



PRESENTED TO:

**THE CITY OF NEW YORK
DEPARTMENT OF INFORMATION
TECHNOLOGY AND
TELECOMMUNICATIONS**

**RESPONSE TO THE DoITT REQUEST FOR PROPOSALS FOR FRANCHISES FOR THE
INSTALLATION AND USE OF TELECOMMUNICATIONS EQUIPMENT AND FACILITIES,
INCLUDING BASE STATIONS AND ACCESS POINT FACILITIES, ON CITY OWNED
STREET LIGHT POLES AND TRAFFIC LIGHT POLES, AND CERTAIN UTILITY POLES AND
OTHER FACILITIES LOCATED ON CITY STREETS, IN CONNECTION WITH THE
PROVISION OF MOBILE TELECOMMUNICATIONS SERVICES**

Submitted by: [Transmission Network NY, LLC](#)

Prepared by: Joseph Sforza

VP, Network Deployment – Mobilitie, LLC

██████████@mobilitie.com | ██████████



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REQUEST FOR PROPOSALS
FOR FRANCHISES FOR THE INSTALLATION AND USE OF TELECOMMUNICATIONS EQUIPMENT AND FACILITIES,
INCLUDING BASE STATIONS AND ACCESS POINT FACILITIES, ON CITY-OWNED STREET LIGHT POLES AND
TRAFFIC LIGHT POLES, AND CERTAIN UTILITY POLES AND OTHER FACILITIES LOCATED ON CITY STREETS, IN
CONNECTION WITH THE PROVISION OF MOBILE TELECOMMUNICATIONS SERVICES

**EXHIBIT D
AFFIRMATION**


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

Full name of Proposer or Bidder
Transmission Network NY, LLC

Address
660 Newport Center Drive, Ste. 200

City Newport Beach State CA Zip Code 92660

CHECK ONE BOX AND INCLUDE APPROPRIATE NUMBER:

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

By



Signature

CEO

Title

If a corporation, place seal here:

Must be signed by an officer or duly authorized representative.

* Under the Federal Privacy Act the furnishing of Social Security Numbers by bidders on City contracts is voluntary. Failure to provide a Social Security Number will not result in a bidder's disqualification. Social Security Numbers will be used to identify bidders, proposers, or vendors to ensure their compliance with laws, to assist the City in enforcement of laws as well as to provide the City a means of identifying of businesses which seek City contracts.

BACKGROUND

Mobilitie, LLC ("Mobilitie 1") has owned and controlled since 2007 the Mobile Telecommunications Franchise (the "Mobilitie 1 Franchise") dated as of July 15, 2004 between the City and Nextel, as assigned to and assumed by Mobilitie 1. Mobilitie 1 was also the assignee in 2016 of another Existing Franchise dated as of January 4, 2012 between the City and Xchange Telecom Corp., as assigned to and assumed by Mobilitie 1. Mobilitie 1 recently assigned such Existing Franchise (the "Mobilitie 2 Franchise") to Transmission Network NY, LLC ("Mobilitie 2"), a permitted assignee under Section 9.6(b) of the Mobilitie 2 Franchise. This Proposal (the "Mobilitie 2 Proposal") seeks to renew through the RFP and the "Resulting Franchise" process the Mobilitie 2 Franchise. A fully identical proposal is also being submitted to seek a Resulting Franchise for the Mobilitie 1 Franchise, as contemplated by the RFP.

Consequently, the "Existing Franchisees" of Mobilitie1 and Mobilitie 2 are referred to collectively throughout the two identical proposals as **Mobilitie, except** in (i) the compensation proposal and (ii) the exhibits 12, 13, 14 and 15 of the Legal Credentials and Authorizations section,, where they will be separately broken out as Mobilitie 1 and Mobilitie 2.

If Mobilitie 2 becomes a "Resulting Franchisee" for its Mobilitie 2 Franchise, it agrees to surrender its existing Mobilitie 2 Franchise. Mobilitie 1 makes the same statement in the Mobilitie 1 Proposal.

Mobilitie is the largest privately-held telecommunications infrastructure company in the United States. As a global provider of complete wireless solutions, Mobilitie helps people stay connected on their mobile devices wherever they are. We fund, deploy, and operate next-generation infrastructure, enabling both robust 4G LTE coverage and upcoming 5G services and speeds. Our wireless infrastructure, including communication towers, indoor and outdoor neutral host DAS networks, small cells, and Wi-Fi networks, help deliver wireless connectivity where it is needed. Our. Of particular relevance to New York City, Mobilitie partners with cities and municipalities across the country to deploy next-generation small cell sites and other infrastructure, providing local residents with enhanced mobile connectivity and wireless broadband access to create "smart cities". Our high-density wireless infrastructure is designed to enable the richest, most

interactive mobile experiences for users including real-time video streaming, location-based services, social media, and other mobile applications.

Mobilitie understands its obligations under the existing Mobilitie Franchises and has acted since 2007 as a responsible and responsive New York City franchisee. Mobilitie understands that as a franchisee it has a higher standard than just being a good corporate citizen and that it must act as trustee of New York City assets and Rights of Way.

Finally, Mobilitie acknowledges the City's five principles for allowing use of its physical assets: performance, affordability, equity, choice and privacy. We believe that Mobilitie's deployments to date throughout the City have helped to move towards each of those principles.

TECHNICAL

1. Statement of Services

As a neutral host provider, Mobilitie is at the leading edge of deploying multi-carrier antennas, shared equipment and backhaul as intelligent infrastructure to provide next generation wireless services, including wireless broadband access. In New York City, Mobilitie is in active development of roadmaps with wireless carriers, OEMs, antenna manufacturers, and other fiber providers for multi-carrier and smart city solutions while being respectful of the NYC Public Design Commission aesthetic requirements. We fully anticipate equipment advancements through the DOITT approval process over the next 10 years facilitating fixed wireless and multi-carrier mobile communications within the confines of the approved aesthetic requirements.

2. Mobilitie Equipment and Facilities

Mobilitie has constructed 845 sites within the five boroughs under the two current franchises. Attached as Exhibit 1 and 2 are construction drawings of the Mobilitie installation on a New York City Street Operations Pole (metal) and Street Utility Pole (wooden) complete with equipment cut sheets detailed on pages 4 through 13 of the construction drawings. Currently our sites support one carrier due to current equipment form factors and current shroud size. Mobilitie has investigated approaches to enable multiple carriers on a single pole but has no current multi-tenant sites

A. Antenna

The City requirement is for the deployment of 1 stick type antenna, no more than 2 inches in diameter and extending no more than 60 inches in length extending vertically from the base at the top of the pole. Mobilitie installations meet those specifications. See Exhibit 3 for antenna specification.

B. Base Station Equipment

All radio equipment is located inside the equipment housing unit. Basic equipment is comprised of Nokia radio, Airspan relay and PCTEL GPS antenna. For specifications and cut sheets for base equipment refer to Exhibit 4 for detail or refer to Exhibits 1 and 2 Construction Drawings.

C. Equipment Housing

Per the RFP, all equipment must be installed in an equipment housing in either of 2 size parameters approved by the City but in either case, the housing volume may be no greater than 2.8 cubic feet. Mobilitie's equipment housing (shroud) meets current City specifications. The shroud encloses the RRU, Backhaul unit, RF filter, AC panel and isolation transformer in one RF transparent material shell. Mobilitie has improved the equipment aesthetic on the pole and facilitated the deployment process as all cables are routed internally. The shroud itself is available in 2 basic colors (gray or brown). See Exhibit 5 for shroud specs or refer to Construction Drawing Exhibits 1 and 2 with cut sheets detailed on pages 4 through 13 of the construction drawings.

D. Site Photograph

Please review Exhibit 6 for a photographic documentation of a completed Mobilitie metal and wood pole site

3. Methods of Installation and Connectivity

Shrouds are band mounted on Street Operations Poles per DOT regulations and as shown on the attached drawings. The shroud on wood pole or a Street Utility Pole is mounted on a sled that includes a meter and power disconnect per Con Ed regulations. The sled is mounted on the Street Utility Pole with two "thru bolts". On DOT Street Operations Poles the antenna is mounted to a replacement pole cap per DOT specifications, allowing internal cabling connections to the equipment and as shown on the attached drawings. On the Street Utility Pole an antenna mount

bracket is used and fabricated per Con Ed specifications. Based on current customer needs Mobilitie is currently using a wireless backhaul solution. However, Mobilitie may during the term of the Resulting Franchises use other forms of backhaul, including fiber. See Exhibit 7 for associated antenna mounting equipment and additional information can be found within Construction Drawing Exhibits 1 and 2 with cut sheets detailed on pages 4 through 13 of the construction drawings.

4. Site Maintenance and Repair

The attached Exhibit 8 (material should be considered CONFIDENTIAL) provides guidelines for Mobilitie's Network Operations. The guidelines include: break-fix process and reporting process flow; approved site access guidance; lockout-tag out procedures; repair and maintenance vendors; nationwide 811 call before you dig information; wood utility pole preventive maintenance; emergency response protocol; disaster recovery; and strategic plans for the Mobilitie Network Operations Center (NOC). Such guidelines have ensured to date and will ensure going forward that all construction and site maintenance and repair will be performed and completed in full compliance with the City's standards and specifications.

Adhering to these guidelines enables Mobilitie Network Operations to (i) perform trend and root-cause analysis, (ii) process improvement initiatives, (iii) control and implement change requests, (iv) audit vendor performance, (v) communicate clearly and concisely with critical stakeholders, and (vi) most importantly, provide efficient emergency response and disaster recovery efforts.

5. Plans for Maintaining City's Property During the Term

As part of every application for attachment to City assets, Mobilitie provides a thorough structural analysis for City review so that the City can be confident in the effects Mobilitie's installation will have on the light pole's physical integrity. Mobilitie maintains Street Operations Poles and equipment in good operating conditions and in accordance with DOITT and DOT requirements. Any trenching or boring is done in accordance

with the Existing Franchise agreement terms, all NYC DOT regulations, and only by NYC approved contractors. Mobilitie's use of wireless backhaul limits the need for street openings and traffic disruptions.

6. Time Period for Installation

Currently Mobilitie has installed over 800 sites in all five boroughs including areas underserved by broadband access and has active reservations for over 1,000 sites. The location of such sites is public information in the Poletop application. A map of Mobilitie's cumulative reserved sites broken down by borough is attached as Exhibit 9. Mobilitie's future buildout plans are based on customer needs for coverage and capacity. Mobilitie has built and will build additional sites throughout the City with the current buildout plan primarily focused on the near future on the 1,000 cumulative reserved but unbuilt sites. Mobilitie values its relationship with the City of New York and the working environment we have developed as an "Existing Franchisee(s)". We would propose the development of a Mobilitie-specific annual plan to discuss specific project plans and objectives and alignment with City goals, (i.e. specific targeting of areas to create additional competition, and the development of infrastructure in under-served areas.) In this manner, both the City and Mobilitie can understand deployment progress, roadblocks, and policy considerations.

7. Future Design and Resiliency

As a neutral host provider, Mobilitie is at the leading edge of deploying multi-carrier antennas, shared equipment and backhaul as intelligent infrastructure to provide next generation wireless services. Mobilitie is in active development of roadmaps with wireless carriers, OEMs, antenna manufacturers, and other fiber providers for multi-carrier solutions while being respectful of the NYC Public Design Commission aesthetic requirements. The equipment housing allows for a clean, standardized look across the City of New York. We fully anticipate equipment advancements through the DOITT approval process over the next 10 years facilitating fixed wireless and mobile communications within the confines of an approved aesthetic. As wireless networks evolve towards 5G and/or

other multi-operator, multi-technology deployments, there are certain design requirements that may need to be taken into consideration to effectively enable co-existence.

5G small cells will take advantage of sophisticated MIMO techniques and utilize millimeter wave spectrum across multiple frequencies which may impact radio form factors. In situations where service offerings in an area demand a solution that requires additional equipment or equipment that is larger and cannot be accommodated within existing solutions, the enclosure design may need to be revisited. Additionally, a multi-operator, multi-technology design may call for a top/bottom, side by side, or pole straddle option to accommodate multiple carrier, multiple frequency equipment on the same pole. Finally, as we continue to seek creative solutions for site backhaul (BH), microwave may become more prevalent if equipment housing can fit multiple BH antennas. Multiple antennas may allow for multi-hop and multi-operator BH to enhance resiliency of the network by offering multiple paths for packets to get where they need to go.

It should be noted that to enable deployment of 5G and/or multi-operator deployments, additional equipment dimensions, specifically the antenna, should be considered for and/or during the new franchise term. As an example, an antenna that can handle multiple operator or multiple frequencies as well as allow for application of advanced 5G antenna techniques may require an antenna that is greater than 2 inches in diameter.

As it relates to resiliency, Mobilitie's favored backhaul deployment can redirect to multiple alternative donor sites in the event of an outage on that donor site or during severe weather events to maximize uptime. The aforementioned multi-hop microwave solution will also allow for enhanced resiliency during severe weather events since each node will have multiple packet routing options. As another consideration, we feel that battery backup solutions would also keep sites on-air in the event of a power outage that affects the specific node.

8. Statement re: Existing Franchises

If Mobilitie 2 becomes a "Resulting Franchisee" for its existing Mobilitie 2 Franchise it agrees to surrender its existing Mobilitie 2 Franchise.

9. Emissions Standards.

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

FCC regulations define two separate tiers of exposure limits: Occupational or "Controlled" environment and General Population or "Uncontrolled" environment:

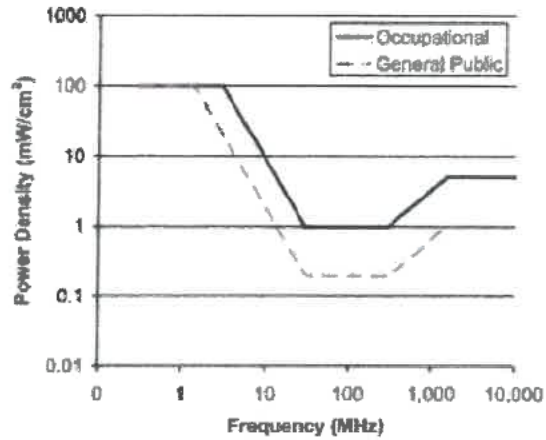
Occupational or Controlled limits - these apply to situations in which persons may be exposed due to job duties and where those persons exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Access to these areas are restricted by barriers and signage is always posted.

General Population or Uncontrolled limits are generally five times more conservative or restrictive than the Occupational limit. These limits apply to accessible areas where workers or the general population may be exposed to Radio Frequency (RF) electromagnetic fields without knowledge of proximity to an RF source. If a site has no access controls or RF warning signage, it is evaluated with General Population thresholds.

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

RESPONSE TO THE DoIT REQUEST FOR PROPOSALS FOR FRANCHISES IN CONNECTION WITH THE PROVISION OF MOBILE TELECOMMUNICATIONS SERVICES

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



Federal Communication Commission Evaluating Compliance with FCC Guidelines for Human Radiofrequency pg. 67-68

Methodology

Mobilitie uses RoofView®, a powerful, Excel based software analysis tool for evaluating Radio Frequency (RF) field levels at telecommunications sites, along with field measurements to evaluate compliance with FCC OET 65. Mobilitie models the RF output at 100% capacity, all antenna channels transmitting simultaneously, and the radio transmitters operating at full power. Obstructions (trees, buildings etc.) that would normally attenuate the signal are not taken into account. As a result, the predicted signal levels are more conservative (higher) than the actual signal levels would be during normal operations. The modeling calculations were made for a 40 x 40-foot area with the equipment at the center.

Where required, wireless backhaul is modeled as a User Equipment Relay (UER) or microwave (MW) link operating at an aggressively low height of 17.5 ft. to reflect worst-case exposure. As height increases, the impact of the UER and MW reduces even further. Because of their low power levels compared to the RF antenna, the contribution of the UER and MW to the overall EME of the site is minimal and will not impact the calculated compliance levels for Maximum Permissible Exposure as calculated in this EME report.

Below we show typical deployment scenarios along with Power Density calculations at 6 ft. AGL. These scenarios have been modeled with these assumptions to calculate the maximum RF energy density as a worst-case scenario. If actual power density measurements were made, these are expected to be below the levels shown in this report.

Site architecture heights for NY90X335C									
Scenario	Frequency	Power Per port (W)	# ports	Antenna Aperture	Antenna Beamwidth	Antenna Gain (dBi)	Antenna Gain (dBc)	Without UER	With UER
								Power Density at 6ft AGL (General Public/ Uncontrolled Exposure Limit)	Power Density at 6ft AGL (General Public/ Uncontrolled Exposure Limit)
Sprint Band 41 2x2 MIMO	2520	20	2	2.5	360	8.5	6.35	0.02	0.05
USCC Band 4 4x4 MIMO	2120	10	4	2.5	65	13.5	11.35	0.11	0.14
Sprint Band 41 4x4 MIMO	2520	10	4	2.5	360	8.5	6.35	0.02	0.05

Additionally, Mobilitie has modeled and field tested a location in the City of New York. Attached please see Exhibit 10 which is an EME report for our typical New York City site located at Third Avenue & 100th St. Brooklyn, New York. Mobilitie understands that the City may require testing, from time to time, by independent experts, at the expense of franchisee to ensure compliance during the new franchise term.

As shown in the sample EME report, the maximum measured RF level was 0.3935 percent of the FCC general population MPE limit, found on the west side of Third Avenue, Brooklyn, NY approximately 100 feet north of 100th Street.

Mobilitie models all deployments to comply with OET Bulletin 65 and works with vendors and carrier partners to ensure all inputs are accounted for and that each site is fully compliant. Multi-carrier deployments have full inventory of necessary antennas and RF sources to allow for an accurate assessment across multiple frequency bands.

MANAGERIAL EXPERIENCE

Mobilitie has significant managerial experience and capabilities to operate this franchise. Attached as Exhibit 11 are short biographies of Mobilitie's senior management team as well as the operations team focused on the New York City franchise. Mobilitie has been operating as a light pole franchisee in New York City since 2007 and has worked closely with DoITT, NYCDOT and the City of New York during that period. Mobilitie provides services to several carriers. However, as stated previously, each site currently is designed to serve one carrier due to shroud size and equipment form factors.

Mobilitie has not been in material default under its multiple light pole franchises and is current with all material obligations. Mobilitie has worked in concert with local communities and local officials and local utilities to the extent necessary for a successful deployment. Mobilitie provides critical broadband infrastructure for its customers and New York City residents and businesses.

Mobilitie has an office at 101 Greenwich Street- Suite 1100D in New York City and personnel in that office are focused on the New York City project.

LEGAL CREDENTIALS AND AUTHORIZATIONS

Mobilitie 2 will create an online account in the new Procurement and Sourcing Solutions Portal (PASSPort) and file all disclosure information. Mobilitie acknowledges the franchise award will be subject to completion of PASSPort Questionnaires and review of certain information contained therein by the Department of Investigation and may be subject to other due diligence reviews by the City.

Attached as Exhibit 12 is the completed Doing Business Data Form (date of births and home addresses should be considered CONFIDENTIAL). Also attached as Exhibit 13 is the Affirmation and attached as Exhibit 14 is the Acknowledgement of Release Date and Addendum, both as required by the RFP.

Mobilitie confirms it has secured all necessary authorizations, approvals, licenses and/or permits required to undertake the activities proposed and acknowledges that it will not undertake such activities unless and until such authorizations, approvals, licenses and/or permits are obtained. Mobilitie 2's application for a Certificate of Public Convenience and Necessity was approved by the State of New York Department of Public Service, which CPCN is attached as Exhibit 15.

Mobilitie confirms that any FCC licenses necessary for microwave transmission of backhaul, if used, have been or will be obtained as needed and prior to installation. The facilities installed by Mobilitie on Street Poles may serve different telecommunications service providers, and the facilities used by such providers that require FCC licensing are, or will be prior to installation, fully licensed by the FCC.

FINANCIAL CREDENTIALS

Mobilitie has significant financial resources and access to capital. As a current franchise holder, Mobilitie is in good standing, has made all payments in a complete and timely manner in New York. Mobilitie is also in good standing on hundreds of franchise or other rights of way and pole attachment agreements across the country with cities such as Chicago, Minneapolis, Los Angeles, San Francisco, Houston, San Antonio, Philadelphia, and Boston.

Mobilitie has among its investors some of the largest and most sophisticated private equity firms in the telecommunication field. Mobilitie has credit facilities from some of the largest and most experienced banks in the telecommunication field. Attached as Exhibit 16 is a list of business references, many of whom are known to DoITT.

COMPENSATION PROPOSAL

Mobilitie 2 will be requesting a franchise for Zone A, Zone B and Zone C with the following compensation price structure:

Zone A	Zone B	Zone C
\$353.00	\$253.00	\$103

EXHIBITS

- Exhibit 1. Construction Drawings/metal pole
- Exhibit 2. Construction Drawings/wooden pole
- Exhibit 3. Antenna Specifications
- Exhibit 4. Base Station Specifications
- Exhibit 5. Equipment Housing Specifications
- Exhibit 6. Site Photos
- Exhibit 7. Associated Equipment Specifications
- Exhibit 8. Maintenance & Repair Protocol
(CONFIDENTIAL AS TO CERTAIN PROPRIETARY INFORMATION)
- Exhibit 9. NYC Deployment Map
- Exhibit 10. EME Report
- Exhibit 11. Managerial Experience
- Exhibit 12. Executed Doing Business Data Form
(CONFIDENTIAL AS TO CERTAIN PROPRIETARY INFORMATION)
- Exhibit 13. Executed Affirmation (Exhibit D to RFP)
- Exhibit 14. Executed Addendum Receipt Acknowledgement (Exhibit C to RFP)
- Exhibit 15. New York CLEC
- Exhibit 16. Financial Credentials- Business References

SITE ID-CANDIDATE LETTER/CASCADE ID-CANDIDATE LETTER:
9NYB002992/NY90XSBJ8C

LATITUDE/LONGITUDE:
40.706054/-73.825939

CROSS STREET:
AUSTIN ST & 126TH ST
CITY, STATE, ZIP:
KEW GARDENS, NY 11415



IF YOU DID IN ANY STATE
 ONE CALL CENTER -
 IT'S THE LAW

THE UTILITIES FROM HERE AND FROM THE CONSTRUCTION
 SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
 THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH
 OF ALL UTILITIES PRIOR TO ANY CONSTRUCTION.
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE
 PROTECTION OF ALL UTILITIES.

DO NOT SCALE DRAWINGS

CONTRACTORS SHALL VERIFY ALL PLANS, (2) DIMENSIONS & FIELD
 CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE
 ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE
 PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

GENERAL NOTES

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A
 TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE
 MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT
 ENVIRONMENTAL IMPACT. NO SANITARY SEWER
 SERVICE IS AVAILABLE AT THIS LOCATION. SANITARY SEWER
 NO COMMERCIAL SERVICE IS PROPOSED.

PRIOR TO ANY CONSTRUCTION WORK, CONTRACTOR SHALL LOCATE
 ALL UNDERGROUND UTILITIES. ALL UTILITIES SHALL BE MARKED.
 THIS DESIGN IS SUBJECT TO ANY JURISDICTIONAL AND OTHER
 APPROVALS INCLUDING JURISDICTIONAL REQUIREMENTS, RF
 EQUIPMENT COORDINATION, AND FINAL UTILITY COORDINATION WITH
 FINAL REQUIREMENTS WITH OWNER.

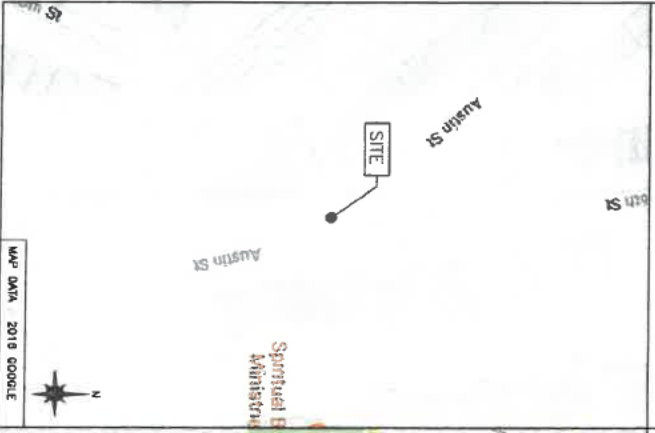
SITE INFORMATION

SITE ID:	9NYB002992
CASCADE ID:	NY90XSBJ8C
LATITUDE:	40.706054
LONGITUDE:	-73.825939
CROSS STREET:	AUSTIN ST & 126TH ST
CITY, STATE, ZIP:	KEW GARDENS, NY 11415
COUNTY/BOOROUGH:	QUEENS COUNTY
JURISDICTION:	NEW YORK CITY
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY
APPLICANT:	MOBILE, LLC 3475 PIEDMONT ROAD NE, SUITE 1000 ATLANTA, GEORGIA 30305 PHONE: (312) 638-5400

ENGINEER

JACOBS ENGINEERING GROUP, INC. CONTACT: KARL KRANTHA
 5449 BELLS FERRY ROAD PROJECT MANAGER
 AUSTIN, TX 78702 TEL: (978) 480-1416
 PROJECT: ENR00201

VICINITY MAP



REGIONAL MAP



PROJECT DESCRIPTION

END USER PROPOSES TO INSTALL EQUIPMENT ON AN EXISTING
 SCOPE. LIGHT POLE WITH AN EXISTING RIGHT-OF-WAY. THE
 SCOPE WILL CONSIST OF THE FOLLOWING:
 - INSTALL PROPOSED BACKHAUL TRANSPORT EQUIPMENT ON
 AN EXISTING STEEL LIGHT POLE

CODES

INTERNATIONAL BUILDING CODE
 NATIONAL ELECTRICAL SAFETY CODE
 NY/EC-222-G-2 OR LATEST EDITION
 LOCAL BUILDING/PLANNING CODE

DRAWING INDEX

SHEET NO.	TITLE SHEET	SHEET TITLE
0.0	TITLE SHEET	TITLE SHEET
1.0	SITE PLAN & EXHIBIT PHOTO	
1.1	NYC DOT PLAN	
2.0	POLE ELEVATIONS	
3.0	ANTENNA MOUNTING DETAILS	
3.1	EQUIPMENT MOUNTING DETAILS	
3.2	EQUIPMENT DETAILS	
GN-1	GENERAL NOTES	
GN-2	GENERAL NOTES	
GN-3	GENERAL NOTES	
4.0	PLUMBING & RISER DIAGRAM	
4.1	ELECTRICAL DETAILS	
5.0	GROUNDING DETAILS	
6.0	VEHICULAR TRAFFIC CONTROL PLAN	
6.1	PEDESTRIAN SAFETY PLAN	

mobilitie
 3475 PIEDMONT ROAD NE,
 SUITE 1000
 ATLANTA, GEORGIA 30305
 PHONE: (312) 638-5400

PROJECT NO:	ENR00201
DRAWN BY:	M. PETERIA
CHECKED BY:	C. RAHER



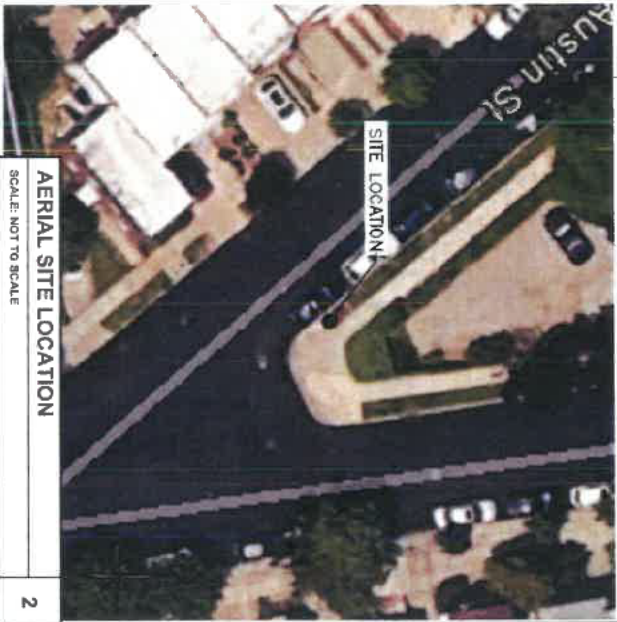
NY90XSBJ8C
 9NYB002992
 AUSTIN ST &
 126TH ST
 KEW GARDENS, NY 11415
 LIGHT POLE

SHEET TITLE	TITLE SHEET
SHEET NUMBER	0.0



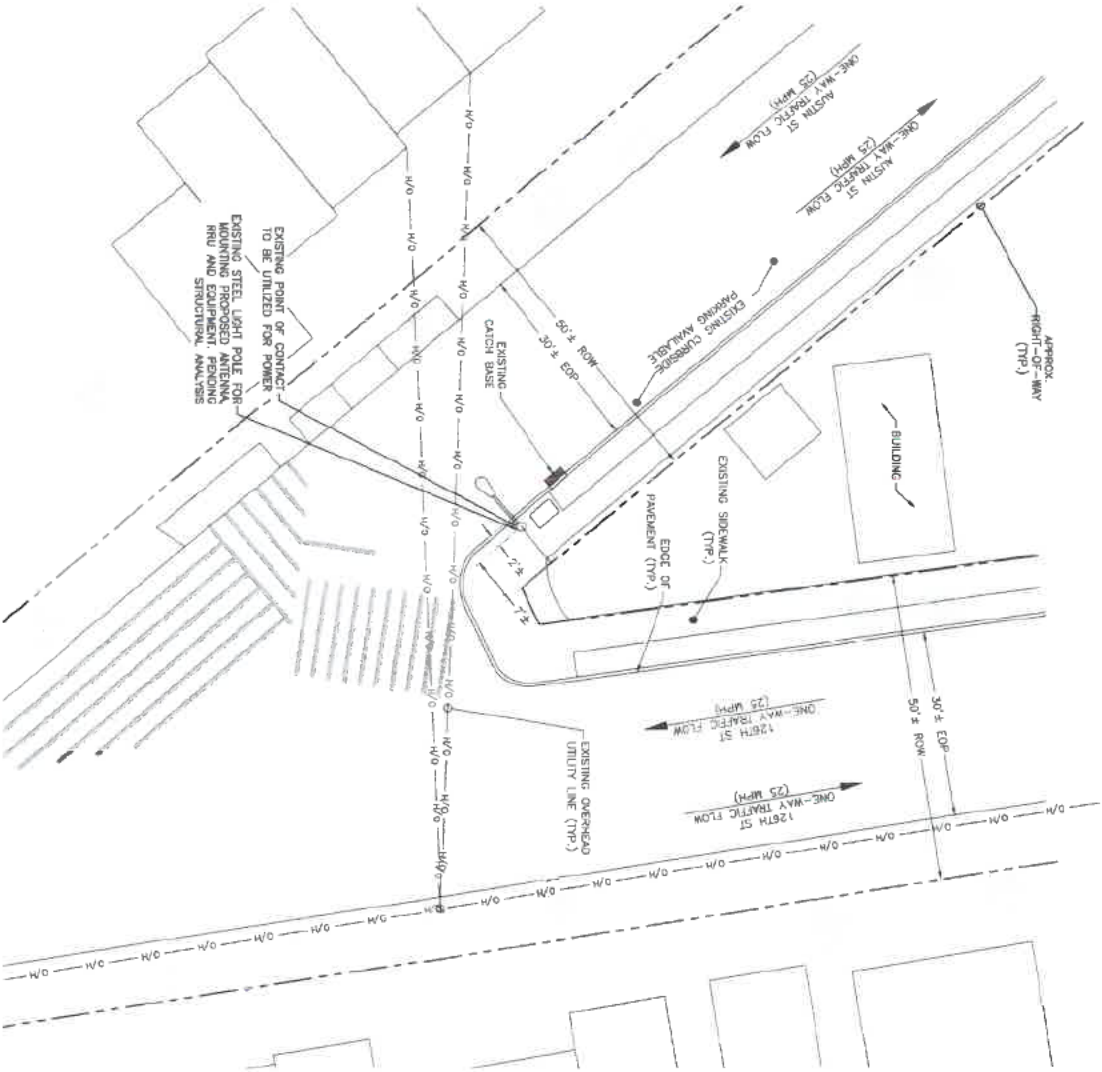
EXHIBIT PHOTO
SCALE: NOT TO SCALE

1



AERIAL SITE LOCATION
SCALE: NOT TO SCALE

2



NOTE:
THIS SITE PLAN WAS GENERATED WITHOUT THE USE
OF A SURVEY PROPERTY LINES, RIGHT-OF-WAYS,
POWER & FIELD UTILITY POINT CONNECTIONS/ROUTES
AND EASMENTS SHOWN ON THESE PLANS ARE
ESTIMATED. ALL FEASIBILITY AND DIMENSIONS SHOULD BE
VERIFIED IN THE FIELD.



ENLARGED SITE PLAN
SCALE: 1" = 20'-0" (1" = 10'-0" ON 24"x36" SHEET)

3

mobilitie
3475 PIEDMONT ROAD NE
SUITE 1000
ATLANTA, GEORGIA 30305
PHONE: (312) 638-5400

PROJECT NO.	8898881
DRAWN BY:	R. POLSTER
CHECKED BY:	C. RAMEY

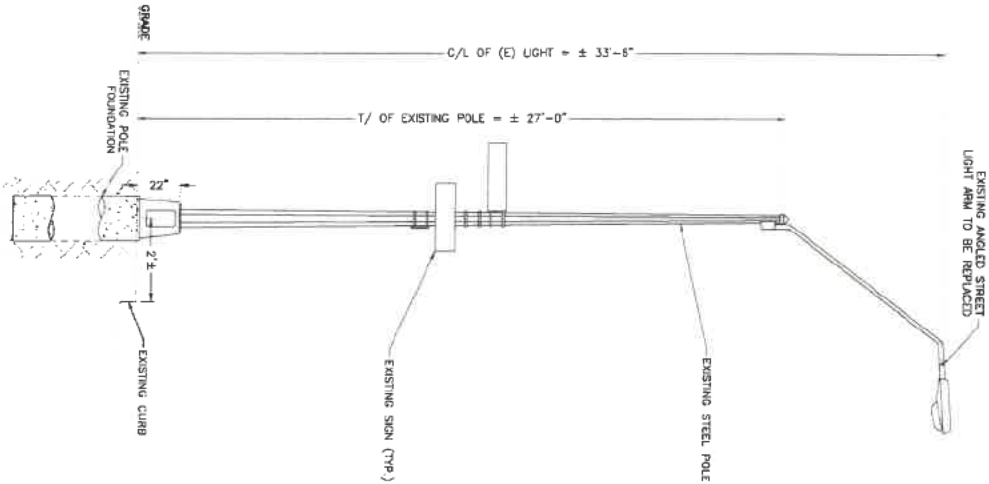
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5	DATE	
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14	DATE	
15	DATE	
16	DATE	
17	DATE	
18	DATE	
19	DATE	
20	DATE	

KEVIN J. RAMEY
LICENSED PROFESSIONAL ENGINEER
091571
STATE OF NEW YORK

INVESTIGATOR:
ENR1B002892
ALSTIN ST &
1267 H ST
KEW GARDENS, NY 11415
LIGHT POLE

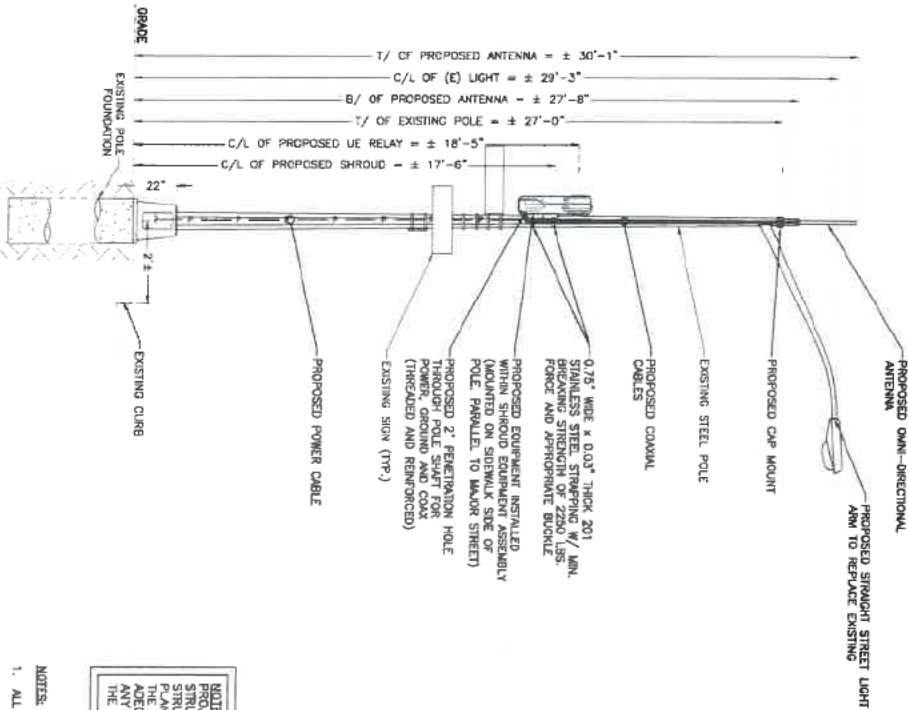
SHEET TITLE:
EXHIBIT PHOTO & SITE PLAN

SHEET NUMBER
1.0



EXISTING POLE ELEVATION

NOTE: REFER TO STRUCTURAL ANALYSIS REPORT (SEPARATE DOCUMENT) FOR ADDITIONAL STRUCTURAL INFORMATION.



PROPOSED POLE ELEVATION

PROPOSED SIDE POLE ELEVATIONS

- NOTES:
1. ALL HARDWARE SHALL BE STAINLESS STEEL.
 2. ALL CABLES SHALL BE SECURED TO POLE EVERY 36" OR LESS.
 3. LIGHTNING RODS SHALL BE INCLUDED AS REQUIRED.

NOTE: PROJECT SCOPE OF WORK DOES NOT INCLUDE A STRUCTURAL ANALYSIS OF THIS POLE OR STRUCTURE. NEW ELEVATION OF THIS POLE OR STRUCTURE HAS NOT BEEN EVALUATED TO VERIFY THE POLE OR STRUCTURE HAS THE CAPACITY TO ADEQUATELY SUPPORT THE EQUIPMENT PRIOR TO ANY INSTALLATION. A STRUCTURAL EVALUATION OF THE POLE OR STRUCTURE SHOULD BE PERFORMED.

1	2.0
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SHEET TITLE
POLE ELEVATIONS

NY16002691C
SANY9026292
AUSTIN ST 5
125TH ST
KEW GARDENS, NY 11415
LIGHT POLE



PROJECT NO:	0888041
DRAWN BY:	B. POTUSHA
CHECKED BY:	C. BARBY
DATE:	
SCALE:	1/8" = 1'
DATE:	

3475 FREEMONT ROAD NE
SUITE 1000
ATLANTA, GEORGIA 30305
PHONE: (312) 839-5400



mobilitie
 3475 PLEASANT ROAD NE
 ATLANTA, GEORGIA 30305
 PHONE: (312) 639-9400

PROJECT NO. ENG002831
 DRAWN BY: B. POTERSIA
 CHECKED BY: C. MARNEY

NO.	DESCRIPTION	DATE

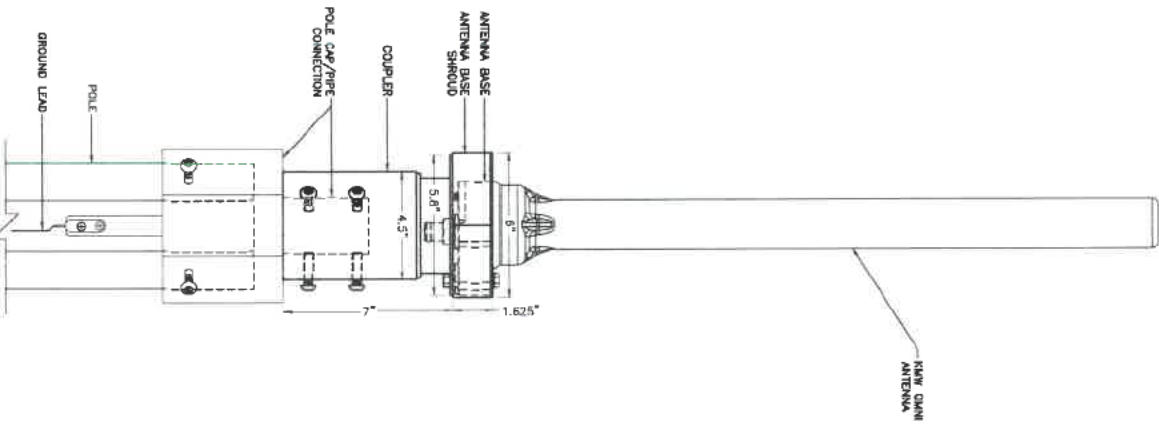


IT IS A CERTIFICATE OF THE LIFE OF THE STATE OF NEW YORK THAT PAUL LOUIS MORROW HAS BEEN DULY REGISTERED AS A PROFESSIONAL ENGINEER IN THE STATE OF NEW YORK.

