ATTACHMENT B

CITY OF GAINESVILLE

Mobilitie, LLC
3475 Piedmont Rd NE
Suite 1000
Atlanta, GA 30305 USA
Tel: 404.978.2318
www.mobilitie.com

28 December, 2016

City Hall
City of Gainesville
200 E. University Ave
Gainesville, Florida 32601

RE: MOBILITIE, LLC'S PERMIT APPLICATION SUBMISSION FOR ITS PROPOSED DEPLOYMENT IN THE PUBLIC RIGHTS-OF-WAY IN GAINESVILLE CITY, FLORIDA

Dear Sir/Madam:

Mobilitie is a wireless infrastructure company that develops intelligent infrastructure solutions to densify and optimize wireless carriers' services and geographic reach. In order to provide such telecommunications services in the State of Florida, Mobilitie possesses a Certificate to provide Alternative Access Vendor services from the Florida Public Service Commission. A copy of Mobilitie's Certificate to provide Alternative Access Vendor services is enclosed.

At this time, Mobilitie is submitting an application for its Small Cell facilities, which will provide high-speed, high-capacity bandwidth and mobile connectivity to service the residents, businesses and visitors of the City.

SMALL CELL FACILITIES

Mobilitie's Small Cell facilities involves the installation of small, low-powered wireless equipment, consisting of a transmit-receive antenna that communicates with wireless devices, a wireless backhaul antenna that connects the facility to the carrier's core network, and a compact radio, all of which are mounted on either new or existing utility or light poles. These Small Cell facilities add coverage and capacity to the existing wireless networks, and are designed to blend with existing infrastructure. Enclosed are photos of our existing Small Cell facility installations in other cities around the country.

REQUEST FOR APPROVAL

At this time, Mobilitie is proposing one Small Cell facility in Gainesville City as reflected in the enclosed application.

Mobilitie respectfully requests that the City review and approve the attached applications supplemented with the enclosed information. Mobilitie values the City's input on our proposal, and will work closely with the City to address any concerns with our proposal, such as location and height, pursuant to the City's regulations regarding the use and management of its rights-of-way.

Mobilitie looks forward to working with Gainesville City and values its partnership in order to provide your constituents with high-speed connectivity. We will be following up shortly to confirm receipt of the application. Please do not hesitate to contact me at 904-420-9391 or chad.caudill@mobilitie.com.

Thank you for your attention to this matter.

Respectfully submitted,

Chad Caudill

Permitting Manager

Mobilitie, LLC Candidate ID on Application: JA90XS014F

Schedule of Enclosures

Application
Candidate Table
Construction Drawings

Mobilitie, LLC
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Gainesville City Site List

	Site ID	Latitude	Longitude	Address	Pole Height (ft)	Installation
1	JA90XS014F	29.649705	-82.322946	200-298 SE 2nd Pl, Gainesville, Florida 32601	72 2/12	Small Cell, New Wood Utility Pole

Right of Way Permit Application

Checklist for Applicants:	For City Use Only
☐ Read and complete this form in full. ☐ Include necessary attachments listed below (Certificate of Insurance, Plans, etc.). ☐ Ensure Certificate of Insurance is current and lists City of Gainesville as additional insured. ☐ Submit to dg_pw_permits@cityofgainesville.org. ☐ If work dates unknown, notify Public Works 5 working days prior to start. Review can start without dates known, but permit will not be issued until provided.* ☐ After work completed, notify Public Works at email above to close out permit.	Permit #: _____ Date Received: _____ Date Approved: _____ Date Expires: _____ Please Allow Five (5) Business Days* for Review

Applicant Information		
Applicant: Sommer Bilavsky	Company: Mobilitie, LLC	Date Submitted: 12/28/16
Daytime Phone: (404) 992-2871	Email Address: sbilavsky@mobilitie.com	
Project Address: SE 2 Pl & SE 2nd St.		
Primary Contractor Name: (If subcontractor or owner is applicant) TBD	Primary Contractor Phone:	
Project Description:		
Applicant's Signature: (Applicant attests to having read and understood the permit conditions and to comply with all requirements of the permit)		

REQUESTED PERMIT TYPE: (CHECK ALL THAT APPLY)

☑	**Right of Way Permit** City of Gainesville Code of Ordinances, Chapter 23, Section 37 and 38. Chapter 23 of the City ordinances requires a permit for any activity that disrupts traffic, restricts access, or adds/modifies any infrastructure within the right of way or for any private use of the public right of way.	**Type of Facility to be Added/Modified or Impacted (check all that apply):** ☐ Roadway ☐ Sidewalk and/or Trail ☐ Parking Bay and/or Meters ☐ Bus Stop ☐ Event Only (e.g. Parade, Festival, etc.) ☑ Other (explain): Utility Pole **Traffic Control Plan (check and attach all that apply)** ☐ FDOT 600 Series Design Standard ☐ Project Specific Traffic Control Plan (Signed & Sealed) **Work Dates:** 4/28/17 **To:** 4/28/17 (*as described in the checklist at top of permit) **Work Times:** Day Work Only **FDOT AMOT Individual** **Name** TBD **Cert #** _____ **24 HR Phone #** _____ (Florida Department of Transportation Advanced Maintenance of Traffic Certification of individual responsible for implementation of Traffic Control Plan)	Submit in addition to this application: 1. Description of work to be performed (if not sufficiently described above). 2. Plans that show the location and dimensions of the proposed facility or utilization of ROW. 3. Traffic control site plan that meets FDOT standards -OR- Design Standard Index from FDOT 600 Series if applicable. 4. Appropriate surety bond and proof of insurance that names the City of Gainesville as additional insured. The City of Gainesville shall determine the amount of the surety bond. See Insurance Notes included in Page Two. 5. Construction cost estimate of the work to be performed within the Right of Way.
☐	**Construction Parking** Parking is for placarded company vehicles and construction equipment (i.e. loading & unloading) that need to access the construction site – this is NOT for construction employee parking. This excludes ADA parking.	**Effective Dates:** _____ **To:** _____	Submit in addition to this application: 1. Exact description of existing parking spaces effected immediately adjacent to the construction site (attach drawing if needed).

Surety Bond Information:		
Dollar Value of Work: $4,500	Surety Bond Posted: ☐ YES ☐ NO	Surety Bond Amount: _____

Other Permits Associated with this project (if applicable):			
BLDG Permit	☐ Applied For	☐ Approved	BLDG Permit # _____

ROW PERMIT REQUIREMENTS

1. Right of Way Permitting is subject to City of Gainesville Code of Ordinances, Chapter 23, Article III.
2. The permit application must include a detailed description, location, planned dates, the engineering details of the work, pavement restoration details (if applicable),a traffic control plan, a Certificate of Insurance, and a cost estimate of work to be performed in the right-of-way. All permitted work shall be done in accordance with the standards established by the City of Gainesville and under the supervision of the Public Works Director or designee.
3. A Certificate of Insurance (COI) must be submitted with the permit application. Commercial general liability insurance in the amount of at least $500,000 per occurrence for bodily injury and property damage for construction activities on city property is required. The policy must name the City of Gainesville as additional insured, and an endorsement must be issued as part of the policy reflecting this requirement (Section 23-38.(10)a. Gainesville Code of Ordinances).
4. Per the City Code of Ordinances, the Public Works Director or designee shall determine the Surety Bond, based upon the nature and extent of the work to be performed within the right-of-way or affects public infrastructure. The City of Gainesville shall utilize the construction cost estimate to determine this value of the Surety Bond.
5. All work in the right of way shall comply with the City of Gainesville Engineering Design & Construction Manual as authorized by the Gainesville Code of Ordinances Chapter 30. The manual can be found at http://www.gainesvillepublicworks.org/wp-content/uploads/2015-Engineering-Design-Construction-Manual.pdf
6. Traffic control plans shall comply with the MUTCD Chapter 6 and consist of FDOT 600 Series Indexes OR a project specific signed and sealed plan by a Florida Licensed Professional Engineer.
7. Traffic control must meet FDOT standards. Traffic control plans shall be prepared and implemented by someone with the Florida Department of Transportation Advanced Maintenance of Traffic Certification. The certification number or a copy of the certification card must be attached to the permit application.
8. The permit application must clearly identify an Advanced Certified Worksite Traffic Supervisor for the work site with their 24/7 emergency contact information.
9. Upon completion of the work, the permittee shall notify Public Works at 352-334-5070 to schedule a final inspection. The Surety Bond shall not be released or returned until the work is accepted by the City.
10. All property, both private and public, shall be restored to its original condition or better, as determined by the Public Works Director or designee.
11. The construction and maintenance of such utility shall not interfere with the property and rights of a prior occupant.
12. All materials and equipment shall be subject to inspection and approval by the Public Works Director or designee.
13. All overhead installations shall conform to clearance standards of the Florida Department of Transportation, and all underground crossing installations shall be laid at a minimum depth of thirty (30) inches below the pavement and at least twelve (12) inches below ditch grade. Exceptions may be made in special cases in writing by authority from the Public Works Director or designee.
14. It is expressly stipulated that this permit is a license for permissive use only and that the placing of facilities upon public property pursuant to this permit shall not create or vest any property rights in said holder.
15. Whenever necessary for the purpose of construction, repair, improvement, alteration, or relocation of all, or any portion of the City's facilities located on said right-of-way or easement, as determined by the Public Works Director or designee, any or all of said poles, wires, pipes, cables or other facilities and appurtenances authorized hereunder, shall be immediately removed, reset, or relocated from or on said right-of-way or easement as required by the Public Works Director or designee, and at the expense of the permittee.
16. The permittee will be responsible for the cost to correct or repair any damages to public infrastructure caused directly or indirectly by the permittee's facilities.
17. Unless the permittee is a member of Sunshine One Call locating services or their successors as prescribed by the State of Florida, the permittee will hold harmless the City or any other public utility for any damages to the permittee's utility facilities due to construction work being done within the right of way.
18. The permittee shall commence actual construction in good faith as described within the permit. If needed, the contractor can request a modification of the construction dates. Contact the permit coordinator at (352) 334-5070 or email at dg_pw_permits@cityofgainesville.org.
19. The City of Gainesville discourages full road closures. Full road closures will not be granted without justification and written permission from the Public Works Director or designee. The permit holder is responsible for all traffic control and traffic detour work and expense.
20. Permittee declares that prior to filing this application it has determined the presence of all existing utilities at the permit location, both aerial and underground. Permittee also declares that due notice of work under application was furnished to each utility involved. Permittee further declares the field utility locations will be made in accordance with FS Chapter 556 prior to any excavation or probing activities. Permittee shall immediately notify emergency services agencies via calling 911 in the event of an incident with buried facilities such as gas pipelines.
21. Permittee shall indemnify, defend, save and hold harmless the City, its elected and appointed officials, from all claims, demands, suits, liabilities, damages, losses and expenses, for bodily injury or death to persons or damage to property, including reasonable attorney's fees and costs, resulting from or arising out of the above permitted activity by the Permittee, its contractors, subcontractors, agents, employees or representatives.
22. This permit does not in any way supersede present ordinances adopted by the City of Gainesville.
23. If a parking meter(s) is being blocked, the appropriate fees must be paid to compensate for the loss of those revenues for the duration of the closure.
24. Permit review committee includes Gainesville Fire Rescue; Gainesville Police Department; Regional Transit System (RTS); City of Gainesville Risk Management; and Public Works Engineering.

Construction Parking

1. Construction Parking Permits are subject to: (includes up to 5 spaces) Permitted uses include loading, unloading, dumpster, portalet, etc.
2. Parking is for placarded company vehicles and equipment with Construction Parking permits (i.e. loading & unloading) that need to access the construction site – this is NOT for construction employee parking. This excludes ADA parking.
3. If approved, this parking request is granted ONLY for the dates and times indicated above with appropriate fee payment to the City of Gainesville. Signage will be removed from the site on the end date/time specified above, unless a request for extension has been received 5 business days prior to the end date/time originally approved.
4. Approval of this parking request is granted ONLY for the dates and times indicated on the request.
5. Any City equipment/materials indicating construction parking will be removed from the site on the end date/time specified, unless a request for extension has been received in writing 5 business days prior to the end date/time originally approved.
6. Construction parking can only be designated in existing parking spaces immediately adjacent to the construction site.
7. *Allow 10 business days for application processing.

SITE ID: 9FLB000066 / JA90XS014F
SE 2 PL & SE 2ND ST
GAINESVILLE, FL 32601

Know what's **below.**
Call before you dig.

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 DISTURBANCE OR EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

SITE INFORMATION

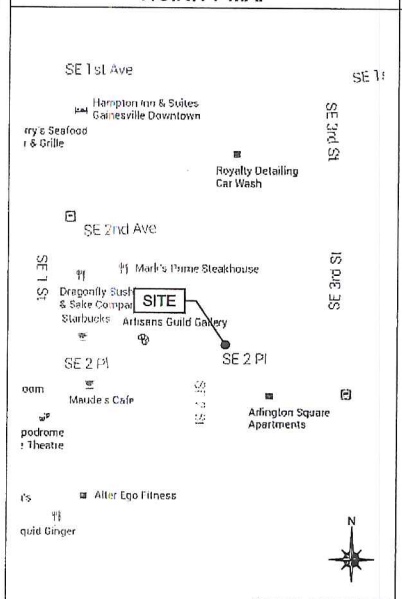
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY
ADDRESS/CROSS STREET:	SE 2 PL & SE 2ND ST GAINESVILLE, FL 32601
APPLICANT:	MOBILITIE, LLC
APPLICANT ADDRESS:	3475 PIEDMONT ROAD NE,SUITE 1000 ATLANTA, GEORGIA 30305 PHONE: (312) 638-5400
LATITUDE:	N 29° 38' 58.9" (29.649705)
LONGITUDE:	W 82° 19' 22.6" (-82.322946)
LAT/LONG TYPE:	NAD 83
GROUND ELEVATION:	±170' AMSL
COUNTY:	ALACHUA COUNTY
JURISDICTION:	JACKSONVILLE

BEFORE SCALING:

CONTRACTORS SHALL VERIFY ALL PLANS, EXISTING 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.

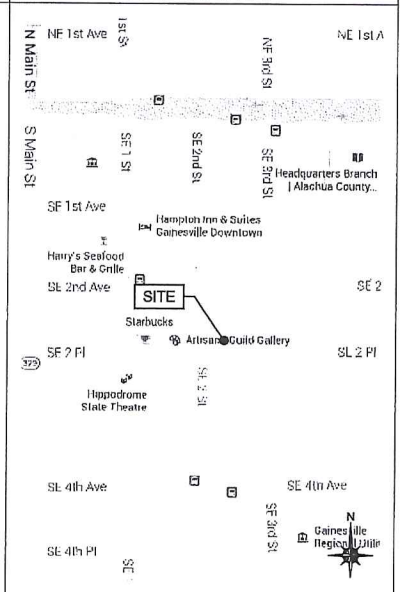
LOCATION MAPS

VICINITY MAP



MAP DATA © 2015 GOOGLE

REGIONAL MAP



MAP DATA © 2015 GOOGLE

PROJECT DESCRIPTION

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

- INSTALL PROPOSED BACKHAUL TRANSPORT ON PROPOSED UTILITY POLE

CODES

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 ELEVATION
2.1	POLE ELEVATION
3.0	ANTENNA & EQUIPMENT MOUNTING DETAILS
3.1	ANTENNA & EQUIPMENT SPECIFICATIONS
4.0	ELECTRICAL DETAILS
5.0	GROUNDING DETAILS
6.0	EQUIPMENT & SAFETY LABELS
6.1	TRAFFIC CONTROL PLAN
6.2	TRAFFIC CONTROL PLAN
6.3	TRAFFIC CONTROL PLAN
GN-1	GENERAL NOTES
GN-2	GENERAL NOTES

THESE DRAWINGS ARE BASED ON SITE INFORMATION PROVIDED TO KMB. KMB HAS NOT PERFORMED FIELD VERIFICATION.

ARCHITECT/ENGINEER

KMB DESIGN GROUP, LLC
1800 ROUTE 34, SUITE 209
WALL, NJ 07719
FOR QUESTIONS EMAIL: designteam@kmbdg.com
TEL: (732) 280-5623
FAX: (732) 280-3980
www.KMBDG.com

mobilitie

PROJECT NO:	9FLB000066
DRAWN BY:	RC
CHECKED BY:	SJB

A	07-04-16	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC

Stephen A. Bray
PROFESSIONAL ENGINEER

PRELIMINARY
NOT FOR CONSTRUCTION

FL LICENSE: 68902 7/5/16

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JA90XS014F

SE 2 PL & SE 2ND ST
GAINESVILLE, FL 32601

UTILITY POLE

SHEET TITLE

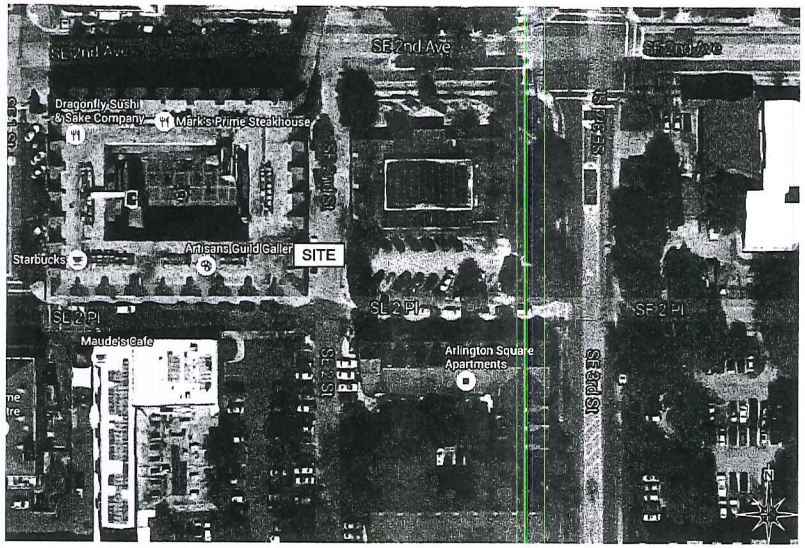
TITLE SHEET

SHEET NUMBER

0.0

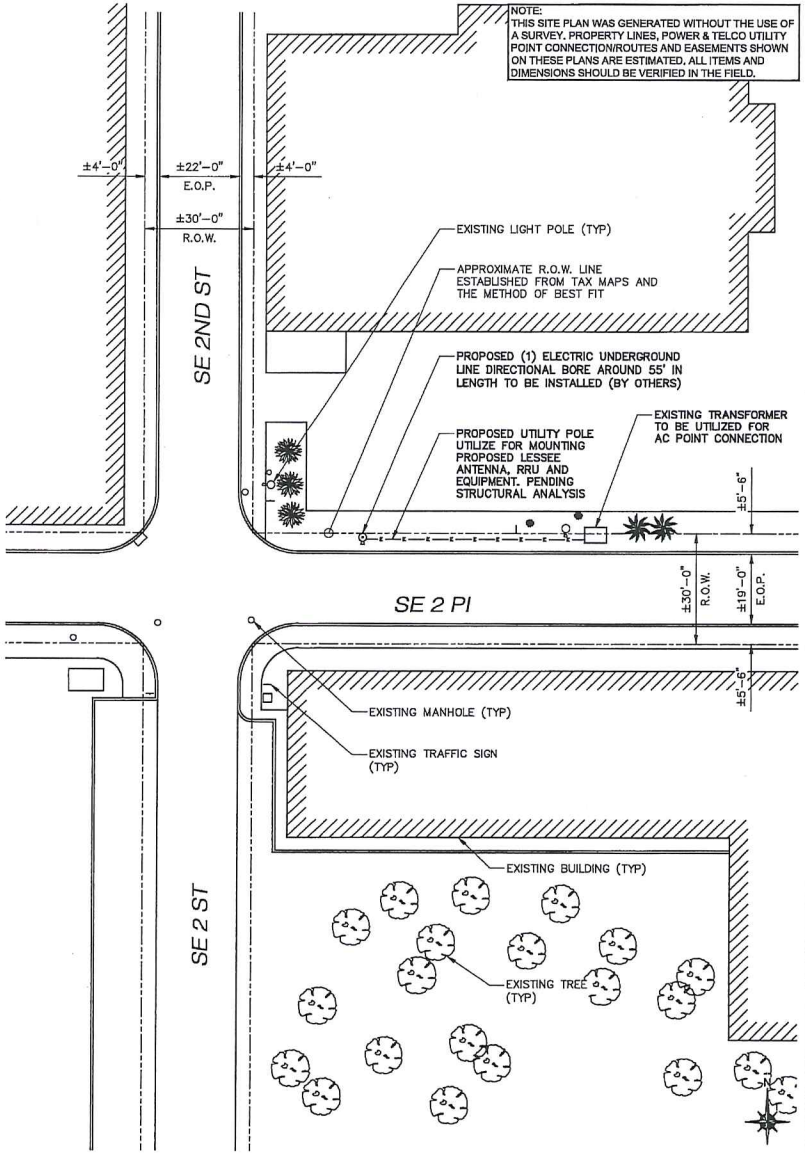
1 EXHIBIT PHOTO

SCALE: NTS



2 AERIAL SITE LOCATION

SCALE: NTS



3 ENLARGED SITE PLAN

11x17 SCALE: 1/32" = 1'-0" 24x36 SCALE: 1/16" = 1'-0"

mobilitie

PROJECT NO:	9FLB000066
DRAWN BY:	RC
CHECKED BY:	SJB

A	07-04-16	FOR CLIENT REVIEW

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SE 2 PL & SE 2ND ST
GAINESVILLE, FL 32601

UTILITY POLE

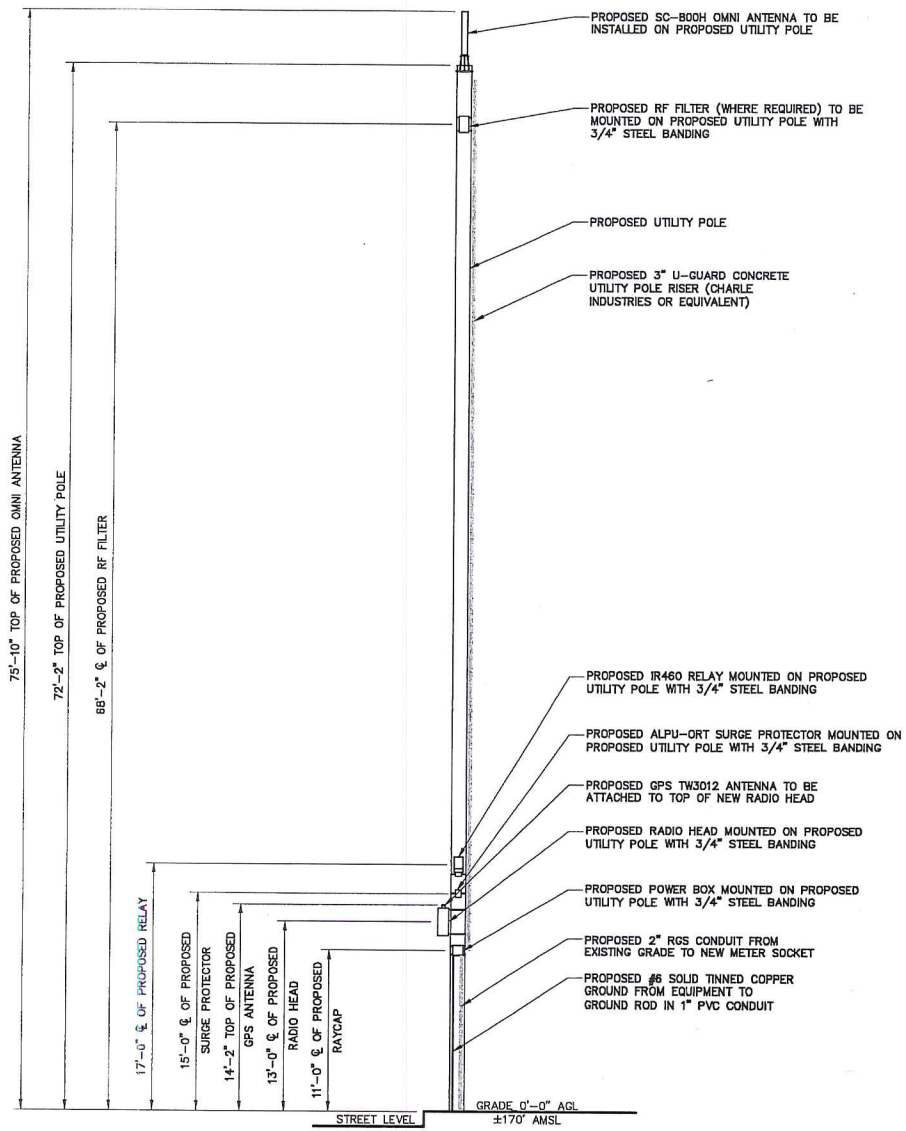
SHEET TITLE

SITE PLAN & EXHIBIT PHOTO

SHEET NUMBER

1.0

NOTE:
KMB DESIGN GROUP, LLC HAS NOT PERFORMED A FULL STRUCTURAL ANALYSIS ON THE POLE AND MOUNTS AS PART OF THIS SUBMITTAL. STRUCTURAL ANALYSIS REPORT TO BE PROVIDED UNDER SEPARATE COVER AND OBTAINED BY CONTRACTOR PRIOR TO CONSTRUCTION.



