

**Torres Rojas, Genara**

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**From:** Kevin Muldoon [<mailto:kevin.muldoon@5barsinside.com>]  
**Sent:** Monday, September 08, 2014 4:15 PM  
**To:** Van Duyne, Sheree  
**Subject:** Freedom of Information Cocde Request- 2014 Telecommunications Network Access Agreement

Office of the Secretary

The Port Authority of New York and New Jersey

Attention: FOI Administrator

To Whom It May Concern :

This is a request under the Freedom of Information Act and the Port Authority's Freedom of Information Code.

We are requesting the following documents be provided to us:

The new World Trade Center complex Port Authority of New York and New Jersey - New York Telecom Partners 2014 Telecommunications Network Access Agreement with any amendments, Proposal, and RFP.

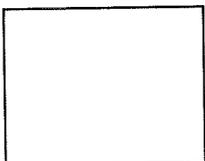
We are willing to pay fees for this request up to a maximum of \$20.00. If you estimate that the fees will exceed this limit, please inform me first.

Thank you for your consideration of this request. Feel free to call me if you have any questions, 949-383-6045.

Sincerely,

**Kevin Muldoon**  
*VP and General Counsel*

[kevin.muldoon@5barsinside.com](mailto:kevin.muldoon@5barsinside.com)  
C: [949-383-6045](tel:949-383-6045)



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**THE PORT AUTHORITY OF NY & NJ**

FOI Administrator

November 14, 2014

Mr. Kevin Muldoon  
5 Bars Inside, LLC  
129200 Von Karman, Suite 100  
Irvine, CA 92612

Re: Freedom of Information Reference No. 15292

Dear Mr. Muldoon:

This is in response to your September 8, 2014 request, which has been processed under the Port Authority's Freedom of Information Code (the "Code", copy enclosed) for copies of the "new World Trade Center complex Port Authority of New York and New Jersey - New York Telecom Partners 2014 Telecommunications Network Access Agreement with any amendments, Proposal, and RFP."

Material responsive to your request and available under the Code can be found on the Port Authority's website at <http://www.panynj.gov/corporate-information/foi/15292-LPA.pdf>. Paper copies of the available records are available upon request.

Certain portions of the material responsive to your request are exempt from disclosure pursuant to exemption (4) of the Code.

Please refer to the above FOI reference number in any future correspondence relating to your request.

Very truly yours,

  
Daniel D. Duffy  
FOI Administrator

Enclosure

225 Park Avenue South, 17th FL  
New York, NY 10003  
T: 212 435 3642 F: 212 435 7555

Agreement No. AX-713 Supplement No. 4

**SUPPLEMENTAL AGREEMENT NO. 4 TO  
TELECOMMUNICATIONS NETWORK ACCESS AGREEMENT**

dated as of August 26, 1999

by and between

**THE PORT AUTHORITY OF  
NEW YORK AND NEW JERSEY**

and

**NEW YORK TELECOM PARTNERS, LLC**

**for Portions of the World Trade Center,  
New York, New York**

**This Supplemental Agreement No. 4 is dated as of July 21, 2014**

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Schedule 2 -	Sample DAS System Availability and Downtime Calculation Methodology
Exhibit A -	Master Plan
Exhibit B-1 -	DAS Designated Coverage Areas
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Exhibit D -	Initial Schedule Milestones
Exhibit E -	System Plans and Specifications
Exhibit F -	System Site Plan

## SUPPLEMENTAL AGREEMENT

This SUPPLEMENTAL AGREEMENT (this "Supplement") is made as of July 21, 2014 by and between THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY (the "Port Authority") and NEW YORK TELECOM PARTNERS, LLC (the "Permittee"). The Port Authority and the Permittee are sometimes referred to individually as "Party" or together as the "Parties".

WITNESSETH, that:

WHEREAS, the Port Authority and the Permittee heretofore and as of August 26, 1999 entered into an agreement identified by the Port Authority as Agreement Number AX-713 (the "Original Agreement"), as supplemented and amended by (i) that certain Supplemental Agreement dated as of March 28, 2001 by and between the Port Authority and the Permittee ("Prior Supplement No. 1"), (ii) that certain Supplemental Agreement dated as of June 30, 2002 by and between the Port Authority and the Permittee ("Prior Supplement No. 2") and (iii) that certain Supplemental Agreement dated as of November 30, 2006 by and between the Port Authority and the Permittee ("Prior Supplement No. 3"); the Original Agreement, Prior Supplement No. 1, Prior Supplement No. 2 and Prior Supplement No. 3 are collectively referred to herein as the "TNAS Agreement", covering certain privileges and obligations with respect to the installation, operation, and maintenance of a wireless telecommunications network access system at Port Authority facilities, including the certain property then constituting a facility of commerce commonly known as the World Trade Center, all as more particularly described in the TNAS Agreement.

WHEREAS, as a result of the terrorist attacks of September 11, 2001, all of the buildings, structures, and improvements then constituting the World Trade Center were destroyed.

WHEREAS, a master plan for the redevelopment of the World Trade Center (the "Master Plan") has been developed, which provides for, among other things, the construction of the following buildings and improvements on the World Trade Center site: the property to be commonly known as One World Trade Center, the property to be commonly known as Two World Trade Center ("2 WTC"), the property to be commonly known as Three World Trade Center, the property to be commonly known as Four World Trade Center, the property to be commonly known as the Retail Premises (the "Retail Premises") and the property to be commonly known as the Transportation Hub (the "Transportation Hub"), all as more specifically identified on the Master Plan attached hereto as Exhibit A.

WHEREAS, in light of the redevelopment of the World Trade Center generally in accordance with the Master Plan, the Port Authority and the Permittee desire to amend and supplement the TNAS Agreement to further and more specifically set forth the rights and obligations of the Parties with respect to the development, installation, operation and maintenance of a multi-wireless service, neutral-host Distributed Antenna System (as more specifically defined herein, the "DAS System") and Wireless Local Area Network (as more specifically defined herein, the "Wi-Fi System") across a common fiber backbone (as more

specifically defined herein, the “Fiber Backbone”) in certain designated areas of the World Trade Center and to otherwise amend and supplement the TNAS Agreement as more specifically set forth in this Supplement. This Supplement is not intended to amend any of the provisions of the TNAS Agreement as to Port Authority facilities other than the World Trade Center.

**NOW, THEREFORE**, for and in consideration of the covenants and mutual agreements herein contained, and effective as of the Commencement Date, the Port Authority and the Permittee hereby agree as follows:

## **ARTICLE I**

### **DEFINITIONS**

Whenever used in this Supplement, the following terms shall have the respective meanings specified in this Article I. For the avoidance of doubt, in the event any term defined below is defined differently herein than in the TNAS Agreement, the definition contained in the TNAS Agreement shall apply for purposes of the TNAS Agreement and the definition below shall apply for purposes of this Supplement (except as otherwise specifically provided). Other capitalized terms which are used in this Supplement but not otherwise defined herein shall have the respective meanings given to such terms in the Original Agreement.

1.1 “2 WTC” shall have the meaning set forth in the introductory paragraphs of this Supplement.

1.2 “Allowable Deductions” shall mean, collectively, the DAS Allowable Deductions and the Wi-Fi Allowable Deductions.

1.3 “Annual Period” shall mean a calendar year commencing on January 1 and ending on December 31. The period from the date upon which the System or any portion thereof is first operational and capable of providing the DAS Service and/or Wi-Fi Service to the next occurring December 31 shall be the first Annual Period and the next Annual Period from January 1 to December 31 shall be the second Annual Period and so forth. If the date on which the Term of this Supplement ends is other than December 31, the final Annual Period shall be the period from January 1 of the year in which the Term of this Supplement ends to the date on which the Term of this Supplement ends.

1.4 “Base Infrastructure Costs Reimbursement” shall have the meaning set forth in Section 8.2.1.

1.5 “Base Net Present Value Amount” shall have the meaning set forth in Section 11.11.2.

1.6 “Base Unamortized Capital Amount” shall have the meaning set forth in Section 11.11.3.

1.7 “Boingo” shall have the meaning set forth in Section 12.1.

1.8 “Capital Costs” shall have the meaning set forth in Section 8.5.

1.9 “Carrier Agreement” shall have the meaning set forth in Section 6.1.

1.10 “Carrier User Alternative Performance Requirement” shall have the meaning set forth in Section 4.1.1(a)(iii).

1.11 “Carrier Users” shall mean any current or future wireless services providers offering communications services to the public, including cellular, personal communications service (PCS), specialized mobile radio (SMR), paging, commercial mobile radio service (CMRS), wireless broadband, telematics and wireless data, that hold a valid FCC authorization and which are party to a Carrier Agreement.

1.12 “Commencement Date” shall mean the date first set forth above.

1.13 “DAS Allowable Deductions” shall mean the following with respect to the DAS System: (i) any federal, state or municipal taxes or fees separately stated and collected from customers and directly payable to the respective taxing or municipal authority by the Permittee to the extent actually paid by the Permittee (excluding any tax rebates); (ii) verifiable refunds made by the Permittee to customers because of unacceptable or unsatisfactory goods or services, to the extent actually refunded by the Permittee; (iii) any Capital Cost reimbursements received by the Permittee from Carrier Users (including reimbursements received by the Permittee solely as a “pass-through” for payment to already participating Carrier Users), up to the total amount of such Capital Costs actually expended by the Permittee (provided that, for purposes of determining DAS Allowable Deductions, such amounts shall include the Permittee’s internal costs of project management without markup and a customary market-based management fee or profit, each as may be agreed by the Permittee and the Port Authority from time to time) plus the DAS Capital Costs Recovery, provided that (1) the Port Authority may reasonably review Carrier User Capital Cost reimbursement proposals and payments received for Capital Cost reimbursements and (2) any such fees and costs reimbursements are reasonable and market based; (iv) any Capital Cost reimbursements by Carrier Users received as part of fulfilling In-Kind Services, up to the total amount of such Capital Costs actually expended by the Permittee; (v) any Capital Cost reimbursements received as part of defraying any allocated Port Authority Base Infrastructure Costs, up to the total amount of such Capital Costs actually expended by the Permittee; and (vi) any reimbursement of Port Authority Operating Costs by the Permittee, up to the total amount of such reimbursements actually made by the Permittee for which the Permittee is not reimbursed by Carrier Users.

1.14 “DAS Capital Costs Recovery” shall have the meaning set forth in Section 8.5.

1.15 “DAS Designated Coverage Areas” shall mean those portions of the WTC Site indicated on the plans attached hereto as Exhibit B-1 to which the Permittee is required to design, install, operate, maintain, market and otherwise provide the DAS System.

1.16 “DAS Gross Revenues” shall mean all monies or other consideration received or receivable, paid or payable, cash or credit, regardless of collection in the case of the latter (unless any such credit amount is ultimately deemed uncollectible in accordance with generally accepted accounting principles), to or by the Permittee with respect to the DAS System on (i) all sales of merchandise and services, such as advertising and promotional sales, whether retail or wholesale,

derived from the operation of the DAS System at the WTC Site regardless of when or where the order therefore is received and (ii) any other receipts, credits, rebates, allowances, or revenues of any type arising out of or in connection with Permittee's operation of the DAS System at the WTC Site (excluding any monies or other consideration received, paid or payable to or by the Permittee from Wi-Fi off-loading of cellular data or other form of data transmission or information sharing from the DAS System to the Wi-Fi System), including but, not limited to, branding fees, marketing fees, merchandising fees, promotional allowances, retail display allowances and any type of ancillary advertising or product placement fees/allowances and all other transactions, whether placed by telephone, via internet, in person, or by mail (including e-mail) and all charges or other fees charged by the Permittee with respect to the DAS System, without any deductions for credit card discounts or thefts. In addition, any outside contributions for Capital Costs received by the Permittee with respect to the DAS System in excess of the actual amount expended by the Permittee for such Capital Costs shall constitute DAS Gross Revenues, except to the extent any such excess contributions are paid or refunded to the Carrier Users pursuant to the requirements of the applicable Carrier Agreement.

1.17 "DAS Net Income" shall mean, for each Annual Period during the Term, the DAS Gross Revenues for such Annual Period less DAS Allowable Deductions for such Annual Period.

1.18 "DAS Phase 1 Areas" shall mean those portions of the DAS Designated Coverage Areas identified on the plans attached hereto as Exhibit B-1 as "DAS Phase 1 Areas".

1.19 "DAS Phase 2 Areas" shall mean those portions of the DAS Designated Coverage Areas identified on the plans attached hereto as Exhibit B-1 as "DAS Phase 2 Areas".

1.20 "DAS Phase 3 Areas" shall mean those portions of the DAS Designated Coverage Areas identified on the plans attached hereto as Exhibit B-1 as "DAS Phase 3 Areas".

1.21 "DAS Phase 4 Areas" shall mean those portions of the DAS Designated Coverage Areas identified on the plans attached hereto as Exhibit B-1 as "DAS Phase 4 Areas".

1.22 "DAS Service" shall mean the transmission or reception of wireless telecommunications signals to or from DAS Users.

1.23 "DAS System" or "Distributed Antenna System" shall mean a spatially separated network of antennas, fiber optic cable strands and other associated equipment designed to provide radio frequency coverage at the WTC Site within the Designated Coverage Areas for use by multiple Wireless Carriers pursuant to the terms of this Supplement. The terms "DAS System" and "Distributed Antenna System" shall include the Temporary System for the applicable temporary periods contemplated pursuant to this Supplement.

1.24 "DAS System Performance Standard" shall mean the Permanent DAS System Performance Standard or the Temporary System Performance Standard, as applicable.

1.25 "DAS Users" shall mean the general public, visitors, tenants and other end-user customers of Carrier Users using mobile or portable devices located at or within the WTC Site.

- 1.26 "DAS Variable Fee" shall have the meaning set forth in Section 8.1.1.
- 1.27 "Designated Coverage Areas" shall mean the DAS Designated Coverage Areas and the Wi-Fi Designated Coverage Areas.
- 1.28 "Electricity Consumption and Demand" shall have the meaning set forth in Section 9.1.1.
- 1.29 "FCC" shall mean the Federal Communications Commission.
- 1.30 "Fiber Backbone" shall mean the common fiber optic cable strands used within the DAS System and Wi-Fi System, but shall not include excess fiber capacity deployed by the Permittee in accordance with this Supplement for other purposes.
- 1.31 "First Additional Base Infrastructure Costs Reimbursement" shall have the meaning set forth in Section 8.2.2.
- 1.32 "Grand Opening Milestone" shall have the meaning set forth on Exhibit D attached hereto.
- 1.33 "Grand Opening Milestone Default" shall mean a failure by the Permittee to meet the Grand Opening Milestone.
- 1.34 "Gross Revenues" shall mean, collectively, the DAS Gross Revenues and the Wi-Fi Gross Revenues.
- 1.35 "HVAC Consumption and Demand" shall have the meaning set forth in Section 9.2.1.
- 1.36 "HVAC Service" shall have the meaning set forth in Section 9.2.
- 1.37 "In-Kind Services" shall have the meaning set forth in Section 5.1.
- 1.38 "Infrastructure Costs Reimbursement" shall have the meaning set forth in Section 8.2.3.
- 1.39 "Infrastructure Reimbursement Credit" shall have the meaning set forth in Section 8.3.
- 1.40 "Initial Schedule Milestone" shall have the meaning set forth in Section 7.3.
- 1.41 "Initial Temporary System Areas" shall mean those portions of the DAS Designated Coverage Areas identified on the plans attached hereto as Exhibit B-2 as "Initial Temporary System Areas".
- 1.42 "Major Default" shall have the meaning set forth in Section 11.4.
- 1.43 "Major Default Notice" shall have the meaning set forth in Section 11.4.

1.44 "Master Plan" shall have the meaning set forth in the introductory paragraphs of this Supplement.

1.45 "Net Income" shall mean, for each Annual Period during the Term, Gross Revenues for such Annual Period less Allowable Deductions for such Annual Period.

1.46 "Non-Curable Default" shall have the meaning set forth in Section 11.2.

1.47 "Notice" shall have the meaning set forth in Section 14.5.

1.48 "Off-Peak Times" shall mean times that are not Peak Times.

1.49 "Other Default" shall have the meaning set forth in Section 11.5.

1.50 "Other Default Notice" shall have the meaning set forth in Section 11.5.

1.51 "OFAC" shall have the meaning set forth in Section 14.2.1.

1.52 "Original Agreement" shall have the meaning set forth in the introductory paragraphs of this Supplement

1.53 "Other Temporary System Areas" shall mean those portions of the DAS Designated Coverage Areas identified on the plans attached hereto as Exhibit B-2 as "Other Temporary System Areas".

1.54 "Party" and "Parties" shall have the meaning set forth in the introductory paragraphs of this Supplement.

1.55 "Peak Times" shall have the meaning set forth in Section 4.1.1(a)(2).

1.56 "Performance Standard Violation" shall have the meaning set forth in Section 4.4.

1.57 "Period" shall have the meaning set forth in Section 13.1 or Section 13.2, as applicable.

1.58 "Permanent DAS System Performance Standard" shall have the meaning set forth in Section 4.1.1(a)(i).

1.59 "Permittee" shall have the meaning set forth in the introductory paragraphs of this Supplement.

1.60 "Point of Interface" shall mean locations within the WTC Site where System equipment connects with cable and conduit.

1.61 "Port Authority" shall have the meaning set forth in the introductory paragraphs of this Supplement.

1.62 "Port Authority Base Infrastructure Costs" shall have the meaning set forth in Section 8.2.

- 1.63 “Port Authority Dark Fiber” shall have the meaning set forth in Section 3.1.4(a).
- 1.64 “Port Authority Operating Costs” shall have the meaning set forth in Section 8.4.
- 1.65 “Prior Supplement No. 1” shall have the meaning set forth in the introductory paragraphs of this Supplement.
- 1.66 “Prior Supplement No. 2” shall have the meaning set forth in the introductory paragraphs of this Supplement.
- 1.67 “Prior Supplement No. 3” shall have the meaning set forth in the introductory paragraphs of this Supplement.
- 1.68 “OAD” shall have the meaning set forth in Section 7.2.2.
- 1.69 “Representative” shall have the meaning set forth in Section 14.2.2.
- 1.70 “Retail Premises” shall have the meaning set forth in the introductory paragraphs of this Supplement.
- 1.71 “Retail Schedule Milestone” shall have the meaning set forth in Section 7.3.
- 1.72 “Schedule Milestone Default” shall have the meaning set forth in Section 11.3.
- 1.73 “Second Additional Base Infrastructure Costs Reimbursement” shall have the meaning set forth in Section 8.2.3.
- 1.74 “Signal Level Range” shall have the meaning set forth in Section 4.1.1(a)(1).
- 1.75 “Standard Access Offering” shall have the meaning set forth in Section 6.2.
- 1.76 “Summary Basis of Design” shall mean the summary basis of design attached hereto as Exhibit C.
- 1.77 “Supplement” shall have the meaning set forth in the introductory paragraphs of this Supplement.
- 1.78 “System” shall mean the DAS System, Wi-Fi System, and the Fiber Backbone at the WTC Site.
- 1.79 “System Plans and Specifications” shall mean those certain plans and specifications for the System listed on Exhibit E.
- 1.80 “System Performance Standard” shall mean the DAS System Performance Standard and the Wi-Fi System Performance Standard.
- 1.81 “System Operations” shall mean the installation, operation and maintenance of the System as provided in this Supplement.

1.82 “System Specifications” shall have the meaning set forth in Section 3.1.

1.83 “Temporary System” shall mean the spatially separated network of broadband antennas (known as “donor sites”) installed above grade on masts at the WTC Site for the purposes of communicating with the wireless (WSP) macro sites in the surrounding neighborhood to provide DAS Service to the Temporary System Areas. Such donor sites will be cabled in conduit to the appropriately located DAS System repeater room(s) and, in turn, connect to amplified electronic “repeaters” connected to the below-grade DAS System antennas. The Temporary System shall initially be comprised of two (2) donor sites, although more donor sites may be added by good faith agreement of the Parties as necessary to provide DAS Service to the Temporary System Areas.

1.84 “Temporary System Areas” shall mean the Initial Temporary System Areas and the Other Temporary System Areas.

1.85 “Temporary System Performance Standard” shall have the meaning set forth in Section 4.1.1(a)(ii).

1.86 “Term of this Supplement” shall have the meaning set forth in Section 11.1.

1.87 “TNAS Agreement” shall have the meaning set forth in the introductory paragraphs of this Supplement, as the same may have been further amended or supplemented as of the Commencement Date.

1.88 “Transportation Hub” shall have the meaning set forth in the introductory paragraphs of this Supplement.

1.89 “Under Covered Areas” shall have the meaning set forth in Section 4.1.1(a)(1).

1.90 “Variable Fees” shall have the meaning set forth in Section 8.1.2.

