JOHN DI BENE
Assistant Vice President-
Senior Legal Counsel
Legal Department

AT&T Services, Inc.
2600 Camino Ramon
Room 2W901
San Ramon, CA 94583

925.543.1548 Phone
jdb@att.com

March 19, 2021

VIA EMAIL
Board of Supervisors
City and County of San Francisco

Re. AT&T Proposed Wireless Telecommunications Facility
590 2nd Avenue, San Francisco, CA
AT&T Site ID CCL03293
City File No. 2019-015984CUA

Dear Board President Walton and Supervisors Chan, Haney, Mandelman, Mar, Melgar, Peskin, Preston, Ronen, Safai, and Stefani:

I write on behalf of New Cingular Wireless PCS, LLC d/b/a AT&T Mobility ("AT&T") to support AT&T's application seeking to construct a stealth, rooftop wireless communications facility ("Proposed Facility") located at 590 2nd Avenue in San Francisco. This letter also responds to the concerns raised by the appeal of the Planning Commission's unanimous approval. The Proposed Facility will be fully screened and will blend well as architectural elements on this building. As the Planning Commission found, the Proposed Facility "will enhance the total city living and working environment" and "would contribute to the character and stability of the neighborhood and would constitute a beneficial development."

The Proposed Facility is essential to meet AT&T's network demands in this large residential area, including need to improve signal strength and capacity for LTE services and to introduce critical FirstNet services as part of AT&T's nationwide effort to improve public safety with the first ever dedicated wireless network for first responders. The City's consultant verified AT&T's gap evidence, and the Planning Commission found that AT&T needs to construct the Proposed Facility to close the gap. AT&T worked hard to find the right location for this site and federal law requires approval of AT&T's application. The attached analyses of alternative sites describe AT&T's comprehensive site selection efforts, both initially when developing the application and more recently at the City's request. These materials show that the Proposed Facility is the best available and least intrusive means by which AT&T can close the gap. Thus, I respectfully request the Board of Supervisors to deny the appeal and approve AT&T's application.

AT&T's Proposed Facility

As explained in the application materials in the administrative record, AT&T has identified a significant gap in service coverage in this large residential neighborhood in the City.

Because AT&T's existing wireless infrastructure is insufficient to address this gap, AT&T needs to deploy a new macro wireless communications facility in this area. After initially assessing all 72 properties within AT&T's search ring for the new facility, AT&T identified 17 potentially feasible properties and pursued each of them. Through that effort, which is described in greater detail below, AT&T identified the building at 590 2nd Avenue as the best available and least intrusive candidate.

In order to minimize visual impact and to best preserve the character of the surrounding neighborhood, AT&T proposes to place ten antennas and associated equipment behind two six-foot tall screened enclosures that will match the architectural character of the building. For nearly a year, AT&T worked closely with City Staff on this equipment configuration and screening design. AT&T provided four alternative design options, and developed City Staff's preferred design by consolidating equipment to reduce screening elements and by moving equipment away from the roof edge as much as feasible while still meeting AT&T's service needs and complying with federal radio frequency emissions rules. As the photosimulations show, the Proposed Facility will not be visible to the public and the screened enclosures will appear as typical rooftop structures consistent and in scale with the building and compatible with the neighborhood. (See Attachment A, Photosimulations.)

AT&T Needs the Proposed Facility to Provide and Improve Wireless Services

AT&T's radio frequency engineers identified a significant gap in service coverage in area roughly bordered by Anza Street to the north, Arguello Boulevard to the east, Cabrillo Street to the south, and 3rd Avenue to the west. (See Attachment B, Coverage Maps.) The City's consultant, Hammett & Edison, Inc., Consulting Engineers, verified AT&T's coverage maps and its coverage gap. (See Attachment C, Hammett & Edison Evaluation.) In its approval decision, the Planning Commission concluded, "There is an existing coverage gap in the AT&T Mobility wireless telecommunications network. A new facility is necessary to close the service coverage gap…." In addition, AT&T submitted its Radio Frequency Statement to more fully explain the significant service coverage gap and how the Proposed Facility will close that gap. (See Attachment D.)

The Proposed Facility will improve critical wireless services to the area, which are desperately needed especially as customers increasingly use their mobile phones as their primary communication devices. In fact, the Center for Disease Control and Prevention studies the extent of mobile phone use, and recently found that more than 75% of California households rely exclusively or primarily on wireless phones.[1] Additionally, customers rely on their mobile phones to do much more than just voice communication, including E911 service, video streaming, GPS, Internet access, and texting.

In fact, in its most recent annual report to the United States Congress, the Federal Communications Commission conservatively estimates that at least 72% of 911 calls are placed

[1] Center for Disease Control and Prevention, December 2019 National Health Interview Survey Early Release Program, available at https://www.cdc.gov/nchs/data/nhis/earlyrelease/Wireless_state_201912-508.pdf.

by people using wireless phones.[2] In addition, AT&T is bringing important new wireless services to the area to support public safety through AT&T's partnership with FirstNet, the national First Responder Network Authority, and will improve public safety by providing advanced communications capabilities to assist public safety agencies and first responders.

AT&T's Analyses of Alternative Sites

AT&T seeks to construct this wireless communications facility pursuant to applicable City regulations, including the City's Wireless Telecommunications Services Facilities Siting Guidelines ("WTS Guidelines"). Section 8.1 of those Guidelines provides a list of seven location types in descending order of preference, which identifies locations on residential properties as Preference 7. As such, AT&T combed this large residential area for higher-preference alternatives. This gap area, however, consists almost exclusively of Preference 7 locations. In fact, there are no collocation opportunities, nor are there any industrial, commercial, or mixed use properties among the 72 properties within AT&T's search ring for the Proposed Facility. In this area, AT&T identified 17 potentially feasible properties, including Rossi Park and 16 residential buildings. (See Attachment E, Alternative Sites Analysis of June 5, 2019.) AT&T determined that a rooftop site at the Rossi pool or a new freestanding stealth pole structure could be considered as candidates for meeting AT&T's service needs. Unfortunately, the City's Recreation and Park Department was not interested in leasing space to AT&T for the Proposed Facility. Specifically, the Recreation and Park Department informed AT&T that it would not allow a new pole structure and would not entertain a rooftop structure because the pool was being renovated and the rooftop might not be able to hold the Proposed Facility.

All of the remaining 16 sites are Preference 7 residential buildings. Owners of 13 properties did not respond with any interest after AT&T contacted them in writing via FedEx and follow up telephone calls. One property owner initially expressed interest, but ultimately declined to move forward to lease space. One property owner expressed interest, but there was not sufficient space on the rooftop or ground for the Proposed Facility. The property owner for 590 2nd Avenue expressed interest and the site is viable to house the Proposed Facility. Thus, although this is a Preference 7 location, it was the only available and feasible location for AT&T to close its significant service coverage gap.

In September 2020, as AT&T's application was about to be heard by the Planning Commission, the City Planning Department requested AT&T reassess the alternative sites given the amount of time that had passed since AT&T initially analyzed alternatives. The City specifically directed AT&T to resend letters to each of the property owners previously contacted and to again request the Recreation and Park Department to allow the site at the Rossi pool. Despite the significant delay, AT&T agreed to follow up as requested.

On September 16, 2020, the City Recreation and Park Department responded to AT&T's follow up and again declined to lease space to AT&T for the Proposed Facility. Specifically,

---

[2] *See Twelfth Annual Report to Congress on State Collection and Distribution of 911 and Enhanced 911 Fees and Charges*, FCC, December 8, 2019, at 11 (available at https://www.fcc.gov/file/20178/download).

Noah Levy, Project Manager in the Department's Capital & Planning Division, explained that structural limitations and other characteristics of the property render it inappropriate for the Proposed Facility.

After writing again to each of the owners of residential properties, AT&T received only one response. (See Attachment F, Alternative Sites Analysis Log, November 25, 2020.) That response expressed interest in leasing space to AT&T for a site at 625 Arguello Boulevard, which is another Preference 7 location. After significant analysis, including a site walk with the City's consultant, AT&T determined that this alternative would require addition of a very tall structure on the roof to house antennas that would need to be mounted at a centerline height of about 20 feet above the roof. The City's consultant confirmed in writing that this additional height is needed to comply with FCC regulations calculation. (See Attachment G, Hammett & Edison Letter of January 4, 2021). As the photosimulations of this alternative show, that design would not blend with the building or neighborhood and that it would be much more intrusive than the Proposed Facility. (See Attachment H, Photosimulations of 625 Arguello Boulevard.)

More recently, AT&T was asked whether it could close its significant gap in service coverage with a multi-site solution that would move one or two sectors of the Proposed Facility to another location. This past month, AT&T investigated whether it could split the site between the two potentially available locations – the rooftops of 590 2nd Avenue and 625 Arguello Boulevard. Unfortunately, that design would still require the very tall structure on the rooftop of 625 Arguello Boulevard in order to comply with FCC radio frequency exposure rules. Thus, the only potential multi-site solution is not viable.

After significant good faith efforts, including initial site evaluations, a comprehensive alternative sites analysis, and a redoubled effort to identify alternatives, AT&T confirmed that the Proposed Facility is indeed the best available and least intrusive means by which is can close its significant service coverage gap in this portion of the City. AT&T's application for the Proposed Facility complies with City regulations and is consistent with federal law.