1 **EAST ELEVATION**

11x17 SCALE: 1/8" = 1'-0" | 24x36 SCALE: 1/4" = 1'-0"

mobilitie

PROJECT NO:	9FLB000086
DRAWN BY:	RC
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SE 2 PL & SE 2ND ST
GAINESVILLE, FL 32601

UTILITY POLE

SHEET TITLE

POLE ELEVATION

SHEET NUMBER

2.0

NOTE:
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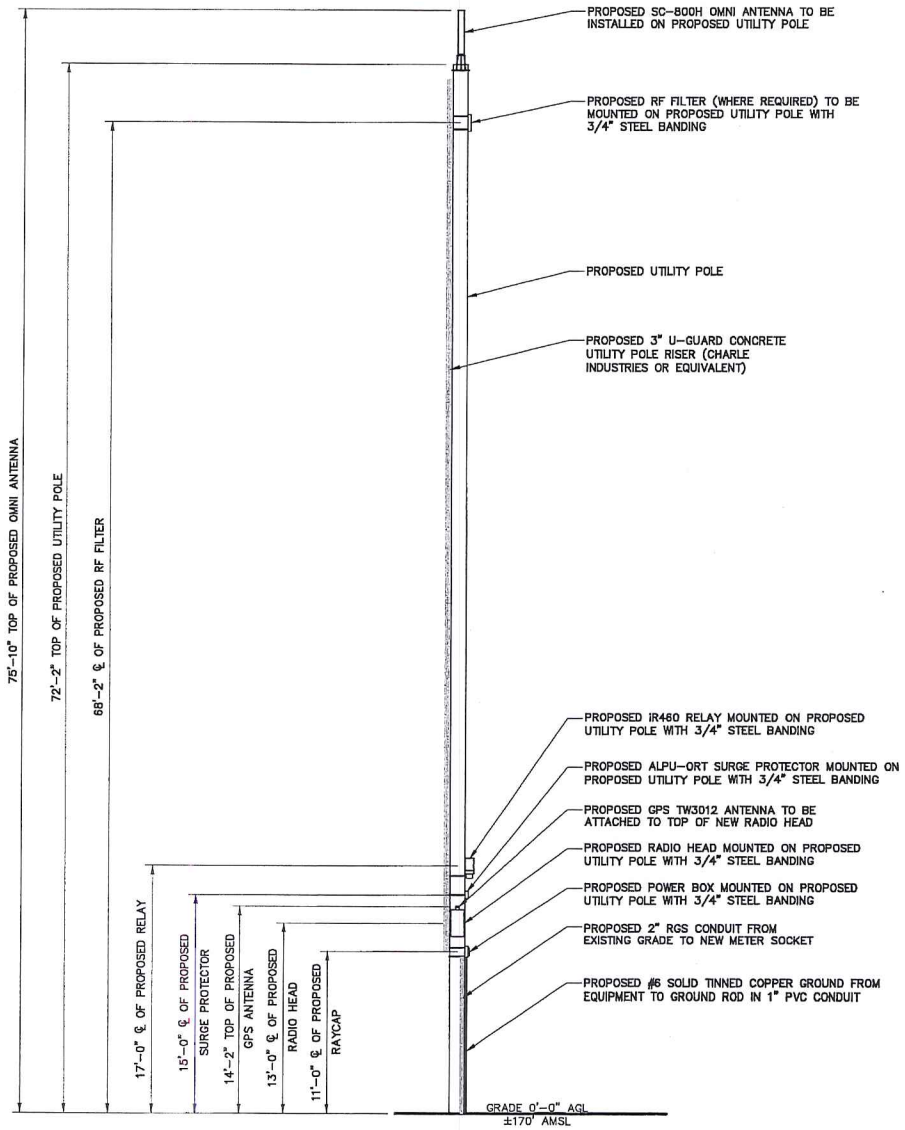

1 **SOUTH ELEVATION**

11x17 SCALE: 1/8" = 1'-0" | 24x36 SCALE: 1/4" = 1'-0"

mobilitie

PROJECT NO:	9FLB000066
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SE 2 PL & SE 2ND ST
GAINESVILLE, FL 32601

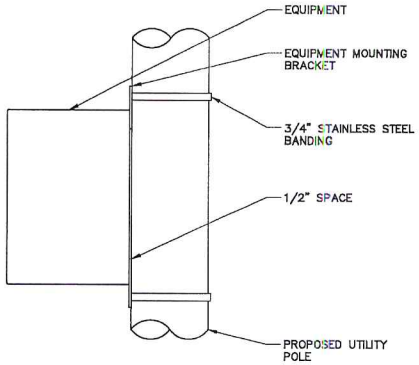
UTILITY POLE

SHEET TITLE

POLE ELEVATION

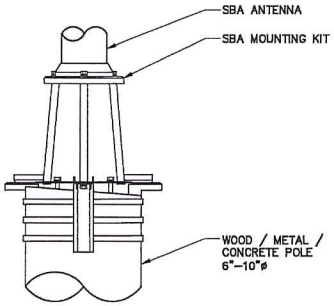
SHEET NUMBER

2.1



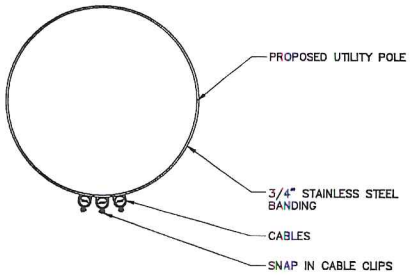
1 **EQUIPMENT CONNECTION DETAIL**

SCALE: NTS



2 **ANTENNA MOUNTING DETAIL**

SCALE: NTS



3 **CABLE ROUTING DETAIL**

SCALE: NTS

mobilitie

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SE 2 PL & SE 2ND ST
GAINESVILLE, FL 32601

UTILITY POLE

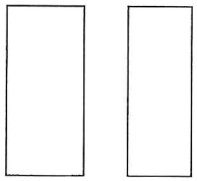
SHEET TITLE

ANTENNA & EQUIPMENT MOUNTING DETAILS

SHEET NUMBER

3.0

AH4000
RADIO HEAD
20.1" x 9.1" x 8.9", ±55.1 lbs



1 **EQUIPMENT SPECIFICATIONS**

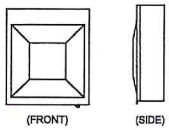
SCALE: NTS

TW3012
GPS ANTENNA
0.8" x 2.6"Ø, ±0.3 lbs

2 **EQUIPMENT SPECIFICATIONS**

SCALE: NTS

RSTAC-3112-P-120
AC POWER PANEL
9.25" x 9.50" x 3.81



3 **EQUIPMENT SPECIFICATIONS**

SCALE: NTS

FIMBW2693S-1C
RF FILTER
13.8" x 8.1" x 2.4 ±7.7 lbs

4 **EQUIPMENT SPECIFICATIONS**

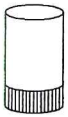
SCALE: NTS

SC-800
2.5 OMNI ANTENNA
35.4" x 4.7"Ø, ±11 lbs

5 **ANTENNA SPECIFICATIONS**

SCALE: NTS

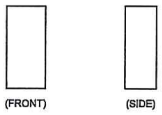
IRELAY 460
BACKHAUL ANTENNA
13.0" x 7.9"Ø, ±9.9 lbs



6 **EQUIPMENT SPECIFICATIONS**

SCALE: NTS

ALPU-ORT
SURGE PROTECTOR
6.1" x 4.5" x 2.5"



7 **EQUIPMENT SPECIFICATIONS**

SCALE: NTS

mobilitie

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SE 2 PL & SE 2ND ST
GAINESVILLE, FL 32601

UTILITY POLE

SHEET TITLE

ANTENNA & EQUIPMENT SPECIFICATIONS

SHEET NUMBER

3.1

UTILITY 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. THE PROVISIONS, INSTALLATION AND CONNECTION OF A GROUNDING 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/OR INDICATED ON PLANS.
3. THE PROVISION AND INSTALLATION OF CONDUIT AND CONNECTIONS FOR LOCAL FIBER SERVICE.
4. THE FURNISHING AND INSTALLATION OF THE ELECTRICAL SERVICE ENTRANCE CONDUCTORS, CONDUITS, METER SOCKET, AND CONNECTIONS TO THE SERVICE EQUIPMENT.
5. ALL CONDUITS SHOULD BE LEFT WITH NYLON PULL CORD 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. 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
   - N.E.M.A. NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
   - U.L. UNDERWRITERS LABORATORIES, INC.
   - N.F.P.A. NATIONAL FIRE PROTECTION ASSOCIATION

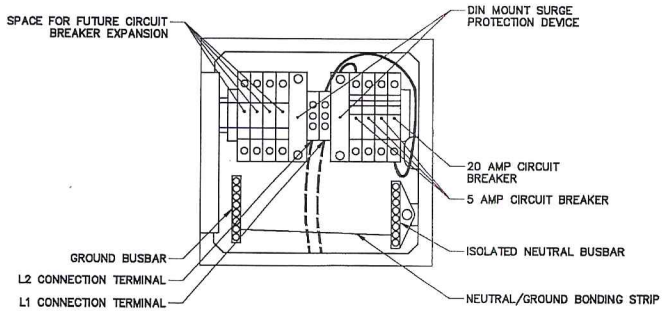
RACEWAYS AND WIRING:

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, 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 AND WIRING. PROVIDE JUNCTION AND PULLBOXES FOR CONDUIT RUNS WITH MORE THAN (360) DEGREES OF BENDS.
5. PROVIDE A COMPLETE RACEWAY AND WIRING INSTALLATION, PERMANENTLY AND EFFECTIVELY GROUNDED 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 ARCHITECT/ENGINEER BEFORE SUBMITTING BID. ALL EQUIPMENT FURNISHED BY OTHERS (FBO) SHALL BE PROVIDED WITH PROPER MOTOR STARTERS, DISCONNECTS, CONTROLS, ETC. BY THE ELECTRICAL CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE. THE ELECTRICAL CONTRACTOR SHALL INSTALL AND COMPLETELY WIRE ALL ASSOCIATED EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S WIRE DIAGRAMS AND AS REQUIRED FOR A COMPLETE OPERATING INSTALLATION. ELECTRICAL CONTRACTOR SHALL VERIFY AND COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF (FBO) EQUIPMENT PRIOR TO ROUGH-IN OF CONDUIT AND WIRING TO AVOID CONFLICTS.

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, METER SOCKETS, PRIMARY CABLE RACEWAY REQUIREMENTS, SECONDARY SERVICE, ETC. PRIOR TO SUBMITTING BID TO INCLUDE 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 LOCAL UTILITY COMPANY PRIOR TO SUBMITTING BID. ADJUST A.I.C. RATINGS OF ALL OVER CURRENT PROTECTION DEVICES IN DISTRIBUTION EQUIPMENT AS REQUIRED TO COORDINATE WITH AVAILABLE FAULT CURRENT FROM LOCAL UTILITY COMPANY.

1 **NOTES**

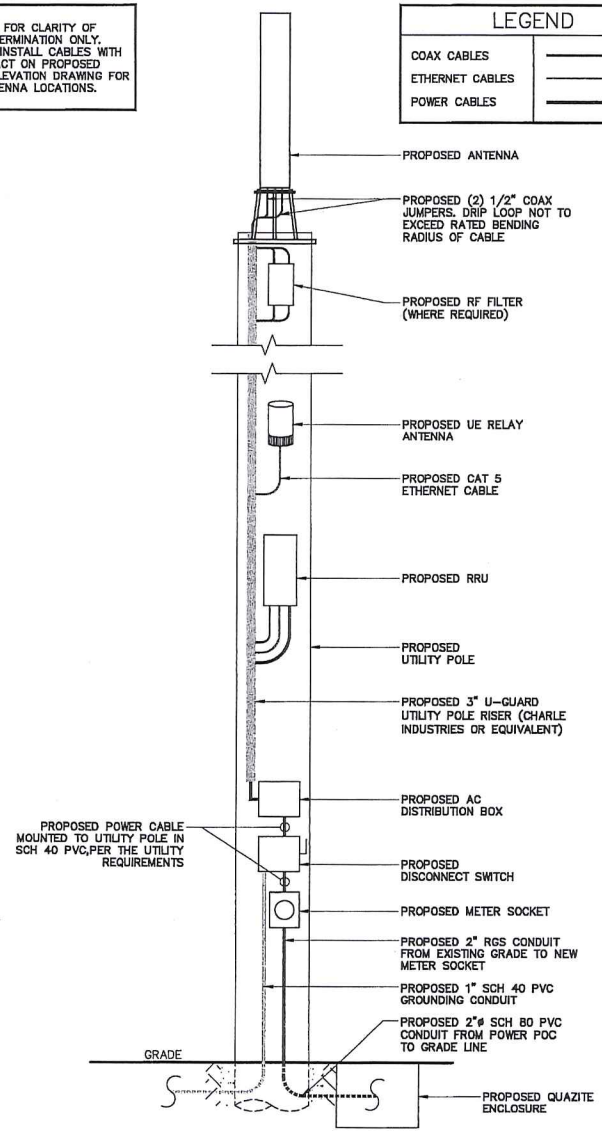


2 **AC DISTRIBUTION PANEL**

SCALE: NTS

NOTE:
CABLING DIAGRAM IS FOR CLARITY OF CABLE ROUTE AND TERMINATION ONLY. CONTRACTOR SHALL INSTALL CABLES WITH MINIMAL VISUAL IMPACT ON PROPOSED UTILITY POLE. SEE ELEVATION DRAWING FOR EQUIPMENT AND ANTENNA LOCATIONS.

LEGEND	
COAX CABLES	
ETHERNET CABLES	
POWER CABLES	



3 **CABLE DIAGRAM**

SCALE: NTS

mobilitie

PROJECT NO:	9FLB000066
DRAWN BY:	RC
CHECKED BY:	SJB

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KMB DESIGN GROUP, LLC

Stephen A. Bray
PROFESSIONAL ENGINEER

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SE 2 PL & SE 2ND ST
GAINESVILLE, FL 32601

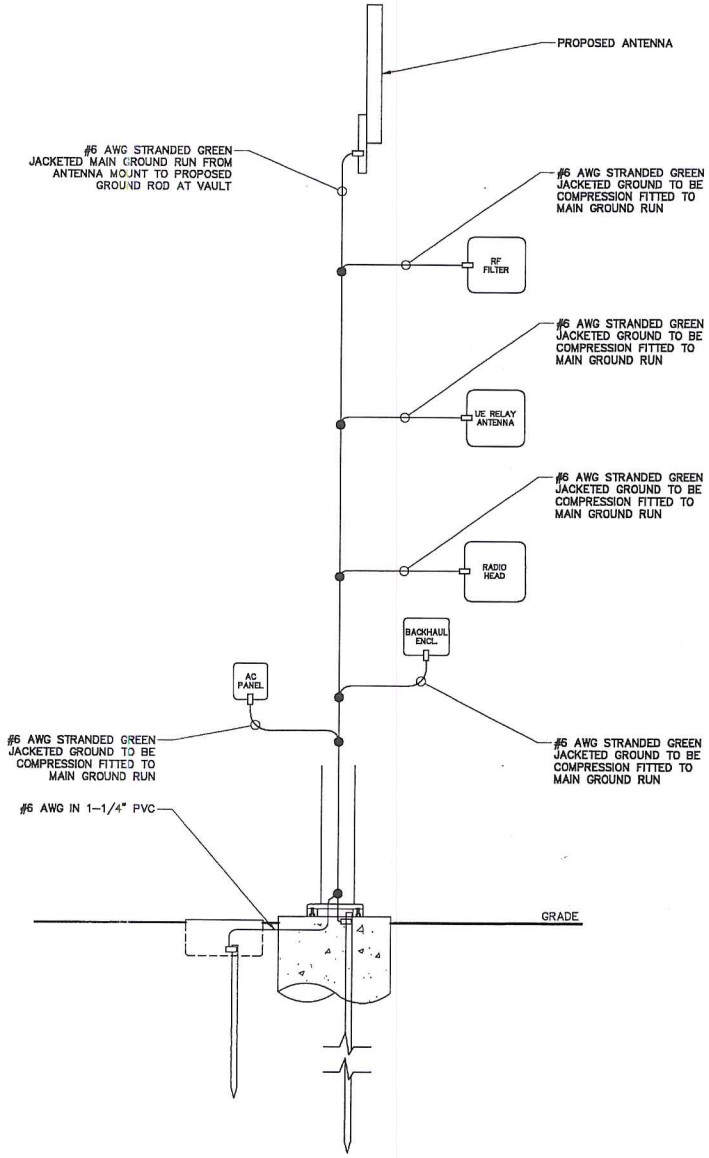
UTILITY POLE

SHEET TITLE

ELECTRICAL DETAILS

SHEET NUMBER

4.0



LEGEND
- CADWELD CONNECTION
- MECHANICAL CONNECTION
- COMPRESSION CONNECTION

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

1 GROUNDING DETAILS

SCALE: NTS

mobilitie

PROJECT NO:	9FLB000066
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UTILITY POLE

SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER

5.0

ANTENNA SIGNAGE:
ON WOOD POLES - SIGN ON ALUMINUM WITH SS SCREW TO THE POLE
ON METAL POLES - ADHESIVE VINYL OR PLACARD STRAPPED WITH SS TIES
ON CONCRETE / COMPOSITE - PLACARD STRAPPED WITH SS TIES

SIGN PLACEMENT:
AFFIX TO THE STRUCTURE 3-4' BELOW THE COMMERCIAL RF ANTENNA(S)
SIZE APPROX. 8" x 5.5"

1 RF NOTICE SIGN DETAIL

SCALE: NTS

RF / POWER DISCONNECT INSIDE

NOTE:
RF/POWER DISCONNECT SIGN TO BE PLACED
ON OUTSIDE DOOR OF AC DISTRIBUTION BOX.

2 RF/POWER DISCONNECT SIGN

SCALE: NTS

OWNER / OPERATOR NOTE:
SITE ID LABEL TO BE AFFIXED WITH TZeS241 LABELING TAPE OR EQUIVALENT
BLACK ON WHITE LABELING TAPE OF AT LEAST 18mm WIDTH WITH
EXTRA-STRENGTH ADHESIVE. USE ANY COMPATIBLE P-TOUCH LABEL MAKER.
TEXT SHOULD BE PRINTED IN ALL CAPS WITH A MINIMUM HEIGHT OF 1/2".

3 POLE OWNER SIGN DETAIL

SCALE: NTS

mobilitie

PROJECT NO:	9FLB000066
DRAWN BY:	RC
CHECKED BY:	SJB

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UTILITY POLE

SHEET TITLE
EQUIPMENT & SAFETY LABELS

SHEET NUMBER
6.0

TRAFFIC CONTROL NOTES

1. Prior to any road construction, traffic control signs and devices shall be in place.
2. 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.
3. Fencing & gates subject to adjustments during construction.
4. Selection, placement, maintenance, and protection of traffic shall be in accordance with the Manual of Uniform Traffic Control Devices - Part VI "Standards and Guides for Traffic Control for Street and Highway Construction, Maintenance, Utility, and Incident Management Operations", and the State Department of Transportation Standards and Specifications, unless otherwise noted in the plans and specifications, and shall be approved by the appropriate highway authority having jurisdiction.
5. Tapers shall be located to maximize the visibility of their total length.
6. Advance warning signs, distances, and taper lengths may be extended, at direction of the Engineer, to adjust or reduced visibility due to horizontal and vertical curvature of the roadway.
7. All existing road signs, pavement markings and/or plowable pavement reflectors which conflict with the proposed traffic control plan shall be covered, removed, or relocated as directed by the Engineer and then restore to match pre-construction conditions.
8. Conflicting or non-operating signal indications on either the existing, temporary, or proposed traffic signal systems shall be bagged or covered.
9. Contractor shall contact local applicable highway jurisdiction and provide additional "flagmen" or police supervision as they deem appropriate.
10. All excavated areas within or adjacent to the roadway shall be backfilled and placed on a minimum 6h:1v slope prior to the end of each work day. Other excavated areas within the clear zone are to be either backfilled or precast concrete curb construction barrier set temporarily in place to shield vehicular and pedestrian traffic.
11. Where required, the contractor shall make provisions for maintaining pedestrian crossing locations and type, in accordance with all applicable codes and safe requirements.
12. Construction zone speed limit will be determined by the regional traffic engineer at the time of or during construction, as requested by the resident engineer.
13. Bituminous concrete placed during the various construction stages shall be transitioned on a minimum 20h:1v slope to meet the adjacent existing grade at the longitudinal and transverse limits of the stage construction areas unless otherwise noted on the stage construction plans.
14. All excavated areas within or adjacent to the roadway shall be backfilled and placed on at least 6h:1v slope before the end of each work day. Other excavated area within the clear zone shall be backfilled.
15. Cones may be substituted for drums and installed upon the approval of the Engineer.
16. There shall be no workers, equipment, or other vehicles in the buffer space or the roll ahead space.
17. Driveways and/or side streets entering the roadway after the first advance warning sign shall be provided with at least one W20-4F sign (road work ahead) as a minimum.
18. Moving work areas in a lane closure require a trailer mounted illuminated flashing arrow to remain at the end of the taper, the traffic control truck with mounted crash cushion that shall move with the work areas to keep a 70 foot max buffer in advance of each work area.