1.91 “Violation Fee” shall have the meaning set forth in Section 4.4.1.

1.92 “Wi-Fi” shall mean a wireless signal used to connect interoperable devices such as laptop computers, smart phones and other similar equipment to a local area network.

1.93 “Wi-Fi Allowable Deductions” shall mean the following with respect to the Wi-Fi System: (i) any federal, state or municipal taxes or fees separately stated and collected from customers and directly payable to the respective taxing or municipal authority by the Permittee to the extent actually paid by the Permittee (excluding any tax rebates); (ii) verifiable refunds made by the Permittee to customers because of unacceptable or unsatisfactory goods or services, to the extent actually refunded by the Permittee and (iii) any reimbursement of Port Authority Operating Costs by the Permittee, up to the total amount of such reimbursements actually made by the Permittee for which the Permittee is not reimbursed by any other party.

1.94 “Wi-Fi Capital Costs Recovery” shall have the meaning set forth in Section 8.5.

1.95 **“Wi-Fi Designated Coverage Areas”** shall mean those portions of the WTC Site indicated on the plans attached hereto as **Exhibit B-3** to which the Permittee is required to design, install, operate, maintain, market and otherwise provide the Wi-Fi System.

1.96 **“Wi-Fi Gross Revenues”** shall mean all monies or other consideration received or receivable, paid or payable, cash or credit, regardless of collection in the case of the latter (unless any such credit amount is ultimately deemed uncollectible in accordance with generally accepted accounting principles), to or by the Permittee on (i) all sales of merchandise and services, such as advertising and promotional sales, whether retail or wholesale, derived from the operation of the Permittee’s activities at the WTC Site regardless of when or where the order therefore is received and (ii) any other receipts, credits, rebates, allowances, or revenues of any type arising out of or in connection with the Permittee’s operations at the WTC Site, including but, not limited to, Wi-Fi offloading of cellular data or other form of data transmission or information sharing from the DAS System to the Wi-Fi System, branding fees, marketing fees, merchandising fees, promotional allowances, retail display allowances and any type of ancillary advertising or product placement fees/allowances and all other transactions, whether placed by telephone, via internet, in person, or by mail (including e-mail) and all charges or other fees charged by the Permittee, without any deductions for credit card discounts or thefts, provided, however, that Wi-Fi Gross Revenues shall not include DAS Gross Revenues. In addition, any outside contributions for Capital Costs received by the Permittee with respect to the Wi-Fi System in excess of the actual amount expended by the Permittee for such Capital Costs shall constitute Wi-Fi Gross Revenues.

1.97 **“Wi-Fi Net Income”** shall mean, for each Annual Period during the Term, the Wi-Fi Gross Revenues for such Annual Period less Wi-Fi Allowable Deductions for such Annual Period.

1.98 **“Wi-Fi Service”** shall mean the transmission or reception of wireless internet signals to or from Wi-Fi Users.

1.99 **“Wi-Fi System”** shall mean the wireless local area network designed, installed, operated, maintained, and marketed by the Permittee at the WTC Site pursuant to the terms of this Supplement.

1.100 **“Wi-Fi System Performance Standard”** shall have the meaning set forth in **Section 4.1.2(a)**.

1.101 **“Wi-Fi Users”** shall mean the general public, visitors, tenants and other end-user customers using mobile, portable or computer devices at or within the WTC Site.

1.102 **“Wi-Fi Variable Fee”** shall have the meaning set forth in **Section 8.1.2**.

1.103 **“World Trade Center”** shall mean that certain parcel of land bounded by and located within the area encompassed by the corner of Vesey Street and West Street moving east toward Church Street, south on Church Street to Liberty Street, west on Liberty Street to Greenwich Street, south on Greenwich Street to Albany Street, west on Albany Street to Washington Street, north on Washington Street to Cedar Street, west on Cedar Street to West

Street and north on West Street to Vesey Street, located in the Borough of Manhattan, City, County and State of New York and commonly referred to as the World Trade Center.

1.104 "WTC Site" shall mean those portions of the World Trade Center which comprise the Designated Coverage Areas.

1.105 "WTC Termination Amount" shall have the meaning set forth in Section 11.11.5.

1.106 "WTCR" shall have the meaning set forth in Section 7.2.1.

## ARTICLE II

### SCOPE OF AGREEMENT

2.1 Relationship to TNAS Agreement. This Supplement embodies the entire agreement and understanding between the Port Authority and the Permittee with respect to the World Trade Center and supersedes all prior agreements and understandings between the Parties relating to the Port Authority facilities at the World Trade Center. Notwithstanding anything to the contrary set forth in the TNAS Agreement, the TNAS Agreement shall only apply to the World Trade Center and any portion thereof as and to the extent specifically provided in this Supplement. In furtherance of the foregoing, and for the avoidance of doubt, (i) the TNAS Agreement shall be and hereby is superseded in its entirety solely with respect to the World Trade Center and shall be of no further force and effect with respect thereto except as specifically incorporated herein and (ii) the Permittee shall have no rights or obligations with respect to any portion of the World Trade Center other than those portions of the World Trade Center which comprise the Designated Coverage Areas, and only to the extent set forth herein. The remaining provisions of the TNAS Agreement unrelated to the World Trade Center shall be unaffected by this Supplement, except to the extent expressly provided in Sections 11.1 and 11.10.

## ARTICLE III

### THE SYSTEM

3.1 DAS System, Wi-Fi System, Fiber Backbone. The Permittee shall have the right and obligation to design, install, operate, maintain, and market at the WTC Site (i) a custom-designed DAS System for shared use by Carrier Users and (ii) a custom-designed Wi-Fi System, each on the terms and in accordance with the applicable specifications set forth in this Section 3.1 (collectively, the "System Specifications") and the System Performance Standard, in a manner so as to provide service to the Designated Coverage Areas and otherwise in accordance with the terms of this Supplement. The Permittee shall design the System to be world-class, comprehensive, flexible and scalable and in a manner which will, at a minimum, limit potential service loss, allow for routine maintenance and upgrading to prevailing professional standards, reasonably accommodate future uses and reasonably limit total cost of the System and its operations through the use of prudent design alternatives.

3.1.1 DAS System Specifications. The Permittee shall design the DAS System to address commercially reasonable design needs, standards and requirements of the Port Authority

and Carrier Users, provided, however, that at a minimum, the DAS System shall reasonably accommodate the future participation of additional Carrier Users, even if such Carrier Users do not initially participate. The DAS System will be an easy-to-scale, fiber-based, reasonably future-proof system with system-wide availability of 99.5% or greater for all core components.

3.1.2 Wi-Fi System Specifications. The Permittee shall design the Wi-Fi System to address commercially reasonable design needs, standards and requirements of a state of the art commercial Wi-Fi System intended to service the needs of anticipated current and future general public and private enterprise Wi-Fi Users. The Wi-Fi System will be an easy-to-scale, fiber-based, future-proof system with system-wide availability of 98% or greater for all core components, as further described below. Permittee shall ensure that the Wi-Fi System will at all times meet or exceed industry standards.

3.1.3 Fiber Backbone Specifications. The Permittee shall design the Fiber Backbone to include a minimum of twelve (12) fiber strands to meet the design, spare strands and growth requirements of the System and to permit the provision of the excess capacity and additional services required pursuant to this Supplement.

3.1.4 Excess Capacity.

(a) The Permittee shall design, deploy and install, as part of the System, additional fiber optic capacity as so-called dark fiber strands in an amount equal to one hundred percent (100%) of the minimum design capacity in the distribution routes designated by the Port Authority (the "Port Authority Dark Fiber"). The Port Authority Dark Fiber may be used by the Port Authority, its affiliates, assignees, designees, licensees, lessees and any other Person designated by the Port Authority for any purpose, provided that such utilization does not (i) compromise the functionality of the System or (ii) violate any exclusive rights granted to the Permittee pursuant to this Supplement.

(b) The Permittee shall have the non-exclusive right to offer excess or overbuilt fiber capacity other than the Port Authority Dark Fiber on a non-discriminatory basis for use by Carrier Users (or other third parties approved by the Port Authority in writing) within the Designated Coverage Areas, and any amounts received or payable to the Permittee on account of such use shall constitute DAS Gross Revenues. Nothing in this Supplement shall restrict the rights of the Port Authority to offer fiber capacity for use by third parties including, without limitation, the right to offer such capacity in competition with the Permittee, provided that such capacity is not used by any third party for: (i) DAS Service available to the general public within the Designated Coverage Areas or (ii) Wi-Fi Service available to the general public within the public areas of the Transportation Hub, except as provided in Section 4.1.2.

3.2 Periodic Meetings. Senior representatives of the Permittee shall meet with the Port Authority on a monthly basis (or more frequently upon the Port Authority's reasonable request) from and after the Commencement Date until the completion of the Initial System Construction Work and quarterly thereafter (or at such other times as may be specified by the Port Authority) to discuss design, construction, operational and financial performance and any other matters reasonably requested by the Port Authority. At such meetings, the Permittee's representatives shall discuss, among other things, (i) the impact of any changes in the wireless

communications industry, (ii) the financial and operational performance of the System and (iii) any steps the Permittee is taking to assure that all appropriate technological developments are incorporated into the System on an ongoing basis. The Permittee shall prepare minutes following each such meeting, deliver copies of all minutes to the Port Authority and maintain a minute book containing all of the minutes (which minute book shall be available to the Port Authority upon advance notice). Meetings may be conducted either by phone, video-conference or in person at a location in New York City. At the request of the Port Authority, the Permittee shall invite the architect(s) and/or contractor(s) for the Initiation System Construction Work to attend such meetings. In addition, the Permittee shall notify the Port Authority and invite the Port Authority's attendance at and participation in meetings material to the design and implementation of the System and the development of business terms of Carrier Agreements.

3.3 Applicable Provisions of the TNAS Agreement: Port Authority's Right of Relocation. Section 15 of the Original Agreement shall be and hereby is incorporated in this Supplement and made applicable to the WTC Site as if fully set forth herein, except that, for purposes of this Supplement, (i) the capitalized terms used within such provisions shall have the applicable meanings given to such terms in Article I of this Supplement if so defined therein (otherwise, such capitalized terms shall have the applicable meanings given to such terms in the Original Agreement), (ii) the phrase "this Agreement" or "hereunder" as used in any such provision shall be construed to refer to this Supplement and (iii) the references to "Section 7" as used in Section 15(e) of the Original Agreement shall mean Section 7 of the Original Agreement as incorporated in this Supplement pursuant to Section 7.1.

#### 3.4 System Upgrades.

3.4.1 The Permittee shall, at no cost to the Port Authority, promptly upgrade the DAS System upon the request of any Carrier User in accordance with the applicable Carrier Agreement and the Wi-Fi System as emerging technological advances become commercially operable in world-class transportation facilities.

3.4.2 Subject to the Port Authority and Permittee negotiating in good faith the terms and conditions for an upgrade, the Permittee shall upgrade the System upon request by the Port Authority (or the Port Authority on behalf of the net lessee of the Retail Premises) from time to time so that the Port Authority, such retail net lessee and their respective tenants may avail themselves of technological advances in communication services.

3.5 Port Authority Expansion Right. At the Port Authority's request, the Permittee shall provide internal staff resources to the Port Authority at no cost to the Port Authority to evaluate the System or any portion thereof to be extended into select and limited areas of the WTC Site beyond the Designated Coverage Areas. If the addition of such areas will not compromise the applicable System Specifications and System Performance Standard, the Port Authority, at its sole cost and expense, may direct the Permittee to expand the System or such portion thereof. Any benefit derived from said expansion will accrue solely to the Port Authority.

## ARTICLE IV

### PROVISION OF DAS AND WI-FI SERVICE

4.1 Permittee's Service Obligations. The Permittee shall install, deploy, operate and maintain the System in a manner such that the Wi-Fi Service and DAS Service, respectively, are provided to the Designated Coverage Areas in accordance with the provisions of this Supplement.

4.1.1 DAS Service. Subject to the Port Authority's rights under Section 7.3, the Permittee shall have the exclusive right to install, operate, maintain and market the DAS System within the Designated Coverage Areas, except that if (i) the Port Authority or the retail net lessee wishes to expand the areas where cellular communications are capable of transmission and reception beyond the Designated Coverage Areas and (ii) the Permittee is unable or unwilling to expand such areas on terms and conditions, including allocation of costs, that are reasonably acceptable to the retail net lessee and the Port Authority, as applicable, then the retail net lessee and/or the Port Authority may expand such areas directly or through a third-party without violating any rights of Permittee, provided such expansion does not impact the operations of the System. The DAS System shall enable each Carrier User to provide current and future DAS Service to its respective DAS Users within the DAS Designated Coverage Areas pursuant to and in accordance with the applicable Carrier Agreement and otherwise in accordance with the standards and requirements set forth in this Section 4.1.1.

(a) DAS System Performance Standard.

(i) Permanent DAS System. Except as otherwise expressly provided in this Section 4.1.1, the Permittee shall, after connection to the DAS System by a Carrier User, operate the DAS System at the WTC Site in accordance with a performance standard (the "Permanent DAS System Performance Standard") that is the greatest of (i) prevailing commercial performance standards for a state of the art DAS System utilized in a world-class mixed use facility (provided that if the Port Authority contends that the DAS System does not comply with such prevailing commercial performance standards and the DAS System would require upgrades or improvements to comply with such standards, the Permittee's obligation to make such upgrades or improvements to bring the DAS System into compliance shall be subject to the Port Authority and Permittee negotiating in good faith the terms and conditions for any required upgrades or improvements) and (ii) the following detailed standards:

(A) DAS System coverage within 95% or greater of the DAS Designated Coverage Areas shall have signal levels at -65dBm (above grade) or -75dBm (below grade) or better at all times (collectively, the "Signal Level Range"). In the event certain DAS Designated Coverage Areas meet the Signal Level Range less than 99.5% of the time, on average, as a result of the design of the DAS System or known signal strength limiting site conditions, the Permittee shall identify such areas (the "Under Covered Areas") and specify the expected user experience for the Under Covered Areas. If the total square footage of the Under Covered Areas is greater than 5% of the DAS Designated Coverage Areas, then the DAS System shall be deemed not to satisfy the foregoing detailed standard unless such degraded service is caused by failures of Carrier User equipment or other causes outside of the control of Permittee.

(B) The DAS System shall be available (a) 99.9% of the time or greater from 7:00 a.m. to 10:00 p.m. daily ("Peak Times") and (b) 99.5% of the time or greater on average during all hours (i.e., Peak Times and Off-Peak Times). If the accumulated DAS System downtime during any Annual Period exceeds (y) 0.1% for Peak Times or (z) 0.5% on average during all hours (i.e., Peak Times and Off-Peak Times), Permittee shall be deemed not to satisfy the foregoing detailed standard. For the purposes of this Section 4.1.1(a)(2), availability and downtime determinations shall be calculated based on the amount of devices that are able to access the DAS System at any time and from time to time, in a manner as reasonably determined by the Port Authority. For purposes of illustration only, and without limiting the right of the Port Authority to make reasonable determinations pursuant to the immediately preceding sentence, a sample calculation methodology is set forth on Schedule 2 attached hereto.

(ii) Temporary System. The Permittee shall operate each Temporary System at the WTC Site so that the Temporary System Areas are provided with DAS Service in accordance with the so-called "3G" protocols promulgated by the International Telecommunications Union (the "Temporary System Performance Standard") from the period commencing upon the connection to such Temporary System by a Carrier User until the permanent DAS System for the applicable area is delivered, commissioned in accordance with applicable QAD requirements and fully operational (as applicable) in accordance with this Supplement.

(iii) Carrier Users. Notwithstanding any provisions of this Section 4.1.1(a) to the contrary, if one (1) or more Carrier Users requires a performance standard for the DAS System in its Carrier Agreement that is inconsistent with the performance standard otherwise required herein (such inconsistent standard, the "Carrier User Alternative Performance Requirement"), the Carrier User Alternative Performance Requirement shall constitute the applicable System Performance Standard to the extent of such inconsistency so long as the inconsistent standard is greater than the performance standard otherwise required herein.

(b) The Permittee shall not permit any radio signals received or transmitted to or by any DAS User through the DAS System to be in any electromagnetic radio frequency spectrum other than the portion(s) of the electromagnetic radio frequency spectrum then-permitted for such use by the FCC or any other governmental authority pursuant to applicable law.

(c) In addition to the foregoing, in light of the particular technical requirements associated with elevators, the Permittee and the Port Authority shall work cooperatively to enable DAS Service to be provided to the elevators located within such portions of the WTC Site apart from those noted in the Designated Coverage Areas, as may be designated by the Port Authority from time to time.

(d) The Permittee shall operate the DAS System so as to accommodate all interested Carrier Users on a non-exclusive and non-discriminatory basis up to the design capacity of the DAS System or the Wi-Fi System, as more specifically provided in the applicable Carrier Agreement.

**4.1.2 Wi-Fi Service.** Subject to the Port Authority's rights under Section 7.3, the Permittee shall have (a) the right to install, operate, maintain and market the Wi-Fi System within the Designated Coverage Areas and (b) the exclusive right to install, operate, maintain and market the Wi-Fi System and provide Wi-Fi Service within the public areas of the Transportation Hub. For the avoidance of doubt, (i) the utilization of any In-Kind Services by the Port Authority for any purpose expressly permitted in this Supplement or that does not directly compete with the provision of DAS or Wi-Fi will not be deemed a violation of any rights of Permittee, (ii) the Port Authority may provide Wi-Fi services for its internal operations and public stakeholders, including, but not limited to, police, fire, ambulatory and other such emergency service providers, without violating any rights of Permittee and (iii) retail stores, restaurants, commercial office lobbies and attractions (including, without limitation, any observation deck lobbies from time to time located within One World Trade Center) may install and provide their own Wi-Fi services without violating any rights of the Permittee, provided that such tenants utilize a system that will not provide Wi-Fi service outside of such tenant's demised space or use area except leakage to a de minimus extent. In addition, and notwithstanding anything contained in this Supplement to the contrary, the Port Authority reserves the right to offer or permit its development partners or tenants to offer premium Wi-Fi Service free of charge to the public in common areas of the WTC Site in a manner that maintains the economic benefits to the Permittee of the Wi-Fi provisions of this Supplement. Any such free Wi-Fi Service may be paid for by sponsorships or by the Port Authority (or its development partners or tenants). Without limiting any of the foregoing provisions of this Section 4.1.2, the Port Authority shall use commercially reasonable efforts to ensure that any wireless local area network operated by the Port Authority within the Designated Coverage Areas does not cause Objectionable Interference with the Wi-Fi System.

(a) The Wi-Fi System shall permit the Permittee to provide current and future Wi-Fi services to Wi-Fi Users within the Designated Coverage Areas. The Permittee shall cause Wi-Fi Service to be available for an unlimited amount of time to each user free of charge and at standards comparable that provided by other Wi-Fi providers at other world-class facilities within the United States. Permittee shall operate the Wi-Fi System at the WTC Site in accordance with a performance standard (the "Wi-Fi System Performance Standard") that is the greatest of (i) prevailing commercial performance standards for a state of the art Wi-Fi System utilized in a world-class mixed use facility and (ii) a standard pursuant to which the Wi-Fi System is available 98.0% of the time or greater, provided that if the accumulated Wi-Fi System downtime during any Annual Period exceeds 2.0% for the Wi-Fi System, Permittee shall be deemed not to satisfy the foregoing detailed standard set forth in this clause (ii).

(b) The Permittee shall not permit any radio signals received or transmitted to or by any Wi-Fi User through the Wi-Fi System to be in any electromagnetic radio frequency spectrum other than the portion(s) of the electromagnetic radio frequency spectrum then-permitted for such use by the FCC or any other governmental authority pursuant to applicable law.

**4.2 Resiliency Requirements.** Permittee shall provide a minimum (4) four hours resiliency for the System through battery back-up in the Point of Interface room and any certain other rooms outside of the Point of Interface room, including the intermediate distribution frame

closets, telecom closets, and equipment closets in which System components are located and, with respect to the DAS System, a location in the Transportation Hub.

4.3 Times to Report and Repair. Upon the occurrence of any event that has an adverse effect on the provisions of DAS Service and/or the Wi-Fi Service, the Permittee shall use its best efforts to resolve such adverse effect as soon as practicable. Without limiting the foregoing, Permittee shall additionally comply with the following requirements with respect to any such event:

4.3.1 Within four (4) hours after any System-wide, DAS Service affecting and/or Wi-Fi Service affecting outage or interruption, the Permittee shall report the proposed solution or resolution regarding such outage or interruption to the Port Authority. The Permittee shall resolve such outage and restore service to pre-outage conditions within four (4) hours after such notification, except that, with respect to any such outage that is the direct result of a failure of Carrier User equipment or infrastructure outside of the control of the Permittee, the Permittee shall be obligated to use best efforts to resolve such outage and restore service to pre-outage conditions as soon as possible following such notification.

