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August 2, 2018

**HAND DELIVERED**

Mr. Brett Sikoff  
15 Metro Tech Center, 19th Floor  
Brooklyn, NY 11201

Dear Mr. Sikoff:

New Cingular Wireless PCS, LLC ("AT&T" or "Respondent"), an indirect wholly-owned subsidiary of AT&T Inc. is pleased to submit this proposal to the City of New York ("City") Department of Information Technology and Telecommunications ("DoITT") in response to the Request for Proposals for Franchises for the Installation and Use of Telecommunications Equipment and Facilities, Including Base Stations and Access Point Facilities, on City-Owned Street Light Poles and Traffic Light Poles, and Certain Utility Poles and Other Facilities Located on City Streets, in Connection with the Provision of Mobile Telecommunications Services released June 12, 2018 PIN: 8582018FRANCH1 (the "RFP"). Below is AT&T's response to each Section of the RFP which includes AT&T's proposal. Capitalized terms not otherwise defined herein shall have the respective meanings set forth in the RFP.

SECTION 1. INTRODUCTION.

(a) General Background.

**AT&T'S RESPONSE: No response is required, but AT&T supports and appreciates the issuance of the RFP by DoITT.**

(b) Procedural Background.

**AT&T'S RESPONSE: No response is required from Respondent.**

(c) Definitions.

**AT&T'S RESPONSE: No response is required from Respondent.**



(d) Proposals Sought.

**AT&T'S RESPONSE: AT&T respectfully submits this proposal in response to the RFP. AT&T is not an Existing Franchisee.**

(e) Existing Franchise Agreements.

**AT&T'S RESPONSE: AT&T is not an Existing Franchisee.**

(f) Location on or Within "Links".

**AT&T'S RESPONSE: AT&T is interested in utilizing Link structures in accordance with the RFP.**

(g) Location on Additional Street Furniture.

**AT&T'S RESPONSE: AT&T is interested in utilizing other structures legally authorized on City Streets in accordance with the RFP.**

(h) Term.

**AT&T'S RESPONSE: No response is required from Respondent.**

SECTION 2. NON-EXCLUSIVITY; RESERVATION OF AUTHORITY.

**AT&T'S RESPONSE: No response is required from Respondent.**

SECTION 3. RFP TIMETABLE.

**AT&T'S RESPONSE: No response is required from Respondent.**

SECTION 4. GENERAL INFORMATION.

**AT&T'S RESPONSE: No response is required from Respondent.**



SECTION 5. DESIGN AND TECHNICAL REQUIREMENTS FOR BASE STATION EQUIPMENT LOCATED ON STREET OPERATIONS POLES.

(a) Introduction.

(1) DoITT expects that the industry will continue to make best efforts to maximize use of the space currently available within the specifications of the base station and antenna equipment permitted by this RFP in Section 5(b) and elsewhere. There currently exist design drawings which have been approved by the City (Exhibit B attached hereto) and comply with the specifications identified below in Section 5(b). DoITT will consider other design drawings that comply with the specifications identified below in Section 5(b) and elsewhere in this RFP, but such designs may be subject to further City review and approvals. DoITT recognizes that franchisees may, during the term of the franchise, seek to modify the specifications of the base station and antenna equipment. Therefore, DoITT anticipates any franchise agreement granted as a result of the RFP will contain provisions for the franchisee to submit modified equipment specifications and designs to DoITT which DoITT, in its fullest discretion and if authorized by applicable law, may approve. All future equipment modifications proposals will however be subject to the review and approval by all City agencies of applicable jurisdiction, which may include, without limitation, the New York City Department of Transportation, and the Public Design Commission.

**AT&T'S RESPONSE: AT&T is able to use the designs and specifications previously approved by the City. See response to Section 5(a)(2) below with respect to other potential designs for consideration.**

(2) In order to assist DoITT in its ongoing review of best approaches to wireless installation design on City poles, DoITT asks that each responder to this RFP include in its response, comments it may have regarding the degree to which future changes in the design requirements described herein (such as the limits on the dimensions, number and/or function of the components set forth below) could better accommodate the responder's efforts to offer, with the best practical effectiveness, the wireless services that it contemplates, while remaining



consistent with appropriate esthetic, safety and pole and right-of-way operational concerns. At a minimum, each responder is to include in this respect, a description of any ways in which the proposer might be enabled to enhance the resilience<sup>1</sup> of its contemplated service as the result of such potential design changes, by comparing the resilience-related steps it expects to be associated with its services given the design requirements as currently described in this RFP with additional resilience-related steps that would be enabled with potential future design requirements changes (such as the limits on the dimensions, number and/or function of the components set forth below) that remain consistent with appropriate esthetic, safety and pole and right-of-way operational concerns. Each responder is welcome (though not required), to also identify, at its discretion, any other areas, in addition to resilience, in connection with which a responder believes appropriate future design changes would help the responder enhance its services. Such other areas may include opportunities for solutions enabling multi-carrier tenancy within a single pole installation.

**AT&T'S RESPONSE: The previously approved designs and specifications incorporating a 2.8 cubic foot enclosure and two inch (2") whip antennas limit the services and capacity available to any given geographic location (see Figure 1 below). These designs of the shroud and antenna suited the technology and public needs from fifteen years ago when mobile connections and transactions were limited to voice calls and short messages. In the past, small cell applications were limited to solving coverage gaps and augmenting capacity in difficult siting areas. Likewise, outdoor distributed antennas systems were designed to solve challenging traditional siting issues in particular discrete geographic areas. As networks and consumer expectations have matured and evolved, so have our network needs. The wireless networks of today and tomorrow require greater reliability, the use of multiple technologies, less latency and**

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<sup>1</sup> "Resilience" as that term is used in this RFP refers to the ability of the equipment contemplated for installation in the rights-of-way to continue to operate for its intended purposes during severe weather events (flooding, high wind conditions, intense snowstorms, etc.), power outages and other emergency conditions.





**greater capacity to meet the demands for current and future applications, i.e. video, IoT (Internet of Things), gaming, smart automobiles, etc. Old solutions such as small whip antennas, small enclosures and outdoor distributed antenna systems will not meet the needs to operate these applications. Below are some examples of newer designs which can be consistent with the original purpose of minimizing the visual impact on the City while allowing for designs that evolve for future network need. The slightly larger shrouds and canister antenna profiles (see Figure 2 below) accommodate additional capacity and future 5G technologies.**

**The newly designed shrouds (see Figure 3 below) are designed to be resilient, i.e. include battery packs, and are slightly larger but still aesthetically sensitive and enhance reliability. Resiliency is an essential requirement of AT&T's traditional network. There are many possible solutions and designs that would add resiliency to the pole installations but none consistent with the approved designs. One example which would provide greater resiliency is the larger shroud. The larger shroud would retain the same profile but would accommodate rectifiers and batteries to provide backup power during times of power outages or lack of power to a particular facility.**





**Figure 1 – Photograph of existing standard approved shroud with antenna solution.**





**Figure 2 – Photosimulation of larger shroud with multi-technology antenna solution.**





**Figure 3 – Photosimulation of resilient shroud with multi-technology antenna solution.**





(b) Permitted Components and Size of Base Station Equipment. Proposals for location of base stations and related facilities on SLPs and TLPs shall include at least a schematic design for, and a photograph of, the equipment intended to be installed. The fullest possible design description and photographic description of the proposed installations are encouraged. Proposals may contemplate the installation of one, two or all three of the following elements to be installed on SLPs and TLPs, provided such elements to be installed are consistent with the following parameters:

Element (1): Equipment Housings. One equipment housing (which may enclose, incorporate or consist of one or more than one antenna of any type, or other form of equipment) within either of the two following size parameters:

(A) An equipment housing with a volume no greater than 2.8 cubic feet (i.e. 4,840 cubic inches) with maximum dimensions of 35 inches (H) by 15 1/2 inches (W) by 9 inches (D).

(B) An equipment housing with a volume no greater than 2.8 cubic feet (i.e. 4,840 cubic inches) with maximum dimensions of 25 inches (H) by 18 inches (W) by 11 inches (D).

Element (2): Stick-Type Antennas. One stick-type antenna, no more than two inches in diameter and extending no more than sixty inches in length, extending vertically from a base at the top of the pole. Special consideration may be given for attachment of antennae on SLP designs that do not contain a pole cap. Approval by the City for installations on poles of this type will be given on a case by case basis and require submission of detailed mounting drawings;

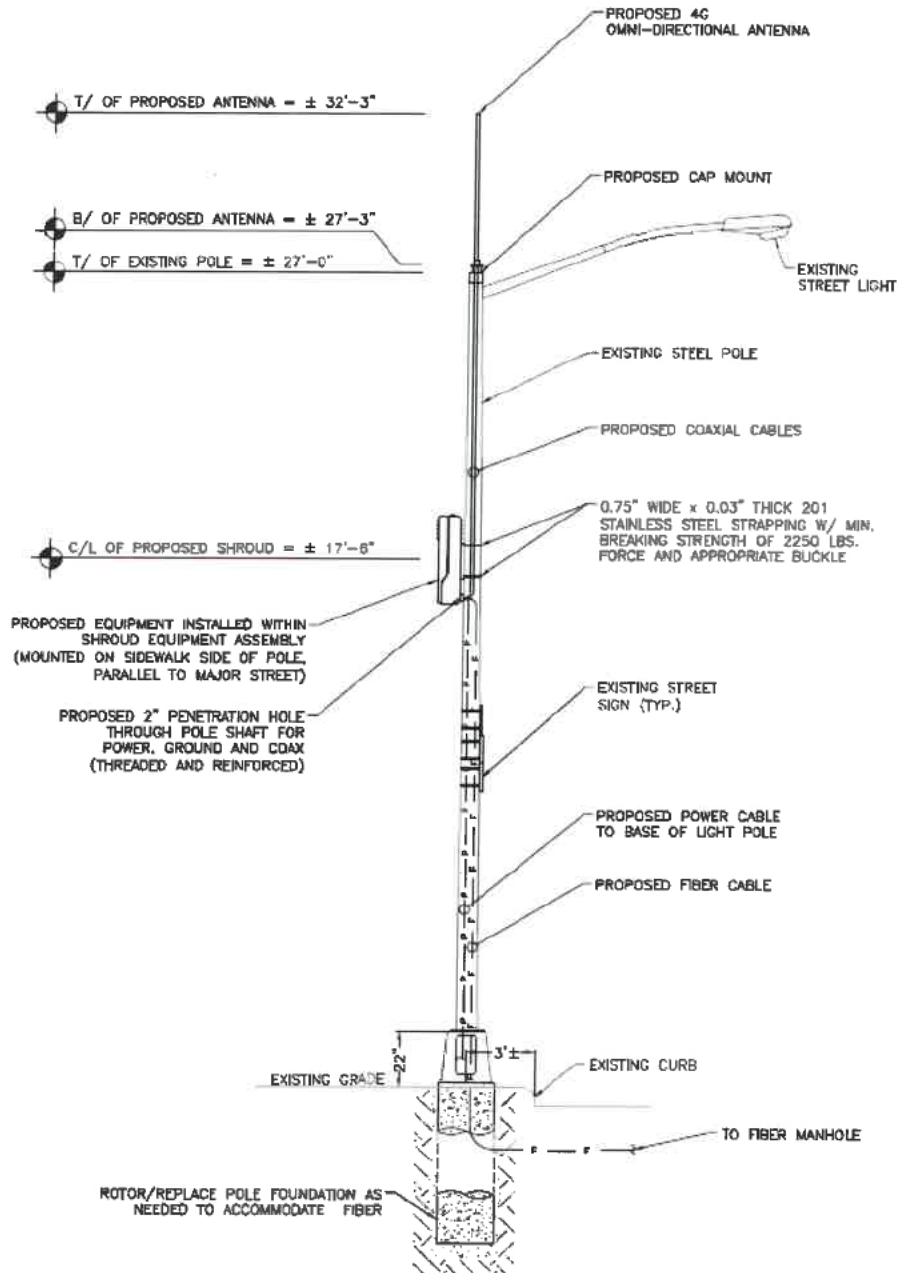
Element (3): Interconnecting Wiring/Cabling. Wire or cable interconnecting the above elements with each other and with underground power and/or other supporting utility facilities (in areas of the City where such utility facilities are located above ground, then such wire interconnection shall be permitted to connect to such above ground facilities), with as much of such wire or cable being located inside the Street Pole, rather than externally, as practicable.



Proposers are encouraged to use wireless backhaul technologies, where practicable, to interconnect its facilities to minimize the disruption to City streets.