1 TRAFFIC CONTROL NOTES

SCALE: NTS

SYMBOLS

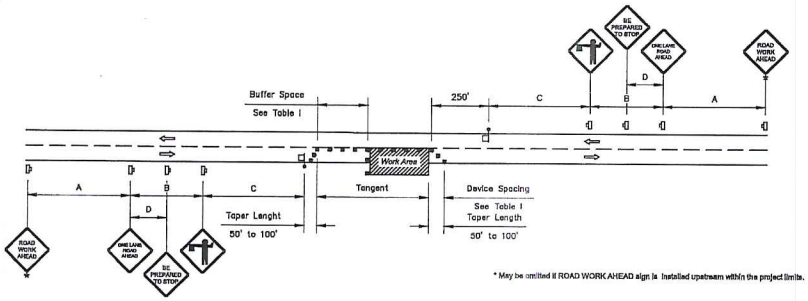
- Work Area
- Channelizing Device
- Work Zone Sign
- Flagger
- Automated Flagger Assistance Devices (AFAD), With Gate
- Lane Identification + Direction of Traffic

For single lane traffic flow see General Note 12

TABLE I

Posted Speed	Maximum Spacing of Cones or Tubular Markers		Maximum Spacing of Type I or Type II Barricades/Panels/Drums		Distance Between Signs				Buffer Space
	On a Taper	On a Tangent	On a Taper	On a Tangent	A	B	C	D	
25	20'	50'	20'	50'	200'	200'	200'	100'	155'
30	20'	50'	20'	50'	200'	200'	200'	100'	200'
35	20'	50'	20'	50'	200'	200'	200'	100'	250'
40	20'	50'	20'	50'	200'	200'	200'	100'	305'
45	20'	50'	20'	50'	350'	350'	350'	175'	360'
50	20'	50'	20'	100'	500'	500'	500'	250'	425'
55	20'	50'	20'	100'	2640'	1500'	1000'	500'	495'
60	20'	50'	20'	100'	2640'	1500'	1000'	500'	570'
65	20'	50'	20'	100'	2640'	1500'	1000'	500'	645'
70	20'	50'	20'	100'	2640'	1500'	1000'	500'	730'
75	20'	50'	20'	100'	2640'	1500'	1000'	500'	820'

CONDITIONS - Where any vehicle, equipment, workers or their activities encroach the area between the centerline and a line 2' outside the edge of travel way.



* May be omitted if ROAD WORK AHEAD sign is installed upstream within the project limits.

GENERAL LAYOUT

General Notes:

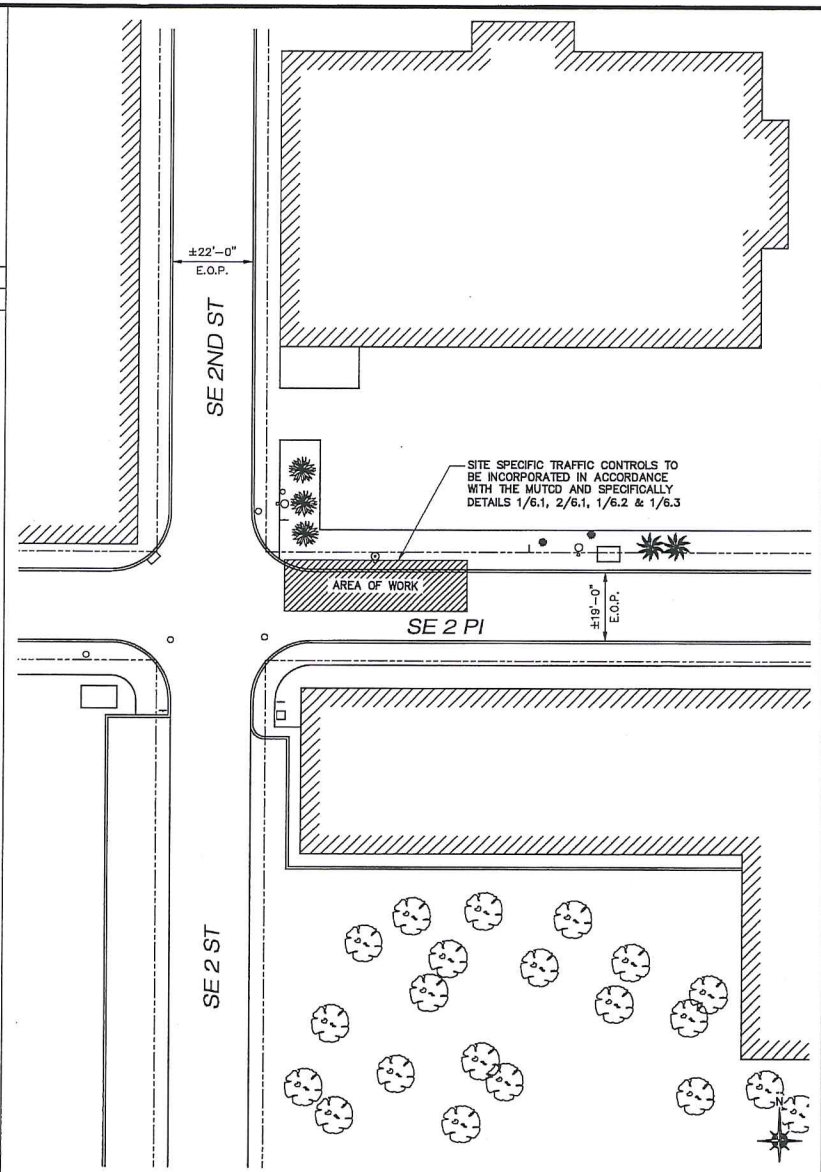
1. Special Conditions may be required in accordance with these notes and the following sheets.
2. If the Work Area encroaches on the Centerline, use the Layout for Temporary Lane Shift to Shoulder on Sheet 2 only if the Existing Paved Shoulder width is sufficient to provide for an 11' lane between the Work Area and the Edge of Existing Paved Shoulder. Reduce the posted speed when appropriate.
3. Temporary Raised Rumble Strips:
   a. Use when both of the following conditions are met concurrently:
      i. Existing Posted Speed is 50 mph or greater;
      ii. Work duration is greater than 60 minutes.
   b. Use a consistent Strip color throughout the work zone.
   c. Place each Rumble Strip Set transversely across the lane at locations shown.
   d. Use Option 1 or Option 2 as shown on Sheet 2. Use only one option throughout work zone.
4. Additional one-way control may be provided by the following means:
   a. Flag-carrying vehicle;
   b. Official vehicle;
   c. Pilot vehicles;
   d. Traffic signals.

When flaggers are the sole means of one-way control, the flaggers must be in sight of each other or in direct communication at all times.

5. When a side road intersects the highway within the TTC zone, place additional TTC devices in accordance with other applicable MUTCD guidelines.
6. The two channelizing devices directly in front of the work area may be omitted provided vehicles in the work area have high-intensity rotating, flashing, oscillating, or strobe lights operating.
7. When Buffer Space cannot be attained due to geometric constraints, use the greatest attainable length, not less than 200 ft.
8. Railroad Crossings:
   a. If an active railroad crossing is located closer to the Work Area than the queue length plus 300 feet, extend the Buffer Space as shown on Sheet 2.
   b. If the queuing of vehicles across an active railroad crossing cannot be avoided, provide a uniformed traffic control officer or flagger at the highway-rail grade crossing to prevent vehicles from stopping within the highway-rail grade crossing, even if automatic train warning devices are in place.
9. ROAD WORK AHEAD and the BE PREPARED TO STOP signs may be omitted if all of the following conditions are met:
   a. Work operations are 60 minutes or less.
   b. Speed limit is 45 mph or less.
   c. There are no sight obstructions to vehicles approaching the work area for a distance equal to the Buffer Space shown in Table 1.
   d. Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.
   e. Volume and complexity of the roadway has been considered.
   f. If a railroad crossing is present, vehicles will not queue across rail tracks.
   g. AFADs are not in use.
10. For general TCZ requirements and additional information, refer to MUTCD.
11. Automated Flagger Assistance Devices (AFADs) may be used in accordance with the Notes on Sheet 3.
12. For single lane traffic flow, the contractor shall utilize the general layout detailed above and shall comply with the local highway authority having jurisdiction to ensure that sufficient clearance is provided to allow vehicles to pass safely. Contractor shall notify the Engineer if a road closure is deemed necessary.

2 TWO LANE, TWO WAY, WORK WITHIN THE TRAVEL WAY

SCALE: NTS



3 SITE SPECIFIC TRAFFIC CONTROL PLAN

11x17 SCALE: 1/32" = 1'-0" | 24x36 SCALE: 1/16" = 1'-0"

mobilitie

PROJECT NO:	9FLB000066
DRAWN BY:	RC
CHECKED BY:	SJB

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PROFESSIONAL ENGINEER

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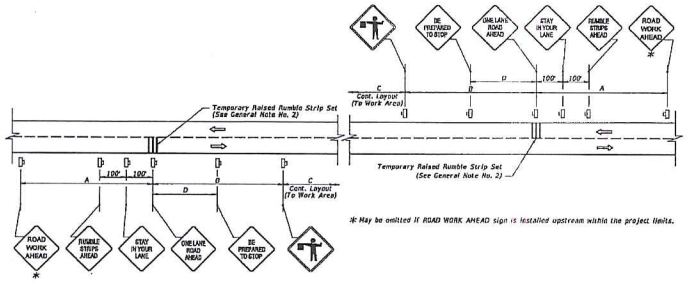
UTILITY POLE

SHEET TITLE

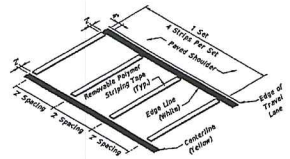
TRAFFIC CONTROL PLAN

SHEET NUMBER

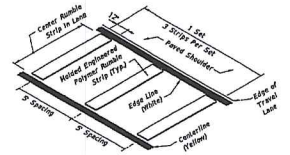
6.1



LAYOUT FOR TEMPORARY RAISED RUMBLE STRIPS
WHEN REQUIRED WITH ADDITIONAL SIGNS



OPTION 1 - REMOVABLE POLYMER STRIPING TAPE
RUMBLE STRIP SET

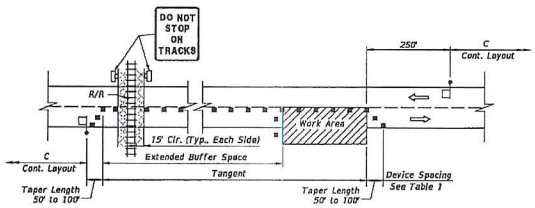


OPTION 2 - MOLDED ENGINEERED POLYMER
RUMBLE STRIP SET

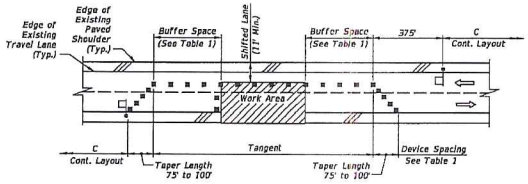
TEMPORARY RAISED RUMBLE STRIPS

1	TEMPORARY RAISED RUMBLE STRIPS

SCALE: NTS



LAYOUT FOR RAILROAD CROSSING
BUFFER SPACE EXTENSION

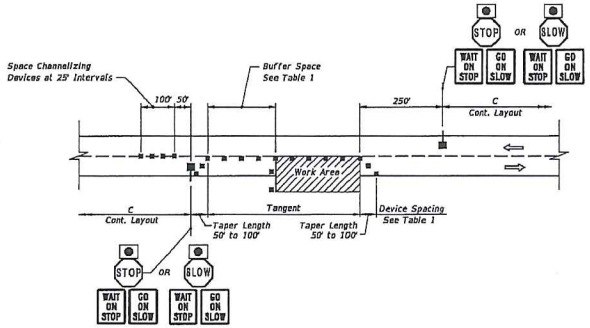


LAYOUT FOR TEMPORARY LANE SHIFT TO SHOULDER
WHEN WORK AREA ENCROACHES ON THE CENTERLINE

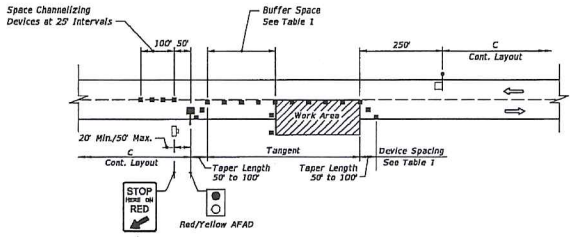
SPECIAL CONDITIONS

2	SPECIAL CONDITIONS

SCALE: NTS



LAYOUT FOR STOP/SLOW AFAD
METHOD 1 - 2 AFAD's



LAYOUT FOR RED/YELLOW AFAD
METHOD 2 - 1 AFAD & FLAGGER

AUTOMATED FLAGGER ASSISTANCE DEVICES (AFADs)

AUTOMATED FLAGGER ASSISTANCE DEVICES NOTES

1. Illuminate the flagging station when the AFAD is used at nighttime.

2. When the AFAD is not in use, remove or cover signs and move AFAD device outside the clear zone or shield it with a barrier or crash cushion.

3. Only qualified flaggers who have been trained in the operation of the AFAD may operate the AFAD. When in use, each AFAD must be in view of and attended at all times by the flagger operating the device. Use two flaggers and one of the following methods in the deployment of AFAD's:
   Method 1: Place an AFAD at each end of the temporary traffic control zone.
   Method 2: Place an AFAD at one end of the temporary traffic control zone and a flagger at the opposite end.

4. A single flagger may simultaneously operate two AFAD's (Method 1) or may operate a single AFAD on one end of the temporary traffic control zone while being the flagger at the opposite end of the temporary traffic control zone (Method 2) if all four of the following conditions are present:
   a. The flagger has an unobstructed view of the AFAD(s);
   b. The flagger has an unobstructed view of approaching traffic in both directions;
   c. For Method 1, the AFAD's are less than 800 ft apart. For Method 2, the AFAD and the flagger are less than 800 ft apart.
   d. Two trained flaggers are available on-site to provide normal flagging operations should an AFAD malfunction.

3	AUTOMATED FLAGGER ASSISTANCE DEVICES (AFADs)

SCALE: NTS

mobilitie

PROJECT NO:	8FLB000066
DRAWN BY:	RC
CHECKED BY:	SJB

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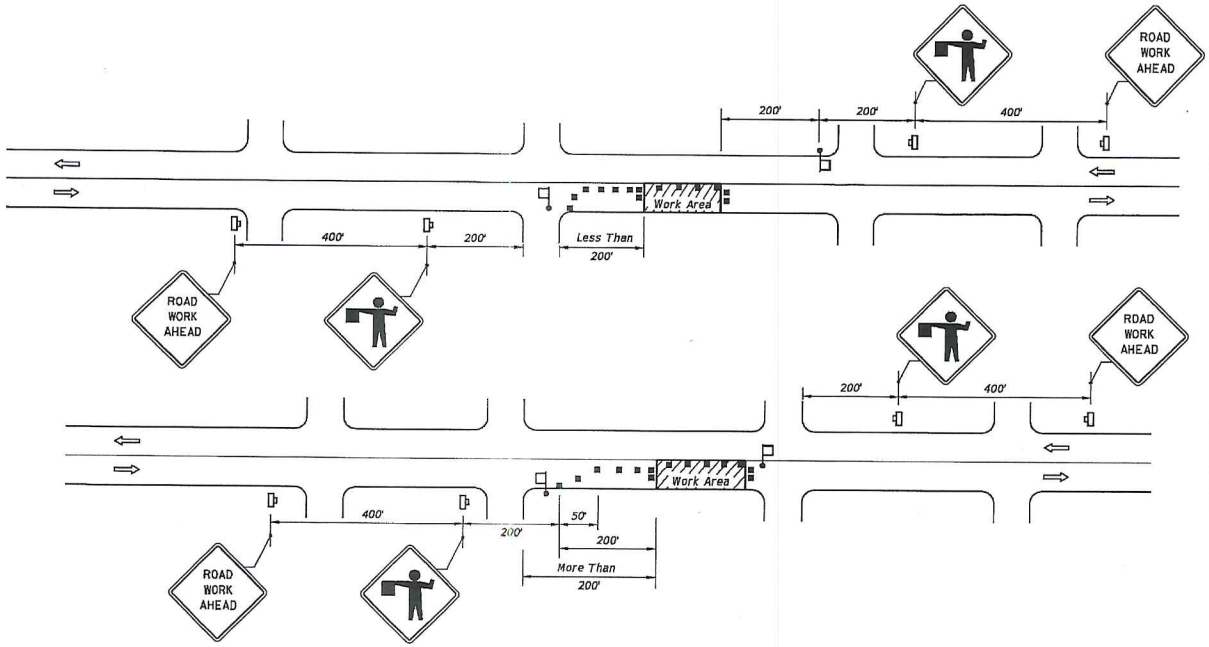
SHEET TITLE

TRAFFIC CONTROL PLAN

SHEET NUMBER

6.2



CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH ON THE PAVEMENT REQUIRING THE CLOSURE OF ONE TRAFFIC LANE, FOR WORK AREAS LESS THAN 200' DOWNSTREAM FROM AN INTERSECTION FOR A PERIOD OF MORE THAN 60 MINUTES.

CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH ON THE PAVEMENT REQUIRING THE CLOSURE OF ONE TRAFFIC LANE, FOR WORK AREAS 200' OR MORE DOWNSTREAM FROM AN INTERSECTION FOR A PERIOD OF MORE THAN 60 MINUTES.

SYMBOLS

- Work Area
- Channelizing Device
- Work Zone Sign
- Flagger
- Lane Identification + Direction of Traffic

GENERAL NOTES

1. Work operations shall be confined to one travel lane, leaving the opposing travel lane open to traffic.
2. When vehicles in a parking zone block the line of sight to TCZ signs or when TCZ signs encroach on a normal pedestrian walkway, the signs shall be post mounted and located in accordance with MUTCD.
3. If work area is confined to an outside auxiliary lane, the work area shall be barricaded and the FLAGGER signs replaced by ROAD WORK AHEAD signs. Flaggers are not required.
4. Flaggers shall be in sight of each other or in direct communication at all times.
5. The FLAGGER legend sign may be substituted for the symbol sign.
6. The maximum spacing between devices shall be no greater than 25.'
7. For general TCZ requirements and additional information, refer to MUTC
8. The two channelizing devices directly in front and directly at the end of th area may be omitted provided vehicles in the work area have high-intensit flashing, oscillating, or strobe lights operating.
9. Use Temporary Raised Rumble Strips in accordance with Index 603. Pl of Rumble Strips and additional signs should begin at FLAGGER sign loca

DURATION NOTES

1. ROAD WORK AHEAD sign may be omitted if all of the following conditions are met:
   a. Work operations are 60 minutes or less.
   b. Speed is 45 mph or less.
   c. No sight obstructions to vehicles approaching the work area for a distance of 600 feet.
   d. Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.
   e. Volume and complexity of the roadway has been considered.

1	TWO LANE, TWO WAY, WORK NEAR INTERSECTION

SCALE: NTS

mobilitie

PROJECT NO:	9FLB000066
DRAWN BY:	RC
CHECKED BY:	SJB

A	07-04-16	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC

Stephen A. Bray
PROFESSIONAL ENGINEER

PRELIMINARY
NOT FOR CONSTRUCTION

FL LICENSE: 68902 7/5/16

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JA90XS014F

SE 2 PL & SE 2ND ST
GAINESVILLE, FL 32601

UTILITY POLE

SHEET TITLE

TRAFFIC CONTROL PLAN

SHEET NUMBER

6.3

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 ACCESS TO SERVICES AND UTILITIES; 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 MARRED EXPOSED FINISHES.

