Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
COMMENT SOUGHT ON	)	WT Docket No. 16-421
STREAMLINING DEPLOYMENT OF SMALL	)	
CELL INFRASTRUCTURE BY IMPROVING	)	
WIRELESS FACILITIES SITING POLICIES	)	
MOBILITIE, LLC PETITION FOR	)	
DECLARATORY RULING	)	

COMMENTS OF THE FLORIDA COALITION OF LOCAL GOVERNMENTS IN RESPONSE TO FCC PUBLIC NOTICE DA-16-1427

Submitted on behalf of a coalition of Florida local governments comprised of the following:

City of Coral Gables
City of Coral Springs
City of Gainesville
Town of Gulf Stream
Town of Pembroke Park
City of Tallahassee
City of Tampa
City of Winter Haven
Florida Association of Counties, Inc.
Florida League of Cities, Inc.

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Dated: March 8, 2017

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These local governments represent the diversity of Florida both from a regional perspective covering all geographic areas of the State, urban and rural areas, and from a population perspective addressing the interests of very small residential communities to among the largest urban areas within the State. In addition to specific local governments, these comments are submitted on behalf of the Florida League of Cities, Inc. ("FLC")[1] and the Florida Association of Counties, Inc. ("FAC").[2] Since 1922, FLC has been representing Florida's municipalities and now represents virtually all of Florida's over 410 municipalities. For more than 80 years, FAC has represented the diverse interests of Florida's counties and represents all 67 counties within the State. This coalition of municipalities, FLC and FAC ("Florida Coalition") is representative of the interests of Florida local governments throughout the State.

As an initial matter, the Florida Coalition felt it was important to respond to the Public Notice for several reasons. First, many Florida local governments have been contacted by Mobilitie, LLC ("Mobilitie") seeking to install "poles" of varying heights in numerous areas of locally controlled rights of way. Mobilitie's submittals and communications have created a great deal of confusion as its submittals are often under different names, do not describe in accurate or complete terms what it is trying to accomplish, often uses terms to describe proposed facilities that are not consistent with construction plans, and reference portions of Florida Statutes and local codes that may not be accurate.

[1] www.flcities.com.
[2] www.fl-counties.com.

Secondly, and more importantly, the Florida Coalition is concerned that based on language in the Public Notice, including the numerous references to Mobilitie's Petition, the Commission may be considering preempting state and/or local law regulating access to the rights of way for communications facilities. In Florida, local governments are not able to negotiate and to enter into agreements with communications providers for access to the rights of way. Their only authority to address land use, public safety, environmental, and other valid concerns is through their codes. Thus, if the Commission preempts or regulates local governments' authority under their codes, there may be no method for Florida's local governments to address vital interests that courts, interpreting federal and Florida law, have determined are lawful areas for Florida local governments to regulate.

The framework for analysis of these Comments is as follows:

1. An introduction addressing the status of wireless siting and competition in Florida.
2. Discussion of law applicable to siting facilities in Florida, with emphasis on Florida law for placing and installing wireless facilities in the rights of way. This further includes the Florida Department of Transportation's position for use of its rights of way. This section addresses not only current Florida law, but also pending State legislation.
3. Because the Commission issued the Public Notice in part because of Mobilitie's Petition and references many assertions by Mobilitie, there is a section devoted to Mobilitie's actions in Florida.
4. The final section provides an in-depth factual discussion of the status of several specific Florida governments with respect to wireless siting generally and their experiences with Mobilitie. This includes as attachments the various submissions, responses and plans for facilities Mobilitie has proposed to install in the rights of way.

Throughout these sections, the Comments address several specific questions the Commission asked in the Public Notice.

I. Introduction

In the Public Notice, the FCC raised a number of issues pertaining to potential Commission action to expedite the deployment of next generation wireless infrastructure by providing guidance on how federal law applies to local government review of applications and authority over siting wireless facilities public rights of way. In particular, the Public Notice seeks comments on ways in which the Commission could promote wireless infrastructure deployment by issuing a declaratory ruling, including but not limited to those suggested in a Petition for Declaratory Ruling filed by Mobilitie.

As an initial matter, the Florida Coalition submits that siting wireless infrastructure in Florida has and is working very well. Wireless services have been deployed effectively and efficiently throughout the State. Local governments generally process applications for wireless facilities in an efficient and expeditious manner not only for the benefit of their residents, visitors, and businesses but also for their own benefit as wireless services are important for local governments' own communications needs. The Florida Coalition commends the FCC for recently commissioning a Report by the FCC's Intergovernmental Advisory Committee ("IAC")

to examine the status of wireless facilities siting.[3] As the IAC recognized, siting wireless facilities has been very effective nationwide, and the same holds true with respect to Florida.

The reason why wireless services and infrastructure has expanded so rapidly in Florida is because local governments enjoy broad home rule authority to adopt appropriate land use regulations and to make siting decisions that work best for their communities and the applicants. Most local codes afford government staff sufficient ability to work with communications providers and infrastructure companies in a way that serves the industries' needs and addresses local land use, public safety and other concerns within their authority. This is particularly important with respect to installing communications facilities in the rights of way, since Florida local governments are precluded from requiring agreements for the installation of facilities in the rights of way. If the FCC preempts or further regulates such local authority, the Florida Coalition submits that the FCC would not be in a position to address nuances of different States' laws to satisfy these concerns. Such FCC action, taken with the best of intention to spur advances in communications, would actually have the opposite impact and harm both the provider and infrastructure industries, local governments, residents and businesses.[4] Accordingly, from the perspective of the Florida Coalition, the FCC should forbear from adopting additional regulations on siting wireless facilities.[5]

A. Competition In These Industries

It must be emphasized that both the wireless communications services industry and the wireless infrastructure real estate industry are extremely competitive in Florida. While there has been significant consolidation in the service provider industry, there are still four nationwide wireless service providers and a multitude of smaller carriers serving Florida as well as numerous WiFi providers competing for customers. Wireless communications providers compete aggressively with wireline broadband and communications providers, many of whom have announced plans to provide wireless service.[6] Further, consumers often use less expensive WiFi service, particular in their homes or at work where they already subscribe to broadband, and in the millions of locations offering free WiFi instead of using their more expensive wireless data service. While consumer demand for wireless services are growing, as the Wireless Bureau recently stated, there are many substitutes available to consumers to satisfy their communications needs.[7] It would be useful if the Commission studied the various substitutes available now and likely to be available in the future and determined whether such substitute services may serve to offer advanced services and accomplish the goals the Commission is seeking to achieve.[8]

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[3] Report on Siting Wireless Communications Faculties by the FCC Intergovernmental Advisory Committee, Presented to the Commission July 12, 2016 ("IAC Report"). https://transition.fcc.gov/statelocal/IAC-Report-Wireless-Tower-siting.pdf.

[4] The IAC Report similarly emphasized the importance of local determination, *Id* at 3

[5] The IAC Report addressed existing federal law and FCC regulations and concluded that evidence did "not support a claim for further federal, or state, restrictions of local authority…" *Id.*

[6] As the Commission has recognized , many consumers have dropped traditional landline wireline communications service to obtain service via WiFi using their broadband service or via a wireless provider.

[7] Annual Report and Analysis of Competitive Market Conditions with Respect to Mobile Wireless, Including Commercial Mobile Services, 19th Annual Report, WT Docket No. 16-137, Released September 23, 2016 ("Competition Report").

[8] For example, in the Competition Report, the Wireless Bureau indicated that it does not evaluate the competitive effect of WiFi, and similarly, the IAC Report did not take into consideration the process for approving WiFi

The service provider industry is not the only competitive industry. The wireless infrastructure industry has become extremely competitive, particularly in Florida. The Wireless Infrastructure Association (WIA) now boasts well over 100 members, from some of the largest publicly traded infrastructure real estate companies to smaller independent companies that install manage and lease infrastructure, and there are many other infrastructure entities that are not members of WIA, such as Mobilitie.[9] Florida has been a very fertile breeding ground for business for this industry, with many members having a significant presence in Florida.[10] These infrastructure companies compete aggressively. As real estate companies, for the most part, they are not in the business of selling communications services. Rather, they derive revenues from leasing and managing infrastructure: towers, Distributed Antenna Systems ("DAS"), small cells, fiber and antennas. The Commission is undoubtedly aware of the tremendous competition that is occurring now in these industries.[11]

B. Important Policy Concerns For Competitive Service Provider and Infrastructure Real Estate Industries.

There are several important policy matters that are implicated as a result of such fierce competition, including but not limited to the following considerations.

- Do Not Pick Winners and Losers.

The Commission, and federal, state and local law more generally, must be careful not to pick winners and losers through regulation. Making it easier, faster or less costly for a particular technology, competitor, or type of infrastructure to be deployed will create significant competitive advantages and harm viable competitors. Such Commission regulation will also encourage certain technologies while discouraging innovation and advances in technology. For example, many of the small cell sites Mobilitie seeks to install are 80' or 120' tall and others need to be accompanied by very large equipment facilities of approximately 30 cubic feet, even though they may provide wireless data coverage for only a block or less. It would seem that there are better technologies available now, or that could be developed that would provide greater coverage and be less impactful. If the Commission encourages particular technologies, it will remove incentives to develop better technology.[12] Local regulations may actually incentivize advances in technology. For example, local governments that require collocation if possible before a new tower can be constructed, have encouraged the industry to adopt better methods to collocate more facilities on existing towers and structures and have led to safer tower practices and more efficient use of infrastructure resources.[13] Both federal and Florida law encourage

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facilities. Yet, millions of persons, both residents and visitors, as well as businesses rely on WiFi service as more available, less expensive substitutes for wireless carrier data services.

[9] http://wia.org/members/.

[10] The following infrastructure companies are among those that have a presence throughout FL as well as a corporate or regional headquarters in Florida: Crown Castle (Orlando), SBA (Boca Raton), RG Towers (Boca Raton), Vertical Bridge (Boca Raton), Vertex Development (Tampa).

[11] The FCC's Wireless Bureau has been evaluating these industries for at least 19 years for the Mobile Wireless Competition Report and other reports. https://apps.fcc.gov/edocs_public/attachmatch/DA-16-1061A1_Rcd.pdf.

[12] The IAC Report noted the importance of federal policy encouraging advances in technology and not hindering such advancements. IAC Report, at 18-19.

[13] Many local codes do contain this requirement.

collocation, but do not mandate that the industry demonstrates efforts to attempt collocation before installing new towers. The Florida Coalition submits that this would be an appropriate consideration for possible Commission regulation, particularly if substantial use of the rights of way is foreseen for such facilities.

At a recent FLC conference, an engineer for Verizon gave a very useful presentation as to the type of small cell and DAS facilities Verizon was looking to install in rights of way and why such facilities were needed.[14] As explained, such facilities were to address very localized existing capacity or coverage issues in particular buildings, streets or neighborhoods. In addition, both Verizon and AT&T's representatives made it clear that unlike Mobilitie, they were seeking to collocate such small cell and DAS facilities on existing structures, either on private or public property or in the rights of way, rather than install new towers to support such facilities. Further, Verizon's and AT&T's small cell and DAS facilities would be connected via fiber that was largely already in place, as opposed to Mobilitie's small cell facilities that require line of sight wireless capabilities, and thus numerous and some very tall towers. Unless there are other reasons beyond the scope of these Comments, it would seem that technology that allowed for collocation and relied on existing fiber as opposed to new towers, should be encouraged by federal, state and local policies. In any event, if the Commission adopts regulations that favor one particular technology over others, it may easily create advantages and disadvantages for various industry members.

- Marketplace Motives Are Not A Valid Basis To Preempt Appropriate Regulation.

As highly competitive industries, the members are constantly looking at ways to bring their products and services to market in the quickest and least costly manner possible – and certainly cheaper and faster than their competitors. The Florida Coalition submits that many issues raised with state and local regulation are often based on such highly competitive motives and are not truly justified under principles of federal or state law. Mobilitie is a prime example of this. As discussed in further detail below, Mobilitie has indicated to many local governments it is seeking access to rights of way solely because it believed it would be quicker and cheaper than locating facilities on private property. Federal law and Commission authority was not intended to require that state and local government regulation assures that businesses have the cheapest and quickest means possible to offer services. Rather, federal law, as discussed in detail in the Public Notice, was designed to ensure that state and local regulations do not prohibit or unreasonably delay the provision of such services.

- Appropriate Regulations Protect Vital Interests That Support These Industries.

In such competitive industries, appropriate state and local regulation is vital to ensure that important interests are protected, which ultimately supports the viability of the industries. If a tower company installs a tower in rights of way without sufficient regard to safety of the traveling public and persons are injured or killed, no cost cutting or regulatory preemption will save that company. Similarly, if infrastructure companies and others are basically given unilateral authority to install facilities anywhere they want in the rights of way, as may be the case under some proposed State legislation, the capital investment and value of such companies may easily become worthless. What would happen to the value of a $100,000 pole installed by

[14] "Understanding Communications Infrastructure Challenges," FLC Annual Conference, Orlando, December 8, 2016.

Crown Castle in the rights of way, if five of its competitors, utilities and governments were to install similar poles within a few feet that could also be used for the same carriers' facilities at much lower rent. At some point, without separation and other land use requirements, the industry will devour itself. Appropriate local and state regulations that protect important land use interests are necessary to maintain viable provider and infrastructure industries.

Finally, as the Commission noted in the Public Notice, the wireless infrastructure and wireless provider industries are deploying and planning to deploy large numbers of small cells and DAS throughout the nation. Florida is no exception. Many wireless communications providers and infrastructure real estate entities are currently engaged in discussions with local governments and have already deployed small cell and DAS facilities with limited range throughout local governments, on private property, public property and in rights of way. These Comments will address the Florida local governments' experience with respect to such small cell and DAS deployments and plans with respect to supporting such deployments in the future. Again, this success of such deployments depends entirely on local governments retaining authority to manage appropriately rights of way. Because of Florida's unique law with respect to local control over rights of way particularly for communications facilities, the Commission must be very cautious about interfering with local authority. There could be unintended consequences that would be harmful to the communications and infrastructure industries as a result of inappropriate Commission action.

III. Local Control Of Rights Of Way in Florida

Just as local regulation is necessary to ensure fair competition, the tremendous success in siting wireless facilities around the country generally, and in Florida more particularly, is a direct result of local control that currently exists with respect to such infrastructure. Local regulations in Florida did not come about in a vacuum. Rather, most localities adopted land use codes to implement Florida statutes after considering input from the affected industries and others. For the most part, local governments in Florida have approved siting applications as long as there did not exist a land use reason to deny such application. Florida adopted a comprehensive statute, with input from both the industry and local governments, with respect to processing applications and regulating wireless facilities. Further, Florida law is unique with respect to local governments' control of rights of way for communications providers. Any action by the Commission that would regulate such issues, must take into consideration Florida law.

A. Federal Law

Florida law is subject to federal law and was adopted to implement portions of federal communications law. In the Public Notice, the Commission discussed the various federal statutes and Commission regulations that form the regulatory framework for state and local government authority with respect to siting wireless facilities. As the Commission noted, federal statutory provisions under Sections 253 and 332 of the Communications Act as well as Sections 6409 of the Spectrum Act explicitly preserve state and local governments' authority to control the "placement, construction, and modification of personal wireless service facilities" and to manage "use of public rights of way," but prohibit state and local governments from using certain unreasonable criteria in making such decisions.[15] The Commission further noted:

[15] Public Notice at 5, citing 47 U.S.C. § 332(c) (7) (A) and 47 U.S.C. § 253(c).

> Both Sections 332 and 253 prohibits state and local government actions that 'prohibit or have the effect of prohibiting' any entity's ability to provide personal wireless service or any other telecommunications service or that "unreasonably discriminate among providers of functionally equivalent services." Section 253 expressly provides that state or local governments may require telecommunications providers to pay "compensation" for the use of public rights-of-way, but specifies that the amounts of such compensation must be "fair and reasonable," "competitively neutral and nondiscriminatory," and "publicly disclosed." Section 253 also authorizes the Commission to issue orders that "preempt the enforcement" of state or local statutes, regulations, or legal requirements that preclude any entity from providing telecommunications service.[16]

A possible federal issue not addressed in the Public Notice is whether Section 253 would support a local requirement prohibiting wireless facilities in the rights of way where all utilities, must be placed underground. During debate on the bill in 1996, Senator Feinstein in her comments offered specific examples of the types of local government restrictions that Congress intended to permit under the exceptions set forth in subsection 253(c), including:

> (4) Require a company to place its facilities underground, rather than overhead, consistent with the requirements imposed on other utility companies.

141 CONG. REC. S8172 (daily ed. June 12, 1995) (statement of Sen. Feinstein, quoting letter from the Office of City Attorney, City, and County of San Francisco). Obviously, if Section 253 would allow local governments to mandate that all communications facilities and other utilities should be installed underground, such statute would not require local governments to allow towers to be installed in the rights of way. It may be useful for the FCC to weigh in on whether local governments could prohibit such facilities where all utilities are underground consistent with Section 253. This would have significant practical implications, as Mobilitie has applied to install "utility poles" in areas of the rights of way where local codes mandate that all utilities are installed underground and where in fact, there are no above-ground utilities.

B. **FCC Regulations**

The FCC has adopted a number of regulations to implement and to clarify various aspects of federal statutes. Most notably, the FCC adopted "shot clocks" of 90 days for local action on collocation and 150 days for new tower and other applications as presumptively reasonable time frames under federal law. The Commission further stated that the same "shot clocks" apply to DAS and small cell applications.[17] In the Public Notice, the FCC asked whether it should adopt a different "shot clock" for applications for small cell and DAS facilities in rights of way.

There is substantial concern by the Florida Coalition with FCC shot clock. Prior to the FCC adopting a shot clock, Florida adopted a shot clock for new facilities and collocations,[18] although there are substantial differences between the Florida and FCC shot clocks. It is the

[16] *Id*., at 5, citing various provisions of the Communications Act.
[17] Public Notice, at 11.
[18] Section 365.172(13)(d), Florida Statutes.

Florida Coalition's understanding that no local government in Florida has been sued for violation of either the FCC's or Florida's "shot clock." Further, we are unaware of a tower actually being installed by an applicant under the "deemed granted" remedy of Florida's shot clock. Rather, even if the Florida "shot clock" expired, an applicant will seek an appropriate permit, undergo inspections and install its facility with appropriate approval. In addition, the FCC does not have information as to whether there has been litigation under its shot clock.[19] Accordingly, it does not appear that shot clocks have had much impact on expediting siting of such facilities.

In practice, "shot clocks" actually often work to the disadvantage of local governments and industry members. For a "shot clock" to be effective both local governments and industries should be subject to time frames; it should work both ways. In other words, currently "shot clocks" as set up by the Commission and under Florida law mandate a timeframe by which local governments must review applications for completeness, notify applicants of incompleteness and issue final determinations. However, they do not prohibit applicants from submitting modifications or supplements to applications after a completed application has been submitted or provide that a "shot clock" starts again if an applicant submits a substantial modification.

As a result, often the following occurs in the case of an application that does not meet a local government's code requirements, even in the case of a complete application. Staff will indicate in a staff report prior to a final determination that there is an issue of compliance with the land use code pertaining to the application. By way of example, the proposed facility may exceed the height limit in the zoning district, may not meet setback requirements, or may not satisfy environmental requirements. There may be numerous compliance issues so identified. Of course, the local government staff will want to give the applicant time to address the issues, but the "shot clock" may prevent this since determinations must meet the deadline for final action. The applicant will then address the issues of non-compliance often submitting hundreds of new pages, detailed plans and engineering reports, a short time before the hearing, occasionally even on the day of or at the hearing. Staff of course would not have time to review the new materials, yet the applicant's submission does not toll or restart the shot clock. Thus, staff recommends denial because of the noncompliance and insufficient time to review new materials. In such circumstances, the applicant will typically agree to waive the shot clock rather than face a denial recommendation. While local codes may not require postponing final determinations, most local governments typically agree to such postponements to accommodate applicants. This process can occur many times, particularly with applications that involve significant technical, public safety, and sensitive environmental issues. Thus, "shot clocks" as currently enacted by the FCC do not work as intended, and often serve to harm both local governments processing applications and applicants. It would be a much more efficient process if when staff identified potential issues of non-compliance, the applicant and staff had sufficient time to work through the issues, without an arbitrarily imposed deadline looming.

The Florida Coalition submits that it would be a bad idea for the FCC to create a new "shot clock" for small cell and DAS applications. First of all, there would be too many "shot clocks" and both the industry and local governments would be confused as to which shot clock applied to what application. For example, an application to install a 75' tower in the rights of way, similar to Mobilitie's poles, which may not qualify as a "small cell" under a local code, an

[19] IAC Report, at 16.

antenna or DAS on such tower, another tower at a lower height, and antennas on existing utility poles, may implicate be 3 (or 4 in Florida's case) different shot clocks.[20]

Further, it may be impossible for staff to review applications for completeness in very short time frames, such as ten days, particularly for small governments with minimal staff. Applicants and local governments may be facing the same scenario described above, with staff issuing reports recommending denial of the application, and applicants rushing to submit supplemental materials to address such issues.

Arbitrary time deadlines are particularly problematic if they apply when an applicant is seeking to collocate facilities on traffic, light or utility poles owned by the local government. Such applications raise many issues other than just siting concerns, including but not limited to whether such poles can accommodate the proposed facility, and if not, would the poles need to be replaced or what make-ready work would be required. Further, if such poles were purchased and installed with grants or financing that restricts their use, it may violate such financing conditions to allow wireless facilities to collocate on such poles.[21] In addition, such poles may be installed on portions of the rights of way where it would violate the conditions creating the rights of way to allow private, commercial facilities to be located.

These issues do not even begin to address how local governments and applicants should address batch applications. Because the industries' and local governments' experience with small cell and DAS installations in the rights of way is fairly new, or non-existent in many locations, it would make sense to see how this process moves forward, without preemption or regulations on timing and procedures. Many industry members – both service providers and infrastructure companies, and local governments have not had an opportunity to develop appropriate practices. What works for AT&T or Verizon may not work for Crown Castle or Mobilitie, and what works for NYC, certainly will not work for Coral Gables. The Florida Coalition would urge the FCC to forbear from adopting a new "shot clock" or other procedural regulations that apply to applications to site facilities in the rights of way.

C. Florida Law

The Commission could not analyze every States' laws with respect to local authority over rights of way and local processing of applications, as there are significant differences in every State. Largely in response to Mobilitie's demands to install "poles" in the rights of way, the Florida Association of County Attorneys ("FACA"), created a cell tower rights of way task force in June 2016. This task force analyzed federal and Florida law to determine if Florida local governments were compelled to allow private entities to place towers in the rights of way. It received input from and examined the industries' and Florida Department of Transportation's ("FDOT") positions. FACA's final report, issued January 2017, contains a comprehensive

[20] The FCC did not discuss why small cell and DAS facilities in the rights of way may warrant different time frames. Such facilities may include towers well over 100' tall and equipment facilities that are 30 cubic feet or more. Locating such facilities in the rights of way may require more analysis of concerns with utilities and the travelling public and the impact to adjacent property than installing such facilities on private property.

[21] Many local governments in Florida have obtained grants or financing through state or federal transportation programs for traffic signal poles and light poles. Such grant programs typically restrict the use of such poles to transportation related uses.

analysis of federal and Florida law.[22] FACA's discussion of federal law is consistent with the analysis in the Public Notice. These Comments include much of FACA's discussion.

1. Proprietary Versus Regulatory Authority

One issue that may be important for the Commission to address that was discussed by FACA, but not in the Public Notice, is the distinction between local governments exercising authority through proprietary capacity as property owners versus regulatory authority. If through proprietary authority as owners of such property, case law indicates that the 96 Act and other federal restrictions on local regulation of wireless facilities do not apply.[23] Similarly, Florida law addressing local regulation of wireless facilities would not apply. The FCC has no authority to regulate local action with respect to government-owned buildings, parks and other government-owned property. The FCC did not address whether federal law and FCC authority would be impacted if local governments are acting under their proprietary versus regulatory authority as to siting in the rights of way. As discussed below, FDOT's position is that it owns its rights of ways, and thus, is not subject to federal law for wireless facilities.

This determination may be more a matter of State law beyond the scope of the FCC's expertise and statutory authority. Indeed it may depend on the type of property interest enjoyed by local governments over specific areas of the rights of way, which could vary from location to location. In some cases, a local government may acquire rights of way property in fee. However, the more common method in Florida is for local governments to gain control of rights of way through dedication on plats by private property owners. These dedications are in the nature of easements that authorize use of the rights of way by the local government for public purposes, such as for public access and utilities.[24] The Florida Attorney General has issued various opinions concerning local authority over dedicated rights of way.

> A dedication is simply the donating or appropriating of one's own land for use by the public. That is, the owner of the dedicated property is precluded from using it in any way inconsistent with the public's use thereof…. [T]he legal title to the property remains in the grantor… while the public takes the beneficial use of the property…. [T]he fee remains in the grantor … while the public acquires only a right of easement in trust, so long as the dedicated land is used for the intended purpose of the dedication.[25]

Moreover, governments cannot abandon rights of way if being used by the public and utilities.[26]

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[22] FACA's January 2017 Final Report, http://faca.fl-counties.com/sites/default/files/2017-01/1.6.17_FINAL%20Report%20of%20the%20FACA%20Cell%20Tower%20ROW%20Task%20Force%201.6.17%20revised_0.pdf

[23] FACA Report, at 3, citing *Sprint Spectrum L.P. v. Mills*, 283 F.3rd 404 (2d Cir 2002) and *Omnipoint Communications, Inc. v. City of Huntington Beach*, 738 F.3d 192 (9th Cir. 2013).

[24] A right-of-way, generally, is the right of a specific person or class of persons to use a route to travel over the land of another; Section 704.01, Florida Statute provides: "The owner or tenant thereof, or anyone in their behalf, lawfully may use and maintain an easement for persons, vehicles, stock, franchised cable television service, and any utility service, including, but not limited to, water, wastewater, reclaimed water, natural gas, electricity, and telephone service, over, under, through, and upon the lands…."

[25] Counties, roads and streets, dedication, vacation, FL Attorney General Opinion 78-118 (September 27, 1978).

[26] *Id.*, see also Section 336.09, Florida Statutes, regarding county process to vacate rights of way.

The purpose of pointing out such restrictions on local authority over rights of way is to convey that these are complicated issues involving more than communications policy. If a county or municipality improperly allows use of public rights of way for private purposes, it is quite possible that the dedication could revert. More probably, others may challenge such action for interfering with their authorized use of the rights of way. Many of facilities that Mobilitie and others seek to install in the rights of way are very large – Mobilitie's proposed poles are often 80'-120' tall and such small cell and DAS facilities may be accompanied by equipment facilities the size of refrigerators or larger. Such facilities could easily interfere with others' use of the rights of way, particularly if they can be sited without regard to local regulations. Accordingly, the FCC should proceed very cautiously before preempting local regulations or mandating action for access to rights of way.

2. <u>Sections 337.401 and 362.01, Florida Statutes: Rights of Way Authority</u>

Florida law is very comprehensive with respect to local regulation of communications providers' use of the rights of way. Section 337.401, Florida Statute ("Section 337.401") authorizes local governments to allow use of the rights of way for utilities and communications service providers. It also prohibits local governments from requiring agreements with communications providers. It provides, in pertinent part:

> (1)(a) The department and local governmental entities, referred to in this section and in ss. 337.402, 337.403, and 337.404 as the "authority," that have jurisdiction and control of public roads or publicly owned rail corridors are authorized to prescribe and enforce reasonable rules or regulations with reference to the placing and maintaining across, on, or within the right-of-way limits of any road or publicly owned rail corridors under their respective jurisdictions any electric transmission, telephone, telegraph, or other communications services lines; pole lines; poles; railways; ditches; sewers; water, heat, or gas mains; pipelines; fences; gasoline tanks and pumps; or other structures referred to in this section and in ss. 337.402, 337.403, and 337.404 as the "utility." . . .
>
> (2) The authority may grant to any person who is a resident of this state, or to any corporation which is organized under the laws of this state or licensed to do business within this state, the use of a right-of-way for the utility in accordance with such rules or regulations as the authority may adopt. No utility shall be installed, located, or relocated unless authorized by a written permit issued by the authority...
>
> (3)(a) . . . [I]t is the intent of the Legislature that municipalities and 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**. Rules or regulations imposed by a municipality or county relating to providers of communications services placing or maintaining communications facilities in its roads or rights-of-way must be generally applicable to all providers of communications services and, **notwithstanding any other law, may not require a provider of communications services 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 communications facilities in its roads or rights-of-way. . .
>
> (3)(b) Registration described in paragraph (a) does not establish a right to place or maintain, or priority for the placement or maintenance of, a communications facility in roads or rights-of-way of a municipality or county. 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 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.

Section 337.401 (emphasis added). As set forth in the Statute, FDOT and local governments are authorized to adopt and to enforce reasonable regulations for the placement of facilities in the rights of way. With respect to communications services providers, local governments are entitled to adopt and to enforce competitively neutral regulations governing the placement or maintenance of communications facilities in the rights of way. Local governments cannot require a communications services provider to apply for or enter into any agreement. Rather, they can require a registration and permits to place and to maintain facilities in the rights of way.

Various cases have helped clarify the extent of Florida local regulatory authority with respect to the placement and maintenance of communications facilities in the rights of way. In *BellSouth Telecommunications, Inc. v. Town of Palm Beach*,[27] the court reviewed ordinances from two municipalities to determine which sections were preempted by federal or state law, including Section 337.401(3)(b), Florida Statues (1998), requiring "[a]ny 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." The court determined that the following regulations are considered necessary for the management of the right-of-way: indemnification; performance bond requirement; security fund requirement; local government power to request information from an operator regarding its future plans concerning the rights of way; housekeeping and administrative regulations; enforcement/fines; local government access to books regarding construction and repair within the right-of-way; requirement to retain and prepare reports regarding facilities within the right-of-way; requirement to maintain maps of all facilities within the right-of-way; and requirement to provide information relating to the physical management of the right-of-way. In contrast, the following regulations were determined by the court to be beyond local authority: local government's right to request information not relating to the right-of-way; requiring compliance with state and federal anti-discrimination laws; access to books regarding operations.

[27] 252 F.3d 1169 (11th Cir. 2001).

Local governments, industries, and other courts have accepted generally that Section 337.401 affords local governments the authority to obtain information and to adopt and to enforce regulations regarding the physical use of the rights of way and land use concerns, as well as information for the protection of the local government and its residents. Areas that are beyond such local authority involve generally business operations.

Section 362.01, Florida Statutes addresses specifically traditional telephone companies' authority to use the rights of way for telephone poles and lines. It provides:

> Any telegraph or telephone company chartered by this or another state, or any individual operating or desiring to operate a telegraph or telephone line, or lines, in this state, may erect posts, wires and other fixtures for telegraph or telephone purposes on or beside any public road or highway; provided, however, that the same shall not be set so as to obstruct or interfere with the common uses of said roads or highways. Permission to occupy the streets of an incorporated city or town must first be obtained from the city or town council.

Section 362.01, Florida Statutes. This statute does not provide any authority for wireless infrastructure companies or service providers to construct towers or wireless facilities in the rights of way.

3. Florida Law Regarding Fees for Use of Rights of Way

In 2001, Florida replaced taxes and fees communications service providers paid to the State and local governments with a communications services tax ("CST").[28] The CST was not new money, but was designed to replace funding, streamline administration and still provide bondable funding for the State and local governments. There are State and local portions of the CST, which must be separately listed on consumers' bills. The CST applies to telephone, cable, satellite service (just a State CST), mobile communications services, VoIP, and other such services. Florida Statutes establish the maximum CST, services it applies to, and exemptions.

Prior to the CST, local governments charged franchise fees to communications and cable providers that used the rights of way. The CST replaced such franchise fees. With the creation of the CST, local governments are not allowed to charge communications providers that pay the local CST a fee for use of the rights of way. Similarly permit fees became very restrictive and would not cover the costs to review construction applications. Local governments opted to receive a small increase in the CST of .12 percent in exchange for not charging permit fees for construction in the rights of way.[29] Communications providers that occupy the rights of way but do not provide communications services and thus do not pay CST to such jurisdiction are known as "pass-through" providers.[30] Section 337.401 establishes the maximum annual fee local governments may charge pass-through providers at $500 per linear mile or portion thereof.[31]

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[28] Chapter 202, Florida Statutes, effective October 1, 2001.

[29] Ironically, if such provider constructed its tower on private property immediately adjacent to the rights of way, the local government would be able to charge permit fees for review and inspections.

[30] Section 337.401(6)(a)(1), Florida Statute: " A "pass-through provider" is any person who places or maintains a communications facility in the roads or rights-of-way of a municipality or county that levies a tax pursuant to chapter 202 and who does not remit taxes imposed by that municipality or county pursuant to chapter 202."

[31] Sections 337.401(6)(b) and (c)(1), Florida Statutes.

Local governments must notice and hold public hearings on all ordinances to regulate use of rights of way, including adopting the CST and pass through fees, and must send proposed ordinances to the Florida Secretary of State for publication. There is no authority in Florida to negotiate fees for communications providers access to the rights of way, or to charge fees not authorized expressly by statute.

4. Wireless Services and Facilities Are Not Utilities Under Florida Law

Mobilitie has asserted it is a regulated utility under Florida law and that its "poles" are utility poles. It is clear however, under Florida law, that while Mobilitie may obtain a Competitive Local Exchange Telecommunications (CLEC) or an Alternative Access Vendor (AAV) certificate from the FL Public Service Commission ("PSC"), such certificate does not grant authority to provide wireless communications services or to install its towers in the rights of way. The PSC has no such authority. Section 364.011, Florida Statutes specifically exempts wireless communications, including commercial mobile radio service ("CMRS") providers, from the PSC's jurisdiction.[32] CMRS providers are not "telecommunications companies" within the jurisdiction of the PSC and are not entitled to access the rights of way under Florida statutes.[33] Further, it is also abundantly clear that Mobilitie's "poles" are not utility poles nor telecommunications facilities.[34] Rather, they are "towers" under Florida law.[35] Notwithstanding the clarity of Florida law, Mobilitie has asserted that it is a regulated utility and that it has the right to install its utility poles in the rights of way.[36]

Florida law further provides that local governments' land development and environmental regulations may require utilities to be constructed underground at such utility owner's expense. When an electric utility seeks to install new facilities, the Florida Department of Environmental Protection Siting Board determines whether such facilities should be installed above or underground at the utility's expense, and must consider local land development regulations. Further, the Siting Board must comply with local environmental regulations that require such utilities to be installed underground at the utility's expense.[37] If utilities in Florida must follow local regulations and be installed underground in certain circumstances, it would not be appropriate to allow towers to be installed in such rights of way. The land use and environmental concerns that apply to above ground utilities would also apply to towers. Local

[32] See also Section 364.013, Florida Statute, exempting broadband service and voice over Internet protocol from PSC jurisdiction.

[33] Section 364.02(12)(c), Florida Statute.

[34] See Sections 366.02(2) and Section 364.02(13), Florida Statutes, respectively, for definition of electric utility and telecommunications facility.

[35] Section 365.172(3)((bb), Florida Statute, provides: "Tower" means any structure designed primarily to support a wireless provider's antennae.

[36] The Pennsylvania Public Utility Commission reached a similar conclusion that DAS is not a utility under state or federal law. Pennsylvania Public Utility Commission, Review of Issues Relating to Commission Certificate of Distributed Antennae System Providers in Pennsylvania, Docket No. M-2016-2517831 (issued March 2, 2017).

[37] *Miami-Dade County v. Florida Power & Light Co.*, --- So.3d ----, 41 Fla. L. Weekly D964 (3d DCA 2016)(FL Supreme Court turned down appeal of appellate court decision pursuant to Electric Power Plant Siting Act, finding that State Siting Board should have taken into consideration Miami's Land Development Regulations and complied with Miami-Dade County's environmental regulations requiring undergrounding of utility lines).

regulations requiring undergrounding should be respected as a basis to prohibit wireless infrastructure in areas of rights of way where utilities are underground.[38]

5. Florida Law Regarding Siting Wireless Communications Facilities

In 2005, Florida substantially amended its statute addressing local government processing and regulation of wireless communications facilities.[39] Section 365.172(13), Florida Statutes, sets forth very detailed provisions regarding local authority with respect to application and review procedures, and authority to adopt and to enforce land use regulations over collocations and new wireless facilities. The statute does not differentiate between standard antennas and towers that cover large areas, from facilities that provide coverage over small areas, such as small cells and DAS. The definition of "wireless communications facility" is very broad and would include small cell and DAS facilities.[40] Further the definition of "tower" includes the "poles" applied for by Mobilitie and others to support such facilities.[41]

The statute does not reference expressly whether it applies or does not apply to applications to site facilities in the rights of way.[42] The statute does not apply to local governments acting in their proprietary capacity with respect to property they own, as opposed to their regulatory authority over private property.[43] However, to the extent an applicant sought to collocate on government-owned poles in the rights of way or to install facilities in portions of the rights of way that were owned in fee by a government, the statute would not apply.[44]

6. FDOT's Position on Wireless Facilities in State Rights of Way.

The FACA Report further discussed FDOT's positions regarding requests to install private DAS and small cell facilities in FDOT rights of way. First, consistent with Florida law, FDOT does not view such facilities as utilities. Second, as the rights of way property owner, FDOT has determined that it has the authority to use its property as it sees fit. When approached by such companies, FDOT's first concern was safety. The proposals often included tall towers within a short distance of the side of the road and within the "clear zone." A roadside "clear zone" is an area in a median or on the side of the road, off the pavement that is to be kept clear of fixed objects. For example, Mobilitie submitted rights of way utilization permit applications for

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[38] As discussed in Section IV, *infra*, Mobilitie applied to locate its "utility poles" in several locations where all utilities must be installed underground.

[39] Chapter 2005-171, Laws of Florida.

[40] Section 365.172(3)(gg), F.S., providing: "Wireless communications facility" means any equipment or facility used to provide service and may include, but is not limited to, antennae, towers, equipment enclosures, cabling, antenna brackets, and other such equipment. Placing a wireless communications facility on an existing structure does not cause the existing structure to become a wireless communications facility.

[41] *Supra*, note 34.

[42] The Bill amended Section 365.172, also amended Section 337.401 addressing regulation of rights of way. Thus, many stakeholders involved in the amendment to Section 365.172 believed that it would apply to applications for use of the rights of way for towers and antennas.

[43] Section 365.172(13), Florida Statute provides, in pertinent part: "notwithstanding anything in this section to the contrary, this subsection does not apply to or control a local government's actions as a property or structure owner in the use of any property or structure owned by such entity for the placement, construction, or modification of wireless communications facilities."

[44] However, the Statute does reference State ROW: "Any other law to the contrary notwithstanding,… the Department of Transportation shall negotiate, in the name of the state, leases for wireless communications facilities that provide access to property acquired for state rights-of-way." Section 365.172(13)(f), Florida Statutes.

120' towers within several feet of the edge of pavement. The FDOT Design Standards for roads requires a clear zone of 18 feet from edge of pavement for speed limits up to 45 miles per hour and from 24 to 36 feet for higher speed limits.[45] FDOT indicated that it only allows utilities to access its rights of way to serve a public need, although it may allow commercial communications facilities to be installed under an appropriate agreement.[46]

7. Local Governments' Policy Considerations with Towers in Rights of Way and Revisions of Local Codes

Many local governments share FDOT's positions and concerns. Local governments often have "clear zones" for public safety purposes requiring no fixed objects in certain areas of the rights of way.[47] Local governments' police powers extend to many other issues within their control of the rights of way. In addition to public safety and land use concerns, there are environmental, economic development, property value, aesthetics, costs, encouragement of collocation versus new towers, and other valid concerns.[48] Request to install towers up to 120' tall and large equipment facilities in rights of way, implicate many of these issues. These may be new considerations for many local governments. Nevertheless, many local governments are addressing these issues and considering revisions to local codes and appropriate regulations.[49] These local regulations are being developed with substantial input from the infrastructure real estate and communications provider industries.[50] These efforts by local governments, not only in Florida but around the country, demonstrate that a one-size-fits-all regulation or practice would not be appropriate.[51] For example, an FCC mandated form agreement would not be appropriate for Florida because local governments cannot enter into agreements, unless the FCC preempts Florida Statutes. Local governments are best equipped to address particular concerns with use of rights of way under their control in local codes consistent with State law.

8. Pending Legislation Demonstrates that the Commission Should Refrain from Regulation.

There is a further reason for the Commission to forbear from more regulations. There are pending bills in Florida that would address local processing and regulation of small cell and DAS in the rights of way. Senate Bill 596 and its identical House companion, HB 687, would amend

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[45] FDOT intends to revise its Utility Accommodation Manual to limit wireless facilities in FDOT rights of way.

[46] In 2016, Crown Castle filed an action against FDOT seeking declaratory and injunctive relief, claiming in part, that FDOT violated the Telecommunications Act by requiring a lease agreement. *Crown Castle NG East, LLC v. FDOT*, U.S. Dist. Ct., S. Dist. of Fla., Case No. 9:16-cv-80871. FDOT moved to dismiss for lack of subject matter jurisdiction and sovereign immunity and Crown Castle dismissed its complaint.

[47] This is particularly important in Florida, where roads often border waterways and canals, and clear rights of way are necessary for motorists to pull off the road or to avoid accidents without becoming submerged.

[48] See "*Use of Public Rights of Way for Wireless Communications Infrastructure – A Game Changer*," Inside Towers, March 5, 2017. https://insidetowers.com/cell-tower-news-use-public-rights-way-wireless-communications-infrastructure-game-changer/

[49] Local governments throughout Florida are considering revisions to codes to address requests to install wireless infrastructure in rights of way. Several governments have adopted Ordinances to allow such facilities with appropriate regulations . *E.g.* City of Sunrise Ordinance, item C17004, adopted February 14, 2017, allowing small cell and DAS facilities up to certain sizes and heights in rights of way under certain conditions. http://sunrise.novusagenda.com/AgendaPublic//CoverSheet.aspx?ItemID=6314&MeetingID=463

[50] In Florida, a coalition of infrastructure and provider entities, including T-Mobile, Verizon, Sprint, AT&T, FP&L, Comcast, and Crown Castle are working together to participate with local governments in revising codes.

[51] IAC Report, at 13-15, discussing various approaches across the country to siting facilities in rights of way.

Section 337.401 by creating the Advanced Wireless Infrastructure Deployment Act. Such Act would require that local governments process applications for such facilities within a certain time frame and allow rights of way access in certain circumstances.[52] The Act limits the height and size of facilities that may be allowed, and addresses fees and other regulations. If passed, such law would be effective July 1, 2017. Unless the FCC is considering preempting state law, there may be regulations in place that would apply to such applications. It is premature for the FCC to act, as Florida may enact comprehensive legislation to address access to rights of way for small cell and DAS wireless facilities.

Similar bills have been introduced or adopted in several States around the country. With respect to the legislative processes, often it is possible for local governments, industry and other stakeholders to work together to address all such parties' interests. Section 365.172, governing local regulation of wireless facilities, was the product of industry, local governments and legislators working together. On occasion the communications industries and state and local governments have worked together with respect to FCC matters.[53] However, the FCC's procedures and practices may make it more difficult for significant dialogue to occur. In addition, many local governments do not have the ability or resources to engage in workshops and meetings at the FCC. On the other hand, communications providers and infrastructure real estate companies are very familiar with working with State legislatures.[54] If regulation is going to be adopted that addresses important interests for both these industries and local governments, and not result in court challenges, it is more likely to occur at a legislative level. Further, as demonstrated in these Comments, these issues raise complex, game-changer policy questions that may be best left to new statutes.

III. Mobilitie's Practices In Florida Demonstrate That the Commission Should Dismiss its Petition and Not Consider Its Assertions as Credible.

As discussed in these Comments, siting wireless facilities has not created significant issues or disputes in Florida. Wireless communications providers and wireless infrastructure companies generally have worked well with local governments throughout the State with respect to mutual goals involved in siting wireless infrastructure to support the provision of wireless services. By far, the one anomaly with respect to the positive experience that has occurred generally in Florida is Mobilitie. The discussion infra on specific local governments' experience with Mobilitie provides greater details. However, Mobilitie's Petition should not serve as a basis for potential new Commission regulations. Quite the contrary, the Commission should reject Mobilitie's Petition, based on its conduct not only in Florida but around the country.

A. Mobilitie's Submissions in Florida Have Not Been Accurate or Complete.

Local governments have to review and make decisions on applications based on established procedures and adopted codes and statutes. Local governments understand that not all permit applicants are sophisticated with experience seeking approvals, and work with

[52] https://www.flsenate.gov/Session/Bill/2017/00596 and http://www.myfloridahouse.gov/Sections/Bills/billsdetail.aspx?BillId=57682&SessionId=83.

[53] One example is the work by the FCC IAC with the wireless communications and infrastructure industries to prepare the Wireless Report.

[54] With respect to SB 596, AT&T alone has some 60+ registered lobbyists with the Florida Legislature, Crown Castle, Mobilitie and other industry members also have registered lobbyists.

applicants through the process. This holds true for communications industries, while some are very experienced with local processes, others require guidance staff. Mobilitie has been a disruptive force with respect to local permitting of wireless infrastructure. Mobilitie's submissions are often incomplete, lack basic clarity, such as who is the applicant, what it is seeking to install and where, and Mobilitie rarely fulfills procedural requirements.

As discussed above, it is clear that local governments in Florida are not required under federal or Florida law to allow Mobilitie's poles in the rights of way, notwithstanding Mobilitie's assertions. They are not "utility poles" under Florida law, as Mobilitie claims in its various submissions. Rather they are "towers" under both federal and Florida law. Yet Mobilitie has never applied to install a tower.

Mobilitie's approach in Florida has been to submit permit applications under the guise as a "public utility" regulated and authorized by the PSC often under a different name that creates the impression that it is a regulated public utility seeking to install a utility pole in the rights of way. Many of Mobilitie's permit applications were submitted to local governments under a d/b/a name of "Florida Utility Pole Authority" and submitted to staff who permit utilities, as opposed to land use and planning staff.[55] As far as the Florida Coalition is aware, Mobility has never submitted an application for a cell tower nor referred to its proposed infrastructure as a tower, but only refers to its infrastructure as "poles" or "utility poles."

In addition, often when submitting its proposed plans, Mobilitie submits misleading or inconsistent information. For example, Mobilitie alternates between indicating poles are wood or concrete and submits photo simulations of such poles that are misleading as to their size, often looking shorter than nearby cars, light poles, buildings, and trees, when in actuality, it may be seeking to install poles of approximately 80' or 120' tall.[56]

Further, Mobilitie's submissions rarely constitute "applications" under local codes and procedures. As noted above, before a communications provider can obtain a permit to construct infrastructure in the rights of way, pursuant to Section 337.401, most local governments require such entity to register. All that is required is accurate identity and contact information, an insurance certificate and bond with specified requirements, and, if applicable, the certificate from the PSC to demonstrate that such entity is a communications provider. A communications rights of way registration is the only method through which local governments can obtain information to contact such entity in the event of an emergency, to ensure that rights of way are restored and properly maintained, to ensure that such facilities have not been abandoned, to determine if the applicant will pay the CST or should be assessed the pass-through provider fee, and to ensure that such entity will be responsible in the event of injury to persons or property. While the registration requirements are fairly straightforward and most communications providers rarely have difficulty satisfying them, Mobilitie has had issues completing registrations correctly. Several local governments have rejected Mobilitie's registrations as not compliant.[57]

[55] See discussion of Coral Gables, ***infra***.
[56] In at least one Application, Mobilitie did not list the jurisdiction's correct name. see discussion of Gulf Stream.
[57] *Id*.; see also discussion of Gainesville.

In any event, local governments attempt to process all applications in a professional manner. Mobilitie's actions have taken considerable time and resources of local staff and officials. Further, and more troubling, Mobilitie's permit applications for utility poles, have on occasion been granted by staff who were unaware of the true nature of Mobilitie's proposed "poles" or that Mobilitie (or its d/b/a entity) was not a utility entitled to install a utility pole. In such cases, local governments have had to go through the very unusual process of revoking permits that were granted under false pretenses, even if Mobilitie commenced installation.[58] If the Commission's broad enforcement authority extends to Mobilitie, it would appear appropriate for the Commission to explore Mobilitie's actions in certain local governments.[59] It is imperative that local government action be based on accurate and truthful information, particularly in such important matters as allowing installations in the rights of way.

B. Mobilitie's Assertions in its Petition Are Not Credible.

Based on Mobilitie's actions in Florida, it is disturbing that the Commission should see fit to quote Mobilitie's bald assertions in its Petition and appear to treat them as credible. While these Comments cannot address Mobilitie's assertions quoted extensively for other States,[60] the Public Notice also quotes Mobilitie's Petition as to assertions that it claims apply in Florida.

> According to Mobilitie, the phenomenon of excessive and unfair fees for use of rights of way "is not confined to a few outlier localities — it exists nationwide. Across the country, Mobilitie is being confronted with multiple fees, often being asked to pay not only up-front fees but also annual recurring fees which escalate by mandatory amounts year after year."[69] We invite comments on whether these assertions are well-founded.[61]

Again, these Comments cannot speak to other States, but certainly with respect to Florida's localities, nothing could be further from the truth. As detailed above, Florida localities do not have discretion to set fees for use of the rights of way. Maximum fees are set by Florida Statute, and if a local jurisdiction seeks to adopt such fees, it must do so by Ordinance following publication and public hearings. In addition, it is impossible for such fees in Florida to escalate year after year, as claimed by Mobilitie. The Florida Statute has not been amended with respect to the maximum rights of way fees that apply since it was adopted in 2001.[62] Local governments in Florida do not have authority to increase such fees without amendment of the Statute. Accordingly, Mobilitie's assertions are not only not "well-founded" they are absolutely incorrect with respect to Florida's 500 or so local governments.

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[58] Escambia County, discussed *infra*, is one such local government that was forced to revoke a permit.

[59] For example, Mobilitie's actions may implicate Florida law prohibiting and making it a crime to submit false information to a government. Fla. Stat. §837.06, False official statements, provides: "Whoever knowingly makes a false statement in writing with the intent to mislead a public servant in the performance of his or her official duty shall be guilty of a misdemeanor of the second degree…" Many counties and municipalities have similar code provisions addressing false information. *See, e.g.* Coral Gables City Code §39-1.

[60] Public Notice, at 17-18.

[61] Public Notice, at 13, citing Mobilitie Petition, at 15.

[62] Communications Services Tax Working Group Report to Hon. Rick Scott, Governor, Hon. Don Gaetz, President of the FL Senate, Hon. Will Weatherford, Speaker of the FL House of Representatives, Feb. 1, 2013.

Based on Mobilitie's actions in Florida and clearly inaccurate assertions in its Petition, it would be inappropriate for the Commission to rely on Mobilitie's Petition to justify preemption and more regulations of local governments. Quite the contrary, the Commission should dismiss Mobilitie's Petition.

IV. Several Specific Florida Governments' Wireless Siting Status And Detailed Official Action With Mobilitie.

In the Public Notice, the Commission recognized the value of specific information and "systematic data" over anecdotal evidence.[63] This section provides factual information about several Florida local governments' wireless tower and antenna siting status.[64] As demonstrated by such evidence, there do not exist extensive wireless service coverage or capacity issues, even in rural areas of the State. In addition, the Comments include specific local governments' official actions with respect to Mobilitie. Attached to such Comments are copies of Mobilitie's applications, correspondence and submissions, responses from local governments, as well as photographs showing areas where Mobilitie is seeking to install its towers in the rights of way.[65]

A. CITY OF CORAL GABLES

The City of Coral Gables is a planned community located just southwest of downtown Miami, running along the east coast of Biscayne Bay. Known as "The City Beautiful," Coral Gables features almost entirely Mediterranean Revival architecture and is so named because of its aesthetic use of wide tree-lined avenues, monumental buildings, winding roadways, green space, ornate plazas, and fountains.[66] The City dates back to 1925, established as one of the first planned communities and designed to be an international City which currently hosts more than 20 consulates and foreign government offices and more than 140 multinational corporations.[67] Coral Gables is also home to many properties on the National Register of Historic Places, including a National Historic Landmark - the Biltmore Hotel.[68] The City's diverse economy is comprised of banking, investment institutions, health care, professional services, and high-end shopping and hospitality, and the City serves as the international headquarters for Bacardi and Del Monte Fresh Produce. The University of Miami, a top 50 ranked research university, is located in Coral Gables and serves as the City's largest employer and provider of sports entertainment.[69] With its proximity to Miami International Airport, the Port of Miami, and downtown Miami, Coral Cables continues to be an especially desirable destination for living, business, and leisure.

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[63] Public Notice, at 9.

[64] The following includes specific information from several Florida local governments. If the Commission would like more such examples from other Florida local governments, or has questions about any specific Florida jurisdiction, the Florida Coalition will endeavor to provide such information.

[65] While such information is very voluminous, as the Commission recognized, it is a better practice to provide actual facts pertaining to the industries' experiences with particular jurisdictions than to supply anecdotal information such as the bald inaccurate assertions by Mobilitie. Further, if the Commission desires, the Florida Coalition could provide such information regarding other Florida local governments.

[66] http://www.coralgables.com/index.aspx?page=3

[67] *Id.*

[68] *Id.*

[69] *Id.*

Siting Wireless Facilities Generally

Because of the historic nature of much of the City and lush tree-lined residential neighborhoods, the City undertakes efforts to limit utilities and fixtures in its rights of way in various sections of the City.[70] The City historically has steadfastly asserted its zoning code and land use authority over these types of issues. The City was involved in litigation with the electric utility over proposed above-ground utility distribution poles for horizontal attachments and was successful in resolving the issue to have such utility poles installed at lower heights.[71] A communications provider must first attempt to collocate such facilities on existing towers and structures, and there is also a land use hierarchy for siting such facilities.[72] The City Code allows wireless facilities to be sited in the rights of way, pursuant to the processes and regulations set forth in the Zoning Code and other applicable City Code provisions.[73] In addition, the City has adopted a communications ordinance requiring registration prior to communications providers obtaining a permit to place and to maintain communications facilities in the rights of way, consistent with Section 337.401.[74] The City is in the process of reviewing its code to consider revisions to address small cell and DAS facilities in the rights of way.

Wireless siting has occurred in and around the City. There are 421 towers registered within a four-mile radius of City Hall. Heights of towers vary widely but many extend to over 200 feet. In addition, there are 789 antennas sited within such four-mile radius.[75] In addition, the City installed, owns and maintains a public safety cell tower on one of its Fire Station properties, in an area of the City where it would be difficult to site towers or collocate antennas on other structures. Four nationwide CMRS providers have collocated antennas on the tower.

Experience with Mobilitie

Mobilitie initially filed registration materials with correspondence dated January 19, 2016, and supplemental materials dated February 4, 2016, pursuant to the City's Communications Rights of Way Ordinance.[76] Mobilitie's contractor filed a Permit Application dated February 4, 2016 ("Permit Application"). In a letter dated March 15, 2016, the City notified Mobilitie that it was rejecting its registration because it did not provide a correct Certificate of Insurance and Performance Bond. In addition, the City notified Mobilitie that while Mobilitie indicated that it intended to construct a 75' utility pole in the rights of way, its construction plans revealed that it intended to construct a wireless tower in the right of way and would be required to comply with Article 5, Division 20 of the City's Zoning Code, which sets forth requirements for siting wireless towers and antennas in the City rights of way. The City notified Mobilitie that a permit could not be issued until Mobilitie submitted an application

[70] In some residential neighborhoods, the City does not install street signs for roadways and instead uses markers on the ground to contain the name of the streets.

[71] See note 36, *supra*.; City of Coral Gables, FL Resolution No. 2016-212, A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF CORAL GABLES, FLORIDA, APPROVING CONDITIONS OF THE PENDING FLORIDA POWER AND LIGHT (FPL) TRANSMISSION LINE PERMIT APPLICATION RELATED TO THE COCONUT GROVE INJECTION PROJECT.

[72] Coral Gables Zoning Code, Section 5-2005 (C) and (D).

[73] Coral Gables Zoning Code, Section 5-2005(S).

[74] Coral Gables City Code, Sections 70-71- 70-86.

[75] http://www.antennasearch.com/sitestart.asp.

[76] Attachment A, January 19, 2016 Letter From Cory Mofield, Mobilitie..

pursuant to Section 5-2003 of the Zoning Code, and such application has been approved through the appropriate procedures, in addition to obtaining an effective registration.[77]

Florida Utility Pole Authority responded in a letter dated March 29, 2016, asserting that as a public utility with a CLEC, Mobilitie was entitled to use the City rights of way, but that since it was not providing cellular or mobile services to end users, but "transport services, similar to electric, gas, telephone, and cable providers," it did not have to comply with the City's registration requirement or zoning code.[78] Several further correspondence and telephone communications between Mobilitie and the City ensued, in which Mobilitie took various, often inconsistent positions, with respect to the applicability of various federal and Florida laws and the City Code and asserted its rights under the FCC's "shot clock." These are summarized in a letter from the City dated June 6, 2016, in which the City rejected Mobilitie's assertions and indicated that it would have to comply with the registration and Zoning Code requirements.[79] While these communications were occurring, Mobilitie, under the d/b/a name of Florida Utility Pole Authority, submitted other permit applications for various locations including to install a "75' Concrete Utility Pole" in a certain location, although the construction plans were for a "78' Wood Pole."[80] The City rejected Mobilitie's other permit applications.

Mobilitie then requested to meet with representatives of the City, which the City agreed to do, to discuss Mobilitie's goals to install small cell facilities in various locations in the City rights of way. The City attempts generally to accommodate its businesses community and would meet with others interested in locating similar facilities within the City. At such meeting, Mobilitie presented the City with materials as to its status and its proposed infrastructure in the City. Mobilitie acknowledged that it was a communications services provider seeking to install wireless communications facilities, notably "towers" as defined under federal and Florida law, and associated equipment in the City rights of way. Mobilitie identified 20 locations in the City where it wanted to install such facilities. One proposed location was for an attachment to an existing light pole, but others were for new towers ranging in height from approximate 26 feet, several at approximately 40-45 feet, three at slightly over 70 feet and one at 120 feet, to be located in commercial and residential areas of the City in the rights of way, often adjacent to single family homes and in areas where there were no above-ground utilities. The proposed 120' pole was to be located adjacent to single family residential homes and a small park.[81] When asked why Mobilitie did not seek to locate its facilities on existing towers and buildings, which seemed possible for some locations, or to site facilities on private property in a manner that would be less impactful, Mobilitie responded that it did not want to pay rent. It did not identity a technical reason why it could not locate its facilities on existing structures or private property. While the City appreciated Mobilitie's candor and willingness to work with the City, the City

[77] Attachment A, March 15, 2016, Letter to Cory Mofield, Mobilitie.
[78] Attachment A, March 29, 2016, Letter from Florida Utility Pole Authority.
[79] Attachment A, June 6, 2016 Letter RE: Mobilitie, LLC d/b/a Florida Utility Pole Authority Registration and Permit Application.
While these communications were occurring, Mobilitie, under the d/b/a name of Florida Utility Pole Authority, submitted other applications for permits to install "Proposed Concrete Pole for Mounting Proposed Lessee Antenna, RRU and Equipment" in a certain locations in the City's Rights of Way.
[80] Attachment A, Permit Application dated 2/4/16 and site plan.
[81] Attachment A, pictures from some of Mobilitie's proposed locations. The 120' proposed tower would be adjacent to single family residential homes, where the Zoning Code does not allow such towers.

staff did not make any commitments with respect to Mobilitie's proposed facilities. There are no pending applications. Dialogue between the City and Mobilitie is continuing.[82]

B. CITY OF GAINESVILLE

The City of Gainesville is the cultural, educational, and commercial center for the north central region of Florida, located on I-75 halfway between Miami and Atlanta.[83] Gainesville is home to Florida's largest and oldest university, the University of Florida. Together with Shands Hospital at UF, the university is the leading employer and economic stimulant in Gainesville.[84] An estimated 129,000 people reside in Gainesville with a median age of twenty-five, largely due to the nearly 50,000 students that attend the University of Florida each year and call Gainesville their temporary home.[85] Gainesville is also known for its old-Florida historic landmarks and expansive surrounding nature preserves. The City owns and operates the regional utility, transit system, 72-par championship golf course, and municipal airport.[86]

Gainesville Regional Utilities

The City of Gainesville owns and operates its regional electric utility, Gainesville Regional Utilities (GRU). In addition to providing utilities to Gainesville's residents, GRU serves approximately 93,000 retail and wholesale customers in Gainesville and surrounding areas, offering electric, natural gas, water, wastewater, and telecommunications services.[87] GRU is governed by the Gainesville City Commission, in accordance with the City's Charter.[88]

Siting Wireless Facilities Generally and Access to Public Rights of Way

The Gainesville City Code permits construction of new monopole wireless towers and encourages collocation on existing monopole towers on private property.[89] The Code also provides all application submittal requirements for new wireless communication facilities.[90] In general, Gainesville requires a permit for any entity that obstructs any rights of way or whose actions will temporarily obstruct traffic. These applications are reviewed by the City's public works department and the permit is either issued or denied within five business days.[91]

There do not appear to be issues with wireless coverage and capacity in and around Gainesville. There are 244 registered antenna sites within a four-mile radius of City Hall and 111 towers within such area, of varying heights, including many well over 200 feet.[92]

The City has pole agreements which govern the placement of horizontal pole attachments (fiber optic, coaxial cable and copper wire) to GRU's utility poles in the rights of way poles.

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[82] Attachment A, Letter dated January 4, 2017, to Mobilitie summarizing meeting.
[83] http://www.cityofgainesville.org/Community/AboutGainesville.aspx
[84] *Id*.
[85] *Id*.
[86] http://www.cityofgainesville.org/Community/AboutGainesville/Facts.aspx
[87] https://www.gru.com/AboutGru.aspx
[88] https://www.gru.com/AboutGRU/OurLeaders/ExecutiveManagement.aspx
[89] City Code Sec. 30-98.
[90] City Code Sec. 30-98(m).
[91] City Code Sec. 23-38.
[92] http://www.antennasearch.com/sitestart.asp. The University owns and operates its own wireless service facilities for service within the University.

GRU has begun the process of working on pole attachment agreements with wireless carriers for collocation of vertical facilities (small cell and DAS) on its utility poles. At this point, GRU has not finalized an agreement with any wireless communications provider or infrastructure entity. Gainesville's code currently does not allow wireless facilities in the rights of way, but the City is currently in the process of reviewing its code to consider possible amendments to allow wireless facilities in the rights of way.

Experience with Mobilitie

Mobilitie first filed a Right of Way Permit Application with Gainesville on December 28, 2016, to install a single 72'wood "utility pole" with a top mounted antenna making the facility 75' tall for a location in the rights of way.[93] In its cover letter submitted with the application, Mobilitie described its desire to install small cell facilities, small low-powered wireless equipment which are mounted on either new or existing utility distribution or light poles.[94] Mobilitie's site plan shows that these facilities will be mounted to a new pole of approximately 75' to be sited in a right-of-way within the City's downtown area. In its site plan, Mobilitie included a picture of what appears to be a superimposed image of a small piece of one proposed pole.[95] The superimposed image, labeled "Proposed Utility Pole," fades out after roughly two feet, so that the depicted utility pole is a quarter of the size of nearby street signs. However, in the pole elevation schematic, it is revealed that the proposed pole is actually over 75 feet tall. In June 2016, Mobilitie previously submitted similar Right of Way Permit Applications to install similar poles in other locations within the City rights of way.[96] Pictures of where Mobilitie seeks to install two 75' poles and one 42' pole show that such facilities would interfere with others' use of the rights of way, including the travelling public, not blend into the environment, would be located in some areas where all utilities are underground, and would be much taller than anything in the vicinity.[97]

In an email dated July 7, 2016, the City notified Mobilitie that its June 2016 Applications were incomplete setting forth the specific deficiencies. In a letter dated January 12, 2017, the City notified Mobilitie that its December 2016 Application was also incomplete because Mobilitie did not demonstrate that it completed a registration to access the rights of way, as required by Article VI, chapter 23 of the City Code (the communications rights of way ordinance), and that there were other deficiencies with its Application. As noted, Mobilitie did not include its PSC certificate, certificate of insurance, and contractor information. In addition, Mobilitie indicated it would connect to an existing electric transformer, but did not obtain approval from the electric utility for such connection and may need an electrical permit prior to approval of its right of way permit. Further, the City notified Mobilitie that its proposed "pole" appeared not to satisfy the City's land use code, which the City indicated was in the process of being reviewed for possible revisions.[98] Mobilitie did not complete a registration nor provide the information that was missing from its Application. However, Mobilitie responded with an 8-page letter from Chris Brown, Government Relations Consultant ("CBrown Letter") dated

[93] See Attachment B – Right-of-Way Permit Application
[94] See Attachment B – Application Cover Letter, dated December 28, 2016
[95] See Attachment B – Site Plan, pages 2-3
[96] See Attachment B – Permit Application dated June 22, 2016
[97] See Attachment B – pictures of areas where Mobilitie seeks to install poles.
[98] See Attachment B – Letter dated January 12, 2017, to Mobilitie.

