'd like to pull you up later, if
17	you don't mind.
18	MS. ROOS: That's fine.
19	CHAIR MARCOU: Okay. Thank you.
20	Further questions for this panel? Mr. Shaheen?
21	MEMBER SHAHEEN: I'm going to follow
22	up, is this mic working? Okay, great. I'm going

1	to follow up from my earlier questions about the
2	purpose section of the guidelines. It seems to
3	be very focused on the monumental core.
4	I mean, it does talk in general about
5	the streetscape character for the city, but I
6	think it's not covering that outer part of the
7	city where Mr. Maher was having where all of the
8	wooden poles are.
9	Is there a reason why the general
10	character of the neighborhoods outside of the
11	downtown area was not looked at specifically in
12	that stricter section, or is that something
13	that's being looked at?
14	MS. BROKETT: I don't really, I don't
15	really have an answer to your question, other
16	than that we know DDOT's guidelines could
17	certainly look at amending the purpose statement
18	for historic districts, because many of ours are
19	located outside the monumental core, and we
20	definitely didn't the necessary steps for all
21	historic districts.
22	MEMBER SHAHEEN: Yes, I know that that

first, the purpose section prefers to lay a plan, 1 2 which I really want to know. There's also the highway plan, which would include the major 3 4 roadways like Nebraska, South Dakota, Minnesota, 5 which are very character-defining for those parts of the city. 6 7 I know that the highway plan is going 8 to be more in size than the coming sections of the revised federal and District elements of the 9 comp plan. I think it might be useful to take it 10 11 back that way and form some additional corridors 12 outside of the downtown that might want 13 additional study. 14 And I just agree with Ms. Chamberlain's comments, looking at where are the 15 16 wooden poles, and if there are any requirements 17 to help bring some consistency to what's being 18 added to those required of all the different 19 The last comment, and this is more at, carriers. 20 an easy one, there's a lot of discussion in the 21 guidelines about using the six-fluted paper 22 poles, but there's not much in the purpose

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section really talking about why that's 1 2 important, and I think it goes back to the standards that were defined by the CFA. 3 4 It's, it is an infrastructure system. 5 I think it is, would be worthwhile to make that point a little more stronger, and of laws 6 7 governing what the District can do in terms of 8 aesthetic requirements on this need to be 9 objective and clearly defined. I think putting something in that 10 11 front section that makes those as clearly defined and objective as possible will be helpful in 12 13 giving more clarity as to why we have the design 14 guidelines that we are adopting. 15 CHAIR MARCOU: Great. That, see? 16 Jonathan, I don't believe this microphone is 17 working. Can you all hear me? Right? No. So 18 Jonathan, I don't think that mic -- well, no, I 19 know this one is -- Jonathan, I don't think that 20 microphone is, this one, either one is working. 21 Thank you. So I did have a few questions. Did you have any questions, Ms. Hudson? 22

I	7
1	MEMBER HUDSON: No, not at this time.
2	CHAIR MARCOU: Okay. So Mr. Maher, I
3	want to follow up on some of your math, because
4	it was higher calculus, and I wasn't able to
5	follow along. So the takeaway number for me was
6	64 percent.
7	What I think I heard you say was that,
8	once you take away all of the ineligible poles,
9	and you restrict the universe of poles in the
10	District of Columbia to poles eligible for
11	placement of small cell technology, that 64
12	percent of those remaining poles are third-party-
13	owned poles. Is that correct?
14	MR. MAHER: That is correct.
15	CHAIR MARCOU: Okay. Thank you. And
16	that a substantial number of those are in wards
17	other than 1, 2, and 6, where 1, 2, and 6, the
18	substantial majority appear to be DDOT poles. Is
19	that correct?
20	MR. MAHER: That is also correct.
21	CHAIR MARCOU: And I think the numbers
22	you gave were in the 90-plus percent range for 1,

75

1	2, and 6?
2	MR. MAHER: Yes, 93 percent for both
3	Ward 1 and Ward 2, and 94 percent for Ward 6.
4	CHAIR MARCOU: Thank you. So then I
5	have a question that is perhaps for all of you.
6	So one of the concerns we've heard is that you
7	or not concerns one thing, one of the concerns
8	we've heard is about the proliferation of new
9	poles.
10	However, we've also heard that you
11	don't want them attached to Washington globes.
12	Help us thread that needle. If you were to pick
13	between new poles versus attachments to
14	Washington globes, which would you pick, because
15	if you can attach to Washington globes, there's a
16	not insubstantial section of the city where all
17	that's available are Washington globes, and
18	therefore, it has to be attached to something.
19	So I'm just asking the question. I'm
20	not looking for a particular answer one way or
21	the other. I'm just interested in knowing your
22	thoughts, because as Mr. Maher pointed out,

particularly in the downtown areas, Washington 1 2 globes are a not insubstantial portion of the poles, and almost all of the poles are owned by 3 the District of Columbia itself. 4 MS. BROKETT: And I, you know, I'm not 5 really sure I'm the right person to answer this, 6 but there is somewhere in the guidelines sort of 7 prioritization of preference where poles are 8 9 located, and alleys, I think, were at the top of the list. 10 11 I don't know where that is, just 12 looking at the guidelines off the back, but 13 because there is a prioritization, it takes into 14 account that there are Washington globes and Twin-20s to which the drafters of the guidelines 15 16 did not wish to see attachments, but where there 17 are no other opportunities for attaching, there 18 is the opportunity for the new poles. 19 So it's not, I don't think it's 20 limiting because it, although we sort of 21 established a list, a check box, if it's not

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here, then you go to the next one. If you can't

1	do it here, you go to the next one. So it
2	doesn't eliminate the possibility of putting up
3	the small cells.
4	CHAIR MARCOU: Thank you.
5	MR. FLIS: I just want to echo one of
6	the things that we've mentioned previously is
7	that, again, much of the streetscape has been
8	purposefully planned and designed. I think the
9	Twin-20s and the Washington globes, as my
10	colleagues have mentioned, are part of that
11	streetscape that were designed with an intent.
12	And so I think one of the challenges
13	with that attachment is how you reconcile from a
14	design perspective, which I know the Commission
15	on Fine Arts has discussed as well. So that's
16	just one of the considerations, but I do want to
17	echo the Historic Preservation Office's comments
18	that there is, there are opportunities and
19	potential to balance these issues in terms of the
20	way the guidelines are laid out, and providing
21	several opportunities to provide coverage.
22	MR. FOX: I don't, I don't really have

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much to add. I agree with what's, with what's
been said. I think the Commission agrees, so
they're generally, they're interested in a lot of
these issues, not just in the monumental core, as
we sort of outlined in the comments.
It may be a misperception that the
Commission of Fine Arts is just interested in the
monumental core, but in fact, we're concerned
about the entire city.
And the question of equity that's
brought up in here is a, was a big concern to our
Commission Members, not just, you know, a
consideration about the wood poles in wards
outlying the monumental core. So we very much
appreciate the comments regarding that issue.
CHAIR MARCOU: Thank you. I just want
to, I want to put a little bit of a fine point on
it, or make sure I understood what you were
saying. The guidelines specifically prohibit the
use of Washington globes, and allow the
installation of new poles.
So what I'm hearing you say, it's

just, and it's just what I'm hearing, is as a 1 2 preferential matter, it would be better to maintain that and allow the installation of new 3 4 poles rather than an installation attaching to Washington globes. 5 In other words, rather than opening a 6 portfolio to Washington globes, it would be, it 7 8 is a preference then to allow new poles in those 9 areas where Washington globes are installed. 10 MR. MAHER: Yes. 11 CHAIR MARCOU: Let the record show 12 that everybody's nodding. 13 MS. BROKETT: Yes. 14 MR. MAHER: Yes. 15 (Off microphone comments.) 16 CHAIR MARCOU: I will simply say that 17 they, let me clarify. Because they used Washington globes as one example, and Twin-20s 18 19 are not Washington globes, just to be clear. 20 So when you say a Washington globe 21 Twin-20, you're conflating that you do not, you do not want to expand the types of poles that are 22

eligible for installations beyond those that are 1 2 currently recommended in the guidelines, and that new poles would be preferred to increasing the 3 4 menu of existing poles to which attachments are 5 allowed. The answer I'd like, we'd like to go 6 7 back and talk with others and make a more formal 8 recommendation is a perfectly acceptable answer. 9 MS. BROKETT: Because my office only 10 represents historic districts, we would be okay with other mounts outside of historic districts 11 12 because we have no regulatory authority. 13 CHAIR MARCOU: Right. But in the 14 historic districts, you --MS. BROKETT: We, the guide --15 16 CHAIR MARCOU: -- the preference I 17 said now. 18 MS. BROKETT: The guidelines are, and 19 what you are, what you are summarizing from the 20 quidelines is correct. 21 CHAIR MARCOU: Just want to make sure. Is that true for NCPC and for CFA? 22

1	MR. FOX: Sorry, what is true?
2	CHAIR MARCOU: Broadly speaking, you
3	would prefer that the menu of poles to which
4	attachments are permitted is not expanded, and
5	that instead, the preference to allow for new
6	poles in those areas where there aren't poles to
7	attach to is allowed.
8	MR. FOX: Yes, it's, that's what our
9	Commission has said, but they're also concerned
10	about the design of the standalone poles and the
11	installation. So it's
12	CHAIR MARCOU: And that's a perfect
13	segue to my next question, which is particularly
14	for CFA, but probably for everybody. How long
15	would a design program take that would get us to
16	the really eloquent language that you all used,
17	that I would never be able to imitate again, but
18	it used the word typology?
19	MR. FOX: I don't have a specific
20	answer for that. I think it's initiative
21	CHAIR MARCOU: Well, just roughly?
22	MR. FOX: I could not begin to give

1 you a time frame. There are experts that run 2 design competitions, so there are people that can be consulted to actually, that can give you a 3 better idea of what it takes to run a design 4 5 competition. We'd like, that would 6 CHAIR MARCOU: 7 be helpful for us to hear from the Commission of 8 Fine Arts, because it's been a recommendation 9 from the Commission of Fine Arts, so it would be helpful to understand how long they would think 10 11 that that would take. 12 MR. FOX: Sure, it's --13 CHAIR MARCOU: I'm not asking you to 14 put it on the record right now, just to think 15 about it. 16 MR. FOX: Yes, sure. It's something 17 we can discuss more. It's --18 CHAIR MARCOU: That would be great. 19 Thank you. And then, I had one last question for 20 you all, and this, again, relates to the idea of 21 seeing a mockup. 22 Would you all be interested in a pilot

where installations were permitted at select 1 2 locations to identify what the world would look like, based on a variety of types of 3 4 infrastructure installed, and locations permitted, to get a real-world sense of that 5 installation? 6 MR. FOX: Yes, I think so. 7 I think it 8 depends -- our Commission has said that there are 9 many different types of public spaces throughout the District, so a pilot program, I think, that 10 11 addressed all of the varying conditions of the, 12 of the District would be positive. 13 CHAIR MARCOU: Great, thank you very 14 much. I had one last question for you, Mr. Maher, about P Street, between 16th and 19th. 15 16 MR. MAHER: Yes. 17 CHAIR MARCOU: You said that the, you 18 said that it, that you, from a, just a cursory, 19 that you didn't do a detailed analysis, but that 20 it appeared like all of them would allow 21 attachments. How many poles are we talking about? 22

1	MR. MAHER: Yes, let me pull up that
2	drawing. So not to confuse you with a bunch of
3	numbers, this is a much easier graphic to see.
4	CHAIR MARCOU: My mom was a math
5	teacher. I'm okay with numbers.
6	MR. MAHER: Between Dupont Circle and
7	18th Street, you have a 230-foot block face that
8	would allow one streetlight per side of the
9	street. There's only a Washington globe on the
10	north side, so that would need to be a new
11	freestanding pole.
12	On the south side, there's only one
13	Cobrahead, so that one Cobrahead would be all
14	that is allowed. On the block between 18th and
15	17th, that is an 875-foot block face that, yes,
16	and it's not one of the longest in the city.
17	So there are one, two, three, there
18	are five Cobrahead pendant poles on the north
19	side. There are four Cobrahead pendant poles on
20	the south side. Per the size of the block, and
21	being in a historic district, they would be
22	permitted five installs per side of the street,

so there are five Cobraheads on the north. 1 2 That's occupying all five. There are four on the south, so they 3 4 could occupy those four and have room to add in a 5 standalone pole. Between 17th and 16th, it's roughly the same story. It's a 500-foot block 6 They would be allowed three. 7 face. 8 There are three Cobraheads on the 9 north side, so they could take up all three. There are two on the south side, so they would be 10 11 allowed to install on two, and then add in a 12 single freestanding pole. 13 CHAIR MARCOU: Thank you very much. 14 MR. MAHER: So if you can paint that mental picture in your head. 15 16 CHAIR MARCOU: I can, because I walked 17 that, walked those blocks at P Street many times. 18 Okay. Thank you very much. We really appreciate 19 it. Oh, Mr. Shaheen? 20 MEMBER SHAHEEN: Actually I just have 21 one other questions. So I did wonder about the hoteling and the independent carrier, did the, 22

1 did the working group consider a guideline 2 requiring hoteling versus the individual carriers, and why was the route taken to 3 4 encourage, to not, to not encourage to require 5 hoteling? I can begin with that, but 6 MR. MAHER: I think I'd also allow --7 8 CHAIR MARCOU: Why don't we let Ms. 9 Roos --10 MR. MAHER: Okay. 11 CHAIR MARCOU: -- speak to that, if 12 you don't mind. I think she has a, Ms. Roos has 13 been a bit more comprehensively engaged 14 throughout the process, and not that you haven't 15 been an excellent partner in the process, but she 16 have a bit more context and history to it. So 17 were there any other questions for this panel? 18 Thank you very much for your time. We appreciate 19 it. MR. MAHER: 20 Thank you. 21 CHAIR MARCOU: Ms. Roos, why don't you 22 come back up? We have a few quick questions that

you can hear that came up. Thank you. 1 So Mr. 2 Shaheen, your question for Ms. Roos? Well, there were two, 3 MEMBER SHAHEEN: 4 but now I can only remember the second one, so if 5 there's a recording, maybe I can --Maybe it will come back to 6 MS. ROOS: 7 you. 8 But the second, the MEMBER SHAHEEN: 9 second question was, why do the guidelines not encourage or require hoteling and instead 10 encourage -- well, it doesn't discourage, but why 11 12 does it not require that as, I think some other 13 municipalities have done that. 14 MS. ROOS: So in our conversations with the carriers, and their technology needs, it 15 16 has been expressed that the current hoteling configurations do not work for their next level 17 18 of technology, particularly 5G. 19 I think that's a great question to ask 20 them specifically when they are coming up here, 21 as to why their technology does not allow for that, but again, in trying to find a balance 22

between the technological needs of the carriers, 1 2 as well as, how do we incorporate this within the public space, that was a consideration that we 3 4 took. 5 Were there any design MEMBER SHAHEEN: considerations as to whether or not one would be 6 7 preferable over the other? 8 In terms of hoteling? MS. ROOS: 9 MEMBER SHAHEEN: Yes. I think one of the issues 10 MS. ROOS: 11 that was discussed within the working group is 12 that hoteling, from the designs that we've seen of it, from the carrier that does provide 13 14 hoteling, is that you get much larger equipment and antennaes. And so it's the balance between 15 16 how many poles do we want things attached to 17 versus how large are the attachments? 18 We've seen anything from, I think the 19 drawings that you saw had a two or a two and a 20 half foot tall antennae on top. We have seen 21 designs that that antennae could be under a hoteling situation, anywhere from five to seven 22

feet tall.

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2	And so, again, that was a balancing
3	and a consideration, not only given as the asset
4	owner, and having the responsibility to be the
5	caretaker of the streetlight assets. There is a
6	structural concern there, as well as an aesthetic
7	concern, given how large the equipment that is
8	required to do hoteling, in addition to the, what
9	we've been told in terms of 5G technology, has
10	not been successfully tested within hoteling at
11	the moment. But again, I would encourage you to
12	ask that of the carriers when they are up here
13	later.
14	CHAIR MARCOU: And I remember the
15	second question, which was really the first
16	question. It was about, wood pole and
17	MS. ROOS: Yes.
18	CHAIR MARCOU: utility poles
19	inclusions in the design guidelines.
20	MS. ROOS: So I just wanted to clarify
21	that they are included with the design
22	guidelines. So if you go to Chapter 9 of the

design guidelines, that is exclusive to third-1 2 party utility poles, and it is in fact entitled, Guidelines Regarding Existing Utility Poles. 3 I would also, while that is a short 4 5 section within the guidelines, I would also note that all of Section 5, which is titled, General 6 7 Guidelines, applies to every single type of 8 installation. So every existing third-party 9 utility pole has to abide by all of the

10 guidelines that are general to installations,

that is Section 5.

11

12 I think one exception, and I think it 13 is noted within Section 5, is that obviously you 14 will have exposed wires on utility poles, because 15 you cannot hide them from within the pole, but it 16 does state that they need to be, you know, linear 17 in fashion and very straightforward in terms of 18 their installation.

19 The chart on page 7 of the design 20 guidelines also does address existing utility 21 poles. It is the last row there that you see in 22 that chart, and the only difference that you see

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1	in the design guidelines that they currently
2	contemplate that is different from any other type
3	of installation is their ability to have the
4	cabinetry attached to the pole.
5	This was thoroughly discussed and the
6	decision was made that, because you generally see
7	that on utility poles already, you see
8	transformers that are much larger, or as large as
9	these cabinets, et cetera, that because that is
10	currently allowed, that we would also allow,
11	similarly, that cabinetry to be attached to
12	third-party utility poles. Again, that is what
13	the design guidelines currently contemplate.
14	MEMBER CHAMBERLIN: And certainly, my
15	fear on the poles, on the wooden poles, is
16	there's already stuff on it. And is there, can
17	we limit the amount of stuff, like we're putting
18	more and more, so like how wide can it get, how
19	tall, full of cabinets can it, you know too
20	much clutter on a pole, I guess would be my
21	concern.
22	MS. ROOS: So to that point, you are

correct, that the design guidelines do not state 1 2 how much stuff can go on a utility pole, because I think it changes utility pole to utility pole. 3 Some don't have anything on it right 4 5 now, and they serve as a connector to the wiring Some have smaller cable boxes, et cetera. 6 above. It is my understanding, from further discussions 7 8 with the carriers, that the poles will most 9 likely have to be taken out that are currently 10 there, because they are not structurally strong 11 enough, nor are they tall enough, given the necessary separation between poles. 12 13 Again, I am not a technical person 14 when it comes to this matter, and I encourage you asking the providers when they are there, but my 15 16 basic understanding is that there are 17 requirements between different sections of the 18 pole. 19 A pole is divided up within sections, 20 such as there is a section specifically 21 designated where streetlights can be attached. 22 There is also a section of a utility pole in

which communications equipment can be attached. 1 2 And there are certain regulatory distances that must be maintained between each section. 3 So it is my understanding that there 4 5 is a request to have taller poles installed. We have asked the providers to provide that 6 7 additional information for us, but currently, the guidelines contemplate, and this is in the 8 9 general section of Section 5, that no pole can be taller than 10 percent of what's there. 10 11 So if a utility pole that is currently there is 30 feet tall, any pole that goes in its 12 place that has small cell attachments to it can 13 14 be no greater than 10 percent on top of that, so 33 feet, 3 feet being 10 percent of the 30-foot 15 16 pole that's there. 17 So we have attempted to address that 18 in terms of the overall height and restrictions when it comes to the utility poles. 19 I will also 20 say that, generally, to go back to Chris's 21 question regarding hoteling, is that overall, all of the restrictions that we have placed within 22

the guidelines, to a certain extent, encourage
 hoteling, because eventually there will be no
 ability to attach to streetlights.

They will run out in terms of the areas where they prefer to be, and the spacing regulations. So eventually, they might be forced into hoteling because there are no other locations that they can attach to, and thus, it does encourage hoteling in that respect.

10 CHAIR MARCOU: Mr. Shaheen? 11 MEMBER SHAHEEN: I have two other 12 questions. So one, what do the guidelines say 13 about corridors that currently have poles that 14 are eligible for the facilities, but DDOT's 15 policy is that they eventually be replaced with 16 Washington globes?

MS. ROOS: So again, to your earlier question I think that you asked when I was here before, is that if those were to be, or let's say that they are pendant poles of Cobraheads right now in a corridor, and there were small cell installations attached to that.

1	If we did an upgrade project in which
2	those poles were switched out to a Washington
3	globe or a Twin-20, they would no longer be
4	eligible, and thus, they, all of their equipment
5	would need to be removed, and they would have to
6	go through a re-application process to install
7	new poles along that corridor that abided by the
8	final guidelines.
9	MEMBER SHAHEEN: My other question is
10	about that 10 percent height that's allowed for
11	the new poles, and is fixed upon the adjacent
12	poles. How is adjacent poles being defined if
13	you have multiple poles on a block that are, some
14	are private, some are District? There are
15	different kinds. Which does the 10 percent apply
16	to?
17	MS. ROOS: So it is the closest pole
18	that we would be looking
19	MEMBER SHAHEEN: The most immediate
20	layout
21	MS. ROOS: The most immediate yes,
22	correct. We don't find that situation very often

in which you have multiple pole types on a block. It does happen occasionally, and where, but most likely you're, when you're finding that, that is a pendant pole or a Twin-20 or a Washington globe.

6 CHAIR MARCOU: Thank you. Further 7 questions for Ms. Roos? Okay. Seeing none, we 8 will continue on with the next group, which are 9 the master license agreement holders.

Master license agreement holders are referenced to the entities that have submitted a master license agreement with the District of Columbia. This is a requirement prior to -- oh, I'm sorry. I'm completely wrong, and I've just been identified, I've just been told that, because I'm jumping the gun.

We have representatives from OCTO here, who are going to present upon their element related to telecommunications, which are wireless access points. I will point out that a member of the OCTO team is wearing a lanyard that has the New Orleans Saints logo on it.

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1	I won't point out that I was in the
2	Superdome on Monday last week, but I was. And we
3	will not hold that against you
4	MR. CLOW: Thank you.
5	CHAIR MARCOU: Mr. Clow, with OCTO.
6	So if you'll please present.
7	PARTICIPANT: Yes, it was a great
8	game.
9	CHAIR MARCOU: If you're going to go
10	on the record, you're going to have to state your
11	name for the record and spell your last name.
12	That's why I studiously avoided doing that.
13	MR. CLOW: And Matt, I forwarded
14	OCTO gave you an updated presentation, but I did
15	forward you one from September that we can use,
16	if you wanted to share something.
17	CHAIR MARCOU: Which would you like us
18	to use?
19	MR. CLOW: If you have some up here,
20	I can follow that.
21	CHAIR MARCOU: When did you send that?
22	MR. CLOW: About five minutes ago.

1 CHAIR MARCOU: Five minutes ago. Ι 2 can, literally, to my email? MR. CLOW: 3 Yes. 4 CHAIR MARCOU: Okay, I can pull that 5 up real quick. So give --MR. CLOW: Oh. In the meantime, my 6 7 name is David Clow, C-L-O-W. I am the Associate 8 Chief Technology Officer under OCTO, over DC-NET 9 and Telecommunications. I'm here representing the interim CTO, Barney Krucoff, K-R-U-C-O-F-F. 10 11 CHAIR MARCOU: And for the record, 12 OCTO has made it that we can access our email via the internet anywhere in the world. I do it on 13 14 my phone just by going to the internet. I don't see it. C-L-O-W, right? 15 16 MR. CLOW: Yes, sir. CHAIR MARCOU: Does it show that it 17 18 was sent? 19 MR. CLOW: Yes. 20 CHAIR MARCOU: To Matthew.Marcou, M-A-21 T-T-H -- oh, there we are. 22 No, that's fine. MR. CLOW:

1	CHAIR MARCOU: No?
2	MR. CLOW: All right. I'll just go
3	from what I have here.
4	CHAIR MARCOU: Okay.
5	MR. CLOW: So OCTO is the central
6	technology organization for the District of
7	Columbia. We develop, implement and maintain the
8	District's technology infrastructure. So DC-NET,
9	we have over 700 miles of District-owned fiber in
10	the District.
11	We have 100 gigabyte core connecting
12	650 buildings. We are the phone company for the
13	District agencies. We process more than 80
14	million phone calls a year, and our free Wi-Fi
15	program covers about 11 percent of the populated
16	areas in the District.
17	Our involvement with the small cell
18	program is not so much focused on the small cell
19	aspect, but increasing the District's outdoor Wi-
20	Fi footprint.
21	CHAIR MARCOU: Sorry, is it, is this
22	similar to the presentation you made on, in

100

September?

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2 MR. CLOW: Yes. CHAIR MARCOU: Okay. So we have that 3 4 presentation on our website, so we're pulling 5 that up now. Oh, it's a PowerPoint. Got it. Is 6 it a PowerPoint or a PDF? MR. CLOW: It should be a PowerPoint. 7 8 CHAIR MARCOU: Okay. No, this is the, 9 that's the one from Kathryn, so, okay, great. MR. CLOW: And then, I'm on the, about 10 11 DC-NET side. One back, please. 12 CHAIR MARCOU: Oh, sure. 13 MR. CLOW: So we have about 40,000 14 users who connect to our Wi-Fi daily, and about 15 14 million annually. Next slide, please. So 16 OCTO sees free Wi-Fi as an economic driver. 17 I kind of think of it in real estate 18 We got, where we are along corridors, we terms. 19 approve the walkability scores. It's a bridge to 20 digital buy. It's a boon to tourism. It's a 21 public convenience, and it's also utilized by the District's public safety agencies. Next slide, 22

please.

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2	As you can see here on the map, this
3	is where we're at right now with Wi-Fi. Green is
4	existing outdoor Wi-Fi. It's pretty sparse, but
5	kind of well set to divide it throughout the
6	city, and the biggest driver for outdoor Wi-Fi
7	right now is where there's District-owned
8	buildings.
9	So of the 447 outdoor APs, about 400
10	of them were actually physically located on the
11	roof or side of a building, and the ones that are
12	on poles were done during the PA 2040 pilot, done
13	with the Golden Triangle BID. Next slide.
14	The priorities for Wi-Fi is where we
15	have existing fiber. This is the outdoor
16	wireless AP, or you might hear it called a WAP,
17	or access point, or AV, a lot of lingo in the
18	technology field.
19	The cost of this is about \$1500 each,
20	so it's not really the cost inhibitor for this
21	project. The real cost is the plant to support
22	spreading Wi-Fi throughout the city through fiber

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2	Our focus areas in our planning are
3	underserved communities, public housing, main
4	streets, great streets, around firehouses,
5	schools, libraries, parks and transportation
6	hubs.
7	So this is, Matt, is the wish list of
8	everything we wish we could do if we had
9	unlimited resources. Right now, we have 600 I
10	think this is a little bit outdated. We have 600
11	APs in stock right now.
12	We're waiting for this program to
13	launch, as well as another DDOT program, the
14	streetlight program, and we're also working on
15	finalizing some agreements with pole attachments
16	with the other providers: power and whatnot.
17	We will prioritize our deployments
18	based on the information on the previous slide,
19	and we also, as Barney likes to say, we want to
20	go where we're welcome. So based on the feedback
21	we get from ANCs and BIDs who really want to have
22	outdoor Wi-Fi as part of their community, that'll

be our top priority. Next slide. 1 2 Again, the cost drivers are not so much the cost of this device here. 3 It's the 4 labor, the fiber and the power and maintenance of 5 the device. Just as an aside, did 6 CHAIR MARCOU: you want to point out that that's a bike line, so 7 8 the work zone would normally provide a safe 9 accommodation for the bicyclists as they come to 10 that work zone. 11 MR. CLOW: The reason we're involved with small cell is part of a partnership, and 12 13 kind of an economy scale. If there's an MLA 14 holder who's doing work on a street. They've already done their traffic 15 16 plan, they've already rented a bucket truck, they 17 can place this small device on the pole at the 18 same time they're doing work without the District 19 having to come back separately with a different 20 traffic plan, and without having to hire the same 21 contractors again. 22 We call it a ride-along, and the one-

touch is a cost savings for the District to 1 2 deploy outdoor Wi-Fi. We planned a lot, the majority of the main street great streets in the 3 4 city, and this next street, the next slide is an example of what it would look like. 5 Here, you can see where, this is where 6 7 Benning Road and Minnesota Avenue cross. You can 8 see parts of Wards 7 and 8, going up Minnesota 9 Avenue, into the Deanwood area. And you can see the red dots are our planned locations, where 10 we'd like to be. 11 12 Of course that's subject to DDOT 13 permission. We haven't gone on a deep dive to 14 make sure there's no transformer or pole or anything like that, and we would follow the DDOT 15 16 standards and the carrier rules, as far as where 17 on the poles we would place. Any questions? 18 CHAIR MARCOU: Questions from 19 Committee Members? 20 MEMBER SHAHEEN: I stepped out at the 21 very beginning. Is this just information in 22 terms of what your OCTO plan is for Wi-Fi?

1	MR. CLOW: Yes, but we're also
2	partnering with the MLA holders to get these
3	deployed. So when they're going to the pole to
4	install a small cell, they are also, they have
5	the traffic plan and everything diverted, and
6	they have the bucket truck there, they can
7	install this for us at the same time.
8	MEMBER SHAHEEN: And is that on each
9	site, or is there a master plan and
10	MR. CLOW: No, we have a, we loaded
11	our wish list up, and we will be responding
12	individually as they submit their permits whether
13	that's a pole we'd want to be on or not.
14	MEMBER SHAHEEN: And is the overlap
15	only that they would go to install?
16	MR. CLOW: Yes, they would be owned
17	and maintained by the District.
18	MEMBER CHAMBERLIN: I guess that we
19	have mockups and what it looks like. I guess the
20	small cells plus the Wi-Fi?
21	MR. CLOW: Yes, the AP usually goes
22	beneath the small cell, and I brought the actual

physical model here so you can see what it looks 1 2 like. 3 MEMBER CHAMBERLIN: I quess we don't have something visual to look at with this? 4 5 MR. CLOW: I think there are on the website, but not in this slide deck. And some of 6 the carriers will have it included in their 7 8 mockups as well. 9 CHAIR MARCOU: What's the standard height at which you install a wireless access 10 point? 11 12 MR. CLOW: Fifteen to 25 feet high, 13 and really, we leave it to the pole owners. They have the certain rules about where it can be in 14 relation to the power lines, relation to other 15 16 equipment, but we kind of rely on their subject 17 matter expertise for the placement. We just have 18 a general zone we would like to be. 19 CHAIR MARCOU: Thank you. Do 20 Committee Members have any further questions? 21 MEMBER HUDSON: Yes, I just have one 22 question. So OCTO is basically just tag teaming

1	with the carriers? Is that what we're doing?
2	MR. CLOW: Correct.
3	MEMBER HUDSON: IS OCTO just tag
4	teaming with the carriers is, was my question,
5	and you said
6	MR. CLOW: Right.
7	MEMBER HUDSON: Okay.
8	MR. CLOW: We're just taking
9	advantage, like I said before, when they're doing
10	along a street, they'll have to put it in a
11	traffic plan with VDOT, and they'll have a truck
12	out there with the lift.
13	So while they're up there working,
14	it's a, it's a small add-on to do this work at
15	the same time, and it saves us money of having to
16	go out separately to these poles. We're doing
17	the same kind of partnership involved with the
18	streetlight project as well.
19	MEMBER HUDSON: Good. Thank you.
20	MEMBER CHAMBERLIN: Sorry. So one
21	more question. Just as a user, who's this free
22	Wi-Fi intended to help? Because for me, when my

phone picks up the D.C. free Wi-Fi, it slows everything on my phone, so I literally have to turn the Wi-Fi off my phone. So I guess I'm just trying to figure out what, who benefits from this.

6 MR. CLOW: Right. And that's one of 7 the reasons we're trying to expand it, so we have 8 more ubiquitous coverage. Sometimes your phone 9 will pick up the signal, and you can receive the 10 signal, but your phone is too far away to 11 transmit back.

12 So again, we've had different agencies 13 tell us they're really interested. Department of 14 Health has asked us to cover areas where they 15 have farmer's markets. DPR and DCPS are very 16 interested in expanding coverage around their 17 sports fields and that sort of thing. And then, 18 our next main focus is D.C. Housing, and then 19 main streets, great streets.

20 CHAIR MARCOU: Thank you. Further 21 questions for OCTO? I just had, I just want to 22 make sure I put it on the record, that is the

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color of your wireless access point, correct? 1 2 MR. CLOW: That is the color, and it is paintable. 3 4 CHAIR MARCOU: It is paintable? So it 5 could be painted to match whatever --Yes, as long as it's not 6 MR. CLOW: 7 lead-based paint. 8 CHAIR MARCOU: Okay. Great. Yes, 9 that would be bad. Thank you. Even though we don't regulate that portion of it either, but --10 11 okav. Thank you very much. Really appreciate 12 your time. 13 MR. CLOW: Thank you. 14 CHAIR MARCOU: And I prefer playing the Panthers to the Saints. So with that said, 15 16 why don't we move to the industry? We invited, I believe we invited the CTIA. I don't know if 17 18 they are present. Okay. 19 I, that may be an error on my part, so 20 I apologize if the invitation did not get to 21 them. Why don't we bring up the entities to make presentations on their particular programs? 22 We

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have AT&T, Crown Castle, Mobilitie, and Verizon. 1 2 And rather than bring up four people from each group at a time, why don't we have one 3 4 representative from each of the groups come to 5 the table? Within your groups, you can do rock, paper, scissors to see who should present. 6 So 7 if, we have your presentations from the September 8 15th meeting. I think it was September 15th. It 9 might have been the 25th. 10 MEMBER CHAMBERLIN: Twenty-fifth. CHAIR MARCOU: So let me close this 11 See if I learn how to use a computer soon. 12 out. 13 Okay. And so why don't we begin, Verizon it 14 looks like your, where's the, they are here, correct? Right. So AT&T, let's go with yours. 15 16 Yours is the first one up. So if you'll state 17 your name for the record, spell your last name. 18 MS. VAN RIPER: Jennifer Van Riper. 19 It's V-A-N, capital R-I-P-E-R. And so this is 20 presentation that we reviewed on the 25th. It is 21 a high-level review of the program. 22 AT&T's intention is to expand a much

	L.
1	needed capacity in the District. Go to the next
2	slide for me. All right. So general overview, I
3	did have to laugh when you said you had to turn
4	the D.C. free Wi-Fi off.
5	That's a capacity problem. That's why
6	we're all here, right, is to not only expand,
7	obviously the industry's networks, but to partner
8	with OCTO to get their wireless access points out
9	as well.
10	CHAIR MARCOU: I just want to clarify,
11	is everybody able to hear? Good. Thank you.
12	MS. VAN RIPER: All right, great. So
13	essentially, we have spent the last four years
14	modifying our macro network. The existing cell
15	sites, adding capacity to them, and we are
16	capacity-busted.
17	We need more capacity and network for
18	today's customers. I know we talk a lot about
19	5G, and about 5G technology, emerging
20	technologies, and autonomous cars. But
21	essentially, while all those are very important,
22	why we are here today and have such an urgent

need is today's capacity problem. 1 2 Augmenting the existing network so that you don't have to turn off Wi-Fi, so that 3 4 you can use apps in a farmer's market, for public 5 safety needs. We can walk through this. I, honestly, I think everybody has seen this 6 7 presentation a number of times. 8 CHAIR MARCOU: I don't know if the 9 Public Space Committee Members have. 10 MS. VAN RIPER: Okay. 11 CHAIR MARCOU: I may have because I 12 have no life and I go to all of the meetings. 13 They have not seen this because they have other 14 items that they work on. So it might be helpful 15 to give them an overview --16 MS. VAN RIPER: Okay. 17 CHAIR MARCOU: -- of your equipment 18 and materials. 19 MS. VAN RIPER: Let's go through it. 20 We've done this together a few times, Matthew. 21 CHAIR MARCOU: Sure. 22 MS. VAN RIPER: Let's go through it.

So essentially, what we're proposing here is a 1 2 small cell approach, right? So it is, we've spent over a year coming up with a streamlined 3 4 design that, we'll go through some photo 5 simulations to show you. We have, AT&T's design looks a little 6 bit different than some of our partners. We have 7 8 eliminated the need for the cabinetry. We have a 9 smaller streamlined antennae at the top. We are one of the carriers who, from 10 11 a technical perspective, we are not proposing 12 what's been referred to today as hoteling or co-13 locating. AT&T's installations are singlecarrier installations. 14 We also have included some details 15 16 about construction. When we met with the ANCs, 17 there was some concern about the disruption that 18 this program would have to neighborhoods. We 19 have also come up with a scope of work that reduces the construction timeline so that we're 20 21 in and out of peoples' hair, and they get the service without a lot of disruption. 22 Next slide.

I	
1	This is a great review of what we've
2	done to the network, right? And so everybody's
3	heard about spectrum auction. Spectrum is not
4	readily available. We can't just go out and grab
5	more spectrum to solve this problem.
6	We have repurposed spectrum. We have
7	carved. We've added more macro cells. People
8	that are involved with planning have seen us
9	often to add additional macro sites in the
10	District. We've also modified those to add as
11	much capacity to them as possible.
12	We've added more fiber. We've added
13	more technology to it, and we still have the
14	capacity problems. So the answer to that problem
15	is to add small cells to bring the frequency and
16	the coverage down closer to the end user, so that
17	you get, you know, ultra-low latency and the
18	capacity that we need to run, not only, you know,
19	stream whatever it is that you like to watch, but
20	so that as we move to, you know, autonomous cars
21	and trash cans that tell you when to empty
22	themselves, so that they have the service that

1 they need as well. Next slide. 2 CHAIR MARCOU: So I'm sorry, I'm breaking my own rule, but we have a question from 3 4 5 MS. VAN RIPER: Rebel. CHAIR MARCOU: -- a Committee Member. 6 7 Essentially, you're saying, now we've got to go 8 to item number four. Okay. Can you clarify 9 items numbers one, two, and three, be a little bit more, help us understand. 10 11 MEMBER SHAHEEN: My question, my 12 question was what is spectrum? What is, what is 13 that? 14 MS. VAN RIPER: Sure. 15 MEMBER SHAHEEN: I don't know what it 16 17 MS. VAN RIPER: So I'm not an 18 engineer. 19 MEMBER SHAHEEN: I'm sure it's all 20 making a, to your point, but it doesn't --MS. VAN RIPER: Yes. Not a problem. 21 22 I'm not an engineer, so I'm not going to get

super technical, but what I'll tell you is, 1 2 right, so the FCC auctions off spectrum, right? And that's what we're in the business of, but it 3 4 has limitations, and you can only do so much with 5 the spectrum that you have. And so then you have 6 to --7 CHAIR MARCOU: Spectrum is radio 8 frequency spectrum, correct? 9 MS. VAN RIPER: That's correct. Yes. 10 CHAIR MARCOU: So the amount of bandwidth --11 12 MS. VAN RIPER: The actual amount of 13 bandwidth. 14 CHAIR MARCOU: -- in radio waves that 15 you can transmit at. 16 MS. VAN RIPER: That's correct. And 17 so once you've exhausted what you have, you know, 18 you go to technology solutions. And so we've, 19 you know, the industry has gone from 3G to 4G. 20 We've made advances in the type of 21 technology that are at each individual cell site. We've added capacity to those cell sites, but 22

I	
1	we've reached the technological kind of end,
2	right? And so what we need to do is bring the
3	spectrum and the resources down closer to the
4	users. All right?
5	And that's that number four. That's
6	the idea of deploying small antennaes closer to
7	the user, at a higher frequency, right? More of
8	them.
9	MEMBER SHAHEEN: That is very helpful.
10	MS. VAN RIPER: No problem. Next
11	slide. Right, and so this is just kind of
12	driving home what we just talked about, right?
13	Bring them down closer to the user.
14	While we don't have a photo simulation
15	of what a wireless access point from OCTO would
16	look like, that's the general setup, right?
17	Above the light is our radio antennae, mid-pole,
18	you could do the OCTO wireless access point.
19	Next slide.
20	This is a photo simulation of what
21	AT&T's proposed installations would look like.
22	Above the luminaire, you have the radio and

antennae equipment. We use no pole, no mid-pole 1 2 cabinetry. That's not part of, not part of our 3 design. 4 CHAIR MARCOU: To clarify, there is 5 one small piece of equipment that is on the exterior of the pole, which is the --6 7 MS. VAN RIPER: Power meter. Right. 8 CHAIR MARCOU: So there's a 9 small power meter required by Pepco to be placed on the exterior of the pole, correct? 10 11 MS. VAN RIPER: That's correct. And 12 so this was AT&T's proposal for a new pole 13 design. This is different than what was proposed 14 in the guidelines. We proposed what we would refer to as 15 16 a slick stick, or a slim line pole, where 17 everything is included interior to the pole, with 18 the exception of the Pepco meter, because they 19 wouldn't let us put it inside. But this could be 20 integrated. 21 It could be shaped like the other 22 poles around it. It could be fluted. This one

is shown as straight line, as we discussed in our 1 2 meetings. Interior to this pole, this is a 12inch pole, interior to this pole, we can work 3 4 with OCTO to come up with ways to either put 5 their access point clearly, it could go banded on the outside, or we could work with them and the 6 7 technical specs to put it on the interior of the pole as well, so we could integrate the wireless 8 9 access point. Next slide.

10 And this is just, we discussed about 11 construction timelines, and not being a constant 12 disruption to the neighbors. You know, we want 13 to make sure that people understand that this is 14 not, you know, you build a macro site and you 15 could be out there for months. That's not what 16 we're proposing here.

We could do it in stages and be in and out of somebody's hair, you know, in a week. So that is the last slide. Again, we are here today, we really appreciate, there have been lots of working sessions.

22

Department of Transportation has spent

lots of time with us, and we appreciate all of 1 2 that, and I just want to urge, while I know that we are working on the guidelines, and it is an 3 iterative process, we have customers, and I'm 4 sure they'll speak as well. 5 We have customers today that have 6 problems with the services that they're paying 7 8 for, and we would like to bring them as swift of 9 a solution as possible. Thank you. 10 CHAIR MARCOU: Thank you. So this is 11 your chance, because we're going to be the ones 12 in, just to make sure everybody's on the same 13 page, the guidelines will be adopted by the 14 Public Space Committee. So if there are changes 15 you would like made to the guidelines, right 16 here, right now, with the five of us, is the time 17 to articulate those. 18 MS. VAN RIPER: Okay, we have 19 submitted comments to the, AT&T has submitted 20 comments to the guidelines. There are, we've 21 submitted extensive comments to the guidelines. 22 I can tell you that there are, you know, three or four that I can explain briefly, that are the most concerning.

3	So there is a height concern in the
4	guidelines. On one of the pages, the pole is
5	referenced as 25 feet. Our installation on top
6	of it is five feet tall, right? That's the
7	radios and the antennaes that go on the top of
8	it, and I apologize it's, our installation is six
9	feet tall, right?
10	But the actual pole itself, when we
11	went out and did field investigations, was not 25
12	feet. It was 28 feet 6 inches. So by the,
13	what's drawn in the guidelines, our installation
14	would be fine, but when we went out to the field,
15	those poles are slightly taller.
16	So what we would ask was that it not
17	be a 31-foot height limitation, but that it be,
18	that you cannot add more than 6 feet to the top
19	of a pole. That way, it would take care of any
20	of those changes, you know, from what's written
21	in the guidelines to what is actually out in the
22	field.

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1	CHAIR MARCOU: So what I'm hearing you
2	say is that your recommendation is that the
3	height guideline be amended to allow up to six
4	additional feet on an existing pole?
5	MS. VAN RIPER: That's correct.
6	CHAIR MARCOU: So for whatever the
7	height of an existing pole is, an additional six
8	feet, regardless of whether that's 10 percent or
9	not, though I can't imagine that it is 10
10	percent, in any
11	MS. VAN RIPER: That's correct.
12	CHAIR MARCOU: Okay. Okay. And thank
13	you. So that's very helpful to know
14	MS. VAN RIPER: Okay.
15	CHAIR MARCOU: that that's the
16	specific, that is a very specific part of the
17	guidelines that you would like to see modified.
18	MS. VAN RIPER: That's correct. We do
19	have, also have a comment in reference to the
20	spacing. There are areas of the District where
21	we are concerned that only allowing one
22	installation per carrier will negatively impact

1	
1	our ability to service the customer, right?
2	There, our hope is that the guidelines
3	be amended so that in the areas of the District
4	where the blocks are smaller, right, where, that
5	the frequency be increased. We would certainly
6	be willing to sit down and go through actual maps
7	of the city, and look at the installations,
8	right?
9	I understand that you can't fit it,
10	there has been apprehension to make a kind of
11	sweeping decision about spacing, and I think
12	that's appropriate. But there are instances
13	where we are concerned that it ends up being a
14	prohibition of service if there are no new
15	installations allowed, or if one installation is
16	only allowed per carrier.
17	They are very short, they are very
18	close to the customer, and the frequency would
19	need to be closer together than one per block.
20	CHAIR MARCOU: So that would be to the
21	chart on page 8, that you would want to have the
22	chart modified so that, this is Chart 1, which is

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1 2	called sorry, Chart 2, which is called Permissible Spacing and Frequency of
2	Permissible Spacing and Frequency of
-	Permissible spacing and frequency of
3	Installations.
4	And what I'm hearing you say is that
5	on block faces that are, they're categorized up
6	to 150 feet, 151 to 300, 301 to 450, et cetera,
7	that you said smaller ones, so what I'm hearing
8	you say is that on blocks, and as I, as I read
9	the guidelines, it says, limit per carrier per
10	block not just block face, but per block,
11	which includes both sides is that you would
12	prefer to see those limits, you'd like to see the
13	limit per carrier per block raised?
14	MS. VAN RIPER: That's correct.
15	CHAIR MARCOU: Okay. Do you have a
16	recommended number? The numbers currently are 1
17	per block for blocks up to 600 feet, and then 2
18	per block for blocks that have block faces
19	greater than 600 feet.
20	MS. VAN RIPER: I would like to circle
21	back and provide you comments.
22	CHAIR MARCOU: That would be great.

1MS. VAN RIPER: At a minimum, it would2be two. I think that there are areas3CHAIR MARCOU: By definition, if we4would increase, it would have to be two.5MS. VAN RIPER: I, well, and I'm not6sure two's enough. So I think we need to circle7back and give you some specific locations.8CHAIR MARCOU: This, that, and this,9okay. So the reason that unfortunately you're10the guinea pig for this, okay, that's, okay,11that's exactly what we're looking for. A very	a
 3 CHAIR MARCOU: By definition, if we 4 would increase, it would have to be two. 5 MS. VAN RIPER: I, well, and I'm not 6 sure two's enough. So I think we need to circle 7 back and give you some specific locations. 8 CHAIR MARCOU: This, that, and this, 9 okay. So the reason that unfortunately you're 10 the guinea pig for this, okay, that's, okay, 	
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8 CHAIR MARCOU: This, that, and this, 9 okay. So the reason that unfortunately you're 10 the guinea pig for this, okay, that's, okay,	
9 okay. So the reason that unfortunately you're 10 the guinea pig for this, okay, that's, okay,	
10 the guinea pig for this, okay, that's, okay,	
11 that's exactly what we're looking for. A very	
12 specific statement about a specific provision,	
13 with a specific recommendation.	
14 So we would not be able to get	
15 coverage if we were limited to 1 per block when	
16 the blocks are between 301 feet and 600 feet. We	
17 would therefore like to have two per block. That	
18 helps us. Thank you.	
19 MS. VAN RIPER: We can provide those	
20 numbers.	
21 CHAIR MARCOU: So far, I've heard	
22 those two for you, which is height and limit per	

carrier per block. The best part is you can all 1 2 tag team, because they'll be able to then say --3 MS. VAN RIPER: Okay. CHAIR MARCOU: -- because I guarantee 4 you those are on their list as well, and then 5 they'll be able to say their parts as well. 6 7 MS. VAN RIPER: They are. So I'll add 8 one more, and then I'll turn it over to my friends. 9 So there was conversation earlier about 10 placement and prioritization of alleyways. 11 So if you think about antennaes and 12 how they work, they need to have clear space 13 around them, and if you place them between two 14 buildings, they're not going to serve anyone. And so there are very few instances where a small 15 16 cell would provide any additional capacity to our 17 customers if it was placed inside of an alley. 18 CHAIR MARCOU: Except for those people 19 who are literally facing onto the alley. And 20 even in that case, there might be challenges if a 21 person has a fence or some other medium that blocks. 22

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1	MS. VAN RIPER: That's correct.
2	CHAIR MARCOU: Am I, is that, what I'm
3	hearing you say is that there needs to be, let's
4	call it visual connectivity between the device
5	and the antennae.
6	MS. VAN RIPER: That's correct. A
7	line of sight.
8	CHAIR MARCOU: Is that accurate?
9	MS. VAN RIPER: Yes.
10	CHAIR MARCOU: Okay. If I can't see
11	it, it's like a, it's like a mirror, you know,
12	how on trucks and buses, you'll see the sign that
13	says, if I can't see my mirrors, if you can't see
14	my mirrors, I can't see you. It's the same basic
15	concept.
16	If the, what I'm hearing you say, and
17	I'm not the technical expert, but my cell phone
18	needs to be able to visually connect to an
19	antennae. If there is a physical obstruction, it
20	makes it harder, and the more substantial that
21	obstruction is, the harder it becomes to connect.
22	Is that accurate?

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1	MS. VAN RIPER: That's correct. And
2	it becomes increasingly sensitive when you move
3	into 5G technology.
4	CHAIR MARCOU: Thank you.
5	MS. VAN RIPER: 5G is not going to
6	work in an alley.
7	CHAIR MARCOU: Thank you. Okay. Why
8	don't we go to the next presentation? Oh, sorry.
9	Mr. Shaheen?
10	MEMBER SHAHEEN: So you said that
11	AT&T, you've eliminated the need for cabinetry?
12	For AT&T, you've eliminated the need for
13	cabinetry, and you have smaller antennaes,
14	correct? So does that, is there a correlation
15	between the range of your facilities, or are they
16	as great as the other larger do you know?
17	MS. VAN RIPER: So what I'll say is
18	that we have used different designs in different
19	areas, right? And so northern Virginia, I have
20	deployed some cabinets. When we went to see what
21	that looks like in the District, it felt like it
22	was more appropriate in the District to use what

we would refer to as a combination shroud. 1 2 So the shroud at the top of the pole brings the radios closer to the antennae. 3 It 4 doesn't change the footprint of the small cell. 5 It doesn't change the performance. It does improve the performance if the 6 radios are closer to the antennaes. But is just 7 8 a different, a more streamlined design, and we 9 felt it was more appropriate for the District. 10 MEMBER SHAHEEN: And then, what's your 11 spacing requirement that you need between your 12 facilities, specifically? Like, do they have be under 200 feet? Under 150 feet? 13 14 MS. VAN RIPER: Yes, that's, it's very, the spacing is very specific to the user's 15 16 behavior. So spacing, say, on the mall, where 17 there are a lot of people, is going to be 18 different than in different areas of the 19 District. 20 So I can't give you a flat answer to 21 that question. It would really depend on the location, the trees, the line of site details. 22

All of those impact how frequently we site some. 1 2 MEMBER SHAHEEN: You had said that you think you need more facility, or you'd like the 3 option to have more facilities on smaller blocks. 4 5 What do the smaller blocks, wouldn't there be less demand, because there are going to be fewer 6 people, fewer cars? Why does that, why is that 7 8 not a correlation? 9 MS. VAN RIPER: Sure. I apologize 10 that my comments weren't clear there. What I meant to say is my recollection of the chart was 11 12 the smaller block faces limited, or block faces 13 limited us to one installation per carrier, and I 14 know when we went to do our mapping tools, there were plenty of locations where, when we mapped it 15 16 out, it looked like we needed two on that 17 particular block. 18 So the comment, again, was just 19 specific to, you know, my knowledge that there 20 are areas where, on the chart, we needed two, 21 where it limited us to one. And is that a 22 MEMBER SHAHEEN:

correlation to land density? 1 2 MS. VAN RIPER: Population density? Population density. 3 MEMBER SHAHEEN: 4 MS. VAN RIPER: Yes. 5 I just have a question MEMBER WILEY: Have you actually installed any of 6 for you. 7 these cabinet-free antennaes yet in the inner 8 cities, or is this going to be the first? 9 MS. VAN RIPER: We are currently 10 installing them in multiple jurisdictions in 11 Maryland. 12 MEMBER WILEY: And as far as the type 13 of problems that you think that we would 14 encounter if we used the spacing as shown in the guidelines, can you just describe what kind of 15 16 problems that you would perceive from the surface 17 perspective? 18 MS. VAN RIPER: Sure. We, in the near 19 term, you have people that say, you know, that 20 they're experiencing a spinning wheel. I mean, 21 that's what's going to happen. You're going to look at your phone. You're going to see you've 22

got bars, and the wheel's going to spin. You
won't be able to load, you know, Uber.
MEMBER WILEY: Right.
MS. VAN RIPER: No ride home, right?
I mean, so, and what happens is, as people, you
know, in a particular area that is heavily
populated, what you're going to see is that one
area of it is going to experience better coverage
than another, right?
Have you ever tried to use your phone
and said, oh, doesn't work here, but then you go
down, you know, go down the block or go towards a
window, or, those are the kinds of issues that
you're going to experience.
And in the areas of the city where it
is, there are lots of Washington globes, it is,
it is a concern, right, that won't be able to
evenly space and deploy today's capacity problem,
and then when you, when your car drives itself,
that becomes a problem, right, when you have
these huge kind of gaps in that 5G coverage.
MEMBER WILEY: Thank you.

1	CHAIR MARCOU: Thank you. I just want
2	to point out for the record, my car will never
3	drive itself because it's just too much fun to
4	drive. Thank you. Crown Castle.
5	MS. DIDDEN: My name is Carley Didden,
6	D-I-D-D-E-N. I am the government relations
7	manager for Crown Castle. Good afternoon,
8	Committee, Chair Marcou, and members of the
9	Public Space Committee. Thank you for allowing
10	me to testify this afternoon on the draft small
11	cell guidelines, and the critically important
12	role that small cells and 5G technology play in
13	the District.
14	As the nation's largest provider of
15	multi-tenant or hotel wireless facilities, we
16	have a long track record of working with
17	jurisdictions and municipalities to deploy
18	wireless infrastructure.
19	In particular, we, our customers are
20	wireless carriers that provide service to end
21	user customers. We have worked closely with
22	Maryland and Virginia to deploy wireless small

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cell networks for their residents, visitors, and businesses.

3	In fact, we have already deployed over
4	1,000 small cell node locations in Maryland and
5	Virginia, many of which provide service for
6	multiple carriers. Our work with the District is
7	no different. Over the last two and a half
8	years, we have worked alongside government
9	officials, other stakeholders, and the community
10	to find solutions that work for the District.
11	The adoption of the small cell
12	guidelines in front of us today are a result of
13	those conversations over the last two years. In
14	order for the District to continue to position
15	itself as a leader and competitor in the new
16	economy, all wards of the District will need to
17	be prepared for 5G.
18	The small cell guidelines are an
19	integral piece of that puzzle. If adding us on
20	to RFP taught us anything about economic
21	investment, it's that livability plays a huge
22	role in a company's investment decisions.

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1	We know that today, reliable, fast
2	wireless cell phone service is a large component
3	of a location's livability. This means building
4	a robust small cell network where residents work,
5	eat, study, and play is critical to the
6	District's plans for the future.
7	Today, 80 percent of all 911 calls
8	originate from wireless devices. Small cell
9	technology will deliver police, fire fighters,
10	and other first responders access to the
11	information they need, like the ability to
12	accurately and quickly locate where the call was
13	placed, allowing first responders to send the
14	right jurisdiction's personnel, a problem that
15	first responders face when locating calls that
16	originate close to District boundary lines,
17	something the District's first responders and
18	residents are no stranger to.
19	When we build out a network designed
20	to address wireless service in urban and
21	residential areas, we follow a rigorous process
22	for identifying proposed node locations based on

where customers need improved network 1 2 performance. We do not construct on speculation. We work closely with local 3 municipalities and other stakeholders and 4 5 community groups to identify node designs and locations that are respectful of the streetscape, 6 7 and meet the needs of our customers. 8 Crown Castle appreciates the efforts 9 of all of those involved in the development of the draft small cell guidelines. We filed 10 written comments on the draft guidelines, and 11 12 highlight a few of our concerns here. 13 Wood pole small cell attachments are 14 constructed pursuant to detailed guidelines and 15 attachment agreements between the pole owner and 16 small cell companies, as well as other federal and local laws. 17 18 Crown Castle requests that the Public 19 Space Committee move forward with small cell 20 attachments to wood poles, while the guidelines 21 for attachments to metal streetlights and new 22 poles are completed.

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1	We have a wood pole pilot location in
2	Ward 5. We have an attachment license from the
3	pole owner, and the make ready work is complete.
4	We are waiting for a right of way permit, and
5	would be happy to construct this facility as a
6	pilot location.
7	The use of above ground cabinets
8	should be more widely permitted under the
9	guidelines. Radio equipment could be installed
10	in a pole, on a pole, in a cabinet installed on
11	the pole or near the pole, or in the base of the
12	pole. The use of only vaults for radio equipment
13	is too limiting.
14	We respectfully request that the
15	guidelines permit the use of existing poles in
16	areas where spacing requirements prohibit the
17	deployment of a new pole for the attachment of
18	small cells.
19	On behalf of Crown Castle, our
20	employees, contractors, and the hundreds of
21	thousands of people that live, work, and visit
22	the District, who rely every day on the network

we build, we encourage you to take the next step 1 2 in preparing for the future, and release wood poles for small cell attachments while the 3 4 guidelines for metal streetlights and new poles 5 are finalized. Thank you for the opportunity to speak 6 7 this afternoon. If you could pull up, toward the end of our presentation, I just want to show what 8 9 some of our proposed facilities will look like. 10 Okay. 11 So this is a wood pole installation. 12 We have filed applications for this installation. 13 In the window that was opened earlier this year, 14 there is a canister in town at the top of the wood utility pole, and a brown cabinet about 15 16 halfway down the pole. Next slide, please. 17 Another type of installation is what 18 we call strand mount. We are able to run a wire 19 between two utility poles, and then attach our 20 equipment on the wire. We then install a smaller 21 power cabinet every few installations to power these facilities. 22

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1	The difference is we do not need to
2	use a canister antennae on the top of the pole,
3	or install a radio equipment cabinet. Next
4	slide.
5	As similar to what AT&T provided, we
6	have our own, what we call stealth pole design.
7	This is Pennsylvania Avenue, which is not a
8	District right of way, but for representative
9	purposes, we were trying to show what it would
10	look like in a different environment.
11	Again, the radio equipment is stacked
12	inside the pole. We can put the power meter
13	inside the pole, but we have to cut a hole in the
14	pole so it can be read, and the antennae is
15	integrated into the top of the pole.
16	CHAIR MARCOU: So just a reminder for
17	everybody, if you read the Washington Post
18	magazine, at the very end, it has a puzzle where
19	it's like the same photograph twice, but with
20	changes. That's very much what this is like.
21	You have to compare the two pictures, and you'll
22	see the difference from one picture to the other

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that helps identify what they're doing.

2 So this is a case of a new pole being installed here. In prior iterations, it was 3 4 cabinetry being, this was a strand mount with a 5 cabinet on the pole, and then this was an antennae being attached to the top of the pole 6 with a cabinet just, coincidently, right in the 7 8 background of the beige building right behind it, 9 being installed. Will they always be at the line of sight of beige buildings when they're beige 10 colored? 11 12 MS. DIDDEN: Well, the guidelines ask 13 us to paint them gray, so it'll stand out more 14 against the beige building. CHAIR MARCOU: Okay. So this is --15 16 MS. DIDDEN: This is another design of 17 a new pole plan next to the curved Cobra style 18 light. It's a skinny pole. It has the radio 19 equipment in the base of the pole, and then an 20 antennae on top. 21 We've actually been able to reduce the size of that base so that it's not as tall, which 22

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helps for footprint in the right of way. Next slide, please. Again, not District-controlled right of way. May also not be permitable under the guidelines, but we'll make that accommodation.

6 Next to the, to the left of the 7 Washington globe is, again, a new pole plan. 8 It's black. There's an antennae at the top, and 9 there's actually a cabinet, a brown, a metal 10 cabinet about halfway down the pole. Again, just 11 another type of installation.

12 CHAIR MARCOU: That's here, correct? 13 MS. DIDDEN: That's correct. And 14 then, moving forward, you have installations on 15 Cobra styled lights. So one option is to, this 16 is what's called an integrated antennae. So the 17 antennae and the radios are all contained in a 18 small shroud, and that's installed right under 19 the luminaire. Next slide, please.

This is an installation. If you look on the right, there's an antennae at the top, and then there's a black box next to the base of the

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1	pole. That would be ground furniture. Next
2	slide.
3	CHAIR MARCOU: I just wanted to make
4	sure people see it.
5	MS. DIDDEN: Yes.
6	CHAIR MARCOU: This is the cabinetry
7	that she was discussing.
8	MS. DIDDEN: And again, this is just
9	another example. This is a 5A looking pole,
10	cabinet on the pole, and then the antennae at the
11	top. So that's, that gives you a cross section
12	of what we're going to build. And this light is
13	not, we're not to, we're not permitted to use the
14	teardrops.
15	CHAIR MARCOU: Right. Thank you.
16	Just because we've already done it this way, do
17	Committee Members have questions for the
18	representative from Crown Castle?
19	MEMBER CHAMBERLIN: I know you put
20	this in your, in your response, but you stated
21	that the guidelines are unreasonable. Can you
22	briefly explain I guess what parts you feel are

unreasonable?

2	MS. DIDDEN: So what we would like to
3	see is greater flexibility in the guidelines. We
4	understand that there do have to be limitations,
5	but overall, we would like to see some greater
6	flexibility with, for instance, the type of
7	cabinetry that we could use.
8	Above ground, right now, it seems,
9	it's, we're limited to vaults, and that's
10	problematic for us and how we do deployments.
11	There's already a lot of underground utilities,
12	so it's going to be difficult to be able to place
13	vaults close enough to our facilities in order to
14	be able to properly operate those small cells.
15	MEMBER CHAMBERLIN: That's, I guess,
16	the main one, or
17	MS. DIDDEN: That's one. I can
18	provide you with some additional color.
19	CHAIR MARCOU: Mr. Shaheen?
20	MEMBER SHAHEEN: Another one of your
21	written comments were, or was that you thought
22	that this, these types of infrastructure for

facilities should be regulated similar to other 1 2 types, to other types of similar infrastructure, and I wondered what other types of infrastructure 3 4 you thought was similar that you would refer to 5 as an example. MS. DIDDEN: So we're concerned that 6 other users of the public space are not, do not, 7 are not subject to the same kind of stringent 8 9 regulations to deploy their facilities that are identified in the draft small cell guidelines. 10 11 MEMBER SHAHEEN: Such as? I mean, as 12 far as I know, we have regulations for everything 13 in public space, so it's not unusual to regulate 14 something in public space. 15 MS. DIDDEN: Right. And we, and we 16 understand and appreciate that, but --17 (Off microphone comments.) 18 MEMBER SHAHEEN: Yes, I can. 19 MS. DIDDEN: To our knowledge, that 20 there are not separate extensive guidelines like 21 this for other types of --22 CHAIR MARCOU: I think it might be

your microphone, people. Is it on? 1 2 MS. DIDDEN: Okay. Okay. Our concern is that --3 4 CHAIR MARCOU: Yes, I don't think it's 5 Will you pull it out for a moment, and then on. see if the green light is on on the, on the, 6 7 midway through the base. 8 MS. DIDDEN: Okay. Okay. 9 CHAIR MARCOU: All right. MS. DIDDEN: Our concern is that other 10 11 users of the public space do not have similar 12 detailed guidelines that they have to comply with in order to deploy facilities. So that could, 13 14 that could be anything. It could be bike racks. 15 It could be planters, or, newspaper boxes. 16 CHAIR MARCOU: And you had to mention 17 newspaper boxes? So there are regulations that 18 are very specific about newspaper boxes. They 19 regulate the height, the width, and the depth of 20 a newspaper box. 21 They, Ms. Edwards will go chapter and 22 verse on it with you, because the old regulations

1	were literally hold on a second. I don't want
2	to get in trouble with my attorney. Can I say
3	that they were questionable? Good. Okay.
4	They were questionable,
5	constitutionally, because they like required them
6	all to be green with one-inch lettering, okay?
7	So there are substantial guidelines, and we've
8	developed a guide. Ms. Edwards has done an
9	excellent job.
10	These are great guidelines that detail
11	into, like, with pictures, what's an acceptable
12	publisher's box and what's an unacceptable
13	publisher's box. They tell them they can't be
14	covered in graffiti. There's no regulation about
15	yours and graffiti.
16	They tell them they can't be, they
17	can't be discolored. There's no regulation about
18	yours and discoloration. They tell them they
19	can't be, they can't be attached to, in fact,
20	they said they can't be attached to streetlights.
21	So see, we're allowing you guys to attach to
22	streetlights.

1	So for the record, there are
2	substantial regulations related to a variety of
3	infrastructure, utility and otherwise. For
4	example, we also have very specific bike racks
5	that the District of Columbia has adopted.
6	So if you want to install a District
7	bike rack, more power to you. If you want to
8	have a non-District standard bike rack, you've
9	got to come before the Public Space Committee.
10	So just as in the case here, if you have
11	guidelines and you follow them, and they're
12	adopted guidelines that have gone through a full
13	vetting process and you follow them, yay.
14	If you don't, then you would need to
15	come before the Public Space Committee. So we're
16	treating this very much, like I'd said before,
17	this is just another permit. What we're doing is
18	establishing the standards and guidelines for
19	this type of permit. Thank you.
20	MEMBER SHAHEEN: My last question, and
21	this is I guess for all the carriers, because
22	it's come up from each of you, which is the alley

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location, which for us, is a real preference, but 1 2 it sounds like for you, it's a real problem. Right. So the biggest, 3 MS. DIDDEN: the biggest problem with alleys is that there are 4 too many obstructions, so we do not get the full 5 benefit of the small cell coverage. 6 7 So for instance, our facilities normally have a 300 to 500 foot coverage area, 8 9 but that's much smaller than the width of an So we're going to have the problem that, 10 alley. 11 if we deploy our small cells in alleys, we run 12 the risk of them getting hit by garbage trucks 13 and other users of the alley, and we're going to 14 have to deploy significantly more of them because we're not getting the coverage where we need it. 15 16 MEMBER SHAHEEN: Is this the same for 17 a single family node districts, where the 18 buildings are more spaced out, because of the, or 19 as to a townhouse neighborhood, or apartment 20 building? 21 MS. DIDDEN: It's going to apply to both of them. So an alley between two single 22

family homes, depending on the size of the alley, 1 2 may work better than installation of a facility in an alleyway between two townhouses or 3 4 apartment buildings, just because the structures aren't as large, and there may be more open 5 6 space. MEMBER SHAHEEN: 7 And I don't know the 8 answer to this, but have you worked in other 9 cities that have an extensive power network as it is in District of Columbia? 10 11 MS. DIDDEN: We've built 50,000 small 12 cell cities throughout the United States, so yes, 13 we have worked in many cities that have alleyways 14 and other areas that are preferred for 15 deployment, and we've run into the same issues, 16 that we just don't get the same kind of coverage, 17 and we run the risk of damaging, you know, the 18 use of the alley itself potentially damages our 19 facilities, and our facilities can damage, like, 20 trucks, for instance, that are trying to use the 21 alley. 22 MEMBER SHAHEEN: I don't see, I mean,

I understand some of your other points. 1 I don't 2 see that point so much. I mean, we have trucks that drive on the street, so I don't see why 3 4 that's so different. But I mean, the alleys are narrower, whether we have --5 Right. So the problem is 6 MS. DIDDEN: 7 the area. The alleys are narrower. Under the 8 guidelines, it's, we've done some research on our 9 design, and it's not clear that we can even abide by the spacing requirements. For instance, 10 10 11 feet from a building. We can't be 10 feet from a 12 building in an alley most of the time. 13 So even if we can build in an alley, 14 it's still not going to provide us the kind of 15 coverage footprint that we're going to get from 16 being in the, on the street itself. 17 CHAIR MARCOU: Thank you. So I think 18 I'm loud enough that you all will be able to hear So what I'm hearing you say is that in 19 me. 20 addition to the coverage elements that were 21 initially discussed by AT&T, you also see concerns related to adherence to some of the 22

general standards in the guidelines related to placement.