4.3.2 Within four (4) hours after any partial DAS Service affecting and/or Wi-Fi Service affecting outage or interruption, Permittee shall report the proposed solution or resolution regarding such outage or interruption to the Port Authority. The Permittee shall resolve such outage and restore service to pre-outage conditions within eight (8) hours after such notification, except that, with respect to any such outage that is the direct result of a failure of Carrier User equipment or infrastructure outside of the control of the Permittee, the Permittee shall be obligated to use best efforts to resolve such outage and restore service to pre-outage conditions as soon as possible following such notification.

4.3.3 Within twenty-four (24) hours of any non-service affecting System outage, the Permittee shall report the proposed solution or resolution regarding such outage or interruption to the Port Authority. The Permittee shall use best efforts to resolve such outage as soon as possible in order to minimize risk of a subsequent service-affecting outage. If the condition degrades to a DAS Service affecting and/or Wi-Fi Service outage, the response standards set forth in this Supplement for such outage shall apply and shall be measured from the onset of such service-affecting degradation.

Notwithstanding the foregoing, electrical service outages to the System will not be grounds for waiving the foregoing report and repair requirements.

4.4 Remedies for System Failures. The Permittee shall, subject to Section 11.10, cure any and all failures to meet the applicable System Performance Standard (each, a "Performance Standard Violation") within a fifteen (15) calendar day period after the earlier of written notice thereof shall have been received by the Permittee or such time as the Permittee has become aware of such Performance Standard Violation, which cure period may be extended for an additional thirty (30) calendar day period (or longer, if the circumstances reasonably require, provided that in no event shall any such cure period be extend for longer than a ninety (90) calendar day period in total) if the Permittee commences such cure within the original fifteen (15) calendar day period and continues to diligently pursue completion thereof.

4.4.1 Notwithstanding the foregoing (and regardless of whether the Permittee is pursuing or has effected cure), the Permittee shall pay the following amounts (each, a “Violation Fee”) on account of such Performance Standard Violations to the Port Authority at the time it is next obligated to make a Variable Fee payment pursuant to this Supplement (and the same shall be deemed fees collectible in the same manner and with like remedies as if such Violation Fees were a part of the Variable Fees hereunder):

(a) For the first Performance Standard Violation resulting in any DAS Service affecting and/or Wi-Fi Service affecting outage or interruption lasting more than four (4) hours within any Annual Period, the Violation Fee shall be an amount equal to (a) the Wi-Fi Net Income, with respect to such a Performance Standard Violation resulting in a Wi-Fi Service affecting outage, and/or the DAS Net Income, with respect to such a Performance Standard Violation resulting in a DAS Service affecting outage, as applicable, from (i) the date on which such Performance Standard Violation first occurs through (ii) the date upon which the DAS Service and Wi-Fi Service have been fully restored.

(b) For the second and each subsequent Performance Standard Violations resulting in any DAS Service affecting and/or Wi-Fi Service affecting outage or interruption lasting more than four (4) hours within any Annual Period, the Violation Fee shall be an amount equal to (a) the Wi-Fi Net Income, with respect to such a Performance Standard Violation resulting in a Wi-Fi Service affecting outage, and/or the DAS Net Income, with respect to such a Performance Standard Violation resulting in a DAS Service affecting outage, as applicable, from (i) the date on which such Performance Standard Violation first occurs through (ii) the date upon which the DAS Service and Wi-Fi Service have been fully restored (b) multiplied by two (2).

The Parties acknowledge and agree that (i) the Violation Fees described above are a reasonable estimate of and bear a reasonable relationship to the damages that would be suffered and costs incurred by the Port Authority as a result of any such Performance Standard Violations, (ii) the actual damages suffered and costs incurred by the Port Authority as a result of any such Performance Standard Violations would be extremely difficult and impractical to determine and (iii) the applicable Violation Fees shall be and constitute valid liquidated damages on account of such Performance Standard Violations.

4.4.2 Within forty-eight (48) hours of any Performance Standard Violation, the Permittee will prepare and issue to the Port Authority an analysis and narrative statement that outlines the cause of the Performance Standard Violation, the remedies taken by the Permittee, Carriers Users (with respect to the DAS System) and any other Persons to remedy such outage or interruption and improvements planned or undertaken to avoid future Performance Standard Violations.

4.5 Applicable Provisions of the TNAS Agreement: Manner of Operation. Section 35 of the Original Agreement shall be and hereby is incorporated in this Supplement and made applicable to the WTC Site as if fully set forth herein, except that, for purposes of this Supplement, (i) the capitalized terms used within such provisions shall have the applicable meanings given to such terms in Article I of this Supplement if so defined therein (otherwise, such capitalized terms shall have the applicable meanings given to such terms in the Original

Agreement), (ii) the phrase “this Agreement” or “hereunder” as used in any such provision shall be construed to refer to this Supplement, (iii) the references to “Covered Facilities” as used in Section 35(iii) of the Original Agreement shall mean the WTC Site, (iv) the references to “Gross Receipts” as used in Section 35(vi) and (vii) of the Original Agreement shall mean Gross Revenues, (iii) the phrase “Paging Carrier User” as used in Section 35(viii) of the Original Agreement shall not be incorporated in this Supplement and (v) Section 35(ix) shall not be incorporated in this Supplement.

**4.6 Applicable Provisions of the TNAS Agreement: Objectionable Interference.** Section 46 of the Original Agreement shall be and hereby is incorporated in this Supplement and made applicable to the WTC Site as if fully set forth herein, except that, for purposes of this Supplement, (i) the capitalized terms used within such provisions shall have the applicable meanings given to such terms in Article I of this Supplement if so defined therein (otherwise, such capitalized terms shall have the applicable meanings given to such terms in the Original Agreement), (ii) the phrase “this Agreement” or “hereunder” as used in any such provision shall be construed to refer to this Supplement, (iii) the phrase “Paging Carrier User” as used in Section 46 shall not be incorporated in this Supplement and (iv) Section 46(e) shall not be incorporated in this Supplement.

**4.7 On-Site Staff.** At the Port Authority’s option, the Permittee shall maintain, at its sole cost, a full time staff on-site to address customer service issues during normal business hours. Such staff will be based in an office to be provided and furnished by the Port Authority at no additional cost to the Permittee.

**4.8 Applicable Provisions of the TNAS Agreement: Maintenance and Repair.** Section 11 of the Original Agreement shall be and hereby is incorporated in this Supplement and made applicable to the WTC Site as if fully set forth herein, except that, for purposes of this Supplement, (i) the capitalized terms used within such provisions shall have the applicable meanings given to such terms in Article I of this Supplement if so defined therein (otherwise, such capitalized terms shall have the applicable meanings given to such terms in the Original Agreement), (ii) the phrase “this Agreement” or “hereunder” as used in any such provision shall be construed to refer to this Supplement, (iii) the reference to “Section 12” as used in Section 11(a) of the Original Agreement shall mean Section 12 of the Original Agreement as incorporated in this Supplement pursuant to Section 14.1.4, (iv) the references to “Section 7” as used in Section 11(b) of the Original Agreement shall mean Section 7 of the Original Agreement as incorporated in this Supplement pursuant to Section 7.1 and (v) all the Permittee’s obligations and duties pursuant to Section 11 of the Original Agreement as incorporated in this Supplement pursuant to this Section 4.8 shall be performed by the Permittee so as to ensure that the System is operated and maintained to a first-class standard.

**4.9 Planned Maintenance.** The Permittee shall schedule all planned maintenance within limited maintenance windows during Off-Peak Times, which scheduling shall be subject to the prior written approval of the Port Authority (which approval may not be unreasonably delayed or withheld).

## ARTICLE V

### IN-KIND SERVICES

5.1 In-Kind Services. Upon the written request by the Port Authority from time to time, the Permittee shall, at no charge, install, operate and maintain for use by the Port Authority the following in-kind services in accordance with the Port Authority's reasonable specifications (the "In-Kind Services"): (i) up to one hundred (100) complimentary premium Wi-Fi subscriptions for use by the Port Authority and its designees throughout the Designated Coverage Areas and (ii) prominent reserved space on the splash page first accessed by end-users accessing the Wi-Fi Service for the World Trade Center and/or Port Authority logo and icon and to allow users to download, without charge, Port Authority or World Trade Center applications or to access other information or products related to the Port Authority or World Trade Center.

## ARTICLE VI

### CARRIER USERS

6.1 Carrier User Access to System. The Permittee may, in the conduct of its operations hereunder, permit the use of portions of the System by Carrier Users pursuant to and in accordance with this Article VI solely to provide current and future DAS Service to such Carrier Users' respective DAS Users within all of the Designated Coverage Areas (except as otherwise approved in writing in advance by the Port Authority). The Permittee shall offer reasonable, non-exclusive and non-discriminatory terms to any Carrier User holding a valid FCC license to purchase access to the DAS System. All such uses shall be governed by a carrier agreement ("Carrier Agreement") by and between the Permittee and the applicable Carrier User, which shall be negotiated and executed as provided in this Article VI. The Permittee shall use commercially reasonable efforts to enter into Carrier Agreements with one (1) or more Carrier Users as soon as practicable after the date of this Agreement.

6.2 Standard Access Offering. The Permittee shall develop and maintain a standard access offering containing the basic terms pursuant to which the Carrier Users may purchase access to the DAS System (the "Standard Access Offering"), which shall contain, among other things, business terms, monthly fees and capital cost reimbursements to be paid by Carrier Users and certain standard terms required by the Port Authority. The Standard Access Offering and any updates thereto shall be subject to approval of Port Authority, not to be unreasonably withheld.

6.3 Carrier Agreements. Unless otherwise approved in writing by the Port Authority, the Permittee shall commence all new Carrier Agreement negotiations based on the Standard Access Offering. During the course of negotiations with a prospective Carrier User, the Permittee may vary from the Standard Access Offering, provided that, in such event, the Permittee shall prepare and provide to the Port Authority a net present value analysis of such alternate terms over an at least ten (10) year period to demonstrate that substantially similar or better revenue value will accrue to the Port Authority as a result of such varied terms. The Permittee shall include the Port Authority in any meetings or other discussions between the Permittee and any Carrier User. If Carrier Agreement terms are discussed extemporaneously at

meetings where a representative of the Port Authority is not in attendance, the Permittee will provide the Port Authority with notes of such meeting or discussion that briefly characterize the discussion and any conclusions reached within a reasonable time of such meeting or discussion. The Permittee shall fully disclose to the Port Authority Carrier User requirements and terms of requested technology service and performance, and will promptly forward to the Port Authority any Carrier User requirements or specifications pertaining to the DAS System or space and conditioning requirements for the rooms that house components of the DAS System. The Permittee will use commercially reasonable efforts to obtain Carrier Agreement terms coterminous with this Supplement and having a minimum term of fifteen (15) years (provided the term for any Carrier Agreement executed after the first Carrier Agreement shall expire on the expiration date of the first Carrier Agreement, except as approved in writing by the Port Authority in its sole discretion). Carrier Agreements may include substantially different terms for different Carrier Users, and the Port Authority will not unreasonably insist on identical terms for various carriers. Notwithstanding the foregoing, each Carrier Agreement shall provide that (A) the Port Authority shall be (i) an intended third-party beneficiary of such Carrier Agreement and (ii) entitled (but not obligated) to enforce any provisions thereof on behalf of the Permittee and (B) upon written notice from the Port Authority to the Carrier User, all amounts payable by the applicable Carrier User to the Permittee under the Carrier Agreement shall thereafter be paid directly to the Port Authority until further written notice is received from the Port Authority. The Port Authority shall be permitted (but not obligated) to give such written notice(s) to one or more Carrier Users only from and after, and during the continuance of, the occurrence of any Non-Curable Default or Major Default, and all amounts paid by Carrier Users directly to the Port Authority pursuant to such provision shall only be expended for purposes provided in this Agreement or any Carrier Agreement and shall not be distributed to the Port Authority other than in accordance with this Agreement. Prior to its execution of a Carrier Agreement, the Permittee shall deliver to the Port Authority an unsigned but final copy of such Carrier Agreement, together with any other information that is reasonably relevant to the Port Authority's evaluation of such Carrier Agreement (including, without limitation, any net present value analysis required pursuant to this Section 6.3). The Permittee shall obtain the prior written approval of the Port Authority to such Carrier Agreement, which the Port Authority agrees to review promptly upon request therefor. Upon the Port Authority's written approval, the Permittee shall be authorized to execute such Carrier Agreement. The Permittee shall furnish the Port Authority with a true copy of each fully-executed Carrier Agreement promptly after the execution thereof. The Port Authority shall provide each Carrier User with a subordination, non-disturbance and attornment agreement in form reasonably acceptable to such Carrier User.

## ARTICLE VII

### SYSTEM CONSTRUCTION AND ALTERATIONS

7.1 Applicable Provisions of the TNAS Agreement: Installation Work. Section 7 of the Original Agreement shall be and hereby is incorporated in this Supplement and made applicable to the WTC Site as if fully set forth herein, except that, for purposes of this Supplement, (i) the capitalized terms used within such provisions shall have the applicable meanings given to such terms in Article I of this Supplement if so defined therein (otherwise, such capitalized terms shall have the applicable meanings given to such terms in the Original Agreement), (ii) the phrase "this Agreement" or "hereunder" as used in any such provision shall

be construed to refer to this Supplement and (iii) the last sentence of Section 7(b)(i) of the Original Agreement, the last two sentences of Section 7(b)(ii)(1) of the Original Agreement, the last sentence of Section 7(b)(ii)(2) of the Original Agreement, Section 7(c)(i), Section 7(c)(ii), and Section 7(g)(iii)-(iv) shall not be incorporated in this Supplement.

**7.2 Port Authority Review of Proposed System Work.** Pursuant to (i) Section 7(b)(ii) of the Original Agreement (as incorporated in this Supplement pursuant to Section 7.1), with respect to the Initial System Construction Work, and (ii) Section 38 of the Original Agreement (as incorporated in this Supplement pursuant to Section 7.5), with respect to any construction, modifications, alterations, additions or improvements other than the Initial System Construction Work, the Permittee is required to obtain the written approval of the Port Authority prior to commencing any such work. For the avoidance of doubt, the following approval process shall be undertaken with respect to any such approvals required to be obtained from the Port Authority:

**7.2.1** The Permittee shall submit a Construction Application to the Port Authority's World Trade Center Redevelopment department ("WTCR") for its review and written approval, which approval shall be granted or withheld in the Port Authority's reasonable discretion. WTCR shall use best efforts to review and respond to the Permittee with respect to any complete Construction Application within five (5) business days. If WTCR does not respond to the Permittee within any such five (5) business day period, then any succeeding Initial Schedule Milestones shall be extended for a period of time equal to the period of time commencing upon the date that is five (5) business days after the submission by the Permittee to WTCR of a complete Construction Application and concluding on the date that WTCR responds to the Permittee with respect to such Construction Application. In no event shall any such failure to respond constitute a default by the Port Authority under this Agreement. In order to facilitate the initial design of the System, the Permittee may submit the required materials for major individual components of the WTC Site for review and approval as such components are ready for consideration. If at any time WTCR is subsumed into another Port Authority department or otherwise ceases to exist, the Port Authority may designate another department to receive, review and approve Construction Applications as set forth herein.

**7.2.2** If and when the Permittee receives WTCR's approval of the Construction Application in accordance with Section 7.2.1, WTCR shall directly forward, or request the Permittee to forward, the approved Construction Application to the Port Authority's Quality Assurance Division ("QAD") and any other divisions or departments as may be required by the Port Authority for approval. QAD and such other divisions or departments shall review such materials in accordance with their respective standard practices and procedures (including, without limitation, the then-applicable Tenant Construction and Alteration Process Manual), and the Permittee shall pay the Port Authority's standard fees and charges in connection with such applications and review. Such review shall be in the Port Authority's capacity as a governmental agency with jurisdiction over the WTC Site, and may be granted or withheld by the Port Authority in the exercise of such capacity.

**7.3 Initial System Construction Work Schedule.** The Permittee shall perform the Initial System Construction Work and any other work as necessary to ensure that (i) the Initial System Construction Work proceeds in accordance with the schedule milestones set forth on Exhibit D attached hereto, (ii) the DAS System (other than the Temporary System with respect to

the Other Temporary System Areas) and the Wi-Fi System are delivered, commissioned in accordance with applicable QAD requirements and fully operational (as applicable) on or before the applicable dates indicated on Exhibit D attached hereto (or such later dates as may be agreed in writing by the Port Authority in light of any applicable delays or adjustments to the construction schedule for the World Trade Center) (each, an “Initial Schedule Milestone”) and (iii) the Temporary System with respect to the Other Temporary System Areas is delivered, commissioned in accordance with applicable QAD requirements and fully operational (as applicable) as early as practicable. Without limiting the foregoing, the Permittee shall in all events use best efforts to deliver, activate and make available the DAS System (including, without limitation, the Temporary System) and the Wi-Fi System as early as practicable.

With respect to any area of the WTC Site, until such time as the Permittee delivers the System, commissions the System in accordance with applicable QAD requirements and the System is fully operational so that such area is provided with the DAS Service and Wi-Fi Service, as applicable, in accordance with the applicable System Performance Standard, the Port Authority shall have the right (but not the obligation) in its sole discretion, either directly or through one or more third parties, to install, operate and/or otherwise utilize such temporary measures as are reasonably necessary to provide DAS Service and/or Wi-Fi Service within such area. Exercise of the foregoing right shall conclusively be deemed not to violate any rights granted to the Permittee pursuant to this Supplement (including, without limitation, pursuant to Sections 4.1.1 or 4.1.2) and shall be without limitation of any other available remedies.

The Parties shall regularly discuss the status of the Initial System Construction Work and shall provide weekly updates to each other. The Parties acknowledge that after the DAS System and Wi-Fi System are delivered, commissioned in accordance with applicable QAD requirements and operational (and, in the case of the DAS System, in service with a connected Carrier User), the DAS System and Wi-Fi System may be subject to further testing, adjustment and commissioning for a period of time of up to six (6) months after commissioning (the “Testing Period”), provided, however, that during the Testing Period, the provisions of this Supplement (including, without limitation, Article IV) shall not be suspended or reduced and shall remain applicable to the Permittee. The Parties hereby acknowledge that, pursuant to Section 39 of the Original Agreement (as incorporated in this Supplement pursuant to Section 11.10), neither the Port Authority nor the Permittee shall be liable for any failure, delay or interruption in performing its obligations hereunder due to causes or conditions beyond its control. For the avoidance of doubt, the following shall be deemed causes or conditions beyond the Permittee’s control with respect to the Temporary System to the extent such matters cause failure, delay or interruption in performing its obligations hereunder: (i) the inability of Boingo to obtain the necessary Carrier User approvals to permit the operation of the Temporary System after using best efforts to secure such approvals, (ii) the inability of Boingo to obtain the necessary approvals from the Port Authority to locate and install the applicable “donor sites” for the Temporary System at the WTC Site or (iii) if incorporating additional “donor sites” is necessary to provide DAS Service to portions of the Temporary System Areas not sufficiently covered by the initial Temporary System, the failure of the Parties to agree on the addition of additional “donor sites” after exercising reasonable good faith efforts to do so. In addition, the Parties acknowledge that the Permittee intends to commence the Initial System Construction Work on the Temporary System for the Initial Temporary System Areas promptly following the date hereof. If the Port Authority thereafter requires the Permittee to temporarily suspend such

work with respect to the Initial Temporary System Areas to accommodate any required Port Authority reviews of the associated Construction Application submissions, any such suspension shall be deemed to be a cause or condition beyond the Permittee's control with respect to such work to the extent such matters cause failure, delay or interruption in performing its obligations hereunder. Notwithstanding the foregoing, the Permittee shall (i) use its best efforts to anticipate, take prudent steps to avoid and mitigate any delays in achieving each Initial Schedule Milestone and (ii) provide the Port Authority with written notice if at any time the Permittee anticipates or has reason to believe that the Permittee may be unable to meet an Initial Schedule Milestone. The Parties shall jointly discuss and, if appropriate, work in good faith to agree upon an equitable adjustment to the Initial Schedule Milestones (including the Grand Opening Milestone, if appropriate) in the event of any applicable delays or adjustments to the Port Authority's construction schedule for the World Trade Center or the opening of the applicable facilities within the World Trade Center venue.

Without limiting the foregoing provisions of this Section 7.3, the Permittee shall use commercially reasonable efforts to cause the below-grade Designated Coverage Areas of the DAS System to be available (such that cellular communications will be capable of transmission and reception in the applicable areas, whether via the DAS System or temporary measures reasonably approved by the Port Authority and at Permittee's sole cost) on or prior to August 15, 2014 (or such later date as may be agreed in writing by the Port Authority in light of any applicable delays or adjustments to the construction schedule for the World Trade Center). Additionally, the Permittee shall be obligated to arrange for the Wi-Fi Service to be transmitted to the public portions of the above- and below-grade Designated Coverage Areas of the Wi-Fi System on or prior to the applicable grand opening of the Retail Premises (the "Retail Schedule Milestone").