Approval of AT&T's Proposal is Required Under Federal Law

The federal Telecommunications Act of 1996, 47 U.S.C. § 332 ("Act"), provides rights to wireless service providers and establishes limitations upon state and local zoning authorities with respect to applications for permits to construct personal wireless service facilities. The United States Supreme Court has explained that the Act was enacted in part to prioritize and streamline deployment of wireless technologies on a national basis:

> Congress enacted the Telecommunications Act of 1996 (TCA), 110 Stat. 56, to promote competition and higher quality in American telecommunications services and to 'encourage the rapid deployment of new telecommunications technologies.' Ibid. One of the means by which it sought to accomplish these goals was reduction of the impediments

> imposed by local governments upon the installation of facilities for wireless communications, such as antenna towers.[3]

The Act defines the scope and parameters of the City's review of AT&T's application. Most pertinent here, the Act prohibits a local government from denying an application for a wireless telecommunications facility where doing so would "prohibit or have the effect of prohibiting the provision of personal wireless services."[4] This means the City is preempted from denying an application for a wireless facility whether or not the Commission finds a code-based reason or other substantial evidence to disfavor AT&T's Proposed Facility.

Courts have found an "effective prohibition" exists where a wireless provider demonstrates (1) a significant gap in wireless service coverage, and (2) that the proposed facility would provide the "least intrusive means," in relation to the land use values embodied in local regulations, to provide the service coverage necessary to fill that gap.[5] If a wireless provider satisfies both of these requirements, state and local standards that would otherwise be sufficient to permit denial of the facility are preempted, and the municipality must approve the wireless facility.[6] Under this judicial test, when a wireless provider presents evidence of a significant gap and the absence of a less intrusive alternative, the burden shifts to the local government to prove there exists an available, feasible, and less intrusive alternative.[7] In order to meet this burden (and overcome the presumption in favor of federal preemption), the local government must show that another alternative is available that fills the significant gap in coverage, that it is technologically feasible, and that it is "less intrusive" than the proposed facility.[8]

More recently, the FCC has confirmed its rulings that an effective prohibition occurs whenever the decision of a local government materially inhibits wireless services,[9] and last year this material inhibition standard was again upheld by the Ninth Circuit.[10] The FCC explained that the "effective prohibition analysis focuses on the service the provider wishes to provide, incorporating the capabilities and performance characteristics it wishes to employ, including facilities deployment to provide existing services more robustly, or at a better level of quality, all

---

[3] *City of Rancho Palos Verdes v. Abrams*, 544 U.S. 113, 115-16 (2005).

[4] 47 U.S.C. §332(c)(7)(B)(i)(II).

[5] *See e.g., Metro PCS, Inc. v. City and County of San Francisco*, 400 F.3d 715, 734-35 (9th Cir. 2005), abrogated on other grounds, *T-Mobile South, LLC v. City of Roswell*, 135 S.Ct. 808 (2015).; *Sprint PCS Assets, LLC v. City of Palos Verdes Estates*, 583 F.3d 716, 726 (9th Cir. 2009).

[6] *See T-Mobile USA, Inc. v. City of Anacortes*, 572 F.3d 987, 999 (9th Cir. 2009).

[7] *See City of Anacortes*, 572 F.3d at 998-99; *T-Mobile West Corp. v. City of Agoura Hills*, 2010 U.S. Dist. 134329 (C.D. Cal. Dec. 20, 2010).

[8] *Id*.

[9] *See* Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment, Declaratory Ruling and Third Report and Order, FCC 18-133 (September 27, 2018) ("*Infrastructure Order*") at ¶¶ 34-42 (FCC rejects the need for wireless providers to meet judicially-created coverage gap and least instructive means tests); *see also, In the Matter of California Payphone Association Petition for Preemption, Etc*., Opinion and Order, FCC 97-251, 12 FCC Rcd 14191 (July 17, 1997).

[10] *City of Portland v. United States*, 969 F.3d 1020, 1034-35 (9th Cir. 2020).

to offer a more robust and competitive wireless service for the benefit of the public."[11] Thus, a local government "could materially inhibit service in numerous ways – not only by rendering a service provider unable to provide existing service in a new geographic area or by restricting the entry of a new provider in providing service in a particular area, but also by materially inhibiting the introduction of new services or the improvement of existing services."[12] In fact, the FCC has already reiterated these conclusions earlier this year, as well as confirming a locality's reciprocal burden of proof an effective prohibition analysis.[13]

Here, AT&T has demonstrated its significant service coverage gap in the vicinity of the Proposed Facility. AT&T's Radio Frequency Statement and coverage maps that AT&T submitted in connection with this application demonstrate the service coverage gap that AT&T is experiencing in this portion of San Francisco.[14] These maps show that AT&T lacks adequate wireless service in this portion of the City. This gap covers a large area including hundreds of homes and the Rossi pool and park. The proposed service coverage from the Proposed Facility is depicted in the coverage maps. As you can see, placing the Proposed Facility in this location will close AT&T's significant service coverage gap in this area.

AT&T has also demonstrated that there are no less intrusive locations that are available and feasible to close the gap.[15] And the City has not identified an available, feasible, and less intrusive location. The Proposed Facility is not only the best available and least intrusive means to do so, it is the only way for AT&T improve and provide critical wireless services to the area, including LTE and FirstNet services. Denying AT&T's application will materially inhibit AT&T's ability to provide and improve these important services.

Response to Appellant's Criticisms

The appeal by a nearby resident raises a few concerns about the Proposed Facility: location selection, radio frequency emissions, and aesthetics. As described above, whether or not the Board finds a code-based reason to disfavor AT&T's Proposed Facility, the City is preempted by the Act from taking action that would prohibit or have the effect of prohibiting AT&T from providing personal wireless services. Nevertheless, AT&T offers the following responses to the issued raised in the appeal.

Location Selection

The appellant notes that the Proposed Facility is located on a Preference 7 site, which is disfavored under the WTS Guidelines, and she suggests that AT&T instead "install a single

---

[11] *Infrastructure Order* at n. 95.

[12] *Id*. at ¶ 37.

[13] *See In the Matter of Petition for Declaratory Ruling that Clark County, Nevada Ordinance No. 4659 Is Unlawful Under Section 253 of the Communications Act as Interpreted by the Federal Communications Commission and Is Preempted*, Order, DA 21-59, WT Docket No. 19-230 (January 14, 2021), at ¶ 8.

[14] *See* Attachments B-E.

[15] *See* Attachments F-I.

unobtrusive lower power utility pole mounted antennas to fill the gap in existing coverage." Like some of the images attached to the appeal, the appellant is suggesting that AT&T can close its significant service coverage gap with a single small wireless facility. But a small wireless facility would not meet AT&T's needs here. Small cells are deployed within AT&T's existing macro layer of infrastructure and they do not replace the need for macro sites. AT&T's Proposed Facility is the best available and least intrusive means to close its gap.

Radio Frequency Levels

The appeal contends that the radio frequency emissions compliance report prepared by Hammett & Edison, Inc. and submitted as part of AT&T's application shows that potential future expansions of nearby buildings might be impacted by the Proposed Facility. Not only is this concern speculative, the compliance report assessed existing conditions per FCC rules. Moreover, the Act forbids the City from denying AT&T's application on the basis of radio frequency emissions where, as here, the Proposed Facility will comply with the FCC's rules on radio frequency emissions.[16]

Aesthetics

The appeal focuses on perceived impacts to a nearby property, including concerns that the Proposed Facility will "significantly alter the look of the building," that it will be visible from nearby sidewalks and streets, and that rooftop screening elements will reduce sunlight to the decks and backyard of that neighboring property. In contrast, the Planning Commission found that the rooftop solution developed at great effort and in collaboration with City Staff will be minimally impactful and, indeed, will be compatible with the building and neighborhood. The Proposed Facility will have a minimal visual impact, and only the architecturally compatible screening will be visible. Further, the appeal does not explain or show how the reduction in sunlight would occur.

Moreover, AT&T is not unsympathetic to the need to design facilities to blend well in San Francisco's neighborhoods. This gap area is particularly challenging in terms of facility design because it is nearly entirely residential. This is why AT&T worked tirelessly on the design and made every possible concession to be able to present the very best and minimal design. AT&T made sure that the Proposed Facility will meet all compatibility requirements under the WTS Guidelines and it will be a beneficial development for the City. As the Planning Commission found, AT&T proposes a well-placed and minimally intrusive design that will enhance the neighborhood.

Finally, the various images provided by the appeal highlight the diverse types and designs for wireless facilities that can be deployed in the City. Appellant's inclusion of images from industrial and commercial areas, while interesting, does not address the unique challenges of providing and improving wireless services in this residential area. Nor do the various images of small wireless facilities compare to the macro facility needed here. AT&T's photosimulations of

[16] *See* 47 U.S.C. § 332(c)(7)(B)(iv).

the Proposed Facility tell a much more compelling story of the most appropriate design achievable in this gap area. And AT&T is proud of this design.

Conclusion

AT&T is working diligently to upgrade its network to provide and improve wireless services. AT&T has shown that federal law strongly supports (indeed, requires) approval, and there has been no substantial evidence proffered on which the City could deny AT&T's application. I urge the Board of Supervisors to approve AT&T's application and to deny the appeal.