3	So you would, if we were to continue
4	with the prioritization of alleys, you would like
5	to see the guidelines, what I'm hearing you say,
6	or what I'm implying that I'm hearing you say,
7	because you didn't actually say this, but I think
8	it's the nature extrapolation, is that you'd like
9	the guidelines, you'd like the guidelines
10	modified to ensure that alley placements have
11	clear allowances that would protect the asset
12	from damage, as well as not hinder their
13	placement based on existing, both private
14	property and alley elements.
15	So distance from buildings is one
16	example. Width of an alley for clearance is
17	another.
18	MS. DIDDEN: That's correct.
19	CHAIR MARCOU: Thank you. Oh, yes?
20	You all, the other two, you're being very
21	patient. Thank you.
22	MS. VAN RIPER: Not to just continue

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to drive home the alley point, but the best way 1 2 that I can say it, just if I can make an impression on this one the intention is to put 3 4 small cells where people are, right? 5 We need to be where the people are, and in most cases, we find that our traffic is 6 7 not consolidated in the alleyway. All right. 8 Thanks. 9 MEMBER HUDSON: Hi. You mentioned 10 that you already had, did I hear you correctly 11 that you already had an antennae and a, and over 12 already existing in Ward 5? 13 MS. DIDDEN: No. MEMBER HUDSON: You didn't? 14 15 MS. DIDDEN: We have a red light. 16 MS. VAN RIPER: There's a red light on 17 the microphone. 18 MS. DIDDEN: There's a red light on 19 the microphone. We applied for a, there was a small cell wood pole filing window that opened 20 21 this summer, and we made some applications during that window, including one proposed location in 22

2	We have not built anything at this
3	point. That particular location, we have been
4	through the make ready process with the utility
5	company, and have an attachment license.
6	So to the extent that the District is
7	looking for possible wood pole pilot locations,
8	this is one that we would suggest, because it's
9	right for a right of way permit so we can
10	construct.
11	MEMBER HUDSON: Okay, great. And
12	then, as it relates to the actual installation of
13	antennaes, based on your past experience, what
14	has the impact been actually to neighborhoods?
15	What is your guestimation of a
16	timeline with respect to implementing them, and
17	then what would the, what would the impact be?
18	Would it, does it entail, like, the closure of
19	streets, or digging up streets, or what exactly
20	does it entail?
21	MS. DIDDEN: So this particular wood
22	pole has above ground utilities because it's on a

pole line, so we don't have to dig up the street. 1 2 At this point to finish our construction, we need to go out with a bucket 3 truck and install the canister antennae on the 4 5 top of the pole, and then a cabinet about halfway down the pole. And once we do that, then the 6 7 Pepco will come out and put in a meter. 8 MEMBER HUDSON: Okay. And then, you 9 mentioned also, every other poles would have, I 10 guess the, you would have antennaes on a few, and 11 then every, after several, then you would have a 12 cabinet? 13 MS. DIDDEN: Right. So that's called 14 strand mount. 15 MEMBER HUDSON: Okay. 16 MS. DIDDEN: That is a single carrier 17 solution. The canister antennae and the pole, 18 and the cabinet mounted on the pole is a multi-19 carrier solution. So for the individual carrier 20 solution, it's mounted on a wire between the 21 poles. We can power a few of those installations 22 from one power cabinet on a pole.

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1	MEMBER HUDSON: And how large are
2	those cabinets?
3	MS. DIDDEN: They're smaller than our
4	other cabinet. I can get you the exact
5	dimensions.
6	MEMBER HUDSON: Okay. Thank you
7	MS. DIDDEN: Yes.
8	MEMBER HUDSON: very much.
9	CHAIR MARCOU: So I just want to
10	clarify one point. Are you saying that the pole
11	to which you would be attaching a new antennae
12	does not need to be replaced?
13	MS. DIDDEN: It's already been
14	replaced.
15	CHAIR MARCOU: I really look forward
16	to talking to the utility who did that. That was
17	Pepco? We'll have this discussion
18	MS. DIDDEN: Okay.
19	CHAIR MARCOU: offline. I'd like
20	to know the Pepco pole number, and the permit
21	number under which they did that work. I look
22	forward to receiving that information from you

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1 promptly. Thank you. Hi. 2 MS. McCLELLAN: Hi. I think we're a little out of order. I am Jennifer McClellan, 3 4 representing Verizon. I don't know if you want 5 to hear from Mobilitie first, or you want me to 6 qo ahead? CHAIR MARCOU: We'd love to hear from 7 8 you because you are the next person with the 9 antennae. MS. McCLELLAN: Okay. All right. 10 Ι 11 believe you received a revised PowerPoint that 12 added two slides that summarized the beginning, some of the data that were in the comments that 13 14 we filed on October 5th. 15 CHAIR MARCOU: Did these come from --16 MS. McCLELLAN: Owen? 17 CHAIR MARCOU: Mr. Strohmer, correct? 18 MS. McCLELLAN: Yes. And Mr. Strohmer 19 and I will be tag teaming. You may have --20 CHAIR MARCOU: By the way, for the 21 record, you'll now need to say his name, spell his last name, and so it can be on the record. 22

1	MS. McCLELLAN: Okay. Okay. I will,
2	so I am Jennifer McClellan, M-C-C-L-E-L-L-A-N.
3	MR. STROHMER: Owen Strohmer, S-T-R-O-
4	H-M-E-R.
5	CHAIR MARCOU: See, this is the
6	problem with Verizon is that there's both a
7	Stover and a Strohmer.
8	MS. McCLELLAN: That's why I just say
9	Owen.
10	CHAIR MARCOU: So that's what threw me
11	off, because I originally was looking for Brian
12	Stover, who I believe is in the room with us
13	today.
14	MS. McCLELLAN: That's why I just say
15	Owen or Brian.
16	CHAIR MARCOU: So is it, is it this
17	one or is it this one, or is it this one?
18	MS. McCLELLAN: It's Owen, so
19	CHAIR MARCOU: So is it this one?
20	(Off microphone comments.)
21	CHAIR MARCOU: Are you sure it's this
22	one? This looks like it's

MEMBER CHAMBERLIN: Is it not the one 1 2 on the website? MS. McCLELLAN: Well, I don't need it. 3 We had added two slides to --4 5 CHAIR MARCOU: There we go. 6 MS. McCLELLAN: -- yes, summarize some of the data that was in our comments. 7 8 CHAIR MARCOU: Right. This was on 9 Friday. 10 MS. McCLELLAN: Yes. If you want to go to the next slide. 11 12 CHAIR MARCOU: I'm waiting --13 MS. McCLELLAN: Oh, okay. 14 CHAIR MARCOU: I'm actually going to 15 open it up in PowerPoint, which is easier to work 16 from. Okay. 17 MS. McCLELLAN: All right. Thank you. 18 So we thought it would be helpful, you've heard a 19 little bit already about how wireless usage has 20 exploded, and we thought it would be helpful to 21 put that in context with some publicly available 22 data on wireless usage in the District.

	T C T C
1	And so these lines show, the blue line
2	at the top shows the growth in wireless
3	subscriptions in the District. The red line
4	shows the decline of wire line and interconnected
5	VoIP services in the District, and the gray line
6	shows, roughly, the population of the District.
7	So you see we have more cell phones
8	than people, and just looking at voice data,
9	voice alone, what we have found is that the
10	country in general, and the District in
11	particular, are cutting the cord at rapid paces.
12	And if you go to the next slide, I can show you -
13	-
14	CHAIR MARCOU: I can't go to the next
15	slide until I clarify that your showing of the
16	population of the District of Columbia as, from
17	December 2016, is woefully out of date, because
18	the District of Columbia is approaching, if it
19	has not already surpassed, 700,000 residents.
20	Well, on
21	MS. McCLELLAN: Well, the
22	CHAIR MARCOU: I know.

I	10 1
1	MS. McCLELLAN: 700's in the
2	middle. It's, unfortunately
3	CHAIR MARCOU: I know.
4	MS. McCLELLAN: the way they're
5	CHAIR MARCOU: I'm merely touting the
6	District of Columbia as
7	MS. McCLELLAN: Yes.
8	CHAIR MARCOU: the greatest city in
9	the history of ever.
10	MS. McCLELLAN: The city is growing.
11	The city is growing. Thank you. So since 2008,
12	wireless subscribership in the District has
13	increased 36 percent from 1.1 million subscribers
14	to 1.5 million subscribers.
15	Unfortunately, 2016 is the last year
16	we have publicly available data, because the FCC
17	usually has a two-year lag in there, but this is
18	all carriers within the District.
19	When you look at the data of the
20	National Center for Health as part of the CDC's
21	surveys, in 2007, only 20 percent of District
22	households were wireless only.

In 2015, for the first time since the 1 2 NCH started collecting that data, over half of District households were wireless only, at 54.2 3 That was the first time over half of 4 percent. the households in the District were wireless only 5 for their voice services. Again, voice only. 6 7 In 2016, which is the last year we 8 have District-wide data, 55.3 percent of District 9 households were wireless only, 17.8 percent mostly use their wireless phones, 15 percent were 10 11 dual use households. That means they use their 12 land line phone and their wireless phone roughly 13 equivalently. 14 Only 3.8 percent of households exclusively used land line phones, and only 3.9 15 16 of households mostly used land line phones. The, 17 that does not equal 100. The rest don't use any 18 phones at all. 19 Cord cutting in the District outpaces the nation. Wireless only households crossed the 20 21 50 percent threshold nationally in the second half of 2016. You see it across in the District 22

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2	Now, while we only have District-wide
3	data for 2016, these numbers have undoubtedly
4	grown since, in between the second half, in the
5	second half of 2017 wait, no, I read that
6	wrong. Sorry.
7	In the second half of 2017, 53.9
8	percent of American households were wireless
9	only, compared to in 2016 alone, it was 55
10	percent. So basically, what that is showing is
11	the District outpaces the nation in voice
12	services only, completely cutting the cord and
13	relying on cell phones. Now, that does not even
14	account for data.
15	And now, people are using their
16	wireless phone more for data than voice. Today,
17	there are 8.4 billion internet of things-
18	connected devices, nationally, and that is
19	expected to grow to 20 billion by 2025.
20	So this, these two slides are to show
21	that the need for more capacity for, just to
22	reach current demand under current technology is

great and growing. 5G, which is the next 1 2 iteration of services, will also require more deployment, as you've heard, and just to say, 5G 3 is no longer hypothetical. 4 Verizon announced recently it has 5 begun providing fixed wireless 5G residential 6 It now has 4G in four cities in the 7 services. country. We would love to do it in the District, 8 9 but it will require more facilities. 10 With that, we appreciate the delicate 11 balance that the public, that the Public Space 12 Commission has to reach between the demand for services and the highly designed nature of the 13 District of Columbia. There are some concerns 14 that we have with the guidelines. 15 16 I will highlight just a few from our comments on the 5th. We, it has been alluded to, 17 18 but the guidelines could be clearer, that any installations that do not comply with the 19 20 guidelines would have a path forward for approval 21 before the Public Space Commission. If that were clearer, I think a lot of 22

our concerns would be mitigated, because particularly, if you look at Section 5.2.1.4 of the general limits that provides, if there is an existing pole within the guidelines that allows for attachment, then no new standalone pole would be permitted.

7 But there are very real possibilities 8 that the existing poles in a particular place, 9 that hypothetically meet the guidelines, do not 10 meet the design need for the -- the capacity 11 needs, are not in locations where small cell 12 equipment would actually provide service to meet 13 the capacity of that particular area.

And so we need some assurance that, on a case by case basis, while such applications should be rare, if there is a path forward for non-conforming uses to be considered. I think we also --

CHAIR MARCOU: Done.

20 MS. McCLELLAN: Thank you. We echo 21 the concerns that have been raised before with 22 underground vaulting requirements, and just to

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summarize our comments on that, we have actually 1 2 done some vaulting installations in other cities where we have found that they increased the 3 4 likelihood of service disruptions. The bottom line is, the equipment does 5 not work if it's submerged underwater. 6 The 7 equipment does not work if the area, and they are very sensitive to heat. 8 9 And so when you have an area like the District that is, that is highly susceptible to 10 moisture and flooding, putting equipment in an 11 12 underground vault increases the likelihood that 13 that equipment will fail. 14 And so that is at a high level, our concern with the vaulting requirements. We also 15 16 echo the concerns that you have heard for 17 alleyways. I won't belabor that, other than to 18 say most of the coverage needed is on the street, 19 facing the street, either people driving on the 20 street, walking down the street, and in most 21 cases, installations in alleyways will not 22 provide coverage to reach the people in the front

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of the building.

2	And I think, at this point, I will,
3	well, two other high level points, and then I'll
4	turn it over to Owen. We want to reiterate some
5	of the concerns around third-party poles. Third-
6	party poles, in most cases, will need to be
7	replaced, because in most cases, those poles were
8	placed decades ago, and would not comply with
9	existing current standards for the, for the
10	placement of poles that would hold small cell
11	equipment. So as a result, some of those poles
12	will need to be replaced.
13	The carriers do not control the height
13 14	The carriers do not control the height of a pole that is installed. While yes, you have
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14	of a pole that is installed. While yes, you have
14 15	of a pole that is installed. While yes, you have regulations that would govern that replacement,
14 15 16	of a pole that is installed. While yes, you have regulations that would govern that replacement, the carriers cannot control the height of that
14 15 16 17	of a pole that is installed. While yes, you have regulations that would govern that replacement, the carriers cannot control the height of that new pole.
14 15 16 17 18	of a pole that is installed. While yes, you have regulations that would govern that replacement, the carriers cannot control the height of that new pole. And so our concern with the guidelines
14 15 16 17 18 19	of a pole that is installed. While yes, you have regulations that would govern that replacement, the carriers cannot control the height of that new pole. And so our concern with the guidelines that I think we've a higher level, of up to 32
14 15 16 17 18 19 20	of a pole that is installed. While yes, you have regulations that would govern that replacement, the carriers cannot control the height of that new pole. And so our concern with the guidelines that I think we've a higher level, of up to 32 feet, or an extension of 10 percent, we are

you have to have a certain distance requirement between electric equipment and communications equipment, that a pole would likely be higher than 32 feet, but, and we did offer a specific recommendation in our comments.

I'm not finding it at the moment, but 6 we did offer a recommended alternative to the 7 language in that section. And then, finally, and 8 9 -- sorry. We have raised some concerns with the restrictions in Section 8.2.9, regarding whether 10 standalone poles should be allowed in areas where 11 12 DDOT attaches streetlights to existing third-13 party poles.

14 This is related to our first comment, 15 but there may be areas where there is a third-16 party pole where DDOT has a streetlight, and the 17 way we read the guidelines, under certain 18 circumstances, a new pole could not be placed 19 across the street, but that, but the pole is in a 20 pole line where DDOT has its lights, may not be 21 available for attachment for a variety of 22 reasons, and we think under some circumstances,

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1 if those are the, there are many areas of the 2 District where the only third-party poles have DDOT lights on them. 3 We are concerned that there's not 4 5 enough flexibility to allow the placement of new 6 poles, perhaps across the street, rather than in that pole line. And so we ask for that 7 8 clarification. 9 With that, I'd like to turn it over to 10 Owen, who can answer more technical questions. 11 He might have to answer your question right now. 12 Okay. 13 CHAIR MARCOU: Not yet. 14 MS. McCLELLAN: Okay. 15 Thank you. One of CHAIR MARCOU: 16 these is going to be a technical question for him 17 probably. In your recommendation regarding the 18 height, and your point about the need for 19 separation from electrical equipment --20 MS. McCLELLAN: Yes. 21 CHAIR MARCOU: -- and telecom 22 equipment --

I	17 I
1	MS. McCLELLAN: Yes.
2	CHAIR MARCOU: did you provide the
3	specific OSHA guideline or standard, or the other
4	applicable federal/industry standard for
5	separation of equipment and materials? Because
6	I'm assuming it's probably like an OSHA standard
7	so that a worker
8	MS. McCLELLAN: It's a National
9	Electric Safety Code.
10	CHAIR MARCOU: or Electrical Safety
11	Code.
12	MS. McCLELLAN: I did not provide the
13	exact cite, but I can if you want.
14	CHAIR MARCOU: You didn't provide a
15	NESCO cite?
16	MS. McCLELLAN: I did not. I'm sorry.
17	CHAIR MARCOU: That's you can
18	supplement. That would be totes awesome. Yes,
19	because it
20	MS. McCLELLAN: We assumed you know.
21	CHAIR MARCOU: it helps us, because
22	then we can do the legal, we can do the research,

1	and we go, okay, so they're saying that according
2	to it starts with this. They can't be that
3	close because they are not allowed to be that
4	close, and it's like, okay. Well, what doesn't
5	allow them to be that close?
6	Well, the National Electrical Code
7	does not okay, great. So where in the
8	National Electric it's here in the Electric
9	Code. And then, boom, we go to the subject
10	matter experts, and they'll be able to say, yes,
11	that's absolutely correct, and it helps us
12	understand why you're making your recommendation
13	that there's a reasonable, practical, regulatory
14	basis for that.
15	It might be safety-related, it might
16	be equipment management-related, whatever, but it
17	helps us. So whenever you're providing us with -
18	- everybody can find a reason they don't like the
19	guidelines.
20	What is helpful is to understand the
21	purpose of the guidelines, and to find an
22	explanation why a standard might not be

applicable, and a recommended standard in its 1 2 place, because that helps us rather than going through the iterative process of asking that 3 4 question. Well, okay, so why not? 5 And then, getting us, it gets us to the back, it gets us to the end line, as my good 6 7 friend Snoop Dogg said, it's better to start at 8 the end line than at the, it's better to start at 9 the finish line than the start line. MS. McCLELLAN: We will provide that. 10 That's from Starsky and 11 CHAIR MARCOU: 12 Hutch. It was an excellent line from that. 13 MEMBER SHAHEEN: I have a question 14 about one of your comments about below grade vaults. Could you explain a little more about 15 16 why our humidity --17 MS. McCLELLAN: Yes. 18 MEMBER SHAHEEN: -- and our location 19 in the Chesapeake drainage basin are problematic 20 for some of these? 21 MS. McCLELLAN: So there was, and this is on page 9 of our comments, there was a study 22

done by FEMA, the Federal Emergency Management 1 2 Agency, in 2010 that noted the District's, so this is their words that we're just summarizing, 3 but that study, which we did provide a cite to, 4 noted that the District's location results in 5 three primary sources of moisture: air moving 6 7 inland from the Atlantic Ocean, air of tropic origin in the Gulf of Mexico, and air contained 8 9 in moisture recycled from land surfaces, lakes, and reservoirs. 10 11 And the National Capital Region

12 Planning Commission, in a report issued in 13 January of 2008, which was a flood report that I 14 believe was addressing some of the reasons why 15 the District was more prone to flooding.

In that report, they noted that the District, and this is a quote, the District's location at the confluence of the Potomac and Anacostia Rivers combine with three buried waterways, broad flood plans, and relatively flat elevations, render it highly susceptible to periodic flooding.

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1	MEMBER SHAHEEN: So I think that is
2	specifically in the areas where the two rivers
3	combine, like the Buzzard Point neighborhood,
4	which has been identified, areas across the
5	river, and parts of downtown. I don't think
6	flooding is a concern throughout the entire
7	District of Columbia. I think there are some
8	neighborhoods that are more susceptible, but I
9	don't think that's a reason to, across the board
10	
11	MS. McCLELLAN: Well, we were not
12	suggesting that the entire District is
13	susceptible to flooding, but part of the issue
14	here is, when the carriers are going to decide
15	where to install small cell equipment, they are
16	going to base it on where are our capacity needs.
17	And some of our capacity needs could
18	require equipment to be in a place that is
19	susceptible to flooding. Now, from I also
20	represent Verizon the landline, and there are
21	number of instances where heavy periods of rain
22	in certain portions of the District will flood

1 Verizon telco vaults.

2	And so it's the same concern, but the
3	equipment, the wireless equipment at issue is
4	much more sensitive to flooding than the telco
5	equipment, because usually with the telco
6	equipment, you're talking about a copper wire.
7	But with, and not necessarily
8	electronics in that manhole, but the equipment
9	we're talking about here includes electronics.
10	So we already see, in a number of portions in the
11	District, where heavy periods of rain alone are
12	enough to cause service outages.
13	Our concern is that is much more
14	likely to happen in those areas if you were to
15	put small cell equipment underground.
16	MEMBER SHAHEEN: No, I understand, and
17	there are certainly are the increments where it's
18	more of an issue than others, but there are
19	others maybe where it's not an issue.
20	The District has a long history of
21	requiring underground utilities. We go back to
22	our street cars, we did not allow overhead street

car lines. You go, you look at our Pepco vaults. 1 2 We require that our Pepco vaults have some covers and they have to be air conditioned. 3 4 You take into consideration, are the 5 vaults associated with the small cell facilities. So I think there are definitely solutions to be 6 7 found, and I think all of the review bodies that 8 have helped draft the guidelines, have been very 9 strong in the consensus that having some of these things belowground is an important factor for the 10 11 District. 12 MS. McCLELLAN: And again, if the, if 13 the purpose is to allow non-conforming uses on a 14 case by cases, to look at that specific area where you want an installation and the needs, but 15 16 I cannot emphasize enough that other, unlike 17 other utility equipment that is going 18 underground, this equipment is much more 19 susceptible to outages due to moisture and heat 20 than your telco, your landline wires that go on, 21 in a, in a vault, or your Pepco wires that go in a vault. 22

	17
1	CHAIR MARCOU: Maybe I missed it, but
2	why?
3	MS. MCCALLEN: And I
4	CHAIR MARCOU: Sorry. Did you all
5	hear me? My question was why.
6	MS. MCCALLEN: At a high level, I can
7	answer that. At a more technical level, I'll
8	have to defer to Owen. But, in general
9	CHAIR MARCOU: I'm right there with
10	you because
11	MS. MCCALLEN: Okay.
12	CHAIR MARCOU: it gets and we'll
13	all be like, ah.
14	MS. MCCALLEN: Right.
15	CHAIR MARCOU: So
16	MS. MCCALLEN: So, if you think about
17	your I'll focus on landline telephone
18	equipment. A majority of the landline telephone
19	equipment that is in a vault, underground, is a
20	copper wire that is wrapped inside of some sort
21	of insulation.
22	And usually that insulation keeps it

1 from getting wet, unless there's a slice that 2 gets damaged. And then, once water hits that 3 copper wire, it's out. The radio equipment --4 or, the small cell equipment that we're talking 5 about here, you can't wrap it in an insulating 6 thing or it won't work. 7 And so, it is much more likely to get

7 And so, it is much more likely to get 8 wet than the copper wire in an insulator in that 9 vault. And that is my non-engineering, lawyer 10 understanding. Anything deeper than that, I'll 11 have to defer to Owen.

12 CHAIR MARCOU: Okay. Thank you. My 13 question is less about the copper wire -- and 14 just so everybody understands, when we're talking 15 about wireless technology, it's kind of a fib. 16 The only wireless part is between you and the 17 antenna.

18 Once you hit the antenna, it's all 19 wire, all the time. It goes into the existing 20 wire network and feeds wire to wire to whatever 21 to Alexander Graham Bell and then back to you. 22 So, the reason I bring that up is

because Pepco, in its transformer vaults, has a 1 2 lot of sense of electronic -- electric equipment. And it might be their equipment is shrouded or 3 encased or enclosed or entombed or interred or 4 some other word meaning in something, but I don't 5 know because I'm not the technical expert. 6 So, what will help us better 7 8 understand your issue related to vaulting of 9 equipment -- which, by the way, some people at the table with you don't have, hint, hint -- is 10 11 that you're stating that your equipment is 12 susceptible to outages and shortages related to 13 flooding. 14 So, we need the technical data, not here, but in writing, that we can then go over 15 16 with a fine-tooth comb and have people much 17 smarter than I am, who are not hard to find, go 18 over that. 19 MS. MCCALLEN: Thank you. We will do 20 that. Do you still want to hear from Owen on 21 this point, or? CHAIR MARCOU: If he'd like to talk 22

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1	about it, that's fine. But, Owen, don't go
2	engineering on us. It's up to you. And, really,
3	thank you. You're being very patient. We'll get
4	to you eventually.
5	PARTICIPANT: No problem.
6	MR. STROHMER: Just a little bit more
7	about the underground vault equipment. So, it's
8	not just about water. Small cell equipment
9	produces heat, okay? That heat will decrease the
10	performance of a of the small cell equipment.
11	It is high-tech electronics. It is not
12	waterproof, it is not heat-proof.
13	So, to counteract that, we have to
14	have fans in the vaults. To counteract water or
15	humidity, we have to have pumps, okay? You have
16	pumps, you have fans, you have the equipment.
17	You need space for the equipment manufacturer or
18	the company to work in. That creates vaults that
19	are approximately six feet wide, 11 feet long and
20	eight feet deep. Those are large, underground
21	structures, okay?
22	Currently, the DC right-of-ways

already have -- are extremely congested with
existing vaults, utilities, trees, and DDOT
infrastructure, okay? I think everyone knows
that we're looking to deploy several hundred of
these in the next couple years and there is just,
definitely, not enough space in the DDOT rightof-ways to allow for this.

8 Not only that, other challenges are 9 where are we going to discharge the water from 10 those sump pumps? Next is that ventilation from 11 those fans. We're going to need above-grade --12 below-grade vents in the sidewalk, which I'm not 13 actually sure are allowed in the DDOT right-of-14 ways under current code.

So, for these reasons, we believe that 15 16 underground vaults are not a good solution for 17 the industry and that we believe the designs that 18 we have presented today, that I'm going to show 19 you in a second, are aesthetically pleasing 20 enough to make sure that we're able to provide 21 our service in a practical and cost-effective 22 way.

Did you say 6 by 11 1 MEMBER SHAHEEN: 2 by 8? MR. STROHMER: Correct. And even 3 4 under those conditions, a lot of the problems 5 would just be mitigated but not -- would not completely resolve a lot of issues at times. 6 7 CHAIR MARCOU: So, to be clear, you're 8 saying that, for your vaults, you would need them 9 to be six feet, let's call it, wide by 11 feet 10 long by eight feet deep. 11 MR. STROHMER: Correct. That would include the grates, the ventilation grates that 12 13 would be required. 14 MEMBER SHAHEEN: That's almost as big 15 as. 16 MR. STROHMER: Exactly. 17 MEMBER WILEY: What kind of operating 18 temperature range are you trying to keep the 19 equipment within? 20 MR. STROHMER: That's a good question. 21 We'll get to that technical spec. Go ahead. 22 CHAIR MARCOU: Sorry. I was going to

1	pull up some examples of vaults in the right-of-
2	way where I don't think that that's the size, but
3	it's all good.
4	MR. STROHMER: Any more questions
5	about the vaults?
6	MEMBER SHAHEEN: And what's the size
7	of the equipment that that vault was for?
8	MR. STROHMER: Well, if you want to
9	pull up why don't you go to the first slide
10	that we have? All right. So, this is a our
11	proposed small cell. So, as you can see, in the
12	first photo sim there, we have a cabinet that's
13	on the pole and that cabinet is approximately
14	five-feet, seven-inches tall, 16 inches wide, and
15	14 inches deep, okay?
16	So, the equipment that would fit in
17	there would fit in the vault. Again, the worker
18	would have to be able to work inside that vault.
19	You'd have to have room for the sump pumps, the
20	fans and the ventilation system, and that still
21	doesn't include where we're going to do what
22	we're going to how we're going to discharge

the water.

2	MEMBER SHAHEEN: You said 14 you
3	said five-feet, seven-inches, by 11 by 14 inches?
4	MR. STROHMER: Fourteen inches deep,
5	correct.
6	MEMBER SHAHEEN: I guess, I have so
7	many questions about that, I don't really think.
8	(Off microphone comments.)
9	CHAIR MARCOU: I think what would be
10	prudent, then, would be, rather than getting into
11	the weeds, give us your technical explanation,
12	make that another technical supplement to your
13	comments, and then we can look into them and get
14	back to you, including your any provision
15	where you believe that it is not permitted by
16	regulation. So, both your technical
17	specifications and any regulatory prohibitions
18	you think exist.
19	MR. STROHMER: You got it.
20	CHAIR MARCOU: Thank you.
21	MR. STROHMER: Okay. So, this is our
22	design here. So, we have two designs: we have a

Class A and we have a Class B, okay? So, the
 first photo sim here is a decorative pen and pole
 with the teardrop arm that was talked about
 earlier.

5 Currently, the draft guidelines do not 6 allow for this type of pole to be used, but we do 7 recommend it be included as a type -- a pole 8 type, especially a ward such as six because there 9 are a lot of redevelopments there and we believe 10 that this type of pole would be applicable to 11 that.

So, the first photo sim has our Class A antenna on the top there. It's approximately two-feet, six-inches high. We have a separation there of two and a half feet to our collar mount antenna. That's approximately 19 inches high.

And then, below that, we have our
cabinet mounted to the pole. And then, below
that, you can't really see it from this distance,
but you have the electric meter and a disconnect
box.

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The next photo sim is the same design

with the two antennas at the top, but instead of the equipment cabinet being on the pole it is in the base. And that is approximately, to the top of that, five-feet, eight-inches, and about 26by-26 round, octagonal shape. And the meter and disconnect would be in the base.

7 And then, our third photo sim there is 8 our Class B only. Those are the collar mount 9 antennas. And this type of design does not 10 require an equipment cabinet. It just requires 11 the electric meter and the disconnect at the 12 base. The next slide, please?

13 This is the same location, a little 14 farther out. This is your cobra-head-style pole that is being approved. Again, it's -- the first 15 16 one shows with the equipment cage on the pole, 17 second of all -- second photo sim is the 18 equipment at the base and the third is just the 19 Class B antenna on the collar and the collar and 20 the -- I'm sorry, the meter and the disconnect at 21 the base. Next slide?

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This is a location in Georgetown. One

	-
1	thing I want to point out here, it's not we
2	don't always have to be at 31 feet. Sometimes
3	antennas can be at shorter distances depending
4	what RF requirements are, okay?
5	So, in this location, we don't really
6	feel like a 31-foot pole this is a this
7	would be a new location a new pole location,
8	okay, because Georgetown doesn't seem to have a
9	whole lot of the 31-foot pendant poles. So, this
10	would be a new pole location and this is a photo
11	sim of what it would look like.
12	As you can see here, it's the Class A
13	pole. This one is 22-feet tall in total. It's
14	got the two antennas and the equipment in the
15	base, and it lines up with the two the dual
16	globes at the corner and the single globe to the
17	right of it. So, we believe that this is an
18	appropriate design in locations where there are
19	dual globes and single globes. Next slide?
20	And this is just our Class B design.
21	Again, same location, the 22-footer dual globe on
22	the left, single globe on the right. And you

have the collar antennas at the top, and the 1 2 disconnect and the meter at the bottom. Next slide? 3 4 This is a 31-foot new pole plant. 5 Again, equipment on the cage -- on the pole, next 6 is equipment in the base and the third is the collar mount antennas with just the meter and 7 8 disconnect at the bottom. Next slide? 9 And, finally, this is our utility 10 pole. For this location, you have your antenna 11 at the top, your two antennas, you have your 12 cage-mounted pole. And then the second one is 13 just the Class B design with the meter and the 14 disconnect at the base. I just wanted to talk about utility 15 16 poles just a little bit more depth. Currently, 17 what we were asking for in our recommendations is 18 10 feet or what the utility pole company 19 standards -- separation safety standards that 20 they require or a maximum of 50 feet. 21 CHAIR MARCOU: Sorry, 10 feet for 22 what?

1	- -
1	MR. STROHMER: Ten feet taller than
2	what the current structure is or what the utility
3	pole standards are safety standard. So,
4	there's a NESC code, okay, which they have safety
5	standards from electrical standpoint. Utility
6	companies each can increase that code based on
7	whatever they feel those standards are.
8	So, it's not just one company has the
9	same standards. Pepco has a little bit more
10	stringent standards than a Verizon landline
11	or, Verizon landline pole, so that's something to
12	consider, also. We can give you some more
13	details about that. I've actually sent DDOT some
14	an explanation on that and we'll be happy to
15	send it again.
16	CHAIR MARCOU: And it included the
17	National Electrical Code citation?
18	MR. STROHMER: I believe so.
19	CHAIR MARCOU: Yes. If you'd resent
20	it, that'd be great.
21	MR. STROHMER: Sure. Any other
22	technical questions or design questions I can

1

2 CHAIR MARCOU: Mr. Shaheen? MEMBER SHAHEEN: Why can't all of the 3 insulation be Class B, which are the smallest 4 5 ones? MR. STROHMER: Different parts 6 Sure. of the city require different ways to handle the 7 8 capacity. Your Class A is going to provide a 9 more robust capacity solution. It's all dependent on how the macro network's set up. 10 11 It's also depending on users and the amount of 12 capacity that's required, okay? 13 Again, you can have one block that has 14 this type of capacity requirement, and you can go 15 two blocks down and it has a different capacity 16 requirement. It's just -- it's dependent on the 17 capacity needs, the user needs and what the 18 existing infrastructure that we have in place is 19 able to handle. 20 MEMBER SHAHEEN: So, does that mean if 21 you go with Class B, you just have to have more

22 of them?

1	MR. STROHMER: Possibly. Correct.
2	CHAIR MARCOU: But not always? You
3	said possibly.
4	MR. STROHMER: Possibly. Again, it's
5	just it's dependent on capacity needs,
6	existing infrastructure, what type of buildings
7	are around, those type of things.
8	CHAIR MARCOU: Can you meet your
9	capacity requirements if all you used is Class B?
10	MR. STROHMER: Not necessarily, no.
11	MEMBER SHAHEEN: But that's what
12	AT&T's doing with their well, I know you
13	probably work with all different, but
14	MR. STROHMER: That's correct.
15	MEMBER SHAHEEN: AT&T is using only
16	the smaller facilities.
17	MR. STROHMER: So, Verizon Wireless,
18	as I said, we have different spectrums and
19	different frequencies and different companies
20	that provide the equipment. And these companies
21	do it in different ways. We have to operate
22	different ways on different frequencies. And for

Verizon Wireless in the DC market, we need both 1 2 Class A and Class B service. Now, as time goes on, we do feel that 3 4 we are going to use more Class B designs. But in 5 its current state, as stated before, there's an immediate need for capacity and both Class A and 6 7 Class B are there to serve those -- help us serve 8 those needs. 9 CHAIR MARCOU: Thank you. Further questions for Verizon? 10 11 MEMBER HUDSON: I have a quick 12 question. And this may be an apples and orange 13 question, but how -- will this implementation of 14 new 5G, does that affect FiOS in any way because I know a lot of neighborhoods in DC that are 15 16 still waiting on FiOS. 17 So, is it -- so if -- obviously, this 18 is 5G cell and the FiOS may differ, but I didn't 19 know if it -- again, this is probably apples and 20 oranges, but I just wanted to pose that question 21 while I had you guys here. 22 MR. STROHMER: I'm going to let Jen

1 take that question.

2	MS. MCCALLEN: So, it is an apples and
3	oranges issue. FiOS is a landline-based network
4	that can provide landline-based internet, VoIP or
5	voice service or television service by Verizon DC
6	the tel co, which is a completely separate
7	company and a separate network from wireless
8	service.
9	So, I'd say the only way they are in
10	any way related is that both FiOS a FiOS
11	network and a Verizon wireless network could both
12	be used to provide broadband. But other than
13	that or, one can be used to provide FiOS
14	can be used to provide landline switch access or
15	voice over internet protocol voice. But the
16	wireless technology is to use is used for
17	wireless voice that goes over a radio frequency.
18	MEMBER HUDSON: Okay. Thank you.
19	MS. MCCALLEN: Thank you.
20	CHAIR MARCOU: One clarification.
21	Another thing that they have in common is they
22	both have adorable spokespeople on TV. I don't

have a TV, but I've seen two -- apparently, every 1 2 five ads on television are for wireless and telecom services. I just watched a Redskins game 3 4 yesterday and every ad was for you-all. 5 I will pass that along MS. MCCALLEN: that you noticed that. Thank you. 6 7 CHAIR MARCOU: Thank you. Oh, don't 8 leave. We're going to be asking more questions 9 of you-all. MS. MCCALLEN: Okay. I didn't know if 10 you wanted him back. 11 12 CHAIR MARCOU: No, no, no. 13 (Simultaneous speaking.) 14 MS. MCCALLEN: If you want to go, our 15 presentations were quick. 16 MS. WAITZ: My name is Erin Waitz. It's W-A-I-T-Z. I'm from Government Relations 17 18 for mobility. I also have here with me Laura 19 O'Dell, who was at the meeting on the 25th. So, 20 if you want, I can kind of run through --21 CHAIR MARCOU: Could you spell Ms. 22 O'Dell's last name?

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1	MS. WAITZ: Oh. It's O, apostrophe,
2	D-E-L-L.
3	CHAIR MARCOU: Great. Thank you. And
4	you spelled your last name, right?
5	MS. WAITZ: Yes.
6	CHAIR MARCOU: Okay.
7	MS. WAITZ: If you want to go to the
8	next slide? So, mobility is through our wireless
9	infrastructure provider. We have six different
10	solutions. Obviously, here today to talk about
11	small cells. Go on.
12	So, this is a photo sim of what a
13	small cell facility for DDOT would look like. At
14	the top, we have an antenna shroud. And then
15	what we're proposing is a cabinet shroud that
16	would contain the remaining pieces of our
17	equipment, so nothing on the ground. So, that's
18	our standard of what we would like to be deployed
19	here.
20	CHAIR MARCOU: So, how frequently
21	would you be deploying this?
22	MS. WAITZ: So, obviously, final
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1 design guidelines will dictate which poles we're 2 choosing, where. But when available, this is a really easy deployment for us because all -- the 3 actual cabinet is already put together. 4 5 So, when we go out, it's just a bucket 6 truck and we're putting those two pieces of 7 equipment on, and it's pretty seamless and 8 minimal disruption to any traffic being out 9 there. 10 CHAIR MARCOU: Yes. Except that you 11 have to replace the pole, correct? 12 MS. WAITZ: Yes. If structurally the 13 pole needs to be replaced, we will have to 14 replace the pole. CHAIR MARCOU: Yes. I think it would 15 16 always have to be replaced --17 MS. WAITZ: So, then, yes. 18 CHAIR MARCOU: -- because we're not 19 going to take holes drilled into our poles. 20 (Simultaneous speaking.) 21 CHAIR MARCOU: This is not Dr. Seuss. 22 No holes in poles.

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1	MS. WAITZ: Understand. So, yes. But
2	once the pole which a pole can be done,
3	removed and set, I think, two to three days and
4	that can all be taken care of. You want to move
5	on to the next slide?
6	This is just showing some of our
7	deployment throughout the country. So, New York
8	City, we deploy with the cabinet. In the City of
9	Chicago, we paint equipment externally to match
10	the pole. And then, in Los Angeles we also used
11	the cabinet. You want to move to the next slide?
12	This is another photo sim of what it
13	would look here with the cabinet attachment, this
14	shows 10 on the top. You can go to the next
15	slide. This is what a Pepco pole would look
16	like, again, with the shroud and antenna. Go to
17	the next. And this was just a map of potential
18	coverage areas that we would be seeking for the
19	first year.
20	CHAIR MARCOU: Hold on for one second.
21	I want to go back to this.
22	MS. WAITZ: Sure.

1	CHAIR MARCOU: Okay. Is this the same
2	this is a picture, right? Kind of like as a
3	before and after, right?
4	MS. WAITZ: Exactly.
5	CHAIR MARCOU: Okay. Why is the
6	vegetation in the upper-left-hand corner
7	different?
8	MS. WAITZ: Sometimes Adobe can be a
9	little crazy when you're putting Photoshop stuff
10	in, so that would be my
11	CHAIR MARCOU: The only reason I ask
12	is because
13	MS. WAITZ: I understand yes.
14	CHAIR MARCOU: I want to make sure
15	because when you once you look at it, the pole
16	head is lower in the one on the right than the
17	one on the left.
18	MS. WAITZ: Yes. Sometimes when we
19	take an existing structure and we go and add it,
20	we're internally using it. We don't have all the
21	fancy stuff that we have available when we're
22	actually preparing our construction drawings for

you-all to review, so this is in-house, what our
 Photoshop Adobe looks like for the different
 colors in vegetation.

4 CHAIR MARCOU: Okay. For the record, 5 for those of you who keep track of the 12 differences you'd have to find in the photo from 6 7 Richard Mays, that would be at least two of them. 8 (Simultaneous speaking.) 9 CHAIR MARCOU: But, I mean, this is 10 important because -- and here's why I'm bringing 11 that up, okay? Because this? I love that. 12 There's a -- the picture makes it pretty darn 13 clear and it looks very much the same. 14 In fact, the photo on the right makes 15 it even look bigger because you can see how the 16 poles become a little bit bigger in the 17 foreground of the photo. And these are two 18 different photos. You've moved a little bit 19 closer to it, right? 20 So, this is very realistic. And it's

to give people a real-world understanding. This

helpful because part of the simulation process is

1 is -- I never even noticed this before and I'm 2 sorry I didn't say this to you-all before, this is -- perhaps it would've been better if I had 3 noticed it before I said it, sort of off-line-4 5 ish. But, yes, as much as you all can, as 6 you're preparing and presenting your materials, 7 8 make them as consistent as possible internally as 9 So, I would recommend changing this photo. well. And I would recommend to everybody going through 10 11 all of your photo sims just to make sure that 12 everything is clear and clearly shown. The other thing I will tell you that 13 14 Mobility has done in theirs, which I think is very admirable, is this is definitely visible. 15 16 They did not -- they have a brace guy behind it 17 and you got a pole, and you can see the cabinet, 18 you can see the antenna, you can see the whole 19 thing. 20 They did the same here. The one in 21 Los Angeles, you can definitely see the cabinet, 22 you can see the antenna. The one in Chicago --

but at least you can see it. And they definitely 1 2 were showing the cabinet in New York City. So, in here, there same thing. 3 4 So, I do really encourage you all not 5 to minimize -- don't diminish, don't -- flaunt It's your equipment. You're proud of it. 6 it. It's going to provide great coverage for your 7 8 customers. 9 MS. WAITZ: Then you can go to the I'm not sure if there's another slide. 10 next. 11 Okay. So, that's pretty much who we are. The 12 presentation we've been giving the past few 13 times. 14 I know a lot has already been said about comments to design guidelines. 15 Earlier 16 this month we did submit and we appreciate that 17 you're allowing us to collaborate with you on the 18 standards. I'd say our biggest concern is the 19 underground vaulting. We like to keep as much on 20 the pole as possible and did also have a lot of 21 concerns about sufficient ventilation due to the 22 sensitivity of the equipment.

2
CHAIR MARCOU: So, AT&T, you don't
have an issue with the vaulting because you're
not using you're not doing installations that
require
MS. VAN RIPER: That is correct.
CHAIR MARCOU: Correct.
MS. WAITZ: And we're not planning to.
But in the event, if it ever happened, we wanted
to make sure that we were
CHAIR MARCOU: Okay. But, Verizon,
you specifically are have a concern because
you will be doing installations that would be
subject to the vaulting. You don't have to
that was more statement than a question.
And I forgot Crown Castle. Is that
true for you as well?
MS. DIDDEN: Yes. We
CHAIR MARCOU: Hold on a second. You
need to have the microphone.
MS. DIDDEN: Our proposed a large
majority of our proposed installations will
require a cabinet being above ground or below

ground.

2	CHAIR MARCOU: So, those that are
3	do you have an issue with vaulting?
4	MS. DIDDEN: Yes. We would prefer not
5	to vault.
6	CHAIR MARCOU: Do you have the same
7	issues that Verizon has, that it has an equipment
8	challenge, or is it merely that it would be more
9	expensive?
10	MS. DIDDEN: It's an equipment
11	challenge.
12	CHAIR MARCOU: Okay. Either you-all
13	should combine your comments so that you have,
14	kind of, similarity to them in terms of the
15	standards that you're identifying or, if you each
16	want to provide your own that gives us a
17	scattershot, we can look through all of them.
18	That'd be okay. But we really would prefer
19	consistency and uniformity in the comments.
20	MS. VAN RIPER: Matthew, just to be
21	clear. While AT&T's existing installation does
22	not require cabinetry on the pole, if technology

1	down the road required us to have cabinetry down
2	on the pole, we also would have create a
3	concern with vaulting. I think we would echo
4	Owen's comments and we'll get together with them
5	and provide comments back.
6	CHAIR MARCOU: Great. Thank you.
7	Questions for Mobility from committee members?
8	MS. MCCALLEN: Can I make one
9	clarification for Verizon? To be clear
10	CHAIR MARCOU: Yes. Of course you
11	can.
12	MS. MCCALLEN: You might've recalled
13	from the pictures, it's Class A installations
14	that where this cabinet are the ones that were
15	for a cabinet. And where there's a vaulting
16	requirement we would have a concern.
17	The Class B that don't have a cabinet
18	so wherever you saw a picture that had a
19	cabinet, it's that cabinet we would have a
20	concern about vaulting. But where we're doing
21	Class B without a cabinet we don't have a
22	vaulting issue. So, we have both types and it

I	
1	depends what our need is in a particular area.
2	CHAIR MARCOU: Thank you. Your issue
3	is where you have a cabinet that would need to be
4	at grade, you would want to be able to do it
5	rather than a vault?
6	MS. MCCALLEN: Yes.
7	CHAIR MARCOU: Yes? Okay. Further
8	questions for Mobility from other committee
9	members? Ms. Hudson?
10	MEMBER HUDSON: Not necessarily for
11	mobility, but for the entire group. Where does
12	DC place right now as it relates to 5G technology
13	because I've heard you reference other cities
14	that you already done this in. Is that or, is
15	my understanding correct?
16	So, where how many major cities
17	across the nation do you think you where
18	you've already implemented 5G technology? Has it
19	been implemented in because I heard there
20	was some reference to Chicago. I've heard about
21	Philadelphia, maybe.
22	PARTICIPANT: You want to go first?

1	MS. VAN RIPER: Sure. I think the
2	best way to answer the question is to talk about
3	where small cells have been deployed. That's an
4	easier answer for me. So, there are well, I'm
5	only responsible for Washington/Baltimore. My
6	colleagues in other parts of the country in major
7	I mean, while I'm responsible for
8	Washington/Baltimore, my colleagues have lesser
9	cities that they're responsible for. And so, I
10	am behind my colleagues in New York and in
11	Atlanta and in multiples cities in California.
12	We are we're a source for concern here, right?
13	We are behind and it's we have a
14	program now that is that's top 20 cities and
15	we answer to them weekly. And I don't have great
16	answer right now. So, when I gave my comments
17	about just urgency and capacity needs, that's
18	really what's driving them is that we're taking
19	customer complaints. And, as a company, the
20	District is important. It's one of the elite
21	cities on that top 20 list and we're behind.
22	MS. DIDDEN: So, I can echo the same

	4
1	comments. We have small cells deployed in almost
2	all of the top 20 markets at this point. DC's
3	definitely behind its other top competitors.
4	MEMBER HUDSON: Thank you.
5	MS. MCCALLEN: I would answer there
6	are four cities that Verizon has already
7	announced 5G deployment. And in those cities,
8	the small cell installations were already
9	installed in the right-of-way, so it's sort of a
10	chicken and an egg thing.
11	So, you have enough equipment
12	installed that will support 5G technology, you
13	can't roll out 5G in a locality.
14	MEMBER HUDSON: Got it.
15	(Simultaneous speaking.)
16	CHAIR MARCOU: Thank you.
17	MEMBER HUDSON: Mobility, really?
18	Okay. Thank you.
19	MS. MCCALLEN: No. I mean, it's
20	100 percent the same. It depends on where we've
21	already been and where we've already made, kind
22	of, headway, seeing what small cells are

1	providing in the capacity that they're able to
2	fil the gap in.
3	MEMBER HUDSON: That's very helpful.
4	Thank you very much.
5	CHAIR MARCOU: Mr. Shaheen?
6	MEMBER SHAHEEN: I had a question for
7	Kathryn. In terms of other cities, how long has
8	because I want to be this is technology
9	that the District needs. I want to make sure
10	we're doing this correctly. Do you know how long
11	the process was in other U.S. cities that have
12	gone through this?
13	MS. ROOS: Yes. So, the city that we
14	looked that had the most, what I will my
15	personally opinion, had the most
16	CHAIR MARCOU: Hold on a second. Sir,
17	are you able to pick her up? Thank you.
18	MS. ROOS: That had the most thorough
19	guidelines. They worked for nine to 12 months on
20	those guidelines with the providers as well as
21	with the community, going through, what I would
22	assume is, very similar community processes of

1 public hearings, et cetera.

2	But I in talking to at least two or
3	three, it was nine to 12 months to come up with
4	guidelines. And I'll just state that he had been
5	working on the these guidelines since about
6	May, middle, end of May.
7	CHAIR MARCOU: Thank you. Further
8	questions for the industry representatives from
9	committee members? Yes. I mean, I have one
10	basic question. This is your chance. You're
11	telling us what your issues are.
12	I hear two basic issues with a third
13	sub-issue. Issue Number 1 is and this isn't
14	in order vaulting. We don't want to be
15	required to install our infrastructure in vaults.
16	Issue Number 2 is height restrictions.
17	And then, an Issue Number 3, which
18	is I'm going to call it a quasi-issue, is
19	alley installations. Is that it? Just to be
20	clear, I want you to understand, you're on the
21	record right now.
22	This is exactly where you should be

4
saying, "Our 17 issues, with sub-paragraphs 14,
17 and 25, are the following." You've listed
three issues. Is there a fourth one? Is there a
fifth one?
MS. MCCALLEN: So, Verizon does have
more that were outlined in our comments that Owen
will go over a bit. Let me sort of give you big
picture. The big picture is our overarching
concern with the guidelines is, in total, it has
a limited number of attachable poles.
And I think everyone's preference
well, maybe not everyone, but it sounded to us
and I think one of the guidelines even says, "Co-
locations are preferred over new poles." It
sounds like the preference is to attach on
existing poles rather than put new poles in
place.
And our concern is, as drafted in
total, the guidelines have a limited number of
attachable poles or places where new poles would
go so that there won't be enough places to
install small cell equipment to meet all of the

1 capacity needs of the District for the 2 foreseeable future. So, we did provide about six or seven 3 4 other specific suggestions in our comments that 5 Owen can go through. They're already in the 6 written record. We didn't know if you wanted us to say them each. 7 8 I apologize. CHAIR MARCOU: There was 9 an additional issue that AT&T raised, which was the number of locations per block face. 10 11 MS. MCCALLEN: Yes. 12 CHAIR MARCOU: Okay. Recognizing that 13 you will not get everything you want --14 MS. MCCALLEN: We highlighted today 15 the ones that are the most important. 16 CHAIR MARCOU: If the ones that were 17 brought up today were addressed, would the 18 industry have issues moving forward with the 19 quidelines? I still have some 20 MR. STROHMER: 21 things. 22 CHAIR MARCOU: Say that again?

MR. STROHMER: I still think that 1 2 there are some things that we want to put in the record. 3 4 CHAIR MARCOU: Okay. That's not the 5 question I asked. I asked that question as a -pretty much as a yes/no question, so I just want 6 7 to clarify the question. 8 We have highlighted here four issues: 9 one, frequency of placement; two, height of poles; three, vaulting of cabinetry; and, four, 10 There are other items and 11 alley preference. 12 those are noted on the record. 13 My question is the following: if these 14 are addressed, can the industry move forward with the guidelines? It's a -- I think it's a fairly 15 16 straightforward yes or no question. 17 MR. STROHMER: I think there are about 18 two more points that --19 (Simultaneous speaking.) 20 CHAIR MARCOU: Great. What are those 21 two other points? Recognizing it -- and I just want you to understand you're not going to get 22

everything you ask for. Nobody is. Nobody in this room is likely to get everything they ask for.

It's just -- it's the circumstances of 4 5 creating a sound, complete regulatory standardization of anything. Person X is going 6 7 to want everything on this side of the spectrum. 8 Person Y is going to want everything on that side 9 of the spectrum. And, in fact, Persons A and Z are going to want the things in the spectrum that 10 moves in a perpendicular position to X and Y. 11 12 The reality is and the final point will be somewhere in the middle where all of 13 14 those are acceptable, tolerable, preferable, but 15 not what is ultimately requested. So, what are 16 the other items that you want to make sure the 17 committee is aware of today that need to be 18 addressed in the guidelines for the industry? 19 Also, so that the public hears them and 20 understands what your issues are. 21 MR. STROHMER: Sure. First of all is 22 5.1, General Limits/Locations. Currently, small

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cell infrastructure is not permitted to be 1 2 installed on poles that have traffic control devices, okay? We believe and recommend that 3 4 small cell infrastructure be permitted on non-5 electronic traffic control device poles. Non-electronic traffic control devices 6 are located on the lower portion of poles and 7 8 Verizon Wireless small cell equipment will not 9 interfere with the driver's ability to see and understand non-electronic traffic control 10 11 devices. 12 Note that multiple cities do allow 13 small cell equipment on traffic control poles 14 with electronic devices. But again, we are 15 looking on poles that have stop signs, one-way 16 signs, street blades. We believe that we are 17 limited under the current guidelines and that 18 these poles should be viable options for us to 19 use. 20 CHAIR MARCOU: Okay. Before you go 21 any further, I just want to make sure we're on 22 the record, the localities that you're talking

about that allow them on traffic -- on poles that 1 2 have, for example, traffic signals have a completely different type of traffic signal 3 infrastructure than the District of Columbia 4 does. 5 For example, I believe it's 6 Pittsburgh, if I'm not mistaken, where it's 7 8 permitted and Pittsburgh strings across the 9 right-of-way with their traffic signals, and I don't believe the infrastructure's allowed there. 10 11 When I moved to Pittsburgh, I was 12 like, "Oh, my God. They have traffic signals in 13 the middle of the roadway. Don't people run into 14 So, long story short, it appears like those?" that happens in different infrastructure 15 16 circumstances. 17 But what I'm hearing you say is 18 clarify that to be only electronic signal 19 devices, such as walking pedheads, traffic signal 20 lights, et cetera, so -- and not those that have 21 -- involve signs such as stop signs, yield signs, one-way signs. Is that accurate? 22

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1	MR. STROHMER: No. We're saying that
2	we want to be able to ones that have non-
3	electronic
4	(Simultaneous speaking.)
5	CHAIR MARCOU: That's what I just
6	said.
7	MR. STROHMER: No. You said the
8	opposite.
9	CHAIR MARCOU: I said it the other way
10	around? I said it was I was wrong. Whatever
11	it was, I was wrong. You're right. You don't
12	want to be on ones with signals that are
13	electronic. You would like to be allowed on ones
14	that have signs.
15	MR. STROHMER: That is correct.
16	CHAIR MARCOU: Okay.
17	MR. STROHMER: That is correct. Next,
18	you have a guideline in there, small cell
19	infrastructures should not be located within
20	20 feet of the front or side boundary lines of a
21	DC landmark; a national, historic landmark;
22	federal properties or a property individually

listed in the National Register of Historic
 Places.

Now, what this does is it severely 3 4 limits the industry's ability to locate small 5 cell antennas throughout the District, especially 6 in the downtown core area where antenna 7 densification is needed the most. 8 CHAIR MARCOU: So, to assist us with 9 that, just that's one you're likely to lose. I'm not saying you're going to, but that's a harder 10 11 slog for you. Provide a map that shows the 12 limitations. 13 MR. STROHMER: Okay. At least, if 14 nothing else, we would like the federal property piece taken out. 15 16 CHAIR MARCOU: Of all the ones, that's 17 the one that's least likely -- that's the one 18 that's most likely to stay. But that's -- we have some subject matter expertise in the 19 20 committee on that, so that's one that's least --21 that you're pretty likely to not get, but it's good to know. Okay. So, which section was that? 22

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Limits and Locations. Medians and traffic 1 2 islands. Any public space that is contiguous only to roadways and does not border any private 3 4 property, regardless of whether it currently 5 houses a District-owned streetlight or third-6 party pole. We're not asking for every median, but 7 8 we believe there are areas of the DC where there 9 are medians which you have existing street lights, such as a cobra head that we talked 10 11 about, that should be allowed and should be 12 permitted to have small cell locations, either 13 from a co-location and/or for a new pole 14 placement. 15 CHAIR MARCOU: Great. So, you'll 16 provide recommended language, right? 17 MR. STROHMER: Correct. 18 CHAIR MARCOU: Thank you. 19 MR. STROHMER: We're talking about on 20 DDOT right-of-ways and not on federal properties. 21 And one other thing I just wanted to clarify with 22 utility poles. The gentleman here from the

Office of Planning gave some numbers about all
 these utility poles that were options;
 significant numbers.

Locating on a utility pole is 4 5 extremely tough, okay? Utility companies have strict standards that will not allow us to 6 7 locate, actually, on most utility poles, okay? 8 That's due to transformers, the type of equipment 9 that are on there, other -- Verizon also has strict standards on what they're allowed to do. 10 11 So, it's not just as easy as saying, 12 "Hey, there's a couple of utility poles on there. 13 You can locate on those," okay? So, it's not as

14 large number of possible candidates as the
15 gentleman seemed to make it out to be. I just
16 wanted to kind of highlight that factor.

17 The whole point of this is we believe 18 that we're just trying to make sure that we have 19 enough candidates that meet your guidelines and 20 meet our network needs. And when you say this is 21 a negotiation, it needs to go both ways to make 22 sure that we have enough structures so we can

supply the type of service that DC demands. 1 2 CHAIR MARCOU: Thank you. Just to be clear, he was pointing out that, of the remaining 3 4 poles that were available, 64 percent were third-5 party poles. He didn't apply the limits and standards and restrictions that you had talked 6 7 about they have. 8 MR. STROHMER: Correct. 9 CHAIR MARCOU: And I'm going to use the words "limits and restrictions", rather than 10 11 standards. And so, to help us, can you get a -can you get us those standards, those limits and 12 restrictions? 13 14 MR. STROHMER: Sure. 15 CHAIR MARCOU: So, it'd be great to 16 know if Pepco has these limits and restrictions, 17 Verizon pole has these limits and restrictions. 18 You know how Verizon is, so it'd be great to get 19 those pieces of information. We also have 20 contacts at both Pepco and Verizon, so we can 21 trust they're verified. 22 In addition, if you can get a map that

indicates from those utilities what poles are 1 2 therefore available because they are not part of that list. I know. 3 4 (Simultaneous speaking.) 5 CHAIR MARCOU: Not everybody is going to get what they ask for. That might've been 6 7 something I won't get what I ask for, but I'm 8 still going to ask for it. 9 MR. STROHMER: Fair enough. 10 CHAIR MARCOU: Right? 11 MR. STROHMER: Yes. 12 CHAIR MARCOU: Thank you. Great. MS. DIDDEN: Chair Marcou --13 14 CHAIR MARCOU: Yes. 15 MS. DIDDEN: -- please? So, we would 16 like the guidelines to include strand mounting of 17 equipment between utility poles. 18 CHAIR MARCOU: Strand mounting? 19 MS. DIDDEN: Strand-mounted equipment. 20 CHAIR MARCOU: Okay. Do you have standards on your strand-mounted equipment? 21 22 MS. DIDDEN: Yes. Our equipment's

1	been approved by the utility companies for
2	deployment based on their requirements.
3	CHAIR MARCOU: Good for them. So,
4	could you provide the specs on your strand-
5	mounted equipment?
6	MS. DIDDEN: Sure. You have them.
7	I'll re-send them.
8	MEMBER SHAHEEN: And the strand
9	mounting, that's the strand mounting option so
10	far has only been asked by the Crown Castle.
11	MS. DIDDEN: Right. Strand mounting
12	is actually a single-carrier solution. It's not
13	a co-locatable solution. We would have to deploy
14	for each carrier, we would have to deploy on
15	separate on a separate wire. But it does
16	allow us to use existing assets, such as the
17	space between the utility poles, which'll help
18	minimize some of the clutter.
19	MEMBER SHAHEEN: And is the strand
20	mounting something that all of the carriers
21	likely take advantage of or only Crown Castle?
22	MR. STROHMER: Verizon would not be

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able to do that. 1 2 CHAIR MARCOU: Verizon's a no. AT&T? 3 MS. VAN RIPER: No. 4 CHAIR MARCOU: AT&T is a no. Mobility? 5 6 MS. WAITZ: No. 7 CHAIR MARCOU: No. Mobility is a no. 8 MEMBER SHAHEEN: Why do I feel like I 9 was reading some -- okay. 10 CHAIR MARCOU: Thank you. 11 MS. DIDDEN: Section 5.3.3 states that 12 approved lettering is limited to one inch in 13 height. We suggest that that approved lettering has to conform with FCC and NESC code 14 15 In some instances, it may need to requirements. 16 be larger or smaller. 17 CHAIR MARCOU: Great. Can you give us 18 the cites from the FCC? What was the other one? 19 FCC and who? NESC code requirements. 20 MS. DIDDEN: 21 CHAIR MARCOU: NESC. The old NESC. 22 They are rearing their heads throughout this

1 process. That's great. By the way, for the 2 strand-mounted equipment, we'd like to get -- the specs on your equipment, as I said, but also the 3 4 language, so your proposed language for the 5 We're going to see a theme here. placement. (Simultaneous speaking.) 6 It's like, "Hey, tell 7 CHAIR MARCOU: us what the language should be." 8 9 Okay. We can look at MS. DIDDEN: 10 that. 11 CHAIR MARCOU: And now you know why 12 this is going to be an iterative process because 13 all that language is going to need to be looked 14 We want to get it right. Again, this is a at. -- you're giving us, "Hi. My name is Santa 15 16 Matthew," and this is -- give me the whole list. 17 It doesn't mean we're going to get everything, 18 but at least it tells us what all of your items 19 are. 20 So, so far we have everything from 21 Verizon, correct? So far we have everything -some people are saying we don't have everything 22

from Verizon.

2	MS. HARRIS: But you said the
3	process I mean, you asked us to submit
4	something publicly and then you're saying, "If
5	it's not spoken verbally, we're not going to look
6	at it." I mean, the process is a bit flawed, I
7	would say. I mean
8	(Simultaneous speaking.)
9	CHAIR MARCOU: What you have to do now
10	is come up, state your name on the record, spell
11	your last name, and we'll have this conversation.
12	MS. HARRIS: Sure. LaTara Harris,
13	AT&T, last name spelled H-A-R-R-I-S. So, when
14	you asked the question about whether or not all
15	our comments have been reflected here, we went
16	through the process. We submitted to you line-
17	by-line the items that were of most concern.
18	And, of course, we're trying to
19	identify high level right now, but they're not
20	everything. And it sounds to me that if we're
21	not testifying verbally about issues that are of
22	importance to us, then they're not going to be

	2
1	heard. Is that the case?
2	CHAIR MARCOU: No, that's not the
3	case.
4	MS. HARRIS: Okay. I'm just trying to
5	understand.
6	CHAIR MARCOU: Hi, Ms. Harris. How
7	are you?
8	MS. HARRIS: I'm good.
9	CHAIR MARCOU: Great. There are a lot
10	of people behind you who aren't aware of our
11	record, so they're here, diligently, patiently
12	waiting. So, one of the reasons I want to make
13	sure that this is all being articulated is so
14	that those parties, whom you are well aware are
15	very invested in this process and from a very
16	constructive, positive perspective, just as all
17	as the industry is, are aware of the issues.
18	For example, I bet you that they
19	weren't quite aware that strand mounting, for
20	example, might've been one of the things that one
21	of the utility one of the telecom providers
22	was interested in providing. Some of them might

not have been aware that there is an NESC
 requirement or limitation on the proximity of
 equipment on a pole.

So, this is helping inform people. 4 5 One of the reasons I'm kind of being insistent in an articulation here was that I wanted to make 6 7 sure that everybody has the same record moving 8 forward. As I said at the beginning of the 9 meeting, we will be providing all of the material 10 that has been provided to us as part of the record on our web page, which we've been looking 11 12 at periodically today, so that everybody is on 13 the same page moving forward.

14 But it's important for everybody to know what the issues and concerns are because 15 16 they are going to raise their issues and 17 concerns, and we want to make sure that you're 18 aware of them. And we've gotten those in writing 19 Some of them have been shared with from them. 20 you-all because some of the ANCs have been 21 particularly proactive with you, which is But some might not have been able to. 22 awesome.

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1	So, we just want to make sure	
2	everybody has the same record moving forward.	
3	So, one of the reasons we're articulating them	
4	here is to ensure that clarity of message. It's	
5	not about if you don't say it now, speak now or	
6	forever hold your peace. It was a bit more	
7	about, "Hey, I want to get out from you exactly	
8	what you're interested in."	
9	MS. HARRIS: That's fair. Thank you.	
10	CHAIR MARCOU: Thank you, Ms. Harris.	
11	So, Crown Castle, I think we have everything from	
12	you now. Is that correct?	
13	MS. DIDDEN: Yes.	
14	CHAIR MARCOU: Great.	
15	MS. VAN RIPER: Okay. I'm back. So,	
16	one of the issues that was included in our	
17	written comments that we should probably discuss	
18	here that, I apologize, I left it out of my top	
19	four, is there is 8.4.1, and it talks about the	
20	distance from I believe that's right. Yes.	
21	The distance from tree roots.	
22	And so, what we've found in our	

investigation, it's -- it requires you to be 1 2 minimum of 15 feet away. And what we found is that that is very restrictive. There were some 3 4 blocks, and I will provide you with the details, 5 where the -- we could find plenty of poles that worked, except for many of them -- all of them 6 7 were within 15 feet of tree root. 8 It was, 12, 10. There was room. We 9 actually provided a study. There are a couple universities that their requirements are 10 significantly less. And so, we would ask that 11

12 that portion of the guidelines be reviewed. And 13 we will provide you with maps to give you some 14 examples of why it is a burden.

15 CHAIR MARCOU: And just to be clear, 16 it's not distance from tree roots, period. It's 17 distance from a particular element of trees.

MS. VAN RIPER: Right.

19 CHAIR MARCOU: So, I just want to be
20 clear with people. Trees don't grow down. Trees
21 grow out. And so, tree roots grown basically
22 within the drip line. It's the most critical

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root zone.