**7.4 Applicable Provisions of the TNAS Agreement: Initial System Capital Cost Reporting.** Section 8 of the Original Agreement shall be and hereby is incorporated in this Supplement and made applicable to the WTC Site as if fully set forth herein, except that, for purposes of this Supplement, (i) the capitalized terms used within such provisions shall have the applicable meanings given to such terms in Article I of this Supplement if so defined therein (otherwise, such capitalized terms shall have the applicable meanings given to such terms in the Original Agreement) and (ii) the phrase "this Agreement" or "hereunder" as used in any such provision shall be construed to refer to this Supplement.

**7.5 Applicable Provisions of the TNAS Agreement: Other Construction.** Section 38 of the Original Agreement shall be and hereby is incorporated in this Supplement and made applicable to the WTC Site as if fully set forth herein, except that, for purposes of this Supplement, (i) the capitalized terms used within such provisions shall have the applicable meanings given to such terms in Article I of this Supplement if so defined therein (otherwise, such capitalized terms shall have the applicable meanings given to such terms in the Original Agreement) and (ii) the phrase "this Agreement" or "hereunder" as used in any such provision shall be construed to refer to this Supplement.

## ARTICLE VIII

### FEES AND EXPENSES

8.1 Variable Fees. The Permittee shall pay to the Port Authority the following amounts for each Annual Period during the Term of this Supplement:

8.1.1 A variable fee on account of the DAS System (the "DAS Variable Fee") for each Annual Period during the Term of this Supplement in an amount equal to the DAS Net Income for such Annual Period multiplied by twenty-five percent (25%); and

8.1.2 A variable fee on account of the Wi-Fi System (the "Wi-Fi Variable Fee") and together with the DAS Variable Fee, the "Variable Fees") for each Annual Period during the Term of this Supplement in an amount equal to the Wi-Fi Net Income for such Annual Period multiplied by sixty-five percent (65%), provided that the Permittee shall not be required to pay the Wi-Fi Variable Fee until such time as the Permittee has received the Wi-Fi Capital Costs Recovery.

The Variable Fees shall be payable in quarterly installments on the last day of each January, April, July and October occurring during the Term, in each case with respect to the calendar quarter ending on the last day of the immediately preceding calendar month (for example, the Variable Fees shall be payable on July 31 for the calendar quarter April 1 to June 30), based on the reasonably determined projection of the amount to be due for the entire Annual Period prepared by the Permittee and approved in writing by the Port Authority, such approval not to be unreasonably withheld. In the event the actual Variable Fees shall exceed the total of the quarterly installments actually paid by the Permittee with respect to such Annual Period, the Permittee shall pay to the Port Authority the difference between the actual Variable Fees for the preceding Annual Period and the total of the said quarterly installments paid by the Permittee. In the event the total of the said quarterly installments paid by the Permittee to the Port Authority shall exceed the actual Variable Fees for the preceding Annual Period, the Port Authority shall pay the amount of such excess to the Permittee. In either such case, the required payment shall be made not later than ten (10) business days following the date of the written notice from the Permittee to the Port Authority setting forth its computation of the actual Variable Fees for the immediately preceding Annual Period.

8.2 Port Authority Base Infrastructure Costs. The Permittee shall pay to the Port Authority (or shall cause the Carrier Users to pay to the Port Authority) the following amounts (collectively, the "Port Authority Base Infrastructure Costs"):

8.2.1 One Million Eight Hundred Eighty-Five Thousand and No/100 Dollars (\$1,885,000) upon the full execution of the first Carrier Agreement to be entered into with respect to the DAS System, as reimbursement for the Port Authority's previously expended direct and indirect costs associated with the design and construction of the System and associated infrastructure, including, without limitation, allocated costs with respect to common and shared space, infrastructure and systems (the "Base Infrastructure Costs Reimbursement"). The Base Infrastructure Costs Reimbursement shall be payable in full within ten (10) days after the earlier of (i) the date on which the first Carrier User is obligated under its Carrier Agreement to reimburse or otherwise make payments to the Permittee for Capital Costs or any other purpose and (ii) the date on which any such payments are actually made.

8.2.2 One Million Eight Hundred Eighty-Five Thousand and No/100 Dollars (\$1,885,000) upon the full execution of the second Carrier Agreement to be entered into with respect to the DAS System, as further reimbursement for the Port Authority's previously expended direct and indirect costs associated with the design and construction of the System and associated infrastructure, including, without limitation, allocated costs with respect to common and shared space, infrastructure and systems (the "First Additional Base Infrastructure Costs Reimbursement"). The First Additional Infrastructure Costs Reimbursement shall be payable in full within ten (10) days after the earlier of (i) the date on which the second Carrier User is obligated under its Carrier Agreement to reimburse or otherwise make payments to the Permittee for Capital Costs or any other purpose and (ii) the date on which any such payments are actually made.

8.2.3 One Million Eight Hundred Eighty Thousand and No/100 Dollars (\$1,880,000) upon the full execution of the third Carrier Agreement to be entered into with respect to the DAS System, as further reimbursement for the Port Authority's previously expended direct and indirect costs associated with the design and construction of the System and associated infrastructure, including, without limitation, allocated costs with respect to common and shared space, infrastructure and systems (the "Second Additional Base Infrastructure Costs Reimbursement" and, together with the Base Infrastructure Costs Reimbursement and the First Additional Base Infrastructure Costs Reimbursement, collectively, the "Infrastructure Costs Reimbursement") The Second Additional Base Infrastructure Costs Reimbursement shall be payable in full within ten (10) days after the earlier of (i) the date on which the third Carrier User is obligated under its Carrier Agreement to reimburse or otherwise make payments to the Permittee for Capital Costs or any other purpose and (ii) the date on which any such payments are actually made.

8.2.4 Any amount agreed upon by the Port Authority and the Permittee on account of any additional Initial System Construction Work the Port Authority agrees in writing to undertake upon request from the Permittee, provided that the Permittee shall in all events pay such amounts in full to the Port Authority as costs are incurred for such additional Initial System Construction Work undertaken by the Port Authority. The Port Authority agrees not to incur costs for such additional Initial System Construction Work undertaken by the Port Authority without the Permittee's prior approval. The Port Authority will use commercially reasonable efforts to accommodate such requests for additional Initial System Construction Work.

8.3 Infrastructure Reimbursement Credit. The Permittee shall be entitled to a credit against the Infrastructure Costs Reimbursement for expenses incurred by Permittee prior to January 1, 2014 in direct support of the DAS System and Wi-Fi System in an amount equal to One Million Four Hundred Fifty Thousand Dollars (\$1,450,000) (the "Infrastructure Reimbursement Credit"). One-third (1/3) of the Infrastructure Reimbursement Credit shall be credited against the payment of the Base Infrastructure Costs Reimbursement, if any, one-third (1/3) of the Infrastructure Reimbursement Credit shall be credited against the payment of the First Additional Base Infrastructure Costs Reimbursement, if any, and one-third (1/3) of the Infrastructure Reimbursement Credit shall be credited against the payment of the Second Additional Base Infrastructure Costs Reimbursement, if any.

**8.4 Port Authority Operating Costs.** The Permittee shall pay to the Port Authority the following amounts as reimbursement for the Port Authority's direct and indirect costs associated with the provision of electricity, HVAC Service and general maintenance expenses of areas utilized by the Permittee that are reasonably partially or fully attributable to the operation of the System at the WTC Site (collectively, the "Port Authority Operating Costs"):

**8.4.1** The costs of the Electricity Consumption and Demand in accordance with the provisions of Section 9.1.

**8.4.2** The costs of the HVAC Consumption and Demand in accordance with the provisions of Section 9.2.

**8.4.3** The costs of general maintenance expenses in a fixed amount equal to \$2.00 (which amount shall be increased each year by three percent (3%), compounded annually, with the first such increase to occur one year after the Commencement Date) per square foot of space at the World Trade Center that is occupied or otherwise utilized by the Permittee and/or the System per year pursuant to this Supplement. The Parties acknowledge that, based on the System Plans and Specifications, the amount of space to be initially occupied by the System is anticipated to be approximately 2,630 square feet as reflected on Exhibit F attached hereto. In the event of an increase or decrease in the amount of space used by the Permittee and/or the System, this Section 8.4.3 and Exhibit F shall be revised accordingly as reasonably determined by the Parties.

**8.4.4** Any reasonable and non-discriminatory costs incurred in the use of stakeholder resources at the World Trade Center that are for the sole or material benefit of the Permittee in connection with the System.

The Permittee shall use commercially reasonable efforts to provide for the payment or reimbursement by the Carrier Users of such costs and expenses. The Port Authority shall use good faith efforts to minimize Port Authority Operating Costs and to approve vendors without unreasonable delay.

**8.5 System Capital Costs.** The Permittee shall be responsible for all capital costs, expenses, fees and other costs associated with the design, construction, initial deployment and future upgrades of the System (but excluding any Port Authority-directed work pursuant to Sections 3.4.2 or 3.5) (collectively, the "Capital Costs"), and shall pay such amounts as and when due. Without limiting the foregoing, Permittee shall be responsible for (i) collecting outside contributions for System construction and upgrades and (ii) subcontracting, managing, and paying all third parties for labor and materials associated with work and materials (other than any Port Authority-directed work pursuant to Sections 3.4.2 or 3.5). Additionally, the Permittee shall fund the actual costs of any base-build changes requested by the Permittee and approved by the Port Authority as costs are incurred for such base build changes. The Port Authority shall have the right to review all proposed Capital Costs expenditures in advance, and the Permittee shall not make any Capital Costs expenditures unless the Port Authority has granted its prior written approval to such expenditure (which approval shall not be unreasonably delayed or withheld). Subject to Permittee's payment in full of the Port Authority Base Infrastructure Costs, the Permittee shall be entitled to receive any reimbursements provided by the Carrier Users of

Capital Costs relating to the initial deployment of the DAS System until the Permittee has been reimbursed in full for such Capital Costs plus a twenty-five percent (25%) accrued preferred annual return on such Capital Costs to the extent expended by the Permittee (collectively, the "DAS Capital Costs Recovery"). The Port Authority shall have the right to review reimbursements for Capital Costs relating to the initial deployment of the DAS System that are applied toward the DAS Capital Costs Recovery. Additionally, the Permittee shall be entitled to receive Wi-Fi Gross Income to recoup Capital Costs relating to the initial deployment of the Wi-Fi System until such time as such Capital Costs have been recovered in full (the "Wi-Fi Capital Costs Recovery") without interest, carry or other form of financial expense, provided that the Permittee shall not be entitled to receive the Wi-Fi Capital Costs Recovery until such time as the Permittee has demonstrated to the Port Authority's reasonable satisfaction that the underlying Capital Costs are reasonable and have actually been expended in the manner contemplated by this Supplement.

**8.6 Late Charges.** If the Permittee should fail to pay any amount required under this Supplement when due to the Port Authority, including, without limitation, any payment of any Variable Fees or any payment of utility or other charges or if any such amount is found to be due as the result of an audit, then, in such event, the Port Authority may impose (by statement, bill or otherwise) a late charge with respect to each such unpaid amount for each late charge period (described below) during the entirety of which such amount remains unpaid, each such late charge not to exceed an amount equal to eight-tenths of one percent of such unpaid amount for each late charge period. There shall be twenty-four late charge periods on a calendar year basis; each late charge period shall be for a period of at least fifteen (15) calendar days except one late charge period each calendar year may be for a period of less than fifteen (but not less than thirteen) calendar days. Without limiting the generality of the foregoing, late charge periods in the case of amounts found to have been owing to the Port Authority as the result of Port Authority audit findings shall consist of each late charge period following the date any unpaid amount should have been paid under this Supplement. Each late charge shall be payable immediately upon demand made at any time therefor by the Port Authority. No acceptance by the Port Authority of payment of any unpaid amount or of any unpaid late charge amount shall be deemed a waiver of the right of the Port Authority to payment of any late charge or late charges payable under the provisions of this Section 8.6 with respect to such unpaid amount. Each late charge shall be recoverable by the Port Authority in the same manner and with like remedies as if it were a part of the Variable Fees hereunder. Nothing in this Section 8.6 is intended to, or shall be deemed to, affect, alter, modify or diminish in any way (i) any rights of the Port Authority under this Supplement or (ii) any obligations of the Permittee under this Supplement. In the event that any late charge imposed pursuant to this Section 8.6 shall exceed a legal maximum applicable to such late charge, then, in such event, each such late charge payable under this Supplement shall be payable instead at such legal maximum.

**8.7 Additional Revenue Opportunities.**

8.7.1 If either the Permittee or the Port Authority becomes aware of additional services or revenue opportunities realized by a system of similar design or with the individual or collective components of the System, the Permittee shall use commercially reasonable efforts to implement such services at the WTC Site within six (6) to twelve (12) months of such services becoming available in the market, subject to agreement of the Parties regarding the terms and

conditions of such additional services and otherwise in compliance with the applicable provisions of this Supplement. Notwithstanding the foregoing, nothing contained in this Section 8.7.1 shall limit or otherwise affect the Permittee's obligations pursuant to Section 3.4.

8.7.2 In the event cellular data offloading to the Wi-Fi System becomes practicable and economic, the Permittee shall be obligated to utilize the then-current Wi-Fi System to provide for data offloading or upgrade the Wi-Fi System to provide additional bandwidth that may be required by data offloading without compromising the then-current functionality of the balance of the Wi-Fi System, all at no cost to the Port Authority and in compliance with the applicable provisions of this Supplement.

## ARTICLE IX

### UTILITIES

9.1 Electricity. Subject to all terms and conditions of this Supplement, the Port Authority shall ensure that such electricity as is reasonably necessary for initial System Operations (as described in the System Plans and Specifications) is made available for use by the Permittee. Any additional capacity outside of the System Plans and Specifications shall be paid for by the Permittee as provided in this Section 9.1.

9.1.1 The Port Authority shall periodically throughout the Term, at such times as the Port Authority may elect, arrange for a survey of the Permittee's equipment by the Port Authority or its designee or by an independent utility consultant to be selected by the Port Authority for the purpose of establishing the Permittee's annual consumption of and demand for electricity (such consumption of and demand for electricity being hereinafter referred to as "Electricity Consumption and Demand"). Such Electricity Consumption and Demand shall be based on the Permittee's electrical equipment and the frequency and duration of the use thereof. The Permittee's annual Electricity Consumption and Demand shall be divided by the number of "Billing Periods" per Annual Period established by the public utility company supplying electricity in the vicinity of the World Trade Center so as to determine the Electricity Consumption and Demand per Billing Period. The Port Authority shall compute the cost of such Electricity Consumption and Demand as determined by the survey based on the greater of (1) the rates (including the fuel or other adjustment factor if any) which the Permittee at the time of such purchase and under the service classification then applicable to it would have to pay for the same quantity of electricity to be used for the same purposes under the same conditions if it received the electricity directly from the public utility supplying the same to commercial buildings in the vicinity and (2) the Port Authority's cost of obtaining and supplying the same quantity of electricity, provided, however, that in no event shall the Port Authority charge the Permittee for any Electricity Consumption and Demand in excess of amounts the Port Authority is legally or contractually permitted to charge for such Electricity Consumption and Demand. The Permittee shall pay the cost of such Electricity Consumption and Demand for each such Billing Period to the Port Authority at the time the next Variable Fee payment following the close of such Billing Period is due and the same shall be deemed fees collectible in the same manner and with like remedies as if it were a part of the Variable Fees hereunder. The determination of Electricity Consumption and Demand by survey shall be effective until the next succeeding survey and shall be binding and conclusive on both the Permittee and the Port Authority as to all matters,

including but not limited to the frequency and duration of use of the Permittee's electrical equipment at the World Trade Center by the Permittee. The cost of each such survey shall be borne by the Port Authority, provided that if the Permittee makes any alterations or improvements at the WTC Site in accordance with the provisions of this Supplement or otherwise which may result in greater Consumption or Demand, the Port Authority may direct a new survey to establish the Electricity Consumption and Demand for electricity at the World Trade Center and the cost thereof shall be borne by the Permittee. Any method of measurement used herein shall not preclude the Port Authority from reverting to the use of any prior method. In lieu of a determination of Electricity Consumption and Demand by survey, the same may be measured by meter which the Port Authority may install at its option, exercised at any time during the Term, and if for any reason any meter fails to record the consumption of electricity, the consumption of electricity during any such period that the meter is out of service will be considered to be the same as the consumption for a like period either immediately before or immediately after the interruption as selected by the Port Authority. If the Port Authority elects to install any such meter or meters, then (i) the Permittee shall pay to the Port Authority the full cost of the installation and operation of any such meter(s) that is installed in connection with the Initial System Construction Work and (ii) the Permittee shall use commercially reasonable efforts to provide for the full payment or reimbursement by the Carrier Users of the cost of the installation and operation of any such meter(s) that is installed at any time after the Initial System Construction Work and, if the Permittee is not able to obtain such full payment or reimbursement from the Carrier Users, then the Permittee shall pay to the Port Authority one-half the amount of such costs, in each case such amounts to be paid at the time the next Variable Fee payment following the close of the applicable Billing Period is due and the same shall be deemed fees collectible in the same manner and with like remedies as if such amounts were a part of the Variable Fees hereunder.

9.1.2 Notwithstanding that the Port Authority has agreed to supply electricity to the Permittee, the Port Authority shall be under no obligation to provide or continue such service if the Port Authority is prevented by law, agreement or otherwise from metering or measuring electrical consumption as set forth in Section 9.1.1 or elects not to so meter or measure consumption of the same, and in any such event, the Permittee shall make all arrangements and conversions necessary to obtain electricity directly from the applicable public utility. Also in such event, the Permittee shall perform the construction necessary for conversion and if any lines or equipment of the Port Authority are with the consent of the Port Authority used therefor, the Permittee shall pay to the Port Authority its pro rata share of the reasonable costs and expenses for said lines and equipment.

9.1.3 The supply of electricity shall be made by the Port Authority at such points as are designated in the applicable approved Construction Application for connection of the electrical distribution systems to be installed by the Permittee with the Port Authority's lines and conduits, and the Port Authority shall have no responsibility for the distribution of electrical current beyond the points of connection to the System.

9.1.4 The Port Authority shall have the right to discontinue temporarily the supply of any of the above services when necessary or desirable in the reasonable opinion of the Port Authority in order to make any repairs, alterations, changes or improvements in the premises or elsewhere at the World Trade Center, including but not limited to all systems for the

supply of services. Except in cases of emergency, the Port Authority shall give the Permittee reasonable prior notice before discontinuing the supply of services pursuant to the provisions of this Section 9.1.4. The Port Authority may not claim a Performance Standard Violation to the extent caused solely by any such temporary discontinuation.

9.1.5 No failure, delay, interruption or reduction in any service or services shall be or shall be construed to be an eviction of the Permittee, shall be grounds for any diminution or abatement of the fees or other amounts payable hereunder or shall constitute grounds for any claim by the Permittee for damages, consequential or otherwise, unless due to the gross negligence or willful misconduct of the Port Authority, its employees or agents.

9.1.6 The Port Authority shall be under no obligation to supply any service or services if and to the extent and during any period that the supplying of any such service or services or the use of any component necessary therefor shall be prohibited or rationed by any federal, state or municipal law, rule, regulation, requirement, order or direction and if the Port Authority deems it in the public interest to comply therewith, even though such law, rule, regulation, requirement, order or direction may not be mandatory on the Port Authority as a public agency.

9.2 Heating, Ventilation and Air Conditioning. Subject to all terms and conditions of this Supplement, the Port Authority shall ensure that such heating, ventilation and air conditioning service ("HVAC Service") as is reasonably necessary for System Operations is provided to the Point of Interface room and any other areas outside of such Point of Interface room that are reasonably necessary for System Operations, the quantity of such HVAC Service supplied to the Permittee to be in accordance with the design criteria and capacity of the System and to be paid for by the Permittee as provided in this Section 9.2.