**AT&T'S RESPONSE: Please see AT&T's schematic designs below and the photographs in response to Section 5(b)(2) of the RFP above.**

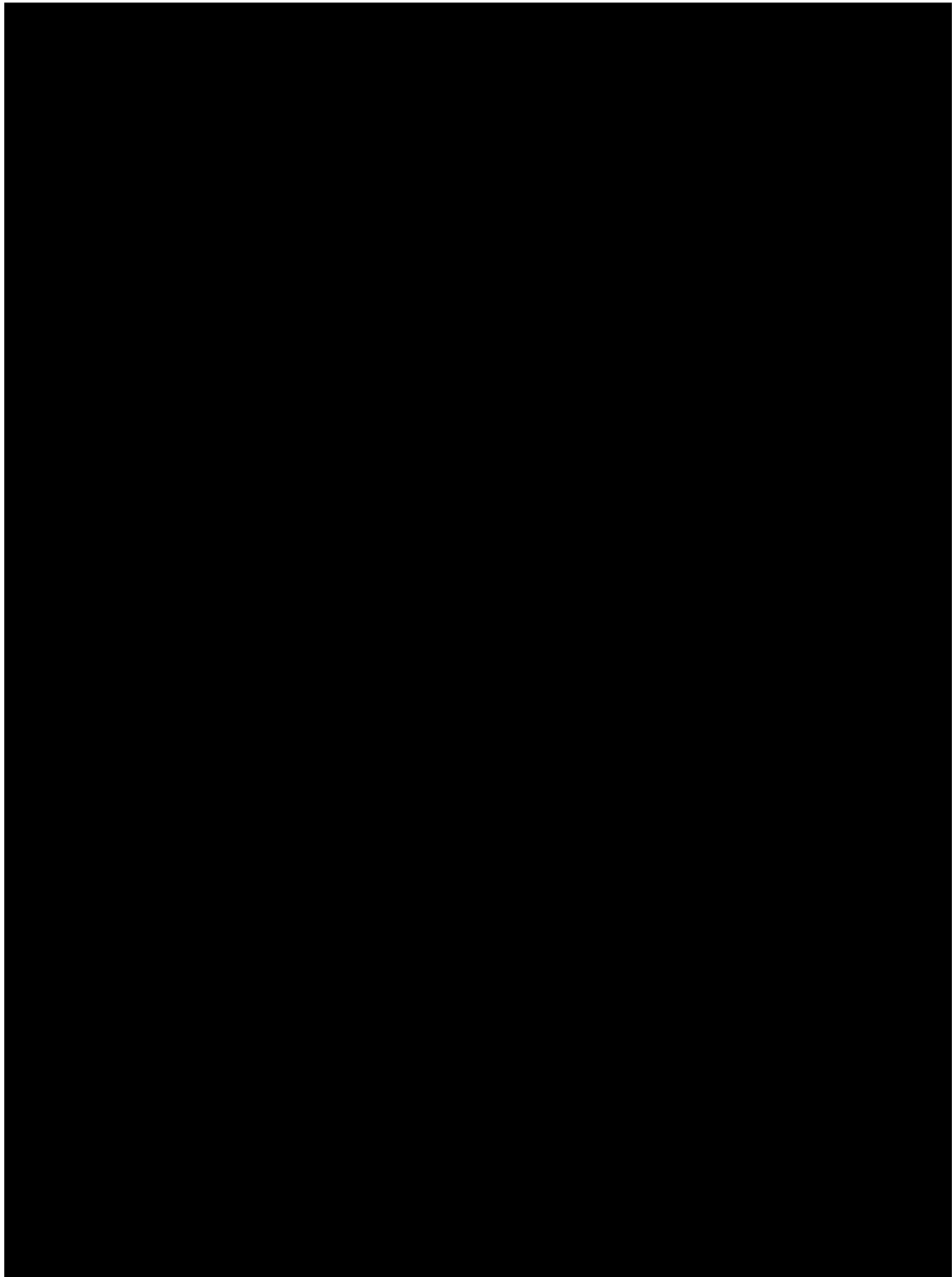




**PROPOSED POLE ELEVATION**

**STANDARD DESIGN**

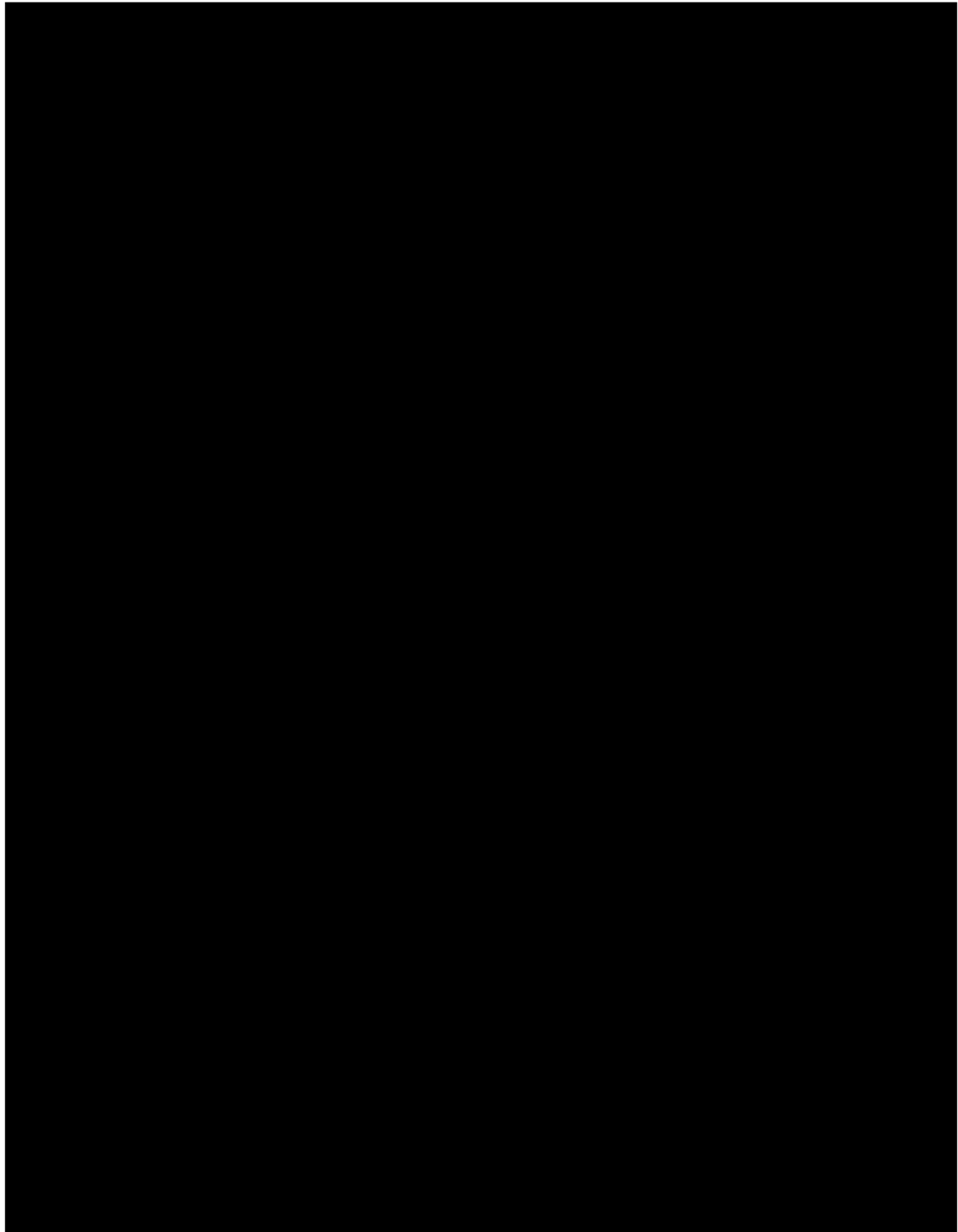




**LARGER SHROUD WITH MULTI-TECHNOLOGY ANTENNA  
SOLUTION**







**RESILIENT SHROUD WITH MULTI-TECHNOLOGY ANTENNA  
SOLUTION**



(c) Permitted Weight of Base Station Equipment.

**AT&T'S RESPONSE: AT&T will provide the required structural analysis for each Facility upon becoming a Resulting Franchisee.**

(d) Permitted Location and Orientation on Street Operations Poles of Base Station Equipment.

**AT&T'S RESPONSE: No response is required from Respondent.**

(e) Permitted Visual Appearance of Base Station Equipment.

(1) Each equipment housing must be painted the same color as the pole on which it is sited.

**AT&T'S RESPONSE: AT&T's equipment housing will be painted to match the color of the pole on which it is sited.**

(2) No unauthorized writing, symbol, logo or other graphic representation that is visible from the street or sidewalk shall appear on any exterior surface of an equipment housing.

**AT&T'S RESPONSE: AT&T will only install required information, such as radio frequency notices as required by the FCC.**

(f) Review Requirements for Design and Installation of Base Station Equipment.

**AT&T'S RESPONSE: No response is required from Respondent.**

(g) Power Supply.

**AT&T'S RESPONSE: No response is required from Respondent.**

(h) Radio Frequency Energy Exposure Limits. Proposals shall include documentation showing that the radio frequency energy exposure from equipment proposed to be installed will not exceed the maximum permitted levels established by the Federal Communications Commission (FCC). Franchise contracts issued pursuant to this RFP will require on-going compliance with such FCC maximum permitted levels (calculated on an aggregate basis with any other radio frequency energy emitters that may be present), and permit the City to require



testing, from time to time, by independent experts, at the expense of franchisees, to ensure such compliance.

**AT&T'S RESPONSE: AT&T builds and maintains all cell sites and antennas in accordance with FCC guidelines for human exposure to radio frequency fields. As an example, please see the attached form of compliance report submitted with this response as Attachment "1" evidencing that the radio frequency energy exposure from AT&T's equipment proposed to be installed will not exceed the maximum permitted levels established by the FCC. As noted in said report, the maximum cumulative simulated radio frequency exposure level on the ground from AT&T's equipment will be less than one-percent (<1%) of the FCC's maximum general limit.**

- (i) City Pole Management Requirements.

**AT&T'S RESPONSE: No response is required from Respondent.**

- (j) Community Board/City Council Notification.

**AT&T'S RESPONSE: No response is required from Respondent.**

**SECTION 6. LOCATION OF BASE STATIONS TO BE PLACED ON STREET OPERATIONS POLES.**

**AT&T'S RESPONSE: No response is required from Respondent.**

**SECTION 7. DESIGN AND LOCATION ON STREET UTILITY POLES.**

**AT&T'S RESPONSE: No response is required from Respondent.**

**SECTION 8. MAXIMUM NUMBER OF POLES AVAILABLE PER FRANCHISE.**

**AT&T'S RESPONSE: No response is required from Respondent.**

**SECTION 9. FRANCHISE COMPENSATION.**

For purposes of this franchise, the City is divided into three geographical zones: Zone A consists of the portion of the Borough of Manhattan which includes 96<sup>th</sup> Street (inclusive of the



northernmost boundary of the north side sidewalk of 96<sup>th</sup> Street) and all parts of Manhattan that lie south of 96<sup>th</sup> Street; Zone B consists of 26 all portions of the City not within Zone A or Zone C; and Zone C consists of Community Districts 1, 2, 4, 5 and 7 in the Bronx, and 13 and 16 in Brooklyn.

(a) Per Pole Compensation for Street Operations Poles. In order to compensate the City for the placement of base stations and antennae on SLPs/TLPs, franchisees shall pay to the City, on a monthly basis, a minimum of \$350.00 (three hundred fifty dollars) per pole in Zone A, \$250.00 (two hundred fifty dollars) per pole in Zone B and \$100.00 (one hundred dollars) per pole in Zone C. Proposers may propose more than the minimum if they wish. Proposers might wish to bid more than the minimum because the order of selection of individual poles within each zone will be based on the amount of pole compensation each proposer bids pursuant to this RFP.<sup>2</sup> For example, the company who bids the highest amount in Zone A will receive the first slot in the priority list for that zone, and the company who bids the second highest amount in Zone A will receive the second slot in that zone, and so on. Franchisees holding franchises granted under future RFPs similar in effect to this one may have the opportunity to participate, but such later franchisees would be expected to hold a later priority than any preceding franchisees.

**AT&T proposes the following per pole compensation for Street Operations Poles:**

**Zone A: \$455.00 per month**

**Zone B: \$325.00 per month**

**Zone C: \$130.00 per month**

(b) Per Pole Compensation for Street Utility Poles. Unless proposers offer convincing reasons to proceed otherwise, Resulting Franchises will provide that the per pole franchise compensation to the City for use of the space in the plane of the public rights-of-way on Street Utility Poles will be \$25.00 (twenty-five dollars) per pole per month in Zone B and \$10.00 (ten dollars) per pole per month in Zone C (Street Utility poles are not permitted in Zone A). Proposers may, if they wish, as part of their proposals, offer reasons why such amounts should

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<sup>2</sup> Note that selection priorities effective under existing franchises will no longer apply once Resulting Franchises become effective; only selection priorities resulting from the bidding pursuant to this RFP will apply once Resulting Franchises become effective.





be different in any Resulting Franchises, and the City reserves the right to propose alternative amounts in proposed forms of Resulting Franchises if the City is persuaded by any such reasons that may be offered. In any event, the compensation payable to the City for installation of antennas and related facilities in the space above the streets and within the plane of the inalienable property of the City shall be in addition to any and all compensation required by and payable by a franchisee to the utility owner of any Street Utility Pole for use of the Street Utility Pole itself.

**AT&T proposes the following per pole compensation for Street Utility Poles:**

**Zone B: \$32.50 per month**

**Zone C: \$13.00 per month**

(c) Annual Pole Compensation Escalation. All pole compensation shall be subject to annual escalation of four percent (4%) effective upon the anniversary of the effective date of any Resulting Franchises, and each subsequent anniversary throughout the term.