Sincerely,

/s/ John di Bene

John di Bene

Attachment A:	Photosimulations of Proposed Facility
Attachment B:	AT&T Coverage Maps, March 21, 2019
Attachment C:	Hammett & Edison, Inc. Letter of April 19, 2019
Attachment D:	AT&T Radio Frequency Statement, March 2021
Attachment E:	AT&T Alternative Sites Analysis, June 5, 2019
Attachment F:	Alternative Sites Analysis Log, November 25, 2020
Attachment G:	Hammett & Edison, Inc. Letter of January 4, 2021
Attachment H:	Photosimulations of 625 Arguello Boulevard

cc: William K. Sanders, Esq., Deputy City Attorney (William.Sanders@sfcityatty.org)
Aaron Starr, Manager of Legislative Affairs (aaron.starr@sfgov.org)
Kalyani Agnihotri, Planner (kalyani.agnihotri@sfgov.org)
Cammy Blackstone, AT&T External Affairs (cb720d@att.com)

ATTACHMENT A

PHOTOSIMULATION *INSTALL (12) PANEL ANTENNAS WITHIN PROPOSED FRP SCREENING ON EXISTING ROOFTOP*

REV 4 - 7/16/20 | **CCL03293** | 590 2ND AVE. SAN FRANCISCO CA 94118 | **VIEW 1**

at&t

EXISTING

PROPOSED

PHOTOSIMULATION *INSTALL (12) PANEL ANTENNAS WITHIN PROPOSED FRP SCREENING ON EXISTING ROOFTOP*

REV 4 - 7/16/20 | **CCL03293** | 590 2ND AVE. SAN FRANCISCO CA 94118 | **VIEW 2**

at&t

PHOTOSIMULATION *INSTALL (12) PANEL ANTENNAS WITHIN PROPOSED FRP SCREENING ON EXISTING ROOFTOP*

REV 4 - 7/16/20 | **CCL03293** | 590 2ND AVE. SAN FRANCISCO CA 94118 | **VIEW 3**

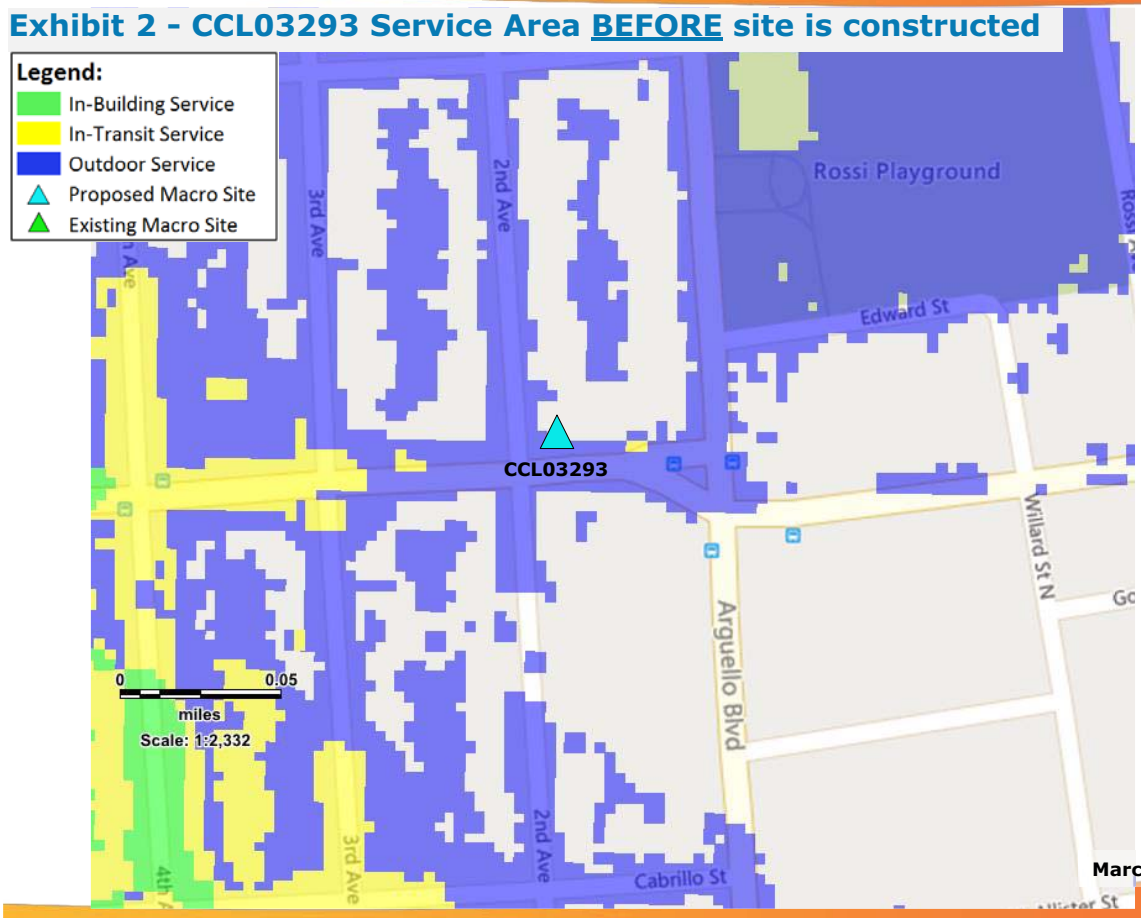
at&t

PHOTOSIMULATION

at&t

ATTACHMENT B

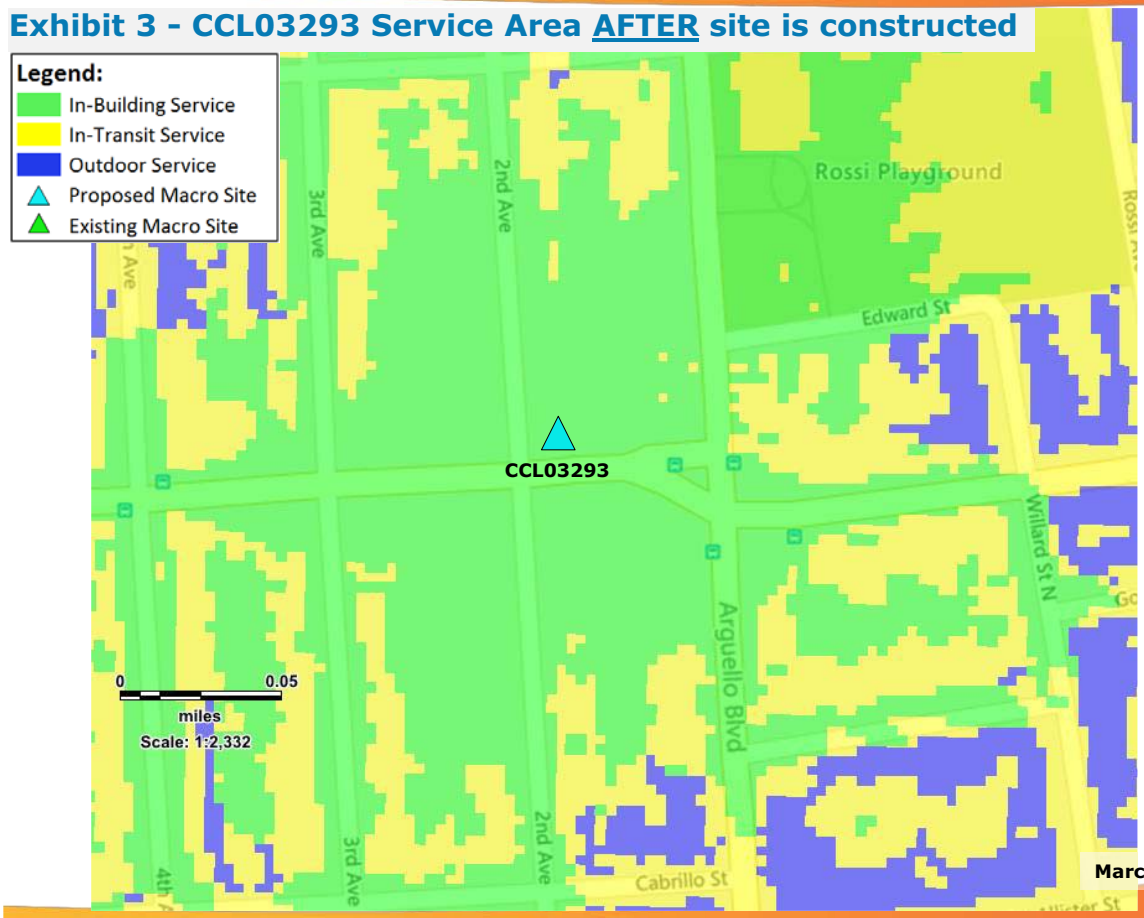
Exhibit 2 - CCL03293 Service Area BEFORE site is constructed



March 21, 2019

at&t

Exhibit 3 - CCL03293 Service Area AFTER site is constructed



March 21, 2019

at&t

ATTACHMENT C

HAMMETT & EDISON, INC.
CONSULTING ENGINEERS
BROADCAST & WIRELESS

WILLIAM F. HAMMETT, P.E.
RAJAT MATHUR, P.E.
ROBERT P. SMITH, JR.
ANDREA L. BRIGHT, P.E.
NEIL J. OLIJ, P.E.
BRIAN F. PALMER
MANAS REDDY
M. DANIEL RO

ROBERT L. HAMMETT, P.E.
1920-2002
EDWARD EDISON, P.E.
1920-2009

DANE E. ERICKSEN, P.E.
CONSULTANT

BY E-MAIL MHILL@J5IP.COM

April 19, 2019

Ms. Misako Hill
Senior Project Manager/Zoning Specialist
J5 Infrastructure Partners
2030 Main Street, Suite 1300
Irvine, California 92614

Dear Misako:

As requested, we have conducted the review required by the City of San Francisco of the coverage maps that AT&T Mobility will submit as part of its application package for its base station proposed to be located at 590 Second Avenue (Site No. CCL03293). This is to fulfill the submittal requirements for Planning Department review.