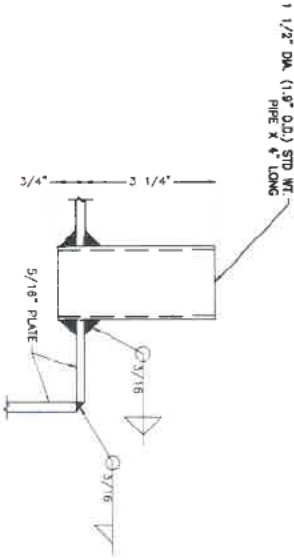
INGOXSJLBC
 INVYBDDZB2
 ALUSTIN ST 6
 1267H ST
 KEW GARDENS, NY 11418
 LIGHT POLE

SHEET TITLE
ANTENNA MOUNTING DETAILS

SHEET NUMBER
3.0

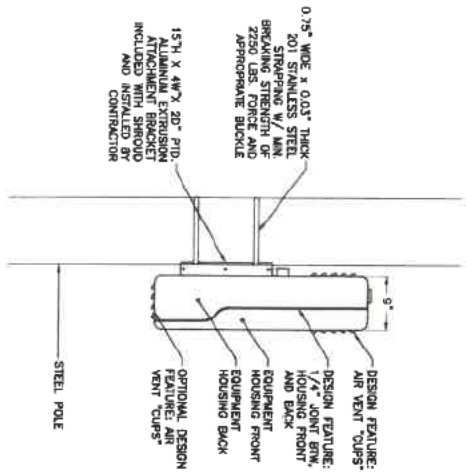


ANTENNA MOUNT DETAILS
 SCALE: NOT TO SCALE

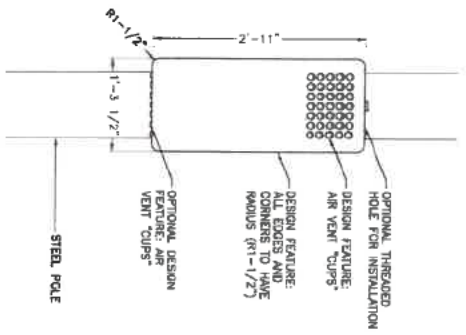


POLE CAP/ PIPE CONNECTION
 SCALE: NOT TO SCALE

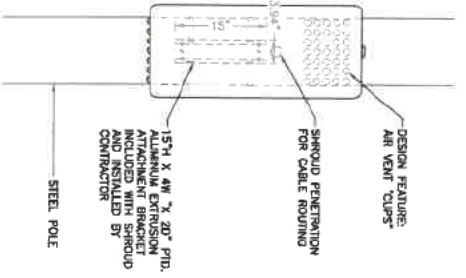
SIDE VIEW



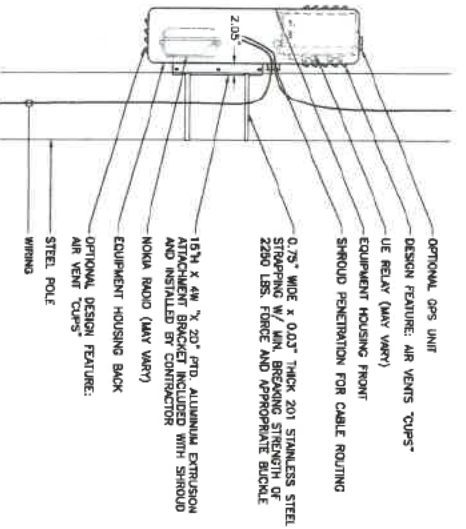
FRONT VIEW



BACK VIEW



SECTION VIEW

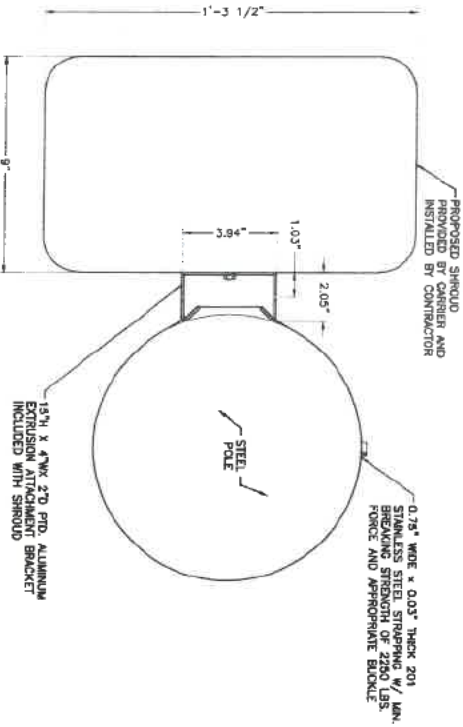


SHROUD MOUNTING DETAILS

SCALE: NOT TO SCALE

1

PLAN VIEW



OVERALL SHROUD MOUNTING DETAILS

SCALE: NOT TO SCALE

2

3475 PIEDMONT ROAD NE,
SUITE 1000
ATLANTA, GEORGIA 30305
PHONE: (312) 639-3400

PROJECT NO: E888081
 DRAWN BY: B. PETERLA
 CHECKED BY: C. BARBY

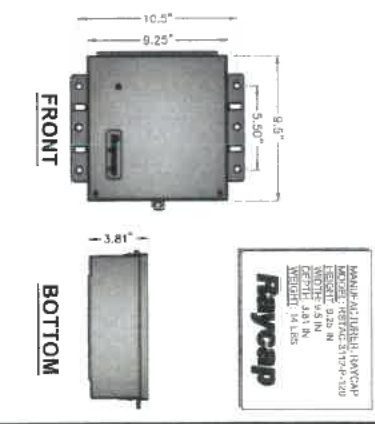
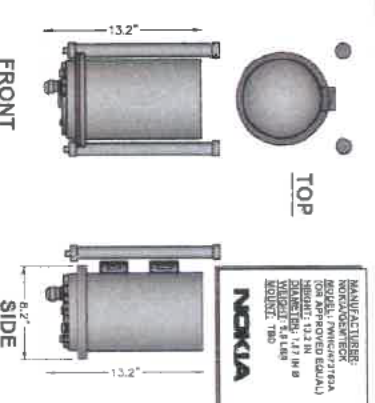
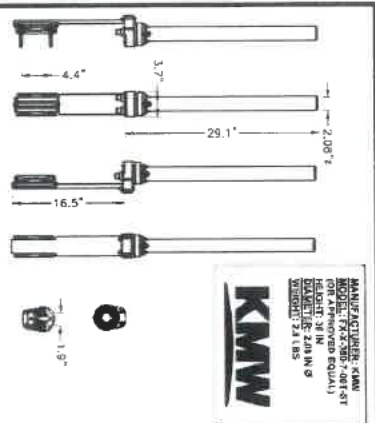
NO.	DATE	DESCRIPTION

STATE OF NEW YORK
 PROFESSIONAL ENGINEER
 097571

NY1908SBJC
 NY1908SBJC
 ALISTIN ST
 1261H ST
 KEW GARDENS, NY 11415
 LIGHT POLE

SHEET TITLE
 EQUIPMENT MOUNTING
 DETAILS

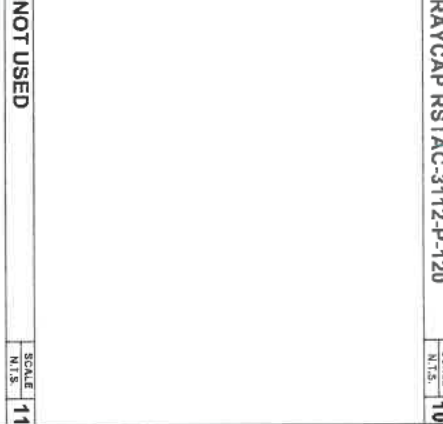
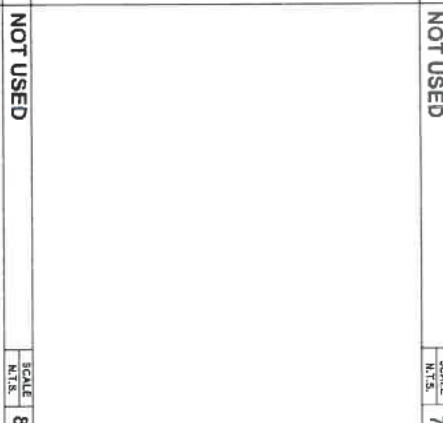
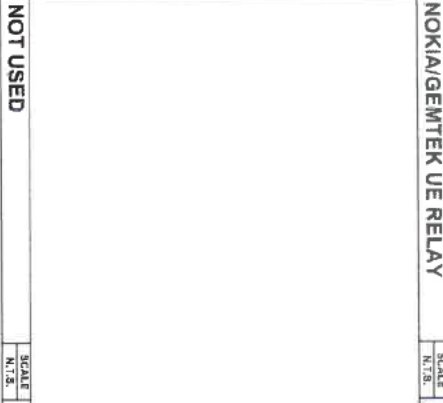
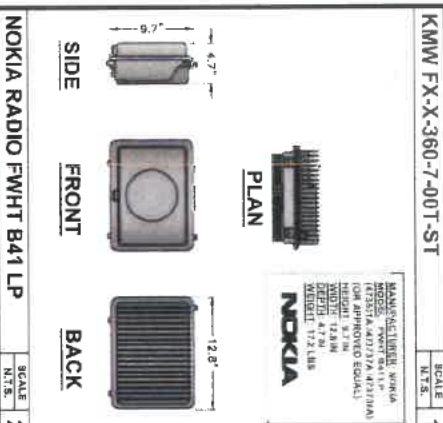
SHEET NUMBER
 3.1



PRODUCT NO.: ERO0281
DRAWN BY: S. POIRBIA
CHECKED BY: C. BLANDY

4795 PEDMONT ROAD NE:
ATLANTA, GEORGIA 30325
PHONE: (770) 650-5400

mobilitie



MANUFACTURER: NOKIA
MODEL: FWHT B41 LP
HEIGHT: 4.7" IN Ø
LENGTH: 9.7" IN Ø
WIDTH: 12.8" IN Ø
WEIGHT: 1.7 LBS

STATE OF NEW YORK
PAUL LOUIS
097571
LICENSED PROFESSIONAL ENGINEER

NOKIA RADIO FWHT B41 LP

SCALE: N.T.S. | 2 | NOT USED

NOKIA INTERFACE STATIC

SCALE: N.T.S. | 3 | NOT USED

PCTEL 3997D GPS UNIT

SCALE: N.T.S. | 6 | NOT USED

RAYCAP RSTAC-3112-P-120

SCALE: N.T.S. | 7 | NOT USED

EQUIPMENT DETAILS

SHEET NUMBER: 3.2

GENERAL

THE CONSTRUCTION DOCUMENT DRAWINGS ARE INTERRELATED. WHEN PERFORMING THE WORK, THE CONTRACTOR SHALL REFER TO ALL DRAWINGS. COORDINATION IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

GENERAL REQUIREMENTS

PART 1 - GENERAL

1. OBTAIN AND SUBMIT RELEASES SHOWING THE OWNER UNRESTRICTED USE OF THE WORK AND ACCESS TO SERVICES AND UTILITIES. INCLUDE OCCUPANTY PERMITS, OPENING CERTIFICATES AND SIMILAR RELEASES.
2. SUBMIT RECORD DRAWINGS, DAMAGE OR SETTLEMENT SURVEY, PROPERTY SURVEY, AND 3. COMPLETE FINAL RECORD DRAWINGS, INCLUDING TOUCH-UP PAINTING, TOUCH UP AND OTHER NECESSARY REPAIR AND RESTORE WAREHOUSED EXPOSED FINISHES.

PART 2 - BIMAL CLEANING

1. COMPLETE THE FOLLOWING CLEANING OPERATIONS BEFORE REQUESTING INSPECTION FOR CERTIFICATION ON COMPLETION.
 - A. CLEAN THE PROJECT SITE, YARD AND GROUNDS IN AREAS DISTURBED BY CONSTRUCTION ACTIVITIES, INCLUDING LANDSCAPE DEVELOPMENT AREA, OF AREAS BROOD CLEAN. REMOVE PETING AND CHILDRING SPILLS, STREET FURNITURE FOREIGN DEPOSITS, PAVE GROUNDINGS THAT ARE NEITHER PLANTED NOR PAVED, TO A SMOOTH EVEN-TEXTURED SURFACE.
 - B. REMOVE TRUCKS, CONSTRUCTION EQUIPMENT, MACHINERY AND SURPLUS MATERIAL FROM THE SITE.
 - C. REMOVE SNOW AND ICE TO PROVIDE SAFE ACCESS TO THE SITE AND EQUIPMENT ENCLOSURE.
 - D. CLEAN EXPOSED EXTERIOR HARD SURFACED FINISHES TO A DIRT-FREE CONDITION. REMOVE WEATHERING OF EXTERIOR SURFACES, INCLUDING HAND-HELD, NATURAL WEATHERING OF EXTERIOR SURFACES, INCLUDING HAND-HELD, HANDHOLES, AND SIMILAR SPACES.
 - E. REMOVE DEBRIS FROM LIMITED ACCESS SPACES.
 - F. MAINTAIN ALL SURFACES THAT ARE NOT PERMANENT LABELS.
 - G. TOUCH UP WALLS THAT ARE NOT PERMANENT LABELS.
 - H. REMOVE ALL EQUIPMENT AND ITEMS WITHIN EQUIPMENT ENCLOSURE. SATISFACTORILY REPAIR OR RESTORED, OR THAT SHOW EVIDENCE OF REPAIR OR RESTORATION. DO NOT PAINT OVER "L" AND SIMILAR LABELS, INCLUDING LEGIBLITY MAKE PLATES.
 - I. DUST OFF ALL EQUIPMENT AND ITEMS WITHIN EQUIPMENT ENCLOSURE.
 - J. REMOVAL OF PROTECTION: REMOVE TEMPORARY PROTECTION AND FACILITIES INSTALLED DURING CONSTRUCTION TO PROTECT PREVIOUSLY COMPLETED INSTALLATIONS DURING THE REMOVAL OF THE CONSTRUCTION PERIOD.

SITE WORK

PART 1 - GENERAL

1. WORK INCLUDED: SEE SITE PLAN.
2. DITCHES SHALL BE CONSTRUCTED TO A WELL DRAINED, BUILT, MAINTAINED, EVEN SURFACE FOR USE AND ACCESS.
3. QUALITY ASSURANCE
 - A. APPLY SOIL STABILIZER IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
 - B. APPLY AND MAINTAIN GRASS SEED AS RECOMMENDED BY THE SEED PRODUCER (IF REQUIRED).
 - C. PLACE AND MAINTAIN VEGETATION LANDSCAPING, IF INCLUDED WITHIN THE CONTRACT, AS RECOMMENDED BY NURSERY INDUSTRY STANDARDS.
4. SEQUENCING
 - A. CONSTRUCT SURVEY STAKES AND SET ELEVATION STAKES PRIOR TO ANY CONSTRUCTION.
 - B. CONSTRUCT TEMPORARY CONSTRUCTION AREA, DESIGNATED AREA TO BE APPROVED BY THE CONTRACTOR AND LOCAL AUTHORITIES.
 - C. APPLY SOIL STABILIZER AND LOCAL AUTHORITIES.
 - D. GRASS SEED, FERTILIZER AND MULCH ALL AREAS DISTURBED BY CONSTRUCTION (INCLUDING UNDERGROUND UTILITY EASEMENTS) IMMEDIATELY AFTER BRINGING LEASE AREA TO BASE COURSE ELEVATION. WATER TO ENSURE GROWTH.
 - E. AFTER APPLICATIONS OF FINAL SURFACES, APPLY SOIL STABILIZER TO STONE SURFACES.

5. SUBMITTALS

- A. BEFORE CONSTRUCTION IF LANDSCAPING IS APPLICABLE TO THE CONTRACT, THE CONTRACTOR SHALL SUBMIT TO THE OWNER FOR REVIEW AND APPROVAL, IF A LANDSCAPE ALLOWANCE WAS INCLUDED IN THE CONTRACT, PROPOSED LANDSCAPE LAYOUT OF PROPOSED COURTS ON NURSERY LETTERHEAD.
- B. AFTER CONSTRUCTION
 1. MANUFACTURER'S DESCRIPTION OF PRODUCT AND WARRANTY.
 2. MANUFACTURER'S DESCRIPTION OF PRODUCT ON GRASS SEED AND FERTILIZER.
 3. LANDSCAPING WARRANTY STATEMENT.

6. WARRANTY

- A. IN ADDITION TO THE WARRANTY ON ALL CONSTRUCTION COVERED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL REPAIR, MAINTAIN AND RESTORE AREA AS CLOSE TO ORIGINAL CONDITION AS POSSIBLE AT SITE AND SUBROUNTINGS.
- B. SOIL STABILIZATION APPLICATION TO GUARANTEE VEGETATION FREE AREAS FOR INSPECTION.
- C. DISTURBED AREA WILL REFLECT GROWTH OF NEW GRASS COVER PRIOR TO FINAL INSPECTION.
- D. LANDSCAPING, IF INCLUDED WITHIN THE SCOPE OF THE CONTRACT, WILL BE GUARANTEED FOR ONE YEAR FROM DATE OF FINAL INSPECTION.

PART 2 - PRODUCTS

1. MATERIALS
 - A. SOIL STABILIZER SHALL BE EPA-REGISTERED, PRE-EMERGENCE LIQUID:

TOTAL KILL	PHY-GAR CORPORATION
PRODUCT 910	P.O. BOX 5123
EPA 10292-1	DEARBORN, MI 48128
(900) 583-8000	
AMBUSHER HERBICIDE	FRAMM INDUSTRIAL PRODUCTS
EPA REGISTERED	1435 WORKS AVE
(900) 528-4824	UNION, NJ 07083
 - B. ROAD AND SITE MATERIALS SHALL CONFORM TO STATE AND LOCAL DOT SPECIFICATIONS FOR FILL MATERIAL (UNLESS OTHERWISE NOTED) - ACCEPTABLE SELECT FILL SHALL BE IN ACCORDANCE WITH STATE DEPARTMENT OF HIGHWAY AND TRANSPORTATION STANDARDS.
 - C. SOIL STABILIZER FABRIC SHALL BE MIGHT SOIL.

PART 3 - EXECUTION

1. INSPECTIONS: LOCAL BUILDING INSPECTORS SHALL BE NOTIFIED NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURING UNLESS OTHERWISE SPECIFIED BY JURISDICTION.
2. PREPARATION
 - A. CLEAR BRUSH AND DEBRIS FROM LEASE AREA AND UNDERGROUND UTILITY AREAS.
 - B. UNLESS OTHERWISE NOTED, ALL CONSTRUCTION TRANSPORT ALL ROUNDED TREES, BRUSH AND DEBRIS FROM THE PROPERTY TO AN AUTHORIZED LANDFILL.
 - C. PRIOR TO PLACEMENT OF FILL OR BASE MATERIALS, ROLL THE SOIL.
 - D. WHERE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, LINE THE AREAS WITH HYDRAULIC MAT FROM TO PLACEMENT OF FILL OR BASE MATERIAL.
3. INSTALLATION
 - A. CLEAR EXCESS STAKES, IF ANY, FROM JOB SITE AND DO NOT SPREAD BEYOND THE LIMITS OF PROJECT AREA UNLESS AUTHORIZED BY PROJECT MANAGER AND LOCAL AUTHORITIES.
 - B. PLACE FILL TO ONE IN SIX INCH (8") MAXIMUM LIFTS, AND COMPACT BEFORE PLACING NEXT LIFT.
 - C. APPLY SEED, FERTILIZER, AND STRAW COVER TO ALL OTHER DISTURBED AREAS, DITCHES AND DRAINAGE SWALES, NOT OTHERWISE REPAIRED. WILL DISCOURAGE ROOTING. MAKE AREAS TO BE SEED TO ENTER THE SURFACE AND LOCKEN THE SOIL.
 - E. SOW SEED IN TWO DIRECTIONS IN TWICE THE QUANTITY RECOMMENDED BY THE SEED PRODUCER OF SEEDS AND LANDSCAPED AREA, BY WATERING UP TO THE POINT OF RELEASE FROM THE CONTRACTOR CONTINUE TO RETURN THE BASE AREAS UNTIL COMPLETE COVERAGE IS OBTAINED.
 - F. PROTECT SEEDS FROM THE CONTRACTOR CONTINUE TO RETURN THE BASE AREAS UNTIL COMPLETE COVERAGE IS OBTAINED.
4. FIELD QUALITY CONTROL: COMPLETE SOILS TO MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D 1557. AREAS OF SETTLEMENT WILL BE EXCAVATED AND REFLIED AT CONTRACTOR'S EXPENSE. INDICATE PERCENTAGE OF COMPACTION ACHIEVED ON AS-BUILT DRAWINGS.
5. PROTECTION
 - A. PROTECT SEEDS FROM EROSION BY SPREADING STRAW TO A UNIFORM COVER. STRAW SHALL BE 1-2 INCHES, STAKE AND TIE DOWN AS REQUIRED. USE OF STRAW BALS AT THE INLET APPROACH TO ALL NEW OR EXISTING CONCRETS, WHERE THE SITE OR ROAD AREAS HAVE BEEN ELEVATED IMMEDIATELY ADJACENT TO THE NEW CONSTRUCTION. PROTECT FABRIC ROLL LENGTH IN THE SLOPE TO THE NEW CONSTRUCTION. PROTECT FABRIC ROLL LENGTH IN THE SLOPE TO THE NEW CONSTRUCTION. PROTECT FABRIC ROLL LENGTH IN THE SLOPE TO THE NEW CONSTRUCTION. PROTECT FABRIC ROLL LENGTH IN THE SLOPE TO THE NEW CONSTRUCTION. METHODS SHALL CONFORM TO APPLICABLE BUILDING CODE REQUIREMENTS.



3475 REDMONT ROAD NE,
ATLANTA, GA 30308
PHONE: (312) 638-3400

PROJECT NO:	ER09081
DRAWN BY:	B. POTERBA
DIRECTED BY:	C. BAERY

DATE:	1/28/88
BY:	1/28/88



NY 09082816C
DATE: 02/28/88
128TH ST
KEM GARDENS, NY 11415
LIGHT POLE

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-1

ELECTRICAL

- CONTRACTOR SHALL REVIEW THE CONTRACT DOCUMENTS PRIOR TO ORDERING THE ELECTRICAL EQUIPMENT AND STARTING THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE DRAWINGS OR CONDUIT INFORMATION TO THE ARCHITECT/ENGINEER LISTED AND TO THE ELECTRICAL PLANS. DETAILS AND DIMENSIONS ARE DIAGRAMMATIC ONLY. VERIFY EXACT LOCATIONS AND MOUNTING HEIGHTS OR ELECTRICAL EQUIPMENT WITH OWNER PRIOR TO INSTALLATION. CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANELBOARD, PULLBOX, JUNCTION BOX, SWITCH BOX, ETC. THE TYPE OF TAGGING METHODS SHALL BE IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (O.S.H.A.).
- ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN GOOD WORKING CONDITION WHEN ORDERED. ALL ELECTRICAL EQUIPMENT SHALL BE LISTED BY AN APPROVED LISTING AGENCY THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED "UL" WHERE APPLICABLE. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA, NERU AND "UL" LISTED.
- ALL CONDUIT SHALL BE NEW AND IN GOOD WORKING CONDITION. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES AND CIRCUITS.
- ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING EXCEEDING THAT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 AMP AND ALL APPLICABLE CODES.
- PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE INSTALLATION. ALL PATCHES SHALL BE MATCHED TO THE ORIGINAL FINISH.
- PLASTIC PLATES FOR ALL SWITCHES, RECEPTACLES, TELEPHONE AND BANNED OUTLETS SHALL HAVE ENGRAVED ALL LETTERING WHERE INDICATED ON THE DRAWINGS. WEATHERPROOF RECEPTACLES SHALL HAVE SIERRA AMP-8 LIFT COVERS/PLATES.

SERVICE AND DISTRIBUTION

- WIRE AND CABLE CONDUCTORS SHALL BE COPPER, 800V, TYPE THHN OR THWN, WITH A MIN. SIZE OF #12 AWG. COLOR CODED.
- ENTER SOCKET IDENTIFIERS, TAPPING NUMBER OF PHASES SHALL BE NOTED ON THE DRAWINGS AND IDENTIFIED BY NUMBER OR APPROVED SYMBOL AND SHALL BE UTILITY COMPANY APPROVED.
- ROOF CONDUIT SHALL BE 1/2" LAGER GALVANIZED STEEL COATED WITH GALVALUME. CONDUIT SHALL BE UNDERGROUND UNLESS OTHERWISE SPECIFIED. CONCRETE SLABS IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR, ROOF CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2" LAGER WRAPPED WITH HUMUS WARP PROCESS NO. 3.
- RELEASABLE METALLIC CONDUIT SHALL HAVE UL LISTED AND SHALL BE USED EXCEPT WHERE SHOWN OTHERWISE. CONDUIT SHALL BE IDENTIFIED BY COLOR. ALL FLEXIBLE CONDUITS SHALL HAVE FULL LENGTH GROUND WIRE.
- IT IS REQUIRED AND WILL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO NOTIFY 811 OR OTHER SUCH UTILITY LOCATING AGENCY 3 DAYS BEFORE DIGGING.
- CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS ARE TO BE PAID BY THE CONTRACTOR.
- ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS WITH WHITE ON BLUE BACKGROUND LETTERS AS LISTED WITH STAINLESS STEEL LETTERS FROM 1/4" X 1/2" DIMENSIONS SHALL BE FASTENED WITH STAINLESS STEEL SCREWS, NOT ANGESIVE.
- UPON COMPLETION OF WORK, CONTINUITY, SHORT CIRCUIT, AND FALL POTENTIAL GROUNDING TESTS BY AN INDEPENDENT TESTING SERVICE ENJOYED BY THE CONTRACTOR SHALL BE SUBMITTED AND APPROVED BY THE ARCHITECT/ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL DAMAGE TO EXISTING UTILITIES, STRUCTURES, COMPLETE AND UNDAMAGED CONDITION.
- GROUNDING ELECTRICAL SYSTEM
 - PREPARATION: ALL CONNECTIONS SHALL BE MADE TO BARE METAL. ALL PAINED SURFACES SHALL BE FIELD INSPECTED AND MOISTURE TO BE REMOVED. PROPER CONTACT. NO WASHERS ARE ALLOWED BETWEEN THE ITEMS BEING GROUNDING. ALL CONNECTIONS ARE TO HAVE A NON-OXIDIZING ADHESIVE APPLIED PRIOR TO INSTALLATION.
 - GROUNDING THROUGH CONDUIT: BOTH ENDS OF CONDUIT SHALL BE GROUNDING. SEAL BOTH ENDS OF CONDUIT WITH SILICONE CALK.
- EXTERNAL CONNECTIONS
 - ALL BARRIED GROUNDING CONNECTIONS SHALL BE MADE BY THE CONTRACTOR. ALL EXTERNAL CONNECTIONS SHALL BE MADE BY THE CONTRACTOR TO CABLE, STRIPS, TEES, CROSSSES, ETC. ALL CABLE TO GROUND ARE TO BE AS INDICATED. ALL MATERIALS USED (WOLDS, WELDING METAL, TOOLS, ETC.) SHALL BE BY ULTRAVIEW, AND INSTALLED PER MANUFACTURER'S RECOMMENDED PROCEDURES. CONDUCTORS SHALL BE CONNECTED BY TWO HOLE GRAMP TYPE (COMPRESSION) CONNECTIONS (EXCEPT FOR THE ACES AND GROUND ROD). MECHANICAL CONNECTIONS, FITTINGS OR CONNECTIONS THAT DEPEND SOLELY ON SOLDER SHALL NOT BE USED. ALL CABLE TO CABLE CONNECTIONS SHALL BE HIGH PRESSURE SOLDER. ALL CABLE TO CABLE CONNECTIONS TO STRUCTURAL STEEL SHALL BE EXOTHERMIC WELDS.

- GROUND RODS: ALL GROUND RODS SHALL BE 5/8"-INCH DIAMETER X 10'-0" LONG. DEEPENED* OR APPROVED EQUAL, OF THE NUMBER AND LOCATIONS INDICATED. GROUND RODS SHALL BE DRIVEN FULL LENGTH VERTICAL, IN UNDISTURBED EARTH.
 - GROUND CONDUCTORS: ALL GROUND CONDUCTORS SHALL BE STANDARD GROUND CONDUCTORS, UNLESS OTHERWISE SPECIFIED, AND OF SIZE INDICATED ON DRAWINGS. WIRELESS WIRELESS. NOTES:
 - LUOS SHALL BE 2-HOLE, LONG BARREL, STRAND COPPER UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS. LUOS SHALL BE THROUS AND BEETS SERIES #24, OR EQUIVALENT
 - 535 MCM DLO 548908E
 - 282 MCM DLO 548728E
 - 11/0 DLO 548628E
 - 4/0 THHN AND BARE 548588E
 - 1/2 THHN 542078E
 - #8 DLO 542028E
- WHEN THE DIRECTION OF THE CONDUCTOR MUST CHANGE, IT SHALL BE DONE GENTLY. THE TURN SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING CHART:

GROUNDING CONDUCTOR SIZE	MINIMUM BENDING RADIUS TO INSIDE EDGE
NO. 8 AWG TO NO. 4 AWG	6 INCHES
NO. 2 AWG TO NO 1/0 AWG	8 INCHES
NO. 2/0 AWG TO 4/0 AWG	12 INCHES
250 MCM TO 750 MCM	24 INCHES
- GROUNDING RESISTANCE TEST REPORT: UPON COMPLETION OF THE TESTING FOR EACH SETS OF TEST DOCUMENTS FROM THE INDEPENDENT TESTING SERVICE ARE TO BE ROUND AND SUBMITTED WITHIN ONE (1) WEEK OF WORK COMPLETION.

POLES, POSTS, AND STANDARDS

- GENERAL
 - LIGHTNING ROD AND EXTENSION PILE INCLUDING ALL APPURTENANCES, TO BE FURNISHED BY OWNER, IF REQUIRED.
 - GROUNDING: GROUND METAL POLES WITH A MINIMUM OF #2 AWG THINW GROUND BARE COPPER CONDUCTOR COMPLETED TO TOWER BASE PLATE.

TELECOMMUNICATIONS WIRING COMPONENTS

- GENERAL
 - ALL MATERIALS, PRODUCTS OR PROCEDURES INCORPORATED INTO WORK SHALL BE NEW AND STANDARD UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS.
 - ANTENNAS AND PERMANENTLY SECURED TO THE CONTRACT DOCUMENTS UNLESS NOTED OTHERWISE.
- MATERIALS
 - COAXIAL CABLE
 - ALL COAXIAL CABLE AND TERMINATIONS BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS WITH COAXIAL CABLES SUPPORTED AT NO MORE THAN 3'-0" O.C. WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. TERMINATE ALL COAXIAL CABLE THREE FEET (3') IN EXCESS OF EQUIPMENT CONNECTIONS. WEATHERSTRIP PERMANENTLY ALL COAXIAL CABLES. THREE FEET (3') IN EXCESS OF EQUIPMENT CONNECTIONS. WEATHERSTRIP PERMANENTLY ALL COAXIAL CABLES. THREE FEET (3') IN EXCESS OF EQUIPMENT CONNECTIONS. WEATHERSTRIP PERMANENTLY ALL COAXIAL CABLES. THREE FEET (3') IN EXCESS OF EQUIPMENT CONNECTIONS. WEATHERSTRIP PERMANENTLY ALL COAXIAL CABLES. THREE FEET (3') IN EXCESS OF EQUIPMENT CONNECTIONS.
 - LENGTHS LESS THAN 100 FEET SHALL BE 7/8" COAXIAL CABLE. LENGTHS GREATER THAN 100 FEET SHALL BE 1" COAXIAL CABLE. GROUNDING WIRING ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS).
 - ANTENNA AND COAXIAL CABLE GROUNDING
 - ALL COAXIAL CABLE GROUNDING WIRING ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS).
 - LENGTHS LESS THAN 100 FEET SHALL BE 7/8" COAXIAL CABLE. LENGTHS GREATER THAN 100 FEET SHALL BE 1" COAXIAL CABLE. GROUNDING WIRING ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS).

PAUL LOUIS
091571
LICENSED PROFESSIONAL ENGINEER

PROJECT NO: ENR0001
DRAWN BY: B. POLESKA
CHECKED BY: C. RAMBY

3475 PIEDMONT ROAD NE
ATLANTA, GEORGIA 30305
PHONE: (312) 636-5900

mobilitie

INVESTIGATED:
SINVERD000897
ALSTIN ST
165TH ST
KEW GARDENS, NY 11415
LIGHT POLE

SHEET TITLE

GENERAL NOTES

SHEET NUMBER
GN-2

UTILITY NOTES

STEEL NOTES

ANTENNA INSTALLATION NOTES

- WORK INCLUDES:
 THESE NOTES AND ACCOMPANYING DRAWINGS COMPLEMENT THE PROVISIONS AND INSTALLATIONS BY THE ELECTRICAL CONTRACTOR OF ALL LABOR MATERIALS AND EQUIPMENT REQUIRED TO INSTALL THE ELECTRICAL WORK COMPLETE IN CONNECTION WITH THIS UTILITY SITE AND SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
 1. OBTAINING INSTALLATION AND CONNECTION OF A GROUNDING ELECTRODE SYSTEM OR OTHER GROUNDING SYSTEM AND CONNECTIONS TO THE INCOMING ELECTRICAL DISTRIBUTION EQUIPMENT.
 2. THE PROVISION AND INSTALLATION OF AN OVERHEAD ELECTRICAL SERVICE OR UNDERGROUND ELECTRICAL SERVICE AND ALL ASSOCIATED WIRE AND CONDUIT AS REQUIRED AND/OR NOTICED ON PLANS.
 3. PROVISION AND INSTALLATION OF CONDUIT AND CONNECTIONS FOR LOCAL FIBER SERVICE.
 4. THE FURNISHING AND INSTALLATION OF THE ELECTRICAL SERVICE ENTRANCE CONDUIT/CONDUCTORS, WETER SOCKET, AND CONNECTIONS TO THE SERVICE EQUIPMENT.
 5. ALL CONDUITS SHOULD BE LEFT WITH NYLON PULL CORO FOR FUTURE USE.
 6. EXCAVATION, TRENCHING, AND BACKFILLING FOR CONDUIT(S), CABLE(S) AND EXTERNAL GROUNDING SYSTEM.

- CODES, PERMITS AND FEES:**
 1. ALL REQUIRED PERMITS, LICENSES, INSPECTIONS AND APPROVALS SHALL BE SECURED AND ALL FEES FOR SAME PAID BY CONTRACTOR.
 2. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE CODES: STATE, LOCAL AND NATIONAL ELECTRICAL CODES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION OF ALL ITEMS AND EQUIPMENT SHALL BE IN ACCORDANCE WITH THE LATEST ISSUE OF THE VARIOUS APPLICABLE STANDARD SPECIFICATIONS OF THE FOLLOWING AUTHORITIES:
 A.I.E.E. NATIONAL ELECTRICAL CODE
 A.S.T.M. NATIONAL ELECTRICAL AND ELECTRONICS INSTITUTE
 I.E.E.E. INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
 A.S.T.M. AMERICAN SOCIETY FOR TESTING MATERIALS
 N.E.M.A. NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
 U.L.P.A. UNDERWRITERS LABORATORIES, INC.
 N.F.P.A. NATIONAL FIRE PROTECTION ASSOCIATION

- RACEWAYS AND WIRING:**
 1. WIRING OF EVERY KIND MUST BE INSTALLED IN CONDUIT, UNLESS NOTED OTHERWISE, OR AS APPROVED BY THE ARCHITECT/ENGINEER.
 2. UNLESS OTHERWISE SPECIFIED, ALL WIRING SHALL BE COPPER (CU) TYPE THWN, SEED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL CODES.
 3. ELECTRICAL CODE BEING LOCAL ELECTRICAL CODE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL CODES. UNLESS OTHERWISE NOTED, ALL RACEWAYS SHALL BE APPROVED FOR THE INSTALLATION.
 4. PULL OR JUNCTION BOXES SHALL BE PROVIDED AS REQUIRED TO FACILITATE INSTALLATION OF RACEWAYS AND WIRING. PROVIDE JUNCTION AND PULLBOXES FOR CONDUIT RUNS WITH MORE THAN (90) DEGREES OF BENDS.
 5. CONDUIT SHALL BE INSTALLED IN ACCORDANCE WITH ARTICLE 230 OF THE NATIONAL ELECTRICAL CODE AND LOCAL CODES.
 6. ALL STEEL CONDUIT SHALL BE BONDED AT BOTH ENDS WITH GROUNDING BUSHING.

GENERAL NOTES:
 SEE DETAILS, SCHEDULES AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND INFORMATION. CHECK ARCHITECTURAL, STRUCTURAL, AND OTHER MECHANICAL AND ELECTRICAL DRAWINGS FOR SCALE, SPACE LIMITATIONS, COORDINATION, AND ADDITIONAL INFORMATION, ETC. REPORT ANY DISCREPANCIES, CONFLICTS, ETC. TO ARCHITECT/ENGINEER BEFORE SUBMITTING BID. ALL EQUIPMENT FURNISHED BY OTHERS (FBO) SHALL BE PROVIDED WITH PROPER MOTOR STARTERS, DISCONNECTS, CONTROLS, AND ALL NECESSARY ACCESSORIES. THE ELECTRICAL CONTRACTOR SHALL INCLUDE IN THE BID ANY OTHER EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THE ELECTRICAL SERVICE FROM LOCAL UTILITY COMPANY. VERIFY BEFORE BIDDING THAT THE LOCAL UTILITY COMPANY HAS RECENTLY BEEN RATED WITH A "C" OR BETTER RATING. ALL COSTS, THE ELECTRICAL CONTRACTOR SHALL VERIFY THE AVAILABLE FAULT CURRENT WITH THE LOCAL UTILITY COMPANY PRIOR TO SUBMITTING BID. ADJUST A.L.C. RATINGS OF ALL OVER CURRENT PROTECTION DEVICES IN DISTRIBUTION EQUIPMENT AS REQUIRED TO COORDINATE WITH AVAILABLE FAULT CURRENT FROM LOCAL UTILITY COMPANY.

COORDINATION WITH UTILITY COMPANY:
 THE ELECTRICAL CONTRACTOR SHALL COORDINATE COMPLETE ELECTRICAL SERVICE WITH LOCAL UTILITY COMPANY FOR A COMPLETE OPERATIONS SYSTEM, INCLUDING TRANSFORMER CONNECTIONS, CONCRETE TRANSFORMER PADS, IF REQUIRED, WETER SOCKETS, PRIMARY CABLE TRAYWAY REQUIREMENTS, SECONDARY SERVICE, ETC. PRIOR TO SUBMITTING BID TO THE BID. ANY OTHER REQUIREMENTS, THE ELECTRICAL CONTRACTOR SHALL INCLUDE IN THE BID. THE ELECTRICAL CONTRACTOR SHALL VERIFY THE AVAILABLE FAULT CURRENT WITH THE LOCAL UTILITY COMPANY PRIOR TO SUBMITTING BID. ADJUST A.L.C. RATINGS OF ALL OVER CURRENT PROTECTION DEVICES IN DISTRIBUTION EQUIPMENT AS REQUIRED TO COORDINATE WITH AVAILABLE FAULT CURRENT FROM LOCAL UTILITY COMPANY.

- INCORRECTLY FABRICATED DAMAGED OR OTHERWISE UNFITTING OR PROJECT MANAGER PRIOR TO THE COMMENCEMENT OF THE PROJECT SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", LATEST EDITION.
- STRUCTURAL AND MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A36, A572, A588, A590, A595, A633, A636, A653, A656, A657, A658, A659, A660, A661, A662, A663, A664, A665, A666, A667, A668, A669, A670, A671, A672, A673, A674, A675, A676, A677, A678, A679, A680, A681, A682, A683, A684, A685, A686, A687, A688, A689, A690, A691, A692, A693, A694, A695, A696, A697, A698, A699, A700, A701, A702, A703, A704, A705, A706, A707, A708, A709, A710, A711, A712, A713, A714, A715, A716, A717, A718, A719, A720, A721, A722, A723, A724, A725, A726, A727, A728, A729, A730, A731, A732, A733, A734, A735, A736, A737, A738, A739, A740, A741, A742, A743, A744, A745, A746, A747, A748, A749, A750, A751, A752, A753, A754, A755, A756, A757, A758, A759, A760, A761, A762, A763, A764, A765, A766, A767, A768, A769, A770, A771, A772, A773, A774, A775, A776, A777, A778, A779, A780, A781, A782, A783, A784, A785, A786, A787, A788, A789, A790, A791, A792, A793, A794, A795, A796, A797, A798, A799, A800, A801, A802, A803, A804, A805, A806, A807, A808, A809, A810, A811, A812, A813, A814, A815, A816, A817, A818, A819, A820, A821, A822, A823, A824, A825, A826, A827, A828, A829, A830, A831, A832, A833, A834, A835, A836, A837, A838, A839, A840, A841, A842, A843, A844, A845, A846, A847, A848, A849, A850, A851, A852, A853, A854, A855, A856, A857, A858, A859, A860, A861, A862, A863, A864, A865, A866, A867, A868, A869, A870, A871, A872, A873, A874, A875, A876, A877, A878, A879, A880, A881, A882, A883, A884, A885, A886, A887, A888, A889, A890, A891, A892, A893, A894, A895, A896, A897, A898, A899, A900, A901, A902, A903, A904, A905, A906, A907, A908, A909, A910, A911, A912, A913, A914, A915, A916, A917, A918, A919, A920, A921, A922, A923, A924, A925, A926, A927, A928, A929, A930, A931, A932, A933, A934, A935, A936, A937, A938, A939, A940, A941, A942, A943, A944, A945, A946, A947, A948, A949, A950, A951, A952, A953, A954, A955, A956, A957, A958, A959, A960, A961, A962, A963, A964, A965, A966, A967, A968, A969, A970, A971, A972, A973, A974, A975, A976, A977, A978, A979, A980, A981, A982, A983, A984, A985, A986, A987, A988, A989, A990, A991, A992, A993, A994, A995, A996, A997, A998, A999, A1000.
- ALL TUBES SHALL CONFORM TO ASTM A500 GRADE B (F_y=46 KSI).
- ALL THREADED RODS SHALL BE A36, UNLESS OTHERWISE NOTED.
- SHAP CONNECTIONS SHALL BE WELDED OR BOLTED. BOLTED CONNECTIONS SHALL BE MADE WITH HIGH STRENGTH BOLTS.
- STRUCTURAL CONNECTION BOLTS SHALL BE HIGH STRENGTH BOLTS AND SHALL CONFORM TO ASTM A325 HIGH STRENGTH BOLTS FOR STRUCTURAL JOINTS, INCLUDING SUITABLE NUTS AND PLAIN HARDENED WASHERS. LATEST EDITION. BOLTS SHALL BE 5/8" DIA/ETER, UNLESS OTHERWISE NOTED. NUTS SHALL BE HEAVY HEX. A LOCKING DEVICE SHALL BE INSTALLED ON ALL STEEL TO STEEL CONNECTIONS.
- CONTRACTOR SHALL COMPLY WITH AWS CODE FOR PROCEDURES, APPEARANCE, QUALITY OF WELDS AND FOR METHODS USED IN CORRECTIVE WELDING. ALL WELDERS AND WELDING PROCESSES SHALL BE QUALIFIED IN ACCORDANCE WITH AWS "STANDARD QUALIFICATION PROCEDURES". ALL WELDS SHALL BE WITH END ELECTRODES, UNLESS OTHERWISE NOTED.
- ALL WELDS SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION. GALVANIZING SHALL BE A COAT OF Z/R/C/ COLD GALVANIZING COMPOUND AS MANUFACTURED BY Z.R.C. CHEMICAL PRODUCTS CO., QUINCY, MASS.
- ALL SPECIALTY ANCHORS SHALL BE INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
- ALL ANCHORS SHALL BE INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
- ALL MAISTS SHALL BE CONTINUOUS (WITHOUT SPACE) AND INSTALLED PLUMB UNLESS OTHERWISE NOTED.

- ALL HARDWARE, FASTENERS AND COMPONENTS SHALL BE PAINTED THE COLOR OF THE POLE UPON COMPLETION OF THE INSTALLATION. CONTRACTOR SHALL TOUCH UP ANY AS REQUIRED.
- FINISH SURFACES SHALL BE PAINTED WITH AN ANTIRUST, MOISTURE OR FIBER BOND. CONTRACTOR SHALL REMOVE STICKERS AND TOUCH UP PAINTED SURFACES AS REQUIRED.
- ANTENNA SHALL BE INSTALLED PLUMB.
- ANTENNA MOUNT SET SCREWS SHALL BE INSTALLED AS FLUSH TO THE POLE SURFACE. CONTRACTOR SHALL USE THE SHORTEST LENGTH BOLT POSSIBLE.
- SOME SET SCREWS LOCK THREADED CONNECTIONS. OTHERS LOCK SLIP CONNECTIONS.