9.2.1 The Port Authority shall periodically throughout the Term, at such times as the Port Authority may elect, arrange for a survey of the Permittee's equipment by the Port Authority or its designee or by an independent utility consultant to be selected by the Port Authority for the purpose of establishing the Permittee's annual consumption of and demand for HVAC Service (such consumption of and demand for HVAC Service being hereinafter referred to as "HVAC Consumption and Demand"). Such HVAC Consumption and Demand shall be based on the Permittee's HVAC equipment and the frequency and duration of the use thereof. The Permittee's annual HVAC Consumption and Demand shall be divided by the number of Billing Periods per Annual Period so as to determine the HVAC Consumption and Demand per Billing Period. The Port Authority shall compute the cost of such HVAC Consumption and Demand based on the greater of (i) the Port Authority's cost of obtaining and supplying the HVAC Service and (ii) an amount equal to the cost of the Electricity Consumption and Demand determined in accordance with Section 9.1 on account of the Port Authority's provision of HVAC Service to the Permittee for such Billing Period (which amount shall be in addition to, not replacement of, the payment due on account of such Electricity Consumption and Demand pursuant to Section 9.1). The Permittee shall pay the cost of such HVAC Consumption and Demand for each such Billing Period to the Port Authority at the time the next Variable Fee payment following the close of such Billing Period is due and the same shall be deemed fees collectible in the same manner and with like remedies as if it were a part of the Variable Fees hereunder. Any method of measurement used herein shall not preclude the Port Authority from

reverting to the use of any prior method. In lieu of a determination of HVAC Consumption and Demand as described above, the same may be measured by meter which the Port Authority may install at its option, exercised at any time during the Term, and if for any reason any meter fails to record the consumption of HVAC Service, the consumption of HVAC Service during any such period that the meter is out of service will be considered to be the same as the consumption for a like period either immediately before or immediately after the interruption as selected by the Port Authority. If the Port Authority elects to install any such meter or meters, then (i) the Permittee shall pay to the Port Authority the full cost of the installation and operation of any such meter(s) that is installed in connection with the Initial System Construction Work and (ii) the Permittee shall use commercially reasonable efforts to provide for the full payment or reimbursement by the Carrier Users of the cost of the installation and operation of any such meter(s) that is installed at any time after the Initial System Construction Work and, if the Permittee is not able to obtain such full payment or reimbursement from the Carrier Users, then the Permittee shall pay to the Port Authority one-half the amount of such costs, in each case such amounts to be paid at the time the next Variable Fee payment following the close of the applicable Billing Period is due and the same shall be deemed fees collectible in the same manner and with like remedies as if such amounts were a part of the Variable Fees hereunder.

9.2.2 The supply of HVAC Service shall be made by the Port Authority at such points as are designated in the applicable approved Construction Application for connection of the electrical distribution systems to be installed by the Permittee with the Port Authority's lines and conduits, and the Port Authority shall have no responsibility for the distribution of HVAC Service beyond the points of connection to the System.

9.2.3 The Port Authority shall have the right to discontinue temporarily the supply of any of the above services when necessary or desirable in the reasonable opinion of the Port Authority in order to make any repairs, alterations, changes or improvements in the premises or elsewhere at the World Trade Center, including but not limited to all systems for the supply of services. Except in cases of emergency, the Port Authority shall give the Permittee reasonable prior notice before discontinuing the supply of services pursuant to the provisions of this Section 9.2.3. The Port Authority may not claim a Performance Standard Violation to the extent caused solely by any such temporary discontinuation.

9.2.4 No failure, delay, interruption or reduction in any service or services shall be or shall be construed to be an eviction of the Permittee, shall be grounds for any diminution or abatement of the fees or other amounts payable hereunder, or shall constitute grounds for any claim by the Permittee for damages, consequential or otherwise, unless due to the gross negligence or willful misconduct of the Port Authority, its employees or agents.

9.2.5 The Port Authority shall be under no obligation to supply any service or services if and to the extent and during any period that the supplying of any such service or services or the use of any component necessary therefor shall be prohibited or rationed by any federal, state or municipal law, rule, regulation, requirement, order or direction and if the Port Authority deems it in the public interest to comply therewith, even though such law, rule, regulation, requirement, order or direction may not be mandatory on the Port Authority as a public agency.

9.3 Government Charges. If any federal, state, municipal or other governmental body, authority or agency or any public utility assesses, levies, imposes, make or increases any charge, fee or rent on the Port Authority for any service, system or utility now or in the future supplied to the Permittee or to any of its Carrier Users, then, at the option of the Port Authority exercised at any time and from time to time by notice to the Permittee, the Permittee shall pay, in accordance with said notice, such charge, fee or rent or increase thereof (or the portion thereof equitably allocated by the Port Authority to the Permittee's operations hereunder) either directly to the governmental body, authority or agency or to the public utility or directly to the Port Authority.

## ARTICLE X

### TRANSFERS

10.1 Prohibition on Transfers. During the Term, the Permittee covenants and agrees that it will not sell, assign, transfer, mortgage, pledge, hypothecate, encumber, or in any way convey or dispose of the System or this Supplement, or any part thereof, any rights created thereby or any license or other interest of the Permittee therein without the prior written consent of the Port Authority, except that the Permittee, if an entity, shall be permitted without the prior written consent of the Port Authority, to become a possessor or merged entity in a merger, a constituent entity in a consolidation, or an entity in dissolution so long as (i) the entity resulting from the merger or dissolution has a financial standing as of the date of the merger or consolidation at least as good as that of the Permittee, by which is meant that its ratio of current assets to current liabilities, its ratio of fixed assets to fixed liabilities and its tangible net worth shall each be at least as favorable as that of the Permittee and (ii) such resulting entity at all times is able to make the representation and warranties and satisfy the covenants set forth in Section 14.2.

10.2 Carrier Users. The Permittee may, in the course of its business and the conduct of its operations hereunder, permit the use of portions of the System by Carrier Users, pursuant to and in accordance with Article VI. All Carrier Users shall use the System for the purpose set forth in this Supplement and its Carrier Agreement, and whether or not expressly set forth in its Carrier Agreement, all Carrier Agreements shall in all respects be subject to the terms and conditions of this Supplement.

## ARTICLE XI

### TERM, DEFAULT AND TERMINATION

11.1 Term. The "Term of this Supplement" shall commence on the Commencement Date and shall end on the earlier of (a) the scheduled expiration date of the initial term of the first Carrier Agreement but in no event after the date that is twenty (20) years after the Commencement Date and (b) the date upon which this Supplement is earlier terminated pursuant to the terms hereof. For the avoidance of doubt, except with respect to a termination on account of a Schedule Milestone Default pursuant to Section 11.3 or unless otherwise agreed by the Parties in writing: (i) in the event of any termination of the TNAS Agreement for cause (including, without limitation, pursuant to Section 20 of the TNAS Agreement), this Supplement

shall immediately be terminated effective as of the date of such termination for cause of the TNAS Agreement and (ii) in the event of any expiration or termination for cause of this Supplement, the TNAS Agreement shall immediately be terminated effective as of the date of such expiration or termination for cause of this Supplement, in each case without any action by or notice to or from either Party but subject to the applicable provisions of the TNAS Agreement, with respect to the Port Authority Facilities other than the World Trade Center, and this Supplement, with respect to the World Trade Center.

11.2 Non-Curable Terminating Events. In addition to any other rights of termination specifically granted in this Supplement, the Port Authority may terminate this Supplement on not less than twenty (20) calendar days written Notice to the Permittee upon the occurrence of any of the following events (each, a "Non-Curable Default"):

11.2.1 The Permittee shall (i) become insolvent, (ii) take the benefit of any present or future insolvency statute, (iii) make a general assignment for the benefit of creditors, (iv) file a voluntary petition in bankruptcy or a petition or answer seeking an arrangement or its reorganization or the readjustment of its indebtedness under the federal bankruptcy laws or under any other law or statute of the United States or of any state thereof or (v) consent to the appointment of a receiver, trustee, or liquidator of all or substantially all its property;

11.2.2 By order or decree of a court the Permittee shall be adjudged bankrupt or an order shall be made approving a petition filed by any of the creditors or, if the Permittee is an entity, by any of the stockholders, members, partners, beneficiaries or any other Person holding a beneficial interest in the Permittee, seeking its reorganization or the readjustment of its indebtedness under the federal bankruptcy laws or under any law or statute of the United States or of any state thereof;

11.2.3 A petition under any part of the Federal bankruptcy laws or an action under any present or future insolvency law or statute shall be filed against the Permittee and shall not be dismissed or vacated within sixty (60) calendar days after the filing thereof;

11.2.4 Except to the extent permitted under Article X of this Supplement, the interest of the Permittee under this Supplement and/or the System, or any portion thereof shall be transferred to, pass to or devolve upon, by operation of law or otherwise, any other Person;

11.2.5 The Permittee, if an entity, shall, without the prior written consent of the Port Authority, become a possessor or merged entity in a merger, a constituent entity in a consolidation, or an entity in dissolution unless (i) the entity resulting from a merger or dissolution has a financial standing as of the date of the merger or consolidation at least as good as that of the Permittee, by which is meant that its ratio of current assets to current liabilities, its ratio of fixed assets to fixed liabilities and its tangible net worth shall each be at least as favorable as that of the Permittee and (ii) such resulting entity at all times is able to make the representation and warranties and satisfy the covenants set forth in Section 14.2;

11.2.6 By or pursuant to, or under authority of any legislative act, resolution or rule, or any order or decree of any court or government board, agency or officer, a receiver, trustee, or liquidator shall take possession or control of all or substantially all the property of the

Permittee, or any execution or attachment shall be issued against the Permittee or any of its property, whereupon possession of any part of the System shall be taken by someone other than the Permittee, and any such possession or control shall continue in effect for a period of at least thirty (30) calendar days;

11.2.7 Any lien is filed against the System or any part thereof because of any act or omission of the Permittee and is not bonded or discharged within sixty (60) calendar days;

11.2.8 The Permittee shall (i) conduct any other form of business activity other than System Operations (except that the Permittee shall be permitted to conduct the business activities permitted under the TNAS Agreement and this Supplement without violating the foregoing) or (ii) control any other Person or own any equity interest in any other Person; or

11.2.9 The Permittee or any of its affiliates, subsidiaries, directors, officers, members or employees commits fraud, embezzlement or theft against the Port Authority or its affiliates.

11.3 Schedule Milestone Defaults. The Permittee shall be in default of this Supplement if it fails to meet any Initial Schedule Milestone or the Retail Schedule Milestone (any such default, a "Schedule Milestone Default").

11.3.1 Regardless of the Port Authority's knowledge of such Schedule Milestone Default, and in addition to the remedies set forth this Section 11.3 and Section 11.8, upon the occurrence of any Schedule Milestone Default, the Permittee at no cost to the Port Authority, shall (i) use best efforts to complete the Initial System Construction Work and any other work that was required to be completed by the applicable Initial Schedule Milestone or the Retail Schedule Milestone at the earliest possible time following such milestone and (ii) prepare and issue to the Port Authority within one (1) business day after the applicable Initial Schedule Milestone or the Retail Schedule Milestone an analysis and narrative statement that outlines the cause of the Schedule Milestone Default and the steps taken and to be taken by the Permittee to complete the Initial System Construction Work and any other work that was required to be completed by such Initial Schedule Milestone or the Retail Schedule Milestone.

11.3.2 Upon the occurrence of any Schedule Milestone Default (subject to extension of the applicable Initial Schedule Milestones pursuant to Section 7.2.1, 7.3 or Section 11.10, if applicable) other than a Grand Opening Milestone Default, the Permittee shall incur liquidated damages in the amount of One Thousand Five Hundred Dollars (\$1,500) for each day that such Schedule Milestone Default has not been cured from and after the twentieth (20th) day following the applicable Initial Schedule Milestone.

11.3.3 Upon the occurrence of a Grand Opening Milestone Default (subject to extension pursuant to Section 7.2.1, 7.3 or Section 11.10, if applicable), the Permittee shall incur liquidated damages in the following amounts: (i) Seven Thousand Five Hundred Dollars (\$7,500) for each day that such Grand Opening Milestone Default has not been cured from the eleventh (11th) day following the Grand Opening Milestone until and through the fortieth (40th) day following such Grand Opening Milestone, (ii) Twelve Thousand Five Hundred Dollars (\$12,500) for each day that such Grand Opening Milestone Default has not been cured from the

forty-first (41st) day following the Grand Opening Milestone until and through the seventieth (70th) day following such Grand Opening Milestone, and (iii) Fifteen Thousand Dollars (\$15,000) for each day that such Grand Opening Milestone Default has not been cured from and after the seventieth (70th) day following such Grand Opening Milestone, provided, however, that if the Permittee does not cure such Grand Opening Milestone Default within eighty-five (85) days after the Grand Opening Milestone or otherwise comply with the provisions of this Section 11.3, the Port Authority may terminate this Supplement on account of such Grand Opening Milestone Default upon not less than two (2) calendar days written Notice to the Permittee. Notwithstanding anything to the contrary contained in this Supplement (including, without limitation, Section 11.1), termination of this Supplement pursuant to this Section 11.3 shall not result in the automatic termination of the TNAS Agreement solely on account of such Grand Opening Milestone Default (although nothing in this sentence shall restrict or otherwise limit any otherwise applicable or available termination rights with respect to the TNAS Agreement, whether under this Supplement, under the TNAS Agreement or otherwise).

11.3.4 The Parties acknowledge and agree that (i) the liquidated damages described in Sections 11.3.2 and 11.3.3 are a reasonable estimate of and bear a reasonable relationship to the damages that would be suffered and costs incurred by the Port Authority as a result of the applicable Schedule Milestone Defaults, (ii) the actual damages suffered and costs incurred by the Port Authority as a result of any such Schedule Milestone Defaults would be extremely difficult and impractical to determine and (iii) the applicable amounts shall be and constitute valid liquidated damages on account of such Schedule Milestone Defaults.

11.4 Major Defaults. The Port Authority may terminate this Supplement on not less than twenty (20) calendar days written Notice to the Permittee if the Permittee shall default in the performance or observance of any other material term, condition or covenant contained in this Supplement not falling under Section 11.2 or Section 11.3 (any such default, a "Major Default") and such Major Default shall continue for a period of thirty (30) calendar days after the earlier of written notice thereof (a "Major Default Notice") shall have been received by the Permittee or such time as the Permittee has become aware of such Major Default, provided that a ten (10) calendar day period shall apply with respect to any failure to make a monetary payment hereunder. Notwithstanding the foregoing, if such a Major Default (other than a monetary default) is such that it is reasonably susceptible to cure but cannot reasonably be remedied within thirty (30) calendar days and the Permittee has, in good faith, commenced cure of such Major Default within ten (10) calendar days after being notified or becoming aware of any such Major Default, then the Port Authority shall not be entitled to terminate this Supplement pursuant to this Section 11.4 for a sixty (60) calendar day period following such Major Default Notice or the date upon which the Permittee became aware of such Major Default so long as the Permittee is diligently prosecuting the cure to its completion. By way of example only, and without limitation, the Parties acknowledge and agree that the occurrence any of the following events shall be deemed to be a Major Default: (a) the Permittee's failure to make payments as and when due under this Supplement, (b) repeated System Performance Violations that together evidence a pattern and practice which is materially inconsistent with the standard of service required by the System Performance Standard or (c) repeated defaults by the Permittee in the performance or observance of any term, condition or covenant contained in this Supplement that together evidence a pattern and practice inconsistent with the Permittee's obligations under this Supplement.

**11.5 Other Defaults.** The Permittee shall be in default of this Supplement if it defaults in the performance or observance of any term, condition or covenant contained in this Supplement not falling under Section 11.2, Section 11.3 or Section 11.4 (an "Other Default") and such default shall continue for a period of thirty (30) calendar days after written notice thereof (an "Other Default Notice") shall have been received by the non-defaulting party specifying such default and requesting that the same be remedied in such thirty (30) calendar day period, provided that a ten (10) calendar day period shall apply with respect to any failure to make a monetary payment hereunder; and provided further that if such Other Default (other than a monetary default) is such that it is reasonably susceptible to cure but cannot reasonably be remedied within thirty (30) calendar days and the Permittee has, in good faith, commenced cure of such Other Default within ten (10) calendar days after being notified of any such Other Default, then the Port Authority shall not be entitled to terminate this Supplement pursuant to this Section 11.4 so long as the Permittee is diligently prosecuting the cure to its completion.

**11.6 Default Notices.** The Port Authority shall notify the Permittee in writing of any default condition it observes, provided that the Port Authority's failure to provide any such notification shall in no event have any effect on any other provision of the other provisions of this Article XI.

**11.7 Self-Help.** If at any time (i) the Permittee shall fail to pay or perform any of its obligations in accordance with the terms and provisions of this Supplement, (ii) such failure is not of the type described in Section 39 of the Original Agreement (as incorporated in this Supplement pursuant to Section 11.10) and (iii) such failure shall continue for a period of five (5) calendar days after receipt of written notice thereof to the Permittee (except in the event of an emergency in which case written notice shall be furnished as soon as reasonably possible), then the Port Authority may, without limitation of any other available remedies, perform the same or arrange for alternative performance of the same until such time as the Permittee cures its failure to perform. The Port Authority shall be entitled to payment from the Permittee for all costs and expenses (including reasonable attorneys' fees) paid or incurred by the Port Authority in performing such work.

**11.8 Remedies; No Waiver.** Upon the occurrence of and during the continuation of any default described in Sections 11.2, 11.3 or 11.4 or otherwise, all or any one or more of the rights, powers, privileges and other remedies available to the Port Authority against the Permittee under this Supplement or at law or in equity may be exercised by the Port Authority at any time and from time to time. Any such actions taken by the Port Authority shall be cumulative and concurrent and may be pursued independently, singly, successively, together or otherwise, at such time and in such order as the Port Authority may determine in its sole discretion, to the fullest extent permitted by law, without impairing or otherwise affecting the other rights and remedies of the Port Authority permitted by law, equity or contract or as set forth herein. No acceptance by the Port Authority of fees or other payments in whole or in part for any period or periods after a default in any of the terms, covenants and conditions to be performed, kept or observed by the Permittee shall be deemed a waiver of any right on the part of the Port Authority to terminate this Supplement. No waiver by the Port Authority of any default on the part of the Permittee in performance of any of the terms, covenants or conditions hereof to be performed, kept or observed by the Permittee shall be or be construed to be a waiver

by the Port Authority of any other or subsequent default in performance of any of the said terms, covenants and conditions.

**11.9 Imputation of Actions of Carrier Users.** Without in any way affecting the obligations of the Permittee under this Supplement, all acts and omissions of the Carrier Users shall be deemed acts and omissions of the Permittee hereunder, provided, however, that the Permittee shall not be or be deemed to be in default to the extent that any of the foregoing shall constitute a breach hereof if the causes thereof are beyond the control of the Permittee or if the Permittee shall have commenced to remedy said default within twenty (20) calendar days after receipt of notice thereof from the Port Authority and continues diligently to pursue such remedy without interruption.

**11.10 Applicable Provisions of the TNAS Agreement: Force Majeure.** Section 39 of the Original Agreement shall be and hereby is incorporated in this Supplement and made applicable to the WTC Site as if fully set forth herein, except that, for purposes of this Supplement, (i) the capitalized terms used within such provisions shall have the applicable meanings given to such terms in Article I of this Supplement if so defined therein (otherwise, such capitalized terms shall have the applicable meanings given to such terms in the Original Agreement) and (ii) the phrase "this Agreement" or "hereunder" as used in any such provision shall be construed to refer to this Supplement.

**11.11 Termination Without Cause.** Without limiting any other rights of the Port Authority under this Supplement (including, without limitation, the rights set forth in this Article XI), the Port Authority shall have the right to terminate this Supplement without cause effective on the date of the expiration of the Term of the TNAS Agreement upon not less than ninety (90) days' prior written notice to the Permittee. The Port Authority shall not have the right to terminate this Supplement under this Section 11.11 if the Port Authority intends to work with, or is working with or contemplates working with, a third party (including, without limitation, any investors, Carrier Users or any affiliate of any of them) to have such third party provide or finance (in whole or in part) the termination fee payable under this Section 11.11). If the Port Authority so elects to terminate this Supplement, then this Supplement shall be terminated on the date of the expiration of the Term of the TNAS Agreement and, notwithstanding anything to the contrary contained in the TNAS Agreement, the Port Authority shall, within ten (10) days after the effective date of such termination, pay to the Permittee an amount determined as follows:

**11.11.1** An amount equal to DAS Net Income less the DAS Variable Fee payable to the Port Authority under Carrier Agreements in place as of the date of termination for the remaining term of such Carrier Agreements during what would have been the remaining Term of this Supplement if this Supplement had not been terminated without cause, plus an amount equal to the Wi-Fi Net Income less the Wi-Fi Variable Fee payable to the Port Authority reasonably forecasted (as agreed by the Parties) to be earned for each Annual Period (or portion thereof) during what would have been the remaining Term of this Supplement if this Supplement had not been terminated without cause, shall be calculated for each Annual Period.

11.11.2 The present value of the stream of payments described in Section 11.11.1 on the date of termination without cause by the Port Authority shall be determined using a discount rate of nine percent (9%) per year (the "Base Net Present Value Amount").