PART 2 – FINAL 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 RUBBISH, WASTE MATERIALS, LITTER AND FOREIGN SUBSTANCES. SWEEP PAVED AREAS BROOM CLEAN. REMOVE PETRO-CHEMICAL SPILLS, STAINS AND OTHER FOREIGN DEPOSITS. RAKE GROUNDS THAT ARE NEITHER PLANTED NOR PAVED, TO A SMOOTH EVEN-TEXTURED SURFACE.
   - B. REMOVE TOOLS, 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, FREE OF STAINS, FILMS AND SIMILAR FOREIGN SUBSTANCES. AVOID DISTURBING NATURAL WEATHERING OF EXTERIOR SURFACES.
   - E. REMOVE DEBRIS FROM LIMITED ACCESS SPACES, INCLUDING HANDHOLES, MANHOLES, AND SIMILAR SPACES.
   - F. REMOVE LABELS THAT ARE NOT PERMANENT LABELS.
   - G. TOUCH UP AND OTHERWISE REPAIR AND RESTORE MARRED EXPOSED FINISHES AND SURFACES. REPLACE FINISHES AND SURFACES THAT CANNOT BE SATISFACTORILY REPAIRED OR RESTORED, OR THAT SHOW EVIDENCE OF REPAIR OR RESTORATION. DO NOT PAINT OVER "UL" AND SIMILAR LABELS, INCLUDING ELECTRICAL NAME PLATES.
   - H. LEAVE THE PROJECT CLEAN AND READY FOR OCCUPANCY.
   - I. DUST OFF ALL EQUIPMENT AND ITEMS 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 CONSTRUCTED TO PROVIDE A WELL DRAINED, 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 (IF REQUIRED).
   - C. PLACE AND MAINTAIN VEGETATION LANDSCAPING, IF INCLUDED WITHIN THE CONTRACT, AS RECOMMENDED BY NURSERY INDUSTRY STANDARDS.
4. SEQUENCING
   - A. CONFIRM 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 PLACING BASE MATERIALS.
   - D. GRADE, SEED, FERTILIZE, 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 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
     - MANUFACTURER'S DESCRIPTION OF PRODUCT AND WARRANTY STATEMENT ON SOIL STERILIZER.
     - MANUFACTURER'S DESCRIPTION OF PRODUCT ON GRASS SEED AND FERTILIZER.
     - LANDSCAPING WARRANTY STATEMENT
1. 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. SOIL STERILIZATION 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 EPA 10292-7 (313) 563-8000	PHASAR CORPORATION P.O. BOX 5123 DEARBORN, MI 48128
AMBUSH HERBICIDE EPA REGISTERED (800) 526-4924	FRAMAR INDUSTRIAL PRODUCTS 1435 MORRIS AVE. UNION, NJ 07083

   - B. ROAD AND SITE MATERIALS SHALL CONFORM TO STATE AND LOCAL DOT SPECIFICATIONS FILL MATERIAL (UNLESS OTHERWISE NOTED) – ACCEPTABLE SELECT FILL SHALL BE IN ACCORDANCE WITH STATE DEPARTMENT OF HIGHWAY AND TRANSPORTATION STANDARD SPECIFICATIONS.
   - C. SOIL STABILIZER FABRIC SHALL BE MIRAFI 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.
   - D. WHERE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, LINE THE AREAS WITH STABILIZER MAT PRIOR TO PLACEMENT OF FILL OR BASE MATERIAL.
3. INSTALLATION
   - A. CLEAR EXCESS SPOILS, IF ANY, FROM JOB SITE AND DO NOT SPREAD BEYOND THE LIMITS OF PROJECT AREA UNLESS AUTHORIZED BY PROJECT MANAGER AND AGREED TO BY LANDOWNER.
   - 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, DITCHES, AND DRAINAGE SWALES, NOT OTHERWISE RIPRAPPED.
   - D. APPLY SEED AND FERTILIZER TO SURFACE CONDITIONS WHICH WILL ENCOURAGE ROOTING. RAKE AREAS TO BE SEEDED TO EVEN THE SURFACE AND LOOSEN THE SOIL.
   - E. SOW SEED IN TWO DIRECTIONS IN TWICE THE QUANTITY RECOMMENDED BY THE SEED PRODUCER.
   - F. ENSURE GROWTH OF SEEDED AND LANDSCAPED AREA, BY WATERING, UP TO THE POINT OF RELEASE FROM THE CONTRACT. CONTINUE TO REWORK THE BARE AREAS UNTIL COMPLETE COVERAGE IS OBTAINED.
4. FIELD QUALITY CONTROL: COMPACT SOILS TO MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D-1557. AREAS OF SETTLEMENT WILL BE EXCAVATED AND REFILLED AT CONTRACTOR'S EXPENSE. INDICATE PERCENTAGE OF COMPACTION ACHIEVED ON AS-BUILT DRAWINGS.
5. PROTECTION
   - A. PROTECT SEEDED AREAS FROM EROSION BY SPREADING STRAW TO A UNIFORM LOOSE DEPTH OF 1-2 INCHES, STAKE AND TIE DOWN AS REQUIRED. USE OF EROSION CONTROL MESH OR MULCH NET WILL 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. WHERE THE SITE OR ROAD AREAS HAVE BEEN ELEVATED IMMEDIATELY ADJACENT TO THE RAIL LINE, STAKE EROSION CONTROL FABRIC FULL LENGTH IN THE SWALE TO PREVENT CONTAMINATION OF THE RAIL BALLAST. ALL EROSION CONTROL METHODS SHALL CONFORM TO APPLICABLE BUILDING CODE REQUIREMENTS.

mobilitie

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JA90XS014F

SE 2 PL & SE 2ND ST
GAINESVILLE, FL 32601

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 STARTING THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE ARCHITECT/ENGINEER LISTING ANY DISCREPANCIES OR CONFLICTING INFORMATION.
2. ELECTRICAL PLANS, DETAILS AND DIAGRAMS ARE DIAGRAMMATIC ONLY. VERIFY EXACT LOCATIONS AND MOUNTING HEIGHTS OR ELECTRICAL EQUIPMENT WITH OWNER PRIOR TO INSTALLATION.
3. 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 (O.S.H.A.)
4. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN GOOD WORKING CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED "U.L." 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, NBFU AND "U.L." LISTED.
5. ALL CONDUIT SHALL HAVE A PULL CORD.
6. PROVIDE PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS, AND CIRCUITS.
7. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C.
8. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY IBC, NEC AND ALL APPLICABLE CODES.
9. PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.
10. PLASTIC PLATES FOR ALL SWITCHES, RECEPTACLES, TELEPHONE AND BLANKED OUTLETS SHALL HAVE ENGRAVED LETTERING WHERE INDICATED ON THE DRAWINGS. WEATHERPROOF RECEPTACLES SHALL HAVE SIERRA #WPD-8 LIFT COVERPLATES.

SERVICE 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. METER SOCKET AMPERES, VOLTAGE, 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 U.L. LABEL GALVANIZED ZINC COATED WITH GALVANIZED ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR. RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.
   B. FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "JAKE" OR "SQUEEZE" TYPE. ALL FLEXIBLE CONDUITS SHALL HAVE FULL LENGTH GROUND WIRE.
   C. 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.
4. CONTRACTOR TO 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.
5. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS WITH WHITE ON BLUE BACKGROUND LETTERING (MINIMUM LETTER HEIGHT SHALL BE ONE FOURTH INCH (1/4"). NAMEPLATES SHALL BE FASTENED WITH STAINLESS STEEL SCREWS, NOT ADHESIVE.
6. 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. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.
7. GROUNDING ELECTRODE SYSTEM
   A. PREPARATION
      1. SURFACE PREPARATION: ALL CONNECTIONS SHALL BE MADE TO BARE METAL. ALL PAINTED SURFACES SHALL BE FIELD INSPECTED AND MODIFIED TO ENSURE PROPER CONTACT. NO WASHERS ARE ALLOWED BETWEEN THE ITEMS BEING GROUNDED. ALL CONNECTIONS ARE TO HAVE A NON-OXIDIZING AGENT APPLIED PRIOR TO INSTALLATION.
      2. IF CONDUCTORS MUST RUN THROUGH CONDUIT, BOTH ENDS OF CONDUIT SHALL BE GROUNDED. SEAL BOTH ENDS OF CONDUIT WITH SILICONE CAULK.
   B. EXTERNAL CONNECTIONS
1. ALL BURIED GROUNDING CONNECTIONS SHALL BE MADE BY THE EXOTHERMIC WELD PROCESS. CONNECTIONS SHALL INCLUDE ALL CABLE TO CABLE, SPLICES, TEE'S, CROSSES, ETC. ALL CABLE TO GROUND RODS, GROUND ROD SPLICES AND LIGHTNING PROTECTION SYSTEMS ARE TO BE AS INDICATED. 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 CONNECTED BY TWO HOLE CRIMP TYPE (COMPRESSION) CONNECTIONS (EXCEPT FOR THE ACEG 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 DOUBLE CRIMP TYPE CONNECTIONS. CONNECTIONS TO STRUCTURAL STEEL SHALL BE EXOTHERMIC WELDS.
   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 INDICATED. GROUND RODS SHALL BE DRIVEN FULL LENGTH VERTICAL IN UNDISTURBED EARTH.
   D. GROUND CONDUCTORS: ALL GROUND CONDUCTORS SHALL BE STANDARD TINNED SOLID BARE COPPER ANNEALED, AND OF SIZE INDICATED ON DRAWINGS UNLESS OTHERWISE NOTED.
   E. LUGS
      - LUGS SHALL BE 2-HOLE, LONG BARREL, STRAND COPPER UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS. LUGS SHALL BE THOMAS AND BETTS SERIES #54___BE OR EQUIVALENT

A. 535 MCM DLO		54880BE
B. 262 MCM DLO		54872BE
C. #1/0 DLO		54862BE
D. #4/0 THWN	AND BARE	54866BE
E. #2/0 THWN		54862BE
F. #2 THHN		54207BE
G. #6 DLO		54205BE

      - 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. 6 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

8. GROUNDING RESISTANCE TEST REPORT: UPON COMPLETION OF THE TESTING FOR EACH SITE, A TEST REPORT SHOWING RESISTANCE IN OHMS MUST BE SUBMITTED. TWO (2) SETS OF TEST DOCUMENTS FROM THE INDEPENDENT TESTING SERVICE 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. GROUNDING: GROUND METAL POLES WITH A MINIMUM OF #2 AWG TINNED SOLID BARE COPPER CONDUCTOR CADWELDED TO TOWER BASE PLATE.

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:
      - 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. WEATHERPROOF ALL CONNECTORS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE FEET (3') IN EXCESS OF EQUIPMENT LOCATION UNLESS OTHERWISE STATED.
      - LENGTHS LESS THAN OR EQUAL TO 100 FEET SHALL BE 7/8".
3. ANTENNA AND COAXIAL CABLE GROUNDING
   A. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS)
4. COAXIAL CABLE IDENTIFICATION
   A. TO PROVIDE EASY IDENTIFICATION AND UNIFORM MARKING OF ANTENNA CABLING, PLASTIC TAGS SHALL BE USED AT THE FOLLOWING LOCATIONS:
      - FIRST LOCATION IS AT THE END OF THE COAX NEAREST THE ANTENNA (WHERE THE COAXIAL CABLE AND JUMPER ARE CONNECTED).
      - SECOND LOCATION IS AT END OF THE COAX NEAREST THE EQUIPMENT.
   B. USE ANDREW CABLE TIES (PT.# 27290) TO SECURE IDENTIFICATION TAGS.
      - TESTING: LESSEE SHALL PROVIDE AN INDEPENDENT TESTING AGENCY TO PERFORM THE COAXIAL SWEEP TEST & REPORT. THE CONTRACTOR IS TO PROVIDE ONE LIMBER/QUALIFIED PERSONNEL TO ASSIST IN ANY REPAIRS AND WEATHERPROOFING ONCE THE TEST IS COMPLETE. THE CONTRACTOR IS TO PROVIDE LESSEE WITH A MINIMUM OF 48 HOURS NOTICE PRIOR TO THE TIME OF THE SWEEP TEST.

mobilitie

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JA90XS014F

SE 2 PL & SE 2ND ST
GAINESVILLE, FL 32601

UTILITY POLE

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-2

9FLB000073

CITY OF GAINESVILLE FLORIDA

Right of Way Permit Application

Checklist for Applicants:	For City Use Only
☐ Read and complete this form in full. ☐ Include necessary attachments listed below (Certificate of Insurance, Plans, etc.). ☐ Ensure Certificate of Insurance is current and lists City of Gainesville as additional insured. ☐ Submit to dg_pw_permits@cityofgainesville.org. ☐ If work dates unknown, notify Public Works 5 working days prior to start. Review can start without dates known, but permit will not be issued until provided.* ☐ After work completed, notify Public Works at email above to close out permit.	Permit #: _____ Date Received: _____ Date Approved: _____ Date Expires: _____ Please Allow Five (5) Business Days* for Review

Applicant Information

Applicant: Megan Sikes	Company: Mobilitie, LLC	Date Submitted: 6/22/16
Daytime Phone: (404) 989-8380	Email Address: megan.sikes@mobilitie.com	
Project Address: NE 2nd AVE & NE 1st St, Gainesville, FL 32601		
Primary Contractor Name: (If subcontractor or owner is applicant) Adrian Hunt	Primary Contractor Phone: (704) 860-5763	
Project Description: Installation of a utility pole within the right-of-way.		
Applicant's Signature: (Applicant attests to having read and understood the permit conditions and to comply with all requirements of the permit) Megan Sikes		

REQUESTED PERMIT TYPE: (CHECK ALL THAT APPLY)

☑	**Right of Way Permit** City of Gainesville Code of Ordinances, Chapter 23, Section 37 and 38. Chapter 23 of the City ordinances requires a permit for any activity that disrupts traffic, restricts access, or adds/modifies any infrastructure within the right of way or for any private use of the public right of way.	**Type of Facility to be Added/Modified or Impacted (check all that apply):** ☐ Roadway ☐ Sidewalk and/or Trail ☐ Parking Bay and/or Meters ☐ Bus Stop ☐ Event Only (e.g. Parade, Festival, etc.) ☑ Other (explain): Utility Pole **Traffic Control Plan (check and attach all that apply)** ☑ FDOT 600 Series Design Standard ☐ Project Specific Traffic Control Plan (Signed & Sealed) **Work Dates:** 7/25/2016 **To:** 7/25/2016 (*as described in the checklist at top of permit) **Work Times:** Day Work Only **FDOT AMOT Individual** **Name** TBD **Cert #** _____ **24 HR Phone #** _____ (Florida Department of Transportation Advanced Maintenance of Traffic Certification of individual responsible for implementation of Traffic Control Plan)	Submit in addition to this application: 1. Description of work to be performed (if not sufficiently described above). 2. Plans that show the location and dimensions of the proposed facility or utilization of ROW. 3. Traffic control site plan that meets FDOT standards -OR- Design Standard Index from FDOT 600 Series if applicable. 4. Appropriate surety bond and proof of insurance that names the City of Gainesville as additional insured. The City of Gainesville shall determine the amount of the surety bond. See Insurance Notes included in Page Two. 5. Construction cost estimate of the work to be performed within the Right of Way.
☐	**Construction Parking** Parking is for placarded company vehicles and construction equipment (i.e. loading & unloading) that need to access the construction site – this is NOT for construction employee parking. This excludes ADA parking.	**Effective Dates:** _____ **To:** _____	Submit in addition to this application: 1. Exact description of existing parking spaces effected immediately adjacent to the construction site (attach drawing if needed).

Surety Bond Information:

Dollar Value of Work: $4,500	**Surety Bond Posted:** ☐ YES ☐ NO	**Surety Bond Amount:** _____

Other Permits Associated with this project (if applicable):

BLDG Permit	☐ Applied For	☐ Approved	**BLDG Permit #** _____

ROW PERMIT REQUIREMENTS

1. Right of Way Permitting is subject to City of Gainesville Code of Ordinances, Chapter 23, Article III.
2. The permit application must include a detailed description, location, planned dates, the engineering details of the work, pavement restoration details (if applicable),a traffic control plan, a Certificate of Insurance, and a cost estimate of work to be performed in the right-of-way. All permitted work shall be done in accordance with the standards established by the City of Gainesville and under the supervision of the Public Works Director or designee.
3. A Certificate of Insurance (COI) must be submitted with the permit application. Commercial general liability insurance in the amount of at least $500,000 per occurrence for bodily injury and property damage for construction activities on city property is required. The policy must name the City of Gainesville as additional insured, and an endorsement must be issued as part of the policy reflecting this requirement (Section 23-38.(10)a. Gainesville Code of Ordinances).
4. Per the City Code of Ordinances, the Public Works Director or designee shall determine the Surety Bond, based upon the nature and extent of the work to be performed within the right-of-way or affects public infrastructure. The City of Gainesville shall utilize the construction cost estimate to determine this value of the Surety Bond.
5. All work in the right of way shall comply with the City of Gainesville Engineering Design & Construction Manual as authorized by the Gainesville Code of Ordinances Chapter 30. The manual can be found at http://www.gainesvillepublicworks.org/wp-content/uploads/2015-Engineering-Design-Construction-Manual.pdf
6. Traffic control plans shall comply with the MUTCD Chapter 6 and consist of FDOT 600 Series Indexes OR a project specific signed and sealed plan by a Florida Licensed Professional Engineer.
7. Traffic control must meet FDOT standards. Traffic control plans shall be prepared and implemented by someone with the Florida Department of Transportation Advanced Maintenance of Traffic Certification. The certification number or a copy of the certification card must be attached to the permit application.
8. The permit application must clearly identify an Advanced Certified Worksite Traffic Supervisor for the work site with their 24/7 emergency contact information.
9. Upon completion of the work, the permittee shall notify Public Works at 352-334-5070 to schedule a final inspection. The Surety Bond shall not be released or returned until the work is accepted by the City.
10. All property, both private and public, shall be restored to its original condition or better, as determined by the Public Works Director or designee.
11. The construction and maintenance of such utility shall not interfere with the property and rights of a prior occupant.
12. All materials and equipment shall be subject to inspection and approval by the Public Works Director or designee.
13. All overhead installations shall conform to clearance standards of the Florida Department of Transportation, and all underground crossing installations shall be laid at a minimum depth of thirty (30) inches below the pavement and at least twelve (12) inches below ditch grade. Exceptions may be made in special cases in writing by authority from the Public Works Director or designee.
14. It is expressly stipulated that this permit is a license for permissive use only and that the placing of facilities upon public property pursuant to this permit shall not create or vest any property rights in said holder.
15. Whenever necessary for the purpose of construction, repair, improvement, alteration, or relocation of all, or any portion of the City's facilities located on said right-of-way or easement, as determined by the Public Works Director or designee, any or all of said poles, wires, pipes, cables or other facilities and appurtenances authorized hereunder, shall be immediately removed, reset, or relocated from or on said right-of-way or easement as required by the Public Works Director or designee, and at the expense of the permittee.
16. The permittee will be responsible for the cost to correct or repair any damages to public infrastructure caused directly or indirectly by the permittee's facilities.
17. Unless the permittee is a member of Sunshine One Call locating services or their successors as prescribed by the State of Florida, the permittee will hold harmless the City or any other public utility for any damages to the permittee's utility facilities due to construction work being done within the right of way.
18. The permittee shall commence actual construction in good faith as described within the permit. If needed, the contractor can request a modification of the construction dates. Contact the permit coordinator at (352) 334-5070 or email at dg_pw_permits@cityofgainesville.org.
19. The City of Gainesville discourages full road closures. Full road closures will not be granted without justification and written permission from the Public Works Director or designee. The permit holder is responsible for all traffic control and traffic detour work and expense.
20. Permittee declares that prior to filing this application it has determined the presence of all existing utilities at the permit location, both aerial and underground. Permittee also declares that due notice of work under application was furnished to each utility involved. Permittee further declares the field utility locations will be made in accordance with FS Chapter 556 prior to any excavation or probing activities. Permittee shall immediately notify emergency services agencies via calling 911 in the event of an incident with buried facilities such as gas pipelines.
21. Permittee shall indemnify, defend, save and hold harmless the City, its elected and appointed officials, from all claims, demands, suits, liabilities, damages, losses and expenses, for bodily injury or death to persons or damage to property, including reasonable attorney's fees and costs, resulting from or arising out of the above permitted activity by the Permittee, its contractors, subcontractors, agents, employees or representatives.
22. This permit does not in any way supersede present ordinances adopted by the City of Gainesville.
23. If a parking meter(s) is being blocked, the appropriate fees must be paid to compensate for the loss of those revenues for the duration of the closure.
24. Permit review committee includes Gainesville Fire Rescue; Gainesville Police Department; Regional Transit System (RTS); City of Gainesville Risk Management; and Public Works Engineering.

Construction Parking

1. Construction Parking Permits are subject to: (includes up to 5 spaces) Permitted uses include loading, unloading, dumpster, portalet, etc.
2. Parking is for placarded company vehicles and equipment with Construction Parking permits (i.e. loading & unloading) that need to access the construction site – this is NOT for construction employee parking. This excludes ADA parking.
3. If approved, this parking request is granted ONLY for the dates and times indicated above with appropriate fee payment to the City of Gainesville. Signage will be removed from the site on the end date/time specified above, unless a request for extension has been received 5 business days prior to the end date/time originally approved.
4. Approval of this parking request is granted ONLY for the dates and times indicated on the request.
5. Any City equipment/materials indicating construction parking will be removed from the site on the end date/time specified, unless a request for extension has been received in writing 5 business days prior to the end date/time originally approved.
6. Construction parking can only be designated in existing parking spaces immediately adjacent to the construction site.
7. *Allow 10 business days for application processing.

SITE ID: 9FLB000073/JA90XS021E
NE 2ND AVE & NE 1ST ST
GAINESVILLE, FL 32601

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 DISTURBANCE OF EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

SITE INFORMATION

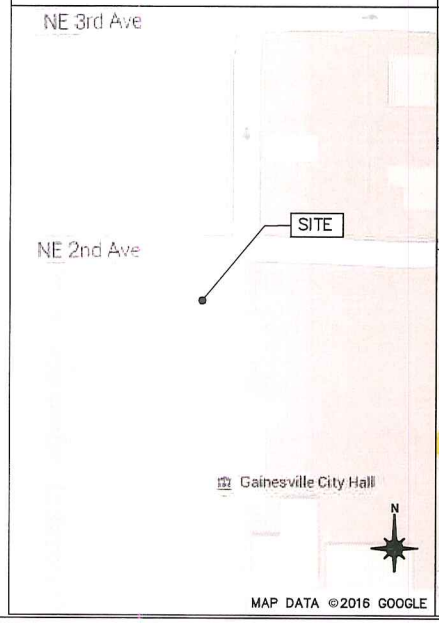
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY
ADDRESS/CROSS ST:	NE 2ND AVE & NE 1ST ST GAINESVILLE, FL 32601
APPLICANT:	MOBILITIE, LLC
APPLICANT ADDRESS:	925B PEACHTREE ST. NE SUITE 710 ATLANTA, GA 30309 PHONE: (312) 638-5400
POLE ID:	9FLB000073E
LATITUDE:	29.653247
LONGITUDE:	-82.323239
LAT/LONG TYPE:	NAD 83/NAVD 88
GROUND ELEVATION:	±173' AMSL
COUNTY:	ALACHUA COUNTY
JURISDICTION:	GAINESVILLE CITY

BEFORE SCALING DRAWINGS

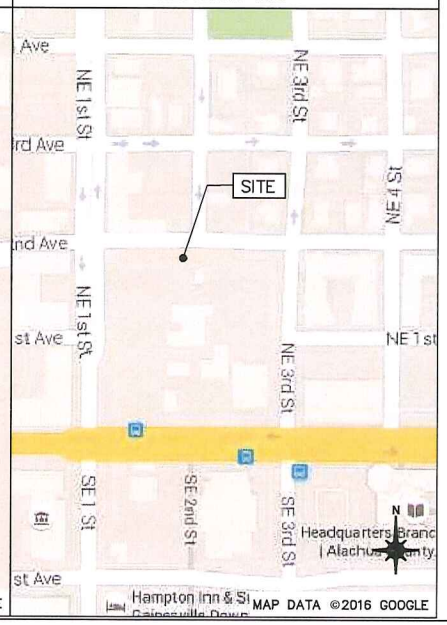
CONTRACTORS SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

LOCATION MAPS

VICINITY MAP



REGIONAL MAP



PROJECT DESCRIPTION

END USER PROPOSES TO INSTALL A PROPOSED WOOD UTILITY POLE WITH PROPOSED BACKHAUL TRANSPORT EQUIPMENT WITHIN AN EXISTING RIGHT-OF-WAY.