PROJECT NO:	EM6681
DESIGN BY:	B. PROTASIA
CHECKED BY:	C. KANEY



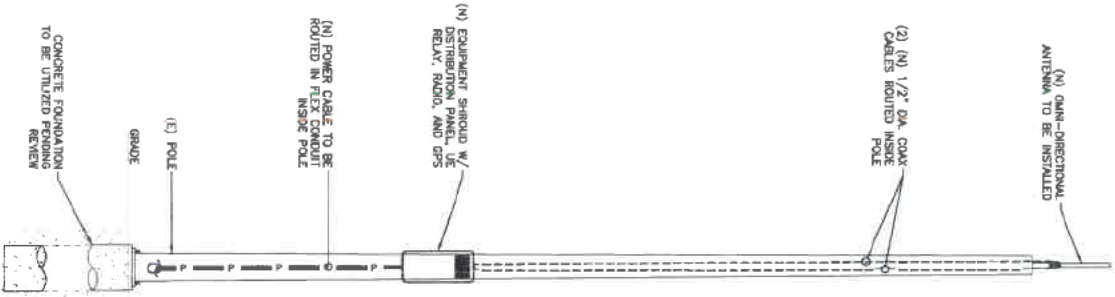
NY905648B
 NY905648C
 ASST. ENGINEER
 1761H ST
 NEW GARDENS, NY 11415
 LIGHT POLE

SHEET TITLE
 GENERAL NOTES

SHEET NUMBER
 GN-3

mobilitie
 3475 REDMONT ROAD NE
 ALPHARETTA, GA 30205
 PHONE: (312) 639-9400

NOTE:
(E) POLE MOUNTED EQUIPMENT
NOT SHOWN FOR CLARITY.



NOTE:
THIS DIAGRAM IS FOR CLARITY OF
CABLE ROUTE AND EQUIPMENT ONLY.
CONTRACTOR SHALL INSTALL CABLES
WITH MINIMAL VISUAL IMPACT ON (E)
STEEL POLE. SEE ELEVATION DRAWING
FOR EQUIPMENT AND ANTENNA
LOCATIONS.

CABELING NOTES:

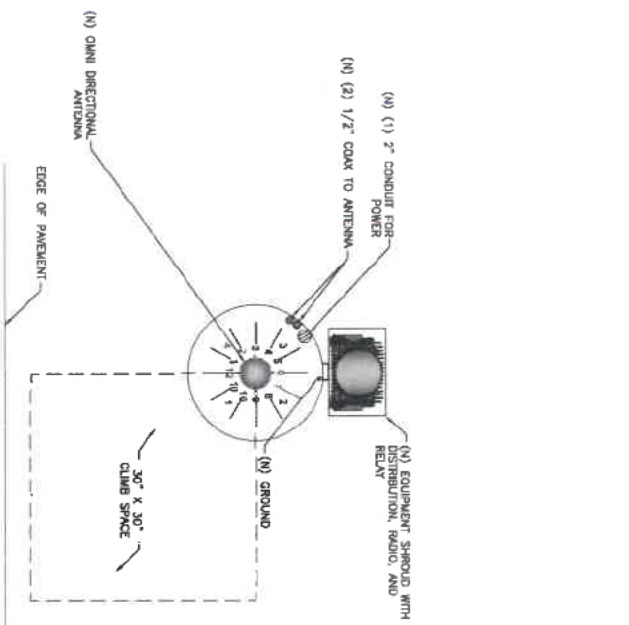
- A) WOOD, CONCRETE AND EXISTING METALLIC POLES
- 1) FROM GRADE LINE TO 11'-0" ABOVE GRADE, ALL CABLES/CONDUCTORS EXCEPT GROUNDING CONDUCTOR MUST RUN IN RIGID GALVANIZED STEEL CONDUIT (RGS)
- 2) GROUNDING CONDUCTORS IN EXPOSED LOCATIONS MUST BE INSTALLED IN PVC.
- 3) IN EARTH INSTALL PVC CONDUIT FOR BACKHAUL AND ELECTRICAL SERVICE TRANSITION TO RGS AT GRADE LINE.
- 4) ABOVE 11'-0" ALL CABLES (POWER, ETHERNET, COAXIAL) MUST RUN IN PVC UTILITY POLE RISER.
- 5) AT MAJOR EQUIPMENT, EXTEND UTILITY DUCT IMMEDIATELY ADJACENT TO THE EQUIPMENT. INSTALL CABLES IN THE UTILITY POLE RISER CREATING A "C" CHANNEL WITH NO LESS THAN THE CABLE BONDING RADIUS.
- 6) INSIDE THE UTILITY POLE RISER, UTILIZE "X" COAX BLOCKS WITH 1/4" SCREWS TO SUPPORT COAX, RADIO AND MW POWER. RF COAX, AND ETHERNET CABLES TO WITHIN 1/2" OF THE EQUIPMENT BEING SERVED AND ON INTERVALS NOT TO EXCEED 4'.
- 7) FOR UNDERGROUND HFC/PUBLIC BACKHAUL, ROUTE ETHERNET CABLE IN CONDUIT UP THE POLE AND ENTER UTILITY POLE RISER AT THE EQUIPMENT. DISCONNECT WITH A CABLE TERMINATION FITTING.
- 8) BY APPROVAL, IN SELECT CASES LIQUID-TIGHT SPUR CABLES (LTD) MAY BE INSTALLED IN THE UTILITY POLE RISER TO EXTEND THE ELECTRICAL SERVICE CONDUIT TO THE AC DISTRIBUTION BOX. EXAMPLE: UTILITY-REQUIRED DISCONNECT ON POLE W/ AC DISTRIBUTION BOX ON OPPOSITE SIDE OF POLE. NOT REQUIRED FOR COAX.
- 9) NEW METALLIC POLES
- 10) PROVIDE NEW HOLES WITH SUITABLE HAND HOLES SUCH THAT HAND HOLES EXIST AT ALL EQUIPMENT LOCATIONS.
- 11) WHERE REQUIRED, INSTALL POLE BASE SUCH THAT THE ELECTRICAL, FEED AND BACKHAUL (IF UNDERGROUND) CIRCUIT ENTER THE POLE THROUGH THE POLE BASE.

PLUMBING DIAGRAM
SCALE: NOT TO SCALE
1

QTY.	DESCRIPTION	MANUFACTURER	MODEL NUMBER	AZIMUTH	CABLE	DIMENSIONS (HxWxD)	WEIGHT
1	ANTENNA	RAM	FA-X-300-7-400-5T	TBD	15.5'	30" x 2.08" DIAMETER	2.6 LBS
1	UE RELAY	NOVA/GEMTEK	FTHC/47379A	TBD	3.5'	13.2" x 7.88" DIAMETER	5.0 LBS
1	GPS	-	3927D	-	-	0.53" x 1.2" DIAMETER	0.057 LBS
1	RADIO	NOVA	PMRT B41 LP	-	3.5'	8.7" x 12.8" x 4.7"	17.2 LBS
1	AC DISTRIBUTION PANEL	RAMCO	RSTHC-3112-P-120	TBD	9.25" x 9.5" x 3.81"	-	14 LBS

REVISION TYPE: NOT FINAL
RGS REVISION NUMBER: N/A
RBS REVISION TIMESTAMP: N/A

BILL OF MATERIALS
SCALE: NOT TO SCALE
2



RISER ORIENTATION DIAGRAM
SCALE: NOT TO SCALE
3

mobilitie
3475 PIEDMONT ROAD NE,
SUITE 1000 30305
ATLANTA, GEORGIA
PHONE: (312) 858-0400

PROJECT NO. ENR0021
DRAWN BY: B. HORTSIA
CHECKED BY: C. KAMBT

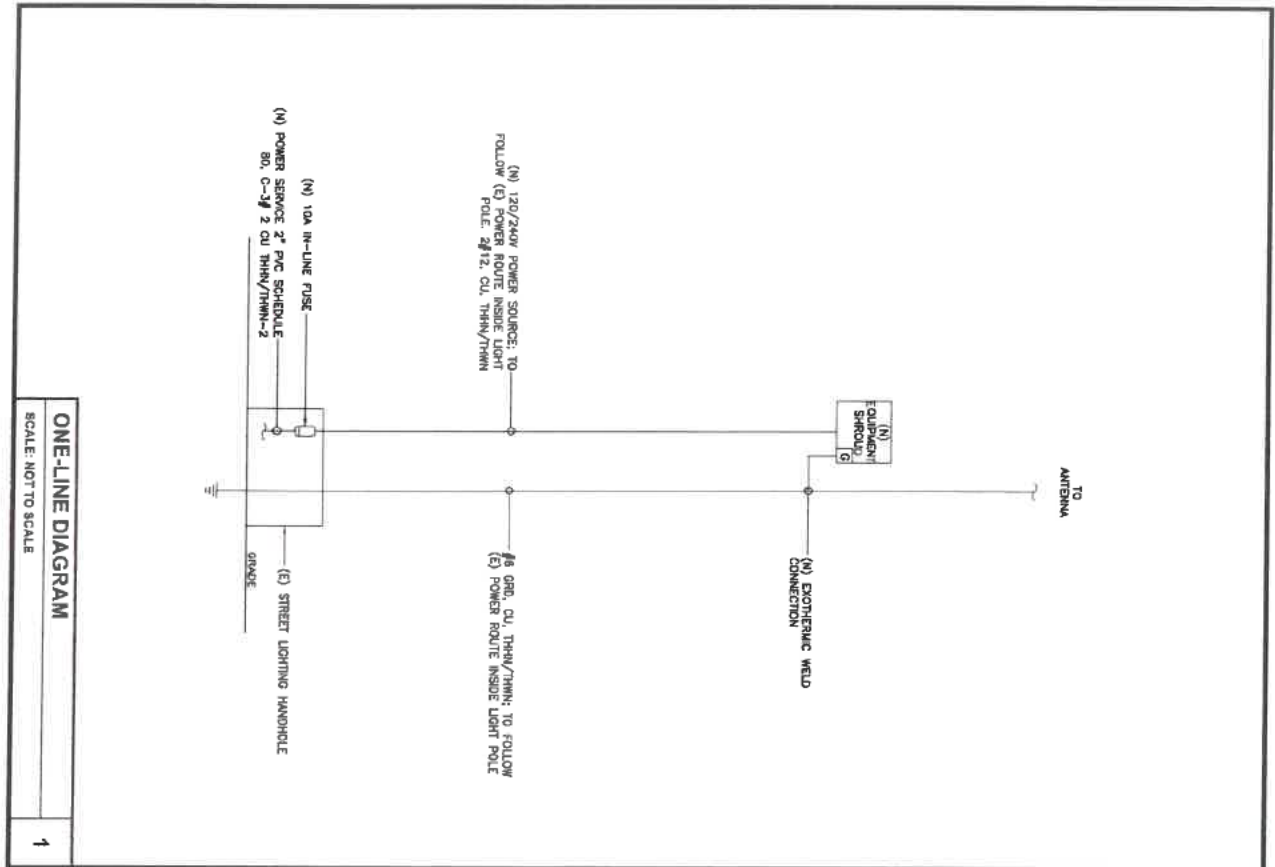
A. DATE	FOR ISSUE



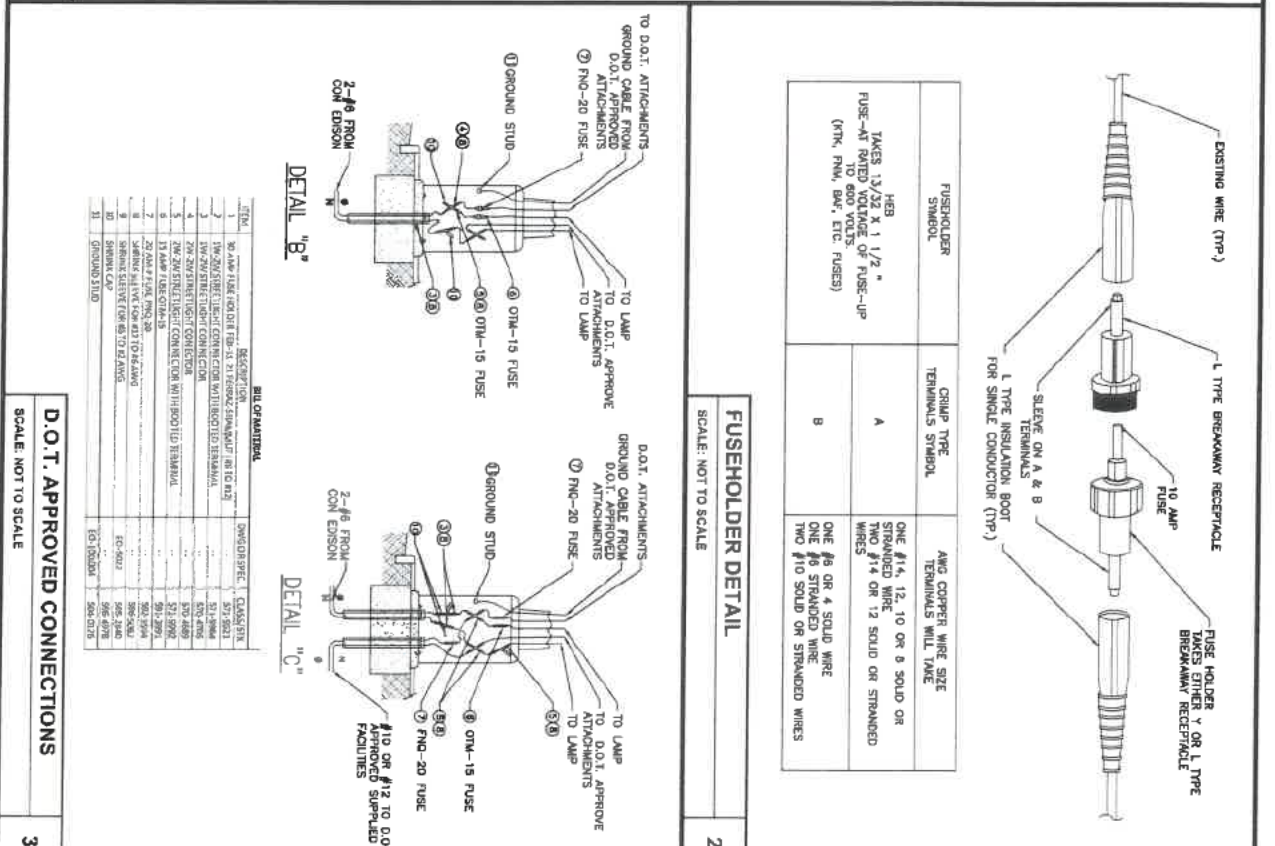
REGISTERED PROFESSIONAL ENGINEER
STATE OF NEW YORK
LICENSE NO. 097571

INGRASSIA, INC.
245 W. 125th St.
ASTORIA, NY 11415
KIEWIT SERVICES, NY 11415
LIGHT POLE

SHEET TITLE
PLUMBING & RISER DIAGRAM
SHEET NUMBER
4.0



ONE-LINE DIAGRAM
SCALE: NOT TO SCALE



FUSEHOLDER DETAIL
SCALE: NOT TO SCALE

PROJECT NO: EMB2231
DRAWN BY: M. POTISIA
CHECKED BY: C. RABERT

3475 PIEDMONT ROAD NE,
ALPHARTA, GEORGIA 30305
PHONE: (312) 838-5400

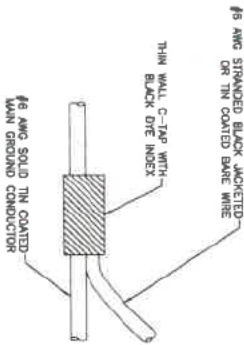
mobilitie

STATE OF NEW YORK
PAUL LOUIS VIVIANO
REGISTERED PROFESSIONAL ENGINEER
097571

NY REG. NO. 097571
ALPHARTA, GA 30305
128TH ST &
KEW GARDENS, NY 11415

SHEET NUMBER
4.1

NOTE:
CONTRACTOR TO STRIP/ROUND COMPLETED
CONNECTION WITH FIBER-DRAWING TO
ENSURE PROPER FIBER CONNECTION



C-TAP DETAIL
SCALE: NOT TO SCALE

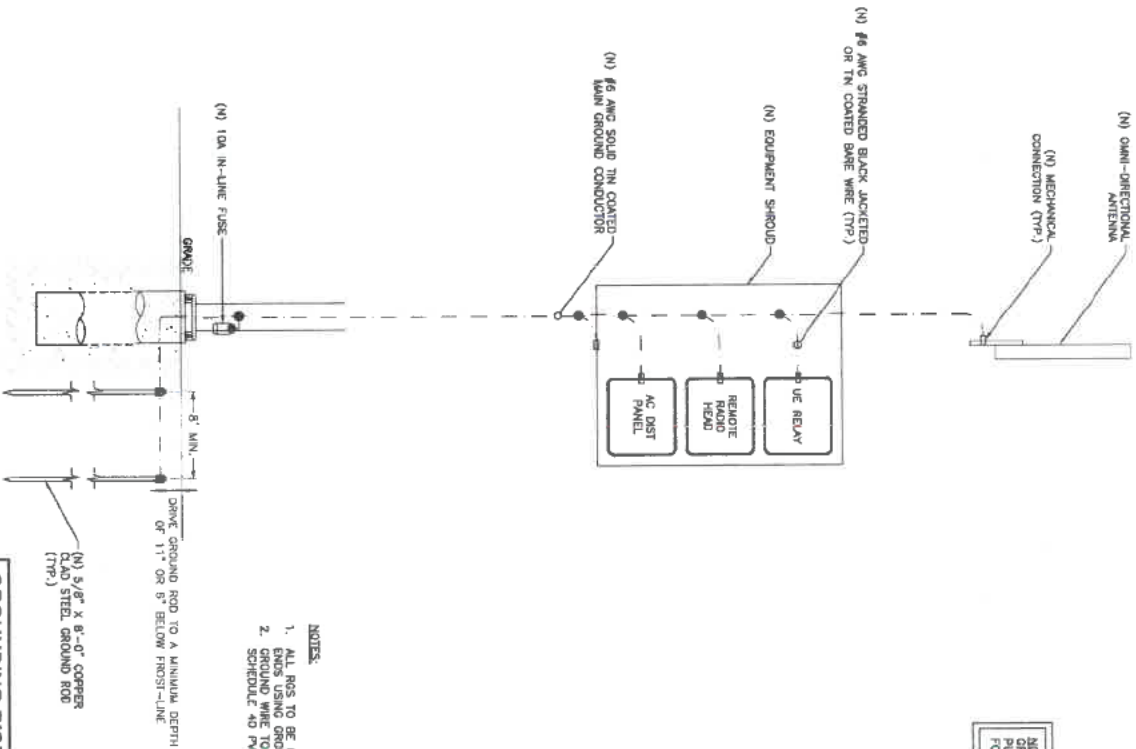
1



NOTE:
ENJO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES.
CONSULT WITH PROJECT MANAGER FOR SPECIFIC MOLDS TO BE
USED FOR THIS PROJECT.

WELD CONNECTION DETAILS
SCALE: NOT TO SCALE

2



LEGEND
 WELDED CONNECTION
 MECHANICAL CONNECTION
 COMPRESSION CONNECTION

NOTE:
GROUNDING RISER FOR DIAGRAMATIC
PURPOSES ONLY. SEE ELEVATION DRAWING
FOR EQUIPMENT AND ANTENNA LOCATIONS.

NOTES:
 1. ALL RGS TO BE GROUNDING AT BOTH
 ENDS. SEE ELEVATION DRAWING FOR
 DIMENSIONS.
 2. GROUND WIRE TO BE RUN IN 1/2"
 SCHEDULE 40 PVC.

GROUNDING RISER DIAGRAM
SCALE: NOT TO SCALE

3

mobilitie
 3475 PEDDONT ROAD NE,
 ATLANTA, GA 30305
 PHONE: (770) 536-5400

PROJECT NO.: BR18021
 DRAWN BY: B. P. ESTIA
 CHECKED BY: C. BARRY

NO.	DATE	DESCRIPTION

STATE OF NEW YORK
 PAUL LOUIS VIGNER
 09/15/11
 LICENSED PROFESSIONAL ENGINEER

IT IS A CERTIFIED TRUE AND CORRECT COPY OF THE ORIGINAL AS SUBMITTED TO THE STATE OF NEW YORK FOR LICENSING AND RECORDING.

IN WITNESS WHEREOF,
 I, BRUCE S. JAC,
 5151 BIRDSONG DR,
 AUSTIN, TX 78746
 KEW GARDENS, NY 11415
 LIGHT POLE

SHEET TITLE:
 GROUNDING DETAILS

SHEET NUMBER
 5.0

- EPAI NOTES:**
- PLANS DEPICTED ARE GENERAL GUIDELINES FOR TEMPORARY VEHICULAR TRAFFIC CONTROL PLANS (TOP) TO INCLUDE PEDESTRIAN AND WORKER SAFETY. CONTRACTOR IS REQUIRED TO HAVE PREPARED A SITE-SPECIFIC TOP FOR REVIEW AND APPROVAL BY THE HIGHWAY AUTHORITY HAVING JURISDICTION. IF REQUIRED, THE FINAL TOP SHALL BE AUTHORIZED OR CERTIFIED BY THE AUTHORITY HAVING JURISDICTION.
 - EXTEND CHANNELIZATION DEVICES INTO SHOULDER WHERE APPLICABLE.
 - DISTANCES AS INDICATED IN TABLE 1 SHOULD BE INCREASED FOR CONDITIONS THAT WOULD AFFECT STOPPING DISTANCE AS DETERMINED BY THE DISTANCES DISTANCES CAN BE DECREASED FOR LOW-SPEED (RESIDENTIAL) AREAS WITH APPROVAL BY THE AUTHORITY HAVING JURISDICTION. WORK IS PROHIBITED UNLESS IT IS REQUIRED AS A CONDITION OF APPROVAL BY THE HIGHWAY AND LOCAL AUTHORITY HAVING JURISDICTION.
 - SHOULDER TAPERS SHOULD BE 1/3 OF THE ON-STREET TAPER LENGTH.
 - MAINTAIN A MINIMUM LANE WIDTH OF 10'.

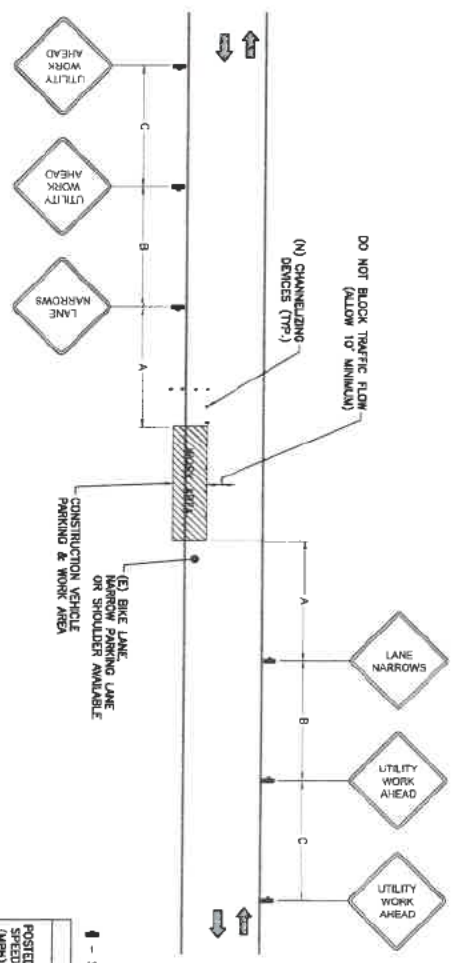


TABLE 1
POSTED SIGN DISTANCES BETWEEN SIGNS (Mph)

POSTED SIGN DISTANCES BETWEEN SIGNS (Mph)	DISTANCE BETWEEN SIGNS			TAPER	BUFFER
	A	B	C		
15	100'	100'	100'	45'	100'
20	100'	100'	100'	60'	115'
25	100'	100'	100'	125'	135'
30	200'	200'	200'	180'	200'
35	200'	200'	200'	245'	260'
40	350'	350'	350'	320'	305'
45	350'	350'	350'	540'	360'
50	500'	500'	500'	650'	425'
60	500'	500'	500'	720'	485'
65	500'	500'	500'	780'	510'
70	500'	500'	500'	780'	545'

- NOTES:
- A) DISTANCES IN FEET UNLESS OTHERWISE NOTED.
 - B) CONTRACTION TO ZERO (E) SPEED LIMIT.
 - C) DISTANCES SHOWN ARE NOT VALID FOR LIMITED ACCESS HIGHWAYS. CONSULT STATE DOT MANUAL FOR DISTANCES.
 - D) ADJUST DISTANCES TO COMPLY WITH REQUIREMENT OF THE STATE OR LOCAL HIGHWAY AUTHORITY HAVING JURISDICTION. SEE NOTE 1, SHEET TC-2.
 - E) TAPER LENGTHS SHOWN BASED ON 12' LANE WIDTH. SEE NOTE 1A, SHEET TC-2.

VEHICULAR TRAFFIC CONTROL PLAN - CURBSIDE PARKING

SCALE: NOT TO SCALE

SHEET NUMBER
6.0

mobilitie
 3475 PIEDMONT ROAD NE
 ATLANTA, GEORGIA 30305
 PHONE: (312) 638-5400

PROJECT NO.: ESR0801
 DRAWN BY: B. POTESTIA
 CHECKED BY: C. RABNEY

STATE OF NEW YORK
PROFESSIONAL ENGINEER
 097571

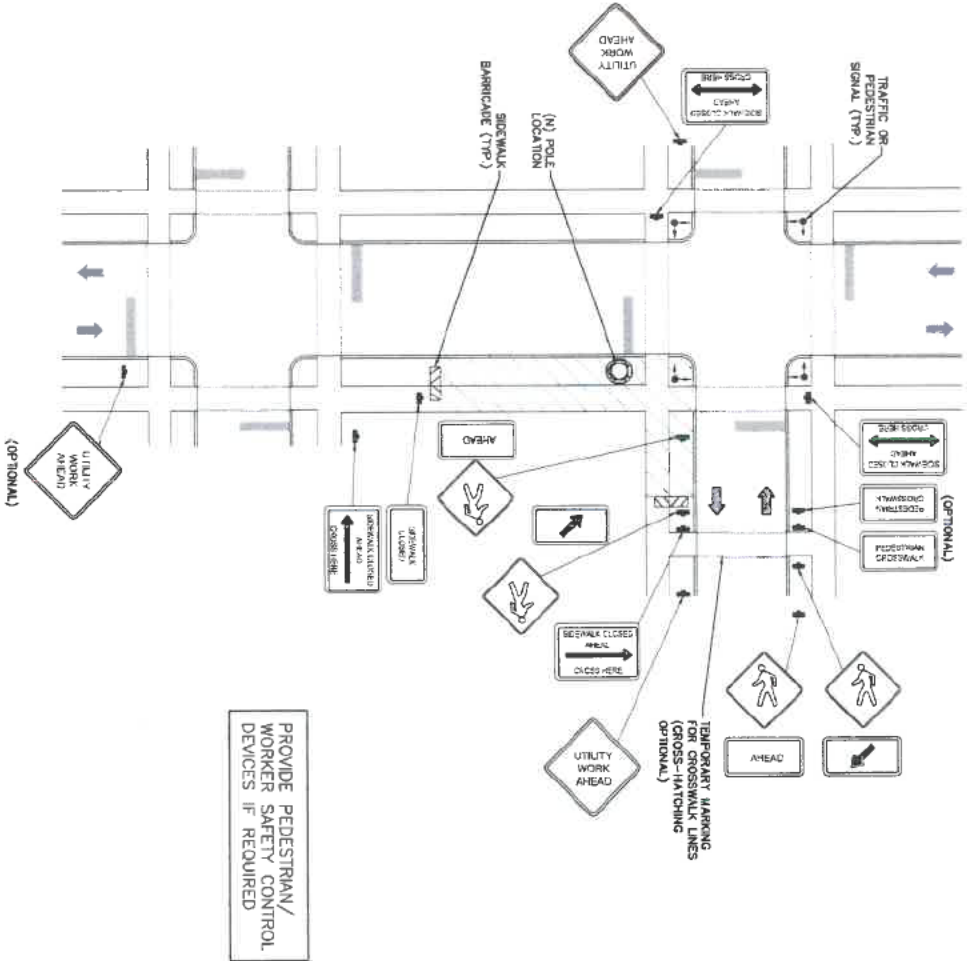
IF I, A MEMBER OF THE LAW FOR THE STATE OF NEW YORK, AM THE DESIGNER OF A PROJECTED PROFESSIONAL ENGINEERING DESIGN, I HEREBY CERTIFY THAT I AM A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF NEW YORK.

NY 097571 JRC
 RIVINGTON ST &
 AUSTIN ST
 KEW GARDENS, NY 11415
 LIGHT POLE

SHEET TITLE
VEHICULAR TRAFFIC CONTROL PLAN

TRAFFIC CONTROL GENERAL NOTES

1. ALL TEMPORARY TRAFFIC CONTROL SIGNAL, LAYOUTS AND PROVISIONS SHALL COMPLY WITH LOCAL JURISDICTIONAL REQUIREMENTS AND MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION, WHICHEVER IS MORE STRINGENT.
2. PRIOR TO ANY ROAD CONSTRUCTION, TRAFFIC CONTROL SIGNS AND DEVICES SHALL BE IN PLACE.
3. TRAFFIC CONTROL DEVICES FOR LANE CLOSURES INCLUDING SIGNS, CONES, BARRIQUES, ETC. SHALL BE PLACED AS NEARLY AS PRACTICABLE TO THE WORK ZONE AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. DEVICES SHALL BE IMMEDIATELY REMOVED UPON REMOVAL OF THE CLOSURES.
4. SELECTION, PLACEMENT, MAINTENANCE, AND PROTECTION OF TRAFFIC CONTROL DEVICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. TEMPORARY TRAFFIC CONTROL, AND LOCAL JURISDICTIONAL REQUIREMENTS UNLESS OTHERWISE NOTED IN THE PLANS AND SPECIFICATIONS, AND SHALL BE APPROVED BY THE APPROPRIATE HIGHWAY AUTHORITY HAVING JURISDICTION.
5. ADVANCE WARNING SIGNS, DISTANCES, AND TAPER LENGTHS MAY BE EXTENDED TO ADJUST FOR REDUCED VISIBILITY DUE TO HORIZONTAL AND VERTICAL CURVATURE OF THE ROADWAY AND FOR ACTUAL TRAFFIC SPEEDS IF IN EXCESS OF POSTED SPEED LIMITS. TAPERS SHALL BE LOCATED TO MAXIMIZE THE VISIBILITY OF THEIR TOTAL LENGTH.
6. CONNECTING OR NON-GENERATING SIGNAL INDICATIONS ON THE (E) TRAFFIC SIGNAL SYSTEMS SHALL BE BARRAGED OR COVERED.
7. ALL (E) ROAD SIGNS, PAVEMENT MARKINGS AND/OR PLOWABLE PAYMENT REFLECTORS WHICH CONFLICT WITH THE MUTCD, LOCAL TRAFFIC CONTROL DEVICES SHALL BE RESTORED TO MATCH PRE-CONSTRUCTION CONDITION AFTER COMPLETION OF WORK.
8. CONTRACTOR SHALL CONTACT LOCAL AUTHORITY HAVING HIGHWAY JURISDICTION AND PROVIDE AN ADDITIONAL "TOWNER" OR POLICE SUPERVISION IF REQUIRED.
9. ALL EXCAVATED AREAS WITHIN OR ADJACENT TO THE ROADWAY SHALL BE PROTECTED BY SAFETY BARRIERS OR SAFETY BARRIQUES PRIOR TO THE END OF EACH WORK DAY. OTHER EXCAVATED AREAS WITHIN THE CLEAR ZONE ARE TO BE EITHER BACKFILLED OR PRECAST CONCRETE CURB BARRIER CONSTRUCTION BARRIER SET TEMPORARILY IN PLACE TO SHIELD VEHICULAR AND PEDESTRIAN TRAFFIC.
10. WHERE DICTATED BY LOCAL CONDITIONS, THE CONTRACTOR SHALL MAKE PROVISIONS FOR MAINTAINING PEDESTRIAN AND WORKER CROSSING LOCATIONS IN ACCORDANCE WITH ALL APPLICABLE CODES AND OSHA REQUIREMENTS.
11. CONSTRUCTION ZONE SPEED LIMIT IF REDUCED FROM POSTED LIMITS SHALL BE IN ACCORDANCE WITH MUTCD AND WILL BE DETERMINED BY THE AUTHORITY HAVING JURISDICTION.
12. THERE SHALL BE NO WORKERS, EQUIPMENT, OR OTHER VEHICLES IN THE BUFFER SPACE OR THE ROLL AHEAD SPACE.
13. OPERATIONS AND/OR SIDE STREETS ENTERING THE ROADWAY AFTER THE FIRST ADVANCE WARNING SIGN SHALL BE PROVIDED WITH AT LEAST ONE W20-1 SIGN (ROAD WORK AHEAD) AS A MINIMUM.
14. CONES MAY BE SUBSTITUTED FOR ORLIMS AND INSTALLED UPON THE APPROVAL OF THE AUTHORITY HAVING JURISDICTION PROVIDED THEY COMPLY WITH MUTCD.
15. THE SPACING BETWEEN CONES, TUBULAR MARKERS, VERTICAL PARELS, DRUMS, AND BARRIQUES SHOULD NOT EXCEED A DISTANCE IN FEET EQUAL TO THE SPEED LIMIT IN MPH AND DISTANCE IN FEET EQUAL TO 2.0 TIMES THE SPEED LIMIT IN MPH WHEN USED FOR TANGENT CHANNELIZATION.
16. WHEN CHANNELIZATION DEVICES HAVE THE POTENTIAL OF LEADING VEHICULAR TRAFFIC OUT OF THE INTENDED VEHICULAR TRAFFIC SPACE, THE CHANNELIZATION DEVICES SHOULD BE EXTENDED A DISTANCE IN FEET OF 2.0 TIMES THE SPEED LIMIT IN MPH BEYOND THE DOWNSTREAM END OF THE TRANSITION AREA.
17. TAPER LENGTHS ARE CALCULATED AS FOLLOWS:
 $L = WS^2/90$ (40 MPH AND HIGHER) OR $L = WS$ (OVER 40 MPH),
 WHERE W = OFFSET WIDTH (FT), S = TRAFFIC SPEED (MPH).



TYPICAL PEDESTRIAN / WORKER SAFETY PLAN
 SCALE: NOT TO SCALE

1

mobile
 3475 PERDONT ROAD NE
 SUITE 1000
 ATLANTA, GEORGIA 30305
 PHONE: (312) 638-9400

PROJECT NO: _____
 DRAWN BY: B. POTERIA
 CHECKED BY: C. RANIER
 ESTIMATOR: _____

NO.	DATE	DESCRIPTION
1	05/15/18	FOR BIDD

STATE OF NEW YORK
 LEONARD PROFESSIONAL ENGINEER
 097571
 I am a holder of the license for the profession of Professional Engineer in the State of New York. I am duly licensed and qualified to perform the duties of a Professional Engineer in accordance with the provisions of the Engineering Law and the Regulations of the Board of Engineering and Architecture.

NY90036JBC
 8NYBU02982
 JUSTIN ST &
 KEW GARDES, NY 11415
 LIGHT POLE
 SHEET TITLE
 PEDESTRIAN SAFETY PLAN

SHEET NUMBER
 6.1



3475 PIEDMONT ROAD NE
SUITE 1000
ATLANTA, GEORGIA 30305
PHONE: (312) 638-5400

PROJECT NO: ER00201
DRAWN BY: R. MARTINEZ
CHECKED BY: N. HANNA

PRELIM - NOT FOR CONSTRUCTION

DATE	DESCRIPTION
11/13/15	PRELIM - NOT FOR CONSTRUCTION

THIS DRAWING IS THE PROPERTY OF MOBILITE. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.

NY90XSAW4D
SNYB002862D
HAWTREE CREEK RD &
109TH AVE
SOUTH OZONE PARK, NY 11420
UTILITY POLE

SHEET TITLE
TITLE SHEET

SHEET NUMBER
0.0

SITE ID: 9NYB002862D NY90XSAW4D HAWTREE CREEK RD & 109TH AVE SOUTH OZONE PARK, NY 11420



DIG ALERT
TWO WORKING DAYS BEFORE YOU DIG

PROJECT DESCRIPTION

END USER PROPOSES TO INSTALL EQUIPMENT ON AN EXISTING WOOD UTILITY POLE WITHIN AN EXISTING RIGHT-OF-WAY. THE SCOPE WILL CONSIST OF THE FOLLOWING:
- INSTALL PROPOSED BACKHAUL TRANSPORT EQUIPMENT ON AN EXISTING WOOD UTILITY POLE

2015 INTERNATIONAL BUILDING CODE
2014 NATIONAL ELECTRICAL CODE

DRAWING INDEX

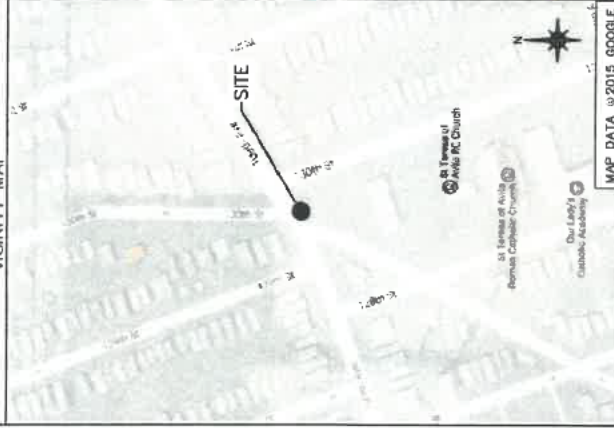
SHEET NO:	SHEET TITLE
0.0	TITLE SHEET
1.0	SITE PLAN & EXHIBIT PHOTO
2.0	POLE ELEVATIONS
3.0	ANTENNA MOUNTING DETAILS
3.1	EQUIPMENT MOUNTING DETAILS
GN-1	GENERAL NOTES
GN-2	GENERAL NOTES
GN-3	GENERAL NOTES
4.0	TRAFFIC CONTROL PLAN
4.1	TYPICAL PEDESTRIAN / WORKER SAFETY PLAN

ARCHITECT/ENGINEER

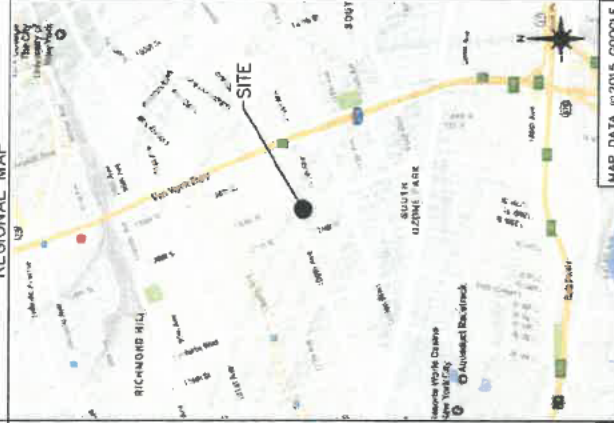
JACOBS ENGINEERING GROUP, INC.
9448 BELLS FERRY ROAD
ACWORTH, GA 30102
CONTACT: KARL KRATINA
PROJECT MANAGER
TEL: (770) 400-1416
FAX: (770) 701-2501

LOCATION MAPS

VICINITY MAP



REGIONAL MAP



GENERAL NOTES

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. TECHNICAL AND SITE SPECIFIC INFORMATION IS PROVIDED FOR MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OF EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

SITE INFORMATION

PROPERTY OWNER: PUBLIC RIGHT-OF-WAY
ADDRESS/GROSS ST: HAWTREE CREEK RD & 109TH AVE
APPLICANT: MOBILITE, LLC
APPLICANT ADDRESS: 3475 PIEDMONT ROAD NE, SUITE 1000 ATLANTA, GEORGIA 30305 PHONE: (312) 638-5400
LATITUDE: 40° 41' 4.72" N (40.684645)
LONGITUDE: 73° 48' 48.80" W (-73.813556)
LAT/LONG TYPE: NAD 83
GROUND ELEVATION: ± 43' AMSL
BOROUGH: QUEENS
JURISDICTION: NEW YORK CITY

BEFORE SCALING:

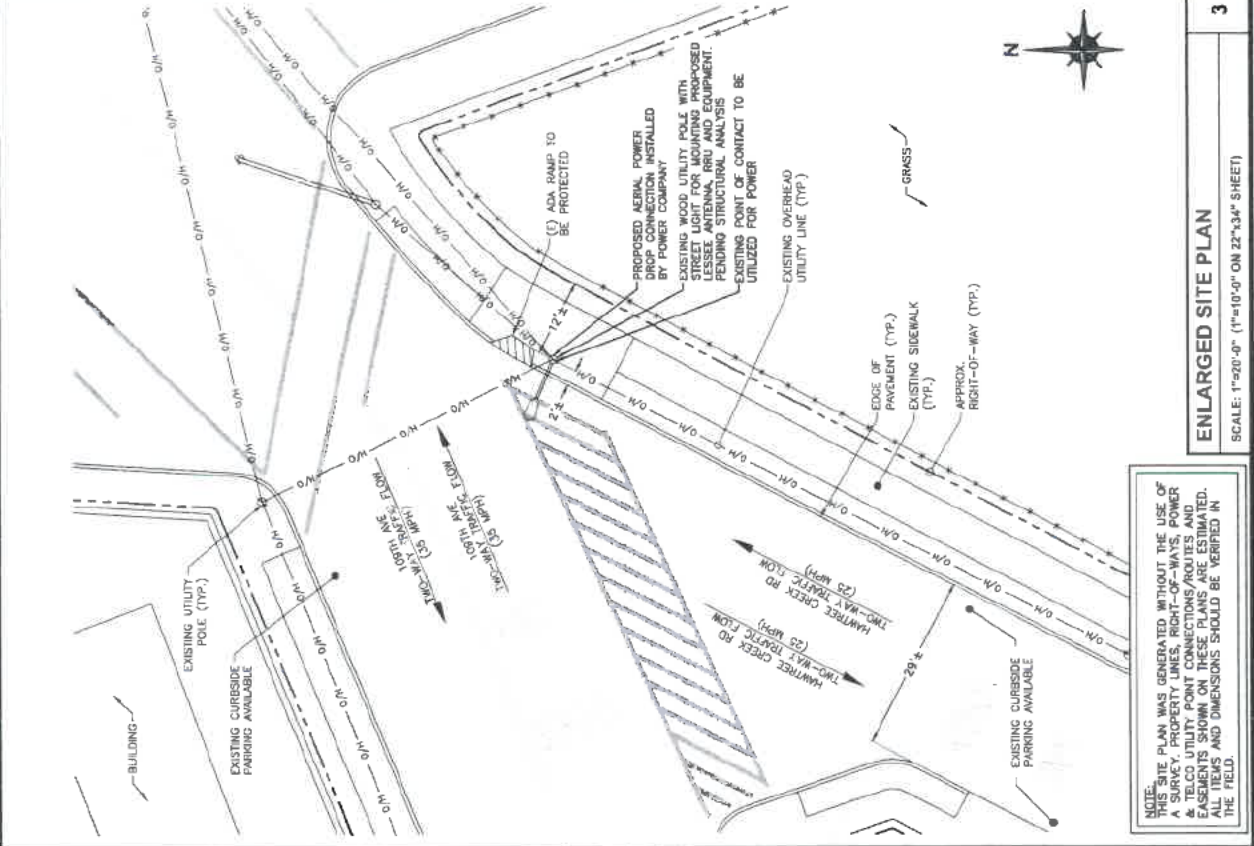
CONTRACTORS SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS AND CONDITIONS OF THE SITE. ANY DISCREPANCIES BETWEEN THE DRAWING AND THE ACTUAL CONDITIONS OF THE SITE SHALL BE IMMEDIATELY NOTIFIED TO THE ARCHITECT/ENGINEER IN WRITING. ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

IT IS A REQUIREMENT OF THE LAW FOR ANY THE
CONSTRUCTION OF A FACILITY TO PROVIDE
EQUIPMENT TO ALIBI THE DOCUMENT

NY300SAW4D
NY19002862D
HAWTREE CREEK RD &
108TH AVE
SOUTH OZONE PARK, NY 11420
UTILITY POLE

SHEET TITLE
SITE PLAN & EXHIBIT PHOTO

SHEET NUMBER
1.0



NO.	DESCRIPTION	DATE
1	01.23.17	REVISION

IT IS A VIOLATION OF THE LAW FOR ANY PERSON TO REPRODUCE OR TRANSMIT THIS DOCUMENT WITHOUT THE WRITTEN PERMISSION OF THE DRAWER.