**AT&T'S RESPONSE: No response is required from Respondent.**

(d) Per Pole Compensation Pre-Payment Period. Pole compensation for new pole reservations submitted will be subject to a thirty (30) day pre-payment period.

**AT&T'S RESPONSE: No response is required from Respondent.**

(e) Minimum Compensation. Availability of pole locations for the purposes described in this RFP is a limited resource that as a practical matter cannot be offered on an unlimited basis to all potential users. It is therefore important for the City to be able to appropriately manage the use of its poles and that its non-exclusive franchises for such use be granted to entities that are prepared to use the franchise resource in a significant way. An effective way of assuring that only those who will make significant use of the franchise resource seek and maintain a franchise is to require a minimum level of franchise compensation regardless of the number of poles the franchisee actually uses. The geographic zones established for this franchise (described in section 9 of this RFP) generally reflect the differing property value levels of these areas and are thus unlikely to produce for any provider levels of compensation to the City that are higher than that which private landlords would charge for locating similar sorts of facilities in the respective



areas. Franchises granted pursuant to this RFP will be required to compensate the City minimum annual compensation based on the geographic area in which it elects to reserve poles. Minimum compensation is as follows: \$200,000 (two hundred thousand dollars) per year for use of Street Poles in all three zones, \$100,000 (one hundred thousand dollars) per year for use of Street Poles only in Zones B and C, and \$20,000 (twenty thousand dollars) per year for use of Street Poles only in Zone C. Proposers should note that the anticipated continuation of a periodic pole reservation selection process referenced in Section 1 of this RFP should not be considered as a guarantee that such pole reservation periods will be ongoing or offered at regular intervals. Franchisees assume the risk of paying minimum compensation notwithstanding the fact that pole reservation phases may be paused or ceased during the franchise term. With respect to minimum compensation, proposers seeking franchises under this RFP need only identify in its proposal which of these three choices (all three zones, Zones B and C, or just Zone C) they would like incorporated into a franchise agreement. The minimum compensation described in this subsection (e) shall be in addition to, and not in lieu of, the per-pole compensation payments described in subsections (a) through (c) of this Section 9.

**AT&T'S RESPONSE: AT&T proposes to use Street Poles in all three (3) zones and requests that all three zones be incorporated into a Resulting Franchise.**

(f) Compensation to the City for Access to Links. In addition to any compensation that a Resulting Franchise franchisee who is granted a franchise pursuant to this RFP is obligated to pay the Link Franchisee in accordance with terms and conditions agreed upon by such franchisee with the Link Franchisee, compensation to the City reflecting the City's grant of authority to such franchisee to install, operate and maintain its base stations on the City's streets at the Link locations shall be required to be paid by such franchisee on a monthly basis in the amount of \$105.00 (one hundred and five dollars) per Link installation in Zone A, \$75.00 (seventy-five dollars) per Link installation in Zone B, and \$30.00 (thirty dollars) per Link installation in Zone C. Such compensation shall be subject to annual escalation of four percent (4%).



**AT&T'S RESPONSE: AT&T acknowledges the provisions of this section of the RFP.**

- (g) Additional Street Operations Pole Reservation Phase Allotment.

**AT&T'S RESPONSE: AT&T acknowledges the provisions of this section of the RFP.**

- (h) Cash Security Fund/Letter of Credit.

**AT&T'S RESPONSE: If awarded a Resulting Franchise, AT&T will comply with these requirements.**

**SECTION 10. PROPOSAL EVALUATION PROCEDURES.**

- (a) Evaluation Committee.

**AT&T'S RESPONSE: No response is required from Respondent.**

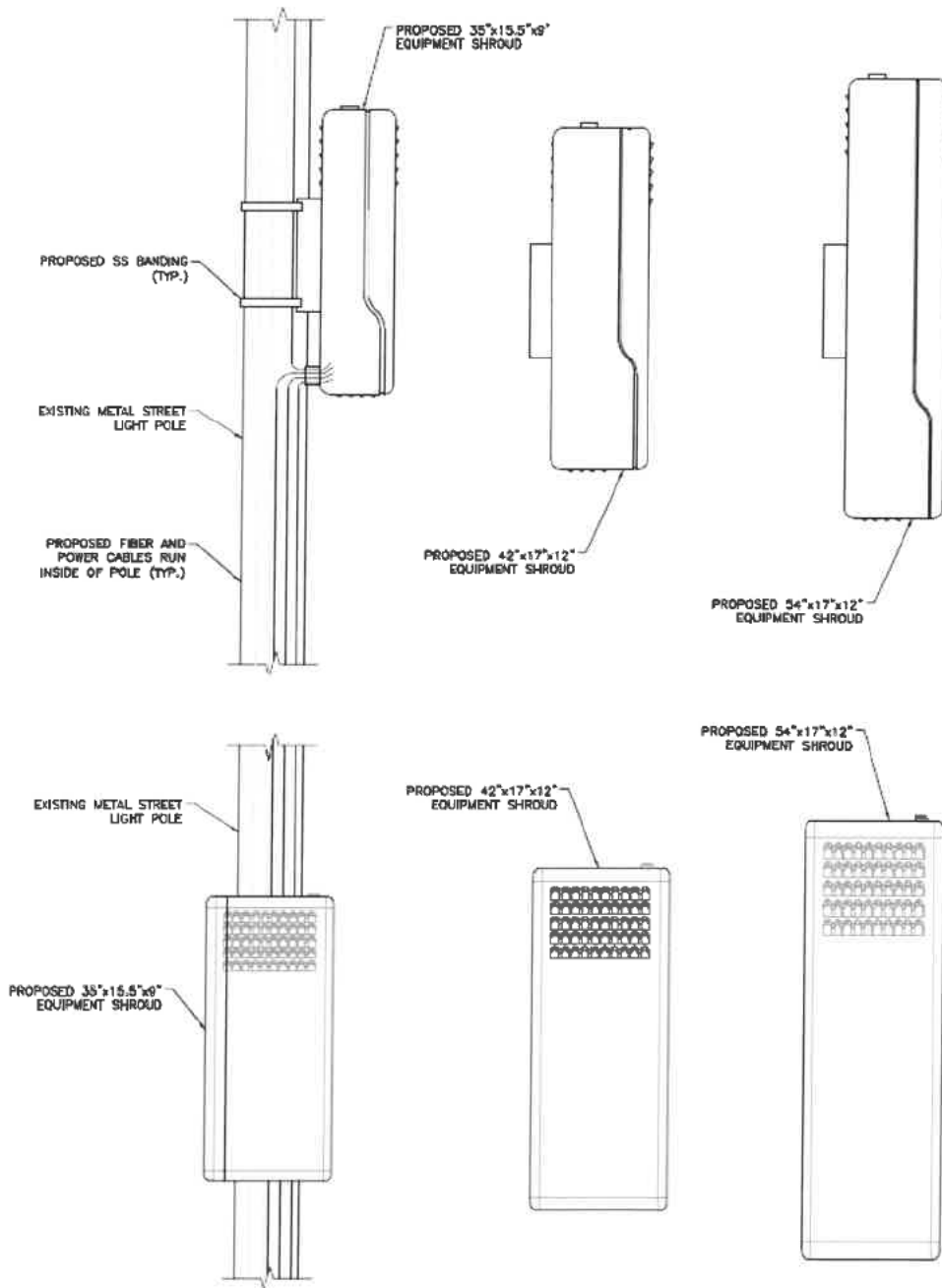
(b) Proposal Package. At a minimum, a proposal submitted in response to this RFP must be comprised of the following:

(1) Technical Proposal - A narrative and/or other appropriate form of presentation which describes:

(i) the equipment and facilities which would be located on Street Operations Poles, including at least a schematic design for, and a photograph of, the equipment intended to be installed including known power requirements (the fullest possible design description and photographic description of the proposed installations are encouraged);

**AT&T'S RESPONSE: Please see AT&T's responses, schematics and photographs in response to Sections (5)(a)(2) and 5(b) above. AT&T proposes to utilize state-of-the-art equipment which addresses both community concerns regarding impact on streetscape aesthetics while also using the most current technological equipment. Below are further details of AT&T's proposed facility.**