January 16, 2016(sic) to the City discussing Mobilitie's CLEC registration, its purported legal authority to use the rights of way and the City's legal authority, under state and federal law.[99] The City is continuing to analyze the issues raised in the CBrown Letter and to date, no further information has been submitted by Mobilitie.

C. TOWN OF GULF STREAM

The Town of Gulf Stream is a small planned community located on the barrier island of Florida's southeast coast, half way between Boca Raton and West Palm Beach. The Town is home to just under 1,000 residents with a median age of 58 years.[100] Gulf Stream is exclusively a residential and recreational town.[101] The Town has its own school, the Gulf Stream School founded in 1938, which offers private, quality education to up to 250 students from pre-Kindergarten to the 8th Grade.[102] As embodied on the Town's crest, Gulf Stream is well known for its exceptional golfing and nearly century long history of hosting polo games and tournaments as home to one of the most prominent polo clubs, the Gulfstream Polo Club.[103]

Siting Wireless Facilities Generally and Commitment to Improving Communications

Installation of cell towers and wireless communications antennas in Gulf Stream is permitted within Town owned property, provided the proposed facilities satisfy the Town Code, the Town's zoning regulations, and are approved by the Town Council.[104] Currently, there is an abundance of wireless coverage and capacity within the .8 square miles of Gulf Stream's limits. Within a 4 mile radius of the center of Town, there are 13 registered towers typically over 200 feet in height, and 30 unregistered towers typically between 100 and 200 feet in height.[105] Heights of such towers vary widely but extend up to 400 feet. There are over 260 antennas sited within this area on towers, buildings, and other structures. The Town is unaware of any areas within the Town that have gaps in wireless coverage or issues with capacity. Despite the abundance of coverage for its under 1,000 residents, the Town is consistently committed to expanding and improving communications capabilities. This is evidenced by Gulf Stream's now five year effort to improve utility stability, safety, aesthetics and reliability for its residents by undergrounding the Town's entire utilities system, including telecommunications facilities.[106]

In 2012, after growing concerns from residents on the number of service interruptions with the Town's overhead utilities system, **nearly** two-thirds of Town voters approved a referendum to place all of its power, cable television, and telecommunications facilities underground at the cost of over $6.5 million.[107] The Town has begun the implementation of this massive undergrounding effort, having hired engineers to oversee the project and contractors to

[99] See Attachment B – Letter dated January 16, 2016, from Chris Brown of Mobilitie to City Manager.
[100] http://www.gulf-stream.org/
[101] http://www.gulf-stream.org/about/
[102] http://www.gulf-stream.org/galleries/gulf-stream-school/
[103] https://en.wikipedia.org/wiki/Gulfstream_Polo_Club
[104] Town Code §66-456
[105] http://www.antennasearch.com/sitestart.asp
[106] As a barrier island, coastal area in Florida, Gulf Stream is subject to high-wind thunderstorms and occasionally experiences hurricanes and tropical storms. An underground utilities system provides the Town with a safer, more reliable system.
[107] http://www.palmbeachdailynews.com/news/local-govt--politics/undergrounding-other-barrier-island-communities-cite-reliability/dYQR2MpNm9SLG8lQtWqhaJ/

install underground conduits that would be used by the electric, cable and telecommunications utilities in the rights of way. The Town has finalized costs with the electric utility, cable and telecommunications utilities and completed many phases of the undergrounding project. In furtherance of Gulf Stream's efforts to place and maintain the Town's entire utilities system underground, the Town Code was amended to require any and all facilities providing electrical power, telecommunications, video, cable television, internet, broadband, and all similar services to be placed exclusively underground.[108]

Access to Public Rights of Way

Regarding use of the public rights of way, wireless communications antennas are permitted on existing towers or light pole structures located in rights of way or easements within the Town, subject to size and design conditions.[109] However, there is no provision of the Town Code to allow the siting of new towers to support wireless antennas in the rights of way within the Town. As stated above, siting a new tower to support wireless communications antennas may be permitted on Town-owned property, but not within rights of way.

Experience with Mobilitie

Mobilitie first approached the Town with a letter dated August 3, 2016, requesting a preliminary review of Mobilitie's application and site plan to construct a new utility infrastructure facility and requesting that the Town provide Mobilitie with all requirements needed to obtain a right of way permit for the installation of the proposed wireless facility.[110] Mobilitie indicated in the letter that it planned to construct the wireless facility within the next twelve months.[111] Mobilitie's "Right of Way Utilization Application" that it included with the letter, describes the proposed project as simply attaching "backhaul transport equipment to an existing concrete light pole within an existing right of way." In the Jurisdiction's Information section of the Application, Mobilitie indicated that the jurisdiction was the "City of Hialeah" although the address was completed with Gulf Stream's address, and in the Site Information section of the Application, Mobilitie inserted that the city was "Delray Beach" as opposed to Gulf Stream.[112] Mobilitie never explained nor corrected these errors.

In the site plan submitted with the Application, Mobilitie's site plan titled "Site Id: 9FLB004271/M190XSR44B, Gulfsteam RD & Old School RD, Delray Beach, FL 33483" but showed a location with Gulf Stream. This same mistake with respect to the jurisdiction occurs on all pages of the Site Plan. As part of the Site Plan, Mobilitie included a picture of a three to four foot pole placed in a cone and resting on a circular pad at the proposed siting location.[113] The pole is identified as "Proposed Concrete Utility Pole." However, in the pole elevation schematic, it is revealed that the proposed concrete utility pole is actually over 75 feet tall with a top mounted antenna, and would constitute a new cell tower under federal and state law.[114] The

[108] Town Code §34-103; This requirement does not apply to facilities necessary for temporary restoration of service under emergency conditions, such as a hurricane or similar natural event that damages overhead utility facilities.
[109] Town Code §66-456
[110] See Attachment C – Mobilitie Letter to The Town of Gulf Stream, dated August 3, 2016
[111] *Id*.
[112] See Attachment C – Mobilitie Right of Way Utilization Application, dated August 3, 2016. Hialeah is a separate municipality within Miami Dade County and Delray Beach is a separate municipality in Palm Beach County.
[113] See Attachment C – Site Plan, page 2
[114] See Attachment C – Site Plan, page 3

plan shows that the large concrete pole is to be installed directly in front of the Gulf Stream School along Gulfstream Road, and will include a warning sign that reads, "Notice – Stay Back – Radio-frequency energy may exceed exposure limits."[115] It should be noted that this area of Gulfstream Road is designated as an historic and scenic highway.[116]

On October 11, 2016, the Town Attorney replied to Mobilitie's letter and Application, denying Mobilitie's Application pursuant to the Code provisions requiring all utility facilities to be placed underground and prohibiting the siting of wireless facilities in the Town's rights of way.[117] In addition to the restrictions prescribed by the Town Code, it would be unreasonable to expect Gulf Stream to issue a permit for a 75 foot tower in front of its only school on an historic and scenic road, after Gulf Stream's residents approved and the Town has begun spending $6.5 million to place all utilities in the rights of way underground. To date, Mobilitie has not submitted anything further for the Town's consideration.

D. CITY OF TALLAHASSEE

The City of Tallahassee has been the State's capital since 1824, located in the Florida Panhandle halfway between St. Augustine and Pensacola.[118] Home to the Florida State Capital Building, Supreme Court of Florida, Florida Governor's Mansion, nearly 30 state agencies, and a large number of trade/professional associations, Tallahassee is at its busiest each spring during the legislative session when lawmakers determine the state's business agenda and budget.[119] Tallahassee is also home to two large and historic universities, Florida State University and Florida A&M University. An estimated 190,000 people reside in Tallahassee with a student population exceeding 70,000.[120] The City owns and operates the local electric utility, which is vertically integrated to provide generation, transmission, and distribution operations.[121]

Siting Wireless Facilities Generally and Access to Public Rights of Way

The City of Tallahassee is very supportive of expanding communications capabilities and is currently engaged in implementing a "digital canopy" throughout the City that would facilitate wireless communications in various public spaces, such as firehouses, parks, and the airport. Within just a 4 mile radius of City Hall, there are 52 registered towers typically over 200 feet in height and 80 unregistered towers typically between 100 and 200 feet in height.[122] Heights of such towers vary widely but extend up to over 600 feet. There are over 714 antennas sited within this area on towers, buildings, and other structures. The City is unaware of any areas within the City that have gaps in wireless coverage or significant issues with capacity, other than

[115] See Attachment C – Site Plan, pages 1, 9

[116] In 1916, the State of Florida began to open a stretch of roadway along the Atlantic Ocean coastline, as a more scenic alternative to Route 1, now called the Federal Highway. The road eventually became known as State Road A1A and runs parallel to the Ocean. To address high winds along the route, Australian Pines were planted along both sides of A1A, from Jacksonville to Miami. The Town of Gulf Stream is the only remaining stretch where the Australian Pine Canopy still remains. Thus, it has since been designated as an historic and scenic highway, allowing the Town to protect and cultivate new plants to maintain and expand a stand of more than 300 pines. http://www.gulf-stream.org/about/

[117] See Attachment C – Letter from John C. Randolph, Esq., dated October 11, 2016.

[118] http://www.visittallahassee.com/about-tallahassee/#government-3

[119] *Id.*

[120] https://www.census.gov/quickfacts/table/PST045214/1270600/embed/accessible

[121] https://www.talgov.com/you/you-learn-utilities-electric-index.aspx

[122] http://www.antennasearch.com/sitestart.asp

very minor service gaps due to the height of certain buildings in the downtown area and building penetration issues including at the FSU Stadium and Governor's Square Mall.

The City owns and operates the 4th largest municipal electric utility in Florida and 22nd largest in the United States.[123] Tallahassee owns the utility poles throughout the City, although the City does not own or operate a communications utility. The City has allowed for horizontal attachments (wireline) to its utility poles, but has not allowed the attachment of wireless facilities. Undergrounding of utilities and telecommunications facilities is not required, but is strongly encouraged by the City in new developments or major redevelopments. Tallahassee has engaged in several recent initiatives to convert above-ground utilities to underground. The City encourages where electric facilities are already underground, all other utilities follow suit and place facilities underground, in an effort to limit the above-ground facilities in the rights of way.

The City General Code of Ordinances does not currently allow, and thus prohibits, the siting of wireless communications towers in the rights of way. The City is exploring updating the City General Code to permit placement of wireless facilities on existing utility poles, subject to reasonable regulations. The City is also in the process of developing a set of technical requirements for DAS and small cell facilities in the rights of way as well as on City-owned structures. Tallahassee has great concern for the safety, aesthetics, and overcrowding issues that would arise from allowing new poles and wireless facilities in the rights of way without reasonable spacing, height, stealth, and other similar regulations.

Experience with Mobilitie

In mid-2016, Mobilitie submitted requests without completed applications to the City to install "utility poles" in various locations of the rights of way, ranging in height from approximately 25 to 75 feet, not including top mounted antennas.[124] The City's staff reviewed the construction plans and realized that they were not for utility poles. At that time, the permitting staff alerted the City Attorney's office, which began looking further into Mobilitie's submissions. The City determined that the requests were to install wireless communications facilities in the rights of way. In a letter dated December 13, 2016, the City notified Mobilitie d/b/a FL Network Transport, LLC, that the City would not be proceeding with further review of the submittals and that the City would be engaging in a review of its existing codes to determine whether to amend such codes to allow wireless facilities within the City's rights of way.[125] The City is currently engaged in this review and possible amendment process. Mobilitie has not submitted any additional applications or requests.

E. CITY OF TAMPA

The City of Tampa is the third most populous city in Florida and the fifty-third most populous city in the United States, with an estimated 369,000 residents.[126] It is located on the west coast of Florida, situated in the center of Tampa Bay along Florida's Gulf Coast. Tampa's economy is founded on a diverse base that includes tourism, agriculture, construction, finance,

[123] https://www.talgov.com/you/you-learn-utilities-electric-index.aspx
[124] See Attachment D – Submittals with construction plans
[125] See Attachment D – Letter dated December 13, 2016 to Submissions to the City of Tallahassee Letter, dated December 13, 2016
[126] http://www.census.gov/quickfacts/table/PST045216/1271000#flag-js-NA

health care, government, technology, and the port of Tampa.[127] Tampa hosts several large corporations' regional offices, with Fortune 1000 companies such as Raymond James Financial, WellCare, and OSI Restaurant Partners headquartered in the metropolitan area.[128] Tampa is also home to MacDill Air Force Base, which is a significant contributor to the City's economy, the headquarters for United States Central Command and Special Operations Command, and home to approximately 15,000 active military personnel and their families.[129]

Siting Wireless Facilities Generally

The City of Tampa has been very supportive of expanding communications capabilities, reviews applications promptly and has granted thousands of permits. The City strives to foster the improvement of the communications capabilities for its citizens, businesses and its own governmental needs, while at the same time addressing public safety, historic interests, economic development, land use, and aesthetic concerns of the City's residents and visitors. Cell towers are a permitted use provided they satisfy the City's zoning regulations. If an applicant seeks a variance from the City's zoning regulations, it may apply for a special use permit which is reviewed by the City Council. Wireless facilities siting has been exceptionally prolific within Tampa, both with respect to towers and collocation. Wireless infrastructure is allowed on commercial buildings and the City has leased numerous properties for the installation of wireless infrastructure for both service providers and infrastructure real estate companies to lease space to providers. Within just a 4 mile radius of Tampa's engineering building, there are 67 registered towers typically over 200 feet in height, 293 unregistered towers typically between 100 and 200 feet in height and currently four new tower applications.[130] Heights of such towers vary widely and extend up to 500 feet. There are over 860 antennas sited within this area on towers, buildings and other structures.[131] The City does not allow wireless communications attachments on traffic signal poles because of the engineering and public safety concerns.[132] Because of the extremely large number of wireless facilities that exist on public and private property, there is excellent wireless coverage and capacity throughout the City. In addition to wireless facilities for personal wireless services, cable and communications providers within Tampa have enabled Wi-Fi on their systems. It is reported that there are over 190 free Wi-Fi hotspots within Tampa and thousands of Wi-Fi hotspots for subscribers of such services.[133] The City is unaware of any areas within the City that have wireless gaps or significant issues with capacity. Tampa has never been sued by an applicant for approval of a wireless facility.

Access to Public Rights of Way

Regarding use of the public rights of way, Tampa allows both pass through providers and communication companies providing services within the City to install facilities in the City's rights of way. While the Tampa City Code §22-332(1) requires all communication facilities to

[127] https://www.tampagov.net/about-us
[128] https://en.wikipedia.org/wiki/Tampa,_Florida
[129] https://en.wikipedia.org/wiki/MacDill_Air_Force_Base
[130] http://www.antennasearch.com/sitestart.asp
[131] *Id*. It should be noted that a 4-mile search radius area does not represent the entire area of Tampa, which extends well beyond a 4-mile radius from this location.
[132] The extra mass of such facilities will make existing traffic signal poles become out of compliance with hurricane wind load requirements, requiring the entire signal pole to be replaced.
[133] Of course, sports stadiums and other large facilities may have issues during such events, but those property owners can take steps to accommodate the large number of wireless users during such events.

be placed underground, §22-332(2) does provide for the City to allow the installation of poles in the rights of way for communication facilities after approval by the City.[134]

As expected of a very large, urban metropolitan area that processes thousands of development applications at any given time, Tampa has committed extensive capital and resources to employing and maintaining a sophisticated technology system to handle the workload in a manner that addresses the concerns and satisfies applicants for development orders. The approval process for placement of communications facilities in the rights of way is fair, accessible, and expedient. All registration and permit applications may be completed fully online through the City's software system. Once plans for traffic maintenance, construction, and a certificate of insurance are uploaded, the application is sent out for review by the City's internal departments. The initial review period is ten working days, and if any revisions are requested by the City, the applicant is notified immediately through the software and may address the revisions required. If necessary, a second review period of the revisions submitted by the applicant is completed within another ten working days. Once all of the necessary departments have approved the application within such time periods, the applicant is notified and is required to upload a 48 hour notice of the installation days and times. Once the 48 hour notice is received by the City, the City issues the permit. Then once the work is completed, a notice of completion is required to be uploaded by the applicant. Upon receipt of the notice of completion, the final inspection is performed by the City, and once it passes, the permit is closed. An applicant that is organized and has the information needed by the City to process the application, can go from uploading the application to issuance of a permit in less than 60 days.

Experience with Mobilitie

Mobilitie first approached Tampa in May 2015 with an "example" set of engineering plans to install DAS facilities on existing electric utility poles throughout the City.[135] Mobilitie did not disclose whether it had a pole attachment agreement with the electric utility and how such installations of its wireless facilities at the top of such poles, above the communications zone, would be accomplished. Mobilitie did not file an application. After representatives from Tampa's Transportation and Stormwater Services contacted Mobilitie about the proposed project, in August 2015, an NRE Specialist for Mobilitie explained that Mobilitie changed its plans and instead was interested in installing 175 "poles" and small-cell sites across the City in the rights of way. At that time, Mobilitie was unable to identify the specific locations and did not submit an application.

In May 2016, Mobilitie provided plans to Tampa staff for "poles" and small-cell sites across the City. Most of these poles, which were actually cell towers under state and federal law and Tampa Code, were between 75 and 80 feet in height. Tampa's staff informed Mobilitie that the plans for such poles showed that such sites would not meet the reasonable height requirements, clear zone requirements, tree conflicts, and location criteria set forth in the City Code. Mobilitie subsequently withdrew its request that the City consider those plans.

In January 2017, Mobilitie submitted a spreadsheet reflecting seven site locations for proposed towers of approximately 35' in height at various locations in the public rights of

[134] Tampa City Code § 22-332.
[135] See Attachment E - Example Construction Plans

way.[136] Mobilitie requested comments from the City to make proper adjustments to the construction drawings that would be submitted with a new application. The City responded promptly with the requested feedback.[137] To date, Mobilitie has not submitted an application. Mobilitie also has not submitted the registration required by City Code as a condition to place and maintain communications facilities in the rights of way. Because of Florida law with respect to permit fees for use of the rights of way, Mobilitie has not paid any permitting fees to Tampa. Tampa staff has expended hundreds of staff hours in meetings and communications with Mobilitie and in reviewing Mobilitie's various submissions.

F. ESCAMBIA COUNTY

Escambia County is the westernmost county in the state, located in the Florida Panhandle and comprised of the City of Pensacola and the Town of Century. Just over 300,000 people reside within the 875 square miles comprising the County limits.[138] The County adheres to its developed standard operating procedures in reviewing and granting permits for installation of facilities in County rights of way.[139] Escambia County has not identified, nor has it been alerted to, any issues or concerns with lack of telecommunication coverage or capacity in the County for residents and business. The County is, however, concerned with liability related to drivers and pedestrians hitting obstructions in the rights of way.

Experience with Mobilitie

Mobilitie first approached Escambia County with eight right of way permit applications[140] to site identical 120 foot utility poles[141] in various County rights of way locations throughout the County. In early 2016, several of these permits were granted to Mobilitie after review of the applications and plans by the County. However, after further review of Mobilitie's applications and plans, it was discovered that Mobilitie had misrepresented the nature of their proposed telecommunications facilities to the County. Mobilitie's applications appeared to be for common utility poles, such as those used by Gulf Power, and thus the permits were issued. Instead, it subsequently became clear that Mobilitie intended to construct more elaborate monopoles for telecommunication antennas of the type that have not been previously permitted in the County's rights of way and are not contemplated in the County's ordinances and policies. The County therefore revoked the permits previously granted to Mobilitie.[142] In addition, unbeknownst to Escambia County, Mobilitie used its subsidiary, Interstate Transport and Broadband, LLC (ITB), to apply for the right of way permits and represented to the County that ITB was the utility registered with the PSC. Upon a search of registrations with the PSC, the County could not find ITB as a name registered with the PSC or authorized by the Secretary of State to conduct business in Florida. The County was eventually able to conclude that ITB was also operating in the State of Florida as FL Network Transport, LLC (FNT) and that while FNT had applied to the PSC for designation as a public utility, the application had not yet been processed. Thus, neither ITB nor FNT were authorized as public utilities in Florida. Mobilitie

[136] See Attachment F - Mobilitie Spreadsheet
[137] *Id.*
[138] https://www.census.gov/quickfacts/table/PST045215/12033
[139] See Attachment F – Standard Operating Procedures for Right-of-Way Permitting in Escambia County
[140] See Attachment F – Site Plans submitted with right-of-way applications
[141] Mobilitie's Site Plans submitted with each application are identical other than the proposed siting location maps and aerial images of those proposed locations.
[142] See Attachment F – Permit Revocation Letter, dated June 16, 2016

later clarified that both ITB and FNT are wholly owned subsidiaries of Mobilitie and that Mobilitie is certified with the PSC as a regulated telephone utility and communications service provider of Alternative Access Vendor services.[143] To date, no further applications have been submitted to the County by Mobilitie, ITB, or FNT.

G. CITY OF WINTER HAVEN

The City of Winter Haven is a relatively large city in Polk County, located about midway between Tampa and Orlando. Polk County is generally a rural area and is roughly the size of the State of Rhode Island. Just under 38,000 people reside in Winter Haven.[144] Nicknamed "The Chain of Lakes City," Winter Haven has 50 lakes within the City limits, including two chains of lakes which respectively feature nine and sixteen interconnected lakes.[145] The City is home to the very first Publix supermarket, opened in 1930, and LEGOLAND Florida, a state-of-the-art, world-class theme park. Residents and visitors alike enjoy boating, fishing, hiking, biking, and watching shows at the Theatre Winter Haven.

Broadband Services, Siting Wireless Facilities Generally and Access to Rights of Way

Despite the rural nature of the area, Winter Haven is committed to expanding and improving communications capabilities and is unaware of any areas within the City that have gaps in wireless coverage or significant issues with capacity. The City is participating in a county-wide initiative known as "Broadband Polk" to ensure that every individual, corporation, non-profit, visitor, government entity and community partner has access to affordable high-speed broadband.[146] Within just a 4 mile radius of Winter Haven's City Hall, there are 23 registered towers typically over 200 feet in height, and 51 unregistered towers typically between 100 and 200 feet in height.[147] Heights of such towers vary widely but extend up to 391 feet. There are 300 antennas sited within this area on towers, buildings, and other structures. The City Code permits siting of new communication towers, subject to special approval, in areas designated as commercial, industrial, or institutional in the future land use element of the City's comprehensive plan.[148] The Code also encourages collocation of facilities on one of the many existing towers or other structures to minimize the number of towers within the City.[149]

Experience with Mobilitie

Mobilitie approached the City with six right-of-way use permit applications, submitted on June 9, 2016.[150] The applications sought approval from the City to site six new facilities in existing City rights-of-way and included corresponding site plans and photo simulations for each proposed location and facility.[151] However, there were inconsistencies between Mobilitie's applications and their corresponding site plans that created confusion as to what facilities Mobilitie was actually seeking to install. Mobilitie applied for rights of way permits to site four new poles upon which antennas would be attached, ranging from 75 feet to 120 feet in height.

[143] See Attachment F – Amendment of Applicant Name Letter, dated July 14, 2016
[144] https://www.census.gov/quickfacts/table/PST045216/1278275
[145] https://en.wikipedia.org/wiki/Winter_Haven,_Florida#Lakes
[146] http://www.cfrpc.org/download/publications/Polk_County_Broadband_Plan.pdf.
[147] http://www.antennasearch.com/sitestart.asp
[148] Winter Haven Code of Ordinances Sec. 21-235
[149] Winter Haven Code of Ordinances Sec. 21-234
[150] See Attachment G – Mobilitie Cover Letter to Right-of-Way Permit Applications
[151] See Attachment G – Site Plans

Two of the rights of way permit applications requested installation of "equipment on a new pole within an existing ROW," where the scope of work was described as installing "a new pole with proposed backhaul transport equipment."[152] Inexplicably, however, the corresponding site plans repeatedly reference installing proposed antennas on existing utility/street light poles in existing rights of way. To date, Mobilitie has not explained this discrepancy. In addition, the Right of Way Use Permit Applications were submitted by Mobilitie, however, the construction plans accompanying such applications were submitted under the name "FL Network Transport, LLC" without an explanation as to the relationship. Mobilitie stated that it plans to construct the applied for facilities within the next 18 months.[153]

On October 6, 2016, the City staff responded to Mobilitie's applications after careful research and review.[154] It was determined that the four submitted applications for new poles with antennas failed to comply with one or more requirements contained in the City Code.[155] It was explained that the proposed poles were communications towers pursuant to the City Code and were not allowed in the proposed locations. One of the applications for a presumed collocation of facilities on an existing utility pole was determined to be proposed for a location within a rights of way controlled by FDOT, and the City referred Mobilitie to FDOT. The other application for a presumed collocation of facilities on an existing utility pole owned by the electric utility was determined to be within the City's jurisdiction, but the City requested further information and clarification as to the utility's consent, and whether the proposed antenna would be mounted on an existing utility pole or whether it would be mounted to a new pole. In addition, the City pointed out technical defects with all of the applications that would need to be corrected by Mobilitie. Following such correspondence, the City staff engaged in further communications with Mobilitie.

On December 28, 2016, Mobilitie responded to the City's request that Mobilitie explain its legal right to occupy the City's rights of way with an 8-page letter from Chris Brown, Government Relations Consultant ("CBrown Letter") discussing Mobilitie's CLEC registration and its regulation by the Florida Public Service Commission, its purported legal authority to use the rights of way and the City's legal authority, under state and federal law.[156] While the City continues to analyze the issues raised in the CBrown Letter, to date, no further information has been submitted by Mobilitie or FL Network Transport LLC with respect to the previously submitted applications.

V. Conclusion

The Florida Coalition appreciates the opportunity to submit these Comments. The Florida Coalition shares the Commission's goal of ensuring that residents, visitors, businesses and governments enjoy the benefit of advanced communications services and that regulatory policies support such advances in technology. The concerns raised in the Public Notice, and certainly Mobilitie's claims that local governments are hindering such goals, are not well founded.

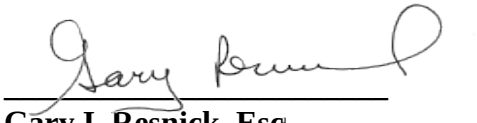
[152] See Attachment G – Applications 9FLB004612 and 9FLB004615
[153] See Attachment G – Mobilitie Cover Letter to Right-of-Way Permit Applications
[154] See Attachment G – City Growth Management Reply Letter, dated October 6, 2016
[155] Specifically, Winter Haven Code of Ordinances Sec. 21-235
[156] See Attachment G– Letter, dated December 28, 2016 from Chris Brown of Mobilitie to Interim City Manager.

Mobilitie's assertions regarding inappropriate fees, inconsistent terms, and lack of transparency certainly do not hold true for Florida's local governments, where all such regulations are established by State Statute and must be adopted by local Ordinances.

However, there are important interest to balance with respect to federal and state regulation of local governments' processing applications for wireless siting, particularly with respect to rights of way since such facilities can have significant adverse impacts to nearby properties and other users of the rights of way. Neither federal nor Florida law guarantees that every wireless communications provider and infrastructure real estate company will be entitled to locate any facilities wherever it wants. While every application needs to be reviewed on its merits, it may very well be that Mobilitie's proposed 80'-120' towers are not suited for many of its desired locations in the rights of way. Local governments are best suited to make these decisions. Similarly while many local governments may be reviewing voluntarily their codes to address advanced technology and new requests for access to the rights of way, that does not signal the need for more federal regulation. The Florida Coalition submits that it would be impossible for the FCC to address all the nuances of the various States' laws with respect to local control of the rights of way. Inappropriate preemption or regulation may have negative consequences not contemplated by the Commission. Further, these same issues are being considered currently at the State legislative level, where it may be more appropriate to determine the various policy questions and allow the stakeholders to work together on appropriate solutions. The Florida Coalition urges the Commission to refrain from adopting more regulations on processing applications and regulating use of rights of way for wireless infrastructure.

Respectfully submitted,

FLORIDA COALITION OF LOCAL GOVERNMENTS



Gary I. Resnick, Esq.
Drew S. Haggard, Esq.
GRAYROBINSON, P.A.
401 E. Las Olas Boulevard
Suite 1000
Fort Lauderdale, FL 33301
Telephone: 954-761-8111
Fax: 954-761-8112
gresnick@gray-robinson.com

Dated: March 8, 2017

ATTACHMENT A

CITY OF CORAL GABLES

mobilitie
intelligent infrastructure

Cory Mofield
NRE Agreements Specialist
120 S. Riverside Plaza, Suite 1800
Chicago, IL 60606
312-638-5320
cory.mofield@mobilitie.com

January 19, 2016

Lina Hickman,
Civil Engineer
City of Coral Gables
2800 SW 72nd Street
Miami, FL 33155
305-460-5048
lhickman@coralgables.com

RE: Mobilitie, LLC City of Coral Gables Code of Ordinances Section 70-74 Registration

Dear Ms. Lina Hickman:

Pursuant to the City of Coral Gables Code of Ordinances Section 70-74, this letter serves as registration of Mobilitie, LLC for the purpose of placing and maintaining infrastructure within the City right-of-way. Should you have any questions, please do not hesitate to reach out to us.

(1) Cory Mofield
120 S. Riverside Plaza
Suite 1800
Chicago, IL 60606
312-638-5320
cory.mofield@mobilitie.com

(2) Mobilitie, LLC is a certified public utility that provides backhaul services that compete with, and augment, existing fiber solutions. As part of its services offering, Mobilitie, LLC constructs and maintains ownership of various operational structures within rights-of-way. Mobilitie, LLC does not provide communications services to customers at retail within jurisdictional limits of the city.

(3) See attached certificate of insurance

(4) See attached Florida Public Service Commission Alternative Access Vendor certification

(5) See attached performance bond

Respectfully submitted,

Cory Mofield
NRE Agreements Specialist

Attachments: certificate of insurance, Alternative Access Vendor certification, performance bond

MOINV-3 OP ID: PS

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 11/13/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Silverstone Insurance Services
Jetton & Assoc Ins Svs Inc
P.O. Box 1200 (Lic #0C04829)
Rancho Cucamonga, CA 91729-1200
Brent Jetton, AAI, CIC
Phone: 909-980-4211
Fax: 909-980-4788

CONTACT NAME:
PHONE (A/C, No, Ext):
FAX (A/C, No):
E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: Federal Insurance Company	20281
INSURER B: Great American E&S Ins Co	37532
INSURER C:	
INSURER D:	
INSURER E:	
INSURER F:	

INSURED
Mobilitie LLC
2220 University Drive
Newport Beach, CA 92660

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY PRO-JECT X LOC			36036868 CONTRACTUAL LIABILITY	11/11/2015	11/11/2016	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 1,000,000 $ 10,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
A	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS X HIRED AUTOS X NON-OWNED AUTOS			73591570	11/11/2015	11/11/2016	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
A	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED RETENTION $			79897229	11/11/2015	11/11/2016	EACH OCCURRENCE AGGREGATE	$ 5,000,000 $ 5,000,000
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		71749082	11/11/2015	11/11/2016	X WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000
B	Pollution Liab			PRE315985700	02/09/2015	02/09/2016	Aggregate	5,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

If required by written contract City of Coral Gables, its officers, directors, agents, servants, employees, successors and assigns are add'l insured to all liab policies except workers' comp, subjet to policy provision. Primary/Non-Contributory Wording applies. Waiver of subro applies to all policies, subject to policy provisions. 30 Day Notice of Cancellation

CERTIFICATE HOLDER

CICOR01

City of Coral Gables
Coral Gables City Hall
405 Biltmore Way
Coral Gables, FL 33134

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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2 of 2 DOCUMENTS

In re: Application for certificate to provide alternative access vendor service by Mobilitie, LLC

DOCKET NO. 060626-TA; ORDER NO. PSC-06-0953A-PAA-TX

Florida Public Service Commission

2006 Fla. PUC LEXIS 563

06 FPSC 11:9

November 20, 2006, Issued

OPINION: [*1]

AMENDATORY ORDER

BY THE COMMISSION:

On November 15, 2006, we issued Order No. PSC-06-0953-PAA-TA. The purpose of the Order was to provide an Alternative Access Vendor Certificate. However, due to a scrivener's error, a company code rather than a certificate number was used. Therefore, Order No. PSC-06-0953-PAA-TA is amended to reflect that 8655 is the correct certificate number.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that Order No. PSC-06-0953-PAA-TA is hereby amended to reflect that 8655 is the correct certificate number. It is further

ORDERED that Order No. PSC-06-0953-PAA-TA is reaffirmed in all other respects.

By ORDER of the Florida Public Service Commission this 20th day of November, 2006.

Legal Topics:

For related research and practice materials, see the following legal topics:
Energy & Utilities LawAdministrative ProceedingsPublic Utility CommissionsGeneral Overview



1 of 2 DOCUMENTS

In re: Application for certificate to provide alternative access vendor service by Mobilitie, LLC

DOCKET NO. 060626-TA; ORDER NO. PSC-06-0953-PAA-TA

Florida Public Service Commission

2006 Fla. PUC LEXIS 595

06 FPSC 11:125

November 15, 2006, Issued

PANEL: [*1] The following Commissioners participated in the disposition of this matter: LISA POLAK EDGAR, Chairman; J. TERRY DEASON; ISILIO ARRIAGA; MATTHEW M. CARTER II; KATRINA J. TEW

OPINION: NOTICE OF PROPOSED AGENCY ACTION ORDER GRANTING CERTIFICATE TO PROVIDE ALTERNATIVE ACCESS VENDOR SERVICES

BY THE COMMISSION:

NOTICE is hereby given by the Florida Public Service Commission that the action discussed herein is preliminary in nature and will become final unless a person whose interests are substantially affected files a petition for a formal proceeding, pursuant to Rule *25-22.029, Florida Administrative Code*.

Mobilitie, LLC (Mobilitie) has applied for a certificate to provide Alternative Access Vendor (AAV) services pursuant to *Section 364.337, Florida Statutes*. Upon review of its application, it appears that Mobilitie has sufficient technical, financial, and managerial capability to provide such service. Accordingly, we hereby grant Certificate No. TA079 to Mobilitie.

If this Order becomes final and effective, it shall serve as Mobilitie's certificate. Mobilitie should, therefore, retain this Order as proof [*2] of certification. We are vested with jurisdiction over this matter pursuant to *Sections 364.335* and *364.337, Florida Statutes*.

AAV providers are subject to Chapter 25-24, Florida Administrative Code, Part XIV, Rules Governing Alternative Access Vendor services. AAV providers are also required to comply with all applicable provisions of Chapter 364, Florida Statutes.

In addition, under *Section 364.336, Florida Statutes*, certificate holders must pay a minimum annual Regulatory Assessment Fee (RAFs) of $ 50 if the certificate was active during any portion of the calendar year. A RAFs Return notice will be mailed each December to Mobilitie for payment by January 30th. Neither the cancellation of the certificate nor the failure to receive a RAFs Return notice shall relieve Mobilitie from its obligation to pay RAFs.

Based on the foregoing, it

ORDERED by the Florida Public Service Commission that we hereby grant Certificate No. TA079 to Mobilitie, LLC, which shall authorize it to provide Alternative Access Vendor services, subject to the terms and conditions specified in [*3] the body of this Order. It is further

ORDERED that this Order shall serve as Mobilitie, LLC's certificate and should be retained by Mobilitie, LLC as proof of certification. It is further

ORDERED that the provisions of this Order, issued as proposed agency action, shall become final and effective upon the issuance of a Consummating Order unless an appropriate petition, in the form provided by Rule *28-106.201, Florida Administrative Code*, is received by the Director, Division of the Commission Clerk and Administrative Services, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on the date set forth in the "Notice of Further Proceedings" attached hereto. It is further

ORDERED that in the event this Order becomes final, this docket shall be closed.

By ORDER of the Florida Public Service Commission this 15th day of November, 2006.

ORDER 06-0954 IS AVAILABLE UPON REQUEST

Legal Topics:

For related research and practice materials, see the following legal topics:
Energy & Utilities LawAdministrative ProceedingsPublic Utility CommissionsGeneral Overview

SITE ID: MI90XS167 / 9FLB000630

The City of Coral Gables
PUBLIC WORKS
PERMIT APPLICATION

DATE: 2/4/2016 **PUBLIC WORKS PERMIT #:** _____

ALL OF THE FOLLOWING MUST BE FILLED IN BY APPLICANT ACCORDING TO FS 713.135

Building Permit # _____ Building Bond # 1041559

Application # _____ Control # _____

Square Footage: _____ Estimated Cost $ 15,000.00

Type of Permit: ( ) Waterway Const. ( ) Paving ( ) Side Walk ( ) Other
(✓) Utility ( ) Encroachment ( ) Obstruction of Right of Way

CONTRACTOR'S LICENSE NUMBER: CGC1505328
CONTRACTOR'S BUSINESS NAME: Regency Communications INC. Phone Number: (954) 868-4657
Address: 4332 NW 120th Avenue City: Coral Springs State: FL Zip Code: 33065

ARCHITECT/ENGINEER'S NAME: Patrick W. Marshall; P. Marshall & Associates, LLC Phone Number: (678) 280-2325
Address: 1000 Holcomb Woods PKWY STE. 210 City: Roswell State: GA Zip Code: 30076

SITE ADDRESS: Majorca Ave/Ponce De Leon Blvd., Coral Gables FL 33134 Folio # _____
LEGAL DESCRIPTIONS: Lots _____ Block _____ Section _____

OWNER'S NAME: Florida Utility Pole Authority c/o Cheri Thompson Phone Number: (954) 464-6572
Address: 3475 Piedmont Rd NE, Suite 1000 City: Atlanta State: GA Zip Code: 30305

WORK DESCRIPTION:

To install a 75 ft utility pole within an existing right-of-way.

The undersigned affirms that the applicant is familiar with and agrees to conform to the standard specification of the City of Coral Gables and all regulations of the Department of Public Works concerning work to be performed in the public right-of-way.

OWNER'S AFFIDAVIT: I certify that all foregoing information is accurate and that all work will be done in compliance with all applicable laws regulating construction and zoning.

Cheri Thompson
Print Name: OWNER
C. A. Thompson
Signature: OWNER

The foregoing instrument was acknowledged before me this 4th day of February by Cheri Thompson
who has taken an oath and:
( ) is personally known to me.
(✓) has produced a Drivers License as identification
NOTARY PUBLIC
My Commission Expires: October 17, 2018

"OFFICIAL SEAL"
ERNESTO CRUZ
Notary Public, State of Illinois
My Commission Expires Oct. 17, 2018

John J. Pequignot
Print Name: NAME/QUALIFIER
John J. Pequignot
Signature: NAME QUALIFIER

The foregoing instrument was acknowledged before me this 10 day of Feb by John J. Pequignot
who has taken an oath and:
(✓) is personally known to me.
( ) has produced a _____ as identification
NOTARY PUBLIC
My Commission Expires:

COURTNEY M. HUNSBERGER
Commission # FF 215481
Expires April 8, 2019
Bonded Thru Troy Fain Insurance 800-385-7019

SITE ID: 9FLB000630/MI90XS167
MAJORCA AVE / PONCE DE LEON BLVD
CORAL GABLES, FL 33134

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

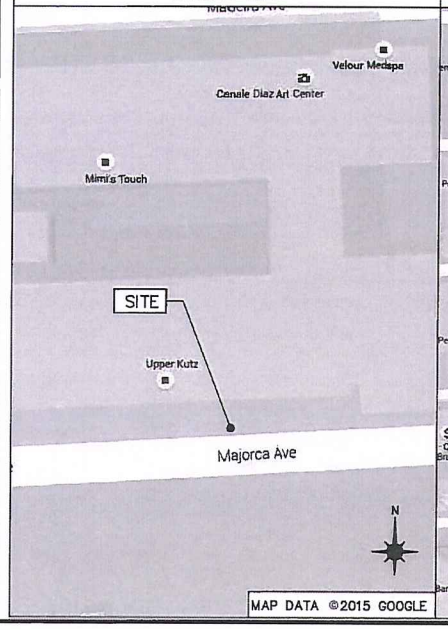
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY
ADDRESS/CROSS ST:	MAJORCA AVE/PONCE DE LEON BLVD
APPLICANT:	FLORIDA UTILITY POLE AUTHORITY
APPLICANT ADDRESS:	120 S. RIVERSIDE PLAZA SUITE 1800 CHICAGO, IL 60606 PHONE: (312) 638-5400
DBA ID:	9FLB000630
SITE ID:	MI90XS167
LATITUDE:	25.755272
LONGITUDE:	-80.257951
LAT/LONG TYPE:	NAD 83/NAVD 88
GROUND ELEVATION:	± 8.1' AMSL
COUNTY:	MIAMI-DADE COUNTY
JURISDICTION:	FLORIDA DEPARTMENT OF TRANSPORTATION

BEFORE SCALING DRAWINGS

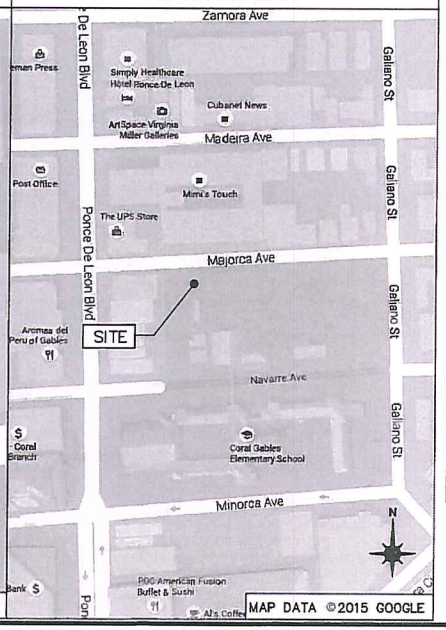
CONTRACTORS SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

LOCATION MAPS

VICINITY MAP



REGIONAL MAP



PROJECT DESCRIPTION

END USER PROPOSES TO INSTALL A PROPOSED WOOD UTILITY POLE WITH PROPOSED SMALL CELL 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
GN-1	GENERAL NOTES
GN-2	GENERAL NOTES
TC-1	TRAFFIC CONTROL PLAN
EC-1	EROSION CONTROL PLAN
EC-2	EROSION CONTROL DETAILS

P. MARSHALL & ASSOCIATES, LLC
1000 HOLCOMB WOODS PKWY STE. 210
ROSWELL, GA 30076
TEL: (678) 280-2325 FAX: (678) 280-2329

FLORIDA UTILITY POLE AUTHORITY

PROJECT NO.	TTS0208
DRAWN BY	AJR
CHECKED BY	PWM

VERSION	DATE	DESCRIPTION
A	10.26.15	FOR CLIEN REVIEW
B	02.01.16	FOR CLIEN REVIEW

ISSUED FOR REVIEW ONLY

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: 9FLB000630/MI90XS167
MAJORCA AVE/
PONCE DE LEON BLVD
CORAL GABLES, FL 33134
WOOD POLE

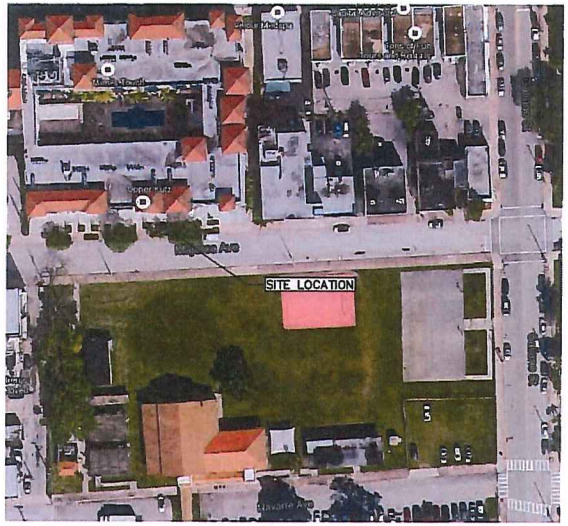
SHEET TITLE
TITLE SHEET

SHEET NUMBER
0.0



EXHIBIT PHOTO | 1

SCALE: NOT TO SCALE



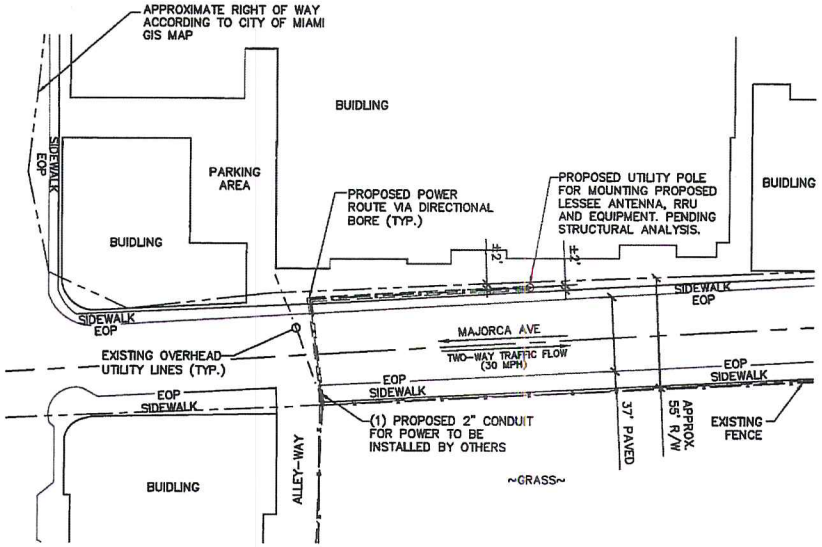
N

AERIAL SITE LOCATION | 2

SCALE: NOT TO SCALE

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



N

ENLARGED SITE PLAN | 3

SCALE: 1" = 60'-0" (1" = 30'-0" ON 22"x34" SHEET)

FLORIDA UTILITY POLE AUTHORITY

PROJECT NO.	TTS0208
DRAWN BY	AJR
CHECKED BY	PWM

VERSION	DATE	DESCRIPTION
A	10.26.15	FOR CLIEN REVIEW
B	02.01.16	FOR CLIEN REVIEW

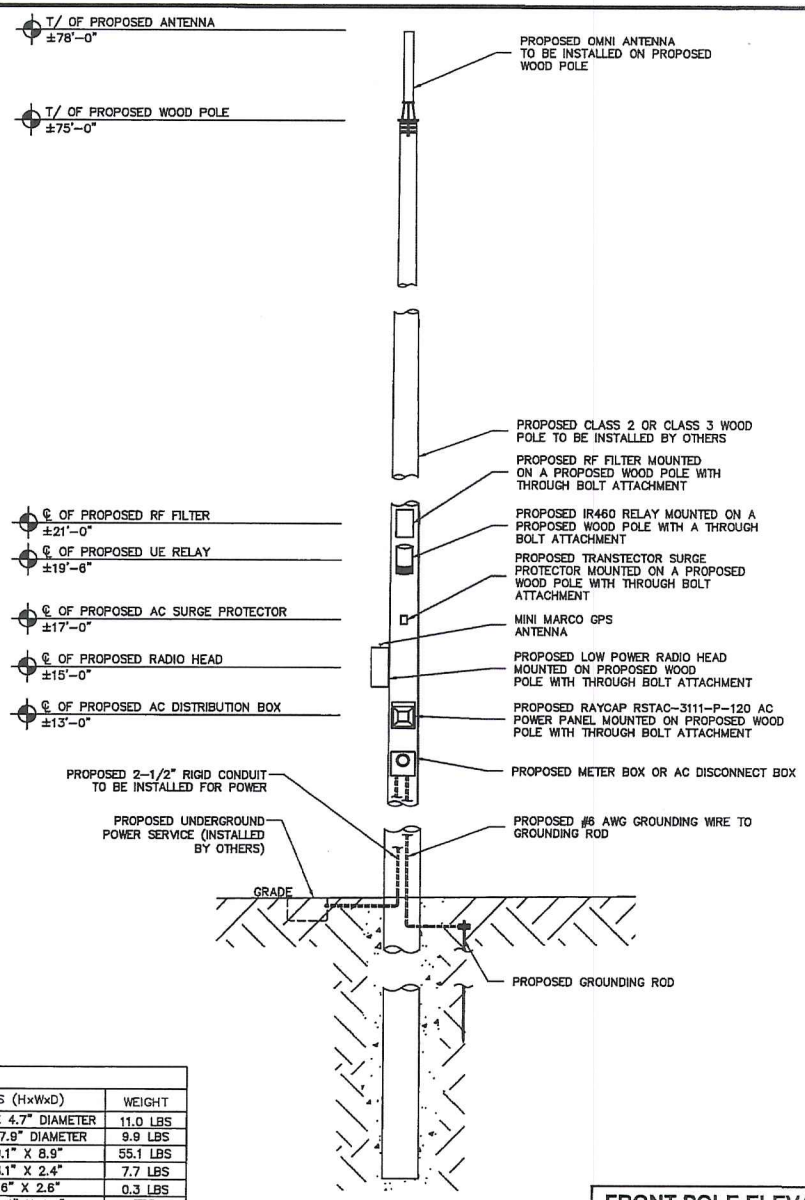
ISSUED FOR REVIEW ONLY

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: 9FLB000630/MI90XS167
MAJORCA AVE/
PONCE DE LEON BLVD
CORAL GABLES, FL 33134
WOOD POLE

SHEET TITLE
SITE PLAN & EXHIBIT PHOTO

SHEET NUMBER
1.0



PM&A 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	IR460 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	RAYCAP RSTAC-3111-P-120 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" = 5'

1

FLORIDA UTILITY POLE AUTHORITY

PROJECT NO.	TTS0208
DRAWN BY	AJR
CHECKED BY	PWM

VERSION	DATE	DESCRIPTION
A	10.29.15	FOR CLIEN REVIEW
B	02.01.16	FOR CLIEN REVIEW

ISSUED FOR REVIEW ONLY

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SITE ID: 9FLB000630/MI90XS167

MAJORCA AVE/
PONCE DE LEON BLVD
CORAL GABLES, FL 33134

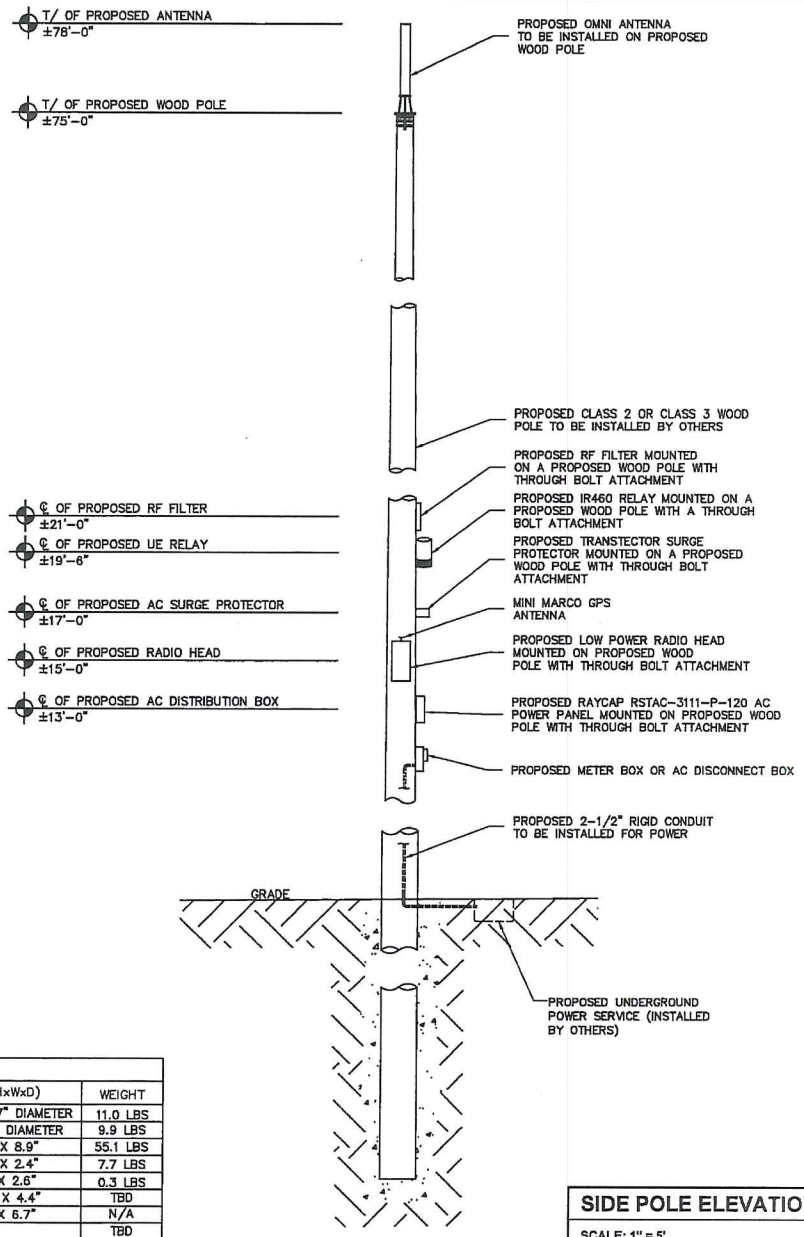
WOOD POLE

SHEET TITLE

POLE ELEVATION

SHEET NUMBER

2.0



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1	METER BOX / AC DISCONNECT BOX	TBD	TBD

SIDE POLE ELEVATION

SCALE: 1" = 5'

1

FLORIDA UTILITY POLE AUTHORITY

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SITE ID: 9FLB000630/MI90XS167

MAJORCA AVE/
PONCE DE LEON BLVD
CORAL GABLES, FL 33134

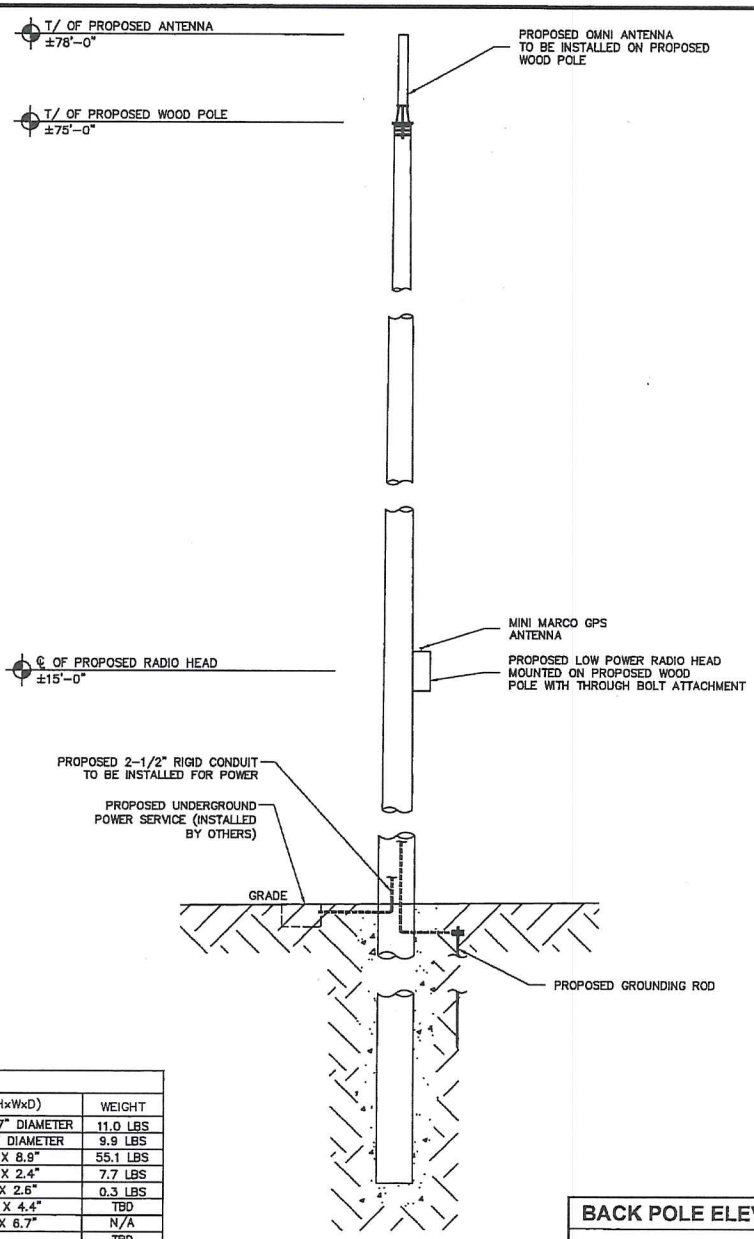
WOOD POLE

SHEET TITLE

POLE ELEVATION

SHEET NUMBER

2.1



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EQUIPMENT CHART			
QUANTITY	DESCRIPTION	DIMENSIONS (HxWxD)	WEIGHT
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1	SURGE PROTECTOR	2.5" X 4.5" X 6.7"	N/A
1	METER BOX / AC DISCONNECT BOX	TBD	TBD

BACK POLE ELEVATION 1

SCALE: 1" = 5'

FLORIDA UTILITY POLE AUTHORITY

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MAJORCA AVE/
PONCE DE LEON BLVD
CORAL GABLES, FL 33134

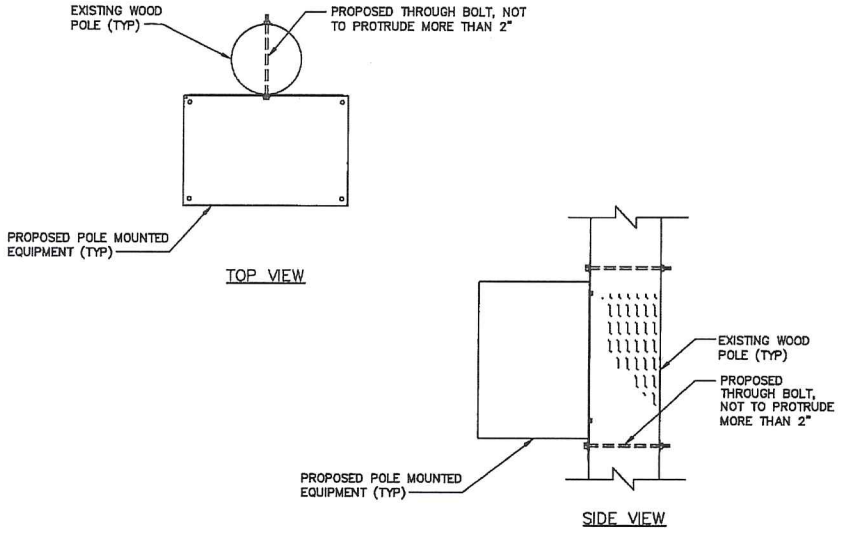
WOOD POLE

SHEET TITLE

POLE ELEVATION

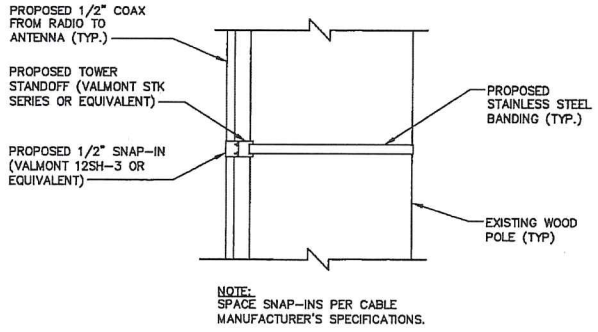
SHEET NUMBER

2.2



EQUIPMENT THROUGH BOLT CONNECTION — 1

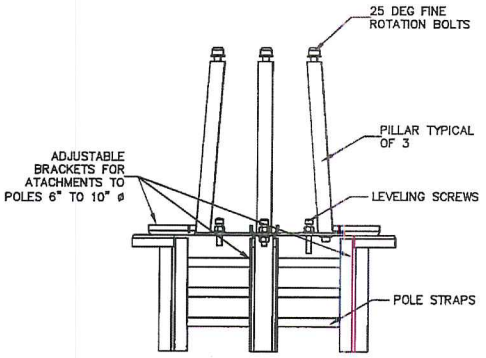
SCALE: NOT TO SCALE



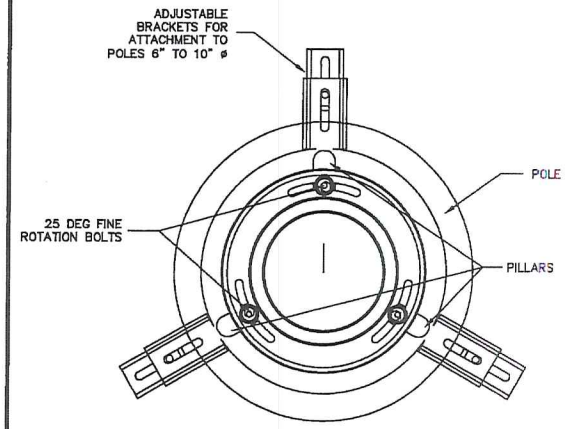
NOTE:
SPACE SNAP-INS PER CABLE MANUFACTURER'S SPECIFICATIONS.

COAX CABLE MOUNTING DETAIL — 2

SCALE: NOT TO SCALE



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



ANTENNA MOUNTING DETAIL — 3

SCALE: NOT TO SCALE

FLORIDA UTILITY POLE AUTHORITY

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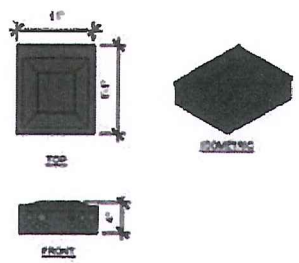
SITE ID: 9FLB000630/MI90XS167
MAJORCA AVE/
PONCE DE LEON BLVD
CORAL GABLES, FL 33134
WOOD POLE

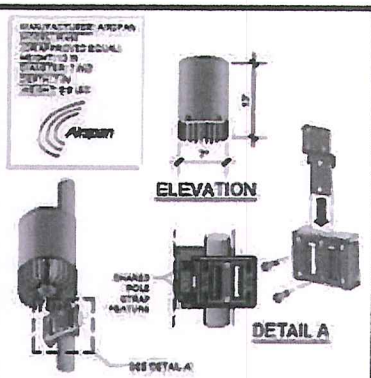
SHEET TITLE
ANTENNA & EQUIPMENT MOUNTING DETAILS

SHEET NUMBER
3.0

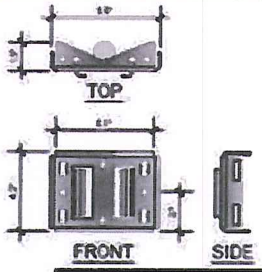
NOT USED
SCALE: NOT TO SCALE
X



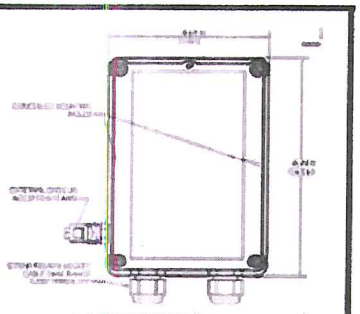
RAYCAP POWER BOX
SCALE: NOT TO SCALE
1



IRELAY 460 MOUNTING BRACKET

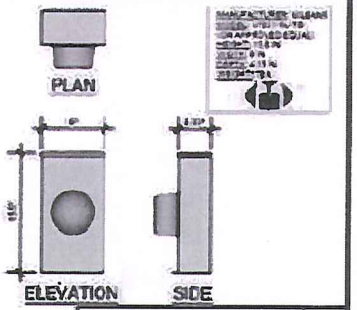


AIRSPAN IR460
SCALE: NOT TO SCALE
3

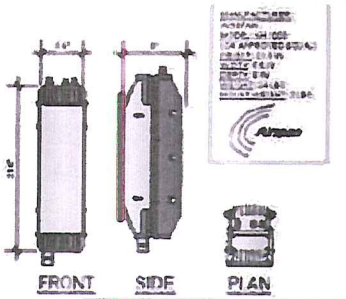


SURGE PROTECTOR
SCALE: NOT TO SCALE
X

NOT USED
SCALE: NOT TO SCALE
X

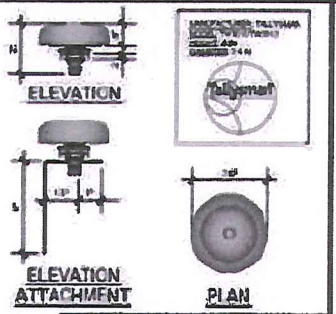


METER SOCKET
SCALE: NOT TO SCALE
2

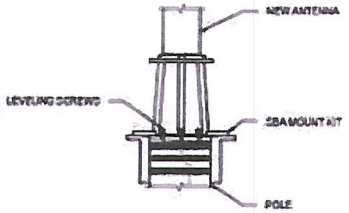


AIRHARMONY 4000
SCALE: NOT TO SCALE
4

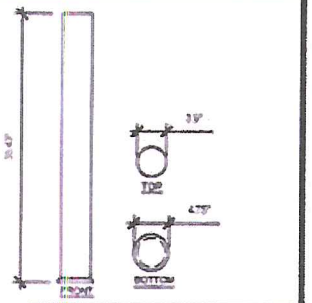
NOT USED
SCALE: NOT TO SCALE
X



GPS ANTENNA
SCALE: NOT TO SCALE
5



SBA MOUNTING KIT
SCALE: NOT TO SCALE
6



PLASMA SBA SC800H
SCALE: NOT TO SCALE
7

FLORIDA UTILITY POLE AUTHORITY

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DRAWN BY	AJR
CHECKED BY	PWM

VERSION	DATE	DESCRIPTION
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SITE ID: 9FLB000630/MI90XS167
MAJORCA AVE/
PONCE DE LEON BLVD
CORAL GABLES, FL 33134
WOOD 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 CELLULAR 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:

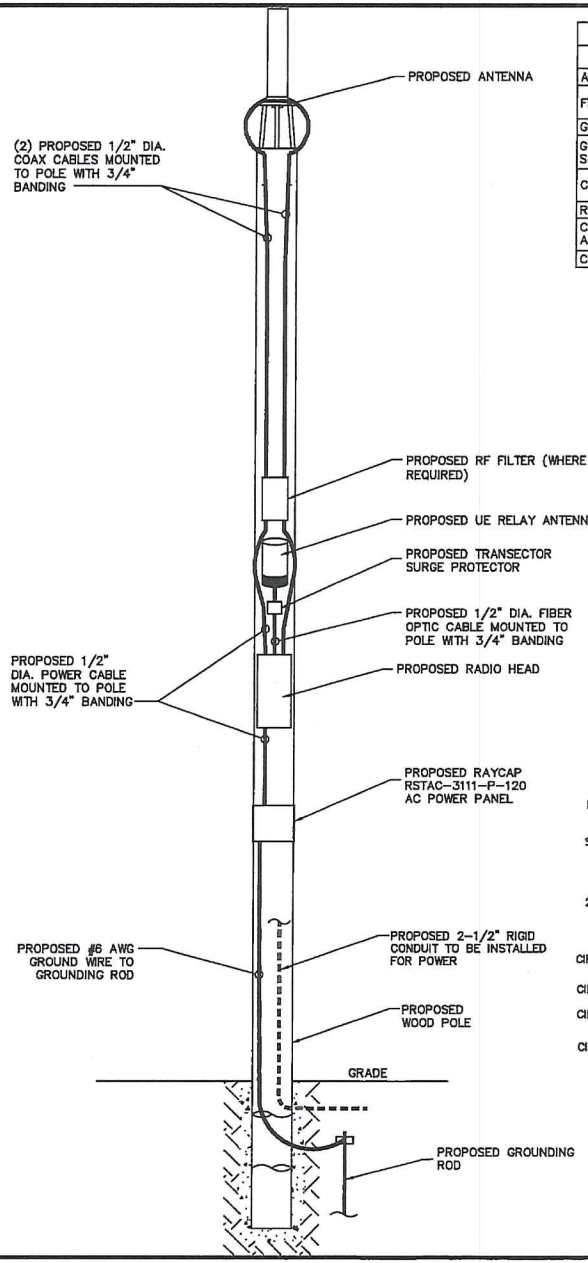
N.E.C.	NATIONAL ELECTRICAL CODE
A.N.S.I.	AMERICAN NATIONAL STANDARDS INSTITUTE
I.E.E.E.	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
A.S.T.M.	AMERICAN SOCIETY FOR TESTING MATERIALS
N.E.M.A.	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
U.L.	UNDERWRITERS LABORATORIES, INC.
N.F.P.A.	NATIONAL FIRE 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.