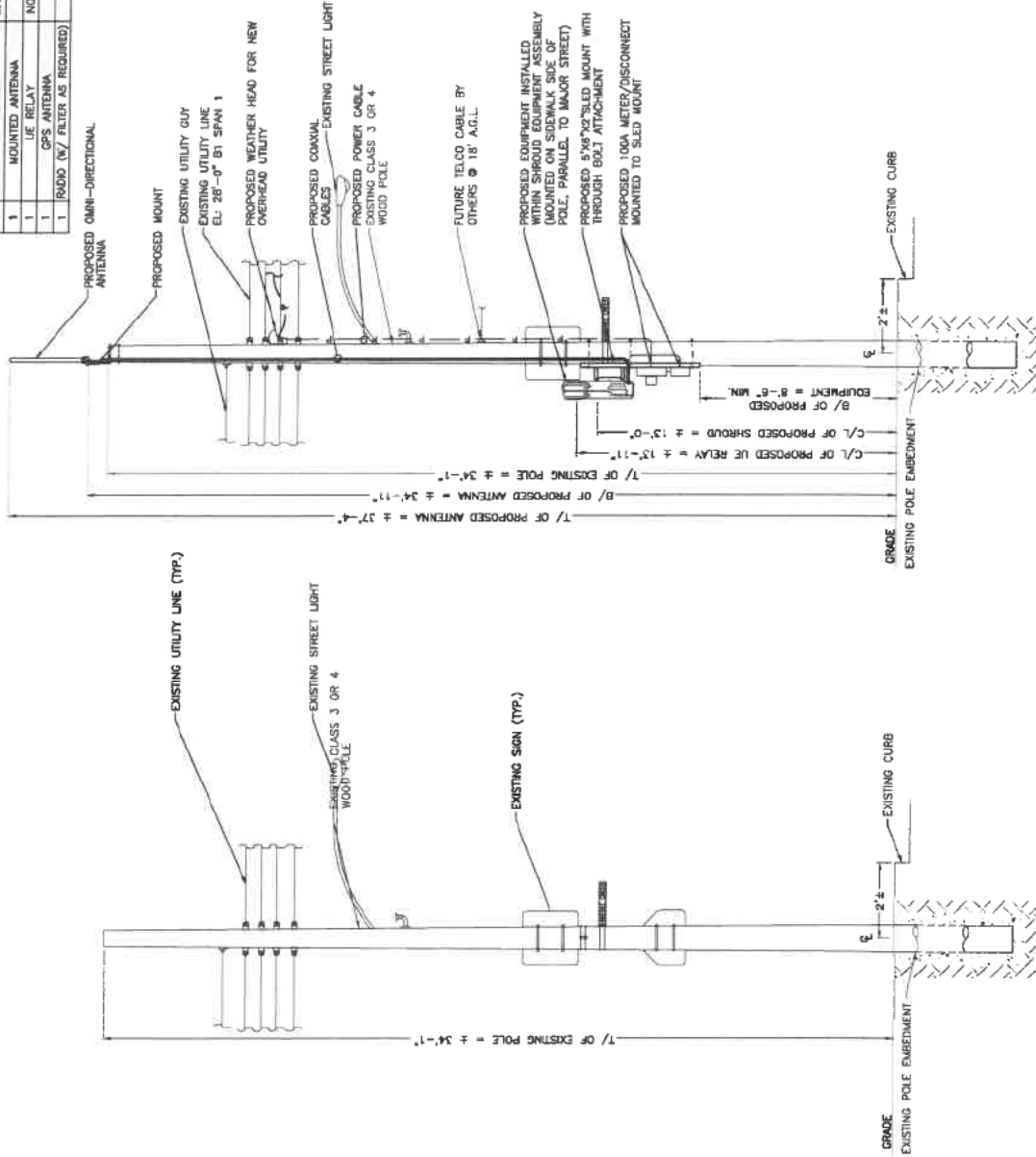
NY90XSAW4D
8NY7B02B82D
100TH AVE
SOUTH OZONE PARK, NY 11420
UTILITY POLE

SHEET TITLE
POLE ELEVATIONS

SHEET NUMBER
2.0

BAND 41 (2500MHz) EQUIPMENT CHART

QTY.	DESCRIPTION	MANUFACTURER	MODEL NUMBER	DIMENSIONS (HxWxD)	WEIGHT
1	MOUNTED ANTENNA	MAIN	FX-X-360-7-00T-ST	30" X 2.00" DIAMETER	2.6 LBS
1	UE RELAY	NOKIA/GEMTEK	FTIC/473783A	13.2" X 7.87" DIAMETER	5.5 LBS
1	GPS ANTENNA	POTEL	38970	0.53" X 1.7" DIAMETER	0.057 LBS
1	RADIO (W/ FILTER AS REQUIRED)	NOKIA	FWRT B41 LP	8.7" X 12.8" X 4.7"	17.2 LBS



NOTE:
THE SCOPE OF WORK DOES NOT INCLUDE A STRUCTURAL EVALUATION OF THIS POLE OR STRUCTURE. NEW EQUIPMENT SHOWN ON THIS PLAN HAVE NOT BEEN EVALUATED TO VERIFY THE POLE OR STRUCTURE HAS THE CAPACITY TO ADEQUATELY SUPPORT THE EQUIPMENT. PRIOR TO ANY STRUCTURAL EVALUATION OF THE POLE OR STRUCTURE, IT SHALL BE PERFORMED.

- NOTES:**
1. ALL HARDWARE SHALL BE STAINLESS STEEL.
 2. ALL CABLES SHALL BE SECURED TO POLE EVERY 36" OR LESS.
 3. LIGHTNING RODS SHALL BE INCLUDED AS REQUIRED.

PROPOSED POLE ELEVATION
SCALE: 1" = 6'
1

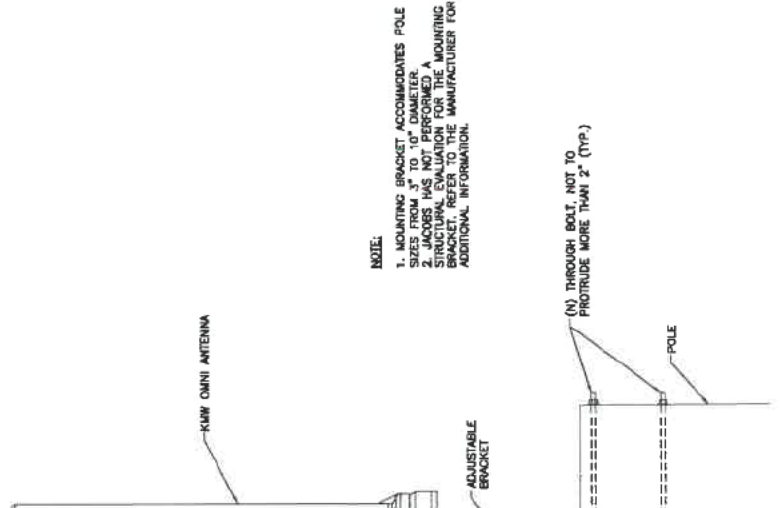
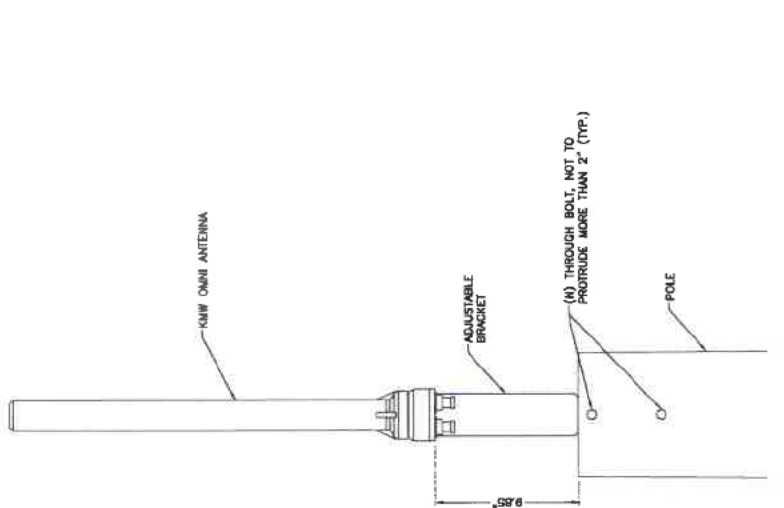
EXISTING POLE ELEVATION

IT IS A VIOLATION OF THE LAW FOR ANY PERSON TO REPRODUCE OR TRANSMIT ANY INFORMATION OF A TRADE OR PROFESSIONAL CHARACTER, TO ANY OTHER PERSON, WITHOUT THE WRITTEN CONSENT OF THEIR EMPLOYER.

NY01035A/WD
 NY160028E/D
 HAWTREE CREEK RD &
 108TH AVE
 SOUTH OZONE PARK, NY 11420
 UTILITY POLE

SHEET TITLE
 ANTENNA MOUNTING
 DETAILS

SHEET NUMBER
 3.0



NOTE:
 1. MOUNTING BRACKET ACCOMMODATES POLE SIZES FROM 3" TO 6" DIAMETER.
 2. ANTENNA ATTACHMENT TO BE EVALUATED BY A REGISTERED PROFESSIONAL ENGINEER. STRUCTURAL EVALUATION FOR THE MOUNTING BRACKET. REFER TO THE MANUFACTURER FOR ADDITIONAL INFORMATION.

ANTENNA MOUNT DETAILS
 SCALE: NOT TO SCALE
 1

GENERAL

THE CONSTRUCTION DOCUMENT DRAWINGS ARE INTERRELATED. WHEN PERFORMING THE WORK, EACH CONTRACTOR MUST REFER TO ALL DRAWINGS. COORDINATION IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

GENERAL REQUIREMENTS

PART 1 - GENERAL

1. OBTAIN AND SUBMIT RELEASES ENABLING THE OWNER UNRESTRICTED USE OF THE WORK AND MATERIALS. RELEASES INCLUDE OCCUPANCY PERMITS, OPERATING CERTIFICATES AND SIMILAR RELEASES.
2. SUBMIT RECORD DRAWINGS, DAMAGE OR SETTLEMENT SURVEY, PROPERTY SURVEY, AND SIMILAR FINAL RECORD INFORMATION.
3. COMPLETE FINAL CLEAN UP REQUIREMENT, INCLUDING TOUCH-UP PAINTING, TOUCH UP AND OTHERWISE REPAIR AND RESTORE IMPAIRED EXPOSED FINISHES.

PART 2 - FINAL CLEANING

1. COMPLETE THE FOLLOWING CLEANING OPERATIONS BEFORE REQUESTING INSPECTION FOR CERTIFICATION OF COMPLETION.
 - A. CLEAN THE PROJECT SITE, YARD AND GROUNDS IN AREAS DISTURBED BY CONSTRUCTION ACTIVITIES, INCLUDING LANDSCAPE DEVELOPMENT AREA, OF RUBBER, WASTE MATERIALS, LITTER AND FOREIGN SUBSTANCES. SWEEP PAVED AREAS AND DRIVEWAYS. REMOVE ALL FOREIGN DEBRIS AND FOREIGN OILS AND GREASES THAT ARE NEITHER PLANTED NOR PAVED, TO A SMOOTH EVEN-TEXTURED SURFACE.
 - B. REMOVE TOOLS, CONSTRUCTION EQUIPMENT, MACHINERY AND SURPLUS MATERIAL FROM THE SITE. REMOVE ALL DEBRIS AND EQUIPMENT.
 - C. REMOVE ALL DEBRIS FROM THE SITE AND EQUIPMENT ENCLOSURE.
 - D. CLEAN EXPOSED EXTERIOR HARD SURFACED FINISHES TO A DIRT-FREE CONDITION. FREE OF STAINS, FILMS AND SIMILAR FOREIGN SUBSTANCES. AVOID DISTURBING FINISHES.
 - E. REMOVE DEBRIS FROM LIMITED ACCESS SPACES, INCLUDING HANDHOLES, MANHOLES, AND SIMILAR SPACES.
 - F. REMOVE LABELS THAT ARE NOT PERMANENT LABELS.
 - G. DO NOT REPAIR FINISHES OR SURFACES THAT CANNOT BE SATISFACTORILY REPAIRED OR RESTORED, OR THAT SHOW EVIDENCE OF REPAIR OR RESTORATION. DO NOT PAINT OVER "JL" AND SIMILAR LABELS, INCLUDING ELECTRICAL NAME PLATES.
 - H. LEAVE THE PROJECT CLEAN AND READY FOR OCCUPANCY.
 - I. LEAVE THE PROJECT CLEAN AND READY WITHIN EQUIPMENT ENCLOSURE.
2. REMOVAL OF PROTECTION: REMOVE TEMPORARY PROTECTION AND FACILITIES INSTALLED DURING CONSTRUCTION TO PROTECT PREVIOUSLY COMPLETED INSTALLATIONS DURING THE REMAINDER OF THE CONSTRUCTION PERIOD.

SITE WORK

PART 1 - GENERAL

1. WORK INCLUDED: SEE SITE PLAN.
2. DESCRIPTIONS: IF APPLICABLE, LEASE AREA AND UNDERGROUND UTILITY EASEMENTS ARE TO BE PROVIDED TO PROVIDE A WELL OWNED, EASILY MAINTAINED, EVEN SURFACE FOR USE AND ACCESS.
3. QUALITY ASSURANCE
 - A. APPLY SOIL STERILIZER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS (AS NEEDED).
 - B. APPLY AND MAINTAIN GRASS SEED AS RECOMMENDED BY THE SEED PRODUCER.
 - C. MAINTAIN VEGETATION LANDSCAPING, IF INCLUDED WITHIN THE CONTRACT, AS RECOMMENDED BY NURSERY INDUSTRY STANDARDS.
4. SEQUENCING
 - A. OBTAIN SURVEY STAKES AND SET ELEVATION STAKES PRIOR TO ANY CONSTRUCTION.
 - B. CONSTRUCT TEMPORARY CONSTRUCTION AREA DESIGNATED AREA TO BE APPROVED BY CONSTRUCTION MANAGER AND LOCAL AUTHORITIES.
 - C. APPLY SOIL STERILIZER PRIOR TO LAYING GRASS SEEDS.
 - D. LAY GRASS SEEDS AND SOIL STABILIZER (INCLUDING UNDERGROUND UTILITY EASEMENTS) IMMEDIATELY AFTER BRONING LEASE AREA TO BASE COURSE ELEVATION. WATER TO ENSURE GROWTH.
 - E. AFTER APPLICATIONS OF FINAL SURFACES, APPLY SOIL STERILIZER TO STONE SURFACES.

5. SUBMITTALS

- A. BEFORE CONSTRUCTION: IF LANDSCAPING IS APPLICABLE TO THE CONTRACT, SUBMIT TWO COPIES OF THE LANDSCAPE PLAN ON NURSERY LETTERHEAD. IF A LANDSCAPE ALLOWANCE WAS INCLUDED IN THE CONTRACT, PROVIDE AN ITEMIZED LISTING OF PROPOSED COSTS ON NURSERY LETTERHEAD.
- B. AFTER CONSTRUCTION
 1. STATEMENT OF SOIL STERILIZER.
 2. MANUFACTURER'S DESCRIPTION OF PRODUCT ON GRASS SEED AND FERTILIZER.
 3. LANDSCAPING WARRANTY STATEMENT.

6. WARRANTY

- A. IN ADDITION TO THE WARRANTY ON ALL CONSTRUCTION COVERED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL REPAIR ALL DAMAGE AND RESTORE AREA AS CLOSE TO ORIGINAL CONDITION AS POSSIBLE AT SITE AND SURROUNDINGS.
- B. IMMEDIATE APPLICATION TO GUARANTEE VEGETATION FREE AREAS FOR ONE YEAR FROM DATE OF FINAL INSPECTION.
- C. DISTURBED AREA WILL REFLECT GROWTH OF NEW GRASS COVER PRIOR TO FINAL INSPECTION.
- D. LANDSCAPING IF INCLUDED WITHIN THE SCOPE OF THE CONTRACT, WILL BE GUARANTEED FOR ONE YEAR FROM DATE OF FINAL INSPECTION.

PART 2 - PRODUCTS

1. MATERIALS
 - A. SOIL STERILIZER SHALL BE EPA-REGISTERED, PRE-EMERGENCE LIQUID:
 - TOTAL KILL
 - PRODUCT 910
 - P.O. BOX 5123
 - DEARBORN, MI 48126
 - (313) 953-8000
 - AMBUSH HERBICIDE
 - EPA REGISTERED
 - FRAMAR INDUSTRIAL PRODUCTS
 - 1405 MORTIMER AVE.
 - UNION, NJ 07083
 - (800) 528-4924

- B. ROAD AND SITE MATERIALS SHALL CONFORM TO STATE AND LOCAL DOT SPECIFICATIONS. FILL MATERIALS (UNLESS OTHERWISE NOTED) - ACCEPTABLE

- C. CONCRETE SHALL CONFORM TO STATE DEPARTMENT OF HIGHWAY AND TRANSPORTATION STANDARD SPECIFICATIONS.

- D. SOIL STABILIZER FABRIC SHALL BE MIRAFT 500X.

PART 3 - EXECUTION

1. INSPECTIONS: LOCAL BUILDING INSPECTORS SHALL BE NOTIFIED NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS, UNLESS OTHERWISE SPECIFIED BY JURISDICTION.
2. PREPARATION
 - A. CLEAR BRUSH AND DEBRIS FROM LEASE AREA AND UNDERGROUND UTILITY EASEMENTS AS REQUIRED FOR CONSTRUCTION.
 - B. UNLESS OTHERWISE INSTRUCTED BY LESSEE, TRANSPORT ALL REMOVED TREES, BRUSH AND DEBRIS FROM THE PROPERTY TO AN AUTHORIZED LANDFILL.
 - C. PRIOR TO PLACEMENT OF FILL OR BASE MATERIALS, ROLL THE SOIL IN AREAS WITH AGRICULTURAL HISTORY TO REMOVE PLANT ROOTS AND OTHER DEBRIS. AREAS WITH STABILIZER MAT PRIOR TO PLACEMENT OF FILL OR BASE MATERIAL.

3. INSTALLATION
 - A. CLEAR EXCESS SPILLS, IF ANY, FROM JOB SITE AND DO NOT SPREAD BEYOND PERMITTED BY LAW.
 - B. PLACE FILL OR STONE IN SIX INCH (6") MAXIMUM LIFTS, AND COMPACT BEFORE PLACING NEXT LIFT.
 - C. APPLY SEED, FERTILIZER, AND STRAW COVER TO ALL OTHER DISTURBED AREAS, ATTACHED DRIVEWAYS, AND OTHER AREAS. OTHER AREAS WHICH WILL ENCOURAGE WEED GROWTH SHALL BE FERTILIZED TO SUITABLE CONDITIONS WHICH WILL ENCOURAGE ROOTING. RAKE AREAS TO BE SEED TO EVEN THE SURFACE AND LOOSEN THE SOIL.
 - D. SOW SEED IN TWO DIRECTIONS IN TWICE THE QUANTITY RECOMMENDED BY THE SEED PRODUCER.
 - E. ENSURE GROWTH OF SEEDS AND LANDSCAPED AREA, BY WATERING, UP TO THE POINT OF RELEASE FROM THE CONTRACT. CONTINUE TO REWORK THE SAME AREAS UNTIL COMPLETE COVERAGE IS OBTAINED.
 - F. FIELD QUALITY CONTROL CHECKS SHALL BE PERFORMED TO VERIFY IN ACCORDANCE WITH CONTRACTOR'S EXPENSE. INDICATE PERCENTAGE OF COMPACTION ACHIEVED ON AS-BUILT DRAWINGS.

4. PROTECTION
 - A. PROTECT SEEDED AREAS FROM EROSION BY EROSION STAKES TO A LINE OF PROTECTION OF 2' MINUS STAKE AND BE DOWN AS REQUIRED. USE OF EROSION CONTROL MESH OR MATTING SHALL BE AN ACCEPTABLE ALTERNATE.
 - B. PROTECT ALL EXPOSED AREAS AGAINST WASHOUTS AND SOIL EROSION. PLACE STRAW BALES AT THE INLET APPROACH TO ALL NEW OR EXISTING CULVERTS.
 - C. PROVIDE EROSION CONTROL MATS TO PROTECT EXISTING VEGETATION ADJACENT TO THE RAIL STAKE. EROSION CONTROL FABRIC FULL LENGTH IN THE SHALE TO PREVENT CONTAMINATION OF THE RAIL BALLAST. ALL EROSION CONTROL METHODS SHALL CONFORM TO APPLICABLE BUILDING CODE REQUIREMENTS.

3475 PIEDMONT ROAD NE
SUITE 1000
ATLANTA, GEORGIA 30305
PHONE: (312) 638-5400

PROJECT NO: ENR00231
DRAWN BY: R. MARTINEZ
CHECKED BY: N. HANNA

PRELIM - NOT FOR CONSTRUCTION

1.	DATE	DESCRIPTION

I, E. S. WALKER OF THE FIRM OF WALKER & PARTNERS, A PROFESSIONAL ENGINEERING FIRM, HEREBY CERTIFY THAT I AM A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF GEORGIA AND I AM THE DESIGNER OF THIS DOCUMENT.

NY90XSAW40
SNYB0028ZD
HAWTREE CREEK RD &
108TH AVE
SOUTH OZONE PARK, NY 11422
UTILITY POLE

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-1

ELECTRICAL

1. CONTRACTOR SHALL REVIEW THE CONTRACT DOCUMENTS PRIOR TO ORDERING THE ELECTRICAL EQUIPMENT AND TO THE CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL ERRORS TO THE ARCHITECT/ENGINEER LISTING ANY DISCREPANCIES OR DETAILING INFORMATION.
 2. ELECTRICAL PLANS, SPECIFICATIONS AND DIAGRAMS ARE DIAGRAMMATIC ONLY. VERIFY EXACT INSTALLATION AND MOUNTING HEIGHTS OR ELECTRICAL EQUIPMENT WITH OWNER PRIOR TO EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANELBOARD, PULLBOX, JUNCTION BOX, SWITCH BOX, ETC. THE TYPE OF TAGGING METHODS SHALL BE IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
 3. ALL ELECTRICAL WIRING SHALL BE NEW AND IN GOOD WORKMANSHIP CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURE THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED "UL" - WHERE APPLICABLE. MATERIALS SHALL MEET WITH APPROVAL OF ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA, NECA AND "UL" LISTED.
 4. CONTRACTOR SHALL ADVISE THE PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS, AND CIRCUITS.
 5. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING EXCEEDING CURRENT TO WHICH THEY WILL BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C.
 6. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY IBC, NEC AND ALL APPLICABLE CODES.
 7. EACH REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE INSTALLATION.
 8. PLASTIC PLATES FOR ALL SWITCHES, RECEPTACLES, TELEPHONE AND BLANKED OUTLETS SHALL HAVE ENGRAVED LETTERING WHERE INDICATED ON THE DRAWINGS. WEATHERPROOF RECEPTACLES SHALL HAVE SIERRA #MPD-8 LIFT COVERPLATES.
- ### SEWERAGE AND DISTRIBUTION
1. WIRE AND CABLE CONDUCTORS SHALL BE COPPER, 600V, TYPE THHN OR THWN, WITH A MIN. SIZE OF #12 AWG, COLOR CODED.
 2. WIRE CONDUITS, VOLUME NUMBER OF PHASES SHALL BE NOTED ON THE DRAWINGS. MANUFACTURED BY MILBANK OR APPROVED EQUAL, AND SHALL BE UTILITY COMPANY APPROVED.
 3. CONDUIT:
 - A. RIGID CONDUIT SHALL BE UL LABEL GALVANIZED ZINC COATED WITH GALVANIZED WELDED JOINTS AND WITH THE EARTH UNDER PUBLIC ROADWAY IN CONCRETE SLABS OR EXPOSED ON BUILDING EXTERIOR. RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH UNITS WRAP PROCESS NO. 3.
 - B. FLEXIBLE METALLIC CONDUIT SHALL HAVE UL LISTED LABEL AND MAY BE USED FOR EXPOSED CONDUITS. IT SHALL BE TYPE "SAUZEZE" TYPE. ALL FLEXIBLE CONDUITS SHALL HAVE RIGID LENGTHS FOR GROUNDED SYSTEMS.
 - C. IT IS REQUIRED AND WILL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO NOTIFY #11 OR OTHER SUCH UTILITY LOCATING AGENCY 3 DAYS BEFORE DIGGING.
 4. CONTRACTOR SHALL CO-OPERATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOURLY COSTS ARE TO BE PAID BY THE CONTRACTOR.
 5. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS WITH WHITE ON BLUE BACKGROUND LETTERING (MINIMUM LETTER HEIGHT SHALL BE SIZE 10 WITH INCHES/8"). NAMEPLATES SHALL BE FASTENED WITH STAINLESS STEEL. UPON COMPLETION OF WORK, CONTINUITY, SHORT CIRCUIT, AND FALL POTENTIAL GROUNDING TESTS BY AN INDEPENDENT TESTING SERVICE ENGAGED BY THE CONTRACTOR SHALL BE SUBMITTED FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE TO UTILITIES. COMPLETE AND UNMARRIED CONNECTIONS.
 7. GROUNDING ELECTRICAL SYSTEM
 - A. PREPARATION
 1. SURFACE PREPARATION: ALL CONNECTIONS SHALL BE MADE TO BARE METAL. ALL SURFACES SHALL BE CLEANED AND ALL WELDERS SHALL BE LICENSED TO ENSURE PROPER CONTACT. NO WELDERS ARE ALLOWED BETWEEN THE POINTS BEING GROUNDED. ALL CONNECTIONS ARE TO HAVE A NON-OXIDIZING AGENT APPLIED PRIOR TO INSTALLATION.
 2. CONNECTIONS: ALL CONNECTIONS MUST BE MADE THROUGH CONDUIT. BOTH ENDS OF CONDUIT SHALL BE CLEANED. SEAL BOTH ENDS OF CONDUIT WITH SILICONE CAULK.
 - B. EXTERNAL CONNECTIONS
 1. ALL BURED GROUNDING CONNECTIONS SHALL BE MADE BY THE EXOTHERMIC WELD PROCESS. CONNECTIONS SHALL INCLUDE ALL CABLE TO GROUND, ROADS, GROUND RODS, SEPARATORS AND LIGHTNING PROTECTION SYSTEMS ARE TO BE AS NOTED. ALL MATERIALS USED (MOLDS, WELDING METAL, TOOLS, ETC.) SHALL BE BY "ULTRAWELD" AND INSTALLED PER MANUFACTURER'S RECOMMENDED PROCEDURES.
 2. ALL ABOVE GRADE GROUNDING AND BONDING CONDUCTORS SHALL BE INSTALLED TO THE SAME POINTS AS THE EXOTHERMIC WELD CONNECTIONS (EXCEPT FOR THE ACEG AND GROUND ROD MESHWORK CONNECTIONS) (EXCEPT FOR THE ACEG AND GROUND ROD MESHWORK CONNECTIONS) SOLDERS SHALL NOT BE USED. ALL CABLE TO CABLE CONNECTIONS SHALL BE HIGH PRESSURE DOUBLE CRIMP TYPE CONNECTIONS. CONNECTIONS TO STRUCTURAL STEEL SHALL BE EXOTHERMIC WELDS.



3475 PIEDMONT ROAD NE
SUITE 1000
ATLANTA, GEORGIA 30305
PHONE: (312) 638-9400

PROJECT NO.: ENR00107
DRAWN BY: R. BARTHELEMY
CHECKED BY: N. HANNA

PRELIM - NOT FOR CONSTRUCTION

DATE	DESCRIPTION
11/20/07	ISSUE FOR CONSTRUCTION

FOR THE DESIGN OF THE ELECTRICAL SYSTEM, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS TO UNDERTAKE THE PROJECT.

NYR065AWMD
9NYR065B2BD
HAWTHORNE CREEK RD 4
100TH AVE
SOUTH COCKER PARK, NY 11420
UTILITY POLE

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-2

- C. GROUND RODS: ALL GROUND RODS SHALL BE 5/8-INCH DIAMETER X 10'-0" LONG "COPPERWELD" OR APPROVED EQUAL, OF THE NUMBER AND LOCATIONS UNDISTURBED EXCEPT FOR THE CONSTRUCTION. CONTRACTOR SHALL UNDISTURBED EXCEPT FOR THE CONSTRUCTION. CONTRACTOR SHALL UNDISTURBED EXCEPT FOR THE CONSTRUCTION. CONTRACTOR SHALL UNDISTURBED EXCEPT FOR THE CONSTRUCTION.
- D. GROUND CONDUCTORS: ALL GROUND CONDUCTORS SHALL BE STANDARD THIN SOLID BARE COPPER ANNEALED, AND OF SIZE INDICATED ON DRAWINGS UNLESS OTHERWISE NOTED.
- E. WIRING SHALL BE 2-HOLE LONG BARREL STRAND COPPER UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS. ULCS SHALL BE THOMAS AND BETTS SERIES #54, #55 OR EQUIVALENT

- A. 5/8 INCH DLO 548088E
- B. 3/4 INCH DLO 548728E
- C. #1/0 DLO 548628E
- D. #2/0 THIN AND BARE 548668E
- E. #2/0 THIN 548628E
- F. #6 DLO 542088E

2. WHEN THE DIRECTION OF THE CONDUCTOR MUST CHANGE, IT SHALL BE DONE GRADUALLY. THE CURVATURE OF THE TURN SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING CHART:

GROUNDING CONDUCTOR SIZE	MINIMUM BENDING RADIUS TO INSIDE EDGE
NO. 8 AWG TO NO. 4 AWG	6 INCHES
NO. 2 AWG TO NO. 1/0 AWG	8 INCHES
NO. 1/0 AWG TO #1/0 AWG	12 INCHES
NO. 1/0 AWG TO #1/0 AWG	24 INCHES

8. GROUNDING RESISTANCE TEST: GROUNDING RESISTANCE TESTS MUST BE SUBMITTED TWO (2) SETS OF TEST DOCUMENTS PER TEST. TEST RESULTS ARE TO BE BOUND AND SUBMITTED WITHIN ONE (1) WEEK OF WORK COMPLETION.

POLES, POSTS, AND STANDARDS (SINGLE MAST AND SELF-SUPPORTING TOWERS)

1. GENERAL:
 - A. LIGHTNING ROD AND EXTENSION PIPE INCLUDING ALL APPURTENANCES, TO BE FURNISHED BY OWNER, IF REQUIRED.
 - B. ALL MATERIALS AND PRODUCTS SPECIFIED IN THE CONTRACT DOCUMENTS SHALL BE SUPPLIED BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

TELECOMMUNICATIONS WIRING COMPONENTS (COAXIAL ANTENNA CABLE)

1. GENERAL:
 - A. ALL MATERIALS, PRODUCTS OR PROCEDURES INCORPORATED INTO WORK SHALL BE NEW AND OF STANDARD COMMERCIAL QUALITY.
 - B. ALL MATERIALS AND PRODUCTS SPECIFIED IN THE CONTRACT DOCUMENTS SHALL BE SUPPLIED BY THE CONTRACTOR UNLESS NOTED OTHERWISE.
2. MATERIALS:
 - A. COAXIAL CABLE:
 1. INSTALL COAXIAL CABLE AND TERMINATIONS BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS WITH COAXIAL CABLES SUPPORTED AT NO MORE THAN 3'-0" O.C.
 2. WATHERPROOF ALL CONNECTORS BETWEEN THE ANTENNA AND EQUIPMENT WITH AN APPROVED WEATHERPROOFING METHOD. FINISH ALL COAXIAL CABLE THREE FEET (3') IN EXCESS OF EQUIPMENT LOCATION UNLESS OTHERWISE STATED.
 3. LENGTHS LESS THAN OR EQUAL TO 100 FEET SHALL BE 7/8" DIA. COAXIAL CABLE. LONGER LENGTHS SHALL BE 1 INCH DIA. COAXIAL CABLE.
 - B. ANTENNA AND COAXIAL CABLE GROUNDING:
 1. ALL ANTENNAS AND COAXIAL CABLES SHALL BE GROUND TO THE SAME POINTS AS THE GROUNDING SYSTEM.
 2. ANTENNA AND COAXIAL CABLE GROUNDING SHALL BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS).
 - C. COAXIAL CABLE IDENTIFICATION AND UNIFORM MARKING OF ANTENNA CABLES:
 1. PROVIDE EASY IDENTIFICATION AND UNIFORM MARKING OF ANTENNA CABLES AT THE END OF THE COAX NEAREST THE ANTENNA AND THE COAXIAL CABLE AND JUMPER ARE CONNECTED.
 2. SECOND LOCATION IS AT END OF THE COAX NEAREST THE EQUIPMENT.
 - D. USE ANDREW CABLE TIES (PT.# 27280) TO SECURE IDENTIFICATION TAGS TO COAXIAL CABLES. IDENTIFICATION TAGS SHALL BE PERMANENTLY ATTACHED TO EACH COAXIAL CABLE. CONTRACTOR IS TO PROVIDE ONE CLUMBER/QUALIFIED PERSONNEL TO ASSIST IN ANY REPAIRS AND WEATHERPROOFING ONCE THE IDENTIFICATION TAGS ARE IN PLACE. CONTRACTOR IS TO PROVIDE LESSEE WITH A WRITTEN NOTICE OF 48 HOURS PRIOR TO THE TIME OF THE SWEEP TEST.



3475 FREDMONT ROAD NE
SUITE 1000
ATLANTA, GEORGIA 30305
PHONE: (312) 638-5400

PROJECT NO:	ENR0281
DRAWN BY:	R. MARINER
CHECKED BY:	N. HANNA

PRELIM - NOT FOR CONSTRUCTION

DATE:	11.03.11
FILED:	10/11/11

NO.	DESCRIPTION

IT IS A VIOLATION OF THE LAW FOR ANY PERSON TO REPRODUCE OR TRANSMIT THIS DOCUMENT, IN WHOLE OR IN PART, WITHOUT THE WRITTEN PERMISSION OF THE PROJECT MANAGER.

NY9035AW4D
9NY18002862D
HAWTREE CREEK RD &
108TH AVE
SOUTH OZONE PARK, NY 11420
UTILITY POLE

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-3

ANTENNA INSTALLATION NOTES

1. ALL HARDWARE, FASTENERS AND COMPONENTS SHALL BE PAINTED THE COLOR OF THE POLE UPON COMPLETION OF THE INSTALLATION, CONTRACTOR TO PROVIDE TOUCH UP PAINT AS NEEDED.
2. ALL SURFACES OF THE ANTENNA SHALL BE PAINTED WITH AN ANTI-RUST STICKER AND LABELS AS REQUIRED. CONTRACTOR SHALL REMOVE STICKERS AND TOUCH UP PAINTED SURFACES AS REQUIRED.
3. ANTENNA SHALL BE INSTALLED PLUMB.
4. ANTENNA MOUNT SET SCREWS SHALL BE INSTALLED AS PUSH TO THE POLE AS POSSIBLE. CONTRACTOR SHALL USE THE SHORTEST LENGTH BOLT.
5. SOME SET SCREWS LOCK THREADED CONNECTIONS; OTHERS LOCK SLIP CONNECTIONS.

STEEL NOTES

1. INCORRECTLY FABRICATED DAMAGED OR OTHERWISE MIS-FITTING OR NON-CONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE PROJECT MANAGER PRIOR TO REMEDIAL OR CORRECTIVE ACTION.
2. ALL STRUCTURAL STEEL SHALL BE FABRICATED AND WELDED IN ACCORDANCE WITH THE PROVISIONS, INSTALLATION AND CONNECTIONS OF A BRANDING ELECTRODE SYSTEM COMPLETE WITH SECONDARY GROUNDING, AND CONNECTIONS TO THE INCOMING ELECTRICAL DISTRIBUTION EQUIPMENT.
3. STRUCTURAL AND MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A36, "STRUCTURAL STEEL", LATEST EDITION, UNLESS OTHERWISE INDICATED.
4. ALL PIPES SHALL CONFORM TO ASTM A501 OR A53 GRADE B (F_y=35 KSI MIN.) A500 GRADE B MAY BE USED IF A501 OR A53 STEEL IS NOT AVAILABLE.
5. ALL TUBES SHALL CONFORM TO ASTM A500 GRADE B (F_y=48 KSI).
6. ALL THREADED RODS SHALL BE A36, UNLESS OTHERWISE NOTED.
7. SHOP CONNECTIONS SHALL BE WELDED OR BOLTED, FIELD CONNECTIONS SHALL BE BOLTED UNLESS OTHERWISE INDICATED. ALL BOLTED CONNECTIONS SHALL BE MADE WITH HIGH STRENGTH BOLTS.
8. STRUCTURAL CONNECTIONS SHALL BE MADE WITH HIGH STRENGTH BOLTS AND NUTS INCLUDING SUITABLE NUTS AND PLAIN HARDENED WASHERS, LATEST EDITION. BOLTS SHALL BE 5/8 DIAMETER, UNLESS OTHERWISE NOTED. NUTS SHALL BE HEAVY HEX, A LOCKING DEVICE SHALL BE INSTALLED ON ALL STEEL TO STEEL CONNECTIONS.
9. CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH THE PROVISIONS, INSTALLATION AND CONNECTIONS OF A BRANDING ELECTRODE SYSTEM COMPLETE WITH SECONDARY GROUNDING, AND CONNECTIONS TO THE INCOMING ELECTRICAL DISTRIBUTION EQUIPMENT.
10. UNLESS OTHERWISE NOTED, ALL STEEL BOLTS AND U-BOLTS SHALL BE MADE WITH HIGH STRENGTH BOLTS AND NUTS INCLUDING SUITABLE NUTS AND PLAIN HARDENED WASHERS, LATEST EDITION. BOLTS SHALL BE 5/8 DIAMETER, UNLESS OTHERWISE NOTED. NUTS SHALL BE HEAVY HEX, A LOCKING DEVICE SHALL BE INSTALLED ON ALL STEEL TO STEEL CONNECTIONS.
11. TRIMMED ENDS OF STEEL AND DISTURBED SURFACES SHALL RECEIVE A COAT OF Z/R/C/7 COLD GALVANIZING COMPOUND AS MANUFACTURED BY Z.R.C. CHEMICAL PRODUCTS CO., QUINCY, MASS.
12. ALL SPECIALTY ANCHORS SHALL BE INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
13. ALL MASTS SHALL BE INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
14. INSTRUCTIONS SHALL BE CONTINUOUS (WITHOUT SPACE) AND INSTALLED PLUMB UNLESS OTHERWISE NOTED.

UTILITY NOTES

1. WORK INCLUDES: AND ACCOMPANYING DRAWINGS COMPLEMENT THE PROVISIONS AND INSTALLATIONS BY THE ELECTRICAL CONTRACTOR, OF ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO INSTALL THE ELECTRICAL WORK COMPLETE IN CONNECTION WITH THE PROVISIONS, INSTALLATION AND CONNECTIONS OF A BRANDING ELECTRODE SYSTEM COMPLETE WITH SECONDARY GROUNDING, AND CONNECTIONS TO THE INCOMING ELECTRICAL DISTRIBUTION EQUIPMENT.
2. THE PROVISION AND INSTALLATION OF AN OVERHEAD ELECTRICAL SERVICE OR UNDERGROUND ELECTRICAL SERVICE AND ALL ASSOCIATED WIRE AND CONDUIT AS REQUIRED AND INDICATED ON DRAWINGS.
3. THE DESIGN AND INSTALLATION OF CONDUIT AND CONNECTIONS FOR LOCAL FIBER SERVICE.
4. THE FURNISHING AND INSTALLATION OF THE ELECTRICAL SERVICE ENTRANCE CONDUIT(S), CONDUITS, METER SOCKET, AND CONNECTIONS TO THE SERVICE EQUIPMENT SHALL BE LEFT WITH NYLON PULL CORD FOR FUTURE USE.
5. EXCAVATION, TRENCHING, AND BACKFILLING FOR CONDUIT(S), CABLE(S) AND EXTERNAL GROUNDING SYSTEM.

- CODES, PERMITS AND FEES:**
1. ALL REQUIRED PERMITS, LICENSES, INSPECTIONS AND APPROVALS SHALL BE SECURED BY THE CONTRACTOR.
 2. THE INSTALLATION SHALL COMPLY WITH ALL APPLICABLE CODES: STATE, LOCAL, AND NATIONAL AND THE DESIGN, PERFORMANCE CHARACTERISTICS AND METHODS OF CONSTRUCTION OF ALL ITEMS AND EQUIPMENT SHALL BE IN ACCORDANCE WITH THE LATEST ISSUE OF THE VARIOUS APPLICABLE STANDARD SPECIFICATIONS OF THE FOLLOWING AUTHORITIES:
- N.E.C. NATIONAL ELECTRICAL CODE
 - A.N.S.I. AMERICAN NATIONAL STANDARDS INSTITUTE
 - I.E.E.E. INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
 - A.S.T.M. AMERICAN SOCIETY FOR TESTING MATERIALS
 - U.L.C. UNDERWRITERS LABORATORIES, INC.
 - N.F.P.A. NATIONAL FIRE PROTECTION ASSOCIATION

- RACEWAYS AND WIRING:**
1. WIRING OF EVERY KIND MUST BE INSTALLED IN CONDUIT, UNLESS NOTED OTHERWISE, OR AS APPROVED BY THE ARCHITECT/ENGINEER.
 2. UNLESS OTHERWISE SPECIFIED, WIRING SHALL BE COPPER (CU) TYPE THIN, SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL CODES.
 3. RACEWAYS SHALL BE GALVANIZED STEEL, SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL CODES UNLESS OTHERWISE NOTED. ALL RACEWAYS SHALL BE APPROVED FOR THE INSTALLATION.
 4. PULL OR JUNCTION BOXES SHALL BE PROVIDED AS REQUIRED TO FACILITATE INSTALLATION OF RACEWAYS THROUGH BENDS AND PULLBOXES FOR ALL RACEWAYS. BENDS SHALL BE NO MORE THAN 90 DEGREES OF BEND.
 5. PROVIDE A COMPLETE RACEWAY AND WIRING INSTALLATION, PERMANENTLY AND EFFECTIVELY GROUNDING IN ACCORDANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE AND LOCAL CODES.
 6. ALL STEEL CONDUIT SHALL BE BONDED AT BOTH ENDS WITH GROUNDING BUSHING.