11.11.3 The portion of the Initial System Capital Cost plus the capital cost of any additions to the System approved by the Port Authority as constituting an additional capital investment in the System, which in each case constituted actual unreimbursed payments made to unaffiliated third parties for the acquisition and installation of the System (including, without limitation, any unreimbursed Base Infrastructure Cost Reimbursement and any unreimbursed Additional Base Infrastructure Cost Reimbursement paid to the Port Authority, in each case less the Base Infrastructure Credit), shall be determined and the amount so determined, together with a twenty-five percent (25%) accrued annual return on such amount, and the aggregate amount shall be multiplied by a fraction the denominator of which is the number of days in the Term originally contemplated under this Supplement but for its termination without cause by the Port Authority and the numerator of which is the number of days from the date of the termination of this Supplement without cause by the Port Authority to the expiration date originally contemplated under this Supplement (the "Base Unamortized Capital Amount").

11.11.4 The "WTC Termination Amount" shall be the sum of the Base Net Present Value Amount plus the Base Unamortized Capital Amount.

For the avoidance of doubt and notwithstanding anything to the contrary contained in the TNAS Agreement, any termination without cause of the TNAS Agreement pursuant to Section 36 of the TNAS Agreement shall be effective only as to Port Authority facilities other than the World Trade Center and the "Termination Amount" payable pursuant to Section 36 of the Original Agreement shall not include any amounts attributable to the World Trade Center.

In the event the Port Authority terminates this Supplement pursuant to this Section 11.11, the Port Authority shall, upon payment of the WTC Termination Amount, have the right to (1) direct the Permittee to remove the System or the portions thereof designated by the Port Authority, at the Port Authority's expense, and (2) to use the System or any portion or portions thereof as are not so removed free and clear of any claim of ownership by the Permittee, including all the Permittee's rights to all System software licenses, equipment warranties and service contracts. Title to the portion or portions of the System as are not so removed shall thereupon vest in the Port Authority without any further act or deed by the Permittee if title thereto is not already in the Port Authority.

#### 11.12 Right of Use Upon Termination.

11.12.1 In the event the Port Authority terminates this Supplement pursuant to this Article XI or otherwise in accordance with this Supplement during the Term (other than pursuant to Section 11.11, for which the provisions of Section 11.11 shall govern), the Port Authority shall, at no cost or expense to the Port Authority, either (1) direct the Permittee to remove the System or the portions thereof designated by the Port Authority, or (2) operate the System or any portion or portions thereof as are not so removed free and clear of any claim of ownership by the Permittee, including all the Permittee's rights to all Carrier Agreements, System software licenses, equipment warranties and service contracts. Such foregoing rights of

the Port Authority to use the System shall not in any manner affect, alter or diminish any of the obligations of the Permittee under this Supplement, and shall in no event constitute an acceptance of surrender of this Supplement.

11.12.2 The rights of the Port Authority under Section 11.12.1 to use the System shall include the right of the Port Authority to use and/or operate the System or any portion thereof and the right to continue in effect the terms and provisions of the Carrier Agreements or to enter into a new agreement with any Person to use and/or operate the System or any portion thereof for a period of time the same as or different from the balance of the Term remaining under this Supplement, and on terms and conditions the same as or different from those set forth in this Supplement. The Port Authority shall also, upon a termination as described in Section 11.1, or otherwise upon the exercise of its rights pursuant to this Section 11.11, have the right to repair or to make physical or other changes in the System, including changes which alter its wireless telecommunications and other electronic characteristics, without affecting, altering or diminishing the obligations of the Permittee under this Supplement.

11.12.3 The Port Authority will honor Carrier Agreements in the event of the expiration or termination of this Supplement in accordance with the terms thereof.

## ARTICLE XII

### SECURITY FOR PERFORMANCE OF PERMITTEE'S OBLIGATIONS

12.1 Initial Construction and Reimbursement Obligations. In connection with this Supplement, Boingo Wireless, Inc. ("Boingo"), the parent of the Permittee, shall execute a completion and payment guaranty pursuant to which Boingo guarantees (i) the lien-free payment and performance of the Initial System Construction Work in accordance with all provisions of this Supplement and (ii) the payment of the Port Authority Base Infrastructure Costs in accordance with all provisions of this Supplement.

## ARTICLE XIII

### REPORTING

13.1 Periodic Reports During Initial Construction. Prior to the completion of the Initial System Construction Work, the Permittee shall maintain and deliver to the Port Authority a report in form reasonably acceptable to the Port Authority containing the following information with respect to the System and its obligations under this Supplement within thirty (30) calendar days after the end of each calendar month (or within thirty (30) calendar days after the end of such other period as may be agreed between the Parties) (each such month or other period being referred to in this Section 13.1 as a "Period");

13.1.1 A statement of Wi-Fi Gross Revenues and DAS Gross Revenues for the Period and cumulatively for the Annual Period to date and the amount of all payments made to the Port Authority for the Period and cumulatively for the Annual Period to date pursuant to this Agreement;

13.1.2 A statement of capital receipts (on an invoice basis) for the Period and cumulatively for the Annual Period to date;

13.1.3 A statement showing the Wi-Fi Allowable Deductions, DAS Allowable Deductions and other expenditures made by the Permittee for the Period and the cumulative Wi-Fi Allowable Deductions, DAS Allowable Deductions and other expenditures made by the Permittee for the Annual Period to date;

13.1.4 A statement showing the capital expenditures and significant maintenance items of a capital nature for the Period and cumulatively for the Annual Period to date;

13.1.5 A statement of Capital Costs expended during the Period, cumulatively for the Annual Period to date and cumulatively for Initial System Construction Work;

13.1.6 A management report summarizing significant events or activities affecting the System, the Permittee's obligations under this Supplement or Carrier Agreements which occurred during the Period or which are likely to occur in subsequent months, including, without limitation, detailed information regarding the System's performance with respect to the System Performance Standards;

13.1.7 Updated information and projections regarding the status of the Initial System Construction Work and targeted completion and commissioning dates for the various phases and elements of such work (including as related to the Initial Schedule Milestones and the Retail Schedule Milestone);

13.1.8 A management report regarding operational and maintenance issues, including in-process, completed and anticipated operating and capital activities and expenses; and

13.1.9 Any other information or statements reasonably requested by the Port Authority from time to time.

13.2 Periodic Reports Following Initial Construction. From and after the completion of the Initial System Construction Work, the Permittee shall maintain and deliver to the Port Authority a report in form reasonably acceptable to the Port Authority containing the following information with respect to the System and its obligations under this Supplement within thirty (30) calendar days after the end of each calendar quarter (or within thirty (30) calendar days after the end of such other period as may be agreed between the Parties) (each such quarter or other period being referred to in this Section 13.2 as a "Period");

13.2.1 A statement of Wi-Fi Gross Revenues and DAS Gross Revenues for the Period and cumulatively for the Annual Period to date and the amount of all payments made to the Port Authority for the Period and cumulatively for the Annual Period to date pursuant to this Agreement;

13.2.2 A statement of capital receipts (on an invoice basis) for the Period and cumulatively for the Annual Period to date;

13.2.3 A statement showing the Wi-Fi Allowable Deductions, DAS Allowable Deductions and other expenditures made by the Permittee for the Period and the cumulative Wi-Fi Allowable Deductions, DAS Allowable Deductions and other expenditures made by the Permittee for the Annual Period to date;

13.2.4 A statement showing the capital expenditures and significant maintenance items of a capital nature for the Period and cumulatively for the Annual Period to date;

13.2.5 A management report summarizing significant events or activities affecting the System, the Permittee's obligations under this Supplement or Carrier Agreements which occurred during the Period or which are likely to occur in subsequent months, including, without limitation, detailed information regarding the System's performance with respect to the System Performance Standards;

13.2.6 An estimate of any operating expenses and other items required to be paid by the Permittee hereunder becoming due during the ensuing month and the dates on which such amounts will become due;

13.2.7 A management report regarding operational and maintenance issues, including in-process, completed and anticipated operating and capital activities and expenses; and

13.2.8 Any other information or statements reasonably requested by the Port Authority from time to time.

13.3 Inventory and Depreciation. In addition to the reports required pursuant to Section 13.1 and Section 13.2, as applicable, the Permittee shall deliver to the Port Authority, from time to time upon request of the Port Authority, a report in form reasonably acceptable to the Port Authority setting forth an inventory of all equipment, machinery and other property in connection with the System showing their current depreciated values, each as of the date(s) specified by the Port Authority in such request.

## ARTICLE XIV

### MISCELLANEOUS

14.1 Additional Applicable Provisions of the TNAS Agreement. The following provisions of the TNAS Agreement shall be and hereby are incorporated in this Supplement and made applicable to the WTC Site as if fully set forth herein, except that (i) the capitalized terms used within such provisions shall have the applicable meanings given to such terms in Article I of this Supplement if so defined therein (otherwise, such capitalized terms shall have the applicable meanings given to such terms in the Original Agreement) and (ii) the phrase "this Agreement" or "hereunder" as used in any such provision shall be construed to refer to this Supplement:

14.1.1 Leases of Facilities. Section 6(c), except that, for purposes of this Supplement, (i) the term "Summary Basis of Design" as used in Section 6(c)(ii) of the Original Agreement shall mean the Summary Basis of Design attached hereto as Exhibit C and (ii) no

equitable adjustment of the Variable Fees or any other amounts owing or due pursuant to this Supplement shall be available or effected pursuant to such Section 6(c) as incorporated in this Supplement.

**14.1.2 Governmental Requirements.** Section 9, except that, for purposes of this Supplement, (i) the text after the phrase “fulfilling such obligation” in the second sentence of Section 9(a) thereof shall not be part of this Supplement, (ii) the reference to “Section 12” as used in Section 9(c) thereof shall mean Section 12 of the Original Agreement as incorporated in this Supplement pursuant to Section 14.1.4 and (iii) the following text shall be added to the last sentence of Section 9(b) thereof:

except that the Permittee shall pay the Port Authority’s standard fees and charges in connection with the Port Authority’s review of the System in its capacity as governmental agency with jurisdiction over the WTC Site, as more specifically provided in Section 7.2.2 of this Supplement.

**14.1.3 Prohibited Acts.** Section 10 of the Original Agreement.

**14.1.4 Casualty.** Section 12 of the Original Agreement, except that, for purposes of this Supplement, (i) Section 12(d) of the Original Agreement shall not be incorporated in this Supplement and (ii) the following text shall be inserted after the phrase “telecommunications network access system” in the third sentence of Section 12(c): “or such other Wi-Fi System and/or DAS System”.

**14.1.5 Indemnity.** Section 13 of the Original Agreement, except that, for purposes of this Supplement, the phrase “Paging Carrier User” as used in Section 13(a) shall not be incorporated in this Supplement.

**14.1.6 Consequential Damages.** Section 14 of the Original Agreement.

**14.1.7 Condemnation.** Section 18 of the Original Agreement, except that, for purposes of this Supplement, the references to “Section 38” as used in Section 18(b) of the Original Agreement shall mean Section 38 of the Original Agreement as incorporated in this Supplement pursuant to Section 7.5.

**14.1.8 Waiver of Redemption.** Sections 22 and 23 of the Original Agreement.

**14.1.9 Surrender.** Section 24 of the Original Agreement, except that, for purposes of this Supplement, the text “except as may otherwise be provided in Section 6(b)” in the second sentence of Section 24(b) of the Original Agreement shall not be incorporated in this Supplement.

**14.1.10 Disputes.** Section 26 of the Original Agreement.

**14.1.11 Payments.** Section 28 of the Original Agreement.

**14.1.12 Recording.** Section 29 of the Original Agreement.

14.1.13 Quiet Enjoyment. Section 30 of the Original Agreement, except that, for purposes of this Supplement, the references to "Section 20" as used in Section 30 of the Original Agreement shall mean Article XI of this Supplement.

14.1.14 Headings. Section 31 of the Original Agreement.

14.1.15 Performance of Permittee's Obligations. Section 32 of the Original Agreement.

14.1.16 Publicity and Advertising. Section 33 of the Original Agreement.

14.1.17 Liability Insurance. Section 40 of the Original Agreement.

14.1.18 Non-Discrimination. Section 41 of the Original Agreement, except that, for purposes of this Supplement, the reference to "Section 20" as used in Section 41(c) of the Original Agreement shall mean Article XI of this Supplement.

14.1.19 Affirmative Action. Section 42 of the Original Agreement, except that, for purposes of this Supplement, the reference to "Section 20" as used in Section 41(c) of the Original Agreement shall mean Article XI of this Supplement.

14.1.20 Permittee's Additional Ongoing Affirmative Action – Equal Opportunity Commitment. Section 43 of the Original Agreement, except that, for purposes of this Supplement, the reference to "Sections 41 and 42" as used in Section 43(b) of the Original Agreement shall mean Section 41 and Section 42 of the Original Agreement as incorporated in this Supplement pursuant to Section 14.1.18 and Section 14.1.19, respectively.

14.1.21 Suitability of Port Authority Facilities. Section 45 of the Original Agreement, except that, for purposes of this Supplement, the reference to "Section 44" as used in Section 45 of the Original Agreement shall mean Article IX of this Supplement.

14.1.22 Non-Liability of Individuals. Section 47 of the Original Agreement.

14.1.23 Non-Disturbance. Section 49 of the Original Agreement.

14.1.24 Labor Harmony Obligation. Section 50 of the Original Agreement.

14.1.25 Severability. Section 53 of the Original Agreement.

14.1.26 Counterparts. Section 54 of the Original Agreement.

14.1.27 Rules of Interpretation. Section 55 of the Original Agreement.

14.1.28 Third Party Beneficiaries. Section 56 of the Original Agreement.

14.1.29 Governing Law. Section 57 of the Original Agreement.

14.2 Permittee's OFAC Representations, Warranties and Covenants.

14.2.1 The Permittee hereby represents and warrants to the Port Authority that Permittee, including each of its affiliates and subsidiaries and each of its employees, is not a person or entity with whom U.S. persons or entities (including the Port Authority) are restricted from doing business under the regulations of the Office of Foreign Asset Control (“OFAC”) of the United States Department of the Treasury (including, but not limited to, those named on OFAC’s Specially Designated Nationals and Blocked Persons list) or under any statute, executive order (including, but not limited to, the September 24, 2001 Executive Order on Terrorist Financing, Blocking Property and Prohibiting Transactions With Persons Who Commit, Threaten To Commit or Support Terrorism), or other governmental action and is not engaging, and shall not engage, in any dealings or transactions or be otherwise associated with such persons or entities. The Permittee acknowledges that the Port Authority is entering into this Supplement in reliance on the foregoing representations and warranties and that such representations and warranties are a material element of the consideration inducing the Port Authority to enter into and execute this Supplement. In the event of any breach of the foregoing representations and warranties by the Permittee, the Port Authority shall have the right, in addition to any and all other remedies provided under this Supplement, or at law or in equity, to immediately terminate this Supplement upon written notice to the Permittee. In the event of any such termination by the Port Authority, the Permittee, immediately upon receipt of said termination notice, shall have no further right to access the World Trade Center, the WTC Site or any portion thereof and shall surrender the System and all books and records in the Permittee’s possession or control with respect to the System and its services under this Supplement to the Port Authority pursuant to Section 24 of the Original Agreement (as incorporated in this Supplement pursuant to Section 14.1.9). Termination on the aforesaid basis shall be a termination for cause.

14.2.2 The Permittee hereby agrees, on behalf of itself and its employees, subsidiaries and affiliates to be used by it in performing the duties under this Supplement directly or indirectly (each, a “Representative”), that Permittee shall require that each potential Representative, service provider, contractor, subcontractor and any other Party engaged by the any Representative with respect to or in connection with this Supplement represent and warrant to the Port Authority and provide the Port Authority with documentation indicating that such Persons do not constitute (i) a government, individual or entity that is subject to U.S. Economic Sanctions, (ii) a Person that resides or has a place of business in a country or territory subject to U.S. Economic Sanctions or (iii) the agent of any of the foregoing Persons, and are not identified on the List of Specially Designated Nationals and Blocked Persons maintained by OFAC, available on the Internet at <http://www.treas.gov/offices/enforcement/ofac/sdn/t11sdn.pdf>.

14.3 Audit Rights. The Port Authority may from time to time carry out an independent audit or inspection of the Permittee’s books, accounts, records or any other information related to the WTC Site and/or its obligations or performance under this Supplement, including, without limitation, with respect to the capital costs of the DAS and Wi-Fi systems (and management of the construction account, including Carrier User payments), maintenance and refurbishment expenses, ongoing operations costs, revenues, cash flows, fee calculations and any systems or metrics that are used in computing revenues, expenses, costs or fees. The Port Authority may engage such third parties as it deems necessary or desirable in connection with any such audit, provided that in no event shall the Port Authority engage an auditor on a contingency or percentage fee basis. Each audit shall be at the Port Authority’s expense, provided, however,

that if any such audit discloses a variance of 5% or more in any amount (on an aggregate basis), Permittee shall promptly pay to the Port Authority the cost of such audit.

**14.4 No Broker.** The Permittee hereby represents and warrants that it has not had any contacts, dealings, acts or conversations with any broker in connection with the negotiation of this Supplement or in connection with the rights and permissions granted to the Permittee hereunder. The Permittee shall indemnify and save harmless the Port Authority from any and all claims for brokerage or commission made by any Person for services in connection with the negotiation and execution of this Supplement or in connection with the rights and permissions granted to the Permittee hereunder arising out of the contacts, dealings, acts or conversations of the Permittee, except for claims arising solely out of any contacts, dealings, acts or conversations of the Port Authority.

**14.5 Notices.** All notices, demands, consents, reports and other communications provided for in this Supplement (each a "Notice") shall be in writing, shall be given by a method prescribed in this Section 14.5 and shall be given to the Party to whom it is addressed at the address set forth below or at such other address(es) as such party hereto may hereafter specify by at least fifteen (15) calendar days' prior written notice.

To the Port Authority:

The Port Authority of New York and New Jersey  
115 Broadway, 19<sup>th</sup> floor  
New York, New York 10006  
Attn: Director, World Trade Center Redevelopment  
Telephone: (212) 435-6426  
Facsimile: (212) 435-6535

With a copy to:

The Port Authority of New York and New Jersey  
225 Park Avenue South  
New York, New York 10003  
Attn: General Counsel  
Telephone: (212) 435-3515  
Facsimile: (212) 435-6610

With a copy to:

DLA Piper LLP (US)  
1251 Avenue of the Americas  
New York, New York 10020-1104  
Attn: Jeffrey R. Keitelman, Esq.  
Telephone: (212) 335-4660  
Facsimile: (301) 717-1122

To the Permittee:

New York Telecom Partners, LLC  
2150 S. Central Expressway  
Attn: Mark Deshaies  
McKinney, Texas 75070  
Telephone: (972) 542-3555 ext. 8933  
Facsimile: (310) 586-4060

With a copy to:

Boingo Wireless, Inc.  
10960 Wilshire Blvd. Suite 800  
Los Angeles, California 90024  
Attn: Legal Department  
Telephone: (310) 586-4064  
Facsimile: (310) 586-4060

A Notice may be mailed by United States certified mail, return receipt requested, postage prepaid, deposited in a United States post office or a depository for the receipt of mail regularly maintained by the post office. A Notice may also be delivered (i) by hand or nationally recognized overnight courier which maintains evidence of receipt or (ii) by facsimile with a confirmation copy delivered by overnight courier which maintains evidence of receipt. A Notice shall be deemed given when received at the address for which such party has given notice in accordance with the provisions hereof. A Notice shall be effective only upon receipt or refusal of receipt after delivery in accordance with the methods hereinabove set forth in this Section 14.5.

14.6 Port Authority Additional Provisions. The additional provisions set forth in this Section 14.6 shall apply to the Permittee's obligations under this Supplement. In the event of any inconsistency between the provisions of this Section 14.6 and any other provision of this Supplement, the provisions of this Section 14.6 shall be deemed to control:

14.6.1 Definitions. For the purposes of this Section 14.6, the following terms shall have the following meanings:

(a) "Agency" or "Governmental Agency" means any federal, state, city or other local agency, including departments, offices, public authorities and corporations, boards of education and higher education, public development corporations, local development corporations and others.

(b) "Director" means the then-incumbent Executive Director of the Port Authority.

(c) "Investigation" means any inquiries made by any federal, state or local criminal prosecuting agency and any inquiries concerning civil anti-trust investigations made by any Governmental Agency. Except for inquiries concerning civil anti-trust investigations, the term does not include inquiries made by any civil government agency concerning compliance with any regulation, the nature of which does not carry criminal

penalties, nor does it include any background investigations for employment, or Federal, state, and local inquiries into tax returns.

(d) “Officer” means any individual who serves as chief executive officer, chief financial officer, or chief operating officer of the Permittee, by whatever titles known.

(e) “Parent” means an individual, partnership, joint venture or corporation that owns more than 50% of the voting stock of the Permittee.