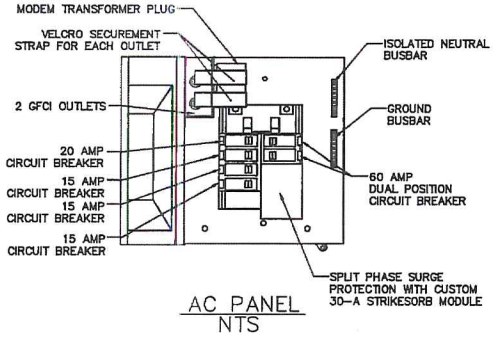
COORDINATION WITH UTILITY COMPANY:
THE ELECTRICAL CONTRACTOR SHALL COORDINATE COMPLETE ELECTRICAL SERVICE WITH LOCAL UTILITY COMPANY FOR A COMPLETE OPERATIONS SYSTEM, INCLUDING TRANSFORMER CONNECTIONS, CONCRETE TRANSFORMER PADS, IF REQUIRED, METER SOCKETS, PRIMARY CABLE RACEWAY REQUIREMENTS, SECONDARY 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.



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

SCALE: NOT TO SCALE

1

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CHECKED BY	PWM

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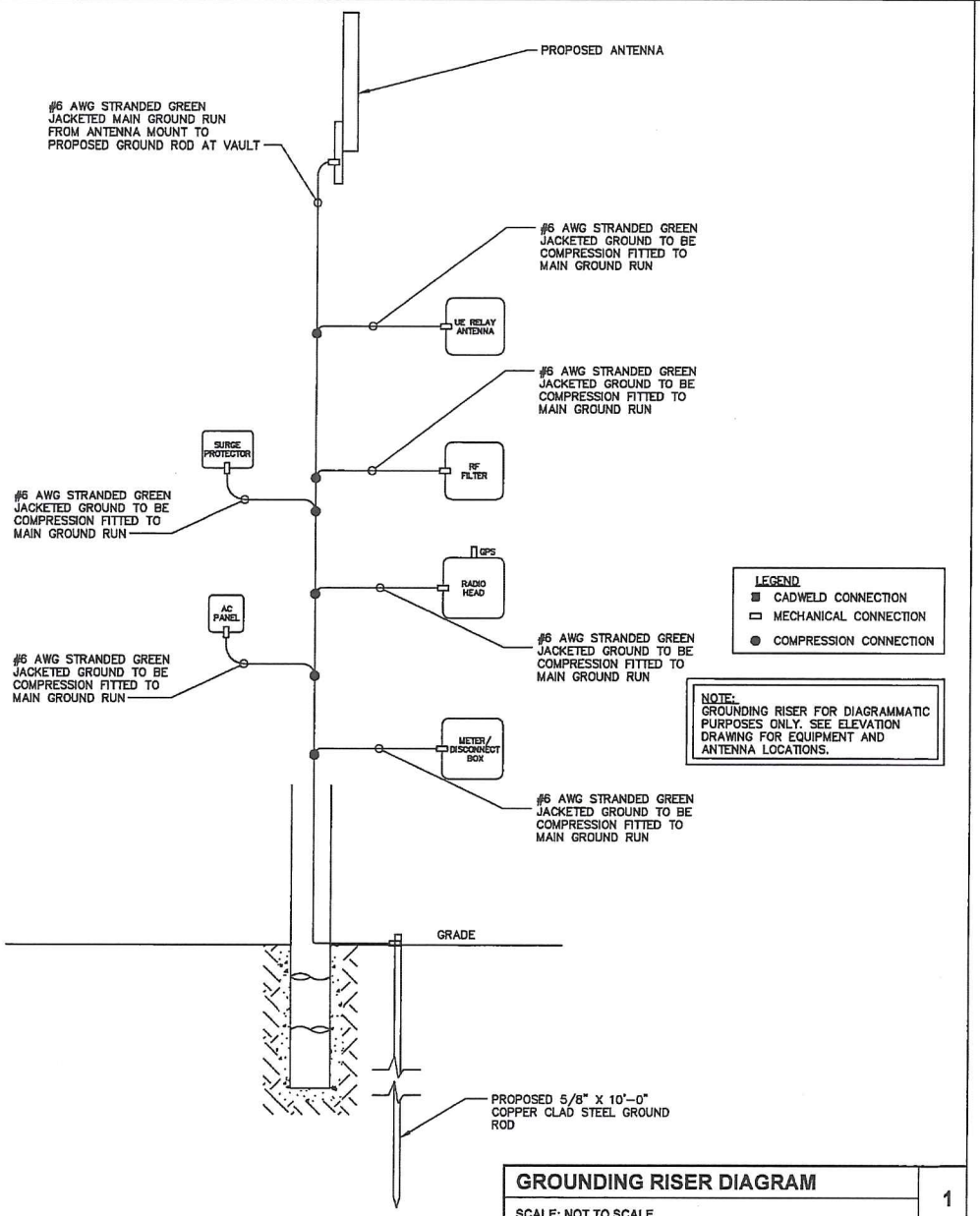
MAJORCA AVE/
PONCE DE LEON BLVD
CORAL GABLES, FL 33134
WOOD POLE

SHEET TITLE
ELECTRICAL DETAILS

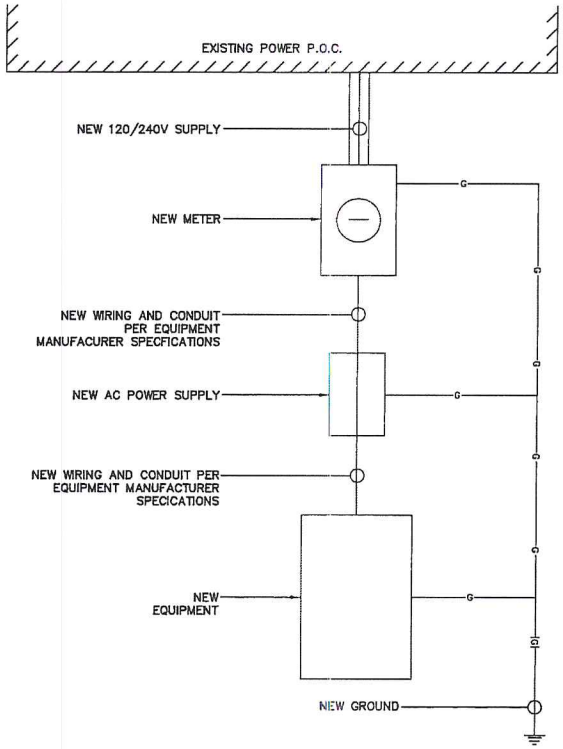
SHEET NUMBER
4.0



GROUNDING RISER DIAGRAM

SCALE: NOT TO SCALE

1



BASIC ONE-LINE DIAGRAM

SCALE: NOT TO SCALE

2

FLORIDA UTILITY POLE AUTHORITY

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SITE ID: 9FLB000630/MI90XS167

MAJORCA AVE/
PONCE DE LEON BLVD
CORAL GABLES, FL 33134

WOOD 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.

FLORIDA UTILITY POLE AUTHORITY

PROJECT NO.	TTS0208
DRAWN BY	AJR
CHECKED BY	PWM

VERSION	DATE	DESCRIPTION
A	10.26.15	FOR CLIEN REVIEW
B	02.01.16	FOR CLIEN REVIEW

ISSUED FOR REVIEW ONLY

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SITE ID: 9FLB000630/MI90XS167
MAJORCA AVE/
PONCE DE LEON BLVD
CORAL GABLES, FL 33134
WOOD 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.

FLORIDA UTILITY POLE AUTHORITY

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A	10.26.15	FOR CLIEN REVIEW
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SITE ID: 9FLB000630/MI90XS167

MAJORCA AVE/
PONCE DE LEON BLVD
CORAL GABLES, FL 33134

WOOD POLE

SHEET TITLE

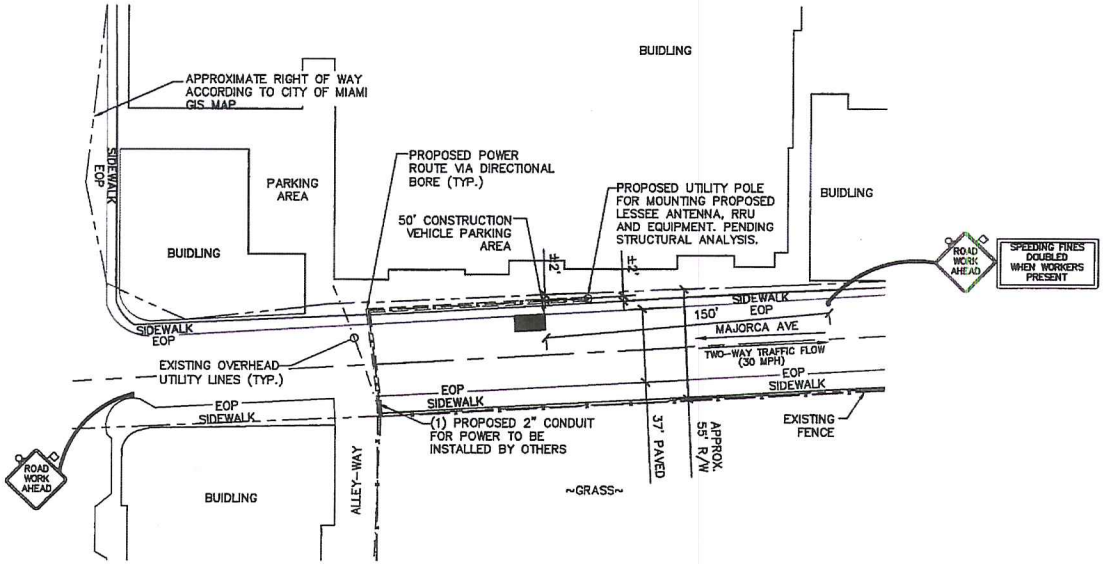
GENERAL NOTES

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 USEDINSTEAD 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 SAFTEY PLAN PRESENT AT THE WORKSITE AND SHALL PROVIDE THE PLAN AS REQUESTED BY THE OWNER OR THE OWNERS REPRESENTATIVE



N

TRAFFIC CONTROL PLAN | 1

SCALE: 1" = 60'-0" (1" = 30'-0" ON 22"x34" SHEET)

FLORIDA UTILITY POLE AUTHORITY

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MAJORCA AVE/
PONCE DE LEON BLVD
CORAL GABLES, FL 33134

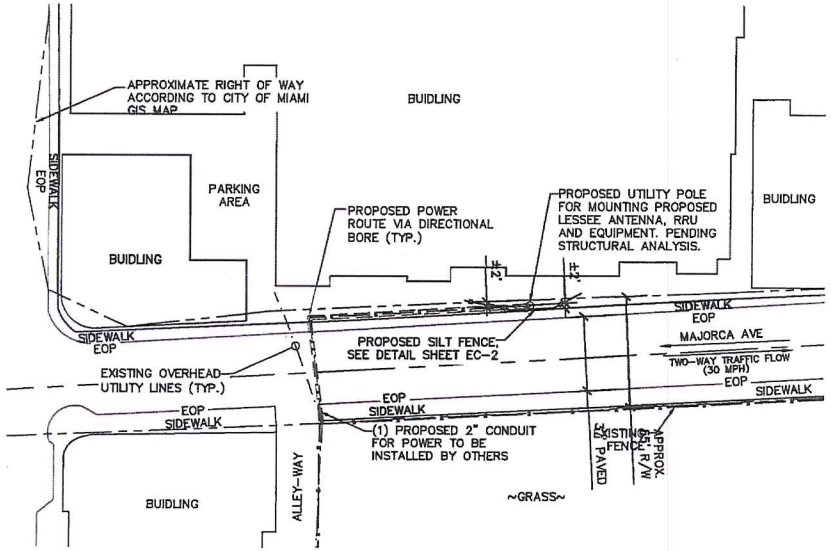
WOOD POLE

SHEET TITLE

TRAFFIC CONTROL PLAN

SHEET NUMBER

TC-1



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EROSION CONTROL PLAN | 1

SCALE: 1" = 60'-0" (1" = 30'-0" ON 22"x34" SHEET)

FLORIDA UTILITY POLE AUTHORITY

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MAJORCA AVE/
PONCE DE LEON BLVD
CORAL GABLES, FL 33134

WOOD POLE

SHEET TITLE

EROSION CONTROL PLAN

SHEET NUMBER

EC-1

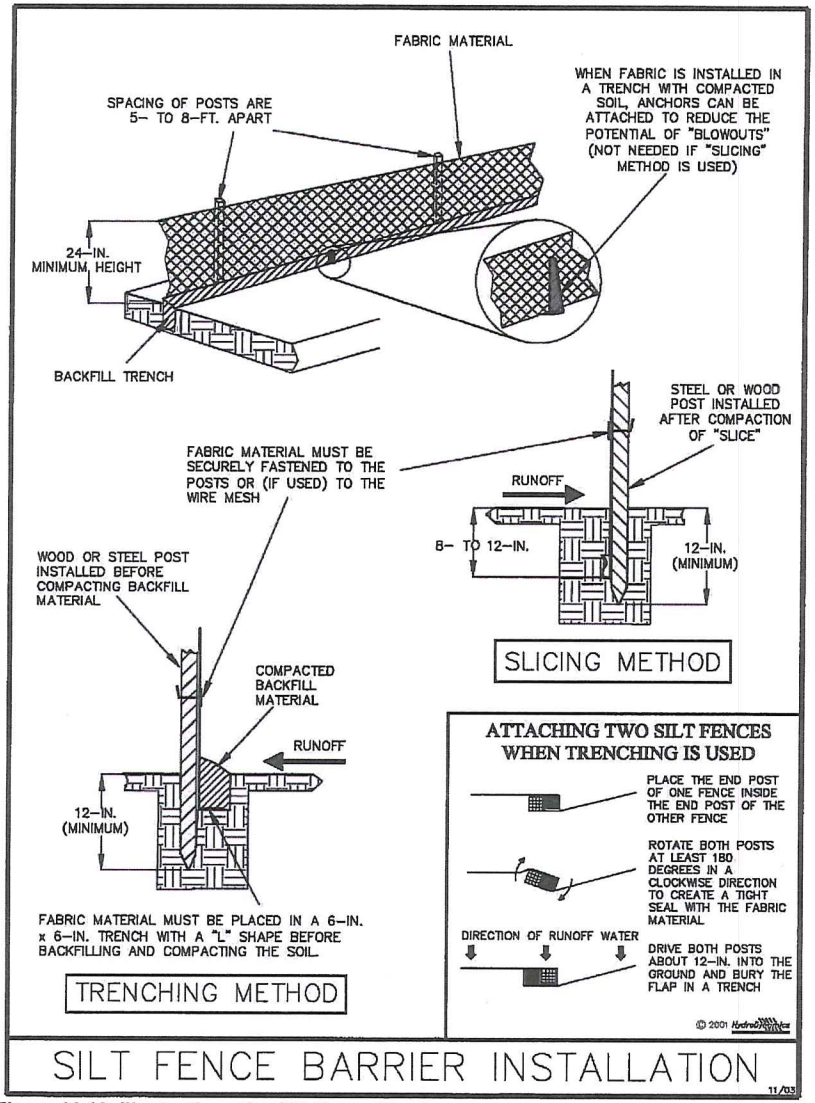

Figure V-40: Illustration of a Silt Fence Barrier

SILT FENCE DETAILS	1
SCALE: NOT TO SCALE	

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PONCE DE LEON BLVD
CORAL GABLES, FL 33134
WOOD POLE

SHEET TITLE
EROSION CONTROL DETAILS

SHEET NUMBER
EC-2

GRAY ROBINSON
ATTORNEYS AT LAW

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ORLANDO
TALLAHASSEE
TAMPA

Gary I. Resnick
Attorney At Law

954-761-8111

GARY.RESNICK@GRAY-ROBINSON.COM

March 15, 2016

VIA ELECTRONIC & US MAIL

Cory Mofield
NRE Agreements Specialist
Mobilitie, L.L.C. d/b/a Florida Utility Pole Authority
120 S. Riverside Plaza
Suite 1800
Chicago, IL 60606
Cory.Mofield@Mobilitie.com

RE: City of Coral Gables, FL: Mobilitie, L.L.C. d/b/a Florida Utility Pole Authority ("Mobilitie"): Registration and Permit Application

Dear Mr. Mofield:

We represent the City of Coral Gables, FL ("City"), which has asked me to review the registration materials Mobilitie filed with the City pursuant to your correspondence dated January 19, 2016, as well as the Addendum to the registration materials submitted with your correspondence dated February 4, 2016 (collectively "Registration"). In addition, this addresses the Permit Application filed by Mobilitie's contractor on February 4, 2016 ("Permit Application"). There are several issues with the Registration as well as the Permit Application as detailed below. Accordingly, this letter sets forth the City's rejection of the Registration and the reasons for such rejection. Since Mobilitie does not have an effective Registration and has not complies with other applicable provisions of the City Code as detailed below, the City will not process the Permit Application.

1. Evidence of Insurance Coverage: Section 70-81(a) of the City Code provides: "All liability policies shall provide that the city is an additional insured as to operations under the registration and shall provide this severability of interest provision." We have reviewed the Certificate of Liability Insurance submitted with the Registration. The comments on the Certificate provide: "If required by written contract the City of Coral Gables, its officers, directors, agents, servants, employees, and assigns are additional insured to all liab policies...." The Certificate is not required by written contract with the City; rather, it is required pursuant to Section 70-81(a) of the City Code. Further, the coverages section of the Certificate provides: "This is to certify that the policies of insurance listed below have been issued to the insured named above for the policy period indicated. Notwithstanding any requirement, term or

condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policy described herein is subject to all the terms, exclusions and conditions of such policies." As indicated, the Certificate of Liability Insurance is required pursuant to the City Code; not pursuant to any contract or other document. The Certificate of Liability Insurance does not satisfy the City Code's registration requirements.

2. Performance Bond: Section 70-83 of the City Code provides: "At the time of registration, the registrant shall file with the city, for city approval, a cash security, a bond, or irrevocable letter of credit, in the sum $50,000.00, in a form acceptable to the city manager or his designee..... The cash security, bond, or irrevocable letter of credit, shall be to secure the full and faithful performance by the registrant of all requirements, duties and obligations imposed upon registrant by the provisions of this article and to pay any taxes, fees or liens owed to the city." The Performance Bond submitted by Mobilitie, Bond No. 1041559, does not comply with this requirement of the City Code. It provides in the first "Whereas Clause" the following:

> Principal contemplates constructing communications facilities in the public right of way within the jurisdiction of the Obligee, and that has been issued a permit by said Obligee for this purpose. The above mentioned permit sets forth the terms and conditions which govern the access and use of the right of way and said permit is specifically referred to and made a part of this bond, with like force and effect as if herein at length set forth.

This language is not correct. Rather, the purpose of the security fund is to fulfill the Registration obligations pursuant to the City Code; it is not to fulfill any obligations under a permit. Rather, if the Registration is accepted and Mobilitie applies for a permit, the City will determine at that point whether to require a construction bond and the amount of such construction bond. Accordingly, the Performance Bond submitted is not acceptable.

3. Use of Rights of Way: Section 70-78(a) of the City Code provides: "A facility owner agrees at all times to comply with and abide by all applicable provisions of the state statutes and local laws including, but not limited to, applicable zoning regulations not inconsistent with state and federal laws." In the Registration, Mobilitie provided that it: "constructs and maintains ownership of various operational structures within rights-of-way." Addendum to Registration. While the Registration did not provide further information as to the specific operational structures Mobilitie intends to construct and maintain within the rights-of-way, the Permit Application and plans accompanying the Permit Application contain information as to such structures. Specifically, the Permit Application provides that Mobilitie intends to construct a 75' "utility pole," antenna, and associated facilities within a particular location in the right-of-way. Since Mobility intends to construct wireless telecommunications facilities within the rights-of-way, it is required to comply with Article 5, Division 20 of the City's Zoning Code,

which sets forth guidelines for siting wireless telecommunications towers and antennas.[1] A permit cannot be issued until Mobilitie submits an application pursuant to Section 5-2003 and such application has been approved through the appropriate procedures, in addition to obtaining an effective registration. Accordingly, the City will not process the Permit Application at this time. Because the review of applications under Section 5-2003 is more involved, the City recommends that if Mobilitie seeks to move forward, that it submit the application pursuant to the Zoning Code prior to submitting for registration.

Accordingly, pursuant to City Code Section 70-74(c), based on the deficiencies with the Registration, the Registration is not effective. If you have any questions, please do not hesitate to contact me.

Very truly yours,

Gary I. Resnick

GIR:js
cc: Lina Hickman, City Engineer (*via email*)
Craig Leen, City Attorney (*via email*)

[1] The City's Zoning Code is available on its website at, http://www.coralgables.com/modules/showdocument.aspx?documentid=1636.

FLORIDA UTILITY POLE AUTHORITY

925B Peachtree St. NE, Suite 710, Atlanta, GA 30309

March 29, 2016

Mr. Gary I. Resnick
Gray Robinson Attorneys at Law
401 East Las Olas Blvd., Suite 1000
Fort Lauderdale, Florida 33301
(954) 761-8111
Gary.resnick@gray-robinson.com

RE: City of Coral Gables, FL: Mobilitie, L.L.C. d/b/a Florida Utility Pole Authority ("Mobilitie"): Registration and Permit Application

Dear Mr. Resnick:

This letter is in response to your correspondence dated, March 15, 2016, and is intended to better inform you of Mobilitie, LLC, d/b/a Florida Utility Pole Authority (hereinafter "FUPA"), as a public utility with competitive local exchange carrier ("CLEC") status in all fifty (50) states. Additionally, FUPA is considered a certificated public utility recognized by Florida Public Utility Commission. FUPA constructs and provides transport services to support a variety of uses, including M2M and IoT applications. FUPA is constructing a new, nationwide hybrid transport network as competition to existing fiber backhaul networks. This will facilitate the next generation of devices and data-driven services and to meet our ever-growing demand for connectivity. This network combines fiber, repeaters, and microwave technologies to ensure that the network is cost-efficient, low-impact to communities, and can be effectively upgraded and augmented in the future. FUPA's hybrid transport network can be used to support connected vehicles (commercial, personal and agricultural), remote weather monitoring stations, mobile service providers and much more. FUPA constructs new facilities in the public right-of-way and will also attach to existing infrastructure, such as light and utility poles within the rights-of-way.

Pursuant to your correspondence, FUPA is placed under Coral Gables Telecommunications Municipal Code Chapter 70, Sec. 70-81. Chapter 70 of the Coral Gables code requires FUPA to comply with the "applicable zoning regulations not inconsistent with state and federal laws"[1], specifically Article 5, Division 20 of the City's Zoning Code, in order to install telecommunication facilities, which provide cellular or mobile services to end users. In contrast, FUPA provides transport services, similar to electric, gas, telephone, and cable providers. FUPA is considered a certificated public utility recognized by Florida Public Utility Commission, to deliver telephone and/or telecommunications services as an Alternative Access Vender, similar to Competitive Local Exchange Carriers ("CLEC") or other interexchange providers, AVV Certificate Number 8655. Furthermore, FUPA's primary purpose of the poles is to provide backhaul solutions through a hybrid wire/wireless network. The end result is the transport of third party data through FUPA's infrastructure network. FUPA is akin to a telephone or electric grid network that allows data or electricity to pass through its lines, with the only difference being FUPA also utilizes wireless solutions to expand the reach of its transport network without the need for costly and burdensome excavations. Accordingly, FUPA does not fall within Article 5, Division 20 of the City's Zoning Code, which is only applicable to telecommunications facilities.

Additionally, you advised that permit applications will not be processed unless submitted under Section 5-2003 of the City Code. Section 5-2003 of the code requires "[a]pplications for a telecommunications facility on any

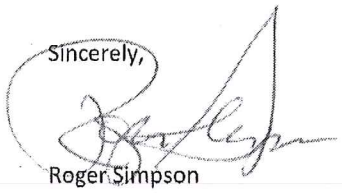
[1] Section 70-78(a).

property owned, leased, or otherwise controlled by the City shall require a lease agreement approved by the City Commission. . ." This section of the code is not applicable because FUPA is not intending to install telecommunication facilities. FUPA does not hold licenses from the FCC and is not regulated by FCC. Section 5-2003 also requires FUPA to enter into an agreement with the City of Coral Gables. Under Florida Statute, a municipality or county may not require an agreement as a condition of entering and occupying the right-of-way.[2] Florida specifically preempts the ability of municipalities and counties to require franchise fees from providers of communications services such as FUPA. [3] Further, a municipality or county may not charge any taxes or fees for operating as a provider of communications services if such fee is in any way related to the use of the right-of-way.[4] Moreover, Florida requires municipalities to treat providers of communications services in a nondiscriminatory and competitively neutral manner.[5] Wherefore, the Section 5-2003 requirement of a lease agreement in order to obtain a permit to access the public-right-of-way is not in accordance with Florida State Statute §337.401(3).

For the above-mentioned reasons the City of Coral Gables Telecommunications Use of Rights of Way Section 70-78(a) and Zoning Code Section 5-2003 are not applicable to FUPA and our permit applications. Nevertheless, it appears FUPA would fall under Chapter 62, Article III of Coral Gables Municipal Code. Section 62-59 explicitly provides: "the director of public works shall be authorized, upon completed application being made, to issue to any person a permit to work on, to cut into, dig, or make excavations in any of the streets. . .sidewalks. . . or easements in the city for the purpose of. . . setting poles. . ., provided that the applicant complies with the public works department standard specifications. . .". At this time, FUPA requests that you provide us with any pertinent information as it pertains to obtaining permits to implement our utility structures under Chapter 62 of Coral Gables Municipal Code.

Please contact me with any questions or concerns you may have regarding this communication. I can be reached by phone at (470) 755-8667 or e-mail at roger.simpson@itbutility.com. I look forward to your response and working with you in the future.

Sincerely,



Roger Simpson
Director Government Relations

[2] Fla. Stat. §337.401(3)(a).
[3] Fla. Stat. §337.401(3)(e).
[4] Fla. Stat. §337.401(3)(f).
[5] Fla. Stat. §337.401(3)(a)-(b).

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June 6, 2016

VIA ELECTRONIC & US MAIL

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Cory.Mofield@Mobilitie.com

Re: Mobilitie, LLC d/b/a Florida Utility Pole Authority ("Mobilitie")
Registration and Permit Application

Dear Messrs. Frankiewich, Simpson & Mofield:

We represent the City of Coral Gables ("City"). This addresses and responds to the various correspondence and materials submitted by Mobilitie to the City.

Mobilitie's Request:
Mobilitie seeks a permit to install a "Proposed Concrete Pole for Mounting Proposed Lessee Antenna, RRU and Equipment" in a certain location in the City's Public Rights-of-Way ("ROW"). (Permit Application). The construction drawings submitted for the site plan are

inconsistent indicating on some plans that Mobilitie seeks to install a 75' wood pole and on other plans a 75' concrete pole in the ROW. In essence, Mobilitie seeks to install a 75 ft. pole – either wood or concrete -- in the ROW and lease the pole for the installation of an antenna extending approximately 3' above the pole to provide wireless services. There are questions as to whether the services are "communications" services, or whether the facilities are "communications facilities" that are addressed in detail below.

Pursuant to such request, Mobilitie has submitted registration materials pursuant to the City's Communications Ordinance, Section 70-71 *et. seq.* of the City Code ("Communications Ordinance"). We reviewed materials submitted previously by Mobilitie for such registration and determined that Mobilitie did not satisfy the registration requirements. We further determined that before Mobilitie would be able to obtain a permit to install its pole and antenna in the ROW, it would need to comply with Article 5, Division 20 of the City's Zoning Code. See Correspondence dated March 15, 2016, to Corey Mofield ("March 15 Letter").

Mobilitie has submitted further registration materials and various correspondence to address the March 15 Letter.

Materials Reviewed:
We are in receipt of and have reviewed the following materials submitted by Mobilitie:

1. Cover Letter from Michael Nuckols to Lina Hickman re: Mobilitie, L.L.C. d/b/a Florida Utility Pole Authority Permit Application Submission, dated April 25, 2016, Enclosing:
    a. Public Works Permit Application, dated April 25, 2016 ("Permit Application")
    b. Certificate of Liability Insurance, dated April 21, 2016
    c. Exhibits: Site plans and construction drawings

2. Letter from Bruce T. Frankiewich re: Mobilitie, LLC d/b/a Florida Utility Pole Authority ("Applicant") – Application ("Application") for permit approval of new utility infrastructure facility in the public Rights-of-Way of Coral Gables, FL, dated April 25, 2016 ("Frankiewich Letter")

3. Performance Bond (#1041559), dated January 13, 2016

4. In re: Application for certificate to provide alternative access vendor service by Mobilitie, LLC, Notice of Proposed Agency Action Order Granting Certificate to Provide Alternative Access Vendor Services, dated November 15, 2006 & Amendatory Order, dated November 20, 2006 ("Alternative Access Vender Certificate").

5. Certificate of Liability Insurance, dated January 28, 2016

6. Letter from Cory Mofield to Lina Hickman re: Florida Utility Pole Authority City of Coral Gables Code of Ordinances Section 70-74 Registration, dated February 4, 2016

7. Letter from Roger Simpson re: City of Coral Gables, FL: Mobilitie, L.L.C. d/b/a Florida Utility Pole Authority ("Mobilitie"): Registration and Permit Application, dated March 29, 2016 ("Simpson Letter").

In addition, we have engaged in telephone communications with Mobilitie's representatives.

Mobilitie's Position:
In response to the March 15 Letter, Mobility maintains that it is a communications provider entitled to register to use the City's ROW pursuant to the City's Communications Ordinance and that it does not have to comply with Art. 5, Division 20 of the City's Zoning Code.[1] These are addressed below.

Registration:
Mobilitie's materials indicate that Mobilitie has not satisfied the registration requirements contained within the Communications Ordinance. The Certificate of Insurance dated April 21, 2016, does not satisfy the Code's requirements, and the Performance Bond is not in compliance with the Code for the reasons stated in the March 15 Letter. Mobilitie's materials are often inconsistent as to whether it is a "provider of communications services" or whether it seeks to place or maintain "communications facilities" in the ROW. If Mobilitie is not a provider of communications services or does not seek to place or maintain communications facilities, the registration process under the City Code is not available.[2] Thus, for purposes of evaluating

[1] Mobilitie also asserts that it cannot be required to enter into a lease for use of the ROW pursuant to Section 337.401(c), F.S. However, the City never took that position and Mobilitie quotes the incorrect Section of the Zoning Code. The City never referenced Section 5-2003(C) of the Zoning Code, which requires a lease for property "owned, leased, or otherwise controlled by" the City. Rather, in the March 15 Letter, the City referenced Section 5-2003, which provides generally the requirements for an application to construct wireless facilities in the City.

[2] The City's registration process is authorized pursuant to Section 337.401(c), F.S., which applies to providers of communications services to place or maintain communications facilities in the ROW. Mobilitie refers to its proposed pole in various different ways including as a "utility infrastructure facility," and as a "proposed concrete pole for mounting proposed lessee antenna" to provide "broadband transport ... wirelessly."

Mobilitie's registration materials, the City will assume that Mobilitie is a provider of communications services and that it seeks to install communications facilities.

Applicability of Art. 5, Division 20, Telecommunications:

A review of the materials submitted by Mobilitie demonstrates that it intends to install a tower and an antenna in the ROW, as such terms are defined in the City's Zoning Code. Pursuant to Article 8 of the City Zoning Code, the following definitions apply:

> Antenna means a transmitting and/or receiving device mounted on a telecommunications tower, building or structure and used in wireless telecommunications services that radiates or captures electromagnetic waves, digital signals, analog signals, radio frequencies, wireless communications signals and other communications signals including directional antennas such as panel and microwave dish antennas, and omni-directional antennas such as whips, but excluding, radar antennas, amateur radio antennas, satellite earth stations, traditional residential television antennas or microwave antennas.
>
> Telecommunications tower or tower means any structure, and support thereto, designed and constructed primarily for the purpose of supporting one (1) or more antennas intended for transmitting or receiving personal wireless services, telephone, radio and similar communication purposes, including lattice, stealth, monopole, and guyed towers. The term includes microwave telecommunications towers, common-carrier telecommunications towers and cellular telephone telecommunications towers, among others. Light, electric and utility poles are only a support structure and are not a telecommunications tower

Based on these definitions, the facilities Mobilitie has described in its materials, particularly the site plan construction documents, constitute a tower and an antenna.[3]

Mobilitie has indicated that it intends to install "telecommunications equipment in the public rights of way on poles" but that the zoning requirements do not apply because it is not providing wireless services to end users. (Frankiewich Letter). As a primary matter, it is not clear from the materials that Mobilitie is not providing a wireless service to an end user, which is not a defined term. In any event, under the City's Zoning Code, it does not matter that Mobilitie may not be providing wireless services to end users. The City's Zoning Code does not require that such facilities provide services to end users.

There is no question that the Zoning Code applies to such towers and antennas placed in the ROW. Section 5-2005 S. of the Zoning Code provides, in pertinent part:

---

[3] Mobilitie further asserts that Art. 5, Division 20 is only applicable to "telecommunications facilities." (Simpson Letter). This is not correct based on the language of the Zoning Code. In any event, Mobilitie indicates that it seeks to install "telecommunications facilities." (Frankiewich Letter).

> Telecommunications towers and antennas in the public rights-of-way. Towers and antennas to be installed in the public rights-of-way shall be subject to this Division as well as other provisions of the City Code, including but not limited to Chapter 22, Article VIII, Section 22-200 of the City Code. The height of a telecommunications tower in the public rights-of-way shall not be greater than the height of existing utility poles surrounding the proposed tower and shall be of a design consistent with existing utility poles. All antennas attached to the tower or existing utility poles shall be consistent with the requirements herein.

Mobilitie's materials contain inconsistent and unclear arguments as to why the City's Zoning Code provisions in Art. 5, Division 20 do not apply to its application. To that extent, Mobilitie reserved its rights under applicable law, "including without limitation, the Federal Communications Commission and Shot Clock rules." ((Frankiewich Letter). The FCC's and Florida "shot clock rules" as they are commonly known, are only applicable to applications for the construction of "wireless service facilities."[4] Thus, the City's Zoning Code is applicable to Mobilitie's Permit Application. Mobilitie has not filed the correct application pursuant to Section 5-2003, or paid the application fee, to construct a wireless service facility.

Accordingly, based on the materials submitted by Mobilitie, Mobilitie has not satisfied the requirements for a registration in the City and the City will not process its Permit Application.

Very truly yours,

Gary I. Resnick

GIR:js

Cc: Lina Hickman, City Engineer (*via email*)
Craig Leen, City Attorney (*via email*)

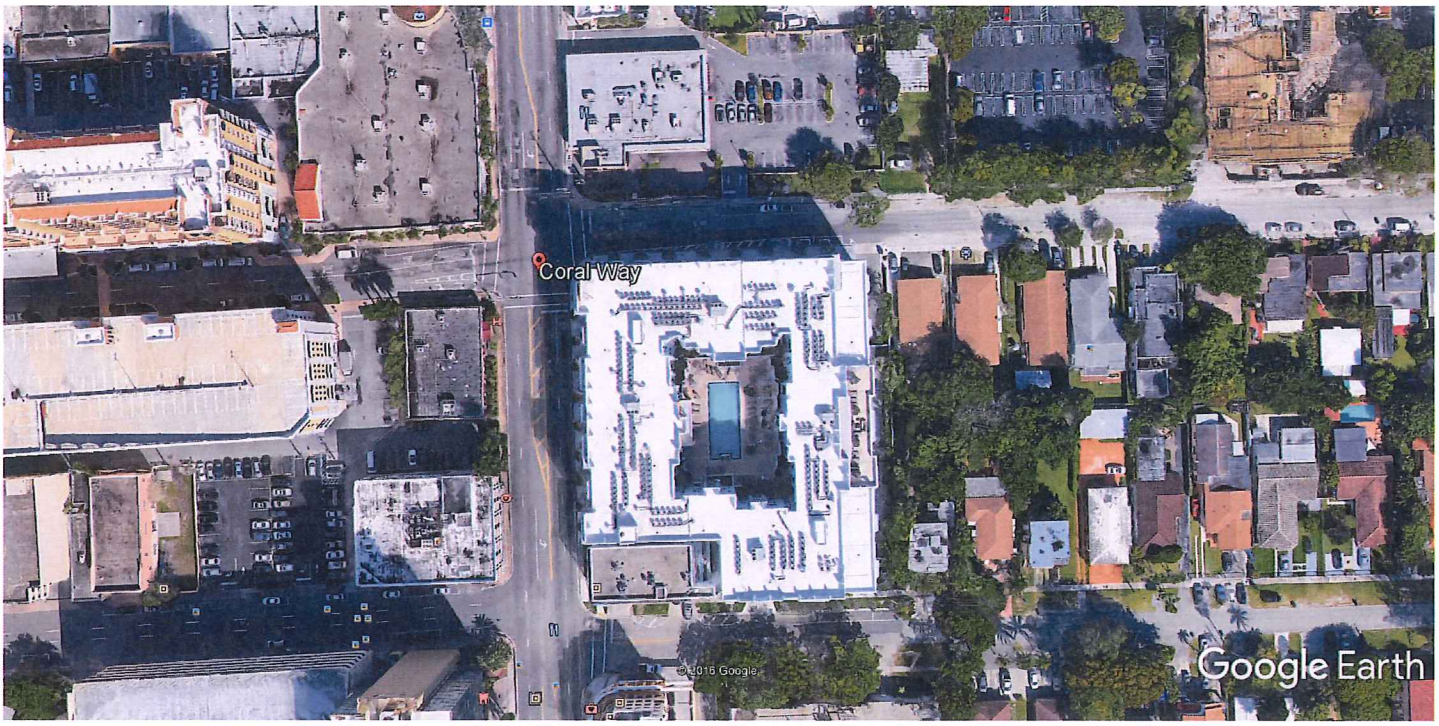
[4] *See* Telecommunications Act of 1996, 47 U.S.C. Section 332(c)(7); Section 365.172(3)(z), FL Statutes.



Google Earth

feet 500

meters 100



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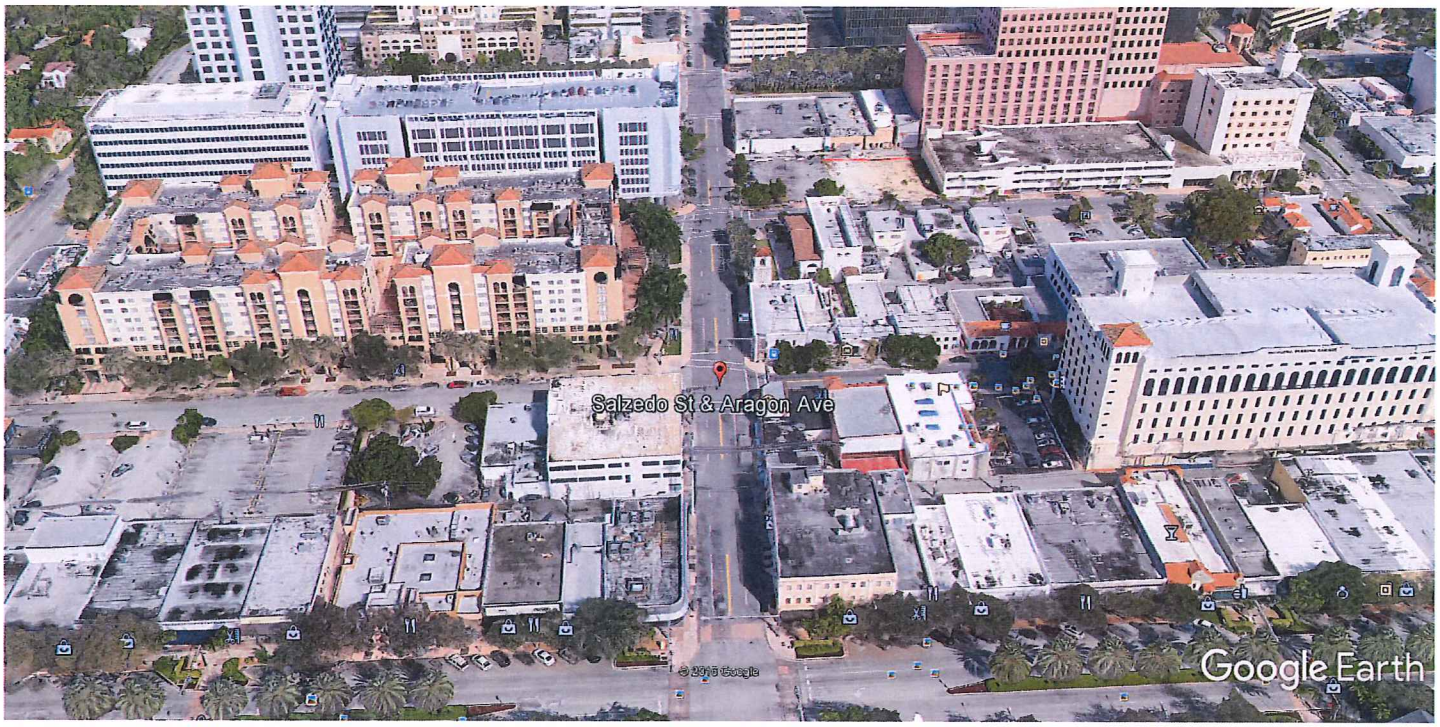

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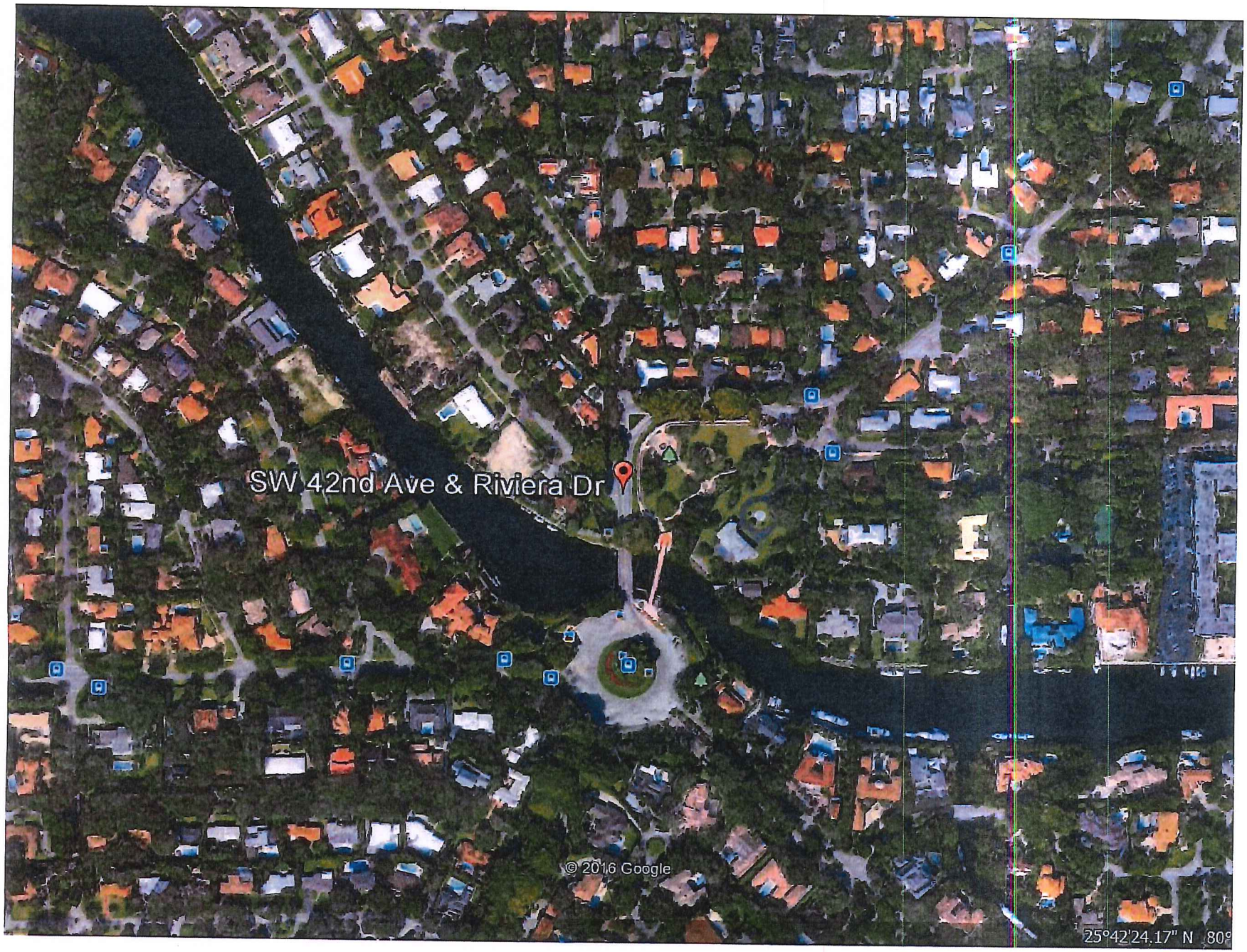

Site of Proposed 120' tower adjacent to single family residential properties, near City-owned park.

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January 4, 2017

VIA ELECTRONIC & US MAIL
Roger Simpson
Director, Government Relations
Mobilitie, L.L.C.
3475 Piedmont Road, NE, Suite 100
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roger@mobilitie.com

RE: City of Coral Gables, FL | Mobilitie, L.L.C. ("Mobilitie")

Dear Mr. Simpson:

Thank you for meeting with City of Coral Gables ("City") staff and myself regarding Mobilitie, L.L.C.'s ("Mobilitie") goals with respect to installation of facilities in the City's right-of-way ("ROW").

We appreciate that Mobilitie confirmed that it is a communication services provider and that it seeks to install wireless communication facilities, notably towers as defined under federal and state law, as well as associated equipment in the City's ROW. Further, it was useful to learn that Mobilitie's network would provide services for Sprint's and T-Mobile's customers to achieve enhanced data coverage where there are existing gaps.

As was indicated at the meeting, Mobilitie does not have any applications pending with the City. In addition, the City staff made no commitment with respect to Mobilitie's facilities. Thank you again for meeting with us. If you have any further questions, do not hesitate to contact me.

Very truly yours,

Gary I. Resnick

GIR:js
cc: Peter Iglesias, P.E., Assistant City Manager *(via email)*
Eduardo Santamaria, P.E. Director of Public Works *(via email)*
Lina Hickman, P.E., Public Works Engineer *(via email)*
Craig Leen, City Attorney (*via email*)
Cristina Suarez, Assistant City Attorney (*via email*)
Floyd Self, Berger Singerman, LLP *(via email)*
Genaro "Chip" Iglesias, Ballard Partners *(via email)*

ATTACHMENT B

CITY OF GAINESVILLE

mobilitie®
intelligent infrastructure

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®
intelligent infrastructure

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Tel: 404.978.2318
www.mobilitie.com

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

CITY OF GAINESVILLE
every pole starts with passion
FLORIDA

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

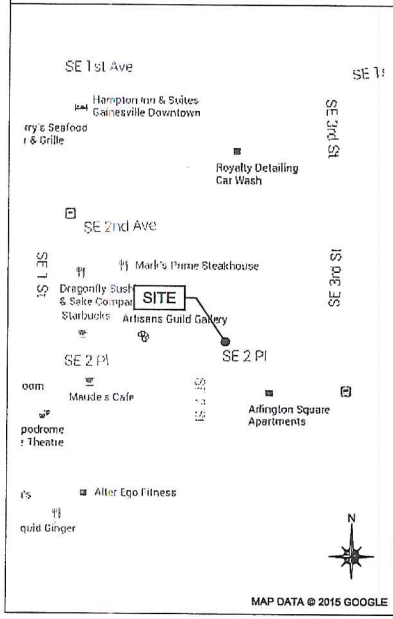
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY
ADDRESS/CROSS STREET:	SE 2 PL & SE 2ND ST GAINESVILLE, FL 32601
APPLICANT:	MOBILITIE, LLC
APPLICANT ADDRESS:	3475 PIEDMONT ROAD NE,SUITE 1000 ATLANTA, GEORGIA 30305 PHONE: (312) 638-5400
LATITUDE:	N 29° 38' 58.9" (29.649705)
LONGITUDE:	W 82° 19' 22.6" (-82.322846)
LAT/LONG TYPE:	NAD 83
GROUND ELEVATION:	±170' AMSL
COUNTY:	ALACHUA COUNTY
JURISDICTION:	JACKSONVILLE

BEFORE SCALING:

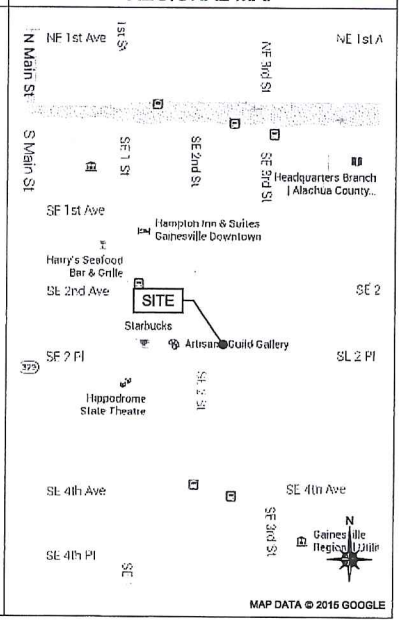
CONTRACTORS SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

LOCATION MAPS

VICINITY MAP



REGIONAL MAP



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

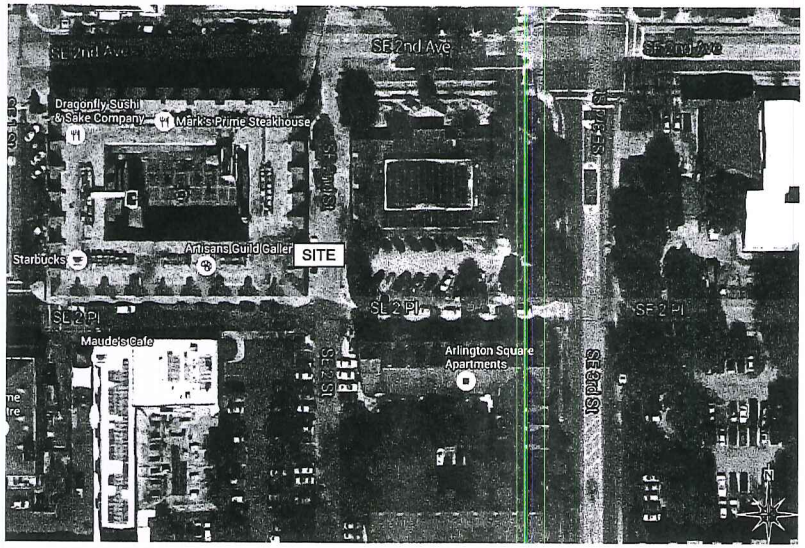
SHEET NUMBER

0.0



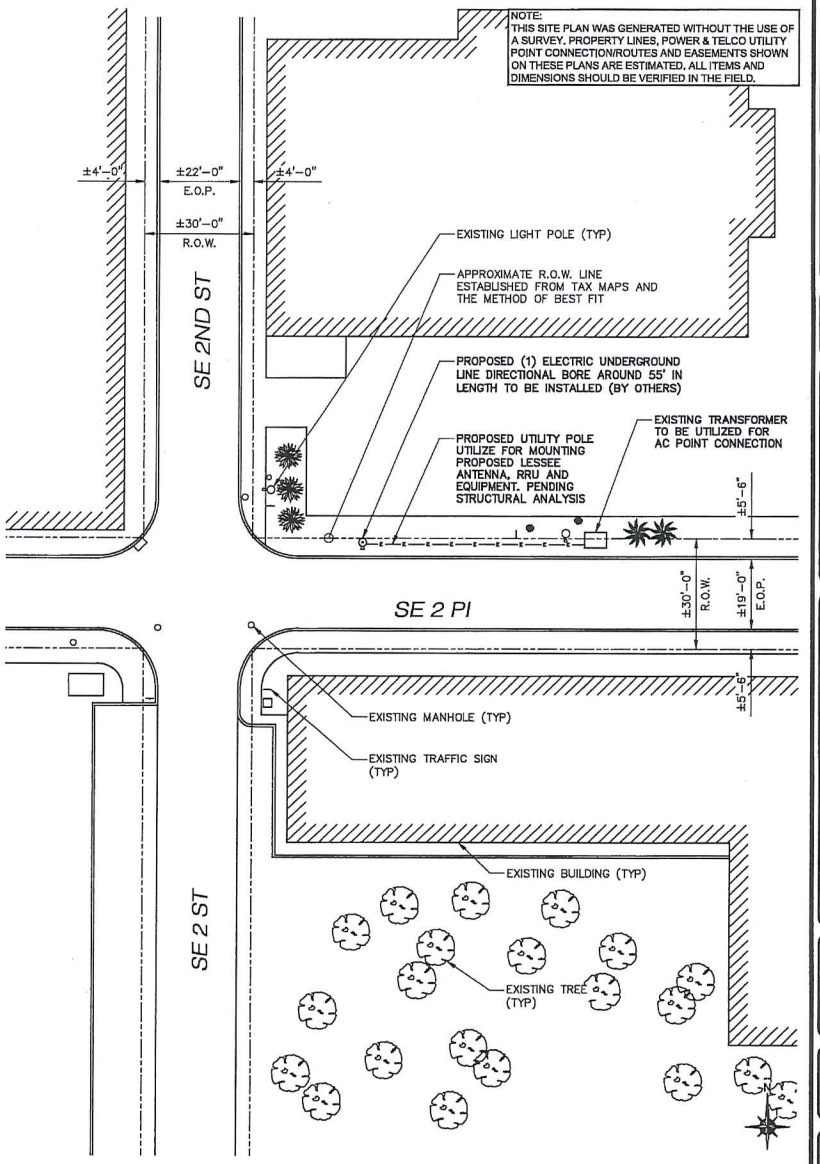
1 EXHIBIT PHOTO

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:	9FLB000056
DRAWN BY:	RC
CHECKED BY:	SJB

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JA90XS014F

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

UTILITY POLE

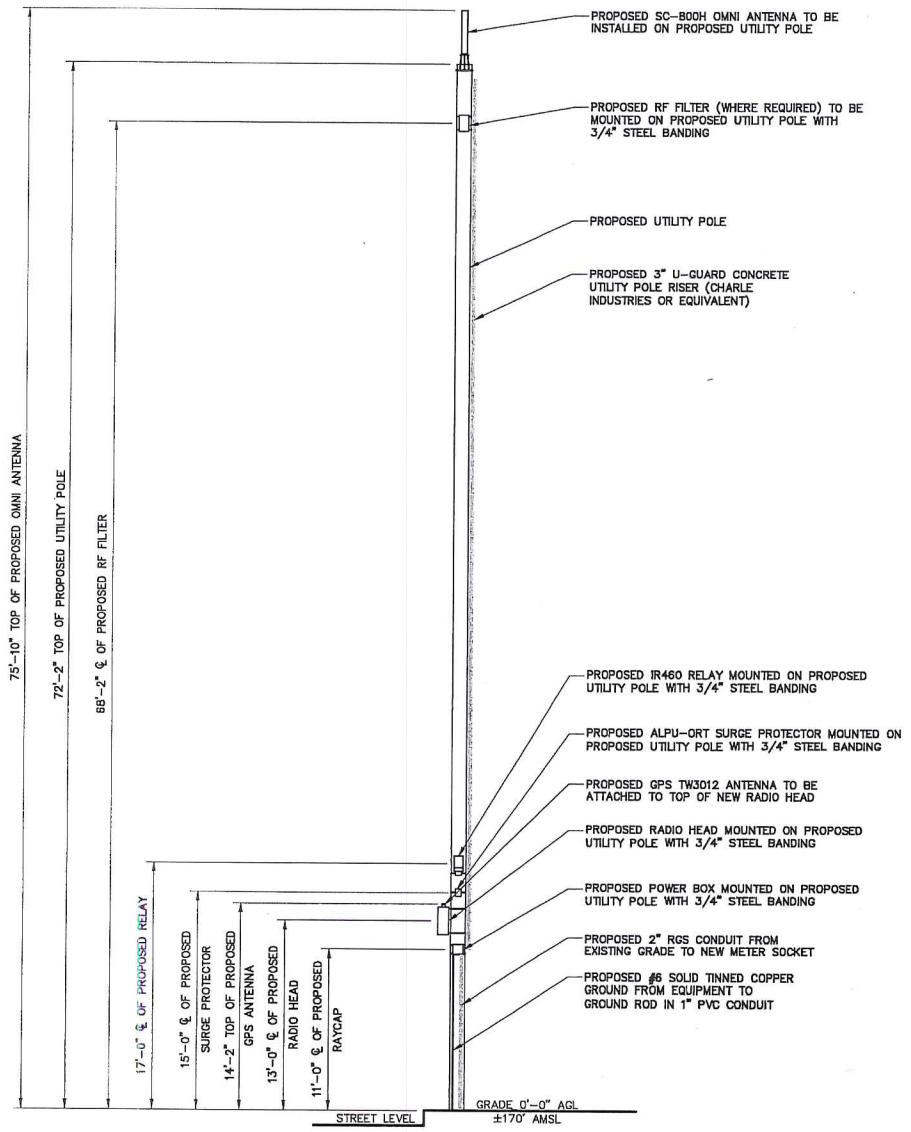
SHEET TITLE

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
CHECKED BY:	SJB

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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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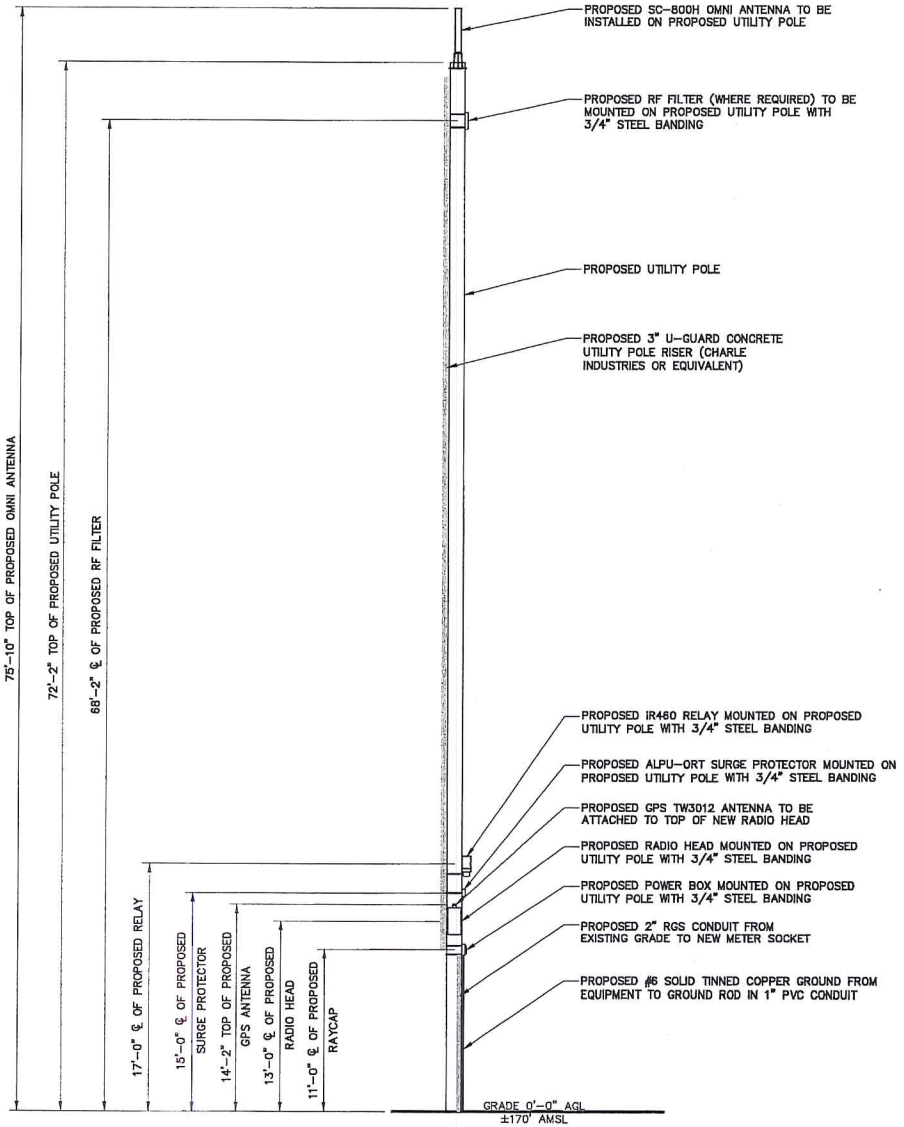

1 **SOUTH ELEVATION**

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

mobilitie

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

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JA90XS014F

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

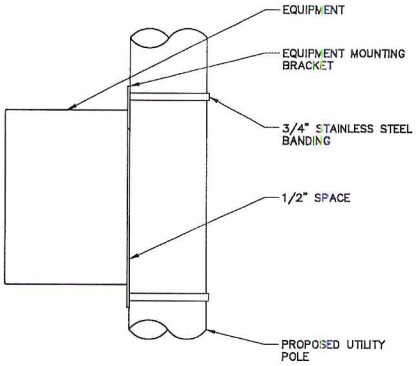
UTILITY POLE

SHEET TITLE

POLE ELEVATION

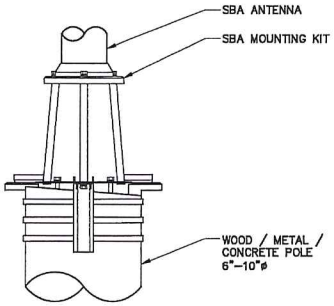
SHEET NUMBER

2.1



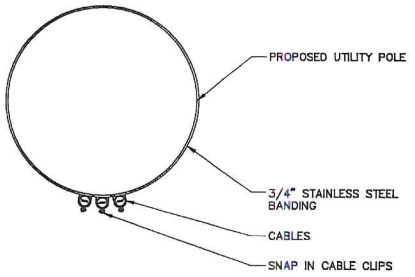
1 **EQUIPMENT CONNECTION DETAIL**

SCALE: NTS



2 **ANTENNA MOUNTING DETAIL**

SCALE: NTS



3 **CABLE ROUTING DETAIL**

SCALE: NTS

mobilitie

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

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

UTILITY POLE

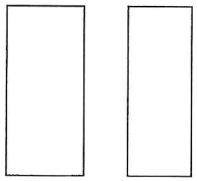
SHEET TITLE

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

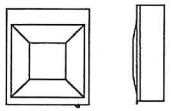
TW3012
GPS ANTENNA
0.8" x 2.6"Ø, ±0.3 lbs



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

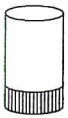
SC-800
2.5 OMNI ANTENNA
35.4" x 4.7"Ø, ±11 lbs



5 ANTENNA SPECIFICATIONS

SCALE: NTS

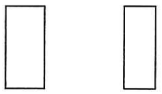
IRELAY 460
BACKHAUL ANTENNA
13.0" x 7.9"Ø, ±9.9 lbs



6 EQUIPMENT SPECIFICATIONS

SCALE: NTS

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



7 EQUIPMENT SPECIFICATIONS

SCALE: NTS

mobilitie

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

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JA90XS014F

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

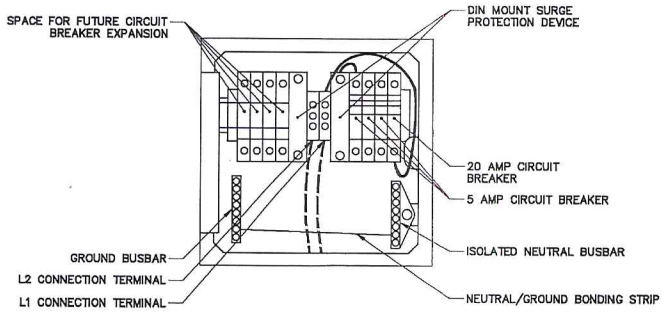
RACEWAYS AND WIRING:

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.