2	And then, beyond that, tree roots do
3	grow, but it's for the purposes of a tree. As I
4	understand it from our foresters, the drip line,
5	which is, essentially, the canopy above, is the
6	most important part of the tree root. So, if you
7	propose language and then our urban foresters
8	would love to look at them.
9	MS. VAN RIPER: Yes. We provided a
10	study that we suggested would be more
11	appropriate. And if you don't have it, I'm happy
12	to re-send it. I think that the balance of our
13	comments are in our written comments and then
14	mostly echo what the rest of the industry has
15	CHAIR MARCOU: There isn't anything in
16	your comments that we haven't addressed today,
17	correct?
18	MS. VAN RIPER: Not to my knowledge.
19	CHAIR MARCOU: Okay. By the way, if
20	there is, it's not the end of the world, as I
21	pointed out to Ms. Harris. They will be part of
22	the record and they will be, ultimately, part of

1 the response so we make sure that we do have a 2 complete and accurate understanding and distillation so we have the best guidelines 3 4 moving forward. Mobility, how are you? 5 MS. WAITZ: I'm good. How are you? CHAIR MARCOU: 6 Great. Sorry. I'm driving this train a little bit, everybody. 7 8 I just have two things MS. WAITZ: 9 that I would add and they're more points of clarification. For 8.1, in the appearance, the 10 11 illustration one for the 5A, the illustration 12 doesn't clearly identify a maximum antenna 13 dimension. 14 We would suggest using the FCC 15 standard of three cubic feet rather than capping 16 the height at two-feet, six-inches as depicted. 17 And this would help reduce the need for 18 additional ground equipment, which we highly 19 recommend. 20 CHAIR MARCOU: So, that was three cubic feet instead of the two and a half linear 21 22 feet, right?

	Z.
1	MS. WAITZ: Mm-hm. And then, we would
2	suggest using the pole-mounted cabinets when
3	necessary, not to exceed the 20 cubic feet, which
4	is also an FCC standard.
5	CHAIR MARCOU: And that's also in 8.1?
6	MS. WAITZ: Yes.
7	CHAIR MARCOU: And that's with the
8	illustration?
9	MS. WAITZ: Illustration one for the
10	5/8 pole.
11	CHAIR MARCOU: And what I'm hearing
12	you say is that you would like the illustration
13	for the 5/8 pole to reflect the FFC standards,
14	generally speaking, right?
15	MS. WAITZ: Yes.
16	CHAIR MARCOU: Okay.
17	MS. WAITZ: That's correct. Then our
18	final comment would be for 8.4, specifically,
19	8.4.3. We feel the section is a bit overly broad
20	and effectively prohibits a standalone pole in
21	any of the District, especially with regard to
22	the planting of the trees. We would just ask for

a little more clarification on that. 1 We can 2 provide language if you'd like with regard to that. 3 4 CHAIR MARCOU: Great. 5 MS. WAITZ: Thank you. 6 CHAIR MARCOU: Thank you. 7 MR. STROHMER: And, actually, I just 8 want to clarify one other thing. In the 9 presentation that we had, I did state that we do feel like, as it relates to Section 7.1, that 10 11 pendant poles with the teardrops also be included 12 along with the cobra head fixtures. If not for 13 Class A, for Class B. 14 CHAIR MARCOU: So, include teardrop 15 for Class B -- for all. And then your fallback 16 is at least Class B. 17 MR. STROHMER: Yes. Thank you. 18 CHAIR MARCOU: Okay. Anything else? 19 **PARTICIPANT:** No. 20 CHAIR MARCOU: Got to get back to the 21 North Pole and talk to the elves if we're going to get all of this done for you. Okay. 22 Okay.

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1	Thank you all very much. Wait, wait. Do
2	committee members have any other questions?
3	Okay. Committee members are more than welcome to
4	wash their hands as needed. I'll be here for the
5	duration. Thank you very much.
6	PARTICIPANT: Thank you.
7	CHAIR MARCOU: With that said, let's
8	move to the members of the public who are present
9	to speak to the applications. We'll start with
10	ANCs. I see ANC 5E is represented. We prefer
11	I'm sorry. 2E is represented.
12	We prefer to have one representative
13	from ANC 2E who would speak for ANC 2E. Are
14	there other ANCs who are present who would like
15	to speak to the to these materials? Any other
16	ANC that's present? Okay.
17	(Off microphone comments.)
18	MR. GIBBONS: Good evening, Associate
19	Director Marcou and commissioners. Thank you
20	very much for having this meeting and including
21	us in the process. And I want to say ANC 2E has
22	been proud to attend almost every meeting you've

1 had, and we appreciate the inclusion and openness 2 and transparency, so thank you. (Off microphone comments.) 3 MR. GIBBONS: OH, it's not working? 4 CHAIR MARCOU: No, it is working. 5 It just wasn't close enough. 6 7 MR. GIBBONS: We want to thank you 8 very much for including all of us in your 9 meetings. Before I get to the resolution that 10 was passed, one quick question that's came up, when will you be including the comment --11 CHAIR MARCOU: You need his name? 12 13 MR. GIBBONS: Oh, I'm sorry. I'm 14 ANC 2E Chair Joe Gibbons, G-I-B-B-O-N-S, sorry. representing ANC 2E, Hillandale, Georgetown and 15 16 Burleith. One quick question that was brought 17 When will the comments that were submitted up. 18 and future comments be listed on your website? 19 CHAIR MARCOU: We're planning to do it 20 within a week of the hearing, but we can't make a 21 guarantee. But that's our goal. Our goal would be that by next Monday, the 22nd, that the 22

1	material would be available on the website.
2	MR. GIBBONS: Thank you very much.
3	CHAIR MARCOU: That would include
4	meeting minutes.
5	MR. GIBBONS: Thank you very much.
6	CHAIR MARCOU: Uh-oh. That's us.
7	Okay. Great.
8	MR. GIBBONS: Just going to read our
9	resolution that was passed by a vote of six-oh.
10	One commissioner had to abstain in the above
11	referenced matter. "ANC 2E supports the DC
12	Government's advocacy of broadband infrastructure
13	deployment with the goal of ensuring that
14	residents, businesses, public safety operations
15	in DC have reliable access to wireless
16	communications, network technology and the state
17	of the art in mobile broadband communication
18	services."
19	"ANC 2E advises the Public Space
20	Committee that before the Draft Small Cell Design
21	Guidelines are adopted, DC's Urban Forestry
22	Advisory Council should be asked to render an

1	opinion or provide commentary on the possible
2	effects of small cell deployment on the
3	District's three canopy goals."
4	"Furthermore, the proposed guidelines
5	should be submitted to the Historic Preservation
6	Review Board, the U.S. Commission of Fine Arts
7	and the National Capital Planning Commission for
8	a full review within their jurisdictional
9	authority and a vote before adoption."
10	"ANC 2E advises the Public Space
11	Committee that ANC 2E requests that the committee
12	incorporate the following into the Draft Small
13	Cell Design Guidelines. One, a full-scale mockup
14	of the small cell installations by each carrier
15	should be constructed for review, comment and CFA
16	approval prior to the consideration of initial
17	applications for Georgetown."
18	"Two, the size, color, diameter, and
19	finish of all small cell equipment, including
20	antennas, antenna-related equipment, cabinets,
21	shroud, and conduit with no exposed wiring should
22	be specified and mounting hardware should not

1	exceed the dimensions of the approved mockup."
2	"Three, the guidelines should require
3	carriers to submit yearly photographs of all
4	small cell installations to ensure compliance.
5	Four, real-time maps of all actual small cell
6	pole locations should be made publicly available.
7	Five, real-time maps of all proposed small cell
8	pole locations should be made publically
9	available.:
10	"Six, all small cell facilities should
11	be required to perform pre- and post-installation
12	radio frequency emission measurements on a
13	minimum of three selected nodes yearly within the
14	small cell system to confirm compliance with the
15	FCC, the Federal Communications Commission,
16	regulations as ANC's entire community will be
17	subject to involuntary radio frequency exposure.
18	And this exposure may have negative effects for
19	people with radio frequency emission disabilities
20	or sensitivities."
21	"Seven, there should be no fans,
22	cooling devices or backup generators permitted to

be placed on or near small cell facilitates or 1 2 installations. Eight, small cell facilities or installations should be located intersecting 3 4 residential property lines. Nine, small cell 5 facilities or installations in residential neighborhoods should be located to reduce any 6 7 obstructions to property sight lines as much as 8 possible."

9 "Ten, when installed in a business or commercial district or mixed use zoned area, care 10 11 should be taken to locate the small cell 12 facilities or installations so as to avoid 13 negatively impacting businesses. Small cell facilities or installations should not be located 14 in front of storefront windows, sidewalk cafes, 15 16 outdoor patio seating, primary walkways, primary 17 entrances or exits, or in such a way that would 18 impede deliveries to the establishment. Small 19 cell facilities or installations should be 20 located within properties as much as possible." 21 "Eleven, the number of poles installed in ANC 2E should be minimized. ANC 2E advises 22

that hoteling should be seriously considered as a requirement, that the maximum number of poles per block face that are specified in the guidelines should not be increased."

5 "Twelve, any additional poles that are 6 installed in ANC 2E should be required to conform 7 to the illustrations set forth in the guidelines, 8 unless any modifications are approved on an 9 individual case-by-case basis by this Public 10 Space Committee, the U.S. Commission of Fine Arts 11 and the Historic Preservation Review Board."

12 "Thirteen, as proposed in the 13 guidelines, and as stressed by members of the 14 U.S. Commission of Fine Arts during its most recent public hearing, the vaults for all poles 15 16 should be required to be located underground. 17 Fourteen, small cell technology that becomes 18 obsolete and/or the pole owners cease conducting 19 business in the District of Columbia, these poles 20 should be removed within 60 days."

21 ANC 2E advises the Public Space 22 Committee to incorporate, in the current version

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of the draft of small cell design guidelines, the Office of the Chief Technology Officer, OCTO, Wi-Fi hardware concept design for the hardware that is proposed to be attached in all -- in the small cell poles." I didn't read it right, but we want the Wi-Fi component to be in the current version of the small cell draft guidelines.

"ANC 2E advises the Public Space 8 9 Committee that the following should require a 30-day notice to the affected ANC and the 10 specific single member district commissioner. 11 12 One, any small cell facility installations; two, all small cell facility maintenance; three, all 13 14 small cell facility upgrades; and, four, any location changes to existing small cell facility 15 16 deployments."

17 "ANC 2E advises the Public Space
18 Committee that any future changes to the small -19 to the Draft Small Cell Design Guidelines should
20 require a 30-day notice to the ANCs and to the
21 public. ANC 2E advises the Public Space
22 Committee that this resolution has the support of

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the Citizens Association of Georgetown, the Burleith Citizens Association, the Hillandale Homeowners Association, Trees for Georgetown, Georgetown Main Street, the Georgetown Business Improvement District, and the Georgetown Business Association."

7 ANC 2E advises the Public Space 8 Committee to incorporate the recommendations 9 contained in this resolution into the revised 10 Draft Small Cell Design Guidelines and to then 11 hold public hearings for community input as soon 12 as possible." Thank you.

13 CHAIR MARCOU: Thank you, 14 Commissioner. I'm going to mirror back to you the comments you made. I know that ANC 2E has 15 16 taken a very proactive and a very constructive 17 engagement regarding this program at large. For 18 example, ANC 2E with the Georgetown bid and, I 19 believe, the Georgetown --

20 MR. GIBBONS: Citizens Association.
 21 CHAIR MARCOU: -- Citizens Association
 22 hosted a small cell neighborhood town hall in, I

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1	want to say, September, if I'm not mistaken.
2	MR. GIBBONS: September 13th.
3	CHAIR MARCOU: 13th, right?
4	MR. GIBBONS: And that would be
5	www.smallcelltownhall.com.
6	CHAIR MARCOU:
7	Www.smallcelltownhall.com, which should be your
8	homepage, if I could recommend, when you open up
9	Google. And coincidentally, I was actually at
10	your ANC meeting for a separate matter when you
11	brought this subject up, I believe, for the first
12	time
13	MR. GIBBONS: Right.
14	CHAIR MARCOU: back in maybe June
15	
16	MR. GIBBONS: July 2nd.
17	CHAIR MARCOU: July. There we go.
18	So, I think that type of proactive engagement has
19	been very productive, very fruitful. I've seen
20	you at our meetings, as you had mentioned, both
21	before and up to today, from when these first
22	started, so that's very appreciated.

1	I do want to go through some of the
2	specific points you made and I'll start with your
3	comment about ANC 2E advises that the Public
4	Space Committee incorporate in the this is
5	about the OCTO point, so let me go let me give
6	let me BLUF this, which is, as I've learned,
7	BLUF is the Bottom Line Up Front. It's a very
8	helpful technique.
9	So, I want to start with the comment
10	that you made about the Office of the Chief
11	Technology Officer. So, my question for you is
12	"ANC 2E advises the Public Space Committee to
13	incorporate, in the current version of the Draft
14	Small Cell Design Guidelines, the Office of the
15	Chief Technology Officer, Wi-Fi hardware concept
16	design for the hardware that is proposed to
17	attach to the small cell poles."
18	Do you want us to incorporate it by
19	reference? Are you asking us to regulate their
20	wireless access points? Or is it more like this
21	is the standard wireless access point that has

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been adopted by OCTO, though it may be subject to

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future modifications by OCTO as it sees fit? 1 2 MR. GIBBONS: Yes. Thank you. Yes. We admire, we appreciate OCTO. We've had Interim 3 4 Chief Krucoff at our meeting. We want to see the 5 poles as going up. So, he says they're going to be attached, they're going to be -- I believe 6 7 they're going to be piggybacking. 8 We want our design to -- your designs 9 to incorporate -- for ANC 2E to see how the poles look with the Wi-Fi attachment to it so that the 10 11 Commission of Fine Arts and the Old Georgetown 12 Board and Historic Preservation Board can get an 13 accurate view of what the pole will look out in 14 our neighborhood. So, is that a bit more 15 CHAIR MARCOU: 16 toward the mockups, then? Like here's what the 17 standards are for a wireless access point. Here 18 is what the standard for a wireless access point 19 attached to various iterations would look like. 20 Is that what you're looking for? 21 MR. GIBBONS: Well, obviously, we'd like both, but we'd like to see the mockups --22

we'd like to see it with a mockup. And then when OCTO determines which poles are advantageous or works for them, we'd like to see that so we could incorporate to the CFA and the old Georgetown Board.

6 Because, again, what I have found in 7 my experience working with the Old Georgetown, 8 the CFA and the Historic Preservation Board, when 9 they're given the right tools, when they're given 10 the right site plans and the context, they make 11 really good recommendations.

12 And maybe when there's an area of 13 design or -- where you can put the Wi-Fi 14 component within 15 or 20 feet, maybe on some poles it'll work different depending on the 15 16 technology. Maybe we can use it on a different 17 pole that is not so much in front of maybe a 18 historic building or structure or an area in 19 Georgetown, so that we would have the ability to 20 provide advice and recommendations, but not deny 21 the District's goal of Wi-Fi coverage.

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CHAIR MARCOU: Okay. So, one element

is that once the guidelines are published, the general goal would be that any application that's consistent with the guidelines would go through a standard review process where it would not come to the Public Space Committee, it wouldn't go to the ANC for review and comment.

And the only ones that would be coming 7 8 to the Public Space Committee and would go to 9 ANCs for review and comment would be those that are non-standard, those that don't comply with 10 11 the standards or the guidelines as they're 12 published. Are you asking that all of those in 13 ANC 2E go to the Commission of Fine Arts? 14 MR. GIBBONS: We're asking in the beginning to see draft guidelines include the Wi-15 16 Fi component. CHAIR MARCOU: And then we'll go from 17 18 there? 19 We'll go from there. MR. GIBBONS: 20 CHAIR MARCOU: Okay. Understood. 21 Thank you. You also note in here that if there 22 are changes to the Draft Small Cell Design

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Guidelines, that should require a 30-day notice 1 2 to the ANC and to the public. Generally speaking, substantive changes would go through a 3 4 process like that. 5 Those that are more technical in nature, like we dropped a comma or we included a 6 7 person or NC whose name needs to be changed, 8 those would normally not go through that type of 9 But, generally speaking, if we go process. 10 through a substantive change, we will absolutely 11 go through this same process. 12 MR. GIBBONS: And we appreciate that. 13 Just one quick question. In the MLA, we're not 14 discussing that, but you used the phrase "de minimis" for -- and now used "substantive". 15 Is 16 there a Public Space dictionary that would 17 describe with an example what would be an example 18 of a de minimis or non-de minimis or substantive? 19 I mean, is it something that just you see it --20 like pornography. You see it when you look for 21 it? 22 CHAIR MARCOU: Justice Potter Stewart

notwithstanding, yes. It would be generally 1 2 speaking. If we were to list this is de minimis and this is not de minimis, we can give you some 3 examples. But to say that this is the definition 4 5 of de minimis would probably, unfortunately, invite the fact that some things that might be de 6 minimis didn't fit within it. 7 Or if we said this is what substantive 8 9 means and some things that didn't fit within it were substantive, we would then be excluding 10 So, we would rather avoid getting too 11 those. 12 distinct or find in those. 13 MR. GIBBONS: Because we're worried --14 our community's worried that de minimis might

15 include additional antenna that the carrier finds 16 -- "I need the antenna -- I need one more slight 17 radio frequency antenna. I need the antenna to 18 bend more this way. I need it to go this way." 19 We're afraid that in the actual use by

the people who are maintaining and upgrading
equipment, that they're going to say, "My meter's
not reading properly. I need to put the antenna

1	this way." We'll never get a notice of that.
2	That's why we're asking for the yearly
3	photographs. We're also we're recommending to
4	our Citizens Association of Georgetown and all
5	our other members, Burleith and Hillandale, that
6	people have technological block captives, take
7	pictures of the installation so they don't change
8	slightly by de minimis over time.
9	We're afraid of that extra antenna.
10	We're afraid of that antenna being closer. I
11	think in the MLA you said 10 feet to a
12	residential building?
13	CHAIR MARCOU: That's my recollection.
14	MR. GIBBONS: We're afraid that
15	somehow it would get closer because, as you all
16	know, especially in Georgetown, our walkways are
17	very narrow. Very narrow.
18	And we're and that's why we put in,
19	in some of our points why the installation should
20	be at intersecting property lines when possible
21	to avoid the sight line because, as you well see,
22	that they're going to be at our second-floor

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and third-floor bedrooms, in some cases, of our 1 2 townhomes. And we'd like to avoid -- even though we all want good cell coverage, we'd like to not 3 to see the cell coverage every night. 4 CHAIR MARCOU: Understood. From the 5 District Department of Transportation, which 6 7 provides you street lights that are important for safety and walkability, we know that some people 8 9 are concerned about those lights themselves. So, we're familiar with the idea --10 MR. GIBBONS: 11 So, that's what we meant 12 by de minimis and that's why we were concerned, 13 and I think that's why we said that to you before 14 that we're worried that when it goes through the 15 top system, which we are in favor of, the top 16 system will determine what is kicked out. 17 And we're just concerned that there's 18 reasonable standards that everybody agrees to 19 that goes through the top and then doesn't get 20 kicked -- and then gets kicked out of the top 21 system, as you pointed out. CHAIR MARCOU: And so, actually, 22

1	that's a great segue for me to our permitting
2	system. So, the permitting system will require
3	all of these applications go to go to a
4	variety of reviewers. Every application will go
5	to OCTO; every application will go to the Urban
6	Forestry Division; every application will go to a
7	set of reviewers; and then, if it's in a historic
8	area, it will Historic Preservation.
9	If it's a in CFA area, it'll go to CFA
10	for them to confirm that, yes, for the purposes
11	of CFA, it matches what the guidelines require in
12	this area. For the purposes of Historic
13	Preservation or for Urban Forestry, it matches
14	what the requirements are, so that we have the
15	subject matter experts reviewing individual
16	applications.
17	So, I think you can rest assured that,
18	if we have guidelines that every is comfortable
19	with and applications come in, they will still be
20	reviewed substantively by the subject matter
21	experts in those areas for that. And deviations,
22	then, as I said, will come before the committee.

1	MR. GIBBONS: And that's why we trust
2	you. And that's why we put in our very first
3	well, our second paragraph, we understand that
4	it's been going through working groups and
5	comments but, at the end of the day, we'd like
6	the Urban Forestry Advisory Council, which is
7	made up of, I believe, DDOT, and the CFA and the
8	NCPC, and the HPRB to actually vote on the final
9	guidelines.
10	So that all that ANC 2E wants is
11	what every resident has to go through: the same
12	procedures and jurisdictional requirements. And
13	so, if this gets voted on, not just commented on,
14	then we feel more assured that this is something
15	that falls into what we're looking for.
16	CHAIR MARCOU: Understood. That's why
17	we've been partners with Commission of Fine Arts.
18	We've been partners with NCPC, Historic
19	Preservation and others. But we can't make them
20	do something any more than we would ask that they
21	in the same way that we would ask that they
22	not make us do something.

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1	So, if CFA chooses not to take a vote,
2	that's fine. If CFA chooses to take a vote,
3	that's great as well. We would encourage them.
4	We would encourage CFA, NCPC, Historic
5	Preservation to formally, actively adopt the
6	standards. But that's their choice.
7	MR. GIBBONS: So, you've asked them to
8	formally adopt the standards?
9	CHAIR MARCOU: I believe we have and
10	we'll make sure it goes in writing to them, if
11	that's what you're interested in. I don't think
12	it iterates anything that we haven't said before,
13	which is that these guidelines are important.
14	They have to reflect the most important elements
15	related to management of the right-of-way.
16	And each of those bodies has a unique
17	a role to play. The Urban Forestry Division
18	is looking at the guidelines and providing
19	substantive comment. Is that who you meant by
20	the Urban Forestry Advisory Council?
21	MR. GIBBONS: Yeah there's the Advisory
22	Council that deals with the tree canopy coverage.

1 And we just wanted to make sure that this -- as 2 you all know, after everything gets approved, but 3 through time when Pepco or whatever utility needs 4 to treat, we want to make sure that the canopy 5 goals of the District of Columbia, which are so 6 laudable, are always being enforced, and through 7 deed and through work, and it's very tough.

8 CHAIR MARCOU: Well, that's one of the 9 reasons why Urban Forestry is very directly 10 involved in these guidelines because they have a 11 responsibly to manage and maintain the street 12 tree canopy, which is the effective one here 13 because we're not talking about canopies on 14 private property or in the public parking area.

We're talking about the ones that are directly adjacent to the street trees. That's why they're the most critical and responsible agency for it because, like Ms. Roos and the -is for streetlights, Earl Eutsler is for street trees.

So, we feel very comfortable that
they've got the best interest of their asset in

1	mind. I leave it with them to make decisions
2	about who
3	MR. GIBBONS: And we have Trees for
4	Georgetown who can speak in really much more
5	detail. I just wanted to make sure that's but
6	that's why we put in our first that's what
7	we're very concerned about, having the
8	jurisdictional binds that we live with every day.
9	I mean, my commissioners and I, we
10	review 60 OGB along with the Citizens Association
11	of Georgetown, the Chair Elsa Santoyo was here,
12	we the three of us review well, the both of
13	us review 60-some odd submissions every month to
14	the and we want to makes that this submission,
15	being so important, gets their same vote, just
16	like person replacing or, wanting to replace
17	their front door.
18	CHAIR MARCOU: So, would you be
19	interested to your idea of about a mockup, is
20	that a volunteering by ANC 2E to be part of a
21	pilot?
22	MR. GIBBONS: Yes, sir. Absolutely.

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1	CHAIR MARCOU: Okay.
2	MR. GIBBONS: I mean, I'd have to
3	I can't speak for the entire commission. We
4	could put it to a vote.
5	CHAIR MARCOU: Oh, you can, because
6	you've been authorize to speak for the
7	commission.
8	MR. GIBBONS: I'm just reading the
9	CHAIR MARCOU: I know. But with that
10	said, the one last thing I wanted to say, and
11	then leave it up to the last two things I
12	wanted to say are that a lot of the mapping asks
13	that you have either already exist or will exist
14	independently of these specific guidelines. Our
15	permits are already available electronically in a
16	map-based system.
17	MR. GIBBONS: Right we just
18	CHAIR MARCOU: And in a few years,
19	we're planning to modify that so that you can
20	really drill down in very granular detail to the
21	types of permits that you would see. So, you
22	could filter by ANC and by occupancy and by date

and by permit holder and by type and X, Y, and Z. 1 2 So that just through our mapping system you'll be able to very finely point out in 3 4 a mappable system, that hopefully will be exportable to PDFs and others and Excel, for 5 example, exactly what you're looking for. 6 7 MR. GIBBONS: Great. Because the District has a really great metadata site, so. 8 9 CHAIR MARCOU: Yes, it does. One last 10 thing. So, you mentioned the group Trees for 11 Georgetown. Is that actually the trees 12 themselves are for Georgetown? 13 MR. GIBBONS: We have the chair right 14 here. 15 CHAIR MARCOU: So, we apparently have 16 a Lorax, who speaks for the trees. No, no. We'll 17 come to you in a moment when we go to the 18 community organizations. But I thought that --19 is there a group that's Trees Against Georgetown 20 or just -- thank you. Further questions for the commissioner from committee members? 21 MR. GIBBONS: We have neighbors that 22

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1	sometimes it seems like they are.
2	CHAIR MARCOU: Mr. Shaheen?
3	MEMBER SHAHEEN: In your comments, you
4	said something about no fans or
5	MR. GIBBONS: Yeah.
6	MEMBER SHAHEEN: Is that only for
7	above-grate facilities or
8	MR. GIBBONS: No.
9	MEMBER SHAHEEN: would that go for
10	vaults as well?
11	MR. GIBBONS: No. For vaults as well.
12	We want no fans, no cooling devices, for the
13	noise. Again, if there's a noise level that is
14	consistent with the District of Columbia and our
15	standards, then we can review it. But right now,
16	we don't have any idea what it could be, so we
17	want no noise.
18	Because have you walked by some of
19	those appliances that have the Internet and some
20	of those other they make a hum. And the last
21	thing we want is more cabinetry on our narrow
22	walkways and our historic streetscapes, first of

all, to blight them, but the second they have now a hum.

3	And if the small cells are going to be
4	in front of our bedroom windows, the last thing
5	people want to do is have everything now we
6	want audio interruptions as well as a visual
7	interruption. So, we don't know what we don't
8	know, so if you could help us with the decibel
9	levels, we'd be happy to work with you on that.
10	But it's more about not a no, but
11	we're no to the noise. I guess, we don't want to
12	seem inconsistent about calling for vaulting and
13	then not calling not allowing to vault.
14	CHAIR MARCOU: Thank you. There is
15	one more point I wanted to make specifically.
16	You had raised the issue about let me just
17	find it so I can quote it exactly. It's Item
18	Number 6. All smell cell by the way, it is a
19	challenging thing to say after a period of time.
20	It'll sound like small/smell.
21	So, all small cell facilities should
22	be required to perform pre- and post-inspection

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-- installation radio frequency emission measurements on a minimum of three selected nodes, yearly, within the small cell system to confirm compliance with Federal Communications Commission regulations.

I'm not -- we're not saying that
that's not a bad idea and we're not saying that
that shouldn't be encouraged. We're saying that
that is not within our purview or jurisdiction.
That's the equivalent of having us require
Washington Gas perform a test of its gas itself
or it's gas lines itself.

13 In terms of the jurisdiction and 14 authority of the Public Space Committee and the Public Space Permitting Office though a delegated 15 16 authority, it's not germane to their authority. Federal Communication Commission is the one -- is 17 18 the entity where that would start and they are 19 the ones who have the authority to regulate, as 20 we understand it, radio frequency and radio 21 frequency emissions.

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And you may want to check with their

-- either with their local office or with the 1 2 federal office, which is probably pretty much the same thing, on what the standards of requirements 3 4 are for testing, et cetera, and they could help guide you in terms of finding a mechanism to 5 ensure compliance with some level of testing. 6 7 MR. GIBBONS: But who -- would that be 8 the DOEE that would -- what department or 9 district would -- because the -- we have the Public Service Commission that regulates that and 10 we also have the OPC that handles problems with 11 So, all we're asking is, basically, you have 12 it. 13 the MLA -- I believe you have section in the MLA 14 that calls for -- the have to comply to the FCC 15 requirements. 16 CHAIR MARCOU: Correct. We explicitly state that they have to comply with FCC 17 18 requirements. 19 MR. GIBBONS: And that's all we're 20 asking for, too, but we're asking for it to be 21 done before you install them, after you install 22 them and yearly. We're not asking that they be

extra compliant. We're not asking them to have a 1 2 -- I understand from the Environmental Health Trust that there's different levels, peak and so 3 forth, and we're just saying --4 CHAIR MARCOU: Right. All I'm 5 explaining is that's not our jurisdiction to 6 require a particular regimen of testing or 7 8 limitations or standards. That is something that 9 FCC has the authority to do. 10 And if it delegates that authority to a state or if it authorizes a state entity or, in 11 12 this case, a District of Columbia entity, to do 13 that, it is not the Department of Transportation 14 and it's not the Public Space Committee. It could be DOEE, it could be DOH, it could be any 15 16 one of a number of entities that occur to me. 17 But they are best -- the best situated entity to tell you to whom it's been delegated is 18 19 the Federal Communications Commission. We 20 haven't explicitly reached out to them about that 21 question simply because, within our bandwidth and 22 purview, it's almost like, I'll call it a, quote,

other duty as assigned. It's something that's
 outside of our jurisdiction, but it is something
 that we noted is some interest.

You may even want to find from the small cell providers, they might have information about that, that would help you, to let you know what the FCC requirements and standards for testing are, so you may want to follow-up with them.

MR. GIBBONS: Well, thank you. 10 This dovetails to something you said earlier. 11 Is the 12 small cell facility installations going to become 13 a utility like Pepco? Are they going to become a 14 utility over the course of the years where it's -- they're just accepted after they establish 15 16 their right-of-way in our neighborhoods? That 17 they're going to go through a -- the Public 18 Service Commission or are they going to have to 19 20 CHAIR MARCOU: For the purposes of 21 installation in the public space, like any other

owner of infrastructure, they have to go through

And currently, based on 1 a permitting process. 2 the Master License Agreement, anything that is approved for installation in the right-of-way has 3 4 a drop-dead date, I believe, that is 20 years 5 from the MLA. So, as I recall correctly from -- and 6 I hope I'm correct. From the Master License 7 8 Agreement, it doesn't matter if something has 9 been approved under a permit and it's 20 years later, the MLA dies and the equipment installed 10 11 under it dies. 12 Okav. Now, I don't know where I'll be 13 20 years from now, but that record will be set 14 for the me who will be me to manage and handle 15 that. 16 MR. GIBBONS: So, basically, you're 17 saying -- you're literally saying for the next 20 18 years it's under your control? 19 CHAIR MARCOU: So far. The element of 20 installation in public space is under our 21 purview. Now, who knows what the FCC will do, 22 but I can also tell you that, based on our review

of the FCC decision from, I believe --1 2 MR. GIBBONS: The 25th? CHAIR MARCOU: -- the 25th of 3 4 September, we are fully within what they're 5 requiring. So, there's nothing that we're doing 6 that is contradictory to or outside of our 7 authority, based on what the FCC has mandated or 8 prohibited states to do. 9 MR. GIBBONS: So, when that order takes effect in 90 days, is that when the shot 10 11 clock will start for us? 12 CHAIR MARCOU: I'll want to get back 13 to you on what you mean by the shot clock, but 14 we'll make sure that we are in full compliance. 15 MR. GIBBONS: Thank you. 16 CHAIR MARCOU: Thank you. Do other 17 committee members have questions for the 18 commissioner? Okay. Great. With that said, is there any other ANC who is present who would like 19 20 to speak to this -- these set of guidelines? Ι 21 did not receive that there was another ANC. We do have comments from other ANCs as official 22

resolutions. So, with that said, thank you very 1 2 much. 3 MR. GIBBONS: Thank you. Thank you 4 very much. 5 CHAIR MARCOU: Thank you. Thank you very much. And we will come to commissioners in 6 7 a minute, but I do know that there are some 8 associations or organizations. And for those 9 associations or organizations -- for example, we know that there's Trees for --10 11 MR. JAMES: Georgetown. 12 CHAIR MARCOU: -- Georgetown. We also know that the Kalorama Citizens Association is 13 14 here. Would those two entities bring forward a 15 representative to sit at the table? Are there 16 other organizations who are here to speak to the 17 regulations? The Georgetown Citizens Association, correct? 18 19 So, who is representing the Georgetown Citizens Association? 20 Kalorama --21 (Simultaneous speaking.) 22 MR. HEINS: Richard Heins.

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1	CHAIR MARCOU: Wait, wait, wait. Go
2	ahead and have a seat.
3	MR. HEINS: Yes. Sorry.
4	CHAIR MARCOU: Thank you. We have a
5	representative from the Kalorama Citizens
6	Association. Have you all provided before we
7	go any further, Ms. Felder, do we have the list
8	of everybody who has requested to speak before
9	the committee, including their organizations?
10	MS. FELDER: Yes.
11	CHAIR MARCOU: Can you please come
12	forward and let me have that list?
13	Ladies and gentlemen, we're gathering
14	the list from the sign-in sheet that was provided
15	at the beginning. But, Mr. James, you were
16	saying that you are representing yourself and not
17	the Kalorama Citizens Association?
18	MR. JAMES: I'm the president, so I
19	can't help but represent them, but so we
20	submitted, prior to
21	(Simultaneous speaking.)
22	CHAIR MARCOU: You did submit

That's the reason why I thought you 1 comments. 2 were here to speak to the comments. I'm here in case you want 3 MR. JAMES: 4 to ask any questions about that. That would be 5 the president part. The other part is I would 6 like to give my own personal testimony. CHAIR MARCOU: That --7 8 MR. JAMES: I don't mind waiting. 9 I've already waited --10 CHAIR MARCOU: Okay. 11 MR. JAMES: -- this long. 12 CHAIR MARCOU: Yes. Okay. 13 MR. JAMES: So, you want me to go back 14 If you're not --15 CHAIR MARCOU: Yes. 16 if you're representing yourself as an individual, 17 please wait and we will call you up. If you're 18 representing an organization, we'd like to take 19 organizations next. 20 MR. JAMES: Okay. Well, if the 21 committee had any questions about our written testimony, I would be here to answer that, but I 22

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can wait on that.

2	CHAIR MARCOU: Let's do that because
3	you do have four pages of very substantive
4	comments with specific delineation of the items.
5	Please give us a few more minutes while we
6	compile the list.
7	Yes. In fact, why don't we take five
8	minutes so that a variety of people can, perhaps,
9	wash their hands. So, we'll go off the record
10	and we'll come back on the record in five
11	minutes. The time now is 5:42.
12	(Whereupon, the above-entitled matter
13	went off the record at 5:42 p.m. and went back on
14	the record at 5:51 p.m.)
15	CHAIR MARCOU: Ladies and gentlemen,
16	again, good evening. We are going back on the
17	record. It's 5:51, which is nine minutes, rather
18	than the five minutes I promised. I apologize.
19	So, I'm going to read a list of
20	entities who we know are interested in speaking.
21	We know that the Georgetown Citizens'
22	Association is interested in speaking.

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1	In terms of organizations, I'm going
2	to read the list of organizations whom we know
3	are interested in commenting to the committee.
4	We have the Committee of 100. We have
5	the D.C. Chamber of Commerce. We have the Dupont
6	Circle Conservancy. Is that correct, the Dupont
7	Circle Conservancy?
8	PARTICIPANT: Correct. Do you want us
9	to take a seat?
10	CHAIR MARCOU: People can sit, they
11	can stand, they can do what they'd like.
12	PARTICIPANT: No. I mean, if you
13	called our organization.
14	CHAIR MARCOU: Yes. If I called your
15	organization, please take a seat so far. You're
16	D.C. Chamber, correct?
17	PARTICIPANT: Yes.
18	CHAIR MARCOU: Okay. Great. And so,
19	we have the Committee of 100. So, we have the
20	Committee of 100. We have the Georgetown
21	Citizens' Association. We have the
22	PARTICIPANT: Greater Washington

Hispanic Chamber. 1 2 CHAIR MARCOU: Hadn't gotten to you 3 yet. 4 PARTICIPANT: Okay. 5 So, is the Committee of CHAIR MARCOU: 100 here? 6 7 PARTICIPANT: Yes. 8 CHAIR MARCOU: So, we have the 9 Committee of 100. We have the Georgetown Citizens' Association. And we have the D.C. 10 11 Chamber of Commerce. Is the Dupont Circle -- and 12 I heard that the Dupont Circle Conservancy left. PARTICIPANT: 13 Yes. 14 CHAIR MARCOU: We have a 15 representative from zero5g.com. Are they 16 present? 17 PARTICIPANT: Oh, she had to leave and 18 is going to play a video. I have the video from 19 her. 20 CHAIR MARCOU: So, she's not here? PARTICIPANT: Her dad's in the 21 22 hospital and she had to go.

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1	CHAIR MARCOU: I'm sorry. So, we'll
2	take the video as unless you plan to go on the
3	record, we'll take the video on the record and
4	committee members will review it. But if the
5	person's not here to present the video, then we
6	would normally not take their video as something
7	to be presented without the opportunity to engage
8	with the person whose video it is.
9	PARTICIPANT: Like I said, she left
10	it.
11	CHAIR MARCOU: Understood. So but,
12	we will still be here. So, in that case, the
13	Greater Washington Hispanic Chamber of Commerce
14	is the next entity on my list. Please have a
15	seat.
16	Now, I'm going to read the rest of the
17	entities who I have on my record. So, I just
18	want to make sure I'm keeping track. So, we have
19	the D.C. Chamber. We have the Georgetown
20	Citizens' Association. We have the Greater
21	Washington Hispanic Chamber of Commerce. And we
22	have the Committee of 100 at the table in front

1	of us.
2	Also on my list of entities who'd like
3	to speak is Capital Interact. No, they've left.
4	Kerb Technologies. Okay. Gala Theater.
5	And that's it for entities. Is there
6	another entity who'd like to speak who is not on
7	this list? Okay. Great.
8	So, with that said, we'll start with
9	this group and we'll go from my right, your left.
10	And if you'll state your name for the record.
11	No, my right, your left. So, that would be you.
12	Oh, the microphone.
13	PARTICIPANT: We've got one more
14	entity.
15	PARTICIPANT: Trees for Georgetown.
16	CHAIR MARCOU: So, I'm going to
17	clarify for Georgetown. Trees for Georgetown is
18	a subsidiary group within the Georgetown
19	Citizens' Association. It's not that we don't
20	think it's not an important organization. But it
21	doesn't exist without the Georgetown Citizens'
22	Association.

We are accepting comments from the 1 2 Georgetown Citizens' Association, which we assume incorporate, in part, Trees for Georgetown. 3 You'll be welcome to come up and speak as well. 4 But, for right now, we're dealing with the 5 organizations as a whole. 6 7 So, if you would? MS. WADLINGTON: Good evening. 8 Good 9 evening, members of the Committee. I am Erika That's W-A-D-L-I-N-G-T-O-N. 10 Wadlington. I am 11 the Director of Public Policy and Programs with 12 the D.C. Chamber. And, on behalf of the D.C. 13 Chamber, would like to read some comments into 14 the record. At the D.C. Chamber of Commerce, we're 15 16 committed to advocating for business-friendly policies with the D.C. Council, the Office of the 17 18 Mayor, and our community stakeholders. Our goal 19 is to work collaboratively to make the District a 20 more attractive and to remain competitive in the 21 region, nationally, and globally. Just last month, thanks to Mayor 22

Bowser's leadership and the participation of so 1 2 many individuals and organizations, including the Chamber, the WeDC Fest was held to showcase 3 collaboration and innovation in the world's most 4 powerful global city, the District of Columbia. 5 This event created an opportunity to 6 7 showcase to the world that our city is the best startup hub, among the best places to live, the 8 9 best tech city for women, and a top global city 10 for entrepreneurs, and many, many more accolades. 11 If we want to maintain our leadership position in today's economy and into the future, 12 13 we need to make sure our government policies will 14 welcome continued investment, especially in our 15 technology infrastructure. 16 People are using their smartphones, 17 their tablets, mobile devices, more than ever 18 before. Data traffic on wireless networks has 19 grown exponentially in the past decade. And it 20 will continue to grow as more devices, from cars

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Neal R. Gross and Co., Inc. Washington DC

to trash cans to water pipes, are connected to

the internet and as businesses and individuals

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use their devices to stream videos.

2	To meet this demand and to prepare for
3	future technologies, wireless carriers need to
4	install equipment known as small cells. Many of
5	you already know this. It was, you know,
6	described earlier. These devices are on antennas
7	and can be attached to existing utility poles,
8	street lights, or other structures to enhance
9	mobile voice and data services in a defined area.
10	We know that the District leaders have
11	been working hard, including yourselves, on
12	establishing guidance and rules for this new
13	technology. And we want to ensure that the
14	investment in our city continues to progress.
15	We would welcome the opportunity to
16	work with you to expedite this process so that we
17	can help D.C. maintain its place as a global
18	technology leader. We thank you for your
19	consideration of our request and our comments.
20	I'm happy to answer any questions at this time.
21	CHAIR MARCOU: Thank you. Do you have
22	a copy of those comments? Because I don't

(202) 234-4433

278

believe we received them for the record. 1 2 MS. WADLINGTON: Sure. Who do I give them to? 3 4 CHAIR MARCOU: You can give them to 5 any of us. We'll be happy to distribute them. Ι 6 think you've experienced that we are not like a 7 formal body with under-oath testimony and cross-8 examination. It's much more of a dialogue, 9 though I have been reminded that -- I've just been reminded how important this communication 10 So, we appreciate that. So, these are the 11 is. 12 official comments of the Chamber of Commerce, for 13 the record? 14 MS. WADLINGTON: For the record, Yes. 15 correct. 16 CHAIR MARCOU: Great. Thank you very 17 much. 18 MS. PURCELL: Good evening. My name 19 is Beth Purcell, P-U-R-C-E-L-L. I'm testifying on behalf of the Committee of 100. We submitted 20 21 our comments earlier. 22 What I wanted to talk about today was

1	co-location or a hoteling. And we are urging the
2	Committee to amend the guidelines to add first
3	of all, add a definition for co-location, which
4	is not there right now. Second, to amend the
5	guidelines to basically state that all
6	applications must be for co-location unless the
7	carrier can justify a difference. And I'll come
8	back to that in a minute.
9	We also hope that this Committee and
10	the carriers will agree to amend the Master
11	Licensing Agreement to contain these same
12	requirements.
13	At the various public meetings that
14	were held, a lot of residents were absolutely,
15	like, shocked and unhappy at the idea that there
16	could be one pole per carrier per block, in
17	certain situations. And what we've heard today
18	is even in some ways more upsetting, is because
19	some carriers are asking for the possibility of
20	having two poles per block.
21	We've also heard several carriers say
22	that putting small cell installations on alleys

may not be technically feasible. That will mean more pressure to have more poles and more facilities on blocks. So, encouraging co-4 location would basically help to avoid some of this clutter, avoid some of these very bad impacts. 6

7 The other thing we wanted to point out 8 is the Master Licensing Agreement has a potential 9 life of 20 years. We believe that these protections for co-location, to encourage co-10 11 location, need to be built in now, so that even 12 if today there was some technical barrier that 13 would prevent co-location for a particular 14 permit, it's either when it's necessary to reapply or if technology changes sometime between 15 16 now and 20 years from now, is that, if it's 17 feasible, that the mechanisms are already in 18 place to encourage this. 19 We think this would be sound policy.

20 We think this is better than the potential law of 21 the jungle. It wasn't mentioned in so many But, basically, if there start to be too 22 words.

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few suitable poles, that then there will be this scramble and carriers will be competing with each other to try to get the right to put their small cell infrastructure on a diminished number of poles.

50 if you encourage co-location in the 7 beginning, try to get it to happen, a lot of 8 these positive things will take place and a lot 9 of the negative ones will disappear.

10 So, back when small cell was still 11 starting, it arrived in some cities sooner than 12 it did here. One of those was Nashville where, 13 in 2016, they basically faced this issue. And 14 they basically said that any carrier who applies 15 for a permit without co-location must provide 16 detailed justification in writing.

17 So, these are things that would have 18 to be reviewed by corporate legal departments. 19 These are not just the statements at working 20 group meetings. So, basically, asking questions 21 like, that would have to be answered in writing, 22 what's the structural and technical information

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to document why you say this is not feasible? 1 2 What are all of the eligible support structures and alternatives that you considered before you 3 reached the conclusion that you believe it's not 4 5 feasible? What are the radio frequencies you're going to propose to use? And then, to 6 demonstrate that without co-location that the 7 8 location constructure or stealthiness would be 9 basically -- still produce a good result. So, basically, that's what we're 10 suggesting, is to basically make this the default 11 12 process, have carriers attempt to do this, do it 13 now, and have the infrastructure in place in the 14 design guidelines and in the Master Licensing 15 Agreement so it's possible to get this to happen 16 as soon as it becomes feasible, which could be 17 So, thank you for considering our very soon. 18 comments. 19 CHAIR MARCOU: Thank you. 20 MR. HEINS: Good evening. I'm Richard 21 Heins and I have a sore throat, apparently. I'm the general counsel of the Citizens' Association 22

at Georgetown. And we have, the Citizens' Association, better known as CAG, has filed comments with the Committee that I will attempt to quickly summarize.

As you may know, CAG is dedicated to 5 preservation and protection of the historic 6 7 character of Georgetown, including the 8 streetscape of this National Historic Landmark 9 District which is a very sought-after location for tourists to visit and see how things were 10 11 back when. And we're sort of, by bringing us into the future here, jeopardizing that very 12 13 thing that people come to Georgetown to see, how 14 things were back then.

15 We were a co-sponsor and a presenter 16 at the small cells town hall held in Georgetown that was mentioned. And we're providing these 17 18 comments after careful and thoughtful review and 19 input from our membership who attended that 20 meeting. And we're very concerned about what the 21 guidelines, the draft guidelines would permit. I would now like just to quickly point 22

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out some of the key things that we hit in our 1 2 written testimony that are of concern. We actually like a lot that's in the guidelines. 3 4 And I don't want to give the impression that we 5 only have complaints. But, due to shortness of time, we like a lot of things that I'm not 6 7 mentioning. And the whole effort, we think, is 8 laudable. But we do have some specific issues 9 that I'd like to highlight. One is that the draft guidelines are 10 not consistent with the Master Licensing 11 12 Agreement with respect to notice and comment. The 13 MLA requires that permit applications go to the 14 ANC, and I've heard Director Marcou say that that 15 is, in fact, going to happen. And what I would 16 just suggest is that the guidelines be amended to 17 be consistent with the MLA and say it has to 18 happen. 19 And also, as I understand it, that the 20 quidelines will also require the NCPC and CFA or 21 HPRB, depending on which historic district is 22 involved, to also be given notice. What I

haven't heard, though, is anything about civic
 associations or property owners.

And we would certainly hope that DDOT 3 would provide some kind of public notice on its 4 5 website and solicit comments by mail from civic associations like CAG and the owners of any 6 7 residence or business whose property lines front or abut the proposed pole. And, in Georgetown, 8 9 we're talking mostly about proposed poles, because we have the Georgetown light fixture. 10 11 We also think -- and perhaps this is 12 now clear, but it wasn't in the guidelines --13 that subsequent applications that differ in any 14 material respect, including location, from the original set of applications should also be 15 16 subject to the same requirements. And including 17 notice to the owner of a property whose property 18 lines front or abut the proposed pole. 19 And I think that, you know, the 20 property owner here is a very important person 21 to, you know, be able to really focus on, does

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the guidelines, you know, permit this particular

application?

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2	While CAG tries to review applications
3	of this type, we have limited resources, limited
4	in many cases, to me. So, that and a very
5	hardworking committee. And there's just you
6	know, we need to get people notified who can
7	actually spend the time to consider whether
8	there's a problem with the proposed location.
9	So, leaving property owners out is, I think, is a
10	big mistake and I would hope would be fixed.
11	I think also that the guidelines
12	require some more detail on what the appearance
13	of these antennae and cabinets are. And, for
14	example, the guidelines now have some sort of
15	dimensions that are listed without indicating
16	what they are. I mean, are these maximums,
17	minimums? You know, what's the relationship to
18	what carriers are supposed to do? And it was
19	recently suggested that a three cubic feet
20	diameter, or three cubic feet volume be the
21	guideline.
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Well, whatever it is, I think it

should be specified that this is a requirement, not just something that's on a figure without any indication that it's a requirement. So that's maybe a technical legal point. But if you want to enforce guidelines, it's pretty important.

Also, I think the guidelines are 6 deficient in some respects. 7 They treat wooden 8 poles, which we do have in Georgetown, and we 9 also have wooden poles where people live, in carriage houses, in small houses. And I think 10 it's very important to them, and to the look of 11 these historic alleys, that the poles looks right 12 13 and not have unshrouded wires, not run-in 14 conduit.

And, in any event, I think, you know, 15 16 there was the standards for wood poles should be 17 the same as the standards for new poles. There 18 shouldn't be any sort of exception for poles, for 19 wood poles. Right now, as I read it at least, 20 there was an exception for wood poles. The only 21 thing that was required for wood poles is that 22 the cabinet was specified to be gray. Well, gray

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1 is probably the wrong color. If you're going to 2 specify a color, I would suggest brown or black, something that ties in with the pole. 3 4 The standard for other poles in 5 Georgetown would be the same color as the street And that's appropriate for street lamp 6 lamps. 7 poles. But, the wooden poles, they need their 8 own standard. 9 And, in general, we think it's important to require that all antennae be 10 Right now, it's not 100 percent clear 11 shrouded. 12 from the guidelines that everything has to be 13 shrouded. Everything should be shrouded. These 14 things are unsightly enough without shrouding 15 If you have unshrouded antennae, it's them. 16 going to look a lot worse than the pictures that 17 you've seen. So, requiring that those pictures 18 be reality, however you decide to do it, I think 19 it's important. We've heard from the carriers that 20 21 they don't like vaulting. And I understand what 22 the issues are with vaulting, and all I can tell

1	you is that, while in favor of it, we're very
2	concerned about what was involved in the
3	vaulting. And when a carrier said that it would
4	have to be, you know, extremely deep and wide,
5	you know, it would create problems for, you know,
6	utilities, for tree roots. Trees have to grow.
7	And so, you know, I see about as many problems
8	with vaulting as the utilities to.
9	While we would prefer vaulting, and
10	the ANC has testified in favor of it and we
11	support it, I think we need to come up with
12	another solution that maybe is satisfactory to
13	everybody.
14	I won't get into the details about the
15	permissible spacing because it seems to be
16	changing. The carriers want to change it. I
17	just think that hoteling may be the answer. If
18	they don't have enough pole locations, then
19	they'll be forced to hotel. If you don't require
20	them to hotel, they'll each want to have their
21	own piece of free real estate or \$270 real
22	estate, which is, you know, from their point of

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view, free.

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2	On the dimensions of the equipment,
3	I've already indicated that I thought that there
4	were technical issues with the guidelines that
5	should be fixed. And we need to have some
6	standards.
7	Now, one standard that is not in the
8	guidelines at all is any standard relating to
9	health concerns. And, you know, it is my
10	understanding I'm not an expert in FCC matters
11	but it's my understanding that we're talking
12	about radio frequencies, that, if they're enough
13	of them and strong enough, that they can
14	basically do the same thing to you that a
15	microwave does to food.
16	So, is this something that we're
17	concerned about or not? I'm not so sure that the
18	FCC is concerned about it. Their standards for
19	frequency radiation date to 1986. And I do not
20	believe or 1996, perhaps, but it's a long time
21	ago. It's 20 years ago.
22	CHAIR MARCOU: It begins with a 19.

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1	MR. HEINS: It begins with a 19.
2	CHAIR MARCOU: By definition, it's at
3	least 18 years ago.
4	MR. HEINS: Yeah. And it's a long
5	time ago. And the FCC has had a very kind of
6	vague rulemaking to revisit those standards, but
7	hasn't ever done anything on them in that
8	rulemaking, and I don't think is going to.
9	So I think that there needs to be
10	I think the District needs to take some
11	prudential measures here to deal with the health
12	concerns of its citizens. I don't think it can
13	rely on the FCC to do anything in that respect.
14	The FCC seems to be, you know, all
15	speed ahead on deployment and no standards at
16	all. So, basically, if the FCC has standards,
17	which I don't believe they do, then they should
18	be enforced and they should relate to the
19	diagrams in your guidelines.
20	If they don't have any standards, I
21	think that this Committee should, as a prudential
22	matter, establish some minimum distance from the

street and from windows that is realistic in the 1 2 sense that the carriers can comply, so you're not doing anything that the carriers cannot comply 3 with and therefore run afoul of the FCC. 4 But 5 you're saying that, you know, we want to have these radio frequency emissions as far away from 6 7 people as possible. And I don't think that would 8 be preempted by the FCC.

9 I've reviewed the order. I am an 10 attorney. And I think that -- I'm not suggesting you go as far as Mill Valley did, in California, 11 12 who said that we don't your small cells because 13 of the health concerns we have. I think that has 14 been preempted. But I don't think that some 15 modest steps to protect the public health are 16 preempted. And I think you should consider doing 17 There ends my epistle. so. 18 CHAIR MARCOU: Thank you. 19 MS. QUIROGA: Good evening. Good

evening, Committee members. My name is Nicole
Quiroga. I'm the President and CEO of the
Greater Washington Hispanic Chamber of Commerce.

Thank you for the opportunity to speak about 1 2 bringing 5G to Washington, D.C. At the Hispanic Chamber, we are 3 4 acutely aware of the economic development and job 5 creation that a rapid 5G deployment will bring. Just in the District alone, 5G build-out is 6 7 expected to grow GDP by over \$1 billion and 8 create over 6,500 jobs. 9 That's serious economic promise. And it will be the result of hundreds of millions of 10 11 dollars in network investment. Small cell 12 deployment represents much of this investment. Small cells will be the backbone of 5G. 13 Their 14 deployment is absolutely necessary if Washington 15 residents are to ever receive the unprecedented 16 speeds and data capacity that characterize 5G. 17 That's why it's so important we 18 collaborate to ensure a speedy small cell 19 deployment process. We know from experience that 20 the sooner our community and country deploy the 21 network of the future, the more economic rewards 22 there are to enjoy.

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Small cells are essential to
maintaining Washington's vitality and I hope you
will develop a set of standards that ensure their
efficient deployment. Thank you for the
opportunity to testify.
CHAIR MARCOU: Thank you for your
comments. This is a question for the two
Chambers of Commerce representatives. Broadly
speaking, you've simply said, as I've heard it,
"we'd like you to implement guidelines as quickly
as possible that the small cell technology can be
implemented."
Did you have anything specific about
the guidelines or the Master License Agreement or
anything that you wanted us to take into account
or to address? The answer no is a perfectly
acceptable answer. We just want to make sure
that we're documenting specific items or concerns
that anybody has.
MS. QUIROGA: Not at this time.
CHAIR MARCOU: Okay. And I'll note
for the record that the representative from the

1	D.C. Chamber of Commerce was nodding as well.
2	MS. WADLINGTON: Yes. Correct. I was
3	nodding as well. Yes. So, in general, we just
4	wanted to put our voices on the record as to how
5	we would like this committee to move forward with
6	this process so we can begin implementation of
7	the infrastructure. So, if there's any other
8	specific questions you may have, I'm happy to
9	follow up.
10	CHAIR MARCOU: Thank you. We have
11	questions. I have some questions and some
12	clarifications for the other two representatives.
13	Just generally speaking, that's great. Thank you
14	very much. We appreciate that.
15	If you have written comments, we'd
16	appreciate receiving them for the record. I
17	don't believe we received written comments from
18	the District Hispanic Chamber of Commerce the
19	District of Columbia Hispanic Chamber of
20	Commerce, right?
21	MS. QUIROGA: So, we're the Greater
22	Washington Hispanic

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1	CHAIR MARCOU: Greater Washington?
2	MS. QUIROGA: Yes, sir.
3	CHAIR MARCOU: Which means the
4	District of Columbia. Let's just be candid.
5	Greater Washington just means the District of
6	Columbia and those others.
7	(Laughter.)
8	CHAIR MARCOU: Sorry. Speaking,
9	perhaps, parochial.
10	So, I just want to reiterate about the
11	general concept of our authority to regulate.
12	And I'll use this example with the U.S.
13	Department of Transportation. They authorize us
14	to regulate the provision of hazardous materials
15	through PHMSA. That's the Pipeline and Hazardous
16	Materials Safety Administration, which has
17	regulations. But it delegates those regulations
18	to different entities. So, some entities have
19	authority for one part, some entities have
20	authority for another part.
21	And so we do hear the concerns that
22	people are raising related to the radio frequency

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1	matters. We have noted that they are a
2	requirement, as a general standard, for
3	compliance in the Master License Agreement, but
4	they're not necessarily within our purview.
5	So, I just want to reiterate that it's
6	not that we don't think that they're important,
7	it's that we have authority for certain things
8	and we don't have authority for other things.
9	So, for example, we can very clearly
10	limit small cell technology from not being placed
11	in the roadway, because we have the authority to
12	permit. The roadway is an inappropriate location
13	for small cell technology to be implemented
14	within. And that's definitely within our
15	purview. But it doesn't necessarily apply to all
16	elements related to small cell technology.
17	I do also want to make sure that
18	you're aware, as we noted before, that those
19	applications that are in particular areas, like
20	CFA, NCPC, Historic, will be reviewed by those
21	entities at the application level.
22	In addition, the Urban Forestry

298

1	Division will be reviewing every application.
2	So, there isn't an application that comes in that
3	they won't see. They are one of our most
4	prolific reviewers. And we are very thankful to
5	have them as part of our reviewing team.
6	I wanted to follow up on your point
7	about notice. So, the Master License Agreement
8	does require notice to ANCs for any new
9	installations in neighborhoods.
10	MR. HEINS: The initial one.
11	CHAIR MARCOU: We're going to have a
12	very frank conversation with the small cell
13	providers because they'll want to interpret that
14	statement as broadly as possible. We look
15	forward to having a further dialogue with them
16	about that, because our interest in it is making
17	sure that it complies with our standards and
18	objectives for notice and comment to or notice
19	to the affected neighborhoods.
20	MR. HEINS: Well, I think the
21	guidelines could straighten that out, because
22	they're incorporated by reference in the MLA.

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1	CHAIR MARCOU: That's an interesting
2	recommendation. So, what I'm hearing you say is
3	you'd like to hear put into the small cell
4	guidelines something that clarifies what that
5	clause means?
6	MR. HEINS: Exactly.
7	CHAIR MARCOU: Thank you. I also want
8	to note that we are a big believer in
9	transparency. Our lawyer isn't here, but I don't
10	think he'll be objecting to me saying that we're
11	big believers in transparency. And so all of our
12	permits are available online. All of our oh,
13	Glen, I just committed us to transparency, if
14	that's okay.
15	So, all of our applications are
16	online. Every public space permit application is
17	available online for any person to look at:
18	particular information about the application, the
19	tracking number, the address. And it's available
20	not by you don't have to search out knowing
21	the tracking number or knowing the specific
22	address. You can search using a map function

that just takes you to an intersection. 1 And you 2 can start at an intersection or a 100 block or a neighborhood and you can look at all of the 3 4 applications in that area. 5 It's a relatively simple, interactive I'm not committing to anything right now. 6 tool. 7 But our goal would be to be even more proactive about that in the future, to allow entities who 8 9 are interested, individuals or entities who are interested, in finding ways to pull that 10 information out on an automated basis. 11 12 I'm not making a commitment today that 13 you'll be able to do that tomorrow. But we would 14 much rather that you have information and that you have access to our applications than that you 15 16 don't. There is no interest on our side in 17 preventing that.

And that also applies not just to ANCs, but also to community organizations and associations, individuals, organizations like the Chamber of Commerce, the BIDs. We want to make sure that everybody has access to our information

1	and that we're being as transparent as possible,
2	which is exactly what this meeting is about.
3	So, I want to thank you all for your
4	comments. Do committee members have questions
5	for the representatives in front of us? Mr.
6	Shaheen.
7	MEMBER SHAHEEN: I have a question for
8	Ms. Purcell. It sounds like the Committee of 100
9	is very strongly supportive of hoteling as
10	opposed to each carrier having their own
11	installation. And you referred to Nashville. I
12	mean, have you been to other cities where you've
13	seen both approaches? Does the Committee of 100
14	feel like there is a clear benefit from going
15	with one or the other?
16	MS. PURCELL: No, sir. I have not
17	traveled to any other cities. We learned about
18	this Nashville ordinance and it seems like a very
19	good way to take a scarcity of locations. And
20	what we learned today was a much bigger demand
21	than at least I believed existed for, you know,
22	more wireless service. So, no, we have not

1 studied all these.

2 It seemed like, if you have a problem with scarcity and a desire for -- like, one 3 carrier said that they need two poles on a block 4 -- is like it seemed like building some engines 5 for efficiency into the guidelines in the MLA 6 seemed like a good idea. 7 8 If it's not feasible, then nothing 9 If it is feasible, then we basically happens. try to get these efficiencies to avoid basically 10 11 a potential crisis, is almost what we were 12 hearing today. 13 MEMBER SHAHEEN: I see. So, it's much 14 more about efficiencies of space as opposed to an 15 aesthetic concern? 16 MS. PURCELL: Yes. 17 MEMBER SHAHEEN: Okay. And then I had 18 a question for the Association of Georgetown. 19 The association was advocating for shrouding the 20 antennas? 21 MR. HEINS: Correct. To have them in 22 something that you don't see the actual antenna,

which is, you know, an electronic gizmo. 1 And 2 there's 64 of them in each one of those little cabinets at the top of the pole. 3 4 MEMBER SHAHEEN: So, I guess, for me, 5 intuitively, the shrouding would make the antenna more visible. 6 7 MR. HEINS: Yes. Yes. Unfortunately. 8 But better that than having electronics just on 9 display. 10 MEMBER SHAHEEN: Okay. So, it's not 11 just the antenna, it's all of the equipment that 12 is installed at the base of the antenna that's associated with it? 13 14 MR. HEINS: Yes. I think basically everything should be shrouded. 15 16 And if I could just add one comment. 17 We also think that something that has not been 18 mentioned so far is rooftops. You know, the 19 carriers are putting antennae on rooftops right 20 now for 5G. And, you know, there's a lot of 21 rooftops in Georgetown that would be potentially 22 useful for that purpose instead of relying

exclusively on poles. And I don't even know why 1 2 we're -- you know, why the guidelines don't address that. 3 4 CHAIR MARCOU: Thank you. That's a 5 question we can make sure is directed back to the MLA holders for their response. 6 7 MR. HEINS: Thank you. 8 CHAIR MARCOU: I believe we've heard 9 from them related to the challenge with rooftop equipment in terms of direct access to the actual 10 11 equipment that individuals are using and that their equipment on rooftops is related to that, 12 but would be related into the antenna. 13 14 But that's another story for another If you could give us your question in 15 day. 16 writing that you'd like to hear them address, 17 we'd appreciate receiving that because then we 18 can make sure that that gets directed more 19 specifically. 20 MR. HEINS: Yeah, I'd be happy to do 21 that. 22 And it CHAIR MARCOU: Thank you.

should always be through us as -- oh, look. 1 2 Somebody's cell phone has just rung inside this That's okay. It's ironic and, perhaps, 3 room. 4 perfectly timed. 5 Because, in the end, we are talking, again, about communication facilities. 6 I did 7 want to make sure though that we had also 8 addressed this point, which is are you preferring 9 shrouding to -- you're preferring shrouding to 10 the exposure of equipment. Let me ask you 11 another question. 12 Some of the equipment can be installed 13 in a pedestal. And we saw some examples of this 14 in some of the material that was provided. Would your preference be to have material installed in 15 16 the pedestal of a pole rather than on the 17 exterior of a pole? 18 MR. HEINS: We would like it to be as 19 inconspicuous as possible. And this is really 20 where the Commission of Fine Arts and possibly 21 the HPRB come into play. I mean, they're the 22 experts on design. And, you know, anything I'd

1 say would just be my personal preference. But I 2 do think we're trying to make this equipment as less obvious as possible. 3 4 CHAIR MARCOU: Thank you. Do 5 committee members have any further questions for the representatives before us today? 6 I want to thank the Committee of 100 7 8 particularly because you gave us both written 9 comments for the record as well as comments here. That's always appreciated, to have as much 10 11 information as possible to go through. 12 MS. PURCELL: Thank you. 13 CHAIR MARCOU: Thank you. So, with 14 that said, we'll move forward to the -- I'm 15 If you're going to go on the record, you sorry. 16 need to sit at the table and put yourself on the 17 record. 18 MS. MEDRANO: I'm with an 19 organization. I just somehow wasn't up there. Ι didn't know if I --20 21 CHAIR MARCOU: I just -- I apologize, I probably didn't ask you about that. Are you 22

with the zero5g.com? 1 2 MS. MEDRANO: No. That's not me. That's was someone else. That's why --3 4 CHAIR MARCOU: Are you with Kerb 5 Technologies? The person in the back identified 6 themselves as Kerb Technologies. I don't have 7 you on this list, then. What organization are 8 with? 9 MS. MEDRANO: Gala Theater. I have extensive comments. But somehow I'm not listed 10 11 as an organization. 12 CHAIR MARCOU: Got it. It was not 13 listed as an organization on the agenda. 14 Understood. Okay. So, why don't we then move to 15 those entities. 16 So, if you'll, if you'd like to take 17 a seat at the table. Is the representative from 18 Kerb Technologies present? Thank you. And is 19 Mr. Viteri, will you read the material for Gala 20 Theater? 21 MR. VITERI: Yes. 22 If you'll step CHAIR MARCOU: Great.

forward as well. 1 2 MS. MEDRANO: How do I put this in? CHAIR MARCOU: We'll get it. 3 Mr. 4 Viteri, do you have copies of the material for 5 us? From Gala, I have four 6 MR. VITERI: copies. Five copies. 7 8 Okay. So, I just have CHAIR MARCOU: 9 a quick question before you begin, Mr. Viteri. Ms. Medrano has identified herself as 10 with the Gala Theater. So, are her comments on 11 behalf of the Gala Theater or on behalf of 12 herself? 13 MR. VITERI: She told me it was on 14 15 behalf of the Gala Theater. But I'm reading her 16 testimony and it seems like it's personal. 17 CHAIR MARCOU: Great. Thank you. 18 MR. VITERI: Do you want me to start? 19 CHAIR MARCOU: Yes, please. And so, 20 identify yourself for the record and spell your 21 last name. 22 MR. VITERI: Gus Viteri, V-I-T-E-R-I.

1	I'm reading this on behalf of Ms. Medrano.
2	CHAIR MARCOU: Can you spell Ms.
3	Medrano's last name?
4	MR. VITERI: M-E-D-R-A-N-O.
5	CHAIR MARCOU: Thank you.
6	MR. VITERI: Ms. Rebecca Medrano is a
7	citizen of D.C., a resident of Columbia Heights.
8	Like many, she chose to live in Columbia Heights
9	for the historic buildings, beautiful scenery,
10	and lively streets. We're lucky to live in D.C.
11	because those descriptions happen to fit many of
12	our cities and neighborhoods.
13	There's a lot of beauty and history
14	throughout Washington. And it is our
15	responsibility to preserve those aspects that
16	make D.C. great. That's why the transition to
17	the next generation wireless infrastructure is so
18	encouraging.
19	Small cells are designed to
20	unobtrusive and blend into existing surroundings.
21	A D.C. resident or visitor would likely never
22	notice those little devices unless they

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specifically went looking for them.