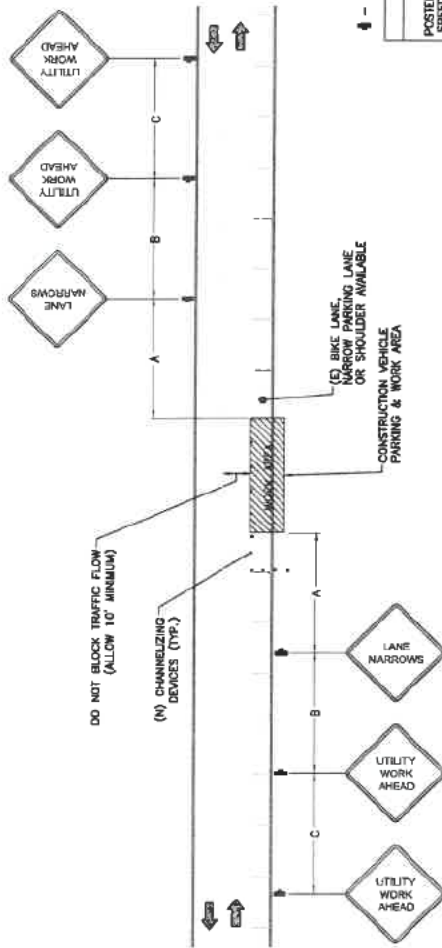
- GENERAL NOTES:**
- SEE DETAILS, SCHEDULES AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND INFORMATION. CHECK ARCHITECTURAL, STRUCTURAL, AND OTHER MECHANICAL AND ELECTRICAL DRAWINGS FOR SCALE, SPACE LIMITATIONS, COORDINATION, AND ADDITIONAL INFORMATION, ETC. REPORT ANY DISCREPANCIES, CONFLICTS, ETC. TO THE ARCHITECT/ENGINEER IMMEDIATELY UPON DISCOVERY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, LICENSES, INSPECTIONS AND APPROVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, LICENSES, INSPECTIONS AND APPROVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, LICENSES, INSPECTIONS AND APPROVALS.

- COORDINATION WITH UTILITY COMPANY:**
- THE ELECTRICAL CONTRACTOR SHALL COORDINATE COMPLETE ELECTRICAL SERVICE WITH THE LOCAL UTILITY COMPANY FOR A COMPLETE OPERATIONS SYSTEM INCLUDING TRANSFORMER CONNECTIONS, CONDUIT RISES, METER SOCKETS, AND ALL ASSOCIATED WIRING AND EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL INCLUDE IN THE BID ALL LABOR AND MATERIALS, THE ELECTRICAL CONTRACTOR SHALL INCLUDE IN THE BID ANY OPTIONAL OR EXCESS FACILITY CHARGES ASSOCIATED WITH PROVIDING ELECTRICAL SERVICE FROM LOCAL UTILITY COMPANY. VERIFY BEFORE BIDDING TO INCLUDE ALL COSTS. THE ELECTRICAL CONTRACTOR SHALL VERIFY THE AVAILABLE FAULT CURRENT WITH THE UTILITY COMPANY. THE CONTRACTOR SHALL VERIFY THE AVAILABLE FAULT CURRENT WITH THE UTILITY COMPANY. THE CONTRACTOR SHALL VERIFY THE AVAILABLE FAULT CURRENT WITH THE UTILITY COMPANY.

A. 12.23.17	PRELIM - NOT FOR CONSTRUCTION
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PLAN NOTES:

1. PLANS DEPICTED ARE GENERAL GUIDELINES FOR TEMPORARY TRAFFIC CONTROL PLANS (TCP) TO INCLUDE PEDESTRIAN AND WORKER SAFETY. CONTRACTOR IS REQUIRED TO HAVE PREPARED A SITE-SPECIFIC TCP FOR REVIEW AND APPROVAL BY THE HIGHWAY AUTHORITY HAVING JURISDICTION. IF REQUIRED, THE FIRM PREPARING THE TCP SHALL BE AUTHORIZED OR CERTIFIED BY THE AUTHORITY HAVING JURISDICTION.
2. EXTEND CHANNELIZATION DEVICES INTO SHOULDER WHERE APPLICABLE.
3. DISTANCES AS INDICATED IN TABLE 1 SHOULD BE INCREASED FOR CONDITIONS THAT WOULD AFFECT STOPPING DISTANCE SUCH AS EDWARDSVILLE, ILLINOIS, OR LIMITED ACCESS HIGHWAYS. DISTANCES FOR LOW-SPEED (RESIDENTIAL) AREAS WITH APPROVAL BY THE AUTHORITY HAVING JURISDICTION. DISTANCES FOR HIGHWAY WORK IS PROHIBITED UNLESS IT IS REQUIRED AS A CONDITION OF APPROVAL BY THE HIGHWAY AND LOCAL AUTHORITY HAVING JURISDICTION.
4. SHOULDER TAPERS SHOULD BE 1/3 OF THE ON-STREET TAPER LENGTH.
5. MAINTAIN A MINIMUM LANE WIDTH OF 10'.



↓ - SIGN

TABLE 1

POSTED SPEED LIMIT (MPH)	DISTANCE BETWEEN SIGNS			TAPER	BUFFER
	A	B	C		
15	100'	100'	100'	45'	100'
20	100'	100'	100'	80'	115'
25	100'	100'	100'	125'	155'
30	200'	200'	200'	180'	200'
35	200'	200'	200'	245'	250'
40	350'	350'	350'	320'	305'
45	350'	350'	350'	540'	360'
50	500'	500'	500'	600'	425'
55	500'	500'	500'	680'	495'
60	500'	500'	500'	720'	515'
65	500'	500'	500'	780'	645'

NOTES:
 A) DISTANCES IN FEET UNLESS OTHERWISE NOTED.
 B) CONTRACTOR TO VERIFY (E) SPEED LIMIT.
 C) DISTANCES SHOWN ARE NOT VALID FOR LIMITED ACCESS HIGHWAYS. CONSULT STATE DOT MANUAL FOR DISTANCES.
 D) ADJUST DISTANCES TO COMPLY WITH REQUIREMENT OF THE APPLICABLE HIGHWAY AUTHORITY HAVING JURISDICTION. SEE NOTE 1, SHEET 1C-2.
 E) TAPER LENGTHS SHOWN BASED ON 12' LANE WIDTH.
 F) SEE NOTE 1A, SHEET 1C-2.

VEHICULAR TRAFFIC CONTROL PLAN - CURBSIDE PARKING

1

SCALE: NOT TO SCALE

DATE	DESCRIPTION
11/11/17	PRELIM - NOT FOR CONSTRUCTION

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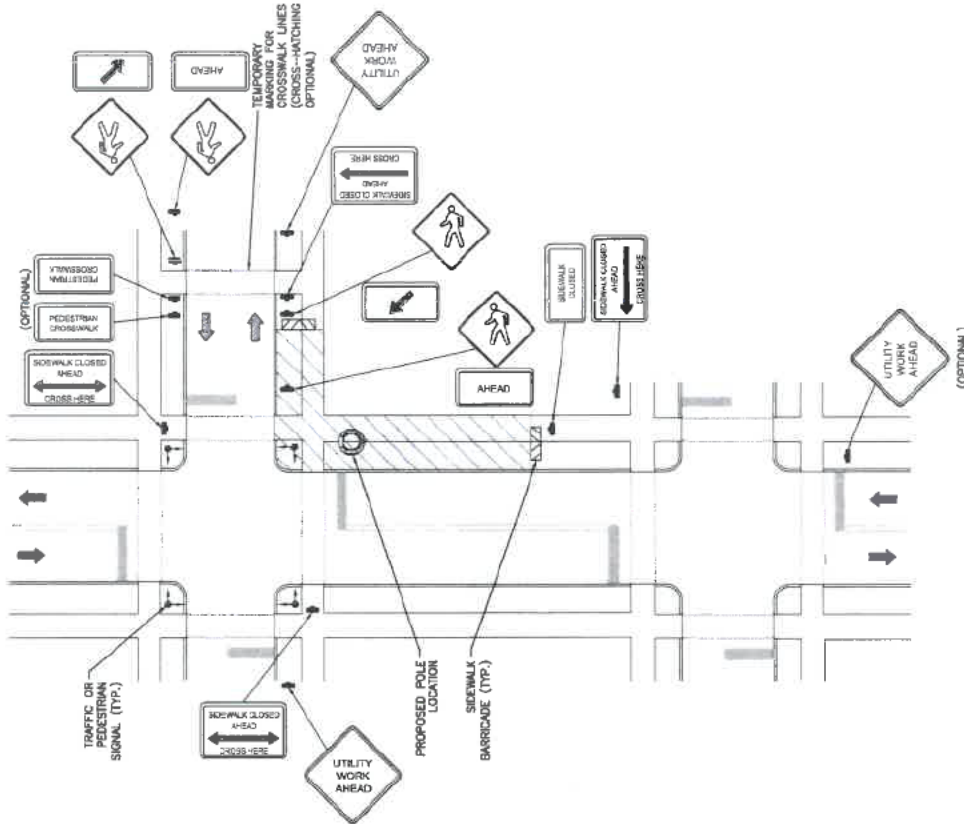
NY0635AWED
 NY063008R2D
 HAWTHORNE CREEK RD &
 108TH AVE
 SOUTH OZONE PARK, NY 11420
 UTILITY POLE

SHEET TITLE
 TYPICAL PEDESTRIAN /
 WORKER SAFETY PLAN

SHEET NUMBER
 4.1

Traffic Control - General Notes

- ALL TEMPORARY TRAFFIC CONTROL, SIGNAGE, LAYOUTS AND PROCEDURES SHALL COMPLY WITH LOCAL AND STATE TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION, WHICHEVER IS MORE STRINGENT.
- PRIOR TO ANY ROAD CONSTRUCTION, TRAFFIC CONTROL SIGNS AND DEVICES SHALL BE IN PLACE.
- TRAFFIC CONTROL DEVICES FOR LANE CLOSURES INCLUDING SIGNS, CONES, BARRICADES, ETC. SHALL BE PLACED AS SHOWN ON PLANS. SIGNS SHALL NOT BE PLACED WITHOUT ACTUAL LANE CLOSURES AND SHALL BE IMMEDIATELY REMOVED UPON REMOVAL OF THE CLOSURES.
- SELECTION, PLACEMENT, MAINTENANCE, AND PROTECTION OF TRAFFIC, PEDESTRIANS, AND WORKERS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) - PART VI "TEMPORARY TRAFFIC CONTROL", AND LOCAL JURISDICTIONAL REQUIREMENTS UNLESS OTHERWISE NOTED ON THE PLANS AND AGREED TO BY THE AUTHORITY HAVING JURISDICTION.
- ADVANCE WARNING SIGNS, DISTANCES, AND TAPER LENGTHS MAY BE ADJUSTED TO ACCOMMODATE LOCAL AND STATE REQUIREMENTS AND VERTICAL CURVATURE OF THE ROADWAY AND FOR ACTUAL TRAFFIC SPEEDS IF IN EXCESS OF THE POSTED SPEED LIMITS.
- TAPERS SHALL BE LOCATED TO MAXIMIZE THE VISIBILITY OF THEIR TOTAL LENGTH.
- CONFLICTING OR NON-OPERATING SIGNAL INDICATIONS ON THE EXISTING TRAFFIC SIGNAL SYSTEMS SHALL BE BAGGED OR COVERED.
- ALL EXISTING ROAD SIGNS, PAVEMENT MARKINGS AND/OR FLOWABLE PAVEMENT REFLECTORS WHICH CONFLICT WITH THE PROPOSED TRAFFIC CONTROL PLAN SHALL BE COVERED, REMOVED, OR RELOCATED. ALL TRAFFIC CONTROL DEVICES SHALL BE RESTORED TO MATCH PRE-CONSTRUCTION CONDITION AFTER COMPLETION OF WORK.
- CONTRACTOR SHALL CONTACT LOCAL AUTHORITY HAVING HIGHWAY JURISDICTION AND PROVIDE ADDITIONAL "FLAGMEN" OR POLICE SUPERVISION, IF REQUIRED.
- ALL EXCAVATED AREAS WITHIN OR ADJACENT TO THE ROADWAY SHALL BE BACKFILLED AND PLACED ON A MINIMUM 6:1 V SLOPE PRIOR TO END OF EACH WORK DAY. OTHER EXCAVATED AREAS WITHIN THE CLEAR ZONE SHALL BE EITHER BACKFILLED OR COVERED WITHIN THE CLEAR ZONE. ALL BARRICADES SHALL BE SET TEMPORARILY IN PLACE TO SHIELD VEHICULAR AND PEDESTRIAN TRAFFIC.
- WHERE DICTATED BY LOCAL CONDITIONS, THE CONTRACTOR SHALL MAKE PROVISIONS FOR MAINTAINING PEDESTRIAN AND WORKER CROSSING LOCATIONS IN ACCORDANCE WITH ALL APPLICABLE CODES AND OSHA REQUIREMENTS.
- CONSTRUCTION ZONE SPEED LIMIT IF REDUCED FROM POSTED LIMITS SHALL BE IN ACCORDANCE WITH MUTCD AND WILL BE DETERMINED BY THE AUTHORITY HAVING JURISDICTION.
- THERE SHALL BE NO WORKERS, EQUIPMENT OR OTHER VEHICLES IN THE BUFFER SPACE OR THE ROLL AHEAD SPACE.
- DRIVEWAYS AND/OR SIDE STREETS ENTERING THE ROADWAY AFTER THE FIRST ADVANCE WARNING SIGN SHALL BE PROVIDED WITH AT LEAST ONE W20-1 SIGN (ROAD WORK AHEAD) AS A MINIMUM.
- CONES MAY BE SUBSTITUTED FOR DRUMS AND INSTALLED UPON THE APPROVAL OF THE AUTHORITY HAVING JURISDICTION PROVIDED THEY COMPLY WITH MUTCD.
- THE SPACING BETWEEN CONES, TUBULAR MARKERS, VERTICAL PANELS, DRUMS, AND BARRICADES SHOULD NOT EXCEED A DISTANCE IN FEET EQUAL TO 1.0 TIMES THE SPEED LIMIT IN MPH WHEN USED FOR TAPER CHANNELIZATION, AND A DISTANCE IN FEET EQUAL TO 2.0 TIMES THE SPEED LIMIT IN MPH WHEN USED FOR TANGENT CHANNELIZATION.
- WHEN CHANNELIZATION DEVICES HAVE THE POTENTIAL OF LEADING VEHICULAR TRAFFIC OUT OF THE INTENDED VEHICULAR TRAFFIC SPACE, THE CHANNELIZATION DEVICES SHALL BE SPACED TO MAINTAIN THE SPEED LIMIT IN MPH BEYOND THE DOWNSTREAM END OF THE TRANSITION AREA.
- TAPER LENGTHS ARE CALCULATED AS FOLLOWS:
 L=WS/50 (45 MPH AND HIGHER) OR L=WS (OVER 45 MPH),
 WHERE W= OFFSET WIDTH (FT), S= TRAFFIC SPEED (MPH).





RF & Microwave Products

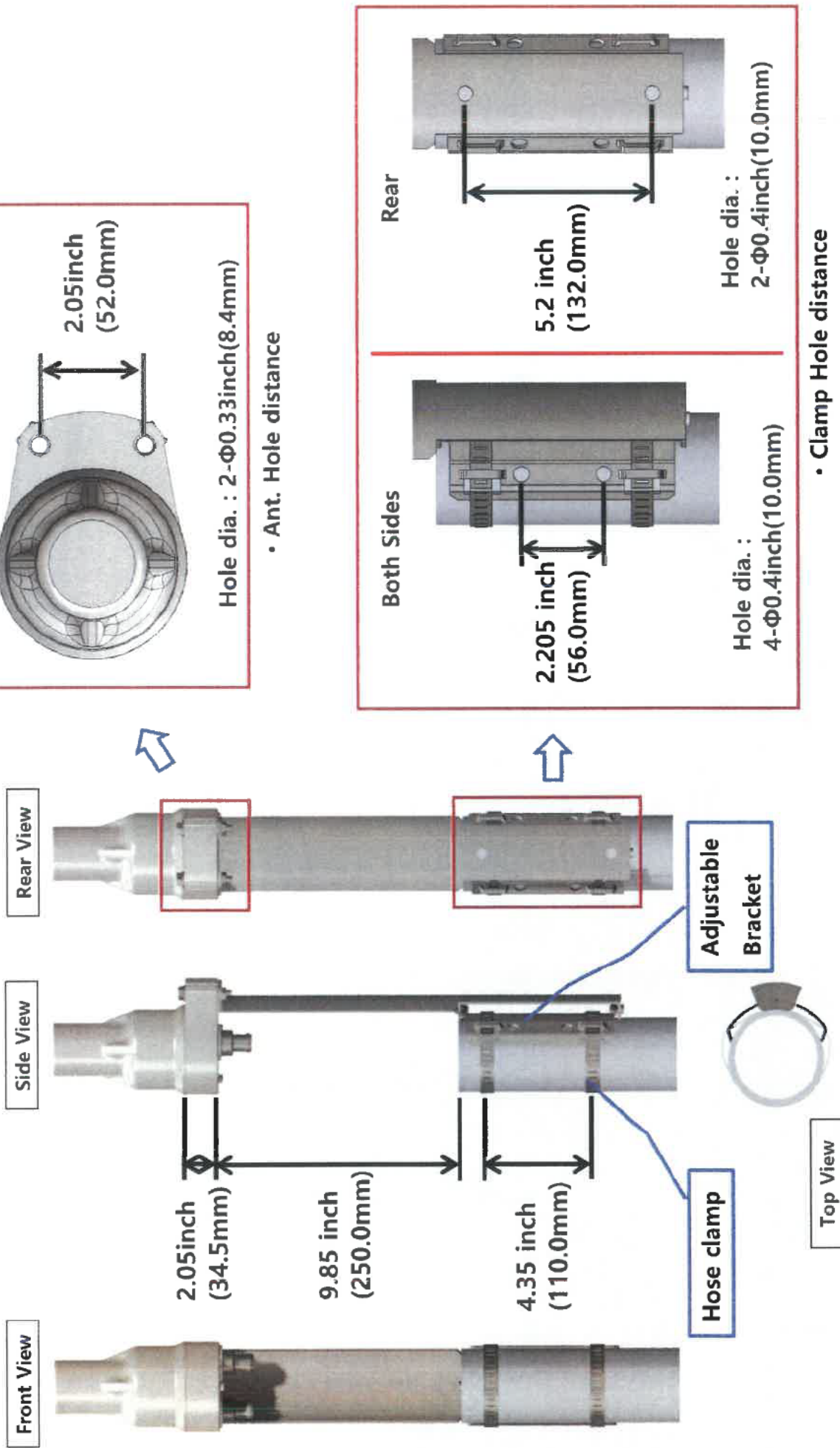
Innovative Company

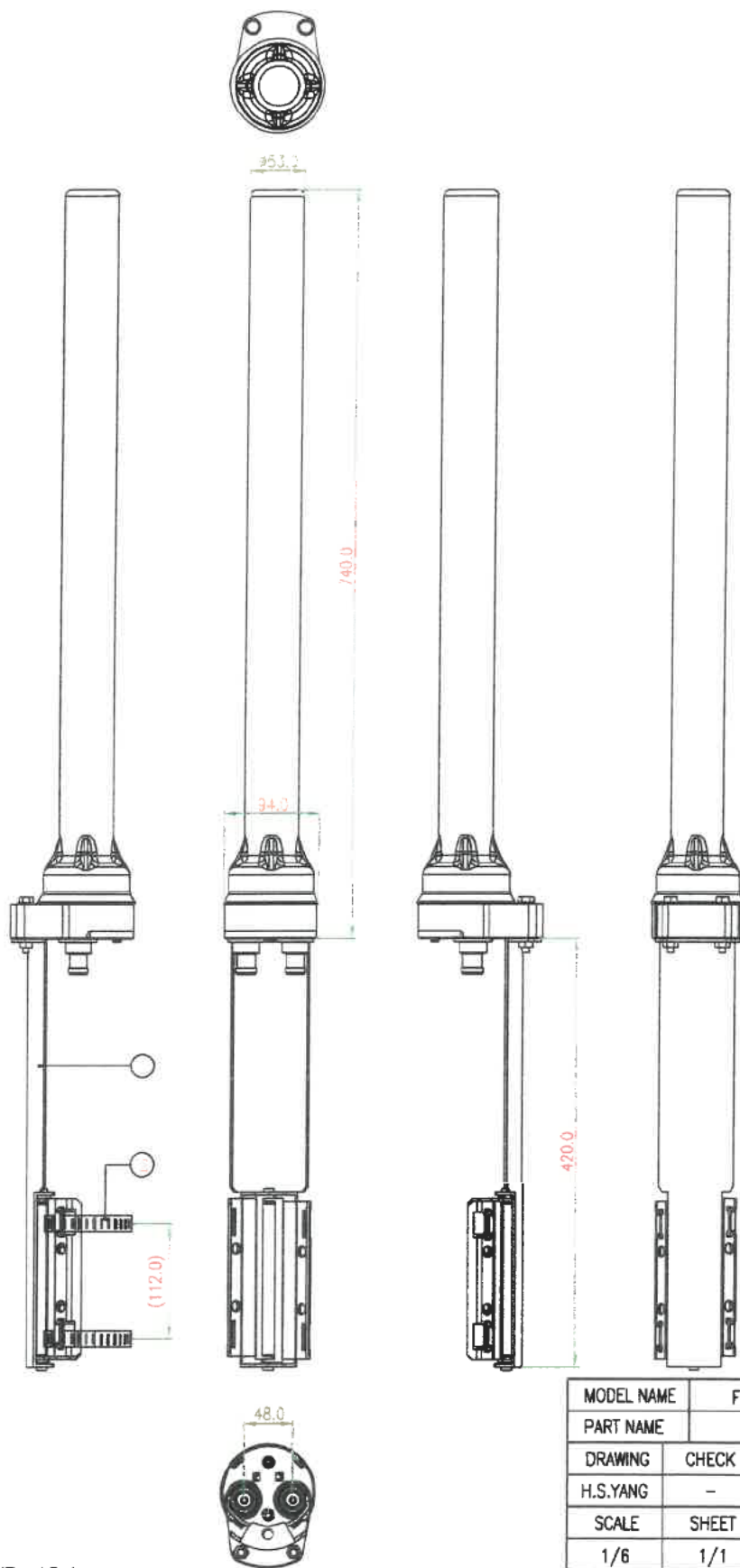
KMW is an innovative and dynamic company
in wireless communications. (www.kmw.co.kr)

Mount for Omni Antenna

11/25/15

Mount for Omni Antenna





NOTES

- 1. FIXED CLAMP : 1Set
- 2. HOSE CLAMP : 2Set

MODEL NAME	FX-X-WM-360-7-00T-ST		
PART NAME	CONFIGURATION		
DRAWING	CHECK	APPROVAL	DATE
H.S.YANG	-	O.H.CHOI	15/08/25
SCALE	SHEET	REVISION	UNITS
1/6	1/1	0.0	mm
3rd ANGLE PROJECTION		GENERAL TOLERANCE	
		± 1.0	0.5



Outdoor LTE Relay iRelay 460

Airspan's iRelay 460 (iR460) is an innovative standards compliant LTE relay solution.

iR460 is part of the iRelay family, providing a compact Category 6 UE Relay solution which supports multi-band radios to connect to a combination of different Macro eNB.

Innovative features including Plug and Play, Steerable Narrow Beam Antenna, Best Serving eNB Selection, and Mounting assembly significantly reduce the time and experience level to deploy a wireless backhaul solution.

LTE compliant interface minimizes the impact to the existing network architecture, whilst maintaining the same security and reliability requirements.



The Power of HETNETS

As operators struggle to cope with growing customer demand for higher throughput, they are discovering that layering small base stations into a macro cell coverage area, enables a significant increase in network capacity by filling in coverage gaps and addressing actual traffic distribution where demand is highest. iR460 is an ideal back haul solution for the AirHarmony eNB

Integrated Backhaul

iR460 is connected to the AirHarmony eNB via a GigE port supporting data and power (PoE). Tight integration with Airspan's AirHarmony further reduces the deployment time and provides a seamless backhaul for connection with Airspan's element management system.



Physical

Dimensions

Variant	Dimensions ¹ (H x W x D)
iR460 (excluding mounting brackets)	Height 330mm (13inches) Diameter 200mm (7inch)

Weight

Variant	Dimensions
Main unit	4 Kg / 8.8 Lbs.
Universal mounting bracket (Including pole straps)	0.5 Kg / 1.1 Lbs.

Operational Tolerances

Type	Details	Standard Compliance
Operating temperature	-45°C to 60°C	ETSI 300 019 1-4
Operating humidity	5% - 100% non-condensing	ETSI 300 019 1-4
Storage temperature	-45°C to 70° C	Non Operational Test
Storage humidity	5% - 100% non-condensing	ETSI 300 019 1-4
Rain and dust ingress protection	IP67	ETSI 300 019 1-4
Operational altitude	70-106 kPa as well as: From -60m to 1800m @ 40°C From 1800m to 4000m @ 30°C	ETSI 300 019 1-4
Solar radiation	1120 W/m ²	ETSI 300 019 1-4

Voltages and Amperage Draws

Mode	Nominal Power Consumption (W)
Max (Scan Mode)	16
Typical (Relay Mode)	12

¹ Dimensions excludes connectors height and protruding screws



Steerable Antenna

iR460 contains an integrated steerable, XPOL antenna.

The steerable antenna is a cross polarised (dual slant) design which supports multiple frequency bands.

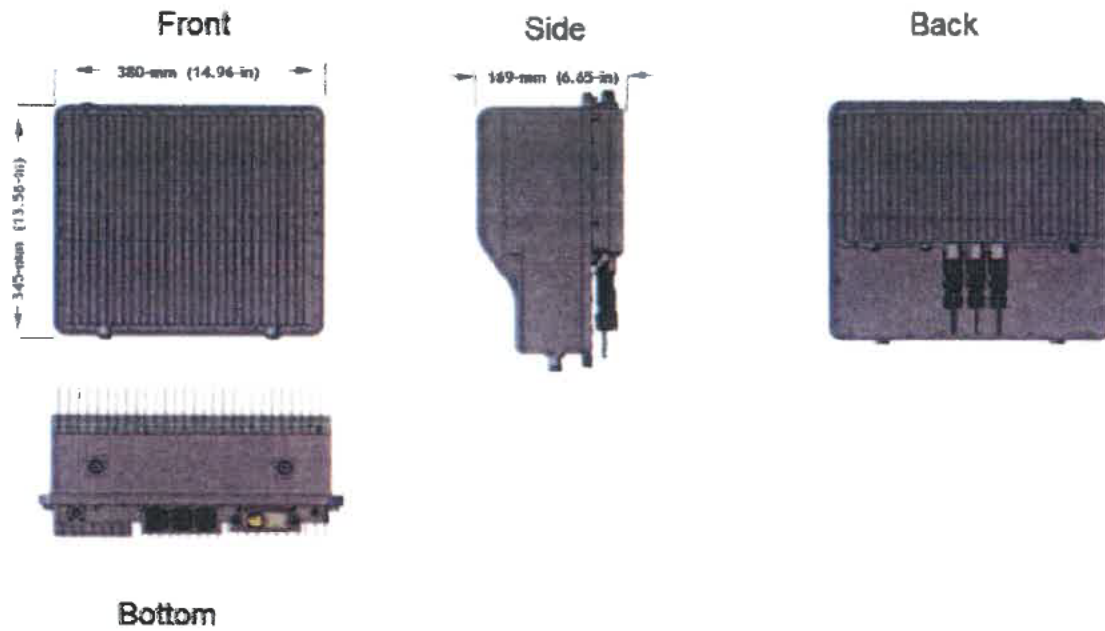
Steerable Antenna performance

	Band 25	Band 41
Polarisation	Dual slant	Dual slant
Polarisation Discrimination	15dB	18dB
Boresight Gain	8dBi	12dBi
Front to back ratio	18dB	25dB
Azimuth HPBW	65 degrees	35 degrees
Elevation HPBW	65 degrees	35 degrees
Co & X-Pol RPE	EN302-326-3 Class DN2	EN302-326-3 Class DN3
Grounding	DC Grounded	DC Grounded

Steerable Antenna Characteristics

	Parameter
Azimuth Range	360 degrees
Azimuth Resolution	≤1 degrees
Pointing Speed	≥60 degrees/sec
Duty Cycle / Hour	≤25%
Duty Cycle / 24 Hours	≤5%

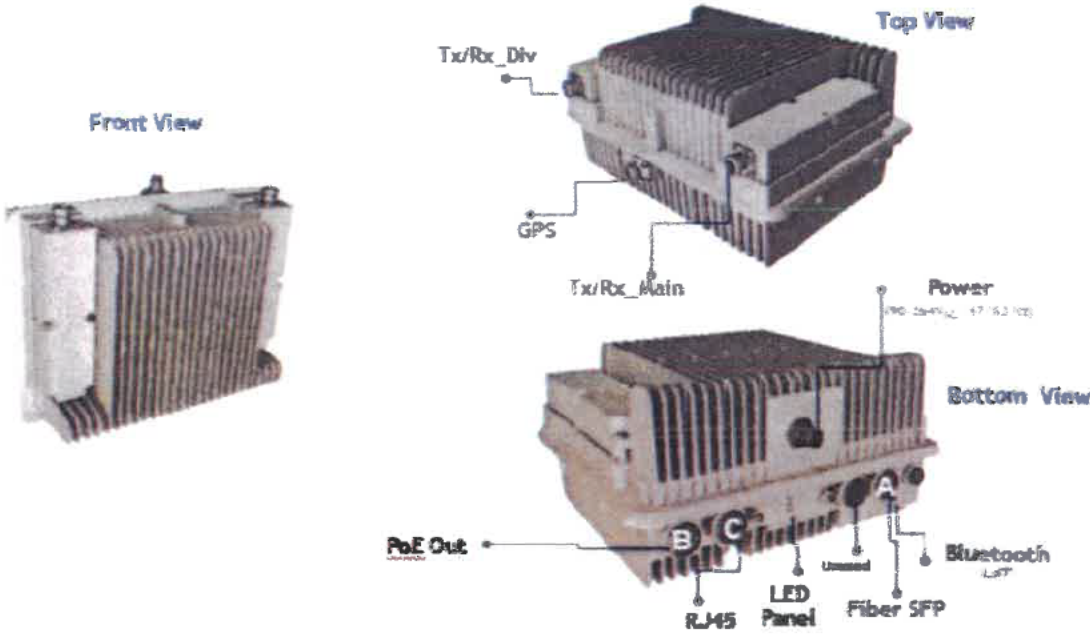
FW2CA 850 MHz 2 x 20W Micro BTS



Product	Flexi Zone Micro Outdoor
Backhaul	100/1000 Base-T Copper and Fiber Port Types: 2 RJ45 Ethernet, 1 SFP based Fiber (PoE will be supported on one of the RJ45 ethernet ports) SFPs ¹ Supported: SX, LX, BX, G-PON, E-PON
Antenna	Configuration: 2Tx / 2Rx MIMO Type: integrated Directional, Remote Antenna Connector: 4.1/9.5 Mini-DIN GPS Connector: N-Type Female
Local Maintenance Ports	Bluetooth or Unused RJ45 Port
Input Power	90 – 264 VAC
Status Indicators	Status, Backhaul, Tx
Power Consumption	Max: 360W; Typ: 290W
Mounting Options	Wall or Pole Mount
Emission	TS36.104 Rev-11 Wide Area

¹ Only a certified S+, LX, and E+ SFPs are allowed for use in Flexi Zone units. SFPs supported as it is listed in the TRF file available on Nokia.com. Some Flexi Zone units may, in order to use other manufacturer specific Fiber SFPs, including POF, require additional hardware and/or additional SFPs. Please refer to the TRF file for more information.

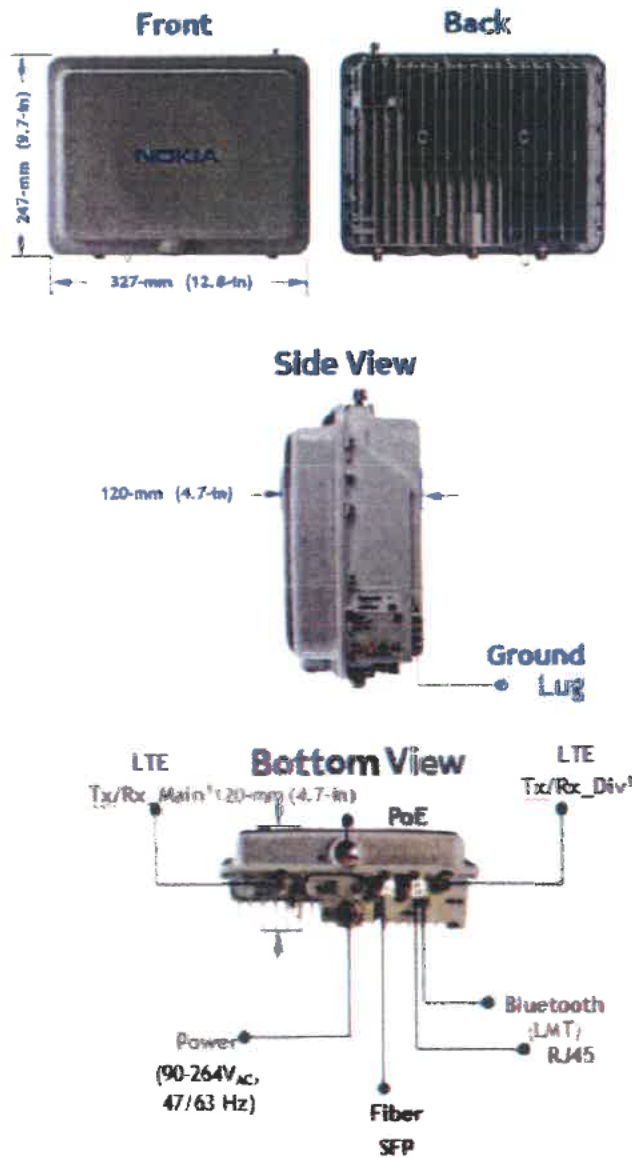
FWHR 2500 MHz 2 x 20W Micro BTS



Product	Flexi Zone Micro Outdoor
Backhaul	100/1000 Base-T Copper and Fiber Port Types: 2 RJ45 Ethernet, 1 SFP based Fiber (PoE Out will be supported on one of the RJ45 ethernet ports) SFPs* Supported: SX, LX, BX, G-PON, E-PON
Antenna	Configuration: 2Tx/ 2Rx MIMO Type: Remote (Customer Provided) Antenna Connector: 4.1/9.5 Mini-DIN GPS Connector: N-Type Female
Local Maintenance Ports	Bluetooth or Unused RJ45 Port
Input Power	90 – 264 VAC
Status Indicators	Status, Backhaul, Tx
Power Consumption	Max: 360W; Typ: 290W
Fans	No
Mounting Options	Wall or Poie Mount
Emission	TS36.104 Rev-11 Wide Area

* SFPs and Bi-Di SFPs are not included and are sold separately. For a list of supported SFPs, please refer to the SFP selection guide. The Flexi Zone Micro Outdoor is not designed to use Bi-Di SFPs. For more information on SFPs, including Bi-Di SFPs, please refer to the required hardware SFPs. For more information on SFPs, please refer to the SFP selection guide.

FWHT 2500 MHz 2 x 5W Micro BTS



Product	Flexi Zone Micro Outdoor
Backhaul	100/1000 Base-T Copper and Fiber Port Types: 2 RJ45 Ethernet, 1 SFP based Fiber (PoE will be supported on one of the RJ45 ethernet ports) SFPs ¹ Supported: SX, LX, BX, G-PON, E-PON
Antenna	Configuration: 2Tx / 2Rx MIMO Type: Omni, Panel, Remote Antenna Connector: 4 1/9.5 Mini-DIN GPS Connector: N-Type Female
Local Maintenance Ports	Bluetooth or Unused RJ45 Port
Input Power	90 – 264 VAC
Status Indicators	Status, Backhaul, Tx
Power Consumption	Max: 135W Typ: 125W
Fans	No
Mounting Options	Wall or Pole Mount
Emission	TS36.104 Rev-11 Medium Area

¹ Nokia certified SX and LX SFPs are Cisco compatible and support G-PON and E-PON. SFPs supporting SFPs that are not supported on the Flexi Zone product in order to use an unsupported RJ45 or SFPs including PoE, and 2 Tx MIMO, additional SFPs may support Flexi Zone SFPs temporarily and requirements.

The image shows the cover of a spiral-bound notebook. The background is a photograph of a modern skyscraper with a blue-tinted glass facade, viewed from a low angle looking up. A white rectangular box is centered on the cover, containing the title. In the top right corner of the cover, there is a white line-art diagram of a building's floor plan with several rooms and corridors. The notebook's spiral binding is visible on the left edge.

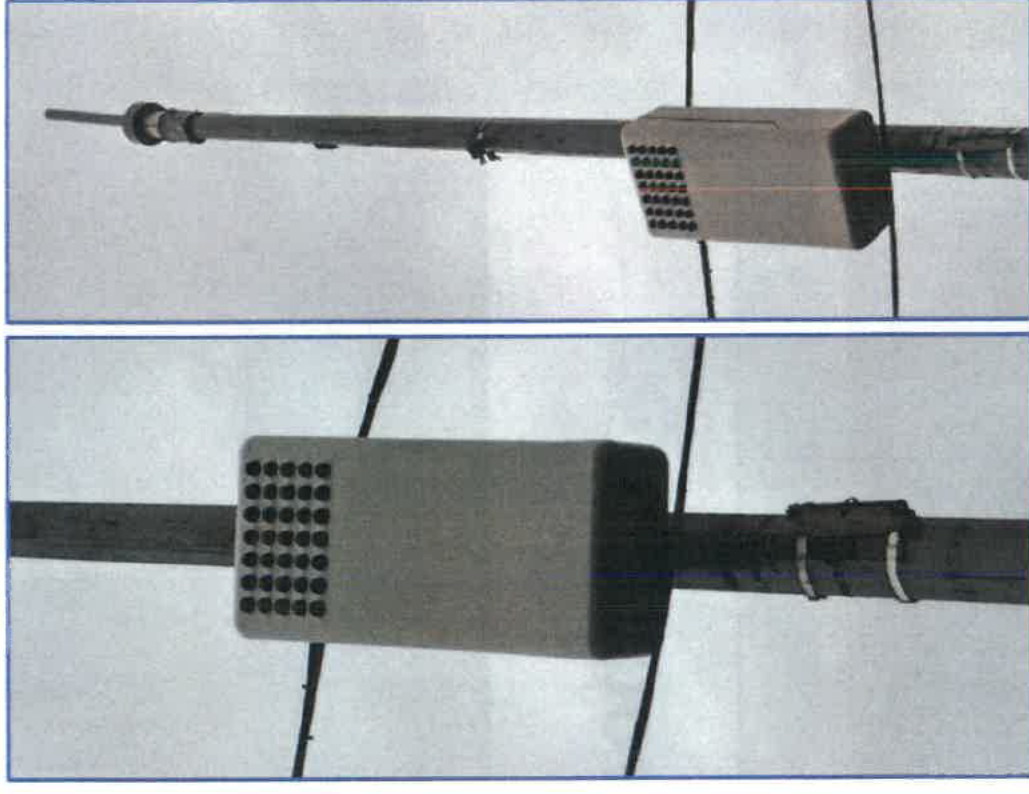
mobilite
Intelligent Infrastructure

New York City Shroud

December, 2016

NYC STREET POLE SHROUD SOLUTION

- This design solution is required to deploy small cells in the NYC area, per the DOITT authority.
- The shroud encloses the RRU, Backhaul unit(s), RF filter, AC panel and isolation transformer in one RF transparent material shell.
- It is intended to improve the equipment aesthetic on the pole and deployment process.