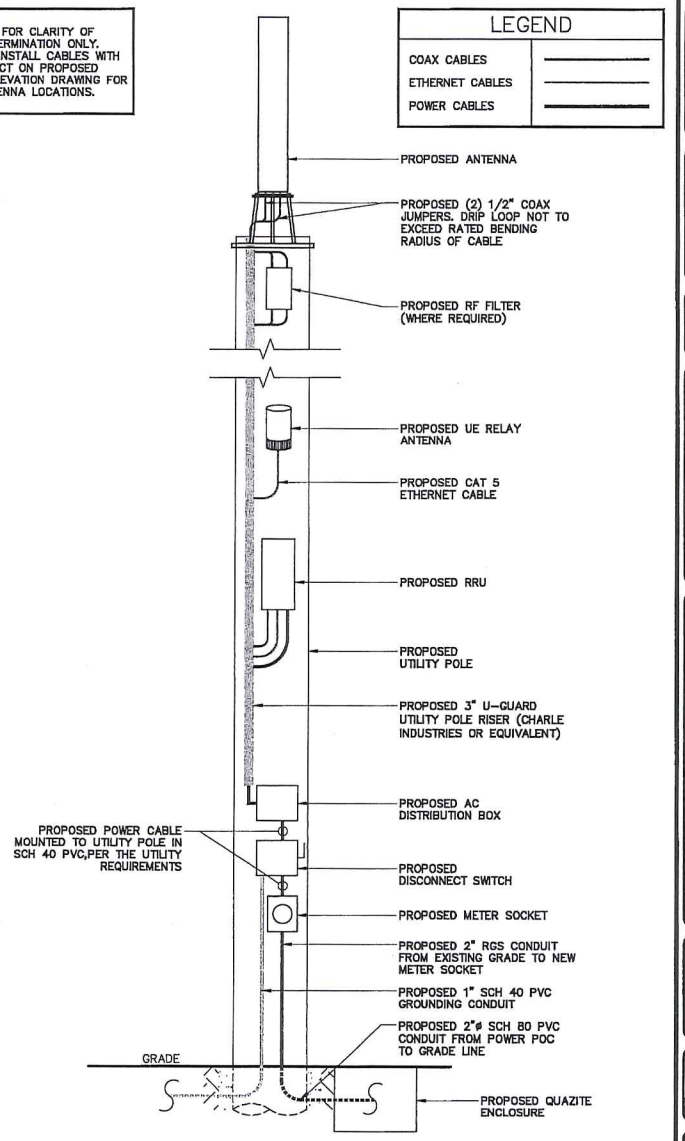
1 NOTES



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.



3 CABLE DIAGRAM

SCALE: NTS

mobilitie

PROJECT NO:	9FLB000086
DRAWN BY:	RC
CHECKED BY:	SJB

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KMB DESIGN GROUP, LLC

Stephen A. Bray
PROFESSIONAL ENGINEER

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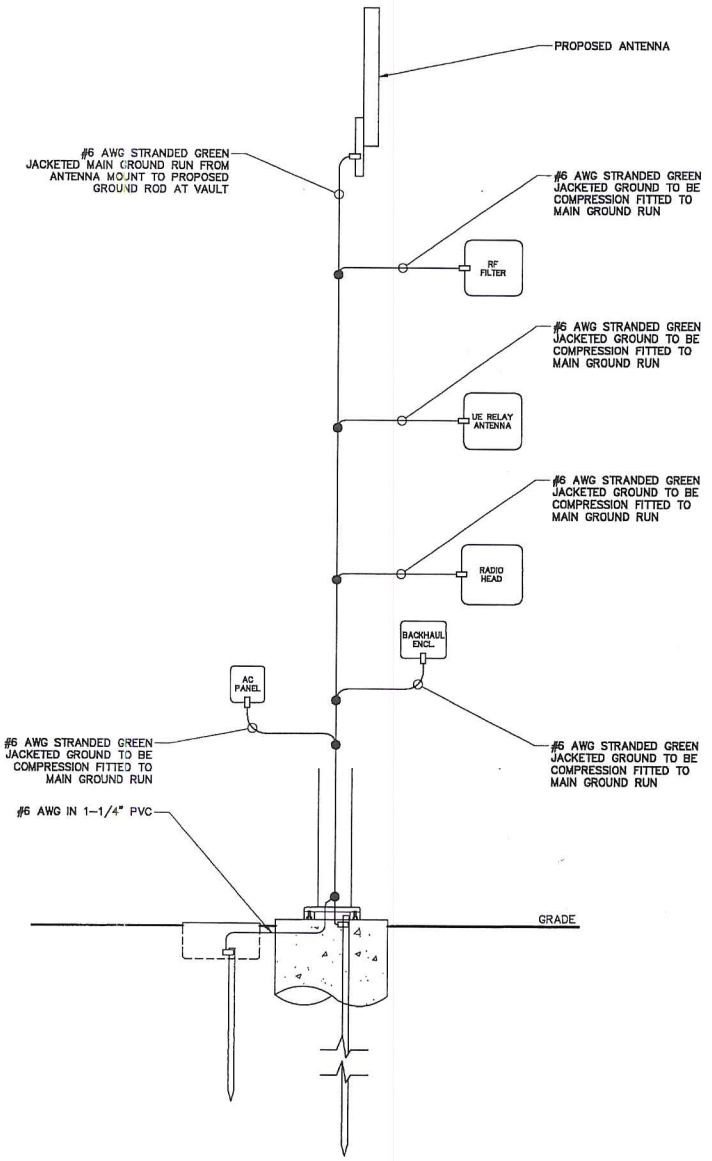
UTILITY POLE

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
DRAWN BY:	RC
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GAINESVILLE, FL 32601

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 rail ahead space.
17. Driveways and/or side streets entering the roadway after the first advance warning sign shall be provided with at least one W20-4P 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

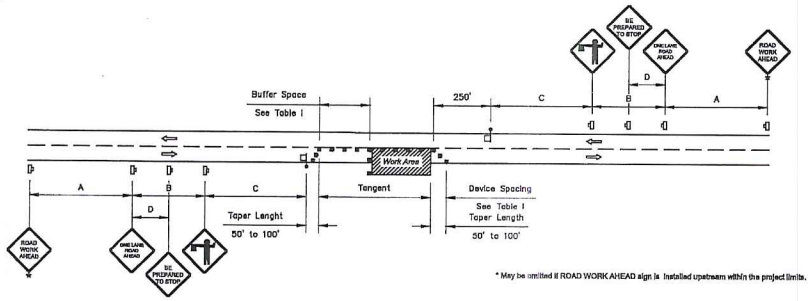
- Work Area
- Channelizing Device
- Work Zone Sign
- Flagger
- Automated Flagger Assistance Devices (AFAD), With Gate
- Lane Identification + Direction of Traffic

For single lane traffic flow see General Note 12

TABLE I

Posted Speed	DEVICE SPACING: 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:

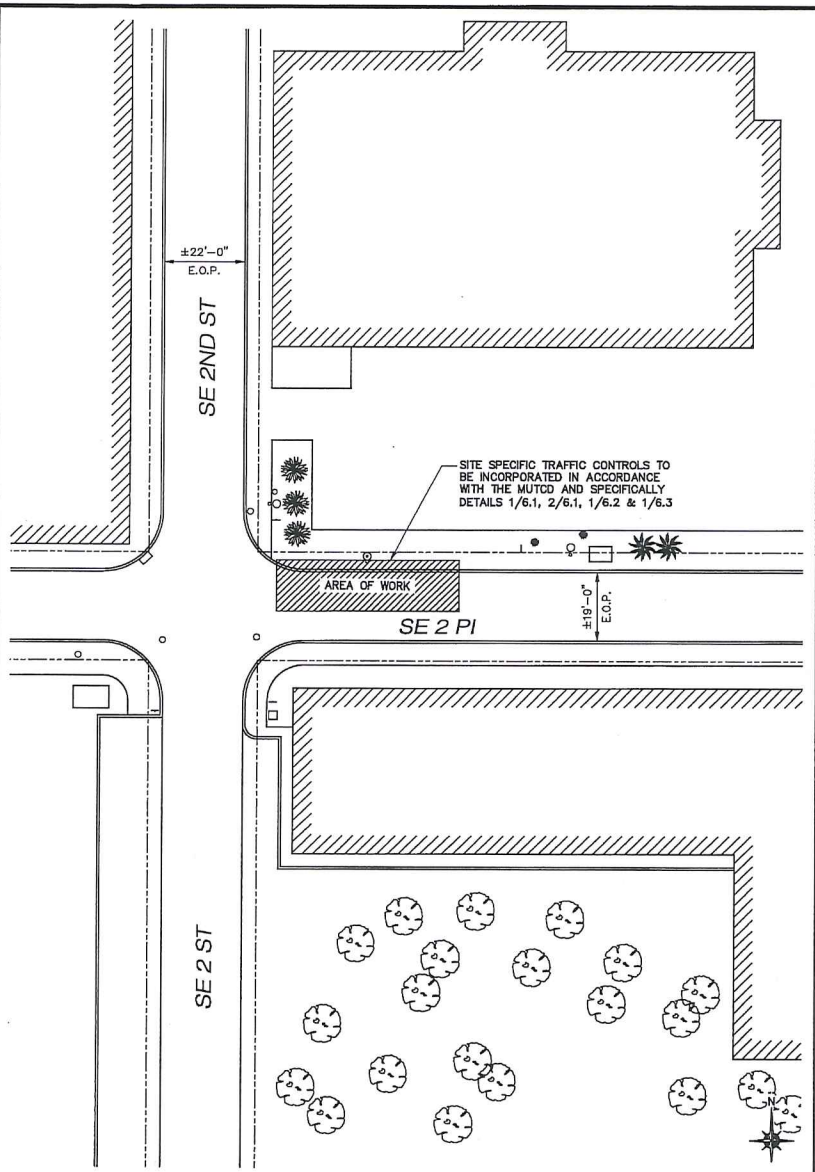
1. Special Conditions may be required in accordance with these notes and the following sheets.
2. If the Work Area encroaches on the Centerline, use the Layout for Temporary Lane Shift to Shoulder on Sheet 2 only if the Existing Paved Shoulder width is sufficient to provide for an 11' lane between the 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

A	07-04-16	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC

Stephen A. Bray
PROFESSIONAL ENGINEER

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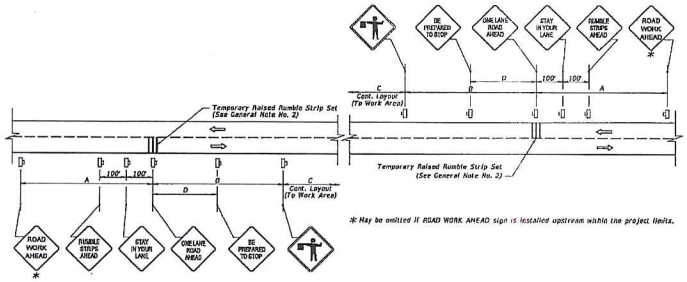
UTILITY POLE

SHEET TITLE

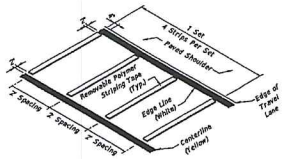
TRAFFIC CONTROL PLAN

SHEET NUMBER

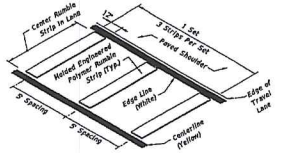
6.1



LAYOUT FOR TEMPORARY RAISED RUMBLE STRIPS WHEN REQUIRED WITH ADDITIONAL SIGNS



OPTION 1 - REMOVABLE POLYMER STRIPING TAPE RUMBLE STRIP SET

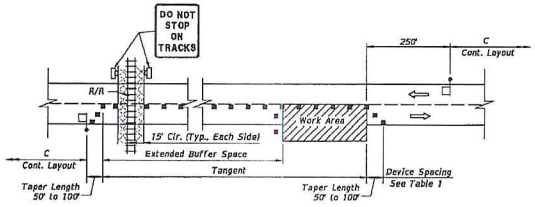


OPTION 2 - MOLDED ENGINEERED POLYMER RUMBLE STRIP SET

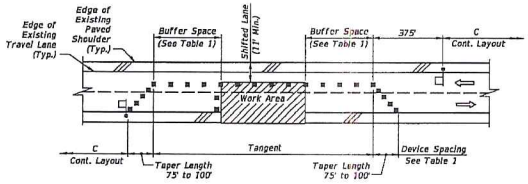
TEMPORARY RAISED RUMBLE STRIPS

1	TEMPORARY RAISED RUMBLE STRIPS

SCALE: NTS



LAYOUT FOR RAILROAD CROSSING BUFFER SPACE EXTENSION

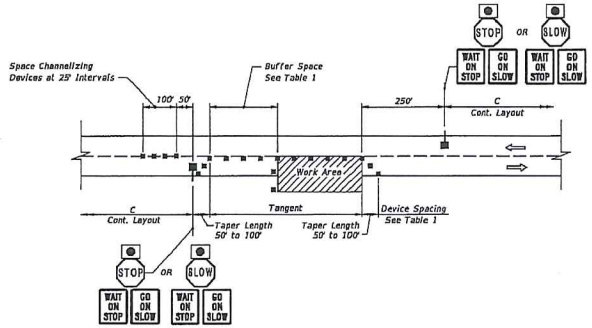


LAYOUT FOR TEMPORARY LANE SHIFT TO SHOULDER WHEN WORK AREA ENCROACHES ON THE CENTERLINE

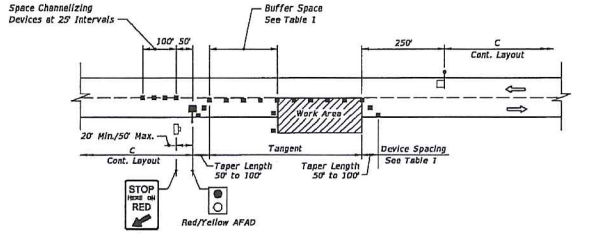
SPECIAL CONDITIONS

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:	BFLB000066
DRAWN BY:	RC
CHECKED BY:	SJB

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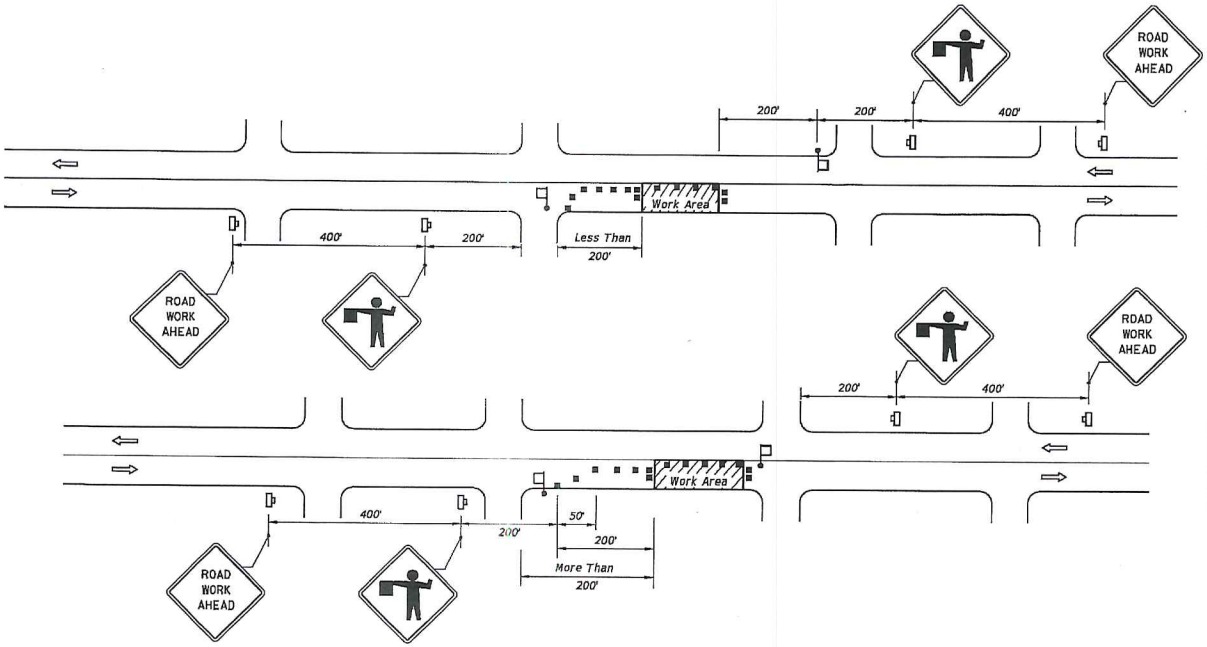
UTILITY POLE

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

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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

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

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

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

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
GENERAL NOTES

SHEET NUMBER
GN-2

9FLB000073

Right of Way Permit Application

CITY OF GAINESVILLE FLORIDA

Checklist for Applicants:	For City Use Only
☐ Read and complete this form in full.	Permit #:
☐ Include necessary attachments listed below (Certificate of Insurance, Plans, etc.).	Date Received:
☐ Ensure Certificate of Insurance is current and lists City of Gainesville as additional insured.	Date Approved:
☐ Submit to dg_pw_permits@cityofgainesville.org.	Date Expires:
☐ 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.	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

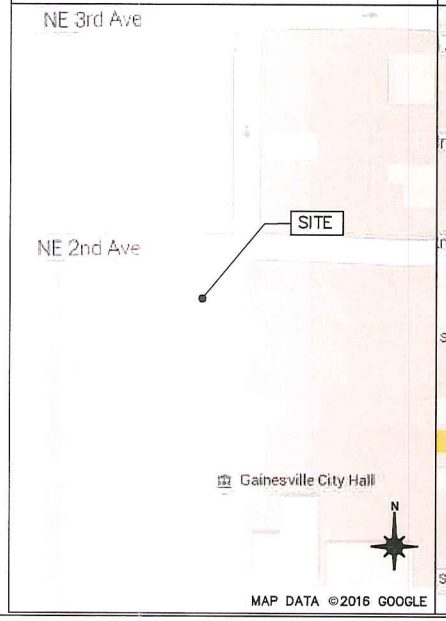
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY
ADDRESS/CROSS ST:	NE 2ND AVE & NE 1ST ST GAINESVILLE, FL 32601
APPLICANT:	MOBILITIE, LLC
APPLICANT ADDRESS:	925B PEACHTREE ST. NE SUITE 710 ATLANTA, GA 30309 PHONE: (312) 638-5400
POLE ID:	9FLB000073E
LATITUDE:	29.653247
LONGITUDE:	-82.323239
LAT/LONG TYPE:	NAD 83/NAVD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

BEFORE SCALING DRAWINGS

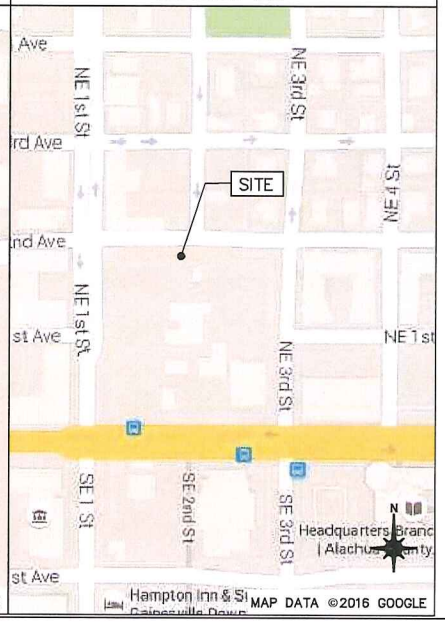
CONTRACTORS SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

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	05/09/16	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 — 1

SCALE: NOT TO SCALE

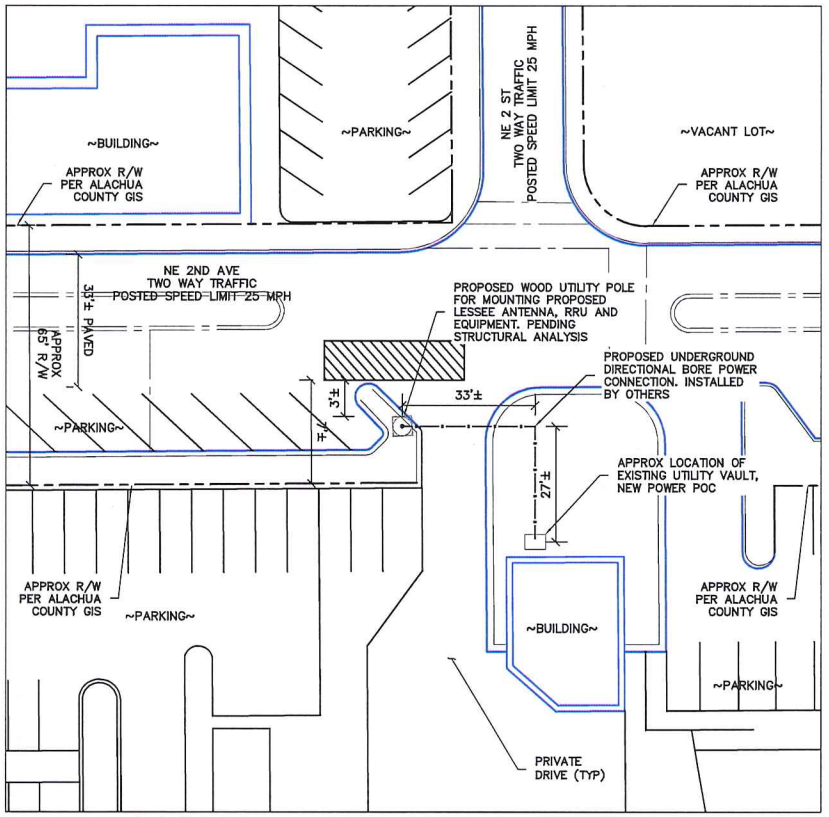


AERIAL SITE LOCATION — 2

SCALE: NOT TO SCALE

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



N

ENLARGED SITE PLAN — 3

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

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MOBILITIE, LLC

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

UTILITY POLE

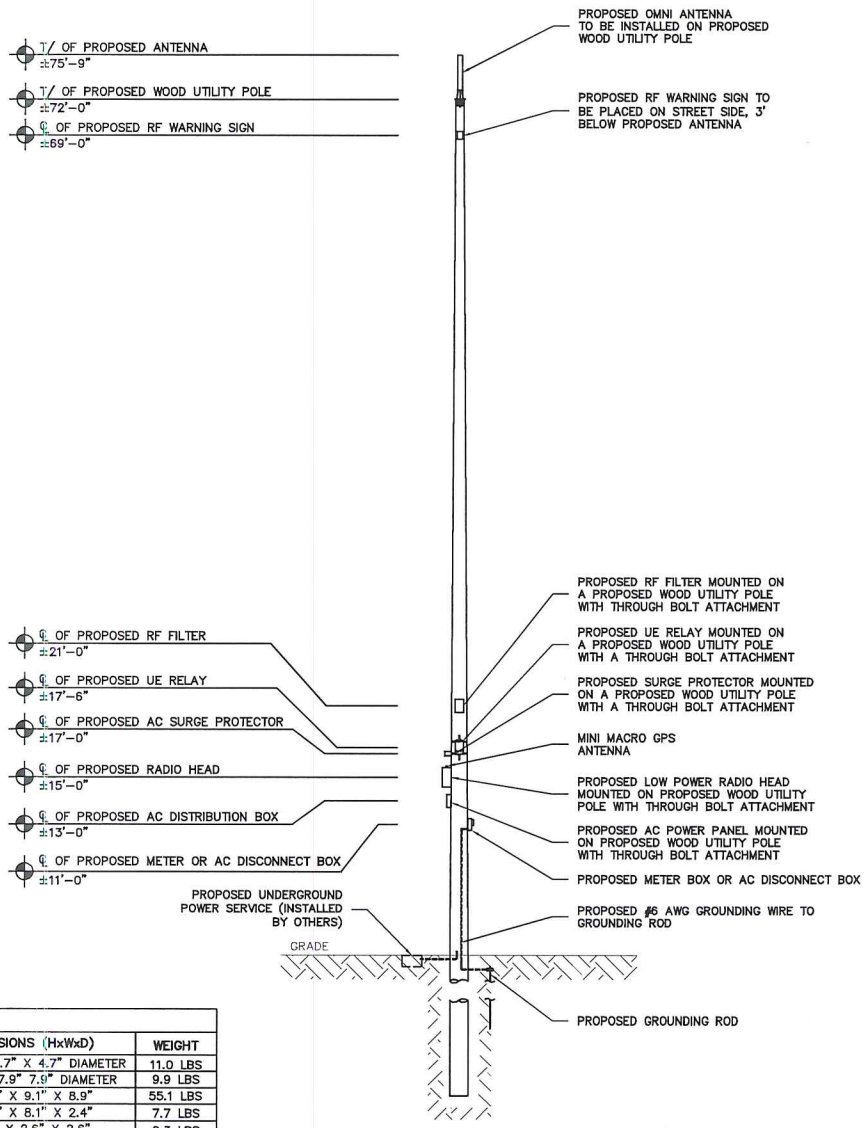
SHEET TITLE

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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MOBILITIE, LLC

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

UTILITY POLE

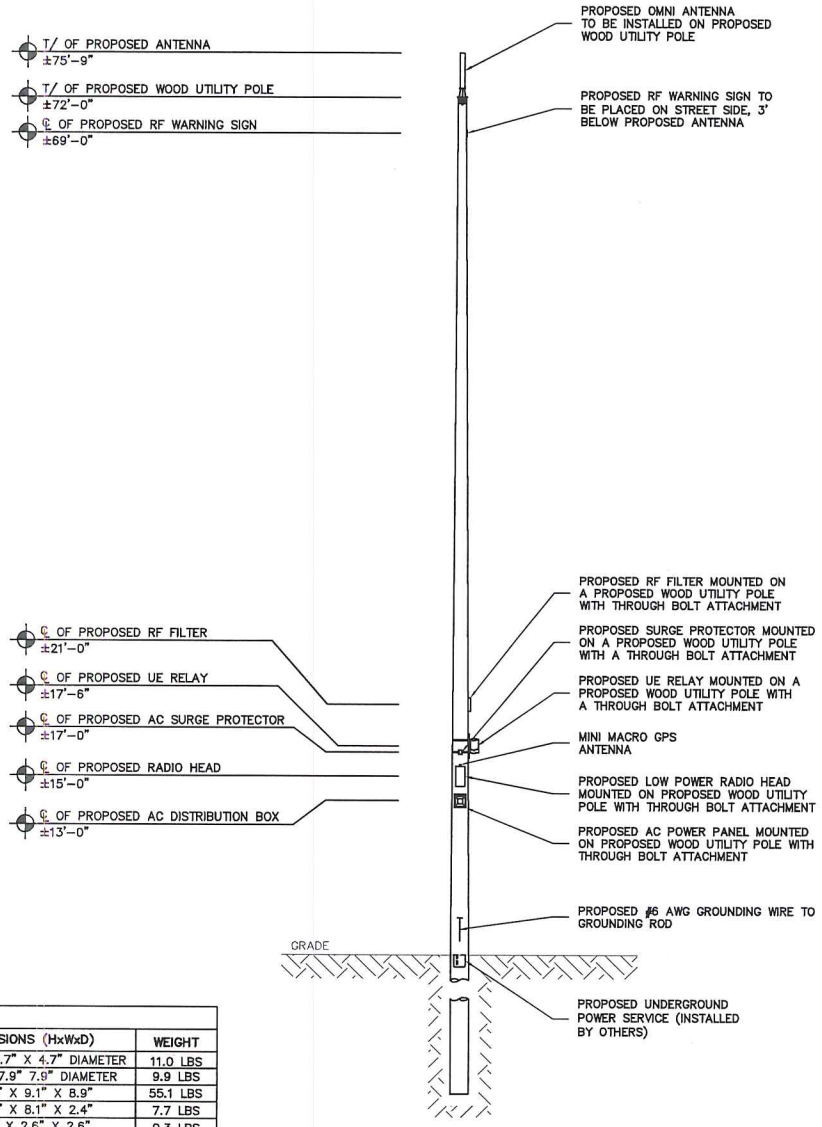
SHEET TITLE

POLE ELEVATION

SHEET NUMBER

2.0

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



EQUIPMENT CHART			
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1	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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MOBILITIE, LLC

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SITE ID: 9FLB000073/JA90XS021E

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

UTILITY POLE

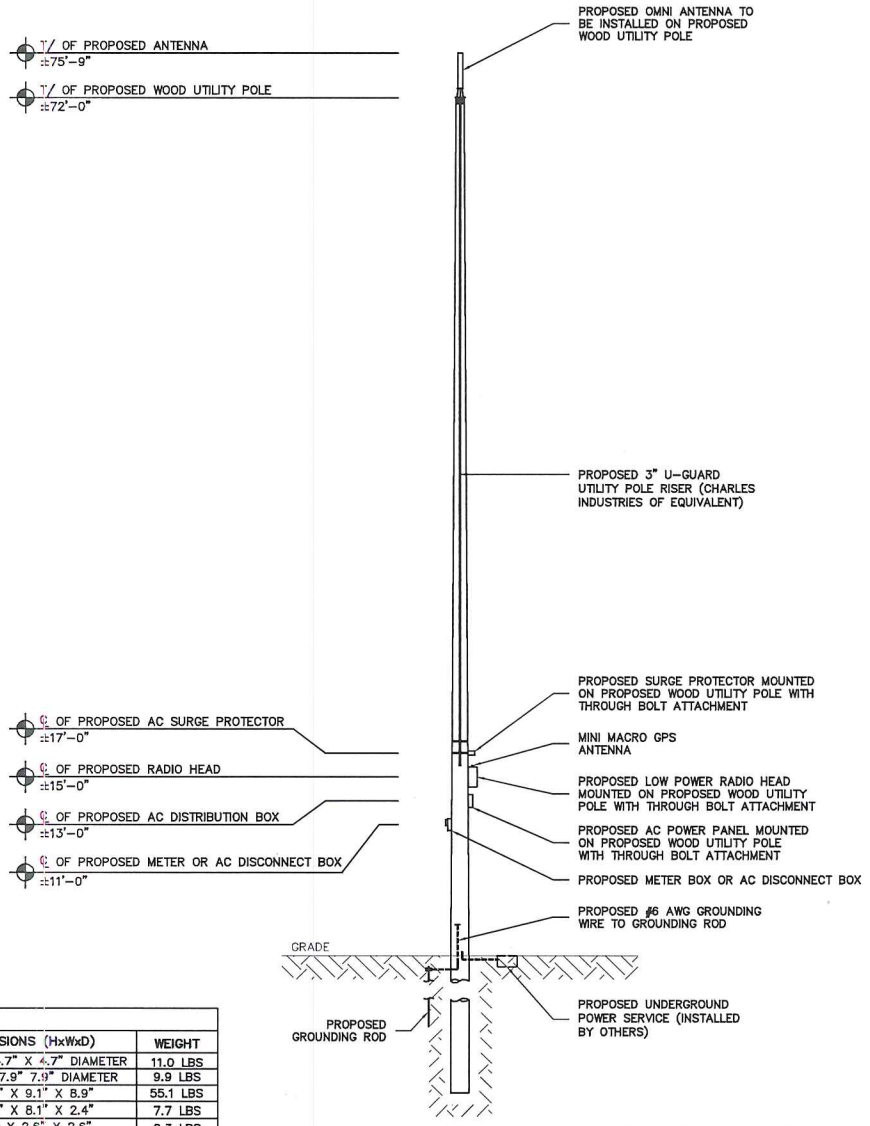
SHEET TITLE

POLE ELEVATION

SHEET NUMBER

2.1

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



EQUIPMENT CHART			
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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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MOBILITIE, LLC

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

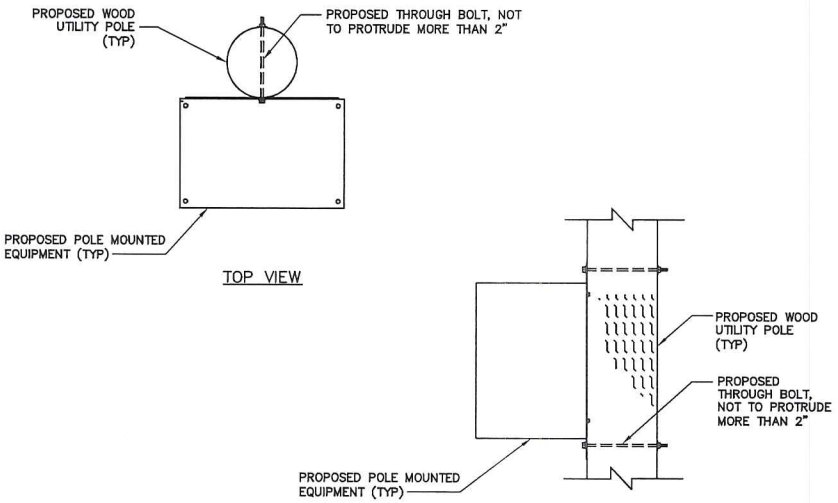
UTILITY POLE

SHEET TITLE

POLE ELEVATION

SHEET NUMBER

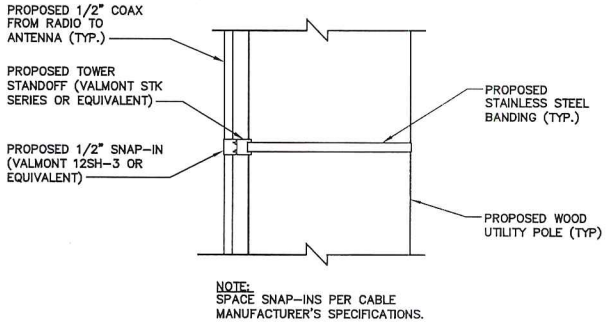
2.2



EQUIPMENT THROUGH BOLT CONNECTION

SCALE: NOT TO SCALE

1

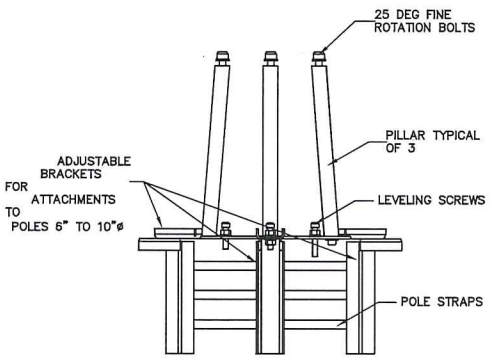


NOTE:
SPACE SNAP-INS PER CABLE MANUFACTURER'S SPECIFICATIONS.

COAX CABLE MOUNTING DETAIL

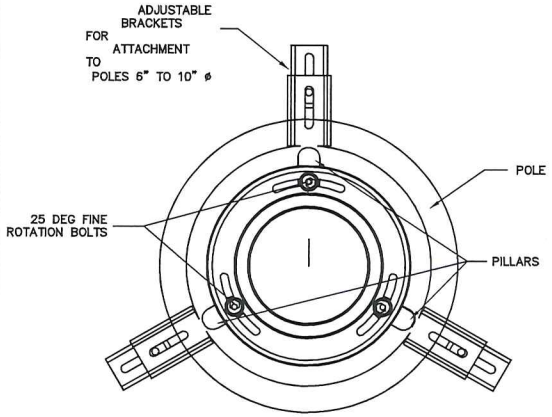
SCALE: NOT TO SCALE

2



SECTION VIEW

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.



TOP VIEW

ANTENNA MOUNTING DETAIL

SCALE: NOT TO SCALE

3

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MOBILITIE, LLC

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SITE ID: 9FLB000073/JA90XS021E

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

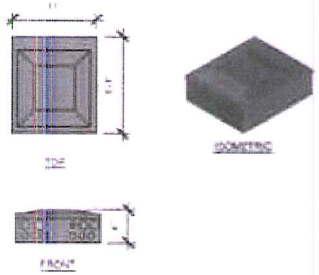
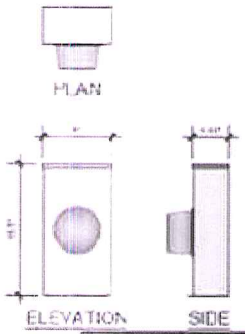
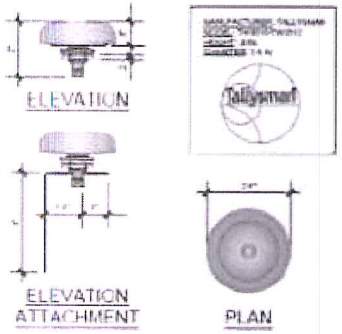
UTILITY POLE

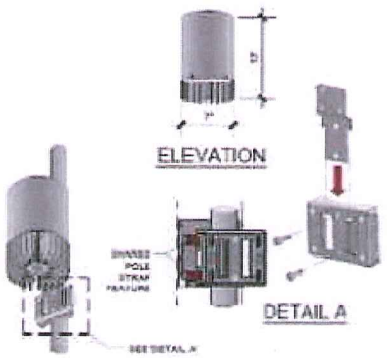
SHEET TITLE

ANTENNA & EQUIPMENT MOUNTING DETAILS

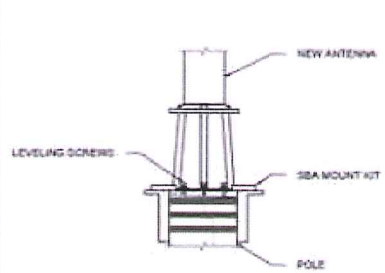
SHEET NUMBER

3.0

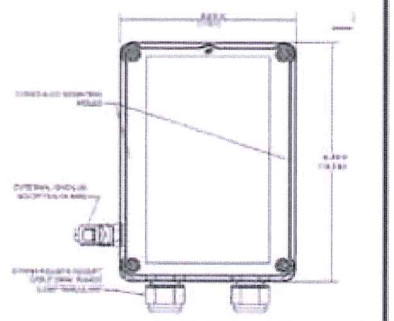
NOT USED SCALE: NOT TO SCALE	X	 **POWER BOX** SCALE: NOT TO SCALE	1
NOT USED SCALE: NOT TO SCALE	X	 **METER SOCKET** SCALE: NOT TO SCALE	2
NOT USED SCALE: NOT TO SCALE	X	 **GPS ANTENNA** SCALE: NOT TO SCALE	5



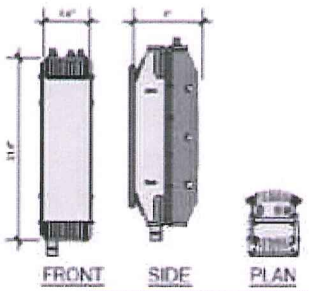
RELAY ANTENNA SCALE: NOT TO SCALE	3



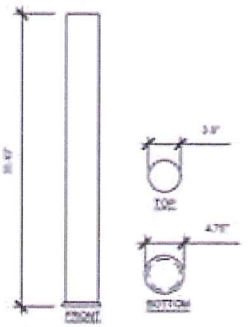
MOUNTING KIT SCALE: NOT TO SCALE	6



SURGE PROTECTOR SCALE: NOT TO SCALE	X



REMOTE RADIO UNIT SCALE: NOT TO SCALE	4



OMNI ANTENNA SCALE: NOT TO SCALE	7

mobilitie
intelligent infrastructure

MOBILITIE, LLC

PROJECT NO.	TBD
DRAWN BY	JSC
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

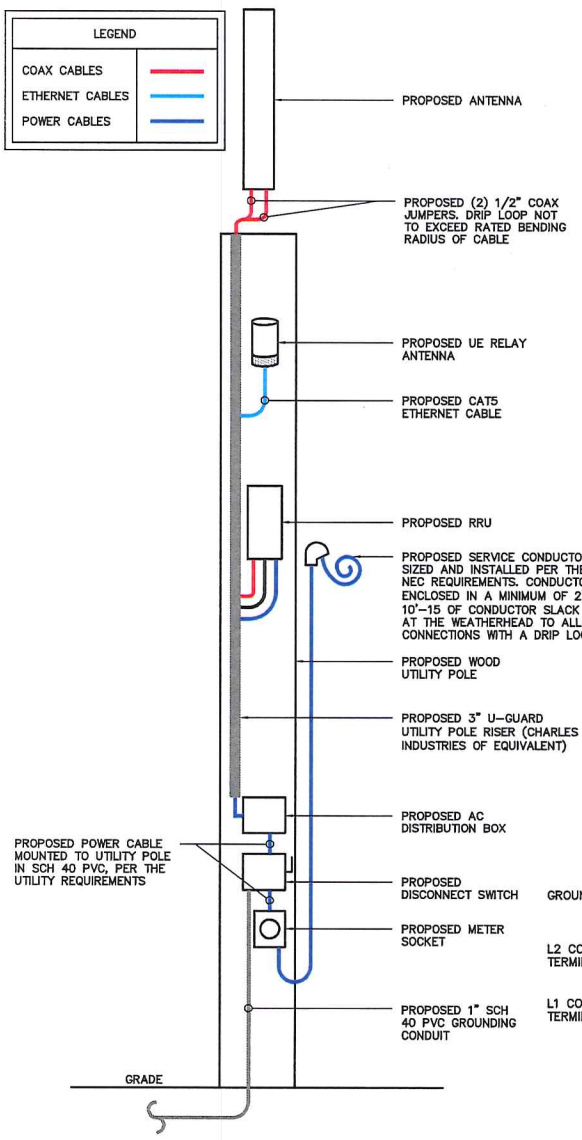
RACEWAYS AND WIRING:

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.

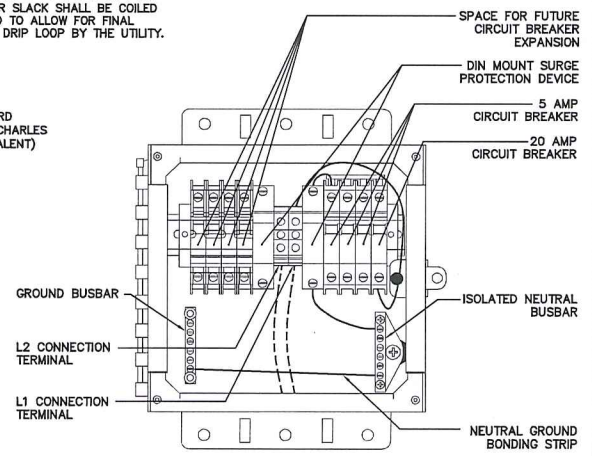
LEGEND	
COAX CABLES	
ETHERNET CABLES	
POWER CABLES	



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

SCALE: NOT TO SCALE

1

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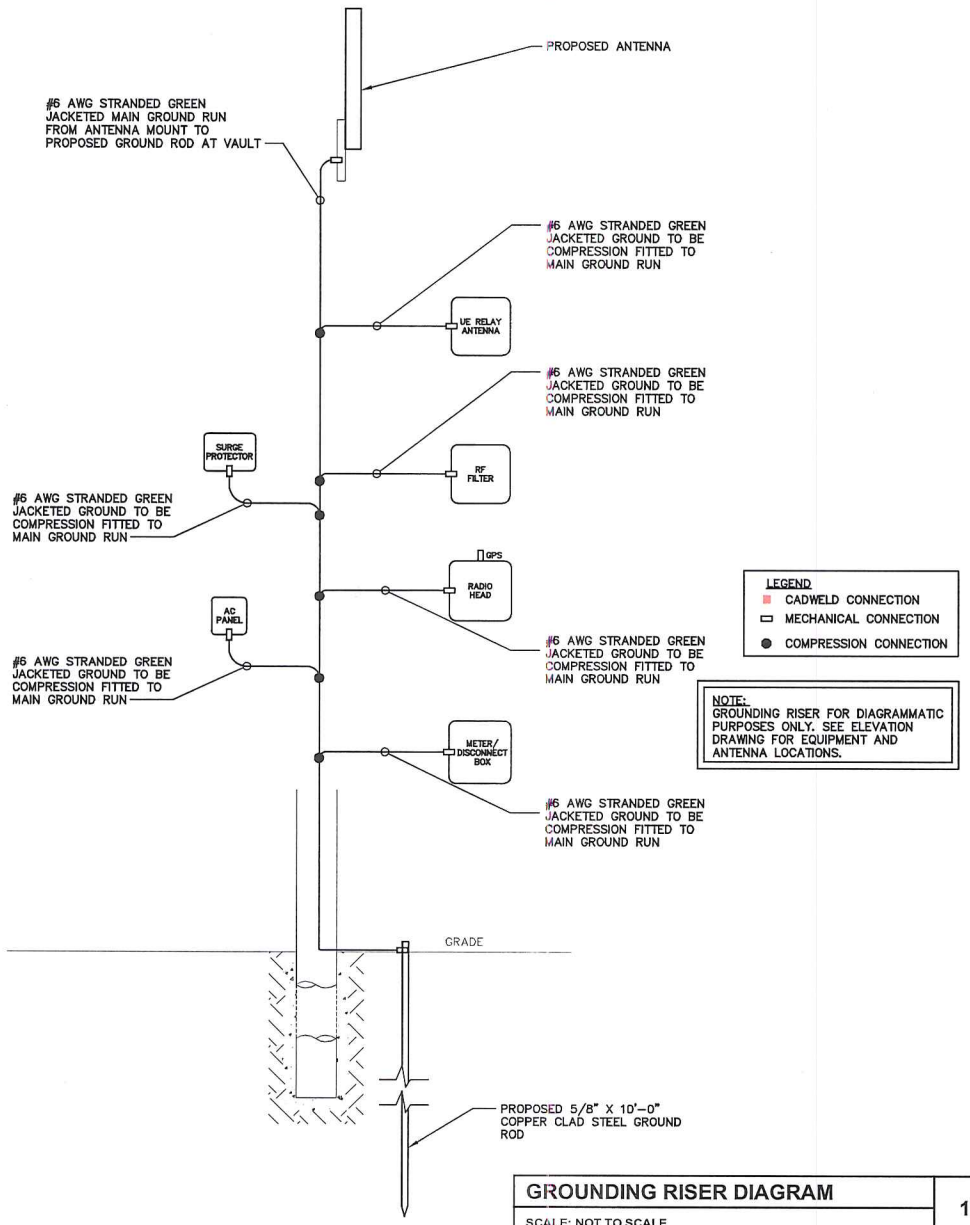
SITE ID: 9FLB000073/JA90XS021E

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

UTILITY POLE

SHEET TITLE
ELECTRICAL DETAILS

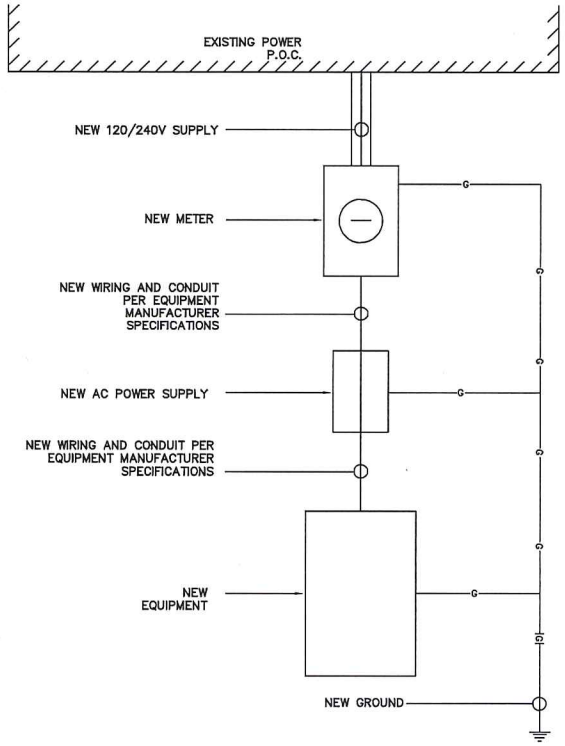
SHEET NUMBER
4.0



GROUNDING RISER DIAGRAM

SCALE: NOT TO SCALE

1



BASIC ONE-LINE DIAGRAM

SCALE: NOT TO SCALE

2

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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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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.

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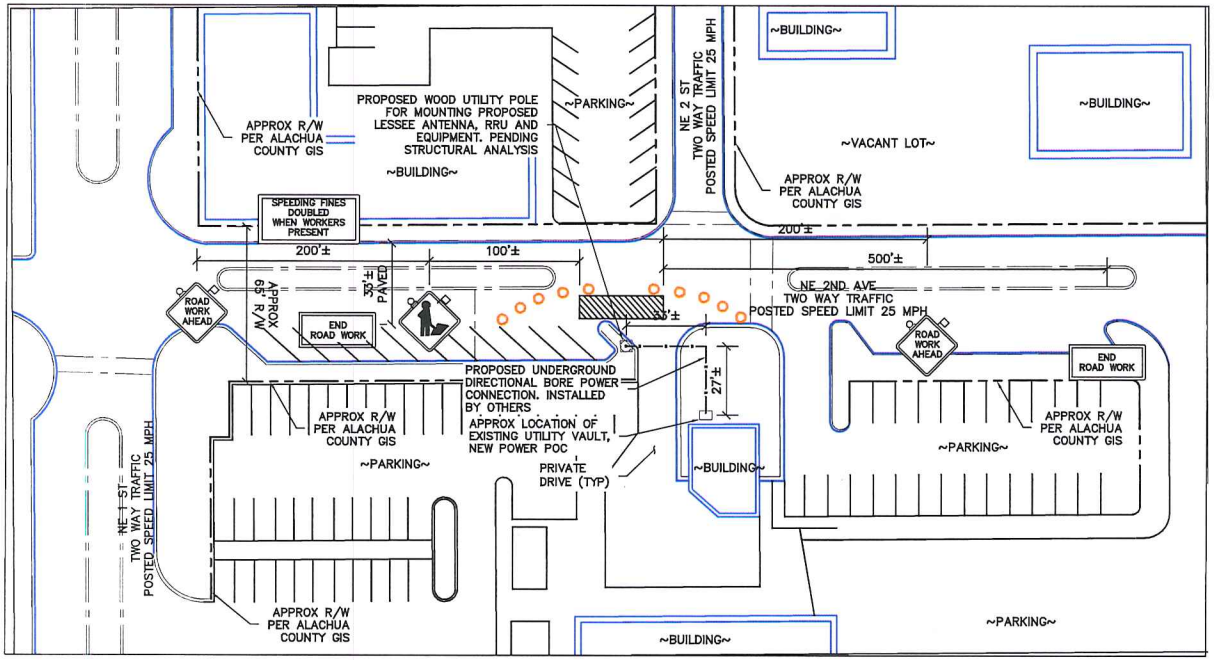
SHEET TITLE

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
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

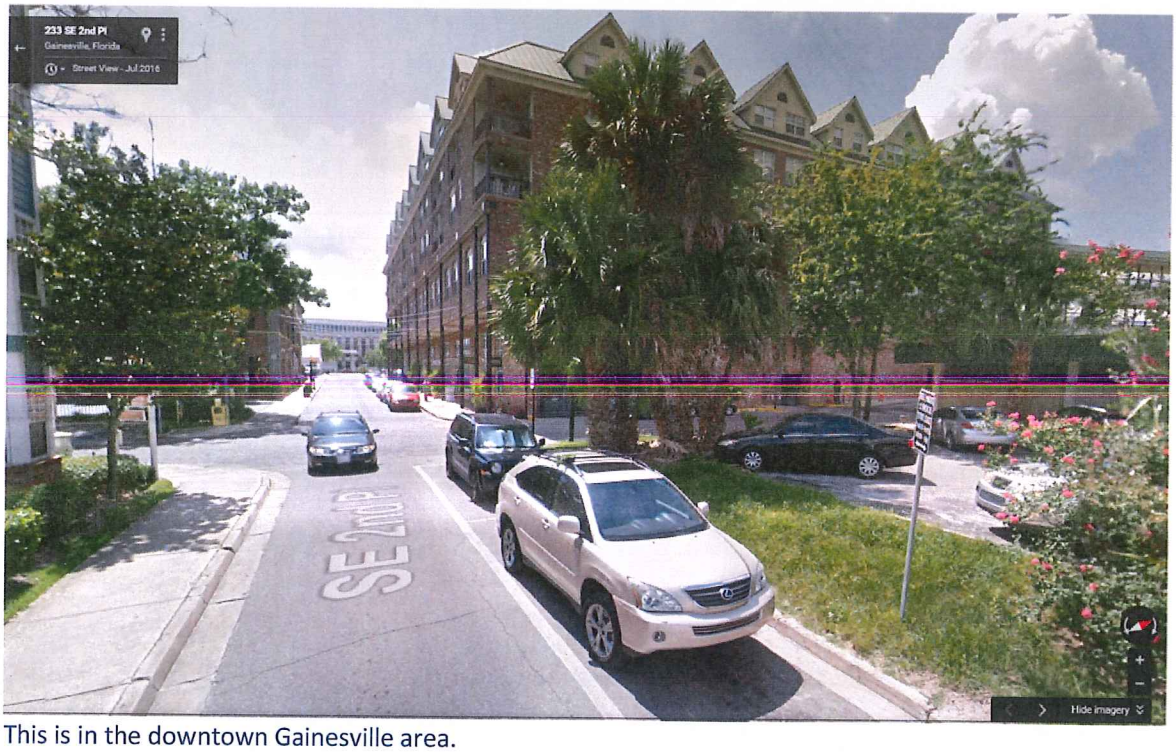
UTILITY POLE

SHEET TITLE
TRAFFIC CONTROL PLAN

SHEET NUMBER
TC-1



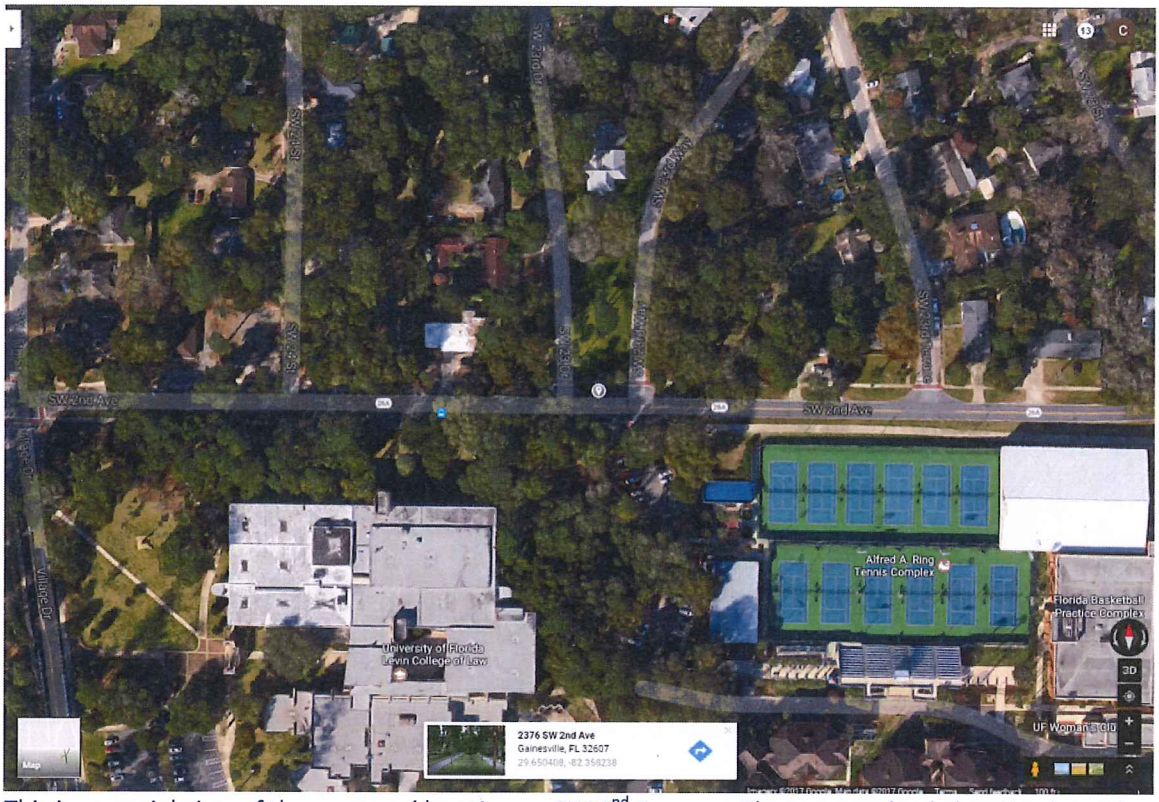
This street view of the location for the 75' pole from last application Mobilitie submitted. The pole, if permitted, would be located behind the palm trees but would be much taller than the trees, streetlight, or apartments across the street. Note that the utilities are underground in this area.



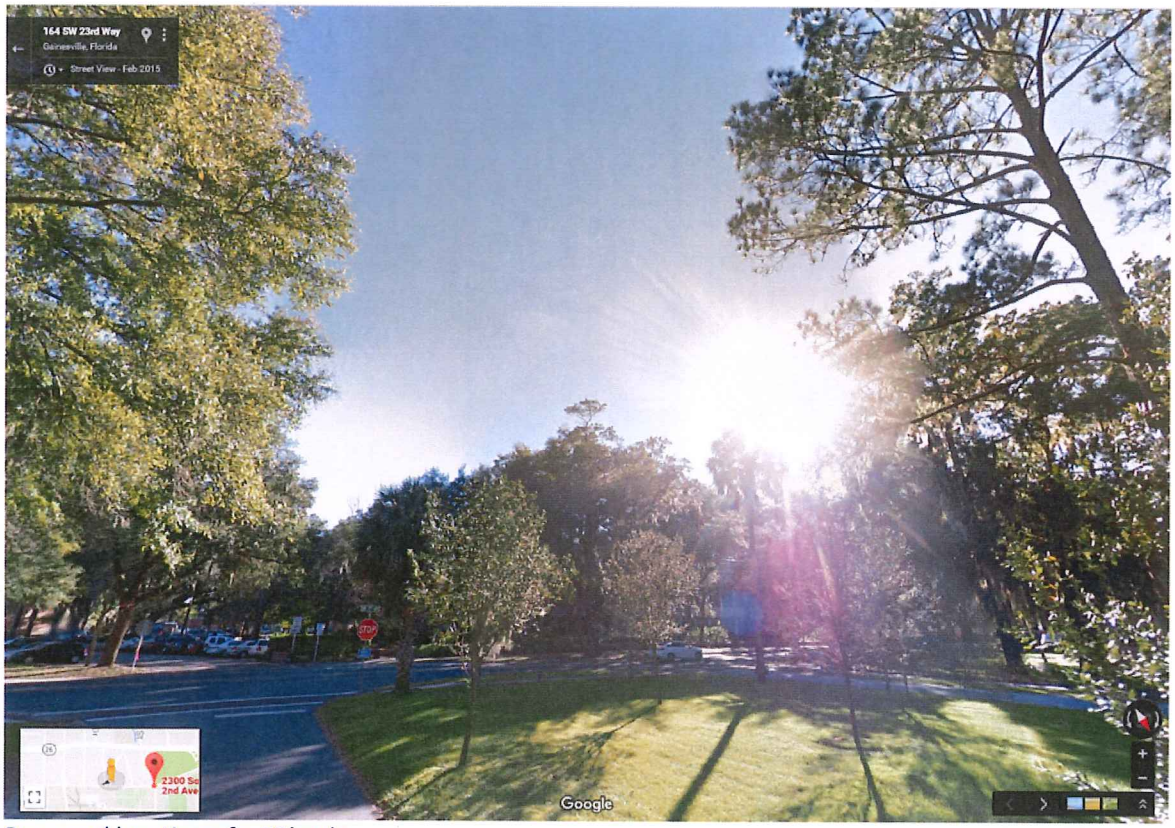
This is in the downtown Gainesville area.



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

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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
Senior Assistant City Attorney

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

mobilitie
intelligent infrastructure

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).

ATTACHMENT C

TOWN OF GULF STREAM

JONESFOSTER
JOHNSTON & STUBBS, P.A.

John C. Randolph
Attorney
561-650-0458
Fax: 561-650-5300
jrandolph@jonesfoster.com

October 11, 2016

Ms. Michele Visconti
Sr. Network Real Estate Specialist
Mobilitie, LLC
3475 Piedmont Road NE, Suite 1000
Atlanta, Georgia 30305

Re: Town of Gulf Stream
Our File No. 13147.1

Dear Ms. Visconti:

Your letter dated August 3, 2016, addressed to the Town of Gulf Stream was referred to this office for review.

In your letter you request a preliminary review of Mobilitie LLC's application and site plan in order to allow the Town to provide you with all requirements needed to obtain a right-of-way permit in Gulf Stream for your facility. You further indicate in your letter that Mobilitie plans to construct the applied for utility infrastructure within the next twelve months.

I call your attention to Section 34-103 of the Town Code which provides as follows:

> **"Sec. 34-103. - Poles, overhead wires and associated structures unlawful.**
>
> Except as otherwise specifically provided in this article, all facilities for providing electrical power, telecommunications, video, cable television, internet, broadband, and similar services (collectively, as used herein, "utility facilities") located within the jurisdiction of the town shall be placed underground. Poles, overhead wires and associated overhead structures shall not be permitted except as specifically provided in this article.
>
> This section shall apply to all new utilities located or desiring to locate within town or state rights-of-way within the town, as well as in easements or on private properties, as well as to any relocation, refurbishment, reconstruction, or restoration of utilities already located within the town, except for temporary restoration of service under emergency conditions, e.g., following a hurricane or similar natural event that damages overhead utility facilities."

The purpose of undergrounding these facilities is to provide the Town's residents with a safer, more reliable and aesthetically pleasing system.

You indicate in your letter that Gulf Stream Code Section 34-108(3) provides that your infrastructure is an enumerated exception to the underground requirement "and as such permitted to be erected in Gulf Stream." Indeed, that Section does provide that radio antennae, associated equipment and supporting structures for such antennae, used by a utility company for furnishing wireless communication services shall be approved and permitted as required by the town. [Emphasis supplied.]

Your proposed construction falls within the classification of a wireless communication facility. Attached hereto is a copy of Gulf Stream Code Section 66-456 relating to wireless communications towers and antennas. Please note in Section (1) that although towers to support wireless communications antennas designed primarily for the purpose of serving residents of the Town of Gulf Stream may be permitted within Town owned property, subject to the conditions stated therein, there is no provision to site a tower to support wireless communication antennas on the rights-of-way within the Town.

Therefore, because the Town code does not allow a new telecommunication tower or pole for wireless communications facilities to be in the Town's right-of-way, your request is denied.

In the event you have any questions in regard to this matter, please do not hesitate to contact me.

Sincerely,

JONES, FOSTER, JOHNSTON & STUBBS, P.A.

By _____
John C. Randolph

JCR/ssm
Enclosure
cc: Mr. William H. Thrasher, Town Manager

p:\docs\13147\00001\ltr\1ql9211.docx

DIVISION 8. - WIRELESS COMMUNICATIONS TOWERS AND ANTENNAS

Sec. 66-456. - Wireless communications towers and antennas.

The Town of Gulf Stream finds that it is in the public interest to limit the siting of wireless communications towers and antennas within the municipal boundaries of the town. The following conditions shall apply:

(1) A tower to support wireless communications antennas, designed primarily for the purpose of serving residents of the Town of Gulf Stream, may be permitted within the town-owned property subject, however, to the tower being available for use jointly to provide public safety communications and further subject to a license or lease authorizing the use of said tower having been approved by the town commission.
   a. Any lease of the tower referenced herein shall be subject to terms and conditions satisfactory to and approved by the town commission.