14.6.2 Notification of Security Requirements. The Port Authority has the right to impose multiple layers of reasonably required security requirements on the Permittee and its employees on-site at the World Trade Center, depending upon the level of security required, as determined by the Port Authority. These security requirements may include, but are not limited to, the following:

(a) Identity checks and background screening of the Permittee and its on-site employees, including but not limited to inspection of not less than two (2) forms of valid/current government issued identification (at least one having an official photograph) to verify each employee’s name and residence; screening federal (including terrorist identification files), state, and/or local criminal justice agency information databases and files; multi-year check of personal, employment and/or credit history; access identification to include some form of biometric security methodology such as fingerprint, facial or iris scanning, or the like;

(b) Issuance of photo identification cards; and

(c) Access control, inspection, and monitoring by security guards.

The Permittee may be required to have its staff authorize the Port Authority or its designee to perform background checks on its on-site employees. Such authorization shall be in a form reasonably acceptable to the Port Authority. The Port Authority may impose, increase, and/or upgrade security requirements for the Permittee and its employees during the term of this Supplement to address changing security conditions and/or new governmental regulations.

14.6.3 Insurance. In connection with any work performed by or on behalf of the Permittee, the Permittee shall take out, maintain, and pay the premiums on Commercial General Liability Insurance, including but not limited to premises-operations, products-completed operations, and independent contractors coverage, with contractual liability language covering the obligations assumed by the Permittee under this Supplement and, if vehicles are to be used to carry out the performance of this Supplement, then the Permittee shall also take out, maintain, and pay the premiums on Automobile Liability Insurance covering owned, non-owned, and hired autos in the following minimum limits:

1. Commercial General Liability Insurance: \$5 million combined single limit per occurrence for bodily injury and property damage liability; and

2. Automobile Liability Insurance: \$5 million combined single limit per accident for bodily injury and property damage liability.

3. Workers' Compensation Insurance: In accordance with the requirements of law in the state(s) where work will take place.

4. Employer's Liability Insurance: Not less than \$1 million each accident.

The Port Authority may, at any time during the term of this Supplement upon not less than thirty (30) calendar days' prior written notice, change or modify the limits and coverages of insurance required hereunder. Such insurance policies shall name the Persons listed on Schedule 1 attached hereto as additional insureds, including but not limited to premise-operations and products-completed operations on the Commercial General Liability Policy. Moreover, the Commercial General Liability Policy shall not contain any provisions for exclusions from liability other than provisions for exclusion from liability forming part of the most up to date ISO form or its equivalent unendorsed Commercial General Liability Policy. The liability policies and certificate of insurance shall contain cross-liability language providing severability of interests so that coverage will respond as if separate policies were in force for each insured. The certificates of insurance and liability policies must contain the following endorsement for the above liability coverages: "The insurer(s) shall not, without obtaining the express advance written permission from the General Counsel of the Port Authority, raise any defense involving in any way the jurisdiction of the Tribunal over the person of the Port Authority, the immunity of the Port Authority, its Commissioners, officers, agents or employees, the governmental nature of the Port Authority, or the provisions of any statues respecting suits against the Port Authority."

Each such insurance policy shall additionally be specifically endorsed to contain a provision that the policy may not be canceled, terminated, or modified without thirty (30) calendar days' prior written notice to the Port Authority and to the Port Authority's General Manager, Risk Management. The Permittee shall submit original certificate(s) of insurance to the Port Authority on the Commencement Date, which certificate(s) must be approved by the General Manager, Risk Management of the Port Authority prior to the commencement of any work under this Agreement by the Permittee. Upon request by the Port Authority, the Permittee shall furnish to the Port Authority's General Manager, Risk Management, a certified copy of each policy, including the premiums.

(a) If at any time the insurance required pursuant to this Section 14.6.3 or otherwise pursuant to this Supplement should be canceled, terminated, or modified so that the insurance is not in effect as above required, then, if the Port Authority shall so direct, the Permittee shall suspend performance of any affected work at the World Trade Center. If the work is so suspended, no extension of time shall be due on account thereof. If the work is not suspended (whether or not because of omission of the Port Authority to order suspension), then the Port Authority may, at its option, obtain insurance affording coverage equal to the above required, the cost of such insurance to be immediately payable, without demand, by the Permittee to the Port Authority.

(b) Renewal certificates of insurance or policies shall be delivered to the Port Authority at least fifteen (15) calendar days prior to the expiration date of each expiring policy. The General Manager, Risk Management must approve the renewal certificate(s) of insurance before work can resume on the facility. If at any time any of the certificates or policies shall become unsatisfactory to the Port Authority, the Permittee shall promptly obtain a new and satisfactory certificate and policy.

(c) The requirements for insurance procured by the Permittee shall not in any way be construed as a limitation on the nature or extent of the contractual obligations assumed by the Permittee under this contract. The insurance requirements are not a representation by the Port Authority as to the adequacy of the insurance to protect the Permittee against the obligations imposed on them by law or by this Supplement or any other contract.

14.6.4 Certification Of No Investigation (Criminal Or Civil Anti-Trust), Indictment, Conviction, Debarment, Suspension, Disqualification And Disclosure Of Other Information. By signing this Supplement, the Permittee certifies that the Permittee and Parent, except as previously disclosed to the Port Authority, have not:

(a) been indicted or convicted of a felony in any jurisdiction;

(b) been suspended, debarred, found not responsible or otherwise disqualified from entering into any agreement with any Governmental Agency or been denied a government agreement for failure to meet standards related to the integrity of the Permittee;

(c) had an agreement terminated by any Governmental Agency for breach of agreement or for any cause, in each case based in whole or in part on an indictment or conviction of a felony;

(d) Have not ever used a name, trade name or abbreviated name other than the name Project Mammoth, Inc.;

(e) had any business or professional license suspended or revoked or had any sanction imposed as a result of any judicial or administrative proceeding with respect to any violation of a federal, state or local environmental law, rule or regulation;

(f) had any sanction by a governmental authority imposed as a result of a judicial or administrative proceeding related to fraud, extortion, bribery, proposal rigging, embezzlement, misrepresentation or anti-trust regardless of the dollar amount of the sanctions or the date of their imposition; or

(g) been, and is not currently, the subject of a criminal investigation by any federal, state or local prosecuting or investigative agency.

14.6.5 Non-Collusive Proposing And Code Of Ethics Certification, Certification Of No Solicitation Based On Commission, Percentage, Brokerage, Contingent Or Other Fees. Except as previously disclosed to the Port Authority, the Permittee certifies, to the extent applicable, that:

(a) The Permittee has not, to the best of its knowledge, made any offers or agreements or taken any other action with respect to any Port Authority employee or former employee or immediate family member of either which would constitute a breach of ethical standards under the Code of Ethics and Financial Disclosure dated April 11, 1996 (a copy of which has been delivered to the Permittee), nor does the Permittee have any knowledge of any act on the part of a Port Authority employee or former Port Authority employee relating either directly or indirectly to this organization which constitutes a breach of the ethical standards set forth in said Code; and

(b) The Permittee has not offered, promised or given, demanded or accepted, any undue advantage, directly or indirectly, to or from a public official or employee, political candidate, party or party official, or any private sector employee (including a person who directs or works for a private sector enterprise in any capacity), in order to obtain, retain, or direct business or to secure any other improper advantage in connection with this Supplement. The foregoing certifications shall be deemed to be made by the Permittee as follows:

(A) If the Permittee is a corporation or limited liability company, such certification shall be deemed to have been made not only with respect to the Permittee itself, but also with respect to its Parent; or

(B) if the Permittee is a partnership, such certification shall be deemed to have been made not only with respect to the Permittee itself, but also with respect to each partner.

Moreover, the foregoing certifications, if made by an entity, shall be deemed to have been authorized by the Board of Directors of the Permittee, and such authorization shall be deemed to include the signing and submission of the proposal and the inclusion therein of such certification as the act and deed of the corporation. In any case where the Permittee cannot make the foregoing certifications, the Permittee shall so state and shall furnish to the Port Authority a signed statement setting forth in detail the reasons therefor. The foregoing certifications or signed statement shall be deemed to have been made by the Permittee with full knowledge that they would become a part of the records of the Port Authority and that the Port Authority will rely on their truth and accuracy in executing this Supplement. In the event that the Port Authority should determine at any time prior or subsequent to the execution of this Supplement that the Permittee has falsely certified as to any material item in the foregoing certifications or has willfully or fraudulently furnished a signed statement which is false in any material respect, or has not fully and accurately represented, in all material respects, any circumstance with respect to any item in the foregoing certifications required to be disclosed, the Port Authority may exercise such remedies as are provided to it by this Supplement with respect to these matters. In addition, the Permittee and Parent are advised that knowingly providing a false certification or statement pursuant hereto may be the basis for prosecution for offering a false instrument for filing (see, e.g., New York Penal Law, Section 175.30, et seq.). The Permittee and Parent are also advised that the inability to make such certification will not in and of itself disqualify a consultant, and that in each instance the Port Authority will evaluate the reasons therefor provided by such Person.

**14.6.6 No Gifts, Gratuities, Offers Of Employment, Etc.** During the term of this Supplement, the Permittee shall not knowingly offer, give or agree to give anything of value to an employee, officer or director of the Port Authority, or knowingly to a member of the immediate family (i.e., a spouse, child, parent, brother or sister) of any of the foregoing, in connection with the performance by such employee, officer or director of the Port Authority of duties involving transactions with the Permittee on behalf of the Port Authority, whether or not such duties are related to this Supplement or any other Port Authority agreement or matter. As used herein "anything of value" shall include, but not be limited to, but only to the extent any such thing has more than a de minimis value, any (a) favors, such as meals, entertainment and transportation (other than that contemplated by this Supplement or any other Port Authority agreement), and (b) gratuity, money, goods, equipment, services, lodging, discounts not available to the general public, offers or promises of employment, loans or the cancellation thereof, preferential treatment or business opportunity. Such term shall not include compensation contemplated by this Supplement or any other Port Authority agreement. The Permittee shall instruct all employees that no gratuities of any kind or nature whatsoever shall be solicited or accepted by it and by its personnel for any reason whatsoever from the tenants, customers or other persons utilizing the building for commercial purposes (i.e. repairmen, contractors, deliverymen). In addition, during the term of this Supplement, the Permittee shall not make an offer of employment or use confidential information in a manner proscribed by the Code of Ethics and Financial Disclosure dated April 11, 1996 (a copy of which has been delivered to the Permittee). The Permittee shall include the provisions of this clause in each subagreement entered into under this Supplement.

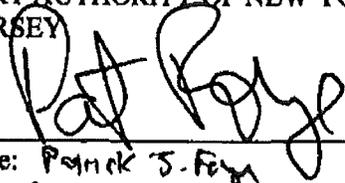
**14.7 Entire Agreement.** This Supplement constitutes the entire agreement between the Port Authority and the Permittee regarding the World Trade Center (as more specifically set forth in Section 14.1) and may not be changed, modified, discharged or extended except by instrument in writing duly executed on behalf of both the Port Authority and the Permittee. The Permittee agrees that no representations or warranties shall be binding upon the Port Authority unless expressed in writing in this Supplement. The submission of any unexecuted copy of this Supplement shall not constitute an offer to be legally bound by the provisions of the document submitted.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the Parties have executed this Supplement as of the day and year first above written.

**PORT AUTHORITY:**

THE PORT AUTHORITY OF NEW YORK AND  
NEW JERSEY

By:   
Name: Patrick S. Feys  
Title: Executive Director

**PERMITTEE:**

NEW YORK TELECOM PARTNERS, LLC

By:   
Name: Peter Hennessey  
Title: Authorized Person

Schedule 1

List of Additional Insureds

1. The Port Authority of New York and New Jersey
2. WTC Retail LLC
3. 1 World Trade Center LLC
4. The Port Authority Trans-Hudson Corporation
5. STV Construction, Inc.
6. NYS Department of Transportation
7. Tishman Construction Corporation
8. Tishman Realty & Construction Co., Inc.
9. Tishman Construction Corporation of New York
10. Silverstein Freedom Tower Development LLC, and its Affiliates
11. 2 World Trade Center LLC
12. 3 World Trade Center LLC
13. 4 World Trade Center LLC
14. World Trade Center Properties LLC
15. 2 WTC Holdings LLC
16. 3 WTC Holdings LLC
17. 4 WTC Holdings LLC
18. Silverstein Properties, Inc.
19. Silverstein East WTC Facility Manager LLC
20. WTC Redevelopment LLC
21. Silverstein WTC Mgmt. Co. LLC
22. Silverstein WTC Mgmt. Co. II LLC
23. Silverstein WTC Properties LLC
24. Silverstein WTC LLC
25. Silverstein 2/3/4 WTC Redevelopment LLC
26. Spring World Inc.
27. Spring WTC Holdings Inc.
28. WTC Investors LLC
29. Net Lessees' Association of the World Trade Center
30. WTC Management and Development LLC
31. Silverstein WTC Management and Development LLC
32. WTC Investors Management and Development LLC
33. Larry A. Silverstein

34. World Trade Center Hold Co. Ltd
35. 3 WTC Mezz LLC
36. The City of New York
37. The Lower Manhattan Development Corporation
38. National September 11 Memorial & Museum at the World Trade Center Foundation
39. Metropolitan Transportation Authority
40. New WTC Retail JV LLC
41. PA Retail Newco LLC
42. New WTC Retail Member LLC
43. New WTC Retail Owner LLC
44. Tower 5 LLC
45. Tower 1 Member LLC
46. Tower 1 Joint Venture LLC
47. Tower 1 Holdings LLC
48. WTC Tower 1 LLC
49. PA Retail Newco LLC
50. Tower 1 Rooftop Holdings LLC

## Schedule 2

### Sample DAS System Availability and Downtown Calculation Methodology

- Assume the total quantity of remote active devices is "X". There are a total of  $8760 * X$  remote-active-device-hours per year or  $8760 * X / 12$  remote-active-device-hours per month. Of those,  $5475 * X$  hours are peak hours ( $5475 * X / 12$  month) and  $3285 * X$  hours are off-peak.
- For an on-peak 99.9% weighted System availability, the total population of remote active devices must have a total up-time per month of at least  $0.999 * 5475 * X / 12$  hours during Peak Hours. For all hours (Peak Hours and Non-Peak Hours), the total monthly device uptime must be at least  $0.995 * 8760 * X / 12$ . These sample calculations assume 365 days in a year and that a month is 1/12 of a year; for the purposes of monthly reporting and annual calculations, the actual hours in a month and actual hours in a year shall be used.
- The total allowable System down-time monthly would be  $0.001 * 5475 * X / 12$  hours during Peak Hours. For all hours (Peak Hours and Non-Peak Hours), the total allowable down-time monthly would be  $0.005 * 8760 * X / 12$ .
- For active devices that provide coverage to more than one antenna location but not the entire System, weighted system availability shall factor the number of antenna locations the device feeds. For example, if a remote module feeds four (4) remote antenna locations, the total system downtime is calculated as four times the downtime of the remote module and factored accordingly for calculating the total weighted network outage.

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**EXEMPTION (4)**

**DRAWINGS OF NON-PUBLIC AREAS**

## Exhibit C

### Summary Basis of Design

#### 1.0 Introduction

#### 1.1 Purpose

This exhibit provides a general overview of the wireless communications system(s) known as the multi-wireless service, neutral-host Distributed Antenna System (the "DAS System") and Wireless Local Area Network (the "Wi-Fi System") respectively. Collectively known as the Telecommunications Network Access System (TNAS). The Systems are designed specifically for the areas of the World Trade Center complex as shown in EXHIBIT B-1, EXHIBIT B-2 and EXHIBIT B-3 to extend wireless services to the patrons, tenants, and visitors of those facilities.

#### 1.2 General Description

##### 1.2.1 DAS System

The DAS is designed to provide a single, comprehensive, wireless voice and data access system for the Port Authority (PA) and the wireless service providers to better serve tenants, patrons, commuters, and visitors as they inhabit, roam, or are transported through the PA facilities. The DAS is a multi-service system capable of supporting the services and technologies of today and those of the foreseeable future.

The DAS provides a broadband, technology-neutral, RF distribution backbone that allows for neutral equal access of all service providers wishing to join the system. The system offers seamless hand-off of service between the PA facilities and the existing cellular networks. The flexible system architecture allows for future expansion and upgrade as new services or technologies become commercially available.

The DAS extends radio frequency signals throughout the required coverage areas within the PA facilities in a substantially uniform manner. The facilities contain a variety of architectural features. To design the system in the most cost effective way, the DAS architecture incorporates a variety of engineering techniques and state-of the-art products; including multi-band Omni-directional and directional antennas, radiating coaxial cable, non-radiating coaxial cable, single mode fiber optic cable, fiber optic receivers, transmitters and combiners, RF amplifiers, and a variety of passive and active RF combiners.

A simplified diagram representative of the DAS architecture is provided in FIGURE 1.

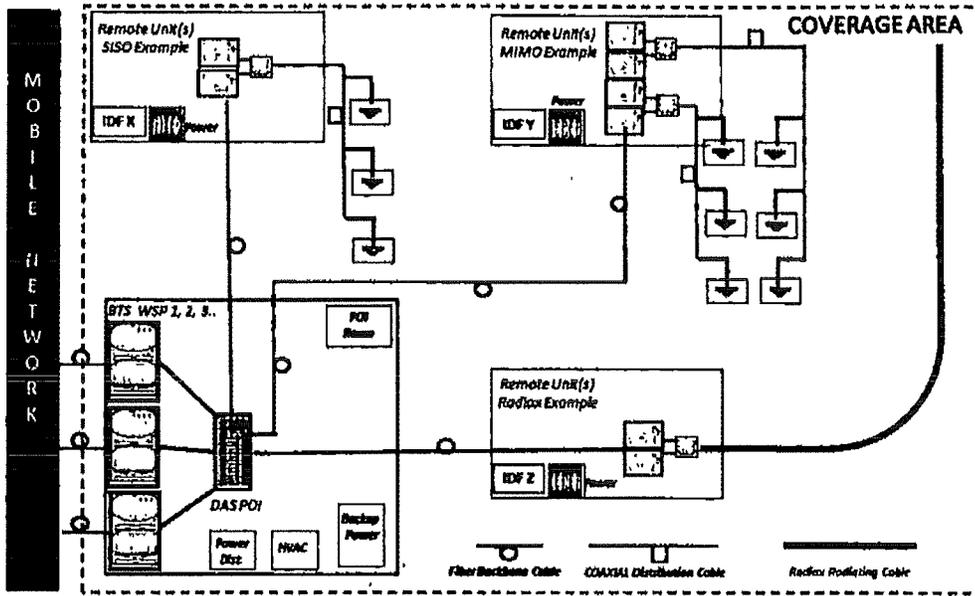


FIGURE 1: DAS ARCHITECTURE \*

The Base Transceiver Station (BTS) interface equipment combines and processes the Wireless Service Providers' (WSP) signals and distributes them directly to the Point of Interface (POI) of the DAS. The POI combines multiple RF signals and converts those signals to analog light that is fed into a single mode fiber optic backbone network. The base stations and POI units, and RF to light converters are installed in the POI room. The analog light is then converted back to RF in the IDF closets by the remote amplifier units. The remote amplifier units provide a zero sum gain to the RF signals. The RF is then "distributed" to one or more antennas via coaxial cable in a Single Input Single Output (SISO) configuration. For the Multi Input Multi Output (MIMO) case, there are two separate coaxial distribution plants that provide independent signals for greater data speed and quality.

\* TEMPORARY SYSTEM – In place of the POI / BTS room in Figure 1 above, "Broadband" antennas, known as donor sites, will be installed above grade on masts at the WTC site to communicate with the wireless (WSP) Macro sites in the surrounding neighborhood. The above grade donor site antennas will be cabled in

conduit to the appropriately located DAS repeater room(s). The repeaters are the amplifier electronics that will connect to the DAS antennas below grade.

### 1.2.2 Wi-Fi System

The Wi-Fi system is proposed to support high-density coverage throughout the venue as described in Exhibit B-3 and is proposed to support all cellular and Wi-Fi users, tenants, applications, and systems. All of the necessary materials and labor to provide a fully functional, enterprise level network that includes backbone, access routers, core switches, edge switches, endpoints, enclosures, access points, and all associated raceways, back-boxes, and enclosures is proposed to be provided.

The system is proposed to utilize 801.11 N AP's, Routers, and Switches throughout the public and private coverage areas as defined in Exhibit B-3 including all licensure for software, and operating system. Frequencies and channel assignments is proposed to be coordinated with other networks as necessary and ensure the network is proposed to support all Wi-Fi applications and users. Internet circuit bandwidth is proposed to be based on the highest capacity and use.