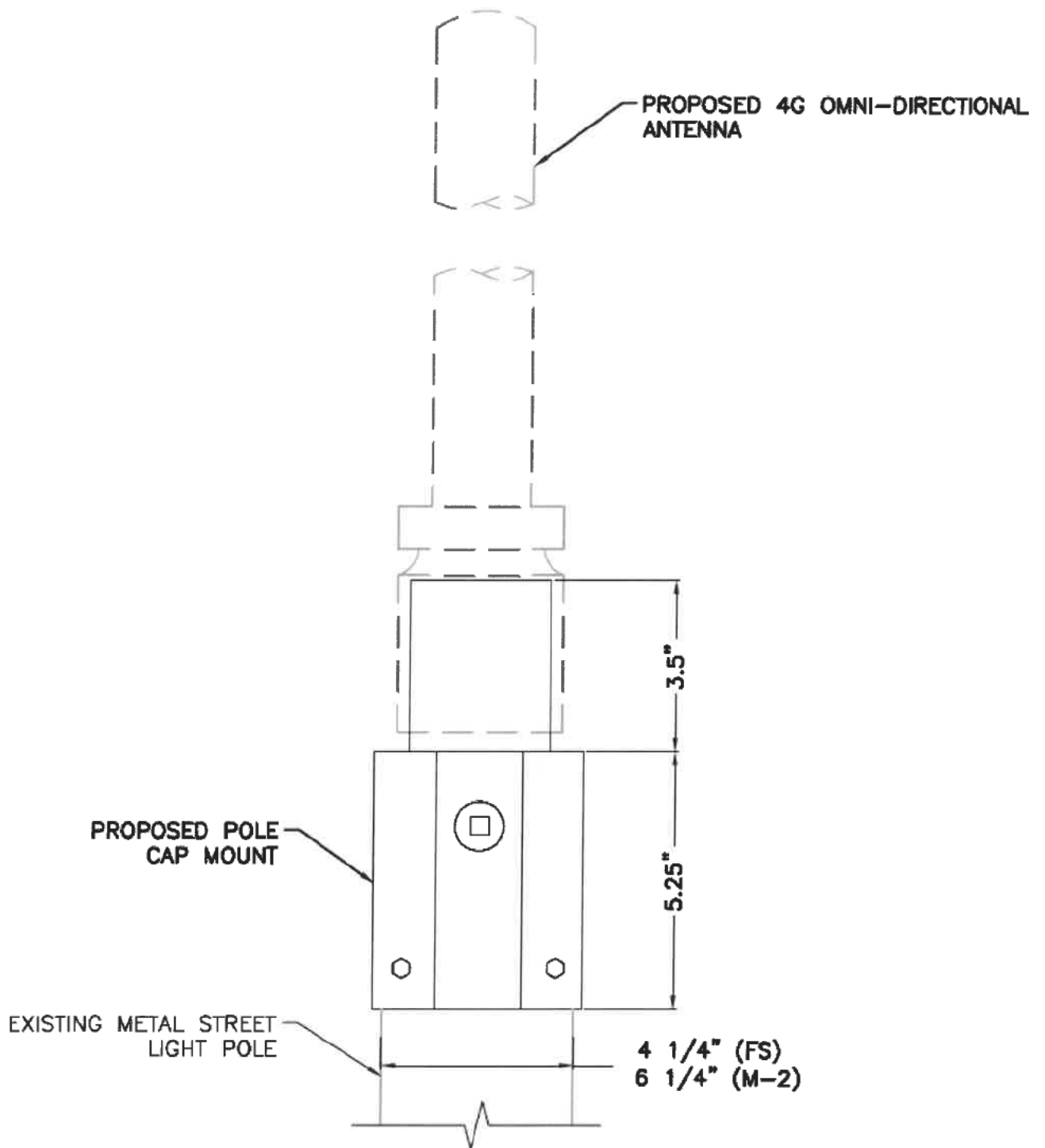




### MOUNTING SHROUD DETAIL

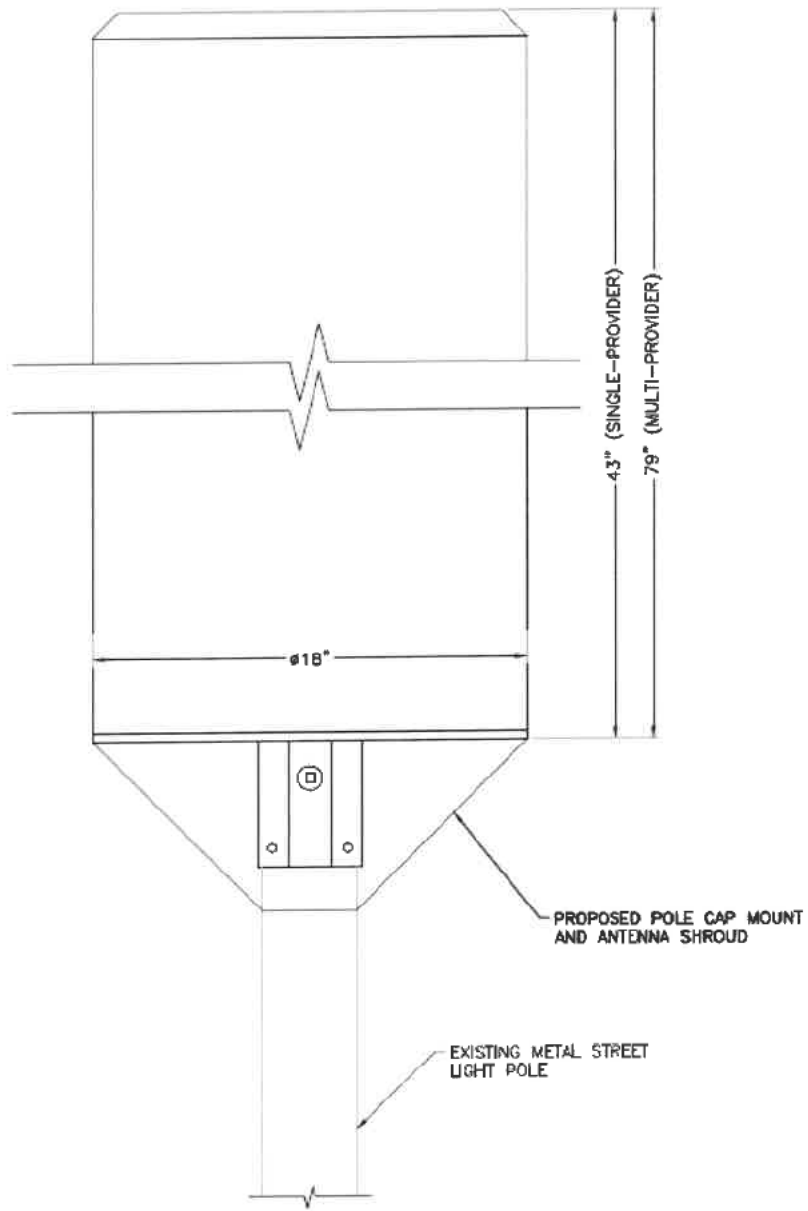






**STANDARD POLE CAP MOUNT**





**MULTI-TECHNOLOGY ANTENNA MOUNTING DETAIL**



#### **POWER CONSUMPTION DETAIL**

| <b>Shroud Type</b> | <b>Typical (Watts)</b> |
|--------------------|------------------------|
| <b>Standard</b>    | <b>330</b>             |
| <b>Larger</b>      | <b>830</b>             |
| <b>Resilient</b>   | <b>830</b>             |

#### **SHROUD SPECIFICATIONS**

| <b>Shroud Type</b> | <b>Height (in)</b> | <b>Width (in)</b> | <b>Depth (in)</b> |
|--------------------|--------------------|-------------------|-------------------|
| <b>Standard</b>    | <b>35</b>          | <b>15.5</b>       | <b>9</b>          |
| <b>Larger</b>      | <b>42</b>          | <b>17</b>         | <b>12</b>         |
| <b>Resilient</b>   | <b>54</b>          | <b>17</b>         | <b>12</b>         |

#### **MULTI-TECHNOLOGY ANTENNA SPECIFICATIONS**

| <b>Antenna</b>          | <b>Height (in)</b> | <b>Diameter (in)</b> |
|-------------------------|--------------------|----------------------|
| <b>Standard</b>         | <b>60</b>          | <b>2</b>             |
| <b>Multi-Technology</b> | <b>31</b>          | <b>13</b>            |

(ii) the services to be provided by such equipment and facilities, including the extent to which such equipment and facilities will be capable of serving multiple telecommunications service providers;

**AT&T'S RESPONSE: AT&T will provide its full complement of wireless services including voice, data, text messaging, internet access, video streaming, etc. In fact, AT&T provides the "highway" for its customers to use their devices as they see fit which includes thousands of available applications. Of course, as the Internet of Things and other wireless services develop, AT&T will remain on the cutting edge with respect to the services provided. At this point in time, AT&T's facilities**



**will only serve AT&T. AT&T looks forward to discussing potential multi-provider solutions that maximize the benefits to the City while meeting the service providers current and future network requirements. Lastly, FirstNet subscribers will be able to take advantage of the equipment and facilities AT&T plans to install as a Franchisee. In December 2017, Governor Andrew Cuomo announced that New York will accept the First Responder Network Authority and AT&T plan to deliver a wireless broadband network to the state's public safety community. Utilization of the equipment and facilities which AT&T will install pursuant to this RFP is one way that AT&T will help New York's first responders save lives and protect communities.**

**AT&T has also started planning for deployment of the latest wireless technology (5G) and is currently testing in our labs and in the field various ways to deploy that technology. The increased speeds and network operating efficiency expected with 5G technology should enable massive deployment of devices connected to the internet as well as faster delivery of video and data services. As the wireless industry continues to mature, future wireless growth will become increasingly dependent on our ability to offer innovative video and data services and a wireless network that has sufficient spectrum and capacity to support these innovations. We continue to invest significant capital in expanding our network capacity, as well as to secure and utilize spectrum that meets our long-term needs.**

(iii) the proposer's method(s) of installation of such facilities and equipment (including, to the extent not already included in the materials required by clause (i), a





description of the mounting procedures and techniques to be used to attach the facilities and equipment to the poles) and a description of any connecting facilities proposed to be used as described in the third sentence of subsection (d) of Section 1 of this RFP;

**AT&T'S RESPONSE: AT&T will use the following means and methods for Telecommunications Equipment Installations on City-Owned Street Light-Poles and Traffic Light Poles as depicted on the design plans and details contained above in AT&T's responses to Section 5 and Subsection 10(b)(1). The installation will consist of two visits as described below.**

**First Visit: EQUIPMENT INSTALLATION**

**AT&T's methods of installation will include the use of a standard bucket truck for all elevated work. Upon arrival to a particular site location, the installation crew will conduct a job safety briefing to discuss tasks, hazards and methods to mitigate any hazards. An approximately 12' x 12' work area around the pole would be demarked with cones and cone bars. The bucket truck would park in the street adjacent to the pole. The pathway between the truck and the work area would be taped off with caution tape for safety reasons. One member of the crew will be designated to observe pedestrian traffic to insure pedestrians do not enter the work area.**

**The mounting bracket for the shroud & antenna would then be lifted to the pole and secured to the pole with stainless steel banding. As noted above, all equipment will be painted to match the color of the pole. Fiber optic cable, AC power wire and the ground wire would be pulled, by hand, into the pole and up to the equipment shroud level from the nearby vault(s) using non-conductive fish tape. Likewise, coaxial cables for**



connecting the radio equipment to the antenna would be pulled through the pole, by hand, using non-conductive fish tape. The equipment shroud, pre-populated with radio equipment, would be lifted to the mounting level using the bucket truck. The wiring would be pulled into the shroud and then hung on the bracket and secured with bolts. The antenna would be lifted up to the top of the pole also using the bucket truck. The coaxial cables would be connected to the antenna and the antenna would be mounted in its final location on the top of the pole. From the bucket truck, the workers would terminate the power and transport cables in the equipment shroud. Final installation photographs will be taken and stored.

With respect to AT&T's "backhaul cabling" referenced in Section 1(d) of the RFP, AT&T will contract with incumbent providers in the City to bring the applicable transport cable, i.e. Ethernet, dark fiber, etc., to each pole.

#### **Second Visit: NETWORK INTEGRATION**

When the Facility is ready for network integration, a crew of technicians would be deployed to the site to ensure connectivity and confirm that the Facility is working and all equipment is functioning properly. As with the first visit, upon arrival to the site, the crew would conduct a job safety briefing to discuss tasks, hazards and methods for mitigating any hazards. An approximately 12' x 12' work area around the pole would be demarked with cones and cone bars. The bucket truck would park in the street adjacent to the pole. The pathway between the truck and the work area would be taped off with caution tape for safety reasons. One member of the crew will be



**designated to observe pedestrian traffic to insure pedestrians do not enter the work area.**

**Working from the bucket truck, a worker would ensure all equipment is powered up and is connected to the network. Troubleshooting would not extend beyond the boundaries of the described above. Once network integration is confirmed, test calls would be made and upon successful testing, integration would be complete.**

**Of course, the methods described above are subject to change based on availability of parts, work hour restrictions, other site specific issues, etc. All work will be conducted in a manner compliant with all federal, state and City requirements.**

(iv) the proposer's plans for repair, maintenance, and/or removal of such facilities and equipment, including, in particular, the proposer's plan to ensure that all construction will be performed and completed in full compliance with the City's standards and specifications;

**AT&T'S RESPONSE: AT&T commits to hire only licensed and experienced contractors and will direct that all construction be performed and completed in full compliance with the City's standards and specifications. AT&T is clearly capable of performing its obligations as a Resulting Franchisee and will provide the necessary resources to repair, maintain and removed Facilities and equipment in compliance with the Resulting Franchise Agreement and in accordance with AT&T's highest network standards.**

**AT&T's Global Network Operations Center (the "GNOC"), one of the world's largest command and control centers, monitors and proactively manages the flow of global data,**



**video and voice traffic on AT&T's networks. The GNOC helps to ensure the highest level of network reliability, performance and security, 24 hours a day, 365 days a year. The GNOC works in conjunction with AT&T's Regional Centers that manage local internal and external resources with staff that are trained, licensed and experienced in dealing with the City's standards and specifications. These Regional Centers dispatch resources to maintain, repair and replace network nodes as necessary, 24 hours a day, 365 days a year. AT&T will provide this world-class maintenance capability to the Facilities and equipment installed on City property.**

(v) the proposer's plans for maintaining the City's property in good condition during the term of the franchise;

**AT&T'S RESPONSE: AT&T maintains a robust network of internal and external resources to operate and maintain its network and infrastructure throughout the City. Led by AT&T's GNOC described above, AT&T monitors its network for service interruption using automated and manual monitoring which results in automated and manual intervention, both remotely and locally at each particular AT&T site location. AT&T will extend this network of world-class resources to the City's property being used by AT&T. AT&T commits to work cooperatively with the City to resolve any issues that might arise with respect to AT&T's Facilities on City property.**

(vi) the time period during which the proposer anticipates installing the franchise facilities and, to the extent the proposer's system generally is not yet operational in the City, an anticipated time line for such system to become operational in the City;





**AT&T'S RESPONSE: AT&T is constantly assessing its network performance and the best way to utilize its limited capital resources in the City. If AT&T becomes a Resulting Franchisee, AT&T anticipates installing and operating its Facilities in 2019 and 2020 in light of the cycles times associated with reservation phases, approval and permitting processes and street construction.**

(vii) the material contemplated in subsection (a)(2) of Section 5 above;

and

**AT&T'S RESPONSE: Resiliency is an essential requirement of AT&T's traditional network. There are many possible solutions and designs that would add resiliency to the pole installations but none consistent with the approved designs. One example which would provide resiliency is a larger shroud as noted above in AT&T's responses to Section 5 and Subsection 10(b)(1). The larger shroud would retain the same profile but would accommodate rectifiers and batteries to provide backup power during times of power outages or lack of power to the particular facility.**

(viii) Existing Franchisees who obtain a franchise under the terms of this RFP must agree to the termination of their existing franchise(s) mandated by Section 1(e) of this RFP. A statement acknowledging such agreement must be included in the proposal.