(2) Wireless communications antennas shall be permitted on towers as provided for in subsection (1) or lightpole structures located in rights-of-way or easements within the town subject to the following conditions:
   a. The height of the antenna cannot exceed two feet above the existing lightpole structure.
   b. All lightpole-mounted antennas shall be of a stealth design so that they are architecturally designed or camouflaged to be compatible with surrounding land uses, except that such antennas located in residential zoned areas must be screened from the view of residents and pedestrians.
   c. Equipment cabinets associated with lightpole-mounted antennas shall be of a scale that makes them no more visually obtrusive than other types of utility equipment boxes normally located within the rights-of-way within the town; and architecturally designed or camouflaged to be compatible with surrounding land uses, except that such equipment cabinets located in residential zoned areas must be screened from the view of residents and pedestrians.
   d. The town must approve the noise level and location of any generators or other equipment.

(3) Applicants may request a permit to site a wireless communications antenna upon the following conditions:
   a. Payment of a non-refundable application fee of $1,000.00.

b. Provide to the town's building official an inventory of the applicant's existing towers, antennas, or sites approved for towers or antennas that provide service or coverage within the Town of Gulf Stream, including specific information about the location, height, and design of each tower, antenna or site.

c. All costs relating to the installation of the antenna or any ancillary equipment relating thereto shall be borne by the applicant.

d. Space availability shall be on a first come-first served basis.

(4) No tower or antenna shall be permitted in the Town of Gulf Stream, except pursuant to subsections (1), (2), and (3) above, unless the applicant demonstrates to the reasonable satisfaction of the town commission that no reasonable alternative exists that can accommodate the applicant's proposed telecommunications service. An applicant shall submit information requested by the town commission relating to the availability of suitable existing towers, other structures or alternative technology. Evidence to demonstrate that no existing tower, structure or alternative technology can accommodate the applicant's proposed service may consist of any of the following:

a. No existing towers or structures located within the relevant geographic area accommodate antennas adequate to provide the applicant's service within the Town of Gulf Stream.

b. The applicant demonstrates to the satisfaction of the town commission that there are other limiting factors that render existing towers and structures unsuitable.

c. The applicant demonstrates that an alternative technology, such as a cable microcell network using multiple low-powered transmitters/receivers attached to a wire line system, is unsuitable.

(5) Special exceptions. If the town commission determines that no reasonable alternative exists that can accommodate the applicant's proposed telecommunications service, a special exception may be considered by the board of adjustment. Special Exceptions may be granted for the location of towers or antennas in the town subject, however, to the following conditions:

a. Information required. All applications for a special exception for a tower/antenna shall include the following:

1. Scaled site plan clearly indicating the location, type and height of the proposed tower/antenna, onsite land uses and zoning, adjacent land uses and zoning (including when adjacent to other municipalities), comprehensive plan future land use designation of the site, proposed means of access, setbacks from

property lines, elevation drawings of the proposed tower/antenna and any other structures, topography, parking, and other information deemed by the building official to be necessary to assess compliance with this division.

2. Legal description of the property tract and leased parcel (if applicable).
3. The setback distance between the proposed tower/antenna and the nearest residential unit, platted residentially zoned properties, and unplatted residentially zoned properties.
4. The separation distance from other towers/antennas described in the inventory of existing sites submitted pursuant to subsection (4) shall be shown on an updated site plan or map. The applicant shall also identify the type of construction of the existing tower(s)/antenna(s) and the owner/operator of the existing tower(s), if known.
5. A landscape plan showing specific landscape materials and the parties responsible for maintenance.
6. A description and diagram of the design for the proposed site, tower(s)/antenna (s) and related structures. The design of the site, tower(s)/antenna(s) and related structures shall be of a stealth design, meaning that, to the maximum extent possible, the design shall use materials, colors, textures, screening, and landscaping that will blend the tower/antenna site and structures into the natural setting and surrounding buildings. All designs shall require approval by the town. The town may direct revisions in the proposed design as necessary to protect the public interest.
7. Method of providing a security enclosure and stealth design for the enclosure and, if applicable, illumination including photometrics.
8. A description of compliance with all applicable federal, state or local laws including all provisions within this zoning ordinance.
9. A notarized statement by the applicant's engineer as to whether construction of the proposed tower will accommodate collocation of additional antennas for future users including number, largest size and type.
10. Identification of the entities providing the backhaul network for the tower (s)/antenna(s) described in the application and other cellular sites owned or operated by the applicant in the town and adjacent areas.
11.

A description of the suitability of the use of existing towers, other structures or alternative technology not requiring the use of towers or structures to provide the services to be provided through the use of the proposed new tower.

12. The structure is designed to accommodate colocations of equipment and attachments with a minimum wind load rated at 130 mph.
13. That the applicant posts a bond for performance in favor of the town.

b. Factors considered in granting special exception approval for towers and/or antennas. In addition to any standards for consideration of special exception applications specified in section 66-164 of this Code, the board of adjustment shall consider the following factors in determining whether to approve a special exception:

1. Height of the proposed tower/antenna;
2. Proximity of the tower/antenna to residential structures and residential district boundaries;
3. Nature of uses on adjacent and nearby properties;
4. Surrounding topography;
5. Surrounding tree coverage and foliage;
6. Stealth design of the tower/antenna site and structures, with particular reference to design characteristics that have the effect of reducing or eliminating visual obtrusiveness;
7. Proposed ingress and egress;
8. Availability of suitable existing towers, antennas, other structures or alternative technologies not requiring the use of towers or structures;
9. Set-back distance for a proposed tower equal to at least 110 percent of the height of the tower from any adjoining recreational zoned property lot line and at least 130 percent of the height of the tower from any adjoining residentially zoned property lot line;
10. Guys and accessory buildings satisfy the minimum zoning district setback requirements;
11. Existing mature tree growth and natural landforms on the site preserved to the maximum extent possible and additional landscaping to the extent determined reasonably necessary by the board of adjustment to screen the tower from view from residential properties.

c. All tower and wireless communications antenna owners must comply with the following requirements:

1. All towers and antennas must meet or exceed current standards and regulations of the Federal Aviation Administration (FAA), the Federal Communications Commission (FCC), and any other agency of the state or federal government with the authority to regulate towers and antennas. If such standards and regulations are changed, then the owners of the towers and antennas governed by this ordinance shall bring such towers and antennas into compliance with such revised standards and regulations within six months of the effective date of such standards and regulations. Failure to bring towers and antennas into compliance with such revised standards and regulations shall constitute grounds for the removal of the tower or antenna at the owner's expense.
2. The owner of a tower shall ensure the structural integrity of towers and related structures. The tower and structures must be maintained in compliance with standards contained in applicable state or local building codes and the applicable standards for towers that are published by the Electronic Industries Association, as amended from time to time. If, upon inspection, the Building official or his/her designee concludes that the tower or a related structure fails to comply with such codes or standards and constitutes a danger to persons or property, then the owner shall bring such tower or structure into compliance with such codes or standards within 30 days of receiving written notice from the town. Failure to bring such tower or structure into compliance within said 30 days shall constitute grounds for removal of the tower and attached antenna(s) or related structure at the owner's expense.
3. No signs, other than those required by law and preapproved by the town, shall be allowed on a tower, antenna or related structure or enclosure, including fences.
4. Any tower or antenna that is not operated for a continuous period of two years shall be considered abandoned, and the owner of such tower or antenna shall remove same, along with any related structures, with 90 days of receipt of written notice from the town notifying the owner of such abandonment. Failure to remove an abandoned tower or antenna within said 90 days shall be grounds for the town to remove the tower or antenna and any related structures at the owner's expense.

(6) The term "wireless communications antenna" means any exterior device used in communications that radiates or captures electromagnetic waves, digital signals, analog signals, radio frequencies (excluding radar signals), wireless telecommunications signals or other communications signals. This term does not include over-the-air reception devices which deliver or receive broadcast signals, direct broadcast signals, direct broadcast satellite services or multichannel multipoint distribution services, as defined and regulated by 47 C.F.R. § 1.4000, as amended.

(Ord. No. 04-2, § 1, 8-13-04; Ord. No. 08-4, § 6, 9-5-08)


mobilitie
intelligent infrastructure
Sheryl Blasi
Permitting Manager
Network Real Estate
mobile +1 305 849 2071
sblasi@mobilitie.com
www.mobilitie.com

Bill Thrasher

From: Sheryl Blasi <SBlasi@mobilitie.com>
Sent: Friday, September 9, 2016 12:14 PM
To: Bill Thrasher
Cc: Michele Visconti
Subject: Town Of Gulfstream - Mobilitie Permit Applicaiton
Attachments: MI90XSR44B_LUPCOVLET_20160803_A.docx

Good afternoon Mr. Thrasher,

I stopped by your office this week so I can introduce myself and set up a day and time we can meet to discuss our proposed ROW/Building Permit application we submitted to the town on August 13, 2016.

Are you available next week for me to come in and discuss? Please let me know if you have a preferred time and day I can come in and meet with you.

Thank you.

Best Regards,

Sheryl Blasi | Permitting Manager
sblasi@mobilitie.com
mobilitie
intelligent infrastructure
3600 Red Road # 305, Miramar, FL 33025
mobile: **305 849 2071**
www.mobilitie.com

mobilitie
intelligent infrastructure

August 3, 2016

The Town of Gulf Stream
100 Sea Road
Gulf Stream, FL 33483
Phone: 561-276-5116

RE: Mobilitie, LLC Permit Application Submission – (9FLB004271)

Dear Ms. Tew:

Please find the enclosed Mobilitie, LLC's permit applications for one (1) proposed new utility infrastructure facility in the Town of Gulf Stream. Included with the attached permit applications, you will also find construction drawings and photo simulations for each facility. Please let us know what, if any, permit application fee is required to process these permit applications. Thank you very much for forwarding me the Code of Ordinances earlier today. Pursuant to Gulf Stream Code, Sec. 34-108(3), our infrastructure is an enumerated exception to the underground requirement, and as such permitted to be erected in Gulf Stream. My hope is that a preliminary review of our applications and site plans will allow you to provide us with all requirements needed to obtain a Right-of-Way permit in Gulf Stream. Your email did not contain a permit application, so please let us know if a different application needs to be filled out.

Mobilitie, LLC is a ***public utility company*** regulated by the Florida Public Service Commission to provide telephone related services, such as facilities based competitive local exchange and interexchange services. To meet the growing demand for connectivity, Mobilitie is deploying a hybrid transport network that provides high-speed, high-capacity bandwidth in order to facilitate the next generation of devices and data-driven services. This network can support a variety of technologies and services that require connectivity to the internet, including, but not limited to, driverless and connected vehicles (commercial, personal and agricultural), remote weather stations and mobile service providers. These trasport utility poles and facilities are not dedicated to any particular customer, and, to the extent capacity on the structures is available, are available to be used by other entities, including Gulf Stream.

Mobilitie plans to construct the applied for utility infrastructure within the next 12 months. Mobilitie's hybrid transport network is an industry changing approach that seeks to improve backhaul connectivity for the City's residents. We are excited to work with Gulf Stream and available to answer questions. If you have questions, please contact me at 470-240-3222. Also, please feel free to contact Daniella Bonilla, Permitting Manager, at 904-252-0546. Daniella is local and more than happy to set up an in person meeting to go over any and all additional requirements to obtain a right-of-way permit.

Thank you for your attention to this matter.

Respectfully submitted,

Michele Visconti
Sr. Network Real Estate Specialist

*Enclosure

MOBILITE LLC — RIGHT OF WAY UTILIZATION APPLICATION

Date Submitted	3-Aug-16	Submitted By	MOBILITIE LLC

JURISDICTION INFORMATION

Jurisdiction Name	CITY OF HIALEAH						
Address	100 Sea Road	City	Gulf Stream	State	FL	Zip Code	33483
Jurisdiction Contact	Rebecca Tew	Phone Number	561-276-5116				

APPLICANT INFORMATION

Applicant Name	MOBILITIE, LLC			Utility ID	9FLB004271
Address	3475 Piedmont Road NE Suite 1000				
City	ATLANTA	State	GA	Zip Code	30305
Applicant Contact	DANIELLA BONILLA	Phone Number	305 433 0792	Email	Dbonilla@mobilitie.com

EMERGENCY CONTACT

Name	Operational Department	Phone Number	877-244-7889

SITE INFORMATION

Cascade ID				MOBILITIE LLC ID	9FLB004271		
Latitude	26.498553	Longitude	-80.054583	Site Type (Urban, Rural, etc.)			
Address	3737 Gulfstream Road	City	Delray Beach	State	FL	Zip Code	33483

PROJECT DESCRIPTION

End user proposes to attach backhaul transport equipment to an existing concrete light pole within an existing right of way.

Est. Cost of Work	$4,500

GENERAL CONTRACTOR

Contractor Name	Regency Communications			License Number	CGC1505328
Contact Name	John Jay Pequignot	Phone Number	954-755-8316	Email	
Address	4332 NW 120th Ave				
City	Coral Springs	State	Florida	Zip Code	33065

ELECTRICAL CONTRACTOR

Contractor Name	TBD			License Number	
Contact Name		Phone Number		Email	
Address					
City		State		Zip Code	

ARCHITECTURE / ENGINEERING

Contractor Name	TBD			License Number	
Contact Name		Phone Number		Email	
Address					
City		State		Zip Code	

POWER AND BACKHAUL

Power Provided By	UTILITY CO. DIRECT ☐	NONE ☐	AERIAL ☐	TRENCHING ☐	BORE ☐	OTHER ☐	
Utility Provider							
Address		City		State		Zip Code	
Telco/Interconnect Requirements	☐	MICROWAVE ☐	FIBER OPTICS ☐	LICENSED ☐	OTHER ☐		
Provider							

PERMIT ISSUANCE

Permit Number		Permit Number	
Permit Fee		Permit Fee	

SITE ID: 9FLB004271 / MI90XSR44B
GULFSTREAM RD & OLD SCHOOL RD
DELRAY BEACH, FL 33483

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:	GULFSTREAM RD & OLD SCHOOL RD DELRAY BEACH, FL 33483
APPLICANT:	MOBILITIE, LLC
APPLICANT ADDRESS:	3475 PIEDMONT ROAD NE SUITE 1000 ATLANTA, GEORGIA 30305 PHONE: (312) 638-5400
LATITUDE:	N 26° 29' 54.8" (26.498553)
LONGITUDE:	W 80° 03' 16.5" (-80.054583)
LAT/LONG TYPE:	NAD 83
GROUND ELEVATION:	±5' AMSL
COUNTY:	PALM BEACH COUNTY
JURISDICTION:	GULF STREAM TOWN

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 CONCRETE UTILITY POLE WITHIN AN EXISTING RIGHT-OF-WAY. THE SCOPE WILL CONSIST OF THE FOLLOWING:

- INSTALL PROPOSED BACKHAUL TRANSPORT ON PROPOSED CONCRETE 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:	9FLB004271
DRAWN BY:	RC
CHECKED BY:	SJB

A	07-06-16	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC

Stephen A. Bray
PROFESSIONAL ENGINEER

PRELIMINARY
NOT FOR CONSTRUCTION

FL LICENSE: 68902 7/6/16

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

MI90XSR44B
GULFSTREAM RD
& OLD SCHOOL RD
DELRAY BEACH, FL 33483

UTILITY POLE

SHEET TITLE
TITLE SHEET

SHEET NUMBER
0.0



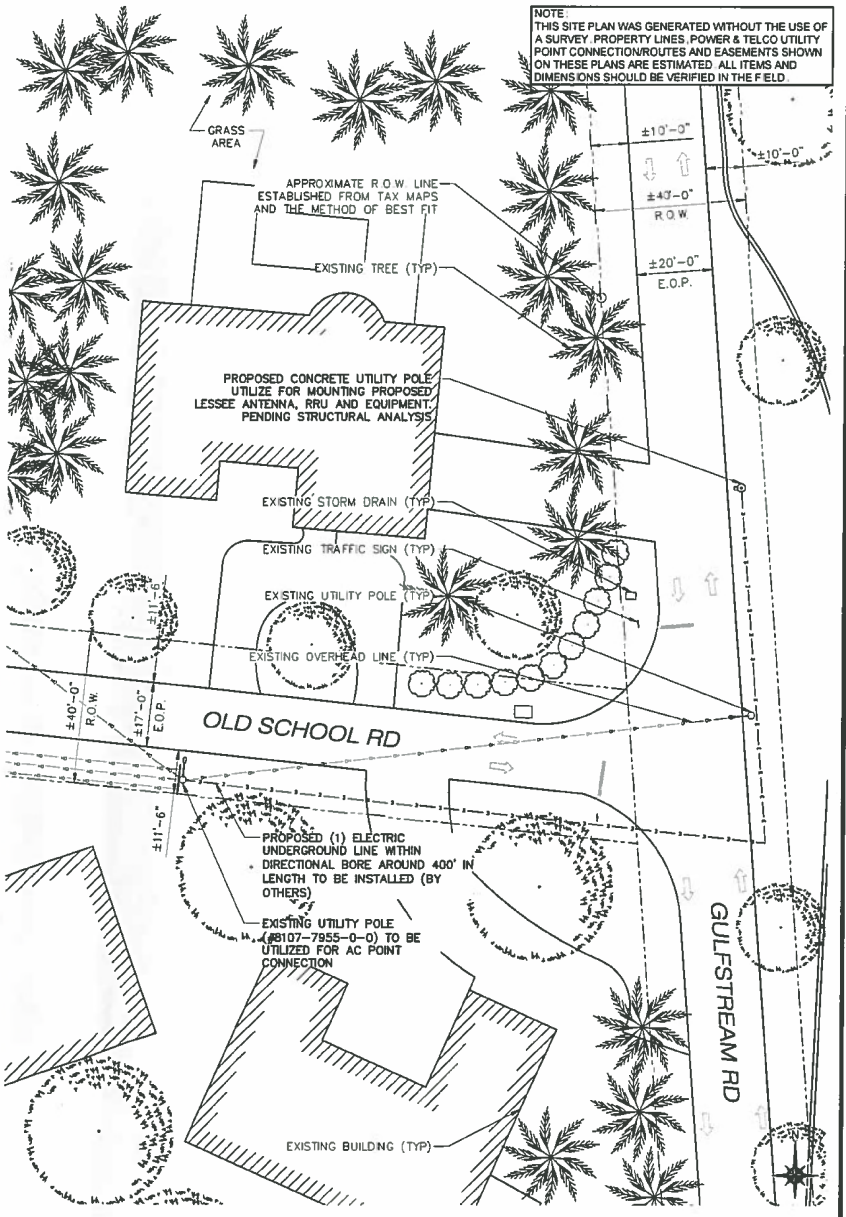
1 EXHIBIT PHOTO

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:	9FLB004271
DRAWN BY:	RC
CHECKED BY:	SJB

A	07-06-16	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC

Stephen A. Bray
PROFESSIONAL ENGINEER

PRELIMINARY
NOT FOR CONSTRUCTION

FL LICENSE: 68902 7/6/16

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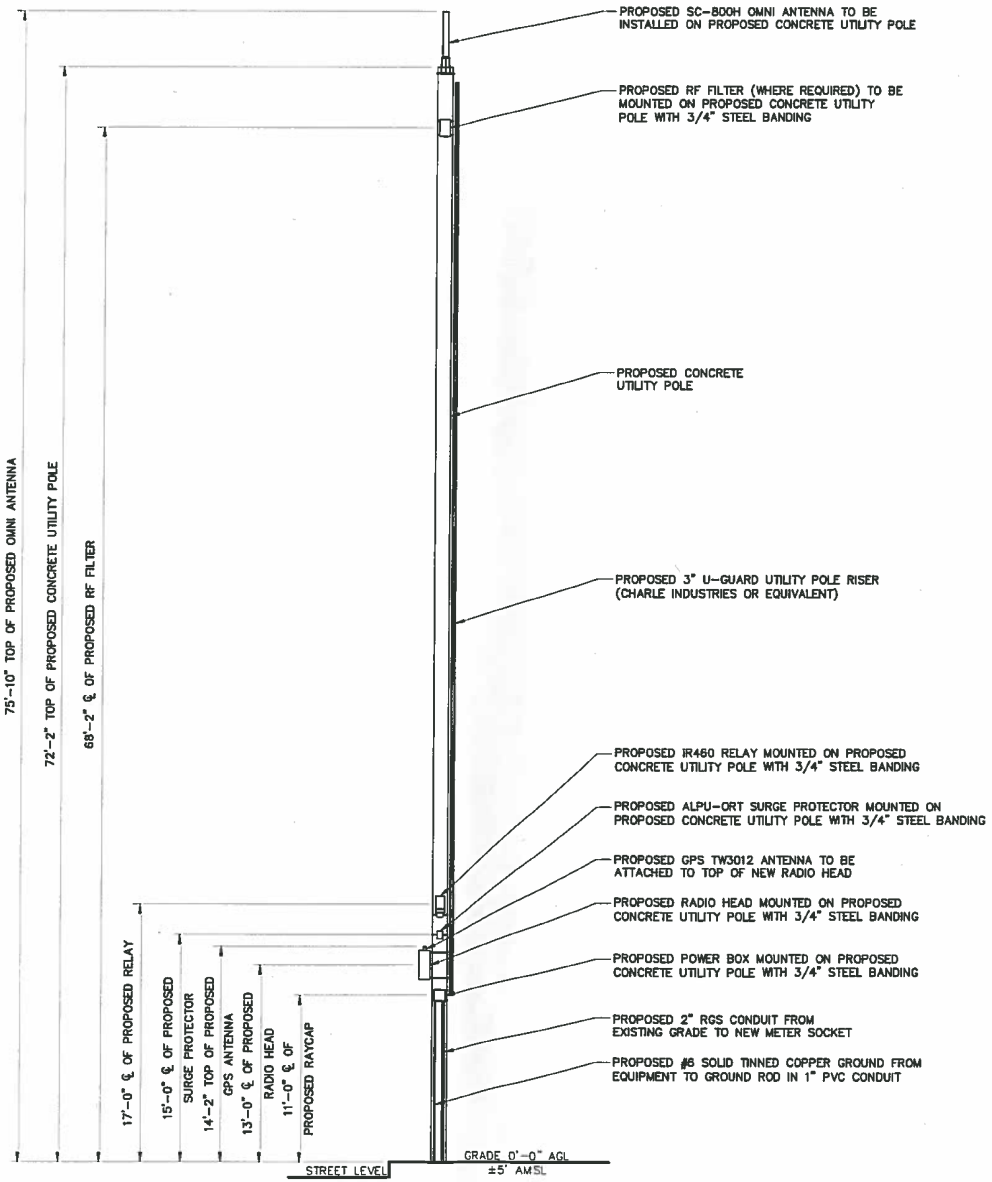
MI90XSR44B
GULFSTREAM RD
& OLD SCHOOL RD
DELRAY BEACH, FL 33483

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 **SOUTHEAST ELEVATION**

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

mobilitie

PROJECT NO:	9FLB004271
DRAWN BY:	RC
CHECKED BY:	SJB

A	07-06-16	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC

Stephen A. Bray
PROFESSIONAL ENGINEER

PRELIMINARY
NOT FOR CONSTRUCTION

FL LICENSE: 68902 7/6/16

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

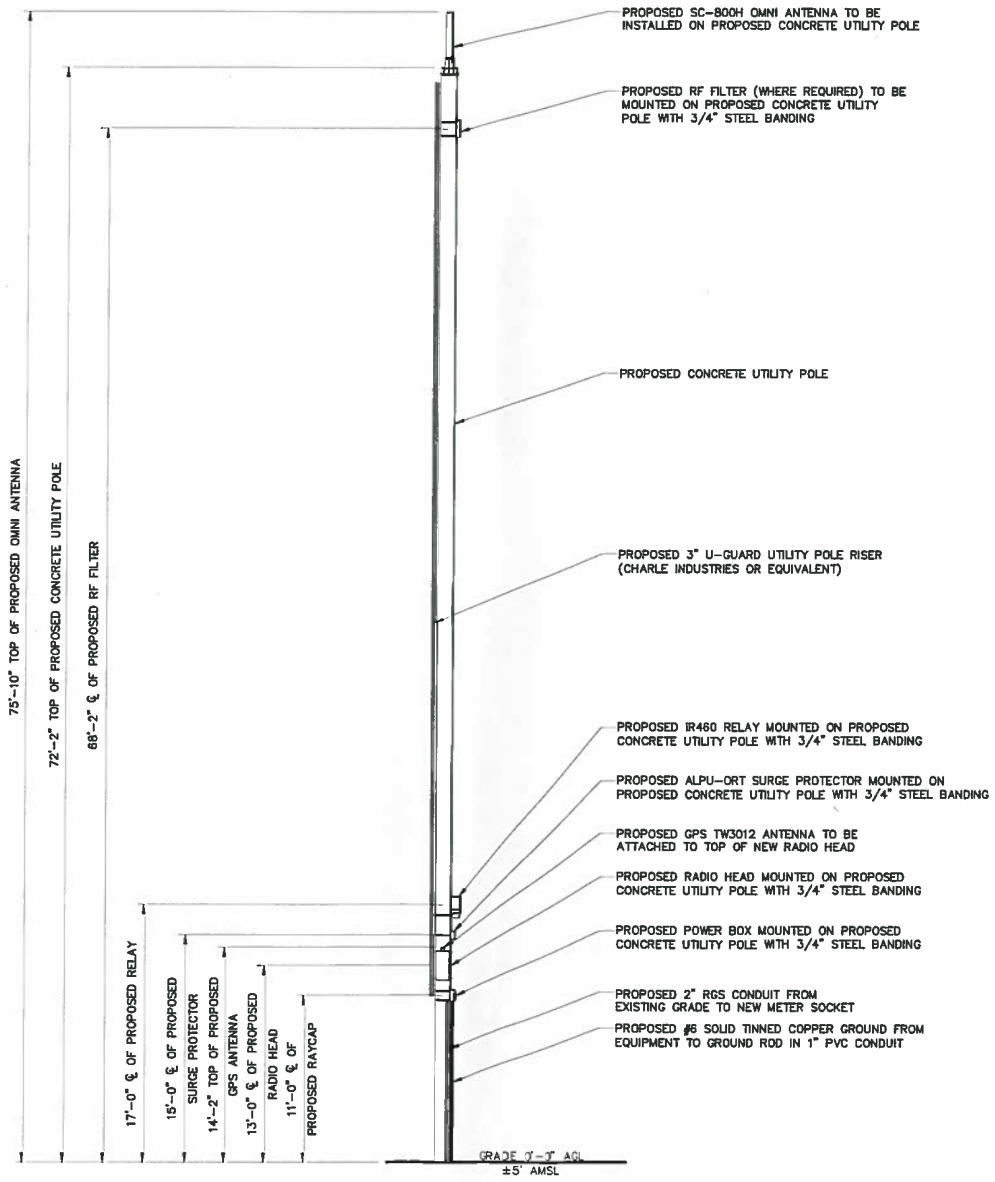
MI90XSR44B
GULFSTREAM RD
& OLD SCHOOL RD
DELRAY BEACH, FL 33483

UTILITY POLE

SHEET TITLE
POLE ELEVATION

SHEET NUMBER
2.0

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 **SOUTHWEST ELEVATION**

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

mobilitie

PROJECT NO:	9FLB004271
DRAWN BY:	RC
CHECKED BY:	SJB

A	07-08-16	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC

Stephen A. Bray
PROFESSIONAL ENGINEER

PRELIMINARY
NOT FOR CONSTRUCTION

FL LICENSE: 68902 7/6/16

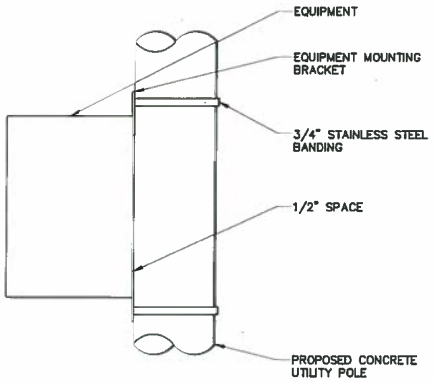
IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT

MI90XSR44B
GULFSTREAM RD
& OLD SCHOOL RD
DELRAY BEACH, FL 33483

UTILITY POLE

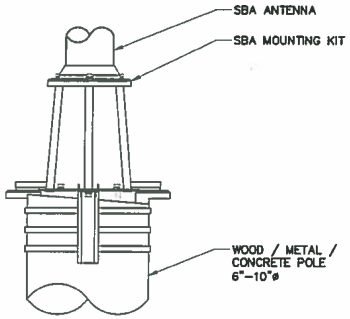
SHEET TITLE
POLE ELEVATION

SHEET NUMBER
2.1



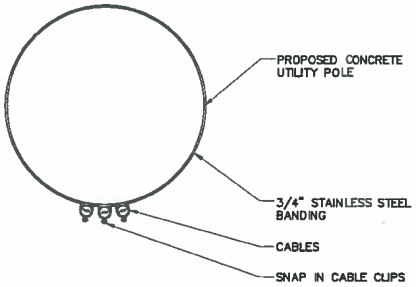
1 EQUIPMENT CONNECTION DETAIL

SCALE: NTS



2 ANTENNA MOUNTING DETAIL

SCALE: NTS



3 CABLE ROUTING DETAIL

SCALE: NTS

mobilitie

PROJECT NO:	9FLB004271
DRAWN BY:	RC
CHECKED BY:	SJB

A	07-06-16	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC

Stephen A. Bray
PROFESSIONAL ENGINEER

PRELIMINARY
NOT FOR CONSTRUCTION

FL LICENSE: 68902 7/6/16

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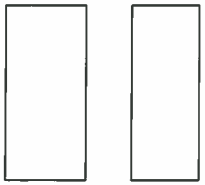
MI90XSR44B
GULFSTREAM RD
& OLD SCHOOL RD
DELRAY BEACH, FL 33483

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

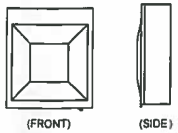
TW3012
GPS ANTENNA
0.8" x 2.6"Ø, ±0.3 lbs



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

FIMBW2593S-1C
RF FILTER
13.6" x 8.1" x 2.4 ±7.7 lbs



4 EQUIPMENT SPECIFICATIONS

SCALE: NTS

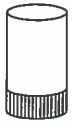
SC-800
2.5 OMNI ANTENNA
35.4" x 4.7"Ø, ±11 lbs



5 ANTENNA SPECIFICATIONS

SCALE: NTS

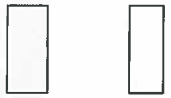
IRELAY 460
BACKHAUL ANTENNA
13.0" x 7.9"Ø, ±9.9 lbs



6 EQUIPMENT SPECIFICATIONS

SCALE: NTS

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



7 EQUIPMENT SPECIFICATIONS

SCALE: NTS

mobilitie

PROJECT NO:	9FLB004271
DRAWN BY:	RC
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GULFSTREAM RD
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DELRAY BEACH, FL 33483

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

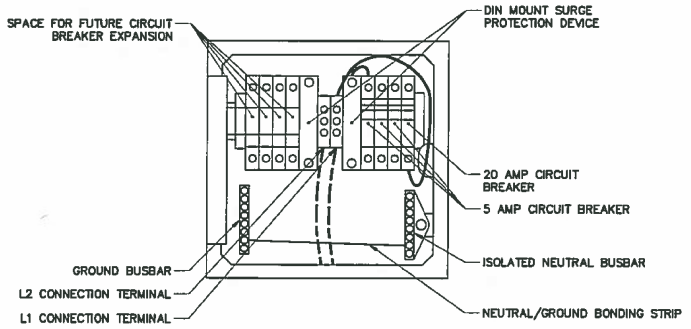
RACEWAYS AND WIRING:

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.

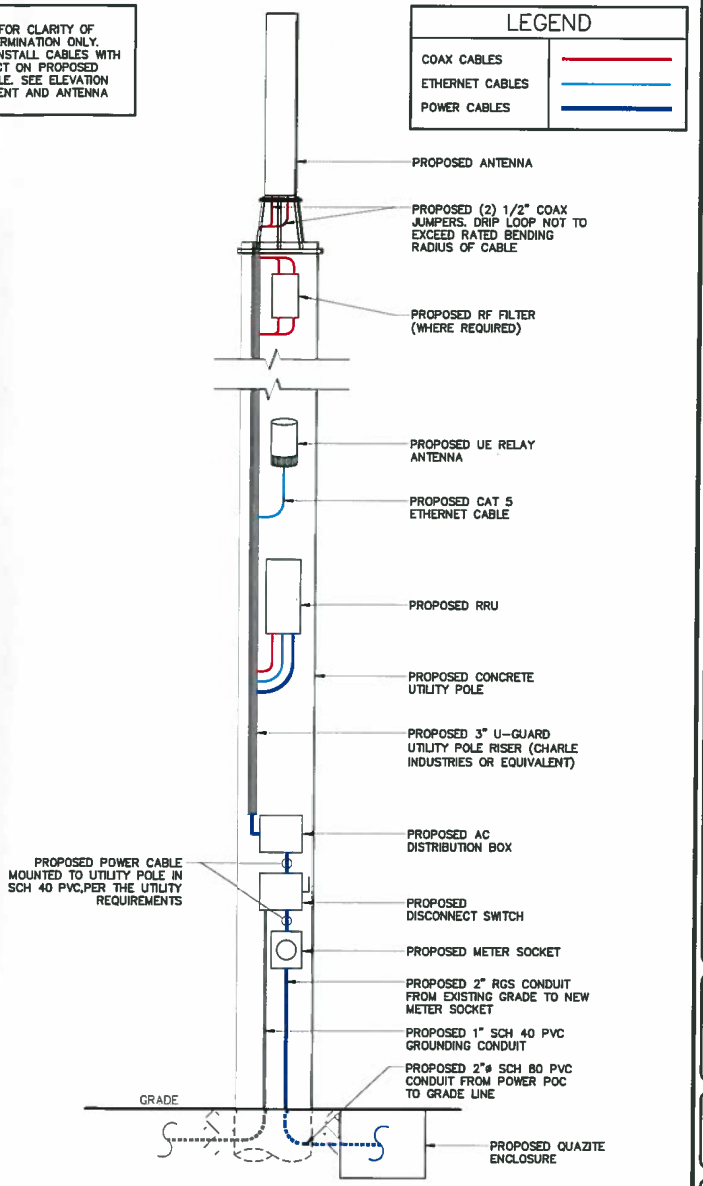
1 NOTES



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 CONCRETE UTILITY POLE. SEE ELEVATION DRAWING FOR EQUIPMENT AND ANTENNA LOCATIONS.



3 CABLE DIAGRAM

SCALE: NTS

mobilitie

PROJECT NO:	9FLB004271
DRAWN BY:	RC
CHECKED BY:	SJB

A	07-06-16	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC

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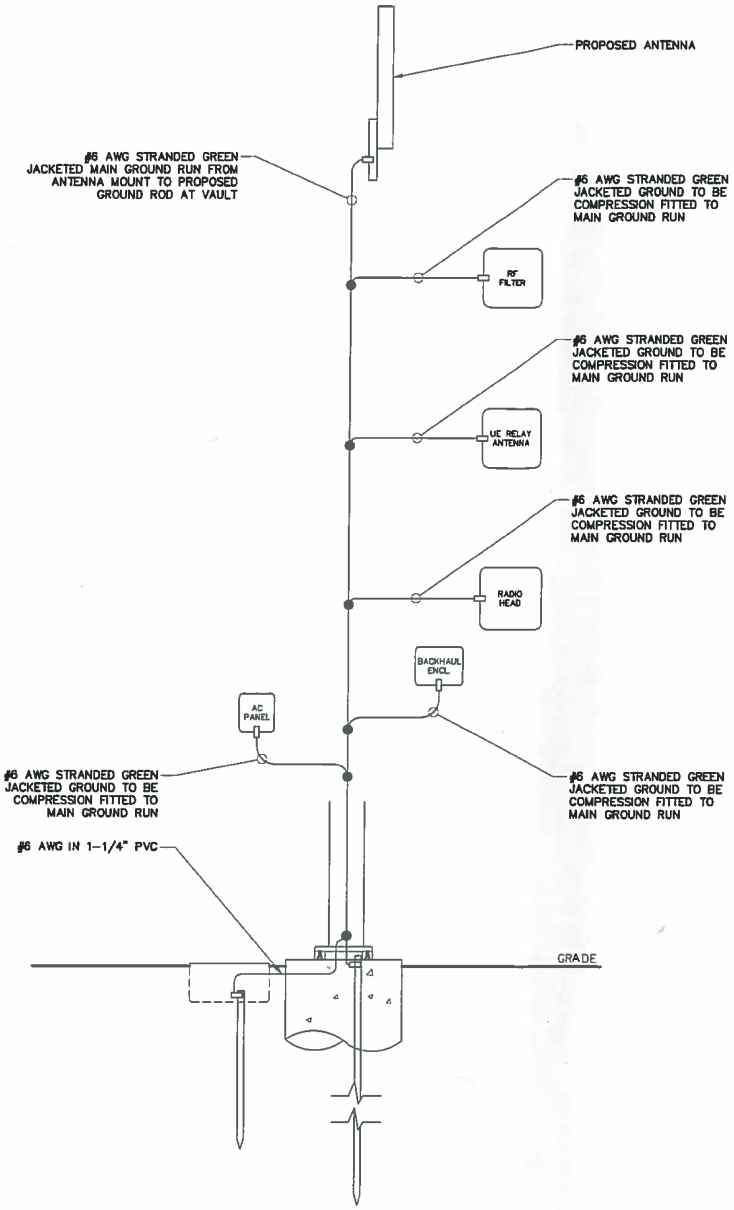
MI90XSR44B
GULFSTREAM RD
& OLD SCHOOL RD
DELRAY BEACH, FL 33483

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:	9FLB004271
DRAWN BY:	RC
CHECKED BY:	SJB

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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:	9FLB004271
DRAWN BY:	RC
CHECKED BY:	SJB

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MI90XSR44B
GULFSTREAM RD
& OLD SCHOOL RD
DELRAY BEACH, FL 33483
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 ada 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 W2C-1F 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

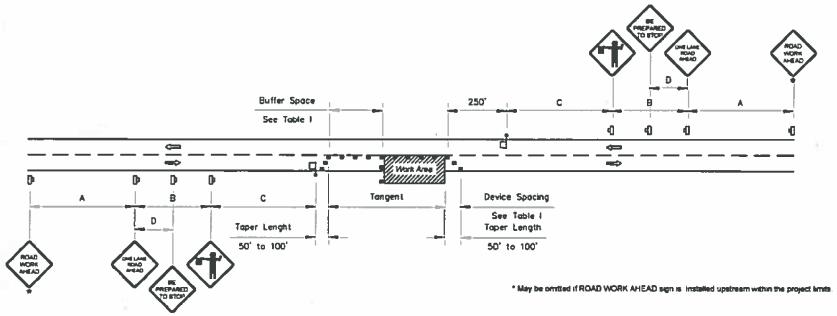
- Work Area
- Channelizing Device
- Work Zone Sign
- Flagger
- Automated Flagger Assistance Devices (AFAD), With Gate
- Lane Identification + Direction of Traffic

For single lane traffic flow see General Note 12

TABLE I

Posted Speed	DEVICE SPACING: Maximum Spacing of Cones or Tubular Markers On a Taper	On a Tangent	Maximum Spacing of Type I or Type II Barricades/Panels/Drums On a Taper	On a Tangent	Distance Between Signs A	B	C	D	Buffer Space
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

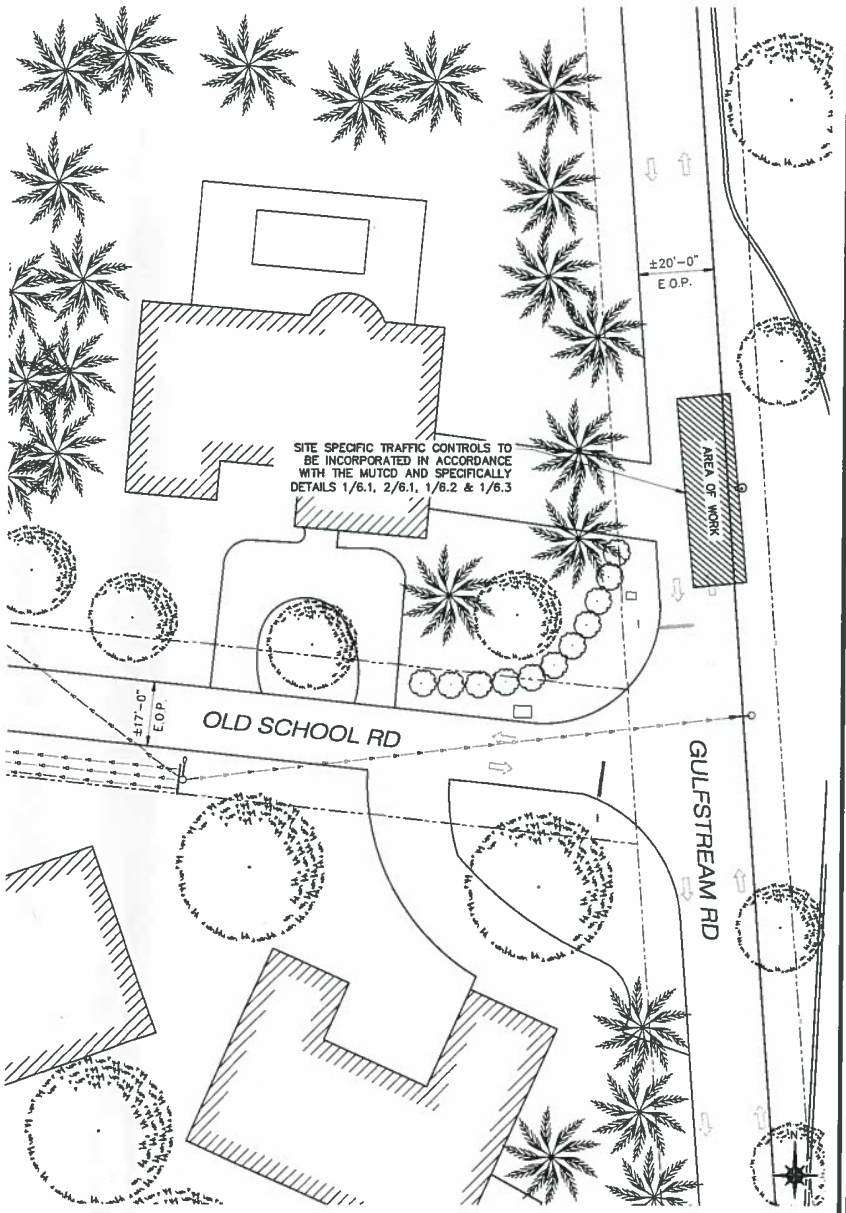
10 For general TCZ requirements and additional information, refer to MUTCD

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: 9FLB004271
DRAWN BY: RC
CHECKED BY: SJB

A	07-08-16	FOR CLIENT REVIEW

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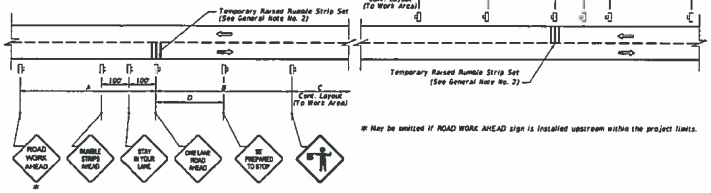
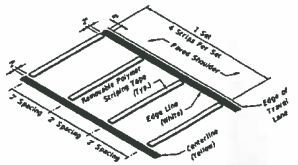
UTILITY POLE

SHEET TITLE
TRAFFIC CONTROL PLAN

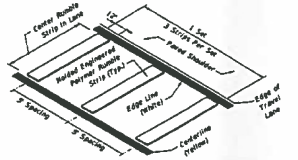
SHEET NUMBER
6.1



LAYOUT FOR TEMPORARY RAISED RUMBLE STRIPS
WHEN REQUIRED WITH ADDITIONAL SIGNS



OPTION 1 - REMOVABLE POLYMER STRIPING TAPE
RUMBLE STRIP SET

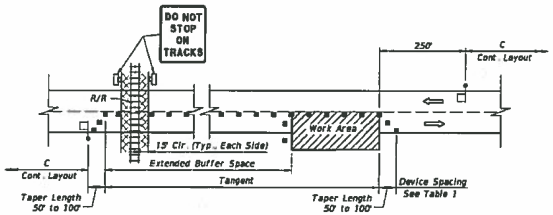


OPTION 2 - MOLDED ENGINEERED POLYMER
RUMBLE STRIP SET

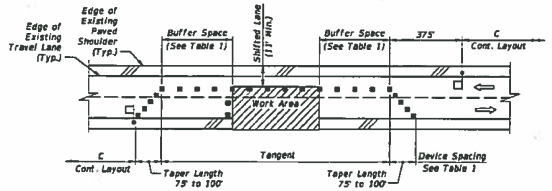
TEMPORARY RAISED RUMBLE STRIPS

1 TEMPORARY RAISED RUMBLE STRIPS

SCALE: NTS



LAYOUT FOR RAILROAD CROSSING
BUFFER SPACE EXTENSION

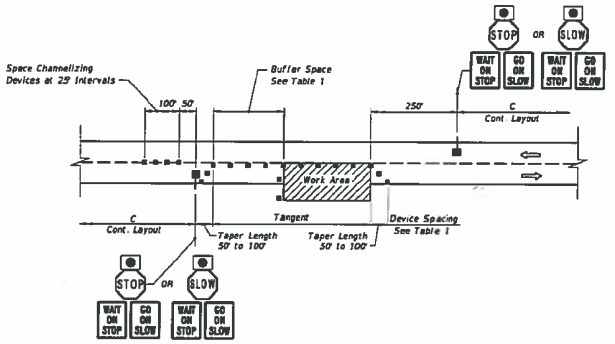


LAYOUT FOR TEMPORARY LANE SHIFT TO SHOULDER
WHEN WORK AREA ENCROACHES ON THE CENTERLINE

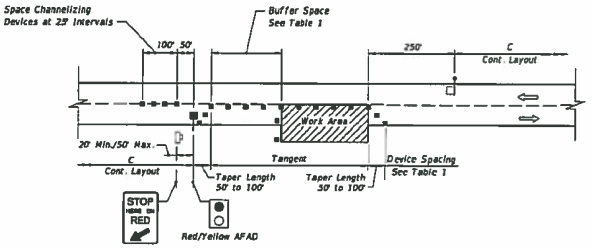
SPECIAL CONDITIONS

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:	9FLB004271
DRAWN BY:	RC
CHECKED BY:	SJB

A	07-05-16	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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MI90XSR44B
GULFSTREAM RD
& OLD SCHOOL RD
DELRAY BEACH, FL 33483

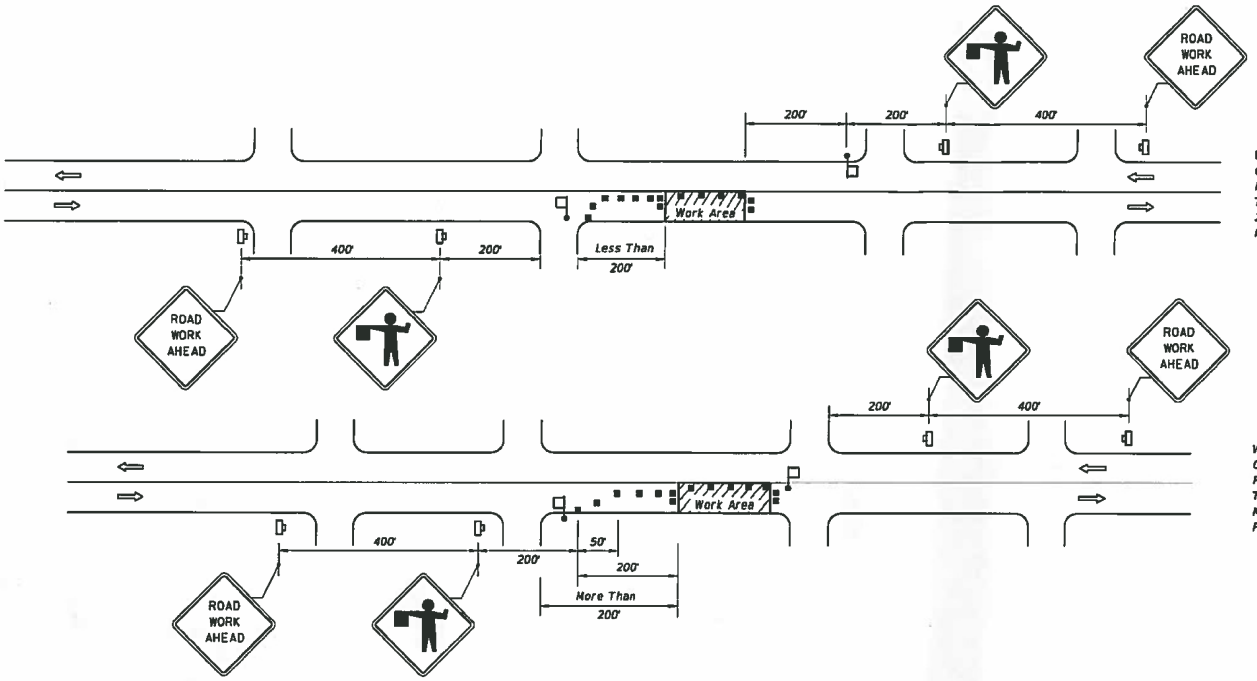
UTILITY POLE

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:	9FLB004271
DRAWN BY:	RC
CHECKED BY:	SJB

A	07-08-16	FOR CLIENT REVIEW

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DELRAY BEACH, FL 33483

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

PROJECT NO:	9FLB004271
DRAWN BY:	RC
CHECKED BY:	SJB

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GULFSTREAM RD
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DELRAY BEACH, FL 33483

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

PROJECT NO:	9FLB004271
DRAWN BY:	RC
CHECKED BY:	SJB

A	07-09-16	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC

Stephen A. Bray
PROFESSIONAL ENGINEER

PRELIMINARY
NOT FOR CONSTRUCTION

FL LICENSE: 68902 7/6/16

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

MI90XSR44B
GULFSTREAM RD
& OLD SCHOOL RD
DELRAY BEACH, FL 33483

UTILITY POLE

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-2

ATTACHMENT D

CITY OF TALLAHASSEE

City of Tallahassee
Your Own Utilities

ENERGY SMART PLUS
SAVE ENERGY SAVE WATER SAVE MONEY

Electric Utility | 2602 Jackson Bluff Rd. Tallahassee, Fl 32304 | 850.891.4YOU (4968)

December 13, 2016

Mr. Chad Caudill
Network Real Estate Permitting Manager
FL Network Transport, LLC
Interstate Transport and Broadband, LLC
925B Peachtree Street, N.E., Suite 710
Atlanta, Georgia 30309

RE: Submissions to the City of Tallahassee

Dear Mr. Caudill:

The City is in receipt of fourteen (14) submittals or inquiries ("submissions') from Mobilitie, LLC ("Mobilitie") relating to the placement and installation of wireless communications facilities within the City's rights-of-way.

At the City Commission meeting on December 14, 2016, City staff intends to recommend that the Commission adopt a resolution imposing a moratorium on the further review, processing, or acceptance of applications to install wireless communications facilities in the City's rights-of-ways. Such moratorium would be in effect until the City Commission rescinds the moratorium, the City Commission enacts applicable amendments to the City of Tallahassee Code, or June 30, 2017, whichever occurs first. In light of the anticipated moratorium, please be advised the current submissions relating to use of the City rights-of-way will not be processed at this time.

Further, we have learned that Mobilitie has filed recently a Petition with the Federal Communications Commission addressing use of public rights-of-way for its proposed facilities. While the FCC has not yet published the Petition, we understand that it may impact the City's authority with respect to any applications that Mobilitie may file to use the public rights-of-way. This provides a further basis for imposition of the moratorium.

During the moratorium, City staff will be reviewing current ordinances, rules, and regulations relating to use of City rights-of-way and developing appropriate amendments to more specifically address issues relating to the placement and installation of wireless communications facilities within the City's rights-of-way. As a part of that process, City staff will be providing opportunities to receive comments and input from Mobilitie and other parties as we develop these ordinance amendments, rules and regulations.

Sincerely,

for Rob McGarrah

Robert E. McGarrah
General Manager
Electric Utility

You will need to start the process with the Growth Management department. Please contact Greg Harden at (850)891-7166.

From: Chad Caudill [mailto:chad.caudill@mobilitie.com]
Sent: Tuesday, October 18, 2016 4:13 PM
To: Harrison, Tyler <Tyler.Harrison@talgov.com>
Subject: Mobilitie Additional Sites Tallahassee FL

Tyler,

Good Afternoon. I wanted to follow up with you on our previously submitted applications to see where we stood?

In addition, the below are additional site locations that we are interested in proceeding with that includes site number, height of structure, and location / coordinates. Before we submit the application package I wanted to see if you thought there were any glaring issues or not? I they look OK to you we will provide the plans for your further review. Also, If you would like, I can populate these locations on google maps if you want but I figured you have a program you would prefer. Let me know.

JA90XS032C	JA90XS032	9FLB003345	40'	30.439367	-84.25417	Governors Park Ln
JA90XS333F	JA90XS333	9FLB003436	75'	30.42356	-84.28354	Barbourville
JA90XS025E	JA90XS025	9FLB003338	75'	30.425406	-84.28973	Wahnish W
JA90XS495F	JA90XS495	9FLB003484	75'	30.445734	-84.34406	Merchants &
JA90XSRKDB	JA90XSRKD	9FLB003699	40'	30.46477	-84.18152	Oaks Edge R
JA90XS767B	JA90XS767	9FLB003547	65.62'	30.429156	JA90XS767B	Gamble & P

Thank you Sir,

Chad Caudill | Sr. NRE Permitting Manager
chad.caudill@mobilitie.com

Jacksonville, Florida
904-437-7377
www.mobilitie.com

CONFIDENTIALITY NOTICE | This email message contains confidential and proprietary information, including all attachments (if any) to this email even if such attachments are not separately marked as confidential and/or proprietary. Such information is exclusively for the addressee(s) and no others, unless and to the extent expressly stated above to the contrary. If the recipient of this email is not the addressee, such recipient is prohibited from reading or using this message in any way. If you have received this message by mistake, please call us immediately and destroy the email message and all attachments.

9FLB003364

TALLAHASSEE

Public Works Department
Permit Application to Work Within the Public Right-of-Way

Project Information

Project Name: Utility Pole ID: 9FLB003364

Location Address: 3678-3726 Shamrock Street West

Intersecting Streets: Shamrock ST W & Longchamp CIR (30.517108, -84.225163)

Point of commencement: Shamrock Street

Point of completion: Shamrock Street

Length of Installation: N/A

Project Description: Install 75' utility pole in the ROW.

Applicant Information

Applicant Name: Mobilitie, LLC

Contact Person: Megan Sikes Title: NRE Manager

Mailing Address: 3475 Piedmont Rd. Atlanta, GA 30214

Phone Number: (404) 989-8380 Cell Number:

Email Address: megan.sikes@mobilitie.com

Contractor Information

Contractors License No.: CGC1522704

Contractor/Company: TTS

Contact Person: Jason Gillis Title:

Mailing Address: 9335 Industrial Trace, Alpharetta, GA 30004

Phone Number: (770) 521-9137 Cell Number:

24 hour Emergency Contact Person: Cell Number:

Email Address:

Agent Information

Agent Name:

Contact Person:

Mailing Address:

Phone Number: Cell Number:

Email Address:

CITY OF TALLAHASSEE

Public Works Department
Permit Application to Work Within the Public Right-of-Way

Project Type and Construction Method, Circle all that apply

Cable:	Cut	Bore	Overhead	TBD
Electric:	Cut	Bore	Overhead	
Telephone:	Cut	Bore	Overhead	
Gas:	Cut	Bore		
Sewer:	Cut	Bore		
Water:	Cut	Bore		
Curb:	Demo	Construct		
Asphalt:	Demo	Construct		
Sidewalk:	Demo	Construct		
Driveway:	New	Reconstruct		
Drainage:	Connection			
Sign:	Permanent	Temporary	illuminated, electric permit no:_____	

Fiber Optics

1. Does the installation provide local Connectivity? Yes No
   a. If YES, Is a Franchise Agreement in place with the City? Yes No
   b. If YES, Provide the date of the agreement._____
   c. If NO, Describe the purpose of the installation, so a determination can be made if a Franchise agreement is required._____

Boring

Boring type:_____

How many bore crossings:

_____Underground Electric
_____Gas
_____Potable Water
_____Sanitary Sewer Mains & Laterals
_____Storm Sewer
_____Roads
_____Driveways
_____Sidewalks

Submit preconstruction videos of sanitary sewer mains and laterals and storm sewer lines crossing the bore.

I (print name) Megan Sikes do herby make application to the City of Tallahassee for a permit to perform the above noted construction in, on, or under the public streets of the City of Tallahassee. By my signature, I certify that I have verified the existence and location of all existing utilities within the proposed construction area with the appropriate utility or service provider in compliance with the "Specification for Construction within the City of Tallahassee Right of Way" and sound engineering practices. (Copies of the noted specifications may be obtained from the City Streets and Drainage Division)

Signature of Applicant: Megan Sikes Date:_____

1010 Pennsylvania Avenue
McDonough, GA 30253
(p) 678.565.4440 (f) 678.565.4497
info@pointtopointsurvey.com
www.P2PLS.com

FAA 1-A SURVEY CERTIFICATION

Applicant: **Mobilitie, LLC**
660 Newport Center Drive
Suite 200
Newport Beach, CA 92660

Site Name: **"JA90XS051A"**

Horizontal Datum Source:
☒ Ground survey ☐ GPS survey

Vertical Datum Source:
☒ NAVD 88 ☐ NGVD 29 ☐ GPS survey

Structure Type:
☒ New Pole ☐ Existing Tower ☐ Roof Top ☐ Water Tank ☐ Smokestack

CENTER OF PROPOSED POLE:

Latitude: 30°31'01.59" NAD 83
Longitude: -84°13'30.59" NAD 83
Ground Elevation: 209.7 feet AMSL NAVD 88

CERTIFICATION: I certify that the latitude of 30°31'01.59" and the longitude of -84°13'30.59" are accurate to within +/- 20 feet horizontally, and that the site elevation of 209.7 feet AMSL is accurate to within +/- 3 feet vertically. The horizontal datum (coordinates) are based on the North American Datum of 1983 (NAD 83) and are expressed in degrees, minutes and seconds to the nearest hundredth of a second. The vertical datum (heights) are based on the North American Vertical Datum of 1988 (NAVD 88) and are determined to the nearest tenth of a foot.

Surveyor Signature/Seal: _____
Printed Name: G. Darrell Taylor
Professional Surveyor #: 6904
Company: Point to Point Land Surveyors, Inc
Phone: 678-565-4440
Date: July 22, 2016

G. DARRELL TAYLOR
License Number
6904
STATE OF FLORIDA
Professional Surveyor and Mapper

E:\Dropbox (Point To Point)\P2P Current Jobs\2016\G160385-JA90XS051A\G160385-1A.doc

SITE INFORMATION

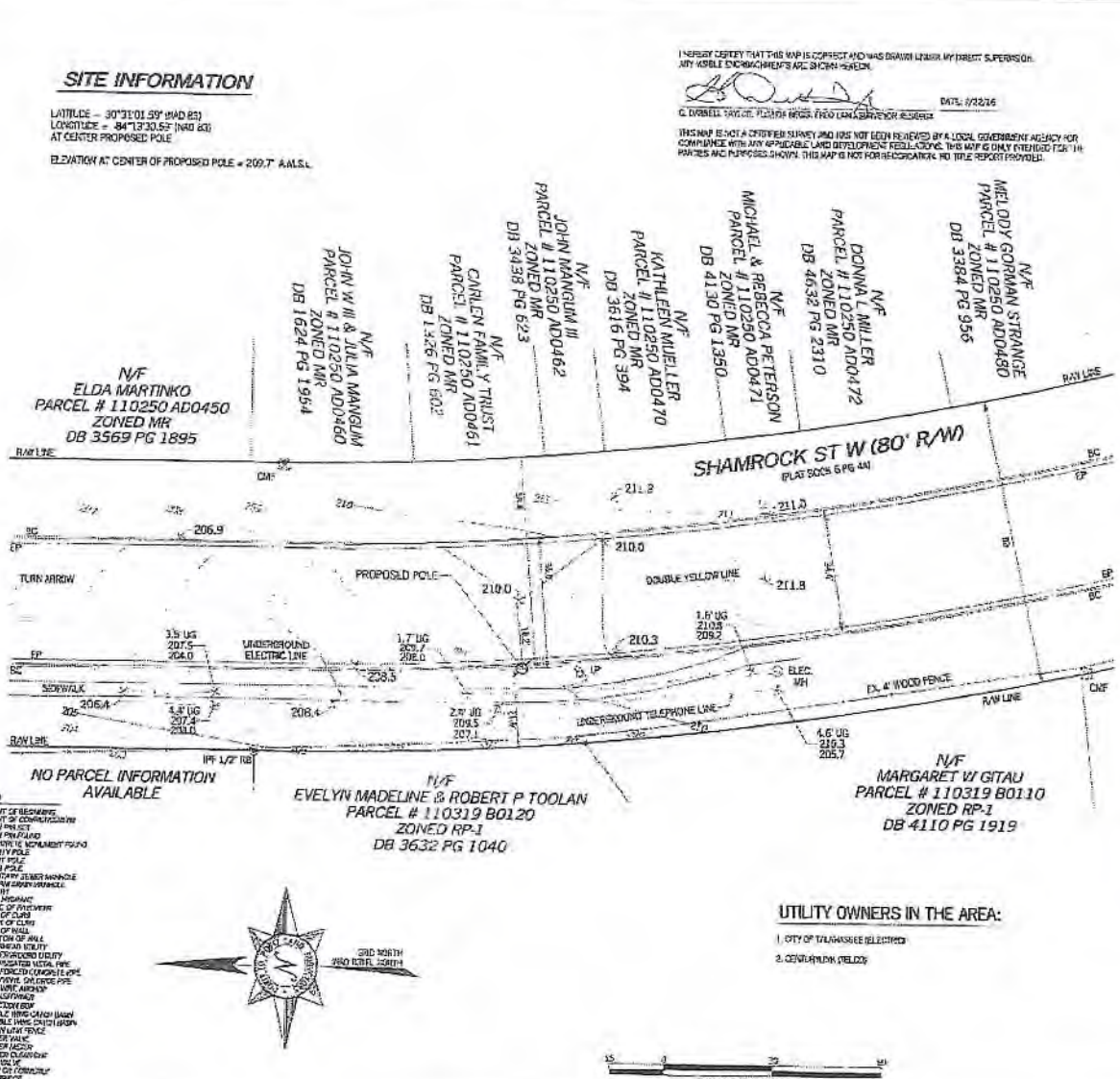
LATITUDE = 30°31'01.59" (NAD 83)
LONGITUDE = -84°13'30.53" (NAD 83)
AT CENTER PROPOSED POLE

ELEVATION AT CENTER OF PROPOSED POLE = 209.7' A.M.S.L.

I HEREBY CERTIFY THAT THIS MAP IS CORRECT AND WAS DRAWN UNDER MY DIRECT SUPERVISION. ANY VISIBLE ENCROACHMENTS ARE SHOWN HEREON.

G. DARRELL TAYLOR, FLORIDA REGISTERED LAND SURVEYOR #6904 — DATE: 7/12/16

THIS MAP IS NOT A CERTIFIED SURVEY AND DOES NOT HAVE BEEN REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS. THIS MAP IS ONLY INTENDED FOR THE PARTIES AND PURPOSES SHOWN. THIS MAP IS NOT FOR RECORDATION, NO TITLE REPORT PROVIDED.



LEGEND

POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
IRS	IRON PIN SET
IPF	IRON PIN FOUND
CMF	CONCRETE MONUMENT FOUND
UP	UTILITY POLE
LP	LIGHT POLE
FP	FLAG POLE
SSMH	SANITARY SEWER MANHOLE
DMH	STORM DRAIN MANHOLE
WV	WATER
OH	TIRE MISMATCH
BS	EDGE OF PAVEMENT
TOC	TOP OF CURB
BC	BACK OF CURB
TW	TOP OF WALL
BW	BOTTOM OF WALL
OH	OVERHEAD UTILITY
UG	UNDERGROUND UTILITY
CMP	CORRUGATED METAL PIPE
RCP	REINFORCED CONCRETE PIPE
PVC	POLYVINYL CHLORIDE PIPE
GW	GUY WIRE ANCHOR
TR	TRANSFORMER
JB	JUNCTION BOX
SWCB	SINGLE WING CATCH BASIN
DWCB	DOUBLE WING CATCH BASIN
OHF	OVERHEAD FENCE
WV	WATER VALVE
WM	WATER METER
CO	SEWER CLEANOUT
GV	GAS VALVE
RW	ROW OR TOWNSIDE
PP	POWER POLE
EP	EDGE PAVING POLE

GRID NORTH
(NAD 83 FLORIDA NORTH)

GRAPHIC SCALE IN FEET
SCALE: 1" = 30'

UTILITY OWNERS IN THE AREA:

1. CITY OF TALLAHASSEE (ELECTRIC)
2. CENTURYLINK (FIELDS)



VICINITY MAP
NOT TO SCALE

GENERAL NOTES

1. THIS SPECIFIC PURPOSE SURVEY IS FOR THE LEASED PREMISES AND EASEMENTS ONLY. THIS SPECIFIC PURPOSE SURVEY WAS PREPARED FOR THE EXCLUSIVE USE OF MOBILITIE, LLC AND EXCLUSIVELY FOR THE TRANSFERAL OF THE PROPOSED LEASED PREMISES AND THE RIGHTS OF EASEMENT SHOWN HEREON AND SHALL NOT BE USED AS AN EXHIBIT OR EVIDENCE IN THE FEE SIMPLE TRANSFERAL OF THE PARENT PARCEL, NOR ANY PORTION OR PORTIONS THEREOF. BOUNDARY INFORMATION SHOWN HEREON HAS BEEN COMPILED FROM TAX MAPS AND DEED DESCRIPTIONS ONLY. NO BOUNDARY SURVEY OF THE PARENT PARCEL WAS PERFORMED.