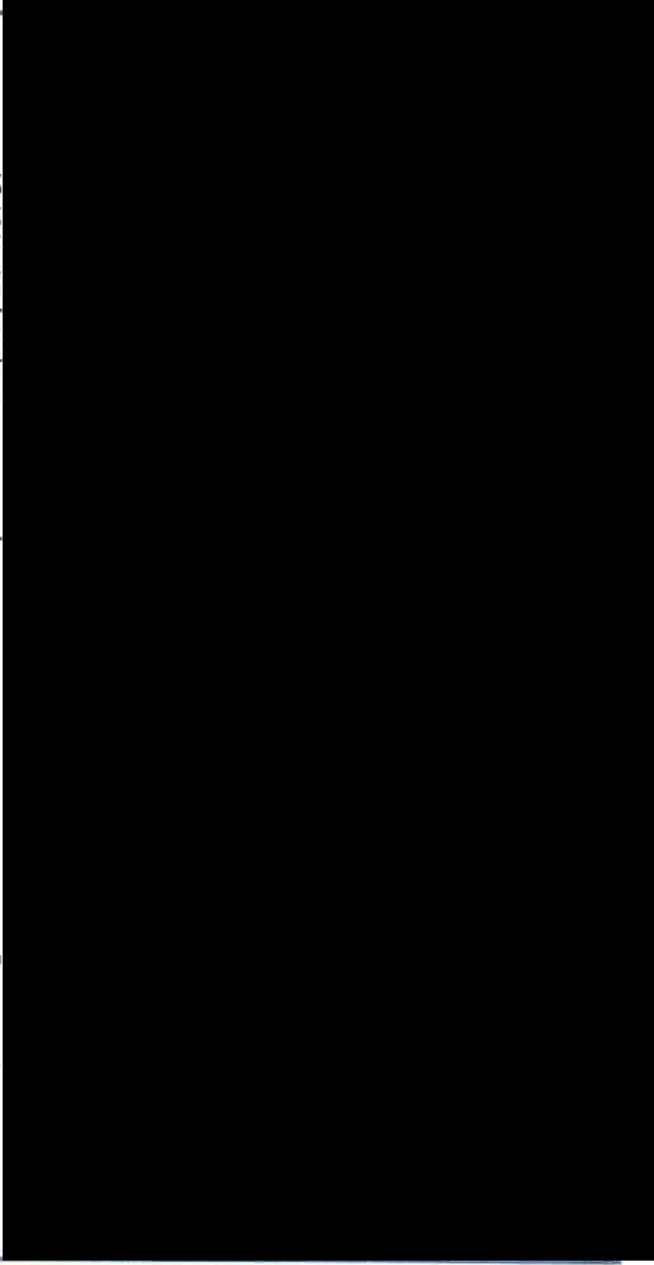
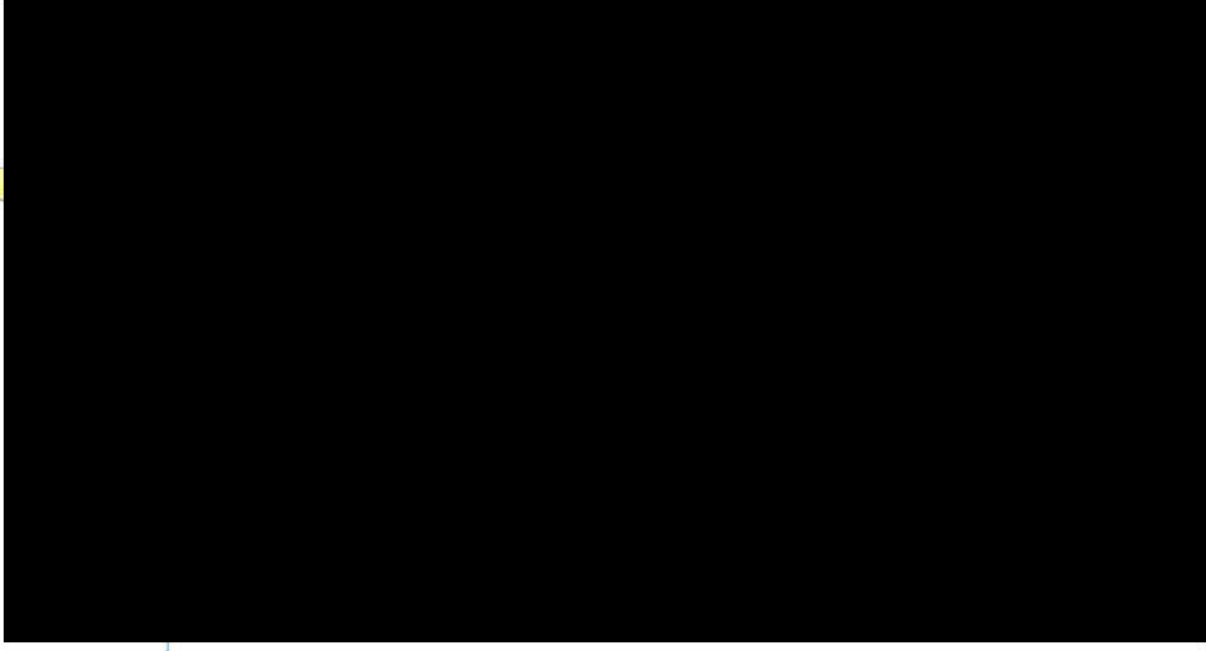


PREASSEMBLED COMPONENTS

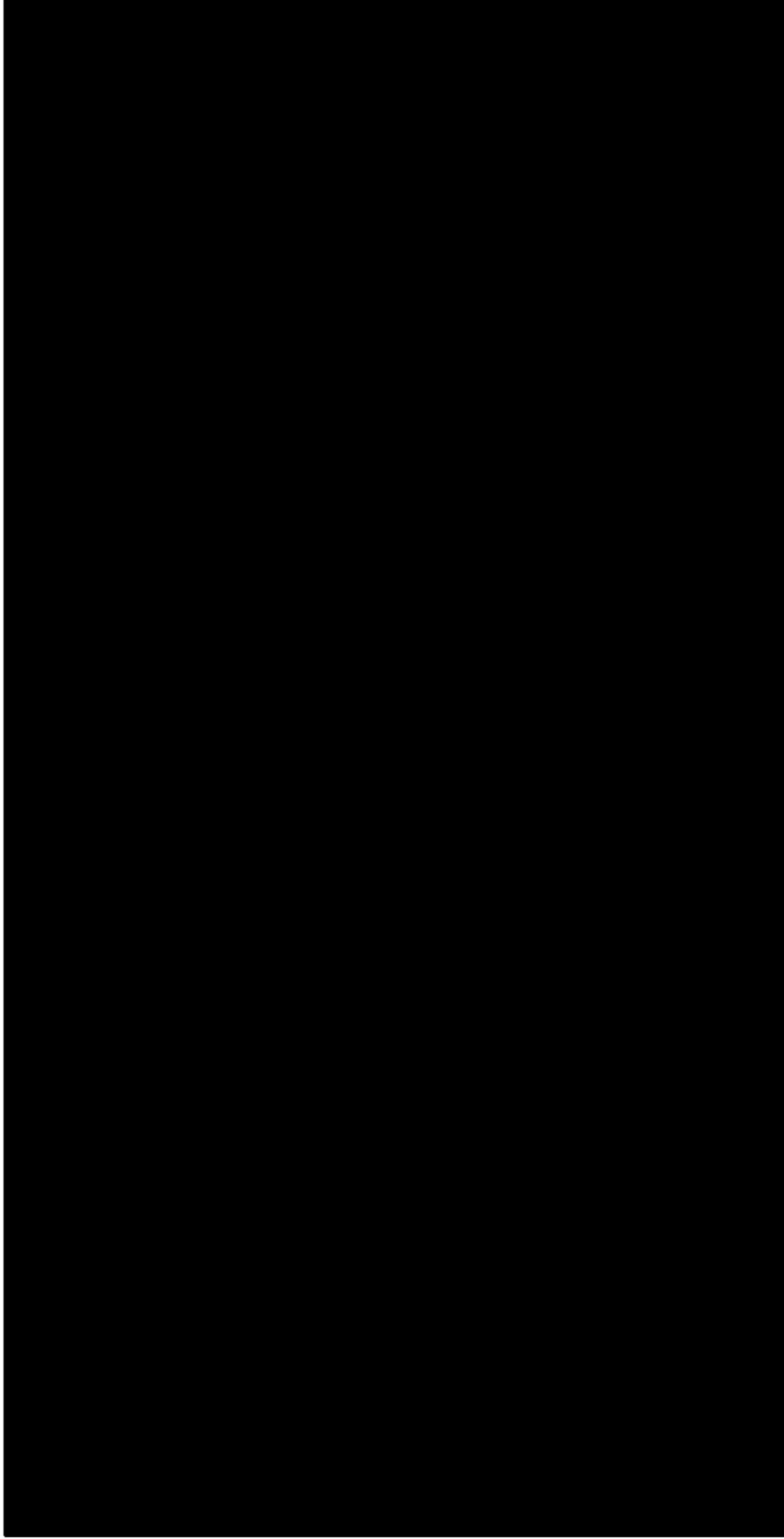
The Shroud units will be shipped to market with all internal components preassembled prior to delivery.

The GC will be responsible to finalize the cable entry and connections in the shroud, between components and RF antenna, AC power, and ground lead.

The primary configuration will consist of components displayed here:



ADDITIONAL OEM EQUIPMENT CONFIGURATIONS



www.mobilitie.com

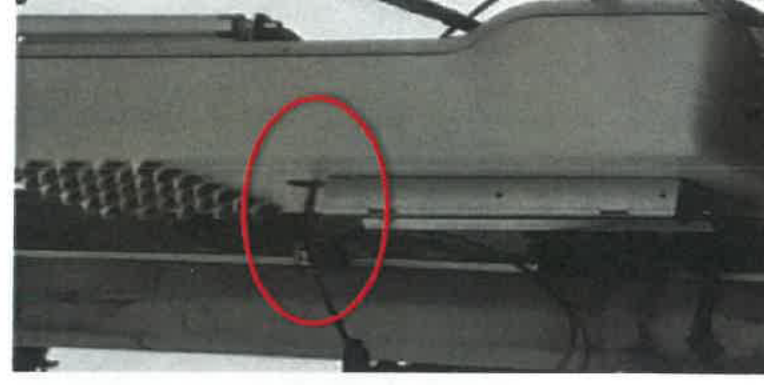
ONSITE ASSEMBLED COMPONENTS – Antenna and RF COAX

Carefully pull the ¼" RF cable and ground cable through the previously drilled hole.

Ready the cables for entry into the shroud

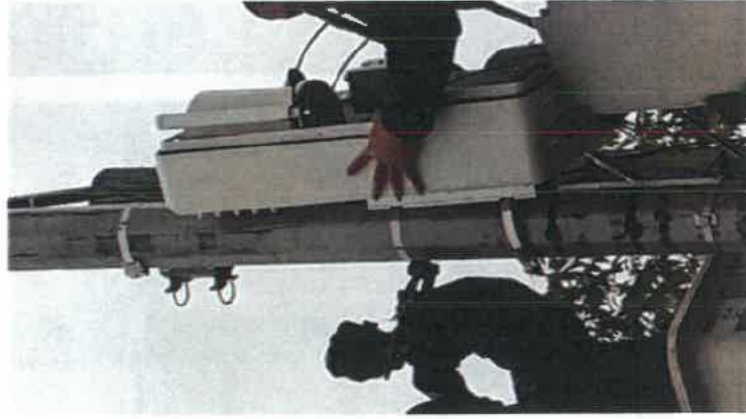
Pull through the cables and ready to terminate once shroud is mounted

Mount the Shroud with (2) ¾" Solid Stainless Steel Banding straps



ONSITE ASSEMBLED COMPONENTS – Antenna and RF coax

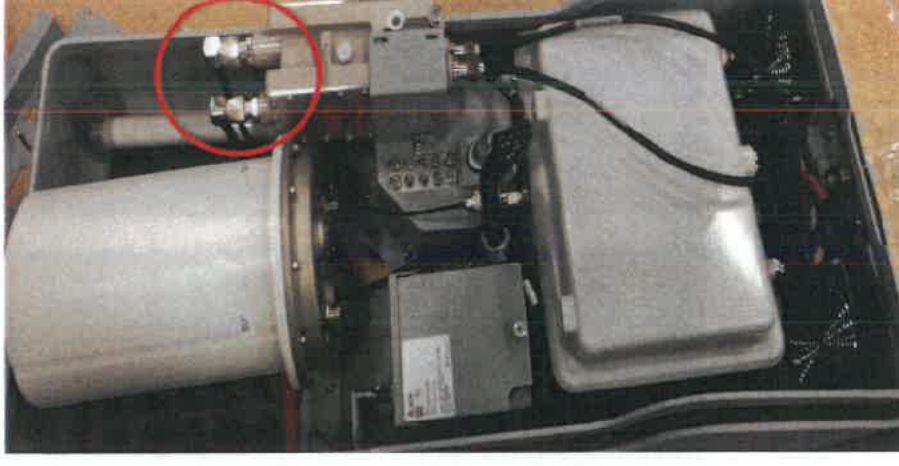
Finalize the mounting of the shroud to the pole, ensuring the Chase Nipple conduit is secured into the shroud



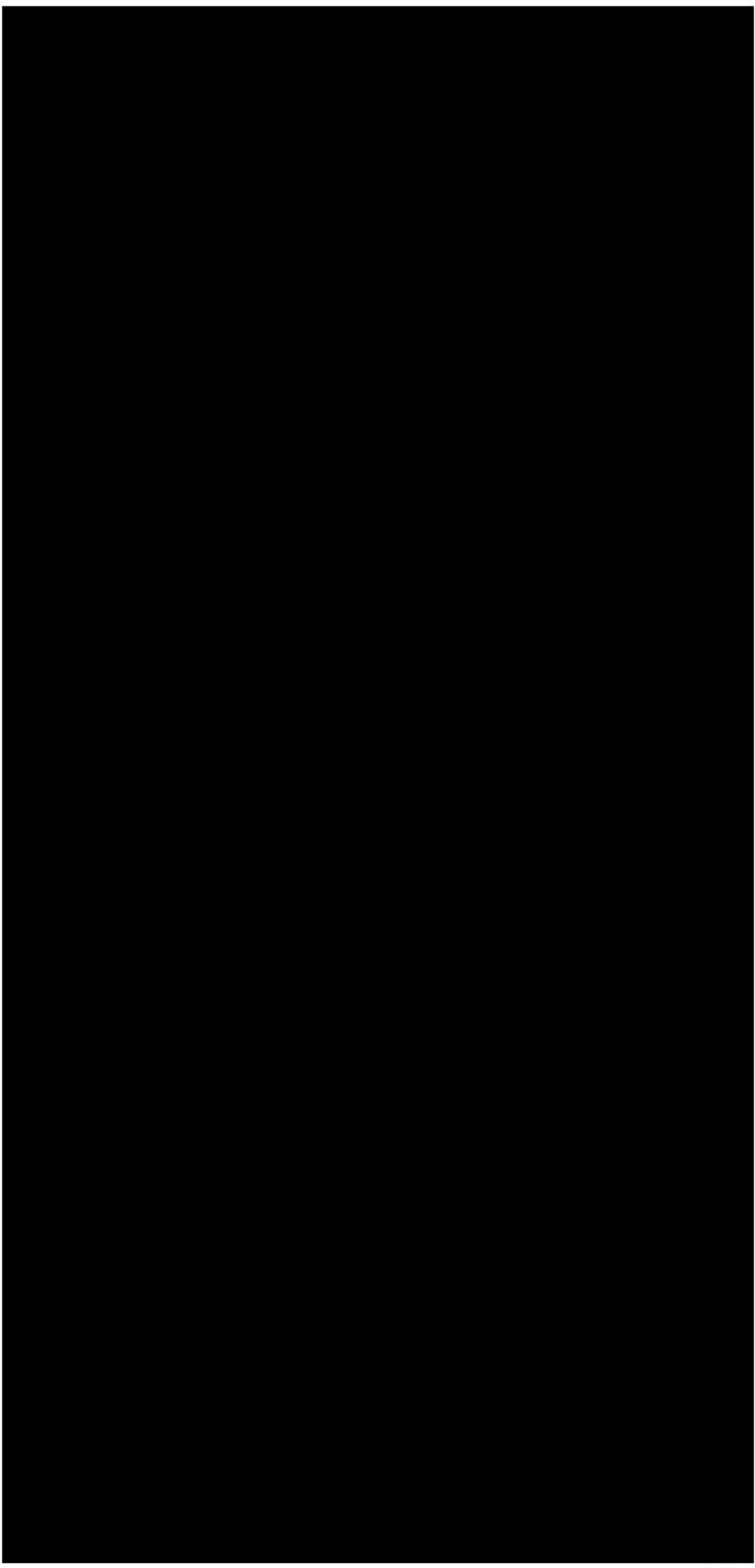
Route and Terminate the RF cables onto either the RF Filter or the Nokia Radio if no filter is installed.



Terminate the ground cable onto the ground point in the shroud



ONSITE ASSEMBLED COMPONENTS – AC Power in Shroud

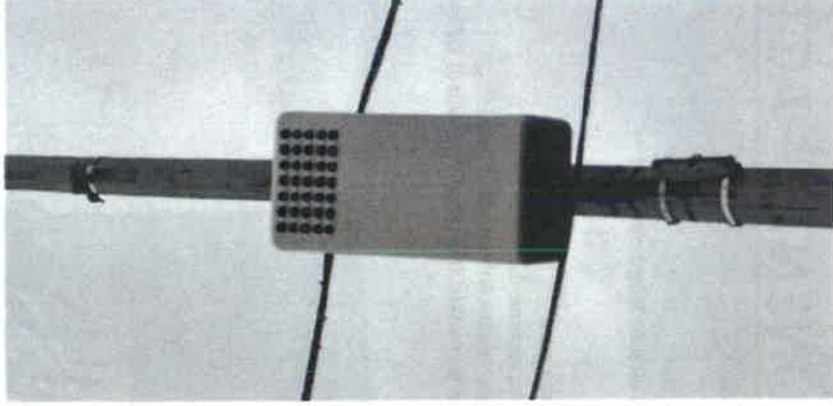


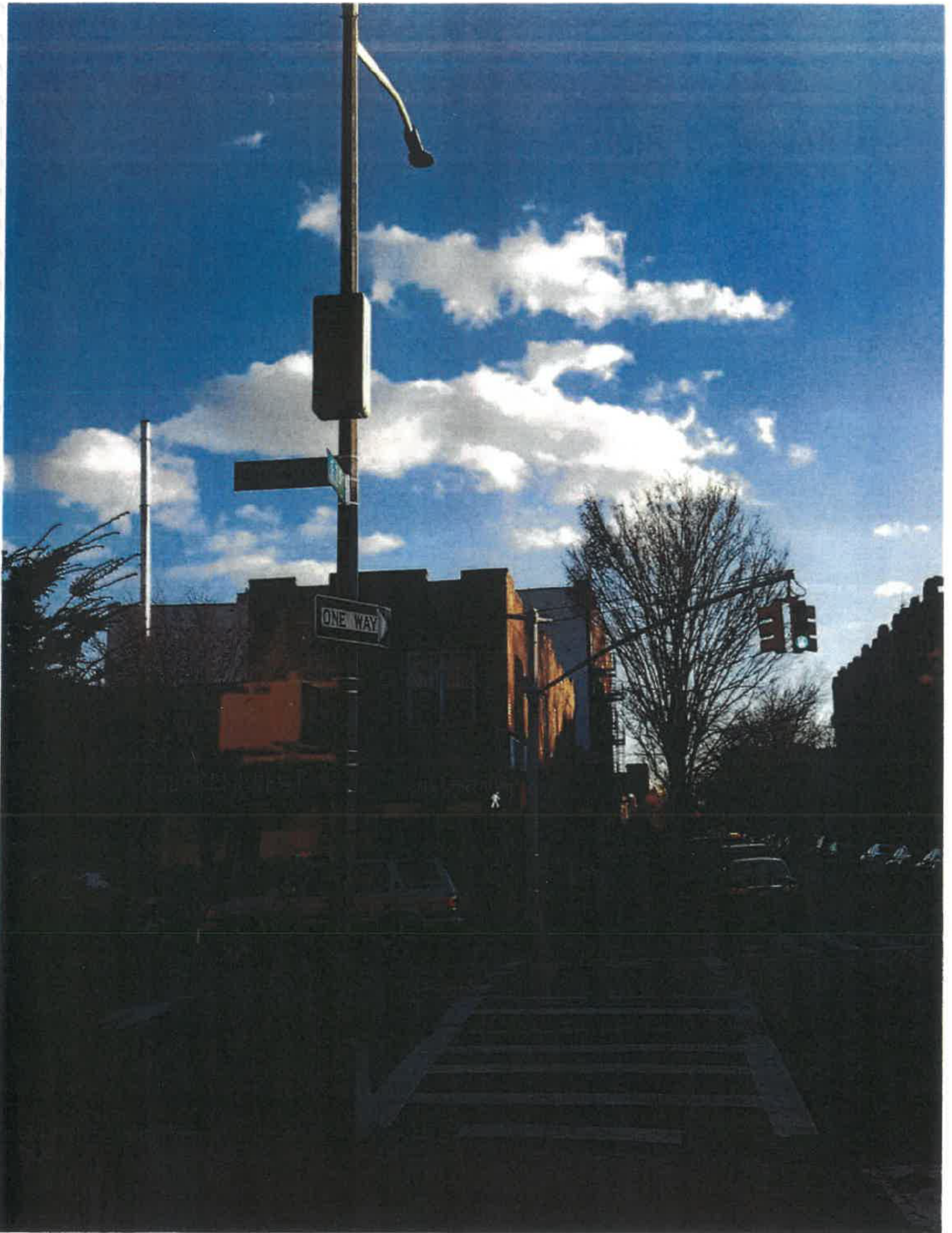
Final Items

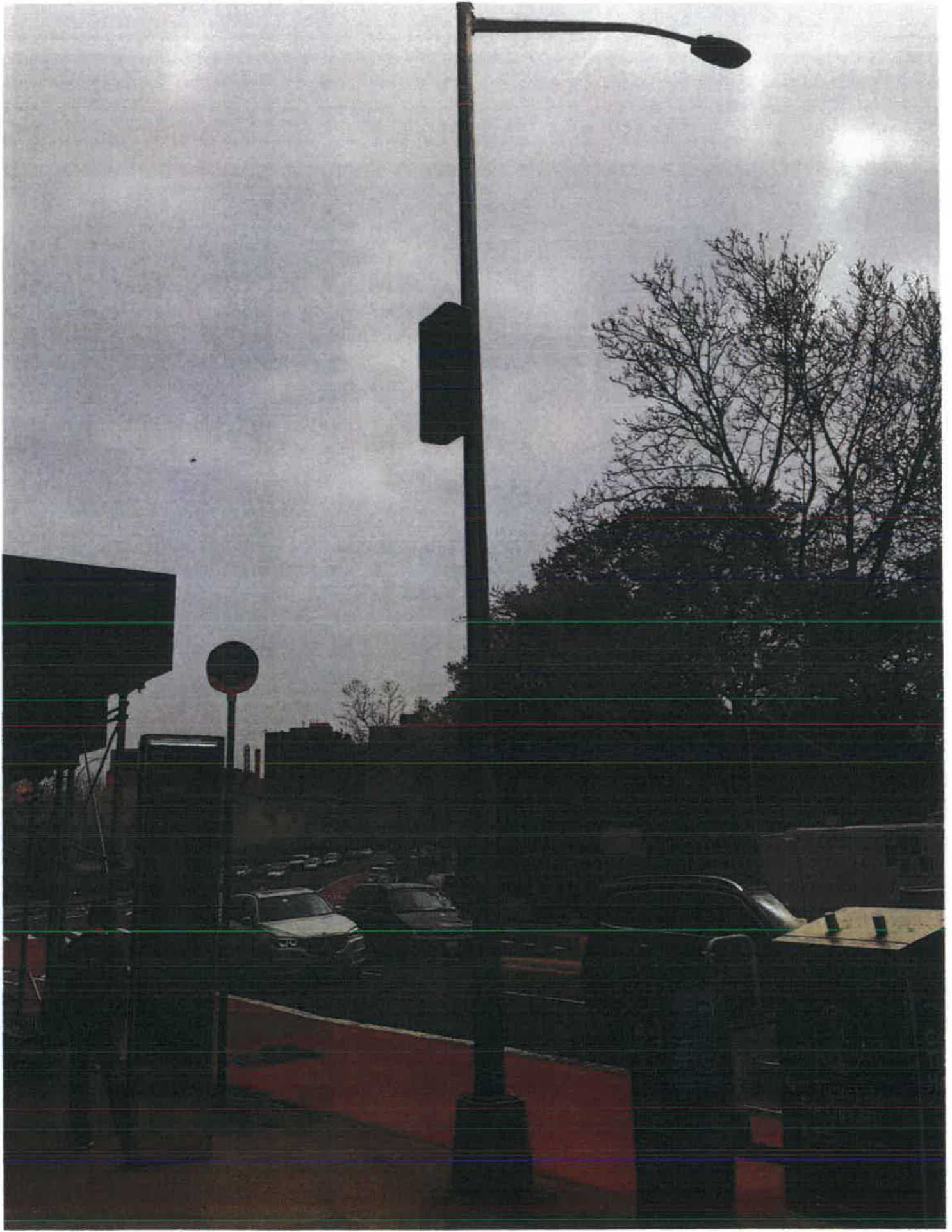
Once all activities and Testing been completed and the CIC releases you from the site

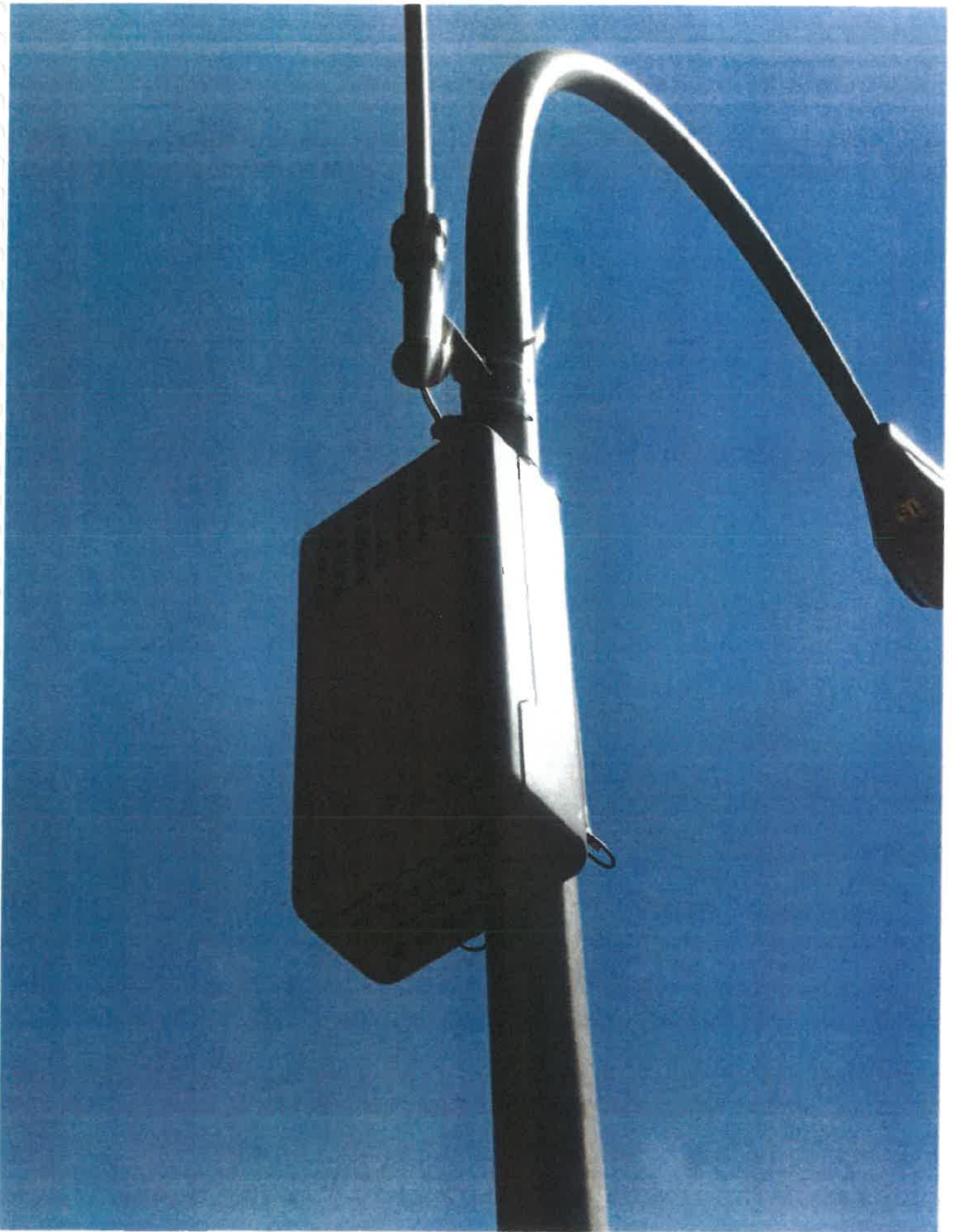
Make the final closure of the shroud and use the security latch to complete the covering.

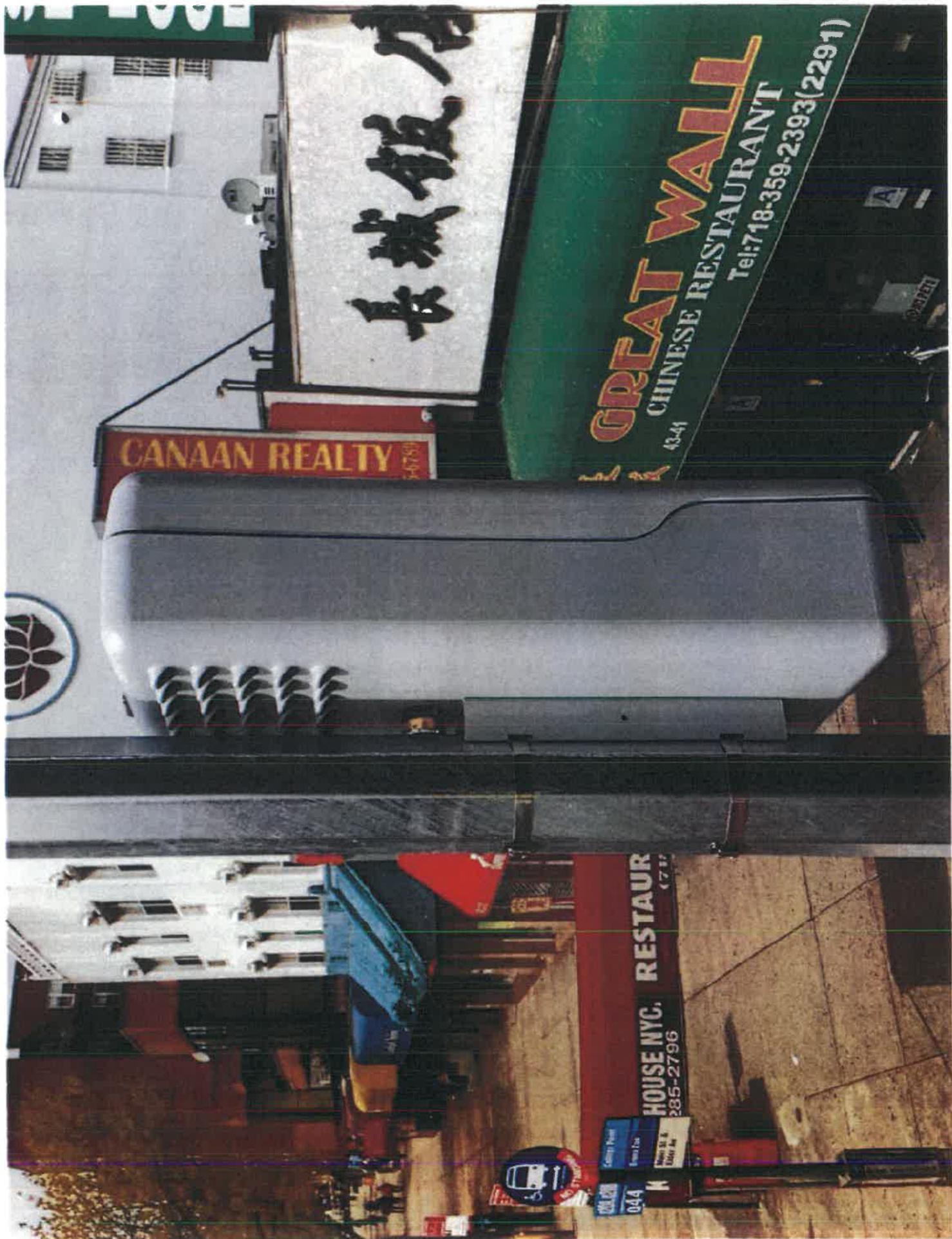
Do not use Combo or Pad locks.











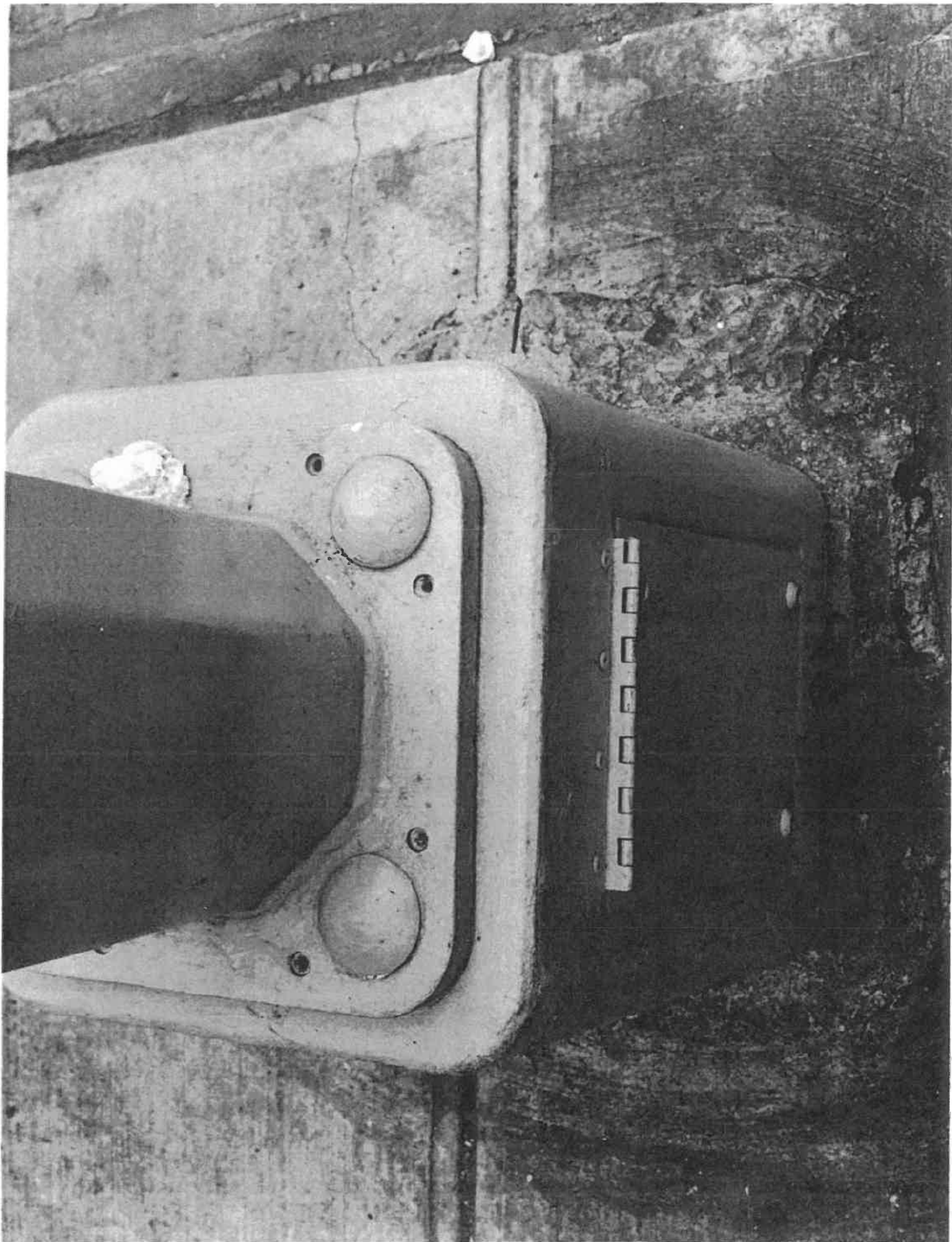
CANAAN REALTY
46789

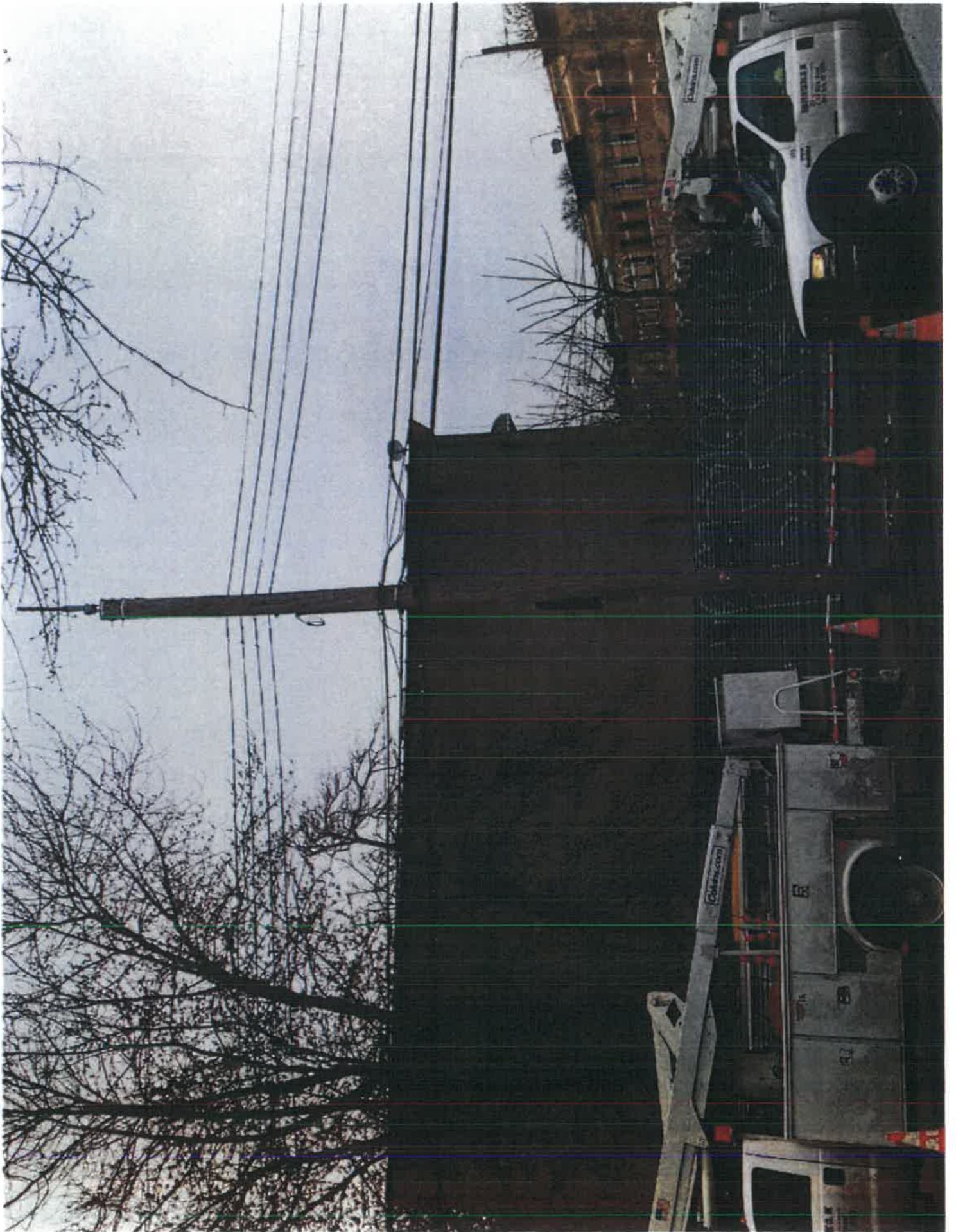
長城飯店

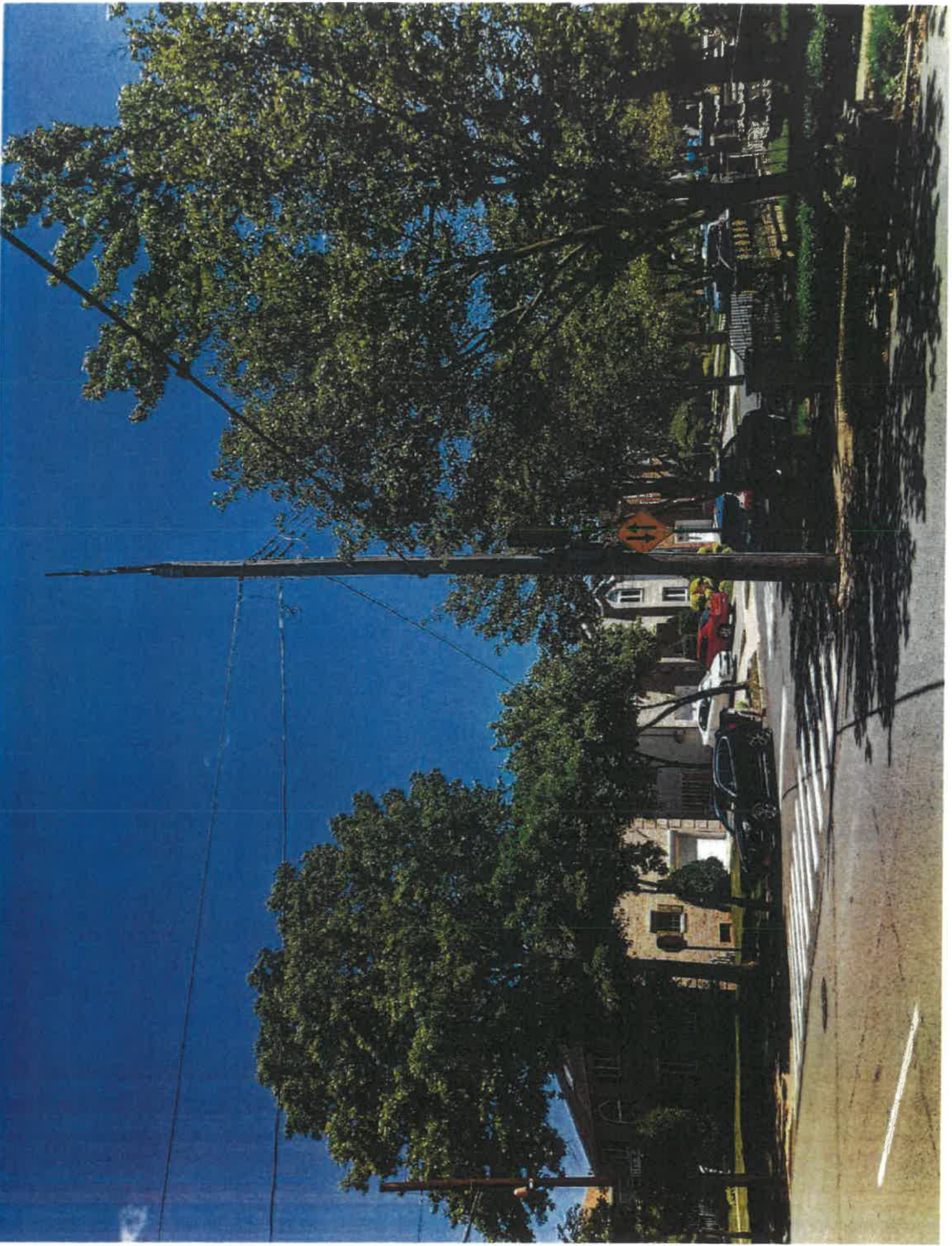
GREAT WALL
CHINESE RESTAURANT
Tel: 718-359-2393 (2291)
43-41

HOUSE NYC. RESTAURANT
285-2796 (718)

M44
City Point
Express Bus
Times Sq. & 42nd St.

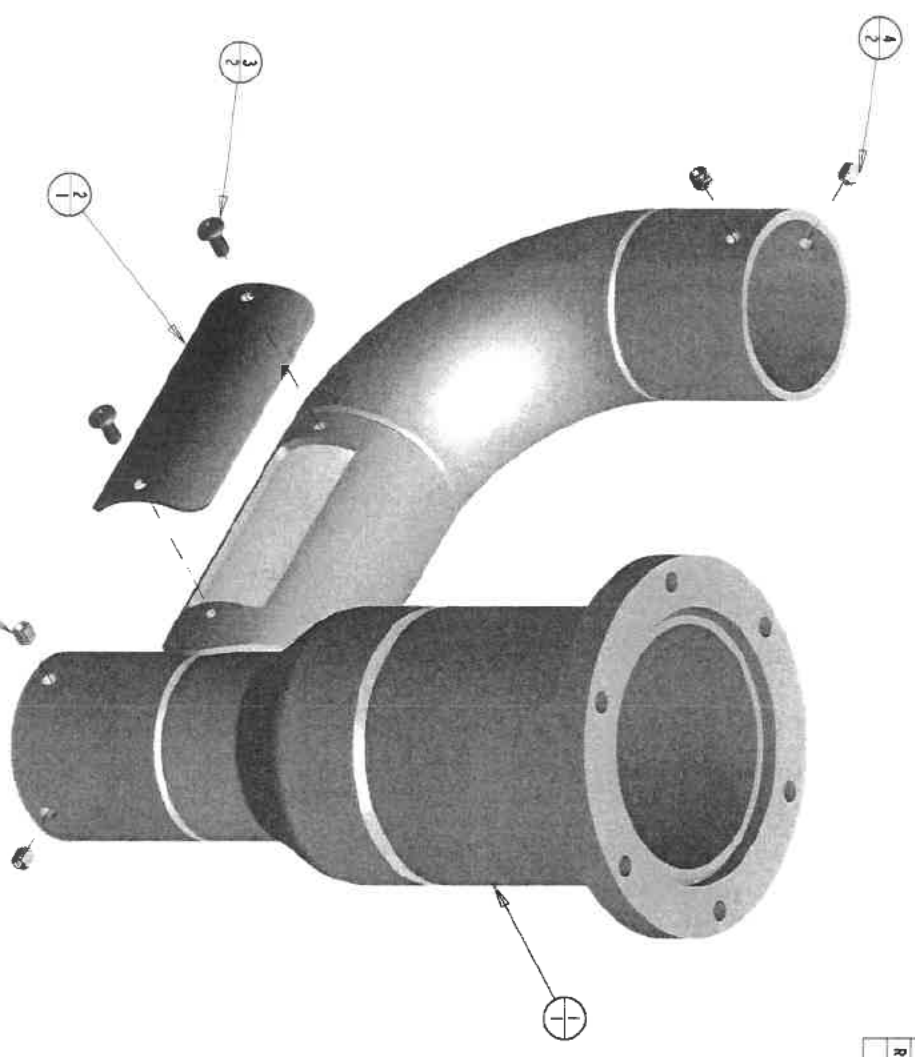








REVISIONS		APPROVALS	
REV	ECN NO. / DFTG	ENGR REL	DATE



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ENGLISH

UNIT	DECIMALS	FRACTIONS	ANGLES
INCHES	.001	1/32	1/2°
MILLIMETERS	.01	1/16	1/2°

NO.	DESCRIPTION	QTY	UNIT
1	COVER ANTENNA UNIT	1	EA
2	ACCESS COVER PLATE	1	EA
3	SCRW. 10-24 X 3/8" PHD TRIL. 18-8 STAINLESS	4	EA
4	SCRW. 1/4-20 X 1/4" CP PHD. 18-8 STAINLESS	4	EA

NOTES:

- INSTALL SETSCREW HARDWARE AFTER PAINT FLUSH TO EXTERIOR SURFACE.
- APPLY LOCTITE 242 TO ACCESS COVER HARDWARE PRIOR TO INSTALLATION.