Executive Summary

We concur with the maps provided by AT&T. The maps provided to show the before and after conditions accurately represent the carrier's present and post-installation indoor coverage.

AT&T proposes to install three CommScope Model NNHH-65A and seven CCI Model BSA-M65R-BUU-H4 directional panel antennas. The CCI antennas would be mounted at an effective height of about 45 feet above ground, 4 feet above the roof, would be oriented in groups of three and four toward 0°T and 230°T, and would employ up to 4º and 14º downtilt, respectively. The three CommScope antennas would be mounted at an effective height of about 45 feet above ground, 4 feet above the roof, would be oriented toward 120ºT, and would employ up to 16º downtilt. The maximum effective radiated power proposed by AT&T in any direction would be 18,870 watts, representing simultaneous operation at 3,210 watts for WCS, 5,280 watts for AWS, 4,620 watts for PCS, 1,800 watts for cellular, and 3,960 watts for 700 MHz service.

AT&T provided for review two coverage maps, dated March 21, 2019, attached for reference. The maps show AT&T's 4G LTE indoor coverage in the area before and after the site is operational. Both the before and after maps show three levels of coverage, which AT&T colors and defines as follows:

e-mail: **bhammett@h-e.com**
Delivery: **470 Third Street West • Sonoma, California 95476**
Telephone: **707/996-5200 San Francisco • 707/996-5280 Facsimile • 202/396-5200 D.C.**

Green	In-building service
Yellow	In-transit service
Blue	Outdoor service

We undertook a two-step process in our review. As a first step, we obtained information from AT&T on the software and the service thresholds that were used to generate its coverage maps. This carrier uses commercially available software to produce the maps. The outdoor service thresholds that AT&T uses to estimate indoor service are in line with industry standards, similar to the thresholds used by other wireless service providers.

As a second step, we conducted our own drive test, using an Ascom TEMS Pocket network diagnostic tool with built-in GPS, to measure the actual AT&T LTE 4G signal strength in the vicinity of the proposed site. Our fieldwork was conducted on January 17, 2019, between 9:50 AM and 10:40 AM, along a measurement route selected to cover all the streets within the map area that AT&T had indicated would receive improved service.

Based on the measurement data, we conclude that the AT&T 4G LTE coverage map showing the service area without the proposed installation includes areas of relatively weak signal levels in the carrier's present indoor coverage. The map submitted to show the after coverage with the proposed base station in operation was reportedly prepared on the same basis as the map of the existing conditions and so is expected to accurately illustrate the improvements in coverage.

We appreciate the opportunity to be of service. Please let us know if any questions arise on this matter.

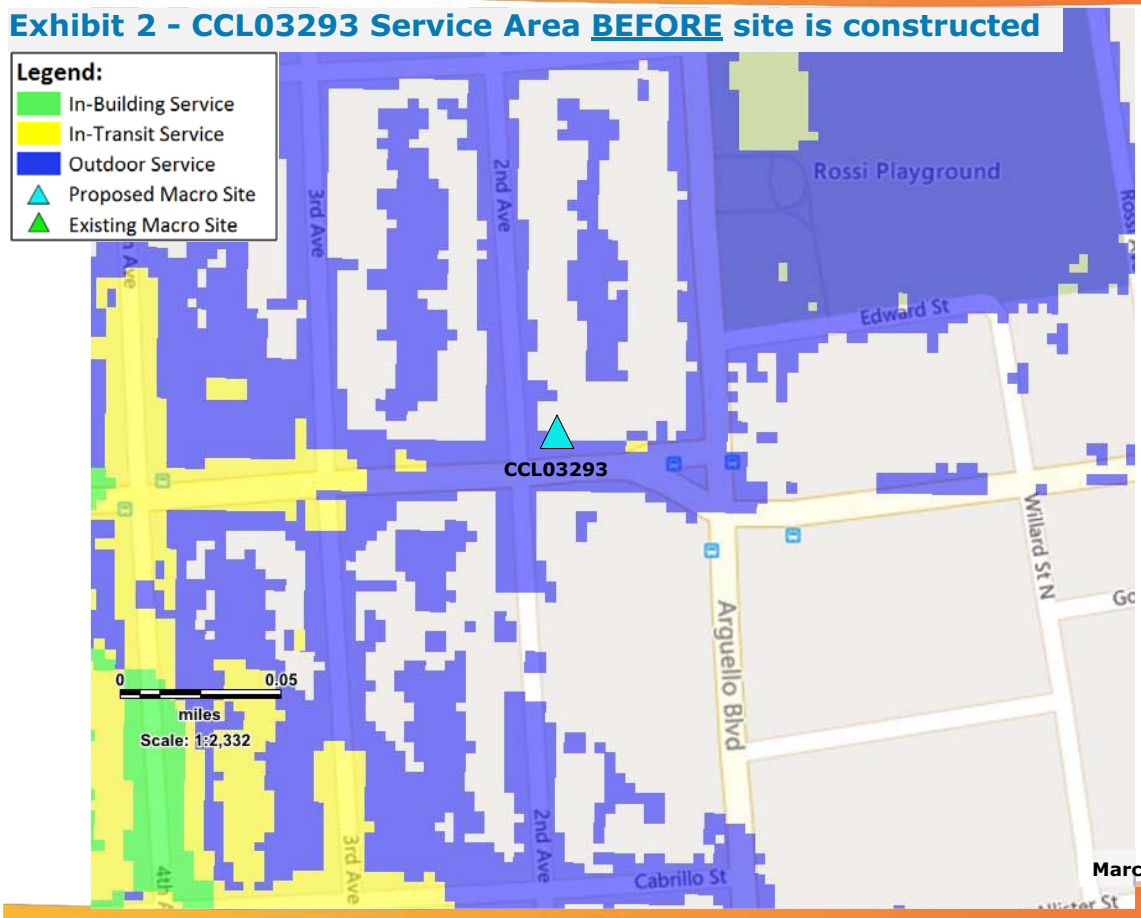
Sincerely yours,

William F. Hammett, P.E.

scn

Enclosures

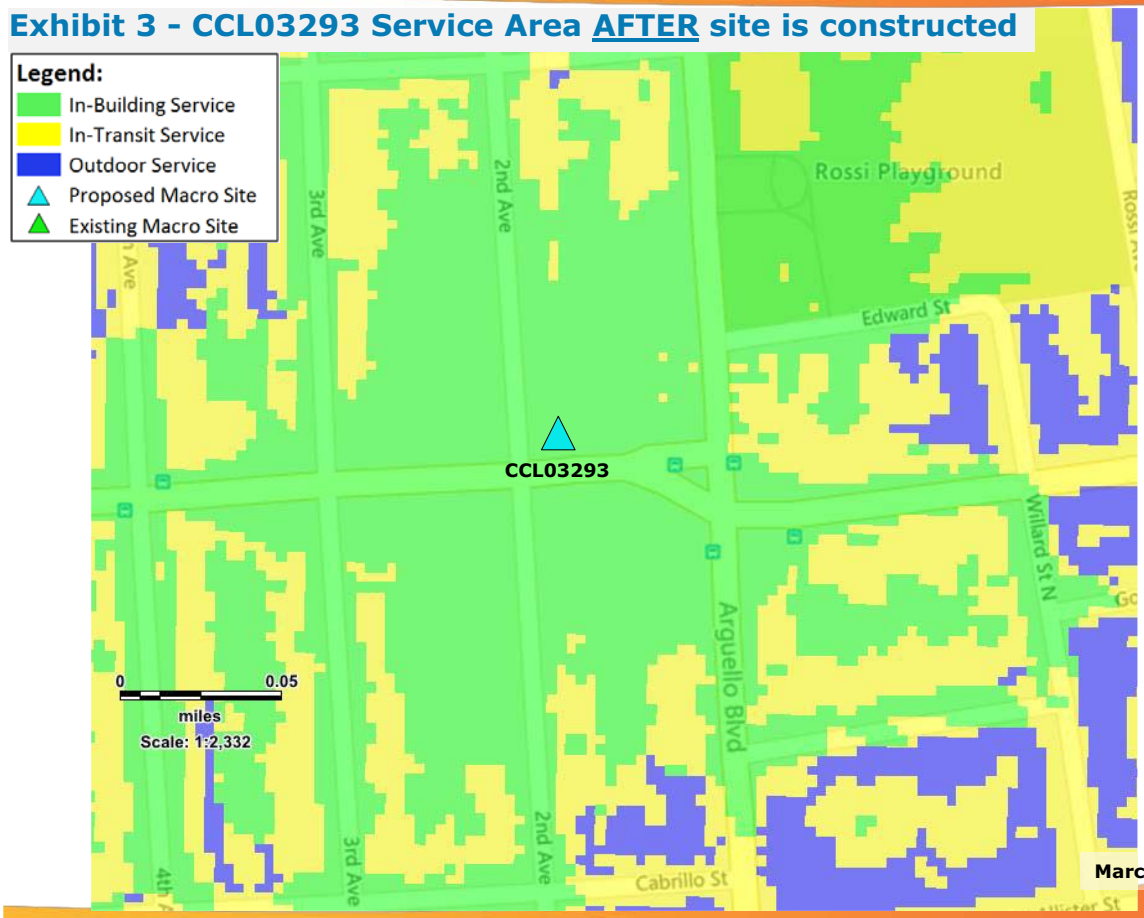
Exhibit 2 - CCL03293 Service Area BEFORE site is constructed



March 21, 2019

at&t

Exhibit 3 - CCL03293 Service Area AFTER site is constructed



March 21, 2019

at&t

ATTACHMENT D

AT&T Mobility Radio Frequency Statement
590 2nd Avenue, San Francisco, CA

STATEMENT OF MICHAEL CANIGLIA

I am the AT&T radio frequency engineer assigned to the proposed wireless communications facility at 590 2nd Avenue, San Francisco, CA ("Property"). Based on my personal knowledge of the Property and with AT&T's wireless network, as well as my review of AT&T's records with respect to the Property and its wireless communications facilities in the surrounding area, I have concluded that the work associated with this permit request is needed to close a significant service coverage gap in an area roughly bordered by Anza Street to the north, Arguello Boulevard to the east, Cabrillo Street to the south, and 3rd Avenue to the west.