2	Historically, there's been a trade-off
3	between sacrificing community aesthetics for
4	necessary network infrastructure. Thankfully,
5	small cell technology eliminates the competition
6	between a beautiful neighborhood and a well-
7	functioning wireless network.
8	As with many urban residents, I chose
9	to live in D.C. for its forward-leaning culture.
10	This means embracing the future, and 5G is
11	certainly part of this future. We want to see
12	our city at the forefront of the offering of the
13	latest in revolutionary technology.
14	That's why we urge you to prioritize
15	a speedy small cell deployment for developing
16	standards for those necessary devices. Thank you
17	all for your attention. Rebecca Medrano.
18	CHAIR MARCOU: Thank you.
19	MR. BUKO: Hi. My name is Stephen
20	Buko and I represent Kerb Technologies. That's
21	Buko, B-U-K-O.
22	CHAIR MARCOU: Have you provided
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written comments? 1 2 MR. BUKO: I have them here and I can hand them out after I testify. 3 4 CHAIR MARCOU: Thank you. That'd be 5 helpful. If you have them for us to hand out now, that'd be great, too. Thank you, Mr. 6 7 Viteri. How are you all doing? 8 MR. BUKO: 9 CHAIR MARCOU: Good. MR. BUKO: I'll be short and quick 10 11 here. We are getting there. 12 Hello, my name is Stephen Buko and I am the cofounder and CEO of Kerb, K-E-R-B. 13 We 14 are a D.C.-based startup that uses technology to measure sidewalk foot traffic for our local 15 16 clients, identifying ways for them to grow their 17 business. 18 Whether we're upgrading our platform, 19 transferring data, or performing analytics, 20 reliable and speedy connectivity is at the heart 21 of our business. I want to speak today because 22 5G will likely be the future of online

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connectivity.

2	As an entrepreneur, I'm excited about
3	the way 5G could improve the way that we, and
4	technology in general, operate. Whether it's
5	offering instantaneous data analysis or
6	optimizing our foot traffic collection routes,
7	there's a lot 5G can offer.
8	While our business relies on HD
9	cameras to offer our service, 5G will rely on a
10	dense sample of small cells. Some people think
11	that transition to 5G is somewhat
12	straightforward, but a small cell deployment has
13	the potential to be a drawn out process. I
14	believe it's important to do what we can to
15	expedite the small cell build out as much as we
16	can.
17	5G will be an integral to the health
18	of the D.C. startup community, and we should
19	strive to be the first among cities to offer a
20	reliable 5G network. And this isn't in your
21	notes, but our company has to operate you
22	know, we operate here locally. But my team is

actually traveling to New York on Friday because 1 2 they have 5G and we don't. Okay? So I'm losing time, productivity, and finances because my team 3 4 is traveling on Friday. 5 So, any way that we can get that here helps me, saves me money, and allows us to grow 6 7 our team. 8 So, thank you for the opportunity to 9 speak today. I hope that you will develop small cell standards that optimize rather than impede 10 11 deployment. Thank you. 12 CHAIR MARCOU: Thank you. 13 (Off the record comments.) 14 MS. SCARATO: So, my name is Theodora 15 Scarato. And I'm an executive director with 16 Environmental Health Trust. I submitted 17 extensive --18 CHAIR MARCOU: Sorry. Could you spell 19 your last name? 20 MS. SCARATO: S-C-A-R-A-T-O. And it's 21 Theodora with an A on the end, Theodora, T-H-E-O-D-O-R-A. 22

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1	CHAIR MARCOU: Thank you.
2	MS. SCARATO: Environmental Health
3	Trust is a scientific think tank. And we
4	submitted substantial comments and attachments to
5	the Commission as well.
6	I do respect the challenge before you.
7	And I just want to add really quick that you can
8	regulate, to a degree, because this is about
9	future needs and also about speculation. And
10	service is different from capacity. And I can
11	talk to you about that afterwards.
12	History is rife with those moments
13	where regulations in the books have not caught up
14	with science showing human and environmental harm
15	lead paint, asbestos, cigarettes, the spraying
16	of DDT and Agent Orange on entire countries and
17	on servicemen and -women.
18	And this is that moment, when
19	Washington D.C. is ground zero, poised to allow
20	5G in the front yards in front of people's
21	bedrooms, even though the American Academy of
22	Pediatrics and countless medical organizations

are recommending that we decrease exposure to this radiation. And the people are completely uninformed.

Environmental Health Trust has shared technical information related to the radiation frequencies currently used, and 5G, which will be in use as well.

8 There are over 250 scientists calling 9 for urgent action to protect the public. Not 10 only will small cells expose people to a 11 radiation that is considered in peer-reviewed 12 research a human carcinogen by independent 13 scientists, that this radiation has also been 14 shown to affect bees, birds, and trees.

Next slide, please. When a chief of 15 16 obstetrics at Yale, and who is also in the 17 National Academy of Sciences, did research 18 exposing pregnant mice to cell phone radiation, 19 he found the mice had what he would say, if there 20 was a term for this, if mice could have ADHD, 21 that's what they had. They were born with -they had damaged memory and they had 22

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hyperactivity when they did tests when they got older. This corroborates research in humans and other animal studies that has found memory problems and brain damages. There are actually multiple studies which -- I believe there's references in what I sent to you.

7 The BabySafe Project, which I have a 8 slide from the website, has been signed onto by 9 over 200 medical experts and educational experts. 10 It's EPA recognized as well. They recommend 11 reducing exposure -- I do have handouts for you 12 on this -- to protect babies' brains.

13 I want to tell you that wireless 14 companies -- next slide, please -- are warning 15 their shareholders. As an example, Comcast 16 states in a 2016 10-K report, "We cannot 17 guarantee that claims relating to radio frequency 18 emissions will not arise in the future, or that 19 the results of such studies will not be adverse If the connection between our emissions 20 to us. 21 and possible negative health effects were 22 established, our operations, costs, or revenues

may be materially and adversely affected. 1 We 2 currently do not maintain any significant insurance with respect to this matter," because 3 20 years ago, insurance companies decided not to 4 5 insure companies because of the brain cancer cases that were moving forward. And, of course, 6 7 the research has significantly increased since 20 8 years ago.

9 Many wireless companies, from AT&T to Nokia, Sprint, all of them actually have issued 10 similar warnings to their shareholders. 11 Why not, 12 if you are going to deploy this, are not the 13 people of Washington, D.C. being informed, just 14 as these shareholders are being informed, about 15 this issue? Because really the people are not 16 aware right now.

17 There are white papers of insurance 18 industries that compare this risk to asbestos. 19 They classify it as high-risk. And that is why 20 most insurance companies will not insure for 21 electromagnetic radiation. They do not insure 22 for damages. It is considered a pollution. It's

defined as a pollution. You have to buy a
 special pollution clause.

Cities nationwide are opposing the 3 unfettered rollout of 5G, as was discussed. 4 I believe that public spaces should be safe and 5 environmentally healthy for our children and for 6 7 the elderly and for people with immune systems 8 which are compromised, of which research has 9 shown harm. And children are more vulnerable. They absorb the radiation deeper into their 10 11 bodies.

12 If the citizens own the right-of-way, 13 then they should be fully informed about these 14 health effects, about the studies that are 15 showing harm. Because you said this was -- your 16 most valuable asset was the right-of-way. Then I 17 think our children and the people are our most 18 valuable asset that would be in this asset that 19 they own.

20 The EPA was defunded from setting 21 proper safety limits. We had no federal safety 22 limits related to radio frequency radiation in

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1996. And, at that time, we adopted the outdated
 limits that we have.

I think the conversation needs to 3 4 pivot and be about protecting the people from 5 this pollution, which is being called an environmental pollution. I sent you Dr. Sidney 6 7 Russell's published paper on 5G, because the 8 millimeter waves which are going to be employed 9 in 5G are used as weapons at a much higher power. But because of the way they affect the sweat 10 11 gland -- and I can talk to you about that, I'm 12 quite familiar with the research and the researchers. We did an international conference 13 14 where we had presentations as well. The FCC is under regulatory capture 15 16 right now. And there is actually no federal 17 health and safety agency that has done any 18 systematic review of the current science to 19 understand at what level is this safe? 20 So, what we have are outdated limits 21 based on outdated and erroneous assumptions that

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heat is the only problem. Microwaves, obviously,

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will heat you. So, they're set so that you're not heated one degree Celsius. Before allowing these antennas, I think there should be a costbenefit analysis in terms of medical bills to the District of Columbia.

6 Because if indeed what happens in the 7 rats and mice, such as the National Toxicology 8 program that found clear evidence of cancer from 9 cell phone radiation at non-trivial levels, then 10 I think that the government is going to be 11 incurring costs and it should be looked at.

12 And I'm glad to answer any questions. 13 I actually want to just say that, you know, this 14 is not a public utility. So, they're not --15 landline phones are regulated as a utility, but 16 there are not such regulations with this. And so 17 they don't even have to fix things they put out. 18 And we consistently will see certain populations 19 not getting what they need. And there are no 20 regulations in place to ensure that. And I would 21 like to be clear that you know the difference 22 between service and capacity. Right now, there

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So, why would we be putting 1 is service. 2 something in that could cause harm for something that so many scientists are concerned about? 3 4 I'm glad to answer questions and I do 5 have handouts as well. CHAIR MARCOU: Thank you. 6 We'd appreciate the handouts, if you'd like to give us 7 8 the handouts. Thank you. 9 MS. SCARATO: These are our resources 10 on how to reduce exposure that we wish the D.C. 11 government should share with the people. 12 CHAIR MARCOU: Thank you. so, 13 actually, if you don't mind, I'd like to start 14 with you first. And this might help explain our circumstance and help identify where the gap 15 16 might be. 17 So, I'll use the example -- I used the 18 examples earlier about, like, hazardous materials 19 in pipelines. Another differentiation between 20 what we do and what others do is public space 21 versus private property. 22 So, we regulate uses of public space

that are specific to how public space is used. 1 2 And there are regulations related to private property and how private property is used. 3 But 4 then there are regulations that cover both. I'11 5 use the example of OSHA. The Occupational Safety and Health Administration establishes standards 6 7 related to, for example, excavations and how you would properly shore an excavation to ensure the 8 9 safety of the worker within the excavated area.

And those apply whether it's on public space or private property. So, OSHA regulations are not ones, again, that are directly relevant to public space. They're relevant to another activity, part of which occurs in public space and part of which can occur on private property.

16 As we have heard earlier, it could be 17 the case that 5G technology -- and I don't know, 18 because I'm not the industry -- but that 5G 19 technology and small radio frequency is being 20 deployed on private property. I wouldn't be 21 surprised to find that on larger campuses, like 22 universities, that is the case, right? I would

1	assume that if I were I went to Catholic
2	University here in Washington, D.C. So I would
3	assume that, in some way, the technology is being
4	deployed there.
5	So, it would appear that there is,
6	perhaps, a different body that would be
7	constituted to regulate that element. And it
8	would, again, seem to come from the Federal
9	Communication Commission.
10	So, what is it about this that you
11	believes gives and this is why I'm asking a
12	question rather than making a statement. I just
13	want to make sure. What is it that you believe
14	gives us that specific authority to regulate the
15	radio frequency?
16	MS. SCARATO: I'm not asking you to
17	regulate the radio frequency. I'm asking you to
18	have guidelines in place that protect the public.
19	CHAIR MARCOU: From?
20	MS. SCARATO: You would be you can
21	have guidelines that de facto protect the public.
22	For example, with much larger setbacks. You do

not have to do whatever industry wants you to do 1 2 to put in these small cells. You can -- do you see what I'm saying? 3 4 I'm not saying regulate, because the FCC is who 5 is charged with regulating, even though they're not a health and safety agency. 6 In other 7 countries, this radiation is exceeding their 8 limits. 9 CHAIR MARCOU: And we understand that. But I'll use this example. We can absolutely 10 regulate their location in relation to traffic 11 12 safety. So, you heard earlier that they had a concern about our limitation of these being 13 14 placed on poles that have traffic signal equipment or traffic control devices. And they 15 16 wanted us to differentiate one set of traffic 17 control devices from another. 18 That's clearly within our purview and our jurisdiction and our authority. So, I just -19 20 - I think I'm going to need to leave it there. 21 It would be helpful for us to have an explanation 22 in writing about how you believe the location of

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infrastructure in the right-of-way is the 1 2 mechanism by which -- you mentioned setbacks -radio frequency setbacks should be regulated. 3 4 MS. SCARATO: Could I just answer 5 that, then? CHAIR MARCOU: 6 Sure. Sure. MS. SCARATO: I'm not asking you to 7 8 regulate radio frequency. I'm asking, since 9 you're doing these small cell guidelines, even though there is not currently 5G, a need for 5G; 10 11 people have service. And, by the way, there is 12 reports that show how you can get super-fast 13 speeds without putting all of these up. So, 14 that's a separate side conversation. 15 But, answering your question, I'm not 16 asking you to regulate radio frequency. I'm 17 asking you to have guidelines that protect the 18 public from cell antennas 10, 20, 30 feet from 19 where their children sleep. It's not -- you 20 don't have to do this. 21 CHAIR MARCOU: What element of the 22 antenna are you asking us to regulate related to

the setback. Is it the --1 2 MS. SCARATO: The installation. CHAIR MARCOU: No. We understand 3 4 that. That's what the setback means. But what's 5 the purpose or intent? Why do we have to have that setback, based on what you're saying? 6 MS. SCARATO: Well, the further you 7 8 are from an antenna, the less radiation exposure 9 that you will be receiving. 10 CHAIR MARCOU: Right. And so the 11 basis is on radio frequency. So, that's what I'm 12 getting back to. 13 MS. SCARATO: That doesn't mean that 14 you'd be regulating the radio frequency emissions. That simply means -- you know, we 15 16 were simply recommending that you have guidelines 17 that minimize exposure of radio frequency 18 radiation to people, rather than increase, which 19 is what this is going to do. 20 For example, in Poland, because their limits are more restrictive than the United 21 22 States -- we have the most lenient, among the

most lenient, allowable limits of radiation from 1 2 networks in the entire world -- they are trying to get the government to change their limits. 3 4 That is different. That is regulation of radio 5 frequency because they want to fully deploy 5G and they can't with those limits, which are more 6 7 protective. 8 But I'm talking about -- well, 9 they're, right now, if I understand, can't an antenna be 10 feet or 20 feet from a building? 10 11 That means a person could be in that building. 12 There could be children down here and the antenna 13 up here. 14 I mean, there are ways that you can have guidelines that are protective that are not 15 16 regulating radio frequency, but that are simply 17 minimizing the antenna to the people. 18 CHAIR MARCOU: It seems, at least as

19 I'm hearing it, that you're asking us to regulate 20 radio frequency exposure.

21 MS. SCARATO: No. Just where the --22 I'm recommending that your guidelines minimize the distance between antennas and people and animals.

Right. 3 CHAIR MARCOU: Based --MS. SCARATO: And I'm not talking 4 5 about regulating radio frequency ratings. Many jurisdictions are -- like, Fairfax was mentioned, 6 7 Petaluma, Mill Valley -- they are enacting 8 ordinances and guidelines to minimize the antenna 9 in relation to the people. That's all. 10 CHAIR MARCOU: It would be helpful if 11 you gave us the background and information 12 related to the legal analysis that gives us the 13 authority to do that as an entity regulating 14 infrastructure in the right-of-way, not related 15 to regulating radio equipment. Because, as we're 16 all saying, we're not about regulating radio 17 equipment, we're about regulating infrastructure 18 in the right-of-way. And, in addition, those 19 standards that you think would be appropriate. 20 So, that'd be great if you could give us both of 21 those.

MS. SCARATO: It's in there. And,

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also in the Master Licensing Agreement, it does
 say that public welfare and safety can prioritize
 over the companies.

I apologize if I missed 4 CHAIR MARCOU: 5 it in your material, but it would be great if you could give us an executive summary that 6 7 crystalizes that. Because that helps us 8 understand more specifically where you think we 9 have the legal authority to do that and what you recommend we exercise under that legal authority. 10 11 MS. SCARATO: Okay. Thank you. CHAIR MARCOU: Thank you. 12 Sir, I think 13 you're pretty much along the lines of the 14 Chambers of Commerce in the prior panel. You're supportive of small cell technology deployment 15 16 and you're interested in that happening soon. Ι 17 just have one question for you about your 18 testimony. You said that your employees are 19 going to New York because it has 5G. 20 MR. BUKO: It has 5G test nodes. 21 They're not deployed 5G. 22 CHAIR MARCOU: Right. So, they're

probably going to particular facilities that are in New York?

MR. BUKO: 3 Correct. 4 CHAIR MARCOU: Okay. You do know that 5 District of Columbia was also a location the where a small cell provider, who's located in 6 7 this room, conducted a test that was the first 8 successful test of a particular component of 5G 9 earlier this year, right? 10 MR. BUKO: Correct. 11 CHAIR MARCOU: Yeah. So, we're at the 12 forefront as well. So, take that to your --13 MR. BUKO: I guess it's more that, if 14 I'm hedging my bets, New York gets it before D.C. CHAIR MARCOU: What's that? 15 16 MR. BUKO: If I'm hedging my bets on 17 what city gets deployed 5G first, everything I've 18 seen and read is that it will be New York. 19 And I guess if you look at -- if they 20 have test nodes first today, up in New York, and 21 they're using them, and then we are hopefully 22 getting them soon, you could assume a similar lag

in deployment over other products and services. 1 2 CHAIR MARCOU: Thank you. 3 MR. BUKO: So, yeah. CHAIR MARCOU: And Mr. Viteri, thank 4 you very much for reading those comments into the 5 record. 6 7 It didn't quite seem like they were 8 from the Gala Theatre, but sometimes people make 9 statements and then, it turns out that there's 10 perhaps more ambiguity to them. 11 But since you're up here, did you have 12 anything you wanted to say, because you clearly came here for a reason, and I can tell you right 13 14 now, the Trees for Georgetown behind you and the other representative from the Georgetown Citizen 15 16 Association are not happy with me at this moment. 17 And I apologize, but Mr. Viteri was 18 here, we understood it was for the Gala Theatre, 19 and then, when we saw it, it clearly was 20 different. 21 MR. VITERI: Yes, and I apologize, that's what I was told was for the Gala Theatre. 22

1	I do have some personal, I can wait until after
2	them, I understand.
3	You've all been here the whole day, so
4	I have no problem waiting to do my testimony, it
5	is short, it's not too long.
6	CHAIR MARCOU: You're here, Mr. Viteri
7	
8	MR. VITERI: Okay, thank you.
9	CHAIR MARCOU: why don't you go
10	ahead and do you have it in writing?
11	MR. VITERI: Yes, I do. I have four
12	copies, I didn't know how many
13	CHAIR MARCOU: Thank you.
14	MR. VITERI: Yes, hello. My name is
15	Gus Viteri, V-I-T-E-R-I. I'm a resident of Ward
16	4 and a District resident. I work in technology
17	in the private sector for over 20 years.
18	I currently serve as the Chief
19	Technology Officer at a charter school here in
20	the District. Thank you for providing me the
21	opportunity to offer community input.
22	My current position places me squarely

in the intersection of two vitally important 1 2 components of D.C.'s future success: technology and education. 3 I'm here today because I know the 4 5 future of these two areas will center around connectivity and availability of wireless 6 7 networks, such as 5G. As many experts have written, by 2020, 8 9 it's expected there will be approximately four internet devices for every human on our planet. 10 11 As there is no sign of that trend 12 showing down, we need a wireless network that 13 will provide strength and low latency, such as 14 5G, which will be able to support growing consumer demand, especially in populous areas 15 16 such as Washington, D.C. 17 5G will help us unlock new 18 opportunities for innovations, to experiment and develop new technologies. Some innovations could 19 20 improve classroom experiences, sooner rather than 21 later, and include virtual reality, augmented reality, the internet of things, and classes on 22

demand.

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2	Cities that tap into the power of 5G
3	and small cell technology will be better equipped
4	to implement improvements for city services,
5	especially in the areas of public safety,
6	transit, emergency preparedness, and provide
7	access of Wi-Fi in underserved areas.
8	Of course, this only becomes possible
9	through robust small cell presence. As you
10	develop a set of standards that affect
11	deployment, I would encourage you to consider the
12	importance of achieving an expeditious rollout.
13	The sooner D.C. has small cells, the sooner we
14	can welcome 5G, next generation technologies, and
15	all the benefits. Thank you.
16	CHAIR MARCOU: Thank you, Mr. Viteri.
17	Long story short, you're in the same position as
18	Kerb and the
19	MR. VITERI: Yes.
20	CHAIR MARCOU: Chamber of Commerce.
21	Thank you. Do Committee members have any
22	questions for any of the panelists? Great.

Thank you very much. We'll move on to our next 1 2 panel. I'll also note for the record that an 3 4 ANC is looking to get in here behind us, but we 5 are going to continue through our process, because we did reserve this room. 6 So, with that said, we'll move to our 7 8 next set of panelists. Let me go to my list. Is 9 -- we already had Mr. Heins, we already had you 10 speak. 11 So, why don't we pull up Mr. James, 12 the representative for Trees from Georgetown. If 13 you would like to also speak as well, that would 14 be great. And is there any other person who would like to speak before the Committee? Great, 15 16 we have two more. 17 Commissioner Wilcox, why don't you 18 come up and then, we'll have all of Georgetown at 19 And, ma'am, then we'll have you come up. once. 20 Would that be all right? Then, you'll have our 21 undivided attention. 22 Is there anybody else present to

Great, you won't be alone, there will be 1 speak? 2 three people. Mr. James? MR. JAMES: Okay. Hello? Okay. 3 Ι 4 don't know if you have the testimony of the 5 Kalorama Citizens in front of you, which we submitted electronically beforehand. So, you 6 have that? Okay. 7 8 So, I'll be happy to answer any 9 questions you might have about the KCA's official testimony, which, again, was submitted prior, by 10 11 the deadline, in advance of this hearing. 12 It was the product of a meeting where the issue was discussed to the best of our 13 14 ability, because it's a very complicated issue and we're all busy learning more about it as days 15 16 go on. 17 That's why I have my own separate 18 personal testimony, I can't make a KCA meeting 19 happen out of thin air, we meet once a month. 20 But this, again, mine, not Kalorama Citizens. 21 CHAIR MARCOU: Yes, sir. 22 MR. JAMES: All right.

I	3. I
1	CHAIR MARCOU: Please go ahead.
2	MR. JAMES: So, I want to start off by
3	just mentioning that the four companies that sat
4	up here, the providers, showed you pretty
5	pictures, but they didn't show anything that
6	looked like any place I've ever seen that people
7	live in Washington, D.C.
8	Like, I live in a row house community,
9	with four and five-story apartment buildings
10	around. And I know what Georgetown looks like, I
11	know what Dupont Circle looks like.
12	But when I heard objections about
13	alleys, it didn't make any sense at all. The
14	alleys are freer space in the areas that I'm
15	familiar with.
16	And I'm a carpenter, I've worked in
17	alleys, behind people's houses, for the last 40
18	years. And most often, in downtown D.C.
19	neighborhoods.
20	And they generally are not populated
21	with trees, to the extent that streets are, where
22	the leaves are apparently going to interfere with

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the signals. So, I just really do think that you
were shown some pictures that were misleading.
And before I get to my actual
testimony, another thing that I thought about was
Mr. Maher's from OP's, example of P Street,
between 16th Street and Dupont Circle, which is
in the Old City and it's in a D.C. Historic
District.
It was interesting to hear what he
thought could happen on the street itself, but he
didn't talk about what might be able to happen in
the alleys. And that will be what is
recommended, I believe, by these design
guidelines. Anyway.
I've been a resident and home owner in
Adams Morgan since 1971. I was drawn to the
District, and my neighborhood in particular, by
the beauty of so much of the architecture, its
human scale, and the tree-lined streets.
Over the years, I became a
preservation advocate and worked to create
Historic Districts in my neighborhood.

	l · · · · · · · · · · · · · · · · · · ·
1	Now, the beauty of all D.C.
2	neighborhoods, historic or not, is to be put at
3	risk for more corporate gain to provide what will
4	almost certainly be just a stopgap technology on
5	the way to the next big thing.
6	The idea of treating Historic
7	Districts in a special way at first sounds
8	logical and proper. But upon further
9	consideration, why should certain residents be
10	treated better than others.
11	Also, there are neighborhoods that
12	could easily qualify as historic, but the work
13	has not yet been done to make this happen.
14	I've studied the proposed design
15	guidelines and find them wholly inadequate. For
16	instance, it would not be okay to have such an
17	installation ten feet from my front bedroom
18	window.
19	It is not okay to put the trees that
20	many residents work hard to protect and maintain
21	at risk, either from digging to install new poles
22	close to their roots or to grotesquely trim them

so that small cell signals can travel more
 easily.

It would not be okay to have a device 3 the size of a refrigerator perched 30 feet over 4 5 the sidewalk or a whole flock of them hoteled on the poles, which will almost certainly be new 6 7 poles stuck in at irregular intervals, deforming 8 the streetscape symmetry. 9 The fiber optic cable that would go along with this endeavor would be buried, 10 11 creating even more of a threat to street trees or 12 massive expense in digging up our streets or 13 sidewalks and repairing them afterward. 14 The small cell technology question is also reputed to include signals that will make 15 16 self-driving cars in D.C. possible. I find this 17 totally unacceptable. D.C. can't even run 18 scooters safely, so spare me self-driving cars. 19 Too many of the statements in the 20 proposed guidelines sound good, but are not 21 strong enough or would allow waivers. Cabinets 22 in Historic Districts are to be placed

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1	underground. But we understand that the service
2	providers are fighting this requirement.
3	The problem is that the Executive
4	Branch is trying to ram a fait accompli down our
5	throats. The whole process is backward.
6	The Master Licensing Agreement should
7	only be crafted after a thorough public vetting
8	of all the issues that small cells raise. Then,
9	the MLAs would reflect residents' concerns.
10	I must say that outreach on this issue
11	has been abysmal. It's barely known about in the
12	city. ANCs, you might have had some meetings
13	about with ANCs, but it hasn't generally been
14	known.
15	And at my ANC, ANC 1C, somebody from
16	Crown Castle was supposed to show up to talk
17	about it in the October meeting and called and
18	told them, oops, can't be there, 20 minutes
19	before they were supposed to appear.
20	So, a halt should be placed on this
21	endeavor until DDOT, and where appropriate, DC
22	Historic Preservation Office representatives have

presented project information to every ANC in the 1 2 city. The MLAs should be subject to revision 3 after the public's concerns are heard and 4 incorporated into the project. 5 Each application to install this 6 7 equipment in Historic Districts should be heard 8 by the DC Historic Preservation Review Board and 9 the Old Georgetown Board for Georgetown, in Georgetown, if that's where --10 11 CHAIR MARCOU: I understand. 12 MR. JAMES: -- the application is. 13 Installation should occur only in alleys. There should be no discount for 14 installing more poles, that is a recipe for 15 16 having provider companies seeking advantage to 17 overpopulate the city with this ugliness. 18 Washington Globe lampposts should not 19 be subject to installation of this technology. 20 It is premature to create guidelines 21 for a technology that doesn't even exist yet and is not expected to be ready until at least 2020. 22

1 When we understand how it really works, then we 2 can more readily create appropriate guidelines. CHAIR MARCOU: Thank you very much, Mr. 3 4 James. 5 MR. JAMES: Thank you. CHAIR MARCOU: Please, Commissioner 6 7 Wilcox. 8 My name is Jim MR. WILCOX: Sure. I'm the Commissioner for ANC 2E06. 9 Wilcox. Ι fully support the comments on the resolution --10 I'm going to explain that --11 12 CHAIR MARCOU: Is this what you just handed out? 13 14 MR. WILCOX: I'm going to explain that 15 to you. 16 CHAIR MARCOU: Okay. 17 MR. WILCOX: Okay. 18 CHAIR MARCOU: I will say, I was taken 19 aback, but go ahead. 20 MR. WILCOX: Well, I want to give you 21 a surprise, it's late in the day. CHAIR MARCOU: Well done. 22

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1		34
1	MR. WILCOX: Okay.	
2	CHAIR MARCOU: But I'm paying	
3	attention.	
4	MR. WILCOX: I fully support the	
5	resolution that Joe Gibbons read earlier today on	
6	behalf of the entire ANC, but I also submitted	
7	some supplemental comments, which I provided to	
8	the Chair, regarding the draft small cell design	
9	guidelines.	
10	And I'd really like to just emphasize	
11	a couple of points, including the document that I	
12	surprised the Chair with.	
13	I completely agree with one of the	
14	comments the Chair made at the start, which is	
15	that the right-of-way in the District of Columbia	
16	is its most valuable asset.	
17	And I heard the various providers say	
18	that the purpose of small cells is, quote, to	
19	bring the antennas down to the street, or sort of	
20	get the antenna range down to the street.	
21	And I've also heard from the providers	
22	that they want to go at least 30 feet, plus six	

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345

feet, 36 feet high, in some instances. I think I 1 2 heard one of the providers say that they might even want a pole that's 50 feet high. 3 But in any event, the poles were quite 4 5 high, notwithstanding the idea that the concept is to bring these small cells down close to the 6 7 ground. And the point I wanted to make, which 8 9 is based in substantial part on the documents that I just provided to the Chair is that one of 10 the four companies which has executed the Master 11 12 License Agreements, Verizon, is already in the 13 process of installing multiple 5G facilities on 14 the rooftops of commercial buildings in 15 Georgetown, that are about 40 feet high. 16 Now, historically, what we have in 17 Georgetown is a large number of antennas, that 18 are presumably 4G antennas, that are on rooftops 19 of the commercial area. 20 Now, we have currently applications, 21 that's just one example of them. If you look at 22 Page A1, you'll see the 5G antenna on it, which

is why I thought I'd give you the document. 1 2 That's a supplement that they've provided for our OGB overview. They're already 3 putting antennas on top of buildings, commercial 4 5 buildings, that are four and five stories high in Georgetown. 6 7 There's no problem with them servicing 8 those antennas, or else they wouldn't have been 9 doing it for the last ten years. So, the idea that it can't be serviced 10 or it's sort of impractical to have antennas on 11 12 rooftops is, first of all, belied by the fact 13 that that's just what they've been doing for the 14 past ten years in Georgetown, and secondly, by the fact that Verizon is right now seeking 15 16 authorization to install 5G facilities on, five 17 5G facilities on rooftops in Georgetown, 18 approximately 40 feet high. 19 So, they may be actually shorter than 20 some of the poles that the providers say that 21 they would like to use to bring 5G down to the 22 street. I mean, it's ridiculous.

And from our point of view, if in fact 1 2 5G facilities are installed on rooftops, it's going to greatly diminish the adverse impact on 3 the streetscapes and on the right-of-way, which 4 5 the Chair has correctly pointed out is the city's most valuable asset. It's practical, it ought to 6 be a first priority. 7 8 And from our perspective and my 9 perspective, the final guidelines should provide that poles can only be used if a provider 10 establishes by clear and convincing evidence that 11 12 there is no property owner willing to rent 13 rooftop space for a 5G installation within an 14 area that is necessary to provide 5G service. Nice and simple. 15 16 That's exactly what's going on now 17 with 4G, why can't we do it with 5G? It 18 eliminates almost all the adverse impacts on the 19 streetscape, consistent with the Chair's 20 objective, and most of the concerns that have 21 been raised by others here. I think it's a 22 wonderful idea and it should get a top priority.

And then, we don't even have to worry
about most of these pole issues, because in fact,
I believe that most residents, for example, if
there's a requirement to install in a residential
area, would choose to have an installation on a
rooftop, where they're also charging the
providers a fair market rent and providing
access, just like the providers are getting on
the commercial structures right now, and that
they'd prefer that to having a pole right in
front of their houses.
So, it's a very workable thing, it's
actually happening now, and I believe that the
guidelines should provide the incentive that I
just described to continue that.
CHAIR MARCOU: And that language is in
your comments, correct?
MR. WILCOX: I can give you that
further. It's in my oral comments, but I can
submit something else.
CHAIR MARCOU: That would be great.
MR. WILCOX: Okay.

1	CHAIR MARCOU: Thank you.
2	MR. WILCOX: Second, in the comments I
3	submitted, I referenced a video from the CEO of
4	Verizon and one of Verizon's 5G engineers. It
5	was actually on the news. And I encourage each
6	one of you to just take a look at it.
7	I was actually going to bring it here
8	to play it, except I was under the impression
9	that we only had three minutes and the video runs
10	a little bit over three minutes.
11	But most people are very impressed by
12	seeing video of the head of one of these major
13	companies that is here talking to you today
14	telling the truth to the national news networks.
15	So, please take a look at it.
16	What he states is that the range of 5G
17	antennas is not the 300 to 500 feet that is being
18	represented by these folks who are testifying
19	here today, but is between 2,000 and 3,000 feet.
20	Okay? So, the range of the antennas is vastly
21	greater than what's been represented.
22	They also state clearly that, based on

Verizon's own experience, there's no line-of-1 2 sight requirement, despite what people have been saying here today, and that trees and foliage are 3 not a problem, despite what people have been 4 saying here today. 5 Again, I think if the CEO of Verizon 6 7 states that quite clearly on the national news, 8 that's something you want to take into 9 consideration. AT&T and others are actually trying to 10 increase the number of poles that are provided 11 12 under the guidelines. I think that those are a maximum. 13 14 In fact, what I think is that, because it's clear to us that you considered the range of 15 16 these antennas when you tried to decide how many 17 antennas would be appropriate on blocks of 18 different lengths, that if you assume that the 19 range of the antennas is not 300 feet, but indeed 20 is 3,000 feet, which is ten times as much, obviously, fewer antennas are required. 21 And that's even if, in fact, we don't 22

put them -- well, first of all, we should put 1 2 them on the rooftops where that's possible. То the extent they're on the street, far fewer are 3 necessary than are being suggested by the 4 providers. 5 I think what they want to do is 6 7 essentially just get a cheap right-of-way for future development, since, as you all know, there 8 9 are absolutely no facilities currently, in terms 10 of smartphones, computers, or anything else, that 11 can even use 5G. 12 So, indeed, since the cost of these 13 new poles to them is way sub-market, it's not 14 even currently usable, because there's no facilities, in terms of smartphones, that can use 15 16 the equipment, they're just getting a cheap buy 17 to establish multitudes of poles for future 18 development in the neighborhoods, when indeed, by 19 Verizon's own actions, as one of the major 20 carriers who testified here today, it's 21 practical, reasonable, doable, and is currently 22 being done, to put these facilities on rooftops,

which avoids the problems that most of us are 1 2 concerned about and which I think the Chair was sympathetic to when he said that right-of-way is 3 our most valuable asset. 4 5 In closing, I'll say that I think that there's little, if any, reasonable need for the 6 Public Space Committee to allow additional poles 7 8 to be constructed in the residential areas of 9 Georgetown, taking into account both the availability of rooftop installations and 10 11 extended antenna range. 12 The final guidelines can enable 5G to 13 be fully implemented in Georgetown, and across 14 the city, while minimizing adverse impacts. This approach is fair and prudent and should be 15 16 adopted. Thank you. 17 CHAIR MARCOU: Thank you very much, 18 Commissioner. If you'll pass the microphone on? 19 MR. WILCOX: Certainly. 20 MS. SANTOYO: Good evening. 21 CHAIR MARCOU: Good evening. 22 MS. SANTOYO: I'm Elsa Santoyo, S-A-N-

1	T-O-Y-O, and I am a Director of the Citizens
2	Association of Georgetown. I'm also the Chair of
3	its Historic Preservation and Zoning Committee.
4	In this capacity, I support the
5	resolution the ANC 2E submitted about the design
6	guidelines on October 3, 2018, and offer the
7	comments CAG submitted about the guidelines
8	October 1, 2018, and the resolution CAG submitted
9	to DDOT previously dated April 24, 2018,
10	requesting DDOT to encourage applicants to seek
11	CFA approval prior to the installation of small
12	cell
13	CHAIR MARCOU: Hold on for a second.
14	Got to bring your stop, you've tangled the
15	wire in your feet
16	MR. WILCOX: I don't
17	CHAIR MARCOU: I just want to make
18	sure he's covered for recording.
19	MR. WILCOX: I think I'm okay now.
20	CHAIR MARCOU: I've got eyes on, so
21	MR. WILCOX: Okay, I'll get my feet
22	back.

I	35
1	CHAIR MARCOU: I just want to make
2	sure he's okay, because this is being recorded
3	for posterity.
4	MR. WILCOX: Sure.
5	CHAIR MARCOU: So, we want to make sure
6	that we've got an accurate document. Okay.
7	MR. WILCOX: I apologize for my big
8	feet.
9	CHAIR MARCOU: That's okay. The wire's
10	also under the table, so I should have warned
11	you.
12	MR. WILCOX: Thank you.
13	CHAIR MARCOU: Please continue.
14	MS. SANTOYO: The Citizens Association
15	of Georgetown Board of Directors approved the
16	latter during two separate meetings of its Board.
17	Georgetown, like the rest of the city,
18	is very proud of its streetscape and we totally
19	appreciate your opening comments.
20	But Georgetown, particularly, remains
21	a unique Historic District defined by its
22	architecture and that of its streetscape. Its

relatively few lamp poles and abundance of trees significantly characterize that streetscape setting.

As in early preservation efforts, preservation of Georgetown today must extend beyond the built environment to its setting.

7 In finalizing the small cells design 8 guidelines, please consider the following 9 comments, which represent my own views now, in 10 addition to CAG's formal comments, which I was 11 also an author of, to preserve Georgetown's 12 unique character.

First, I'm concerned that locating bulky antennas at the height of street lamps, as one of the providers suggested, will detract from and obscure the globes of the street lamps.

17 They will also obscure the cornice and 18 entablature details that are at the same level, 19 that are considered highly significant 20 characteristics of Georgetown's architecture. 21 This would be damaging to perspectival 22 streetscape views and also obscure views to the

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streetscape from second-story windows.

2	Locating the bulk of antennas well
3	above the 20-foot height instead, as recommended
4	in the guidelines, will mitigate those adverse
5	effects, placing the bulk of the small cells
6	above the parapets and eaves of the majority of
7	Georgetown's houses.
8	I worry that the resulting potential
9	visual and health concerns that loosen the
10	guideline restrictions, as requested by the
11	carriers today, could drastically adversely
12	affect the value of the individual properties
13	adjacent to the small cell facilities.
14	This is backed by numerous studies,
15	that conclude that there have been up to a 20
16	percent drop in property values adjacent to cell
17	towers.
18	Could this potential deleterious
19	effect be considered a taking, because the
20	potential future of the property is constrained
21	by the installation of the small cell?
22	I support the comments submitted by
-	

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1	the ANC 2E, CAG, Mr. Wilcox, the Environmental
2	Health Trust, which they provided to you guys on
3	October 5, 2018, about the health issues related
4	to small cells.
5	EHT's comment that worldwide, many
6	regions are investing in wired fiber optic
7	connections, as a healthier, more cyber-secure
8	alternative, that offers faster service and
9	increased capacity, seems to be buttressed by the
10	fact that Comcast has made a decision to stay out
11	of the small cells race, because their position
12	is that they can offer what other providers are
13	promising using their existing cable
14	infrastructure.
15	Finally, I do support Commissioner
16	Wilcox's comments about pursuing the feasibility
17	of roof-mounted 5G wireless transmission towers
18	to the pole-mounted antennas prior to approval of
19	the guidelines and the deployment of small cells
20	in Georgetown.
21	The 5G towers, with a coverage range
22	of 2,000 to 3,000 feet that Verizon is touting

and testing, as Mr. Wilcox said, in five 1 2 locations across Georgetown, now, could well provide 5G access throughout the entirety of 3 4 Georgetown, which is less than 6,000 feet by 5 9,000 feet. That is the extent of the area we So, 2-3,000-foot coverage, you can 6 occupy. 7 imagine how we could lessen the impact. 8 Benefits of the roof-mounted 5G towers 9 over numerous added antenna poles include 10 providing income streams to property owners, preserving the setting of our historic community, 11 12 and perhaps even our community's health. 13 So, I ask you to please make my 14 comments here, as well as those you have heard, part of the formal record before the Public Space 15 16 Committee. Thank you. I appreciate your time. 17 CHAIR MARCOU: Thank you very much. If 18 you'll pass the microphone on? 19 MS. SANTOYO: Yes. Here you go. 20 MS. EMES: My name is Betsy Emes, 21 spelled E-M-E-S. I'm Chair of Trees for 22 Georgetown, which is a nonprofit organization

under the auspices of the Citizens Association of Georgetown.

And we raise funds from the community to plant and maintain street trees in the residential areas of Georgetown. And we educate the community on the importance and care of these trees.

8 We plant our trees with the permission 9 of the Urban Forestry Division of DDOT and also 10 work closely with Casey Trees. We have planted 11 almost 3,000 street trees since our inception in 12 1989.

13 Trees for Georgetown would like to 14 express its concern for the potential damage to 15 the D.C. street trees by the 5G small cell 16 installations.

With regard to the placement of standalone poles vis-a-vis street trees, the draft design guidelines call for these poles to aligned with street lights, third-party poles, and street trees in order to maintain a visual and physical organization of structures within

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the right-of-way.

2	Trees for Georgetown supports the
3	guidelines in that these standalone poles should
4	not be placed where it limits the ability of the
5	District of Columbia to plant a street tree in
6	the future, regardless of whether the District
7	plans to plant a tree in that location at the
8	time the application is submitted. In other
9	words, don't put a pole in an empty tree box.
10	We further support the guidelines in
11	that a standalone pole should not be placed
12	within the critical root zone of existing street
13	trees.
14	Street trees should not be removed,
15	nor have their critical root zones compromised
16	for the installation of any small cell
17	infrastructure. The 15-foot minimum should be
18	maintained.
19	However, Trees for Georgetown has
20	grave concerns that 5G small cell implementation
21	would have adverse impact, not only on the
22	appearance of street trees, but also their

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1	health, which the guidelines fail to address.
2	We are told that standalone poles must
3	be in clear line-of-sight to each other, as well
4	as cell phones and houses, which would involve
5	tree trimming.
6	Trees for Georgetown urges that the
7	guidelines put in place a permit process
8	requiring the oversight of a certified arborist
9	for any prune, with stringent penalties for
10	noncompliance attached.
11	Random, unsupervised pruning by
12	nonprofessionals would be a disaster, causing our
13	street trees to be grossly disfigured or worse
14	yet, killed. Thank you.
15	CHAIR MARCOU: Thank you. I'm going to
16	start with that last point. And I just want to
17	be clear to everybody and we've said this to the
18	Master License Agreement holders.
19	It is illegal to prune a street tree
20	without a permit and all permits for street tree
21	work and all permits for small cell will be
22	reviewed by the certified arborists at the Urban

Forestry Division. All the small cell providers
understand that, correct?
(Chorus of yes.)
CHAIR MARCOU: Let the record show that
they said yes.
So, while there are people who do
perform improper or unpermitted, I'll just the
term unpermitted, acts in public space, and trust
me, we try to fine them every place we can, but
we've only got a certain number of inspectors, in
this case, they know full well that their
applications will not be approved until they've
gone through Urban Forestry's review and they
know that they cannot prune trees without a
permit from the District Department of
Transportation that are reviewed and approved by
the Urban Forestry Division.
So, please rest assured that that is
absolutely covered.
MS. EMES: Yes, but just because it's
covered doesn't mean it won't happen. And once
it's happened, that's it.

1	CHAIR MARCOU: Once it happens
2	MS. EMES: They should have a certified
3	arborist hired by them if the city can't provide
4	it to supervise every bit of the pruning.
5	CHAIR MARCOU: That assumes that the
6	pruning is permitted. So, I'll start from that -
7	-
8	MS. EMES: Yes.
9	CHAIR MARCOU: Right. So, I'll start
10	from that. The Urban Forestry Division will
11	manage all of that. That is in their purview,
12	that's their authority, they tell us how trees
13	get pruned, that's how trees get pruned. Okay?
14	MS. EMES: Are they getting more staff?
15	Because they're having trouble right now doing
16	that just on the trees
17	CHAIR MARCOU: I look forward to our
18	getting more staff and their getting more staff.
19	You might want to make that recommendation to
20	people who have that ability to make that happen.
21	I do want to move on to another
22	MS. SANTOYO: Can I just add something?

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1	CHAIR MARCOU: Of course.	
2	MS. SANTOYO: I thought her point about	
3	a certified arborist was a good one, from the	
4	standpoint that you would be requesting the	
5	carriers, through the guidelines, to make sure	
6	that, prior to asking for the permit from you,	
7	that a certified arborist has checked what	
8	they're going to do.	
9	Because that way, if you're short	
10	staffed, you would be able to	
11	CHAIR MARCOU: Okay, let me stop you	
12	there. I'm not being clear enough, so I'll be	
13	clear enough. A permit to install a small cell	
14	device does not include at all a permit to do any	
15	pruning whatsoever	
16	MS. SANTOYO: We know that.	
17	CHAIR MARCOU: to a street tree. It	
18	is a separate type of permit. So, for them to	
19	get a permit that, if they were to do an	
20	installation and it required pruning, it would be	
21	a second element of the permit.	
22	It would have to be explicitly stated	

on the permit application and it would go to 1 2 Urban Forestry and they would set whatever the criteria standards Urban Forestry wants for that. 3 A certified arborist sounds like an 4 5 excellent suggestion to make to them. If it's not a condition that -- if they want us to add a 6 7 condition, it can go as a condition like that. So, we're all on the same page. 8 Yes, 9 we've heard this repeatedly from you, at a 10 variety of fora, so we just want to make sure you know that we've heard it, you are totally on top 11 12 of it, and it currently is illegal. 13 And, yes, illegal activities occur in 14 public space, that doesn't mean that we don't still include them. Just because people speed, 15 16 doesn't mean that we don't include speed limits. 17 MS. EMES: Yes, but there's --18 CHAIR MARCOU: So, I want to continue 19 and move on -- I'm sorry, please, go ahead. 20 MS. EMES: I would like to say one more 21 thing. There should be stringent penalties for 22 this. Tickets are rarely given, fines are rarely

levied.

2	I mean, hit them in the pocketbook and
3	they'll stop doing it. But we're not doing that,
4	the city is not doing that on any venue.
5	CHAIR MARCOU: So, the guidelines are
6	not an authority in which we could do that.
7	There are standards for enforcement activity and
8	fines that are given based on violations. Those
9	are already well established.
10	Urban Forestry Division, I'm sure is
11	an advocate to make sure that those fines are
12	properly calibrated to prevent bad acts. They
13	are probably the best entity to work with on
14	that.
15	Our office is also happy to hear any
16	recommendations related to modifying the fines
17	related to enforcement activities.
18	MS. EMES: Thank you.
19	CHAIR MARCOU: Okay? Okay. I wanted
20	to clarify two things that I thought I heard.
21	Did you want the small cells to be taller? It
22	sounded to me

1 MR. WILCOX: Are you asking me? 2 MS. SANTOYO: Are you talking to me? CHAIR MARCOU: Yes. It sounded --3 4 MS. SANTOYO: What I actually said was 5 that I lauded the height that's called out in the design guidelines --6 7 CHAIR MARCOU: Okay. 8 MS. SANTOYO: -- right now. And that 9 one of the carriers earlier had talked about bringing down that height and that we opposed 10 11 bringing down that height, from what the design 12 guidelines are currently. 13 CHAIR MARCOU: I think that they 14 recommended increasing the height levels. MS. SANTOYO: There was two things 15 16 said. It went up and down. 17 CHAIR MARCOU: Okay. 18 MS. SANTOYO: One of -- when, I forget 19 if it was AT&T or Verizon, showed slides, they 20 showed facilities that were the same height as 21 the globes. And so, that's what that comment was about. 22

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1	That comment was about that particular
2	carrier showing a lower height than what is
3	recommended in the guidelines. So, we were
4	speaking in support of what the guidelines
5	currently
6	CHAIR MARCOU: It would be helpful to
7	review the guidelines, I don't know if they set a
8	minimum height, but if they don't
9	MS. SANTOYO: They didn't set a minimum
10	height, but they set a maximum height of 31 and
11	there's also a diagram that shows a height. And
12	so, we would urge that they that you don't
13	exceed
14	CHAIR MARCOU: If you'd like the
15	guidelines to be clarified related to minimum and
16	maximum heights
17	MS. SANTOYO: Yes.
18	CHAIR MARCOU: of installations, we
19	look forward to getting that specific comment in
20	the
21	MS. SANTOYO: That was in the CAG
22	CHAIR MARCOU: So, what's the specific

1 2 MS. SANTOYO: -- comment to you. CHAIR MARCOU: What's the specific 3 4 minimum height that you're looking for? 5 MS. SANTOYO: We did not give you a specific minimum height, we said in our comments 6 to you that we submitted electronically before --7 8 CHAIR MARCOU: Yes. 9 MS. SANTOYO: -- the deadline for 10 comments --11 CHAIR MARCOU: Yes. MS. SANTOYO: -- that maximums and 12 minimums should be called out in the guidelines 13 14 and that is something that we would encourage. 15 CHAIR MARCOU: Right. So --16 MS. SANTOYO: The --17 CHAIR MARCOU: -- let me stop you --18 MS. SANTOYO: The authors of --19 CHAIR MARCOU: Let me stop you there 20 for a second, because I want to be clear, a 21 minimum and a maximum recommendation, the recommendation to have minimums and maximums is 22

The recommendation to have a specific 1 great. 2 minimum and maximum is what we're asking for. MS. SANTOYO: And what I just was 3 4 telling was that we would leave it to the 5 Commission of Fine Arts to make that recommendation, in their wisdom. 6 7 We think it's better that the authors of the design guidelines actually set that. 8 And 9 we're just asking you to take that into consideration, as our comment. 10 11 CHAIR MARCOU: We leave that in the 12 intelligent, capable hands of the Commission of 13 Fine Arts, then. So, you made that 14 recommendation to them, not to us? MS. SANTOYO: No, I made it to you, 15 16 because they're one of the authors of the design 17 guidelines. It was a collaborative effort, as we 18 understood it. 19 CHAIR MARCOU: It was, but ultimately, 20 the Commission of Fine Arts, as you're pointing 21 out, is the authority related to --22 MS. SANTOYO: I wasn't asking the

Commissioners to make the recommendation, I was
 asking the authors of the guidelines to just make
 that clear.

There was a wonderful Commissioner on the NCPC that, when the draft design guidelines were presented to her, she said, you know, one of the problems with design guidelines is that you can drive a truck through them.

9 And for that purpose, we believe that 10 you just need to tighten them up. And I believe 11 that Richard Heins actually said that to you as 12 well. Thank you.

13 CHAIR MARCOU: Thank you. We look 14 forward to hearing from the Commission of Fine 15 Arts on its recommendation related to the 16 minimums and maximums --

MS. SANTOYO: You didn't understand. CHAIR MARCOU: -- that you're requesting. So, I do want to point out another point, which is that I believe that if they could install just ten cells and cover the District of Columbia, trust me, they would only want to

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install ten cells.

2	They have no interest in going beyond
3	that, as I would think anybody who could
4	accomplish something would ten, would probably
5	not prefer to do 100. But I'm going to leave the
6	comment at that. It's
7	MR. WILCOX: It just does seem to me
8	that they're not being charged very much per
9	pole.
10	And I think to establish that as a
11	beachhead for 20 years is really of substantial
12	value. I think you're selling it way, way, way,
13	way short. And I can see why they would want to
14	have that. Okay?
15	CHAIR MARCOU: Sure.
16	MR. JAMES: If I might?
17	CHAIR MARCOU: Make sure you have the
18	microphone.
19	MR. JAMES: Okay.
20	CHAIR MARCOU: Thank you.
21	MR. JAMES: So, I don't believe that
22	the design guidelines prevent other future

providers from entering the marketplace. 1 2 CHAIR MARCOU: Correct. 3 MR. JAMES: Okay. So, I can see why the four entities that are there so far would 4 want to gobble up all the places and keep others 5 out of the marketplace. 6 7 So, that might be why they like the 8 idea of having numerous places to go. If they 9 have it, then someone else can't use it. So, 10 just one other point, when you were discussing --11 CHAIR MARCOU: I'd like to know if the 12 Committee members have any further questions for 13 the panel. 14 MR. JAMES: Oh, sure. CHAIR MARCOU: Thank you. 15 Mr. James, 16 you had something you wanted to add? 17 MR. JAMES: Just that, regarding the 18 height, the Master Lease Agreement establishes a 19 50-feet height limit, unless in the Department's 20 discretion, a greater height is accepted. 21 So, that's at odds with the guidelines and that needs to be dealt with. It's in 5.1.2 22

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1	of the MLA. It's in our Kalorama Citizens
2	testimony. It was
3	CHAIR MARCOU: Right.
4	MR. JAMES: something we discovered.
5	CHAIR MARCOU: Thank you.
6	MR. JAMES: Thank you.
7	CHAIR MARCOU: Okay. Thank you all
8	very much. I noted that there were three people
9	who also wanted to provide comments, there might
10	be a fourth. So, if you'll step forward?
11	Is there anybody else present who'd
12	like to put comments on the record with the
13	Public Space Committee? Ma'am, you've already
14	spoken to the Committee, we're moving forward.
15	That was your opportunity to speak to the
16	Committee.
17	So, we appreciate that, but you can't
18	speak in both a professional and then, come back
19	and speak in a personal capacity. That was your
20	opportunity to provide us with your comments.
21	You can do so in writing.
22	MS. POLS: You did let the Gala Theatre

1	3
1	guy do that.
2	CHAIR MARCOU: I'm sorry?
3	MS. POLS: You did let the Gala Theatre
4	guy do that.
5	CHAIR MARCOU: No, what I did was I
6	allowed him to read onto the record somebody
7	else's comments, because that person was no
8	longer here, and that's all we had him do was
9	read the comments.
10	PARTICIPANT: But I wanted extra
11	comments that I had the video for and you said
12	she couldn't play it.
13	CHAIR MARCOU: Right. So, with video,
14	we need the person here for those comments. For
15	written testimony, which we receive into the
16	record, a person can read it into the record.
17	So, with that said, we look forward to
18	hearing from the four of you. We'll go from your
19	left to your right. If you'll state your name
20	for the record, spell your last name.
21	MS. POLS: My name is Cynthia Pols,
22	last name is spelled P-O-L-S. I submitted

testimony on October 5, I hope you have that for
 the record.

CHAIR MARCOU: We do. 3 4 MS. POLS: Okay, great. I'm a member 5 of the Kalorama Citizens Association and professionally, I'm a telecommunications 6 7 attorney. I don't work for providers, I work for 8 municipalities, so I have some perspective on 9 some of these issues. I think, for starters, there's all 10 this talk about 5G. 11 In reality, it's not coming 12 until 2020. Most of what you're hearing about is 13 experimental pilot project type things. 14 The FCC has yet to auction the spectrum off that they're going to use for the 15 16 5G. The manufacturers are not yet making the 5G 17 equipment, that's happening next year. The 18 standard setting bodies are still working on the 19 standards for the networks. 20 So, things are not quite as urgent as 21 we were led to believe, in terms of needing to

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act quickly to allow this technology to get

2	On the other side of the coin, I would
3	say that 5G is going to have all kinds of
4	revolutionary impacts and we need to think about
5	that and plan for that. But not in the hasty way
6	that the industry would like, which is basically
7	to let them do as they would like to do.
8	From what we know about it
9	technically, they're going to be operating at
10	very high frequencies, the 28 gigahertz range,
11	which means that their signals don't travel very
12	far.
13	And in fact, their equipment does have
14	to be very close to the user, that's in the
15	nature of the beast.
16	Rooftop stuff is sort of a different
17	kind of interim technology that they're doing.
18	So, that probably is not an answer.
19	But I do think it would be helpful to
20	get a much clearer picture of how the
21	technology's going to work before we set up the
22	rules for the new antenna poles.

We know I think part of the talk
about not wanting to go into the alleys has to do
with the fact that the technology will be used
for autonomous vehicles, in all probability, so
they want to be on the street side for that
reason, as much as the things they said about it
somehow being difficult to get into the buildings
from the alleys.
I don't think there's any difference
between alley versus street for getting into the
buildings. As we go through this, we have to
think about the visual impact of all of this.
We could, if I'm correct that it's
intervals of 250 to 300 feet between antennas,
and we're talking about as many as five to ten
providers, then we can do the math and figure out
how much new poles and new equipment we're
looking at in our right-of-way, that's already
pretty crowded with all kinds of things.
And I also remember something that has
not been talked about at all, which is, a number
of these providers intend to connect their

antennas via fiber optic links. 1 2 So, they'll be feeding the antennas by a fiber optic network, that's to the good, 3 because that actually reduces some of the 4 emissions people are concerned about. 5 But it also means there's going to be 6 7 an awful lot more work in the rights-of-way than 8 you're contemplating, because they're going to be 9 digging for all that. They'll be digging the sidewalks, they'll be digging in the roads. 10 11 And so, I think really what we're looking at right now is, they want to do what 12 13 they call network densification, initially, which 14 is just basically enhanced 4G. That doesn't require things being as close to the user as 5G 15 16 does, but that equipment will be adaptable to 5G. 17 So, that's essentially, I think, the 18 industry plan is, we'll improve our existing 19 network with enhanced 4G and that'll be good to 20 go for the 5G. 21 That's great for them, not so great

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for us, because we're not thinking about the

significance of unloosing all these new poles in
 our streets.

So, we have a unique streetscape, it's 3 4 been talked about at great lengths today, so I 5 won't go over that, but we know it's beautiful. It's got all these great trees, it's got all 6 these wonderful buildings. 7 And so, we want 8 things to fit with that and it's going to be hard 9 to do. 10 So, I mean, my biggest takeaway from 11 all this, from hearing -- sat through things all 12 day is, we need to slow this train down to get it 13 right, to understand better how the technology's 14 actually going to work so that when you set in 15 place regulations that are supposed to 16 accommodate, you understand what it's going to 17 do. 18 And I certainly didn't think that, 19 sitting here today, we got a clear, honest 20 picture of how it's actually going to work. 21 I also want to remind people who may not have been around, 1999, it was a couple years 22

after the Telecommunications Act was enacted, and
 everybody thought fiber optics was going to be
 this really great thing.

And the D.C. Government basically gave permits to every Tom, Dick, and Harry who wanted to tear up our streets to lay fiber optics. And we did and they tore up the streets and made a huge mess and pretty much all the companies went bankrupt.

10 It was a very sort of unregulated 11 thing. I'm a little bit concerned that we're 12 sort of headed down that road again, based on the 13 fact that we don't have a clear picture of what 14 this technology's actually going to do.

So, that's sort of my cautionary tale to you is, remember that, that was 20 years ago. This could be much worse, because we're talking about a much -- we're talking about fiber optics and all the antenna poles.

I want to -- I don't want to criticize you guys as a body, but I wonder if the Public Space Committee --

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1	CHAIR MARCOU: You're more than welcome
2	to, there's a long list of people who are happy
3	to criticize us.
4	(Laughter.)
5	CHAIR MARCOU: But that's part of our
6	job.
7	MS. POLS: It's not
8	CHAIR MARCOU: That is absolutely part
9	of our job.
10	MS. POLS: It's more a criticism of the
11	fact that I'm not sure that you are structured
12	and equipped to deal with what I'm talking about
13	down the road.
14	The volume of the work that would be
15	associated with getting this right, if they
16	really are going to do what they say they want to
17	do, it's a huge undertaking.
18	And I kind of feel like maybe there's
19	a need for a more specialized panel that has
20	oversight over this type of thing, with people
21	who are expert in the area.
22	And I don't know whether you can do

1 that under your existing mandate, whether you
2 need new legislation or whether you could just do
3 regulations.

Which takes me to another point, which sort of generally speaking, I would like to see regulations here, as opposed to just guidelines and this sort of vague thing of some guy who grants permits maybe getting these guidelines implemented right.

10 I think we need a little firmer
11 foundation for things than we have now, in terms
12 of the law.

I didn't really find any regulations that I saw that truly addressed the questions we're dealing with. So, that's kind of the stepback thing that I would advise, that we should try to get regulations.

And if we don't have the legal authority to do them, then perhaps we should speak to the Council and get some framework in place, so that we can do things correctly and some of these issues can be thrashed out in a

more public way, which I think they really need 1 2 to do. And I think on some of the small 3 details, the things that I would like to see done 4 5 better, the guidelines don't require them to publicly disclose their deployment plans. 6 There's a process where they can sort of share 7 8 them in secret, super-secret. I kind of think that that should 9 happen in a more public sort of way, kind of like 10 11 when we franchised the cable company, they 12 disclosed their plans. This is a little bit more like a cable 13 14 franchise than traditional, you know, casual permits. So, a better sort of public disclosure 15 16 of their plans and some more input from the 17 public. 18 That seems like, if they disclose the 19 plans, we have a better opportunity for 20 coordination. And that's sort of lacking in the 21 existing guidelines. 22 And, I mean, I think the CFA has it

right, on terms of the design standards. 1 I mean, 2 we did hear from some of the providers that they all have sort of different plans, so that may be 3 easier said than done. But I think we should 4 explore whether or not that can happen. 5 And I think our meeting featured the 6 ANCs, I think they need a more clearly defined 7 role in the process, so that they're brought in, 8 9 on both the plans and the -- I mean, checking the database is a little bit -- it's a hard way to 10 11 keep track of things. And then, finally, I think that 12 13 there's nothing in the guidelines that requires 14 that the adjacent property holders be notified. I really think that they should be. 15 16 I also didn't see anything that 17 required that when an applicant comes to you that 18 they have to give you a plan of, not only what 19 they're going to do, but its relationship to the 20 other things that are on the block, so that when 21 you look at this, you know where it is in 22 relationship to the trees, where it is in

relationship to all these other things, so that 1 2 the people that are reviewing it are not just looking at this very narrow drawing of the tower 3 4 or the pole and nothing else. So, that's there. But bottom line, I think a stronger 5 foundation of regulations would help a lot and 6 that slow the train down, understand what this 7 8 technology's going to do. 9 Don't accept the industry's -- they want to do this, we understand that, they want to 10 11 do this, but don't accept their say so as to 12 exactly how it's going to unfold. We need to 13 independently confirm things. So, I'll stop and 14 take questions later. CHAIR MARCOU: No, actually, I'm going 15 16 to follow up on --17 MS. POLS: Okay. 18 CHAIR MARCOU: -- a few of the things 19 you said. 20 MS. POLS: Okay. 21 CHAIR MARCOU: Thank you very much and 22 we really appreciate it. Some of this was a

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little walk down memory lane for me, as a	
motorist in the District of Columbia, from 12th	
Street specifically, that I think was a, like, a	
MS. POLS: Yeah.	
CHAIR MARCOU: local, like, nexus	
point for every fiber optic installer in the	
late-1990s.	
MS. POLS: It was wild.	
CHAIR MARCOU: So, a few important	
points. Thank you very much.	
And thank you very much for the	
materials you've provided, I really did I read	
through them and it was very interesting to	
recall some of the issues and the history on	
this.	
A few points. First, we've been at	
this for well over a year, this is at least our	
eighth public meeting. We've been holding public	
meetings left, right, and center on this.	
It's great that it's getting traction,	
but we've been putting the notices out there,	
	<pre>motorist in the District of Columbia, from 12th Street specifically, that I think was a, like, a</pre>

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1	we've been telling people about the meetings,
2	we've been looking forward to public
3	participation, and it's been a smattering, up to
4	this point.
5	It's great that it's happening, it's
6	just that, in terms of slowing up the train, the
7	train hasn't been moving at breakneck speed, it -
8	- this is and that's why it's so important
9	that we have frankly, this book is filled with
10	a lot of information from the public and we love
11	having it.
12	We are getting it now, when, as part
13	of the prior process, it would have been helpful
14	to have had it then, just as it always is for
15	everybody. So, that's an important part of this.
16	Another important part of this is, you
17	had said you were worried that people wouldn't
18	know where things were, in relation to the
19	streetscape.
20	That's actually a required plan. So,
21	the required plan will indicate not just, I want
22	to put an antenna and I want to put this cabinet

1 2 MS. POLS: That's in some other regulation. 3 4 CHAIR MARCOU: What's that? MS. POLS: That's in some other 5 regulation, it's not in the guidelines. 6 7 CHAIR MARCOU: No, it's in the public 8 space permitting process. 9 MS. POLS: Okay, that's what I mean --CHAIR MARCOU: Right. 10 11 MS. POLS: -- by other regulation. 12 CHAIR MARCOU: So, this is an 13 excavation of public space. So, there are, as 14 we've mentioned before, there are other 15 regulations that govern this as well, right? And 16 by other, I mean, additional, right? 17 So, these guidelines talk about 18 location, frequency, et cetera. I should say 19 frequency of placement. But it doesn't discuss, 20 for example, what the restoration standards will 21 be. 22 Because the restoration Why?

standards are clearly delineated and defined in 1 2 Title 24, Chapter 34 of the District of Columbia Municipal Regulations, which is, you hire me to 3 4 be a nerd, that's the nerd part of me. Title 24, Chapter 34, Section 3403 is 5 a good one to read. If you'd like to learn more 6 7 about restoration standards, they'd be covered in the standard specifications for highways and 8 9 structures, which is currently called the Gold Book, it's about this thick. 10 11 It used to be the Green Book, before 12 that, it was the Red Book, before that, it was 13 the Blue Book. So, these are very important, 14 very fully robust items that manage the right-of-15 way. 16 And review of applications that come 17 in will not be by a person who is pushing papers 18 across the desk. First, it won't be paper, it'll 19 be electronic. 20 Second, it will go to very relevant, 21 very professional reviewers in particular areas, 22 so that they can work on a comprehensive whole to

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of contested.

2	CHAIR MARCOU: No.
3	MS. POLS: The things that get
4	CHAIR MARCOU: They are not, they
5	MS. POLS: kicked up to the
6	you're saying they're getting brought in earlier?
7	CHAIR MARCOU: The specific language is
8	the following, and this is in the Master License
9	Agreement, it's let me see if I can find it,
10	just so I can make sure we put it on the record
11	again.
12	It's on Page 10 of the Master License
13	Agreement, it's Section 5.4.4. Prior to
14	submitting a permit application for the location
15	and installation of the first wireless
16	communication facility
17	MS. POLS: Yes, that's just the first
18	one, though.
19	CHAIR MARCOU: in any neighborhood
20	of the District
21	MS. POLS: That's just the first one,
22	that doesn't

1 CHAIR MARCOU: -- the key word there 2 being neighborhood. So, I'll get to that further down the road. But I'm just clarifying for you 3 that there is an ANC notice --4 5 MS. POLS: But that's just the first --CHAIR MARCOU: If I may finish, just to 6 7 8 MS. POLS: I have read that, I am familiar with it. 9 CHAIR MARCOU: Okay. Well, then, 10 you're familiar with the fact that it requires 11 12 notice to the ANCs. I'll simply --MS. POLS: For the first one --13 14 CHAIR MARCOU: -- leave it at that at 15 this point. 16 MS. POLS: -- we're expecting --CHAIR MARCOU: In a neighborhood. 17 18 MS. POLS: -- many of these. 19 CHAIR MARCOU: In a neighborhood. 20 MS. POLS: And neighborhood is not defined. 21 22 CHAIR MARCOU: Neighborhood is an

1 opportunity for us to make sure that it is 2 clearly made notice to the community, as it moves forward. 3 MS. POLS: But why just the first one? 4 5 CHAIR MARCOU: Say that again? MS. POLS: Why is it just the first 6 7 one? 8 CHAIR MARCOU: We'll come back to that 9 MS. POLS: It seems an odd --10 11 CHAIR MARCOU: We'll come -- if you --12 MS. POLS: -- configuration. 13 CHAIR MARCOU: If you'd like more 14 specific, we'll make sure that it's covered in 15 the guidelines. 16 So, if you have a recommendation about 17 how that language could be clarified in the 18 regulation, pardon me, in the guidelines, that 19 would ensure the type of notice that you're 20 looking for, we'd appreciate seeing it. Thank 21 you. 22 MS. POLS: Okay. I think, just one

That was part of why I wanted the plans 1 second. 2 to be disclosed to the ANCs, so that they would have a sense of what was --3 4 CHAIR MARCOU: They are. 5 MS. POLS: -- the deployment plans, not the site-specific ones, but the broader 6 7 deployment plans, so that --8 CHAIR MARCOU: They are. That's why 9 it's in there. 10 MS. POLS: No. No, those are not the 11 deployment plans, that's the first pole that they 12 want to put up. 13 CHAIR MARCOU: It's not first pole. 14 MS. POLS: Initial. 15 CHAIR MARCOU: It's not initial pole. 16 MS. POLS: That's what it says. Thank 17 you. 18 CHAIR MARCOU: I'm just going to state 19 one thing to make sure you understand this, okay? 20 We are very cognizant of our responsibility and 21 duty to the citizens of the District of Columbia, who have entrusted in us the responsibility to 22

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manage that right-of-way.