**AT&T'S RESPONSE: AT&T is not an Existing Franchisee.**

(2) Legal and Managerial Proposal - A narrative which (i) indicates the extent to which the proposer has secured any necessary authorizations, approvals, licenses and/or permits required to undertake the activities proposed and an acknowledgment that the proposer will not undertake such activities unless and until such authorizations, approvals, licenses and/or permits are obtained (for any system and/or equipment that requires FCC licensing, the proposer



must confirm in its proposal that such system and/or equipment is, or will be prior to installation, fully licensed by the FCC;

**AT&T'S RESPONSE: AT&T is licensed by the FCC to provide wireless services in accordance with those licenses. AT&T confirms and acknowledges that its system and equipment is, or prior to installation will be fully licensed by the FCC, as applicable. AT&T confirms and acknowledges that it will not undertake the activities it proposes unless and until all necessary authorizations, approvals, licenses and/or permits are obtained.**

(ii) describes the managerial experience and capabilities of the proposer; and

**AT&T'S RESPONSE: AT&T Inc. (NYSE: T) is a world leader in communications, media and entertainment technology and is a Fortune 10 company. As of 2017, AT&T is the largest telecommunication company in the world and has been managing networks for the past 133 years. AT&T takes tremendous pride in its networks and its management capabilities both nationally and locally. AT&T is a global communications provider with the infrastructure, global breadth, financial resources, and management record necessary to maintain stable, long-term relationships with global businesses. AT&T's experience in global network services demonstrates our capability to provide the people, investment, and technology necessary to manage complex infrastructure. AT&T Communications provides mobile, broadband, video and other communications services to U.S.-based consumers and more than 3 million companies – from the smallest business to nearly all the Fortune 1000 – with highly secure, smart solutions. Revenues from these services totaled more than \$150 billion in 2017. AT&T International provides mobile services in Mexico to consumers and**



**businesses, plus pay-TV service across 11 countries in South America and the Caribbean. It had revenues of more than \$8 billion in 2017.**

**Further, AT&T offers solutions that help businesses in every industry serve their customers better. AT&T delivers advanced services to nearly 3.5 million businesses on 6 continents. That includes nearly all of the Fortune 1000 as well as neighborhood businesses across the United States. Also, AT&T wirelessly connects cars, machines, shipping containers, and mobile-enabled devices. This connectivity demonstrates AT&T's leadership in the Internet of Things. By developing new technologies, apps, products, and services—including 5G technologies—AT&T continues our commitment to innovation.**

**AT&T invested nearly \$145 billion in its wireless and wireline networks during 2013-2017. During this time, AT&T invested more in the U.S. than any other public company. AT&T has nearly 15.8 million internet connections in service and 159.4 million wireless subscribers in the U.S. and Mexico. Over 400 million people in the U.S. and Mexico and access AT&T's 4G LTE network.**

**AT&T has permitted, installed and currently operates and maintains thousands of small cell facilities throughout the United States. The company has dedicated teams of managers whose responsibilities are dedicated to the construction, operation and maintenance of small cell facilities. By using municipally owned infrastructure and existing utility poles in the public rights of way, the small cell facilities provide the capacity necessary to provide a robust, 4G network while minimizing the impact on the community.**

**As noted above, AT&T has also started planning for deployment of the latest wireless technology (5G) and is currently testing in our labs and in the field various ways to deploy that technology. The increased**



**speeds and network operating efficiency expected with 5G technology should enable massive deployment of devices connected to the internet as well as faster delivery of video and data services. As the wireless industry continues to mature, future wireless growth will become increasingly dependent on our ability to offer innovative video and data services and a wireless network that has sufficient spectrum and capacity to support these innovations. We continue to invest significant capital in expanding our network capacity, as well as to secure and utilize spectrum that meets our long-term needs.**

**With respect to community involvement, AT&T employees have provided over 1.6 million hours of mentoring to students and over 5.2 million volunteer hours, worth more than \$129 million. Through corporate, employee, social investment and AT&T Foundation programs, AT&T contributed over \$139 million in 2016. AT&T has approximately 249,000 employees worldwide. For additional information please visit [www.att.com](http://www.att.com).**

**AT&T's senior management team consists of the following:**

**Randall Stephenson, Chairman and CEO**

**John Donovan, Chief Executive Officer**

**Melissa M. Arnoldi, President - AT&T Technology and Operations**

**Scott A. Mair, President - AT&T Operations**

**Marachel L. Knight, Senior Vice President - Wireless Engineering, Construction and Operations**

**Jeff X. Luong, Vice President - RAN Construction**

**Stacey R. Thompson, Assistant Vice President - Construction and Engineering**

**Robert A. Manzo, Director - Construction and Engineering**

**Jay Perez, Assistant Vice President - Legal.**





**Locally, the construction team is led by Ms. Stacey Thompson who has over 20 years of construction and operations experience in three different leadership roles. Ms. Thompson oversees a team which includes three directors with over 60 years' experience and 140 employees who construct, operate and maintain AT&T's network.**

**For more information about AT&T and its management, please visit [www.att.com](http://www.att.com).**

(iii) describes whether the facilities proposer proposes to install on City poles will be serving one or multiple telecommunications service providers.

**AT&T'S RESPONSE: At this point in time, AT&T's facilities will only serve AT&T. AT&T looks forward to discussing potential multi-provider solutions that maximize the benefits to the City while meeting the service providers current and future network requirements. The currently approved design using a single stick antenna and small shroud limit service to one service provider. However, in order to achieve optimal performance of today's networks, i.e. 4G, 5G, and maximize service footprints, AT&T has proposed, as part its response, that the City consider a different, albeit slightly larger design, which will provide the capability to utilize current and future technologies while remaining consistent in addressing aesthetic concerns.**

(3) Financial Capacity Proposal - A narrative which describes the proposer's financial ability to undertake the activities proposed and properly maintain affected City property. Such narrative may include any financial information the proposer deems relevant.

**AT&T'S RESPONSE: As of 2017, AT&T Inc. (NYSE: T) is the largest telecommunication company in the world and a world leader in communications, media and entertainment technology. AT&T is**



**profitable year after year and has recorded 34 consecutive years of quarterly dividend growth. AT&T is a Fortune 10 company. For additional, detailed financial information please visit [www.att.com](http://www.att.com).**

(4) Scope Proposal - A statement as to which of the three zone options described in the last sentence of Section 9(c) above (all three zones, just Zones B and C, or just Zone C) that the proposer seeks to have reflected in a franchise agreement as the area covered by its franchise. Selections of less than all three zones will in any event be subject to a periodic option to expand the area covered.

**AT&T'S RESPONSE: AT&T proposes to use Street Poles in all three (3) zones.**

(5) Compensation Proposal - A description of which zone option it proposes to select initially and its proposal of a per pole compensation amount for each zone, which amount will be used to determine pole allocation within that zone among franchisees receiving new franchises pursuant to this RFP as described in Section 9(a) of this RFP.

**AT&T'S RESPONSE: AT&T proposes to use Street Poles in all three (3) zones. As noted above in AT&T's response to Section 9, AT&T's compensation proposal is as follows:**

**AT&T proposes the following per pole compensation for Street Operations Poles.**

**Zone A: \$455.00 per month  
Zone B: \$325.00 per month  
Zone C: \$130.00 per month**

**AT&T proposes the following per pole compensation for Street Utility Poles.**

**Zone B: \$32.50 per month  
Zone C: \$13.00 per month**

**As noted above, AT&T is also interested in utilizing the Link installations subject to and in accordance with the terms contained in Section 9(f) of the**



**RFP. Likewise, AT&T is interested in utilizing other structures legally authorized on City Streets, including other street furniture, in accordance with and referenced in Section 1(g) of the RFP.**

(6) Release Date of RFP and Acknowledgement of Addenda: Affirmation -

(i) A form, which when completed and submitted with the proposal package, serves to confirm the release date of the RFP to which the proposer is responding and as the proposer's acknowledgement of the receipt of addenda to this RFP which may have been issued prior to the submission of the proposal. (See Exhibit C attached hereto).

**AT&T'S RESPONSE: Attached, as Attachment "2" please find the completed acknowledgement of receipt of addenda to the RFP.**

(ii) The form of affirmation attached hereto as Exhibit D, signed by the proposer, which affirmation will also be included in any franchise agreement entered into pursuant to this RFP.

**AT&T'S RESPONSE: Attached as Attachment "3", please find the completed affirmation.**

(c) Proposal Evaluation Criteria.

**AT&T'S RESPONSE: No response is required from Respondent.**

(d) Proposal Submission Requirements.

**AT&T'S RESPONSE: AT&T hereby submits one (1) signed original and five (5) copies of a concise, proposal package.**

**SECTION 11. SPECIAL INSTRUCTIONS.**

Proposers may if they wish request that written communications from DoITT be sent by e-mail, in lieu of hard copy, to an e-mail address specified by the proposer (a form for such request is attached hereto as Exhibit E).



**AT&T'S RESPONSE:** AT&T previously requested that communications be sent by e-mail to Elizabeth Segal at [REDACTED]@att.com.

SECTION 12. STANDARD TELECOMMUNICATIONS FRANCHISE RFP LANGUAGE.

**AT&T'S RESPONSE:** No response is required from Respondent.

SECTION 13. FUTURE SOLICITATIONS

**AT&T'S RESPONSE:** No response is required from Respondent.

**AT&T also attaches the completed Doing Business Data Form at Attachment 4.**

**END OF PAGE - SIGNATURE PAGE FOLLOWS**



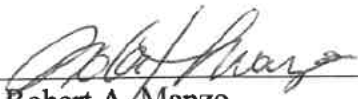


We would be happy to provide additional details, answers to any questions or clarifications to DoITT and we look forward to working with DoITT and the City of New York in offering these enhanced services to the residents, businesses and visitors to the City of New York.

New Cingular Wireless PCS, LLC

By: AT&T Mobility Corporation

Its: Manager

By:   
Robert A. Manzo  
Director – Construction & Engineering



**ATTACHMENT 1  
EMMISSIONS REPORT**





**SITE SAFE**  
RF COMPLIANCE EXPERTS

®

8618 Westwood Center Drive, Suite 315, Vienna, VA 22182  
703.276.1100 • 703.276.1169 fax  
info@sitesafe.com • www.sitesafe.com

**AT&T Mobility, LLC**  
**Site FA – GO4806**  
**USID – 06664**  
**Site Name – GO4806-06664**

**198 W 21st St**  
**New York, NY 10011**

Latitude: N40-44-34.00  
Longitude: W73-59-48.30  
Structure Type: 19' Street Light Pole

Report generated date: July 11, 2018  
Report by: Zyotty Thamsil  
Customer Contact: Rob Gloria

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**AT&T Mobility, LLC will be compliant when the remediation recommended in Section 5.2 or other appropriate remediation is implemented.**

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# 1 General Site Summary

## 1.1 Report Summary

| AT&T Mobility, LLC   | Summary                  |
|--|--------------------------|
| Access to Antennas Locked?   | No                       |
| Minimum Safe Distance from the Antenna Where RFE Level is Below 100% | 2'                       |
| Max Cumulative Simulated RFE Level on the Ground                     | <1% General Public Limit |
| FCC & AT&T Compliant?  | Will Be Compliant        |
| Optional AT&T Mitigation Items?                                      | No                       |

**The following documents were provided by the client and were utilized to create this report:**

**Data Sheet:** Datasheet GO4806-06664 28NOV2017

**RF Powers Used:** ERPS



## 2 Scale Maps of Site

The following diagrams are included:

- RF Exposure Diagram – Horizontal Plane
- RF Exposure Diagram – Vertical Plane





### 3 Antenna Inventory

The following antenna inventory was obtained by the customer and was utilized to create the site model diagrams:

| Ant ID | Operator          | Antenna Make & Model    | Type | TX Freq (MHz) | Az (Deg) | Hor BW (Deg) | Ant Len (ft) | Ant Gain (dBd) | 3G UMTS Radio(s) | 4G Radio(s) | Total ERP (Watts) | X     | Y     | Z (AGL) |
|--------|-------------------|-------------------------|------|---------------|----------|--------------|--------------|----------------|------------------|-------------|-------------------|-------|-------|---------|
| 1      | AT&T MOBILITY LLC | Galtronics GO4806-06664 | Omni | 1900          | 0        | 360          | 4            | 3.16           | 0                | 1           | 41.2              | 55.9' | 76.2' | 21'     |
| 1      | AT&T MOBILITY LLC | Galtronics GO4806-06664 | Omni | 2100          | 0        | 360          | 4            | 3.16           | 0                | 1           | 41.2              | 55.9' | 76.2' | 21'     |
| 1      | AT&T MOBILITY LLC | Galtronics GO4806-06664 | Omni | 5200          | 0        | 360          | 4            | 3.16           | 0                | 1           | 4.12              | 55.9' | 76.2' | 21'     |

NOTE: X, Y and Z indicate relative position of the antenna to the origin location on the site, displayed in the model results diagram. Specifically, the Z reference indicates the bottom of the antenna to the main site level unless otherwise indicated. The distance to the bottom of the antenna is calculated by subtracting half of the length of the antenna from the antenna centerline. Effective Radiated Power (ERP) is provided by the operator or based on Sitesafe experience. The values used in the modeling may be greater than are currently deployed. For other operators at this site the use of "Generic" as an antenna model or "Unknown" for a wireless operator means the information with regard to operator, their FCC license and/or antenna information was not available nor could it be secured while on site. Other operator's equipment, antenna models and powers used for modeling are based on obtained information or Sitesafe experience.