The service coverage gap is caused by inadequate infrastructure in the vicinity of the Property. As explained further in Exhibit 1 and below, existing sites do not provide sufficient in-building service in the gap area. The proposed facility is necessary to improve signal strength and signal quality in the area, which will improve overall coverage and increase data rates necessary for customers to receive consistently reliable wireless service. Any areas that do not meet these minimal standards represent a service coverage gap that must be closed. The proposed facility will also help to offload network traffic carried by existing nearby facilities during current and future peak demand periods.

In addition to improving overall coverage, increasing data speed is critical to providing the mobile experience customers demand and to manage the unprecedented increase in mobile data usage on AT&T's network. AT&T estimates that since introduction of the iPhone in 2007, mobile data usage has increased 470,000% on its network. AT&T forecasts its customers' growing demand for mobile data services to continue. The increased volume of data travels to and from customers' wireless devices and AT&T's wireless infrastructure over limited airwaves — radio frequency spectrum that AT&T licenses from the Federal Communications Commission ("FCC").

AT&T uses industry standard propagation tools to identify the areas in its network where signal strength is too weak to provide reliable in-building service quality. This information is developed from many sources including terrain and clutter databases, which simulate the environment, and propagation models that simulate signal propagation in the presence of terrain and clutter variation. AT&T designs and builds its wireless network to ensure customers will receive reliable in-building service quality. This level of service is critical as customers increasingly use their mobile phones as their primary communication devices. More than 75% of California households exclusively or primarily rely on

wireless services for their communications needs, and rely on their mobile phones to do more (E911, video streaming, GPS, web access, text, etc.). In fact, the FCC conservatively estimates that 72% of 911 calls are placed by people using wireless phones.

The proposed facility at the Property is also a part of AT&T's commitment to supporting public safety through its partnership with FirstNet, the federal First Responder Network Authority. The proposed facility will provide new service on Band 14, which is the dedicated public safety network for first responders nationwide. The proposed facility is designed to be part of FirstNet and will provide coverage and capacity for the deployment of the FirstNet platform on AT&T's LTE network. Deployment of FirstNet in the subject area will improve public safety by providing advanced communications capabilities to assist public safety agencies and first responders.

Exhibit 2 to this Statement is a map of the existing LTE service coverage (without the proposed installation at the Property) in the area at issue. It includes LTE service coverage provided by existing AT&T sites. The green shaded areas of the map depict acceptable in-building coverage. In-building coverage means customers are able to place or receive a call on the ground floor of a building. The yellow shaded areas depict areas within a signal strength range that provide acceptable in-vehicle service coverage. In these areas, an AT&T customer should be able to successfully place or receive a call within a vehicle. The blue shading depicts areas within a signal strength range in which a customer might have difficulty receiving a consistently acceptable level of service. Any unshaded areas of the map are areas where the signal strength does not meet the outdoor signal level threshold. The quality of service experienced by any individual customer can differ greatly depending on whether that customer is indoors, outdoors, stationary, or in transit. Any area in the yellow, blue, or unshaded category is considered inadequate service coverage and constitutes a service coverage gap.

Exhibit 3 to this Statement is a map that predicts LTE service coverage based on signal strength in the vicinity of the Property if antennas are placed as proposed in the application. As shown by this map, placement of the equipment at the Property closes the significant service coverage gap.

My conclusions are based on my knowledge of the Property and with AT&T's wireless network, as well as my review of AT&T's records with respect to the Property and its wireless telecommunications facilities in the surrounding area. I have a B.S.E.E. Degree in Electrical Engineering from the University of California, Davis, and have worked as an RF engineer in the wireless communications industry for more than 25 years.

Michael Caniglia
AT&T Mobility Services LLC
Network, Planning & Engineering
RAN Design & RF Engineering
March 2021

EXHIBIT 1

Prepared by AT&T Mobility

AT&T's digital wireless technology converts voice or data signals into a stream of digits to allow a single radio channel to carry multiple simultaneous signal transmissions. This technology allows AT&T to offer services such as secured transmissions and enhanced voice, high-speed data, texting, video conferencing, paging and imaging capabilities, as well as voicemail, visual voicemail, call forwarding and call waiting that are unavailable in analog-based systems. With consumers' strong adoption of smartphones, customers now have access to wireless broadband applications, which consumers use at a growing number.

Increasing data speed is critical to providing the mobile experience customers demand and to manage the unprecedented increase in mobile data usage on AT&T's network. AT&T estimates that since introduction of the iPhone in 2007, mobile data usage has increased 470,000% on its network. AT&T forecasts its customers' growing demand for mobile data services to continue.

Mobile devices using AT&T's technology transmit a radio signal to antennas mounted on a tower, pole, building, or other structure. The antenna feeds the signal to electronic devices housed in a small equipment cabinet, or base station. The base station is connected by microwave, fiber optic cable, or ordinary copper telephone wire to the Network Core, subsequently routing the calls and data throughout the world.

The operation of AT&T's wireless network depends upon a network of wireless communications facilities. The range between wireless facilities varies based on a number of factors. The range between AT&T mobile telephones and the antennas in this portion of San

Francisco, for example, is particularly limited as a result of topographical challenges, buildings, and other obstructions as well as limited capacity of existing facilities.

To provide effective, reliable, and uninterrupted service to AT&T customers in their cars, public transportation, home, and office, without interruption or lack of access, coverage must overlap in a grid pattern resembling a honeycomb.

In the event that AT&T is unable to construct or upgrade a wireless communications facility within a specific geographic area, so that each site's coverage reliably overlaps with at least one adjacent facility, AT&T will not be able to provide adequate personal wireless service to its customers within that area. Some consumers will experience an abrupt loss of service. Others will be unable to obtain reliable service, particularly if they are placing a call inside a building.

Service problems can and do occur for customers even in locations where the coverage maps on AT&T's "Coverage Viewer" website appear to indicate that coverage is available. As the legend to the Coverage Viewer maps indicates, these maps display *approximate* coverage. The "Learn more" link states "There are gaps in coverage that are not shown by this high-level approximation" and "Actual coverage may differ from map graphics and may be affected by terrain, weather, network changes, foliage, buildings, construction, signal strength, high-usage periods, customer equipment, and other factors." The website states that AT&T does not guarantee coverage and its "coverage maps are not intended to show actual customer performance on the network or future network needs or build requirements inside or outside of existing AT&T coverage areas."

It is also important to note that the signal losses, slow data rates, and other service problems above can and do occur for customers even at times when certain other customers in the same

vicinity may not experience any problems on AT&T's network. These problems can and do occur even when certain customers' wireless phones indicate coverage bars of signal strength on the handset.

The bars of signal strength that individual customers can see on their wireless phones are an imprecise and slow-to-update estimate of service quality. In other words, a customer's wireless phone can show coverage bars of signal strength, but that customer can still, at times, be unable to initiate voice calls, complete calls, or download data reliably.

To determine where new or upgraded telecommunications facilities need to be located for the provision of reliable service in any area, AT&T's radio frequency engineers rely on far more complete tools and data sources than just signal strength from individual phones. AT&T uses industry standard propagation tools to identify the areas in its network where signal strength is too weak to provide reliable service quality. This information is developed from many sources including terrain and clutter databases, which simulate the environment, and propagation models that simulate signal propagation in the presence of terrain and clutter variation. AT&T creates maps incorporating signal strength that depict existing service coverage and service coverage gaps in a given area. AT&T designs and builds its wireless network to ensure customers receive reliable in-building service quality.

To rectify this significant gap in its service coverage, AT&T needs to locate a wireless facility in the immediate vicinity of the Property.