2	We have those interests fully in mind
3	and we look forward to making sure that your
4	concerns about it are addressed. Okay?
5	MS. POLS: Thank you.
6	MS. MLADINOV: Thank you very much, Mr.
7	Chairman. My name is Ann, A-N-N, Mladinov, M-L-
8	A-D-I-N-O-V. I'm representing ANC 3B.
9	I'm sorry that we're not on the list
10	as speakers, but our meeting in October was just
11	last Thursday, when we adopted our position on
12	the small cell technology. That was the first
13	time that we could get to it, so we didn't have a
14	chance to make the October 5 deadline.
15	CHAIR MARCOU: Okay.
16	MS. MLADINOV: We really appreciate the
17	invitation to participate today that came to all
18	the ANCs and your public presentations.
19	We were also very happy to hear at our
20	October meeting that our Councilmember Mary Cheh
21	is hoping to hold her own roundtable discussion
22	on the small cell technology issue and gather the

perspectives from DDOT, as well as others who are
 interested.

It's clear today, from all of the presentations, that you've reached to a very wide range of the citizens of Washington, at this roundtable, and I really appreciated the chance to hear them.

8 I wanted to read our letter, not all 9 the boilerplate, but the key sections. I'll go 10 on that.

CHAIR MARCOU: Thank you.

12 MS. MLADINOV: We support development 13 of systems to accommodate effective higher speed 14 telecommunications in the District, but we have major concerns about the content of the draft 15 16 guidelines, the rushed timetable for review, and 17 the significant flaws in the process of 18 developing the regulatory framework for this 19 technology in the city, including the short 20 notice and very abbreviated opportunity for ANCs 21 and the public to comment on the proposed 22 guidelines.

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1	From our perspective as an ANC, the
2	almost invisible process DDOT has followed to
3	develop and finalize the guidelines and the MLAs,
4	the absence of provisions for ANC and public
5	input on specific proposals for small cell
6	installations in public space, as well as on the
7	provisions of the basic MLA and the specific
8	terms of the MLAs signed to-date.
9	The terms of the MLAs allow providers
10	to go forward with their desired small cell
11	installations without further public review, once
12	the provider has received approval for its first
13	installation.
14	And DDOT's proposal to allow providers
15	to put as many as two new poles on each block to
16	hold small cell units and install a refrigerator
17	size auxiliary unit above ground on every block.
18	Though DDOT has recognized that shared
19	poles, including public utility poles, could be
20	used and the auxiliary units could be placed
21	underground where they would not intrude on
22	public space and the look for the area.

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1	For residents and visitors to
2	Washington, D.C., the visual appearance of the
3	city's residential and commercial neighborhoods
4	is a major factor in the quality of life and day-
5	to-day experiences in the District.
6	Protection of the vistas in the parks
7	around the city, on the National Mall, and in
8	Historic Districts is also essential to
9	preserving the historic architectural and
10	cultural heritage of the District and the nation,
11	which is also a foundation of the region's
12	economy and tourism.
13	We are very concerned that having so
14	many additional poles holding small cell boxes
15	over sidewalks and in other public space, along
16	with sizable auxiliary boxes above ground, would
17	create significant visual clutter, as well as
18	safety risks, in our residential and commercial
19	neighborhoods.
20	The added objects in sidewalks and
21	public spaces would create obstacles and block
22	sight lines for pedestrians, motorists, and those

1	who use assistive devices, bikes, and scooters.
2	The ANCs, community organizations, and
3	the public in general have had very little notice
4	of the steps being taken by DDOT to facilitate
5	small cell technology, the design guidelines DDOT
6	is proposing, or the changes that DDOT's proposal
7	could mean for our communities and the health and
8	well-being of people in the city.
9	DDOT notified ANCs in late August
10	about the proposed small cell technology
11	guidelines, held one information meeting for ANC
12	Commissioners about the proposed guidelines the
13	first week of September, immediately after Labor
14	Day, which was not well attended, organized a
15	second informational meeting on September 25,
16	after most ANCs had held their September
17	meetings, set a deadline of October 5 for ANCs
18	and members of the public to submit written
19	comments, which was before most ANCs had their
20	October meetings, and scheduled the roundtable
21	today, on October 15.
22	That time table has significantly

reduced the chance for ANCs to participate in the
 process.

3	DDOT notes in the proposed guidelines
4	the unique nature of the District's streetscape
5	and states that the public space enhances the
6	quality of life for residents and visitors, and
7	also provides the foundation for the city to
8	become a more walkable and sustainable city.
9	But the guidelines fail to protect the
10	unique streetscapes and public space that are so
11	vital to the District.
12	DDOT and its Public Space Committee
13	have the authority for regulating the small cell
14	technology installations in public space and must
15	take into account these matters before adopting
16	design guidelines and standards for governing
17	installation of this next generation of
18	communications technology.
19	For all the above reasons, we strongly
20	urge DDOT, one, to delay consideration of the
21	proposed guidelines until further informational
22	meetings about the small cell technology can be

held in each Ward, the D.C. Council has held 1 2 hearings on the subject, and residents and ANCs have had fuller opportunity to review and comment 3 on the proposed guidelines. 4 Two, to provide the public with more 5 detailed information about the technology. 6 Three, to analyze in greater depth and 7 report to the public on the potential impacts of 8 9 the installation of small cell technology on the city's streetscape, quality of life, and the 10 health and well-being of the public. 11 12 Four, to amend the proposed guidelines to ensure that affected ANCs and the public have 13 14 at least 30 days to review and comment on each proposed installation of small cell technology in 15 16 a neighborhood, and also, to put in place a 17 process to hear and respond to any ANC comments 18 and objections to the installations. 19 Five, to amend the MLAs with 20 providers, including agreements that providers 21 and DDOT have already signed, to require that notice be given to affected ANCs and the Council 22

about proposed small cell installations, beyond
just the provider's initial installation.
And also, to call for DDOT to consider
comments from affected ANCs and the public on
proposed small cell installations in public space
in a neighborhood, before DDOT approves the
additional installations beyond that first one.
Six, to require companies installing
small cell technology in the District to provide
additional benefits to residents, such as free
Wi-Fi in disadvantaged areas of the city, in
exchange for the permission to install their
technology in public space or on public utility
poles.
This letter was approved by a vote of
5-0 at a duly noticed regular meeting of the
Commission on October 11, 2018, in which a quorum
was present.
Thank you for your attention to this
important matter for the city. Sincerely, Brian
Turmail, Chairman. Thank you.
CHAIR MARCOU: Thank you.

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1	MR. ENKAMIT: Can you pull up the video
2	on the
3	CHAIR MARCOU: Sure, is it in the USB
4	drive?
5	MR. ENKAMIT: Yes. DNA Damage.
6	CHAIR MARCOU: I'm sorry, which one?
7	MR. ENKAMIT: DNA Damage.
8	CHAIR MARCOU: Okay.
9	MR. ENKAMIT: Before you begin
10	CHAIR MARCOU: Sure, give me a second,
11	it'll probably start playing, so I'm going to put
12	it on pause, so we can increase the size and make
13	sure I'm Jonathan, if there's audio from
14	that machine, are we able to hear it? Okay.
15	Well, we'll find out in a second.
16	Okay. Would you like me to start playing? I
17	think you need to introduce yourself and spell
18	your last name, at a minimum.
19	MR. ENKAMIT: My name is Brian Enkamit,
20	last name is spelled E-N-K-A-M-I-T. I'm a
21	resident Brightwood area of D.C. and I have a
22	business in the Manor Park area of D.C.

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1	CHAIR MARCOU: Thank you.
2	MR. ENKAMIT: And I'm sorry, maybe I've
3	been asleep for the last year, but I haven't
4	heard any announcements about any of this
5	discussion about bringing small cell into D.C.
6	So, I just found out about this meeting last week
7	and I rushed back from out of town to be here.
8	CHAIR MARCOU: May I ask you, ask
9	everybody at the table, real quick, before we go
10	forward, so, you're an ANC Commissioner, correct?
11	Do any of you look at the D.C. Register, where
12	notices are published about public meetings on a
13	regular basis
14	MR. ENKAMIT: No.
15	CHAIR MARCOU: and serves as the
16	official organ for the District of Columbia
17	Government for providing notice to the public of
18	meetings?
19	MR. ENKAMIT: No.
20	CHAIR MARCOU: Okay. Thank you.
21	That's all I
22	MR. ENKAMIT: I do listen to the radio.
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I do watch T.V. 1 2 CHAIR MARCOU: Okay. MR. ENKAMIT: So, those are options in 3 4 terms of getting the word out as well. More 5 effective than having people look in the Register, that most people can't even find, 6 7 probably. Just saying. 8 CHAIR MARCOU: I hear you. 9 MR. ENKAMIT: Okay. I was listening earlier to a lot of the -- I wish the people from 10 those companies were still here. 11 12 CHAIR MARCOU: They are. 13 MR. ENKAMIT: Really? 14 CHAIR MARCOU: They're all -- I'm 15 looking at a representative from AT&T. I'm 16 looking at a representative from Verizon. 17 MR. ENKAMIT: The people who were 18 testifying, are they here now? 19 CHAIR MARCOU: Yes, they're here. 20 MR. ENKAMIT: How many of you all live 21 in the District? Okay. I just wanted to know. 22 CHAIR MARCOU: No, Gus, they wanted to

	±
1	know who from the companies lives in the District
2	of Columbia.
3	MR. ENKAMIT: Yes. But you want to
4	bring your product in to me, right? I just want
5	to make sure I'm clear about that part.
6	CHAIR MARCOU: I live in the District.
7	MR. ENKAMIT: I do too, which is why
8	I'm concerned about this issue.
9	CHAIR MARCOU: As are we.
10	MR. ENKAMIT: I heard you talking
11	earlier about regulations for newspaper boxes
12	CHAIR MARCOU: Yes, sir.
13	MR. ENKAMIT: how specific they are,
14	the size, the paint, the lettering. If I wanted
15	to put a newspaper box up and I wanted to put
16	lead paint on that box, would you allow it?
17	CHAIR MARCOU: See, we don't regulate
18	lead paint. That's a great thank you, that's
19	a perfect example. We don't regulate lead paint.
20	That would
21	MR. ENKAMIT: So, I could do it?
22	CHAIR MARCOU: be a no, I didn't

say you could do it, I said we don't regulate 1 2 that. That would probably be a Department of 3 Health matter and that would be the entity to 4 5 whom you would turn, because the Department of Health has the subject matter expertise, the 6 authority, and jurisdiction to regulate that 7 8 element. 9 We would have the authority to, just like they wouldn't have the authority to regulate 10 11 whether it was attached to a streetlight, we 12 would. 13 So, different government agencies have 14 different authorities and jurisdictions to govern 15 those things that are within their purview and 16 within their authority. So --17 MR. ENKAMIT: So, if I want --18 CHAIR MARCOU: -- in our case --19 MR. ENKAMIT: -- to put a box up --20 CHAIR MARCOU: Sorry, say that again? 21 MR. ENKAMIT: If I want to put a box up, I have to come to you and get approval for 22

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1	the box, the colors, whatever. I go to them to
2	figure out the paint is good. Is that what
3	you're saying? Is that how the process works?
4	I'm just
5	CHAIR MARCOU: Generally speaking, that
6	would be the process.
7	MR. ENKAMIT: Okay.
8	CHAIR MARCOU: But I don't know that
9	you need to go to them to get official permission
10	for the paint.
11	I think you would find that a paint
12	sold in the District of Columbia would presumably
13	meet guidelines, if you went to Home Depot. But
14	I leave that with the Department of Health.
15	That's a great question to ask them.
16	MR. ENKAMIT: Okay. So, my concern is,
17	if it's in the public space, you're not concerned
18	about that?
19	CHAIR MARCOU: About
20	MR. ENKAMIT: The effect of the paint
21	on the box, in terms of the people that might be
22	exposed to that paint.

		41
1	CHAIR MARCOU: Do I have a concern	
2	about that?	
3	MR. ENKAMIT: Yes.	
4	CHAIR MARCOU: That's	
5	MR. ENKAMIT: Your agency?	
6	CHAIR MARCOU: That's an irrelevant	
7	question for the purposes of the Public Space	
8	Committee.	
9	MR. ENKAMIT: How is	
10	CHAIR MARCOU: We don't have and	
11	I'll tell you why. We don't have jurisdiction or	
12	authority over paint in public space.	
13	MR. ENKAMIT: You're talking about	
14	CHAIR MARCOU: Sorry. Let me be clear.	
15	We hear your question, why don't you tee up the	
16	question for us in writing and we'll make sure	
17	you get a response?	
18	MR. ENKAMIT: Okay. Because you said	
19	you had very a lot of regulations about the	
20	boxes. I just assumed that paint would be a part	
21	of the regulations. Let's play the video, please.	
22	CHAIR MARCOU: So, the regulations on	

411

newspaper boxes are available at dcregs.dc.gov, 1 2 as is the D.C. Register. It's a great one-stop-shop for all 3 sorts of information related to the District of 4 5 Columbia Government and its regulatory authority and its announcements. 6 7 MR. ENKAMIT: Thank you. 8 CHAIR MARCOU: Okay. 9 (Video plays.) 10 MR. ENKAMIT: So, I've got a suggestion. Because we want to roll out this 5G 11 12 technology, there's a rat problem in D.C., why 13 don't we put them all underground? 14 Because there won't be anybody to ride 15 around in these driverless cars in 150 years, if 16 this man and the scientist are saying, what 17 they're saying is true. There will be no people 18 to ride in driverless cars to need 5G. 19 There's no 5G technology, there's no 20 -- it's just a rush to make money for companies, 21 without -- putting the health of the public citizens at risk. 22

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1	4.
1	And it's a signal, if you only
2	regulate the public space, then why are you
3	allowing the signal to come into my house?
4	CHAIR MARCOU: Again, those are great
5	questions to take to the relevant authorities.
6	MR. ENKAMIT: Well okay.
7	CHAIR MARCOU: In this case, our
8	understanding is that it would be the Federal
9	Communications Commission.
10	And then, from the Federal
11	Communications Commission, whichever agency or
12	department of the District of Columbia would have
13	jurisdiction or authority over that element of
14	the Federal Communications Commission's standards
15	and guidelines.
16	MR. ENKAMIT: So, what you're saying to
17	me is, you regulate the public space. You don't
18	put something in the public space that's going to
19	impact me in my private space. That's what
20	you're doing.
21	CHAIR MARCOU: I'm sorry. So, what I'm
22	hearing you say is, your concern is about radio
•	

frequencies reaching into your private property. 1 2 MR. ENKAMIT: Exactly. I don't need to know how much trash is in my trash bin, I can 3 figure it out myself. 4 5 I don't need to know how much milk is in my refrigerator, I can look in it and see. 6 Ι 7 don't even drink milk. So, the 5G, the internet of things, is all a gimmick. 8 9 But the most important point is made here, that if we don't stop this train that's 10 11 rolling down the track, there will be nobody 12 running around for you to build the internet. It's a very serious thing. We can 13 14 stay within our little boxes and act like we're not -- and be tunnel vision about this. 15 16 But we need to take a little broader 17 approach to dealing with the realities of what 18 this internet is doing to us, what the radio 19 frequencies are doing to us and our children. And there's all kinds of evidence that 20 21 shows, thousands and thousands of scientific evidence that show that when you combine one 22

toxin with another -- so lead is a problem, 1 2 there's a problem in the environment in D.C. When you combine radio frequencies with lead, 3 4 they done studies that show it increases the 5 amount of toxicity in your system. So, a lot of children in D.C. have 6 7 lead in their systems. So, it's okay to push out 8 this energy and adversely affect these children, 9 because we don't regulate the public -- we only 10 regulate the public space. I think it's a cop 11 out. Thank you. 12 CHAIR MARCOU: Thank you, sir. Hold on 13 one second, sir. Sir? Let Jonathan assist with 14 removing it and putting in a new one. Thank you. 15 And I want to say to the staff who 16 have been here throughout this, thank you very 17 much, we truly appreciate your support of this 18 event. 19 It allows -- I don't believe that's 20 ours, I believe that is that gentleman's, or that 21 young lady's. 22 MR. MCCLAIN: Next one up, one up,

right there. Okay. My name is James McClain. 1 2 CHAIR MARCOU: And how do you spell your last name, sir? 3 MR. MCCLAIN: M-C-C-L-A-I-N. 4 I'm a 5 long-term resident of D.C., I grew up here, I was born here. I've seen the city and how it's 6 changed over the years. 7 CHAIR MARCOU: Me too. 8 9 MR. MCCLAIN: I'm very, very concerned 10 about 5G and it coming into my neighborhood, on 11 my street. And --12 CHAIR MARCOU: Do you want to let us 13 know what address you live at? You don't have 14 to, but if you are interested -- or what Ward, or what neighborhood? 15 MR. MCCLAIN: I'm in Cardozo area, 16 17 Adams Morgan. And as you know, that area's been 18 very, very impacted by parking. 19 And when you say you do public space, I'm kind of -- I keep reflecting about all these 20 21 move-in signs that go up and you have to clear that parking spaces on almost the entire block, 22

when it's almost like battling to get a parking 1 2 space on a daily basis. So, but anyway, that's another matter. You may not deal with that. 3 4 But this one right here, there's a 5 public impact by the use of our right-of-way, 6 that affects children, the elderly, people whose health is compromised. 7 8 And in the public way, where the 5G 9 would be at, despite what industry hasn't said about the health effects and hasn't gone into how 10 that's going to impact the people of the District 11 12 of Columbia, all these people are going to be 13 right there on the street where this 5G is taking 14 place. Now, I'm retired. I used to be a 15 16 customer service engineer at Xerox. And we had 17 cell phones that we had strapped to our side. 18 And after a while, I didn't want to keep it to my 19 side, I didn't know why, but I took it off my 20 side. And then, after a while, I said, there's 21 pain there. And there's talk about the effects of 22

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1	this Wi-Fi and 5G and the combined
2	electromagnetic frequencies affecting us. And
3	I've heard people say they get headaches and they
4	get all this.
5	Well, I didn't have any of that. But
6	after a while, I felt pain on that side. And so,
7	I would cut it off and I would walk down the
8	street and I would say, okay, it's fine, no
9	problem.
10	And one day, I felt it and I said,
11	there's still pain there. So, I cut if off and I
12	pulled it out and it's on. So, it does affect
13	the system. Okay.
14	So, if our children and elderly and
15	who have compromised immune systems are on that
16	street with that 5G, it's like putting them in
17	the line of something that's deleterious to their
18	health at the moment, and it continues with a
19	long-term exposure. They can't even sleep,
20	because of the effects coming into the house also
21	at that street level.
22	So, when I see these antennas go on

1 top of buildings, I seen one it's on a high-rise 2 at the corner there, at 14th, way up high, and it's the kind that I see in the magazines that 3 says, this is the kind that sends out microwave 4 5 radiation, I get appalled. And when I see 5G coming to the 6 7 street, less than probably 30-50 feet to my 8 bedroom window, that's too much. 9 So, am I not -- I'm not just saying that I'm against it, I'm saying the public health 10 11 effect is not being addressed or looked at. And 12 if you're talking about the health of the people of the District of Columbia, this is foremost. 13 14 But, the video. 15 (Video plays.) CHAIR MARCOU: Thank you. 16 17 MR. MCCLAIN: One other thing. 18 CHAIR MARCOU: Yes, sir. 19 MR. MCCLAIN: Children are walking 20 around through the streets with their cell phones 21 to their ears constantly. 22 In the small print in all the

companies, it says, it's not to touch the head. 1 2 But they don't push that out. You're looking at an epidemic in the future, if it goes through. 3 4 CHAIR MARCOU: Thank you. Do Committee 5 members have any questions for the panel? I just want to note how it's clear how fervently and how 6 7 committed to this concern you are. I strongly 8 encourage you to follow up with the appropriate 9 authorities about it. MR. ENKAMIT: But if you are already 10 11 setting the standards on deployment, you can put 12 a stop to the deployment, can you not? 13 CHAIR MARCOU: So, we really appreciate 14 the panel's time. 15 MR. ENKAMIT: So, you can't? 16 CHAIR MARCOU: If you'd like to put 17 that question in writing, please do so. 18 MR. ENKAMIT: Okay, I will. 19 CHAIR MARCOU: And to that end, we're 20 going to keep the record for the Public Space 21 Committee hearing -- pardon me for one second. Is there anybody else present who 22

would like to speak to the Public Space Committee 1 2 regarding this material who hasn't already had the opportunity to speak? 3 4 MS. SCARATO: I haven't as a person, as 5 I delivered the Environmental Health a mom. Trust, as a scientist, I'm - I'm --6 7 CHAIR MARCOU: So, you had the 8 opportunity to speak to the Committee --MS. SCARATO: But I didn't understand 9 10 that, I thought that was the Environmental Health 11 Trust, the organization. If I had known that I could do my personal then, I would have done that 12 13 too. I thought I was separate. 14 I tried many times to call, I was on 15 the phone with the D.C. Government trying to 16 reach someone to ask questions about the public 17 hearing and the guidelines, and I could not reach 18 -- I wrote to someone named Elliot, I spoke to 19 someone on your panel, who sent me to someone 20 else --21 CHAIR MARCOU: Then, I'll do the 22 following. Thank you all very much, we

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1 It's not good enough to just put it in the this. 2 Federal Register, you have to let people know. This is not like newspaper boxes, this is --3 4 MR. JAMES: I need to ask a question, 5 excuse me --6 MS. SCARATO: -- antennas -- and are 7 you interrupting me? 8 MR. JAMES: -- are people allowed to 9 film what's going on? CHAIR MARCOU: Pardon me for one 10 11 second. 12 MR. JAMES: I apologize for that. 13 MS. SCARATO: Oh, yes. Yes. 14 CHAIR MARCOU: So, Mr. James, if you'll have a seat please, I'd appreciate you having a 15 16 seat. 17 MR. JAMES: Sure. 18 CHAIR MARCOU: Unless there's an urgent 19 matter that requires you to stand. I'd like to 20 keep some relevant decorum to the meeting. 21 MR. JAMES: Okay. CHAIR MARCOU: And so, as I said at the 22

very beginning and I will clarify again, and I 1 2 believe this meeting has primarily been almost entirely recorded, correct? 3 MS. SCARATO: Actually, no, I only did 4 certain ones, I didn't have enough --5 CHAIR MARCOU: But you've recorded --6 7 MS. SCARATO: -- the little thing that 8 has the data on it, I didn't have enough to 9 record the whole meeting. I really wish it were all recorded with views. But she can record, 10 11 that's fine. 12 CHAIR MARCOU: So, with that said, I 13 just want to clarify, Mr. James, as I said at the 14 beginning, yes, this is an open public meeting. It is subject to being recorded and the people 15 16 who speak at the meeting are subject to being 17 recorded. MR. JAMES: It sounded like that was by 18 19 this Committee or the Government, which I would 20 expect so there would be a record, but not, like, 21 the companies who want this favor from this Committee, when there's somebody here who's 22

1	obviously in opposition to their point of view.
2	To me, it seems very threatening.
3	Unless I'm totally mistaken that this woman here
4	is filming this woman here.
5	CHAIR MARCOU: Well, Mr I'm going
6	to leave it at this. The activity that I have
7	seen today regarding recording of the meeting has
8	not created a hostile environment or threatened
9	anybody, as we've seen it objectively here on the
10	dais.
11	We have been aware of the recording
12	going on, but by both the person who is
13	testifying now and earlier, by AT&T, when this
14	person was first testifying, and now again. So,
15	are you going to turn that off while I'm talking
16	about the recording?
17	MS. SCARATO: No, I'm just showing him
18	
19	CHAIR MARCOU: Great.
20	MS. SCARATO: if I'm recording.
21	CHAIR MARCOU: So, with that said
22	MS. SCARATO: It's okay.

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1	CHAIR MARCOU: everybody is on the
2	same page. These are open public meetings, they
3	are subject to being recorded by any person who
4	is present.
5	MR. JAMES: Thank you.
6	CHAIR MARCOU: Sure, no worries.
7	MR. JAMES: I apologize.
8	CHAIR MARCOU: You did that Mr.
9	James, I'm very familiar with you, you and I have
10	had a long and very fruitful relationship
11	regarding public space in Kalorama and the city
12	generally.
13	I would simply say that you are
14	reflective of your concern. And it's an
15	important concern to have expressed and have
16	addressed. So, with that said, I would like you
17	to continue, if you may.
18	MS. SCARATO: Thank you. And I
19	appreciate your concern as well. I was shocked
20	when I found out, not only about small cells
21	coming into front yards, but several years ago,
22	when I found out that there was a memo that

Motorola had written about war gaming the science
 related to this issue.

And that's how we're here today, where 3 4 you are in the uncomfortable position of having 5 to decide on something so important and there are no federal guidelines that protect the people. 6 7 But I think that the people need to 8 know and I hope that you will consider, maybe in 9 the public space, since that's what you do, putting up signs about cell phone radiation and 10 11 impacts on our health. 12 Because there is much literature in the science that shows effects, including the 13 conclusion that this kind of radiation is a human 14 carcinogen by several independent scientists. 15 16 There are actually several papers that conclude 17 that, based on the body of evidence. 18 So, I just think that you can -- you 19 asked me earlier about what can -- do we have 20 authority? You do have authority. 21 You're about to have authority to 22 allow these installations, so you do have

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authority to decide what will be in the right-ofway.

And I think that you should consult 3 4 with the Washington D.C. lawyers that are part of 5 the D.C. Government and ask them about what you 6 can do, in terms of what is your authority? Can 7 you say, we're not okay with this in our public 8 space? What can you say? I hope that you will 9 figure that out. So, thank you for letting me speak. 10 11 And I hope you'll learn more about this issue, 12 because most people are completely unaware and 13 they need to be informed. But they're not 14 reading the Register, nor are they reading the 15 peer reviewed science. 16 So, that's the problem, is that our 17 airwaves are governed by companies that sell us 18 things, advertisements, T.V., and people are not 19 being informed about this issue at all. Thank 20 you. 21 CHAIR MARCOU: Thank you. I did want 22 to clarify one point. When I said the Register,

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1	I apologize, I wasn't clear, I meant the D.C.
2	Register.
3	The Federal Register, more power to
4	them, it's about the federal government. But the
5	District of Columbia Register is where our
6	MS. SCARATO: Yes.
7	CHAIR MARCOU: public meetings are
8	noticed. And so, that is at dcregs, R-E-G-S, so,
9	it's dcregs.dc.gov.
10	MS. SCARATO: Could I also add that the
11	FCC currently has in place a former lawyer for a
12	company, for a wireless company, and the former
13	commissioner, the head of the FCC, was the former
14	top lobbyist for the CTIA, who of course, wasn't
15	here to speak.
16	But I wanted to point out that our
17	the FCC is under regulatory capture. They are
18	not acting in the interest of protecting people
19	in terms of health, they have no health people
20	who are even working for them. They are moving
21	forward with this at lightning speeds.
22	So, telling us to go to the federal

agencies or telling people, like me as a parent, 1 2 to be told to go to the federal agencies, when they're not -- we're not seeing any action there. 3 There's actually been an open docket 4 5 on human exposure to radio frequencies for years now, for about five years now, and there's been 6 7 no action on it. So, there's nothing happening there, 8 9 that's why at the very local level, I hope, as a parent, that D.C. will make the right decision 10 for families in the open space. This is their 11 12 Thank you. space. 13 CHAIR MARCOU: Thank you very much. 14 With that said, unless there is anybody else who is interested in speaking to the Public Space 15 16 Committee about this matter, we'll conclude the 17 meeting at 8:29 in the evening on October 15, 18 which is the day it started. 19 I will note that we will keep this 20 record for this particular meeting open for 21 another two weeks, so that means October 29 is the deadline for any of the follow-up questions, 22

comments, or materials that was requested by the
 Committee, or that anybody would like to provide
 to us.

You can do so by emailing
public.spacecommittee@dc.gov. That's
public.spacecommittee@dc.gov. That's the official
email address of record for the Public Space
Committee. Any other email form of notification
is not considered official to the Public Space
Committee.

11 In addition, you can either hand 12 deliver to our offices at 1100 Fourth Street 13 Southwest, on the Third Floor, or you can mail to 14 us at our offices, the District Department of 15 Transportation, care of the Public Space 16 Regulation Division, at either 55 M Street 17 Southeast, which has a zip code of 20003, I 18 believe, or 1100 Fourth Street Southwest, Third 19 Floor, which has a zip code of 20024. And with 20 that, our meeting is adjourned. 21 (Whereupon, the above-entitled matter

went off the record at 8:30 p.m.)

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(202) 234-4433

Α **A-D-I-N-O-V** 397:8 A-N-N 397:7 A1 346:22 aback 344:19 abbreviated 398:20 abide 91:9 151:9 abided 16:6 39:6 96:7 ability 37:2 92:3 95:3 124:1 136:11 214:9 217:4 247:19 337:14 361:4 364:20 able 20:17 25:9 64:3 75:4 82:17 112:11 126:14 127:2,6 128:18 133:2.17 139:18 141:21 144:12 144:14 151:18 171:10 181:20 183:18 190:19 205:4 208:1,17 216:2 224:1 228:22 259:3 286:21 301:13 334:14 339:11 365:10 405:14 above-entitled 271:12 431:21 above-grade 181:11 above-grate 260:7 absence 399:4 absolutely 171:11 249:10 257:22 280:14 294:14 325:10 352:9 363:19 383:8 absorb 319:10 abstain 237:10 abundance 356:1 abut 286:8,18 abysmal 342:11 Academy 315:21 316:17 accept 387:9,11 acceptable 81:8 147:11 213:14 295:17 accepted 265:15 374:20 accepting 276:1 access 17:1,21 18:17 41:8 97:20 99:12 102:17 107:10 110:1 112:8 118:15,18 120:5,9 136:10 193:14 237:15 245:20 245:21 246:17,18 301:15,22 305:10 335:7 349:8 359:3 accolades 277:10 accommodate 45:14 381:16 398:13 accommodation 104:9

142:5 accompli 342:4 accomplish 373:4 account 43:6 62:7 77:14 163:14 295:15 353:9 402:15 accurate 128:8,22 215:22 232:2 246:13 355:6 accurately 136:12 achieved 58:4 achieving 335:12 act 21:13 32:8,9 43:4,5 59:11 377:22 382:1 414:14 acting 1:19 5:13 429:18 action 55:4 71:10 316:9 430:3.7 actions 352:19 actively 255:5 activities 366:13 367:17 activity 13:14 323:14 367:7 425:6 acts 363:8 367:12 actual 106:22 117:12 122:10 124:6 154:12 196:4 239:5 250:19 303:22 305:10 339:3 acutely 294:4 ad 8:10 194:4 Adams 339:16 416:17 adapt 9:13 adaptable 8:12 380:16 add 79:1 86:4.11 115:9 115:10,15 122:18 127:7 198:19 232:9 280:2,3 304:16 315:7 364:22 366:6 374:16 429:10 add-on 108:14 added 73:18 115:7,12 115:12 117:22 157:12 159:4 359:9 400:20 adding 36:6 112:15 135:19 addition 7:21 39:6 71:7 90:8 151:20 221:22 298:22 329:18 356:10 431:11 additional 16:1,4 50:5 53:973:11,1394:7 115:9 123:4,7 127:16 144:18 211:9 232:18 241:5 250:15 353:7 390:16 400:14 404:7 404:10 additions 34:19

address 23:11 27:1 31:6,22 32:18 35:2 36:2,22 51:5 91:20 94:17 136:20 295:16 300:19,22 305:3,16 362:1 416:13 431:7 addressed 32:7 40:15 40:17 84:11 211:17 212:14 213:18 231:16 306:8 384:14 397:4 419:11 426:16 addresses 17:22 18:6 19:7 21:7 27:22 30:14 addressing 36:6 173:14 ADHD 316:20 adherence 151:22 adjacent 49:3 96:11,12 256:16 357:13,16 386:14 adjourned 431:20 administered 35:14 Administration 297:16 323:6 admirable 200:15 admire 246:3 Adobe 198:8 199:2 adopt 255:5.8 adopted 121:13 148:5 148:12 237:21 245:22 320:1 353:16 397:11 adopting 74:14 402:15 adoption 135:11 238:9 adorable 193:22 ads 194:2 advance 337:11 advances 117:20 advantage 108:9 223:21 343:16 advantageous 247:2 adverse 317:19 348:3 348:18 353:14 357:4 361:21 adversely 318:1 357:11 415:8 advertisements 428:18 advice 54:8 247:20 advise 384:16 advised 52:13 57:16 58:18 advises 237:19 238:10 240:22 241:21 242:8 242:17,21 243:7 245:3,12 Advisory 237:22 254:6 255:20,21 advocacy 237:12 advocate 55:18 69:22 339:21 367:11

advocating 276:16 303:19 aesthetic 74:8 90:6 303:15 aesthetically 181:19 aesthetics 34:1 311:3 Affairs 5:2 affect 45:12 54:10 192:14 316:14 320:10 335:10 357:12 415:8 418:12 affirmed 56:19 afford 43:9 afoul 293:4 afraid 250:19 251:9,10 251:14 afternoon 3:3,5,7,8,21 11:13 42:4 44:6 53:16 134:7,10 139:7 afterward 10:3 341:13 age 37:14 agencies 44:17 100:13 101:22 109:12 409:13 430:1,2 agency 35:5 44:1 46:1 53:22 173:2 256:18 320:17 325:6 411:5 413:11 agenda 53:14 308:13 Agent 315:16 aqnostic 31:11,17 ago 8:19 9:3 64:3 98:22 99:1 167:8 291:21,21 292:3,5 318:4,8 382:16 422:9 426:21 agree 73:14 79:1 280:10 345:13 agreement 39:4 97:9,10 97:12 266:2,8 280:11 281:8 283:15 285:12 295:14 298:3 299:7 330:1 342:6 362:18 374:18 392:20 393:9 393:13 agreements 103:15 137:15 346:12 403:20 agrees 79:2 252:18 ah 177:13 ahead 15:6 44:2 157:6 182:21 269:2 292:15 333:10 338:1 344:19 366:19 air 3:16 173:6,7,8 176:3 337:19 airwaves 428:17 Alexander 178:21 Alexandria 8:3 aligned 360:20

Allen 1:17 5:19 alley 25:20 67:8,13 127:17,19 129:6 148:22 149:10,13,22 150:1,18,21 151:12 151:13 152:10,14,16 153:1 209:19 212:11 379:10 alleys 19:14 61:8 66:19 77:9 149:4,11 151:4,7 152:4 280:22 288:12 338:13,14,17 339:12 343:13 379:2.8 alleyway 150:3 153:7 alleyways 66:19 67:15 127:10 150:13 166:17 166:21 allow 28:5 49:2 50:19 51:4 79:20 80:3,8 82:5 84:20 85:8 87:7 88:21 92:10 123:3 169:5 171:5 175:22 176:13 181:7 185:6 214:12 215:1 220:6 223:16 301:8 315:19 341:21 353:7 377:22 399:9.14 408:16 427:22 allowable 59:5 328:1 allowances 60:20 152:11 allowed 24:14 28:15.16 28:21 30:4 49:5 53:3 81:5 82:7 85:14 86:7 86:11 92:10 96:10 124:15,16 168:11 171:3 181:13 215:10 216:13 219:11 220:10 376:6 423:8 allowing 57:18 70:2 123:21 134:9 136:13 147:21 201:17 261:13 321:2 413:3 allows 20:20 49:10 165:4 314:6 415:19 **alluded** 164:17 alongside 36:19 135:8 alternative 53:2 168:7 358:8 alternatives 283:3 amazing 7:18 ambiguity 332:10 amend 280:2,4,10 403:12,19 amended 123:3 124:3 285:16 amending 72:17 American 163:8 315:21

amount 66:22 92:17 117:10,12 190:11 415:5 Anacostia 66:11 173:19 analysis 44:20 47:10 49:19 52:17 61:2 65:5 69:8 84:19 313:5 321:4 329:12 analytics 312:19 analyze 49:16 403:7 **ANC** 2:2,12,13 235:10 235:13,13,16,21 236:14,15 237:11,19 238:10,11 240:22,22 241:6,21 242:8,10,17 242:21 243:7,15,18 244:10 245:3,12 246:9 248:6,13 249:2 254:10 257:20 258:22 267:19,21 285:14 290:10 336:4 342:15 342:15 343:1 344:9 345:6 354:5 358:1 394:4 397:8 399:1,4 401:11 403:17 406:10 ANC's 239:16 **ANCs** 103:21 114:16 228:20 235:10,14 242:20 248:9 267:22 299:8 301:19 342:12 342:13 386:7 392:13 392:22 394:12 396:2 397:18 398:20 401:2 401:9,16,17,19 402:1 403:2,13,22 404:4 and/or 22:11 219:13 241:18 **ANDREW** 1:12 Angeles 197:10 200:21 animal 317:3 animals 329:2 Ann 2:2,2 42:5,17 397:7 ANNA 1:11 announced 164:5 207:7 announcements 406:4 412:6 annually 101:15 answer 12:10 72:15 76:20 77:6 81:6,8 82:20 115:14 130:20 150:8 169:10,11 177:7 190:1 206:2,4 206:15,16 207:5 270:22 278:20 290:17 295:16,17 321:12 322:4 326:4 337:8 378:18 answered 282:21

answering 326:15 antenna 22:6,9,22 23:1 24:5 52:4,5 178:17,18 185:13,16 186:19 188:10 195:14 197:16 200:18,22 217:6 232:12 250:15,16,17 250:17,22 251:9,10 303:22 304:5,11,12 305:13 326:22 327:8 328:10,12,17 329:8 345:20 346:22 353:11 359:9 378:22 382:19 389:22 antenna-related 238:20 antennae 89:20,21 114:9 118:17 119:1 128:5,19 130:3 140:2 140:14 141:6,20 142:8,16,17,21 143:10 153:11 155:4 155:17 156:11 157:9 287:13 289:10,15 304:19 antennaes 89:15 118:6 122:7 127:11 129:13 130:7 132:7 154:13 155:10 antennas 13:22 18:4 22:5,11 24:6 25:1 57:20 61:13 186:1,9 187:3,14 188:1,7,11 217:5 238:20 278:6 303:20 321:3 326:18 329:1 345:19 346:17 346:18 347:4,8,11 350:17,20 351:16,17 351:19,21 356:14 357:2 358:18 379:14 380:1,2 418:22 422:19 423:6 anticipate 52:20 59:18 anticipating 67:17 anybody 10:2,13 70:19 295:19 336:22 373:3 375:11 412:14 420:22 425:9 430:14 431:2 anyway 339:14 417:2 **AP** 102:16 106:21 apart 18:21 apartment 149:19 150:4 338:9 apologize 19:4 110:20 122:8 131:9 211:8 229:18 271:18 307:21 330:4 332:17,21 355:7 422:7 423:12 426:7 429:1

apostrophe 195:1 appalled 419:5 apparently 6:17 63:19 194:1 259:15 283:21 338:22 Appeal 7:7 appear 50:9 75:18 324:5 342:19 appearance 17:22 56:9 57:3 232:10 287:12 361:22 400:2 appeared 84:20 appears 215:14 apples 192:12,19 193:2 appliances 260:19 applicable 15:22 170:4 172:1 185:10 applicant 386:17 applicants 354:10 **application** 48:18 248:2 253:4,5,6 287:1 298:21 299:1,2 300:16,18 343:6,12 361:8 366:1 393:14 applications 4:17 139:12 153:21 165:15 235:9 238:17 253:3 253:16,19 280:6 285:13 286:13,15 287:2 298:19 300:15 301:4,15 346:20 363:12 391:16 392:14 applied 16:3 153:19 applies 91:7 282:14 301:18 apply 36:15 96:15 149:21 221:5 298:15 323:10 applying 59:6 appointed 54:7 appreciate 33:1 44:16 48:9 60:9 64:16 71:12 79:15 86:18 87:18 110:11 120:20 121:1 145:16 164:10 201:16 236:1 246:3 249:12 279:11 296:14,16 305:17 322:7 355:19 359:16 375:17 387:22 395:20 397:16 415:17 420:13 422:1,1 423:15 426:19 appreciated 244:22 307:10 398:6 appreciates 53:21 137:8 apprehension 124:10 approach 15:14 54:2

114:2 353:15 414:17 approaches 302:13 approaching 160:18 appropriate 13:2 28:10 28:21 40:5,6 45:18 60:22 124:12 129:22 130:9 187:18 231:11 289:6 329:19 342:21 344:2 351:17 420:8 appropriately 59:21 approval 164:20 238:16 354:11 358:18 399:12 409:22 approve 101:19 approved 39:15 186:15 223:1 224:12,13 239:1 241:8 256:2 266:3,9 355:15 363:12,16 404:15 approves 404:6 approximately 29:8 62:16 180:19 183:13 185:13,16 186:3 334:9 347:18 **apps** 113:4 April 354:9 **APs** 102:9 103:11 arborist 362:8 364:3 365:3,7 366:4 arborists 362:22 architect 56:17 architects 58:5 architectural 51:7 400.9architecture 50:18 339:18 355:22 356:20 **Archives** 50:22 area 7:2 46:21 47:1,6 47:22 49:9 50:3,12 51:22 62:4 72:11 105:9 133:6,8 149:8 151:7 165:13 166:7,9 176:14 205:1 217:6 240:10 247:12.18 253:8,9,12 256:14 278:9 301:4 323:9 346:19 348:14 349:5 359:5 383:21 392:3,4 399:22 405:21,22 416:16 area's 416:17 areas 18:7 20:16 21:9 21:16,18 25:18 32:2 32:15 47:2,4 48:14 51:3 56:8 59:2,10 69:15 77:1 80:9 82:6 95:5 100:16 103:2 109:14 123:20 124:3

126:2 129:19 130:18 131:20 133:15 136:21 138:16 150:14 168:11 168:15 169:1 174:2,4 175:14 197:18 219:8 253:21 298:19 334:5 334:15 335:5,7 338:14 353:8 360:5 391:21 404:11 arm 20:4,9 22:10,20 23:1 24:22 185:3 arrived 282:11 art 237:17 392:7 articulate 121:17 articulated 20:8,9,12 21:15 23:17 24:2,14 227:13 articulating 229:3 articulation 228:6 Arts 14:14 41:6 48:2 52:12 53:15,18 56:15 60:12 78:15 79:7 83:8 83:9 238:6 241:10,14 246:11 248:13 254:17 306:20 371:5,13,20 372:15 392:4 asbestos 315:15 318:18 aside 12:13 36:18 104:6 **asked** 94:6 95:18 109:14 212:5,5 223:10 226:3,14 237:22 255:7 427:19 asking 13:7 33:3,9 71:2 76:19 83:13 93:15 172:3 188:17 194:8 219:7 245:19 248:12 248:14 251:2 263:12 263:20,20,22 264:1 280:19 282:20 324:11 324:16,17 326:7,8,16 326:17,22 328:19 365:6 368:1 371:2,9 371:22 372:2 asks 258:12 **asleep** 406:3 aspect 48:7 61:17 100:19 aspects 310:15 assemblies 59:15 asset 17:4,9,12,18,19 19:11 25:7 90:3 152:11 256:22 319:16 319:18,18 345:16 348:6 353:4 assets 19:20 36:16 90:5 223:16 assigned 265:1

assist 217:8 415:13 assistance 64:18 assistive 401:1 **Associate** 2:6 3:18 36:22 68:14 99:7 235:18 associated 176:5 304:13 383:15 association 2:5,8,17 243:1,2,3,6,20,21 251:4 257:10 268:13 268:18,20 269:6,17 271:22 272:21 273:10 274:20 275:19,22 276:2 283:22 284:2 303:18,19 332:16 354:2 355:14 360:1 377:5 associations 268:8,9 286:2,6 301:20 assume 208:22 276:2 324:1,3 331:22 351:18 assumed 170:20 411:20 assumes 364:5 assuming 38:21 170:6 assumptions 320:21 **assurance** 165:14 assured 253:17 254:14 363:18 AT&T 2:14 111:1,15 121:19 129:11,12 140:5 151:21 191:15 202:1 211:9 224:2.4 226:13 318:9 351:10 368:19 407:15 425:13 **AT&T's** 111:22 114:6 114:13 118:21 119:12 191:12 203:21 Atlanta 206:11 **Atlantic** 173:7 attach 20:17,19 21:18 25:1,7,8 76:15 82:7 95:3,8 139:19 147:21 210:15 245:17 attachable 210:10,20 attached 18:13 20:2,5,7 21:7 22:4,6,11 24:5 24:14 26:2 31:17 57:22 68:16 76:11,18 89:16 92:4,11 93:21 94:1 95:22 141:6 147:19,20 242:4 246:6,19 278:7 362:10 409:11 attaches 168:12 attaching 18:11 24:21

77:17 80:4 156:11 attachment 22:20 31:12 78:13 137:15 138:2 138:17 154:5 165:5 168:21 197:13 246:10 attachments 19:17 21:22 25:12 52:2 76:13 77:16 81:4 82:4 84:21 89:17 94:13 103:15 137:13,20,21 139:3 315:4 attempt 283:12 284:3 attempted 94:17 attend 235:22 attended 284:19 401:14 attention 69:3 311:17 336:21 345:3 404:19 attorney 147:2 293:10 377:7 attractive 276:20 auction 115:3 377:14 auctions 117:2 audience 5:18 8:17 34:9 71:14 audio 10:7 64:17 261:6 405:13 augmented 334:21 Augmenting 113:2 August 401:9 auspices 360:1 author 356:11 authorities 409:14 413:5 420:9 authority 39:16 40:1 68:10,11 81:12 238:9 262:14,16,16,19 264:9,10 267:7 297:11,19,20 298:7,8 298:11 324:14 325:19 329:13 330:9,10 364:12 367:6 371:21 384:19 402:13 409:7 409:9,10,16 411:12 412:5 413:13 427:20 427:20,21 428:1,6 authorization 347:16 authorize 258:6 297:13 authorizes 264:11 authors 370:18 371:7 371:16 372:2 automated 301:11 autonomous 112:20 115:20 379:4 auxiliary 399:17,20 400:16 AV 42:1 102:17 availability 334:6 353:10

available 12:17 26:17 67:10 76:17 115:4 159:21 161:16 168:21 196:2 198:21 221:4 222:2 237:1 239:6,9 258:15 300:12,17,19 412:1 Avenue 105:7,9 140:7 avenues 46:13 average 28:1 29:7 avoid 27:2 240:12 250:11 251:21 252:2 281:4,5 303:10 avoided 98:12 avoiding 16:19 avoids 353:1 aware 10:9 45:10 69:19 71:4 213:17 227:10 227:14,17,19 228:1 228:18 294:4 298:18 318:16 422:5,17 425:11 awesome 170:18 228:22 awful 380:7 В **B** 185:1 186:8,19 187:20 188:13 190:4 190:21 191:9 192:2.4 192:7 204:17,21 234:13,15,16 B-R-O-C-K-E-T-T 42:17 B-U-K-O 311:21 babies' 317:12 BabySafe 317:7 **back** 4:15 8:3 39:11 69:17 71:5 73:11 74:2 77:12 81:7 87:22 88:6 94:20 101:11 104:19 109:11 125:21 126:7 172:6 175:21 178:21 184:14 194:11 197:21 204:5 229:15 234:20 243:14 244:14 267:12 270:13 271:10,13,16 280:8 282:10 284:11 284:14 305:5 308:5 327:12 354:22 375:18 384:16 392:10,17 395:8 406:7 **backbone** 294:13 backdrop 52:10 backed 357:14 background 12:1,20 33:21 44:12 141:8 329:11 backs 50:1

backup 239:22 backward 342:5 **Bacon** 56:18 bad 110:9 262:7 281:5 367:12 balance 17:15 78:19 88:22 89:15 164:11 231:12 balancing 45:14 90:2 Baltimore 7:19 bam 17:15 banded 120:5 bandwidth 117:11,13 264:21 bankrupt 382:9 Barbera 37:17 barely 342:11 Barney 99:10 103:19 barrier 281:12 bars 133:1 base 24:2 138:11 141:19,22 142:22 146:7 174:16 186:3,6 186:12,18,21 187:15 188:6,14 304:12 based 38:3 48:14 62:8 62:8 67:11 84:3 103:18,20 136:22 152:13 154:13 189:6 223:2 266:1,22 267:7 320:21 327:6 329:3 346:9 350:22 367:8 382:12 427:17 basic 11:22 13:10 17:21 93:16 128:14 209:10 209:12 399:7 basically 30:21 107:22 163:10 230:21 263:12 266:16 280:5 281:4 281:22 282:13,14,20 283:9,10,11 291:14 292:16 303:9,10 304:14 378:6 380:14 382:4 basics 11:18 basin 172:19 basis 13:11 165:15 171:14 241:9 301:11 327:11 392:15 406:13 417:2 battling 417:1 beachhead 373:11 beast 378:15 beautiful 54:17 310:9 311:6 381:5 beauty 310:13 339:18 340:1 Beaux 48:2 56:15

bedroom 261:4 340:17 419:8 bedrooms 252:1 315:21 bees 316:14 beginning 10:18 105:21 157:12 228:8 248:15 269:15 282:7 424:1 424:14 begins 291:22 292:1 **begun** 164:6 behalf 2:10 42:22 138:19 276:12 279:20 309:12,12,15 310:1 345:6 behavior 130:16 beige 141:8,10,10,14 belabor 166:17 belied 347:12 believe 11:16 34:9 36:21 41:19 46:22 74:16 110:17 157:11 158:12 173:14 181:15 181:17 184:15 185:9 187:17 189:18 214:3 214:16 215:6.10 219:8 220:17 229:20 243:19 244:11 246:6 254:7 255:9 263:13 266:4 267:1 279:1 281:9 283:4 291:20 292:17 296:17 305:8 313:14 317:5 319:5 324:13 325:22 339:13 349:3,13 372:9,10,20 373:21 377:21 415:19 415:20 422:4 424:2 431:18 believed 302:21 **believer** 300:8 believers 300:11 **believes** 324:11 Bell 178:21 below-grade 181:12 belowground 176:10 bend 250:18 beneath 106:22 benefit 149:6 302:14 321:4 benefits 55:22 109:4 335:15 359:8 404:10 Benning 105:7 Bernadette 1:19 5:13 best 10:18,19,19 15:4 15:14 58:10 127:1 153:1 206:2 232:3 256:22 264:17,17 277:7,8,9 337:13

367:13 bet 227:18 **Beth** 2:3 279:19 **bets** 331:14,16 Betsy 2:3 359:20 better 19:6 42:15 80:2 83:4 133:8 150:2 172:7,8 179:7 200:3 281:20 284:2 304:8 335:3 340:10 371:7 381:13 385:5,15,19 beyond 81:1 231:2 356:6 373:2 404:1,7 bicyclists 104:9 bid 102:13 243:18 BIDs 103:21 301:21 big 18:2 33:22 79:11 182:14 210:7,8 287:10 300:8,11 340:5 355:7 **bigger** 199:15,16 302:20 **biggest** 102:6 149:3,4 201:18 381:10 **bike** 104:7 146:14 148:4 148:7.8 **bikes** 401:1 billion 163:17,19 294:7 bills 321:4 **bin** 414:3 binds 257:8 birds 316:14 bit 31:20 79:17 87:13 87:16 103:10 114:7 116:10 159:19 180:6 188:16 189:9 199:16 199:18 210:7 226:6 229:6 232:7 233:19 246:15 350:10 364:4 382:11 385:13 386:10 black 142:8,22 289:2 blades 214:16 **blend** 310:20 blight 261:1 block 27:16,19,19 28:7 29:7,9,15 30:16,18,18 35:17 65:17 85:7,14 85:15,20 86:6 96:13 97:1 124:19 125:5,10 125:10,10,13,17,18 125:18 126:15,17 127:1 131:12,12,17 133:12 190:13 211:10 241:3 251:6 280:16 280:20 301:2 303:4 386:20 399:15,17 400:21 416:22 block-face 27:13,17

29:3,13,20 52:8 block-faces 49:21,21 **blocks** 28:1,9 66:3 86:17 124:4 125:8,17 125:18 126:16 127:22 131:4,5 190:15 230:4 281:3 351:17 blue 160:1 391:13 BLUF 245:6.7 board 174:9 238:6 241:11 246:12,12 247:5,8 343:8,9 355:15,16 **bodies** 176:7 255:16 319:11 377:18 **body** 4:12 279:7 324:6 382:21 427:17 boilerplate 398:9 **book** 389:9 391:10,11 391:12,13 **books** 315:13 **boom** 171:9 **boon** 101:20 border 219:3 born 316:21 416:6 **bottom** 19:10 26:15 166:5 188:2.8 245:7 387:5 boundaries 31:22 32:9 boundary 21:13 32:11 136:16 216:20 Bowser's 277:1 box 57:20 77:21 142:22 146:20 147:12,13 185:21 361:9 408:15 408:16 409:19,21 410:1,21 **boxes** 57:19 93:6 146:15,17,18 400:14 400:16 408:11 411:20 412:1 414:14 423:3 brace 200:16 brain 317:4 318:5 brains 317:12 Branch 342:4 breaking 116:3 breakneck 389:7 Brian 2:4 158:11,15 404:20 405:19 bridge 101:19 bridges 62:11 brief 53:19 65:5 briefly 122:1 143:22 Brightwood 405:21 bring 41:2 45:3 73:17 110:21 111:2 115:15 118:2,13 121:8 178:22 268:14 294:5

345:19 346:6 347:21 350:7 354:14 408:4 bringing 60:13 199:10 284:11 294:2 368:10 368:11 406:5 brings 4:19 130:3 broad 18:18 173:20 233:19 broadband 193:12 237:12,17 broader 396:6 414:16 broadly 82:2 295:8 299:14 Brockett 41:21 42:4,5 42:15,17 44:4 BROKETT 2:2 72:14 77:5 80:13 81:9,15,18 brought 11:17 60:14 79:11 106:22 211:17 236:16 244:11 386:8 392:22 393:6 brown 139:15 142:9 289:2 bucket 104:16 106:6 155:3 196:5 **build** 120:14 136:19 139:1 143:12 151:13 313:15 414:12 build-out 294:6 **building** 48:4 50:18 51:1 102:11 136:3 141:8,14 149:20 151:11,12 167:1 247:18 251:12 303:5 328:10.11 buildings 47:21 48:3,11 49:3,13 50:5,15,20,21 51:8,12,17 52:10 100:12 102:8 127:14 141:10 149:18 150:4 152:15 191:6 310:9 338:9 346:14 347:4,5 379:7,11 381:7 419:1 built 150:11 154:2 281:11 356:6 Buko 2:17 311:19,20,21 312:2,8,10,12 330:20 331:3,10,13,16 332:3 **bulk** 357:2,5 **bulky** 356:14 bunch 85:2 **buoy** 57:19 burden 230:14 buried 173:19 341:10 Burleith 236:16 243:2 251:5 **buses** 128:12 business 5:12 117:3

240:9 241:19 243:4,5 286:7 312:17,21 313:8 405:22 business-friendly 276:16 businesses 135:2 237:14 240:13 277:22 busy 337:15 buttressed 358:9 buy 101:20 319:1 352:16 Buzzard 174:3 by-26 186:5 by-line 226:17 С C-L-O-W 99:7,15 cabinet 138:10 139:15 139:21 140:3 141:5,7 142:9,10 143:10 155:5,12,18,22 156:4 183:12.13 185:18 186:2,10 195:15 196:4 197:8,11,13 200:17,21 201:2 202:22 204:14,15,17 204:19,19,21 205:3 288:22 389:22 cabinet-free 132:7 cabinetry 21:7 22:13,15 51:13,15 92:4,11 114:8 119:2 129:11 129:13 141:4 143:6 144:7 203:22 204:1 212:10 260:21 cabinets 14:1 57:21 92:9,19 129:20 138:7 156:2 233:2 238:20 287:13 304:3 341:21 cable 93:6 341:9 358:13 385:11,13 cables 57:21 cafes 240:15 CAG 284:2,5 286:6 287:2 354:7,8 358:1 369:21 CAG's 356:10 cage 186:16 188:5 cage-mounted 188:12 calculus 75:4 calibrated 367:12 California 206:11 293:11 call 6:8 20:7 104:22 128:4 136:12 139:18 140:6 182:9 209:18 264:22 270:17 360:19 380:13 404:3 421:14

called 20:4 102:16 125:1,1 142:16 155:13 272:13,14 320:5 342:17 368:5 370:13 391:9 calling 4:1 261:12,13 316:8 calls 100:14 136:7,15 263:14 cameras 313:9 campuses 323:21 cancer 318:5 321:8 candid 297:4 candidates 220:14,19 canister 139:14 140:2 155:4,17 canopies 256:13 canopy 231:5 238:3 255:22 256:4,12 cans 115:21 277:21 capable 371:12 capacity 13:16 57:7 112:1,5,15,17 113:1 115:11,14,18 117:22 127:16 133:18 163:21 165:10.13 174:16.17 190:8,9,12,14,15,17 191:5,9 192:6 206:17 208:1 211:1 294:16 315:10 321:22 354:4 358:9 375:19 capacity-busted 112:16 capital 7:22 14:15 15:9 16:15 41:5 44:5,8 45:20 46:2,4,10 48:9 54:11 60:10 111:19 173:11 238:7 275:3 Capitol 47:9 66:11 capping 232:15 captives 251:6 capture 320:15 429:17 car 133:19 134:2 176:1 carcinogen 316:12 427:15 Cardozo 416:16 care 122:19 197:4 240:10 360:6 431:15 careful 284:18 carefully 19:1 caretaker 90:5 Carley 2:4 134:5 carpenter 338:16 carriage 288:10 carrier 30:15,18 36:8 86:22 89:13 105:16 114:14 123:22 124:16 125:9,13 127:1 131:13 155:16,19,19

223:14 238:14 250:15 280:7,16 282:14 290:3 302:10 303:4 369:2 carriers 16:13 20:20 23:5,12,18,22 24:16 24:22 25:5,11 26:12 31:4 36:14,21 48:15 65:21 73:19 87:3 88:15 89:1 90:12 93:8 107:7 108:1,4 114:10 134:20 135:6 148:21 161:18 167:13,16 174:14 223:20 239:3 278:3 280:10,19,21 282:2 283:12 287:18 289:20 290:16 293:2 293:3 304:19 352:20 357:11 365:5 368:9 cars 112:20 115:20 131:7 175:22 277:20 341:16,18 412:15,18 cartoons 37:18 carved 115:7 case 8:22 127:20 141:2 148:10 165:15.15 176:14 227:1.3 264:12 270:3 274:12 323:17,22 363:11 392:22 409:18 413:7 case-by-case 241:9 cases 153:6 166:21 167:6,7,21 176:14 252:1 287:4 318:6 Casey 360:10 Castle 2:5 111:1 134:4 134:7 137:8,18 138:19 143:18 202:15 223:10,21 229:11 342:16 casual 385:14 categorized 125:5 category 21:1 Catholic 324:1 Catrina 1:15 5:20 caught 315:13 cause 175:12 322:2 causing 362:12 cautionary 382:15 CDC's 161:20 cease 241:18 cells 35:20 54:3,21 55:13,18 60:21 62:15 66:4,20 78:3 106:20 115:7,15 134:12 138:18 144:14 149:11 153:4 195:11 206:3 207:1,22 261:3 278:4

284:16 293:12 294:13 295:1 310:19 313:10 316:10 325:2 335:13 342:8 345:18 346:6 356:7 357:5 358:4,11 358:19 367:21 372:21 373:1 426:20 cellular 13:16 45:15 57:2 59:3 **Celsius** 321:2 center 48:22 161:20 334:5 388:20 central 51:10 100:5 century 56:15 CEO 2:17 293:21 312:13 350:3 351:6 certain 6:14 49:21 94:2 95:1 107:14 168:1,17 174:22 280:17 298:7 321:18 340:9 363:10 424:5 certainly 5:11 72:17 92:14 124:5 175:17 286:3 311:11 340:4 341:6 353:19 381:18 **certified** 362:8.22 364:2 365:3,7 366:4 cetera 12:7 15:22 16:6 18:17 92:9 93:6 125:6 209:1 215:20 263:4 390:18 392:4 CFA 34:16 54:5 55:21 56:17 69:15 74:3 81:22 82:14 238:15 247:4,8 253:9,9,11 254:7 255:1,2,4 285:20 298:20 354:11 385:22 Chair's 348:19 Chairman 397:7 404:21 Chairperson 1:11 challenge 49:8 203:8 203:11 305:9 315:6 challenges 78:12 127:20 181:8 challenging 261:19 Chamber 2:9,15 272:5 272:16 273:1,11 274:13,19,21 276:12 276:13,15 277:3 279:12 293:22 294:3 296:1,18,19 301:21 335:20 Chamberlain's 73:15 **Chamberlin** 1:11 5:3 35:11 38:13 67:22 68:3,19 69:4 70:12,18 92:14 106:18 107:3

108:20 111:10 143:19 144:15 159:1 **Chambers** 295:8 330:14 chance 12:5 121:11 209:10 397:14 398:6 402:1 change 130:4,5 249:10 251:7 290:16 328:3 changed 54:13 249:7 416:7 changes 35:19 93:3 121:14 122:20 140:20 242:15,18 248:22 249:3 281:15 401:6 changing 36:5 200:9 290:16 chapter 90:22 146:21 391:2,5 character 16:15,21 23:12 34:1 45:16 46:3 72:5,10 284:7 356:12 character-defining 73:5 characteristics 7:15 49:12 356:20 characterize 294:16 356:2 charged 325:5 373:8 charging 349:6 chart 19:4 21:6 26:19 27:22 29:10 31:11 91:19,22 124:21,22 124:22 125:1 131:11 131:20 charter 333:19 **cheap** 352:7,16 check 5:19 77:21 262:22 checked 44:11 365:7 **checking** 386:9 **Cheh** 397:20 Chesapeake 172:19 **Chicago** 197:9 200:22 205:20 chicken 207:10 chief 2:6 99:8 242:2 245:10,15 246:4 316:15 333:18 children 319:6,9,17 326:19 328:12 414:19 415:6,8 417:6 418:14 419:19 choice 255:6 choose 349:5 **chooses** 255:1,2 **choosing** 196:2 **Chorus** 3:5,8 363:3

chose 310:8 311:8 **CHRIS** 1:12 Chris's 94:20 cigarettes 315:15 circle 65:6 85:6 125:20 126:6 272:6,7 273:11 273:12 338:11 339:6 circulation 17:2 circumstance 322:15 circumstances 168:18 168:22 213:4 215:16 citation 189:17 cite 170:13,15 173:4 218:20 cites 224:18 cities 14:3 15:5,6,8,9,12 132:8 150:9,12,13 164:7 166:2 205:13 205:16 206:9,11,14 206:21 207:6,7 208:7 208:11 214:12 282:11 302:12,17 310:12 313:19 319:3 335:2 citing 62:15 citizen 310:7 332:15 citizens 2:5,8,16 17:10 17:13 243:1,2,20,21 251:4 257:10 268:13 268:17,20 269:5,17 292:12 319:12 337:5 337:20 354:1 355:14 360:1 375:1 377:5 396:21 398:5 412:22 Citizens' 271:21 272:21 273:10 274:20 275:19 275:21 276:2 283:22 284:1 city 8:1,2 35:17 45:22 46:5,16 54:16,18 58:3 58:16 59:3,7 62:7,19 69:18 72:5,7 73:6 76:16 79:9 85:16 102:6,22 105:4 124:7 133:15 161:8,10,11 190:7 197:8,8 201:2 208:13 277:5,7,9,9 278:14 311:12 331:17 335:4 339:7 342:12 343:2,17 353:14 355:17 364:3 367:4 398:19 400:7 401:8 402:7,8 404:11,20 416:6 426:11 city's 16:15 56:11 63:7 348:5 400:3 403:10 **civic** 46:11 51:8 286:1,5 claims 317:17 clarification 19:17 34:9