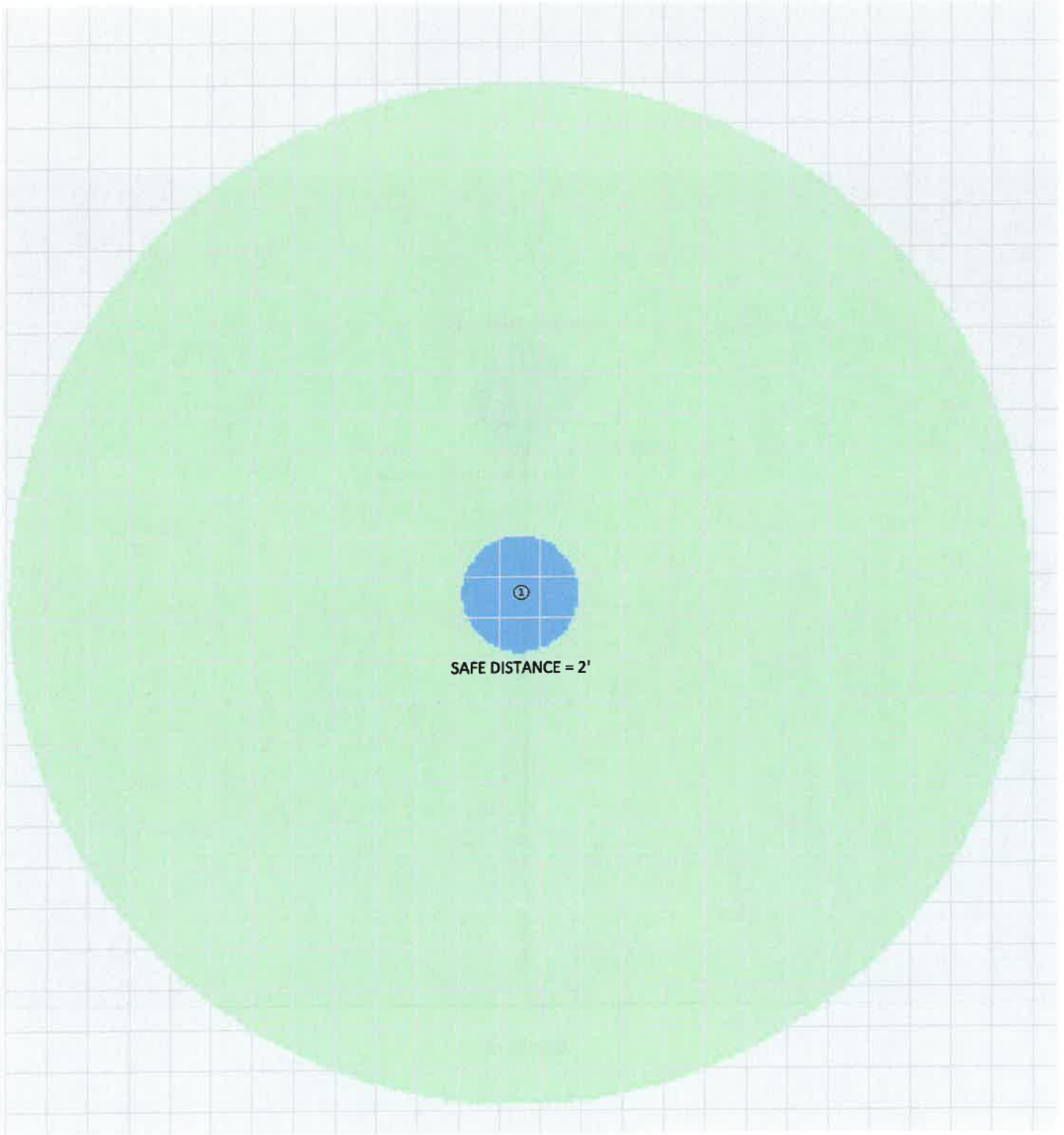
## 4 Emission Predictions

In the RF Exposure Simulations below all heights are reflected with respect to main site level. In most rooftop cases this is the height of the main rooftop and in other cases this can be ground level. Each different height area, rooftop, or platform level is labeled with its height relative to the main site level. Emissions are calculated appropriately based on the relative height and location of that area to all antennas. The total analyzed elevations in the below RF Exposure Simulations are listed below.

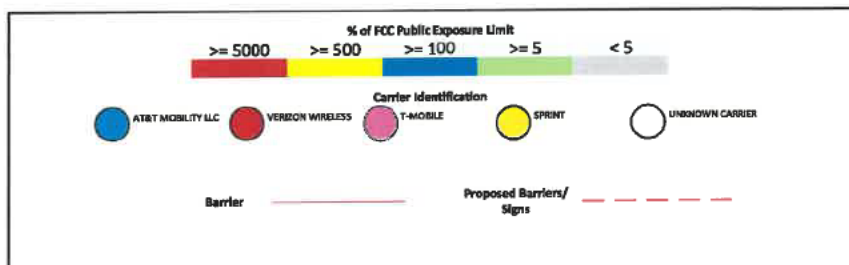
- Z = 21'

The Antenna Inventory heights are referenced to the same level.

RF Exposure Simulation For: GO4806-06664  
Horizontal Plane at Antenna Height



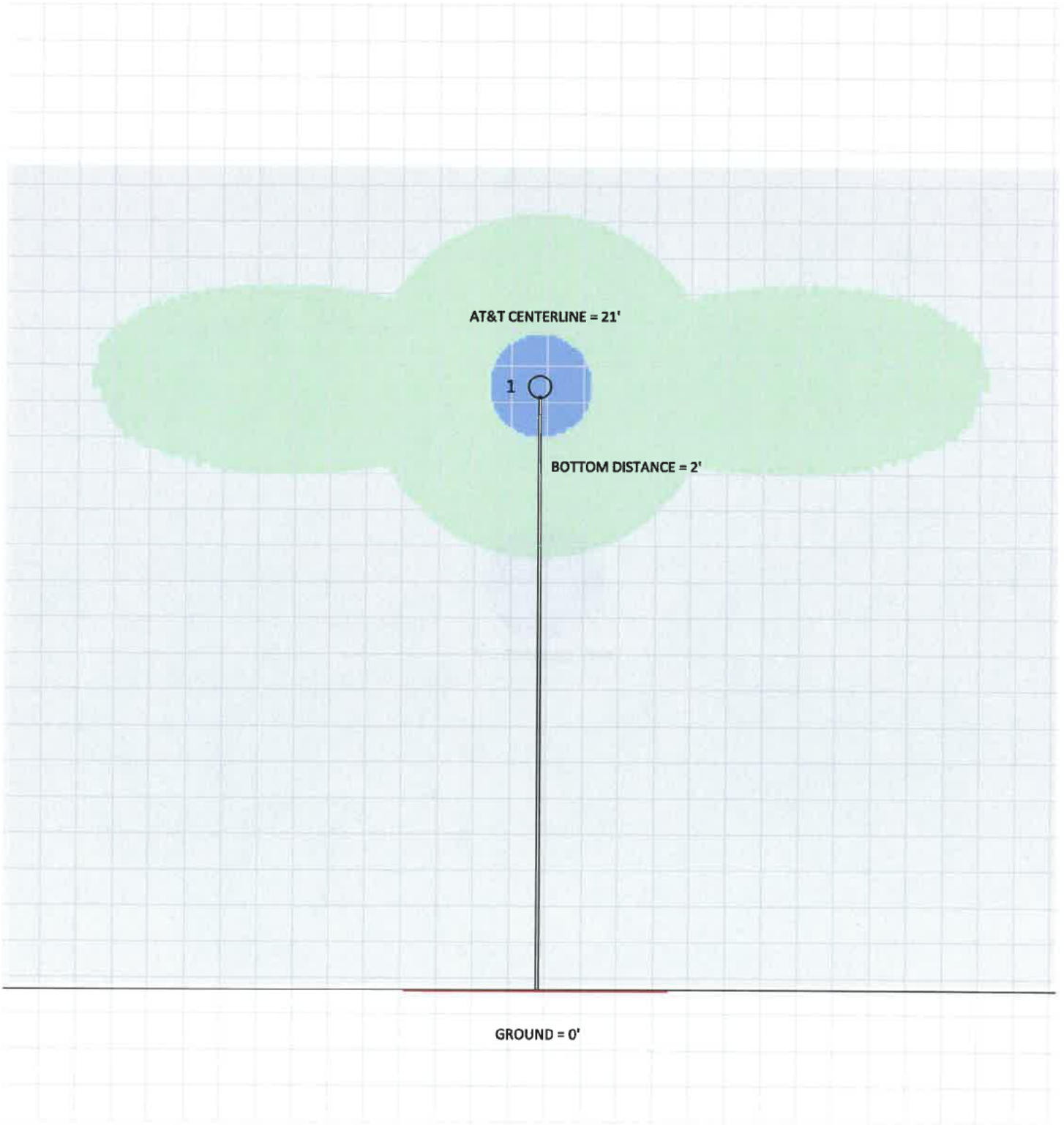
% of FCC Public Exposure Limit



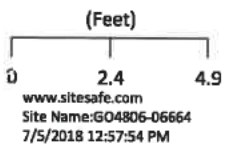
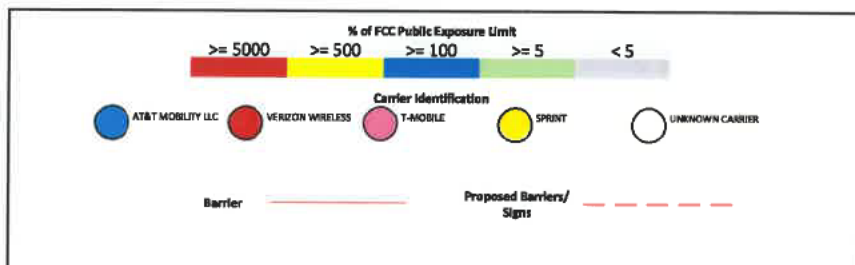
(Feet)  
0 2.3 4.6  
www.sitesafe.com  
Site Name:GO4806-06664  
7/3/2018 4:28:52 PM

Sitesafe OET-65 Model  
Near Field Boundary:  
1.5 \* Aperture  
Reflection Factor: 1  
Single Level (0)

RF Exposure Simulation For: GO4806-06664  
Vertical Plane



% of FCC Public Exposure Limit



Sitesafe OET-65 Model  
Near Field Boundary:  
1.5 ° Aperture  
Reflection Factor: 1  
Single Level (0)

## 5 Site Compliance

### 5.1 Site Compliance Statement

Upon evaluation of the cumulative RF emission levels from all operators at this site, RF hazard signage and antenna locations, Sitesafe has determined that:

No RF emission is predicted at ground level. Areas where RF emission is above GP Limit are only located within 2' radius of the antenna position.

AT&T Mobility, LLC will be compliant when the remediation recommended in Section 5.2 or other appropriate remediation is implemented.

The compliance determination is based on General Public RFE levels derived from theoretical modeling, RF signage placement, proposed antenna inventory and the level of restricted access to the antennas at the site. Any deviation from the AT&T Mobility, LLC's proposed deployment plan could result in the site being rendered non-compliant.

Modeling is used for determining compliance and the percentage of MPE contribution.

### 5.2 Actions for Site Compliance

Based on FCC regulations, common industry practice, and our understanding of AT&T Mobility, LLC RF Safety Policy requirements, this section provides a statement of recommendations for site compliance. Recommendations have been proposed based on our understanding of existing access restrictions, signage, and an analysis of predicted RFE levels.

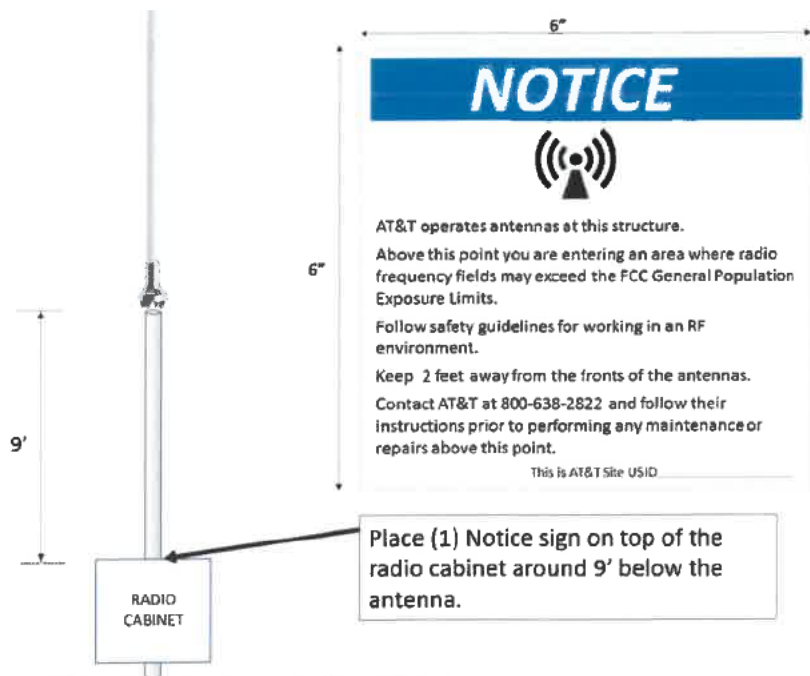
AT&T Mobility, LLC will be made compliant if the following changes are implemented:

#### AT&T Mobility, LLC Proposed Antenna Location

- (1) Notice (6"x6") sign is required to be installed on top of the radio cabinet on the pole (radio cabinet is around 9' below the antenna).

Galtronics GO4806-06664

Signage can be ordered from Stonehouse Signs, Inc., according to the guidance in Section 6.2, "Stonehouse Signs Ordering Process (CRAN)," in ATT-790-202-062 DAS (Distributed Antenna System) and CRAN (Centralized Radio Access Network) Signage Standard." Use this link to access the document:  
<http://apex.web.att.com/bookview/bookview.jsp?bookname=ATT-790-202-062&fulltext>



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## 6 Reviewer Certification

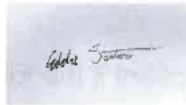
The reviewer whose signature appears below hereby certifies and affirms:

That I am an employee of Sitesafe, LLC., in Vienna, Virginia, at which place the staff and I provide RF compliance services to clients in the wireless communications industry; and

That I am thoroughly familiar with the Rules and Regulations of the Federal Communications Commission (FCC) as well as the regulations of the Occupational Safety and Health Administration (OSHA), both in general and specifically as they apply to the FCC Guidelines for Human Exposure to Radio-frequency Radiation; and

That I have thoroughly reviewed this Site Compliance Report and believe it to be true and accurate to the best of my knowledge as assembled by and attested to by Zyotty Thamsil.