2. THIS DRAWING DOES NOT REPRESENT A BOUNDARY SURVEY.

3. THIS SPECIFIC PURPOSE SURVEY WAS PREPARED WITHOUT BENEFIT OF A TITLE REPORT WHICH MAY REVEAL ADDITIONAL CONVEYANCES, EASEMENTS, OR RIGHTS-OF-WAY NOT SHOWN HEREON.

4. THE FIELD DATA UPON WHICH THIS SPECIFIC PURPOSE SURVEY IS BASED HAS A CLOSURE PRECISION OF ONE FOOT IN 20,000+ FEET AND AN ANGULAR ERROR OF 5.0" PER ANGLE POINT AND WAS ADJUSTED USING LEAST SQUARES.

5. EQUIPMENT USED FOR ANGULAR & LINEAR MEASUREMENTS: LEICA TPS 1200 ROBOTIC & GLOBAL ZENITH. DATE OF LAST FIELD VISIT: 7/12/16.

6. THE 1' CONTOURS AND SPOT ELEVATIONS SHOWN ON THIS SPECIFIC PURPOSE SURVEY ARE ADJUSTED TO NAVD 88 DATUM (COMPUTED USING GEOID 12B) AND HAVE A VERTICAL ACCURACY OF ± 1'. CONTOURS OUTSIDE THE IMMEDIATE SITE AREA ARE APPROXIMATE.

7. BEARINGS SHOWN ON THIS SPECIFIC PURPOSE SURVEY ARE BASED ON GRID NORTH (NAD 83) FLORIDA NORTH ZONE.

8. BENCHMARKS USED: DM2412, S250L6, D00107

9. THE PROPOSED POLE IS NOT LOCATED IN A SPECIAL FLOOD AREA AS PER F.I.R.M. COMMUNITY PANEL NO. 12073C0130F DATED AUGUST 18, 2009.

10. NO WETLAND AREAS HAVE BEEN INVESTIGATED BY THIS SPECIFIC PURPOSE SURVEY.

11. ALL ZONING INFORMATION SHOULD BE VERIFIED WITH THE PROPER ZONING OFFICIALS.

12. ANY UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM ABOVE GROUND FIELD SURVEY INFORMATION. THE SURVEYOR MAKES NO GUARANTEES THAT ANY UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT ANY UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED ANY UNDERGROUND UTILITIES.

13. ADDITIONS OR DELETIONS TO THIS SURVEY MAP BY OTHER THAN THE SIGNING PARTY IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY.

14. ORIGINAL SURVEY IS KEPT ON FILE IN THE SURVEYORS OFFICE.

SPECIFIC PURPOSE SURVEY PREPARED BY:
POINT TO POINT LAND SURVEYORS
1010 Pennsylvania Avenue
McDonough, GA 30253
(p) 678.565.4440 (f) 678.565.4497
(w) pointtopointsurvey.com

NO.	DATE	REVISION

SPECIFIC PURPOSE SURVEY PREPARED FOR:

mobilitie

660 NEWPORT CENTER DRIVE
SUITE 200
NEWPORT BEACH, CA 92660

"JA90XS051A"

SECTION 3 TOWNSHIP 1 NORTH, RANGE 1 EAST
CITY OF TALLAHASSEE,
LEON COUNTY, FLORIDA

DRAWN BY: EAL	SHEET: 1
CHECKED BY: JJR	
APPROVED: C. LINER	
DATE: JULY 22, 2016	
P2P JOB #: 6163163	OF 1

SITE ID: 9FLB003364
JA90XS051A
SHAMROCK ST W & LONGCHAMP CIR
TALLAHASSEE, FL 32309

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

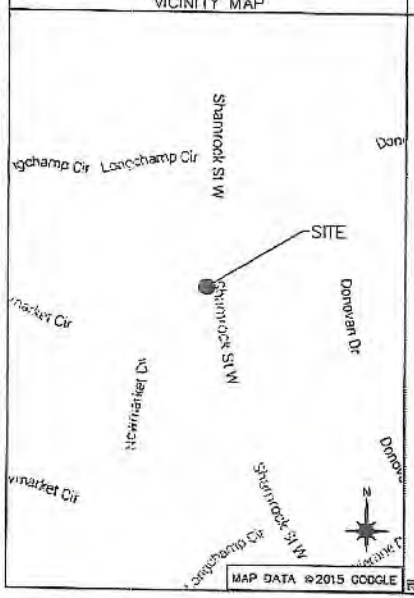
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY
ADDRESS/CROSS ST:	SHAMROCK ST W & LONGCHAMP CIR
APPLICANT:	MOBILITIE, LLC
APPLICANT ADDRESS:	3475 Piedmont Rd. NE, Suite 1000 Atlanta, GA 30305
LATITUDE:	30° 31' 1.59" N (30.517108)
LONGITUDE:	84° 13' 30.59" W (-84.225163)
LAT/LONG TYPE:	NAD 83
GROUND ELEVATION:	± 210' AMSL
COUNTY:	LEON COUNTY
JURISDICTION:	CITY OF TALLAHASSEE

BEFORE SCALING:

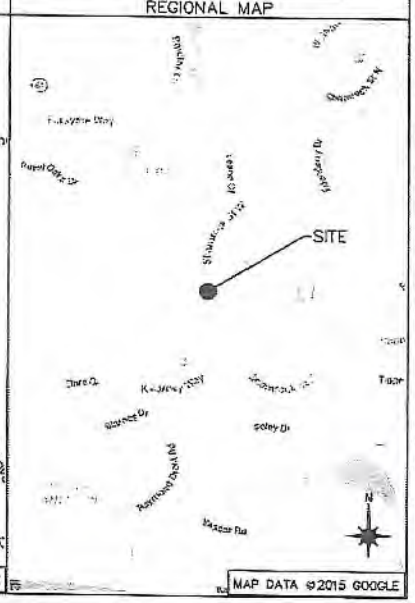
CONTRACTORS SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

LOCATION MAPS

VICINITY MAP



REGIONAL MAP



DIG ALERT

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

TWO WORKING DAYS BEFORE YOU DIG

PROJECT DESCRIPTION

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

- INSTALL PROPOSED BACKHAUL TRANSPORT EQUIPMENT ON A PROPOSED WOOD 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 ELEVATIONS
2.1	POLE ELEVATIONS
3.0	ANTENNA & EQUIPMENT MOUNTING DETAILS
3.1	ANTENNA & EQUIPMENT DETAILS
4.0	ELECTRICAL DETAILS
5.0	GROUNDING DETAILS
GN-1	GENERAL NOTES
GN-2	GENERAL NOTES
6.0	TRAFFIC CONTROL PLAN
6.1	TYPICAL PEDESTRIAN / WORKER SAFETY PLAN

ARCHITECT/ENGINEER

JACOBS ENGINEERING GROUP, INC.
5449 BELLS FERRY ROAD
ACWORTH, GA 30102
CONTACT: KARL KRATINA
PROJECT MANAGER
TEL: (678) 460-1416
FAX: (770) 701-2501

mobilitie

PROJECT NO:	ER#003201
DRAWN BY:	L. TARUBAL
CHECKED BY:	N. HANNA

A	08.14.15	FOR REVIEW

PRELIMINARY

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

JA90XS051A
9FLB003364
SHAMROCK ST W &
LONGCHAMP CIR
TALLAHASSEE, FL 32309
UTILITY POLE

SHEET TITLE
TITLE SHEET

SHEET NUMBER
0.0

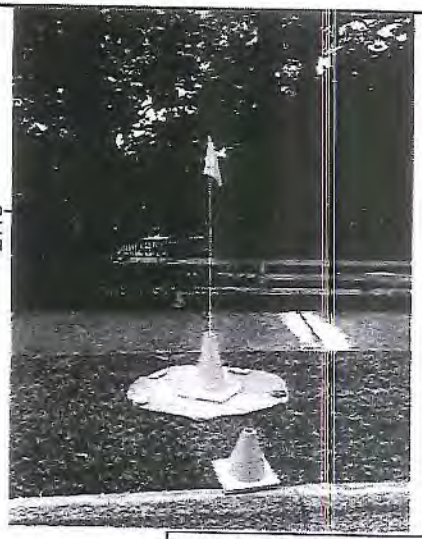


EXHIBIT PHOTO

SCALE: NOT TO SCALE

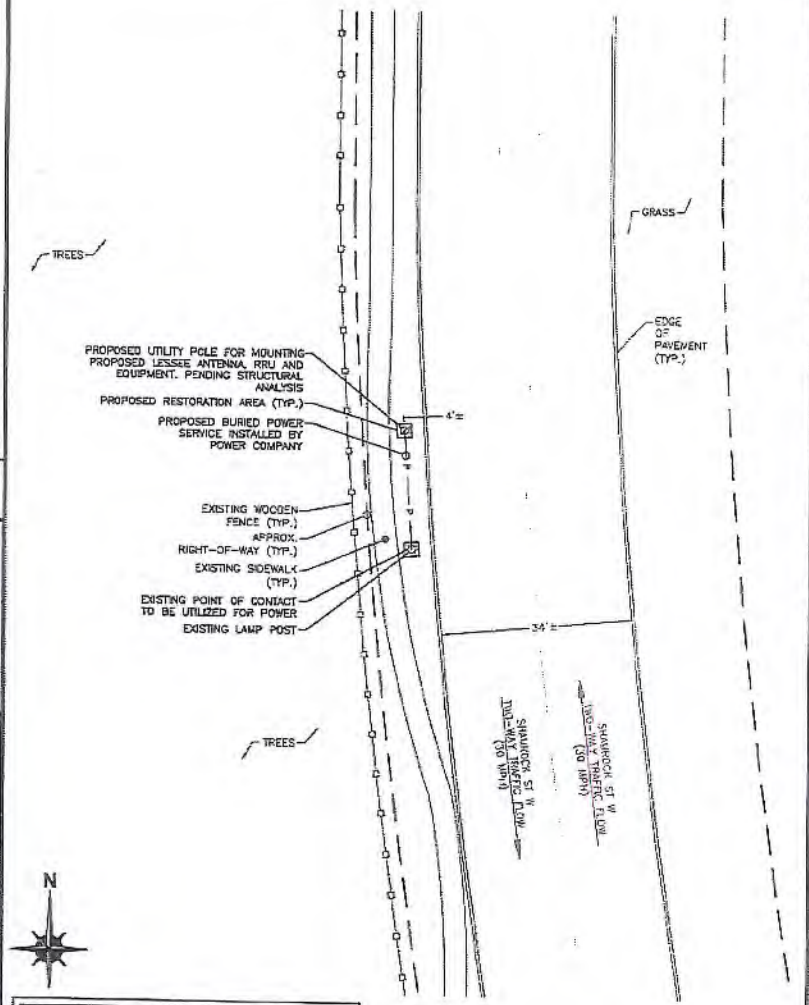
1



AERIAL SITE LOCATION

SCALE: NOT TO SCALE

2



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

ENLARGED SITE PLAN

SCALE: 1"=20'-0" (1"=10'-0" ON 22"x34" SHEET)

3

mobilitie

PROJECT NO:	ERS00201
DRAWN BY:	L. TARUBAL
CHECKED BY:	N. HANNA

A	06.11.15	FOR REVIEW

PRELIMINARY

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

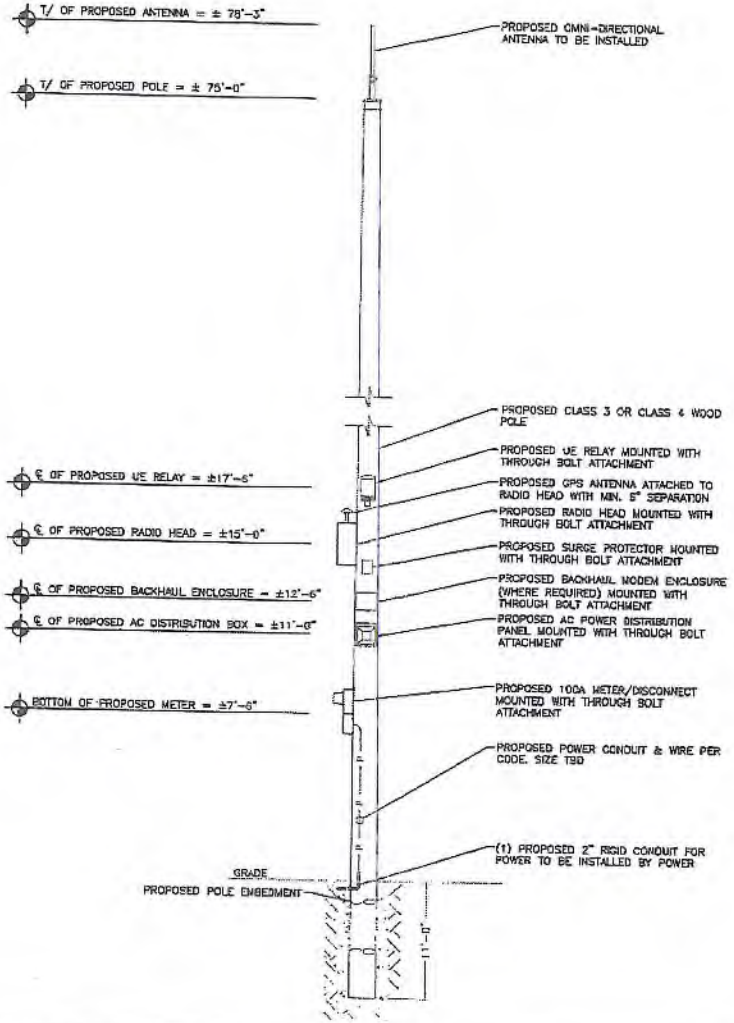
JAB0XS051A
9FLB003364
SHAMROCK ST W &
LONGCHAMP CIR
TALLAHASSEE, FL 32309
UTILITY POLE

SHEET TITLE

SITE PLAN & EXHIBIT PHOTO

SHEET NUMBER

1.0



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

NOTES:

1. ALL HARDWARE SHALL BE STAINLESS STEEL.
2. ALL CABLES SHALL BE SECURED TO POLE EVERY 36" OR LESS.
3. LIGHTNING RODS SHALL BE INCLUDED AS REQUIRED.
4. STRUCTURAL BACKFILL TO BE COMPACTED IN 8" MAXIMUM LAYERS TO 95% OF CONTENT IN ACCORDANCE WITH ASTM D698. ADDITIONALLY, STRUCTURAL BACKFILL MUST HAVE A MINIMUM COMPACTED UNIT WEIGHT OF 100 POUNDS PER CUBIC FOOT (16kN/m3)

BAND 41 (2500MHz) EQUIPMENT CHART			
QUANTITY	DESCRIPTION	DIMENSIONS (HxWxD)	WEIGHT
1	MOUNTED ANTENNA	29.1" X 2" DIAMETER	11 LBS
1	MOUNTED RADIO	20.1" X 9.1" X 8.9"	55.1 LBS
1	GPS ANTENNA	0.8" X 2.6" DIAMETER	0.3 LBS
1	AC DISTRIBUTION	9.25" X 9.5" X 3.81"	14 LBS
1	MOUNTED RELAY	13.0" X 7.9" DIAMETER	9.9 LBS
1	SURGE PROTECTOR	6.44" X 4.69" X 3.5"	TBD

PROPOSED FRONT POLE ELEVATIONS

SCALE: 1" = 5'

1

mobilitie

PROJECT NO:	EP8002201
DRAWN BY:	L. TARUBAL
CHECKED BY:	N. HANNA

A	08.14.18	FOR REVIEW

PRELIMINARY

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

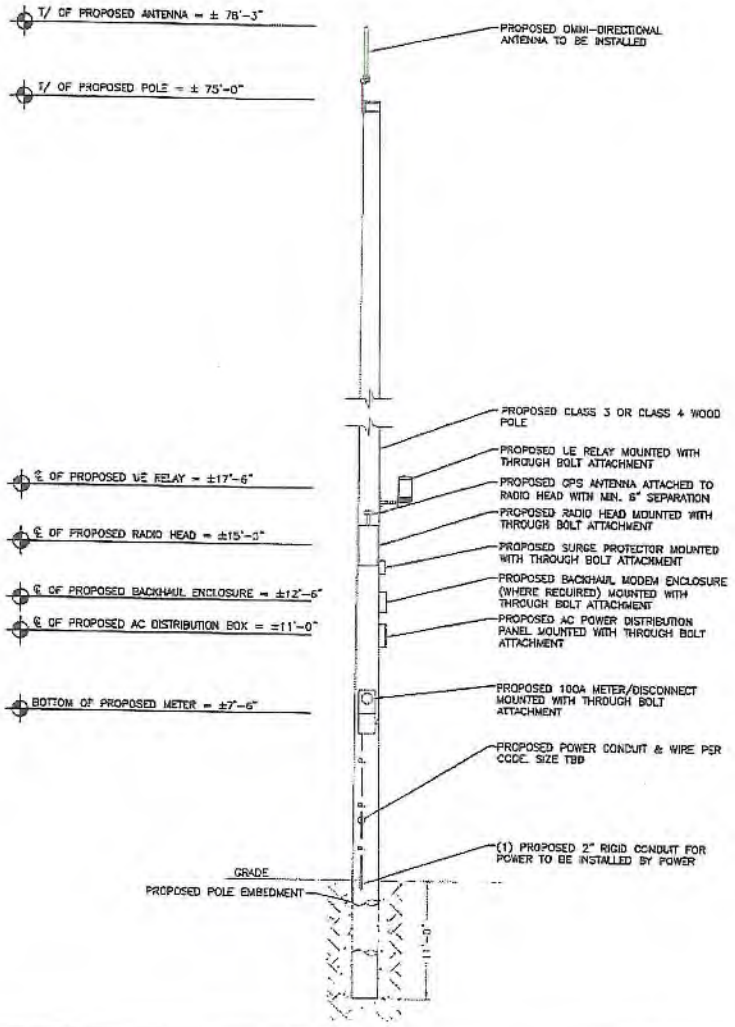
JA90XS051A
9FL8003364
SHAMROCK ST W S
LONGCHAMP CIR
TALLAHASSEE, FL 32309
UTILITY POLE

SHEET TITLE

POLE ELEVATIONS

SHEET NUMBER

2.0



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

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2. ALL CABLES SHALL BE SECURED TO POLE EVERY 36" OR LESS.
3. LIGHTNING RODS SHALL BE INCLUDED AS REQUIRED.
4. STRUCTURAL BACKFILL TO BE COMPACTED IN 8" MAXIMUM LAYERS TO 95% OF CONTENT IN ACCORDANCE WITH ASTM D698. ADDITIONALLY, STRUCTURAL BACKFILL MUST HAVE A MINIMUM COMPACTED UNIT WEIGHT OF 100 POUNDS PER CUBIC FOOT (16kN/m3)

BAND 41 (2500MHz) EQUIPMENT CHART			
QUANTITY	DESCRIPTION	DIMENSIONS (HxWxD)	WEIGHT
1	MOUNTED ANTENNA	23.1" X 2" DIAMETER	11 LBS
1	MOUNTED RADIO	20.1" X 9.1" X 8.9"	55.1 LBS
1	GPS ANTENNA	0.8" X 2.6" DIAMETER	0.3 LBS
1	AC DISTRIBUTION	9.25" X 9.5" X 3.81"	7.4 LBS
1	MOUNTED RELAY	13.0" X 7.9" DIAMETER	9.9 LBS
1	SURGE PROTECTOR	6.44" X 4.69" X 3.5"	TBD

PROPOSED SIDE POLE ELEVATION 1

SCALE: 1" = 5'

mobilitie

PROJECT NO:	ER600201
DRAWN BY:	L. TARUBAL
CHECKED BY:	N. MANNA

A	06.14.16	FOR REVIEW

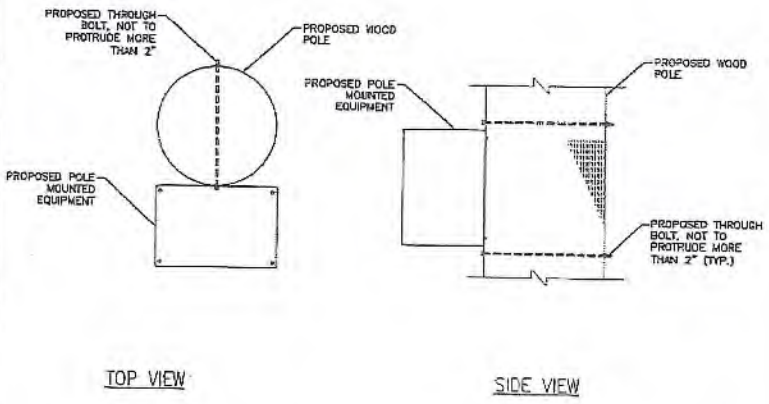
PRELIMINARY

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.

JAX0XS051A
SFLB003364
SHAMROCK ST W &
LONGCHAMP CIR
TALLAHASSEE, FL 32309
UTILITY POLE

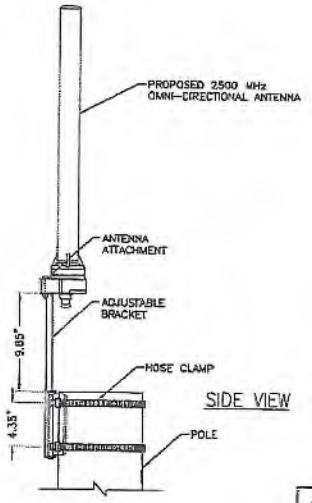
SHEET TITLE
POLE ELEVATIONS

SHEET NUMBER
2.1



EQUIPMENT MOUNTING DETAIL 1

SCALE: NOT TO SCALE

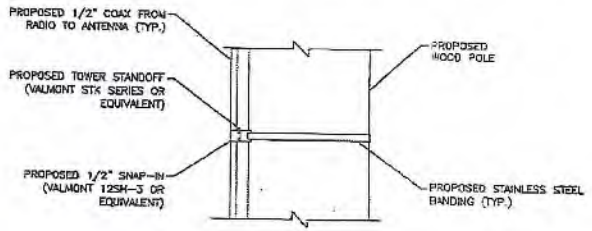


NOTE:

1. MOUNTING BRACKET ACCOMMODATES POLE SIZES FROM 3" TO 10" DIAMETER.
2. JACOBS HAS NOT PERFORMED A STRUCTURAL EVALUATION FOR THE MOUNTING BRACKET. REFER TO THE MANUFACTURER FOR ADDITIONAL INFORMATION

ANTENNA MOUNTING DETAIL 3

SCALE: NOT TO SCALE



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

CABLE MOUNTING DETAIL 2

SCALE: NOT TO SCALE



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"



OWNER / OPERATOR NOTE:
SITE ID LABEL TO BE AFFIXED WITH "ZeS241 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".

POLE MOUNTED SIGNS 4

SCALE: NOT TO SCALE

mobilitie

PROJECT NO:	ER5001201
DRAWN BY:	L. TARUBAL
CHECKED BY:	N. HANNA

A	2014.10	FOR REVIEW

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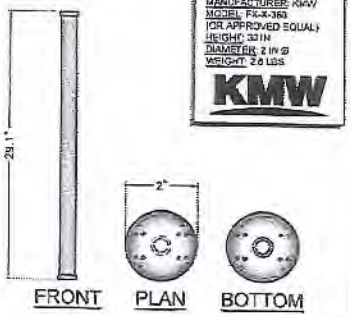
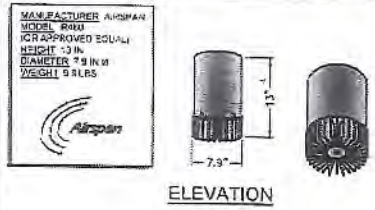
JA80XS051A
SFL8C03364
SHAMROCK ST W & LONGCHAMP CIR
TALLAHASSEE, FL 32309
UTILITY POLE

SHEET TITLE
ANTENNA & EQUIPMENT MOUNTING DETAILS

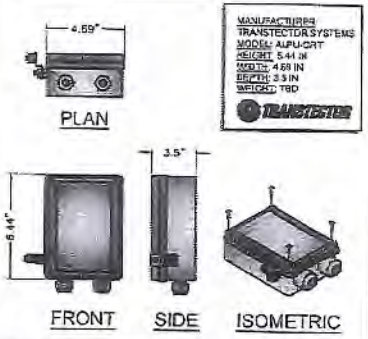
SHEET NUMBER
3.0



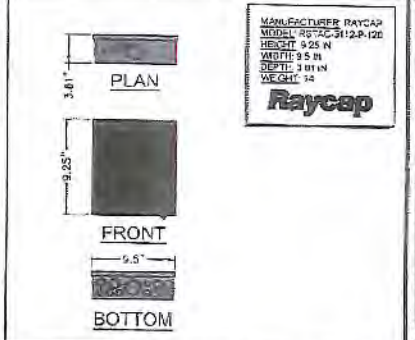
KMW FX-X-360 | SCALE NTS | 1



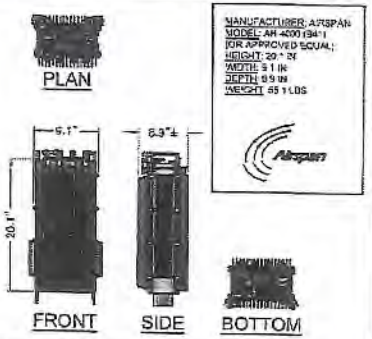
MOUNTED RELAY | SCALE NTS | 4



TRANSTECTOR ALPU-ORT | SCALE NTS | 7

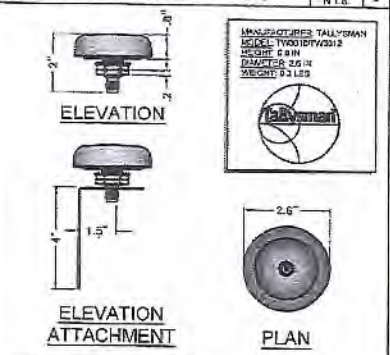


RAYCAP RSTAC-3112-P-120 | SCALE NTS | 10

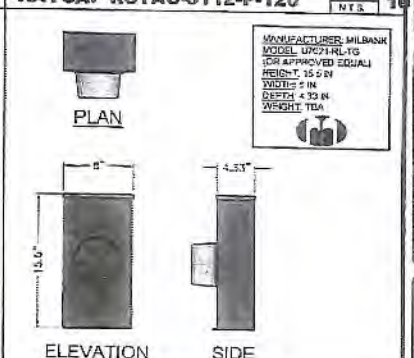


AIRSPAN AH 4000 (B41) | SCALE NTS | 2

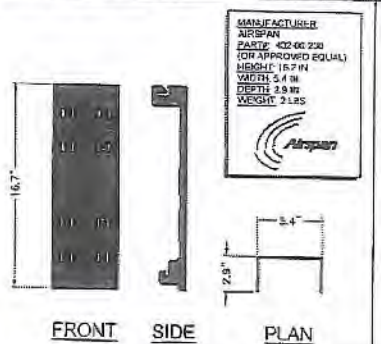
NOT USED | SCALE NTS | 5



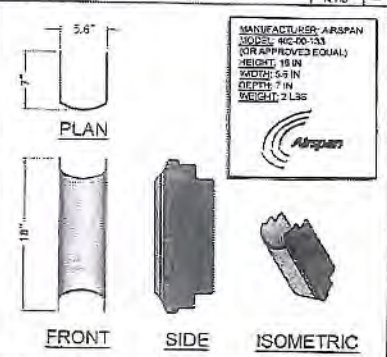
TALLYSMAN GPS ANTENNA | SCALE NTS | 8



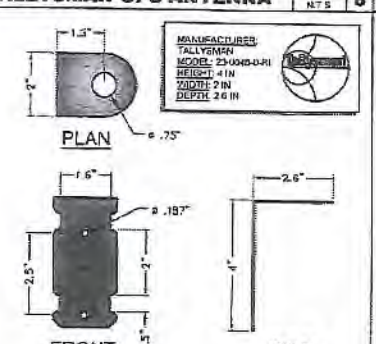
MILBANK METER SOCKET | SCALE NTS | 11



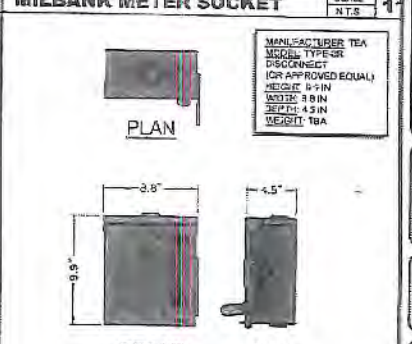
AIRSPAN WALL MOUNTING | SCALE NTS | 3



AIRSPAN SUN SHIELD | SCALE NTS | 6



TALLYSMAN GPS MOUNTING | SCALE NTS | 9



NEMA TYPE-3R DISCONNECT | SCALE NTS | 12

mobilitie

PROJECT NO:	ER603201
DRAWN BY:	L. TARUBAL
CHECKED BY:	N. HANNA

A	08.14.18	FSO REVIEW

PRELIMINARY

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JA90XS051A
SFL3003364
SHAMROCK ST W &
LONGCHAMP CIR
TALLAHASSEE, FL 32309
UTILITY POLE

SHEET TITLE
ANTENNA & EQUIPMENT 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:

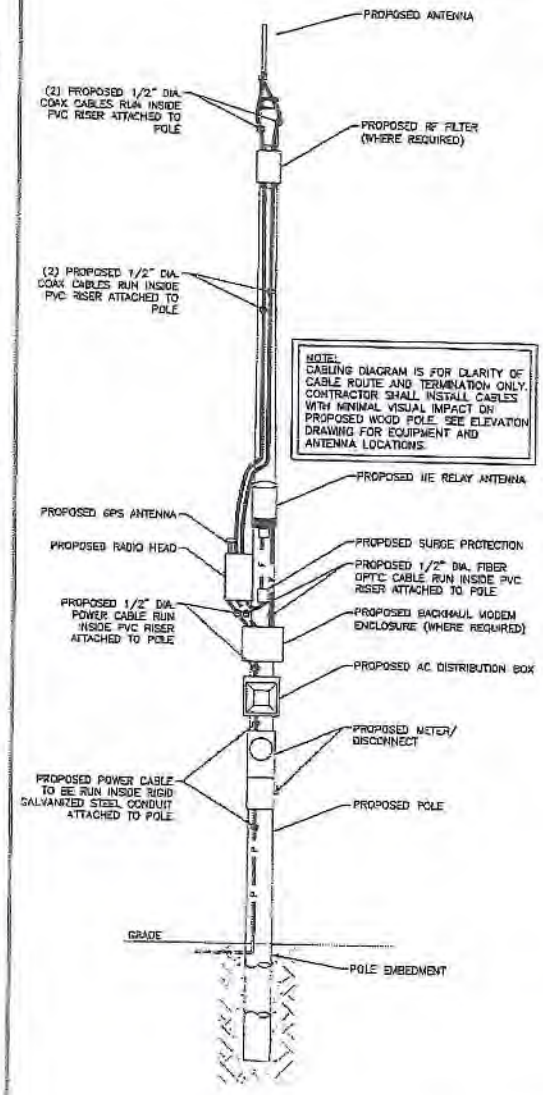
1. ALL REQUIRED PERMITS, LICENSES, INSPECTIONS AND APPROVALS SHALL BE SECURED AND ALL FEES FOR SAME PAID BY CONTRACTOR.
2. THE INSTALLATION SHALL COMPLY WITH ALL APPLICABLE CODES: STATE, LOCAL AND NATIONAL AND THE DESIGN, PERFORMANCE CHARACTERISTICS AND METHODS OF CONSTRUCTION OF ALL ITEMS AND EQUIPMENT 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.

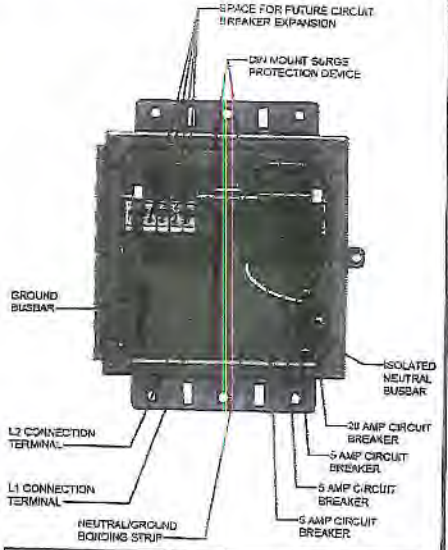
GENERAL NOTES:
SEE DETAILS, SCHEDULES AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND INFORMATION. CHECK ARCHITECTURAL, STRUCTURAL, AND OTHER MECHANICAL AND ELECTRICAL DRAWINGS FOR SCALE, SPACE LIMITATIONS, COORDINATION, AND ADDITIONAL INFORMATION, ETC. REPORT ANY DISCREPANCIES, CONFLICTS, ETC. TO 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.



CABLING NOTES:

A) WOOD, CONCRETE AND EXISTING METALLIC POLES
   I) FROM GRADE LINE TO 11'-0" ABOVE GRADE, ALL CABLES/CONDUCTORS EXCEPT GROUNDING CONDUCTOR MUST RUN IN RIGID GALVANIZED STEEL CONDUIT (RGS)
   II) GROUNDING CONDUCTORS IN EXPOSED LOCATIONS MUST BE INSTALLED IN PVC.
   III) IN EARTH INSTALL PVC CONDUIT FOR BACKHAUL AND ELECTRICAL SERVICE. TRANSITION TO RGS AT GRADE LINE.
   IV) ABOVE 11'-0" ALL CABLES (POWER, ETHERNET, COAXIAL) MUST RUN IN PVC UTILITY POLE RISER.
   (1) AT MAJOR EQUIPMENT, EXTEND UTILITY DUCT IMMEDIATELY ADJACENT TO THE EQUIPMENT. INSTALL CABLES IN THE UTILITY POLE RISER CREATING CABLE DRIP LOOPS NOT LESS THAN THE CABLE BENDING RADIUS.
   (2) INSIDE THE UTILITY POLE RISER, UTILIZE 4" COAX BLOCKS WITH LAG SCREWS TO SUPPORT COAX, RADIO AND MW POWER, RF COAX, AND ETHERNET CABLES TO WITHIN 12" OF THE EQUIPMENT BEING SERVED AND ON INTERVALS NOT TO EXCEED 5'.
   V) FOR UNDERGROUND HFC/PUBLIC BACKHAUL ROUTE ETHERNET CABLE IN CONDUIT UP THE POLE AND ENTER THE UTILITY POLE RISER. SEAL EXPOSED END OF CONDUIT WITH A CABLE TERMINATION FITTING.
   VI) BY APPROVAL IN SELECT CASES LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LFMC) MAY BE USED IN LENGTHS NOT TO EXCEED 36" TO EXTEND THE ELECTRICAL SERVICE CONDUIT TO THE AC DISTRIBUTION BOX. EXAMPLE: UTILITY-REQUIRED DISCONNECT ON POLE W/ AC DISTRIBUTION BOX ON OPPOSITE SIDE OF POLE.
B) NEW METALLIC POLES
   I) PROCURE NEW POLES WITH SUITABLE HAND HOLES SUCH THAT HAND HOLES EXIST AT ALL EQUIPMENT LOCATIONS.
   (1) WITH CLIENT APPROVAL IN SELECT CASES TO FACILITATE IMPROVED APPEARANCE, ½" COAXIAL CABLES MAY BE "SUPERFLEX" IN LIEU OF LDF-4.
II) WHERE POSSIBLE, INSTALL POLE BASE SUCH THAT THE ELECTRICAL FEED AND BACKHAUL (IF UNDERGROUND) CIRCUIT ENTER THE POLE THROUGH THE POLE BASE. IF A DISCONNECTING MEANS SEPARATE FROM THE AC DISTRIBUTION BOX IS REQUIRED BY JURISDICTION OR UTILITY, WITH APPROVAL IN SELECT CASES LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LFMC) MAY BE USED IN LENGTHS NOT TO EXCEED 36" TO EXTEND THE ELECTRICAL SERVICE CONDUIT TO THE AC DISTRIBUTION BOX.



CABLING DIAGRAM
SCALE: NOT TO SCALE

1

mobilitie

PROJECT NO:	EN000201
DRAWN BY:	L. TAPUBAL
CHECKED BY:	K. HANNA

A	08.16.16	FOR REVIEW

PRELIMINARY

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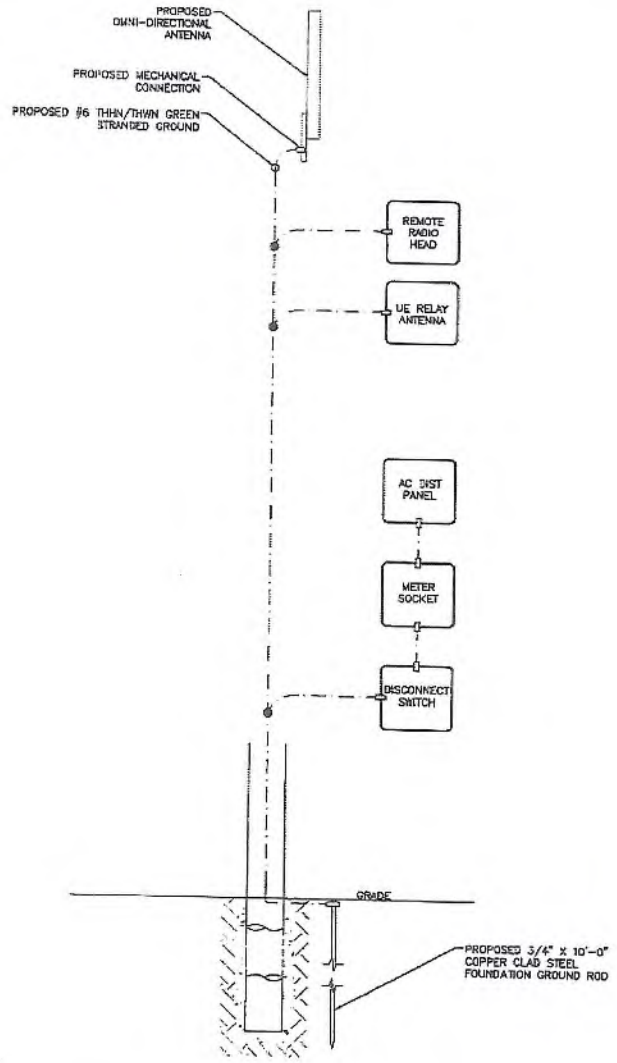
JASOXS051A
SFL9003364
SHAMROCK ST W &
LONGCHAMP DR
TALLAHASSEE, FL 32309
UTILITY POLE

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 | 1

SCALE: NOT TO SCALE

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PROJECT NO:	ER600281
DRAWN BY:	L. TARUBAL
CHECKED BY:	N. HANNA

1	05.14.15	FOR REVIEW

PRELIMINARY

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JA90XS051A
9FLB003364
SHAMROCK ST W &
LONGCHAMP CIR
TALLAHASSEE, FL 32309
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 MANHOLES, 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) 525-4924

      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

PROJECT NO: EA630201
DRAWN BY: L. TARUBAL
CHECKED BY: N. HANNA

A	DESIGN	FOR REVIEW

PRELIMINARY

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

JAGOXS051A
9FLB033354
SHAMROCK ST W &
LONGCHAMP CIR
TALLAHASSEE, FL 32309
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 #WP0-8 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 "UNIT" 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 OLD	54880BE
B.	262 MCM OLD	54872BE
C.	#1/0 OLD	54852BE
D.	#4/0 THWN AND BARE	54859BE
E.	#2/0 THWN	54852BE
F.	#2 THHN	54207BE
G.	#6 OLD	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 (FT.# 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.

mobilitie

PROJECT NO:	ER600201
DRAWN BY:	L. TARUBAL
CHECKED BY:	N. HANNA

A	08.14.18	FOR REVIEW

PRELIMINARY

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

JA90X3031A
9FLB003364
SHAMROCK ST W &
LONGCHAMP DR
TALLAHASSEE, FL 32309
UTILITY POLE

SHEET TITLE

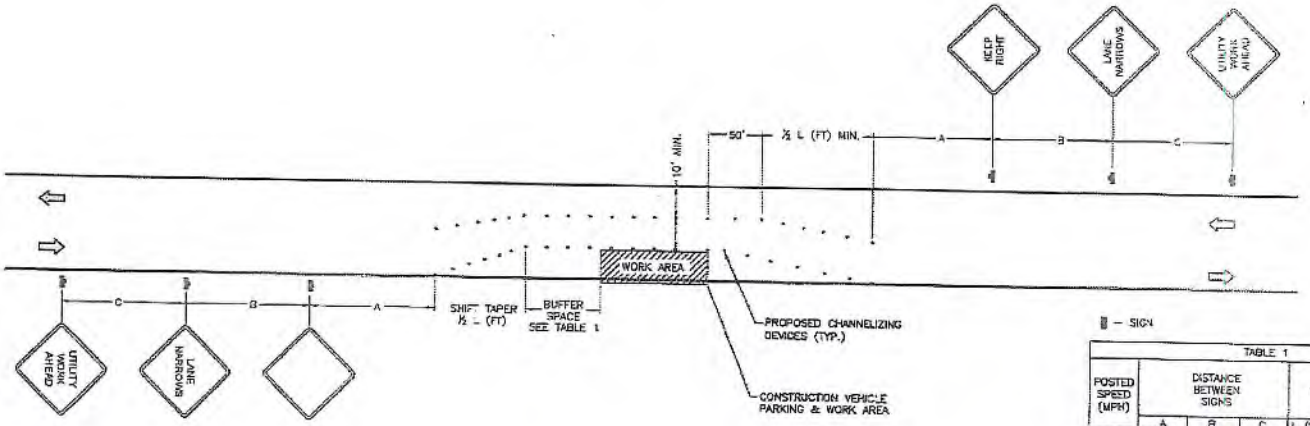
GENERAL NOTES

SHEET NUMBER

GN-2

PLAN NOTES:

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



▯ – SIGN

TABLE 1

POSTED SPEED (MPH)	DISTANCE BETWEEN SIGNS A	B	C	TAPER L (SEE NOTE E)	BUFFER
15	100'	100'	100'	45'	100'
20	100'	100'	100'	80'	115'
25	100'	100'	100'	125'	155'
30	200'	200'	200'	180'	200'
35	200'	200'	200'	245'	250'
40	350'	350'	350'	320'	305'
45	350'	350'	350'	540'	360'
50	500'	500'	500'	600'	425'
55	500'	500'	500'	660'	495'
60	500'	500'	500'	720'	570'
65	500'	500'	500'	780'	645'

NOTES:

A) DISTANCES IN FEET UNLESS OTHERWISE NOTED.
B) CONTRACTOR TO VERIFY EXISTING SPEED LIMIT.
C) DISTANCES SHOWN ARE NOT VALID FOR LIMITED ACCESS HIGHWAYS. CONSULT STATE DOT MANUAL FOR DISTANCES.
D) ADJUST DISTANCES TO COMPLY WITH REQUIREMENT OF THE STATE OR LOCAL HIGHWAY AUTHORITY HAVING JURISDICTION. SEE NOTE 1, SHEET 6.1.
E) TAPER LENGTHS SHOWN BASED ON 12' LANE WIDTH. SEE NOTE 18, SHEET 6.1.

TRAFFIC CONTROL PLAN - LANE SHIFT

SCALE: NOT TO SCALE

1

mobilitie

PROJECT NO:	ER6902201
DRAWN BY:	L. TARIBAL
CHECKED BY:	M. HANNA

A	08.14.18	FOR REVIEW

PRELIMINARY

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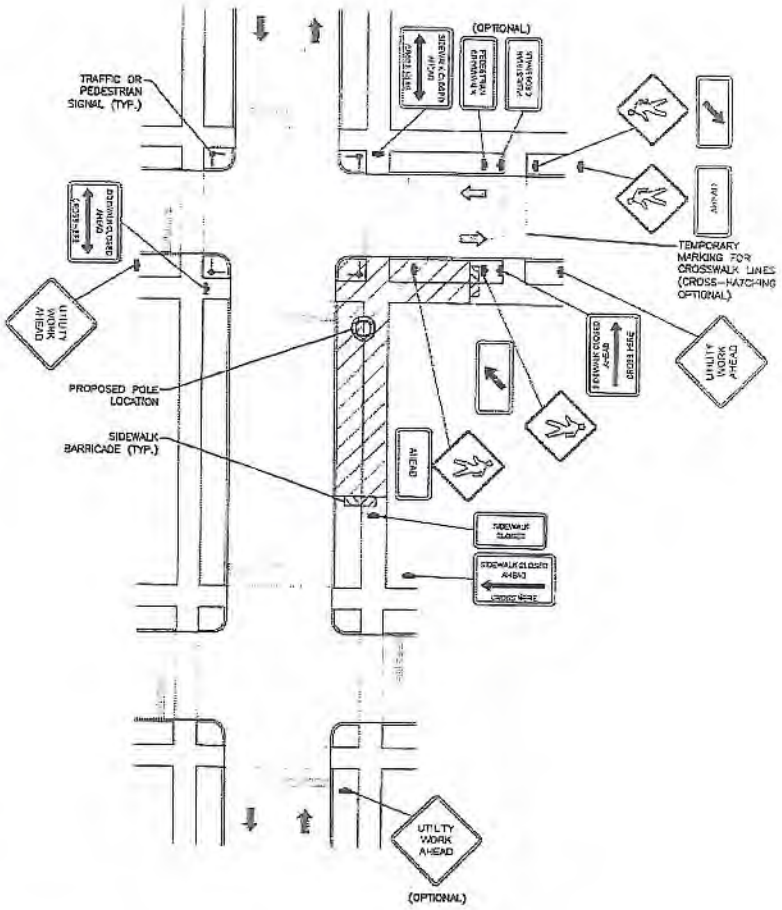
JAS0XS051A
9FLBC03354
SHAMROCK ST W &
LONGCHAMP CIR
TALLAHASSEE, FL 32309
UTILITY POLE

SHEET TITLE
TRAFFIC CONTROL PLAN

SHEET NUMBER
6.0

TRAFFIC CONTROL GENERAL NOTES

1. ALL TEMPORARY TRAFFIC CONTROL SIGNAGE, LAYOUTS AND PROCEDURES SHALL COMPLY WITH LOCAL JURISDICTIONAL REQUIREMENTS AND MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION, WHICHEVER IS MORE STRINGENT.
2. PRIOR TO ANY ROAD CONSTRUCTION, TRAFFIC CONTROL SIGNS AND DEVICES SHALL BE IN PLACE.
3. TRAFFIC CONTROL DEVICES FOR LANE CLOSURES INCLUDING SIGNS, CONES, 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.
4. SELECTION, PLACEMENT, MAINTENANCE, AND PROTECTION OF TRAFFIC, PEDESTRIANS, AND WORKERS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) – PART VI "TEMPORARY TRAFFIC CONTROL", AND LOCAL JURISDICTIONAL REQUIREMENTS UNLESS OTHERWISE NOTED IN THE PLANS AND SPECIFICATIONS, AND SHALL BE APPROVED BY THE APPROPRIATE HIGHWAY AUTHORITY HAVING JURISDICTION.
5. ADVANCE WARNING SIGNS, DISTANCES, AND TAPER LENGTHS MAY BE EXTENDED TO ADJUST FOR REDUCED VISIBILITY DUE TO HORIZONTAL AND VERTICAL CURVATURE OF THE ROADWAY AND FOR ACTUAL TRAFFIC SPEEDS IF IN EXCESS OF POSTED SPEED LIMITS.
6. TAPERS SHALL BE LOCATED TO MAXIMIZE THE VISIBILITY OF THEIR TOTAL LENGTH.
7. CONFLICTING OR NON-OPERATING SIGNAL INDICATIONS ON THE EXISTING TRAFFIC SIGNAL SYSTEMS SHALL BE BAGGED OR COVERED.
8. 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. ALL TRAFFIC CONTROL DEVICES SHALL BE RESTORED TO MATCH PRE-CONSTRUCTION CONDITION AFTER COMPLETION OF WORK.
9. CONTRACTOR SHALL CONTACT LOCAL AUTHORITY HAVING HIGHWAY JURISDICTION AND PROVIDE ADDITIONAL "FLAGMEN" OR POLICE SUPERVISION, IF REQUIRED.
10. ALL EXCAVATED AREAS WITHIN OR ADJACENT TO THE ROADWAY SHALL BE BACKFILLED AND PLACED ON A MINIMUM 6H:1V SLOPE PRIOR TO END OF EACH WORK DAY. OTHER EXCAVATED AREAS WITHIN THE CLEAR ZONE ARE TO BE EITHER BACKFILLED OR PRECAST CONCRETE CURB BARRIER CONSTRUCTION BARRIER SET TEMPORARILY IN PLACE TO SHIELD VEHICULAR AND PEDESTRIAN TRAFFIC.
11. WHERE DICTATED BY LOCAL CONDITIONS, THE CONTRACTOR SHALL MAKE PROVISIONS FOR MAINTAINING PEDESTRIAN AND WORKER CROSSING LOCATIONS IN ACCORDANCE WITH ALL APPLICABLE CODES AND OSHA REQUIREMENTS.
12. CONSTRUCTION ZONE SPEED LIMIT IF REDUCED FROM POSTED LIMITS SHALL BE IN ACCORDANCE WITH MUTCD AND WILL BE DETERMINED BY THE AUTHORITY HAVING JURISDICTION.
13. THERE SHALL BE NO WORKERS, EQUIPMENT, OR OTHER VEHICLES IN THE BUFFER SPACE OR THE ROLL AHEAD SPACE.
14. DRIVEWAYS AND/OR SIDE STREETS ENTERING THE ROADWAY AFTER THE FIRST ADVANCE WARNING SIGN SHALL BE PROVIDED WITH AT LEAST ONE W20-1 SIGN (ROAD WORK AHEAD) AS A MINIMUM.
15. CONES MAY BE SUBSTITUTED FOR DRUMS AND INSTALLED UPON THE APPROVAL OF THE AUTHORITY HAVING JURISDICTION PROVIDED THEY COMPLY WITH MUTCD.
16. THE SPACING BETWEEN CONES, TUBULAR MARKERS, VERTICAL PANELS, DRUMS, AND BARRICADES SHOULD NOT EXCEED A DISTANCE IN FEET EQUAL TO 1.0 TIMES THE SPEED LIMIT IN MPH WHEN USED FOR TAPER CHANNELIZATION, AND A DISTANCE IN FEET EQUAL TO 2.0 TIMES THE SPEED LIMIT IN MPH WHEN USED FOR TANGENT CHANNELIZATION.
17. WHEN CHANNELIZATION DEVICES HAVE THE POTENTIAL OF LEADING VEHICULAR TRAFFIC OUT OF THE INTENDED VEHICULAR TRAFFIC SPACE, THE CHANNELIZATION DEVICES SHOULD BE EXTENDED A DISTANCE IN FEET OF 2.0 TIMES THE SPEED LIMIT IN MPH BEYOND THE DOWNSTREAM END OF THE TRANSITION AREA.
18. TAPER LENGTHS ARE CALCULATED AS FOLLOWS:
L= $WS^2/60$ (40 MPH AND HIGHER) OR L2= WS (OVER 40 MPH).
WHERE W= OFFSET WIDTH (FT), S= TRAFFIC SPEED (MPH).



TYPICAL PEDESTRIAN / WORKER SAFETY PLAN

SCALE: NOT TO SCALE

1

mobilitie

PROJECT NO:	[illegible]
DRAWN BY:	L. YARUBAL
CHECKED BY:	R. HANNA

4	[illegible]	FOR REVIEW

PRELIMINARY

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.

JAS0XS0S1A
SFLB803364
SHAMROCK ST W &
LONGCHAMP CIR
TALLAHASSEE, FL 32309
UTILITY POLE

SHEET TITLE
TYPICAL PEDESTRIAN / WORKER SAFETY PLAN

SHEET NUMBER
6.1

TALLAHASSEE

Public Works Department
Permit Application to Work Within the Public Right-of-Way

Project Information

Project Name: Utility Pole ID: 9FLB003376

Location Address: 3611-3641 Shamrock Street West (30.517108, -84.225163)

Intersecting Streets: Shamrock ST W & Cavan DR

Point of commencement: Shamrock Street

Point of completion: Shamrock Street

Length of Installation: N/A

Project Description: Install 25' utility pole in the ROW.

Applicant Information

Applicant Name: Mobilitie, LLC

Contact Person: Megan Sikes Title: NRE Manager

Mailing Address: 3475 Piedmont Rd. Atlanta, GA 30214

Phone Number: (404) 989-8380 Cell Number:

Email Address: megan.sikes@mobilitie.com

Contractor Information

Contractors License No.: CGC1522704

Contractor/Company: TTS

Contact Person: Jason Gillis Title:

Mailing Address: 9335 Industrial Trace, Alpharetta, GA 30004

Phone Number: (770) 521-9137 Cell Number:

24 hour Emergency Contact Person: Cell Number:

Email Address:

Agent Information

Agent Name:

Contact Person:

Mailing Address:

Phone Number: Cell Number:

Email Address:

CITY OF TALLAHASSEE

Public Works Department
Permit Application to Work Within the Public Right-of-Way

Project Type and Construction Method, Circle all that apply

Cable:	Cut	Bore	Overhead
Electric:	Cut	Bore	Overhead
Telephone:	Cut	Bore	Overhead
Gas:	Cut	Bore	
Sewer:	Cut	Bore	
Water:	Cut	Bore	
Curb:	Demo	Construct	
Asphalt:	Demo	Construct	
Sidewalk:	Demo	Construct	
Driveway:	New	Reconstruct	
Drainage:	Connection		
Sign:	Permanent	Temporary	illuminated, electric permit no:_____

Fiber Optics

1. Does the installation provide local Connectivity? Yes No
   a. If YES, Is a Franchise Agreement in place with the City? Yes No
   b. If YES, Provide the date of the agreement. _____
   c. If NO, Describe the purpose of the installation, so a determination can be made if a Franchise agreement is required._____

Boring

Boring type: Directional

How many bore crossings:

TBD Underground Electric
_____Gas
_____Potable Water
_____Sanitary Sewer Mains & Laterals
_____Storm Sewer
_____Roads
_____Driveways
_____Sidewalks

Submit preconstruction videos of sanitary sewer mains and laterals and storm sewer lines crossing the bore.

I (print name) Megan Sikes do herby make application to the City of Tallahassee for a permit to perform the above noted construction in, on, or under the public streets of the City of Tallahassee. By my signature, I certify that I have verified the existence and location of all existing utilities within the proposed construction area with the appropriate utility or service provider in compliance with the "Specification for Construction within the City of Tallahassee Right of Way" and sound engineering practices. (Copies of the noted specifications may be obtained from the City Streets and Drainage Division)

Signature of Applicant: Megan Sikes Date:_____

1010 Pennsylvania Avenue
McDonough, GA 30253
(p) 678.565.4440 (f) 678.565.4497
info@pointtopointsurvey.com
www.P2PLS.com

FAA 1-A SURVEY CERTIFICATION

Applicant: **MOBILITIE, LLC**
660 NEWPORT CENTER DRIVE
SUITE 200
NEWPORT BEACH, CA 92660

Site Name: **"JA90XS125A"**

Horizontal Datum Source:
☒ Ground survey ☐ GPS survey

Vertical Datum Source:
☒ NAVD 88 ☐ NGVD 29 ☐ GPS survey

Structure Type:
☒ New Pole ☐ Existing Tower ☐ Roof Top ☐ Water Tank ☐ Smokestack

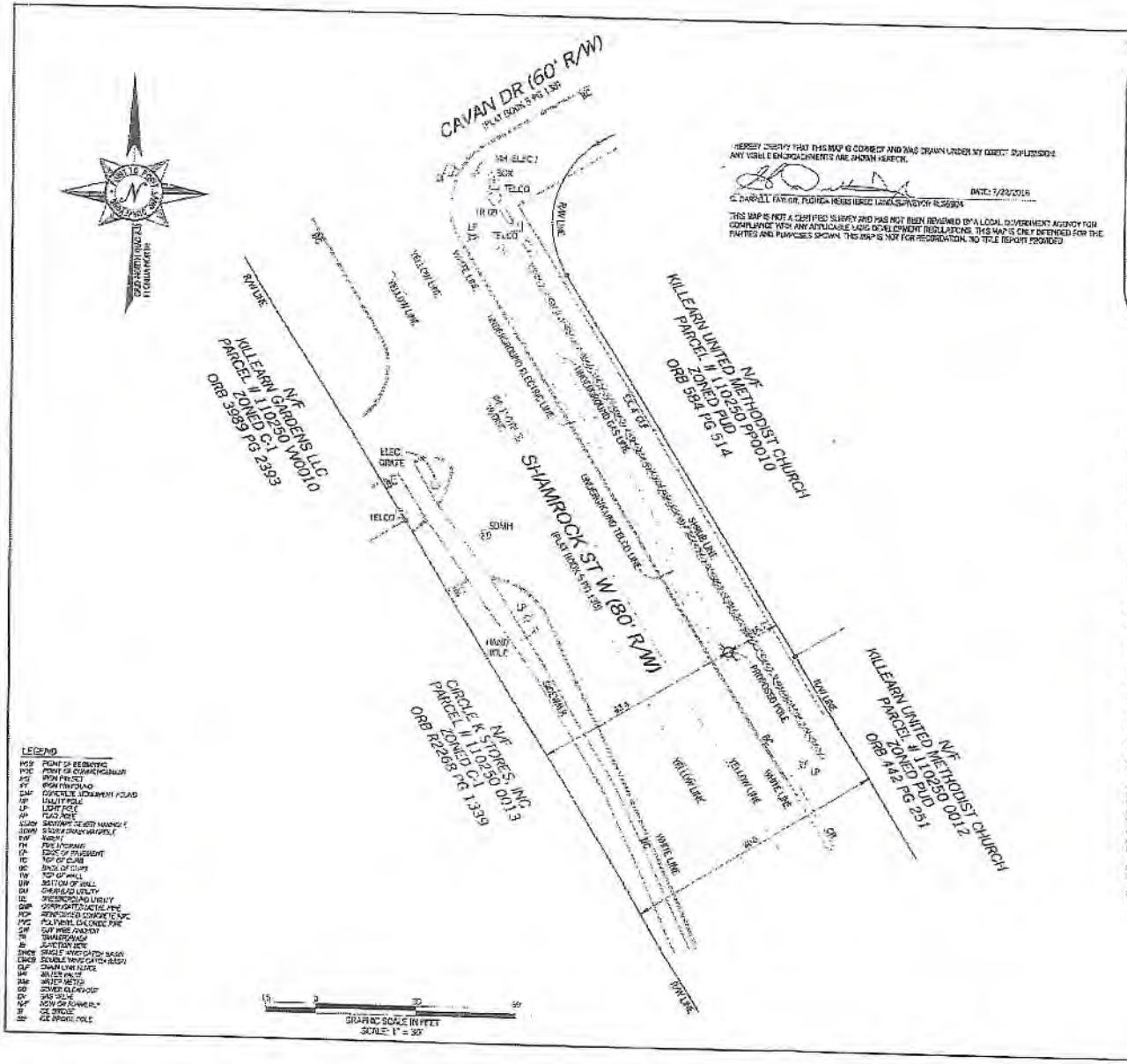
CENTER OF PROPOSED POLE:

Latitude: 30°30'51.74" NAD 83
Longitude: -84°13'24.71" NAD 83
Ground Elevation: 203.6 feet AMSL NAVD 88

CERTIFICATION: I certify that the latitude of 30°30'51.74" and the longitude of -84°13'24.71" are accurate to within +/- 20 feet horizontally, and that the site elevation of 203.6 feet AMSL is accurate to within +/- 3 feet vertically. The horizontal datum (coordinates) are based on the North American Datum of 1983 (NAD 83) and are expressed in degrees, minutes and seconds to the nearest hundredth of a second. The vertical datum (heights) are based on the North American Vertical Datum of 1988 (NAVD 88) and are determined to the nearest tenth of a foot.

Surveyor Signature/Seal: _____ **(SEAL)**
Printed Name: G. Darrell Taylor
Professional Surveyor #: 6904
Company: Point to Point Land Surveyors, Inc
Phone: 678-565-4440
Date: July 22, 2016

G. DARRELL TAYLOR
LICENSED SURVEYOR
6904
STATE OF FLORIDA



LEGEND

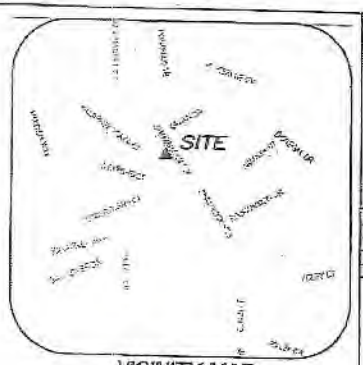
PCB	POINT OF BEGINNING
PCC	POINT OF COMMENCEMENT
PIC	IRON PIN SET
IP	IRON PIN FOUND
CMF	CONCRETE MONUMENT FOUND
UP	UTILITY POLE
LP	LIGHT POLE
FP	FLAG POLE
SCMH	SANITARY SEWER MANHOLE
SDMH	STORM DRAIN MANHOLE
FW	FIRE HYDRANT
FH	FIRE HYDRANT
EP	EDGE OF PAVEMENT
TC	TOP OF CURB
BC	BACK OF CURB
TW	TOP OF WALL
BW	BOTTOM OF WALL
GU	GHARGEAD UTILITY
UE	UNDERGROUND UTILITY
CMP	CORRUGATED METAL PIPE
RCP	REINFORCED CONCRETE PIPE
PVC	POLYVINYL CHLORIDE PIPE
SW	SOFT WIRE ANCHOR
TR	TRANSFORMER
JB	JUNCTION BOX
SWCB	SINGLE WING CATCH BASIN
DWCB	DOUBLE WING CATCH BASIN
CLF	CHAIN LINK FENCE
WM	WATER PIPE
WM	WATER METER
GO	SEWER CLEAN-OUT
GV	GAS VALVE
NF	NON OR FORMERLY
IF	ICE STROKE
IPP	ICE PROBE POLE

I HEREBY CERTIFY THAT THIS MAP IS CORRECT AND WAS DRAWN UNDER MY DIRECT SUPERVISION. ANY VISIBLE ENCROACHMENTS ARE SHOWN HEREON.

DATE: 7/22/2016

C. DARRELL TAYLOR, FLORIDA REGISTERED LAND SURVEYOR #LS6904

THIS MAP IS NOT A CERTIFIED SURVEY AND HAS NOT BEEN REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS. THIS MAP IS ONLY INTENDED FOR THE PARTIES AND PURPOSES SHOWN. THIS MAP IS NOT FOR RECORDATION. NO TITLE REPORT PROVIDED.



VICINITY MAP

NOT TO SCALE

GENERAL NOTES

THIS SPECIFIC PURPOSE SURVEY IS FOR THE LEASED PREMISES AND EASEMENTS ONLY. THIS SPECIFIC PURPOSE SURVEY WAS PREPARED FOR THE EXCLUSIVE USE OF MOBILITIE, LLC AND EXCLUSIVELY FOR THE TRANSFERRAL OF THE PROPOSED LEASED PREMISES AND THE RIGHTS OF EASEMENT SHOWN HEREON AND SHALL NOT BE USED AS AN EXHIBIT OR EVIDENCE IN THE FEE SIMPLE TRANSFERRAL OF THE PARENT PARCEL NOR ANY PORTION OR PORTIONS THEREOF. BOUNDARY INFORMATION SHOWN HEREON HAS BEEN COMPILED FROM TAX MAPS AND DEED DESCRIPTIONS ONLY. NO BOUNDARY SURVEY OF THE PARENT PARCEL WAS PERFORMED.

THIS DRAWING DOES NOT REPRESENT A BOUNDARY SURVEY.

THIS SPECIFIC PURPOSE SURVEY WAS PREPARED WITHOUT BENEFIT OF A TITLE REPORT WHICH MAY REVEAL ADDITIONAL CONVEYANCES, EASEMENTS, OR RIGHTS OF WAY NOT SHOWN HEREON.

THE FIELD DATA UPON WHICH THIS SPECIFIC PURPOSE SURVEY IS BASED HAS A CLOSURE PRECISION OF ONE FOOT IN 20,000+ FEET AND AN ANGULAR ERROR OF 5.0" PER ANGLE POINT AND WAS ADJUSTED USING LEAST SQUARES.

EQUIPMENT USED FOR ANGULAR & LINEAR MEASUREMENTS: LEICA TPS 1200 ROBOTIC & BECKMAN 2 PRIMARY 20 (DATE OF LAST FIELD VISIT: 7/19/2016)

THE 1" CONTOURS AND SPOT ELEVATIONS SHOWN ON THIS SPECIFIC PURPOSE SURVEY ARE ADJUSTED TO NAVD 88 DATUM COMPUTED USING GEOID 12B AND HAVE A VERTICAL ACCURACY OF ± 1". CONTOURS OUTSIDE THE IMMEDIATE SITE AREA ARE APPROXIMATE.