169:8 193:20 204:9 232:10 234:1 clarifications 52:22 296:12 clarified 369:15 395:17 clarifies 300:4 clarify 80:17 90:20 112:10 116:8 119:4 156:10 160:15 212:7 215:18 219:21 234:8 275:17 367:20 424:1 424:13 428:22 clarifying 394:3 clarity 74:13 229:4 **Class** 185:1,1,12 186:8 186:19 187:12,20 188:13 190:4,8,21 191:9 192:2,2,4,6,7 204:13,17,21 234:13 234:13,15,16 classes 334:22 classify 318:19 classroom 334:20 clause 300:5 319:2 **clear** 25:16 80:19 127:12 131:10 151:9 152:11 182:7 199:13 200:12 203:21 204:9 209:20 221:3 230:15 230:20 286:12 289:11 302:14 321:8.21 348:11 351:15 362:3 362:17 365:12,13 370:20 372:3 381:19 382:13 398:3 408:5 411:14 416:21 420:6 429:1 **clearance** 152:16 clearer 164:18,22 378:20 clearly 7:20 74:9,11 120:5 200:12 232:12 298:9 325:18 332:12 332:19 350:22 351:7 386:7 391:1 395:2 clients 312:16 clock 267:11,13 close 13:21 60:9 67:18 111:11 124:18 136:16 144:13 171:3,4,5 236:6 340:22 346:6 378:14 380:15 closely 54:14 134:21 137:3 360:10 closer 115:16 118:3,6 118:13 124:19 130:3 130:7 199:19 251:10 251:15

closest 96:17 closing 353:5 closure 154:18 **Clow** 2:6 98:4,5,13,19 98:22 99:3,6,7,16,19 99:22 100:2,5 101:2,7 101:10,13 104:11 106:1,10,16,21 107:5 107:12 108:2,6,8 109:6 110:2,6,13 clumsily 57:22 cluster 31:10 49:20 clustering 27:2 clutter 17:3 31:9 50:5 57:10 92:20 223:18 281:5 400:17 cluttered 52:9 co- 114:12 210:13 281:3,10 co-locatable 223:13 **co-location** 219:13 280:1,3,6 281:10,13 282:6,15 283:7 co-sponsor 284:15 **cobra** 19:16 20:4,5 22:19 26:2 141:17 142:15 219:10 234:12 cobra-head-style 186:14 Cobrahead 85:13,13,18 85:19 Cobraheads 86:1,8 95:20 **code** 170:9,11 171:6,9 181:14 189:4.6.17 224:14,20 431:17,19 codes 15:22 16:6 cofounder 312:13 cognizant 396:20 coin 378:2 coincidentally 244:9 coincidently 141:7 collaborate 201:17 294:18 collaboration 44:16 60:10 277:4 collaborative 43:13 58:12 371:17 collaboratively 276:19 collar 22:9,22 52:6 185:15 186:8,19,19 188:1,7 colleague 42:20 colleagues 42:7 78:10 206:6,8,10 collecting 162:2 collection 313:6 collective 17:14

collectively 17:12 color 18:1 110:1,2 144:18 238:18 289:1 289:2.5 colored 141:11 **colors** 199:3 410:1 Columbia 1:1 3:20 4:6 6:5,15,17 7:3,9,12,17 7:20,21 10:22 11:20 14:10 15:22 17:10 24:11 25:4 26:14 28:2 29:8 32:3 38:19 39:14 43:8 66:9 75:10 77:4 97:13 100:7 148:5 150:10 160:16,18 161:6 164:14 174:7 215:4 241:19 256:5 260:14 264:12 277:5 296:19 297:4,6 310:7 310:8 321:5 331:5 345:15 361:5 372:22 388:2 391:2 396:21 406:16 408:2 410:12 412:5 413:12 417:12 419:13 429:5 column 19:9 20:14 27:18.22 29:1 30:11 30:14 **comb** 179:16 combination 49:22 130:1 combine 173:19 174:3 203:13 414:22 415:3 combined 17:12 418:1 Comcast 317:15 358:10 come 10:20 11:4 13:3 41:11 62:12 69:9 87:22 88:6 104:9,19 111:4 114:19 120:4 148:9,15,22 155:7 157:15 209:3 226:10 248:4 253:19,22 259:17 268:6 269:11 271:10 276:4 280:7 284:13 290:11 306:21 324:8 336:18,19 375:18 391:16 395:8 395:11 409:22 413:3 422:15 comes 35:17 38:22 93:14 94:19 299:2 386:17 392:10 comfortable 253:18 256:21 coming 41:21 73:8 88:20 114:3 248:7 377:11 416:10 418:20 419:6 426:21

comma 249:6 comment 43:11 73:19 123:19 131:18 168:14 233:18 236:11 238:15 245:3,9 248:6,9 255:19 285:12 299:18 304:16 358:5 368:21 369:1,19 370:2 371:10 373:6 398:21 403:3,14 commentary 238:1 commented 58:22 254:13 commenting 272:3 **Commerce** 2:9,15 50:22 272:5 273:11 274:13,21 276:15 279:12 293:22 295:8 296:1,18,20 301:21 330:14 335:20 commercial 240:10 346:14,19 347:4 349:9 400:3,18 commission 14:14,16 41:5,5 44:5,8 45:4 52:12,17,20 53:15,18 53:21 54:2,20 55:4,9 55:12 56:1,12,17,19 56:22 57:8,12 58:11 58:15,22 59:12 60:11 60:12 78:14 79:2,7,12 82:9 83:7,9 84:8 164:12,21 173:12 238:6,7 239:15 241:10,14 246:11 248:13 254:17 258:3 258:7 262:5,17 263:10 264:19 265:18 306:20 315:5 324:9 371:5,12,20 372:14 392:3 404:17 413:9 413:11 commission's 45:2 49:14 59:11,16 413:14 commissioner 237:10 242:11 243:14 259:21 267:18 336:17 344:6 344:9 353:18 358:15 372:4 406:10 429:13 commissioners 235:19 257:9 268:6 372:1 401:12 Commissions 55:10 commitment 301:12 **committed** 276:16 300:13 420:7 committing 301:6

common 63:3 193:21 communication 237:17 262:17 279:10 306:6 324:9 393:16 communications 94:1 168:2 237:16 239:15 262:4 264:19 402:18 413:9,11,14 communities 70:10 103:3 401:7 community 13:5 57:9 103:22 135:9 137:5 208:21,22 239:16 243:11 259:18 276:18 294:20 301:19 311:3 313:18 333:21 338:8 359:11 360:3,6 395:2 401:2 community's 250:14 359:12 comp 73:10 companies 137:16 189:6 191:19,20 220:5 223:1 317:14 318:4,5,9,20 330:3 338:3 343:16 346:11 350:13 382:8 392:16 404:8 407:11 408:1 412:20 420:1 424:21 428:17 **company** 10:2,4 100:12 154:5 180:18 188:18 189:8 193:7 206:19 313:21 385:11 429:12 429:12 company's 135:22 compare 65:7 140:21 318:18 compared 17:16 163:9 competing 282:2 competition 58:10 83:5 311:5 competitions 83:2 competitive 276:20 competitor 135:15 competitors 207:3 **compile** 271:6 complaints 206:19 285:5 complete 37:17 138:3 213:5 232:2 completed 59:15 137:22 completely 36:20 97:14 163:12 182:6 193:6 215:3 316:2 345:13 428:12 complex 6:21

compliance 239:4,14 262:4 263:6 267:14 298:3 compliant 264:1 complicated 337:14 complies 299:17 comply 66:4 146:12 164:19 167:8 248:10 263:14,17 293:2,3 component 136:2 242:6 247:14 248:16 331:8 components 56:10 334:2 composed 58:16 comprehensive 391:22 comprehensively 87:13 comprise 56:10 compromised 319:8 361:15 417:7 418:15 **computer** 111:12 computers 352:10 concentration 46:6 47:3 concept 128:15 242:3 245:15 297:11 346:5 **concern** 34:1 56:2,5 69:16 79:11 90:6,7 92:21 114:17 122:3 133:17 146:2.10 166:15 167:18 174:6 175:2,13 201:18 202:11 204:3,16,20 206:12 210:9.18 226:17 285:2 303:15 325:13 360:14 410:16 411:1 413:22 420:7 426:14,15,19 concerned 79:8 82:9 123:21 124:13 145:6 167:21 169:4 252:9 252:12,17 257:7 284:20 290:2 291:17 291:18 322:3 353:2 356:13 380:5 382:11 400:13 408:8 410:17 416:9 concerning 122:2 concerns 38:15,16 39:1 51:20 57:11 76:6,7,7 137:12 151:22 164:14 165:1,21 166:16 167:5 168:9 201:21 228:15,17 291:9 292:12 293:13 295:18 297:21 342:9 343:4 348:20 357:9 361:20

397:4 398:15 conclude 357:15 427:16 430:16 conclusion 283:4 427:14 condition 37:1 366:6,7 366:7 conditioned 176:3 conditions 84:11 182:4 conduct 5:12 conducted 331:7 conducting 241:18 conduit 238:21 288:14 conference 320:13 configuration 52:4 395:12 configurations 88:17 confirm 239:14 253:10 262:4 387:13 conflating 80:21 **conflict** 36:12 confluence 173:18 conform 224:14 241:6 confuse 85:2 congested 181:1 congestion 45:7 **congress** 54:6.8 conjunction 50:3 connect 101:14 128:18 128:21 379:22 connected 163:18 277:21 connecting 100:11 connection 37:18 317:20 connections 358:7 connectivity 128:4 312:20 313:1 334:6 connector 93:5 consensus 176:9 Conservancy 272:6,7 273:12 consider 6:2 87:1 189:12 287:7 293:16 335:11 356:8 404:3 427:8 consideration 59:6 62:10 70:1 79:13 89:3 90:3 176:4 238:16 278:19 340:9 351:9 371:10 402:20 considerations 23:4 78:16 89:6 considered 38:16 165:17 241:1 283:3 316:11 318:22 351:15 356:19 357:19 431:9 considering 283:17

consistency 73:17 203:19 consistent 23:7,11 29:20 59:7 200:8 248:3 260:14 285:11 285:17 348:19 consistently 321:18 consolidated 153:7 constant 9:8 120:11 constantly 419:21 constituted 324:7 constitutionally 147:5 constrained 357:20 construct 137:2 138:5 154:10 constructed 137:14 238:15 353:8 construction 59:13 114:16,20 120:11 155:3 198:22 constructive 227:16 243:16 constructure 283:8 **consult** 43:9 428:3 consultation 43:22 consulted 83:3 consumer 5:2 57:2 334:15 contact 10:4 contacts 221:20 contain 195:16 280:11 contained 142:17 173:8 243:9 contemplate 21:21 92:2 92:13 94:8 contemplated 8:7 contemplating 380:8 contemplative 8:10 contemporary 57:2 content 43:18 398:15 contested 393:1 context 87:16 159:21 247:10 contiguous 219:2 continue 25:9 97:8 135:14 152:3,22 277:20 336:5 349:15 355:13 366:18 426:17 continued 43:22 54:14 59:18 277:14 continues 278:14 418:18 continuing 20:14 392:10 contractors 104:21 138:20 contradictory 267:6 contribution 50:4 58:3

control 167:13.16 214:2 214:5,6,10,13 266:18 325:15,17 convened 1:8 convenience 101:21 conversation 127:9 226:11 299:12 320:3 326:14 conversations 88:14 135:13 convincing 348:11 cooling 239:22 260:12 cooperating 63:18 coordinating 53:10 coordination 38:2 385:20 coordinator 1:16 5:21 **cop** 415:10 **copies** 309:4,7,7 333:12 copper 175:6 177:20 178:3,8,13 **copy** 46:22 63:20 278:22 cord 160:11 162:19 163:12 core 21:9,11 28:16,17 28:19 29:5,11,21 30:12 32:7,16 46:8 56:8 66:9 70:7 72:3 72:19 79:4,8,14 100:11 217:6 corner 26:15 27:16,16 27:19,19 187:16 198:6 419:2 cornice 356:17 corporate 282:18 340:3 **correct** 34:12 39:10 63:15,16 64:10 75:13 75:14,19,20 81:20 93:1 96:22 108:2 110:1 111:15 117:8,9 117:16 119:10,11 123:5,11,18 125:14 128:1,6 129:1,14 142:12,13 152:18 157:17 171:11 182:3 182:11 184:5 191:1 191:14 196:11 202:5 202:6 205:15 216:15 216:17 218:10,11 219:17 221:8 225:21 229:12 231:17 233:17 263:16 266:7 268:18 272:6,8,16 279:15 296:2 303:21 331:3 331:10 349:17 363:2 374:2 379:13 406:10

424:3 correctly 153:10 208:10 266:6 348:5 384:21 correlation 129:14 131:8 132:1 corridor 95:21 96:7 corridors 50:6 73:11 95:13 101:18 corroborates 317:2 **cost** 36:8,13,17,20 102:19,20,21 104:2,3 105:1 352:12 cost- 321:3 cost-effective 181:21 costs 38:2 317:22 321:11 Council 237:22 254:6 255:20,22 276:17 384:20 403:1,22 Councilmember 397:20 counsel 2:16 283:22 count 26:15 counteract 180:13,14 countless 315:22 countries 14:4 15:9 315:16 325:7 country 160:10 164:8 197:7 206:6 294:20 392:8 County 422:14 couple 27:9 36:2 181:5 220:12 230:9 345:11 381:22 course 105:12 204:10 226:18 265:14 318:6 335:8 365:1 422:9,13 429:14 **cover** 109:14 323:4 372:21 coverage 31:2 48:6,14 48:16 53:4 66:2 67:1 67:16 78:21 109:8,16 115:16 126:15 133:8 133:21 149:6,8,15 150:16 151:15,20 166:18,22 197:18 201:7 247:21 252:3,4 255:22 358:21 359:6 covered 147:14 354:18 363:19,21 391:7 395:14 covering 72:6 covers 100:15 176:2 crafted 342:7 crafting 60:13 crazy 198:9 create 27:6 49:9 54:17 71:11 204:2 290:5

294:8 339:21 343:20 344:2 400:17,21 created 12:1 31:1 277:6 425:8 creates 180:18 creating 213:5 341:11 creation 294:5 Creek 32:6 crisis 303:11 criteria 50:1 59:10 69:20 366:3 critical 14:9 44:21 45:16 47:7 136:5 230:22 256:17 361:12 361:15 critically 134:11 criticism 383:10 criticize 382:20 383:3 cross 105:7 143:11 cross- 279:7 crossed 162:20 crowded 379:19 Crown 2:5 111:1 134:4 134:7 137:8,18 138:19 143:18 202:15 223:10.21 229:11 342:16 crystalizes 330:7 **CTIA** 110:17 429:14 **CTO** 99:10 **cubic** 232:15,21 233:3 287:19.20 cultural 400:10 **culture** 311:9 Curb 7:7 current 9:13 34:6 50:19 60:20 61:10 88:16 163:22,22 167:9 181:14 189:2 192:5 214:17 241:22 242:6 245:13 320:18 333:22 currently 21:21 22:14 22:16 24:7,9 25:14 26:5 81:2 92:1.10.13 93:9 94:7,11 95:13 125:16 132:9 180:22 185:5 188:16 213:22 219:4 266:1 316:6 318:2 326:10 333:18 346:20 352:9,14,21 366:12 368:12 369:5 391:9 429:11 cursory 84:18 curved 141:17 customer 124:1,18 206:19 417:16 customers 112:18 121:4,6 127:17

134:19,21 137:1,7 201:8 cut 140:13 418:7,11 cutting 160:11 162:19 163:12 cyber-secure 358:7 Cynthia 2:5 376:21 D D-E-L-L 195:2 D-I-D-D-E-N 134:6 D-O-R-A 314:22 D.C 1:9 13:2 25:8.10 44:1 45:9,20 51:10 54:9,15 60:6 109:1,18 112:4 272:5,16 273:10 274:19 276:12 276:12,15,17 278:17 294:2 296:1 310:7,10 310:16,21 311:9 313:18 315:19 318:13 322:10 324:2 331:14 334:16 335:13 338:7 338:18 339:7 340:1 341:16,17 360:15 382:4 400:2 403:1 405:21,22 406:5,11 412:2,12 415:2,6 416:5 421:15 422:5 422:15.17 428:4.5 429:1 430:10 D.C.'s 334:2 **D.C.-based** 312:14 dad's 273:21 daily 101:14 417:2 dais 4:22 5:16 35:22 425:10 **Dakota** 73:4 damage 150:19 152:12 360:14 392:1 405:5,7 damaged 178:2 316:22 damages 150:18 317:4 318:22 damaging 150:17 356:21 Daniel 2:7 53:17 darn 199:12 data 157:13 159:7,22 160:8 161:16,19 162:2,8 163:3,14,16 179:14 277:18 278:9 294:16 312:19 313:5 424:8 database 386:10 date 43:14 160:17 258:22 266:4 291:19 dated 354:9 David 2:6 99:7

day 45:13 138:22 254:5 257:8 305:15 333:3 344:21 381:12 401:14 418:10 430:18 **day-** 400:4 days 197:3 241:20 267:10 337:15 403:14 **DC** 2:9,19 180:22 192:1 192:15 193:5 205:12 216:21 219:8 221:1 237:11,15 342:21 343:8 DC's 207:2 237:21 DC-NET 2:6 99:8 100:8 101:11 DCPS 109:15 dcregs 429:8 dcregs.dc.gov 412:1 429:9 **DDOT** 1:18 2:13 11:15 11:15 19:12 21:22 22:3,18 25:16 34:18 37:21 38:19 43:5 44:16 47:20 55:1 60:10 66:16 67:6 68:8 75:18 103:13 105:12 105:15 168:12.16.20 169:3 181:2,6,13 189:13 195:13 219:20 254:7 286:3 342:21 354:9,10 360:9 398:1 399:2,18 401:4,5,9 402:3,12,20 403:21 404:3.6 **DDOT's** 62:5.17 72:16 95:14 399:14 401:6 DDOT-owned 26:7 ddot.dc.gov 12:18 **DDT** 315:16 **de** 249:14,18 250:2,3,5 250:6,14 251:8 252:12 324:21 deadline 337:11 370:9 397:14 401:17 430:22 deal 292:11 383:12 417:3 dealing 276:5 384:15 414:17 deals 255:22 dealt 374:22 **Deanwood** 105:9 decade 277:19 decades 167:8 **December** 160:17 decibel 261:8 decide 174:14 289:18 351:16 427:5 428:1 decided 23:10 318:4

decision 10:18 92:6 124:11 267:1 358:10 430:10 decisions 135:22 257:1 deck 107:6 decline 160:4 decorative 185:2 decorum 423:20 decrease 180:9 316:1 decreased 218:7,8,9 dedicated 284:5 deed 256:7 deep 61:11 105:13 180:20 182:10 183:15 184:4 290:4 deeper 178:10 319:10 deeply 61:6 default 283:11 defer 177:8 178:11 deficient 288:7 define 27:10 32:15 defined 21:10 27:10 28:13 74:3,9,11 96:12 278:9 319:1 355:21 386:7 391:1 394:21 defining 45:21 49:12 392:18 definitely 71:12 72:20 176:6 181:6 200:15 200:21 201:1 207:3 298:14 definition 126:3 250:4 280:3 292:2 deforming 341:7 defunded 319:20 degree 315:8 321:2 delay 402:20 delegated 262:15 264:18 delegates 264:10 297:17 delegation 39:16 deleterious 357:18 418:17 deliberately 8:1 delicate 164:10 delineated 391:1 delineation 271:4 **deliver** 136:9 431:12 delivered 421:5 deliveries 240:18 demand 45:6,15 48:17 131:6 163:22 164:12 278:2 302:20 334:15 335:1 demands 221:1 demonstrate 283:7 **DENIS** 2:7

dense 69:15 313:10 densely 67:12 densification 217:7 380:13 density 132:1,2,3 deny 247:20 department 4:6,10,11 4:13 5:1,4,17 11:3 14:12 26:9 39:17,17 40:3,10 50:22 109:13 120:22 252:6 263:8 264:13 297:13 363:15 409:3,5 410:14 413:12 431:14 Department's 374:19 departments 282:18 depend 130:21 dependent 65:16 190:10,16 191:5 depending 150:1 187:3 190:11 247:15 285:21 depends 84:8 205:1 207:20 depicted 232:16 deploy 105:2 133:18 134:17,22 145:9 146:13 149:11.14 181:4 197:8 223:13 223:14 294:20 318:12 328:5 deployed 106:3 129:20 135:3 195:18 206:3 207:1 323:20 324:4 330:21 331:17 deploying 118:6 195:21 deployment 6:10 138:17 150:15 164:3 196:3 197:7 207:7 223:2 237:13 238:2 292:15 294:5,12,14 294:19 295:4 311:15 313:12 314:11 330:15 332:1 335:11 358:19 385:6 396:5,7,11 420:11,12 deployments 103:17 144:10 242:16 **Depot** 410:13 depth 12:6 13:9 146:19 188:16 403:7 describe 132:15 249:17 described 53:2 278:6 349:15 descriptions 310:11 designated 16:21 93:21 designating 53:3 designed 20:9,13 50:13 56:16 78:8,11 136:19

164:13 310:19 Designer 2:14 designers 58:5 designs 52:7 56:15,18 89:12,21 129:18 137:5 181:17 184:22 192:4 246:8 desire 303:3 desired 399:10 desk 391:18 despite 351:2,4 417:9 detail 55:9 61:5 147:10 257:5 258:20 287:12 detailed 55:1 84:19 137:14 146:12 282:16 403:6 details 59:14 114:15 130:22 189:13 230:4 290:14 356:18 385:4 determine 61:3 252:16 determined 30:19 determines 247:2 detract 356:15 develop 58:10 100:7 295:3 314:9 334:19 335:10 399:3 developed 6:3 43:2 56:13 147:8 developing 43:14 58:2 59:21 311:15 398:18 development 52:14 54:1,16 55:7 57:17 58:18 137:9 294:4 352:8,18 398:12 deviations 253:21 device 104:3,5,17 128:4 214:5 341:3 365:14 devices 57:3 136:8 163:18 214:3,6,11,14 215:19 239:22 260:12 277:17,20 278:1,6 310:22 311:16 325:15 325:17 334:10 401:1 diagram 369:11 diagrams 292:19 dialogue 279:8 299:15 diameter 238:18 287:20 Dick 382:5 dictate 196:1 dictionary 249:16 Didden 2:4 134:5,5 141:12,16 142:13 143:5,8 144:2,17 145:6,15,19 146:2,8 146:10 149:3,21 150:11 151:6 152:18 153:13,15,18 154:21 155:13,16 156:3,7,13

156:18 202:17.20 203:4,10 206:22 222:13,15,19,22 223:6,11 224:11,20 225:9 229:13 dies 266:10,11 differ 192:18 286:13 difference 18:8 91:22 140:1.22 280:7 321:21 379:9 differences 199:6 different 20:3 22:4,10 24:6 37:11 39:12 41:9 73:18 84:9 92:2 93:17 96:15 104:19 109:12 114:7 119:13 129:18 129:18 130:8,18,18 135:7 140:10 151:4 190:6,7,15 191:13,18 191:19,19,21,22,22 195:9 198:7 199:2,18 215:3,15 247:15,16 264:3 297:18 315:10 324:6 328:4 332:20 351:18 378:16 386:3 409:13.14 differentiate 325:16 differentiation 322:19 difficult 144:12 379:7 diq 155:1 digging 154:19 340:21 341:12 380:9,9,10 digital 101:20 dignity 54:11 diligently 227:11 dimension 232:13 dimensional 58:19 dimensions 156:5 239:1 287:15 291:2 diminish 201:5 348:3 diminished 282:4 direct 305:10 directed 305:5,18 directly 58:4 256:9,16 323:12 director 2:8,9,18 3:18 36:1,22 68:14 235:19 276:11 285:14 314:15 354:1 **Directors** 355:15 disabilities 239:19 disadvantaged 404:11 disappear 282:9 disaster 362:12 discharge 181:9 183:22 disclose 385:6,18 disclosed 385:12 396:2 disclosure 385:15

discoloration 147:18 discolored 147:17 disconnect 185:20 186:6,11,20 188:2,8 188:14 discordant 57:18 discount 343:14 discourage 88:11 discovered 375:4 discretion 374:20 discuss 83:17 229:17 390:19 discussed 54:4 78:15 89:11 92:5 120:1,10 151:21 319:4 337:13 discussing 143:7 249:14 374:10 discussion 33:21 53:9 53:11 62:3 70:21 71:11 73:20 156:17 397:21 406:5 discussions 93:7 disfigured 362:13 disjointed 52:8 **display** 304:9 disruption 114:17.22 120:12 196:8 disruptions 166:4 distance 27:6 29:19,22 30:2 31:5 152:15 168:1 185:19 218:5 229:20,21 230:16,17 292:22 329:1 distances 94:2 187:3 distillation 232:3 distinct 250:12 distract 51:16 distribute 41:15 279:5 District's 16:11 23:14 40:10 54:18 100:8,19 101:22 136:6,17 173:2,5,17 238:3 247:21 402:4 District-controlled 142:2 District-owned 25:7 100:9 102:7 219:5 District-wide 162:8 163:2 districts 16:21 21:17 28:19 29:6,12,22 30:13 70:7 72:18,21 81:10,11,14 149:17 339:22 340:7 341:22 343:7 400:8 dive 105:13 diverted 106:5 divide 102:5

divided 93:19 **Division** 3:19 68:15,18 253:6 255:17 299:1 360:9 363:1,17 364:10 367:10 431:16 divisions 14:11 **DNA** 405:5,7 doable 352:21 docket 430:4 document 21:10 283:1 345:11 347:1 355:6 documenting 295:18 documents 346:9 DOEE 263:8 264:15 Dogg 172:7 DOH 264:15 doing 15:5,8 37:21 98:12 104:14,18 108:1,9,16 141:1 148:17 191:12 202:3 202:12 204:20 208:10 267:5 293:3,16 312:8 326:9 347:9,13 364:15 367:3,3,4 378:17 413:20 414:18 414:19 dollars 294:11 door 257:17 dot 26:6 dots 25:19,20 105:10 dotted 32:4 dovetails 265:11 downtown 48:16 62:4 66:9 67:8 72:11 73:12 77:1 174:5 217:6 338:18 **DPR** 109:15 **Dr** 196:21 320:6 draft 6:2 11:18 34:8 43:3,14,16 44:15 46:18 47:17,22 48:10 48:18 53:8 55:2 58:14 60:8 134:10 137:10 137:11 145:10 176:8 185:5 237:20 238:12 242:1,7,19 243:10 245:13 248:15,22 284:21 285:10 345:8 360:19 372:5 392:20 398:15 drafted 14:7 61:10 210:18 drafters 77:15 drainage 172:19 drastically 357:11 drawing 85:2 387:3 drawings 58:19 89:19 198:22

drawn 122:13 313:13 339:16 drill 258:20 drilled 196:19 drink 414:7 drip 230:22 231:4 drive 64:10,12 134:3,4 151:3 153:1 372:8 405:4 driven 34:21 driver 101:16 102:6 driver's 214:9 driverless 412:15,18 drivers 104:2 drives 133:19 driving 34:3 118:12 166:19 206:18 232:7 drop 20:8 357:16 drop-dead 266:4 dropped 218:3 249:6 drops 26:1 dual 162:11 187:15,19 187:21 **Dubin** 1:18 5:17 **due** 48:1 49:22 50:12 176:19 201:21 220:8 285:5 duly 404:16 Dupont 65:6 85:6 272:5 272:6 273:11,12 338:11 339:6 duration 235:5 duty 38:1 265:1 396:21 Ε

E-M-E-S 359:21 E-N-K-A-M-I-T 405:20 Earl 256:19 earlier 52:16 59:6 72:1 95:17 127:9 139:13 185:4 201:15 265:11 278:6 279:21 322:18 323:16 325:12 331:9 345:5 368:9 393:6 407:10 408:11 425:13 427:19 early 56:15 69:12 356:4 ears 419:21 easier 31:21 85:3 159:15 206:4 386:4 easily 340:12 341:2 east 65:6 easy 73:20 196:3 220:11 eat 136:5 eaves 357:6 echo 52:11 78:5,17 165:20 166:16 204:3

206:22 231:14 economic 101:16 135:20 294:4,9,21 economy 104:13 135:16 277:12 400:12 edits 34:19 43:17 educate 360:5 education 334:3 educational 317:9 Edwards 1:19 5:13 146:21 147:8 effect 43:6 267:10 357:19 410:20 419:11 effective 256:12 398:13 407:5 effectively 233:20 effects 238:2 239:18 317:21 319:14 357:5 417:10,22 418:20 427:13 efficiencies 303:10,14 efficiency 303:6 efficient 295:4 effort 285:7 371:17 efforts 137:8 356:4 egg 207:10 EHT's 358:5 eight 29:15,17 180:20 182:10 240:2 eight-inches 186:4 eighth 388:19 either 36:5 39:15 40:1 63:1 74:20 110:10 120:4 166:19 203:12 219:12 258:13 263:1 281:14 340:21 431:11 431:16 elderly 319:7 417:6 418:14 electric 167:22 168:2 170:9 171:8,8 179:2 185:20 186:11 electrical 169:19 170:10 171:6 189:5 189:17 electricity 55:15 electromagnetic 318:21 418:2 electronic 179:2 214:5 214:14 215:18 216:3 216:13 304:1 391:19 electronically 258:15 337:6 370:7 electronics 175:8,9 180:11 304:8 elegance 57:1 **elegant** 52:14 element 41:9 97:18

230:17 247:22 266:19 324:7 326:21 365:21 409:8 413:13 elements 37:3 45:22 46:15 50:4 51:7 73:9 151:20 152:14 255:14 298:16 elevations 173:21 Eleven 240:21 eligible 43:7 75:10 81:1 95:14 96:4 283:2 eliminate 78:2 eliminated 114:8 129:11,12 eliminates 311:5 348:18 elite 206:20 Elliot 421:18 eloquent 82:16 Elsa 2:8 257:11 353:22 else's 31:15 376:7 elves 234:21 email 99:2,12 422:8 431:7,8 emailing 431:4 embracing 311:10 emergency 173:1 335:6 emerging 112:19 **Emes** 2:3 359:20,20 363:20 364:2,8,14 366:17,20 367:18 emission 239:12,19 262:1 emissions 262:21 293:6 317:18.20 327:15 380:5 emphasize 176:16 345:10 emphasized 55:17 57:13 employed 320:8 employees 138:20 330:18 empty 115:21 361:9 enable 353:12 enacted 382:1 enacting 329:7 encased 179:4 enclosed 179:4 encounter 132:14 encourage 87:4,4 88:10 88:11 90:11 93:14 95:1,9 139:1 201:4 255:3,4 281:10,18 282:6 335:11 350:5 354:10 370:14 420:8 encouraged 262:8 encouraging 281:3

310:18 endeavor 341:10 342:21 endorsed 54:2 ends 124:13 293:17 energy 3:12 415:8 enforce 288:5 enforced 256:6 292:18 enforcement 367:7.17 engage 274:7 engaged 87:13 engagement 243:17 244:18 engaging 58:4 engineer 116:18,22 417:16 engineering 15:21 180:2 engineers 350:4 engines 303:5 enhance 278:8 enhanced 380:14,19 enhances 402:5 enhancing 46:3 enjoy 294:22 Enkamit 2:4 405:1.5.7.9 405:19.19 406:2.14 406:19,22 407:3,9,13 407:17,20 408:3,7,10 408:13,21 409:17,19 409:21 410:7.16.20 411:3,5,9,13,18 412:7 412:10 413:6,16 414:2 420:10,15,18 ensure 30:22 61:22 70:9 152:10 229:4 239:4 263:6 278:13 294:18 295:3 321:20 323:8 395:19 403:13 ensuring 35:15 237:13 entablature 356:18 entail 154:18,20 entering 374:1 enterprise 55:20 entire 27:19 31:11 59:7 79:9 174:6,12 205:11 239:16 258:3 315:16 328:2 345:6 416:22 entirely 424:3 entirety 359:3 entities 4:19 97:11 110:21 264:16 268:14 271:20 274:17 275:2 275:5 297:18,18,19 298:21 301:8,9 308:15 374:4 entitled 91:2 entity 262:18 264:11,12

264:18 274:14 275:6 275:14 329:13 367:13 409:4 entombed 179:4 entrances 50:18,21 240:17 entrepreneur 313:2 entrepreneurs 277:10 entrusted 396:22 environment 140:10 356:6 415:2 425:8 environmental 2:18 264:2 314:16 315:2 315:14 316:4 320:6 358:1 421:5,10 environmentally 319:6 EPA 317:10 319:20 epidemic 420:3 epistle 293:17 equal 162:17 equally 8:9 equipment's 222:22 equipped 335:3 383:12 equitable 27:1 54:17 equitably 59:3 eauity 79:10 equivalent 262:10 equivalently 162:13 Erika 2:9 276:9 Erin 2:10 194:16 erroneous 320:21 error 110:19 especially 45:19 56:4,9 185:8 217:5 233:21 251:16 277:14 334:15 335:5 essential 295:1 400:8 essentially 45:8 55:13 112:13,21 114:1 116:7 231:5 352:7 380:17 establish 265:15 292:22 352:17 373:10 established 4:4,14 54:6 77:21 317:22 367:9 establishes 323:6 348:11 374:18 establishing 148:18 278:12 establishment 240:18 estate 101:17 290:21 290:22 esthetics 45:12 54:10 et 12:7 15:22 16:6 18:17 92:9 93:6 125:6 209:1 215:20 263:4 390:18 392:4 Eutsler 256:19

evaluate 59:14 evaluated 47:11 evaluation 46:18 evening 235:18 271:16 276:8,9 279:18 283:20 293:19,20 353:20,21 430:17 evenly 133:18 event 202:8 277:6 288:15 346:4 415:18 eventually 95:2,6,15 180:4 ever-present 8:13 everybody 3:4,7 4:5 8:15,18 10:8,13 12:14 60:16 82:14 112:11 113:6 140:17 171:18 178:14 200:10 222:5 228:7,12,14 229:2 232:7 252:18 269:8 290:13 301:22 362:17 382:2 389:15 392:7 406:9 426:1 everybody's 80:12 115:2 121:12 evervone's 210:11 evidence 321:8 348:11 414:20,22 427:17 evolution 9:8 evolved 8:6,7 evolving 6:21 9:13 exact 24:21 156:4 170:13 exactly 126:11 154:19 182:16 198:4 209:22 229:7 259:6 261:17 300:6 302:2 348:16 387:12 414:2 examination 279:8 example 7:6 30:17 39:21 52:5 80:18 105:5 143:9 145:5 148:4 152:16 215:2,6 227:18,20 243:18 249:17,17 259:6 268:9 287:14 297:12 298:9 317:15 322:17 323:5,7 324:22 325:10 327:20 339:5 346:21 349:3 390:20 408:19 examples 183:1 230:14 250:4 306:13 322:18 excavated 323:9 excavation 323:8 390:13 excavations 323:7 exceed 233:3 239:1

369:13 exceeding 325:7 **Excel** 259:5 excellent 87:15 147:9 172:12 366:5 exception 91:12 119:18 288:18,20 **exchange** 404:12 excited 313:2 excluded 20:11 excludes 16:5 excluding 250:10 exclusive 91:1 exclusively 162:15 305:1 excuse 423:5 executed 346:11 executive 1:19 2:18 5:9 5:14 314:15 330:6 342:3 exercise 330:10 exhausted 117:17 exist 15:20 16:2 65:19 184:18 258:13,13 275:21 343:21 existed 36:8 302:21 existing 18:9,12 19:16 23:13 45:8 47:14 50:3 50:10 56:11 57:22 65:8 81:4 91:3,8,20 102:4,15 112:14 113:2 123:4,7 138:15 152:13 153:12 165:4 165:8 167:9 168:12 178:19 181:2 190:18 191:6 198:19 203:21 210:16 219:9 223:16 242:15 278:7 310:20 358:13 361:12 380:18 384:1 385:21 exists 65:11,18 66:3 exiting 19:15 exits 240:17 expand 80:22 109:7 111:22 112:6 expanded 82:4 expanding 109:16 expect 424:20 expected 163:19 294:7 334:9 343:22 expecting 394:16 expedite 278:16 313:15 expeditious 335:12 expense 36:13 341:12 expensive 203:9 experience 45:13 46:4 133:8,14 154:13 247:7 294:19 351:1

experienced 279:6 experiences 46:14 334:20 400:5 experiencing 132:20 experiential 58:17 experiment 334:18 experimental 377:13 expert 35:22 54:7 128:17 179:6 291:10 383.21 expertise 107:17 217:19 409:6 experts 83:1 171:10 253:15,21 306:22 317:9,9 334:8 explain 27:21 122:1 143:22 172:15 322:14 344:11.14 explaining 264:6 explanation 171:22 184:11 189:14 325:21 explicitly 263:16 264:20 365:22 exploded 159:20 explore 386:5 exponentially 277:19 exportable 259:5 **expose** 316:10 exposed 91:14 238:21 410:22 exposing 316:18 exposure 239:17,18 306:10 316:1 317:11 322:10 327:8,17 328:20 418:19 430:5 **express** 360:14 expressed 56:1 88:16 426:15 extend 356:5 extended 23:17 353:11 **extension** 167:20 extensive 121:21 145:20 150:9 308:10 314:17 extent 95:1 154:6 338:21 352:3 359:5 **exterior** 119:6,10 306:17 externally 197:9 extra 251:9 264:1 376:10 extrapolation 152:8 extremely 181:1 220:5 290:4 eyes 354:20 evesore 70:11 eyesores 63:7

F F-L-I-S 44:9 F-O-X 53:17 face 30:17 85:7.15 86:7 125:10 136:15 211:10 241:3 faced 282:13 faces 27:20 125:5,18 131:12,12 facilitate 401:4 facilitates 240:1 facilitator 55:19 facilities 29:2 47:3 95:14 129:15 130:12 131:4 134:15 139:9 139:22 144:13 145:1 145:9 146:13 149:7 150:19,19 164:9 176:5 191:16 239:10 240:2,5,12,14,19 260:7 261:21 281:3 306:6 331:1 346:13 347:16,17 348:2 352:9,15,22 357:13 368:20 facility 131:3 138:5 150:2 195:13 242:12 242:13,14,15 265:12 393:16 facing 127:19 166:19 fact 15:18 79:8 91:2 135:3 147:19 199:14 213:9 250:6 271:7 285:15 347:12,15 348:1 349:2 351:14 351:22 358:10 378:13 379:3 382:13 383:11 394:11 facto 324:21 factor 176:10 220:16 400:4 fail 166:13 362:1 402:9 fair 222:9 229:9 349:7 353:15 Fairfax 329:6 fairly 212:15 392:14 fait 342:4 fallback 234:15 falls 254:15 familiar 19:19 32:12 252:10 320:12 338:15 394:9,11 426:9 families 430:11 family 149:17 150:1 fancy 198:21 fans 180:14,16 181:11 183:20 239:21 260:4 260:12

			445
far 18:21 105:16 109:10	151:11,11 167:20	find 21:1 24:5 43:13	194:2 239:7 271:7,10
126:21 132:12 145:12	168:4 180:19,19,20	88:22 96:22 135:10	271:18 309:7 347:5
223:10 225:20,21	182:9,9,10 185:15	153:6 171:18,21	347:16 359:1 379:15
266:19 272:15 293:6	187:2 188:18,20,21	179:17 199:6 230:5	403:19 430:6
293:11 304:18 352:3	189:1 216:20 230:2,7	250:12 261:17 265:4	five-feet 183:14 184:3
374:4 378:12	232:15,21,22 233:3	323:21 340:15 341:16	186:4
farmer's 109:15 113:4	247:14 251:11 287:19	384:13 393:9 405:15	five-story 338:9
farther 186:14	287:20 326:18 328:10	407:6 410:11	fix 321:17
fashion 91:17	328:10 340:17 341:4	finding 97:3 168:6	fixed 96:11 164:6
fast 136:1	345:22 346:1,1,3,15	263:5 301:10	287:10 291:5
faster 358:8	347:18 350:17,19	finds 250:15	fixture 20:3,5,6,10 22:9
fathers 422:4	351:19,20 354:15,21	fine 14:14 28:10 41:6	24:22 286:10
favor 252:15 290:1,10	355:8 358:22 359:4,5	52:12 53:15,18 60:12	fixtures 48:4 49:6 56:12
424:21	379:14 419:7	71:18 78:15 79:7,17	56:20 234:12
FCC 38:20 117:2	Felder 1:15 5:20 71:5	83:8,9 99:22 122:14	flat 130:20 173:20
161:16 224:14,18,19	269:7,10	180:1 238:6 241:10	flaunt 201:5
232:14 233:4 239:15	felt 13:1 28:2,20 129:21	241:14 246:11 248:13	flavor 7:15
263:14,17 264:9	130:9 418:6,10	254:17 255:2 306:20	flawed 226:6
265:7 266:21 267:1,7	FEMA 173:1	363:9 371:5,13,20	flaws 398:17
291:10,18 292:5,13	fence 127:21	372:14 392:4 418:8	flexibility 144:3,6 169:5
292:14,16 293:4,8	fervently 420:6	424:11	Flintstone 37:17
320:15 325:4 377:14	Fest 277:3	fine-tooth 179:16	Flis 2:14 44:6,7,13 78:5
429:11,13,17	fewer 67:12 131:6,7	finely 259:3	flock 341:5
fear 92:15	351:21 352:3	fines 366:22 367:8,11	flood 173:13,20 174:22
feasibility 358:16	FFC 233:13	367:16	flooding 166:11 173:15
feasible 281:1,17 283:1	Fi 100:20 242:3 248:16	finial 20:10	173:22 174:6,13,19
283:5,16 303:8,9	fib 178:15	finish 155:2 172:9	175:4 179:13
featured 386:6	fiber 100:9 102:15,22	238:19 394:6	Floor 1:8 431:13,19
features 50:14 51:7	104:4 115:12 341:9	FiOS 192:14,16,18	fluted 20:1 119:22
federal 39:5 44:1,17	358:6 380:1,3 382:2,6	193:3,10,10,13	fluting 24:2
46:1,6,19 47:3,21	382:18 388:7	fire 136:9	focus 35:9 47:1 69:14
48:11,20,22 49:3	field 47:10 102:18	firehouses 103:4	103:2 109:18 177:17
50:15,20 51:17 52:10	122:11,14,22	firmer 384:10	286:21
54:9,10,12 73:9	fields 109:17	first 9:1 11:2 22:2,5	focused 46:2 50:12
137:16 173:1 216:22	Fifteen 107:12	23:15 27:22 49:18	62:4 72:3 100:18
217:14 218:3,5	fifth 210:4	61:8 66:20 67:14 73:1	foliage 351:3
219:20 239:15 262:4	fighters 136:9	90:15 111:16 132:8	folks 350:18
262:17 263:2 264:19	fighting 342:2	136:10,13,15,17	follow 6:14 71:21 72:1
319:21 320:16 324:8	figure 109:4 288:2	157:5 162:1,4 168:14	75:3,5 98:20 105:15
413:8,10,14 422:6	379:16 410:2 414:4	183:9,12 185:2,12	136:21 148:11,13
423:2 427:6 429:3,4	428:9	186:15 197:19 205:22	296:9 299:6 387:16
429:22 430:2	fil 208:2	213:21 244:11,21	420:8
federal/industry 170:4	filed 137:10 139:12	254:2 257:6 260:22	follow-up 265:8 430:22
feedback 103:20	157:14 284:2	280:2 313:19 322:14	followed 32:11 399:2
feeding 380:2	filing 153:20	331:7,17,20 340:7	following 38:14 210:2
feeds 178:20	filled 389:9	347:12 348:7 352:1	212:13 238:12 242:9
feel 3:15 31:3 50:8	film 7:19 423:9	356:13 388:17 391:18	356:8 393:8 421:22
60:22 67:13 71:4	filming 425:4	393:15,17,21 394:5	font 19:5
143:22 187:6 189:7	filter 258:22	394:13 395:4,6	food 291:15
192:3 224:8 233:19	final 71:10,11 96:8	396:11,13 397:12	foot 22:6 89:20 149:8
234:10 254:14 256:21	195:22 213:12 233:18	399:12 401:13 404:7	312:15 313:6
302:14 383:18	254:8 348:9 353:12	425:14	footprint 100:20 130:4
feet 28:8,9 29:9,22 30:8	finalize 399:3	fit 16:12 124:9 183:16	142:1 151:15
30:19 31:13,15 90:1	finalized 139:5	183:17 246:1 250:7,9	fora 366:10
94:12,15,15 107:12	finalizing 103:15 356:7	310:11 381:8	force 70:11
122:5,6,9,12,12,18	finally 59:12 168:8	five 5:10 19:13 85:18,22	forced 95:6 290:19 forefront 311:12 331:12
123:4,8 125:6,17,19	188:9 358:15 386:12	86:1,2 89:22 98:22	
123:4,8 125:6,17,19 126:16,16 130:13,13	188:9 358:15 386:12 finances 314:3	99:1 121:16 122:6	foreground 199:17

foremost 61:8 67:15 419:13 foreseeable 211:2 foresters 231:4,7 Forestry 237:21 253:6 253:13 254:6 255:17 255:20 256:9 298:22 360:9 363:1,17 364:10 366:2.3 367:10 Forestry's 363:13 forever 229:6 forget 368:18 forgot 202:15 form 46:3 73:11 431:8 formal 35:5 52:17 81:7 279:7 356:10 359:15 formally 255:5,8 formed 14:17 former 429:11,12,13 forth 16:9 58:21 241:7 264:4 forward 5:7 41:11 43:22 53:9 59:20 71:8 98:15 137:19 142:14 156:15 156:22 164:20 165:16 211:18 212:14 228:8 228:13 229:2 232:4 268:14 269:12 296:5 299:15 307:14 309:1 318:6 364:17 369:19 372:14 375:10,14 376:17 389:2 392:9 395:3 397:3 399:10 406:10 429:21 forward-leaning 311:9 forwarded 98:13 found 19:13 46:7 160:9 166:3 176:7 229:22 230:2 247:6 316:19 317:3 321:8 406:6 422:8 426:20,22 foundation 384:11 387:6 400:11 402:7 four 29:12,15,16 41:10 41:10 49:16 60:17 85:19 86:3,4 111:2 112:13 116:8 118:5 122:1 164:7 207:6 212:8,10 229:19 239:5 242:14 271:3 309:6 333:11 334:9 338:3,9 346:11 347:5 374:4 376:18 403:12 Fourteen 184:4 241:17 fourth 52:1 210:3 375:10 431:12,18 Fox 2:7 53:16,17 78:22

82:1,8,19,22 83:12,16 84:7 frame 83:1 framework 46:15 384:20 398:18 franchise 385:14 franchised 385:11 frank 299:12 frankly 389:9 Fred 37:16 free 3:15 71:4 100:14 101:16 108:21 109:1 112:4 290:21 291:1 404:10 free-standing 31:16 freer 338:14 freestanding 85:11 86:12 frequencies 191:19,22 283:5 291:12 316:6 378:10 414:1,19 415:3 418:2 430:5 frequency 18:21 26:20 28:13 30:4 40:7,14 49:18 50:13 115:15 117:8 118:7 124:5.18 125:2 193:17 212:9 239:12,17,19 250:17 262:1,20,21 291:19 293:6 297:22 317:17 319:22 323:19 324:15 324:17 326:3,8,16 327:11,14,17 328:5 328:16,20 329:5 390:18.19 frequent 29:9 392:15 frequently 131:1 195:20 392:16 Friday 159:9 314:1,4 friend 172:7 friends 127:9 front 7:2 11:4 19:6 49:3 50:5,20 74:11 135:12 166:22 216:20 240:15 245:7 247:17 257:17 261:4 274:22 286:7 286:18 302:5 315:20 315:20 337:5 340:17 349:11 422:19 426:21 fruitful 244:19 426:10 full 3:15 92:19 148:12 149:5 238:8 267:14 363:11 full-scale 59:13 238:13 fuller 403:3 fully 10:8 23:21 267:4 319:13 328:5 344:10 345:4 353:13 391:14

397:2 fun 134:3 function 16:15 45:12,16 300:22 functional 16:13 56:18 functioning 311:7 fundamental 57:1 funds 360:3 furniture 143:1 further 23:17 27:21 30:11 38:11 40:20 59:1,4 71:20 93:7 97:6 107:20 109:20 192:9 205:7 209:7 214:21 259:20 269:7 299:15 307:5 327:7 340:8 349:19 361:10 374:12 394:2 399:11 402.21 Furthermore 238:4 future 53:4,11 136:6 139:2 211:2 236:18 242:18 246:1 277:12 278:3 284:12 294:21 301:8 311:10,11 312:22 315:9 317:18 334:2.5 352:8.17 357:20 361:6 373:22 420:3 G G-I-B-B-O-N-S 236:14 gain 340:3 Gala 275:4 308:9,19 309:6,11,12,15 332:8 332:18,22 375:22 376:3 Gallery 51:1 game 98:8 194:3 gaming 427:1 gap 208:2 322:15 gaps 48:19 133:21 garbage 149:12 gas 39:22 40:4 55:15 262:11,11,12 gather 397:22 gathering 269:13 **GDP** 294:7 general 2:16 12:3 20:20 54:21 55:6 72:4,9 91:6,10 94:9 107:18 112:2 118:16 152:1 160:10 165:3 177:8 213:22 218:22 248:2 283:22 289:9 296:3 297:11 298:2 313:4 401:3 generally 17:21 25:17

55:12 79:3 92:6 94:20 233:14 249:2,9 250:1 296:13 338:20 342:13 384:5 410:5 426:12 generation 6:8 310:17 335:14 402:17 generators 239:22 generous 30:3 gentleman 219:22 220:15 gentleman's 415:20 gentlemen 269:13 271:15 George 37:14 Georgetown 2:3,8,17 8:3 21:15 32:6 186:22 187:8 236:15 238:17 243:1,3,4,4,5,18,19 246:11 247:4,7,19 251:4,16 257:4,11 259:11,12,19 268:11 268:12,17,19 271:21 272:20 273:9 274:19 275:15,17,17,18,21 276:2,3 284:1,7,13,16 286:8.10 288:8 289:5 303:18 304:21 332:14 332:15 336:12,18 338:10 343:9,9,10 346:15,17 347:6,14 347:17 353:9,13 354:2 355:15,17,20 356:5 358:20 359:2,4 359:22 360:2,5,13 361:2,19 362:6 Georgetown's 356:11 356:20 357:7 germane 262:16 getting 149:12,15 172:5 178:1 184:10 250:11 312:11 321:19 327:12 331:22 349:8 352:16 364:14,18,18 369:19 379:10 383:15 384:8 388:21 389:12 393:6 407:4 Gibbons 2:13 235:18 236:4,7,13,14 237:2,5 237:8 243:20 244:2,4 244:13,16 246:2,21 248:14,19 249:12 250:13 251:14 252:11 254:1 255:7,21 257:3 257:22 258:2,8,17 259:7,13,22 260:5,8 260:11 263:7,19 265:10 266:16 267:2 267:9,15 268:3 345:5

gigabyte 100:11 gigahertz 378:10 gimmick 414:8 **GIS** 47:10 **give** 7:4 13:10,11 71:6 82:22 83:3 99:5 113:15 126:7 130:20 184:11 189:12 199:22 210:7 218:20 224:17 225:16 230:13 245:5 250:3 270:6 271:5 279:2,4 285:4 305:15 322:7 329:20 330:6 344:20 347:1 349:18 370:5 386:18 392:6 405:10 given 13:2 16:17 20:12 20:17 23:18 24:14 28:18 31:3 51:9 53:1 90:3,7 93:11 247:9,9 285:22 366:22 367:8 403:22 **gives** 21:9 143:11 203:16 324:11,14 329:12 giving 12:8 70:20 74:13 201:12 225:15 gizmo 304:1 glad 321:12 322:4 gladly 10:15 gland 320:11 Glen 300:13 **Glenn** 1:18 5:16 global 277:5,9 278:17 globally 276:21 globe 48:3 49:5 80:20 85:9 96:3 97:5 142:7 187:16,21,22 343:18 globes 24:10,13 62:10 76:11,14,15,17 77:2 77:14 78:9 79:20 80:5 80:7,9,18,19 95:16 133:16 187:16,19,19 356:16 368:21 goal 59:2 236:21,21 237:13 247:21 248:2 276:18 301:7 goals 16:17 33:7 238:3 256:5 gobble 374:5 God 215:12 **Gold** 391:9 Golden 102:13 **Google** 244:9 gotten 228:18 273:2 **govern** 167:15 390:15 409:14 governed 428:17

governing 74:7 402:16 government 1:1 2:4,10 17:14 54:9,12,15 134:6 135:8 194:17 277:13 321:10 322:11 328:3 382:4 406:17 409:13 412:5 421:15 424:19 428:5 429:4 Government's 237:12 grab 115:4 grade 172:14 205:4 graffiti 147:14,15 Graham 178:21 grants 384:8 granular 258:20 graph 34:6 graphic 85:3 grasp 69:9 grates 182:12,12 grave 361:20 gray 141:13 160:5 288:22,22 greater 2:15 94:14 125:19 144:3,5 272:22 274:13,20 293:22 296:21 297:1 297:5 350:21 374:20 403:7 greatest 161:8 greatly 348:3 green 25:19 32:1 41:20 102:3 146:6 147:6 391:11 grew 8:2,6 416:5 **Gross** 10:1,4 11:10 grossly 362:13 grotesquely 340:22 ground 13:20 51:15,22 138:7 143:1 144:8 154:22 195:17 202:22 203:1 232:18 315:19 346:7 399:17 400:16 group 14:17 17:14 34:16,18 41:2 42:2 53:14 68:12 69:13 87:1 89:11 97:8 111:3 205:11 259:10,19 275:9,18 282:20 groups 41:10 111:4,5 137:5 254:4 grow 163:19 230:20,21 231:3 277:20 290:6 294:7 312:16 314:6 growing 45:5 161:10,11 164:1 334:14 grown 163:4 230:21 277:19 growth 160:2

guarantee 71:13 127:4 236:21 317:17 guess 38:13 67:22 69:4 92:20 106:18,19 107:3 109:3 143:22 144:15 148:21 155:10 184:6 261:11 304:4 331:13,19 392:21 guestimation 154:15 guidance 70:6 278:12 guide 54:15 81:15 147:8 263:5 quideline 15:3 16:8 49:6 87:1 123:3 170:3 216:18 287:21 357:10 guinea 126:10 Gulf 173:8 gun 97:16 Gus 2:10 309:22 333:15 407:22 Н H-A-R-R-I-S 226:13 H-M-E-R 158:4 hair 114:21 120:18 half 30:2 89:20 135:7 162:2,4,22 163:4,5,7 185:15 232:21 halfway 139:16 142:10 155:5 hall 243:22 284:16 halt 342:20 hand 8:15 312:3,5 431:11 handed 344:13 handful 28:11 handicap 18:17 handle 190:7,19 266:14 handles 263:11 handouts 317:11 322:5 322:7,8 hands 235:4 271:9 371:12 Hanna 37:17 happen 97:2 132:21 175:14 282:7 283:15 285:15,18 310:11 337:19 339:10,11 340:13 363:21 364:20 385:10 386:5 happened 202:8 363:22 happening 330:16 349:13 377:17 389:5 422:13,18 430:8 happens 133:5 215:15 303:9 321:6 364:1 happily 10:15 happy 12:9 32:18 35:2

41:15 63:21 65:1 71:5 138:5 189:14 231:11 261:9 278:20 279:5 296:8 305:20 332:16 337:8 367:15 383:2 397:19 hard 179:17 278:11 340:20 381:8 386:10 harder 128:20.21 217:10 hardware 238:22 242:3 242:3 245:15,16 hardworking 287:5 harm 315:14 319:9,15 322:2 Harris 2:14 226:2,12,12 227:4,6,8 229:9,10 231:21 Harry 382:5 hasty 378:5 hatched 32:1 hazardous 297:14,15 322:18 HB 69:16 HD 313:8 he'll 300:10 head 19:17 20:4,5 22:20 26:2 86:15 198:16 219:10 234:12 350:12 420:1 429:13 headaches 418:3 headed 382:12 heading 66:11 heads 224:22 headway 207:22 health 2:18 38:15,16 39:1 40:15 109:14 161:20 264:2 291:9 292:11 293:13,15 313:17 314:16 315:2 316:4 317:21 319:14 320:17 323:6 325:6 357:9 358:2,3 359:12 362:1 401:7 403:11 409:4,6 410:14 412:21 417:7,10 418:18 419:10,12 421:5,10 427:11 429:19,19 healthier 358:7 healthy 319:6 hear 4:16 9:20 10:10,13 10:16 18:20 33:17,17 37:6 42:7,13,20 44:9 60:4,17 65:14 68:1 74:17 83:7 88:1 102:16 112:11 151:18 153:10 157:5,7 177:5

hello 312:12 333:14 honestly 113:6 179:20 209:12 297:21 251:5 300:3 305:16 339:9 337:3 hinder 152:12 hope 12:5 124:2 266:7 367:15 386:2 397:19 help 13:3 54:17 73:17 hint 179:10,10 280:9 286:3 287:10 76:12 108:22 116:10 398:7 403:17 405:14 hip 32:5 295:2 314:9 377:1 407:8 411:15 422:2 179:7 192:7 221:11 hire 104:20 391:3 427:8 428:8,11 430:9 heard 37:9 57:8 68:5 223:17 232:17 261:8 hired 364:3 hopefully 19:5 55:10 75:7 76:6,8,10 115:3 263:4 265:6 269:19 Hispanic 2:15 273:1 259:4 331:21 126:21 159:18 164:3 278:17 281:4 322:14 274:13,21 293:22 hoping 397:21 hospital 273:22 166:16 205:13,19,20 322:15 334:17 387:6 294:3 296:18,19,22 227:1 273:12 280:17 helped 34:17 176:8 historic 14:13 16:21 hosted 243:22 280:21 285:14 286:1 helpful 35:1 70:17 18:7 21:17 24:15 hostile 425:8 hotel 134:15 290:19,20 289:20 295:9 305:8 74:12 83:7,10 113:14 28:18,19 29:6,11,22 323:16 325:12 338:12 118:9 123:13 159:18 30:12 32:2,15 41:18 hoteled 341:5 343:4,7 345:17,21 159:20 171:20 199:21 42:5,18 43:1,4,4,9,10 hoteling 86:22 87:2,5 346:2 359:14 366:9 208:3 245:8 312:5 43:21 46:5 48:3 51:9 88:10,16 89:8,12,14 366:11 367:20 406:4 325:21 329:10 369:6 51:12,17 56:20 60:11 89:22 90:8,10 94:21 408:10 418:3 378:19 389:13 70:6 72:18,21 78:17 95:2,7,9 114:12 241:1 hearing 1:4,8 35:6 71:8 helping 228:4 81:10,11,14 85:21 280:1 290:17 302:9 216:21 217:1 238:5 79:22 80:1 123:1 helps 31:8 126:18 house 46:10 47:9 338:8 125:4,7 128:3,16 141:1 142:1 170:21 241:11 246:12 247:8 413:3 418:20 151:19 152:5,6 171:11,17 172:2 247:18 253:7,8,12 households 161:22 215:17 233:11 236:20 314:6 330:7 254:18 255:4 260:22 162:3,5,9,11,14,16,20 241:15 300:2 303:12 Henry 56:18 284:6,8 285:21 163:8 328:19 337:11 372:14 288:12 298:20 310:9 houses 219:5 288:10 heritage 400:10 376:18 377:12 381:11 Hey 220:12 225:7 229:7 288:10 338:17 349:11 339:7,22 340:2,6,12 413:22 420:21 421:17 **HGTV** 7:7 341:22 342:22 343:7 357:7 362:4 hearings 209:1 243:11 hi 68:14 70:19 153:9 343:8 354:3 355:21 housing 103:3 109:18 403:2 157:1,2 225:15 227:6 359:11 392:3 400:8,9 **HPO** 2:2 hears 213:19 311:19 Historical 41:4 HPRB 254:8 285:21 heart 312:20 hide 91:15 historically 311:2 306:21 heat 166:8 176:19 hierarchy 66:20 346:16 hub 277:8 high 51:4 107:12 180:9,9 320:22 321:1 history 4:15 87:16 hubs 103:6 heat-proof 180:12 166:14 167:3 177:6 161:9 175:20 310:13 Hudson 1:13 5:7 35:11 heated 321:2 185:14,16 226:19 315:12 388:15 74:22 75:1 107:21 heavily 133:6 346:1,3,5,15 347:5,18 hit 149:12 178:18 285:1 108:3,7,19 153:9,14 heavy 174:21 175:11 378:10 419:2 367:2 154:11 155:8,15 hits 178:2 hedging 331:14,16 high-level 111:21 156:1,6,8 192:11 height 18:2 23:18 24:21 high-rise 419:1 **hoc** 8:10 193:18 205:9,10 94:18 96:10 107:10 high-risk 318:19 hold 68:13 98:3 147:1 207:4,14,17 208:3 122:3,17 123:3,7 high-tech 180:11 167:10 197:20 202:18 huge 133:21 135:21 126:22 146:19 167:13 higher 8:16 75:4 118:7 208:16 229:6 243:11 382:8 383:17 354:13 397:21 399:16 167:16 169:18 209:16 167:19 168:3 320:9 hum 260:20 261:2 212:9 224:13 232:16 398:13 415:12 human 315:14 316:12 356:14 357:3 368:5 highest 23:20 47:2 holder 104:14 259:1 334:10 339:19 427:14 368:10,11,14,20 highlight 12:8 60:18 holders 97:9,10 106:2 430:5 61:4,11,22 63:13 66:7 305:6 362:18 386:14 humans 317:2 369:2,8,10,10,11 137:12 164:16 220:16 370:4,6 374:18,19,20 holding 58:10 388:19 humidity 172:16 180:15 heights 66:9 310:7,8 400:14 hundred 181:4 285:9 369:16 highlighted 61:15 hole 140:13 hundreds 138:20 Heins 2:16 268:22,22 211:14 212:8 holes 196:19,22 294:10 269:3 283:20,21 highlights 12:3 holistic 52:14 57:16 Hutch 172:12 292:1,4 299:10,20 highly 50:13 164:13 69:18 hyperactivity 317:1 166:10 173:21 232:18 home 118:12 133:4 hypothetical 164:4 300:6 303:21 304:7 304:14 305:7,20 356:19 153:1 339:15 410:13 hypothetically 165:9 306:18 336:9 372:11 highway 73:3,7 Homeowners 243:3 Т held 277:3 280:14 highways 391:8 homepage 244:8 Hill 66:11 homes 150:1 iconic 56:15 284:16 401:11,16 403:1,1 Hillandale 236:15 243:2 honest 381:19 idea 24:1 83:4,20 118:6

252:10 257:19 260:16 262:7 280:15 303:7 340:6 346:5 347:10 348:22 374:8 identified 56:22 97:15 145:10 174:4 308:5 309:10 identify 84:2 137:5 141:1 226:19 232:12 309:20 322:15 identifying 136:22 203:15 312:16 illegal 362:19 366:12,13 illustration 21:20 232:11,11 233:8,9,12 illustrations 241:7 images 22:17 imagine 123:9 359:7 imitate 82:17 immediate 96:19,21 192:6 immediately 7:8 401:13 immune 319:7 418:15 impact 6:10 16:19,20 37:21 56:2,6 59:14 61:3 123:22 131:1 154:14,17 348:3 359:7 361:21 379:12 392:2 413:19 417:5 417:11 **impacted** 416:18 impacting 240:13 impacts 46:19 51:21 281:6 348:18 353:14 378:4 403:8 427:11 impede 37:2 240:18 314:10 implement 55:20 100:7 295:10 335:4 implementation 4:20 6:4 192:13 296:6 361:20 implemented 205:18,19 295:12 298:13 353:13 384:9 implementing 154:16 implying 152:6 importance 47:4 226:22 335:12 360:6 **important** 6:6 18:19 28:3 44:22 45:17 47:7 49:13,17 51:6 53:6,10 74:2 112:21 134:11 176:10 199:10 206:20 211:15 228:14 231:6 252:7 255:13,14 257:15 275:20 279:10 286:20 288:5,11

289:10,19 294:17 298:6 313:14 334:1 388:10 389:8,15,16 391:13 404:20 414:9 426:15 427:5 importantly 45:7 imposition 57:10 impractical 347:11 impressed 350:11 impression 153:3 285:4 350:8 392:21 improper 363:7 improve 130:6 313:3 334:20 380:18 392:10 improved 55:22 137:1 Improvement 243:5 improvements 335:4 in-house 199:1 inadequate 340:15 inappropriate 298:12 **incentive** 349:14 inception 360:11 inch 120:3 224:12 inches 122:12 183:14 183:15 184:3.4 185:16 include 26:1 32:2 46:9 73:3 182:12 183:21 222:16 234:14 237:3 248:15 250:15 334:21 341:15 359:9 365:14 366:15.16 included 14:19 15:13 32:14 47:18 90:21 107:7 114:15 119:17 185:7 189:16 229:16 234:11 249:6 includes 9:14 13:22 14:11 19:13,15 20:8 27:20 30:16 47:6 125:11 175:9 including 16:18 47:4,13 48:20 53:3 54:4 153:22 184:14 235:20 236:8,11 238:19 269:9 277:2 278:11 284:7 286:14,16 345:11 398:19 399:19 403:20 427:13 inclusion 236:1 inclusions 90:19 inclusive 15:18 income 359:10 inconsistency 57:1 inconsistent 261:12 inconspicuous 306:19 incorporate 89:2 238:12 241:22 243:8

245:4,13,18 246:9 247:4 276:3 incorporated 299:22 343:5 increase 13:14 126:4 189:6 327:18 351:11 405:12 increased 13:15 30:11 48:16 57:7 124:5 161:13 166:3 218:5 241:4 318:7 358:9 increases 166:12 415:4 increasing 45:15 81:3 100:19 368:14 increasingly 129:2 increments 175:17 incurred 36:20 incurring 321:11 incurs 36:18 independent 4:12 86:22 316:12 427:15 independently 258:14 387:13 indicate 389:21 indicated 291:3 indicates 48:19 49:19 222:1 indicating 48:15 287:15 indication 288:3 individual 7:16 70:22 87:2 117:21 155:19 241:9 253:15 270:16 357:12 individually 106:12 216:22 individuals 277:2,22 301:9,20 305:11 industrial 58:5 industries 318:18 industry 39:19 110:16 117:19 181:17 209:8 211:18 212:14 213:18 227:17 231:14 323:18 325:1 378:6 380:18 417:9 industry's 112:7 217:4 387:9 ineligible 75:8 inform 228:4 information 9:19 10:10 10:19,20 11:6 14:22 16:1 31:3 54:22 94:7 103:18 105:21 136:11 156:22 221:19 265:5 282:22 300:18 301:11 301:14,22 307:11 316:5 329:11 343:1 389:10 401:11 403:6

412:4 informational 401:15 402:21 informed 14:20 15:11 318:13,14 319:13 422:22 428:13,19 infrastructure 6:9 9:9 9:11 16:10 18:9,10,13 25:10 45:11,18 47:12 49:2 55:14 57:4 59:20 65:18 69:1 74:4 84:4 100:8 134:18 144:22 145:2,3 148:3 181:3 190:18 191:6 195:9 209:15 214:1,4 215:4 215:15 237:12 265:22 277:15 282:4 283:13 296:7 310:17 311:4 326:1 329:14,17 358:14 361:17 infrastructure's 215:10 infrastructures 216:19 218:18 inherently 48:1 **inhibitor** 102:20 initial 238:16 299:10 396:14.15 404:2 initially 151:21 380:13 392:17 initiative 53:20 55:6 82:20 inland 173:7 inner 132:7 innovation 49:11 277:4 innovations 334:18.19 **input** 14:8,19 60:12 243:11 284:19 333:21 385:16 399:5 inside 119:19 127:17 140:12,13 177:20 183:18 306:2 insight 44:20 insistent 228:5 inspections 36:19 inspectors 363:10 install 20:20 24:16 25:5 30:16,20 86:11 96:6 106:4,7,15 107:10 139:20 140:3 148:6 155:4 174:15 209:15 210:22 263:21,21 278:4 340:21 343:6 347:16 349:4 365:13 372:21 373:1 399:16 404:12 installation 13:4 23:3 31:14,15,18 45:11 59:5 79:21 80:3,4