CODES

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 ELEVATION
2.1	POLE ELEVATION
2.2	POLE ELEVATION
3.0	ANTENNA & EQUIPMENT MOUNTING DETAILS
3.1	ANTENNA & EQUIPMENT MOUNTING DETAILS
4.0	ELECTRICAL DETAILS
5.0	GROUNDING DETAILS
6.0	EQUIPMENT AND SAFETY LABELS
GN-2	GENERAL NOTES
GN-2	GENERAL NOTES
TC-1	TRAFFIC CONTROL PLAN

TELECOMMUNICATIONS TECHNICAL SERVICES
9335 INDUSTRIAL TRACE
ALPHARETTA, GA 30004
TEL: (770) 521-9137
FAX: (770) 521-9139

mobilitie
intelligent infrastructure

MOBILITIE, LLC

PROJECT NO.	TBD
DRAWN BY	JSC
CHECKED BY	TBD

VERSION	DATE	DESCRIPTION
0	06/09/16	ISSUED FOR REVIEW

IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT

SITE ID: 9FLB000073/JA90XS021E
NE 2ND AVE & NE 1ST ST
GAINESVILLE, FL 32601
UTILITY POLE

SHEET TITLE
TITLE SHEET

SHEET NUMBER
0.0

EXHIBIT PHOTO

SCALE: NOT TO SCALE

1

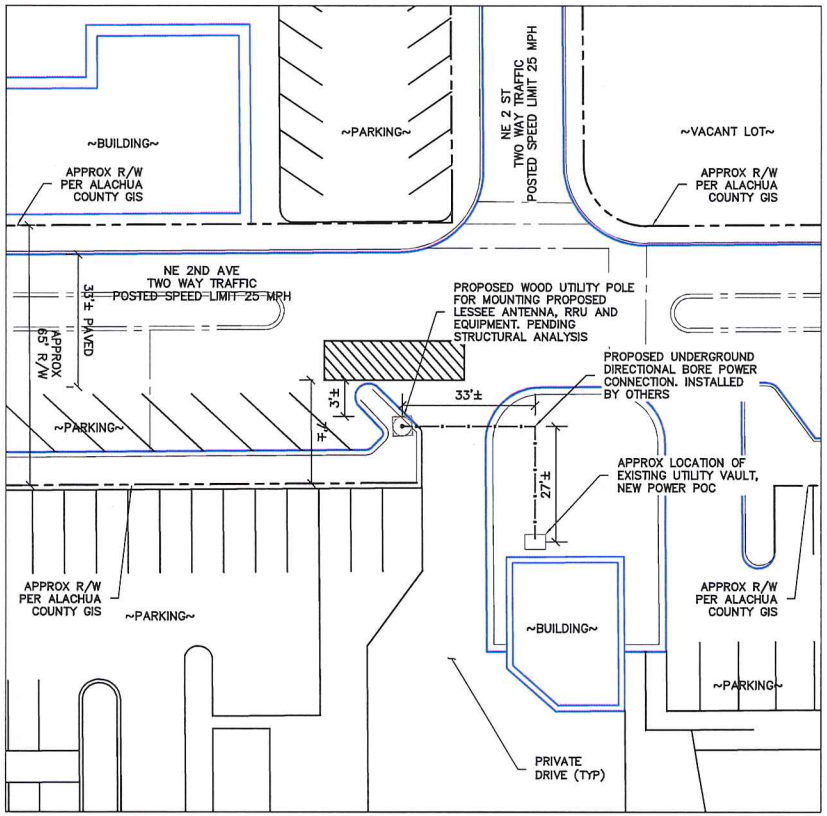
AERIAL SITE LOCATION

SCALE: NOT TO SCALE

2

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

NOTE:
ALL DISTURBED AREAS OF THE RIGHT OF WAY ARE TO BE REPAIRED AND SODDED



ENLARGED SITE PLAN

SCALE: 1" = 30' (1" = 15' ON 22"x34" SHEET)

3

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NE 2ND AVE & NE 1ST ST
GAINESVILLE, FL 32601

UTILITY POLE

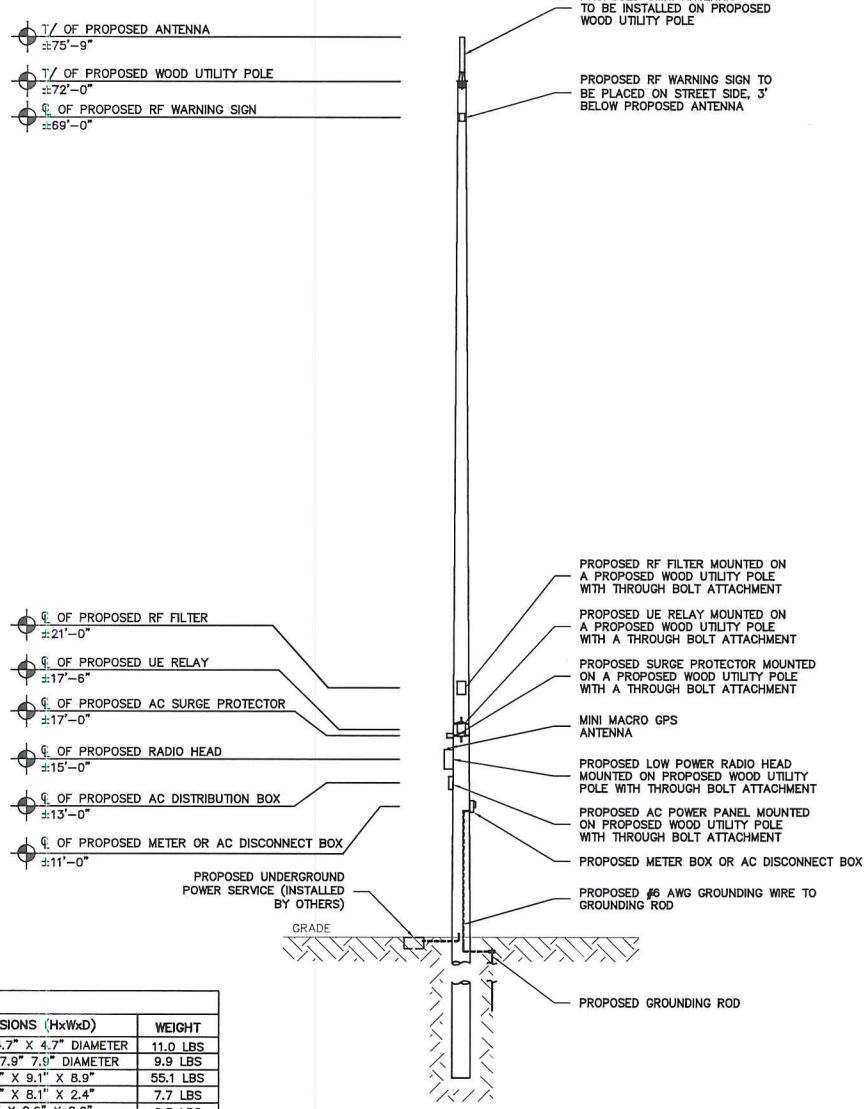
SHEET TITLE

SITE PLAN & EXHIBIT PHOTO

SHEET NUMBER

1.0

"TELETECHSERV, GA" HAS NOT PERFORMED A STRUCTURAL EVALUATION FOR THIS PROJECT.



EQUIPMENT CHART			
QUANTITY	DESCRIPTION	DIMENSIONS (HxWxD)	WEIGHT
1	OMNI ANTENNA	35.4" X 4.7" X 4.7" DIAMETER	11.0 LBS
1	UE RELAY	13.0" X 7.9" 7.9" DIAMETER	9.9 LBS
1	LOW POWER RADIO HEAD	20.1" X 9.1" X 8.9"	55.1 LBS
1	RF FILTER	13.6" X 8.1" X 2.4"	7.7 LBS
1	GPS ANTENNA	0.8" X 2.6" X 2.6"	0.3 LBS
1	AC POWER PANEL	13.1" X 11.4" X 4.4"	TBD
1	SURGE PROTECTOR	2.5" X 4.5" X 6.7"	N/A
1	METER BOX / AC DISCONNECT BOX	TBD	TBD

FRONT POLE ELEVATION

SCALE: 1" = 10'

1

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NE 2ND AVE & NE 1ST ST
GAINESVILLE, FL 32601

UTILITY POLE

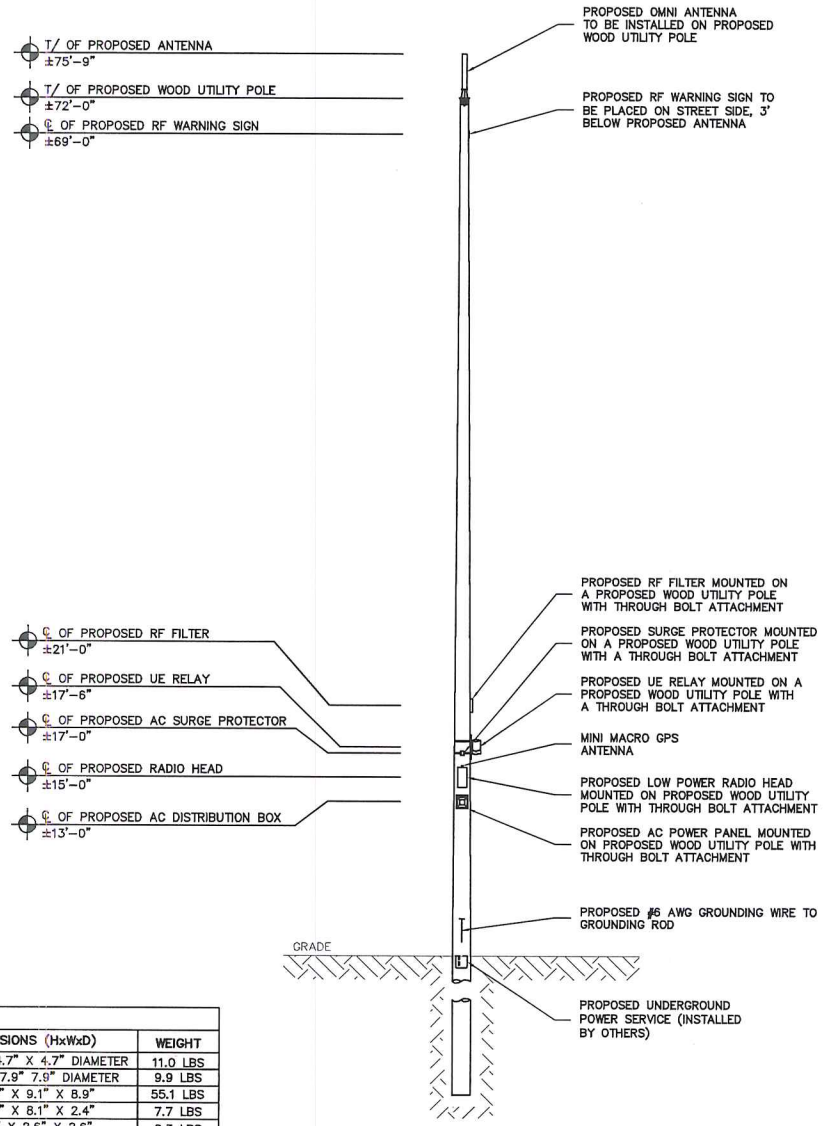
SHEET TITLE

POLE ELEVATION

SHEET NUMBER

2.0

"TELETECHSERV, GA" HAS NOT PERFORMED A STRUCTURAL EVALUATION FOR THIS PROJECT.



EQUIPMENT CHART			
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1	OMNI ANTENNA	35.4" X 4.7" X 4.7" DIAMETER	11.0 LBS
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1	AC POWER PANEL	13.1" X 11.4" X 4.4"	TBD
1	SURGE PROTECTOR	2.5" X 4.5" X 6.7"	N/A
1	METER BOX / AC DISCONNECT BOX	TBD	TBD

SIDE POLE ELEVATION

SCALE: 1" = 10'

1

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SITE ID: 9FLB000073/JA90XS021E

NE 2ND AVE & NE 1ST ST
GAINESVILLE, FL 32601

UTILITY POLE

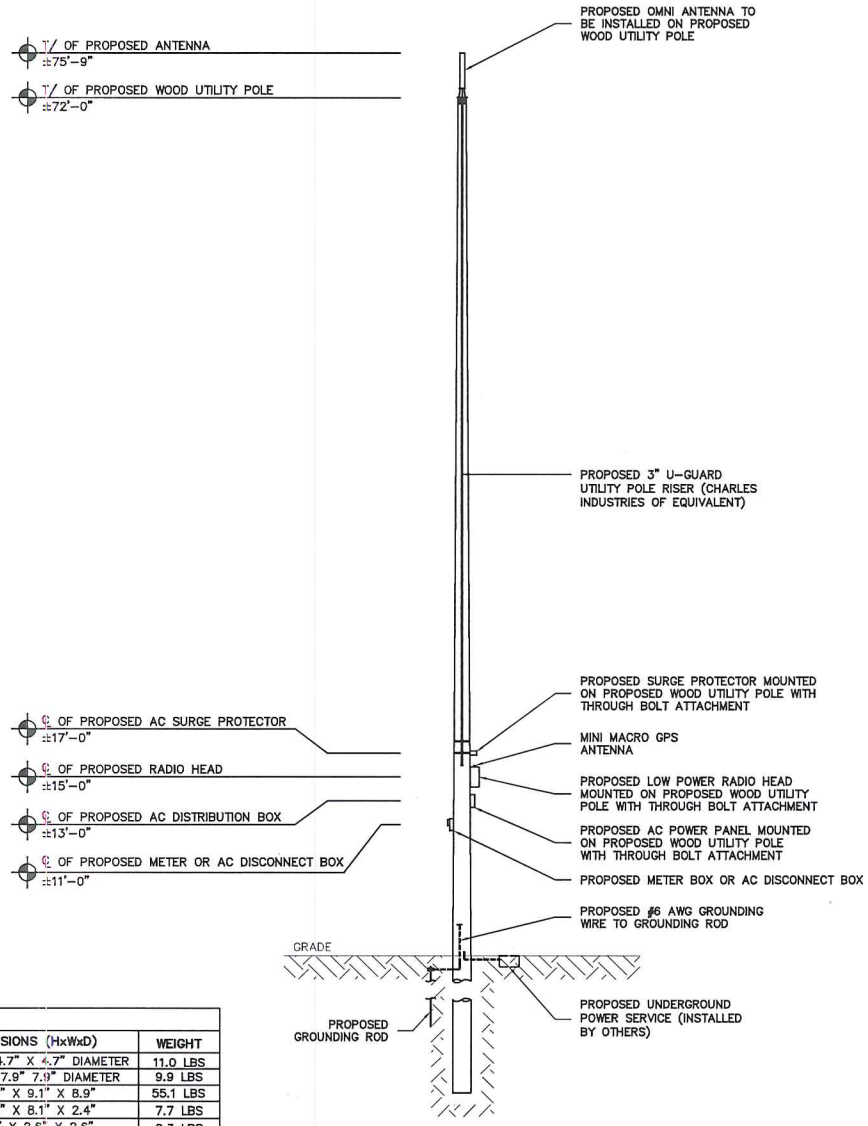
SHEET TITLE

POLE ELEVATION

SHEET NUMBER

2.1

"TELETECHSERV, GA" HAS NOT PERFORMED A STRUCTURAL EVALUATION FOR THIS PROJECT.



EQUIPMENT CHART			
QUANTITY	DESCRIPTION	DIMENSIONS (HxWxD)	WEIGHT
1	OMNI ANTENNA	35.4" X 4.7" X 4.7" DIAMETER	11.0 LBS
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1	AC POWER PANEL	13.1" X 11.4" X 4.4"	TBD
1	SURGE PROTECTOR	2.5" X 4.5" X 6.7"	N/A
1	METER BOX / AC DISCONNECT BOX	TBD	TBD

BACK POLE ELEVATION

SCALE: 1" = 10'

1

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SITE ID: 9FLB000073/JA90XS021E

NE 2ND AVE & NE 1ST ST
GAINESVILLE, FL 32601

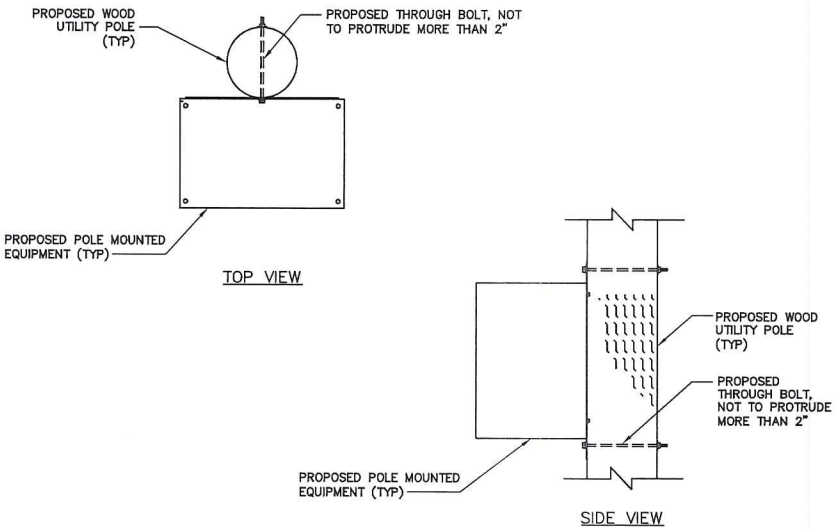
UTILITY POLE

SHEET TITLE

POLE ELEVATION

SHEET NUMBER

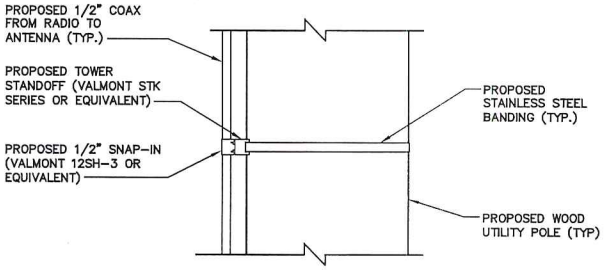
2.2



EQUIPMENT THROUGH BOLT CONNECTION

SCALE: NOT TO SCALE

1

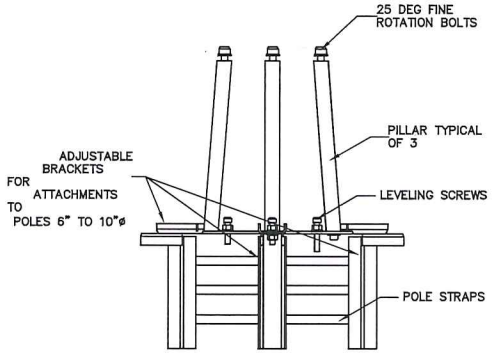


NOTE:
SPACE SNAP-INS PER CABLE MANUFACTURER'S SPECIFICATIONS.

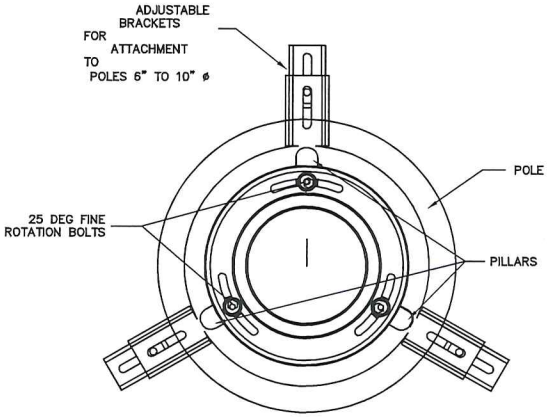
COAX CABLE MOUNTING DETAIL

SCALE: NOT TO SCALE

2



NOTES:
1. MOUNTING BRACKET ACCOMMODATES POLE SIZES FROM 6" TO 10" DIAMETER.
2. MOUNTING BRACKET MAY BE USED FOR WOOD & METAL POLES.
3. "TELETECHSERV, GA" HAS NOT PERFORMED A STRUCTURAL EVALUATION FOR THE MOUNTING BRACKET. REFER TO THE MANUFACTURER FOR ADDITIONAL INFORMATION.



ANTENNA MOUNTING DETAIL

SCALE: NOT TO SCALE

3

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NE 2ND AVE & NE 1ST ST
GAINESVILLE, FL 32601

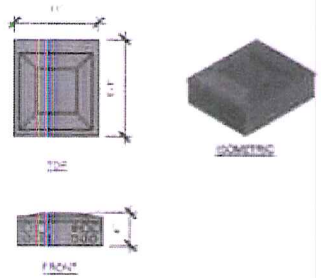
UTILITY POLE

SHEET TITLE

ANTENNA & EQUIPMENT MOUNTING DETAILS

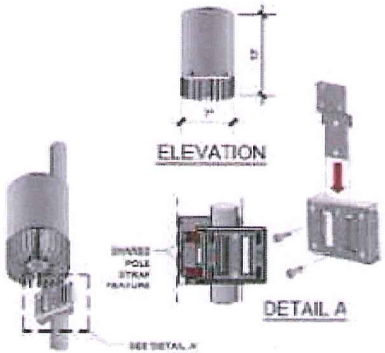
SHEET NUMBER

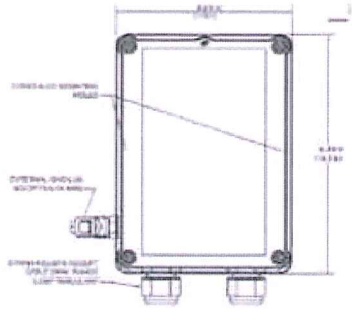
3.0



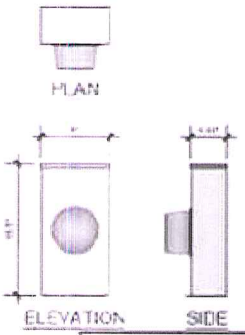
NOT USED — SCALE: NOT TO SCALE — X

POWER BOX — SCALE: NOT TO SCALE — 1



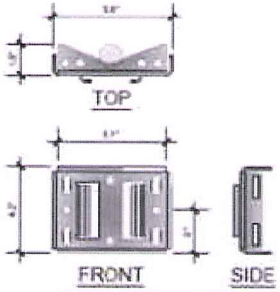


SURGE PROTECTOR — SCALE: NOT TO SCALE — X

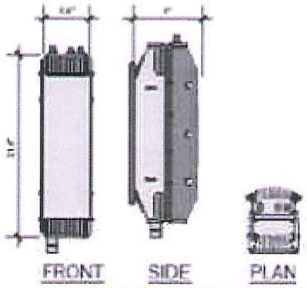


NOT USED — SCALE: NOT TO SCALE — X

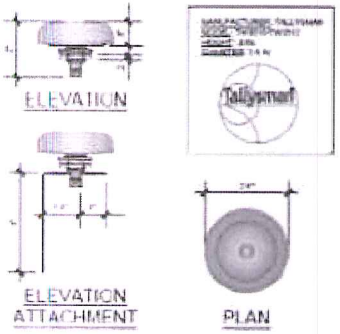
METER SOCKET — SCALE: NOT TO SCALE — 2



RELAY ANTENNA — SCALE: NOT TO SCALE — 3

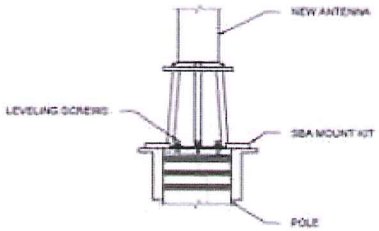


REMOTE RADIO UNIT — SCALE: NOT TO SCALE — 4

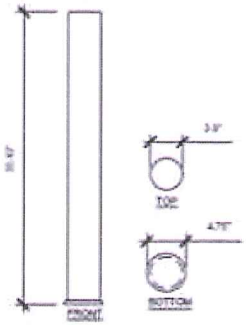


NOT USED — SCALE: NOT TO SCALE — X

GPS ANTENNA — SCALE: NOT TO SCALE — 5



MOUNTING KIT — SCALE: NOT TO SCALE — 6



OMNI ANTENNA — SCALE: NOT TO SCALE — 7

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MOBILITIE, LLC

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CHECKED BY	TBD

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SITE ID: 9FLB000073/JA90XS021E

NE 2ND AVE & NE 1ST ST
GAINESVILLE, FL 32601

UTILITY POLE

SHEET TITLE
ANTENNA & EQUIPMENT MOUNTING DETAILS

SHEET NUMBER
3.1

UTILITY 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. THE PROVISIONS, INSTALLATION AND CONNECTION OF A GROUNDING 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/OR INDICATED ON PLANS.
3. THE PROVISION AND INSTALLATION OF CONDUIT AND CONNECTIONS FOR LOCAL FIBER SERVICE.
4. THE FURNISHING AND INSTALLATION OF THE ELECTRICAL SERVICE ENTRANCE CONDUCTORS, CONDUITS, METER SOCKET, AND CONNECTIONS TO THE SERVICE EQUIPMENT.
5. ALL CONDUITS SHOULD BE LEFT WITH NYLON PULL CORD 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. 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
   - N.E.M.A. NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
   - U.L. UNDERWRITERS LABORATORIES, INC.
   - N.F.P.A. NATIONAL FIRE PROTECTION ASSOCIATION