DATE: 11/17/14
 DRAWN BY: JBR/pc
 CHECKED BY: JBR/pc
 MATERIAL: SEE BOX
 TYPED: PAINT FS#27039 DOT BLACK XCP-FS3M025271-1387

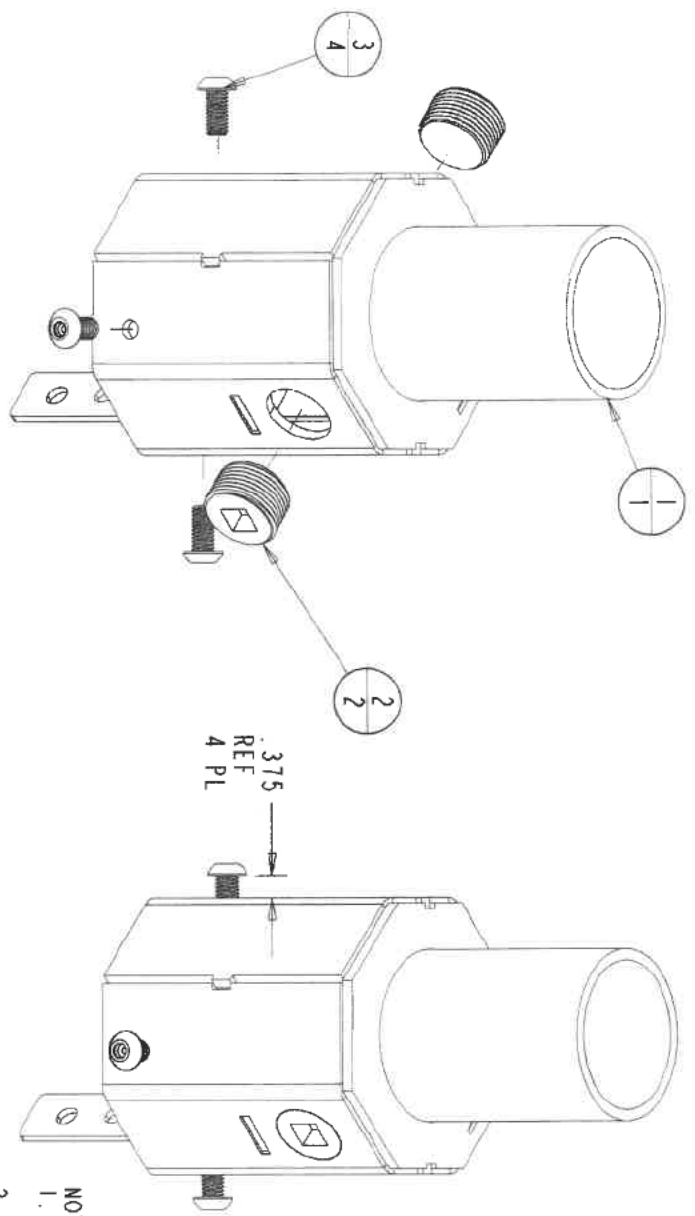
IMS
 Innovative Manufacturing Solutions
 1 Innovation Drive
 Des Plaines, IL 60016

CUSTOMER: Entegri
 PROJECT: COUPLER ANTENNA UNIT

SCALE: 1:1
 DO NOT SCALE DRAWING

REV: A

REVISIONS		APPROVALS	
REV	ECN NO.	DATE	DATE



- NOTES:
1. INSERT PLUGS TO BE FLUSH WITH EXTERIOR SURFACE OF PART PRIOR TO PAINT
 2. PAINT COMPLETE - EXTERNAL SURFACES ONLY OVERSPRAY PERMISSIBLE ON INSIDE
 3. INSTALL MOUNTING SCREWS (ITEM 3) AFTER PAINT

P/N	FEDERAL STANDARD COLOR	APPROVED PAINT
1-00048-BRN	FS#: 10049 - DOT BROWN (BRONZE)	F63HXN25216-4387
1-00048-GRN	RAL6012 - DARK GREEN	F63JXG25326-4387
1-00048-GRY	FS#: 26373 - DOT GRAY	F63RAXA25142-4387
1-00048-BLK	FS#: 27038 - DOT BLACK	F63HXD25277-4387

THIRD ANGLE PROJECTION

ENGLISH

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UNITS OF MEASURE	SHEET NO.	ANALYST
INCHES	11	
FRACTIONS	12	
DECIMALS	13	
ANGLES	14	
	15	
	16	
	17	
	18	
	19	
	20	
	21	
	22	
	23	
	24	
	25	
	26	
	27	
	28	
	29	
	30	

ITEM	DESCRIPTION	DATE	BY	DATE	BY
1	5-0011	04-06-14			
2	438819	02/26/14			
3	6298822				
4					

APPROVED BY: [Signature]

CHECKED BY: [Signature]

DATE: 02/26/14

TITLE: TOP ANTENNA MOUNT (ADAPTER FOR FS POLE)

CUSTOMER: Etelced

PROJECT: ANTENNA MOUNTS

SCALE: 0.500

DO NOT SCALE DRAWING

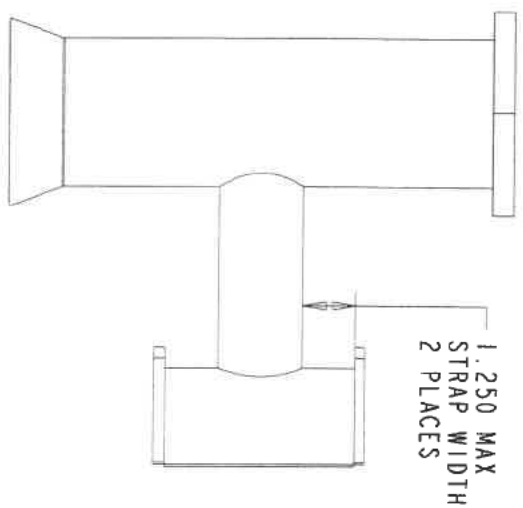
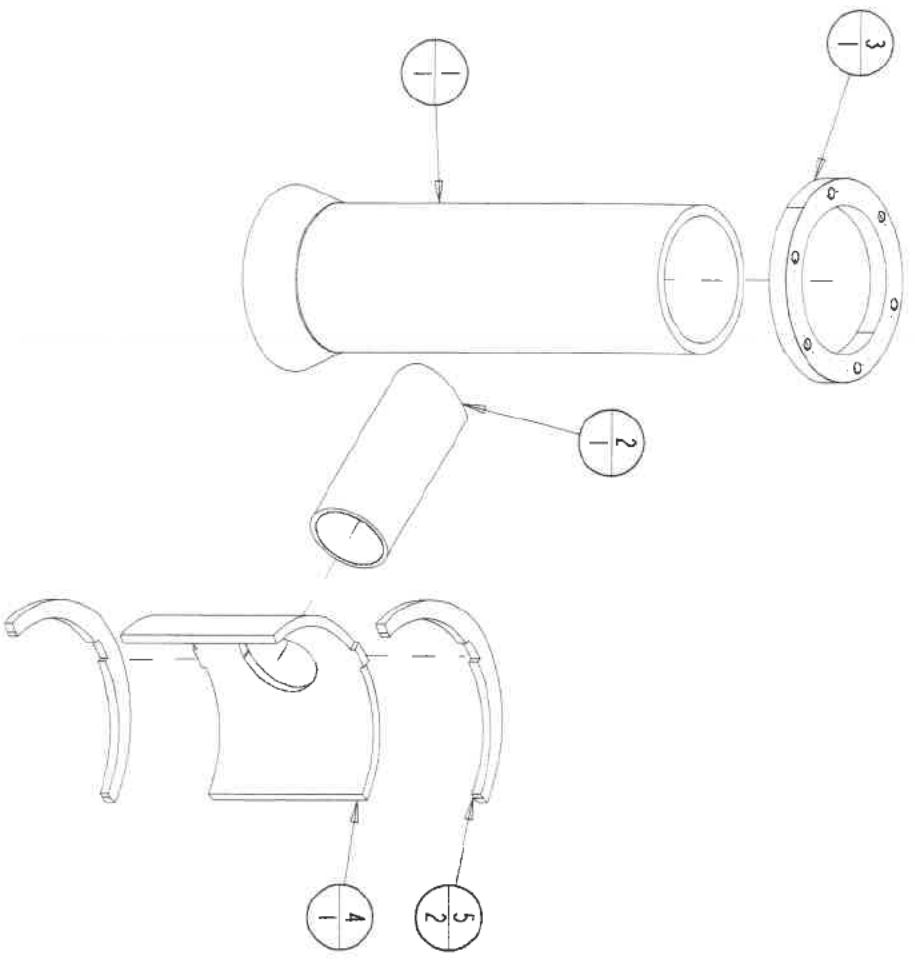
SHEET 1 of 1

INNOVATIVE MANUFACTURING SOLUTIONS

1 Innovation Drive

Des Plaines, IL 60016

REVISIONS			APPROVALS		
REV	ECH NO.	DFTR	WELDING CHANGE & PAINT CONFIG	DATE/ENGR REL	DATE
B	466			JB	



NOTES:
 1. PAINT COMPLETE - EXTERNAL SURFACES
 INTERNAL SURFACES MUST BE PAINTED ATLEAST
 3" DOWN INTO TUBE (BOTH ENDS).

ITEM	QTY	DATE	DESCRIPTION
1	1	F-01358	SIDE MOUNT ANTENNA TUBE
2	1	F-01360	SUPPORT ARM TUBE - SIDE MNT
3	1	F-01361	ANTENNA MOUNT FLANGE
4	1	F-01362	POLE SIDE MOUNT PLATE
5	2	F-01372	POLE MOUNT PLATE GUIDE

P/N	FEDERAL STANDARD COLOR	APPROVED PAINT
5-00170-BRN	FS# : 10049 - DOT BROWN (BRONZE)	F63HXN25276 - 4387
5-00170-GRN	RAL 6012 - DARK GREEN	F63JXG25326 - 4387
5-00170-GRY	FS# : 26373 - DOT GRAY	F63RXAZ5142 - 4387
5-00170-BLK	FS# : 27038 - DOT BLACK	F63HXD25277 - 4387

THIRD ANGLE PROJECTION

ENGLISH

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FUNCTION	DECIMAL	ANGLES
±1/32	±.009	±1.0°
MOLD TOLERANCES		
0.13	.004	.251
0.13	.004	.251
0.13	.004	.251
0.13	.004	.251
0.13	.004	.251
0.13	.004	.251
0.13	.004	.251

METRIC:
 DIMENSIONS ARE IN INCHES
 REMOVE SPACES AND SLASHES FROM DIMENSIONS TO OBTAIN METRIC INFORMATION IS FOR REFERENCE ONLY

ISSUES LIST

NO.	DATE	DESCRIPTION
05-Nov-14		
09/26/13		

CUSTOMER: Extended
TITLE: SIDE MOUNT ANTENNA WELDMENT FOR BISHOP CROOK
PROJECT: MTC ANTENNA SIDE MOUNT

DESIGNER: [Signature]
CHECKED BY: [Signature]
MATERIAL: SEE BOM

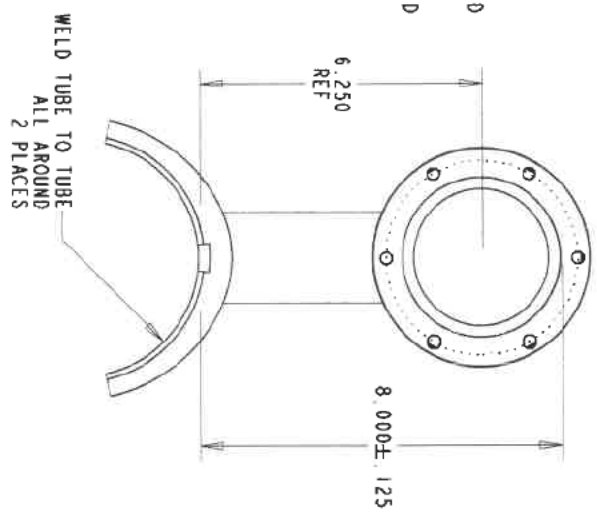
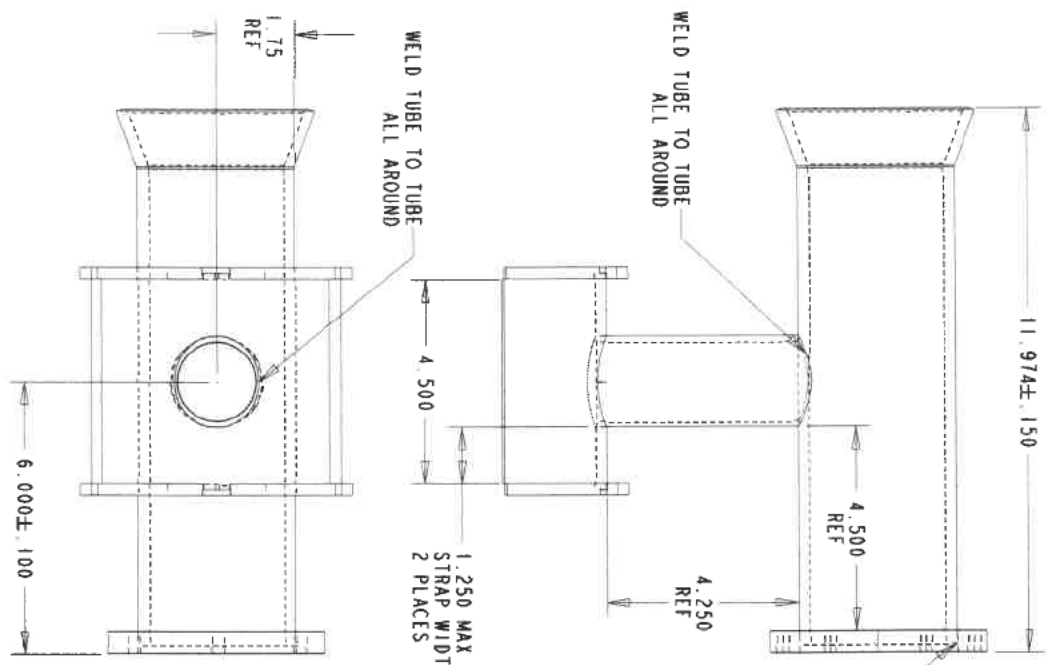
FINISH: PAINT SPECIFIED ON ORDER PER NYC FEDERAL COLOR # STD

SCALE: 0.500

DO NOT SCALE DRAWING

REV

REVISIONS		APPROVALS	
REV EGN NO	DATE	DRG ENGR	REL DATE
B	466	WELDING CHANGE & PAINT CONFIG	
		JB	



THIRD ANGLE PROJECTION

ENGLISH

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UNLESS OTHERWISE SPECIFIED, USE THE FOLLOWING DIMENSIONS AND TOLERANCES:

DIMENSIONS ARE IN INCHES	TOLERANCES
0.125 - 1.000	± .010
1.000 - 3.000	± .015
3.000 - 6.000	± .020
6.000 - 12.000	± .030
12.000 - 30.000	± .040
30.000 - 60.000	± .050
60.000 - 120.000	± .060
120.000 - 240.000	± .080
240.000 - 480.000	± .100
480.000 - 960.000	± .120
960.000 - 1920.000	± .150

ITEM NO.	QTY	PART NO.	DATE	APPROVALS
1	1	7-01380	05-Nov-14	
2	1	7-01380	09/26/13	
3	1	7-01381		
4	1	7-01382		
5	2	7-01313		

PARTS LIST

ITEM NO.	QTY	PART NO.	DESCRIPTION
1	1	7-01380	SIDE MOUNT ANTENNA TUBE
2	1	7-01380	SUPPORT ARM TUBE - SIDE MNT
3	1	7-01381	ANTENNA MOUNT FLANGE
4	1	7-01382	POLE SIDE MOUNT PLATE
5	2	7-01313	SIDE MOUNT PLATE GUIDE

MECHANICAL: DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED. DIMENSIONS ARE TO BE MEASURED TO THE CENTERLINE UNLESS OTHERWISE NOTED.

FINISH: SEE BOM

PAINT: SPECIFIED ON ORDER

SCALE: 0.215

DO NOT SCALE DRAWING

SHEET 2 OF 2

INNOVATIVE MANUFACTURING SOLUTIONS
1 Innovation Drive
Des Plaines, IL 60016

MODEL: INTC ANTENNA SIDE MOUNT

TITLE: SIDE MOUNT ANTENNA WELDMENT

DATE: 05-Nov-14

DRWING NO.: 09/26/13

REV: B



Network Operations Guidelines

VERSION 2.1

January 16, 2017

Table of Contents

1) EXECUTIVE SUMMARY.....	03
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3) Lockout-Tag Out Procedures.....	06
4) 811 Call Before You Dig.....	07
5) Wireless Interference Response Plan.....	07
6) Preventive Maintenance.....	07
7) Emergency Response Plan.....	07
8) Disaster Recovery Plan.....	08
9) Mobilitie Network Operations Center (NOC)	08

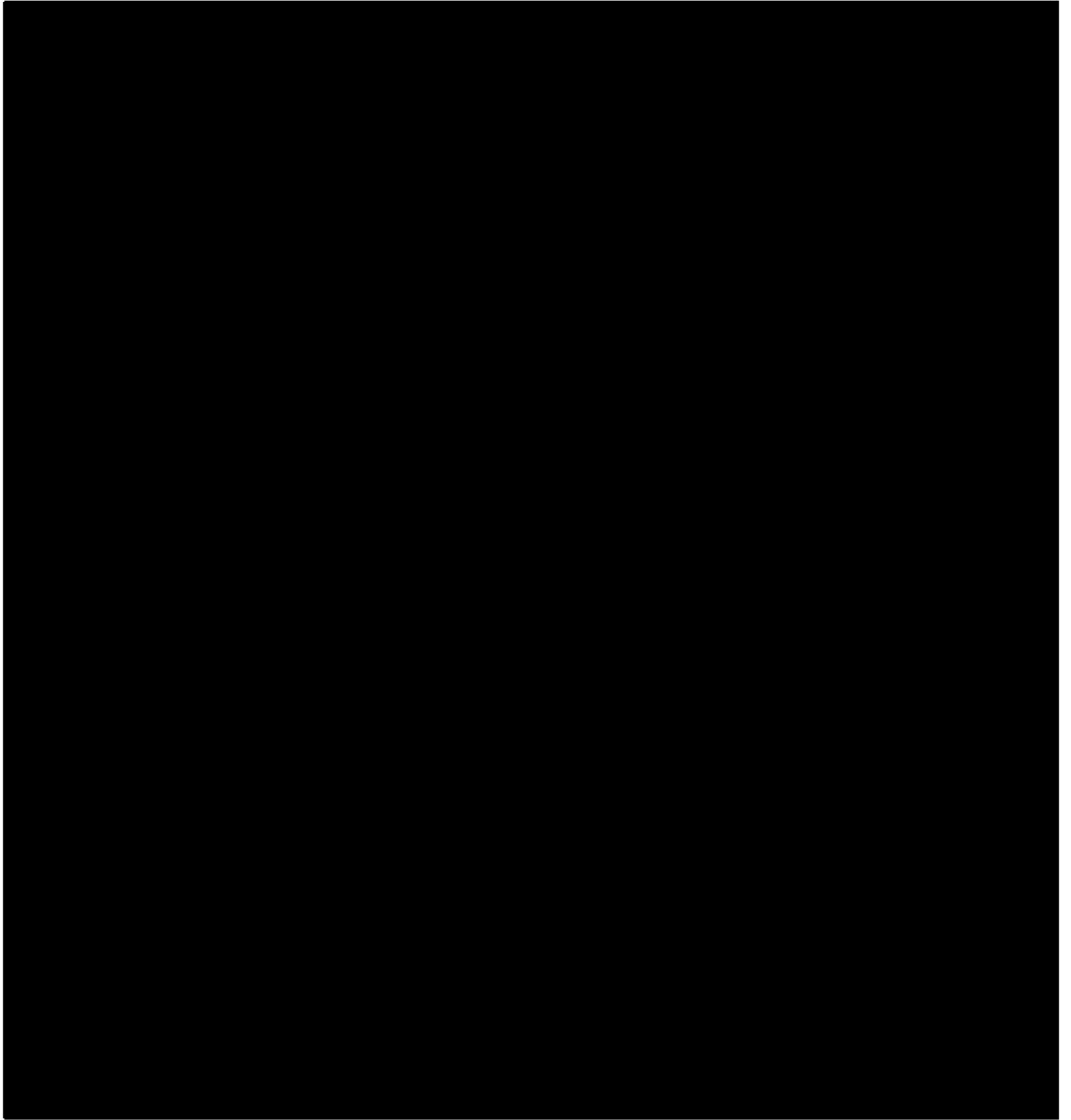
1. Executive Summary

This document provides guidelines for Mobilitie's Network Operations. The guidelines include: break-fix process and reporting process flow; approved site access guidance; lockout-tag out procedures; repair and maintenance vendors; nationwide 811 call before you dig information; wood utility pole preventive maintenance; emergency response protocol; disaster recovery; and strategic plans for the Mobilitie Network Operations Center (NOC).

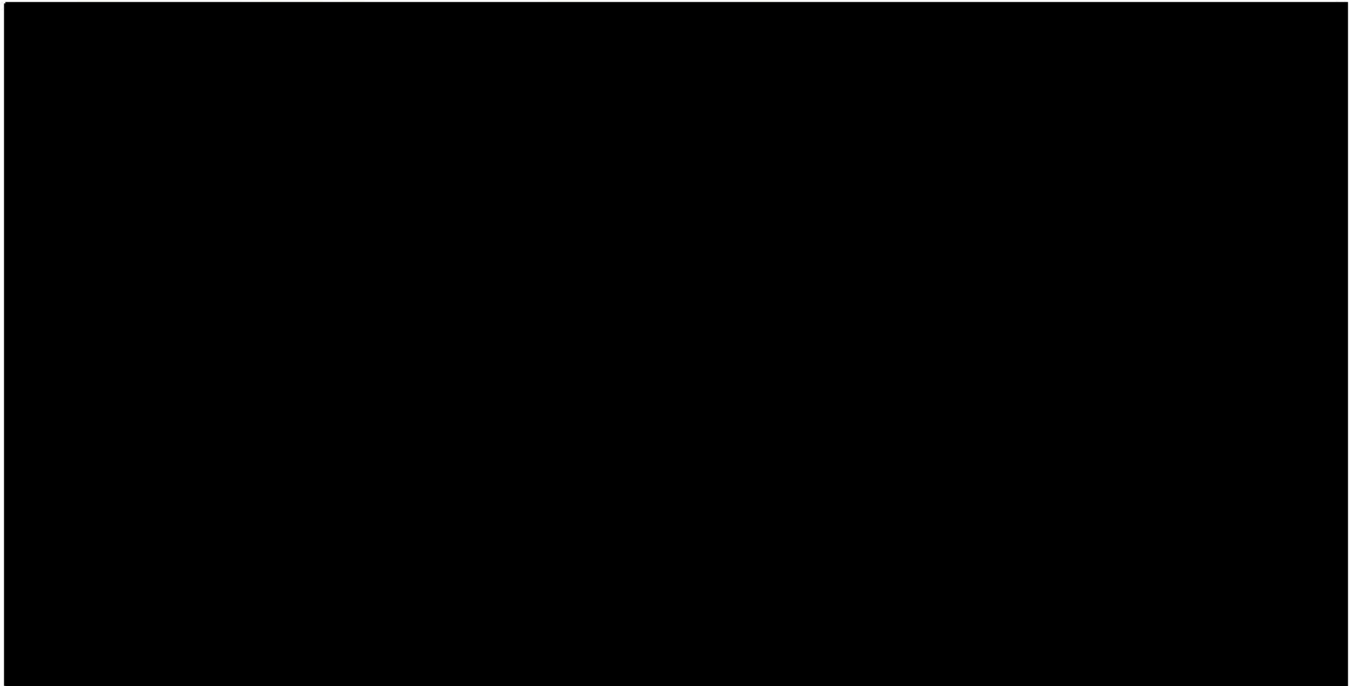
Adhering to these guidelines enables Mobilitie Network Operations to perform trend analysis, root-cause analysis, process improvement initiatives, controlled change requests implementations, thorough audits of vendors' performance, clear and concise communications, and efficient emergency response and disaster recovery efforts.

As Mobilitie Standards and Requirements are subject to ongoing review, the information contained may be amended by Mobilitie at any time. If a defect, ambiguity, omission or error is discovered in any of these guidelines, notify [REDACTED] [@mobilitie.com](mailto:[REDACTED]@mobilitie.com) immediately.

2. Right-of-Way Site Access Engagement



a. ROW Access Process Flow



b. Emergency Site Access Guidance

In case of an emergency at any Mobilitie site, contact the NOC at 1-877-244-7889. Below is the contact placard that will be visible at all Mobilitie sites and must be adhered to:

<p>Mobilitie, LLC In case of emergency or equipment access contact:</p> <p>E-mail: MNOC@mobilitie.com</p> <p>Phone: (877) 244-7889</p> <p>Please reference site ID</p> <p>SITE ID: _____</p> <p>FCC ID: _____</p>
--

3. Lockout-Tag Out Procedures

Mobilitie has established Lockout/Tag-Out Procedures based on jurisdictional requirements to safeguard workers from the unexpected energization or startup of equipment, or the release of hazardous energy during service or maintenance activities. The below signage displays the steps that are to be followed before set-up, maintenance, service, or repair:

Mobilitie, LLC

In case of emergency or equipment access please contact:
 E-mail: MNOC@mobilitie.com Phone: (877) 244-7889

SITE ID: _____ FCC ID: _____

LOCK OUT / TAG OUT PROCEDURE:
Use before set-up, maintenance, service, or repair

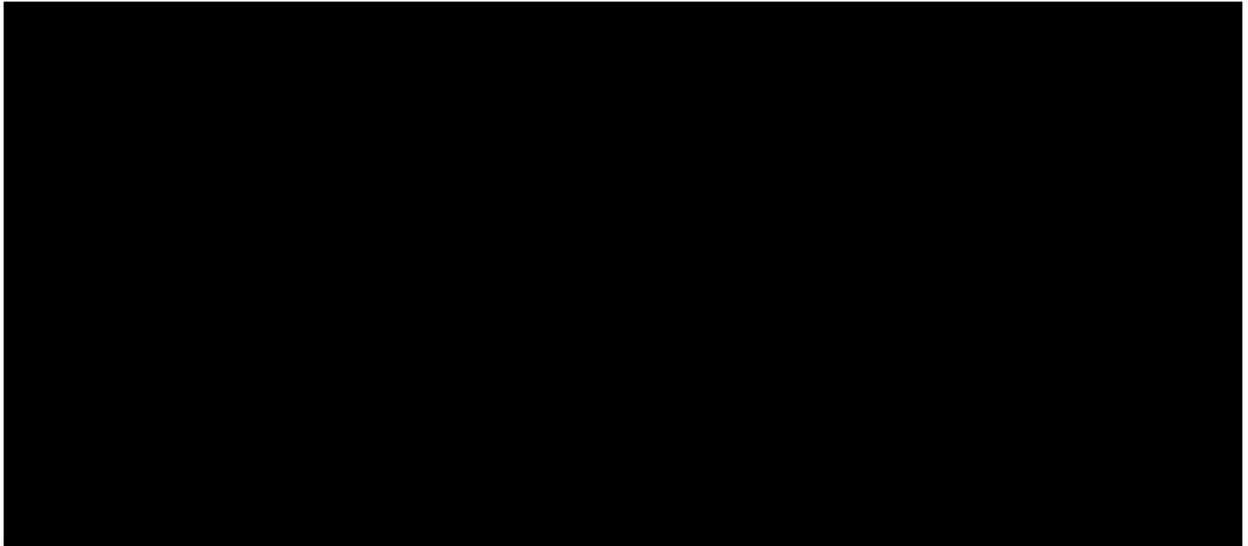
<p>Step 1: Identify power source(s) for RF transmission equipment.</p> <p>Step 2: Notify MNOC referencing the Site ID# and communicate site status with all workers on site.</p> <p>Step 3: Shut down and isolate the equipment from the power panel by switching the beaker to the OFF position.</p> <p>Step 4: Close, latch, and lockout the power panel by affixing locks and safety tags to the latch on the power panel exterior.</p>	<p>Step 5: Verify isolation of power has occurred by observing power on indicators at equipment, attempting to activate equipment, and checking RF monitoring PPE.</p> <p>Step 6: Perform site maintenance or servicing.</p> <p>Step 7: Upon completion of servicing, energize equipment by removing lockout tags, locks, and switching the breaker to the ON position for the effected equipment.</p> <p>Step 8: Notify on site workers and the MNOC that power has been restored to the effected equipment.</p>
--	---

4. 811 Call Before You Dig

811 is a nationwide non-profit organization dedicated to preventing damage to underground utilities and promoting public safety. 811 functions as a communications system for parties who are planning mechanized digging activities such as excavation, tunneling, grading, boring and demolition. 811 policies and procedures can vary from state to state, as it is governed by each respective state’s laws. Each state’s 811 entity is headed by a Board of Directors, comprised of representatives of all utility groups within said state. Here is a detailed 811 guide: ([811 Guidelines](#)).

5. Wireless Interference Response Plan

The purpose of this Section is to define the working relationship, communications channels and support processes between Mobilitie, its customers and a jurisdiction with respect to an event of potential wireless interference. The Network Operations (“NOC”) wireless interference response plan is designed for 24 hours, 7 days per week, 365 days a year and is based on jurisdictional requirements. The plan objective is to ensure efficient and accurate responses to any potential event. The process for any possible event of wireless interference is as follows:

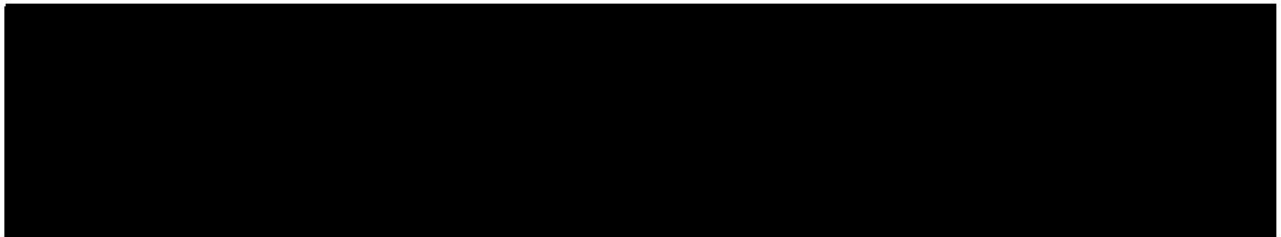


6. Preventive Maintenance

The purpose of the wood utility pole preventive maintenance plan is to provide information and guidance to operating personnel in performing inspection and maintenance of standing wood utility poles. Included in the plan are methods and procedures for determining the minimum permissible ground line circumferences of wood utility poles. Here is the Wood Utility Pole Preventive Maintenance Plan: ([Preventive Maintenance Plan](#)).

7. Emergency Response Plan

The Network Operations Emergency Response Plan is 24 hours, 7 days per week, and is based on jurisdictional requirements. The objective of the plan is to ensure the ROW is safe by:

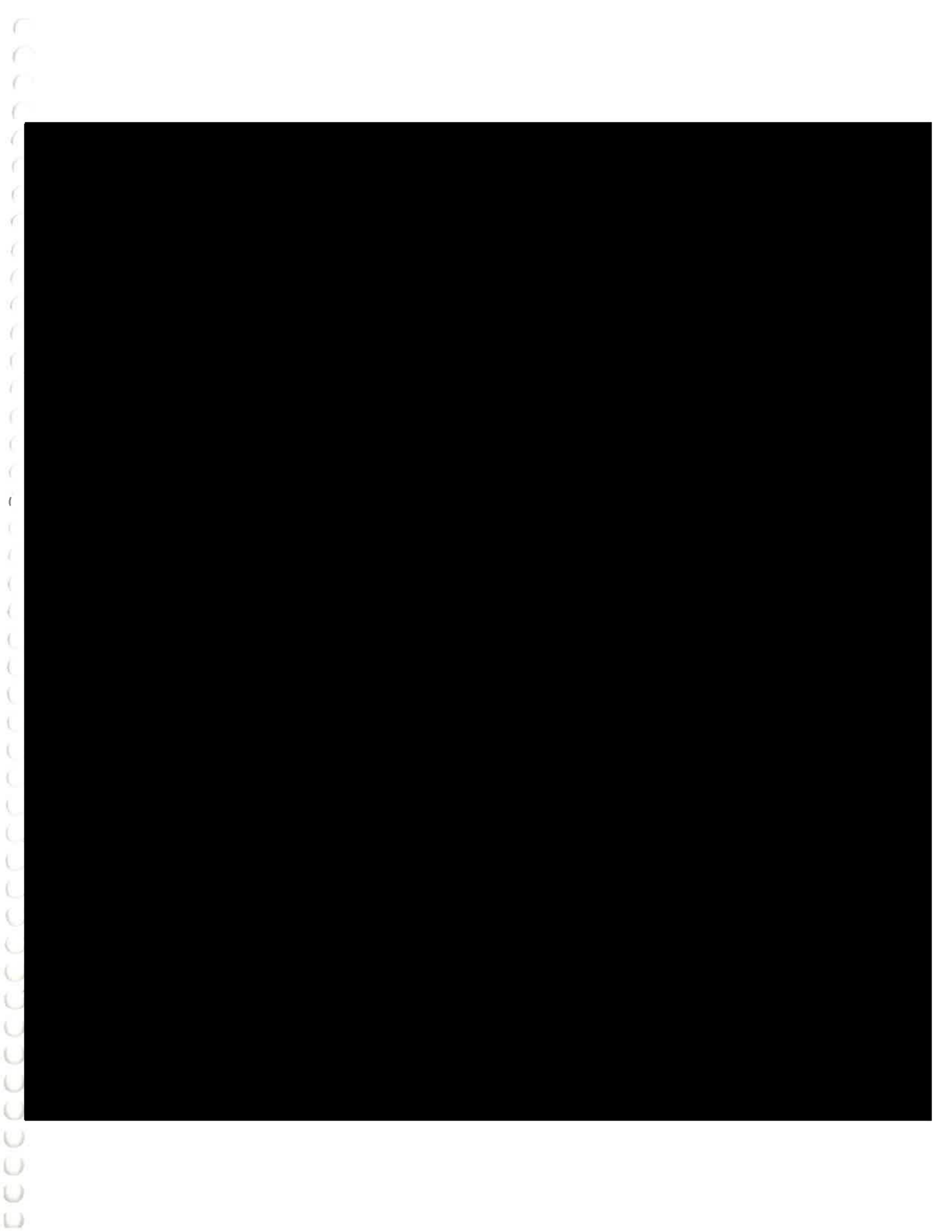


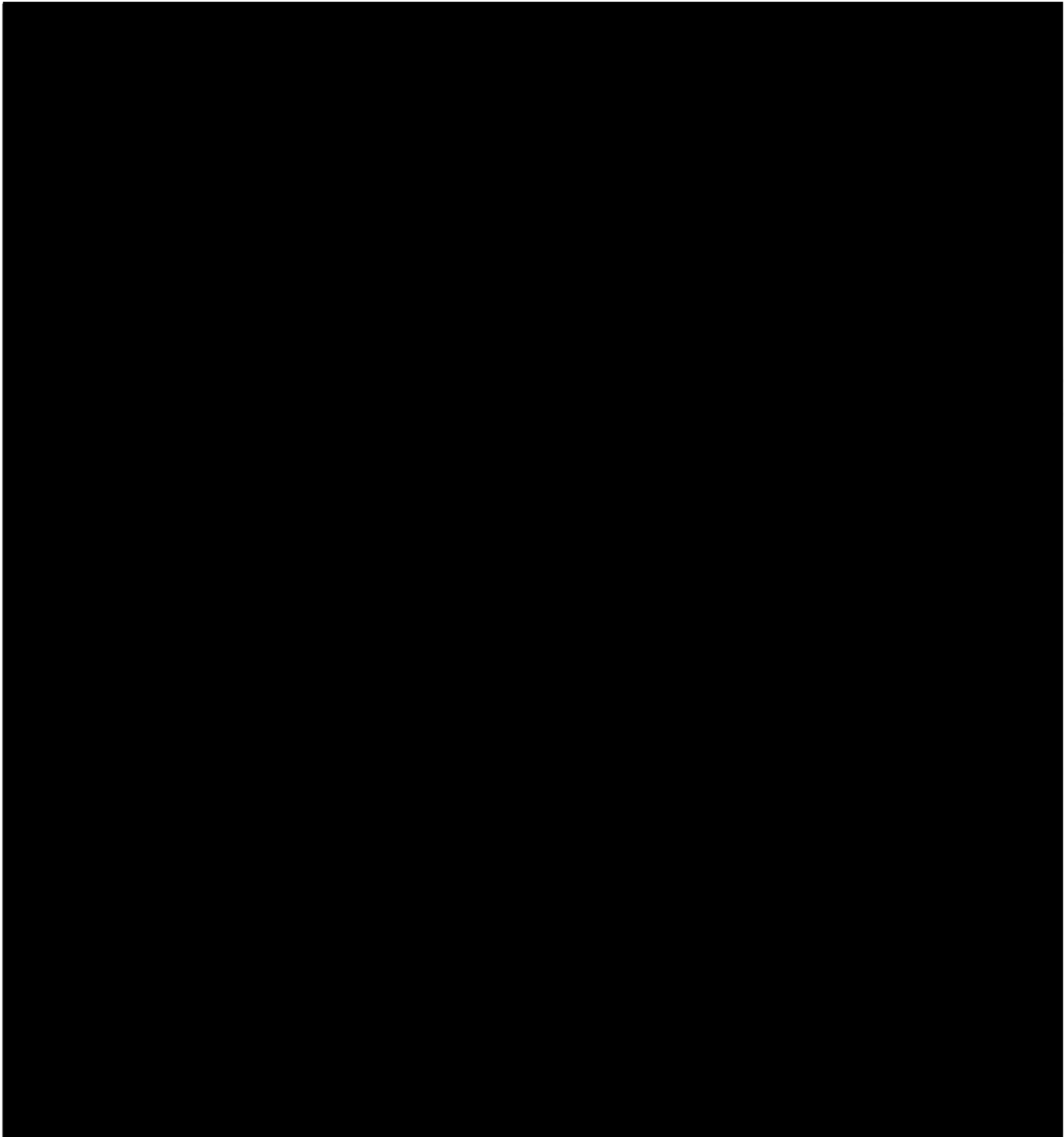
8. Disaster Recovery Plan

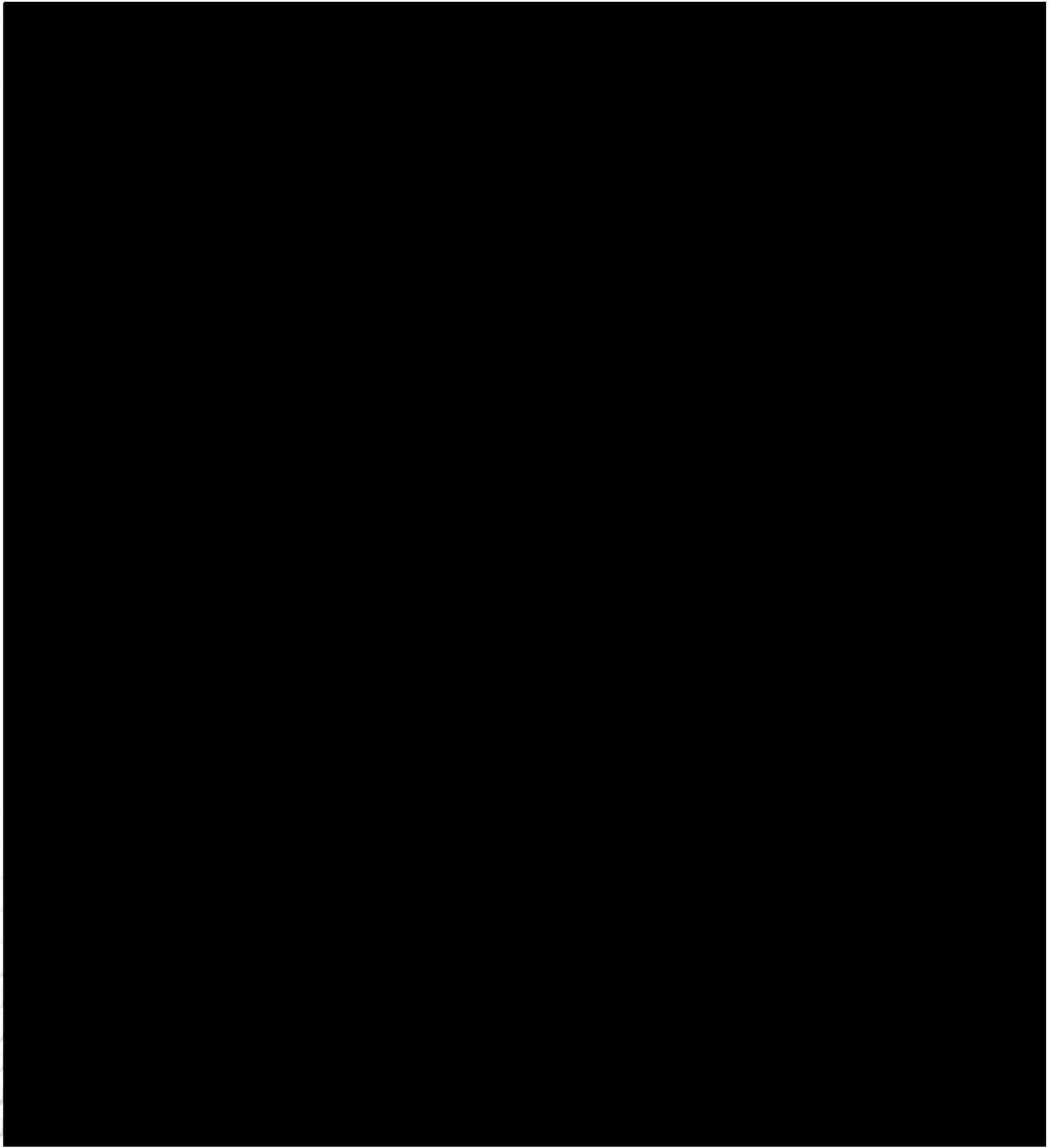
Mobilitie’s Disaster Recovery Plan will utilize the National Incident Management System (NIMS). In the event of a tornado, flood, or similar disaster (whether natural or manmade), Incident Command and Control will be implemented to organize both near-term and long-term field-level operations. Here is the full Disaster Recovery Plan: ([Disaster Recovery Plan](#)).