Exhibit 2 - Existing LTE 700 Coverage

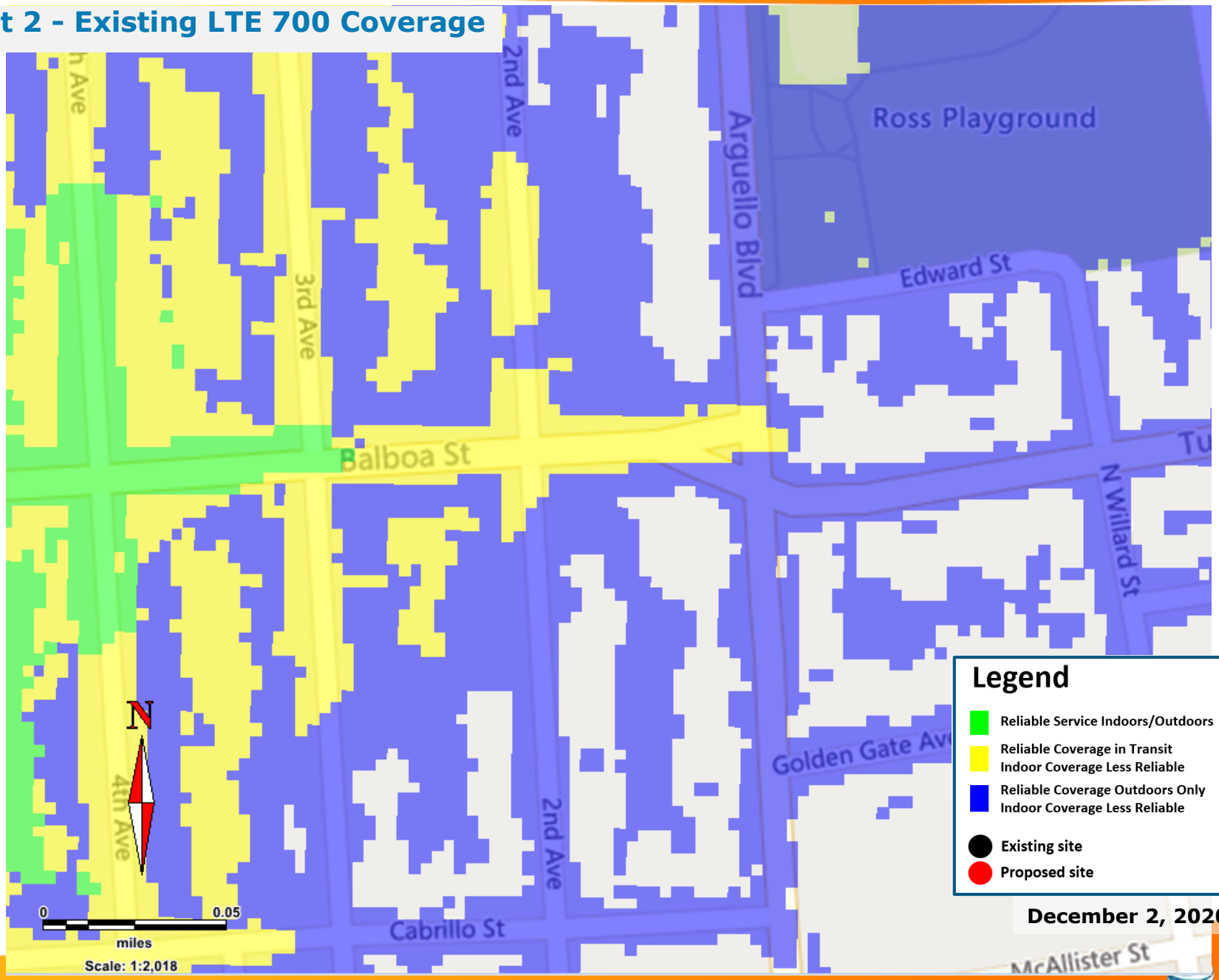
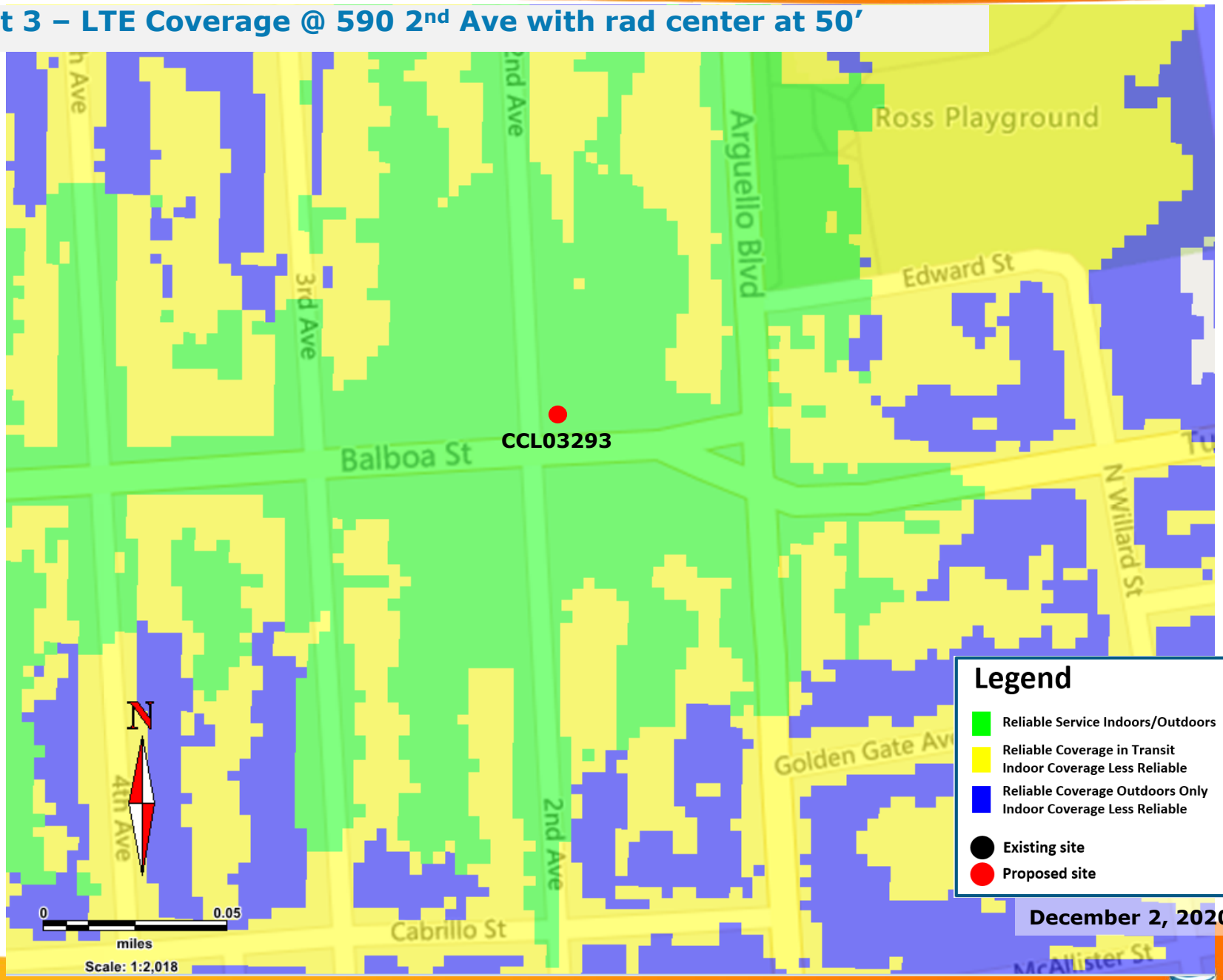


Exhibit 3 – LTE Coverage @ 590 2nd Ave with rad center at 50’



ATTACHMENT E

AT&T MOBILITY
ALTERNATIVE SITE ANALYSIS
CCL03293

Proposed Site Address:
590 2nd Avenue
San Francisco, CA 94118
Block / Lot: 1544 -026

June 5, 2019

PROJECT SITE	**590 2nd Avenue, San Francisco, CA 94118**
Existing AT&T Site	Geary Blvd and 9th Avenue, San Francisco, CA 94118
Existing AT&T Site	431 Balboa Avenue, San Francisco, CA 94118
Existing AT&T Site	2696 Geary Blvd, San Francisco, CA 94118
Existing AT&T Site	2350 Turk Blvd, San Francisco, CA 94118

The Location Preference of the proposed facility in Section 8.1 of the WTS facilities Siting Guidelines is Preference 7. Disfavored Site: Building is located in a RM-2 zoning district.

The Planning Commission will not approve applications for such sites unless the application
(a) shows what publicly-used building, co-location site or other Preferred Location Sites are located within the geographic service area;

The only publicly-used building is the Rossi Pool building in Rossi Park, 600 Arguello Blvd, San Francisco, CA 94118 / Parcel # 1140A001. There are no co-location sites in the AT&T search ring.

(b) shows by clear and convincing evidence what good faith efforts and measures to secure these Preferred Location Sites were taken;

Viability of new cell site on Rossi pool rooftop or new pole structure sent to Dana Ketchum with SF Rec & Parks. The pool building rooftop may not be structurally viable and a new stealth pole structure will most likely be required.

(c) explains why such efforts were unsuccessful; and

SF Rec & Parks will not allow a free-standing pole structure in the park. Also, Rossi Pool is being renovated and a rooftop cell site may not be viable.

(d) demonstrates that the location for the site is essential to meet demands in the geographic service area and the Applicant's citywide network, provided, however, that facilities placed on publicly-used structures, as defined in Paragraph 1 above, or in co-location sites as defined in Paragraph 2 above, in these zoning districts shall not be disfavored sites and may be approved for a WTS installation by the Planning Commission. An application for installation of a WTS facility on a publicly-used structure shall not be considered a disfavored site and need not satisfy the justification conditions herein for use of disfavored sites.

The proposed site at 590 2nd Avenue is essential and meets the demands in the geographic service area and the AT&T's citywide network. The submitted coverage maps show the service gap and how the proposed site will fill it.

A co-location site within these zoning districts, meeting the criteria of Paragraph 2 above, shall not be considered a disfavored site and need not satisfy the justification conditions herein for use of disfavored sites.

There are no co-location sites in the AT&T search ring.