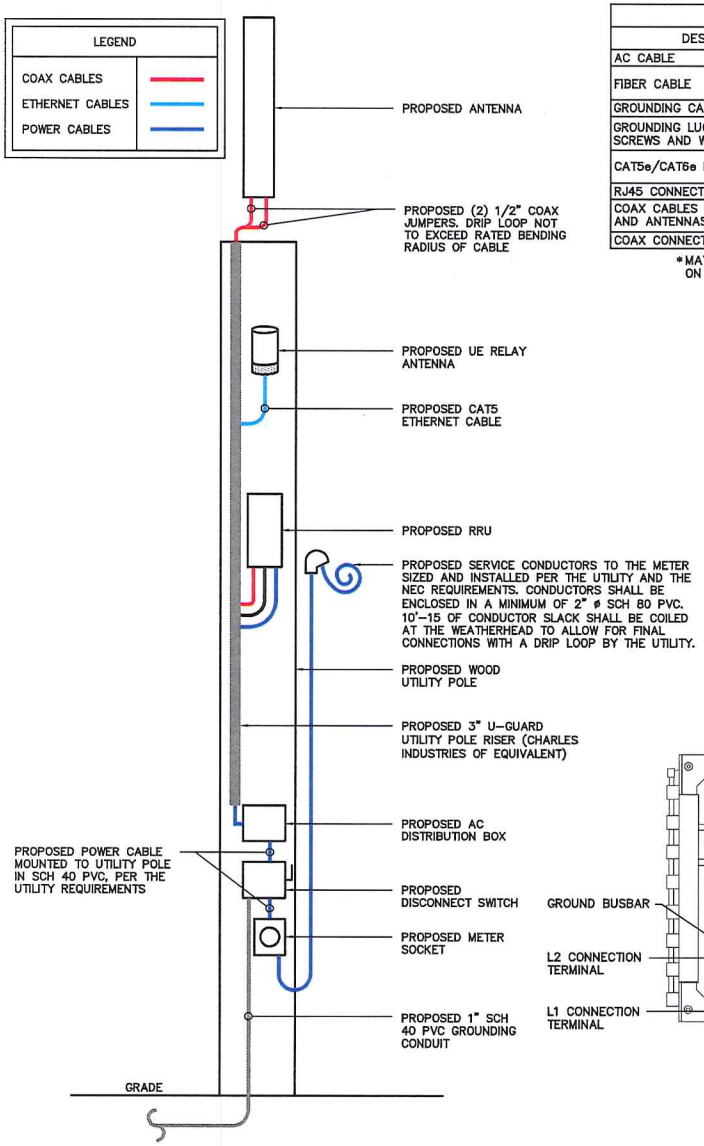
RACEWAYS AND WIRING:

1. WIRING OF EVERY KIND MUST BY 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, 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 AND WIRING. PROVIDE JUNCTION AND PULLBOXES FOR CONDUIT RUNS WITH MORE THAN (360) DEGREES OF BENDS.
5. PROVIDE A COMPLETE RACEWAY AND WIRING INSTALLATION, PERMANENTLY AND EFFECTIVELY GROUNDED 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 ARCHITECT/ENGINEER BEFORE SUBMITTING BID. ALL EQUIPMENT FURNISHED BY OTHERS (FBO) SHALL BE PROVIDED WITH PROPER MOTOR STARTERS, DISCONNECTS, CONTROLS, ETC. BY THE ELECTRICAL CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE. THE ELECTRICAL CONTRACTOR SHALL INSTALL AND COMPLETELY WIRE ALL ASSOCIATED EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S WIRE DIAGRAMS AND AS REQUIRED FOR A COMPLETE OPERATING INSTALLATION. ELECTRICAL CONTRACTOR SHALL VERIFY AND COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF (FBO) EQUIPMENT PRIOR TO ROUGH-IN OF CONDUIT AND WIRING TO AVOID CONFLICTS.

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, METER SOCKETS, PRIMARY CABLE RACEWAY REQUIREMENTS, SECONDARY SERVICE, ETC. PRIOR TO SUBMITTING BID TO INCLUDE 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 LOCAL UTILITY COMPANY PRIOR TO SUBMITTING BID. ADJUST A.I.C. RATINGS OF ALL OVER CURRENT PROTECTION DEVICES IN DISTRIBUTION EQUIPMENT AS REQUIRED TO COORDINATE WITH AVAILABLE FAULT CURRENT FROM LOCAL UTILITY COMPANY.

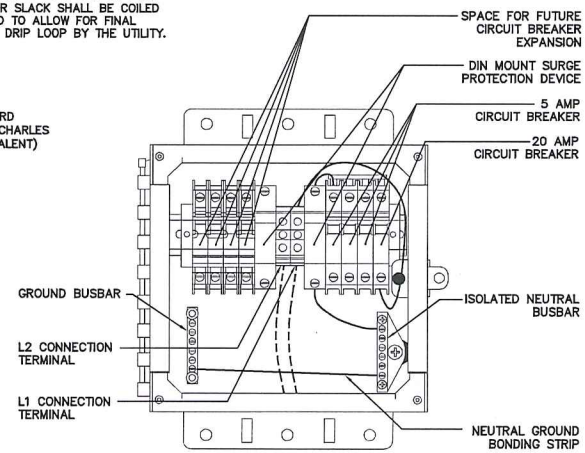
LEGEND	
COAX CABLES	
ETHERNET CABLES	
POWER CABLES	



TYPICAL CABLING CHART *	
DESCRIPTION	SIZE/QUANTITY
AC CABLE	12AWG; LENGTH VARIES BY SITE
FIBER CABLE	LENGTH VARIES BY SITE; 8 LENGTHS AVAILABLE: 10,15,30,50,75,100,150,200m
GROUNDING CABLE, STANDARD #6AWG	LENGTH VARIES BY SITE
GROUNDING LUG W/ M6x12 MOUNTING SCREWS AND WASHERS	SIZED FOR 6AWG CABLE
CAT5e/CAT6e ETHERNET	SHIELDED & ARMORED WHERE REQUIRED OUTSIDE OF CONDUITS
RJ45 CONNECTORS	STD. CAT5e/CAT6e
COAX CABLES – RADIOS TO FILTER AND ANTENNAS	LENGTH VARIES BY SITE. JUMPERS & COAX SHALL BE AMPHENOL 1/2 HELIAX.
COAX CONNECTORS	CONNECTORS SHALL BE AMPHENOL.

*MATERIALS, SIZES & QUANTITIES WILL VARY DEPENDING ON EQUIPMENT MOUNTING HEIGHTS AND BACKHAUL TYPE.

NOTE:
CABLING DIAGRAM IS FOR CLARITY OF CABLE ROUTE AND TERMINATION ONLY. CONTRACTOR SHALL INSTALL CABLES WITH MINIMAL VISUAL IMPACT ON PROPOSED WOOD POLE. SEE ELEVATION DRAWING FOR EQUIPMENT AND ANTENNA LOCATIONS.



AC PANEL
NTS

CABLING DIAGRAM | 1

SCALE: NOT TO SCALE

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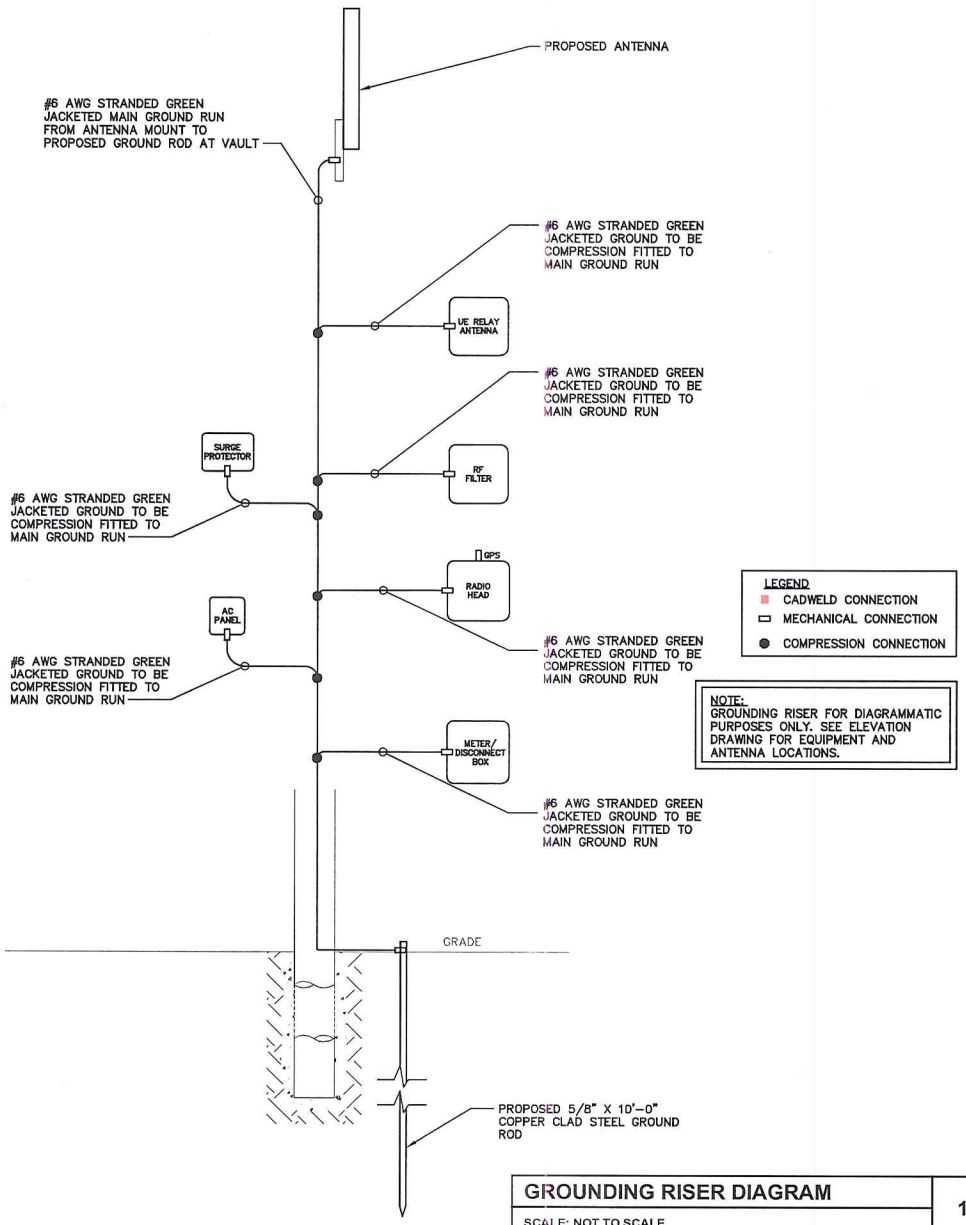
SITE ID: 9FLB000073/JA90XS021E

NE 2ND AVE & NE 1ST ST
GAINESVILLE, FL 32601

UTILITY POLE

SHEET TITLE
ELECTRICAL DETAILS

SHEET NUMBER
4.0



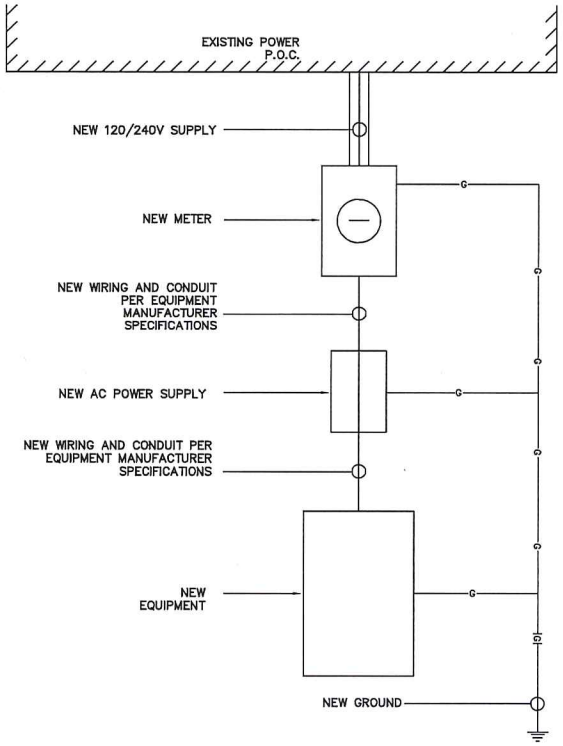
LEGEND
- CADWELD CONNECTION
- MECHANICAL CONNECTION
- COMPRESSION CONNECTION

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

GROUNDING RISER DIAGRAM

SCALE: NOT TO SCALE

1



BASIC ONE-LINE DIAGRAM

SCALE: NOT TO SCALE

2

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SITE ID: 9FLB000073/JA90XS021E

NE 2ND AVE & NE 1ST ST
GAINESVILLE, FL 32601

UTILITY POLE

SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER

5.0

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 ACCESS TO SERVICES AND UTILITIES; 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 MARRED EXPOSED FINISHES.

PART 2 – FINAL 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 RUBBISH, WASTE MATERIALS, LITTER AND FOREIGN SUBSTANCES. SWEEP PAVED AREAS BROOM CLEAN. REMOVE PETRO–CHEMICAL SPILLS, STAINS AND OTHER FOREIGN DEPOSITS. RAKE GROUNDS THAT ARE NEITHER PLANTED NOR PAVED, TO A SMOOTH EVEN–TEXTURED SURFACE.
   - B. REMOVE TOOLS, 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, FREE OF STAINS, FILMS AND SIMILAR FOREIGN SUBSTANCES. AVOID DISTURBING NATURAL WEATHERING OF EXTERIOR SURFACES.
   - E. REMOVE DEBRIS FROM LIMITED ACCESS SPACES, INCLUDING HANDHOLES, MANHOLES, AND SIMILAR SPACES.
   - F. REMOVE LABELS THAT ARE NOT PERMANENT LABELS.
   - G. TOUCH UP AND OTHERWISE REPAIR AND RESTORE MARRED EXPOSED FINISHES AND SURFACES. REPLACE FINISHES AND SURFACES THAT CANNOT BE SATISFACTORILY REPAIRED OR RESTORED, OR THAT SHOW EVIDENCE OF REPAIR OR RESTORATION. DO NOT PAINT OVER "UL" AND SIMILAR LABELS, INCLUDING ELECTRICAL NAME PLATES.
   - H. LEAVE THE PROJECT CLEAN AND READY FOR OCCUPANCY.
   - I. DUST OFF ALL EQUIPMENT AND ITEMS 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 CONSTRUCTED TO PROVIDE A WELL DRAINED, 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 (IF REQUIRED).
   - C. PLACE AND MAINTAIN VEGETATION LANDSCAPING, IF INCLUDED WITHIN THE CONTRACT, AS RECOMMENDED BY NURSERY INDUSTRY STANDARDS.
4. SEQUENCING
   - A. CONFIRM 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 PLACING BASE MATERIALS.
   - D. GRADE, SEED, FERTILIZE, 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 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. MANUFACTURER'S DESCRIPTION OF PRODUCT AND WARRANTY STATEMENT ON 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. SOIL STERILIZATION 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 EPA 10292–7 (313) 563–8000	PHASAR CORPORATION P.O. BOX 5123 DEARBORN, MI 48128
AMBUSH HERBICIDE EPA REGISTERED (800) 526–4924	FRAMAR INDUSTRIAL PRODUCTS 1435 MORRIS AVE. UNION, NJ 07083

   - B. ROAD AND SITE MATERIALS SHALL CONFORM TO STATE AND LOCAL DOT SPECIFICATIONS FILL MATERIAL (UNLESS OTHERWISE NOTED) – ACCEPTABLE SELECT FILL SHALL BE IN ACCORDANCE WITH STATE DEPARTMENT OF HIGHWAY AND TRANSPORTATION STANDARD SPECIFICATIONS.
   - C. SOIL STABILIZER FABRIC SHALL BE MIRAFI 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.
   - D. WHERE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, LINE THE AREAS WITH STABILIZER MAT PRIOR TO PLACEMENT OF FILL OR BASE MATERIAL.
3. INSTALLATION
   - A. CLEAR EXCESS SPOILS, IF ANY, FROM JOB SITE AND DO NOT SPREAD BEYOND THE LIMITS OF PROJECT AREA UNLESS AUTHORIZED BY PROJECT MANAGER AND AGREED TO BY LANDOWNER.
   - 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, DITCHES, AND DRAINAGE SWALES, NOT OTHERWISE RIPRAPPED.
   - D. APPLY SEED AND FERTILIZER TO SURFACE CONDITIONS WHICH WILL ENCOURAGE ROOTING. RAKE AREAS TO BE SEEDED TO EVEN THE SURFACE AND LOOSEN THE SOIL.
   - E. SOW SEED IN TWO DIRECTIONS IN TWICE THE QUANTITY RECOMMENDED BY THE SEED PRODUCER.
   - F. ENSURE GROWTH OF SEEDED AND LANDSCAPED AREA, BY WATERING, UP TO THE POINT OF RELEASE FROM THE CONTRACT. CONTINUE TO REWORK THE BARE AREAS UNTIL COMPLETE COVERAGE IS OBTAINED.
4. FIELD QUALITY CONTROL: COMPACT SOILS TO MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D–1557. AREAS OF SETTLEMENT WILL BE EXCAVATED AND REFILLED AT CONTRACTOR'S EXPENSE. INDICATE PERCENTAGE OF COMPACTION ACHIEVED ON AS–BUILT DRAWINGS.
5. PROTECTION
   - A. PROTECT SEEDED AREAS FROM EROSION BY SPREADING STRAW TO A UNIFORM LOOSE DEPTH OF 1–2 INCHES, STAKE AND TIE DOWN AS REQUIRED. USE OF EROSION CONTROL MESH OR MULCH NET WILL 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. WHERE THE SITE OR ROAD AREAS HAVE BEEN ELEVATED IMMEDIATELY ADJACENT TO THE RAIL LINE, STAKE EROSION CONTROL FABRIC FULL LENGTH IN THE SWALE TO PREVENT CONTAMINATION OF THE RAIL BALLAST. ALL EROSION CONTROL METHODS SHALL CONFORM TO APPLICABLE BUILDING CODE REQUIREMENTS.

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MOBILITIE, LLC

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SITE ID: 9FLB000073/JA90XS021E

NE 2ND AVE & NE 1ST ST
GAINESVILLE, FL 32601

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 STARTING THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE ARCHITECT/ENGINEER LISTING ANY DISCREPANCIES OR CONFLICTING INFORMATION.
2. ELECTRICAL PLANS, DETAILS AND DIAGRAMS ARE DIAGRAMMATIC ONLY. VERIFY EXACT LOCATIONS AND MOUNTING HEIGHTS OR ELECTRICAL EQUIPMENT WITH OWNER PRIOR TO INSTALLATION.
3. 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 (O.S.H.A.)
4. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN GOOD WORKING CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED "U.L." 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, NBFU AND "U.L." LISTED.
5. ALL CONDUIT SHALL HAVE A PULL CORD.
6. PROVIDE PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS, AND CIRCUITS.
7. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C.
8. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY IBC, NEC AND ALL APPLICABLE CODES.
9. PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.
10. PLASTIC PLATES FOR ALL SWITCHES, RECEPTACLES, TELEPHONE AND BLANKED OUTLETS SHALL HAVE ENGRAVED LETTERING WHERE INDICATED ON THE DRAWINGS. WEATHERPROOF RECEPTACLES SHALL HAVE SIERRA #WPD-8 LIFT COVERPLATES.

SERVICE 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. METER SOCKET AMPERES, VOLTAGE, 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 U.L. LABEL GALVANIZED ZINC COATED WITH GALVANIZED ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR. RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.
   B. FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "JAKE" OR "SQUEEZE" TYPE. ALL FLEXIBLE CONDUITS SHALL HAVE FULL LENGTH GROUND WIRE.
   C. 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.
4. CONTRACTOR TO 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.
5. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS WITH WHITE ON BLUE BACKGROUND LETTERING (MINIMUM LETTER HEIGHT SHALL BE ONE FOURTH INCH (1/4"). NAMEPLATES SHALL BE FASTENED WITH STAINLESS STEEL SCREWS, NOT ADHESIVE.
6. 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. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.
7. GROUNDING ELECTRODE SYSTEM
   A. PREPARATION
      1. SURFACE PREPARATION: ALL CONNECTIONS SHALL BE MADE TO BARE METAL. ALL PAINTED SURFACES SHALL BE FIELD INSPECTED AND MODIFIED TO ENSURE PROPER CONTACT. NO WASHERS ARE ALLOWED BETWEEN THE ITEMS BEING GROUNDED. ALL CONNECTIONS ARE TO HAVE A NON-OXIDIZING AGENT APPLIED PRIOR TO INSTALLATION.
      2. IF CONDUCTORS MUST RUN THROUGH CONDUIT, BOTH ENDS OF CONDUIT SHALL BE GROUNDED. SEAL BOTH ENDS OF CONDUIT WITH SILICONE CAULK.
   B. EXTERNAL CONNECTIONS
      1. ALL BURIED GROUNDING CONNECTIONS SHALL BE MADE BY THE EXOTHERMIC WELD PROCESS. CONNECTIONS SHALL INCLUDE ALL CABLE TO CABLE, SPLICES, TEE'S, CROSSES, ETC. ALL CABLE TO GROUND RODS, GROUND ROD SPLICES AND LIGHTNING PROTECTION SYSTEMS ARE TO BE AS INDICATED. 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 CONNECTED BY TWO HOLE CRIMP TYPE (COMPRESSION) CONNECTIONS (EXCEPT FOR THE ACEG 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 DOUBLE CRIMP TYPE CONNECTIONS. CONNECTIONS TO STRUCTURAL STEEL SHALL BE EXOTHERMIC WELDS.
   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 INDICATED. GROUND RODS SHALL BE DRIVEN FULL LENGTH VERTICAL IN UNDISTURBED EARTH.
   D. GROUND CONDUCTORS: ALL GROUND CONDUCTORS SHALL BE STANDARD TINNED SOLID BARE COPPER ANNEALED, AND OF SIZE INDICATED ON DRAWINGS UNLESS OTHERWISE NOTED.
   E. LUGS
      1. LUGS SHALL BE 2-HOLE, LONG BARREL, STRAND COPPER UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS. LUGS SHALL BE THOMAS AND BETTS SERIES #54____BE OR EQUIVALENT

A.	535 MCM DLO		54880BE
B.	262 MCM DLO		54872BE
C.	#1/0 DLO		54862BE
D.	#4/0 THWN	AND BARE	54866BE
E.	#2/0 THWN		54862BE
F.	#2 THHN		54207BE
G.	#6 DLO		54205BE

      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. 6 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

8. GROUNDING RESISTANCE TEST REPORT: UPON COMPLETION OF THE TESTING FOR EACH SITE, A TEST REPORT SHOWING RESISTANCE IN OHMS MUST BE SUBMITTED. TWO (2) SETS OF TEST DOCUMENTS FROM THE INDEPENDENT TESTING SERVICE 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. GROUNDING: GROUND METAL POLES WITH A MINIMUM OF #2 AWG TINNED SOLID BARE COPPER CONDUCTOR CADWELDED TO TOWER BASE PLATE.