July 11, 2018



**Eddie Santoro**



## Appendix A – Statement of Limiting Conditions

Sitesafe has provided computer generated model(s) in this Site Compliance Report to show approximate dimensions of the site, and the model is included to assist the reader of the compliance report to visualize the site area, and to provide supporting documentation for Sitesafe's recommendations.

Sitesafe may note in the Site Compliance Report any adverse physical conditions, such as needed repairs, that Sitesafe became aware of during the normal research involved in creating this report. Sitesafe will not be responsible for any such conditions that do exist or for any engineering or testing that might be required to discover whether such conditions exist. Because Sitesafe is not an expert in the field of mechanical engineering or building maintenance, the Site Compliance Report must not be considered a structural or physical engineering report.

Sitesafe obtained information used in this Site Compliance Report from sources that Sitesafe considers reliable and believes them to be true and correct. Sitesafe does not assume any responsibility for the accuracy of such items that were furnished by other parties. When conflicts in information occur between data collected by Sitesafe provided by a second party and data collected by Sitesafe, the data will be used.

## Appendix B – Regulatory Background Information

### FCC Rules and Regulations

In 1996, the Federal Communications Commission (FCC) adopted regulations for the evaluating of the effects of RF emissions in 47 CFR § 1.1307 and 1.1310. The guideline from the FCC Office of Engineering and Technology is Bulletin 65 (“OET Bulletin 65”), *Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields*, Edition 97-01, published August 1997. Since 1996 the FCC periodically reviews these rules and regulations as per their congressional mandate.

FCC regulations define two separate tiers of exposure limits: Occupational or “Controlled environment” and General Public or “Uncontrolled environment”. The General Public limits are generally five times more conservative or restrictive than the Occupational limit. These limits apply to accessible areas where workers or the general public may be exposed to Radio Frequency (RF) electromagnetic fields.

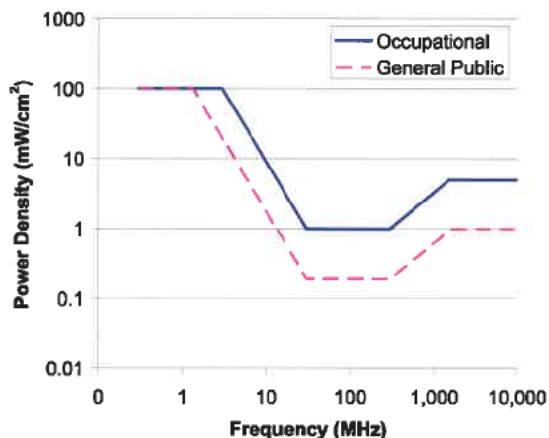
Occupational or Controlled limits apply in situations in which persons are exposed as a consequence of their employment and where those persons exposed have been made fully aware of the potential for exposure and can exercise control over their exposure.

An area is considered a Controlled environment when access is limited to these aware personnel. Typical criteria are restricted access (i.e. locked or alarmed doors, barriers, etc.) to the areas where antennas are located coupled with proper RF warning signage. A site with Controlled environments is evaluated with Occupational limits.

All other areas are considered Uncontrolled environments. If a site has no access controls or no RF warning signage it is evaluated with General Public limits.

The theoretical modeling of the RF electromagnetic fields has been performed in accordance with OET Bulletin 65. The Maximum Permissible Exposure (MPE) limits utilized in this analysis are outlined in the following diagram:

**FCC Limits for Maximum Permissible Exposure (MPE)**  
Plane-wave Equivalent Power Density





**Limits for Occupational/Controlled Exposure (MPE)**

| Frequency Range (MHz) | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/cm <sup>2</sup> ) | Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes) |
|-----------------------|-----------------------------------|-----------------------------------|---|---|
| 0.3-3.0               | 614                               | 1.63                              | (100)*                                  | 6   |
| 3.0-30                | 1842/f                            | 4.89/f                            | (900/f <sup>2</sup> )*                  | 6   |
| 30-300                | 61.4                              | 0.163                             | 1.0                                     | 6   |
| 300-1500              | --                                | --                                | f/300                                   | 6   |
| 1500-100,000          | --                                | --                                | 5                                       | 6   |

**Limits for General Population/Uncontrolled Exposure (MPE)**

| Frequency Range (MHz) | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/cm <sup>2</sup> ) | Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes) |
|-----------------------|-----------------------------------|-----------------------------------|---|---|
| 0.3-1.34              | 614                               | 1.63                              | (100)*                                  | 30  |
| 1.34-30               | 824/f                             | 2.19/f                            | (180/f <sup>2</sup> )*                  | 30  |
| 30-300                | 27.5                              | 0.073                             | 0.2                                     | 30  |
| 300-1500              | --                                | --                                | f/1500                                  | 30  |
| 1500-100,000          | --                                | --                                | 1.0                                     | 30  |

f = frequency in MHz

\*Plane-wave equivalent power density

**OSHA Statement**

The General Duty clause of the OSHA Act (Section 5) outlines the occupational safety and health responsibilities of the employer and employee. The General Duty clause in Section 5 states:

(a) Each employer –

- (1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;
- (2) shall comply with occupational safety and health standards promulgated under this Act.

(b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.

OSHA has defined Radiofrequency and Microwave Radiation safety standards for workers who may enter hazardous RF areas. Regulation Standards 29 CFR § 1910.147 identify a generic Lock Out Tag Out procedure aimed to control the unexpected energization or start up of machines when maintenance or service is being performed.

## Appendix C – Safety Plan and Procedures

The following items are general safety recommendations that should be administered on a site by site basis as needed by the carrier.

**General Maintenance Work:** Any maintenance personnel required to work immediately in front of antennas and / or in areas indicated as above 100% of the Occupational MPE limits should coordinate with the wireless operators to disable transmitters during their work activities.

**Training and Qualification Verification:** All personnel accessing areas indicated as exceeding the General Population MPE limits should have a basic understanding of EME awareness and RF Safety procedures when working around transmitting antennas. Awareness training increases a workers understanding to potential RF exposure scenarios. Awareness can be achieved in a number of ways (e.g. videos, formal classroom lecture or internet based courses).

**Physical Access Control:** Access restrictions to transmitting antennas locations is the primary element in a site safety plan. Examples of access restrictions are as follows:

- Locked door or gate
- Alarmed door
- Locked ladder access
- Restrictive Barrier at antenna (e.g. Chain link with posted RF Sign)

**RF Signage:** Everyone should obey all posted signs at all times. RF signs play an important role in properly warning a worker prior to entering into a potential RF Exposure area.

**Assume all antennas are active:** Due to the nature of telecommunications transmissions, an antenna transmits intermittently. Always assume an antenna is transmitting. Never stop in front of an antenna. If you have to pass by an antenna, move through as quickly and safely as possible thereby reducing any exposure to a minimum.

**Maintain a 3 foot clearance from all antennas:** There is a direct correlation between the strength of an EME field and the distance from the transmitting antenna. The further away from an antenna, the lower the corresponding EME field is.

**Site RF Emissions Diagram:** Section 4 of this report contains an RF Diagram that outlines various theoretical Maximum Permissible Exposure (MPE) areas at the site. The modeling is a worst case scenario assuming a duty cycle of 100% for each transmitting antenna at full power. This analysis is based on one of two access control criteria: General Public criteria means the access to the site is uncontrolled and anyone can gain access. Occupational criteria means the access is restricted and only properly trained individuals can gain access to the antenna locations.



## Appendix D – RF Emissions

The RF Emissions Simulation(s) in this report display theoretical spatially averaged percentage of the Maximum Permissible Exposure for all systems at the site unless otherwise noted. These diagrams use modeling as prescribed in OET Bulletin 65 and assumptions detailed in Appendix E.

The key at the bottom of each RF Emissions Simulation indicates percentages displayed referenced to FCC General Public Maximum Permissible Exposure (MPE) limits. Color coding on the diagram is as follows:

- Areas indicated as Gray are predicted to be below 5% of the MPE limits. Gray represents areas more than 20 times below the most conservative exposure limit.
- Green represents areas are predicted to be between 5% and 100% of the MPE limits. **Green areas are accessible to anyone.**
- Blue represents areas predicted to exceed the General Public MPE limits but are less than Occupational limits. **Blue areas should be accessible only to RF trained workers.**
- Yellow represents areas predicted to exceed Occupational MPE limits. Yellow areas should be accessible only to RF trained workers able to assess current exposure levels.
- Red represents areas predicted to have exposure more than 10 times the Occupational MPE limits. **Red indicates that the RF levels must be reduced prior to access.** An RF Safety Plan is required which outlines how to reduce the RF energy in these areas prior to access.

## Appendix E – Assumptions and Definitions

### General Model Assumptions

In this site compliance report, it is assumed that all antennas are operating at **full power at all times**. Software modeling was performed for all transmitting antennas located on the site. Sitesafe has further assumed a 100% duty cycle and maximum radiated power.

The modeling is based on recommendations from the FCC's OET-65 bulletin with the following variances per AT&T guidance. Reflection has not been considered in the modeling, i.e. the reflection factor is 1.0. The near / far field boundary has been set to 1.5 times the aperture height of the antenna and modeling beyond that point is the lesser of the near field cylindrical model and the far field model taking into account the gain of the antenna.

The site has been modeled with these assumptions to show the maximum RF energy density. Areas modeled with exposure greater than 100% of the General Public MPE level may not actually occur, but are shown as a prediction that could be realized. Sitesafe believes these areas to be safe for entry by occupationally trained personnel utilizing appropriate personal protective equipment (in most cases, a personal monitor).

### Use of Generic Antennas

For the purposes of this report, the use of "Generic" as an antenna model, or "Unknown" for an operator means the information about a carrier, their FCC license and/or antenna information was not provided and could not be obtained while on site. In the event of unknown information, Sitesafe will use our industry specific knowledge of equipment, antenna models, and transmit power to model the site. If more specific information can be obtained for the unknown measurement criteria, Sitesafe recommends remodeling of the site utilizing the more complete and accurate data. Information about similar facilities is used when the service is identified and associated with a particular antenna. If no information is available regarding the transmitting service associated with an unidentified antenna, using the antenna manufacturer's published data regarding the antenna's physical characteristics makes more conservative assumptions.

Where the frequency is unknown, Sitesafe uses the closest frequency in the antenna's range that corresponds to the highest Maximum Permissible Exposure (MPE), resulting in a conservative analysis.

## Definitions

**5% Rule** – The rules adopted by the FCC specify that, in general, at multiple transmitter sites actions necessary to bring the area into compliance with the guidelines are the shared responsibility of all licensees whose transmitters produce field strengths or power density levels at the area in question in excess of 5% of the exposure limits. In other words, any wireless operator that contributes 5% or greater of the MPE limit in an area that is identified to be greater than 100% of the MPE limit is responsible taking corrective actions to bring the site into compliance.

**Compliance** – The determination of whether a site is safe or not with regards to Human Exposure to Radio Frequency Radiation from transmitting antennas.

**Decibel (dB)** – A unit for measuring power or strength of a signal.

**Duty Cycle** – The percent of pulse duration to the pulse period of a periodic pulse train. Also, may be a measure of the temporal transmission characteristic of an intermittently transmitting RF source such as a paging antenna by dividing average transmission duration by the average period for transmission. A duty cycle of 100% corresponds to continuous operation.

**Effective (or Equivalent) Isotropic Radiated Power (EIRP)** – The product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna.

**Effective Radiated Power (ERP)** – In a given direction, the relative gain of a transmitting antenna with respect to the maximum directivity of a half wave dipole multiplied by the net power accepted by the antenna from the connecting transmitter.

**Gain (of an antenna)** – The ratio of the maximum intensity in a given direction to the maximum radiation in the same direction from an isotropic radiator. Gain is a measure of the relative efficiency of a directional antennas as compared to an omni directional antenna.

**General Population/Uncontrolled Environment** – Defined by the FCC, as an area where exposure to RF energy may occur to persons who are **unaware** of the potential for exposure and who have no control of their exposure. General Population is also referenced as General Public.

**Generic Antenna** – For the purposes of this report, the use of “Generic” as an antenna model means the antenna information was not provided and could not be obtained while on site. In the event of unknown information, Sitesafe will use our industry specific knowledge of antenna models to select a worst case scenario antenna to model the site.

**Isotropic Antenna** – An antenna that is completely non-directional. In other words, an antenna that radiates energy equally in all directions.

**Maximum Measurement** – This measurement represents the single largest measurement recorded when performing a spatial average measurement.

**Maximum Permissible Exposure (MPE)** – The maximum levels of RF exposure a person may be exposed to without harmful effect and with acceptable safety factor.

**Occupational/Controlled Environment** – Defined by the FCC, as an area where Radio Frequency Radiation (RFR) exposure may occur to persons who are **aware** of the



potential for exposure as a condition of employment or specific activity and can exercise control over their exposure.

**OET Bulletin 65** – Technical guideline developed by the FCC's Office of Engineering and Technology to determine the impact of Radio Frequency radiation on Humans. The guideline was published in August 1997.