BEARINGS SHOWN ON THIS SPECIFIC PURPOSE SURVEY ARE BASED ON GRID NORTH (NAD 83) FLORIDA NORTH.

THE PROPOSED POLE IS NOT LOCATED IN A SPECIAL FLOOD AREA AS PER FLUM COMMUNITY PANEL NO. 12073C0113F DATED AUGUST 18, 2009.

BENCHMARKS USED: 0E6016, 0E7002, 0C0907

NO WETLAND AREAS HAVE BEEN INVESTIGATED ON THIS SPECIFIC PURPOSE SURVEY.

ALL ZONING INFORMATION SHOULD BE VERIFIED WITH THE PROPER ZONING OFFICIALS.

ANY UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM ABOVE GROUND FIELD SURVEY INFORMATION. THE SURVEYOR MAKES NO GUARANTEES THAT ANY UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT ANY UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED ANY UNDERGROUND UTILITIES.

ADDITIONS OR DELETIONS TO THIS SURVEY MAP BY OTHER THAN THE SIGNING PARTY IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY.

ORIGINAL SURVEY IS KEPT ON FILE IN THE SURVEYOR'S OFFICE.

(SHEET NOT VALID WITHOUT SHEET 2 OF 2)

C. DARRELL TAYLOR
Licensed Member
6904
STATE OF FLORIDA
Professional Surveyor and Mapper

NO.	DATE	REVISION

SPECIFIC PURPOSE SURVEY PREPARED BY:

POINT TO POINT LAND SURVEYORS
1010 Pennsylvania Avenue
McDonough, GA 30253
(p) 678.565.4440 (f) 678.565.4497
(w) pointtopointsurvey.com

SPECIFIC PURPOSE SURVEY PREPARED FOR:

mobilitie

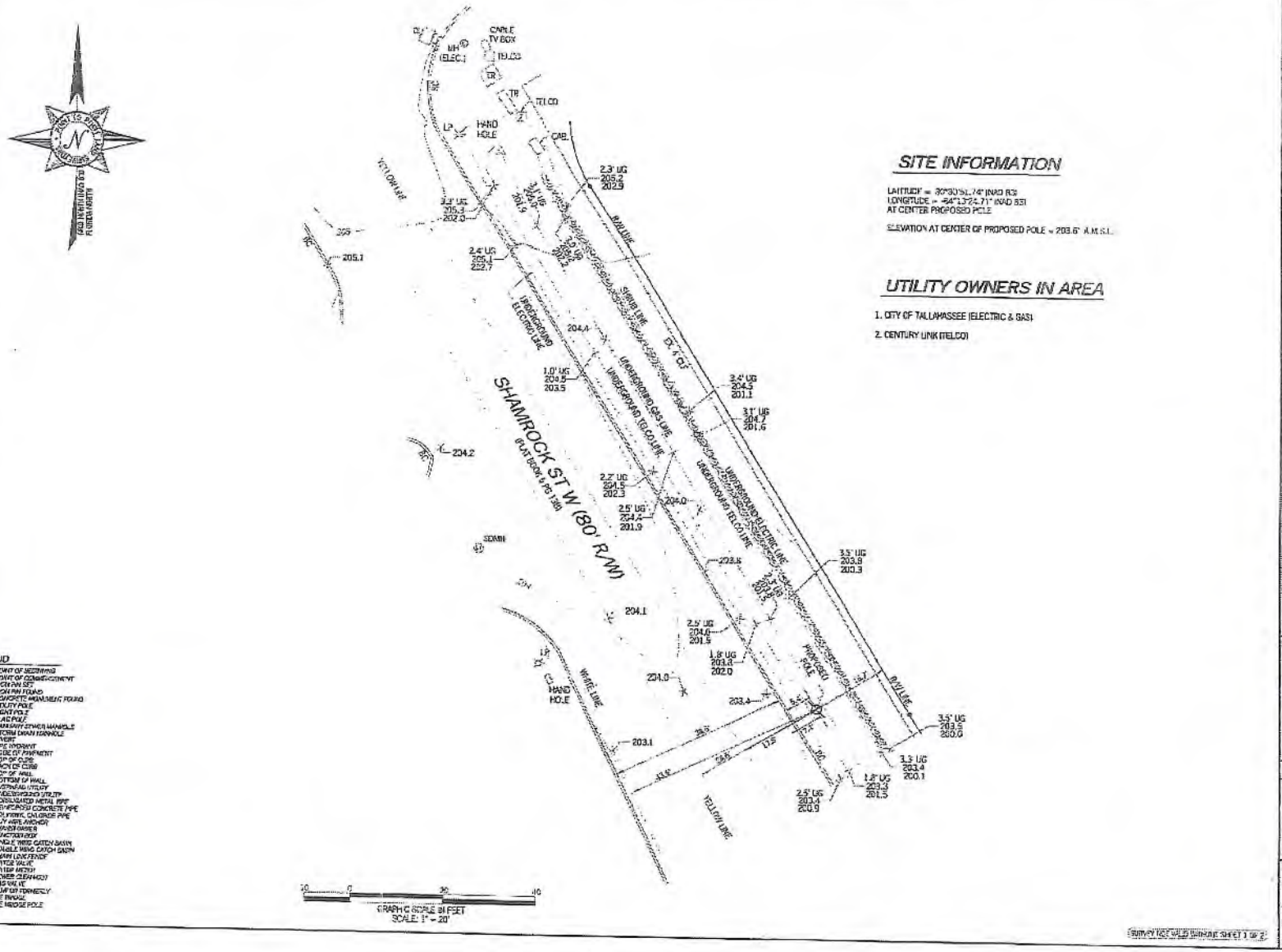
660 NEWPORT CENTER DRIVE
SUITE 200
NEWPORT BEACH, CA 92660

"JA90XS125A"

SECTION 3 TOWNSHIP 1 NORTH
RANGE 1 EAT
CITY OF TALLAHASSEE,
LEON COUNTY, FLORIDA

DRAWN BY: EAL
CHECKED BY: JKL
APPROVED: C. HER
DATE: JULY 22, 2016
P2P JOB #: G160386

SHEET: 1 OF 2



SITE INFORMATION

LATITUDE = 30°30'51.74" (NAD 83)
LONGITUDE = -84°13'24.71" (NAD 83)
AT CENTER PROPOSED POLE

ELEVATION AT CENTER OF PROPOSED POLE = 203.6' A.M.S.L.

UTILITY OWNERS IN AREA

1. CITY OF TALLAHASSEE (ELECTRIC & GAS)
2. CENTURY LINK (TELCO)

LEGEND

POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
IPS	IRON PIN SET
IPF	IRON PIN FOUND
CM	CONCRETE MONUMENT FOUND
UP	UTILITY POLE
LP	LIGHT POLE
FP	FLAG POLE
SSMH	SANITARY SEWER MANHOLE
SDMH	STORM DRAIN MANHOLE
INV	INVERT
TPED	TYPE PAVEMENT EDGE OF PAVEMENT
TOC	TOP OF CURB
BOC	BACK OF CURB
TOE	TOE OF WALL
BW	BOTTOM OF WALL
OHU	OVERHEAD UTILITY
UGU	UNDERGROUND UTILITY
CMP	CORRUGATED METAL PIPE
RCP	REINFORCED CONCRETE PIPE
PVC	POLYVINYL CHLORIDE PIPE
GUY	GUY WIRE ANCHOR
TRANS	TRANSFORMER
JB	JUNCTION BOX
SNGCB	SINGLE THROAT GATED BASIN
DNGCB	DOUBLE THROAT GATED BASIN
C.F.	CHAIN LINK FENCE
WV	WATER VALVE
WM	WATER METER
SCO	SEWER CLEANOUT
GV	GAS VALVE
N/K/A	NOW KNOWN AS FORMERLY
IR	IRON RADIUS
CM	CONCRETE MONUMENT

SURVEY NOT VALID WITHOUT SHEET 1 OF 2

DANIEL L. TAYLOR
License Number
6804
STATE OF FLORIDA
Professional Surveyor and Mapper

NO.	DATE	REVISION

SPECIFIC PURPOSE SURVEY PREPARED BY:

POINT TO POINT
LAND SURVEYORS
1010 Pennsylvania Avenue
McDonough, GA 30253
(p) 678.565.4440 (f) 678.565.4497
(w) pointtopointsurvey.com

SPECIFIC PURPOSE SURVEY PREPARED FOR:

mobilitie

660 NEWPORT CENTER DRIVE
SUITE 200
NEWPORT BEACH, CA 92660

"JA90XS125A"

SECTION 3 TOWNSHIP 1 NORTH
RANGE 1 EAST
CITY OF TALLAHASSEE
LEON COUNTY, FLORIDA

DRAWN BY: EAL
CHECKED BY: JKL
APPROVED: C. INER
DATE: JULY 22, 2016
P2P JOB #: C160386

SHEET: 2 OF 2

SITE ID: 9FLB003376
JA90XS125A
SHAMROCK ST W &
CAVAN DR
TALLAHASSEE, FL 32309

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.

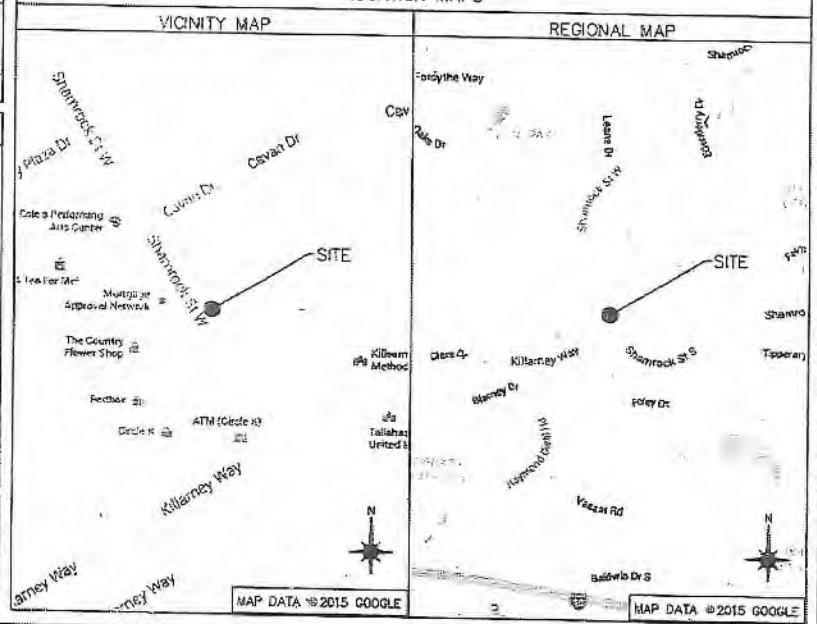
SITE INFORMATION

PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY
ADDRESS/CROSS ST:	SHAMROCK ST W & CAVAN DR
APPLICANT:	MOBILITIE, LLC
APPLICANT ADDRESS:	9258 PEACHTREE ST. NE, SUITE 710 ATLANTA, GA 30309 PHONE: (312) 638-5400
LATITUDE:	30° 30' 51.74" N (30.514372)
LONGITUDE:	84° 13' 24.71" W (-84.223531)
LAT/LONG TYPE:	NAD 83
GROUND ELEVATION:	± 204' AMSL
COUNTY:	LEON COUNTY
JURISDICTION:	CITY OF TALLAHASSEE

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



DIG ALERT

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

TWO WORKING DAYS BEFORE YOU DIG

PROJECT DESCRIPTION

END USER PROPOSES TO INSTALL EQUIPMENT ON A NEW WOOD UTILITY POLE WITHIN ANN EXISTING RIGHT-OF-WAY. THE SCOPE WILL CONSIST OF THE FOLLOWING:

--INSTALL PROPOSED BACKHAUL TRANSPORT EQUIPMENT ON A NEW 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 ELEVATIONS
2.1	POLE ELEVATIONS
3.0	ANTENNA & EQUIPMENT MOUNTING DETAILS
3.1	ANTENNA & EQUIPMENT DETAILS
4.0	ELECTRICAL DETAILS
5.0	GROUNDING DETAILS
GN-1	GENERAL NOTES
GN-2	GENERAL NOTES
6.0	TRAFFIC CONTROL PLAN
6.1	TYPICAL PEDESTRIAN / WORKER SAFETY PLAN

ARCHITECT/ENGINEER

JACOBS ENGINEERING GROUP, INC.
5449 BELLS FERRY ROAD
ACWORTH, GA 30102
CONTACT: KARL KRATINA
PROJECT MANAGER
TEL: (678) 460-1418
FAX: (770) 701-2501

mobilitie
9258 PEACHTREE ST. NE,
SUITE 710
ATLANTA, GA 30309
PHONE: (312) 638-5400

PROJECT NO:	ER#0229
DRAWN BY:	L. TARUBAL
CHECKED BY:	S. RO

A	06.15.16	FOR REVIEW

PRELIMINARY

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

JA90XS125A
9FLB003376
SHAMROCK ST W &
CAVAN DR
TALLAHASSEE, FL 32309
UTILITY POLE

SHEET TITLE
TITLE SHEET

SHEET NUMBER
0.0

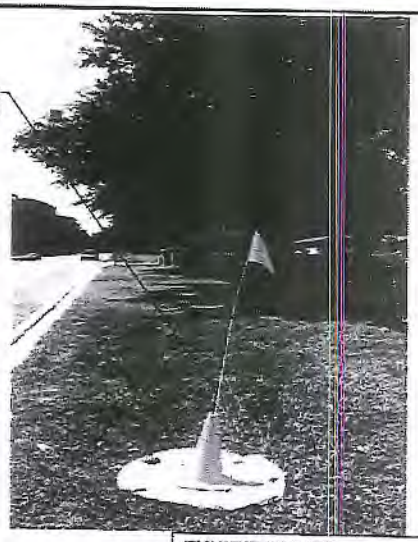


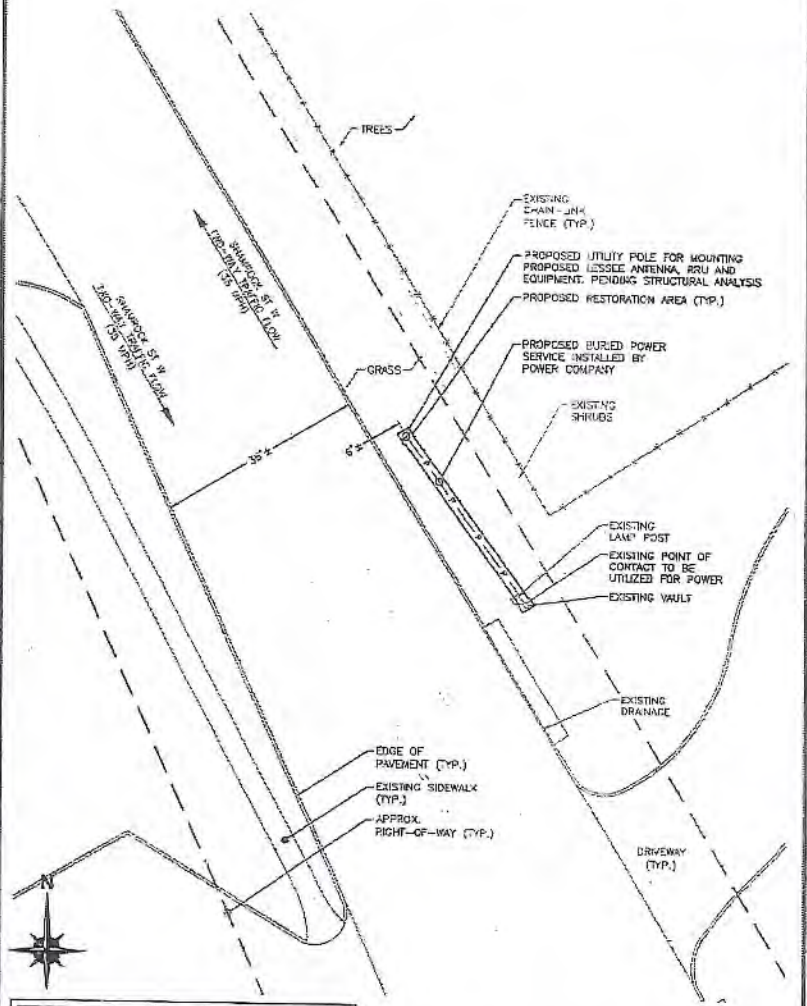
EXHIBIT PHOTO 1

SCALE: NOT TO SCALE



AERIAL SITE LOCATION 2

SCALE: NOT TO SCALE



NOTE:
THIS SITE PLAN WAS GENERATED WITHOUT THE USE OF A SURVEY. PROPERTY 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.

ENLARGED SITE PLAN 3

SCALE: 1"=20'-0" (1"=10'-0" ON 22"x34" SHEET)

mobilitie
9259 PEACHTREE ST. NE.
SUITE 710
ATLANTA, GA 30309
PHONE: (312) 638-5400

PROJECT NO:	ER900281
DRAWN BY:	L.TARUBAL
CHECKED BY:	S.BO

A	06.05.16	FOR REVIEW

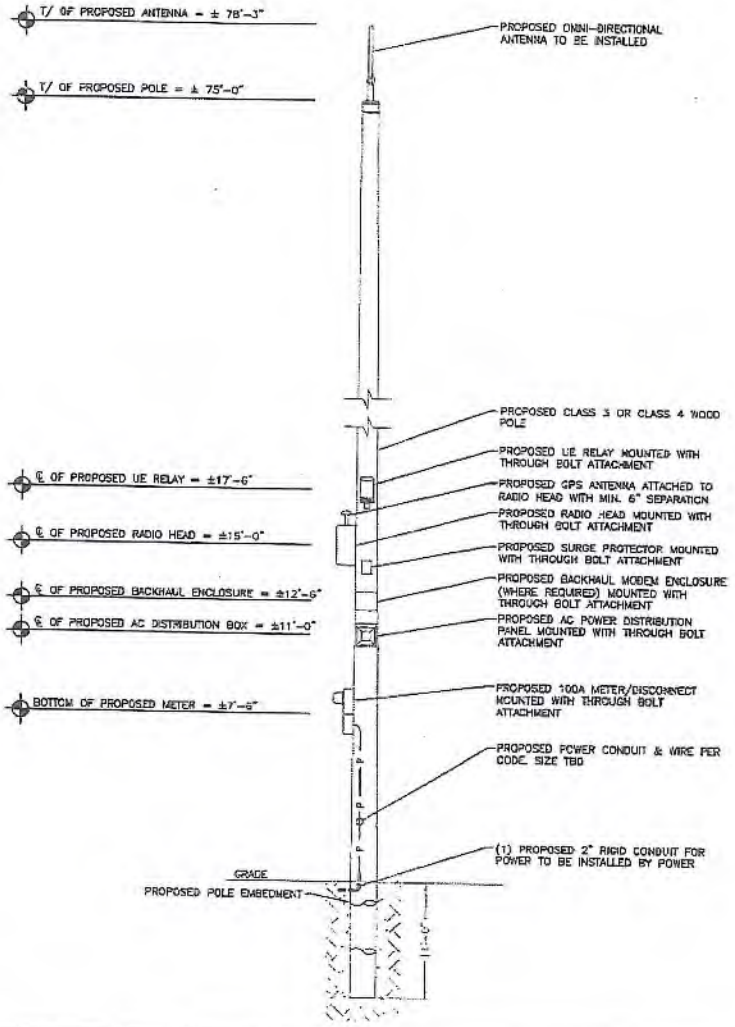
PRELIMINARY

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

JA90XS125A
9FLB003376
SHAMROCK ST W S
CAVAN DR
TALLAHASSEE, FL 32309
UTILITY POLE

SHEET TITLE
SITE PLAN & EXHIBIT PHOTO

SHEET NUMBER
1.0



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

NOTES:

1. ALL HARDWARE SHALL BE STAINLESS STEEL.
2. ALL CABLES SHALL BE SECURED TO POLE EVERY 36" OR LESS.
3. LIGHTNING RODS SHALL BE INCLUDED AS REQUIRED.
4. STRUCTURAL BACKFILL TO BE COMPACTED IN 8" MAXIMUM LAYERS TO 95% OF CONTENT IN ACCORDANCE WITH ASTM D698. ADDITIONALLY, STRUCTURAL BACKFILL MUST HAVE A MINIMUM COMPACTED UNIT WEIGHT OF 100 POUNDS PER CUBIC FOOT (16kN/m3)

BAND 41 (2500MHz) EQUIPMENT CHART			
QUANTITY	DESCRIPTION	DIMENSIONS (HxWxD)	WEIGHT
1	MOUNTED ANTENNA	29.1" X 2" DIAMETER	11 LBS
1	MOUNTED RADIO	20.1" X 9.1" X 8.9"	55.1 LBS
1	GPS ANTENNA	0.8" X 2.6" DIAMETER	0.3 LBS
1	AC DISTRIBUTION	9.25" X 9.5" X 3.61"	14 LBS
1	MOUNTED RELAY	13.0" X 7.9" DIAMETER	9.9 LBS
1	SURGE PROTECTOR	8.44" X 4.69" X 3.5"	TBD

PROPOSED FRONT POLE ELEVATIONS

SCALE: 1" = 5'

1

mobilitie
9258 PEACHTREE ST. NE.
SUITE 710
ATLANTA, GA 30309
PHONE: (312) 938-5400

PROJECT NO:	SRS09301
DRAWN BY:	L. TARUBAL
CHECKED BY:	S. DO

A	06.15.18	FOR REVIEW

PRELIMINARY

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

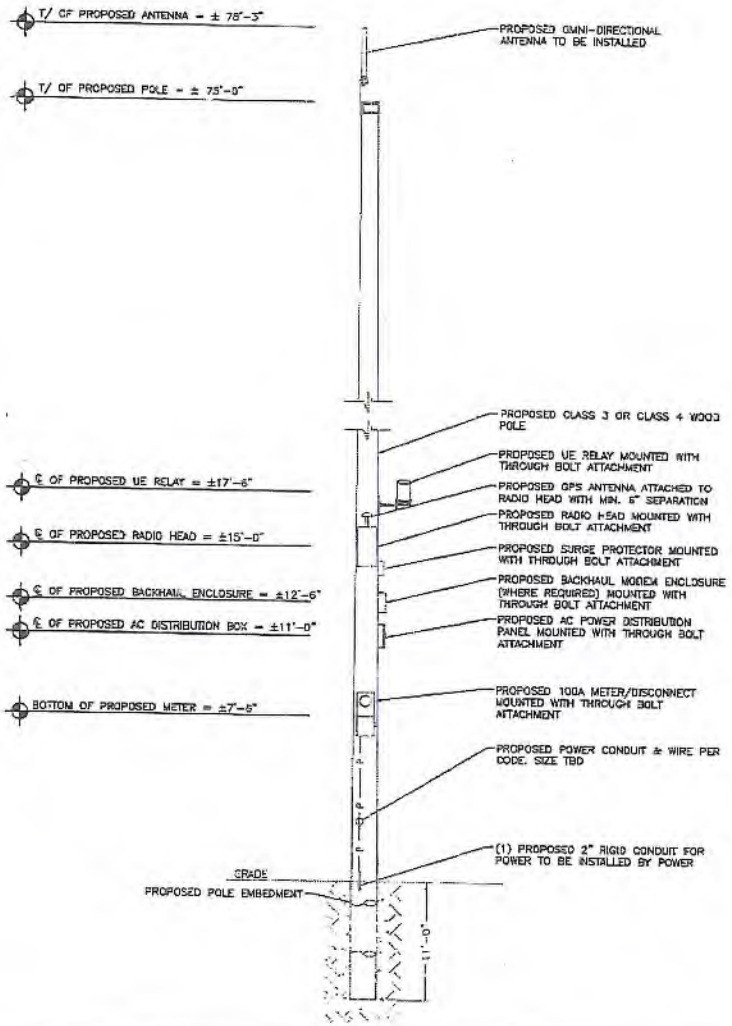
JA90XS125A
3FLB009376
SHAMROCK ST W S
CAVAN DR
TALLAHASSEE, FL 32309
UTILITY POLE

SHEET TITLE

POLE ELEVATIONS

SHEET NUMBER

2.0



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

NOTES:

1. ALL HARDWARE SHALL BE STAINLESS STEEL.
2. ALL CABLES SHALL BE SECURED TO POLE EVERY 36" OR LESS.
3. LIGHTNING RODS SHALL BE INCLUDED AS REQUIRED.
4. STRUCTURAL BACKFILL TO BE COMPACTED IN 8" MAXIMUM LAYERS TO 95% OF CONTENT IN ACCORDANCE WITH ASTM D698. ADDITIONALLY, STRUCTURAL BACKFILL MUST HAVE A MINIMUM COMPACTED UNIT WEIGHT OF 100 POUNDS PER CUBIC FOOT (16kN/m3)

BAND 41 (2500MHz) EQUIPMENT CHART

QUANTITY	DESCRIPTION	DIMENSIONS (HxWxD)	WEIGHT
1	MOUNTED ANTENNA	29.1" X 2" DIAMETER	11 LBS
1	MOUNTED RADIO	20.1" X 11" X 8.9"	55.1 LBS
1	GPS ANTENNA	0.8" X 2.6" DIAMETER	0.3 LBS
1	AC DISTRIBUTION	9.25" X 9.5" X 3.81"	14 LBS
1	MOUNTED RELAY	13.0" X 7.9" DIAMETER	9.9 LBS
1	SURGE PROTECTOR	6.44" X 4.69" X 3.5"	TBD

PROPOSED SIDE POLE ELEVATION

SCALE: 1" = 5'

1

mobilitie
9259 PEACHTREE ST. NE.
SUITE 710
ATLANTA, GA 30309
PHONE: (312) 638-5400

PROJECT NO:	ER803201
DRAWN BY:	L TARUBAL
CHECKED BY:	S BO

A	08.15.16	FOR REVIEW

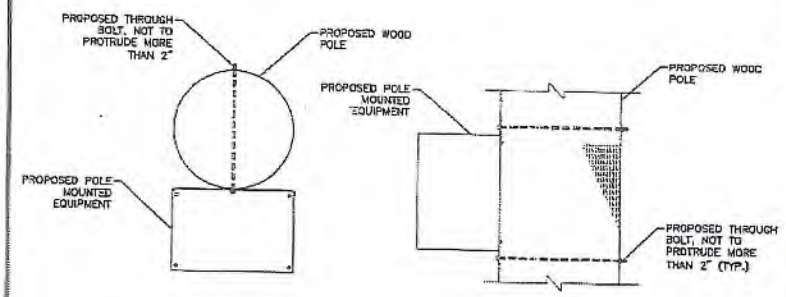
PRELIMINARY

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

JASOXS125A
9FLB003376
SHAMROCK ST W &
CAVAN DR
TALLAHASSEE, FL 32309
UTILITY POLE

SHEET TITLE
POLE ELEVATIONS

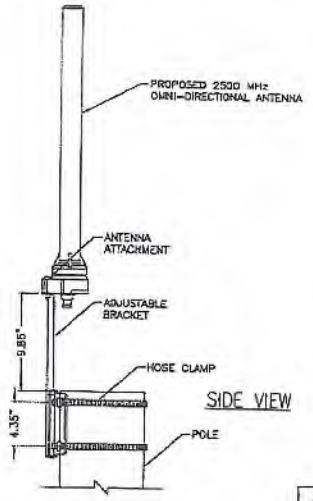
SHEET NUMBER
2.1



EQUIPMENT MOUNTING DETAIL

SCALE: NOT TO SCALE

1



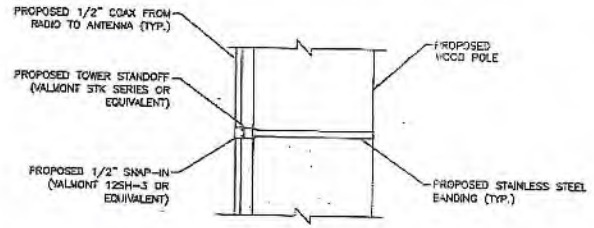
NOTE:

1. MOUNTING BRACKET ACCOMMODATES POLE SIZES FROM 3" TO 10" DIAMETER.
2. JACOBS 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



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

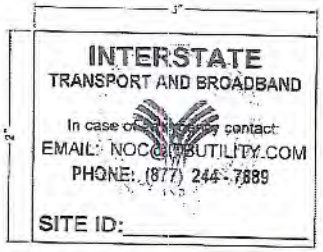
CABLE MOUNTING DETAIL

SCALE: NOT TO SCALE

2



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"



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".

POLE MOUNTED SIGNS

SCALE: NOT TO SCALE

4

mobilitie
9258 PEACHTREE ST. NE.
SUITE 710
ATLANTA, GA 30309
PHONE: (312) 638-5400

PROJECT NO:	ER4000221
DRAWN BY:	L. TARUBAL
CHECKED BY:	S. BO

A	08.15.16	FOR REVIEW

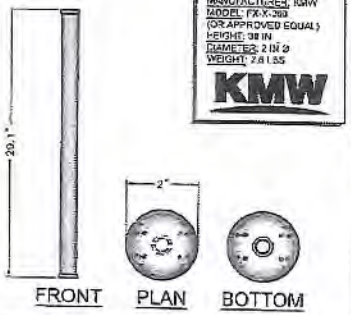
PRELIMINARY

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.

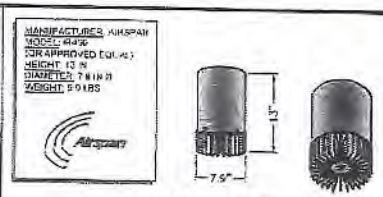
JAS0XS125A
9FLB003375
SHAMROCK ST W S
CAVAN DR
TALLAHASSEE, FL 32309
UTILITY POLE

SHEET TITLE
ANTENNA & EQUIPMENT MOUNTING DETAILS

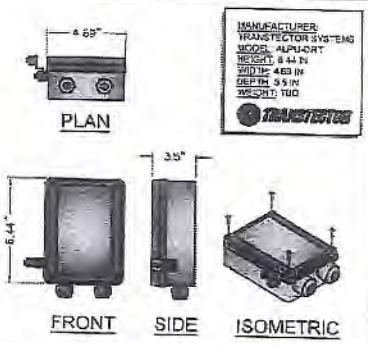
SHEET NUMBER
3.0



KMW FX-X-360 SCALE N.T.S 1



MOUNTED RELAY SCALE N.T.S 4



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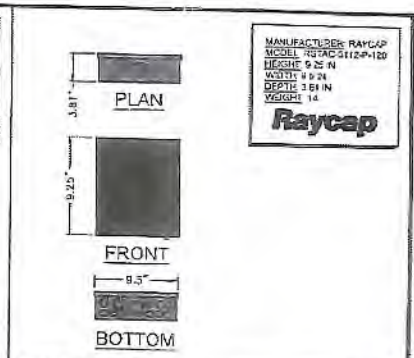

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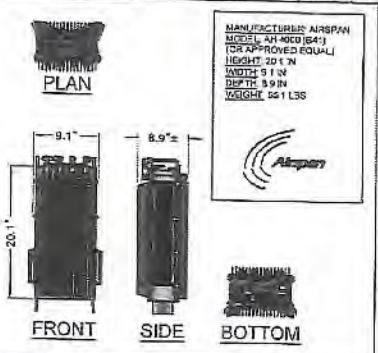

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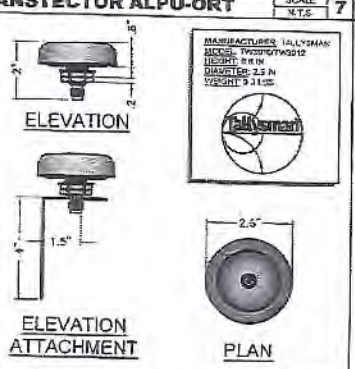
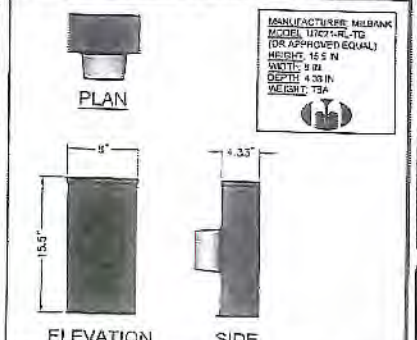
NOT USED SCALE N.T.S 5



TALLYSMAN GPS ANTENNA SCALE N.T.S 8



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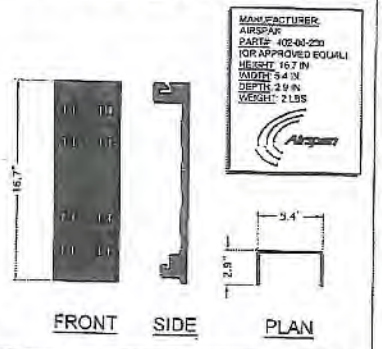

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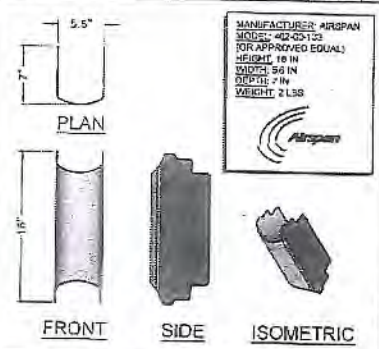

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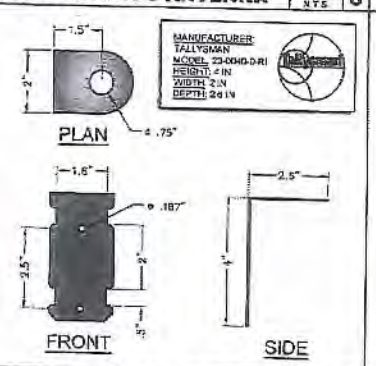

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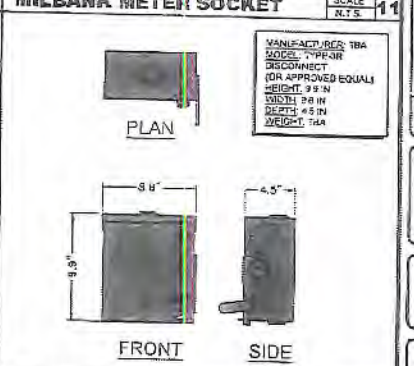

NEMA TYPE-3R DISCONNECT SCALE N.T.S 12

mobilitie
9258 PEACHTREE ST. NE.
SUITE 710
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PHONE: (312) 636-5400

PROJECT NO.:	BR600201
DRAWN BY:	L. TARUBAL
CHECKED BY:	S. BD

A	06.15.16	FOR REVIEW

PRELIMINARY

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JAS0XS125A
9FLB003375
SHAMROCK ST W &
CAVAN DR
TALLAHASSEE, FL 32309
UTILITY POLE

SHEET TITLE
ANTENNA & EQUIPMENT 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:

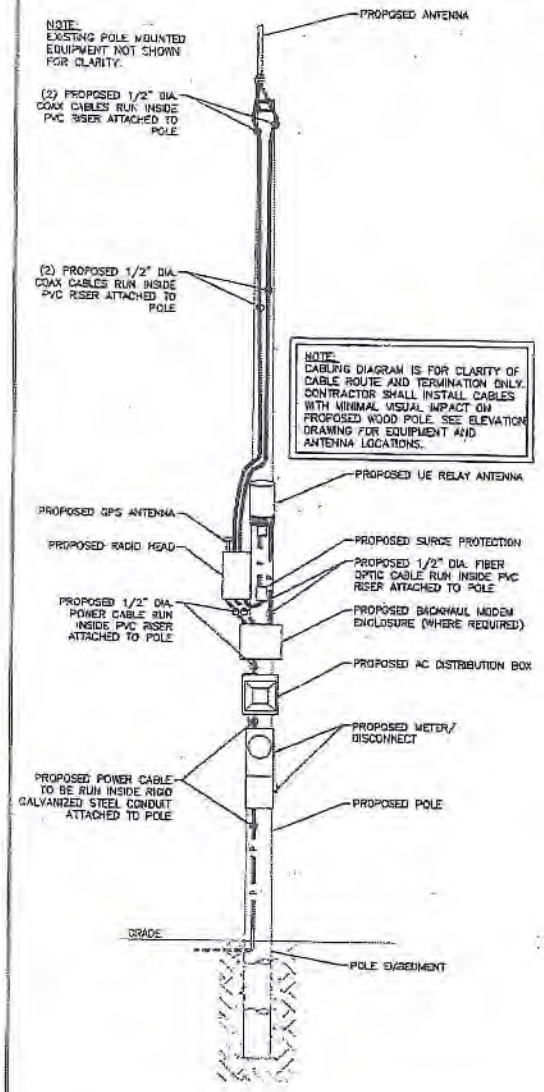
1. ALL REQUIRED PERMITS, LICENSES, INSPECTIONS AND APPROVALS SHALL BE SECURED AND ALL FEES FOR SAME PAID BY CONTRACTOR.
2. THE INSTALLATION SHALL COMPLY WITH ALL APPLICABLE CODES: STATE, LOCAL AND NATIONAL AND THE DESIGN, PERFORMANCE CHARACTERISTICS AND METHODS OF CONSTRUCTION OF ALL ITEMS AND EQUIPMENT 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 PULL BOXES 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.

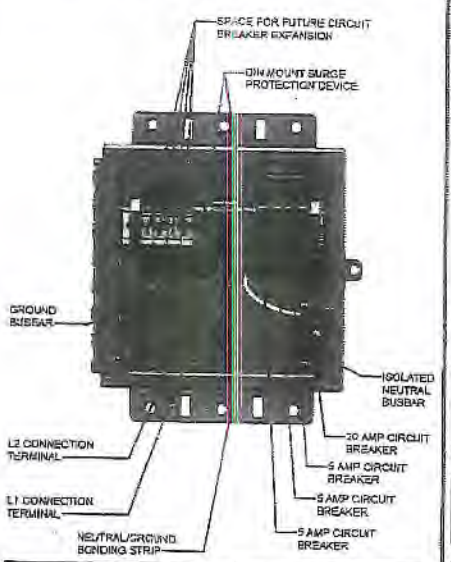


CABLING NOTES:

A) WOOD, CONCRETE AND EXISTING METALLIC POLES:
   I) FROM GRADE LINE TO 11'-0" ABOVE GRADE, ALL CABLES/CONDUCTORS EXCEPT GROUNDING CONDUCTOR MUST RUN IN RIGID GALVANIZED STEEL CONDUIT (RGS)
   II) GROUNDING CONDUCTORS IN EXPOSED LOCATIONS MUST BE INSTALLED IN PVC.
   III) IN EARTH INSTALL PVC CONDUIT FOR BACKHAUL AND ELECTRICAL SERVICE. TRANSITION TO RGS AT GRADE LINE.
   IV) ABOVE 11'-0" ALL CABLES (POWER, ETHERNET, COAXIAL) MUST RUN IN PVC UTILITY POLE RISER.
      (1) AT MAJOR EQUIPMENT, EXTEND UTILITY DUCT IMMEDIATELY ADJACENT TO THE EQUIPMENT. INSTALL CABLES IN THE UTILITY POLE RISER CREATING CABLE DRIP LOOPS NOT LESS THAN THE CABLE BENDING RADIUS.
      (2) INSIDE THE UTILITY POLE RISER, UTILIZE ½" COAX BLOCKS WITH LAG SCREWS TO SUPPORT COAX, RADIO AND AW POWER, RF COAX, AND ETHERNET CABLES TO WITHIN 12" OF THE EQUIPMENT BEING SERVED AND ON INTERVALS NOT TO EXCEED 6'.
   V) FOR UNDERGROUND HFC/PUBLIC BACKHAUL, ROUTE ETHERNET CABLE IN CONDUIT UP THE POLE AND ENTER THE UTILITY POLE RISER. SEAL EXPOSED END OF CONDUIT WITH A CABLE TERMINATION FITTING.
   VI) BY APPROVAL IN SELECT CASES LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LFMC) MAY BE USED IN LENGTHS NOT TO EXCEED 36" TO EXTEND THE ELECTRICAL SERVICE CONDUIT TO THE AC DISTRIBUTION BOX. EXAMPLE: UTILITY-REQUIRED DISCONNECT ON POLE W/ AC DISTRIBUTION BOX ON OPPOSITE SIDE OF POLE.

B) NEW METALLIC POLES
   I) PROCURE NEW POLES WITH SUITABLE HAND HOLES SUCH THAT HAND HOLES EXIST AT ALL EQUIPMENT LOCATIONS.
      (1) WITH CLIENT APPROVAL IN SELECT CASES TO FACILITATE IMPROVED APPEARANCE, ½" COAXIAL CABLES MAY BE "SUPERFLEX" IN LIEU OF LDF-4.

II) WHERE POSSIBLE, INSTALL POLE BASE SUCH THAT THE ELECTRICAL FEED AND BACKHAUL (IF UNDERGROUND) CIRCUIT ENTER THE POLE THROUGH THE POLE BASE. IF A DISCONNECTING MEANS SEPARATE FROM THE AC DISTRIBUTION BOX IS REQUIRED BY JURISDICTION OR UTILITY, WITH APPROVAL IN SELECT CASES LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LFMC) MAY BE USED IN LENGTHS NOT TO EXCEED 36" TO EXTEND THE ELECTRICAL SERVICE CONDUIT TO THE AC DISTRIBUTION BOX.



CABLING DIAGRAM
SCALE: NOT TO SCALE
1

mobilitie
9258 PEACHTREE ST. NE,
SUITE 710
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PHONE: (312) 638-5400

PROJECT NO:	5888021
DRAWN BY:	L. TARUBAL
CHECKED BY:	S. BD

A	08/31/15	FOR REVIEW

PRELIMINARY

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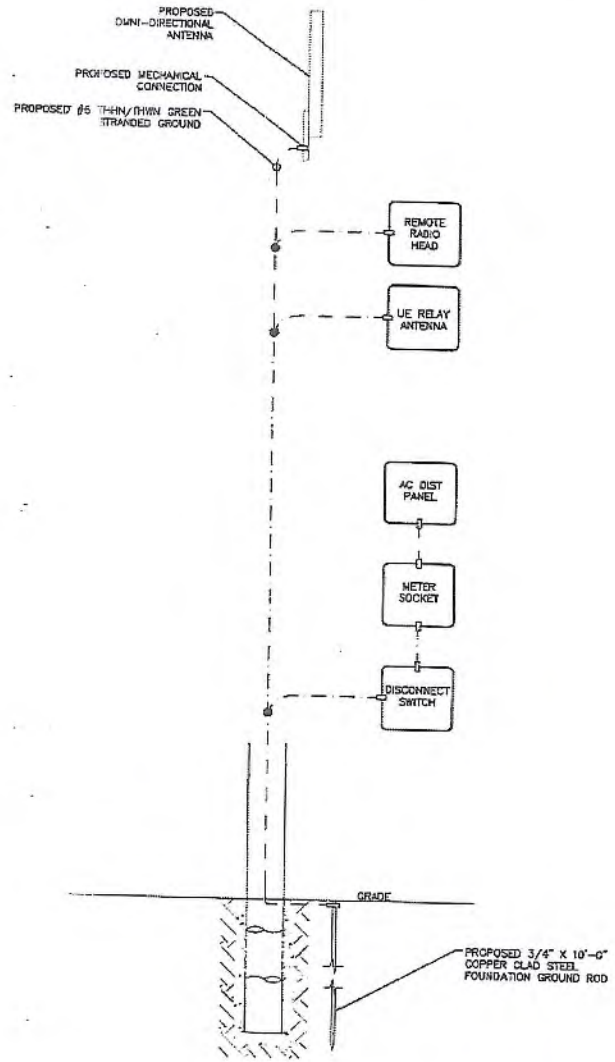
JAB0XS1254
9FL3000375
SHAMROCK ST W &
CAVAN DR
TALLAHASSEE, FL 32309
UTILITY POLE

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 1

SCALE: NOT TO SCALE

mobilitie
925B PEACHTREE ST. NE,
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ATLANTA, GA 30309
PHONE: (312) 938-5400

PROJECT NO:	ER600281
DRAWN BY:	L. TARUBAL
CHECKED BY:	S. BO

A	06.15.16	RDI REVIEW

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JA90XS125A
97LB003378
SHAMROCK ST W &
CAVAN DR
TALLAHASSEE, FL 32309
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 310
     EPA 10292-7
     (313) 563-8000

     PHASAR CORPORATION
     P.O. BOX 5123
     DEARBORN, MI 48128

     AMBUSH HERBICIDE
     EPA REGISTERED

     FRAMAR INDUSTRIAL PRODUCTS
     1435 MORRIS AVE.
     UNION, NJ 07083

     (800) 526-4924

   - 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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PHONE: (312) 638-5400

PROJECT NO:	ER800208
DRAWN BY:	L. TARSUAL
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1	06.15.15	FOR REVIEW

PRELIMINARY

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

JAX0XS125A
9FLBC03376
SHAMROCK ST W &
CAVAN DR
TALLAHASSEE, FL 32303
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 "SAKE" 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, TEES, 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.	282 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	54305BE

      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.

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A	09.15.16	PIR REVIEW

PRELIMINARY

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.

JASCXS1125A
BFL3003376
SHAMROCK ST W &
CAVAN DR
TALLAHASSEE, FL 32309
UTILITY POLE

SHEET TITLE

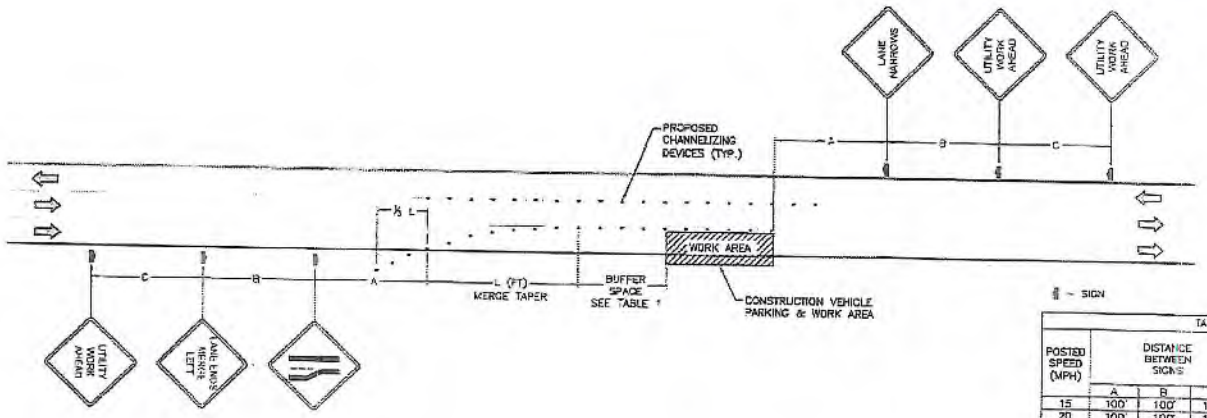
GENERAL NOTES

SHEET NUMBER

GN-2

PLAN NOTES:

1. PLANS DEPICTED ARE GENERAL GUIDELINES FOR TEMPORARY TRAFFIC CONTROL PLANS (TCP) TO INCLUDE PEDESTRIAN AND WORKER SAFETY. CONTRACTOR IS REQUIRED TO HAVE PREPARED A SITE-SPECIFIC TCP FOR REVIEW AND APPROVAL BY THE HIGHWAY AUTHORITY HAVING JURISDICTION. IF REQUIRED, THE FIRM PREPARING THE TCP SHALL BE AUTHORIZED OR CERTIFIED BY THE AUTHORITY HAVING JURISDICTION.
2. EXTEND CHANNELIZATION DEVICES INTO SHOULDER WHERE APPLICABLE.
3. DISTANCES AS INDICATED IN TABLE 1 SHOULD BE INCREASED FOR CONDITIONS THAT WOULD AFFECT STOPPING DISTANCE SUCH AS DOWNGRADES OR LIMITED SIGHT DISTANCES. DISTANCES CAN BE DECREASED FOR LOW-SPEED (RESIDENTIAL) AREAS WITH APPROVAL BY THE AUTHORITY HAVING JURISDICTION. NIGHT-TIME WORK IS PROHIBITED UNLESS IT IS REQUIRED AS A CONDITION OF APPROVAL BY THE HIGHWAY AND LOCAL AUTHORITY HAVING JURISDICTION.
4. SHOULDER TAPERS SHOULD BE 1/3 OF THE ON-STREET TAPER LENGTH.
5. "A", "B", AND "C" SHOULD BE IN EXCESS OF 500' FOR ROAD SPEEDS 45 MPH OR HIGHER



▯ = SIGN

TABLE 1

POSTED SPEED (MPH)	DISTANCE BETWEEN SIGNS A	B	C	TAPER L (SEE NOTE)	BUFFER
15	100'	100'	100'	45'	100'
20	100'	100'	100'	80'	116'
25	100'	100'	100'	125'	155'
30	200'	200'	200'	180'	200'
35	200'	200'	200'	245'	250'
40	350'	350'	350'	320'	305'
45	350'	350'	350'	540'	360'
50	500'	500'	500'	600'	425'
55	500'	500'	500'	660'	495'
60	500'	500'	500'	720'	570'
65	500'	500'	500'	780'	645'

NOTES:

A) DISTANCES IN FEET UNLESS OTHERWISE NOTED.
B) CONTRACTOR TO VERIFY EXISTING SPEED LIMIT.
C) DISTANCES SHOWN ARE NOT VALID FOR LIMITED ACCESS HIGHWAYS. CONSULT STATE DOT MANUAL FOR DISTANCES.
D) ADJUST DISTANCES TO COMPLY WITH REQUIREMENT OF THE STATE OR LOCAL HIGHWAY AUTHORITY HAVING JURISDICTION. SEE NOTE 1, SHEET 6.1.
E) TAPER LENGTHS SHOWN BASED ON 12' LANE WIDTH. SEE NOTE 1B, SHEET 6.1.

TRAFFIC CONTROL PLAN - LANE MERGE

1

SCALE: NOT TO SCALE

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A	05.15.19	FOR REVIEW

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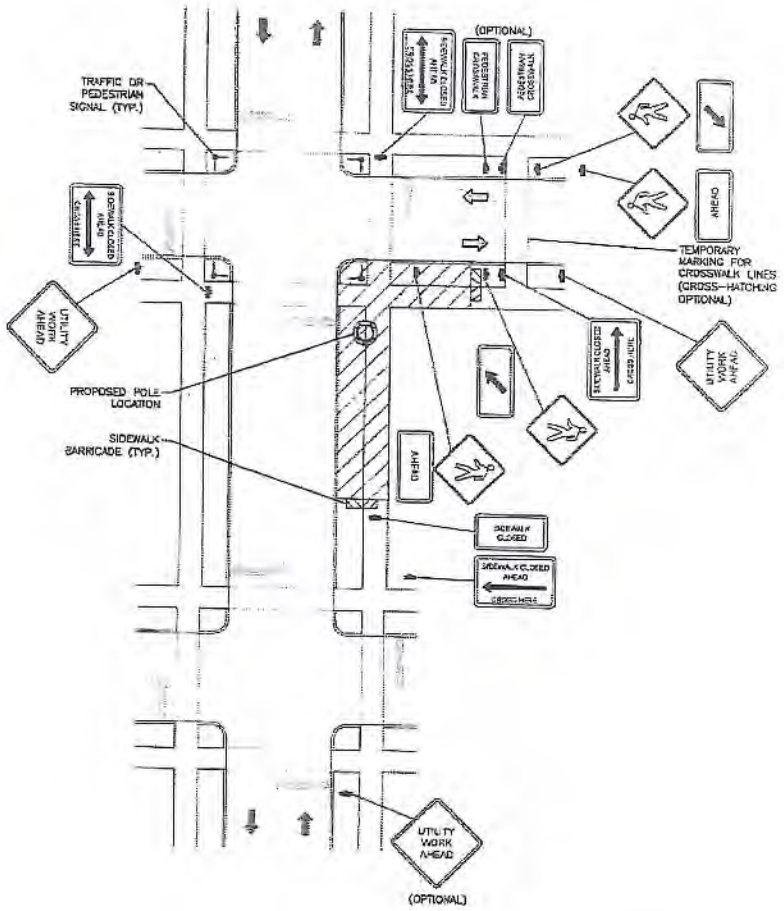
JA90XS125A
9FLB003376
SHAMROCK ST W &
CAVAN DR
TALLAHASSEE, FL 32309
UTILITY POLE

SHEET TITLE
TRAFFIC CONTROL PLAN

SHEET NUMBER
6.0

TRAFFIC CONTROL GENERAL NOTES

1. ALL TEMPORARY TRAFFIC CONTROL SIGNAGE, LAYOUTS AND PROCEDURES SHALL COMPLY WITH LOCAL JURISDICTIONAL REQUIREMENTS AND MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION, WHICHEVER IS MORE STRINGENT.
2. PRIOR TO ANY ROAD CONSTRUCTION, TRAFFIC CONTROL SIGNS AND DEVICES SHALL BE IN PLACE.
3. TRAFFIC CONTROL DEVICES FOR LANE CLOSURES INCLUDING SIGNS, CONES, 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.
4. SELECTION, PLACEMENT, MAINTENANCE, AND PROTECTION OF TRAFFIC, PEDESTRIANS, AND WORKERS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) – PART VI "TEMPORARY TRAFFIC CONTROL", AND LOCAL JURISDICTIONAL REQUIREMENTS UNLESS OTHERWISE NOTED IN THE PLANS AND SPECIFICATIONS, AND SHALL BE APPROVED BY THE APPROPRIATE HIGHWAY AUTHORITY HAVING JURISDICTION.
5. ADVANCE WARNING SIGNS, DISTANCES, AND TAPER LENGTHS MAY BE EXTENDED TO ADJUST FOR REDUCED VISIBILITY DUE TO HORIZONTAL AND VERTICAL CURVATURE OF THE ROADWAY AND FOR ACTUAL TRAFFIC SPEEDS IF IN EXCESS OF POSTED SPEED LIMITS.
6. TAPERS SHALL BE LOCATED TO MAXIMIZE THE VISIBILITY OF THEIR TOTAL LENGTH.
7. CONFLICTING OR NON-OPERATING SIGNAL INDICATIONS ON THE EXISTING TRAFFIC SIGNAL SYSTEMS SHALL BE BAGGED OR COVERED.
8. 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. ALL TRAFFIC CONTROL DEVICES SHALL BE RESTORED TO MATCH PRE-CONSTRUCTION CONDITION AFTER COMPLETION OF WORK.
9. CONTRACTOR SHALL CONTACT LOCAL AUTHORITY HAVING HIGHWAY JURISDICTION AND PROVIDE ADDITIONAL "FLAGMEN" OR POLICE SUPERVISION, IF REQUIRED.
10. ALL EXCAVATED AREAS WITHIN OR ADJACENT TO THE ROADWAY SHALL BE BACKFILLED AND PLACED ON A MINIMUM 6H:1V SLOPE PRIOR TO END OF EACH WORK DAY. OTHER EXCAVATED AREAS WITHIN THE CLEAR ZONE ARE TO BE EITHER BACKFILLED OR PRECAST CONCRETE CURB BARRIER CONSTRUCTION BARRIER SET TEMPORARILY IN PLACE TO SHIELD VEHICULAR AND PEDESTRIAN TRAFFIC.
11. WHERE DICTATED BY LOCAL CONDITIONS, THE CONTRACTOR SHALL MAKE PROVISIONS FOR MAINTAINING PEDESTRIAN AND WORKER CROSSING LOCATIONS IN ACCORDANCE WITH ALL APPLICABLE CODES AND OSHA REQUIREMENTS.
12. CONSTRUCTION ZONE SPEED LIMIT IF REDUCED FROM POSTED LIMITS SHALL BE IN ACCORDANCE WITH MUTCD AND WILL BE DETERMINED BY THE AUTHORITY HAVING JURISDICTION.
13. THERE SHALL BE NO WORKERS, EQUIPMENT, OR OTHER VEHICLES IN THE BUFFER SPACE OR THE ROLL AHEAD SPACE.
14. DRIVEWAYS AND/OR SIDE STREETS ENTERING THE ROADWAY AFTER THE FIRST ADVANCE WARNING SIGN SHALL BE PROVIDED WITH AT LEAST ONE W20-1 SIGN (ROAD WORK AHEAD) AS A MINIMUM.
15. CONES MAY BE SUBSTITUTED FOR DRUMS AND INSTALLED UPON THE APPROVAL OF THE AUTHORITY HAVING JURISDICTION PROVIDED THEY COMPLY WITH MUTCD.
16. THE SPACING BETWEEN CONES, TUBULAR MARKERS, VERTICAL PANELS, DRUMS, AND BARRICADES SHOULD NOT EXCEED A DISTANCE IN FEET EQUAL TO 1.0 TIMES THE SPEED LIMIT IN MPH WHEN USED FOR TAPER CHANNELIZATION, AND A DISTANCE IN FEET EQUAL TO 2.0 TIMES THE SPEED LIMIT IN MPH WHEN USED FOR TANGENT CHANNELIZATION.
17. WHEN CHANNELIZATION DEVICES HAVE THE POTENTIAL OF LEADING VEHICULAR TRAFFIC OUT OF THE INTENDED VEHICULAR TRAFFIC SPACE, THE CHANNELIZATION DEVICES SHOULD BE EXTENDED A DISTANCE IN FEET OF 2.0 TIMES THE SPEED LIMIT IN MPH BEYOND THE DOWNSTREAM END OF THE TRANSITION AREA.
18. TAPER LENGTHS ARE CALCULATED AS FOLLOWS:
L= WS²/60 (40 MPH AND HIGHER) OR L2= WS (OVER 40 MPH),
WHERE W= OFFSET WIDTH (FT), S= TRAFFIC SPEED (MPH).



TYPICAL PEDESTRIAN / WORKER SAFETY PLAN | 1

SCALE: NOT TO SCALE

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PROJECT NO:	ERS00291
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A	06.15.16	FOR REVIEW

PRELIMINARY

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

JA90XS125A
9FLB003376
SHAMROCK ST W &
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TALLAHASSEE, FL 32303
UTILITY POLE

SHEET TITLE
TYPICAL PEDESTRIAN / WORKER SAFETY PLAN

SHEET NUMBER
6.1

SITE ID-CANDIDATE LETTER/CASCADE ID-CANDIDATE LETTER:
9FLB003484/JA90XS495F

LATITUDE/LONGITUDE:
30.445734/-84.344063

CROSS STREET:
MERCHANTS CT & PROGRESS DR

CITY, STATE, ZIP:
TALLAHASSEE, FL 32304

IF YOU DIG IN ANY STATE DIAL 811 FOR THE LOCAL "ONE CALL CENTER" - IT'S THE LAW

THE UTILITIES SHOWN HEREON ARE FOR THE CONTRACTORS CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS. THE OWNER/SURVEYOR ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS SHOWN AND IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL THE UTILITIES WITHIN THE LIMITS OF THE WORK. ALL DAMAGE MADE TO THE (E) UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

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 (N).