82:11 84:6 91:8.18 92:3 122:5,8,13 123:22 124:15 131:13 139:11,12,17 142:11 142:20 150:2 154:12 176:15 203:21 251:7 251:19 262:1 265:21 266:3,20 302:11 327:2 340:17 343:13 343:19 348:13 349:5 354:11 357:21 361:16 365:20 393:15 399:13 402:17 403:9,15 404:2 installations 11:19 14:5 15:15 18:22 19:8 24:9 26:20 27:4 28:5,7,11 28:14 29:12,15,17,19 30:15 31:5 35:17 47:13 52:7,15 56:3,7 56:10,21 57:18 81:1 84:1 91:10 95:22 114:13,14 118:21 124:7,15 125:3 139:21 142:14 155:21 164:19 166:2.21 202:3.12.21 204:13 207:8 209:19 238:14 239:4 240:2,3,5,12,14 240:19 242:12 265:12 280:22 299:9 353:10 360:16 369:18 399:6 399:11 402:14 403:18 404:1,5,7 427:22 installed 14:3 18:4 52:6 62:1 66:21 80:9 84:4 94:5 132:6 138:9,10 141:3,9 142:18 167:14 207:9,12 214:2 218:19 240:9 240:21 241:6 266:10 304:12 306:12,15 348:2 installer 388:7 installing 15:7 18:12 23:6,9 132:10 343:15 346:13 404:8 installs 85:22 instance 144:6 149:7 150:20 151:10 340:16 instances 124:12 127:15 174:21 224:15 346:1 instantaneous 313:5 institutions 46:12 insubstantial 76:16 77:2 insulating 178:5

insulation 177:21,22 190:4 insulator 178:8 insurance 318:3,4,17 318:20 insure 318:5,20,21 integral 135:19 313:17 integrate 120:8 integrated 12:22 48:5 119:20 140:15 142:16 integrates 59:22 integration 57:14 intelligent 371:12 intend 379:22 intended 16:12 108:22 intent 78:11 327:5 intention 111:22 153:3 Interact 275:3 interactions 14:21 interactive 301:5 interconnected 160:4 interest 46:2 54:10 256:22 265:3 299:16 301:16 373:2 422:22 429:18 interested 9:17.20 10:2 10:16 63:17 70:20 76:21 79:3,7 83:22 109:13,16 227:22 229:8 255:11 257:19 271:20,22 272:3 301:9,10 330:16 398:2 416:14 430:15 interesting 300:1 339:9 388:14 interests 46:6,20 397:2 interfere 214:9 338:22 interim 99:10 246:3 378:17 interior 119:17 120:2,3 120:7 internally 198:20 200:8 international 320:13 internet 99:13.14 163:17 193:4,15 260:19 277:22 334:10 334:22 414:7,12,18 interpret 299:13 interred 179:4 interrupting 423:7 interruption 261:7 interruptions 261:6 intersecting 240:3 251:20 intersection 301:1,2 334:1 interspersed 50:9 intervals 341:7 379:14

introduce 405:17 introduction 50:2 intrude 399:21 intrusive 50:8 intuitively 304:5 inventory 43:8 invested 227:15 investigation 230:1 investigations 122:11 investing 358:6 investment 135:21,22 277:14 278:14 294:11 294:12 invisible 399:2 invitation 110:20 397:17 invite 250:6 **invited** 110:16,17 involuntary 239:17 involve 215:21 362:4 involved 104:11 108:17 115:8 137:9 256:10 285:22 290:2 involvement 100:17 involves 37:13.13 ironic 306:3 irregular 341:7 irrelevant 411:6 ish 200:5 islands 219:2 **issue** 4:17 79:15 174:13 175:3,18,19 179:8 193:3 202:2 203:3 204:22 205:2 209:13 209:16,17 211:9 261:16 282:13 318:15 337:13,14 342:10 397:22 408:8 422:5 427:2 428:11,19 issued 173:12 318:10 **issues** 44:22 45:3 53:10 78:19 79:4 89:10 133:13 150:15 182:6 203:7 209:11.12 210:1,3 211:18 212:8 213:20 226:21 227:17 228:15,16 229:16 285:8 289:22 291:4 342:8 349:2 358:3 377:9 384:22 388:15 it'd 218:13 221:15,18 it'll 141:13 247:15 253:9 261:20 391:18 405:11 item 116:8 261:17 items 36:2 113:14 116:9 212:11 213:16 225:18 226:17 271:4 295:18 391:14 392:11

iterates 255:12 iteration 164:2 iterations 141:3 246:19 iterative 121:4 172:3 225:12 J James 2:7,11 268:11 269:15,18 270:3,8,11 270:13,20 336:11 337:2,3,22 338:2 343:12 344:4,5 373:16,19,21 374:3 374:14,15,17 375:4,6 416:1 423:4,8,12,14 423:17,21 424:13,18 426:5,7,9 January 173:13 Jen 192:22 Jennifer 2:11,12 111:18 157:3 158:2 jeopardizing 284:12 Jetson 37:14 Jim 2:12 344:8 iob 147:9 294:4 383:6,9 **jobs** 294:8 Joe 2:13 236:14 345:5 ioined 5:12 **Jonathan** 74:16,18,19 405:13 415:13 **JULIA** 1:13 July 54:22 55:3 244:16 244:17 jumping 97:16 June 244:14 jungle 281:21 jurisdiction 40:1,8 59:11 262:9,13 264:6 265:2 325:19 409:7 411:11 413:13 jurisdiction's 136:14 jurisdictional 238:8 254:12 257:8 jurisdictions 132:10 134:17 329:6 409:14 Justice 249:22 justification 282:16 justify 280:7 Κ K-E-R-B 312:13 K-R-U-C-O-F-F 99:10 Kalorama 2:5 268:13 268:20 269:5,17

426:11 Kathryn 2:13 11:4,14 101:9 208:7

337:5,20 375:1 377:5

KCA 337:18 KCA's 337:9 keep 23:7 182:18 199:5 201:19 374:5 386:11 416:20 417:18 420:20 423:20 430:19 keeping 218:12 274:18 keeps 177:22 Kerb 2:17 275:4 308:4,6 308:18 311:20 312:13 335:18 key 60:18 285:1 394:1 398:9 kicked 252:16,20,20 393:5 kids 422:15 killed 362:14 kinds 96:15 133:13 378:3 379:19 414:20 Kisha 1:17 5:19 kit 57:19 knowing 76:21 300:20 300:21 knowledge 131:19 145:19 231:18 known 278:4 284:2 342:11.14 421:11 knows 4:5 181:3 266:21 Krucoff 99:10 246:4 L'Enfant 16:20 21:11 32:13 46:5 labor 104:4 401:13 lacking 385:20 Ladies 269:13 271:15 lady's 415:21 lag 161:17 331:22 laid 78:20 lakes 173:9 lamp 56:11 289:6 356:1 lampposts 343:18 lamps 289:6 356:14,16 land 132:1 162:12,15 162:16 173:9 landline 174:20 176:20 177:17,18 189:10,11 193:14 321:15 landline-based 193:3,4 landmark 43:4 216:21 216:21 284:8 landmarks 16:22 47:8 landscape 7:4 landscaped 48:4 landscapes 51:12 lane 388:1 language 34:15,17,21 82:16 168:8 219:16

225:4,4,8,13 231:7 234:2 349:16 392:18 393:7 395:17 lanyard 97:21 large 32:11 89:17 90:7 92:8 136:2 150:5 156:1 180:20 202:20 220:14 243:17 346:17 largely 49:1 51:2 60:8 larger 89:14 92:8 129:16 224:16 323:21 324:22 largest 134:14 lasting 61:3 lastly 61:18 LaTara 2:14 226:12 late 344:21 401:9 late-1990s 388:8 latency 115:17 334:13 latest 311:13 laudable 256:6 285:8 lauded 368:5 laugh 112:3 Laughter 297:7 383:4 launch 103:13 Laura 194:18 law 281:20 384:12 laws 16:5 74:6 137:17 lawyer 178:9 300:9 429:11 lawyers 428:4 lay 73:1 382:6 layout 96:20 lead 315:15 408:16,18 408:19 415:1.3.7 lead-based 110:7 leader 135:15 278:18 leaders 278:10 leadership 277:1,11 leading 69:12 learn 15:15 111:12 391:6 428:11 learned 245:6 302:17 302:20 learning 337:15 Lease 374:18 leave 33:2 68:12 107:13 194:8 257:1 258:11 273:17 325:20 371:4 371:11 373:5 394:14 410:14 425:6 leaves 338:22 leaving 287:9 led 377:21 left 4:22 5:7 142:6 187:22 198:17 229:18 273:12 274:9 275:3,9 275:11 376:19 388:20

legal 170:22 282:18 288:4 329:12 330:9 330:10 384:18 legislation 384:2 length 28:1,3 lengths 351:18 381:4 lenient 327:22 328:1 lessen 359:7 lesser 206:8 let's 6:8 8:4 27:15 28:8 29:4,8 33:10 42:12 95:19 111:15 113:19 113:22 128:3 182:9 235:7 271:2 297:4 411:21 letter 398:8 404:15 lettering 147:6 224:12 224:13 408:14 letters 55:8,9 letting 428:10 level 13:20 63:5 70:5,9 88:17 166:14 167:3 167:19 177:6,7 226:19 260:13 263:6 298:21 320:19 356:18 418:21 430:9 levels 261:9 264:3 321:9 368:14 levied 367:1 libraries 103:5 license 39:4 97:9.10.12 138:2 154:5 266:2,7 295:14 298:3 299:7 346:12 362:18 392:19 393:8.12 Licensing 280:11 281:8 283:14 285:11 330:1 342:6 life 113:12 281:9 400:4 402:6 403:10 lift 108:12 light 11:15 19:12,19 20:17 24:4 31:17 41:20 48:4 49:5 50:10 57:22 118:17 141:18 143:12 146:6 153:15 153:16,18 286:10 lighting 36:4 lightning 429:21 lights 7:1 18:12 22:1 25:9 27:5 30:2,6 35:18 37:4 142:15 168:20 169:3 215:20 219:10 252:7,9 278:8 360:20 **likelihood** 166:4,12 likes 103:19 limit 92:17 125:9,13

126:22 298:10 374:19 limitation 122:17 228:2 325:13 limitations 60:20 117:4 144:4 217:12 264:8 limited 6:17 126:15 131:12,13,21 144:9 210:10,19 214:17 224:12 287:3,3 limiting 77:20 138:13 limits 125:12 165:3 217:4 218:5 219:1 221:5,10,12,16,17 319:21,22 320:2,20 325:8 327:21 328:1,3 328:6 361:4 366:16 Limits/Locations 213:22 Lincoln 56:16 line 12:7,7 32:4 38:9 39:22 40:4 104:7 119:16 120:1 128:7 130:22 141:9 155:1 160:1,3,4,5 162:12,15 162:16 166:5 168:20 169:7 172:6.8.9.9.12 230:22 231:4 245:7 251:21 387:5 418:17 line- 226:16 line-of- 351:1 line-of-sight 362:3 linear 91:16 232:21 lines 107:15 136:16 160:1 176:1 187:15 216:20 240:4.7 251:20 262:12 286:7 286:18 330:13 400:22 lingo 102:17 link 46:15 links 380:1 list 17:21 44:4 77:10,21 103:7 106:11 127:5 206:21 218:3 222:3 225:16 250:2 269:7 269:12,14 271:6,19 272:2 274:14 275:2,7 308:7 336:8 383:2 397:9 listed 41:17 43:7 210:2 217:1 236:18 287:15 308:10,13 listen 406:22 listening 407:9 listing 43:8 literally 17:18 19:21 99:2 109:2 127:19 147:1 266:17 literature 427:12

little 3:10.14 8:16 31:20 57:8 65:15 74:6 79:17 103:10 114:6 116:9 157:3 159:19 172:15 180:6 186:13 188:16 189:9 198:9 199:16 199:18 232:7 234:1 304:2 310:22 350:10 353:6 382:11 384:10 385:13 386:10 388:1 401:3 414:14,16 424:7 livability 135:21 136:3 livable 54:17 live 138:21 257:8 277:8 288:9 310:8,10 311:9 338:7,8 407:20 408:6 416:13 422:16,20 lively 310:10 lives 408:1 living 45:9 load 133:2 loaded 106:10 **lobbyist** 429:14 **local** 39:5 137:3,17 263:1 312:15 388:6 430:9 localities 214:22 **locality** 207:13 locally 313:22 locate 136:12 217:4 220:7,13 240:11 located 50:20 62:19 66:18 67:7 72:19 77:9 102:10 214:7 216:19 240:3,6,14,20 241:16 331:6 locating 61:8 67:14 114:13 136:15 220:4 356:13 357:2 location 18:6 50:17 58:20 62:9 130:22 138:1,6 149:1 153:22 154:3 172:18 173:5 173:18 186:13,22 187:5,7,7,10,21 188:10 242:15 281:4 281:11 283:8 284:9 286:14 287:8 298:12 325:11,22 331:5 361:7 390:18 393:14 location's 136:3 locations 19:8 47:12 53:4 59:9 60:21 61:7 61:15 62:14 65:8 66:13 69:15 84:2,4 95:8 105:10 126:7 131:15 135:4 136:22

137:6 154:7 165:11 187:18 210:14 211:10 219:1,12 239:6,8 290:18 302:19 359:2 logical 340:8 logo 97:22 long 28:8 30:18 82:14 83:10 110:6 134:16 175:20 180:19 182:10 208:7,10 215:14 270:11 291:20 292:4 333:5 335:17 383:2 426:10 long-term 416:5 418:19 longer 28:9 96:3 164:4 376:8 longest 85:16 look 7:10 8:17 22:12 38:4 51:21 52:8 53:9 59:20 70:1 71:8 72:17 84:2 105:5 107:4 118:16,21 124:7 132:22 139:9 140:10 142:20 156:15,21 161:19 165:2 176:1 176:14 184:13 187:11 195:13 197:13.15 198:15 199:15 203:17 225:9 226:5 231:8 246:10,13,19 249:20 288:11 289:16 299:14 300:17 301:3 306:1 331:19 346:21 350:6 350:15 364:17 369:19 372:13 376:17 386:21 392:9 397:3 399:22 406:11 407:5 414:6 looked 15:5 19:1 40:11 72:11,13 131:16 208:14 225:13 321:11 338:6 419:11 422:6,7 looking 11:11 42:2 43:22 73:15 76:20 77:12 96:18 126:11 143:9 154:7 158:11 160:8 181:4 214:15 228:11 246:20 254:15 255:18 259:6 311:1 336:4 370:4 379:18 380:12 387:3 389:2 395:20 407:15,16 420:2 looks 19:22 106:19 107:1 111:14 114:6 129:21 158:22 199:2 199:13 288:12 338:10 338:11 loosen 357:9

Lorax 259:16 Los 197:10 200:21 **lose** 217:9 **losing** 314:2 lot 6:20 9:19 18:20 26:22 27:8 34:4,14 38:15 62:3 69:13 70:11 73:20 79:3 102:17 105:2 112:18 114:22 130:17 144:11 164:22 179:2 182:4,6 185:9 187:9 192:15 201:14,20 227:9 258:12 280:14 282:7 282:8 285:3,6 289:16 304:20 310:13 313:7 380:7 387:6 389:10 407:10 411:19 415:6 422:15,16 lots 120:20 121:1 133:16 loud 41:22 151:18 love 157:7 164:8 199:11 231:8 389:10 392:6 low 334:13 lower 198:16 214:7 369:2 lucky 310:10 luminaire 118:22 142:19 lunch 3:10 Μ **M** 431:16 **M-A-** 99:20 M-A-H-E-R 60:7 M-C-C-L-A-I-N 416:4 M-C-C-L-E-L-A-N 158:2 M-E-D-R-A-N-O 310:4 M-L- 397:7 ma'am 336:19 375:13 machine 405:14 MACNICHOL 63:14 macro 13:19 112:14 115:7,9 120:14 190:10 magazine 140:18 magazines 419:3 Maher 2:19 60:5,6,16 63:12,16,20 64:5,7,11 64:14,22 68:11 69:7 70:15 72:7 75:2,14,20 76:2,22 80:10,14 84:15,16 85:1,6 86:14 87:6,10,20 Maher's 339:5 mail 286:5 431:13

main 103:3 105:3 109:18,19 144:16 243:4 maintain 18:17 80:3 100:7 256:11 277:11 278:17 318:2 340:20 360:4,21 maintained 25:11 26:13 94:3 106:17 361:18 maintaining 25:12 250:20 295:2 maintenance 37:20 104:4 242:13 major 59:19 73:3 205:16 206:6 350:12 352:19 398:15 400:4 majority 26:8 34:20 75:18 105:3 177:18 202:21 357:6 making 6:18 9:17 18:16 33:16 116:20 171:12 299:16 301:12 324:12 377:16 397:3 mall 46:11 47:2 48:20 49:10 51:18 130:16 400:7 man 412:16 manage 256:11 266:14 364:11 391:14 397:1 management 173:1 255:15 management-related 171:16 manager 2:4 11:14,15 19:19 134:7 mandate 384:1 mandated 267:7 manhole 175:8 Manor 405:22 manual 15:21 manufacturer 180:17 manufacturers 377:16 map 21:13 25:14,22 26:1 46:22 47:15,17 53:3 102:2 197:17 217:11 221:22 300:22 map-based 258:16 mappable 259:4 mapped 131:15 mapping 131:14 258:12 259:2 maps 124:6 230:13 239:5,7 Marcou's 36:1 market 113:4 192:1 349:7 marketplace 374:1,6 markets 109:15 207:2

Mary 397:20	419:19	235:22 237:4 244:10	mice 316:18,19,20
Maryland 132:11	McCLELLAN 157:2,3	246:4 284:20 302:2	321:7
134:22 135:4 422:14	157:10,16,18 158:1,2	337:12,18 342:17	microphone 41:19
massive 341:12	158:8,14,18 159:3,6	386:6 388:19 397:10	42:13 60:15 64:4,6
master 39:3 97:9,10,12	159:10,13,17 160:21	397:20 401:11,15	74:16,20 80:15
106:9 266:2,7 280:10	161:1,4,7,10 165:20	404:16 406:6 423:20	145:17 146:1 153:17
281:8 283:14 285:11	169:14,20 170:1,8,12	424:2,9,14,16 425:7	153:19 158:20 184:8
295:14 298:3 299:7	170:16,20 172:10,17	430:17,20 431:20	202:19 235:17 236:3
330:1 342:6 346:11	172:21 174:11 176:12	meetings 57:9 113:12	275:12 353:18 359:1
362:18 374:18 392:19	mean 18:11 65:20 72:4	120:2 236:9 244:20	373:18
393:8,12	132:20 133:5 145:11	280:13 282:20 342:12	microphones 33:10
match 110:5 197:9	150:22 151:2,4	355:16 388:20 389:1	microwave 291:15
matches 253:11,13	190:20 199:9 206:7	401:17,20 402:22	419:4
material 39:22 41:13	207:19 209:9 218:6	406:12,18 426:2	Microwaves 320:22
228:9 237:1 286:14	225:17 226:3,6,7	429:7	mid-pole 118:17 119:1
306:14,15 308:19	249:19 257:9 258:2	members 4:9 5:10 9:16	middle 161:2 209:6
309:4 330:5 421:2	267:13 272:12 281:1	33:2 36:1 38:12 54:7	213:13 215:13
materially 318:1	287:16 302:12 306:21	55:12 58:11 67:21	midway 146:7
materials 113:18 170:5	327:13 328:14 347:22	79:12 105:19 107:20	might've 204:12 222:6
200:7 235:15 297:14	363:21 366:14,16	113:9 134:8 143:17	227:20
297:16 322:18 388:13	367:2 381:10 385:22	204:7 205:9 209:9	miles 100:9
431:1	386:1,9 390:9,16	235:2,3,8 241:13	milk 414:5,7
math 75:3 85:4 379:16	401:7	251:5 259:21 267:17	Mill 293:11 329:7
matrices 58:20	meaning 179:5	274:4 276:9 293:20	millimeter 320:8
matrix 59:5	means 8:8 16:5 29:14	302:4 307:5 335:21	million 100:14 101:15
Matt 63:9 98:13 103:7	136:3 162:11 250:9	374:12 401:18 420:5	161:13,14
matter 7:9,13 68:22 80:2 93:14 107:17	297:3,5 300:5 311:10 327:4,15 328:11	membership 284:19 memo 426:22	millions 294:10 mind 71:17 87:12 257:
171:10 217:19 237:11	378:11 380:6 430:21	Memorial 56:17	270:8 322:13 397:2
244:10 253:15,20	meant 131:11 252:11	memorials 46:12 47:5	mine 337:20
266:8 271:12 292:22	255:19 429:1	memory 316:22 317:3	minimal 70:8 196:8
318:3 404:20 409:4,6	measure 312:15	388:1	minimis 249:15,18,18
417:3 423:19 430:16	measurements 239:12	mental 86:15	250:2,3,5,7,14 251:8
431:21	262:2	mention 146:16	252:12
matters 54:9 291:10	measures 292:11	mentioned 13:13 22:19	minimize 201:5 223:18
298:1 402:15	mechanism 263:5	26:21 38:14 41:11	327:17 328:22 329:8
Matthew 1:11 2:14 3:17	326:2	52:16 78:6,10 153:9	minimized 240:22
44:7 68:14 113:20	mechanisms 281:17	155:9 244:20 259:10	minimizing 16:20 17:2
203:20 225:16	Mederano 2:10	281:21 284:17 304:18	328:17 353:14
Matthew.Marcou 99:20	median 219:7	326:2 329:6 390:14	minimum 29:18 30:7
maximum 188:20	medians 62:12 218:17	mentioning 285:7	126:1 230:2 239:13
232:12 241:2 351:13	219:1,9	338:3	262:2 292:22 361:17
369:10,16 370:21	medical 315:22 317:9	menu 81:4 82:3	369:8,9,15 370:4,6,2
371:2 maximums 287:16	321:4	merely 161:5 203:8	371:2 405:18
	medium 127:21 Medrano 307:18 308:2	mess 382:8	minimums 287:17
370:12,22 372:16 mayor 4:5 5:9 276:18	308:9 309:2,10 310:1	message 229:4 met 114:16	370:13,22 372:16 Minnesota 73:4 105:7,
276:22	310:6 311:17	metadata 259:8	minute 268:7 280:8
mayor's 4:14	Medrano's 310:3	metal 137:21 139:4	minutes 98:22 99:1
Mays 199:7	meet 48:16 53:4 59:2	142:9	237:4 271:5,8,11,17
MCCALLEN 2:11 177:3	65:13 137:7 165:9,10	meter 119:7,9,18	271:18 342:18 350:9
177:6,11,14,16	165:12 191:8 210:22	140:12 155:7 185:20	350:10
179:19 193:2,19	220:19,20 278:2	186:5,11,20 188:2,7	mirror 128:11 243:14
	337:19 410:13	188:13	mirrors 128:13,14
194.0.10 14 204 6 12		meter's 250:21	misleading 339:2
194:5,10,14 204:8,12 205:6 207:5.19 210:5	meeting 5, 15 b. 1 9, 16		
205:6 207:5,19 210:5	meeting 5:15 6:1 9:18 9:22 10:3,5 45:4		
	9:22 10:3,5 45:4 52:13,19 65:3 111:8	method 37:12 Mexico 173:8	misperception 79:6 missed 177:1 330:4

mistaken 215:7 244:1 425:3 mitigate 357:4 mitigated 165:1 182:5 mixed 240:10 MLA 104:13 106:2 249:13 251:11 263:13 263:13 266:5,10 285:13,17 299:22 303:6 305:6 375:1 399:7 **Mladinov** 2:2 397:6,7 397:16 398:12 MLAs 342:9 343:3 399:3,8,9 403:19 mobile 237:17 277:17 278:9 Mobilitie 111:1 157:5 mobility 2:10 194:18 195:8 200:14 204:7 205:8,11 207:17 224:5,7 232:4 mock 59:13 mockup 83:21 238:13 239:1 247:1 257:19 mockups 106:19 107:8 246:16.22 model 107:1 modern 49:10 56:18 modest 293:15 modifications 241:8 246:1 modified 115:10 123:17 124:22 152:10 modify 258:19 modifying 112:14 367:16 moisture 166:11 173:6 173:9 176:19 mom 85:4 421:5 moment 20:11 61:5 90:11 146:5 168:6 259:17 315:18 332:16 418:18 momentarily 42:9 moments 315:12 Monday 1:6 98:2 236:22 money 108:15 314:6 412:20 monopolies 30:22 Montgomery 422:14 month 46:17 201:16 257:13 276:22 337:19 months 120:15 208:19 209:3 monumental 21:9,11 28:16,17,19 29:5,21

30:12 32:7,16 48:2 52:10 56:7 70:7 72:3 72:19 79:4,8,14 Morgan 339:16 416:17 mother 422:2 mothers 422:4 motorist 388:2 motorists 400:22 Motorola 427:1 mount 139:18 141:4 155:14 185:15 186:8 188:7 mounted 52:6 155:18 155:20 185:18 223:5 mounting 222:16,18 223:9,9,11,20 227:19 238:22 mounts 81:11 move 53:14 110:16 115:20 129:2 137:19 197:4,11 212:14 235:8 296:5 307:14 308:14 336:1,7 364:21 366:19 move-in 416:21 moved 199:18 215:11 moves 44:2 213:11 395:2 moving 5:6 142:14 173:6 211:18 228:7 228:13 229:2 232:4 318:6 375:14 389:7 429:20 multi- 155:18 multi-tenant 134:15 multiple 23:4 28:6 52:7 56:2 96:13 97:1 132:10 135:6 214:12 317:5 346:13 multiples 206:11 multitudes 352:17 Municipal 391:3 municipalities 88:13 134:17 137:4 377:8 Museum 51:1 museums 47:5 Ν

name 3:17 11:5,5,13 42:5,11,11,16 44:6,9 53:16 60:5 98:11,11 99:7 111:17,17 134:5 157:21,22 194:16,22 195:4 225:15 226:10 226:11,13 236:12 249:7 275:10 279:18 293:20 309:21 310:3 311:19 312:12 314:14

314:19 333:14 344:8 359:20 376:19,20,21 376:22 397:7 405:18 405:19,20 416:1,3 named 421:18 narrow 56:4 251:17,17 260:21 387:3 narrower 151:5,7 **Nashville** 282:12 302:11.18 nation 13:15 14:3 162:20 163:11 205:17 400:10 nation's 7:22 45:20 46:2,4 48:9 49:12 53:5 54:11 134:14 national 14:15 41:4 44:4,8 46:7,11,12 47:2,4 48:20 49:10 50:22 51:1,18 54:16 60:10 161:20 170:8 171:6,8 173:11 189:17 216:21 217:1 238:7 284:8 316:17 321:7 350:14 351:7 400:7 nationally 46:11 51:11 162:21 163:18 276:21 nationwide 319:3 natural 55:15 nature 13:2,5 16:18 20:13 23:8 24:15 28:18 152:8 164:13 249:6 378:15 402:4 NC 249:7 **NCH** 162:2 NCPC 2:14 34:16 44:20 45:5 46:2,17 47:17 49:15 51:20 54:22 69:15 81:22 254:8,18 255:4 285:20 298:20 372:5 Neal 10:1,4 11:10 near 132:18 138:11 240:1 nearly 61:1 Nebraska 73:4 necessarily 31:2 175:7 191:10 205:10 298:4 298:15 necessary 53:3 70:9 72:20 93:12 233:3 281:14 294:14 311:4 311:16 348:14 352:4 needed 21:8 31:5 61:2 112:1 131:16,20 166:18 217:7 235:4 needing 377:21

needle 76:12 needs 8:13 9:13,14 15:2 16:13 22:15 23:18,21 31:7 53:5 88:15 89:1 113:5 128:3,18 137:7 165:11 174:16,17 176:15 190:17,17 191:5 192:8 196:13 206:17 208:9 211:1 220:20,21 249:7 256:3 292:9,10 315:9 320:3 374:22 negative 239:18 282:9 317:21 negatively 123:22 240:13 negotiation 220:21 neighbor 7:13 neighborhood 149:19 174:3 243:22 246:14 301:3 311:6 339:17 339:22 392:19 393:19 394:2,17,19,20,22 403:16 404:6 416:10 416:15 neighborhoods 21:3 63:4,8 72:10 114:18 154:14 174:8 192:15 240:6 265:16 299:9 299:19 310:12 338:19 340:2,11 352:18 400:3,19 neighbors 7:16 120:12 259:22 nerd 391:4,4 **NESC** 189:4 224:14,20 224:21,21 228:1 NESCO 170:15 network 6:22 112:14,17 113:2 115:2 136:4,19 137:1 138:22 150:9 178:20 193:3,7,11,11 220:20 237:16 294:11 294:21 311:4,7 313:20 334:12 380:3 380:13,19 network's 190:10 networks 13:16,17 45:8 112:7 135:1 277:18 328:2 334:7 350:14 377:19 never 82:17 134:2 200:1 251:1 310:21 422:7 new 12:17,21 18:4,9,12 20:15,21 23:3,6 31:16 36:6,10,12,15,16

37:10.13 47:14 49:20 50:2,7 56:2 57:14,17 57:22 68:17 69:1 76:8 76:13 77:18 79:21 80:3,8 81:3 82:5 85:10 96:7,11 97:22 119:12 124:14 135:15 137:21 138:17 139:4 141:2,17 142:7 156:11 165:5 167:17 168:18 169:5 187:7,7 187:10 188:4 192:14 197:7 201:2 206:10 210:14,16,20 219:13 278:12 288:17 299:8 314:1 330:19 331:2 331:14,18,20 334:17 334:19 340:21 341:6 352:13 378:22 379:17 379:17 381:1 384:2 399:15 415:14 news 350:5,14 351:7 newspaper 146:15,17 146:18,20 408:11,15 412:1 423:3 nexus 388:6 Nice 348:15 Nicole 2:15 293:20 **night** 10:15 252:4 nine 208:19 209:3 240:4 271:17 nodding 80:12 296:1,3 node 135:4 136:22 137:5 149:17 nodes 239:13 262:3 330:20 331:20 noise 260:13,13,17 261:11 Nokia 318:10 non-214:4 216:2 non-conforming 165:17 176:13 non-de 249:18 non-District 148:8 non-electronic 214:6 214:10 non-engineering 178:9 non-standard 248:10 non-trivial 321:9 noncompliance 362:10 nonprofessionals 362:12 nonprofit 359:22 normal 36:18 normally 104:8 149:8 249:8 274:6 north 27:15 29:4,16 30:17 32:5 85:10,18

86:1.9 234:21 northern 129:19 Northwest 48:21 note 25:2 45:1 48:13 91:5 214:12 248:21 295:21 300:8 336:3 420:6 430:19 noted 15:17 25:6,22 26:7 31:11 56:12 58:15 91:13 173:2,5 173:16 212:12 265:3 298:1,18 375:8 notes 70:20 313:21 402:3 notice 22:12 28:14 242:10,20 249:1 251:1 285:12,22 286:4,17 299:7,8,18 299:18 310:22 392:14 394:4,12 395:2,19 398:20 401:3 403:22 406:17 noticeable 27:7 noticed 194:6 200:1,4 404:16 429:8 notices 388:22 406:12 notification 431:8 notified 287:6 386:14 401:9 notwithstanding 250:1 346:5 November 45:4 49:15 52:19 nuanced 59:9 number 26:16 28:20 29:2 30:15,22 47:6 48:2 67:7 75:5,16 113:7 116:8 118:5 125:16 156:20,21 174:21 175:10 209:13 209:16,17 210:10,19 211:10 220:14 240:21 241:2 261:18 264:16 282:4 300:19.21 346:17 351:11 363:10 379:21 numbers 31:9 75:21 85:3,5 116:9 125:16 126:20 163:3 220:1,3 numerous 58:16 357:14 359:9 374:8 0 **O** 195:1

O 195:1 o'clock 10:15 O'Dell 194:19 O'Dell's 194:22 objecting 300:10

objections 338:12 403:18 **objective** 74:9,12 348:20 objectively 425:9 objectives 299:18 objects 400:20 obscure 356:16,17,22 observed 55:13 obsolete 35:15 241:18 **obstacles** 400:21 obstetrics 316:16 obstruction 128:19,21 obstructions 149:5 240:7 obtain 6:13 obtrusive 57:3 obvious 307:3 obviously 34:18 91:13 112:7 192:17 195:10 195:22 246:21 320:22 351:21 425:1 occasionally 97:2 occupancy 258:22 Occupational 323:5 **occupy** 50:14 86:4 359:6 occupying 86:2 occur 18:22 25:22 28:14 264:16 323:15 343:13 366:13 occurred 15:16 occurring 11:10,11 occurs 323:14 Ocean 173:7 octagonal 186:5 **OCTO** 2:6 41:8 97:17 97:21 98:5,14 99:8,12 100:5 101:16 105:22 107:22 108:3 109:21 112:8 118:15,18 120:4 242:2 245:5,22 246:1,3 247:2 253:5 October 1:6 3:22 157:14 342:17 354:6 354:8 358:3 377:1 397:10,14,20 401:17 401:20,21 404:17 430:17.21 odd 257:13 395:10 odds 374:21 of-ways 181:7 off-line- 200:4 offer 42:21 168:4,7 313:7,9,19 333:21 354:6 358:12 offered 55:5 58:12 offering 311:12 313:5

offers 358:8 office 5:3,8,9 14:12,13 33:22 39:18 41:4,6,19 42:6,6,8,19,19 43:1 43:21 45:2 60:4,6,7 81:9 220:1 242:2 245:10,14 262:15 263:1,2 276:17 342:22 367:15 office's 42:20 69:9 78:17 Officer 2:6 43:10 99:8 242:2 245:11,15 333:19 offices 431:12,14 official 267:22 279:12 337:9 406:16 410:9 431:6.9 officials 135:9 offline 156:19 **OGB** 257:10 347:3 old 21:15 146:22 224:21 246:11 247:4 247:7 339:7 343:9 older 317:2 once 62:7 66:7.12 75:8 117:17 155:6 178:2 178:18 197:2 198:15 248:1 336:19 337:19 363:21 364:1 399:11 one's 33:11 one- 104:22 one-inch 147:6 one-stop-shop 412:3 one-way 214:15 215:22 ones 40:13 43:18 62:6 102:11 121:11 125:7 190:5 204:14 211:15 211:16 216:2,12,13 217:16 248:7 256:15 262:19 282:9 323:12 396:6 424:5 online 300:12,16,17 312:22 oops 342:18 **OP** 2:19 69:17 70:12 **OP's** 60:19 67:14 339:5 OPC 263:11 open 9:22 47:5 51:3 67:18 150:5 159:15 244:8 424:14 426:2 430:4,11,20 opened 139:13 153:20 opening 80:6 355:19 openness 236:1 operate 144:14 191:21 313:4,21,22 operating 182:17 378:9

operations 39:13 237:14 317:22 opinion 60:20 66:22 67:14 208:15 238:1 opportunities 62:15 77:17 78:18,21 334:18 opportunity 17:7,8 43:11 44:14 53:7,19 59:16 77:18 139:6 274:7 277:6 278:15 294:1 295:5 314:8 333:21 375:15,20 385:19 395:1 398:20 403:3 421:3,8 422:2 opposed 302:10 303:14 368:10 384:6 opposing 319:3 **opposite** 216:8 opposition 425:1 optic 341:9 358:6 380:1 380:3 388:7 optics 103:1 382:2,6,18 **optimize** 314:10 optimizing 313:6 option 131:4 142:15 223:9 options 214:18 220:2 407:3 oral 349:19 orange 192:12 315:16 orange-yellow-golden 26:6 oranges 192:20 193:3 order 4:2,4,15 135:14 144:13 146:13 157:3 209:14 267:9 293:9 360:21 ordinance 302:18 ordinances 329:8 organ 406:16 organization 100:6 270:18 272:13,15 275:20 307:19 308:7 308:11,13 359:22 360:22 421:11 organizations 259:18 268:8,9,16 269:9 270:19 272:1,2 276:6 277:2 301:19,20 315:22 401:2 organized 401:14 origin 173:8 original 46:16 286:15 originally 158:11 originate 136:8,16 **Orleans** 97:22 **OSHA** 170:3,6 323:5,11

ought 63:5 348:6 outages 175:12 176:19 179:12 outdated 103:10 320:1 320:20.21 outdoor 37:7,8 42:3 100:19 102:4,6,9,15 103:22 105:2 240:16 outer 72:6 outlined 79:5 210:6 outlying 62:19 67:3 79:14 outpaces 162:19 163:11 outreach 342:10 outside 28:17 29:5,11 29:21 58:4 61:13 72:10,19 73:12 81:11 120:6 265:2 267:6 overall 18:2 26:15 28:20 30:22 31:9 48:18 56:21 59:14 94:18,21 144:5 overarching 210:8 overhead 175:22 overlap 66:1 106:14 overly 233:19 overpopulate 343:17 oversees 17:4 oversight 362:8 383:20 overview 13:10 33:1 112:2 113:15 347:3 overviews 18:18 **Owen** 2:16 157:16 158:3,9,15,18 167:4 169:10 177:8 178:11 179:20 180:1 210:6 211:5 **Owen's** 204:4 owned 17:9,12 19:11 21:1,22 25:3,4,10,15 26:9,11,13 68:6,9 75:13 77:3 106:16 owner 90:4 137:15 138:3 265:22 286:17 286:20 339:15 348:12 owner's 37:22 owners 107:13 241:18 286:2.6 287:9 359:10 owns 68:22 Ρ **P** 65:6 84:15 86:17 339:5 P-O-L-S 376:22 P-R-O-C-E-E-D-I-N-G-S

p.m 3:2 271:13,14 431:22 **P3** 11:14 **PA** 102:12 paces 160:11 page 12:7,7 63:17 91:19 121:13 124:21 172:22 228:11,13 346:22 366:8 393:12 426:2 pages 64:21 122:4 271:3 pain 417:21 418:6,11 paint 86:14 110:7 141:13 197:9 315:15 408:14,16,18,19 410:2,10,11,20,22 411:12.20 paintable 110:3,4 painted 110:5 panel 41:3 71:20 87:17 330:14 336:2 374:13 383:19 420:5 421:19 panel's 420:14 panelist 41:7 71:1 panelists 335:22 336:8 **Panthers** 110:15 paper 73:21 111:6 320:7 391:18 papers 318:17 391:17 427:16 paragraph 254:3 parapets 357:6 pardon 395:18 420:21 423:10 parent 430:1,10 parents 422:17 Park 32:6 405:22 parking 6:22 7:2 256:14 416:18,22 417:1 parks 46:13 103:5 400:6 parochial 297:9 part 15:3 25:10 40:16 40:18 42:6 61:9 64:17 64:17 69:9 72:6 78:10 103:22 104:12 110:19 119:2,2 123:16 127:1 161:20 174:13 178:16 199:21 222:2 228:10 231:6,21,22 257:20 270:5,5 276:3 297:19 297:20 299:5 311:11 323:14,15 346:9 359:15 379:1 383:5,8 389:12,15,16 391:4 396:1 408:5 411:20 428:4

PARTICIPANT 98:7 180:5 205:22 234:19 235:6 272:8,12,17,22 273:4,7,13,17,21 274:9 275:13,15 376:10 participate 58:12 397:17 402:1 participated 43:2 participation 277:1 389:3 particular 55:7 56:5,13 56:14 76:20 110:22 131:17 133:6 134:19 154:3,21 160:11 165:8,13 205:1 230:17 264:7 281:13 286:22 298:19 300:18 331:1,8 339:17 369:1 391:21 430:20 particularly 15:9 46:4 50:11 51:7,17 52:9 77:1 82:13 88:18 165:2 167:22 228:21 307:8 355:20 parties 9:20 21:2 227:14 partner 87:15 112:7 partnering 106:2 partners 34:16 44:1 54:14 114:7 254:17 254:18 partnership 104:12 108:17 parts 10:21 57:19 73:5 105:8 127:6 143:22 174:5 190:6 206:6 party 61:21 67:6 91:2 167:6 168:13,16 219:6 221:5 pass 194:5 353:18 359:18 passed 236:10 237:9 path 164:20 165:16 patience 64:16 patient 152:21 180:3 patiently 227:11 patio 240:16 pause 405:12 paying 121:7 345:2 PDF 63:14,17 101:6 PDFs 259:5 peace 229:6 peak 264:3 pedestal 306:13,16 pedestrian 51:4 pedestrians 50:8 400:22

3:1

P-U-R-C-E-L-L 279:19

Neal R. Gross and Co., Inc.

Washington DC

pedheads 215:19 Pediatrics 315:22 peer 428:15 peer-reviewed 316:11 pen 185:2 penalties 362:9 366:21 pendant 19:16,21 20:2 20:7,10 22:18 24:19 24:20 25:21 26:2,17 85:18,19 95:20 97:4 187:9 234:11 Pennsylvania 140:7 people 8:20,21 9:3 10:5 45:8 83:2 111:2 115:7 120:13 127:18 130:17 131:7 132:19 133:5 138:21 143:4 146:1 153:4,5 160:8 163:15 166:19,22 179:9,16 199:22 215:13 225:22 227:10 228:4 230:20 239:19 250:20 251:6 252:8 261:5 271:8 272:10 277:16 284:13 287:6 288:9 293:7 297:22 313:10 316:2 316:10 318:13.15 319:7,17 320:4 322:11 326:11 327:18 328:17 329:1,9 332:8 337:2 338:6 350:11 351:2.4 363:6 364:20 366:15 375:8 380:5 381:21 383:2,20 387:2 389:1,17 401:8 407:5,6,10,17 410:21 412:17 417:6,11,12 418:3 419:12 422:16 423:2,8 424:15 427:6 427:7 428:12,18 429:18,19 430:1 people's 315:20 338:17 peoples' 114:21 Pepco 26:12 63:1 68:6 68:9 119:9,18 155:7 156:17,20 176:1,2,21 179:1 189:9 197:15 221:16,20 256:3 265:13 **Pepco-owned** 68:19,21 perceive 132:16 percent 62:17,18,22 66:14,18 67:5,9,10 75:6,12,22 76:2,3 94:10,14,15 96:10,15 100:15 123:8,10 136:7 161:13.21 162:4,8,9,10,14,21

(202) 234-4433

163:8.10 167:20 207:20 221:4 289:11 357:16 percentage 67:13 perched 341:4 perfect 17:8 33:18 82:12 408:19 perfectly 81:8 295:16 306:4 perform 239:11 261:22 262:11 363:7 performance 56:14 130:5,6 137:2 180:10 performing 312:19 perimeter 48:5 50:14 period 230:16 261:19 periodic 173:22 periodically 228:12 periods 174:21 175:11 permissible 19:7 23:3 25:15 26:19 125:2 290:15 permission 105:13 360:8 404:12 410:9 permit 25:8 26:5 35:21 37:1 38:6 39:14 68:17 69:2 138:4.15 148:17 148:19 154:9 156:20 259:1 266:9 281:14 282:15 284:21 285:13 286:22 298:12 300:16 362:7,20 363:15 365:6,13,14,18,19,21 366:1 393:14 permitable 142:3 permits 4:18 6:14 36:16 106:12 258:15,21 300:12 362:20,21 382:5 384:8 385:15 permitted 24:16 29:3 38:21 47:12 82:4 84:1 84:5 85:22 138:8 143:13 165:6 184:15 214:1.4 215:8 218:18 219:12 239:22 364:6 permitting 36:18 39:18 40:18 68:10,11,12,17 253:1,2 262:15 266:1 390:8 perpendicular 213:11 person 77:6 93:13 127:21 157:8 213:6,8 249:7 257:16 274:8 286:20 300:17 308:5 328:11 336:14 376:7 376:14,16 391:17 421:4 425:12,14 426:3

person's 274:5 personal 9:6 270:6 307:1 309:16 333:1 337:18 375:19 421:12 personally 208:15 422:10 personnel 136:14 Persons 213:9 perspectival 356:21 perspective 78:14 114:11 132:17 227:16 348:8,9 377:8 399:1 perspectives 398:1 Petaluma 329:7 Petworth 66:10 Philadelphia 205:21 PHMSA 297:15 phone 8:16,18,20 9:6,6 9:7 13:14 99:14 100:12,14 109:1,2,3,8 109:10 128:17 132:22 133:10 136:2 162:12 162:12 163:16 306:2 316:18 321:9 421:15 427:10 phone-ish 11:11 phones 160:7 162:10 162:15,16,18 163:13 321:15 362:4 417:17 419:20 photo 114:4 118:14.20 183:12 185:2,12,22 186:7,17 187:10 195:12 197:12 199:6 199:14,17 200:9,11 photograph 140:19 photographs 239:3 251:3 photos 199:18 **Photoshop** 198:9 199:2 phrase 249:14 physical 17:3 107:1 128:19 360:22 physically 102:10 pick 76:12,14 109:9 208:17 picks 109:1 picture 22:12 24:7 86:15 140:22 198:2 199:12 204:18 210:8 210:8 378:20 381:20 382:13 pictured 22:17 pictures 140:21 147:11 204:13 251:7 289:16 289:17 338:5 339:2 piece 11:12 37:19 38:9 69:1 119:5 135:19

217:15 290:21 pieces 195:16 196:6 221:19 Pierre 64:19 pig 126:10 piggybacking 246:7 pilot 83:22 84:10 102:12 138:1,6 154:7 257:21 377:13 pink 32:4 Pipeline 297:15 pipelines 322:19 pipes 277:21 Pittsburgh 215:7,8,11 pivot 320:4 pizza 57:19,20 place 18:3 31:19 37:8 45:17 94:13 104:17 105:17 127:13 144:12 165:8 172:2 174:18 190:18 205:12 210:17 278:17 281:18 282:8 283:13 321:20 324:18 338:6 362:7 363:9 381:15 384:21 403:16 417:14 429:11 placed 21:7 94:22 119:9 127:17 136:13 167:8 168:18 240:1 298:10 325:14 341:22 342:20 361:4,11 399:20 placement 16:10 18:14 51:6 75:11 107:17 127:10 152:2.13 167:10 169:5 212:9 219:14 225:5 360:17 390:19 placements 152:10 places 210:20,21 217:2 277:8 333:22 374:5,8 placing 357:5 plan 16:20 21:11 32:13 36:12 46:16 73:1,3,7 73:10 104:16,20 105:22 106:5,9 108:11 141:17 142:7 274:2 378:5 380:18 386:18 389:20,21 planet 334:10 planned 8:1,10 48:8 78:8 105:2,10 planning 5:3 14:13,16 33:22 41:5,6 42:7,19 44:5,8 46:1 60:4,7,8 60:11 103:2 115:8 173:12 202:7 220:1 236:19 238:7 258:19

Neal R. Gross and Co., Inc.

plans 136:6 173:20 247:10 361:7 385:6 385:12,16,19 386:3,9 396:1,5,7,11 plant 102:21 188:4 360:4,8 361:5,7 planted 360:10 planters 146:15 planting 233:22 platform 312:18 play 9:7 134:12 136:5 255:17 273:18 306:21 350:8 376:12 411:21 playing 110:14 405:11 405:16 plays 135:21 412:9 419:15 please 8:17 11:5 19:3 21:19 23:1 25:13 26:18 31:19 32:16 42:2 71:4 98:6 101:11 101:15 102:1 139:16 142:2,19 186:12 222:15 269:11 270:17 271:5 272:15 274:14 309:19 316:15 317:14 338:1 344:6 350:15 355:13 356:8 359:13 363:18 366:19 411:21 420:17 423:15 pleasing 181:19 plenty 131:15 230:5 **plus** 106:20 345:22 pocketbook 367:2 point 10:12 39:11 61:6 61:19,19 74:6 79:17 92:22 97:20 98:1 102:17 104:7 107:11 110:1 116:20 118:15 118:18 120:5,9 134:2 151:2 153:1 154:3 155:2 156:10 167:2 169:18 174:3 179:21 187:1 207:2 213:12 220:17 245:5,21 246:17,18 259:3 261:15 281:7 284:22 288:4 290:22 299:6 306:8 346:8 348:1 362:16 365:2 372:19 372:20 374:10 384:4 388:7 389:4 392:12 394:15 414:9 425:1 428:22 429:16 pointed 76:22 231:21 252:21 348:5 pointing 221:3 371:20 points 41:8 52:11 60:18

97:20 112:8 151:1 167:3 212:18,21 232:9 245:2,20 251:19 345:11 388:11 388:17 poised 315:19 Poland 327:20 pole-mounted 233:2 358:18 police 136:9 policies 276:17 277:13 policy 2:9 95:15 276:11 281:19 pollution 318:22 319:1 319:2 320:5,6 **Pols** 2:5 375:22 376:3 376:21,21 377:4 383:7,10 387:17,20 388:5,9 390:2,5,9,11 392:21 393:3,5,17,21 394:5,8,13,16,18,20 395:4,6,10,12,22 396:5,10,14,16 397:5 populated 67:12 100:15 133:7 338:20 population 132:2.3 160:6.16 populations 321:18 populous 334:15 pornography 249:20 port 8:2 portfolio 80:7 portion 77:2 110:10 214:7 230:12 portions 48:21 174:22 175:10 Portrait 51:1 pose 192:20 position 45:2 135:14 213:11 277:12 333:22 335:17 358:11 397:11 427:4 positive 58:3 84:12 227:16 282:8 possibilities 165:7 **possibility** 65:10,10 66:2 78:2 280:19 possible 48:19 51:21 74:12 115:11 121:9 154:7 200:8 201:20 220:14 238:1 240:8 240:20 243:12 251:20 283:15 293:7 295:11 299:14 302:1 306:19 307:3,11 317:21 335:8 341:16 352:2 **possibly** 61:1 62:14 191:1,3,4 306:20

Post 140:17 post-inspection 261:22 post-installation 239:11 posterity 355:3 posts 56:12 potential 46:19 47:11 52:21 55:21 56:6 65:12 78:19 197:17 281:8,20 303:11 313:13 357:8,18,20 360:14 403:8 potentially 65:20 150:18 304:21 **Potomac** 173:18 Potter 249:22 power 14:1 22:14 103:16 104:4 107:15 119:7,9 139:21,21 140:12 148:7 150:9 155:21,22 320:9 335:2 429:3 powerful 277:5 PowerPoint 11:16 101:5,6,7 157:11 159:15 practical 171:13 181:21 348:6 352:21 practices 15:4,14 pre- 239:11 261:22 precious 17:4 precision 57:2 predominantly 66:8 preempted 293:8,14,16 prefer 82:3 95:5 110:14 125:12 203:4,18 218:2 235:10,12 290:9 349:10 373:5 preferable 89:7 213:14 preference 77:8 80:8 81:16 82:5 149:1 210:11,15 212:11 306:15 307:1 preferential 80:2 preferred 81:3 150:14 210:14 preferring 306:8,9 prefers 73:1 pregnant 316:18 premature 343:20 preparation 49:14 prepare 278:2 prepared 135:17 preparedness 335:6 preparing 35:5 139:2 198:22 200:7 presence 51:11 335:9 present 2:1 5:11 10:10

11:6 41:14 59:16 97:18 98:6 110:18 111:6 235:8,14,16 267:19 273:16 274:5 308:18 336:22 375:11 404:18 420:22 426:4 presentation 11:2,2,16 11:21 32:17,22 34:11 54:22 55:1 63:10 98:14 100:22 101:4 111:20 113:7 129:8 139:8 201:12 234:9 presentations 12:15,16 54:21 110:22 111:7 194:15 320:14 397:18 398:4 presented 181:18 274:7 343:1 372:6 presenter 284:15 presenters 13:8 41:2 67:21 70:22 presenting 200:7 preservation 14:13 41:4,19 42:6,18 43:1 43:10,21 60:11 78:17 238:5 241:11 246:12 247:8 253:8.13 254:19 255:5 284:6 339:21 342:22 343:8 354:3 356:4,5 preserve 54:11 310:15 356:11 preserving 45:15 46:3 49:11 359:11 400:9 president 54:7,8 269:18 270:5 293:21 President/CEO 2:15 pressure 281:2 presumably 346:18 410:12 pretty 3:15 44:9 102:4 196:7 199:12 201:11 212:6 217:21 263:2 288:5 330:13 338:4 379:19 382:8 prevalence 61:19,20 69:10 prevalent 63:3 prevent 281:13 367:12 373:22 preventing 301:17 preview 45:3 previous 103:18 previously 22:19 26:21 32:1 78:6 354:9 primarily 62:4,18 424:2 primary 173:6 240:16 240:16

print 25:16 419:22 prior 61:8 97:13 141:3 238:16 269:20 330:14 337:10 354:11 358:18 365:6 389:13 393:13 priorities 34:5 102:14 prioritization 61:7,12 77:8,13 127:10 152:4 prioritize 103:17 311:14 330:2 prioritizing 66:19 priority 104:1 348:7,22 private 6:11 55:20 96:14 152:13 219:3 256:14 322:21 323:2 323:3,11,15,20 333:17 413:19 414:1 privately-operated 55:14 proactive 228:21 243:16 244:18 301:7 probability 379:4 probably 8:20 35:5 64:18 82:14 169:17 170:6 191:13 192:19 229:17 250:5 263:2 289:1 307:22 331:1 367:13 373:4 378:18 405:11 407:7 409:3 419:7 problem 57:15 112:5 113:1 115:5,14 116:21 118:10 133:18 133:20 136:14 149:2 149:4,10 151:6 158:6 180:5 287:8 303:2 320:22 333:4 342:3 347:7 351:4 412:12 415:1,2 418:9 428:16 problematic 144:10 172:19 problems 115:14 121:7 132:13,16 182:4 263:11 290:5,7 317:4 353:1 372:7 procedures 254:12 process 15:4 35:14 40:16,19 43:14 44:2 87:14,15 96:6 100:13 121:4 136:21 148:13 154:4 172:3 199:21 208:11 225:1,12 226:3,6,16 227:15 235:21 248:4 249:4,9 249:11 266:1 278:16 283:12 294:19 296:6 313:13 336:5 342:5 346:13 362:7 385:7

386:8 389:13 390:8 398:17 399:2 402:2 403:17 410:3,6 processes 208:22 produce 283:9 produces 180:9 product 337:12 408:4 productive 244:19 productivity 314:3 products 332:1 professional 58:6 375:18 391:21 professionally 377:6 422:9 program 82:15 84:10 100:15,18 103:12,13 103:14 111:21 114:18 206:14 243:17 321:8 programmatic 54:2 programs 2:9 38:3 110:22 276:11 progress 278:14 prohibit 79:19 138:16 prohibited 62:8 66:13 267:8 prohibition 124:14 prohibitions 184:17 prohibits 233:20 project 58:9 59:20 96:1 102:21 108:18 317:7 343:1,5 377:13 proliferation 76:8 prolific 299:4 prominent 25:21 46:7 promise 294:9 promised 271:18 promising 59:22 358:13 promptly 157:1 prone 173:15 proper 319:21 340:8 properly 144:14 250:22 323:8 367:12 properties 7:3 48:11 216:22 218:3 219:20 240:20 357:12 property 43:7 152:14 216:22 217:14 218:5 219:4 240:4,7 251:20 256:14 286:2,7,17,17 286:20 287:9 322:21 323:3,3,11,15,20 348:12 357:16,20 359:10 386:14 414:1 proportional 28:4 proportionally 28:12 proposal 119:12 399:14 401:6

proposals 399:5 propose 231:7 283:6 proposed 23:2 45:18 58:19 118:21 119:13 119:15 136:22 139:9 153:22 183:11 202:20 202:21 225:4 238:4 239:7 241:12 242:4 245:16 286:8.9.18 287:8 340:14 341:20 398:21 401:10,12 402:3,21 403:4,12,15 404:1.5 proposing 24:7 114:1 114:11 120:16 195:15 401:6 protect 53:5 55:19 152:11 293:15 316:9 317:12 324:18,21 326:17 340:20 402:9 427:6 protecting 16:14 17:1 320:4 429:18 protection 43:5 47:21 284:6 400:6 protections 281:10 protective 328:7,15 protocol 193:15 proud 201:6 235:22 355:18 provide 11:22 34:17 44:14 47:7 52:17 53:8 53:19 54:7 63:21 65:1 66:21 67:15 78:21 89:13 94:6 104:8 125:21 126:19 127:16 134:20 135:5 144:18 151:14 165:12 166:22 170:2,12,14 172:10 173:4 181:20 190:8 191:20 193:4,12,13 193:14 201:7 203:16 204:5 211:3 217:11 219:16 223:4 230:4 230:13 234:2 238:1 247:20 282:15 286:4 334:13 335:6 340:3 348:9,14 349:14 359:3 364:3 375:9.20 403:5 404:9 431:2 provided 31:4 34:15,19 34:21 47:16,19 140:5 228:10 230:9 231:9 269:6,14 306:14 311:22 345:7 346:10 347:3 351:11 358:2 388:13 provider 52:3 134:14

195:9 331:6 343:16 348:10 399:12 provider's 404:2 providers 15:1 51:19 93:15 94:6 103:16 208:20 227:21 265:5 299:13 338:4 342:2 345:17,21 346:2 347:20 349:7,8 352:5 356:15 358:12 363:1 374:1 377:7 379:16 379:22 386:2 399:9 399:14 403:20,20 provides 165:3 252:7 402:7 providing 37:12 59:9 78:20 164:6 171:17 208:1 227:22 228:9 255:18 284:17 333:20 349:7 359:10 406:17 provision 126:12 184:14 297:14 provisions 32:10 399:4 399:7 proximity 13:21 228:2 prudent 184:10 353:15 prudential 292:11.21 prune 362:9,19 363:14 pruned 364:13,13 pruning 362:11 364:4,6 365:15.20 public's 343:4 public.spacecommitt... 431:5,6 publically 239:8 publicly 159:21 161:16 226:4 239:6 385:6 published 248:1,12 320:7 406:12 publisher's 147:12,13 pull 63:10 71:16 85:1 99:4 139:7 146:5 183:1,9 301:10 336:11 405:1 pulled 418:12 **pulling** 101:4 pumps 180:15,16 181:10 183:19 Purcell 2:3 279:18,19 302:8,16 303:16 307:12 purple 25:20 32:11 purpose 6:1 12:3 16:8 33:6,19 34:2 72:2,17 73:1,22 171:21 176:13 304:22 327:5 345:18 372:9 purposeful 8:8

purposefully 78:8 purposely 48:8 purposes 140:9 231:3 253:10,12 265:20 411:7 pursuant 137:14 pursuing 358:16 purview 39:9 262:9 264:22 266:21 298:4 298:15 325:18 364:11 409:15 **push** 415:7 420:2 pushing 391:17 **put** 14:18 17:15 19:2 22:15 27:8,12 31:18 37:3 69:13 79:17 83:14 108:10 109:22 119:19 120:4,7 140:12 143:19 153:3 155:7 159:21 175:15 196:4 210:16 212:2 247:13 250:22 251:18 254:2 257:6 258:4 282:3 296:4 300:3 307:16 309:2 321:17 325:2 340:2.19 352:1 352:1.22 361:9 362:7 375:12 389:22,22 393:10 396:12 399:15 403:16 405:11 408:15 408:15 409:19.21 412:13 413:18 420:11 420:16 423:1 putting 68:22 74:10 78:2 92:17 166:11 196:6 198:9 280:22 304:19 322:1 326:13 347:4 388:22 412:21 415:14 418:16 427:10 puzzle 135:19 140:18 Q qualify 340:12 qualities 58:17 quality 62:1 400:4 402:6 403:10 quasi-issue 209:18 question 33:15,19 38:7 68:4 69:5 71:14 72:15 76:5,19 79:10 82:13 83:19 84:14 88:2,9,19 90:15,16 94:21 95:18 96:9 107:22 108:4,21 116:3,11,12 130:21 132:5 148:20 169:11 169:16 172:4,13 177:5 178:13 182:20 192:12,13,20 193:1

202:14 206:2 208:6 209:10 212:5,5,6,7,13 212:16 226:14 236:10 236:16 245:11 249:13 264:21 295:7 302:7 303:18 305:5,15 306:11 309:9 324:12 326:15 330:17 341:14 410:15 411:7,15,16 420:17 423:4 questionable 147:3,4 questions 12:10 32:19 33:3,6 34:5 35:1,2,11 35:13 38:11 40:14,20 44:19 53:11 67:19,20 71:2,3,9,20 72:1 74:21,22 86:21 87:17 87:22 95:12 97:7 105:17,18 107:20 109:21 143:17 169:10 183:4 184:7 189:22 189:22 192:10 194:8 204:7 205:8 209:8 235:2 259:20 267:17 270:4,21 278:20 282:20 296:8,11,11 302:4 307:5 321:12 322:4 335:22 337:9 374:12 384:14 387:14 413:5 420:5 421:16 430:22 queuing 34:3 quick 63:10 87:22 99:5 192:11 194:15 236:10 236:16 249:13 309:9 312:10 315:7 406:9 quickly 65:4 66:6 136:12 284:4,22 295:10 377:22 Quiroga 2:15 293:19,21 295:20 296:21 297:2 quite 21:3 64:7 227:19 320:12 332:7 346:4 351:7 377:20 quorum 5:12 404:17 quote 173:17 261:17 264:22 345:18 R **R** 10:1,4 11:10 R-E-G-S 429:8 R-I-P-E-R 111:19 R-O-O-S 11:14 race 358:11 **rack** 148:7,8 racks 146:14 148:4

318:21 319:10.22 321:9 325:7 327:8,18 328:1 419:5 427:10 427:14 radio 22:22 38:21 40:7 40:14,14 117:7,14 118:17,22 138:9,12 140:3,11 141:18 178:3 193:17 239:12 239:17,19 250:17 262:1,20,20 283:5 291:12 293:6 297:22 317:17 319:22 323:19 324:15,17 326:3,8,16 327:11,14,17 328:4 328:16,20 329:5,15 329:16 406:22 413:22 414:18 415:3 430:5 radios 14:1 22:11 122:7 130:3,7 142:17 rain 174:21 175:11 raise 8:15 228:16 342:8 360:3 raised 125:13 165:21 168:9 211:9 261:16 348:21 raising 297:22 ram 342:4 **Random** 362:11 range 67:9 75:22 129:15 182:18 345:20 350:16.20 351:15.19 353:11 358:21 378:10 398:5 ranging 56:14 rapid 160:11 294:5 rare 165:16 rarely 366:22,22 rat 412:12 ratings 329:5 rats 321:7 re-application 96:6 re-send 223:7 231:12 reach 71:4 163:22 164:12 166:22 421:16 421:17 reached 118:1 264:20 283:4 398:4 reaching 414:1 read 27:21 125:8 140:14,17 163:5 168:17 237:8 242:5 271:19 272:2 274:16 276:13 288:19 308:19 331:18 345:5 376:6,9 376:16 388:13 391:6 394:8 398:8 readily 115:4 344:2

reading 64:20,21 224:9 250:22 258:8 309:15 310:1 332:5 428:14 428:14 ready 138:3 154:4 343:22 real 61:3 99:5 101:17 102:21 149:1,2 165:7 290:21,21 406:9 real-time 239:5,7 real-world 84:5 199:22 realistic 199:20 293:1 realities 414:17 reality 213:12 289:18 334:21,22 377:11 realm 23:7 48:7 49:13 57:15 60:1 reapply 281:15 rearing 224:22 reason 6:6 64:20 72:9 104:11 126:9 171:18 174:9 178:22 198:11 270:1 332:13 379:6 reasonable 43:11 171:13 252:18 352:21 353:6 reasons 109:7 168:22 173:14 181:15 227:12 228:5 229:3 256:9 402:19 Rebecca 310:6 311:17 Rebel 116:5 recall 266:6 388:15 **recalled** 204:12 receive 109:9 267:21 294:15 376:15 received 14:22 157:11 279:1 296:17 399:12 receiving 12:16 156:22 296:16 305:17 327:9 392:14 recipe 343:15 recognize 8:12 recognized 47:20 317:10 399:18 recognizes 45:5 55:21 **Recognizing** 211:12 212:21 recollection 131:11 251:13 recommend 185:7 200:9,10 214:3 232:19 244:8 317:10 330:10 recommendation 81:8 83:8 123:2 126:13 168:5 169:17 171:12 300:2 364:19 370:21

Neal R. Gross and Co., Inc. Washington DC

radiation 291:19 316:2

316:5,11,13,18

370:22 371:1,6,14 372:1,15 395:16 recommendations 52:18,21 55:5 59:17 70:13 188:17 243:8 247:11,20 367:16 recommended 81:2 125:16 168:7 172:1 219:16 339:13 357:3 368:14 369:3 recommending 251:3 316:1 327:16 328:22 reconcile 78:13 record 11:6 42:22 70:16 80:11 83:14 98:10,11 99:11 109:22 111:17 134:2,16 148:1 157:21,22 199:4 209:21 211:6 212:3 212:12 214:22 226:10 227:11 228:7,11 229:2 231:22 266:13 271:9,10,13,14,17 274:3,3,17 275:10 276:14 279:1,13,14 295:22 296:4.16 307:9,15,17 309:20 314:13 332:6 336:3 359:15 363:4 375:12 376:6,16,16,20 377:2 393:10 420:20 424:9 424:10,20 430:20 431:7,22 recorded 10:6 355:2 424:3,6,10,15,17 426:3 recording 11:9 88:5 354:18 425:7,11,16 425:20 recordings 10:7,7 Rectangle 48:21 recycled 173:9 red 105:10 153:15,16 153:18 160:3 391:12 redevelopments 185:9 Redskins 194:3 reduce 30:21 141:21 232:17 240:6 322:10 reduced 402:1 reduces 114:20 380:4 reducing 28:20 317:11 refer 22:8 27:17 36:4 119:15 130:1 145:4 reference 123:19 205:13,20 245:19 299:22 referenced 97:11 122:5 237:11 350:3

references 317:6 referred 31:22 114:12 302:11 referring 34:10 38:22 refinement 58:6 59:1 refinements 59:4 reflect 45:2 46:15 48:8 233:13 255:14 342:9 reflected 226:15 reflecting 416:20 reflective 426:14 reflects 6:7 refrigerator 57:20 341:4 399:16 414:6 regard 38:6 50:17 233:21 234:2 360:17 regarding 6:3 18:7 42:20 49:16 51:20 52:21 53:10,19 56:11 58:14 63:6 79:15 91:3 94:21 168:10 169:17 243:17 345:8 374:17 421:2 425:7 426:11 regardless 123:8 219:4 361:6 reaimen 264:7 region 173:11 276:21 region's 400:11 regions 358:6 Register 217:1 406:11 407:6 412:2 422:6 423:2 428:14,22 429:2,3,5 regular 404:16 406:13 regulate 39:3,21 110:10 145:13 146:19 245:19 262:19 297:11,14 315:8 322:22 324:7 324:14,17 325:4,11 326:8,16,22 328:19 408:17,19 409:1,7,10 413:2,17 415:9,10 regulated 55:16 145:1 321:15 326:3 regulates 38:19,20 263:10 regulating 59:10 325:5 327:14 328:16 329:5 329:13,15,16,17 402:13 regulation 3:18 40:5 68:15 147:14,17 184:16 328:4 390:3,6 390:11 395:18 431:16 regulations 39:6 95:6 145:9,12 146:17,22 148:2 167:15 239:16 262:5 268:17 297:17

297:17 315:13 321:16 321:20 323:2,4,11 381:15 384:3,6,13,17 387:6 390:15 391:3 408:11 411:19,21,22 regulators 39:20 40:6 40:11,13 regulatory 5:2 81:12 94:2 171:13 184:17 213:5 320:15 398:18 412:5 429:17 reinstall 38:1 reinstalling 35:20 reinstalls 35:18 reiterate 9:18 167:4 297:10 298:5 relate 292:18 related 14:1 22:15 40:14 43:18 44:22 50:1,16 51:6,13 52:1 97:19 148:2 151:22 152:1 168:14 179:8 179:12 193:10 255:15 297:22 298:16 305:9 305:12,13 316:5 319:22 323:2.7 326:22 329:12.14 358:3 367:16,17 369:15 371:21 372:15 412:4 427:2 relates 83:20 154:12 205:12 234:10 relating 291:8 317:17 relation 18:16 30:1 107:15,15 325:11 329:9 389:18 relations 2:4,10 134:6 194:17 relationship 287:17 386:19,22 387:1 426:10 relatively 173:20 301:5 356:1 release 139:2 relentless 50:9 relevant 323:12,13 391:20 413:5 423:20 reliable 136:1 237:15 312:20 313:20 relies 313:8 **relieve** 45:7 relocate 38:1 rely 107:16 138:22 292:13 313:9 relying 163:13 304:22 remain 276:20 remaining 62:16,17 66:15 75:12 195:16

