

TO: Grace Han
Public Design Commission

FROM: Brett Sikoff
Department of Information Technology and Telecommunications

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RE: Multi-tenant 5G Mobile Telecommunications Equipment

In consideration of a proposal seeking approval of multi-tenant pole-mounted antenna and equipment shroud to further support the citywide deployment of 5G wireless services, please see the attached Public Design Commission (“PDC”) presentation and the project overview below.

The Need for Multi-Tenant 5G Infrastructure

The City of New York is committed to having the most up-to-date, equitably distributed, unobtrusive, highest quality telecommunications infrastructure of any major city in the world. Providing an approved means of deployment for 5G equipment in the City’s right-of-way is essential to maintaining that status.

The New York City Department of Information Technology and Telecommunications (“DoITT”) Mobile Telecommunications franchise allows wireless companies to install and maintain mobile telecommunications equipment (“small cells”) on certain streetlight, traffic signal and utility poles in New York City. Since 2004, Mobile Telecommunications franchisees have installed small cells on over 7,000 city-owned and privately-owned poles improving wireless services throughout the city.

Locations identified to be outfitted with the recently approved single-tenant 5G equipment are currently being selected by franchisees as part of 5G reservation phases being administered by DoITT. These reservations are focused on areas of the city most in need for wireless infrastructure upgrades. Equipment shrouds, antennas, radios and other materials are being ordered in anticipation of an early fall deployment schedule.

To complement the single-tenant 5G equipment, DoITT is proposing a multi-tenant small cell installation that would serve more than one wireless provider at a single location. While not anticipated to be the predominant 5G solution, the primary benefits of having multiple carriers share a location and consolidating construction and deployment costs are twofold: 1) effectively limit the overall number of poles needed for a full scale 5G deployment, and 2) encourage deployments in traditionally underserved neighborhoods.

Multi-tenant 5G infrastructure will increase connectivity across all locations for multiple carriers and is an essential part of DoITT's strategy to ensure the equitable, full, roll out of 5G across the city.

The proposed multi-tenant 5G equipment was designed in collaboration with all Mobile Telecommunications Franchisees to ensure consistency and uniformity with the single-tenant 5G specifications. Specifically, the overall aesthetic consisting of a single equipment enclosure along with a poletop-mounted antenna enclosure as the only two visible elements mounted to the pole will remain.

Wireless Carrier Engagement

At DoITT's insistence, the wireless industry once again collaborated to design an agreed upon 5G multi-tenant equipment enclosure. The proposed design accommodates every carrier's unique hardware specifications allowing for the effective deployment of both 4G and 5G. The proposed design will also be eligible for installation on every standard height pole type in the DOT catalog, subject to structural and operational requirements.

In the coming years, it is anticipated that carriers will collectively deploy up to an additional 10,000 new 4G/5G small cell pole installations.

Deployment Process & Equity

As thousands of new small cells are installed across the city, DoITT is committed to ensuring the prompt, safe, and equitable distribution of new 5G transmitters. All residents and visitors of New York City should have access to the same quality of service, including those in communities traditionally underserved by the wireless industry. As part of its administration of the Mobile Telecommunication franchise, DoITT has designated three geographic zones of the city for purposes of establishing appropriate pole compensation rates and allocating poles to franchisees.

- Zone A is defined as the area of the city below 96th Street in Manhattan.
- Zone B consists of the majority of the city not included in Zones A and C.
- Zone C includes several community districts with median annual household income below \$30,000. (Studies show that homes with median household income below \$30,000 are more likely to rely on cellular phones as their sole source of access to the internet.)

DoITT periodically opens pole selection periods during which franchisees have the opportunity to select poles for the attachment of its small cell equipment. Prior to the start of each selection period, DoITT allocates the number of poles that may be reserved by each franchisee within each respective zone.

DoITT has committed to allocating at least 75% of new pole reservations in Zones B and C, with a particular focus on those neighborhoods designated by the Mayor's Taskforce on Racial Inclusion and Equity as most in need in order to ensure the equitable distribution of new wireless services. Ultimately, franchisees identify the locations and specific poles needed to for its individual deployment plan which

has historically resulted in clusters of pole installations located next to one another. There are no siting provisions that limit the proximity between pole installations.

Community Outreach

As part of its effort to accelerate the deployment of 5G throughout the city, DoITT will engage with the community boards as well as the offices of borough presidents and council members in advance of the PDC public hearing to seek feedback on the proposed 5G equipment enclosure design.

Specifically, DoITT will:

- Send all community boards, council members and borough presidents the PDC submission;
- Offer several briefings for these stakeholders to go over the design in detail and answer any questions, with one session for council members, one session for borough presidents, and three sessions for community boards between August and September;
- Stand-up a section of the nyc.gov/5G website on the multi-tenant 5G solution for ease-of-reference on 5G and for public comments to be received via web form on the design proposal;
- Set up a dedicated email address for the public to send in comments on the design proposal; and
- Aim to receive confirmation from each community board that they had the opportunity to review the design.

City Oversight

DoITT coordinates all aspects of the Mobile Telecommunication franchise, from administering pole selection periods to ensuring that all required agencies conduct their pole reviews and submit their votes and overseeing franchisee construction activity.

Each pole selection undergoes a comprehensive review coordinated by DoITT. Every city-owned pole is reviewed by the New York City Department of Transportation (DOT) to evaluate the pole's availability (only one installation per pole) in addition to its electrical and structural suitability for a small cell installation. Poles located in or adjacent to City parks, historic districts and scenic landmarks are similarly reviewed by the New York City Department of Parks and Recreation (DPR) and the Landmarks Preservation Commission (LPC). When conducting its review, DPR will typically look to make sure that tree pruning is not necessary and sensitive landscaping is not disturbed or provides specific direction to minimize any disturbance. LPC will generally only disapprove of locations that may negatively impact distinctive sidewalks like bluestone and granite during construction. Original historic decorative poles (approximately 50 in total) are landmarked and cannot be outfitted with a small cell installation. When all required entities have reviewed and voted, DoITT makes a final decision whether to grant the franchisee a Notice to Proceed for the location.

Mobile telecommunications franchise agreements require that only one small cell installation may be permitted per pole (i.e. one antenna shroud, one equipment box). DoITT's proprietary pole selection

system enforces that requirement by allowing only a single reservation per pole. Other franchise agreement provisions require that franchisee equipment be painted to match the color of the pole on which it is installed. Franchisees are also required to adhere to strict guidelines related to construction of their pole-mounted equipment and related facilities, such as power and fiber optic cabling. Franchisees are strongly encouraged to make use of existing underground (or aerial) facilities to avoid new construction of fiber optic cable necessitating the opening of streets. Where new pole foundations are required, franchisees must fully comply with DOT specifications with regard to private construction projects on city property. Construction related to small cell installations including, but not limited to, new pole foundations, poles, ADA-accessible pedestrian ramp upgrades/restorations are performed at the sole expense of the Mobile Telecommunications franchisee.

DoITT and its agency partners have worked closely over the past year to identify review process efficiencies designed to reduce the overall review time of each pole reservation. As a result, DoITT announced the initiation of an expedited review protocol that will drastically reduce review times to further support the industry's upcoming 5G deployments.