	Site Address	Reason for Rejection	Location Preference
Alternate Site 1	3138 Turk Blvd	On 11/15/17 AT&T sent a Letter of Interest via Fedex to the property owner regarding installation of a rooftop cell site. AT&T also called the property owner and has not received communication expressing interest in a lease agreement.	Preference 7
Alternate Site 2	3144 Turk Blvd	On 11/15/17 AT&T sent a Letter of Interest via Fedex to the property owner regarding installation of a rooftop cell site. AT&T also called the property owner and has not received communication expressing interest in a lease agreement.	Preference 7
Alternate Site 3	621 Arguello Blvd	On 11/15/17 AT&T sent a Letter of Interest via Fedex to the property owner regarding installation of a rooftop cell site. AT&T also called the property owner and has not received communication expressing interest in a lease agreement.	Preference 7
Alternate Site 4	625 Arguello Blvd	On 11/15/17 AT&T sent a Letter of Interest via Fedex to the property owner regarding installation of a rooftop cell site. AT&T also called the property owner and has not received communication expressing interest in a lease agreement.	Preference 7
Alternate Site 5	629 Arguello Blvd	On 11/15/17 AT&T sent a Letter of Interest via Fedex to the property owner regarding installation of a rooftop cell site. AT&T also called the property owner and has not received communication expressing interest in a lease agreement.	Preference 7
Alternate Site 6	656 Arguello Blvd	On 11/15/17 AT&T sent a Letter of Interest via Fedex to the property owner regarding installation of a rooftop cell site. AT&T also called the property owner and has not received communication expressing interest in a lease agreement.	Preference 7
Alternate Site 7	672 Arguello Blvd	On 11/15/17 AT&T sent a Letter of Interest via Fedex to the property owner regarding installation of a rooftop cell site. AT&T also called the property owner and has not received communication expressing interest in a lease agreement.	Preference 7
Alternate Site 8	677 Arguello Blvd	On 11/15/17 AT&T sent a Letter of Interest via Fedex to the property owner regarding installation of a rooftop cell site. AT&T also called the property owner and has not received communication expressing interest in a lease agreement.	Preference 7
Alternate Site 9	690 Arguello Blvd	On 11/15/17 AT&T sent a Letter of Interest via Fedex to the property owner regarding installation of a rooftop cell site. AT&T also called the property owner and has not received communication expressing interest in a lease agreement	Preference 7
Alternate Site 10	699 Arguello Blvd	On 11/15/17 AT&T sent a Letter of Interest via Fedex to the property owner regarding installation of a rooftop cell site. AT&T also called the property owner and has not received communication expressing interest in a lease agreement	Preference 7
Alternate Site 11	707 Arguello Blvd	707 Arguello Blvd Owner declined to move forward with lease agreement with AT&T.	Preference 7
Alternate Site 12	24 Balboa St	On 11/15/17 AT&T sent a Letter of Interest via Fedex to the property owner regarding installation of a rooftop cell site. AT&T also called the property owner and has not received communication expressing interest in a lease agreement	Preference 7
Alternate Site 13	26 Balboa St	On 11/15/17 AT&T sent a Letter of Interest via Fedex to the property owner regarding installation of a rooftop cell site. AT&T also called the property owner and has not received communication expressing interest in a lease agreement	Preference 7
Alternate Site 14	25 Willard St N	On 11/15/17 AT&T sent a Letter of Interest via Fedex to the property owner regarding installation of a rooftop cell site. AT&T also called the property owner and has not received communication expressing interest in a lease agreement	Preference 7
Alternate Site 15	67 Rossi Ave	67 Rossi Ave Building roof is not large enough to accommodate AT&T antennas and there is not ground space or roof space for the required equipment cabinets.	Preference 7

ATTACHMENT F

	Site Address	Reason for Rejection	Location Preference
Alternate Site 1	3138 Turk Blvd	On 9/30/20 AT&T sent a Letter of Interest via USPS Priority Mail to: THE LOW FAMILY TRUST 3138 TURK BLVD #1 SAN FRANCISCO CA 94118 regarding installation of a rooftop cell site. No Response from owners	Preference 7
Alternate Site 2	3144 Turk Blvd	On 9/30/20 AT&T sent a Letter of Interest via USPS Priority Mail to: LOW ELSON C 3144 TURK BLVD SAN FRANCISCO CA 94118 regarding installation of a rooftop cell site. No Response from owners	Preference 7
Alternate Site 3	621 Arguello Blvd	On 9/29/20 AT&T sent a Letter of Interest via USPS Priority Mail to: SUBBOTIN, VLADIMIR621 ARGUELLO BLVD APT 101 SAN FRANCISCO CA 94118 regarding installation of a rooftop cell site. No Response from owners	Preference 7
Alternate Site 4	625 Arguello Blvd	On 9/29/20 AT&T sent a Letter of Interest via USPS Priority Mail to: 625 ARGUELLO PARTNERS LLCPO BOX 590593 SAN FRANCISCO CA 94159 regarding installation of a rooftop cell site. Owners expressed interest. Site walk was completed 11/11/20 to determine viability. AT&T RF Engineer confirmed the site does not provide better service than the current candidate at 590 2nd Avenue.	Preference 7
Alternate Site 5	629 Arguello Blvd	On 9/29/20 AT&T sent a Letter of Interest via USPS Priority Mail to: OLDCOURT LLC 828 FRANKLIN ST STE 101 SAN FRANCISCO CA 94102 regarding installation of a rooftop cell site. No Response from owners	Preference 7
Alternate Site 6	656 Arguello Blvd	On 9/29/20 AT&T sent a Letter of Interest via USPS Priority Mail to: RUTH LEONG LIVING TRUST 656 ARGUELLO BLVD APT 1 SAN FRANCISCO CA 94118 regarding installation of a rooftop cell site. No Response from owners	Preference 7
Alternate Site 7	672 Arguello Blvd	On 9/29/20 AT&T sent a Letter of Interest via USPS Priority Mail to: GREEN, ROBERT JAY; LEE, HOLDEN H 672 ARGUELLO BLVD SAN FRANCISCO CA 94118 regarding installation of a rooftop cell site. No Response from owners	Preference 7
Alternate Site 8	677 Arguello Blvd	On 9/29/20 AT&T sent a Letter of Interest via USPS Priority Mail to: KENT WU 677 ARGUELLO BLVD APT 101 SAN FRANCISCO CA 94118 regarding installation of a rooftop cell site. No Response from owners	Preference 7
Alternate Site 9	690 Arguello Blvd	On 9/29/20 AT&T sent a Letter of Interest via USPS Priority Mail to: LIN HUBERT C & JUDY HONG 690 ARGUELLO BLVD APT 101 SAN FRANCISCO CA 94118 regarding installation of a rooftop cell site. No Response from owners	Preference 7
Alternate Site 10	699 Arguello Blvd	On 9/29/20 AT&T sent a Letter of Interest via USPS Priority Mail to: ONEILL LEONORE (TRUSTEE) 610 3RD AVE SAN FRANCISCO CA 94118 regarding installation of a rooftop cell site. No Response from owners.	Preference 7

Alternate Site 11	707 Arguello Blvd	On 9/29/20 AT&T sent a Letter of Interest via USPS Priority Mail to: 707 ARGUELLO PARTNERS LLC PO BOX 590593 SAN FRANCISCO CA 94159 regarding installation of a rooftop cell site and they were not interested in a rooftop site. Same owners as 625 Arguello	Preference 7
Alternate Site 12	24 Balboa St	On 9/29/20 AT&T sent a Letter of Interest via USPS Priority Mail to: LEONG & AU FAMILY TRUST 24 BALBOA ST APT 4 SAN FRANCISCO CA 94118 regarding installation of a rooftop cell site. No Response from owners.	Preference 7
Alternate Site 13	26 Balboa St	On 9/29/20 AT&T sent a Letter of Interest via USPS Priority Mail to: DIANA LOUIE LVG TR 988 FRANKLIN ST APT 1307 OAKLAND CA 94607 regarding installation of a rooftop cell site. No Response from owners.	Preference 7
Alternate Site 14	25 Willard St N	On 9/29/20 AT&T sent a Letter of Interest via USPS Priority Mail to: DAVID VOZHIK & TATYANA CHOCHIA 25 N WILLARD ST SAN FRANCISCO CA 94118 regarding installation of a rooftop cell site. No Response from owners.	Preference 7

ATTACHMENT G

HAMMETT & EDISON, INC.
CONSULTING ENGINEERS
BROADCAST & WIRELESS

WILLIAM F. HAMMETT, P.E.
RAJAT MATHUR, P.E.
ROBERT P. SMITH, JR.
ANDREA L. BRIGHT, P.E.
NEIL J. OLIJ, P.E.
BRIAN F. PALMER
M. DANIEL RO
NICHOLAS J. PETERS

ROBERT L. HAMMETT, P.E.
1920-2002
EDWARD EDISON, P.E.
1920-2009

DANE E. ERICKSEN, P.E.
CONSULTANT

BY E-MAIL DTURNER@J5IP.COM

January 4, 2021

Mr. Derek Turner
J5 Infrastructure Partners
2030 Main Street, Suite 200
Irvine, California 92614

Dear Derek:

It was nice to see you at the site walk on November 11, 2020, at the three-story residential building located at 625 Arguello Boulevard, as you scouted for an alternative location to the AT&T Mobility base station (Site No. CCL03293) currently proposed for the roof of the residential building at 590 Second Avenue in San Francisco.