221:3 remains 355:20 remarks 53:19 remember 88:4 90:14 379:20 382:16 remind 381:21 reminded 279:9,10 reminder 42:10,16 140:16 remove 38:1 62:7,9 66:12 removed 35:16 36:7,13 96:5 197:3 241:20 361:14 removing 415:14 render 173:21 237:22 rent 348:12 349:7 rented 104:16 repairing 341:13 repeatedly 57:13 366:9 repetition 50:7 replace 196:11,14 257:16 replaced 95:15 156:12 156:14 167:7,12,22 196:13.16 replacement 167:15 replacing 257:16 **report** 173:12,13,16 317:16 403:8 reports 326:12 represent 10:21 62:6 174:20 269:19 311:20 356:9 representative 111:4 140:8 143:18 235:12 268:15 269:5 273:15 295:22 308:17 332:15 336:12 407:15,16 representatives 41:3 97:17 209:8 295:8 296:12 302:5 307:6 342:22 represented 44:18 235:10,11 350:18,21 representing 42:8 99:9 157:4 236:15 268:19 269:16 270:16,18 397:8 represents 81:10 294:12 repurposed 115:6 reputed 341:15 **request** 14:5 94:5 138:14 278:19 requested 12:21 59:12 213:15 269:8 357:10 431:1

requesting 354:10 365:4 372:19 requests 137:18 238:11 **require** 39:14 55:18 59:1 87:4 88:10,12 164:2,9 174:18 176:2 186:10 188:20 190:7 202:4,22 203:22 239:2 242:9,20 249:1 253:2,11 262:10 264:7 285:20 287:12 289:10 290:19 299:8 380:15 385:5 403:21 404:8 required 15:2 57:4 73:18 90:8 119:9 147:5 182:13 190:12 204:1 209:15 239:11 241:6,16 261:22 288:21 351:21 365:20 386:17 389:20,21 requirement 43:15 63:6 97:13 130:11 168:1 190:14,16 204:16 228:2 241:2 288:1,3 298:2 342:2 349:4 351:2 requirements 6:13 16:9 18:7 73:16 74:8 93:17 138:16 151:10 165:22 166:15 187:4 191:9 223:2 224:15,20 230:10 253:14 254:12 263:3,15,18 265:7 280:12 286:16 requires 9:9 43:5 57:15 68:16 69:1 186:10 230:1 285:13 386:13 394:11 423:19 requiring 59:8 87:2 175:21 267:5 289:17 362:8 research 15:4 151:8 170:22 316:12.17 317:2 318:7 319:8 320:12 researched 15:13 researchers 320:13 resent 189:19 reservations 45:21 46:14 47:21 48:12 49:4 reserve 336:6 reservoirs 173:10 residence 286:7 resident 254:11 310:7 310:21 333:15,16 339:15 405:21 416:5

residential 56:8 136:21 164:6 240:4,5 251:12 349:4 353:8 360:5 400:3,18 residents 54:18 57:6 135:1 136:4,18 160:19 237:14 280:14 294:15 311:8 340:9 340:20 349:3 400:1 402:6 403:2 404:10 residents' 342:9 resolution 236:9 237:9 242:22 243:9 344:10 345:5 354:5,8 resolutions 268:1 resolve 182:6 resources 46:7 103:9 118:3 287:3 322:9 respect 95:9 154:16 285:12 286:14 292:13 315:6 318:3 respectful 137:6 respectfully 138:14 respects 13:5 288:7 respond 403:17 responders 136:10,13 136:15.17 responding 106:11 response 143:20 232:1 305:6 411:17 responsibilities 6:13 responsibility 4:16 40:9 90:4 310:15 396:20.22 responsible 25:11 35:19 206:5,7,9 256:17 responsibly 256:11 rest 42:8 162:17 231:14 253:17 274:16 355:17 363:18 restoration 390:20,22 391:7 restrict 31:8 75:9 restriction 28:21 restrictions 20:18 94:18,22 168:10 209:16 221:6,10,13 221:16,17 357:10 restrictive 61:1 65:16 230:3 327:21 result 6:10,20 8:14 10:1 47:15 48:13 135:12 167:11 283:9 294:10 resulting 357:8 results 173:5 317:19 retired 417:15 revenues 317:22

reverses 67:4 review 12:6 15:4 49:15 59:18 111:21 115:1 176:7 199:1 238:6,8 238:15 241:11 248:4 248:6,9 257:10,12,13 260:15 266:22 274:4 284:18 287:2 320:18 343:8 363:13 369:7 391:16 398:16 399:11 403:3,14 reviewed 111:20 230:12 253:20 282:18 293:9 298:20 362:22 363:16 428:15 reviewers 253:4,7 299:4 391:21 reviewing 54:3 253:15 299:1,5 387:2 revised 73:9 157:11 243:9 revision 343:3 revisions 52:22 revisit 292:6 revolutionary 311:13 378:4 rewards 294:21 **RF** 187:4 RFP 135:20 **rhythm** 27:6 **Richard** 2:16 199:7 268:22 283:20 372:11 ride 133:4 412:14,18 ride-along 104:22 ridiculous 347:22 **rife** 315:12 right- 181:6 right-hand 26:15 right-of- 181:13 183:1 391:14 428:1 right-of-way 207:9 215:9 255:15 265:16 266:3 319:12,16 326:1 329:14,18 345:15 348:4 352:7 353:3 361:1 379:18 397:1 417:5 right-of-ways 180:22 219:20 rights-of-way 380:7 rigorous 136:21 **Riper** 2:12 111:18,18 112:12 113:10,16,19 113:22 116:5,14,17 116:21 117:9,12,16 118:10 119:7,11 121:18 123:5,11,14 123:18 125:14,20

126:1,5,19 127:3,7 128:1,6,9 129:1,5,17 130:14 131:9 132:2,4 132:9,18 133:4 152:22 153:16 202:5 203:20 206:1 224:3 229:15 230:18 231:9 231:18 risk 149:12 150:17 318:18 340:3,21 412:22 risks 400:18 river 174:5 rivers 173:19 174:2 road 105:7 204:1 382:12 383:13 394:3 roads 380:10 roadway 6:21 215:13 298:11,12 roadways 73:4 219:3 **robust** 136:4 190:9 335:9 391:14 392:5 rock 32:6 111:5 role 48:8 53:21 54:12 134:12 135:22 255:17 386:8 roll 207:13 412:11 rolling 414:11 rollout 319:4 335:12 roof 102:11 roof-mounted 358:17 359:8 rooftop 305:9 348:13 349:6 353:10 378:16 rooftops 13:20 304:18 304:19,21 305:12 346:14,18 347:12,17 348:2 352:2,22 room 3:14,22 86:4 158:12 183:19 213:2 230:8 306:3 331:7 336:6 Roos 2:13 11:4,12,13 11:14 12:12,19 17:20 33:3,8 34:7,13 35:7 35:12,21 38:12,18 40:20,21,22 71:14,18 87:9,12,21 88:2,6,14 89:8,10 90:17,20 92:22 95:17 96:17,21 97:7 208:13,18 256:18 root 230:7 231:1,6 361:12,15 roots 229:21 230:16,21 231:2 290:6 340:22 roughly 62:7,12,21 65:9 66:14 82:21 86:6

160:6 162:12 round 22:3 186:5 roundtable 4:2 397:21 398:6 401:20 route 87:3 routes 313:6 row 91:21 338:8 rule 116:3 rulemaking 292:6,8 rules 105:16 107:14 278:12 378:22 run 83:1,4 95:4 115:18 139:18 149:11 150:15 150:17 194:20 215:13 293:4 341:17 run-in 288:13 rung 306:2 running 414:12 runs 350:9 rush 65:5 412:20 rushed 398:16 406:7 Russell's 320:7 S S-A-N- 353:22 S-C-A-R-A-T-O 314:20 S-T-R-O- 158:3 S.W 1:9 4:1 sacrificing 311:3 safe 104:8 319:5 320:19 safely 341:18 safety 37:3 101:22 113:5 170:9,10 188:19 189:3,4 237:14 252:8 297:16 319:21,21 320:17 323:5,9 325:6,12 330:2 335:5 392:2 400:18 safety-related 171:15 Saints 97:22 110:15 sample 313:10 Santa 225:15 Santoyo 2:8 257:11 353:20,22,22 355:14 359:19 364:22 365:2 365:16 368:2,4,8,15 368:18 369:9,17,21 370:2,5,9,12,16,18 371:3,15,22 372:17 sat 338:3 381:11 satisfactory 290:12 satisfied 43:15 saves 108:15 314:6 savings 105:1 saw 38:14 59:6 89:19 204:18 306:13 332:19 384:14

saying 32:15 65:21 79:19 116:7 156:10 171:1 182:8 210:1 216:1 217:10 220:11 225:22 226:4 262:6,7 262:8 264:4 266:17 266:17 269:16 293:5 300:10 325:3,4 327:6 329:16 351:3,5 393:6 407:7 410:3 412:16 412:17 413:16 419:9 419:10 says 125:9 128:13 210:13 246:5 396:16 419:4 420:1 scale 17:15 104:13 339:19 Scarato 2:18 314:14,15 314:20 315:2 322:9 324:16,20 326:4,7 327:2,7,13 328:21 329:4,22 330:11 421:4,9 422:3 423:6 423:13 424:4,7 425:17,20,22 426:18 429:6.10 scarcity 302:19 303:3 scattershot 203:17 scenery 310:9 **scheduled** 401:20 school 333:19 schools 103:5 science 315:14 320:18 427:1,13 428:15 Sciences 316:17 scientific 315:3 414:21 scientist 412:16 421:6 scientists 316:8,13 322:3 427:15 scissors 111:6 scooters 341:18 401:1 scope 114:19 scores 101:19 scramble 282:2 seamless 196:7 search 300:20,22 seat 41:12 48:8 269:2 272:9,15 274:15 308:17 423:15,16 seating 240:16 second 17:7 19:9 20:6 20:14 22:8,17 24:18 29:1 30:10 50:16 61:6 64:3 88:4,8,9 90:15 147:1 162:21 163:4,5 163:7 181:19 186:17 186:17 188:12 197:20 202:18 208:16 254:3

261:1 280:4 350:2 354:13 365:21 370:20 391:20 396:1 401:15 405:10,15 415:13 420:21 423:11 second-floor 251:22 second-story 357:1 secondly 347:14 secret 385:8 secretary 1:19 5:8,14 5:14 section 33:20 34:2,13 43:3 72:2,12 73:1 74:1,11 76:16 91:5,6 91:11,13 93:20,22 94:3,9,9 143:11 165:2 168:8,10 217:22 224:11 233:19 234:10 263:13 391:5 393:13 sections 32:1 33:6 34:8 73:8 93:17,19 398:9 sector 55:20 333:17 security 48:6 50:14 seeing 83:21 97:7 207:22 350:12 395:20 430:3 seek 354:10 seeking 197:18 343:16 347:15 seen 54:20 89:12,18,20 113:6.13 115:8 194:1 244:19 289:17 302:13 331:18 338:6 416:6 419:1 425:7,9 sees 101:16 246:1 segue 82:13 253:1 select 84:1 selected 46:21 239:13 262:2 self-driving 341:16,18 sell 428:17 selling 373:12 send 43:18 98:21 136:13 189:15 sends 419:4 senior 2:14 44:7 sense 84:5 179:2 293:2 338:13 396:3 sensitive 129:2 166:8 175:4 sensitivities 239:20 sensitivity 48:10 201:22 sent 99:18 189:13 317:6 320:6 421:19 separate 145:20 193:6 193:7 223:15,15 244:10 326:14 337:17

355:16 365:18 421:13 separated 28:15 separately 104:19 108:16 separation 93:12 169:19 170:5 185:14 188:19 September 52:13 55:1 55:3 98:15 101:1 111:7,8 244:1,2 267:4 401:13,15,16 sequence 47:16 serious 294:9 414:13 seriously 241:1 serve 93:5 127:14 192:7,7 333:18 serves 406:15 service 55:22 57:7 59:3 114:22 115:22 124:1 124:14 134:20 135:5 136:2,20 165:12 166:4 175:12 181:21 192:2 193:5,5,8 221:1 263:10 265:18 302:22 313:9 315:10 321:22 322:1 326:11 342:1 348:14 358:8 417:16 serviced 347:10 servicemen 315:17 services 37:12 121:7 160:5 162:6 163:12 164:2,7,13 194:3 237:18 278:9 332:1 335:4 servicing 347:7 sessions 120:21 set 16:9 29:18 49:9 50:1 52:9 58:20 102:5 190:10 197:3 241:7 253:7 266:13 267:20 286:15 295:3 321:1 325:16 335:10 336:8 366:2 369:7,9,10 371:8 378:21 381:14 401:17 setback 327:1,4,6 setbacks 324:22 326:2 326:3 setting 51:10 53:1 319:20 356:3,6 359:11 377:18 420:11 settings 46:9 setup 118:16 Seuss 196:21 seven 54:6 89:22 211:3 239:21 seven-inches 183:14 184:3

severely 217:3 sewers 55:15 Shaheen 1:12 5:2 33:4 33:5,12,15,16 34:12 35:4,8,12,13 38:7 71:20,21 72:22 86:19 86:20 88:2,3,8 89:5,9 95:10,11 96:9,19 105:20 106:8,14 116:11,15,19 118:9 129:9,10 130:10 131:2,22 132:3 144:19,20 145:11,18 148:20 149:16 150:7 150:22 172:13,18 174:1 175:16 182:1 182:14 183:6 184:2,6 190:2,3,20 191:11,15 208:5,6 223:8,19 224:8 260:2,3,6,9 302:6,7 303:13,17 304:4,10 shape 32:12 186:5 **shaped** 57:19,20 119:21 share 7:14 98:16 322:11 385:7 shared 228:19 316:4 399:18 shareholders 317:15 318:11.14 she'll 71:5 sheds 48:5 **sheet** 269:14 Shipstead-Luce 21:12 32:8 59:11 shocked 280:15 426:19 shore 323:8 short 28:7 91:4 124:17 215:14 312:10 333:5 335:17 365:9 373:13 398:19 shortages 179:12 shorter 187:3 347:19 shortness 285:5 shot 267:10,13 **show** 7:7 21:13,20 48:10 80:11 99:17 114:5 139:8 140:9 160:1,12 163:20 181:18 326:12 338:5 342:16 363:4 414:22 415:4 showcase 277:3,7 showed 338:4 368:19 368:20 showing 25:17 26:4 160:15 163:10 197:6

201:2 315:14 319:15 334:12 369:2 425:17 **shown** 120:1 132:14 200:12 316:14 319:9 339:2 shows 7:19 25:14 26:1 26:16,19 47:15 65:9 160:2,4,6 186:16 197:14 217:11 369:11 414:21 427:13 shroud 130:1,2 142:18 195:14,15 197:16 238:21 shrouded 179:3 289:11 289:13,13 304:15 shrouding 289:14 303:19 304:5 306:9,9 **shy** 66:10 side 5:22 27:14,15 29:3 29:4,16,16 85:8,10,12 85:19,20,22 86:9,10 101:11 102:11 213:7 213:8 216:20 301:16 326:14 378:2 379:5 417:17,19,20 418:6 sides 125:11 sidewalk 181:12 240:15 312:15 341:5 sidewalks 6:22 56:4 341:13 380:10 400:15 400:20 Sidney 320:6 **sight** 128:7 141:10 240:7 251:21 351:2 400:22 sign 128:12 334:11 sign-in 269:14 signal 109:9,10 215:3 215:18,19 325:14 413:1.3 signals 7:1 215:2,9,12 216:12 339:1 341:1 341:15 378:11 signed 317:8 399:8 403:21 significance 24:15 381:1 significant 46:6,11 50:21 51:11,19 220:3 318:2 356:19 398:17 400:17 significantly 149:14 230:11 318:7 356:2 401:22 signs 214:15,16 215:21 215:21,21,22 216:14 416:21 427:10 sim 183:12 185:2,12,22

186:7,17 187:11 195:12 197:12 similar 7:14 24:1,2 100:22 140:5 145:1,2 145:4 146:11 208:22 318:11 331:22 similarity 203:14 similarly 92:11 simple 20:1,4 22:3 301:5 348:15 **simply** 38:8 80:16 264:21 295:9 327:15 327:16 328:16 394:12 426:13 sims 200:11 simulation 118:14,20 199:21 simulations 114:5 Simultaneous 194:13 196:20 199:8 207:15 212:19 216:4 218:15 222:4 225:6 226:8 268:21 269:21 **Sincerely** 404:20 single 86:12 91:7 149:17,22 155:16 187:16,19,22 242:11 single- 114:13 single-carrier 223:12 sir 99:16 208:16 257:22 297:2 302:16 330:12 337:21 408:12 415:12 415:13,13 416:3 419:18 sister 44:1 sit 124:6 268:15 272:10 307:16 site 106:9 117:21 120:14 130:22 131:1 247:10 259:8 site-specific 396:6 sites 43:9 51:17 112:15 115:9 117:22 sitting 381:19 situated 7:22 264:17 situation 8:14 89:22 96:22 situations 280:17 six 20:1 122:8 123:3.7 180:19 182:9 185:8 195:9 211:3 239:10 345:22 404:8 six-fluted 73:21 six-inch 22:21 six-inches 185:14 232:16 six-oh 237:9 sizable 400:16

size 29:7 50:7 56:9 73:8 85:20 141:22 150:1 183:2,6 238:18 341:4 399:17 405:12 408:14 sized 57:20 sizes 29:10 70:3 skinny 141:18 sleep 326:19 418:19 slice 178:1 slick 119:16 slide 11:20 12:12 14:6 16:7 17:5 19:3 21:18 23:1 25:13 26:18 31:19 32:16 101:15 101:22 102:13 103:18 104:1 105:4 107:6 112:2 114:22 116:1 118:11,19 120:9,19 139:16 140:4 142:2 142:19 143:2 159:11 160:12,15 183:9 186:12,21 187:19 188:3,8 195:8 197:5 197:11,15 201:10 316:15 317:8,14 slides 63:13 157:12 159:4 163:20 368:19 slight 250:16 **slightly** 41:9 67:8,12 122:15 251:8 slim 119:16 slog 217:11 slow 381:12 387:7 slowing 389:6 slows 109:1 small/smell 261:20 smaller 93:6 114:9 124:4 125:7 129:13 131:4,5,12 139:20 149:9 156:3 191:16 224:16 smallest 190:4 smarter 179:17 smartphones 277:16 352:10,15 smattering 389:3 smell 261:18 **Snoop** 172:7 sold 410:12 **solely** 25:4 **solicit** 286:5 solution 57:16 58:11 59:21 121:9 155:17 155:19,20 181:16 190:9 223:12,13 290:12 solutions 53:2 117:18 135:10 176:6 195:10

solve 115:5 **somebody** 342:15 376:6 424:22 somebody's 120:18 306:2 somewhat 313:11 somnambulistic 3:10 soon 111:12 243:11 283:16,17 330:16 331:22 sooner 282:11 294:20 334:20 335:13,13 sore 283:21 sorry 82:1 97:14 100:21 108:20 116:2 125:1 129:8 163:6 168:9 170:16 177:4 182:22 186:20 188:21 200:2 218:17 232:6 235:11 236:13,14 269:3 274:1 297:8 307:15 314:18 366:19 376:2 397:9 405:6 406:2 409:20 411:14 413:21 sort 33:20 60:13.18 61:22 63:7 66:20 67:17 69:12,14 70:3 77:7,20 79:5 109:17 177:20 200:4 207:9 210:7 284:11 287:14 288:18 345:19 347:11 378:16 382:10,12,15 384:5,7 385:7,10,15 385:20 386:3 sorts 412:4 sought-after 284:9 sound 213:5 261:20 281:19 341:20 sounded 210:12 367:22 368:3 424:18 sounds 149:2 210:15 226:20 302:8 340:7 366:4 source 206:12 sources 173:6 south 29:16 30:17 73:4 85:12,20 86:3,10 Southeast 431:17 Southwest 48:22 431:13,18 spaced 27:5 30:4,6 149:18 spaces 45:13,21 46:12 47:5 50:15 51:8 53:6 84:9 319:5 400:21 416:22 spacing 26:20 27:1,3 28:13 30:1,9 35:19

36:6 49:18 50:1 58:20 95:5 123:20 124:11 125:2 130:11,15,16 132:14 138:16 151:10 290:15 spare 341:18 sparse 102:4 speak 10:14 33:10 41:22 71:8,15 87:11 121:5 139:6 229:5 235:9,13,15 257:4 258:3,6 267:20 268:16 269:8 270:2 275:3,6 276:4 294:1 312:21 314:9 336:10 336:13,15 337:1 375:15,18,19 384:20 421:1,3,8 424:16 428:10 429:15 speaker 41:22 speakers 397:10 speaking 65:9 82:2 194:13 196:20 199:8 207:15 212:19 216:4 218:15 222:4 225:6 226:8 233:14 249:3.9 250:2 268:21 269:21 271:20,22 295:9 296:13 297:8 369:4 384:5 410:5 430:15 speaks 259:16 **spec** 182:21 **special** 32:10 319:2 340:7 specialized 383:19 specific 15:12 16:4,17 18:7 21:9,17 27:6 32:19 34:8,22 35:1,2 65:17,17 69:20 82:19 123:16,16 126:7,12 126:12,13 130:15 131:19 146:18 148:4 168:4 170:3 176:14 211:4 242:11 245:2 258:14 271:4 285:8 295:13,18 296:8 300:21 323:1 324:14 369:19,22 370:3,6 371:1 393:7 395:14 399:5,7 408:13 specifically 19:12 20:13 21:14 40:17 61:20 72:11 79:19 88:20 93:20 130:12 174:2 202:11 233:18 261:15 305:19 311:1 330:8 388:3 specifications 16:9

184:17 391:8 specified 238:22 241:3 288:1,22 **specify** 289:2 specs 120:7 223:4 225:3 spectrum 115:3,3,5,6 116:12 117:2,5,7,8 118:3 213:7,9,10 377:15 **spectrums** 191:18 speculation 137:2 315:9 speed 292:15 366:15 366:16 389:7 398:13 speeds 294:16 326:13 429:21 **speedy** 294:18 311:15 312:20 spell 8:22 11:5 42:11 98:11 111:17 157:21 194:21 226:10 309:20 310:2 314:18 376:20 405:17 416:2 spelled 195:4 226:13 359:21 376:22 405:20 spend 287:7 spent 112:13 114:3 120:22 **spin** 133:1 **spinning** 132:20 **spoke** 32:18 421:18 **spoken** 226:5 375:14 422:11 spokespeople 193:22 sponsors 58:9 sports 109:17 spraying 315:15 spread 67:1 spreading 102:22 Sprint 318:10 squarely 333:22 stacked 140:11 staff 1:14 4:10 14:14.15 36:1 43:19 44:16,20 44:20 45:3,5 46:17 47:11,17 49:6,15 51:21 53:17 364:14 364:18,18 415:15 staffed 365:10 stages 120:17 stakeholders 6:3 9:21 10:21 14:8 135:9 137:4 276:18 stand 141:13 272:11 423:19 standalone 20:15 23:16 23:19 24:8,17,18

36:11 47:14 49:19.20 50:17,19 53:4 82:10 86:5 165:5 168:11 233:20 360:18 361:3 361:11 362:2 standard 24:20 107:9 148:8 170:3,4,6 171:22 172:1 189:3 195:18 232:15 233:4 245:21 246:18 248:4 289:4,8 291:7,8 298:2 377:18 391:8 standardization 213:6 standards 6:14 56:14 59:7 74:3 105:16 148:18 152:1 167:9 188:19,19 189:3,5,7,9 189:10 201:18 203:15 220:6,10 221:6,11,12 222:21 233:13 246:17 248:11 252:18 255:6 255:8 260:15 263:3 264:8 265:7 288:16 288:17 291:6,18 292:6,15,16,20 295:3 299:17 311:16 314:10 323:6 329:19 335:10 366:3 367:7 377:19 386:1 390:20 391:1,7 402:16 413:14 420:11 standpoint 189:5 365:4 Starsky 172:11 start 11:1,9 14:18 65:14 172:7,8,9 235:9 245:2 245:9 262:18 267:11 275:8 281:22 301:2 309:18 322:13 338:2 345:14 362:16 364:6 364:9 405:11,16 started 15:7 162:2 244:22 430:18 starters 377:10 starting 5:5 19:10 282:11 starts 32:5 171:2 startup 277:8 312:14 313:18 state 5:8 11:5 22:14 39:5 43:10 59:2 91:16 93:1 98:10 111:16 192:5 209:4 226:10 234:9 237:16 263:17 264:11,11 275:10 280:5 350:22 376:19 392:7 396:18 stated 39:3 143:20 192:5 365:22 statement 72:17 126:12

202:14 299:14 324:12 statements 48:15 282:19 332:9 341:19 states 150:12 224:11 267:8 317:16 327:22 350:16 351:7 402:5 stating 179:11 stay 217:18 358:10 414:14 stealth 140:6 stealthiness 283:8 step 69:17 71:10 139:1 308:22 375:10 step- 384:15 Stephen 2:17 311:19 312:12 stepped 105:20 steps 47:17 72:20 293:15 401:4 Stewart 249:22 stick 70:3 119:16 stock 103:11 stop 17:6 214:15 215:21 354:14 365:11 367:3 370:17.19 387:13 414:10 420:12 stopgap 340:4 storefront 240:15 stories 347:5 story 86:6 215:14 305:14 335:17 Stover 158:7,12 straight 120:1 straighten 299:21 straightforward 91:17 212:16 313:12 strand 139:18 141:4 155:14 222:16,18 223:8,9,11,19 227:19 strand- 223:4 strand-mounted 222:19,21 225:2 stranger 136:18 strapped 417:17 stream 115:19 278:1 streamlined 114:3,9 130:8 streams 359:10 street 1:9 4:1 6:22 7:1 11:15 18:12 19:12,19 20:16 21:22 23:12 24:12 25:8 27:5,14,15 27:20 29:4,5 30:2,6 31:17 35:18 36:4 37:4 57:22 65:6,6,18 84:15 85:7,9,22 86:17 104:14 105:3,4 108:10 151:3,16

155:1 166:18.19.20 166:20 168:19 169:6 175:22,22 214:16 219:9 243:4 252:7 256:11,16,19 278:8 289:5,6 293:1 339:5,6 339:10 341:11 345:19 345:20 347:22 352:3 356:14,16 360:4,11 360:15,18,20,21 361:5,12,14,22 362:13,19,20 365:17 379:5,10 388:3 392:1 416:11 417:13 418:8 418:16,21 419:7 422:19 431:12,16,18 streetlight 62:5 65:8,11 66:3 85:8 90:5 103:14 108:18 168:16 219:5 409:11 streetlights 62:11,12 62:13 93:21 95:3 137:21 139:4 147:20 147:22 168:12 256:19 streets 23:8 24:17 28:2 45:21 46:13 47:7 56:4 65:7.19 103:4.4 105:3 109:19,19 154:19,19 310:10 338:21 339:19 341:12 381:2 382:6,7 419:20 **streetscape** 7:5,10,12 18:15 27:1 37:3,21 38:4 50:4 61:4,9 72:5 78:7.11 137:6 284:8 341:8 348:19 355:18 355:22 356:2,22 357:1 381:3 389:19 402:4 403:10 streetscapes 50:13 58:3 260:22 348:4 402:10 strength 334:13 stressed 241:13 stretch 65:12 strict 220:6,10 stricter 72:12 stringent 145:8 189:10 362:9 366:21 strings 215:8 strive 313:19 Strohmer 2:16 157:17 157:18 158:3,3,7 180:6 182:3,11,16,20 183:4,8 184:4,19,21 189:1,18,21 190:6 191:1,4,10,14,17 192:22 211:20 212:1

212:17 213:21 216:1 216:7,15,17 217:13 218:1,4,8,10,16,22 219:17,19 221:8,14 222:9,11 223:22 234:7,17 strong 51:12 61:16 93:10 176:9 291:13 341:21 stronger 74:6 387:5 strongly 49:7 302:9 402:19 420:7 structural 90:6 282:22 structurally 93:10 196:12 structure 189:2 198:19 247:18 structured 383:11 structures 150:4 180:21 220:22 278:8 283:2 349:9 360:22 391:9 stuck 341:7 studied 303:1 340:14 **studies** 317:3,5,19 319:14 357:14 415:4 studiously 98:12 study 46:21 47:6,22 50:3,12 73:13 136:5 172:22 173:4 230:9 231:10 stuff 92:16,17 93:2 198:9,21 378:16 **style** 52:4 141:17 styled 142:15 sub-issue 209:13 sub-market 352:13 sub-paragraphs 210:1 subject 10:6 37:22 39:19 40:5,8 68:8 105:12 107:16 145:8 171:9 202:13 217:19 239:17 244:11 245:22 253:15,20 286:16 343:3,19 403:2 409:6 424:15,16 426:3 subjects 6:12 submerged 166:6 submission 257:14 submissions 257:13 submit 106:12 201:16 226:3 239:3 269:22 349:20 401:18 submitted 97:11 121:19 121:19,21 226:16 236:17 238:5 269:20 279:20 314:16 315:4 337:6,10 345:6 350:3

354:5,7,8 357:22 361:8 370:7 376:22 submitting 70:13 393:14 subscribers 161:13,14 subscribership 161:12 subscriptions 160:3 subsequent 286:13 subsidiary 275:18 substantial 75:16,18 128:20 147:7 148:2 315:4 346:9 373:11 substantive 43:17 249:3,10,15,18 250:8 250:10 255:19 271:3 substantively 253:20 success 334:2 successful 57:13 331:8 successfully 90:10 sufficient 23:21 31:6 66:22,22 67:15 201:21 suggest 154:8 224:13 232:14 233:2 285:16 289:2 suggested 59:4 231:10 287:19 352:4 356:15 suggesting 174:12 283:11 293:10 suggestion 366:5 412:11 suggestions 55:5 211:4 suitable 56:20 282:1 summarize 55:11 159:6 166:1 284:4 summarized 157:12 summarizing 81:19 173:3 summary 330:6 summer 153:21 **sump** 181:10 183:19 super 117:1 super-fast 326:12 super-secret 385:8 Superdome 98:2 supervise 364:4 supplement 170:18 184:12 347:2 supplemental 15:19 16:4 345:7 supply 221:1 support 9:9,11,11 51:13 57:5,8 61:7,12 61:16 102:21 207:12 242:22 283:2 290:11 334:14 344:10 345:4 354:4 357:22 358:15 361:10 369:4 398:12

			467
445.47	000:0 004:04 070:00	0.7 0.0 40.04 40.4 0	to may 07:40 40 400:40
415:17	206:2 234:21 279:22	6:7 9:9 12:21 13:4,8	term 27:12,18 132:19
supportive 302:9	315:11 320:11 339:11	13:11,18,22 14:2,21	316:20 363:8
330:15	342:16 377:11 379:1	16:5,14 37:11,14 45:6	terminating 48:5
supports 49:7 60:8	390:17 417:22	49:11 56:1 57:14	terms 21:22 26:22 27:9
237:11 361:2	talked 118:12 185:3	59:22 75:11 88:15,18	30:3 33:22 36:2 38:7
supposed 287:18	219:10 221:6 368:9	88:21 90:9 99:8 100:6	38:20 74:7 78:19 89:8
342:16,19 381:15	379:21 381:4 392:18	100:8 102:18 112:19	90:9 91:17 94:18 95:4
surface 132:16	talking 74:1 84:21	115:13 117:18,21	101:18 105:22 203:14
surfaces 173:9	156:16 175:6,9 178:4	129:3 134:12 136:9	208:7 262:13 263:5
surpassed 160:19	178:14 209:2 214:22	163:22 178:15 193:16	272:1 305:10 321:4
surprise 344:21	219:19 256:13,15	203:22 205:12,18	352:9,15 377:21
surprised 8:21 9:1	286:9 291:11 306:5	207:12 208:8 237:16	384:11 386:1 389:6
323:21 345:12	328:8 329:4 350:13	241:17 242:2 245:11	392:18 399:8,9 407:4
surroundings 310:20	368:2 379:15 382:17	245:15 247:16 277:15	410:21 428:6 429:19
surveys 161:21	382:18 383:12 408:10	278:13,18 281:15	test 58:19 262:11
susceptible 166:10	411:13 419:12 422:12	295:11 298:10,13,16	330:20 331:7,8,20
173:21 174:8,13,19	425:15	311:5,13 312:14	tested 90:10
176:19 179:12	talks 18:14 229:19	313:4 323:17,19	testified 290:10 352:20
sustainable 402:8	tall 22:6 89:20 90:1	324:3 330:15 333:16	testify 134:10 295:5
sweat 320:10	92:19 93:11 94:12	333:19 334:2 335:3	312:3
sweeping 124:11	122:6,9 141:22	340:4 341:14 343:19	testifying 226:21
swift 121:8	183:14 187:13	343:21 377:22 378:17	279:19 350:18 407:18
switch 193:14	taller 23:22 94:5,10	379:3 397:12,22	425:13,14
switched 96:2	122:15 189:1 367:21	398:19 401:5,10	testimony 270:6,22
symbol 54:16	tangle 57:21	402:14,18,22 403:6,9	279:7 285:2 309:16
symmetry 341:8	tangled 354:14	403:15 404:9,13	330:18 333:4 337:4
sympathetic 353:3	tank 315:3	412:12,19	337:10,18 339:4
system 36:5 74:4	tap 335:2	technology's 35:15	375:2 376:15 377:1
183:20 239:14 252:15	tapers 20:1	378:21 381:13 382:14	testing 263:4,6 264:7
252:16,21 253:2,2	taught 135:20	387:8	265:8 359:1
258:16 259:3,4 262:3	teacher 85:5	tee 411:15	tests 317:1
392:6,8 415:5 418:13	team 97:21 127:2 299:5	tel 193:6	thankful 299:4
systematic 320:18	313:22 314:3,7	telco 175:1,4,5 176:20	Thankfully 311:4
systems 57:4 319:7	teaming 107:22 108:4	telecom 37:12 169:21	thanks 153:8 276:22
398:13 415:7 418:15	157:19	194:3 227:21	that'd 189:20 203:18
т	tear 20:8 26:1 382:6	telecommunication	312:4,6 329:20
	teardrop 185:3 234:14	52:3	Theater 275:4 308:9,20
T-H-E-O- 314:21	teardrops 143:14	telecommunications	309:11,12,15
T-O-Y-O 354:1	234:11	9:12 97:19 99:9 377:6	Theatre 332:8,18,22
T-T-H 99:21	tech 277:9	382:1 398:14	375:22 376:3
T.V 407:1 428:18	technical 43:17 93:13	telephone 177:17,18 television 193:5 194:2	theirs 200:14 theme 225:5
table 41:12 111:5	114:11 117:1 120:7	tell 7:10 109:13 115:21	Theodora 2:18 314:14
179:10 268:15 274:22 307:16 308:17 355:10	128:17 169:10,16		
401:22 406:9	177:7 179:6,14 182:21 184:11,12,16	117:1 121:22 147:13 147:16,18 200:13	314:21,21 they'd 272:11 349:10
tablets 277:17	189:22 249:5 281:12	225:7 264:18 266:22	391:7
tag 107:22 108:3 127:2	282:22 288:4 291:4	289:22 317:13 332:13	thick 391:10
157:19	316:5	364:12 411:11 422:11	thin 337:19
takeaway 75:5 381:10	technically 281:1 378:9	telling 209:11 350:14	things 11:22 15:20
taken 87:3 93:9 197:4	technician 1:17 5:20	371:4 389:1 429:22	17:22 18:16 78:6
217:15 240:11 243:16	technique 245:8	430:1	89:16 176:10 191:7
344:18 401:4	technological 89:1	tells 225:18	211:21 212:2 213:10
takes 77:13 83:4 267:10	118:1 251:6	temperature 182:18	227:20 232:8 250:6,9
301:1 384:4	technologies 2:17	ten 8:19 9:3 189:1	258:11 282:8,17
tale 382:15	112:20 275:4 278:3	240:9 340:17 347:9	284:10,14 285:1,6
talk 8:4 11:12 37:6 41:8	308:5,6,18 311:20	347:14 351:20 372:21	289:14 298:7,8
65:3 72:4 81:7 112:18	334:19 335:14	373:1,4 379:15	321:17 334:22 367:20
179:22 188:15 195:10	technology 2:6 4:20 6:4	tend 49:20	368:15 377:13,20
]		
н			

379:6,19 380:15 381:8,11 384:11,21 385:4 386:11,20 387:1,13,18 389:18 393:3 409:15 414:8 428:18 things- 163:17 third 20:22 51:9 186:7 186:18 188:6 209:12 431:13.18 third- 21:1 61:20 67:5 91:1 167:5 168:12,15 219:5 221:4 third-floor 252:1 third-party 26:11 91:8 92:12 167:5 169:2 360:20 third-party-75:12 **Thirteen** 241:12 thorough 32:22 208:18 342:7 thoroughly 92:5 thought 26:22 144:21 145:4 159:18,20 259:18 270:1 291:3 339:4.10 347:1 365:2 367:20 382:2 421:10 421:13 thoughtful 44:19 284:18 thoughtfully 19:2 thoughts 76:22 thousands 56:7 138:21 414:21.21 thrashed 384:22 thread 76:12 threat 341:11 threatened 425:8 threatening 425:2 three 11:22 66:3,12 85:17 86:7,8,9 116:9 121:22 173:6,19 197:3 209:3 210:3 212:10 232:15.20 238:3 239:2,13 242:13 257:12 262:2 287:19,20 337:2 350:9,10 375:8 403:7 three-block 65:11 threshold 162:21 threw 158:10 throat 283:21 throats 342:5 thumb 64:9,12 Thursday 3:22 397:11 **Tickets** 366:22 ties 289:3 tighten 372:10

Tim 68:3 timed 306:4 timeline 114:20 154:16 timelines 120:11 times 56:13 86:17 113:7,20 182:6 201:13 351:20 421:14 timetable 398:16 **Timothy** 2:19 60:6 Title 391:2,5 titled 91:6 to-date 399:8 to-day 400:5 today 4:19 13:9 18:20 32:19 45:1 47:1,19 60:19 62:3 63:18,21 112:22 114:12 120:20 121:6 135:12 136:1,7 158:13 163:16 181:18 195:10 211:14,17 213:17 228:12 231:16 244:21 279:22 280:17 281:12 301:12 302:20 303:12 307:6 312:21 314:9 331:20 334:4 345:5 350:13.19 351:3,5 352:20 356:5 357:11 381:4,19 397:17 398:3 401:21 425:7 427:3 today's 5:15 6:1 9:18 11:21 112:18 113:1 133:18 277:12 told 90:9 97:15 309:14 332:22 342:18 362:2 430:2 tolerable 213:14 Tom 382:5 tomorrow 301:13 tool 301:6 tools 131:14 247:9 top 16:2 19:10 20:2,10 22:4,7,22 24:3,4 52:5 77:9 89:20 94:14 104:1 114:9 122:5,7 122:18 130:2 139:14 140:2,15 141:6,20 142:8,21 143:11 155:5 160:2 185:13 186:1,3 188:1,11 195:14 197:14 206:14 206:21 207:2,3 229:18 252:15,15,19 252:20 277:9 304:3 347:4 348:22 366:11 419:1 429:14 topic 44:22 50:16 topics 49:17

topology 52:15 tore 382:7 **Toronto** 7:19 total 26:16 29:14,16 30:14 62:13 187:13 210:9,19 totally 7:11 341:17 355:18 366:11 425:3 totes 170:18 touch 105:1 392:12 420:1 tough 220:5 256:7 tourism 101:20 400:12 tourists 284:10 touting 161:5 358:22 tower 387:3 towers 13:20 357:17 358:17,21 359:8 town 139:14 243:22 284:16 406:7 townhomes 252:2 townhouse 149:19 townhouses 150:3 towns 8:2 toxicity 415:5 Toxicology 321:7 toxin 415:1 track 134:16 199:5 218:12 274:18 386:11 414:11 tracking 300:19,21 traction 388:21 trade-off 311:2 traditional 385:14 traffic 7:1 51:4 104:15 104:20 106:5 108:11 153:6 196:8 214:2,5,6 214:10,13 215:1,2,3,9 215:12,19 219:1 277:18 312:15 313:6 325:11,14,15,16 392:2 train 232:7 381:12 387:7 389:6,7 414:10 trainings 392:6 transcribed 10:1 transcriber 42:12 transcription 10:3 transferring 312:19 transformer 105:14 179:1 transformers 92:8 220:8 transit 6:22 335:6 transition 310:16 313:11 transmission 358:17 transmit 109:11 117:15

transparency 236:2 300:9,11,13 transparent 302:1 transportation 4:10,11 4:13 5:4,18 11:3 14:12 26:10 39:17,18 40:3,10 103:5 120:22 252:6 264:13 297:13 363:16 431:15 Transportation's 4:7 trash 115:21 277:21 414:3,3 travel 341:1 378:11 traveled 302:17 traveling 314:1,4 treat 256:4 288:7 treated 38:8 340:10 treating 59:2 148:16 340:6 tree 48:6 229:21 230:7 230:16,21 231:2,3,6 255:22 256:12 290:6 361:5,7,9 362:5,19,20 365:17 392:1 tree-lined 339:19 trees 2:3 7:1 18:16 51:3 130:22 181:2 230:17 230:20,20 233:22 243:3 256:16,20 257:3 259:10,11,16 259:19 268:10 275:15 275:17 276:3 290:6 316:14 332:14 336:12 338:21 340:19 341:11 351:3 356:1 359:21 360:4,7,8,10,11,13,15 360:18,21 361:2,13 361:14,19,22 362:6 362:13 363:14 364:12 364:13,16 381:6 386:22 trend 334:11 Triangle 48:21 102:13 tried 69:17 133:10 351:16 421:14 tries 287:2 trim 340:22 trimming 362:5 tropic 173:7 trouble 147:2 364:15 truck 104:16 106:6 108:11 155:4 196:6 372:8 trucks 128:12 149:12 150:20 151:2 true 45:19 50:11 69:10 81:22 82:1 202:16 412:17

Neal R. Gross and Co., Inc.

truly 33:1 48:9 384:14 415:17 422:3 trust 2:18 221:21 254:1 264:3 314:16 315:3 316:4 358:2 363:8 372:22 421:6,11 truth 350:14 try 41:22 42:12 64:15 282:3,7 303:10 363:9 384:17 trying 64:1 88:22 109:4 109:7 140:9 150:20 182:18 220:18 226:18 227:4 307:2 328:2 342:4 351:10 421:15 tunnel 414:15 Turmail 404:21 turn 9:15 109:3 112:3 113:3 127:8 167:4 169:9 409:5 425:15 turned 33:11,13 turns 10:14 332:9 **TV** 193:22 194:1 **Twelve** 241:5 Twenty-fifth 111:10 twice 140:19 twin-20 48:3 49:5 56:16 80:21 96:3 97:4 twin-20s 24:10,13 62:9 77:15 78:9 80:18 two 4:9 8:2 9:5 20:2 22:4.10 24:6 30:20 54:20 85:17 86:10,11 88:3 89:19,19 95:11 116:9 126:2,4,17,22 127:13 131:16,20 135:7,13 139:19 140:21 149:22 150:3 152:20 157:12 159:4 163:20 167:3 174:2 184:22 185:15 186:1 187:14,15 188:11 190:15 194:1 196:6 197:3 199:7,17 209:2 209:12 212:9,18,21 232:8,21 238:18 242:12 258:11 268:14 280:20 295:7 296:12 303:4 334:1,5 336:16 355:16 367:20 368:15 399:15 403:5 430:21 two's 126:6 two- 22:5 two-feet 185:14 232:16 two-foot 22:21 two-year 161:17 type 19:22 20:6 21:5,5 23:6 24:16,18 31:12

31:18 36:6 38:5.6 39:12 58:20 62:8 65:17 91:7 92:2 117:20 132:12 139:17 142:11 144:6 148:19 185:6,7,8,10 186:9 190:14 191:6,7 215:3 220:8 221:1 244:18 249:8 259:1 287:3 365:18 377:13 383:20 395:19 types 19:7 20:3 22:5,10 23:3,13 24:6 25:3,15 37:13 58:16 66:13 80:22 84:3,9 97:1 144:22 145:2,2,3,21 204:22 258:21 typical 21:2 30:9 typically 13:19 19:13 21:4 30:6,7 typology 57:17 82:18 U **U.S** 14:14 46:10 47:9 53:18 208:11 238:6 241:10,14 297:12 **Uber** 133:2 ubiquitous 9:4,5 109:8 ugliness 343:17 Uh-oh 237:6 ultimately 10:17 213:15 231:22 371:19 ultra-low 115:17 unacceptable 147:12 341:17 unaware 428:12 uncomfortable 427:4 under-oath 279:7 underground 51:13 59:8 61:14 144:11 165:22 166:12 175:15 175:21 176:18 177:19 180:7,20 181:16 201:19 241:16 342:1 399:21 412:13 underserved 103:3 335:7 understand 46:19 52:2 64:7 69:10 83:10 116:10 120:13 124:9 144:4 145:16 151:1 171:12,20 175:16 179:8 197:1 198:13 209:20 212:22 214:10 227:5 231:4 254:3 262:20 264:2 285:19 289:21 320:19 325:9 327:3 328:9 330:8

333:2 342:1 343:11 344:1 363:2 372:17 381:13,16 387:7,10 396:19 421:9 understanding 44:21 51:19 93:7,16 94:4 178:10 199:22 205:15 232:2 291:10,11 413:8 understands 178:14 213:20 understood 79:18 248:20 252:5 254:16 274:11 308:14 332:18 371:18 undertaking 43:12 383:17 undertakings 43:6 undertook 46:18 underwater 166:6 undivided 336:21 undoubtedly 163:3 unfettered 319:4 unfold 387:12 unfortunately 64:19 126:9 161:2.15 250:5 304:7 unhappy 280:15 uniformity 203:19 uninformed 316:3 **unique** 7:4,5,15 13:2 14:4 16:18 48:1 49:9 51:9 52:3 53:1 58:17 255:16 355:21 356:12 381:3 402:4,10 uniquely 7:22 unit 399:17 **United** 150:12 327:21 units 399:16,20 universe 75:9 universities 230:10 323:22 University 324:2 unlimited 103:9 unlock 334:17 unloosing 381:1 unnecessarily 51:16 unobtrusive 310:20 unpermitted 363:7,8 unprecedented 48:2 294:15 unreasonable 143:21 144:1 unregulated 382:10 unshrouded 288:13 289:15 unsightly 289:14 unsupervised 362:11

unusual 145:13 updated 98:14 upgrade 36:3,4 96:1 upgrades 242:14 upgrading 250:20 312:18 upper-left-hand 198:6 ups 59:13 upsetting 280:18 urban 2:14 44:7 136:20 231:7 237:21 253:5 253:13 254:6 255:17 255:20 256:9 298:22 311:8 360:9 362:22 363:13,17 364:10 366:2,3 367:10 **urge** 121:2 311:14 369:12 402:20 urgency 206:17 urgent 112:22 316:9 377:20 423:18 urges 362:6 urging 280:1 usable 352:14 **usage** 159:19,22 **USB** 405:3 **USCFA** 2:7 use 4:18 6:11 7:6 27:12 27:18 37:8,20 39:12 40:7 42:2 79:20 98:15 98:18 111:12 113:4 119:1 129:22 133:10 138:7,12,15 140:2 143:13 144:7 150:18 150:20 162:10,11,11 162:17 192:4 193:16 214:19 221:9 223:16 240:10 247:16 250:19 278:1 283:6 297:12 316:7 322:17 323:5 325:10 347:21 352:11 352:15 374:9 377:15 401:1 417:5 useful 73:10 304:22 user 13:21 108:21 115:16 118:7,13 134:21 190:17 378:14 380:15 user's 130:15 users 9:14 101:14 118:4 145:7 146:11 149:13 190:11 uses 6:15,21 8:9 165:17 176:13 312:14 322:22 **usually** 106:21 161:17 175:5 177:22 utilities 144:11 154:22 175:21 181:2 222:1

290:6.8 utility 6:8 9:12 21:2 37:19,22 38:8,9 39:12 39:13 90:18 91:2,3,9 91:14,20 92:7,12 93:2 93:3,3,22 94:11,19 139:15,19 148:3 154:4 156:16 176:17 188:9,15,18 189:2,5 219:22 220:2,4,5,7,12 222:17 223:1,17 227:21 256:3 265:13 265:14 278:7 321:14 321:15 399:19 404:13 utilize 23:13 utilized 101:21 V V-A-N 111:19 V-I-T-E-R-I 8:22 309:22 333:15 vague 292:6 384:7 Valley 293:11 329:7 valuable 17:9,11,17,18 319:16,18 345:16 348:6 353:4 value 357:12 373:12 values 55:19 357:16 Van 2:12 111:18,18 112:12 113:10.16.19 113:22 116:5,14,17 116:21 117:9,12,16 118:10 119:7,11 121:18 123:5,11,14 123:18 125:14,20 126:1,5,19 127:3,7 128:1,6,9 129:1,5,17 130:14 131:9 132:2,4 132:9,18 133:4 152:22 153:16 202:5 203:20 206:1 224:3 229:15 230:18 231:9 231:18 variety 4:18 6:3 14:8 84:3 148:2 168:21 253:4 271:8 366:10 various 14:11 49:22 246:19 280:13 345:17 vary 28:3 varying 52:7 59:10 70:3 70:3 84:11 vastly 350:20 vault 166:12 176:21,22 177:19 178:9 180:7 183:7,17,18 203:5 205:5 261:13 vaulting 51:20 165:22 166:2,15 179:8

201:19 202:2.13 203:3 204:3,15,20,22 209:14 212:10 261:12 289:21,22 290:3,8,9 vaults 22:15 59:8 61:14 138:12 144:9,13 172:15 175:1 176:1,2 176:5 179:1 180:14 180:18 181:2,16 182:8 183:1,5 209:15 241:15 260:10,11 VDOT 108:11 vegetation 198:6 199:3 vehicles 379:4 ventilation 181:10 182:12 183:20 201:21 vents 181:12 venue 367:4 verbally 226:5,21 verified 221:21 Verizon 2:11,16 26:12 63:1 111:1,13 157:4 158:6 164:5 174:20 175:1 189:10,11 191:17 192:1,10 193:5.11 202:10 203:7 204:9 207:6 210:5 214:8 220:9 221:17,18,20 223:22 225:21 226:1 346:12 347:15 350:4 351:6 358:22 368:19 407:16 Verizon's 224:2 350:4 351:1 352:19 verse 146:22 version 241:22 242:6 245:13 versus 18:9,12 34:11 76:13 87:2 89:17 322:21 379:10 vetting 148:13 342:7 viable 214:18 video 273:18,18 274:2 274:3,5,6,8 350:3,9 350:12 376:11,13 405:1 411:21 412:9 419:14,15 videos 278:1 view 48:5 50:6 69:18 246:13 291:1 348:1 425:1 views 16:19 46:9 47:7 51:16 356:9,22,22 424:10 violations 367:8 Virginia 8:4 129:19 134:22 135:5 virtual 334:21

visible 200:15 304:6 vision 414:15 visit 138:21 284:10 visitor 310:21 visitors 135:1 400:1 402:6 visits 47:10 vistas 16:19 47:8 400:6 visual 10:7 17:3 50:5 56:6 57:10 64:17 107:4 128:4 261:6 357:9 360:21 379:12 400:2,17 visually 128:18 visuals 65:1 vital 9:12 402:11 vitality 295:2 vitally 334:1 Viteri 2:10 8:21 308:19 308:21 309:4,6,9,14 309:18,22,22 310:4,6 312:7 332:4,17,21 333:6,8,11,14,15 335:16.19 voice 37:7.8 42:3 160:8 160:9 162:6.6 163:11 163:16 193:5,15,15 193:17 278:9 voiced 56:5 voices 296:4 **VoIP** 160:5 193:4 volume 287:20 383:14 **volumes** 51:4 volunteering 257:20 vote 237:9 238:9 254:8 255:1,2 257:15 258:4 404:15 voted 254:13 vulnerable 319:9 W W-A-D-L-I-N-G-T-O-N 276:10 **W-A-I-T-Z** 194:17 Wadlington 2:9 276:8 276:10 279:2,14 296:2 wait 163:5 235:1,1 269:1,1,1 270:17 271:1 333:1 waited 270:9 waiting 103:12 138:4 159:12 192:16 227:12 270:8 333:4 Waitz 2:10 194:16,16 195:1,5,7,22 196:12 196:17 197:1,22

vis-a-vis 360:18

198:4,8,13,18 201:9 202:7 224:6 232:5,8 233:1,6,9,15,17 234:5 waivers 341:21 walk 3:13,15 113:5 388:1 418:7 walkability 101:19 252:8 walkable 402:8 walked 86:16,17 260:18 walking 27:6 166:20 215:19 419:19 walkways 240:16 251:16 260:22 wanted 13:10 90:20 98:16 143:3 188:15 192:20 194:11 202:8 211:6 219:21 220:16 228:6 256:1 257:5 258:10,12 261:15 279:22 281:7 295:15 296:4 299:6 325:16 332:12 346:8 367:19 374:16 375:9 376:10 382:5 396:1 398:8 407:21.22 408:14.15 429:16 wanting 257:16 379:2 wants 10:14 71:15 254:10 325:1 366:3 **WAP** 102:16 war 427:1 ward 62:20,20,20,20,20 66:7,7,8 76:3,3,3 138:2 153:12 154:1 185:8 333:15 403:1 416:14 wards 62:19,21,22 66:12,16 67:2,3,5,7,8 67:11 75:16 79:13 105:8 135:16 warm 3:14 warned 355:10 warning 317:14 warnings 318:11 wash 235:4 271:9 Washington 1:9 2:15 23:16,19 24:8,9,13 39:22 40:4 45:9,19 46:16 48:3 49:5 51:10 62:10 76:11,14,15,17 77:1,14 78:9 79:20 80:5,7,9,18,19,20 85:9 95:16 96:2 97:4 133:16 140:17 142:7 262:11 272:22 274:13 274:21 293:22 294:2 294:14 296:22 297:1

297:5 310:14 315:19 318:13 324:2 334:16 338:7 343:18 398:5 400:2 422:5,17 428:4 Washington's 295:2 Washington/Baltimore 206:5,8 wasn't 75:4 236:6 281:21 286:12 307:19 371:22 429:1,14 watch 7:6 115:19 407:1 watched 194:3 water 55:15 178:2 180:8,14 181:9 184:1 277:21 waterproof 180:12 waterways 173:20 wave 40:15 waves 38:21 40:7 117:14 320:8 way 4:8 8:8 12:22 13:6 16:11 17:11,16,17 18:5 20:21 23:10,14 28:4 36:11 45:18 73:11 76:20 78:20 122:19 138:4 140:8 142:1,3 143:16 153:1 154:9 157:20 161:4 168:17 179:9 181:22 183:2 192:14 193:9 193:10 206:2 216:9 225:1 231:19 240:17 250:18,18 251:1 254:21 261:18 302:19 313:3,3 314:5 320:10 324:3 326:11 340:5,7 352:13 365:9 373:12 373:12,12,13 378:5 385:1,10 386:10 391:15 417:8 419:2 428:2 ways 120:4 181:14 190:7 191:21,22 220:21 280:18 301:10 312:16 328:14 weapons 320:9 wearing 97:21 web 228:11 website 12:17 101:4 107:6 159:2 236:18 237:1 286:5 317:8 WeDC 277:3 weeds 184:11 week 98:2 120:18 236:20 401:13 406:6 weekly 206:15 weeks 422:9 430:21 welcome 53:11 57:7

103:20 235:3 276:4 277:14 278:15 335:14 383:1 welfare 330:2 well- 311:6 well-being 401:8 403:11 went 8:3 26:22 33:21 36:16 122:11,14 129:20 131:14 226:15 271:13,13 311:1 324:1 368:16 382:8 410:13 431:22 weren't 131:10 227:19 wet 178:1,8 whatnot 103:16 whatsoever 365:15 wheel 132:20 wheel's 133:1 which'll 223:17 whichever 413:11 white 46:10 47:9 318:17 wholly 340:15 Wi- 100:19 242:2 248:15 Wi-Fi 100:14 101:14.16 102:3,4,6,14,22 103:22 105:2,22 106:20 108:22 109:1 109:3 112:4 113:3 242:6 245:15 246:10 247:13,21 335:7 404:11 418:1 wide 92:18 180:19 182:9 183:14 290:4 398:4 widely 138:8 width 146:19 149:9 152:16 Wilcox 2:12 336:17 344:7,8,9,14,17,20 345:1,4 349:18,22 350:2 353:19 354:16 354:19,21 355:4,7,12 358:1 359:1 368:1 373:7 Wilcox's 358:16 wild 388:9 Wiley 1:12 5:1 35:10 132:5,12 133:3,22 182:17 willing 124:6 348:12 willy-nilly 8:11 window 133:13 139:13 153:20,22 340:18 419:8 windows 240:15 261:4 293:1 357:1

wire 139:18,20 155:20 160:4 175:6 177:20 178:3,8,13,19,20,20 178:20 223:15 354:15 wire's 355:9 wired 358:6 wireless 41:8 45:6 97:19 102:16 107:10 110:1 112:8 118:15 118:18 120:8 134:15 134:18,20,22 136:2,8 136:20 159:19,22 160:2 161:12,22 162:3,5,9,10,12,20 163:8,16 164:6 175:3 178:15,16 191:17 192:1 193:7,11,16,17 194:2 195:8 214:8 237:15 245:20,21 246:17,18 277:18 278:3 302:22 310:17 311:7 317:13 318:9 334:6,12 358:17 393:15 429:12 wires 70:3 91:14 176:20 176:21 288:13 wiring 93:5 238:21 wisdom 371:6 wish 77:16 103:7.8 106:11 322:10 407:10 424:9 woefully 160:17 woman 425:3,4 women 277:9 315:17 wonder 86:21 382:21 wondered 145:3 wonderful 348:22 372:4 381:7 wood 19:15 21:4 26:7,8 26:13 61:20,21 69:10 79:13 90:16 137:13 137:20 138:1 139:2 139:11,15 153:20 154:7,21 288:16,19 288:20,21 wooden 62:6,18 63:1 67:6 68:4,10 69:6,21 70:13 72:8 73:16 92:15 288:7,9 289:7 word 82:18 179:5 394:1 407:4 words 80:6 173:3 221:10 281:22 361:9 work 9:6 37:22 47:15 54:14 88:17 104:8,10 104:14,18 108:14 113:14 114:19 120:3 120:6 127:12 129:6

133:11 135:6.10 136:4 137:3 138:3,21 150:2 156:21 159:15 166:6,7 178:6 180:18 183:18 191:13 247:15 256:7 261:9 276:19 278:16 333:16 340:12 340:20 360:10 362:21 367:13 377:7.7 378:21 380:7 381:14 381:20 383:14 391:22 392:3 workable 349:12 worked 134:21 135:8 150:8,13 208:19 230:6 338:16 339:21 worker 170:7 183:17 323:9 workers 54:19 working 5:18 14:17 34:16,18 45:9 69:13 71:22 74:17,20 87:1 89:11 103:14 108:13 120:21 121:3 134:16 209:5 236:4.5 247:7 254:4 278:11 282:19 377:18 429:20 works 247:3 344:1 410:3 workshop 58:13 world 14:4 15:8,10 84:2 99:13 231:20 277:7 328:2 world's 277:4 worldwide 358:5 worried 250:13,14 252:14 389:17 worries 426:6 worry 349:1 357:8 worse 289:16 362:13 382:17 worthwhile 74:5 would've 200:3 wouldn't 28:6 119:19 131:5 248:5 323:20 347:8 389:17 409:10 wrap 178:5 wrapped 177:20 writing 179:15 228:18 255:10 282:16,21 305:16 325:22 333:10 375:21 411:16 420:17 written 122:20 137:11 144:21 211:6 229:17 231:13 270:21 285:2 296:15,17 307:8 312:1 334:8 376:15 401:18 427:1

			47
wrong 97:14 163:6	1.1 161:13	2-3,000-foot 359:6	3,000 350:19 351:20
216:10,11 289:1	1.5 161:14	2,000 350:19 358:22	358:22 360:11
wrote 421:18	1:10 3:2,21	20 67:9 161:21 163:19	3.8 162:14
www.smallcelltownh	10 67:16 94:10,14,15	206:14,21 207:2	3.9 162:15
244:5,7	96:10,15 123:8,9	216:20 233:3 247:14	30 66:17 94:12 326:18
244.5,7	151:10,11 167:20	266:4,9,13,17 281:9	341:4 345:22 403:14
X	188:18,21 197:14	281:16 291:21 318:4	30-50 419:7
X 213:6,11 259:1	230:8 251:11 326:18	318:7 326:18 328:10	30-day 242:10,20 249:
Xerox 417:16	328:10 393:12	333:17 342:18 357:15	30-foot 94:15
ACIOX 417.10	10-K 317:16	373:11 382:16	300 125:6 149:8 350:1
Y	100 2:3 100:11 162:17	20-foot 357:3	351:19 379:14
	207:20 272:4,19,20	200 4:1 130:13 317:9	301 125:6 126:16
Y 213:8,11 259:1 Yale 316:16	273:6,9 274:22	20003 431:17	31 187:2 369:10
	279:20 289:11 301:2		
yards 48:4 315:20		20024 431:19	31-foot 122:17 187:6,9
426:21	302:8,13 307:7 373:5	2007 161:21	188:4
yay 148:13	11 100:15 180:19 182:1	2008 161:11 173:13	32 167:19 168:4
year 100:14 114:3	182:9 184:3 404:17	2010 173:2	33 94:15
139:13 161:15 162:7	11,000 26:17	2015 162:1 163:1	34 391:2,5
197:19 331:9 377:17	1100 1:9 4:1 431:12,18	2016 160:17 161:15	3403 391:5
388:18 406:3	12 199:5 208:19 209:3	162:7,22 163:3,9	36 62:17 161:13 346:1
yearly 239:3,13 251:2	230:8	282:13 317:16	3B 2:2 397:8
262:3 263:22	12- 120:2	2017 163:5,7	3G 117:19
years 4:15 8:19 9:3	120 30:7,8	2018 1:6 3:22 354:6,8,9	
54:13 67:17 112:13	12th 388:2	358:3 404:17	4
135:8,13 181:5	13th 244:2,3	2020 334:8 343:22	4 62:20 63:17 67:3
258:18 265:14 266:4	14 101:15 183:15 184:2	377:12	333:16
266:9,13,18 281:9,16	184:3 210:1	2025 163:19	40 66:18 67:9 338:17
291:21 292:3 318:4,8	14th 419:2	2040 102:12	346:15 347:18
333:17 338:18 339:20	15 1:6 162:10 230:2,7	20th 56:15	40,000 101:13
347:9,14 373:11	247:14 401:21 430:17	22-feet 187:13	400 102:9
381:22 382:16 412:15	15-foot 361:17	22-footer 187:21	447 102:9
416:7 426:21 430:5,6	150 28:8 125:6 130:13	22nd 236:22	450 125:6
yes/no 212:6	412:15	230-foot 85:7	4G 55:22 117:19 164:7
yesterday 194:4	1500 102:19	24 354:9 391:2,5	346:18 348:17 380:1
yield 215:21	151 125:6	25 107:12 122:5,11	380:19
York 197:7 201:2	15th 3:22 111:8,8	210:2 401:15	4th 1:9 4:1
206:10 314:1 330:19	16 183:14	250 316:8 379:14	
331:2,14,18,20	16th 65:7 84:15 86:5	25th 111:9,20 194:19	5
you-all 194:4,9 199:1	339:6	267:2,3	5 62:20 67:3 91:6,11,1
200:2 203:12 228:20	17 210:1,2	26- 186:4	94:9 138:2 153:12
young 415:21	17.8 162:9	270 290:21	154:1 358:3 377:1
	17th 85:15 86:5	28 122:12 378:10	397:14 401:17
Z	18 292:3	29 430:21	5-0 404:16
Z 213:9 259:1	18-foot 23:20	2E 2:13 235:11,13,13	5.1 213:22
zero 315:19	18th 85:7,14	235:21 236:14,15	5.1.2 218:22 374:22
zero5g.com 273:15	19 185:16 291:22 292:1	237:11,19 238:10,11	5.2.1.4 165:2
308:1	1910 54:6	240:22,22 241:6,21	5.3.3 224:11
zip 431:17,19	1971 339:16	242:8,17,21 243:7,15	5.4.4 393:13
zone 104:8,10 107:18	1986 291:19	243:18 245:3,12	5/8 233:10,13
231:1 361:12	1989 360:12	246:9 248:13 254:10	5:42 271:11,13
zoned 240:10	1996 291:20 320:1	257:20 354:5 358:1	5:51 271:14,17
zones 361:15	1999 381:22	2E06 2:12 344:9	50 162:21 188:20 346
Zoning 354:3	19th 65:7 84:15	2nd 1:8 244:16	50-feet 374:19
	1C 342:15		50,000 62:14 150:11
0		3	500 29:9 149:8 350:17
	2	3 34:13 62:20 67:3	500-foot 86:6
1	2 66:8 75:17,17 76:1,3	94:15 209:17 354:6	53.9 163:7
1,000 135:4	125:1,17 209:16	3- 58:18	54.2 162:3

	l I
55 163:9 431:16 55.3 162:8 5A 22:3 25:20 143:9 232:11 5E 235:10 5G 55:22 88:18 90:9 112:19,19 129:3,5 133:21 134:12 135:17 164:1,3,6 192:14,18 205:12,18 207:7,12 207:13 294:2,5,6,13 294:16 304:20 311:10 312:22 313:3,7,9,11 313:17,20 314:2 315:20 316:6 319:4 320:7,9 323:17,18 326:10,10 328:5 330:19,20,21 331:8 331:17 334:7,14,17 335:2,14 346:13,22 347:16,17,21 348:2 348:13,14,17 350:4 350:16 352:11 353:12 358:17,21 359:3,8 360:15 361:20 377:11 377:16,16 378:3 380:15,16,20 412:11 412:18,19 414:7 416:10 417:8,13 418:1,16 419:6 5th 157:14 164:17 6 6 66:8 75:17,17 76:1,3 122:12,18 182:1 261:18 6,000 359:4 6,500 294:8 6.1 218:1,2 60 30:19 103:9,10 125:17,19 126:16 64 62:17 75:6,11 221:4 304:2 650 100:12 7 7 10:15 62:20 67:3 91:19 105:8 7.1 234:10 70 62:21 67:4 700 28:9 100:9 700's 161:1 700,000 160:19 74,000 62:13	8 8 62:20 67:4 105:8 124:21 182:2 8.1 233:5 8.2.9 168:10 8.4 163:17 233:18 8.4.1 229:19 8.4.3 233:19 8:29 430:17 8:30 431:22 80 4:15 62:22 100:1 136:7 85 67:4 875-foot 85:15

I

52:20 67:4 105:8 124:21 182:2 1 232:10 233:5 2.9 168:10 4 163:17 233:18 4.1 229:19 4.3 233:19 29 430:17 30 431:22 4:15 62:22 100:13 136:7 67:4	
5-foot 85:15	
9	
00:22 172:22 000 359:5 267:10 -plus 75:22 1 136:7 66:14 76:2 66:14 76:3 43:3	
Neal R. Gross Washing	

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This is to certify that the foregoing transcript

In the matter of: Small Cell Technology in DC

Before: DC Public Space Committee

Date: 10-15-18

Place: Washington, DC

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