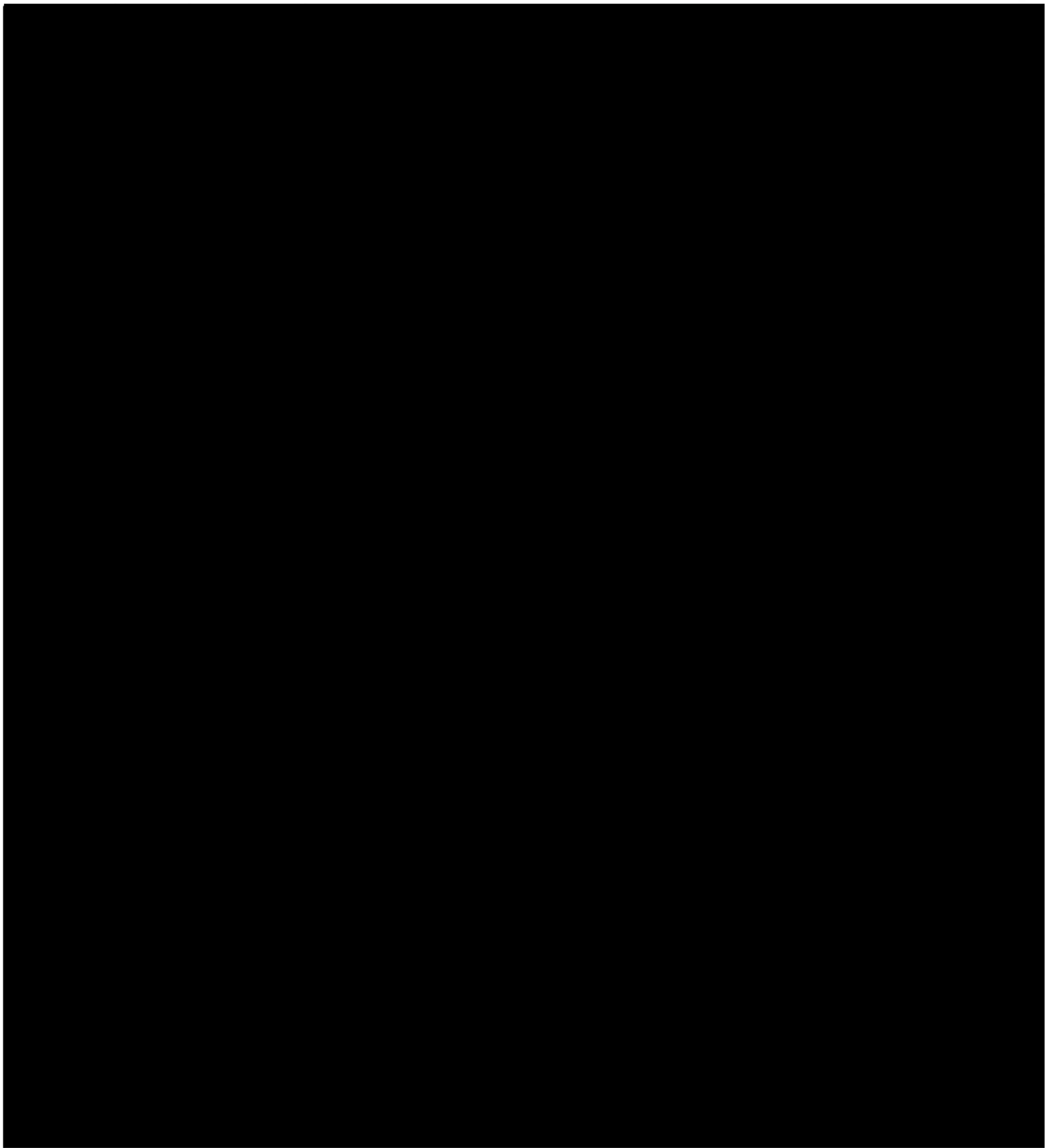
9. Mobilitie Network Operations Center (NOC) Plan

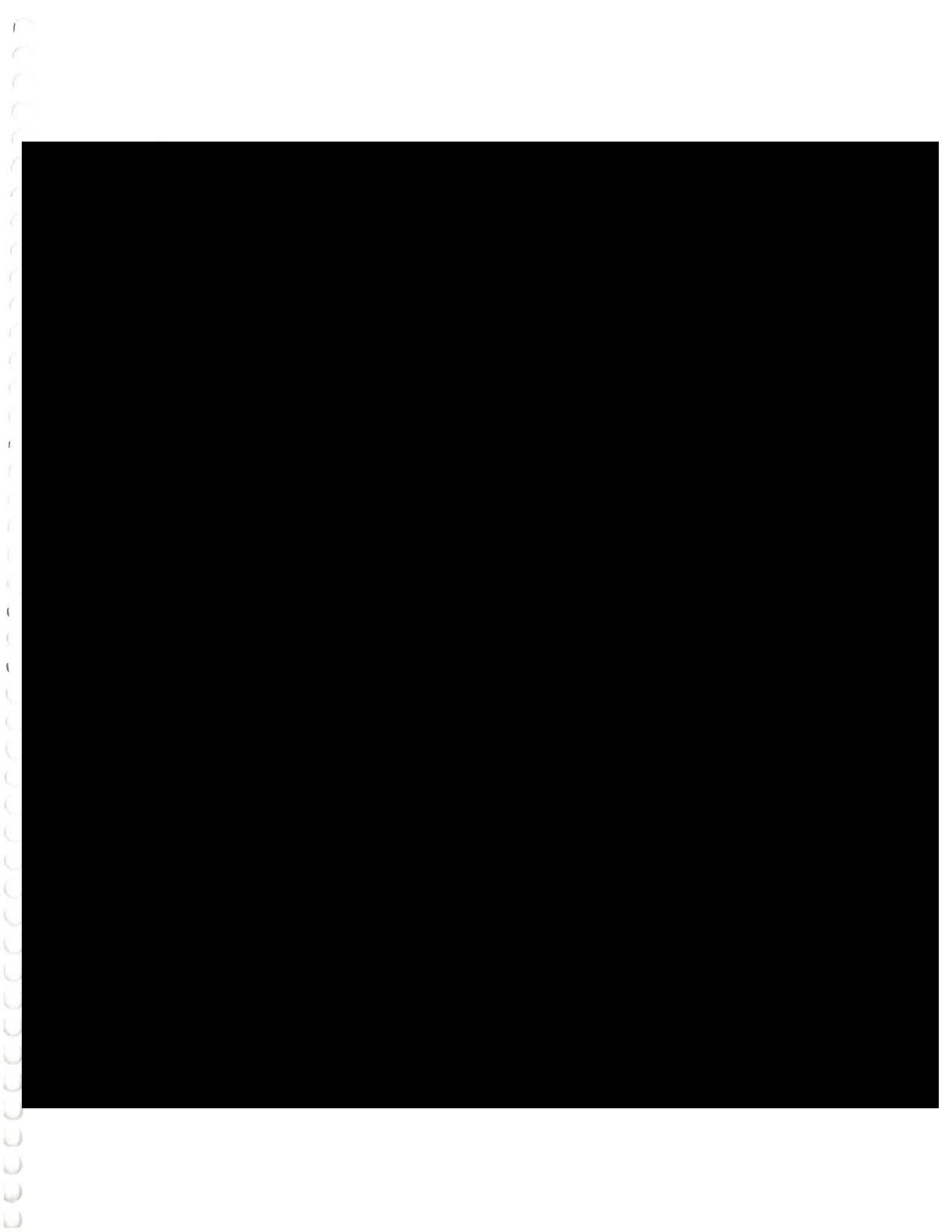














PINNACLE TELECOM GROUP
Professional and Technical Services

**ANTENNA SITE RF COMPLIANCE
ASSESSMENT AND REPORT**

PREPARED FOR
Mobilitie

**SPRINT SITE "NY90XS385C"
THIRD AVENUE & 100TH STREET
BROOKLYN, NY**

July 14, 2017

14 RIDGEDALE AVENUE, SUITE 260 • CEDAR KNOLLS, NJ 07927 • 973-451-1630

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INTRODUCTION AND SUMMARY

On June 21, 2017, at the request of Mobilitie, Pinnacle Telecom Group (PTG) performed independent expert on-site street-level measurements of potential radiofrequency (RF) exposure at a Sprint antenna site identified as "NY90XS385C", mounted on top of a street light pole on the northeast corner of the intersection of Third Avenue and 100th Street in Brooklyn, NY.

The area at street level around the site is open to the general public; therefore, the site is considered "uncontrolled" and the FCC's "general population" limit for maximum permissible exposure (MPE) is applied in assessing compliance. Measurements of RF levels were performed in normally accessible areas along Third Avenue north and south of the site, as well as along 100th Street east of the site. Representatives of Mobilitie and of the New York City Department of Information Technology & Telecommunications were present during the measurements. David Collins of PTG performed the measurements.

The results of a compliance assessment such as this can most clearly be explained by describing the RF levels as simple percentages of the FCC MPE limit. If the reference for that limit is 100 percent, then RF levels higher than 100 percent indicate the MPE limit is exceeded, while RF levels lower than 100 percent indicate compliance with the limit.

The results of the on-site measurements are as follows:

- Measurements performed at street level around the antenna site indicated a maximum RF level of 0.3935 percent of the FCC general population MPE limit. In other words, the maximum RF level measured at street level at the site was more than 254 times below the most protective limit applicable by law.
- Therefore, the site is clearly in compliance with the FCC requirements for control of RF exposure.

The remainder of this report provides a description of the site, the measurements results and an analysis of those results with respect to RF compliance.

Several appendices are included. Appendix A provides photographs of the site. Appendix B provides a description of the measurement equipment and procedures. Appendix C provides background on the FCC limits for RF exposure, along with a list of FCC references on compliance. Lastly, Appendix D provides a summary of the background and qualifications of the individual certifying compliance for the subject antenna site.

SITE DESCRIPTION AND ANTENNA DATA

The site consists of one omnidirectional antenna mounted at the top of a street light pole. The site is located on the northeast corner of Third Avenue and 100th Street. The antenna is mounted approximately 29 feet above ground level.

MEASUREMENT RESULTS

The results of the measurements, expressed as a percentage of the FCC general population MPE limit, are overlaid on the map (extracted from the *Google Earth* website) shown on the following page. North is at the top of the image. Third Ave runs roughly north-south, and 100th Street runs east of Third Avenue.



As shown, the maximum measured RF level was 0.3935 percent of the FCC general population MPE limit, found on the west side of Third Avenue, approximately 100 feet north of 100th Street.


COMPLIANCE ANALYSIS AND CONCLUSION

The results of the on-site measurements indicate that the RF levels at the sites are far below the FCC limit. At street level around the site, the highest RF level measured was 0.3935 percent of the FCC general population MPE limit. Therefore, the site is clearly in compliance with the FCC requirements for the control of RF exposure.

CERTIFICATION

The undersigned certifies as follows:

1. I have read and fully understand the FCC regulations concerning RF safety and the control of human exposure to RF fields (47 CFR 1.1301 *et seq*).
2. To the best of my knowledge, the statements and information disclosed in this report are true, complete and accurate.
3. The analysis of site RF compliance provided herein is consistent with the applicable FCC regulations, additional guidelines issued by the FCC, and industry practice.
4. The results of the analysis demonstrate compliance with the FCC regulations and limit concerning the control of potential human exposure to the RF emissions from antennas.



Daniel Penesso
Director- RF Engineering
Pinnacle Telecom Group, LLC

7/14/17

Date

Appendix A. SITE PHOTOGRAPHS

Photographs of the site, taken the day the measurements were performed, are shown below.



Appendix B. MEASUREMENT EQUIPMENT AND PROCEDURE

RF measurements were performed using a Narda model EA5091 RF probe and Narda model NBM-520 RF meter. Both the probe and meter are capable of broadband RF measurements, covering a range of 300 kHz to 50 GHz. The measuring equipment is designed to automatically register all RF levels within the frequency range and report them as percentages of the FCC's overall occupational MPE limit. Converting the measurement result to reference the general population MPE limit is simply a matter of multiplying the readout by five.

The equipment was calibrated by the manufacturer within the past 12 months.

The measurements were taken in a manner consistent with training provided by the equipment manufacturer, including the "RF Field Measurements for Antenna Sites" videotape, developed by Richard Tell Associates and now included as part of the Narda equipment package.

In order to ensure "safe-side" results, maximum RF spot-levels were measured and reported in all areas. In accordance with guidance shared with us by the FCC staff, sufficient time was spent performing the measurements to gather a "real-world" depiction of RF levels.

Appendix C. BACKGROUND ON THE FCC MPE Limits

As directed by the Telecommunications Act of 1996, the FCC has established limits for maximum continuous human exposure to RF fields.

The FCC maximum permissible exposure (MPE) limits represent the consensus of federal agencies and independent experts responsible for RF safety matters. Those agencies include the National Council on Radiation Protection and Measurements (NCRP), the Occupational Safety and Health Administration (OSHA), the National Institute for Occupational Safety and Health (NIOSH), the American National Standards Institute (ANSI), the Environmental Protection Agency (EPA), and the Food and Drug Administration (FDA). In formulating its guidelines, the FCC also considered input from the public and technical community – notably the Institute of Electrical and Electronics Engineers (IEEE).

The FCC's RF exposure guidelines are incorporated in Section 1.301 *et seq* of its Rules and Regulations (47 CFR 1.1301-1.1310). Those guidelines specify MPE limits for both occupational and general population exposure.

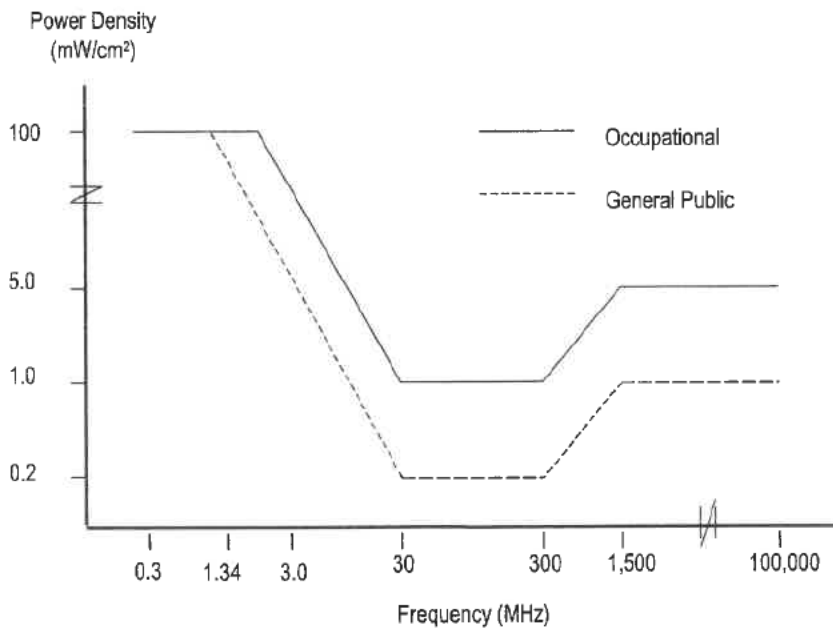
The specified continuous exposure MPE limits are based on known variation of human body susceptibility in different frequency ranges, and a Specific Absorption Rate (SAR) of 4 watts per kilogram, which is universally considered to accurately represent human capacity to dissipate incident RF energy (in the form of heat). The occupational MPE guidelines incorporate a safety factor of 10 or greater with respect to RF levels known to represent a health hazard, and an additional safety factor of five is applied to the MPE limits for general population exposure. Thus, the general population MPE limit has a built-in safety factor of more than 50. Continuous exposure at levels equal to or below the applicable MPE limits is considered to result in no adverse health effects on humans.

The reason for *two* tiers of MPE limits is based on an understanding and assumption that members of the general public are unlikely to have had appropriate RF safety training and may not be aware of the exposures they receive; occupational exposure in controlled environments, on the other hand, is assumed to involve individuals who have had such training, are aware of the exposures, and know how to maintain a safe personal work environment.

The FCC's RF exposure limits are expressed in two equivalent forms, using alternative units of field strength (expressed in volts per meter, or V/m), and power density (expressed in milliwatts per square centimeter, or mW/cm²). The table on the next page lists the FCC limits for both occupational and general population exposures, using the mW/cm² reference, for the different radio frequency ranges.

Frequency Range (F) (MHz)	Occupational Exposure (mW/cm ²)	General Public Exposure (mW/cm ²)
0.3 - 1.34	100	100
1.34 - 3.0	100	180 / F ²
3.0 - 30	900 / F ²	180 / F ²
30 - 300	1.0	0.2
300 - 1,500	F / 300	F / 1500
1,500 - 100,000	5.0	1.0

The diagram below provides a graphical illustration of both the FCC's occupational and general population MPE limits.



Because the FCC's RF exposure limits are frequency-shaped, the exact MPE limits applicable to the instant situation depend on the frequency range used by the systems of interest.

The most appropriate method of determining RF compliance is to calculate the RF power density attributable to a particular system and compare that to the

MPE limit applicable to the operating frequency in question. The result is usually expressed as a percentage of the MPE limit.

For potential exposure from multiple systems, the respective percentages of the MPE limits are added, and the total percentage compared to 100 (percent of the limit). If the result is less than 100, the total exposure is in compliance; if it is more than 100, exposure mitigation measures are necessary to achieve compliance.

References on FCC Compliance

47 CFR, FCC Rules and Regulations, Part 1 (Practice and Procedure), Section 1.1310 (Radiofrequency radiation exposure limits).

FCC Second Memorandum Opinion and Order and Notice of Proposed Rulemaking (FCC 97-303), *In the Matter of Procedures for Reviewing Requests for Relief From State and Local Regulations Pursuant to Section 332(c)(7)(B)(v) of the Communications Act of 1934 (WT Docket 97-192), Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation (ET Docket 93-62), and Petition for Rulemaking of the Cellular Telecommunications Industry Association Concerning Amendment of the Commission's Rules to Preempt State and Local Regulation of Commercial Mobile Radio Service Transmitting Facilities*, released August 25, 1997.

FCC First Memorandum Opinion and Order, ET Docket 93-62, *In the Matter of Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation*, released December 24, 1996.

FCC Report and Order, ET Docket 93-62, *In the Matter of Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation*, released August 1, 1996.

FCC Office of Engineering and Technology (OET) Bulletin 65, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields", Edition 97-01, August 1997.

FCC Office of Engineering and Technology (OET) Bulletin 56, "Questions and Answers About Biological Effects and Potential Hazards of RF Radiation", edition 4, August 1999.

"RF Field Measurements for Antenna Sites", (video), Richard Tell Associates Inc., 1997.

"EME Awareness for Antenna Site Safety", (video), Motorola (produced in association with Richard Tell Associates Inc.), 1997.

Appendix D. SUMMARY of EXPERT QUALIFICATIONS

Daniel Penesso, Director – RF Engineering, Pinnacle Telecom Group, LLC

<p>Synopsis:</p>	<ul style="list-style-type: none"> • 19 years of experience in all aspects of wireless RF engineering, including network design and implementation, interference analysis, FCC and FAA regulatory matters, and antenna site compliance with FCC RF exposure regulations • Have performed RF engineering and FCC compliance work for all the major wireless carriers – AT&T, Verizon Wireless, Sprint, T-Mobile, and MetroPCS, as well as Crown Castle • Have served as an expert witness on RF engineering and/or FCC RF compliance more than 100 times before municipal boards in New Jersey and New York
<p>Education:</p>	<ul style="list-style-type: none"> • Bachelor of Science in Electrical Engineering, DeVry Institute of Technology, Chicago, IL, 1987
<p>Current Responsibilities</p>	<ul style="list-style-type: none"> • Manages PTG staff work involving FCC RF compliance for wireless antenna sites, including the provision of math- and measurements-based site compliance reports, related expert testimony in municipal hearings, and compliance-related support in client meetings with prospective site landlords and in town meetings • Provides math-based FCC compliance assessments and reports for PTG's wireless clients, including AT&T, Verizon Wireless, T-Mobile, Sprint, MetroPCS, and Crown Castle • Responsible for providing client consulting and in-house training on FCC and OSHA RF safety compliance
<p>Prior Experience:</p>	<ul style="list-style-type: none"> • Have served as senior RF engineer for four of the five national wireless carriers – AT&T, T-Mobile, Sprint, and MetroPCS – in the New York and New Jersey markets • Served as an RF engineer for Metricom, Triton PCS, Alltel Communications, and Western Wireless • Have worked as an RF engineer for several engineering services companies, including Sublime Wireless, Amirit Technologies, Celcite, and Wireless Facilities Incorporated

Managerial Experience

Senior Management Team

Gary Jabara: Chairman/ Founder: Prior to founding Mobilitie, Gary was a partner at Deloitte& Touche responsible for Wireless Real estate and Infrastructure. He oversaw the negotiation of over 410 billion of telecommunication infrastructure assets on behalf of the Big Six Wireless Carriers. Gary has 23 years' experience in the mobile communication industry starting with the Los Angeles Cellular Telephone Company where he led the firm's real estate division. and was responsible for all aspects of site acquisition, budgeting, engineering, and development.

Christos Karmis: President& CEO: Christos serves as President of Mobilitie and oversees all aspects of the company's business. He is responsible for leading the company's growth across its tower, small cell, DAS, fiber, and Wi-Fi solutions. Christos has led the Mobilitie team for the development of thousands of cell towers, DAS, and small cell nodes across the US and international markets. In addition, he has led the company's public venue strategy which has resulted in the deployment of some of the largest in-building DAS and Wi-Fi networks in the country, and installations at stadiums and arenas across all major professional sporting leagues. Before joining Mobilitie, Christos specialized in real estate advisory services and the wireless communications industry with Deloitte Consulting. While at Deloitte, he provided operational and network optimization strategies to the world's largest wireless carriers.

Dana Tardelli: Chief Operating Officer: Dana oversees Mobilitie's wireless infrastructure solutions across the United States for the wireless service providers. Dana has more than 20 years of experience in the mobile industry and oversees Mobilitie's DAS, Small Cell, Towers and Wi-Fi solutions. Prior to Mobilitie, Dana worked for 10 years at AT&T as part of the AT&T Mobility team. His experience includes serving in a key role in AT&T's partnership with Apple on the iPhone, as well as being central to the work with the connected device and connected car segments of AT&T. Dana also has extensive experience leading AT&T's mobile pricing strategy, including tiered data, shared plans, hard bundles and differentiated services.

Lisa Torres: Senior VP-Network Deployment: Lisa oversees the regional deployment teams. Lisa has over 20 years of experience in telecommunications, on both the carrier and asset sides. Most of her career has been focused on the acquisition and construction of networks. Prior to Mobilitie, Lisa held leadership roles at Ericsson, Clearwire and Sprint.

Jason Caliento: Executive VP-Network Strategy: Jason s leads Network Engineering, Real Estate, Government Relations, Construction and Operations for Mobilitie. Jason has 18 years of experience in the telecommunications industry focused on network design and deployment, including some of the nation's largest roll-outs of new technologies and infrastructure. Prior to joining Mobilitie, Jason served as the Chief Operating Officer of SAC Wireless, a Nokia Company, and led the National PMO for Clearwire.

Christopher Glass: Senior VP-General Counsel: Christopher oversees all Mobilitie's Distributed Antenna System networks. He joins Mobilitie with over twelve years of site development and project management experience in the wireless industry. Most recently, Christopher was the Network Deployment Project Manager for Clearwire responsible for the deployment of their 4G WiMax network in Los Angeles. Prior to Clearwire, Christopher spent nearly ten years at Sprint Nextel in various network deployment roles, most recently serving as the Strategic Sites Manager for the West Region. In his role as Strategic Sites Manager, Christopher oversaw the deployment of numerous in-building and outdoor DAS systems for Sprint Nextel, including stadiums, convention centers, casinos and shopping malls.

New York City Team

Mobilitie North East Deployment Organization Includes Decades of experience working with NYC DOITT and DOT, Major carriers and fortune 500 companies. We have constructed over 800 sites in NYC utilizing the DOITT pole top process.

The NYC team is comprised of the following highly qualified members:

Joe Sforza - Northeast Vice President

Joe oversees the North-East deployment team. Joe has over 25 years of experience in telecommunications. Joe has been involved in Construction of fiber optic and wireless networks across the US and Internationally. Prior to Mobilitie, Joe held management roles at DoITT, Reliance Globalcom, TW Telecom and Bell Atlantic.

Lee Fenster – New York Regional Director

Lee oversees the NYC market deployment team which covers the five New York City, Rockland, Westchester and Orange County NY. Lee has over 20 years' experience in the Wireless Industry including Design, Engineering, Backhaul, Permitting and Zoning, Construction, Commissioning, System Performance, Regulatory Compliance, Operations, Maintenance, and Application Development. Prior to Mobilitie, Lee has held Individual contributor and Leadership roles at Ameritech Cellular, AT&T, Ericsson, and Northrop Grumman.

Brian Fernandez - Senior Project Manager

Brian is a Senior Project Manager covering the NYC, Orange, Westchester and Rockland County markets. Brian has over 15 years of experience in telecommunications within the NYC area. Prior to Mobilitie Brian worked at Northrop Grumman supporting DoITT projects. He has also held technical positions at AT&T and XO Communications.

Ming Eng - Senior Project Manager

Ming is currently a Senior Project Manager covering the NYC market. Ming has over 20 years of experience in telecommunications, on both the carrier and equipment vendor sides. Prior to Mobilitie, Ming has worked for TW Telecom, Smartsan, Dell/Force10 networks, and Carrier Access. Ming holds an Electrical Engineering degree from Rensselaer Polytechnic Institute.

Joshua Ababon - Senior Construction Project Manager

Joshua Ababon is the primary point of contact with NYC DOT, manages the day to day relationship with Mobilitie's General Contractors within the New York City Market, and provides technical support the regional team. Prior to Mobilitie, Joshua held a regional Project Manager and Lead Field Engineer position at Samsung in the American Midwest Region, Lead Field Technician at Clearwire in NYC, and has over 12 years of telecommunications experience.

Greg Russo – New York Network Real Estate Manager:

Oversees the New York City team's permitting efforts in New York City, Rockland, Westchester and Orange county's. Greg brings 23 years of experience in local and regional site acquisition, contract administration, zoning, permitting and property management. Prior to joining Mobilitie, Greg had roles with Nextel, AT&T, T-Mobile and Northrop Grumman.

Doing Business Data Form

To be completed by the City Agency prior to distribution			
Agency: _____		Transaction ID: _____	
Check One:	Transaction Type (check one):		
<input type="checkbox"/> Proposal	<input type="checkbox"/> Concession	<input type="checkbox"/> Contract	<input type="checkbox"/> Economic Development Agreement
<input type="checkbox"/> Award	<input type="checkbox"/> Franchise	<input type="checkbox"/> Grant	<input type="checkbox"/> Pension Investment Contract

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

This Data Form requires information to be provided on principal officers, owners and senior managers. The name, employer and title of each person identified on the Data Form will be included in a public database of people who do business with the City of New York; no other information reported on this form will be disclosed to the public. **This Data Form is not related to the City's VENDEX requirements.**

Please return the completed Data Form to the City Agency that supplied it. Please contact the Doing Business Accountability Project at DoingBusiness@cityhall.nyc.gov or 212-788-8104 with any questions regarding this Data Form. Thank you for your cooperation.

Section 1: Entity Information

Entity Name: Transmission Network, LLC

Entity EIN/TIN: [REDACTED]

Entity Filing Status (select one):

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

Entity is a Non-Profit: Yes No

Entity Type: Corporation (any type) Joint Venture LLC Partnership (any type)
 Sole Proprietor Other (specify): _____

Address: 660 Newport Center Drive, Ste. 200

City: Newport Beach State: CA Zip: 92660

Phone: (877) 999-7070 Fax: [REDACTED]

E-mail: [REDACTED]@mobilitie.com

Provide your e-mail address and/or fax number in order to receive notices regarding this form by e-mail or fax.

Section 2: Principal Officers

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

Chief Executive Officer (CEO) or equivalent officer

This position does not exist

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

First Name: Christos MI: Last: Karmis

Office Title: CEO/President

Employer (if not employed by entity): Mobilitie Management, LLC

Birth Date (mm/dd/yy): [REDACTED] Home Phone #: [REDACTED]

Home Address: [REDACTED]

This person replaced former CEO: Gary Jabara on date: 9/1/2017

Chief Financial Officer (CFO) or equivalent officer

This position does not exist

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

First Name: Dessi MI: Last: Sarabosing

Office Title: CFO

Employer (if not employed by entity): Mobilitie Management, LLC

Birth Date (mm/dd/yy): [REDACTED] Home Phone #: [REDACTED]

Home Address: [REDACTED]

This person replaced former CFO: Kenny Lin on date: 4/17/2017

Chief Operating Officer (COO) or equivalent officer

This position does not exist

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

First Name: Dana MI: Last: Tardelli

Office Title: COO

Employer (if not employed by entity): Mobilitie Management, LLC

Birth Date (mm/dd/yy): [REDACTED] Home Phone #: [REDACTED]

Home Address: [REDACTED]

This person replaced former COO: N/A on date: N/A

Section 3: Principal Owners

Please fill in the required identification information for all individuals who, through stock shares, partnership agreements or other means, **own or control 10% or more of the entity**. If no individual owners exist, please check the appropriate box to indicate why and skip to the next page. If the entity is owned by other companies, those companies do **not** need to be listed. If an owner was identified on the previous page, fill in his/her name and write "See above." If the entity is filing a Change Form, list any individuals who are no longer owners at the bottom of this page. If more space is needed, attach additional pages labeled "Additional Owners."

There are no owners listed because (select one):

- The entity is not-for-profit
- There are no individual owners
- No individual owner holds 10% or more shares in the entity
- Other (explain): _____

Principal Owners (who own or control 10% or more of the entity):

First Name: _____ MI: _____ Last: _____
 Office Title: _____
 Employer (if not employed by entity): _____
 Birth Date (mm/dd/yy): _____ Home Phone #: _____
 Home Address: _____

First Name: _____ MI: _____ Last: _____
 Office Title: _____
 Employer (if not employed by entity): _____
 Birth Date (mm/dd/yy): _____ Home Phone #: _____
 Home Address: _____

First Name: _____ MI: _____ Last: _____
 Office Title: _____
 Employer (if not employed by entity): _____
 Birth Date (mm/dd/yy): _____ Home Phone #: _____
 Home Address: _____

Remove the following previously-reported Principal Owners:

Name: _____ Removal Date: _____
 Name: _____ Removal Date: _____
 Name: _____ Removal Date: _____

Section 4: Senior Managers

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

Senior Managers:

First Name: Joseph MI: _____ Last: Sforza

Office Title: Vice President, Network Deployment

Employer (if not employed by entity): Mobilitie Management, LLC

Birth Date (mm/dd/yy): [REDACTED] Home Phone #: [REDACTED]

Home Address: [REDACTED]

First Name: Christos Karmis (see above) MI: _____ Last: _____

Office Title: _____

Employer (if not employed by entity): _____

Birth Date (mm/dd/yy): _____ Home Phone #: _____

Home Address: _____

First Name: Dana Tardelli (see above) MI: _____ Last: _____

Office Title: _____

Employer (if not employed by entity): _____

Birth Date (mm/dd/yy): _____ Home Phone #: _____

Home Address: _____

Remove the following previously-reported Senior Managers:

Name: _____ Removal Date: _____

Name: _____ Removal Date: _____

Certification

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

Name: Christos Karmis

Signature: [Signature] Date: 7/31/18

Entity Name: Transmission Network NY, LLC

Title: CEO Work Phone #: [REDACTED]

Return the completed Data Form to the agency that supplied it.

For information or assistance, call the Doing Business Accountability Project at 212-788-8104.

REQUEST FOR PROPOSALS
FOR FRANCHISES FOR THE INSTALLATION AND USE OF TELECOMMUNICATIONS EQUIPMENT AND FACILITIES,
INCLUDING BASE STATIONS AND ACCESS POINT FACILITIES, ON CITY-OWNED STREET LIGHT POLES AND
TRAFFIC LIGHT POLES, AND CERTAIN UTILITY POLES AND OTHER FACILITIES LOCATED ON CITY STREETS, IN
CONNECTION WITH THE PROVISION OF MOBILE TELECOMMUNICATIONS SERVICES

EXHIBIT C
ACKNOWLEDGMENT OF RELEASE DATE AND ADDENDUM

APPLICANT'S NAME: Transmission Network NY, LLC

RFP RELEASE DATE: June 12, 2018

NUMBER OF ADDENDA RECEIVED: 4

ISSUE DATE(S) OF ADDENDA: #4 - July 25, 2018; #3 - July 11, 2018;
#2 - June 29, 2018; #1 - June 27, 2018

REQUEST FOR PROPOSALS
FOR FRANCHISES FOR THE INSTALLATION AND USE OF TELECOMMUNICATIONS EQUIPMENT AND FACILITIES,
INCLUDING BASE STATIONS AND ACCESS POINT FACILITIES, ON CITY-OWNED STREET LIGHT POLES AND
TRAFFIC LIGHT POLES, AND CERTAIN UTILITY POLES AND OTHER FACILITIES LOCATED ON CITY STREETS, IN
CONNECTION WITH THE PROVISION OF MOBILE TELECOMMUNICATIONS SERVICES

EXHIBIT C
ACKNOWLEDGMENT OF RELEASE DATE AND ADDENDUM

APPLICANT'S NAME: Mobilitie, LLC

RFP RELEASE DATE: June 12,

NUMBER OF ADDENDA RECEIVED: 3

ISSUE DATE(S) OF ADDENDA: #3 - July 11, 2018; #2 - June 29, 2018;
#1 - June 27, 2018



**Department of
Public Service**

Public Service Commission
Audrey Zibelman
Chair

Patricia L. Acampora
Gregg C. Sayre
Diane X. Burman
Commissioners

Paul Agresta
Acting General Counsel
Kathleen H. Burgess
Secretary

Three Empire State Plaza, Albany, NY 12223-1350
www.dps.ny.gov

August 16, 2016

Michael P. Donahue, Counsel
Marashlian & Donahue, PLLC
1420 Spring Hill Road, Suite 401
McLean, Virginia 22102

Re: Matter No. 16-01281

Dear Mr. Donahue:

The application, by Transmission Network NY, LLC on June 22, 2016 for a Certificate of Public Convenience and Necessity to operate in New York State as a facilities-based provider and reseller of telephone service, with authority to provide local exchange service, is hereby approved. This approval is based upon the accuracy of the information provided in the company's application and may be revoked if the application is found to contain false or misleading information, for failure to file or maintain current tariffs, or for violation of Commission rules and regulations.

The company's tariff, PSC No. 1, is also approved. This letter will serve as notice to the public that the filing was allowed to go into effect on the date of this letter, as opposed to the date indicated on the tariff leaves themselves.

The company is not authorized to use its own operators to handle 0- (emergency or non-emergency) calls. Such calls must be routed to another telephone company or operator services provider authorized to handle such calls, until such time as an amended Certificate of Public Convenience and Necessity is obtained pursuant to Part 649.6 of the Commission's rules.

The company must obtain any required consents of municipal authorities before commencing construction of telephone lines. It must also comply with applicable federal laws, New York State Public Service Law and related statutes, and the Commission's rules and regulations.

To maintain an active telecommunications company status, the company is required to annually submit a Telecommunications Company Critical Information (TCCI) form. The TCCI

form is available for electronic filing at the following link on the Department's website:
<http://www3.dps.ny.gov/T/Telco.nsf/TCCIForm?OpenForm>.

The following reporting requirements also apply.

- Service Outage Reports - Major service outages should be reported to Department Staff by telephone when they occur. See Enclosure 1 for specific instructions.
- Operating Revenues - These reports are due March 31 each year. The company will be notified in writing each year of the required content and format of these reports.
- Service Quality Reports - Local exchange service quality reports are due on the 10th of each month, commencing when the company actually has local exchange lines in service. See Enclosure 2 for further information and instructions.

Note: If local exchange service is provided solely via a resale or UNE-P platform, 16 NYCRR 603.4 (f) allows a service provider to request an exemption from any or all service quality reporting requirements. A waiver may also be requested if the service provider does not have any customers in New York State. If you believe that your company qualifies for a service quality reporting exemption, please submit a request for such to the Director of the Office of Telecommunications. See Enclosure 3 for a sample service quality waiver request.

We also ask that you forward the following information to Joseph Yakel of our staff at joseph.yakel@dps.ny.gov within 30 days of receipt of this letter.

- Emergency Contingency Plan - A plan describing the company's operational procedures in the event of major service outages, storms, disasters, or other unusual conditions. Any updates or changes to the plan should be promptly forwarded as well.

If you have any questions, please contact Mary Broderick at (518) 486-2832 or mary.broderick@dps.ny.gov.

By direction and delegation
of the Commission,



Karen A. Geduldig
Director
Office of Telecommunications

Enclosures 1, 2 and 3

cc: R. Kudan
G. Hildenbrandt
J. Yakel
Central Operations

ENCLOSURE 1

INSTRUCTIONS FOR REPORTING MAJOR SERVICE OUTAGES

Facilities-based, local exchange carriers are responsible for constructing and maintaining their networks to be minimally susceptible to major service interruptions. They are responsible for mitigating the impacts of major service interruptions by, for example, restoring service promptly, and making public and cellular telephones available to the public when service cannot be promptly restored. They are also responsible for filing their emergency plans with the Commission's Office of Telecommunications and for promptly reporting major service interruptions to the Office of Telecommunications.

The New York State Public Service Commission has recently recognized the increasing reliance by the public on intermodal forms of communication. The critical importance of outage reporting to the state's overall effort to coordinate responses requires that all telecommunications providers participate. Outage reporting procedures are available upon request.

Initial reporting of major service outages should always be made via direct telephone contact and not via voice or electronic mail. **The report should be made no more than one hour after the event is first recognized.** Regular status reports of an ongoing major service outage should be provided to Department staff consistent with the procedures on the web link. The person making the initial report, as well as the person whose name appears on an outage report, should be fully prepared to provide the most complete and accurate information on an outage as possible. Each service provider should designate in advance who these individual(s) will be.

ENCLOSURE 2

SERVICE QUALITY REPORTING REQUIREMENTS (See Also October 6, 2000 Memorandum and Resolution Adopted by the Commission in Case 97-C-0139)

Local exchange service providers are subject to the administrative, operational, and service quality performance standards set forth in the Commission's Rules and Regulations.¹ They include the following service quality reporting requirements:

- Local exchange service providers that serve less than or equal to 500,000 access lines shall normally report monthly Customer Trouble Report Rate (CTRR) performance results, and shall also be subject to Service Inquiry Report requirements with respect to CTRR.
- Service Providers having more than 500,000 access lines shall normally report monthly performance on all service quality metrics specified in the service quality standards, and shall be subject to Service Inquiry Report requirements for all metrics.
- The Director of the Office of Telecommunications may require additional service quality reporting upon analysis of a provider's reported service quality results and/or receipt of excessive PSC complaints against a provider.
- A service provider may request an exemption from any or all of the reporting requirements, if it provides service through the resale of another service provider's tariffed services; or through purchase of another service provider's Unbundled Network Elements (UNEs) over which it has no direct control. Waivers may also be requested if the service provider does not have any customers in New York. The Director of the Office of Telecommunications will grant or deny such exemption requests on a case-by-case basis.

Annual PSC Commendations will be awarded to local exchange service providers judged to have provided excellent service during each calendar year. The qualifying criteria for a commendation are: 1) a 3.3 or better Customer Trouble Report Rate in at least 95% of monthly measurements during the year; and (2) a PSC complaint rate of not more than 0.075 per thousand access lines for the year. A newly certified service provider must provide all required service quality information for an entire calendar year to be considered for commendation.

Local exchange service providers serving less than 500,000 access lines should use the attached form for reporting CTRR results. This form requests the number of customer trouble reports received in the last calendar month and the number of access lines served at the end of the last calendar month, reported separately for each of the provider's local end office switches. Each local end office switch should be identified by a single NXX code. The completed form should be e-mailed or faxed to Gary Hildenbrandt (gary.hildenbrandt@dps.ny.gov or fax: (518) 474-5616) within 10 days after the end of each calendar month.

¹ 16 NYCRR, Chapter VI, Telephone and Telegraph Corporations, Subchapter A. Service – Part 602 (Consumer Relations and Operations Management) and Part 603 (Service Standards).

Customer Trouble Report Rate (CTRR) Performance Monthly Report Form

For All Local Exchange Companies That Serve Less Than or Equal to 600,000 Access Lines

Company Name: _____ Calendar Month: _____
 Company Code (3 Character Code): _____ Date of Report: _____
 Preparer's Name: _____
 Preparer's Telephone & Fax Numbers: _____

	Exchange Name (a)	NPA-NXX (b)	# of Access Lines (end of cal. Month) (c)	# of Trouble Reports (during cal. month) (d)	CTRR (RPHL) (e=d/(c/100))
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

- Notes:
1. Service reporting month format is YYMM (e.g., 0011 for November 2000)
 2. Call Gary Hildenbrandt at 518-486-2459 to obtain a company code before filing first report.
 3. Add pages as necessary for reporting additional exchanges.
 4. A switching entity may serve more than one assigned NPA-NXX. For the purpose of reporting monthly CTRR data, only one designated NPA-NXX per switching entity should be used consistently each month.
 5. CTRR reports should be e-mailed or faxed to Gary Hildenbrandt (gary.hildenbrandt@dps.ny.gov or fax: (518) 474-5616) within 10 days after the end of each calendar month.

ENCLOSURE 3

New York State Department of Public Service

Waiver Request for Customer Trouble Report Rate (CTRR) Reporting

TO: Karen A. Geduldig, Director
Office of Telecommunications
New York Department of Public Service
3 Empire State Plaza
Albany, New York 12223

[Company Name] requests an exemption from reporting Customer Trouble Report Rate (CTRR) Performance Reports for the following reasons (check all that apply):

- Request for waiver pursuant to 16 NYCRR 603.4 (f) - The company's services are provided through the resale of another service provider's tariffed service and/or through purchase of another service provider's Unbundled Network Elements (UNEs).
- No Customers in New York State - The company does not have any customers in New York State. We affirm that we will begin reporting CTRR if [Company Name] begins serving customers in New York State.

[Print Company Representative Name]
[Company Representative Signature]
[Company Representative Title]
[Contact Information]

[Date]

Business References

Hylan Datacom & Electrical LLC;

Robert DiLeo CEO

[REDACTED] [@HylanGroup.com](mailto:[REDACTED]@HylanGroup.com)

[REDACTED]
950 Holmdel Road Holmdel, New Jersey 07733

ZenFi

Ray La Chance CEO

[REDACTED] [@zenfi.com](mailto:[REDACTED]@zenfi.com)

Trinity Technologies LLC:

Oscar Carrillo CEO

[REDACTED] [@trintech.net](mailto:[REDACTED]@trintech.net)

[REDACTED]
181 Greenwood Ave Midland Park NJ 07432

Sprint

Mark Walker Northeast Network Vice President

[REDACTED] [@sprint.com](mailto:[REDACTED]@sprint.com)

Consolidated Edison

Llewellyn Everard Telecom Applications Management

[REDACTED] [@coned.com](mailto:[REDACTED]@coned.com)

[REDACTED]

Additional reference available upon request