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. WEATHERPROOF ALL CONNECTORS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE FEET (3') IN EXCESS OF EQUIPMENT LOCATION UNLESS OTHERWISE STATED.
      2. LENGTHS LESS THAN OR EQUAL TO 100 FEET SHALL BE 7/8".
      3. ANTENNA AND COAXIAL CABLE GROUNDING
   A. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS)
      4. COAXIAL CABLE IDENTIFICATION
   A. TO PROVIDE EASY IDENTIFICATION AND UNIFORM MARKING OF ANTENNA CABLING, PLASTIC TAGS SHALL BE USED AT THE FOLLOWING LOCATIONS:
      1. FIRST LOCATION IS AT THE END OF THE COAX NEAREST THE ANTENNA (WHERE THE COAXIAL CABLE AND JUMPER ARE CONNECTED).
      2. SECOND LOCATION IS AT END OF THE COAX NEAREST THE EQUIPMENT.
   B. USE ANDREW CABLE TIES (PT.# 27290) TO SECURE IDENTIFICATION TAGS.
      1. TESTING: LESSEE SHALL PROVIDE AN INDEPENDENT TESTING AGENCY TO PERFORM THE COAXIAL SWEEP TEST & REPORT. THE CONTRACTOR IS TO PROVIDE ONE CLIMBER/QUALIFIED PERSONNEL TO ASSIST IN ANY REPAIRS AND WEATHERPROOFING ONCE THE TEST IS COMPLETE. THE CONTRACTOR IS TO PROVIDE LESSEE WITH A MINIMUM OF 48 HOURS NOTICE PRIOR TO THE TIME OF THE SWEEP TEST.

ELECTRICAL REQUIREMENTS OF ELECTRICAL PROTECTION TECHNOLOGY

1. GENERAL
   A. THE STRIKESORB 30-A SPDS (SURGE PROTECTIVE DEVICES) INCLUDED IN THE DESCRIBED AC POWER PANEL SYSTEM SHALL BE USED ON ALL AC CIRCUITS, SO AS TO PROTECT FROM TRANSIENT VOLTAGES, SURGE CURRENTS, LIGHTNING AND OTHER ELECTRICAL PHENOMENA:
      i. SPDS SHALL BE SUITABLE FOR SAFE OPERATION IN 120 VAC POWER APPLICATIONS.
      ii. SPDS SHOULD UTILIZE VOLTAGE LIMITING ELEMENTS (I.E. SILICON AVALANCHE DIODES OR METAL OXIDE VARISTORS), YET PROHIBIT USE OF SWITCHING ELEMENTS (I.E. SPARK GAP OR GAS TUBE DEVICES) AND PROHIBIT THE USE OF INTERNAL (THERMAL) DISCONNECTS.
      iii. SPDS SHALL BE CERTIFIED BY UL AS TYPE 2 COMPONENT ASSEMBLIES PER UL 1449 4TH EDITION.
      iv. SPDS SHALL BE CERTIFIED BY UL AS TYPE 2 COMPONENT ASSEMBLIES PER UL 1449 4TH EDITION.SPDS SHALL HAVE A VOLTAGE PROTECTION RATING (VPR) OF NO MORE THAN 700V, AND NOMINAL DISCHARGE CURRENT [IN]: 20KA PER UL 1449 4TH EDITION.
      v. SPDS SHALL HAVE AN IMAX OF AT LEAST 60KA 8/20 PER NEMA LS-1.
      vi. SPDS SHALL BE CERTIFIED AS CLASS II PRODUCTS WITH AN IN OF 20KA AND IMAX OF 50KA ACCORDING TO THE IEC 61643-11:2011 (ed. 1.0) STANDARD FOR "LOW VOLTAGE SURGE PROTECTIVE DEVICES, PART 1: SURGE PROTECTIVE DEVICES CONNECTED TO LOW VOLTAGE POWER DISTRIBUTION SYSTEMS – REQUIREMENTS AND TEST".
      vii. THE ABOVE CERTIFICATION OF THE SPD SHALL HAVE BEEN COMPLETED BY AN ORGANIZATION AUTHORIZED BY IEC TO CONDUCT PRODUCT CERTIFICATIONS ACCORDING TO IEC 61643-11:2011.

mobilitie
intelligent infrastructure

MOBILITIE, LLC

PROJECT NO.	TBD
DRAWN BY	JSC
CHECKED BY	TBD

VERSION	DATE	DESCRIPTION
0	06/09/16	ISSUED FOR REVIEW

IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT

SITE ID: 9FLB000073/JA90XS021E

NE 2ND AVE & NE 1ST ST
GAINESVILLE, FL 32601

UTILITY POLE

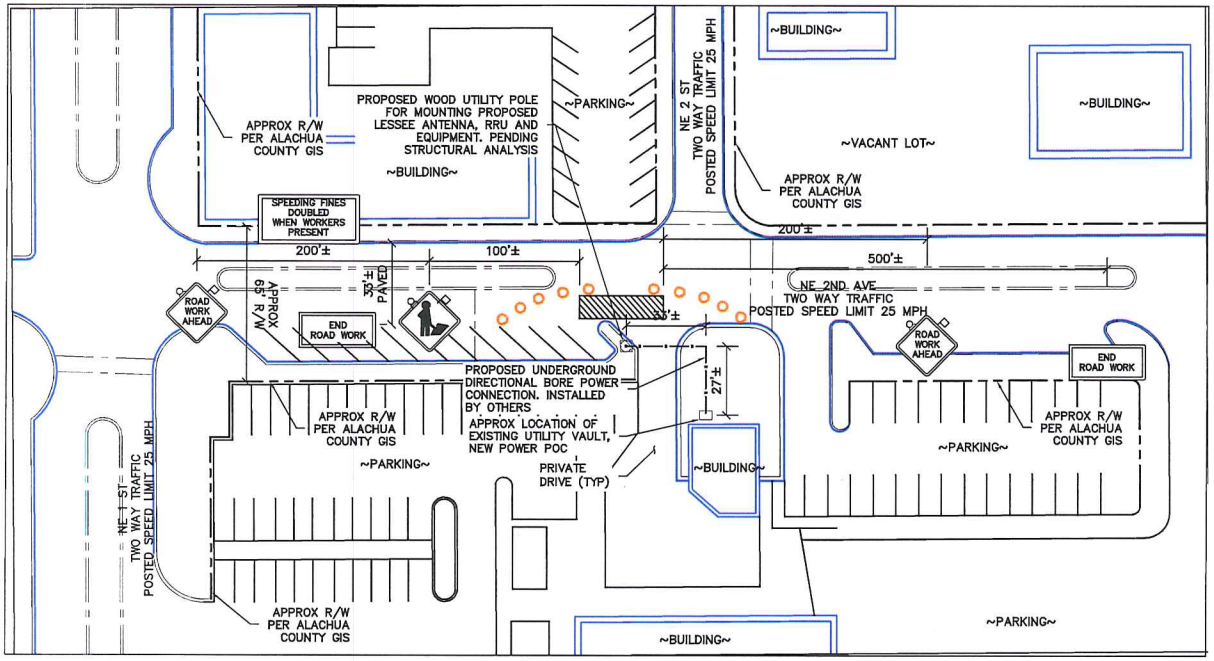
SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-2

NOTES:
1. INSTALL SIGNS IN ACCORDANCE WITH MUTCD.
2. THE SHOULDER WORK SIGN MAY BE OMITTED WHERE THE WORK SPACE IS BEHIND A BARRIER, MORE THAN 24 INCHES BEHIND THE CURB, OR 15 FEET OR MORE FROM THE EDGE OF THE ROADWAY.
3. FOR SHORT–TERM, SHORT DURATION OR MOBILE OPERATION, ALL SIGNS AND CHANNELIZING DEVICES MAY BE ELIMINATED IF A VEHICLE WITH ACTIVATED HIGH–INTENSITY ROTATING, FLASHING, OSCILLATION, OR STROBE LIGHTS IS USED.
4. VEHICLE HAZARD WARNING SIGNALS SHALL NOT BE USED INSTEAD OF THE VEHICLE'S HIGH–INTENSITY ROTATING, FLASHING, OSCILLATION, OR STROBE LIGHTS.
5. CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS, ORDINANCES, AND REGULATION AND WITH INDUSTRY STANDARDS FOR UTILITY POLE INSTALLATIONS. CONTRACTOR SHALL HAVE A SITE SPECIFIC TRAFFIC CONTROL AND SAFETY PLAN PRESENT AT THE WORKSITE AND SHALL PROVIDE THE PLAN AS REQUESTED BY THE OWNER OR THE OWNERS REPRESENTATIVE



N

TRAFFIC CONTROL PLAN

SCALE: 1" = 50' (1" = 25' ON 22"x34" SHEET)

1

mobilitie
intelligent infrastructure

MOBILITIE, LLC

PROJECT NO.	TBD
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CHECKED BY	TBD

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SITE ID: 9FLB000073/JA90XS021E

NE 2ND AVE & NE 1ST ST
GAINESVILLE, FL 32601

UTILITY POLE

SHEET TITLE

TRAFFIC CONTROL PLAN

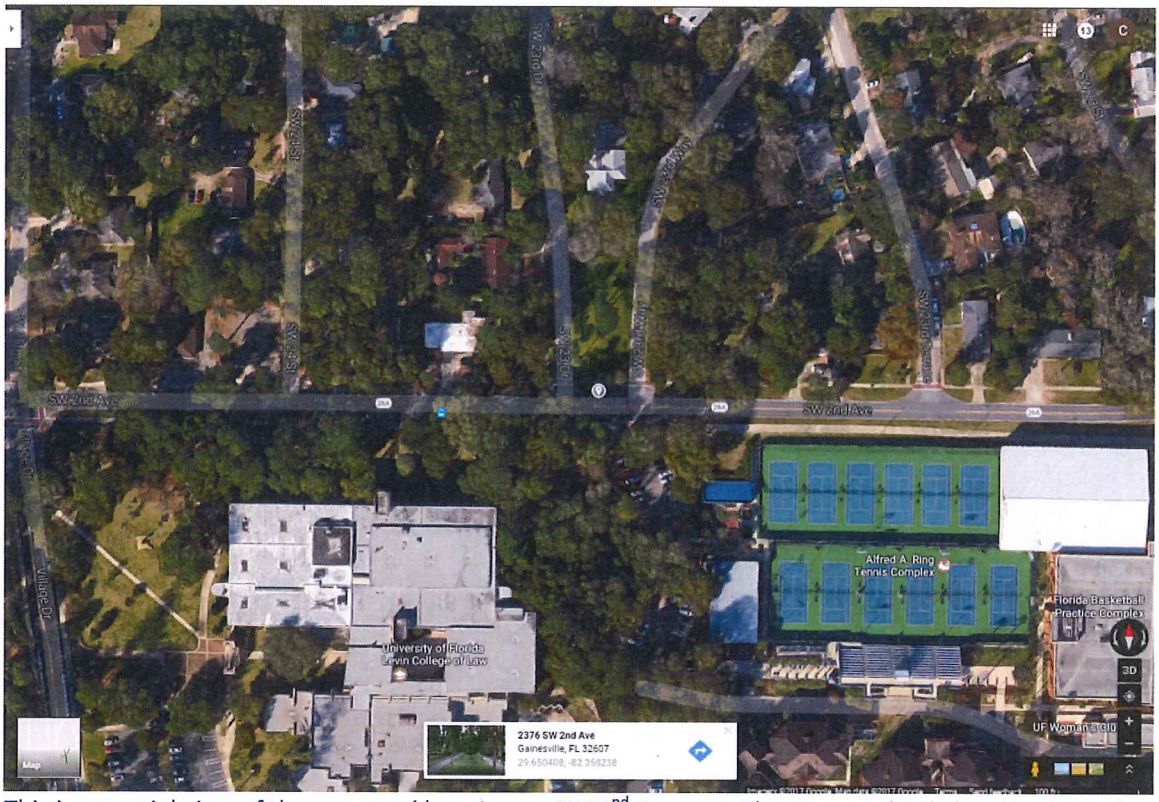
SHEET NUMBER

TC-1

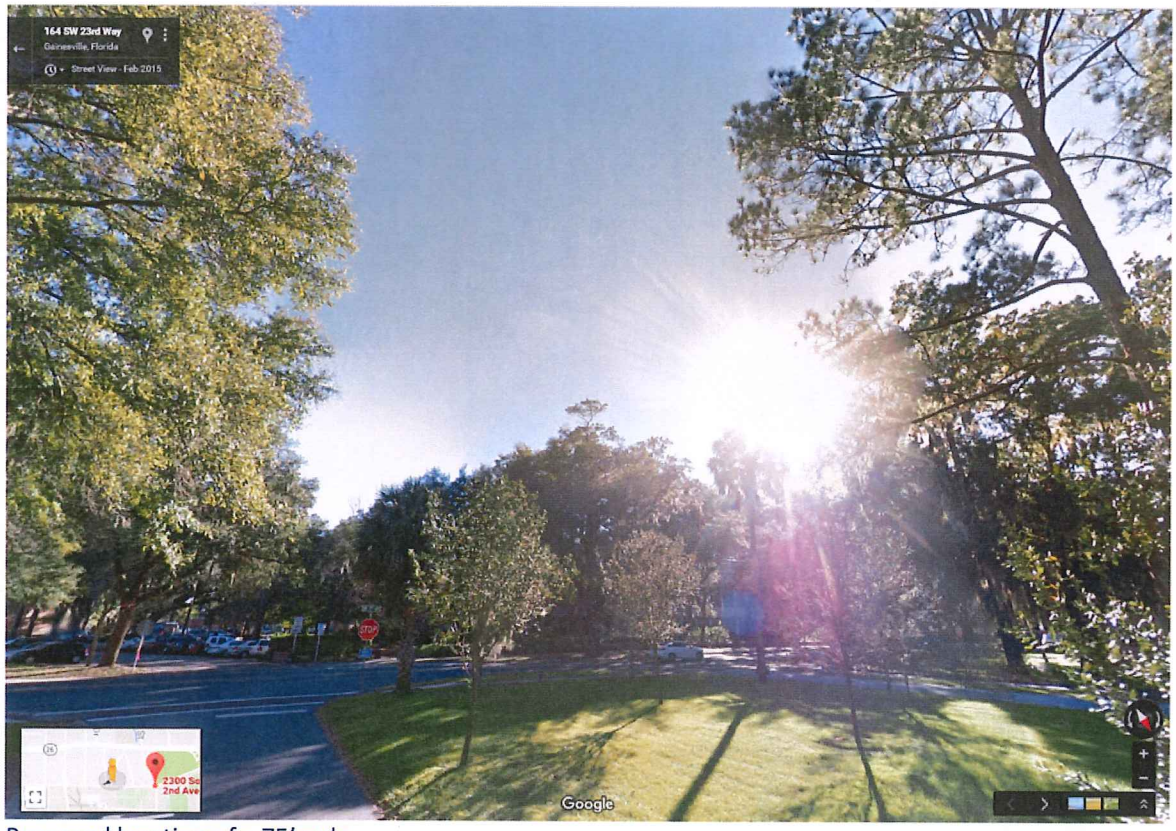
This street view of the location for the 75' pole from last application Mobilitie submitted. The pole, if permitted, would be located behind the palm trees but would be much taller than the trees, streetlight, or apartments across the street. Note that the utilities are underground in this area.

This is in the downtown Gainesville area.

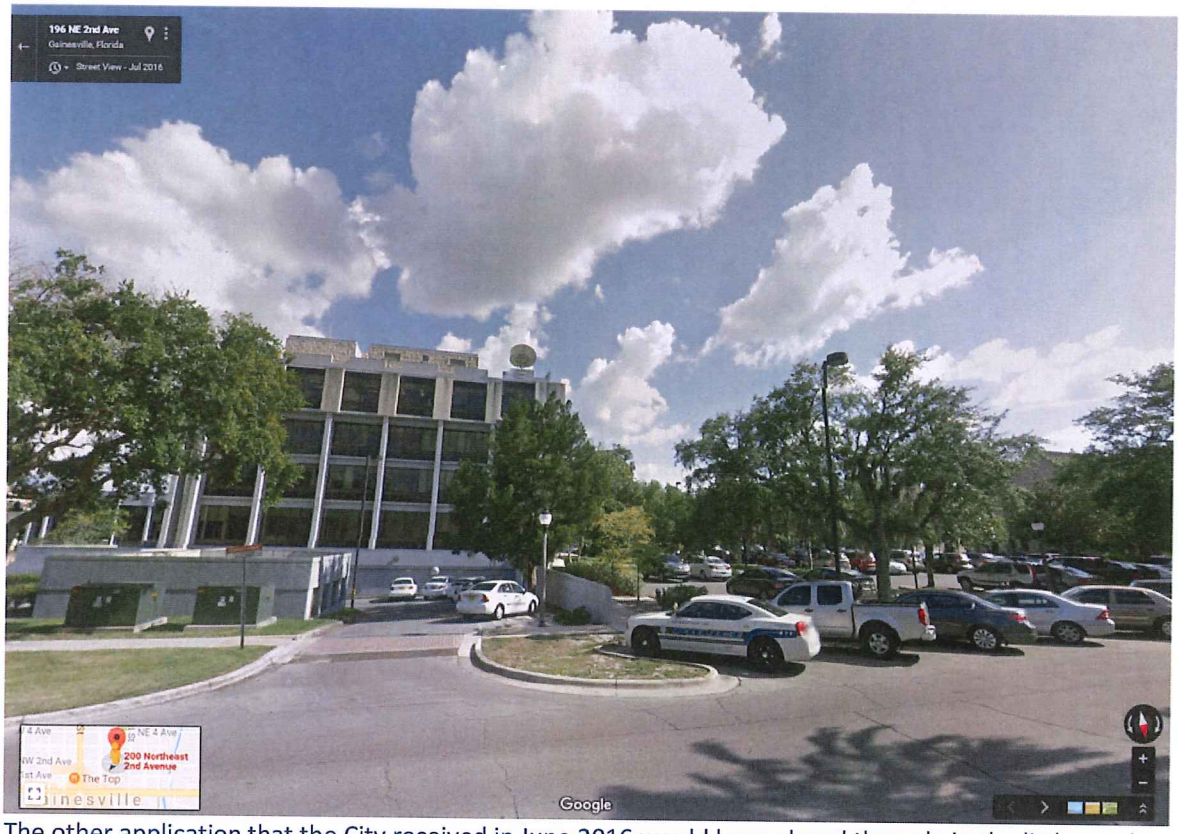
This is one of the two June 2016 applications by Mobilitie. This is on SW2nd Ave, just down the street from the law school. This is a residential area on this side of the street.



This is an aerial view of the proposed location on SW 2nd Avenue. The proposed pole location is on the North of SW 2nd Ave between SW 23rd Drive and SW 23rd Way. On the south side of SW 2nd Ave is UF's law school and tennis complex.



Proposed location of a 75' pole



The other application that the City received in June 2016 would have placed the pole in the little patch of grass next to the police car. The building in the background is the back of City Hall.

Another view of the spot of grass behind City Hall that Mobilitie proposed to put a pole on.

CITY OF GAINESVILLE
OFFICE OF THE CITY ATTORNEY

200 East University Avenue, Suite 425
Gainesville, Florida 32601
(352) 334-5011 • (352) 334-2229 Fax

Mail: Post Office Box 490, Station 46
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Daniel M. Nee♦
David C. Schwartz♦
Elizabeth A. Waratuke♦

January 12, 2017

Mr. Chad Caudill
Permitting Manager
Mobilitie, LLC
3475 Piedmont Road, NE, Suite 1000
Atlanta, GA 30305

Re: Mobilitie Application for Proposed Deployment in the Public Rights-of-Way in Gainesville, Florida

Dear Mr. Caudill:

Your letter was forwarded to me from the Public Works Department to respond. According to the Public Works Department, the City is unable to process Mobilitie's current application for right-of-way use at this time because the application is incomplete. It did not include the following information:

- Mobilitie has not included its PSC certificate
- Mobilitie has not included a certificate of insurance naming the City of Gainesville as an additional insured
- Mobilitie did not provide the name of the Contractor who would work on the project
- Mobilitie indicated in its application that it will connect to an existing electric transformer. Mobilitie must obtain approval from Gainesville Regional Utility for that connection before Public Works can approve the application.
- Depending upon Gainesville Regional Utility's requirements for connection to the transformer, Mobilitie may need an electrical permit from the building department.

Additionally, the City Manager's office has confirmed that Mobilitie has not registered with the City to access the City's rights-of-way as required by Article VI, Chapter 23, Code of Ordinances of City of Gainesville.

It also appears from an initial review of your application by the City's Planning and Development Services Department that the proposed structure would not meet the City's current zoning and land use codes. The City is in the process of reviewing and revising its ordinances relating to wireless telecommunication facilities both within the City's rights-of-way and on

♦Board Certified City, County & Local Government Law

* Utilities Legal Services
Post Office Box 147117, Station A-138
Gainesville, Florida 32614
(352) 393-1010 • (352) 334-2277 Fax

private property throughout the City. The City has enacted a moratorium prohibiting approval of applications to construct wireless telecommunication facilities within the City's rights-of-way while the City reviews and revises its ordinances. The City will be inviting interested participants to provide input into its ordinance revisions at a staff workshop. I have included your name and contact information in the list of interested parties to be invited to participate in this workshop. If you know of additional individuals who would like to participate in this workshop, please contact my Administrative Assistant, Becky Scalese at 352-393-8331 or by email at scaleser@cityofgainesville.org.

Please note that the moratorium does not prohibit applications for small cell and DAS or other wireless telecommunication structures on private property within the Gainesville city limits. If you have questions regarding zoning review and approval of wireless communication facilities on private property, please contact Andrew Persons in the City's Planning and Development Services Department at 352-393-8610 or by email at personsaw@cityofgainesville.org.

Sincerely,

Lisa C. Bennett

Lisa C. Bennett
Senior Assistant City Attorney

cc: Rebecca McKenzy – Public Works Department
Helen Harris – City Manager's office
Andrew Persons, Principal Planner

3475 Piedmont Road NE
Suite 1000
Atlanta, GA 30305

January 16, 2016

Anthony Lyons
Gainesville City Manager
200 East University Avenue
Gainesville, FL 32601
352-334-5000

RE: Proposed Mobilitie Communication Services Provider Poles located in Public Right-of-Way

Dear Mr. Lyons:

Thank you for the time you and your department have spent reviewing Mobilitie's proposed utility poles in Gainesville, Florida (the "City"). Pursuant to communication between you and Chad Caudill, Permitting Manager, it appears Gainesville needs clarification on how Mobilitie is authorized and licensed to provide communications services pursuant to Florida Statues. Mobilitie requests that it be treated like any other communications service provider. Pursuant to federal and state law it seeks to locate its infrastructure equipment in the public right-of-way.