**OSHA (Occupational Safety and Health Administration)** – Under the Occupational Safety and Health Act of 1970, employers are responsible for providing a safe and healthy workplace for their employees. OSHA's role is to promote the safety and health of America's working men and women by setting and enforcing standards; providing training, outreach and education; establishing partnerships; and encouraging continual process improvement in workplace safety and health. For more information, visit [www.osha.gov](http://www.osha.gov).

**Radio Frequency (RF)** – The frequencies of electromagnetic waves which are used for radio communications. Approximately 3 kHz to 300 GHz.

**Radio Frequency Exposure (RFE)** – The amount of RF power density that a person is or might be exposed to.

**Spatial Average Measurement** – A technique used to average a minimum of ten (10) measurements taken in a ten (10) second interval from zero (0) to six (6) feet. This measurement is intended to model the average power density an average sized human will be exposed to at a location.

**Transmitter Power Output (TPO)** – The radio frequency output power of a transmitter's final radio frequency stage as measured at the output terminal while connected to a load.



## Appendix F – References

The following references can be followed for further information about RF Health and Safety.

Sitesafe, LLC.

<http://www.sitesafe.com>

FCC Radio Frequency Safety

<http://www.fcc.gov/encyclopedia/radio-frequency-safety>

National Council on Radiation Protection and Measurements (NCRP)

<http://www.ncrponline.org>

Institute of Electrical and Electronics Engineers, Inc., (IEEE)

<http://www.ieee.org>

American National Standards Institute (ANSI)

<http://www.ansi.org>

Environmental Protection Agency (EPA)

<http://www.epa.gov/radtown/wireless-tech.html>

National Institutes of Health (NIH)

<http://www.niehs.nih.gov/health/topics/agents/emf/>

Occupational Safety and Health Agency (OSHA)

<http://www.osha.gov/SLTC/radiofrequencyradiation/>

International Commission on Non-Ionizing Radiation Protection (ICNIRP)

<http://www.icnirp.org>

World Health Organization (WHO)

<http://www.who.int/peh-emf/en/>

National Cancer Institute

<http://www.cancer.gov/cancertopics/factsheet/Risk/cellphones>

American Cancer Society (ACS)

[http://www.cancer.org/docroot/PED/content/PED\\_1\\_3X\\_Cellular\\_Phone\\_Towers.asp?sitearea=PED](http://www.cancer.org/docroot/PED/content/PED_1_3X_Cellular_Phone_Towers.asp?sitearea=PED)

European Commission Scientific Committee on Emerging and Newly Identified Health Risks

[http://ec.europa.eu/health/ph\\_risk/committees/04\\_scenihp/docs/scenihp\\_o\\_022.pdf](http://ec.europa.eu/health/ph_risk/committees/04_scenihp/docs/scenihp_o_022.pdf)

Fairfax County, Virginia Public School Survey

<http://www.fcps.edu/fts/safety-security/RFEESurvey/>

UK Health Protection Agency Advisory Group on Non-ionising Radiation

[http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb\\_C/1317133826368](http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1317133826368)

Norwegian Institute of Public Health

<http://www.fhi.no/dokumenter/545eea7147.pdf>





**ATTACHMENT 2**

**EXHIBIT "C" OF THE RFP**

**ACKNOWLEDGMENT OF RELEASE DATE AND ADDENDUM**

APPLICANT'S NAME: NEW CINGULAR WIRELESS PCS, LLC (AT&T)

RFP RELEASE DATE: JUNE 12, 2018

NUMBER OF ADDENDA RECEIVED: FOUR (4)

ISSUE DATE(S) OF ADDENDA:

JUNE 27, 2018, JUNE 29, 2018, JULY 11, 2018 AND JULY 25, 2018



**ATTACHMENT 3**  
**EXHIBIT "D" OF THE RFP**



**EXHIBIT D  
AFFIRMATION**

The undersigned proposer or bidder affirms and declares that said proposer or bidder is not in arrears to the City of New York upon debt, contract, or taxes and is not a defaulter, as surety or otherwise, upon obligation to the City of New York, and has not been declared not responsible, or disqualified, by any agency of the City of New York, nor is there any proceeding pending relating to the responsibility or qualification of the proposer or bidder to receive public contracts except

Full name of Proposer or Bidder:

New Cingular Wireless PCS, LLC

Address:


1025 Lenox Park Blvd. NE

City Atlanta State GA Zip Code 30319

CHECK ONE BOX AND INCLUDE APPROPRIATE NUMBER:

- A - Individual or Sole Proprietorship  
SOCIAL SECURITY NUMBER \_\_\_\_\_
- B - Partnership, Joint Venture or other unincorporated organization  
EMPLOYER IDENTIFICATION NUMBER \_\_\_\_\_
- C - Corporation  
EMPLOYER IDENTIFICATION NUMBER XXXXXXXXXX

By

  
Signature

President, AT&T North East Region  
Title

If a corporation, please seal here:

Must be signed by an officer or duly authorized representative.



**ATTACHMENT 4**  
**EXHIBIT "F" OF THE RFP**  
**DOING BUSINESS DATA FORM**





# Doing Business Data Form

To be completed by the City agency prior to distribution Agency \_\_\_\_\_ Transaction ID \_\_\_\_\_

**Check One Transaction Type (check one)**

- Proposal  Award  Concession  Economic Development Agreement  Franchise  Grant  Pension Investment Contract  Contract

Any entity receiving, applying for or proposing on an award or agreement must complete a Doing Business Data Form (see Q&A sheet for more information). Please either type responses directly into this fillable form or print answers by hand in black ink, and be sure to fill out the certification box on the last page. **Submission of a complete and accurate form is required for a proposal to be considered responsive or for any entity to receive an award or enter into an agreement.**

This Data Form requires information to be provided on principal officers, owners and senior managers. The name, employer and title of each person identified on the Data Form will be included in a public database of people who do business with the City of New York, as will the organizations that own 10% or more of the entity. No other information reported on this form will be disclosed to the public. **This Data Form is not related to the City's PASSPort registration or VENDEX requirements.**

Please return the completed Data Form to the City office that supplied it. Please contact the Doing Business Accountability Project at [DoingBusiness@mocs.nyc.gov](mailto:DoingBusiness@mocs.nyc.gov) or 212-788-8104 with any questions regarding this Data Form. Thank you for your cooperation.

**Entity Information**

*If you are completing this form by hand, please print clear*

Entity EIN/TIN \_\_\_\_\_ Entity Name **New Cingular Wireless PCS, LLC**

**Filing Status**

**NEW: Data Forms submitted now must include the listing of organizations, as well as individuals, with 10% or more ownership of the entity. Until such certification of ownership is submitted through a change, new or update form, a no change form will not be accepted.**

**(Select One)**

- Entity has never completed a Doing Business Data Form. Fill out the entire form.  
 Change from previous Data Form dated **8/26/2013**. Fill out only those sections that have changed, and indicate the name of the persons who no longer hold positions with the entity.  
 No Change from previous Data Form dated \_\_\_\_\_. Skip to the bottom of the last page.

Entity is a Non-Profit  Yes  No

Entity Type  Corporation (any type)  Joint Venture  LLC  Partnership (any type)  Sole Proprietor  Other (specify) \_\_\_\_\_

Address **1025 Lenox Park Blvd. NE**

City **Atlanta** State **GA** Zip **30319**

Phone \_\_\_\_\_ E-mail \_\_\_\_\_

*Provide your e-mail address in order to receive notices regarding this form by e-mail*

**Principal Officers**

Please fill in the required identification information for each officer listed below. If the entity has no such officer or its equivalent, please check "This position does not exist." If the entity is filing a Change Form and the person listed is replacing someone who was previously disclosed, please check "This person replaced..." and fill in the name of the person being replaced so his/her name can be removed from the *Doing Business Database*, and indicate the date that the change became effective.

**Chief Executive Officer (CEO) or equivalent officer**

*The highest ranking officer or manager, such as the President, Executive Director, Sole Proprietor or Chairperson of the Board.*

This position does not exist

First Name \_\_\_\_\_ MI \_\_\_\_\_ Last \_\_\_\_\_ Birth Date (mm/dd/yy) \_\_\_\_\_

Office Title \_\_\_\_\_ Employer (if not employed by entity) \_\_\_\_\_

Home Address \_\_\_\_\_

This person replaced former CEO **Steve Hodges** on date \_\_\_\_\_

**Chief Financial Officer (CFO) or equivalent officer**

*The highest ranking financial officer, such as the Treasurer, Comptroller, Financial Director or VP for Finance.*

This position does not exist

First Name \_\_\_\_\_ MI \_\_\_\_\_ Last \_\_\_\_\_ Birth Date (mm/dd/yy) \_\_\_\_\_

Office Title \_\_\_\_\_ Employer (if not employed by entity) \_\_\_\_\_

Home Address \_\_\_\_\_

This person replaced former CFO \_\_\_\_\_ on date \_\_\_\_\_

**Chief Operating Officer (COO) or equivalent officer**

*The highest ranking operational officer, such as the Chief Planning Officer, Director of Operations or VP for Operations.*

This position does not exist

First Name \_\_\_\_\_ MI \_\_\_\_\_ Last \_\_\_\_\_ Birth Date (mm/dd/yy) \_\_\_\_\_

Office Title \_\_\_\_\_ Employer (if not employed by entity) \_\_\_\_\_

Home Address \_\_\_\_\_

This person replaced former COO **Chris Hill** on date \_\_\_\_\_



**Principal Owners**

Please fill in the required identification information for all individuals or organizations that, through stock shares, partnership agreements or other means, own or control 10% or more of the entity. If no individual or organization owners exist, please check the appropriate box to indicate why and skip to the Senior Managers section. If the entity is owned by other companies that control 10% or more of the entity, those companies must be listed. If an owner was identified on the previous page, fill in his/her name and write "See above." If the entity is filing a Change Form, list any individuals or organizations that are no longer owners at the bottom of this section if more space is needed, attach additional pages labeled "Additional Owners."

There are no owners listed because (select one):

- The entity is not-for-profit
- The entity is an individual
- No individual or organization owns 10% or more of the entity

Other (explain) \_\_\_\_\_

**Individual Owners (who own or control 10% or more of the entity)**

First Name \_\_\_\_\_ MI \_\_\_\_\_ Last \_\_\_\_\_ Birth Date (mm/dd/yy) \_\_\_\_\_

Office Title \_\_\_\_\_ Employer (if not employed by entity) \_\_\_\_\_

Home Address \_\_\_\_\_

First Name \_\_\_\_\_ MI \_\_\_\_\_ Last \_\_\_\_\_ Birth Date (mm/dd/yy) \_\_\_\_\_

Office Title \_\_\_\_\_ Employer (if not employed by entity) \_\_\_\_\_

Home Address \_\_\_\_\_

**Organization Owners (that own or control 10% or more of the entity)**

Organization Name AT&T Mobility II, LLC

Organization Name \_\_\_\_\_

Organization Name \_\_\_\_\_

**Remove the following previously-reported Principal Owners**

Name \_\_\_\_\_ Removal Date \_\_\_\_\_

Name \_\_\_\_\_ Removal Date \_\_\_\_\_

Name \_\_\_\_\_ Removal Date \_\_\_\_\_

**Senior Managers**

Please fill in the required identification information for all senior managers who oversee any of the entity's relevant transactions with the City (e.g., contract managers if this form is for a contract award/proposal, grant managers if for a grant, etc.). Senior managers include anyone who, either by title or duties, has substantial discretion and high-level oversight regarding the solicitation, letting or administration of any transaction with the City. At least one senior manager must be listed, or the Data Form will be considered incomplete. If a senior manager has been identified on a previous page, fill in his/her name and write "See above." If the entity is filing a Change Form list individuals who are no longer senior managers at the bottom of this section. If more space is needed, attach additional pages labeled "Additional Senior Managers."

**Senior Managers**

First Name Robert MI \_\_\_\_\_ Last Manzo Birth Date (mm/dd/yy) \_\_\_\_\_

Office Title Director Employer (if not employed by entity) AT&T

Home Address \_\_\_\_\_

First Name \_\_\_\_\_ MI \_\_\_\_\_ Last \_\_\_\_\_ Birth Date (mm/dd/yy) \_\_\_\_\_

Office Title \_\_\_\_\_ Employer (if not employed by entity) \_\_\_\_\_

Home Address \_\_\_\_\_

First Name \_\_\_\_\_ MI \_\_\_\_\_ Last \_\_\_\_\_ Birth Date (mm/dd/yy) \_\_\_\_\_

Office Title \_\_\_\_\_ Employer (if not employed by entity) \_\_\_\_\_

Home Address \_\_\_\_\_

**Remove the following previously-reported Senior Managers**

Name \_\_\_\_\_ removal date \_\_\_\_\_

Name \_\_\_\_\_ removal date \_\_\_\_\_

**Certification**

I certify that the information submitted on these two pages and \_\_\_\_\_ additional pages is accurate and complete. I understand that willful or fraudulent submission of a materially false statement may result in the entity being found non-responsible and therefore denied future City awards.

Name Robert Manzo Title Director

Entity Name AT&T Work Phone # \_\_\_\_\_

Signature Robert Manzo Date August 2, 2018