The Wi-Fi system is proposed to synergize the available deployed DAS infrastructure to the fullest extent. Implementation of devices is proposed to require installation of Category 6 cabling. Access point required performance data in accordance with the 802.11 standard is proposed to be used for predictive modeling in order to create this design. The following criteria is proposed to be used to estimate necessary equipment performance requirements to best predict Access Point placement, type, quantity and specifications. This requirement criterion is proposed to be used throughout the predictive modeling process.

#### **Requirement Criteria for High Speed, High Usage**

Signal Strength	-75.0 dBm or better
Signal-to-Noise Ratio	15.0 dB or better
Data Rate at Least	54.0 Mbps
Ping Round Trip Time	300.0 ms or less
Packet Loss	5.0 % or less

#### **Primary and Secondary Routers**

The primary/secondary routers is proposed to be configured in an active-active mode. They is proposed to be managed via an out-of-band router on a management DSL line separate from the primary guest WAN circuit. If the primary WAN circuit goes down, via the OOB DSL line, we is proposed to be able to manage the primary/secondary router to edit the default route to the secondary guest WAN circuit maintaining connectivity for all guests.

#### **Primary and Secondary Gateways**

The primary/secondary gateway is proposed to be linked via two separate gigabit Ethernet connections to each core distribution switch. If the primary WAN circuit goes down, the default route on each gateway can be changed to the secondary WAN circuit by access through the OOB router via a management DSL line.

#### Primary and Secondary Core Distribution Switches

The primary/secondary core switches are in an active-active configuration meaning, if one of the switches goes offline or is unavailable, traffic is proposed to be automatically re-routed, (using spanning-tree) to the other active switch without any interruption to traffic.

#### Primary and Secondary Wireless LAN Controllers

The primary/secondary wireless LAN controllers are in an active-standby configuration. If the primary one fails, the standby (Cisco WLC-HA) is proposed to be where all of the APs home to. Once the primary comes back online or is replaced, all APs is proposed to be pushed back to the primary controller.

#### Primary and Secondary Access Layer Switches

Primary/Secondary access layer switches are in an active-active configuration. All APs being serviced by that IDF closet are equally distributed on both switches to provide wireless coverage redundancy in the case of an AP or access switch failure. Each access switch has two homeruns; one to each core switch providing network redundancy.

#### Platforms

The system is proposed to be enabled to use a variety of available media, advertising, way finding, and data collection platforms.

### 2.0 Venue Description

#### 2.1 Transportation Hub/Retail

The transportation hub is projected to be the third largest transportation hub in New York City. The hub DAS coverage is proposed to be approximately 1.1 MM square feet. The hub also contains multiple levels of retail space. The hub provides pedestrian access to the WTC complex, the World Financial Center, PATH, and the NYC Subway system. The average daily patronage of the transportation hub is projected to 500K + each day.

#### 2.2 Vehicle Security Center (VSC)

The VSC is proposed to provide secure parking facilities for all towers within the WTC Complex. The center is proposed to cover approximately 530K square feet. In addition to vehicle screening facilities, the center is proposed to also provide parking for certain office tenants, tour buses, and VIP and government agency parking.

### 3.0 Coverage Zones and Capacity

The DAS system provides zoned coverage based on user capacity. The zoning plan allows for future expansion of capacity as required. The initial zone plan contains Thirteen (13) zones. The system is designed is designed to be flexible for each WSP zoning requirements and the final zone plan for each WSP may vary from the initial plan.

### 3.1 Transportation Hub Zones

The Transportation Hub is proposed to consist of a Ten (10) Zone DAS Design as follows:

- East West Connector & Path Hall, Zone's 1 & 2
- Chiller Plant, South Mezzanine, Zone 3
- Oculus, Zone's 4 & 5
- South Concourse, Zone's 6 & 7
- Platform Level, Zone 8
- Above Grade Retail, Zone's 9 & 10

### 3.2 Vehicle Security Center Zones

The Vehicle Security Center is proposed to consist of a Three (3) Zone DAS Design as follows:

- South Basements are in zone 11
- East Side Bus Parking is in zone 12
- GSA Commercial, T3 & T4 Loading Docks are in zone 13

### 4.0 POI and IDF Locations

The POI room is located in the Transportation Hub RM UT-004 and consists of approximately 1500 square feet of conditioned space. The POI room is proposed to serves DAS systems in the Transportation Hub and the Vehicle Security Center. IDF locations is proposed to be provided for each node by the Port Authority as required. Current IDF Locations identified are the following:

#### Transportation Hub, MIMO

##### Dedicated Cell Closets

Platform Level – PL-114

Mezzanine Level – MZ-227, MZ181, MZ-004

Transit Hall Level – TH-074, TH-069, TH-060

##### Co-lo PA IDFs (MUST BE APPROVED)

Platform Level – PL-006, PL-047

Mezzanine Level – MZ-184

Transit Hall Level – TH-028, TH-065, TH-083

##### Retail Closets (MUST BE COORDINATED & APPROVED)

9X Retail Storage, Above Grade Tower 4, Above Grade Tower 3  
Vehicle Security Center, SISO

**Dedicated Cell Closets**

East Basement - RM 110, RM 126, RM 130

South Basement - RM 123, RM 204C, RM M204, RM M231C

VSC3/North – Closets TBD

*Total Existing Nodes Closets – 24, final Node counts may vary and require additional closets.*

Each Cell closet averages 80 square feet. Some Node Closets are proposed to house a pair of nodes.

Exhibit D

Initial Schedule Milestones

Initial Temporary System Areas

September 16, 2014 Complete, commission and activate Temporary System in Initial Temporary System Areas

DAS Phase 1 Areas and Wi-Fi Designated Coverage Areas

October 15, 2014 Complete design of permanent System for DAS Phase 1 Areas and Wi-Fi Designated Coverage Areas

November 15, 2014 Begin installation of permanent System in DAS Phase 1 Areas and Wi-Fi Designated Coverage Areas

April 15, 2015 Begin testing and commissioning of permanent System in DAS Phase 1 Areas and Wi-Fi Designated Coverage Areas

August 1, 2015 Complete testing and commissioning of permanent System in DAS Phase 1 Areas and Wi-Fi Designated Coverage Areas

August 15, 2015 Activate permanent System in DAS Phase 1 Areas and Wi-Fi Designated Coverage Areas (the "Grand Opening Milestone")

DAS Phase 2 Areas

May 31, 2015 Complete design of permanent System for DAS Phase 2 Areas

June 31, 2015 Begin installation of permanent System in DAS Phase 2 Areas

November 31, 2015 Begin testing and commissioning of permanent System in DAS Phase 2 Areas

March 15, 2016 Complete testing and commissioning of permanent System in DAS Phase 2 Areas

March 31, 2016 Activate permanent System in DAS Phase 2 Areas

**DAS Phase 3 Areas**

February 1, 2016	Complete design of permanent System for DAS Phase 3 Areas
March 1, 2016	Begin installation of permanent System in DAS Phase 3 Areas
August 1, 2016	Begin testing and commissioning of permanent System in DAS Phase 3 Areas
November 15, 2016	Complete testing and commissioning of permanent System in DAS Phase 3 Areas
December 1, 2016	Activate permanent System in DAS Phase 3 Areas

**DAS Phase 4 Areas**

The Initial Schedule Milestone to activate the permanent System in the DAS Phase 4 Areas is intended to be the date that the Retail Premises within 2 WTC are scheduled by the Port Authority or its net lessee to open. The remaining Initial Schedule Milestone for the DAS Phase 4 Areas shall generally be consistent in substance and relative timeline to the Initial Schedule Milestones for the DAS Phase 1 Areas. As the date that the Retail Premises within 2 WTC are scheduled to open is not known as of the date of this Supplement, the Parties shall use best efforts to agree upon the applicable date for activation of the permanent System in the DAS Phase 4 Areas and the remaining Initial Schedule Milestones in the manner contemplated by this paragraph at the earliest practicable time following the Port Authority's good faith determination of the anticipated schedule for opening of the Retail Premises within 2 WTC.

## Exhibit E

### System Plans and Specifications

In the event of any conflict between the provisions of this Exhibit E and Supplemental Agreement No. 4 to which this Exhibit E is attached, the provisions of Supplemental Agreement No. 4 shall control.

#### 1. General/Construction

All work will be installed in full compliance with all ANSI-TIA/EIA Standards and in full accordance with the requirements of all Federal, State, local and governmental agencies having jurisdiction over the site, as well as with any requirements of the Building Code of the City of New York, NFPA, National Electric Code (NEC), Underwriters laboratory (UL) and other applicable Codes.

If products and/or materials are specified or indicated for a specific item or system, these products or materials shall be utilized as required. All materials furnished shall bear the UL label, provided that a standard has been established for the material in question. Any given item of equipment or material shall be the product of one manufacturer throughout the facility. Multiple manufacturers of any one item will not be permitted, unless authorized by the Engineer of Record, NYTP or the governing authority. No substitution will be permitted without the written consent of the Engineer of Record.

#### 2. Technology

The system will utilize the latest active DAS technologies available to satisfy the high demands of the end user. All equipment will meet or surpass Wireless Service Provider (WSP) standards as well as FCC regulations and recent industry standards. The system is scalable and flexible enough to support different WSP needs simultaneously. The fiber backbone architecture allows for the addition of any future standard or the addition of new frequency bands as they are implemented by the WSP's.

#### 3. System Requirements

DAS System Specifications: The DAS System will be built to address commercially reasonable design needs, standards and requirements of the Port Authority and WSP's. The DAS System will be an easy-to-scale, fiber-based, reasonably future-proof system with system-wide availability of 99.5% or greater for all core components. Due to the conditions of the WTC site at design phase benchmark testing will not be required. Stringent design coverage requirements will be used to ensure dominance within the facilities.

Wi-Fi System Specifications: The Wi-Fi System will be built to address commercially reasonable design needs, standards and requirements of a state of the art commercial Wi-Fi

System intended to service the needs of anticipated current and future general public and private enterprise Wi-Fi Users. The Wi-Fi System will be an easy-to-scale, fiber-based, future-proof system with system-wide availability of 98% or greater for all core components.

**Fiber Backbone Specifications:** The Fiber Backbone will be built to include a minimum of the required single mode fiber strands to meet the system requirements, agreed upon growth requirements, and sufficient spares.

#### 4. DAS Design Details

The proposed DAS design has thirteen (13) sectors (zones) with proper sector boundaries to support Soft Hand-Off (SHO) requirements. Each WSP has the following Sector and Channel plan integrated into this design. Below is an outline of the required services:

Operator	Technology	Number of Channels	DL Freq (MHz)	UL Freq (MHz)
AT&T	LTE-700 – MIMO	1	728-746	698-716
AT&T	LTE-1900 – MIMO	1	1930-1990	1850-1910
AT&T	LTE-2100 – MIMO	1	2110-2155	1710-1755
AT&T	UMTS – 1900	2	1930-1990	1850-1910
AT&T	UMTS – 850	2	869-894	824-849
Sprint	CDMA-1900	*8	1930-1990	1850-1910
Sprint	LTE-800	1	862-869	817-824
Sprint	LTE-1900	1	1990-1995	1910-1915
T-Mobile	GSM-1900	*8	1930-1990	1850-1910
T-Mobile	UMTS-2100	*2	2110-2155	1710-1755
Verizon	LTE-700 – MIMO	1	728-746	698-716
Verizon	LTE-1900 – MIMO	1	1930-1990	1850-1910
Verizon	LTE-2100 – MIMO	1	2110-2155	1710-1755
Verizon	CDMA-1900	10	1930-1990	1850-1910
Verizon	CDMA-850	8	869-894	824-849

\* Number of Channels are assumed for T-Mobile and Sprint.

Channel Count and Protocol assignments are subject to change based on the evolution of end user requirements during system life.

The DAS design utilizes donor fiber modules to convert RF to an analog optical format for distribution to each remote location. The optical signal is routed, via single-mode fiber at 1310 nm, to remote high power, multi-carrier amplifier modules located within Communications Closets throughout the venue. All DAS infrastructure downstream of the Communication Closet remote modules are passive components (coaxial cable, RF dividers,

antennas).

#### 4.1 DAS DESIGN OVERVIEW

##### Point of Interface Room (POI RM), UT-004

- The POI RM, UT-004 is currently located on the B1 Level in the Tower 2 footprint
- The POI RM consist of two rooms totaling 1500 square feet in size
- NYTP will work with the Authority and participating Carriers to identify MEP requirements to ensure a comprehensive design

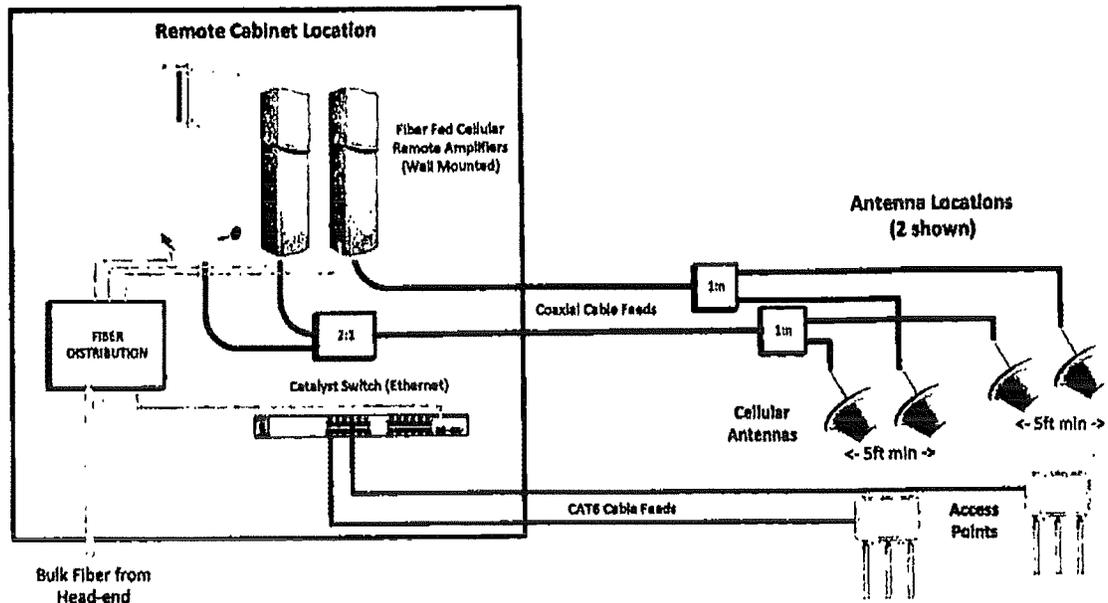
##### Node Locations

- Each remote location will initially have three (3) individual remote units (amplifiers), and one (1) equipment cabinet with suitable AC power and ventilation to support the projected BTU loads.
- Each node will be connected to an emergency backup power systems of sufficient duration to support the current evacuation time of four (4) hours to ensure cellular services are maintained in the event of emergency system shutdown or power outage.
- Each location will house a fiber distribution frame cabinet for supporting the optical hardware and Power-over-Ethernet (PoE) switches for WLAN.

##### Antenna Locations

- Connectivity to the antenna locations from each Node location requires sufficient conduit to route the minimum amount of coax and CAT6.
- The antenna locations will not require AC power. All active components (e.g., the Access Point) will be powered using low-voltage-DC (PoE).
- The cellular antennas will require a minimum separation of five feet to ensure proper MIMO operation.

Typical DAS MIMO/WLAN System Configuration, Node to Antenna Location



### Transportation Hub (Phase I)

- MIMO Design
- Planned Coverage Areas
  - East West Connector & Path Hall
  - Chiller Plant, South Mezzanine
  - Oculus
  - South Concourse
  - Platform Level (SISO)
  - Above Grade Retail

### Vehicle Security Center (Phase II)

- SISO Design
- Planned Coverage Areas
  - South Basement
  - East Side Bus Parking
  - GSA Commercial, T3 & T4 Loading Docks

### Temporary System

In place of the POI / BTS room described above, the Temporary System will include "Broadband" antennas, known as donor sites, that will be installed above grade on masts at the WTC site to communicate with the wireless (WSP) Macro sites in the surrounding neighborhood. The above grade donor site antennas will be cabled in conduit to the appropriately located DAS repeater room(s). The repeaters are the amplifier electronics that will connect to the DAS antennas below grade.

## 5. Test & Commissioning Plan

A detailed test plan for the site commissioning plan is on the rigorous standards of the participating WSP's. Coaxial cable/antenna line sweeps and Passive Inter-Modulation (PIM) testing will be performed across the WSP's operational bands using certified and calibrated test equipment operated by certified test technicians on all coaxial cable systems installed in the network.

Fiber optic cables will be OTDR and loss tested to verify performance to standards. Coaxial loss and fiber loss will be cross referenced to verify link budget and system performance.

Prior to WSP connection to the network, Uplink and Downlink Continuous Wave (CW) testing will be performed to record RF coverage values for each antenna location. Each location will be tested and for every technology and frequency band and recorded per antenna identification number. The resulting RSSI will be validated against the system design and link budget.

System noise testing will be performed to verify the amplifier equipment is operational to product and system sensitivity standards.

DAS Alarming – local and remote Network Operations Center (NOC)- will be verified through testing of sample alarms. Verification will be provided to ensure all devices are operating alarm free prior to WSP integration.

E911 testing will be performed by each WSP to ensure each base station is configured properly and connected to the proper sector of the DAS network.

Sample call sessions and data sessions will be performed to acknowledge operation of call or data session for each sector, followed by more rigorous 'optimization' testing performed by the WSP's to balance sector loads, and adjust soft handoff parameters.

Exhibit F

System Site Plan

[See attached]

**EXHIBIT F**  
**SUPPLEMENTAL AGREEMENT NO. 4**  
**TO**  
**TELECOMMUNICATIONS NETWORK ACCESS AGREEMENT**  
**SYSTEM SITE PLAN**

**1. General**

The approximate square feet to be covered by the DAS system (as depicted in Exhibit B-1 and referenced in paragraph 8.4.3, excluding future coverage areas) is as follows:

<b>Transportation Hub (Phase I)</b>		<b>Vehicle Security Center (Phase II)</b>	
<b>Level</b>	<b>Approximate Coverage (ft<sup>2</sup>)</b>	<b>Level</b>	<b>Approximate Coverage (ft<sup>2</sup>)</b>
Mezzanine	147,852	East Side Bus Parking	137,961
Concourse	115,269	S. Basement Bus Parking	100,253
Platform	143,835	S. Basement Screen	88,500
Transit Hall	236,395	S. Basement Street	40,808
Upper Transit Hall	165,400		

The approximate square feet to be covered by the Wi-Fi system (as depicted in Exhibit B-2 1 and referenced in paragraph 8.4.3) is as follows:

<b>Transportation Hub/Retail</b>	
<b>Level</b>	<b>Approximate Coverage (ft<sup>2</sup>)</b>
Platform	91,481
Transit Hall	288,000
Upper Transit Hall	215,400
Ground Level Retail Plan 001	FUTURE
Ground Level Retail Plan 002	FUTURE
Ground Level Retail Plan 003	FUTURE
Ground Level Retail Plan 004	FUTURE

**2. Estimated DAS Closet Square Footage and MEP Assumptions**

<b>Closet</b>	<b>Average Sq Ft Est.</b>	<b>HVAC Assumptions</b>
<b>Transportation Hub Confirmed Closets</b>		
POI RM, UT-004	1500	PA to accommodate chilled water requirements for CRAC units
PL-114	80	Ventilation only
MZ-227	80	Ventilation only
MZ-181	80	Ventilation only

TH-074	80	Ventilation only
TH-069	80	Ventilation only
TH-060	80	Ventilation only
MZ-004	80	Ventilation only
<b>Transportation Hub PA Co-locate Closets, approval required</b>		
PL-006	25	Cooling to be provided, existing
PL-047	25	Cooling to be provided, existing
MZ-184	25	Cooling to be provided, existing
TH-028	25	Cooling to be provided, existing
TH-065	25	Cooling to be provided, existing
TH-083	25	Cooling to be provided, existing
<b>Retail Closets</b>		
9X Area		Cooling to be provided, existing
Above Grade Tower 4		Cooling to be provided, existing
Above Grade Tower 3		Cooling to be provided, existing
<b>Vehicle Security Center</b>		
<b>East Basement</b>		
RM 110	60	Redundant cooling to be provided under base building contract
RM 126	60	Redundant cooling to be provided under base building contract
RM 130	60	Redundant cooling to be provided under base building contract
<b>South Basement</b>		
RM 123	60	Redundant cooling to be provided under base building contract
RM 204C	60	Redundant cooling to be provided under base building contract
RM M204	60	Redundant cooling to be provided under base building contract
RM M231C	60	Redundant cooling to be provided under base building contract
<b>North VSC 3</b>		
Closet to be provided		Redundant cooling to be provided under base building contract
<b>Total Average Sq Ft Est.</b>		
	<b>2630</b>	