Mobilitie is an authorized competitive local exchange services provider ("CLEC") regulated by the Florida Public Service Commission ("FPSC").[1] In particular, Mobilitie operates as a "carrier's carrier" using a hybrid transport network, utilizing wireless signals and a small amount of fiber, used for the backhaul of phone calls and "mini macro" cellular site service. In order for its network to operate, Mobilitie must install and maintain certain poles and equipment at specific locations at minimum heights.

As a FPSC regulated CLEC, Mobilitie is authorized under United States and Florida state law to install its proposed poles in the City's right-of-way. Applicable law authorizes "providers of communications services" to utilize the public rights-of-way for the "placement and maintenance of communications facilities."[2] Mobilitie's authority derives directly from the Federal Telecommunications Act of 1996 ("1996 Act") and the various enactments by the Florida Legislature to implement the 1996 Act. The purpose of these laws was to remove barriers to entry and provide the rapid development of telecommunications competition so as to make advanced technologies universally available at affordable prices for consumers. The various federal and Florida legislative enactments use varying terms for these providers, services and facilities, including telephone, telecommunications, communications or utility.[3] Irrespective of the terminology used, the City's actions must be consistent with the fundamental policy goal set forth in the 1996 Act, "[n]o State or local statute or regulation, or other State and local legal requirement, may prohibit or have the effect of prohibiting the ability of the entity to provide any interstate or intrastate telecommunications service."[4]

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[1] FPSC originally granted Mobilitie a certificate for as an "Alternative Access Vendor," Order No. PSC-06-953-PAA-TA (November 15, 2006). All AAV certificates were converted to CLEC certificates by operation of law when Chapter 364 was amended in 2011 to eliminate the AAV designation. Fla. Stat. §364.02, Chapter 2011-36, Laws of Florida, Sections 30 and 33.
[2] Fla. Stat. § 337.401(3)(a).
[3] Fla. Stat. § 337.401(1)(a).
[4] 47 U.S.C. § 253(a).

Mobilitie acknowledges that Florida state law authorizes the City to regulate the placement and maintenance of utility facilities in its rights-of-way pursuant to its police power. Specifically, the City may "prescribe and enforce reasonable rules or regulations with reference to the placing and maintaining along, across, or on any road ... any electric transmission, telephone, telegraph, or other communications services[5] lines; poles lines; poles ... or other structures referred to in this section as the 'utility,'"[6] – subject to the limitations imposed by federal law. Concurrently, the Florida Legislature recognizes "the unique circumstances applicable to providers of communications services, including ... the circumstances described in paragraph (e)" and explicitly expressed that "it is the intent of the Legislature that ... counties treat providers of communications services in a nondiscriminatory and competitively neutral manner when imposing rules or regulations governing the placement or maintenance of communications facilities in the public roads or rights-of-way."[7] The Florida Legislature even went so far as to acknowledge that "providers of communication services may provide similar services in a manner that requires the placement of facilities in municipal or county roads or rights-of-way."[8] The 1996 Act defines "telecommunications carriers" broadly to include "any provider of telecommunications services,"[9] allowing no basis for discriminating among providers of functionally equivalent communications services, and terms such as telephone, telecommunications, or communication should be read interchangeably.

To the extent the City's ordinances prohibit the placement of wireless communication monopoles of any type in the public right-of-way while allowing traditional landline telephone poles, the 1996 Act preempts such ordinances as not competitively neutral and as discriminatory among providers of functionally equivalent services. Under federal law, Mobilitie's communication services poles cannot be prohibited as the City has done.

While the 1996 Act provides the broad public policy framework for open and fair telecommunications competition, state and local governments are tasked with the implementation of this mandate. Florida's compliance with the 1996 Act is reflected in part under Fla. Stat. Section 337.401.[10] In fact, nowhere in Section 337.401 did the Florida Legislature authorize the City to deny a "communication services provider" access to its rights-of-way. Mobilitie's facilities provide "communication services," the essence of its hybrid transport network. Indeed, earlier this year, the Florida Legislature further expanded the scope of access by adding the broad reference to "communication service lines" while clarifying who should bear the costs of utility relocation when it becomes necessary.[11]

The phrase "communications service lines" is a more technologically neutral term reflective of the different types of facilities – copper wire, coax cable, fiber optic cable and microwave radio – that can be used as a communications pathway between two points. This is borne out by the language in Section 337.401 that requires a local government's rules to be "generally applicable to *all providers* of communications services."[12] This is based upon the Legislature's recognition of the "unique circumstances applicable to the

---

[5] *See* Fla. Stat. § 337.401(1)(a) (ascribing Chapter 202's meaning for "communication services" to § 337.401); *See* Fla. Stat. § 202.11(1) (defining "communication services" as "the transmission, conveyance, or routing of voice, data, audio, or any other information or signals, including video services, to a point, or between or among points, by or through any electronic, radio, satellite, cable, optical, microwave, or other medium or method now in existence or hereinafter devised, regardless of protocol used for such transmission or conveyance".)

[6] Fla. Stat. § 337.401(1)(a).

[7] Fla. Stat. § 337.401(3)(a).

[8] Fla. Stat. § 337.401(3)(e).

[9] 47 U.S.C. § 153(51). *See also* 47 U.S.C. § 153(52)-(53).

[10] *BellSouth Telecommunications, Inc. v. Town of Palm Beach*, 252 F. 3d 1169, 1177 (2001)

[11] §2, Chapter 2016-44, Laws of Florida.

[12] Fla. Stat. § 337.401(3)(a). (emphasis added).

providers of communication services," including the federal limitation on the scope of a local government's rules for the "placement and maintenance" of communications facilities in public rights-of-way and the requirement for nondiscriminatory treatment."[13]

Consistent with the 1996 Act, Section 337.401 requires local government rules that govern communication equipment in roads or rights-of-way meet certain criteria. The rules must relate to the "*placement or maintenance*" of the equipment, the rules must be *reasonable* and nondiscriminatory, and the rules may "include *only those matters necessary to manage* the roads or rights-of-way."[14] This concept is further advanced by the legislative recognition that "[a]lthough similar communications services may be provided by different means, the state desires to treat providers of communications services in a nondiscriminatory manner."[15]

The present version of Section 337.401 represents the most recent enactment of the Florida Legislature's understanding the state's obligations under the 1996 Act. Section 337.401 has been amended multiple times since the passage of the 1996 Act to keep up with the evolution in terminology and technology and to ensure the full and fair compliance with the intent of the 1996 act. For example, the 1997 version of Section 337.40 used the term "telephone company,"[16] which in 1998 became "Telecommunications Company" to more closely reflect the language of the 1996 Act as well as 1995 changes to the FPSC's statute to introduce local telecommunications services competition.[17] In 2000, the Legislature substantially overhauled Section 337.401 to bring it explicitly into compliance with the 1996 Act:

> Because federal and state law require the nondiscriminatory treatment of providers of telecommunication services and because of the desire to promote completion among providers of telecommunications services, it is the intent of the Legislature that municipalities and counties treat telecommunications companies in a nondiscriminatory and competitively neutral manner when imposing rules, or regulations governing the placement or maintenance of telecommunications facilities in the public roads or rights-of-way.[18]

In 2001, the Legislature made further refinements in the statute to reflect the "unique circumstances applicable to providers of communications services."[19] Reading the evolution of language in context with the present version of Section 337.401, it is clear that the communications services provided by Mobilitie fall well within the scope of the 1996 Act and Section 337.40 and that Mobilitie is lawfully entitled to place its facilities in the City's rights-of-way. The transport monopoles involve microwave point to point facilities that carry telephone calls over spectrum authorized by the Federal Communications Commission ("FCC"). Failing to include Mobilitie's communications services is anti-competitive and unlawfully discriminates against federally authorized and state mandated public rights-of-way usage.

To ensure competitively neutral treatment, the City cannot base its denial on the type of communications service facilities installed, nor can the City establish criteria that only one type of service provider's equipment can meet. The City's sole placement requirements need to be reasonable and tied directly to

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[13] *Id.*
[14] Fla. Stat. § 337.401(3)(b). (emphasis added).
[15] Fla. Stat. § 337.401(3)(e).
[16] Fla. Stat. § 337.401(3), 1997.
[17] Fla. Stat. § 337.401(3), 1998.
[18] Fla. Stat. § 337.401(3)(a), 2000.
[19] Fla. Stat. § 337.401(3)(a), 2001.

management of the right-of-way. With the broad re-write of Section 337.401 in 2000, the Legislature began to provide some definition as to exactly what such local use regulations may encompass:

> (3)(a) Because federal and state law require the nondiscriminatory treatment of providers of telecommunications services and because of the desire to promote competition among providers of telecommunications services, it is the intent of the Legislature that municipalities and counties treat telecommunications companies in a nondiscriminatory and competitively neutral manner when imposing rules or regulations governing the placement or maintenance of telecommunications facilities in the public roads or rights-of-way. Rules or regulations imposed by a municipality or county relating to telecommunications companies placing or maintaining telecommunications facilities in its roads or rights-of-way must be generally applicable to all telecommunications companies and, notwithstanding any other law, may not require a telecommunications company to apply for or enter into an individual license, franchise, or other agreement with the municipality or county as a condition of placing or maintaining telecommunications facilities in its roads or rights-of-way. In addition to other reasonable rules or regulations that a municipality or county may adopt relating to the placement or maintenance of telecommunications facilities in it is roads or rights-of-way under this subsection, a municipality or county may require a telecommunications company that places or seeks to place facilities in its roads or rights-of-way to register with the municipality or county and to provide the name of the registrant; the name, address, and telephone number of a contact person for the registrant; the number of the registrant's current certificate of authorization issued by the FPSC or the FCC, and proof of insurance or self-insuring status adequate to defend and cover claims.
>
> (b) Each municipality and county retains the authority to regulate and manage municipal and county roads or rights-of-way in exercising its police power. Any rules or regulations adopted by a municipality or county which govern the occupation of its roads or rights-of-way by telecommunications companies must be related to placement or maintenance of facilities in such roads or rights-of-way, must be reasonable and nondiscriminatory, and may include only those matters necessary to manage the roads or rights-of-way of the municipality or county.[20]

The fact that a county or municipality "may" require an FPSC or FCC certificate or authorization recognizes that not all authorized telecommunications services providers who can use the public rights-of-way may possess a state or federal license. The recognition of such non-traditional communication services providers permitted to use rights-of-way was further expanded in 2007 to include "the number of the registrant's current certificate of authorization issue by the FPSC, the FCC or the Department of State."[21] The amendment to add the Department of State was made because of another statutory amendment that authorized cable television companies to obtain a statewide franchise by registering with the Department of State.[22] Many of these cable television companies were also providing voice communications services utilizing unregulated voice over internet protocol ("VOIP"), and since the law must be technology neutral, VOIP providers also needed to be brought within the scope of the statute.

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[20] Fla. Stat. § 337.401(3)(a)-(b). These provisions are reference herein as the three-prong test.
[21] Fla. Stat. § 337.401(3)(a), (2007).
[22] Fla. Stat. § 610.102 (2007).

Since 2000, the Legislature has tweaked the terminology, but the three-part test for how municipalities and counties may exercise their police powers to regulate and manage their roads and rights-of-way has remained. The current pertinent language on reasonable use regulations reads as follows:

> Any rules or regulations adopted by a municipality or county which govern the occupation of its roads or rights-of-way by providers of communications services must be related to the placement or maintenance of facilities in such roads or rights-of-way, must be reasonable and nondiscriminatory, and may include only those matters necessary to manage the roads or rights-of-way of the municipality or county.[23]

The local governments that have authorized the use of their rights-of-way for all communications services providers pursuant to the 1996 Act have generally done so consistent with the three-part test. Thus, for example, the cities of Jacksonville and Sanford both have rules regulating the "placement and maintenance" of communication facilities within a public right-of-way and confirm each city's intent to be consistent with both the 1996 Act and Section 337.401.[24] Similarly, the cities of Orlando, Cape Coral, West Palm Beach, and Daytona Beach and have rules authorizing communications providers to install communications facilities, including poles or towers, within their public rights-of-way subject to permitting and registration requirements.[25]

Section 337.401 is a complete and comprehensive authorization for Mobilitie's proposed communications services monopoles in the City's rights-of-way pursuant to federal law. While Section 337.401 is an important statute for Mobilitie's authority to use the City's rights-of-way, other statutory pronouncement further authorize or support Mobilitie's placement of its communications services poles in the City's rights-of-way.

Section 362, Florida Statutes, grants individuals and "telephone companies"[26] the authority to erect poles, posts and other fixtures for "telephone purposes" on or beside any public road in Florida, falling within the statutory definition of a public right-of-way.[27] The only caveat to this authority is that the equipment may not obstruct or interfere with the common use of the roadway.[28] The term "telephone purposes" as used in this section is broad and encompasses not only equipment used to provide traditional landline-based telecommunications service but also equipment used to provide wireless communications services.

While traditional landline telephone service dominated two-way communications for almost a century, wireless telephone service grew exponentially starting in the 1990s and wireless handsets now significantly

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[23] Fla. Stat. § 337.401(3)(b) (2016).

[24] § 711.402, Jacksonville Code of Ordinances; § 30-32, Sanford Code of Ordinances.

[25] § 58.849.5(a), Orlando Code of Ordinances; Chapter 25, Cape Coral Code of Ordinances; § 78.402, West Palm Beach Code of Ordinances; Article III, § 86-131 Daytona Beach Code of Ordinances.

[26] The statute refers to companies that are "chartered" by a state. In this context, the term "chartered" means incorporated. A company's charter is its organizing or establishment document, such as its articles of incorporation. To be "chartered" means to be established and recognized as an organization, such as a corporation. Chapter 611, Florida Statutes (1941), governing for-profit corporations, for example, included specific requirements for telephone company charters, including how such companies must hold and divide their stock and how they issue dividends. Section 623.05, Florida Statutes, provides that a charter provides evidence of a corporation's existence. See also, Black's Law Dictionary, defining the term "charter" to mean an act of a legislature creating a corporation. Fifth Edition (1979), p. 214.

[27] Section 177.031(16) of the Florida Statutes defines "right-of-way" to mean "land dedicated, deeded, used, or to be used for a street, alley, walkway, boulevard, drainage facility, access for ingress and egress, or other purpose by the public, certain designated individuals, or governing bodies."

[28] The statute also requires that incorporated cities grant permission prior to installations within their jurisdictions, which is not relevant for purposes of this analysis.

now significantly outnumber landline access lines.[29] Recognizing that communication services are critically important to individuals and organizations alike, and that expansion of new and innovative services and infrastructure are necessary and in the public's best interests, the Legislature continues to support and encourage deployment of these new technologies consistent with principles of the 1996 Act.[30]

As an example, the Legislature has for many decades defined "telephone lines" quite broadly, and not in a literal sense, to include:

> Conduits, ducts, poles, wires, cables, cross-arms, receivers, transmitters, instruments, machines, appliances, instrumentalities and all devices, real estate, easements, apparatus, property and routes...to facilitate...telephonic communication.[31]

Toward the end of the twentieth century,[32] the popular nomenclature for two-way communications services became more expansive, evolving from "telephones" and "telephonic communication" to more generic, all-encompassing terms "telecommunications"[33] or simply "communications."[34] Legislative and regulatory references also began to change. The title to Chapter 364 had for many years referred to "telephone" companies, but in 1990, the Legislature changed it to "telecommunications" companies.[35] As was discussed above, similar changes were made to Section 337.401 several years later. At the same time the Legislature changed the statutory reference to telecommunications companies, the Legislature further clarified that for purposes of the Florida Constitution, the term "telephone" includes "telecommunication."[36] As another example, the Legislature earlier this year revised Section 125.42, which complements Sections 337.401 and 362.01, by authorizing cities and counties to grant licenses to individuals and to private companies to install and operate telephone lines and "other communication services," *including communication towers*, within any city or county right-of-way.[37]

In amending Section 125.42, to include "other communications services," the Legislature defined this term by reference to Section 202.11(1). Section 202.11(1), defines "Communications Services," as;

> ...the transmission, conveyance, or routing of voice, data, audio, video, or any other information or signals, including video services, to a point, or between or among points, by or through any electronic, radio, satellite, cable, optical, microwave, or other medium or method now in existence or hereafter devised, regardless of the protocol used for such transmission or conveyance. The term includes such transmission, conveyance or routing

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[29] The Florida PSC now reports that there are approximately 3.3 million total wireline access lines in Florida as of the end of 2015 whereas there are an estimated 19.9 million wireless handsets in Florida with an additional 3.7 million cable Voice over Internet Protocol subscribers. Florida Public Service Commission, *Report on the Status of Competition in the Telecommunications Industry as of December 31, 2015*, at 1-2, 16-18, 21-25 (July 29, 2016).

[30] Fla. Stat. § 364.01(3), (2011 and 2016).

[31] Fla. Stat. § 364.02 (1913); § 364.02 (1984).

[32] In 1989, the Legislature required the Public Service Commission to evaluate the state's regulation of "telephone companies" and provide a detailed comprehensive report on the competitive change taking place within the "telecommunications industry." (Chapter 89-163, Laws of Florida).

[33] Given the broad scope of the PSC's jurisdiction which includes traditional landline telephone service as well as wireless communication service, the Legislature eventually changed the title of Chapter 364 from "Telegraph and Telephone Companies" to Telecommunications Carriers," and changed "telephonic communications" to "telecommunications."

[34] The Florida Public Service Commission clarifies in its rules that the terms "telecommunications company" and "telephone company" have the same meaning. Rule 26-4.003(6), Fla. Admin. Code (2016).

[35] Ch. 1990, Laws of Florida.

[36] Fla. Stat. § 364.381 (1990).

[37] Fla. Stat. § 125.42, (2016).

> in which computer processing applications are used to act on the form, code or protocol of the content for purposes of transmission, conveyance, or routing without regard to whether such service is referred to as voice-over-Internet-protocol services or is classified by the Federal Communications Commission as enhanced or value-added. The term does not include:
> (a) Information Services, (b) Installation or maintenance of wiring or equipment on a customer's premises. (c) The sale or rental of tangible personal property. (d) The sale of advertising, including, but not limited to, directory advertising. (e) Bad check charges. (f) Late payment charges. (g) Billing and collection services. (h) Internet access service, electronic mail service, electronic bulletin board service or similar online computer services.

This is a very broad definition that includes voice and other forms of information transmitted by any technology now available, including specifically radio and microwave, or hereafter devised.

Consistent with the statutory mandate for a broad interpretation of these statutes to track advances in technology, a Florida appellate court found that a telecommunications company was permitted to use a right-of-way in order to install buried fiber optic cable. The court found this was permitted use even though the fiber optic cable was not of the same type of overhead "wire" historically used by traditional telephone companies.[38]

The provisions of Section 362.01 must be read in conjunction with Section 125.42. The authority granted to companies and individuals[39] by Section 362.01 to place communications equipment in public rights-of-way explicitly recognizes that municipal and county governments may appropriately use their police power to ensure such equipment does not create a danger or make the roadway unsafe to use. Similarly, Section 125.42, grants municipalities the authority to issue licenses approving the use of their rights-of-way and allows municipalities to impose conditions ensuring the equipment does not create obstructions or conditions which could be dangerous to the traveling public. Reading these sections together, the Legislature has established that a local government's authority to reject a request to locate communication equipment in a right-of-way is limited only to those situations where one would expect the proposed placement to create some type of danger for roadway users. The local government must rely on facts when it decides whether proposed equipment might pose a danger, and it must do so in a reasonable, non-arbitrary manner.[40]

Given the history and the continuing evolution of two-way communications services, the language in Section 362.01 (1) authorizing "poles, wires, and other fixtures" for "telephone purposes" includes not only

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[38] *Davis v. MCI Telecommunications Corp.*, 606 So. 2d 734 (Fla. 1st DCA 1992).

[39] In *Gulf Properties of Alabama, Inc. v. Southern Bell Tel. & Tel. Co.*, 346 So 2d 1085 (Fla. 1st DCA 1977), the court found in favor of a telephone company proposing to install its equipment over a subdivision developer which had reserved an exception when it filed the subdivision plans – because the subdivision developer was not presently operating or desirous of operating telephone company. The court made no mention of whether the Florida Public Service Commission regulated either entity. In addition, while Section 362.01, Florida Statutes, allows individuals to place equipment in public rights-of-way, Section 362.02, Florida Statutes, grants the power of eminent domain for communication equipment within railroad rights-of-way only to telegraph and telephone companies – not to individuals.

[40] *General Tel. Co. v. City of Bradenton*, 192 So. 2d 534 (2d DCA 1966). Fla. Stat. Ch. 362.01...gave plaintiff the right to install [equipment] subject to the qualification that the [equipment] did not obstruct or interfere with the common uses of the streets. Defendant [government] had introduced no evidence that plaintiff's [equipment] had obstructed or interfered with the use of the streets, that they constituted a hazard, or were unreasonable in nature or number.

traditional landline telephone service but also wireless communications services, including Mobilitie's infrastructure.[41] A more narrow interpretation is not supported by, and is inconsistent with, the Legislature's intent to promote new communication technology and related infrastructure.

Mobilitie kindly requests the City to review our applications as it would review a communications services provider and promptly process our applications for new poles in the City right-of-way. Please note that any heights and locations previously submitted by Mobilitie can be adjusted based on Gainesville's feedback. Currently, Mobilitie has four (4) current, active small cell sites, previously applied for, that we will continue to pursue. There are also four (4) additional sites going through the process of becoming active and ready to go through the permit process in Gainesville.

Mobilitie understands that in order to access the public right-of-way it is required to compensate the local jurisdiction in the form of permitting fees and is prepared to pay any and all permitting fees required by Gainesville. Mobilitie looks forward to working with the City and placing its utility infrastructure within its rights-of-way. We welcome a chance to work with the City in finding a solution that fits both of our needs in terms of infrastructure and a process to achieving permits. Chad Caudill, Permitting Manager, would like to request a meeting with you and any other interested parties to discuss, in person, a site-by-site review of our proposed network. Chad can be reached at 904-420-9391, or via email at Chad.Caudill@mobilitie.com. Should you have any questions, please do not hesitate to contact me via my mobile phone (678) 630-9823 or by e-mail at cbrown@mobilitie.com.

Sincerely,

Chris Brown
Government Relations Associate

cc: Lauren Poe, Mayor ✓
Paul Folkers, Assistant City manager
Fred Murry, Assistant City Manager
Helen Harris
CSOM ✓

[41] *See also Nerbonne, N.V. v. Florida Power Corp.*, 692 So. 2d 928 (Fla 5th DCA 1997) where the court found that a right of easement given for "public road purposes" including authority to install power lines because historically roads had been used for not only transportation but also the delivery of communications and power. The court stated that this interpretation covering "adaptions of traditional highway uses" was appropriate "because of *changing technology*" (quoting *Fisher v. Golden Valley Elec. Assn.*, 658 P. 2d 127 (Alaska 1983). Explained by *City of Orlando v. MSD-Mattie, LLC.*, (Fla. 5th DCA 2005).