As we discussed at the time, the primary issues for compliance with FCC guidelines limiting human exposure to RF energy at this building are the adjacent buildings of the same height to the north and south. Since we would not expect AT&T to establish lease arrangements with the owners of these buildings, too, we cannot assume AT&T could mark roof areas on those buildings or establish access controls there (*e.g.,* locked doors and/or barricades).

Subsequent calculations show that, in order not to exceed the FCC public exposure limits at those buildings, AT&T's antennas above the roof of 625 Arguello Boulevard would need to be mounted at a centerline height of about 20 feet above the roof, based on the operation proposed at the Second Avenue location. This means that a view screen shroud would need to extend about 16 feet above the existing 6-foot elevator penthouse, a condition that may not meet with approval from the San Francisco Planning Department.

We hope this addresses your key questions about this alternative location. Please let us know if we can be of any further assistance.

Sincerely yours,

William F. Hammett, P.E.

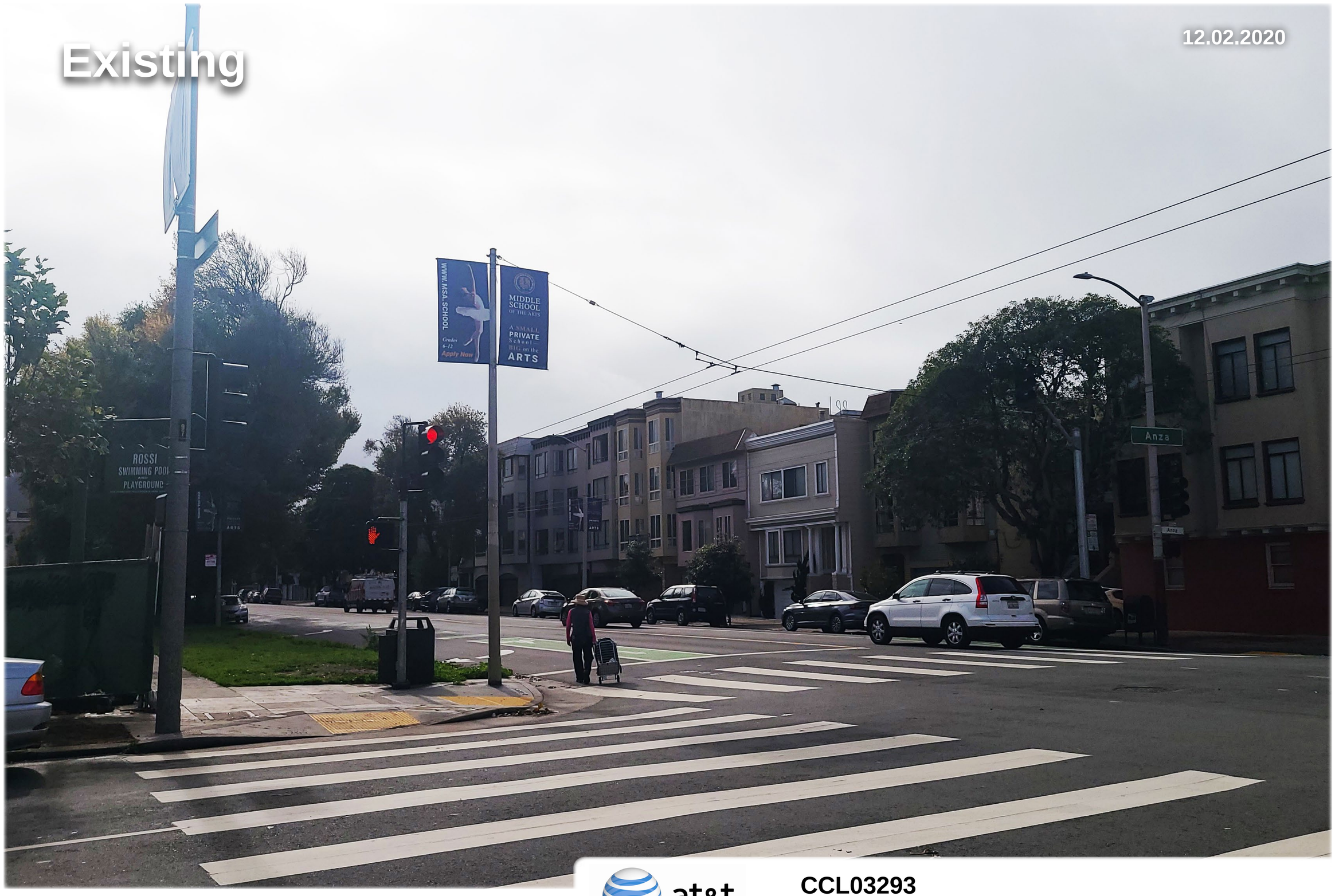
scn

cc: Mr. Edwin Aviles – BY EMAIL EA5477@ATT.COM
Mr. Marcelo Pontin – BY EMAIL MP8063@ATT.COM
Mr. Evan Wynns – BY EMAIL EWYNNS@J5IP.COM
Ms. Misako Hill – BY EMAIL MHILL@J5IP.COM
Ms. Rebecca Carbone – BY EMAIL RCARBONE@J5IP.COM

ATTACHMENT H

Existing

12.02.2020



at&t

CCL03293
625 Arguello Blvd, San Francisco, CA 94118

Proposed

Photo simulation as seen looking southwest from Anza Street

Existing

12.02.2020

at&t

CCL03293
625 Arguello Blvd, San Francisco, CA 94118

Proposed

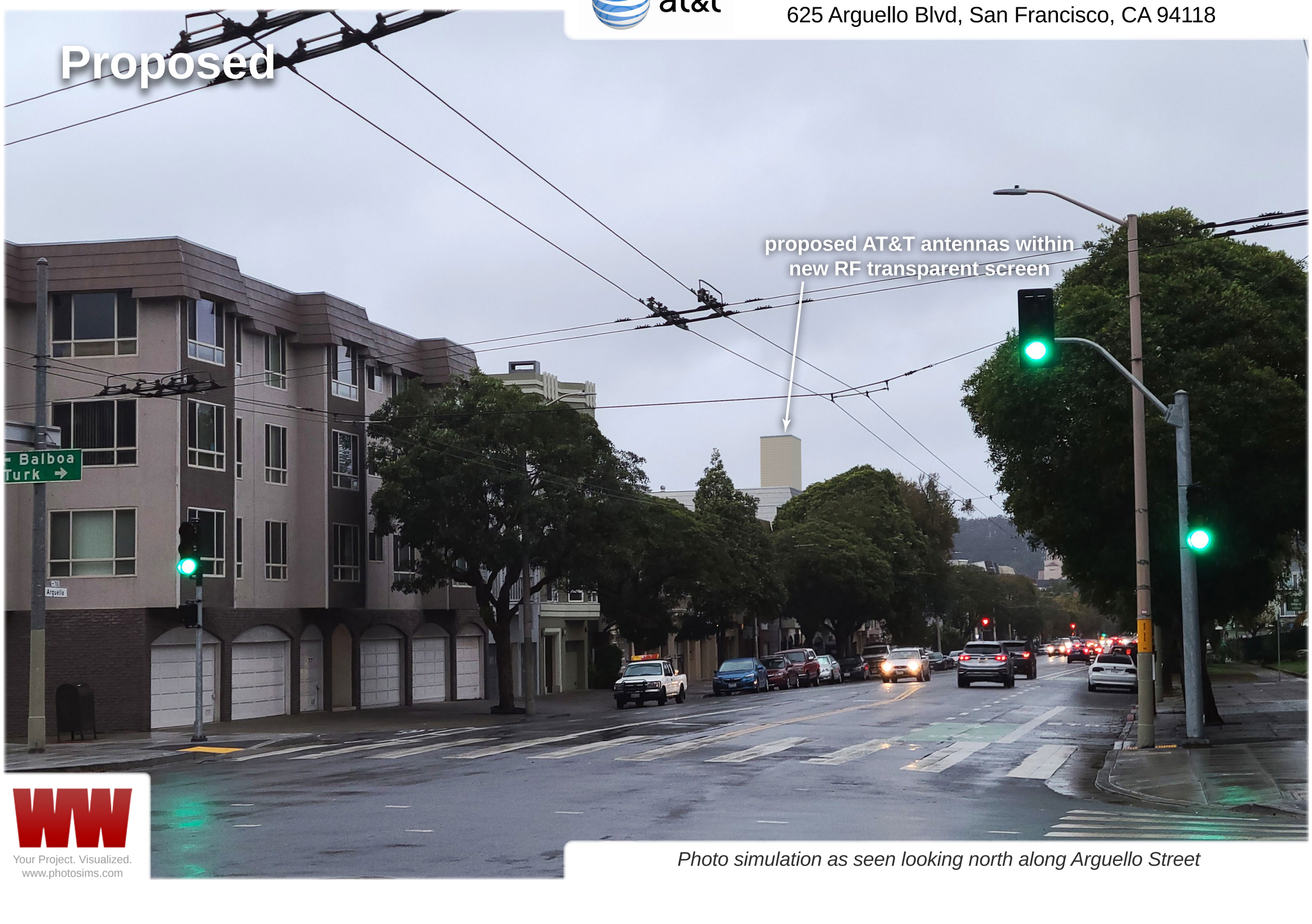


Photo simulation as seen looking north along Arguello Street

Existing

12.02.2020

at&t

CCL03293
625 Arguello Blvd, San Francisco, CA 94118

Proposed

Photo simulation as seen looking northwest from Edward Street