SITE INFORMATION

SITE ID:	9FLB003484
CASCADE ID:	JA90XS495F
LATITUDE:	30.445734
LONGITUDE:	-84.344063
CROSS STREET:	MERCHANTS CT & PROGRESS DR
CITY, STATE, ZIP:	TALLAHASSEE, FL 32304
COUNTY:	LEON COUNTY
JURISDICTION:	TALLAHASSEE CITY
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY
APPLICANT:	MOBILITIE, LLC 3475 PIEDMONT ROAD NE, SUITE 1000 ATLANTA, GEORGIA 30305 PHONE: (312) 638-5400

ENGINEER

KMB DESIGN GROUP, LLC
1800 ROUTE 34, SUITE 208
WALL, NJ 07719
FOR QUESTIONS EMAIL: DESIGNTEAM@KMBDG.COM
TEL: (732) 280-5623 FAX: (732) 280-3980 www.KMBDG.com

DO NOT SCALE DRAWINGS

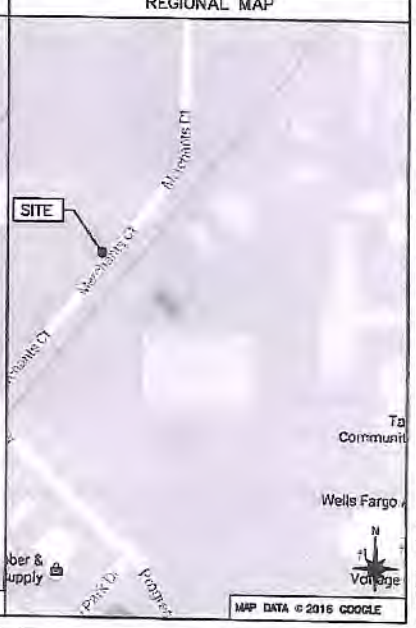
CONTRACTORS SHALL VERIFY ALL PLANS, (E) DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

LOCATION MAPS

VICINITY MAP



REGIONAL MAP



PROJECT DESCRIPTION

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

- INSTALL A NEW WOOD UTILITY POLE WITH PROPOSED BACKHAUL TRANSPORT EQUIPMENT

CODES

2015 INTERNATIONAL BUILDING CODE
2014 NATIONAL ELECTRICAL CODE
TIA/EIA-222-G-2 OR LATEST EDITION
LOCAL BUILDING/PLANNING CODE

DRAWING INDEX

SHEET NO:	SHEET TITLE
T-1	TITLE SHEET
SP-1	EXHIBIT PHOTO & SITE PLAN
EV-1	ELEVATIONS
PL-1	PLUMBING & RISER DIAGRAM
EQ-1	EQUIPMENT DETAILS
EQ-2	EQUIPMENT DETAILS
E-1	ELECTRICAL DETAILS
G-1	GROUNDING DETAILS
S-1	EMBEDMENT DETAILS
TC-1	VEHICLE TRAFFIC CONTROL PLAN
TC-2	PEDESTRIAN TRAFFIC CONTROL PLAN
GN-1	GENERAL NOTES
GN-2	GENERAL NOTES
GN-3	GENERAL NOTES
CO-1	CLOSE OUT PACKAGE

mobilitie

PROJECT NO:	9FLB003484
DRAWN BY:	RC
CHECKED BY:	SJB
A 09-25-16	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC
Stephen A. Bray
PROFESSIONAL ENGINEER
FL LICENSE: 62302 9/25/16

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PRELIMINARY

JA90XS495F
TALLAHASSEE, FL 32304
PROPOSED 72'-2" WOOD POLE

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1



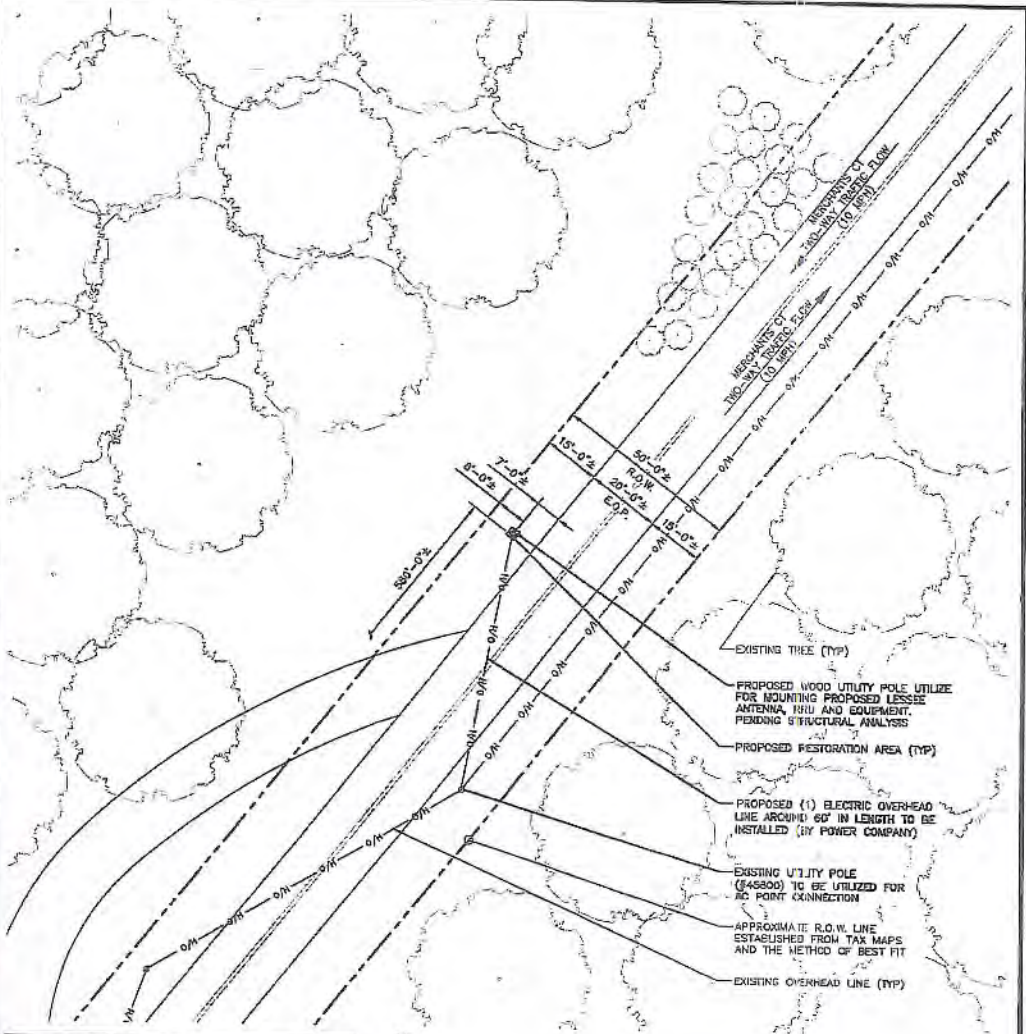
EXHIBIT PHOTO 1

SCALE: NOT TO SCALE



AERIAL SITE LOCATION 2

SCALE: NOT TO SCALE



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

ENLARGED SITE PLAN 3

SCALE: 1" = 30'-0" (1" = 15'-0" ON 22"X34" SHEET)

mobilitie

PROJECT NO:	SFL8005484
DRAWN BY:	RC
CHECKED BY:	SJB

4	09-25-18	PER CLIENT COMMENTS

KMB DESIGN GROUP, LLC
Stephen A. Bray
PROFESSIONAL ENGINEER
FL LICENSE: 66902 9/25/18

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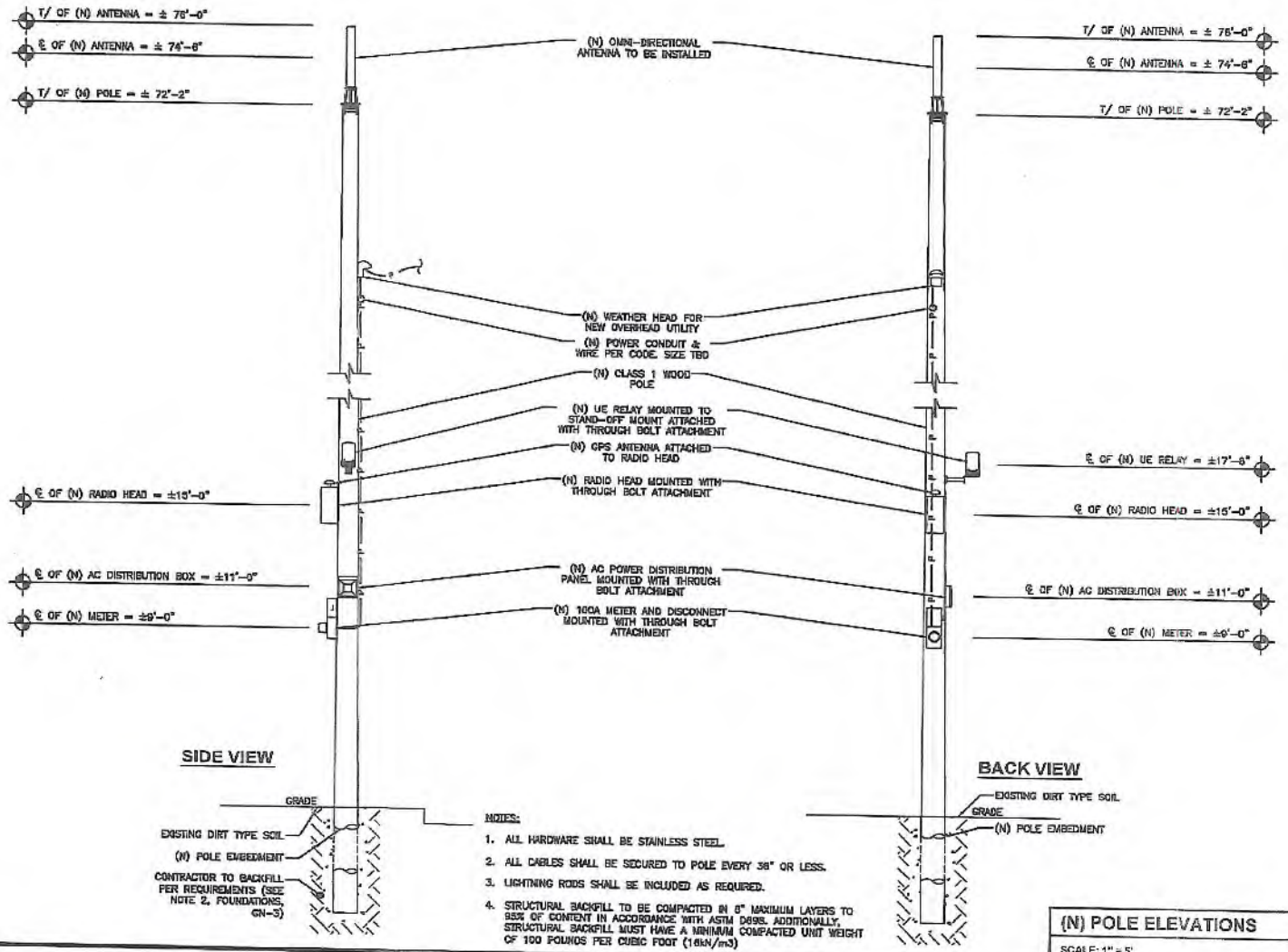
PRELIMINARY

JA90X3495F
TALLAHASSEE, FL 32304
PROPOSED 72'-2" WOOD POLE

SHEET TITLE
EXHIBIT PHOTO & SITE PLAN

SHEET NUMBER
SP-1



mobilitie

PROJECT NO:	SFL6023456
DRAWN BY:	RC
CHECKED BY:	SJB

A	09-29-16	PER CLIENT REVIEW

KMB DESIGN GROUP, LLC
Stephen A. Bray
PROFESSIONAL ENGINEER
FL LICENSE: 64302 9/29/16

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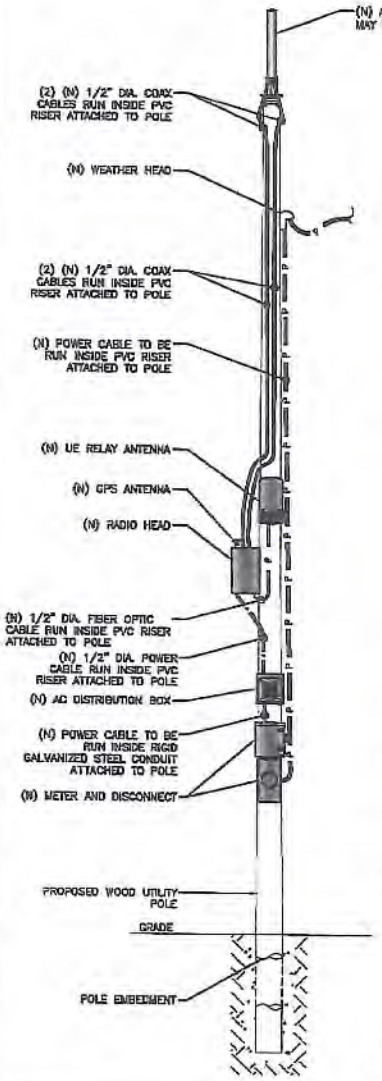
PRELIMINARY

JA90XS495F
TALLAHASSEE, FL 32304
PROPOSED 72'-2" WOOD POLE

SHEET TITLE
POLE ELEVATIONS

SHEET NUMBER
EV-1



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

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

CABLING NOTES:

A) WOOD, CONCRETE AND EXISTING METALLIC POLES
I) FROM GRADE LINE TO 11'-0" ABOVE GRADE, ALL CABLES/CONDUCTORS EXCEPT GROUNDING CONDUCTOR MUST RUN IN RIGID GALVANIZED STEEL CONDUIT (RGS)

II) GROUNDING CONDUCTORS IN EXPOSED LOCATIONS MUST BE INSTALLED IN PVC.

III) IN EARTH INSTALL PVC CONDUIT FOR BACKHAUL AND ELECTRICAL SERVICE. TRANSITION TO RGS AT GRADE LINE.

IV) ABOVE 11'-0" ALL CABLES (POWER, ETHERNET, COAXIAL) MUST RUN IN PVC UTILITY POLE RISER.

(1) AT MAJOR EQUIPMENT, EXTEND UTILITY DUCT IMMEDIATELY ADJACENT TO THE EQUIPMENT. INSTALL CABLES IN THE UTILITY POLE RISER CREATING CABLE DRIP LOOPS NOT LESS THAN THE CABLE BENDING RADIUS.

(2) INSIDE THE UTILITY POLE RISER, UTILIZE ½" COAX BLOCKS WITH LAG SCREWS TO SUPPORT COAX, RADIO AND MW POWER, RF COAX, AND ETHERNET CABLES TO WITHIN 12" OF THE EQUIPMENT BEING SERVED AND ON INTERVALS NOT TO EXCEED 6'.

V) FOR UNDERGROUND HFC/PUBLIC BACKHAUL, ROUTE ETHERNET CABLE IN CONDUIT UP THE POLE AND ENTER THE UTILITY POLE RISER. SEAL EXPOSED END OF CONDUIT WITH A CABLE TERMINATION FITTING.

VI) BY APPROVAL IN SELECT CASES LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LFMC) MAY BE USED IN LENGTHS NOT TO EXCEED 36" TO EXTEND THE ELECTRICAL SERVICE CONDUIT TO THE AC DISTRIBUTION BOX. EXAMPLE: UTILITY-REQUIRED DISCONNECT ON POLE W/ AC DISTRIBUTION BOX ON OPPOSITE SIDE OF POLE.

B) NEW METALLIC POLES

I) PROCURE NEW POLES WITH SUITABLE HAND HOLES SUCH THAT HAND HOLES EXIST AT ALL EQUIPMENT LOCATIONS.

(1) WITH CLIENT APPROVAL IN SELECT CASES TO FACILITATE IMPROVED APPEARANCE, ½" COAXIAL CABLES MAY BE "SUPERFLEX" IN LIEU OF LDF-4.

II) WHERE POSSIBLE, INSTALL POLE BASE SUCH THAT THE ELECTRICAL FEED AND BACKHAUL (IF UNDERGROUND) CIRCUIT ENTER THE POLE THROUGH THE POLE BASE. IF A DISCONNECTING MEANS SEPARATE FROM THE AC DISTRIBUTION BOX IS REQUIRED BY JURISDICTION OR UTILITY, WITH APPROVAL IN SELECT CASES LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LFMC) MAY BE USED IN LENGTHS NOT TO EXCEED 36" TO EXTEND THE ELECTRICAL SERVICE CONDUIT TO THE AC DISTRIBUTION BOX.

PLUMBING DIAGRAM

SCALE: NOT TO SCALE

1

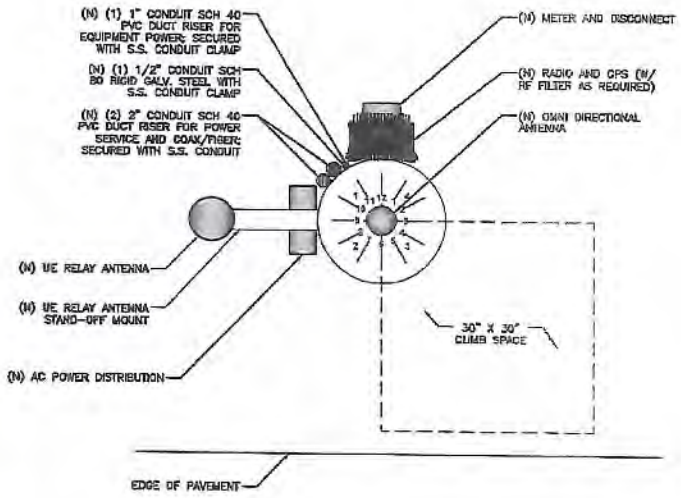
BAND 41 (2500MHz) EQUIPMENT CHART

QTY.	DESCRIPTION	MANUFACTURER	MODEL NUMBER	CABLE LENGTH	DIMENSIONS (HxWxD)	WEIGHT
1	MOUNTED ANTENNA	PLASMA ANTENNAS	LONC SC800		35.4" X 3.9" DIAMETER	11 LBS
1	UE RELAY	AIRSPAN	AIR460		12.99" X 7.87" DIAMETER	9.5 LBS
1	GPS ANTENNA	TALLYSMAN	TW3012		0.8" X 2.6" DIAMETER	0.3 LBS
1	RADIO (W/ FILTER AS REQUIRED)	AIRSPAN	AIR4000		20" X 9" X 7"	42 LBS
1	AC DISTRIBUTION	RAYCAP	RSTAC-3111-P-120		13.13" X 11.38" X 4.36"	14 LBS
1	DISCONNECT	TBD	TYPE-3R		9.8" X 8.8" X 4.5"	TBD
1	METER	MILBANK	U7021-RL-TG		15.5" X 8" X 4.33"	TBD

BILL OF MATERIALS

SCALE: NOT TO SCALE

2



RISER DIAGRAM

SCALE: NOT TO SCALE

3

mobilitie

PROJECT NO:	SFLB663484
DRAWN BY:	NC
CHECKED BY:	SJB

A	09-25-15	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC
Stephen A. Bray
PROFESSIONAL ENGINEER
FL LICENSE: 63592 9/29/15

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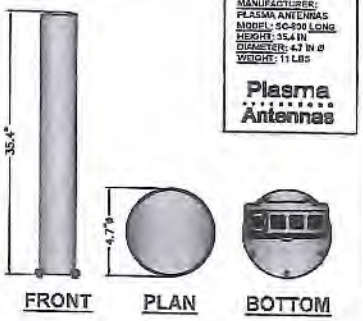
PRELIMINARY

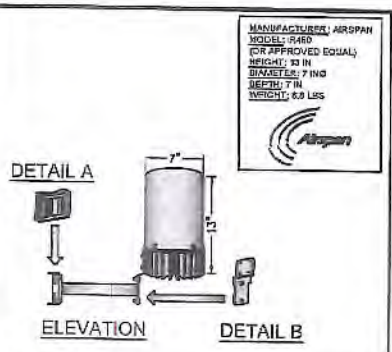
JA90XS495F
TALLAHASSEE, FL 32304
PROPOSED 72'-2" WOOD POLE

SHEET TITLE
PLUMBING & RISER DIAGRAM

SHEET NUMBER
PL-1

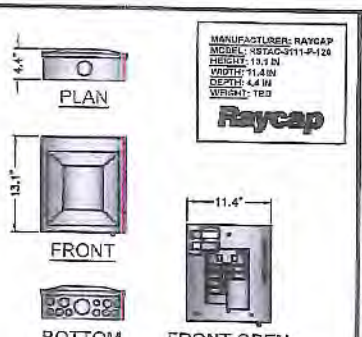


PLASMA SBA SC-800 OMNI (B41) | SCALE N.T.S. | 1

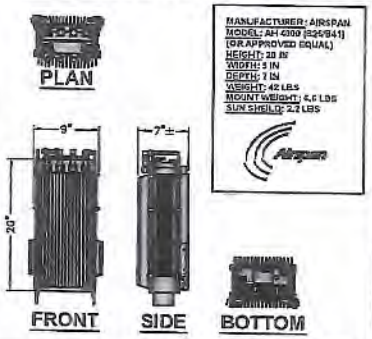


iR460 UE RELAY | SCALE N.T.S. | 4

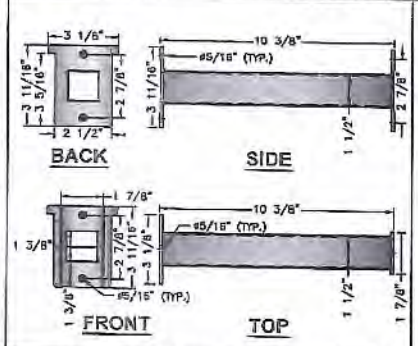
NOT USED | SCALE N.T.S. | 7



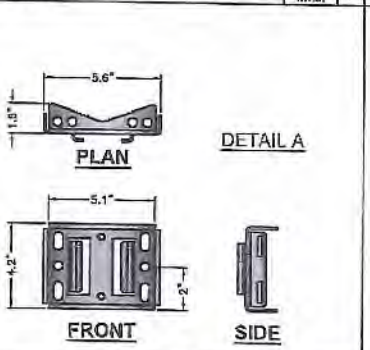
RAYCAP RSTAC-3111-P-120 | SCALE N.T.S. | 10



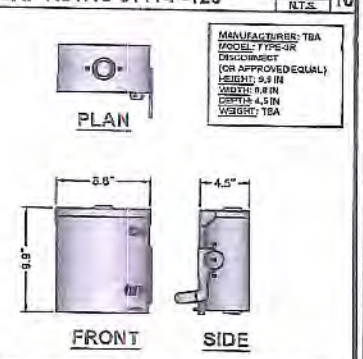
AIRSPAN RADIO AH4000 | SCALE N.T.S. | 2



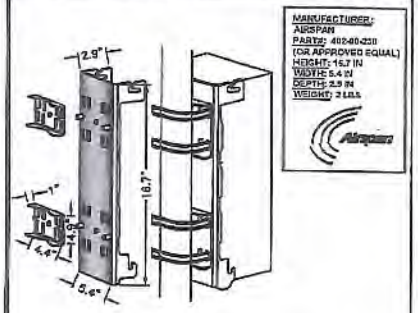
iR460 UE RELAY STAND-OFF | SCALE N.T.S. | 5



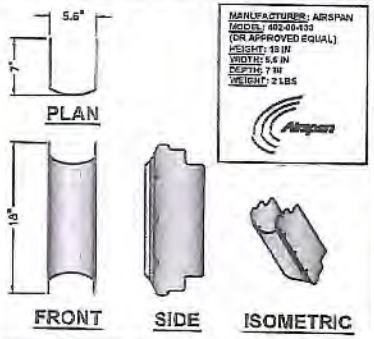
iR460 UE RELAY FLUSH MOUNT | SCALE N.T.S. | 8



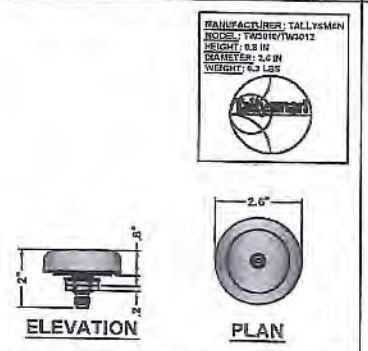
NEMA TYPE-3R DISCONNECT | SCALE N.T.S. | 11



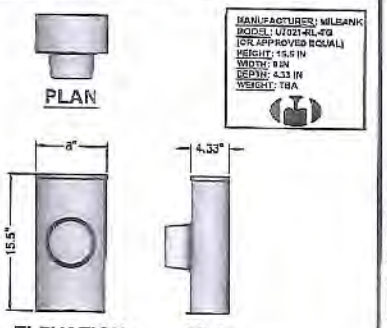
AIRSPAN RADIO MOUNT | SCALE N.T.S. | 3



AIRSPAN RADIO SUN SHIELD | SCALE N.T.S. | 6



TALLYSMAN GPS ANTENNA | SCALE N.T.S. | 9



MILBANK METER SOCKET | SCALE N.T.S. | 12

mobilitie

PROJECT NO:	SFL0803484
DRAWN BY:	RG
CHECKED BY:	SAB

A	09-25-15	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC
Stephen A. Bray
PROFESSIONAL ENGINEER
FL LICENSE: 68902 9/29/15

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

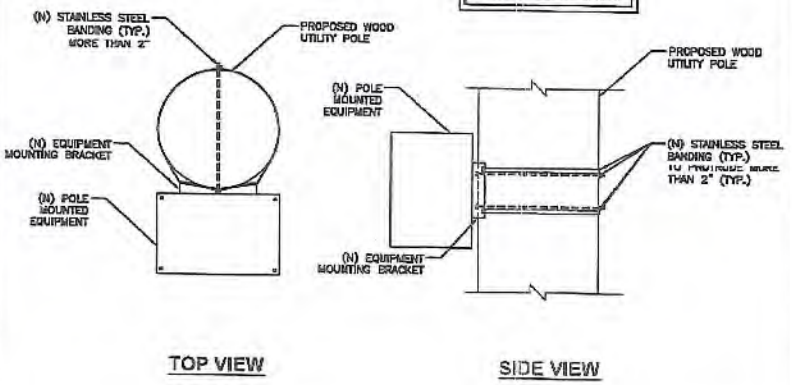
PRELIMINARY

JA90XS495F
TALLAHASSEE, FL 32304
PROPOSED 72'-2" WOOD POLE

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
EQ-1

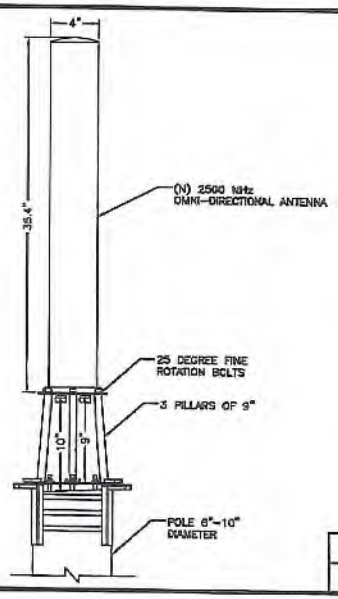
NOTE:
INSTALL BRACKETS WITH STAINLESS STEEL BANDING.



TOP VIEW SIDE VIEW

EQUIPMENT MOUNTING DETAIL 1

SCALE: NOT TO SCALE

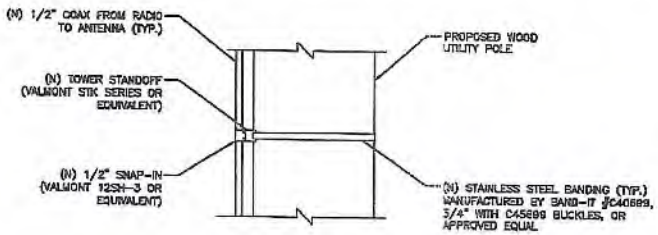


NOTE:

1. MOUNTING BRACKET ACCOMMODATES POLE SIZES FROM 5" TO 10" DIAMETER.
2. JACOBS HAS NOT PERFORMED A STRUCTURAL EVALUATION FOR THE MOUNTING BRACKET. REFER TO THE MANUFACTURER FOR ADDITIONAL INFORMATION.

ANTENNA MOUNTING DETAIL 3

SCALE: NOT TO SCALE



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

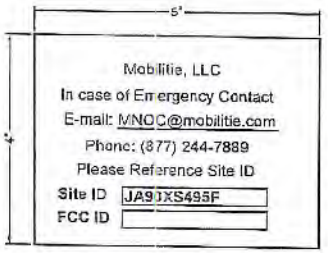
CABLE MOUNTING DETAIL 2

SCALE: NOT TO SCALE



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"

ANTENNA SIGNAGE



OWNER / OPERATOR NOTE:
SITE ID LABEL TO BE AFFIXED AT OR NEAR THE POINT OF POWER CONNECTION 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".

EMERGENCY CONTACT SIGN

POLE MOUNTED SIGNS 4

SCALE: NOT TO SCALE

mobilitie

PROJECT NO:	9FL8003484
DRAWN BY:	RC
CHECKED BY:	SJB

A	09-28-18	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC
Stephen A. Bray
PROFESSIONAL ENGINEER

FL LICENSE: 68902 9/28/18

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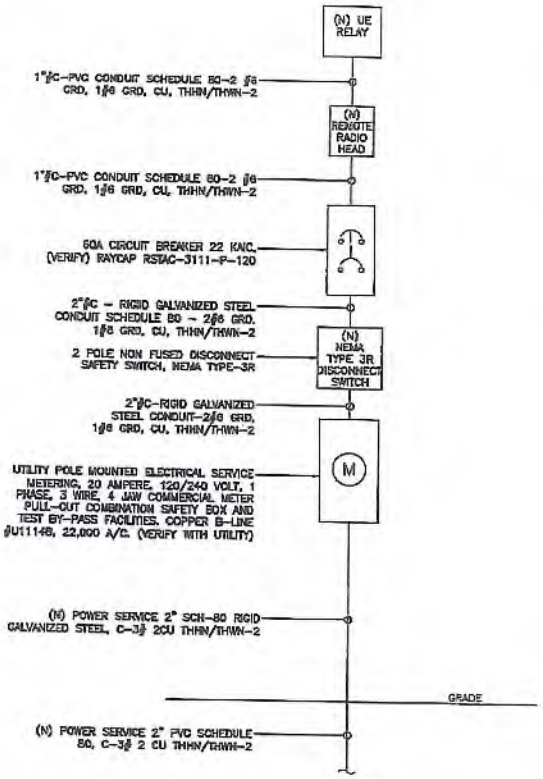
PRELIMINARY

JA90XS495F
TALLAHASSEE, FL 32304
PROPOSED 72'-2" WOOD POLE

SHEET TITLE
EQUIPMENT DETAILS

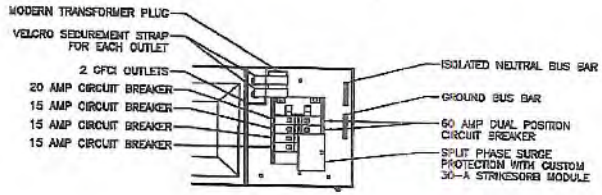
SHEET NUMBER
EQ-2



ONE-LINE DIAGRAM

SCALE: NOT TO SCALE

1



BREAKER SCHEDULE

SCALE: NOT TO SCALE

2

NOTES:

1. NOMINAL POWER IS CALCULATED AS 80% OF OEM DOCUMENTED MAXIMUM POWER.
2. CALCULATIONS FOR UE W/ NOKIA DO NOT NEED TO INCLUDE THE POWER FOR THE UE ANTENNA AS IT IS INCLUDED IN THE MAX POWER FIGURE. CALCULATIONS FOR UE W/ AIRSPAN MUST INLCUDE UE AS IT IS NOT INCLUDED
3. KVA IS CALCULATED FROM THE CONSUMPTION VALUE ASSUMING A PF=1. MAXIMUM POWER WAS USED FOR KVA. WHERE MAXIMUM WAS NOTED BY THE OEM THE QUOTED FIGURE WAS USED. WHERE AVERAGE/NOMINAL POWER WAS NOTED BY THE OEM MAXIMUM POWER WAS CALCULATED BY INCREASING AVERAGE/NOMINAL POWER BY A FACTOR OF 50%
4. COST PER KW PROVIDED BY BRIAN KOOYMAN

AIRSPAN SCENARIO 2 AH4000 HIGH POWER RADIO AND UE BACKHAUL									
UNIT	SUB DESCRIPTION	MAX POWER	NOMINAL POWER	AVERAGE POWER (W)	CONS. (W)	KVA	KWH/YR	$/YR	$/MO
AH4000	B26 & B41	N/A	N/A	340	340	0.51	2978.4	$326.43	$27.20
AIRSPAN UE RELAY	IR480-SPB-STI-P-O	N/A	N/A	20	20	0.03	175.2	$19.20	$1.60
Total					360	0.54	3153.6	$345.63	$28.80

LOAD CALCULATIONS

SCALE: NOT TO SCALE

3

mobilitie

PROJECT NO:	9FLB005404
DRAWN BY:	RC
CHECKED BY:	SJB

A	09-28-18	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC

Stephen A. Bray

PROFESSIONAL ENGINEER

FL LICENSE: 68062 9/28/18

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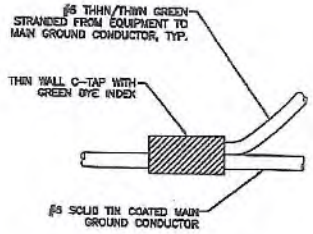
PRELIMINARY

JA90XS495F
TALLAHASSEE, FL 32304
PROPOSED 72'-2" WOOD POLE

SHEET TITLE
ELECTRICAL DETAILS

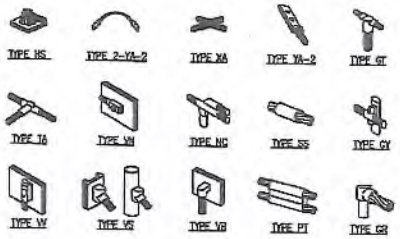
SHEET NUMBER
E-1

NOTE:
CONTRACTOR TO SURROUND COMPLETED CONNECTION WITH HEAT-SHRINK TUBING TO ENSURE WEATHER PROOF CONNECTION



C-TAP DETAIL
SCALE: NOT TO SCALE

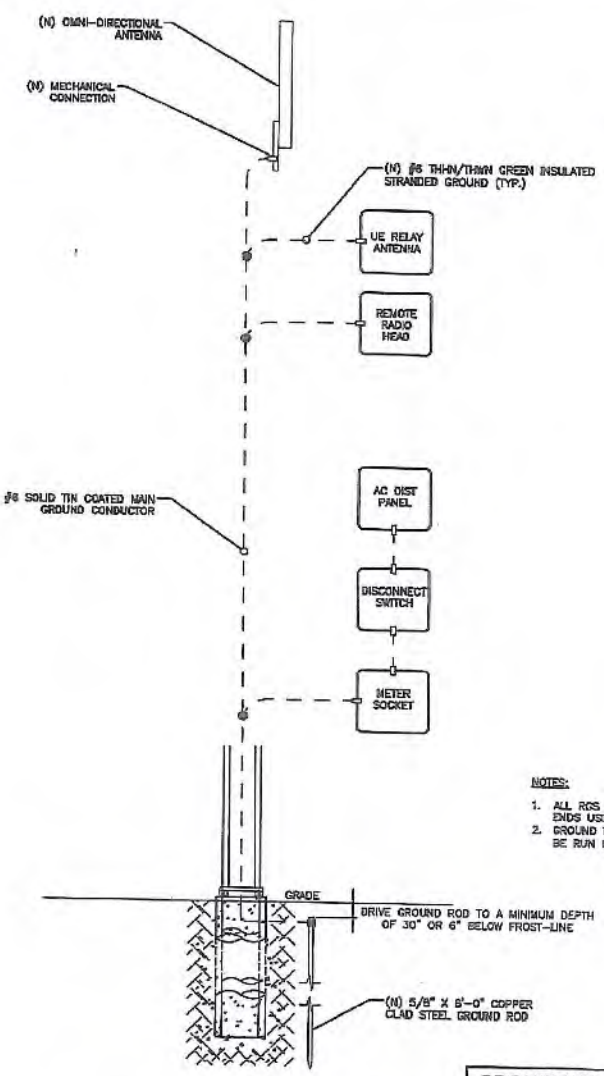
1



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

WELD CONNECTION DETAILS
SCALE: NOT TO SCALE

2



LEGEND
- CADWELD CONNECTION
- MECHANICAL CONNECTION
- COMPRESSION CONNECTION

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

NOTES:
1. ALL RGS TO BE GROUNDED AT BOTH ENDS USING GROUNDING BUSHINGS
2. GROUND WIRE BELOW 11' AGL TO BE RUN IN 1/2" SCHEDULE 40 PVC

GROUNDING RISER DIAGRAM
SCALE: NOT TO SCALE

3

mobilitie

PROJECT NO:	9FLB003484
DRAWN BY:	RC
CHECKED BY:	SJB

A	09-25-15	PER CLIENT REVIEW

KMB DESIGN GROUP, LLC
Stephen A. Bray
PROFESSIONAL ENGINEER
FL LICENSE: 68302 9/30/15

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PRELIMINARY

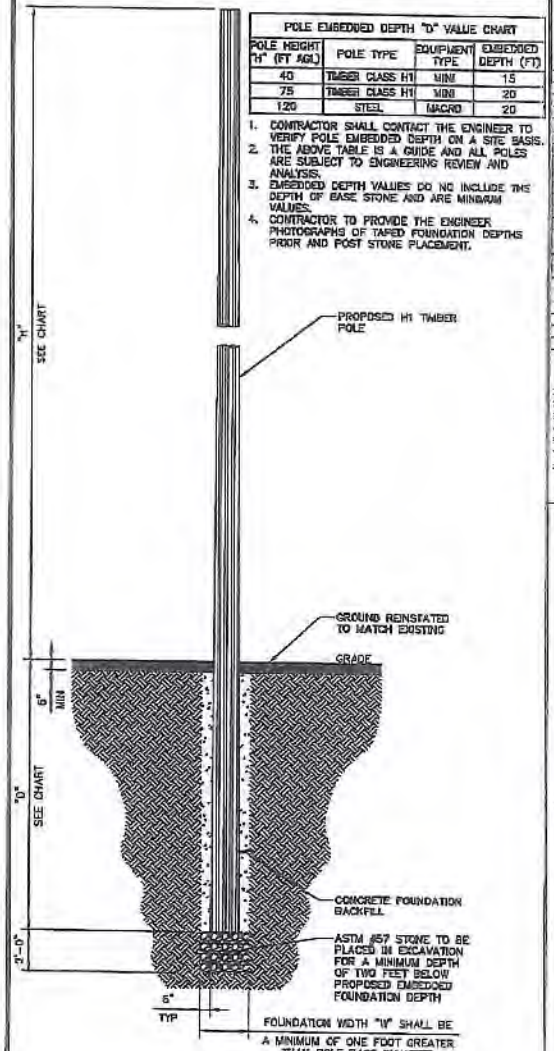
JA90XS495F
TALLAHASSEE, FL 32304
PROPOSED 72'-2" WOOD POLE

SHEET TITLE
GROUNDING DETAILS

SHEET NUMBER
G-1

POLE EMBEDDED DEPTH "D" VALUE CHART			
POLE HEIGHT "H" (FT AGL)	POLE TYPE	EQUIPMENT TYPE	EMBEDDED DEPTH (FT)
40	TIMBER CLASS H1	MINI	15
75	TIMBER CLASS H1	MINI	20
120	STEEL	MACRO	20

1. CONTRACTOR SHALL CONTACT THE ENGINEER TO VERIFY POLE EMBEDDED DEPTH ON A SITE BASIS.
2. THE ABOVE TABLE IS A GUIDE AND ALL POLES ARE SUBJECT TO ENGINEERING REVIEW AND ANALYSIS.
3. EMBEDDED DEPTH VALUES DO NO INCLUDE THE DEPTH OF BASE STONE AND ARE MINIMUM VALUES.
4. CONTRACTOR TO PROVIDE THE ENGINEER PHOTOGRAPHS OF TAPED FOUNDATION DEPTHS PRIOR AND POST STONE PLACEMENT.



H1 TIMBER POLE FOUNDATION

SCALE: NOT TO SCALE

1

KMB

Foundation Embedded Depth Matrix - Florida

(Refer to depth "D" as required)

Pole Height (ft AGL)	Wind Speed (mph)	Pole Type	Equipment Type	Power (Aerial/Underground)	Embedded Depth (ft)	Pole Length Required (ft)	Butt Diameter (in)
40	110-130	Western Red Cedar Class H3	Mini	Aerial	15	55	19.34
40	110-130	Western Red Cedar Class H3	Mini	Underground	15	55	19.34
40	130-150	Western Red Cedar Class H2	Mini	Aerial	20	60	21.31
40	130-150	Western Red Cedar Class H2	Mini	Underground	15	55	21.65
40	130-150	Concrete**	Mini	Underground	15	55	25.7
40	130-150	Steel - Mobilitie C-1.50ft	Mini	Aerial	15	55	21.3875
40	130-150	Steel - Mobilitie C-1.50ft	Mini	Underground	15	55	21.3875
40	120-150	Western Red Cedar Class H1	Mini	Aerial	15	55	21.3875
40	120-150	Western Red Cedar Class H1	Mini	Underground	15	55	23.34
75	120-150	Western Red Cedar Class H1	Mini	Aerial	15	55	25.34
75	120-150	Western Red Cedar Class H1	Mini	Underground	15	55	23.86
75	120-150	Concrete	Mini	Aerial	15	55	27.85
75	120-150	Concrete	Mini	Underground	15	55	25.7
75	120-150	Steel - Mobilitie C-1.50ft	Mini	Aerial	15	55	25.7
75	120-150	Steel - Mobilitie C-1.50ft	Mini	Underground	15	55	21.3875
40	90-120	Western Red Cedar Class H1	Mini	Aerial	15	55	21.3875
40	90-120	Western Red Cedar Class H1	Mini	Underground	15	55	21.34
75	90-120	Western Red Cedar Class H1	Mini	Aerial	15	55	25.34
75	90-120	Western Red Cedar Class H1	Mini	Underground	15	55	21.65
75	90-120	Concrete	Mini	Aerial	15	55	25.7
75	90-120	Concrete	Mini	Underground	15	55	25.7
75	90-120	Steel - Mobilitie C-1.50ft	Mini	Aerial	15	55	25.7
75	90-120	Steel - Mobilitie C-1.50ft	Mini	Underground	15	55	21.3875

Notes:

1) Contractor shall contact one call to verify pole embedded depth on a site by site basis.
2) The above table is a guide and all poles are subject to engineering review and analysis.
3) Embedded depth values do not include the depths of base stone and are minimum values.
4) Contractor to provide the engineer photographs of taped foundation depths pre and post stone placement.
5) Timber pole dimensions based on ANSI 05.1.2008 as provided by Mobilitie
* Concrete pole can only be used for antenna and power supply - no overhead pole power attachment. Pole fails for overhead power at 130 mph wind speed. If this pole is required for aerial attachment, a new engineering analysis is required.

FOUNDATION EMBEDDED DEPTH MATRIX - FLORIDA

SCALE: NOT TO SCALE

2

IF YOU DIG IN ANY STATE DIAL 811 FOR THE LOCAL "ONE CALL CENTER" – IT'S THE LAW

THE UNDERGROUND UTILITIES SHOWN HEREON ARE FOR THE CONTRACTOR'S CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS. THE OWNER'S REPRESENTATIVE ASSUMES NO RESPONSIBILITY FOR THE UTILITIES SHOWN AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL THE UTILITIES WITHIN THE LIMITS OF THE WORK. ALL DAMAGE DUE TO THE UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

GENERAL NOTES:

1) CONTRACTOR SHALL PROVIDE A DETAILED METHOD OF PROCEDURE (MOP) TO THE ENGINEER OF RECORD FOR REVIEW PRIOR TO MOBILIZING TO THE SITE AND COMMENCING ANY CONSTRUCTION ACTIVITIES. THE MOP SHALL ENSURE ALL APPROPRIATE CODES OF PRACTICE ARE FOLLOWED IN ACCORDANCE WITH OSHA FOR ALL ACTIVITIES. FACTORS THAT SHALL BE CONSIDERED INCLUDE BUT ARE NOT LIMITED TO:

a. TRANSPORTATION OF ALL MATERIALS AND EQUIPMENT
b. PPE
c. MATERIALS AND EQUIPMENT STAGING
d. TRAFFIC CONTROL
e. CONTAINMENT OF DRILL SLURRY FLUIDS
f. TEMPORARY WORKS SUPPORT FOR DRILL EQUIPMENT AND POLE

2) CONTRACTOR SHALL ENSURE THAN AN 811 UTILITY MARK OUT HAS BEEN COMPLETED AND THAT ALL BELOW AND ABOVE GROUND UTILITIES ARE DOCUMENTED.

3) THIS DRAWING SUPPLEMENTS THE GENERAL CONSTRUCTION DRAWINGS FOR THE PROJECT AND SHALL BE READ IN CONJUNCTION WITH THE PE SIGNED AND SEALED CONSTRUCTION DRAWINGS BY KMB DESIGN GROUP, LLC REVISED TO STATE "ISSUED FOR CONSTRUCTION"

4) CONTRACTOR SHALL COMPLY WITH ALL RELEVANT SECTIONS OF 2015 INTERNATIONAL BUILDING CODE CHAPTER 18 AND THE USDOT FAA DRILLED SHAFT CONSTRUCTION PROCEDURES.

CONCRETE:

1) DRILLED SHAFTS SHALL BE FILLED WITH CLASS B-2 CONCRETE. AN AIR ENTRAINMENT ADMIXTURE SHALL BE USED. IN ADDITION A HIGH RANGE WATER-REDUCING ADMIXTURE MAY BE USED TO INCREASE THE SLUMP TO A MAXIMUM OF 9 INCHES ± 1 INCH. IF USED, THE WATER-REDUCING ADMIXTURE SHALL BE ADDED ONLY AFTER THE CONCRETE HAS REACHED THE JOB SITE TO REDUCE THE POTENTIAL FOR FLASH SETTING. THE CONCRETE MIX SHALL BE DENSE, HOMOGENEOUS, FLUID AND RESISTANT TO SEGREGATION, AND SHALL CONSOLIDATE UNDER SELF-WEIGHT. THE CONCRETE MIX SHALL HAVE A SET TIME THAT ENSURES THAT FLUIDITY IS MAINTAINED THROUGHOUT THE SHAFT CONCRETE PLACEMENT AND REMOVAL OF TEMPORARY CASING. IF USED, A CONCRETE RETARDER IN ACCORDANCE WITH AASHTO M 194, TYPE B, MAY BE INCORPORATED INTO THE MIX TO RETARD SET APPROXIMATELY TWO HOURS.

2) IN SITUATIONS WITH EXCESSIVE GROUND WATER OR FOUNDATION FLOODING ALL CONCRETE SHALL BE PLACED USING THE TREMIE METHOD. CONCRETE MIX DESIGN SHALL FOLLOW ACI 211.1 GUIDELINES. CONTRACTOR SHALL ENSURE THAT THE DRILLED SHAFT HAS SUFFICIENT WORKING ACCESS FOR CONCRETE PLACEMENT COMMENCING AT THE BASE OF THE SHAFT AND SHALL BE PLACE IN A SLOW AND STEADY RATE. CONCRETE SHALL NOT BE PERMITTED TO FALL INTO THE SHAFT.

3) CONCRETE MIX ALONG WITH APPROVED ACCELERATORS SHALL BE DESIGNED TO PROVIDE AN INITIAL COMPRESSIVE STRENGTH OF 3,000 PSF WITHIN 8HRS AND A 28 DAY COMPRESSIVE STRENGTH OF 5,000 PSI. CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A DETAILED CONCRETE MIX DESIGN FROM THE CONCRETE PLANT INCLUDING ALL PROPOSED ADDITIVES. A SUITABLE STRENGTH RAPID HARDENING ADMIXTURE IS SIKA RAPID-1. THIS ADDITIVE MIGHT NOT BE SUITABLE FOR ALL CIRCUMSTANCES AND ANY PRODUCT SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

GENERAL NOTES

SCALE: NOT TO SCALE

3

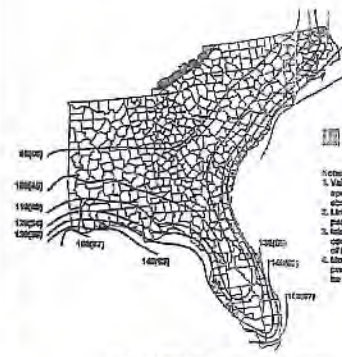


FIGURE 26.5-1B BASIC WIND SPEEDS WITHOUT ICE, V, mph (m/s)

BASIC WIND SPEED WITHOUT ICE

SCALE: NOT TO SCALE

4

mobilitie

PROJECT NO:	SFL0003424
DRAWN BY:	BC
CHECKED BY:	SJB

1	10-26-18	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC

Stephen A. Bray

PROFESSIONAL ENGINEER

FL LICENSE: 69393 — 9/25/19

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.

PRELIMINARY

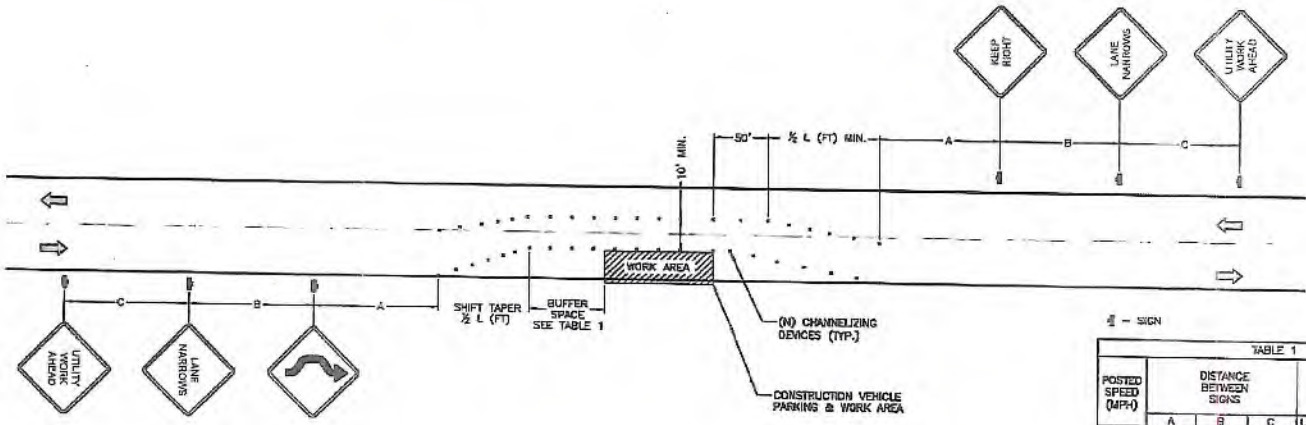
JA30XS495F
TALLAHASSEE, FL 32304
PROPOSED 72'-2" WOOD POLE

SHEET TITLE
POLE FOUNDATION DETAILS

SHEET NUMBER
S-1

PLAN NOTES:

1. PLANS DEPICTED ARE GENERAL GUIDELINES FOR TEMPORARY TRAFFIC CONTROL PLANS (TCP) TO INCLUDE PEDESTRIAN AND WORKER SAFETY. CONTRACTOR IS REQUIRED TO HAVE PREPARED A SITE-SPECIFIC TCP FOR REVIEW AND APPROVAL BY THE HIGHWAY AUTHORITY HAVING JURISDICTION. IF REQUIRED, THE FIRM PREPARING THE TCP SHALL BE AUTHORIZED OR CERTIFIED BY THE AUTHORITY HAVING JURISDICTION.
2. EXTEND CHANNELIZATION DEVICES INTO SHOULDER WHERE APPLICABLE.
3. DISTANCES AS INDICATED IN TABLE 1 SHOULD BE INCREASED FOR CONDITIONS THAT WOULD AFFECT STOPPING. DISTANCE SUCH AS DOWNGRADES OR LIMITED SIGHT DISTANCES. DISTANCES CAN BE DECREASED FOR LOW-SPEED (RESIDENTIAL) AREAS WITH APPROVAL BY THE AUTHORITY HAVING JURISDICTION. NIGHT-TIME WORK IS PROHIBITED UNLESS IT IS REQUIRED AS A CONDITION OF APPROVAL BY THE HIGHWAY AND LOCAL AUTHORITY HAVING JURISDICTION.
4. SHOULDER TAPERS SHOULD BE 1/3 OF THE ON-STREET TAPER LENGTH.
5. MAINTAIN A MINIMUM LANE WIDTH OF 10'.
6. CONTRACTOR IS REQUIRED TO INPUT ALL LANE CLOSURES ON A STATE HIGHWAY IN THE LANE CLOSURE INFORMATION SYSTEM (HTTPS://LCIS.DOT.STATE.FL.US) 14 DAYS PRIOR TO THE CLOSURE.



◁ – SIGN

TABLE 1

POSTED SPEED (MPH)	DISTANCE BETWEEN SIGNS			TAPER	BUFFER
	A	B	C	L (SEE NOTE)	
15	100'	100'	100'	45'	100'
20	100'	100'	100'	80'	115'
25	100'	100'	100'	125'	155'
30	200'	200'	200'	180'	200'
35	200'	200'	200'	245'	250'
40	350'	350'	350'	320'	305'
45	350'	350'	350'	540'	380'
50	500'	500'	500'	600'	425'
55	500'	500'	500'	660'	465'
60	500'	500'	500'	720'	570'
65	500'	500'	500'	780'	645'

NOTES:

A) DISTANCES IN FEET UNLESS OTHERWISE NOTED.
B) CONTRACTOR TO VERIFY (E) SPEED LIMIT.
C) DISTANCES SHOWN ARE NOT VALID FOR LIMITED ACCESS HIGHWAYS. CONSULT STATE DOT MANUAL FOR DISTANCES.
D) ADJUST DISTANCES TO COMPLY WITH REQUIREMENT OF THE STATE OR LOCAL HIGHWAY AUTHORITY HAVING JURISDICTION. SEE NOTE 1, SHEET 6.1.
E) TAPER LENGTHS SHOWN BASED ON 12' LANE WIDTH. SEE NOTE 1B, SHEET 6.1.

TRAFFIC CONTROL PLAN - LANE SHIFT

SCALE: NOT TO SCALE

1

mobilitie

PROJECT NO:	SFLS003464
DRAWN BY:	RC
CHECKED BY:	SJB

A	09-23-16	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC
Stephen A. Bray
PROFESSIONAL ENGINEER
FL LICENSE: 68902 9/28/16
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PRELIMINARY

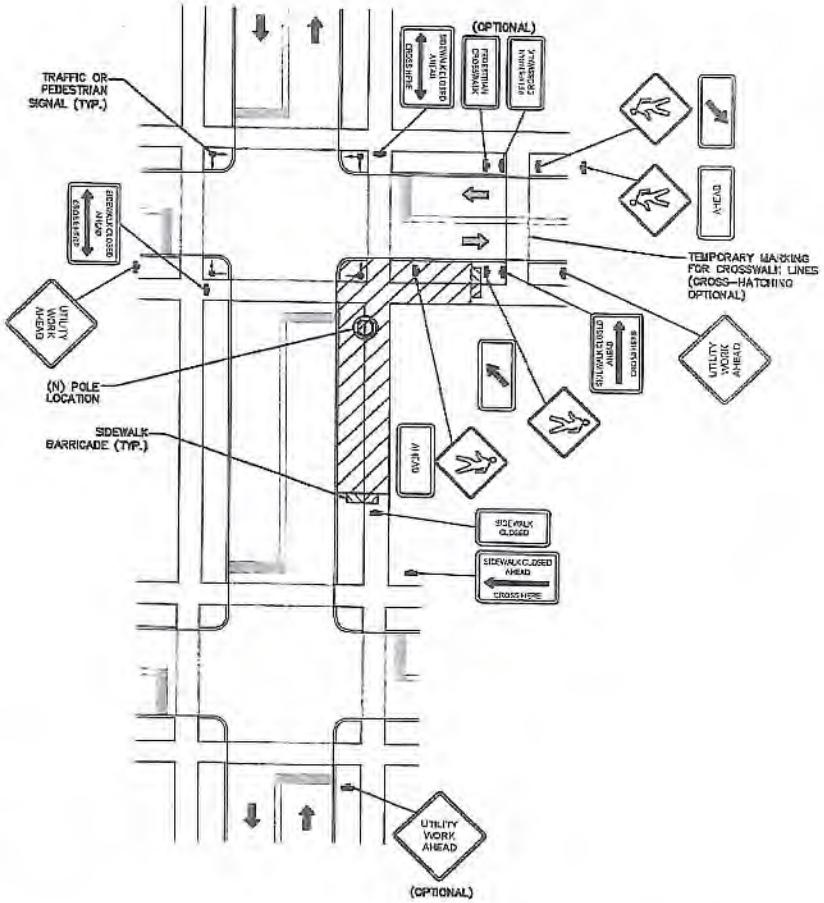
JA90XS485F
TALLAHASSEE, FL 32304
PROPOSED 72'-2" WOOD POLE

SHEET TITLE
TRAFFIC CONTROL NOTES

SHEET NUMBER
TC-1

TRAFFIC CONTROL GENERAL NOTES

1. ALL TEMPORARY TRAFFIC CONTROL SIGNAGE, LAYOUTS AND PROCEDURES SHALL COMPLY WITH LOCAL JURISDICTIONAL REQUIREMENTS AND MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION, WHICHEVER IS MORE STRINGENT.
2. PRIOR TO ANY ROAD CONSTRUCTION, TRAFFIC CONTROL SIGNS AND DEVICES SHALL BE IN PLACE.
3. TRAFFIC CONTROL DEVICES FOR LANE CLOSURES INCLUDING SIGNS, CONES, 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.
4. SELECTION, PLACEMENT, MAINTENANCE, AND PROTECTION OF TRAFFIC, PEDESTRIANS, AND WORKERS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) – PART VI "TEMPORARY TRAFFIC CONTROL", AND LOCAL JURISDICTIONAL REQUIREMENTS UNLESS OTHERWISE NOTED IN THE PLANS AND SPECIFICATIONS, AND SHALL BE APPROVED BY THE APPROPRIATE HIGHWAY AUTHORITY HAVING JURISDICTION.
5. ADVANCE WARNING SIGNS, DISTANCES, AND TAPER LENGTHS MAY BE EXTENDED TO ADJUST FOR REDUCED VISIBILITY DUE TO HORIZONTAL AND VERTICAL CURVATURE OF THE ROADWAY AND FOR ACTUAL TRAFFIC SPEEDS IF IN EXCESS OF POSTED SPEED LIMITS.
6. TAPERS SHALL BE LOCATED TO MAXIMIZE THE VISIBILITY OF THEIR TOTAL LENGTH.
7. CONFLICTING OR NON-OPERATING SIGNAL INDICATIONS ON THE (E) TRAFFIC SIGNAL SYSTEMS SHALL BE BAGGED OR COVERED.
8. ALL (E) ROAD SIGNS, PAVEMENT MARKINGS AND/OR PLOWABLE PAVEMENT REFLECTORS WHICH CONFLICT WITH THE (N) TRAFFIC CONTROL PLAN SHALL BE COVERED, REMOVED, OR RELOCATED. ALL TRAFFIC CONTROL DEVICES SHALL BE RESTORED TO MATCH PRE-CONSTRUCTION CONDITION AFTER COMPLETION OF WORK.
9. CONTRACTOR SHALL CONTACT LOCAL AUTHORITY HAVING HIGHWAY JURISDICTION AND PROVIDE ADDITIONAL "FLAGMEN" OR POLICE SUPERVISION, IF REQUIRED.
10. ALL EXCAVATED AREAS WITHIN OR ADJACENT TO THE ROADWAY SHALL BE BACKFILLED AND PLACED ON A MINIMUM 6H:1V SLOPE PRIOR TO END OF EACH WORK DAY. OTHER EXCAVATED AREAS WITHIN THE CLEAR ZONE ARE TO BE EITHER BACKFILLED OR PRECAST CONCRETE CURB BARRIER CONSTRUCTION BARRIER SET TEMPORARILY IN PLACE TO SHIELD VEHICULAR AND PEDESTRIAN TRAFFIC.
11. WHERE DICTATED BY LOCAL CONDITIONS, THE CONTRACTOR SHALL MAKE PROVISIONS FOR MAINTAINING PEDESTRIAN AND WORKER CROSSING LOCATIONS IN ACCORDANCE WITH ALL APPLICABLE CODES AND OSHA REQUIREMENTS.
12. CONSTRUCTION ZONE SPEED LIMIT IF REDUCED FROM POSTED LIMITS SHALL BE IN ACCORDANCE WITH MUTCD AND WILL BE DETERMINED BY THE AUTHORITY HAVING JURISDICTION.
13. THERE SHALL BE NO WORKERS, EQUIPMENT, OR OTHER VEHICLES IN THE BUFFER SPACE OR THE ROLL AHEAD SPACE.
14. DRIVEWAYS AND/OR SIDE STREETS ENTERING THE ROADWAY AFTER THE FIRST ADVANCE WARNING SIGN SHALL BE PROVIDED WITH AT LEAST ONE W20-1 SIGN (ROAD WORK AHEAD) AS A MINIMUM.
15. CONES MAY BE SUBSTITUTED FOR DRUMS AND INSTALLED UPON THE APPROVAL OF THE AUTHORITY HAVING JURISDICTION PROVIDED THEY COMPLY WITH MUTCD.
16. THE SPACING BETWEEN CONES, TUBULAR MARKERS, VERTICAL PANELS, DRUMS, AND BARRICADES SHOULD NOT EXCEED A DISTANCE IN FEET EQUAL TO 1.0 TIMES THE SPEED LIMIT IN MPH WHEN USED FOR TAPER CHANNELIZATION, AND A DISTANCE IN FEET EQUAL TO 2.0 TIMES THE SPEED LIMIT IN MPH WHEN USED FOR TANGENT CHANNELIZATION.
17. WHEN CHANNELIZATION DEVICES HAVE THE POTENTIAL OF LEADING VEHICULAR TRAFFIC OUT OF THE INTENDED VEHICULAR TRAFFIC SPACE, THE CHANNELIZATION DEVICES SHOULD BE EXTENDED A DISTANCE IN FEET OF 2.0 TIMES THE SPEED LIMIT IN MPH BEYOND THE DOWNSTREAM END OF THE TRANSITION AREA.
18. TAPER LENGTHS ARE CALCULATED AS FOLLOWS:
L= $WS^2/60$ (40 MPH AND HIGHER) OR L2= WS (OVER 40 MPH),
WHERE W= OFFSET WIDTH (FT), S= TRAFFIC SPEED (MPH).



TYPICAL PEDESTRIAN / WORKER SAFETY PLAN

SCALE: NOT TO SCALE

1

mobilitie

PROJECT NO:	BFLB003894
DRAWN BY:	RC
CHECKED BY:	SJB

A	03-25-16	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC
Stephen A. Bray
PROFESSIONAL ENGINEER
FL LICENSE: 68202 03/25/16

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PRELIMINARY

JAX0XS493F
TALLAHASSEE, FL 32304
PROPOSED 72'-2" WOOD POLE

SHEET TITLE
PEDESTRIAN TRAFFIC CONTROL PLAN

SHEET NUMBER
TC-2

GENERAL CONSTRUCTION NOTES:

1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE LOCAL BUILDING CODE, THE LATEST ADOPTED EDITION AND ALL OTHER APPLICABLE CODES AND ORDINANCES.

2. CONTRACTOR SHALL CONSTRUCT SITE IN ACCORDANCE WITH THESE DRAWINGS AND LATEST MOBILITIE CONSTRUCTION STANDARDS. THE SPECIFICATION IS THE RULING DOCUMENT AND ANY DISCREPANCIES BETWEEN THE SPECIFICATION AND THE CONSTRUCTION DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER OR MOBILITIE CM PRIOR TO THE COMMENCEMENT OF WORK.

3. CONTRACTOR SHALL VISIT THE JOB SITE AND SHALL FAMILIARIZE THEMSELVES WITH ALL CONDITIONS AFFECTING THE (N) WORK AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED, AS SHOWN, PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER OR MOBILITIE CM PRIOR TO THE COMMENCEMENT OF WORK. NO COMPENSATION WILL BE AWARDED BASED ON CLAIM OF LACK OF KNOWLEDGE OF FIELD CONDITIONS.

4. IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. CONTRACTOR IS REQUIRED TO FURNISH AND INSTALL ANY/ALL ITEMS FOR A COMPLETE AND FULLY FUNCTIONAL SYSTEM SUBJECT ONLY TO OWNER-SUPPLIED ITEMS. CONTRACTOR SHALL PROVIDE ANY/ALL REQUIREMENTS FOR THE EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.

5. PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT AND APPURTENANCES, AND LABOR NECESSARY TO EFFECT ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS. OWNER PROVIDED AND CONTRACTOR INSTALLED MATERIALS WILL INCLUDE THE FOLLOWING, UNLESS NOTED OTHERWISE:

   A) TRANSMITTER
   B) UHF ANTENNA AND MOUNTING BRACKETS, GPS ANTENNAS AND KU ANTENNAS
   C) UHF COAX AND HANGERS
   D) INTEGRATED LOAD CENTER

6. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS. SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, (E) CONDITIONS AND/OR DESIGN INTENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPORTING ANY DISCREPANCIES TO THE ATTENTION OF THE MOBILITIE CM IN WRITING, PRIOR TO THE COMMENCEMENT OF WORK.

7. DETAILS PROVIDED ARE FOR THE PURPOSE OF SHOWING DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR SITE CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.

8. CONTRACTOR SHALL PAY FOR APPLICABLE PERMITS, FEES, INSPECTIONS AND TESTING. CONTRACTOR IS TO OBTAIN PERMITS AND APPROVED SUBMITTALS PRIOR TO ORDERING MATERIALS AND THE COMMENCEMENT OF WORK.

9. THE TERM "PROVIDE" USED IN CONSTRUCTION DOCUMENTS AND SPECIFICATIONS, INDICATES THAT THE CONTRACTOR SHALL FURNISH AND INSTALL.

10. CONTRACTOR SHALL RECEIVE CLARIFICATION IN WRITING, AND SHALL RECEIVE IN WRITING AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEMS NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.

11. CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING ACCEPTED INDUSTRY-STANDARD SKILLS AND ATTENTION. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER CONTRACT, UNLESS OTHERWISE NOTED.

12. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFORM TO ALL OSHA REQUIREMENTS.

13. CONTRACTOR SHALL COORDINATE THEIR WORK WITH THE MOBILITIE CM AND SCHEDULE THEIR ACTIVITIES AND WORKING HOURS IN ACCORDANCE WITH THE REQUIREMENTS.

14. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THEIR WORK WITH THE WORK OF OTHERS AS IT MAY RELATE TO RADIO EQUIPMENT, ANTENNAS AND ANY OTHER PORTIONS OF THE WORK.

15. CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS UNLESS SPECIFICALLY OTHERWISE INDICATED OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.

16. CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT (E) SURFACES, EQUIPMENT, IMPROVEMENTS, PIPING ETC. AND IMMEDIATE REPAIR, TO NEW CONDITION, ANY DAMAGE THAT OCCURS DURING CONSTRUCTION AT THE SOLE COST OF THE CONTRACTOR.

17. IN DRILLING HOLES, OR CORING, INTO CONCRETE WHETHER FOR FASTENING OR ANCHORING PURPOSES, OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, PIPE RUNS, ETC., MUST BE CLEARLY UNDERSTOOD THAT REINFORCING STEEL SHALL NOT BE DRILLED INTO, CUT OR DAMAGED UNDER ANY CIRCUMSTANCES (UNLESS NOTED OTHERWISE). LOCATIONS OF REINFORCING STEEL ARE NOT DEFINITELY KNOWN AND THEREFORE MUST BE LOCATED BY THE CONTRACTOR USING APPROPRIATE METHODS AND EQUIPMENT PRIOR TO ANY DRILLING OR CORING OPERATIONS IN (E) CONCRETE.

18. CONTRACTOR SHALL REPAIR, TO NEW CONDITION, ALL (E) WALL SURFACES DAMAGED DURING CONSTRUCTION SUCH THAT THEY MATCH AND BLEND IN WITH ADJACENT SURFACES.

19. CONTRACTOR SHALL SEAL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES OR MATERIALS WITH U.L. LISTED AND FIRE CODE APPROVED MATERIALS AND SYSTEMS THAT MEET OR EXCEED THE RATING OF THE ASSEMBLY IN WHICH THE NEW PENETRATION IS PLACED.

20. CONTRACTOR SHALL KEEP CONTRACT AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS, AND RUBBISH. EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY OF THE OWNER SHALL BE REMOVED. LEAVE PREMISES IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL ITEMS UNTIL COMPLETION OF CONSTRUCTION.

21. MINIMUM BEND RADIUS OF ANTENNA CABLES SHALL BE IN ACCORDANCE WITH CABLE MANUFACTURERS RECOMMENDATIONS.

22. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO (E) SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION SHALL BE IN CONFORMANCE WITH JURISDICTIONAL OR STATE AND LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL AND COORDINATED WITH LOCAL REGULATORY AUTHORITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ANY EROSION CONTROL MEASURES, RECORD-KEEPING, MONITORING, AND REPORTING TO THE OWNER AND REGULATORY AUTHORITIES.

23. ALL CONSTRUCTION WORK IS TO ADHERE TO APPLICANT'S INTEGRATED CONSTRUCTION STANDARDS UNLESS STATE OR LOCAL CODE IS MORE STRINGENT.

24. THE INTENT OF THE PLANS AND SPECIFICATIONS IS TO PERFORM THE CONSTRUCTION IN ACCORDANCE PER STATE BUILDING STANDARDS CODE AND STATE CODE OF REGULATIONS. SHOULD ANY CONDITIONS DEVELOP NOT COVERED BY THE APPROVED PLANS AND SPECIFICATIONS WHEREIN THE FINISHED WORK WILL NOT COMPLY PER STATE CODE OF REGULATIONS, A SCOPE OF WORK DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY THE JURISDICTION BEFORE PROCEEDING WITH THE WORK. A CHANGE ORDER FOR THAT SCOPE SHALL BE SUBMITTED TO THE MOBILITIE CM PRIOR TO PROCEEDING WITH THE WORK.

25. ADEQUATE AND REQUIRED LIABILITY INSURANCE SHALL BE PROVIDED BY THE CONTRACTOR FOR PROTECTION AGAINST PUBLIC LOSS AND ANY/ALL PROPERTY DAMAGE FOR THE DURATION OF WORK.

26. CONTRACTOR SHALL GUARANTEE ANY/ALL MATERIALS AND WORK FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM DATE OF ACCEPTANCE. ANY CORRECTIVE WORK SHALL BE COMPLETED AT THE SOLE COST OF THE CONTRACTOR.

ELECTRICAL NOTES:

1. ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL ANY/ALL ELECTRICAL WORK INDICATED. ANY/ALL CONSTRUCTION SHALL BE IN ACCORDANCE W/DRAWINGS AND ANY/ALL APPLICABLE SPECIFICATIONS. IF ANY PROBLEMS ARE ENCOUNTERED BY COMPLYING WITH THESE REQUIREMENTS, CONTRACTOR SHALL NOTIFY MOBILITIE CM AS SOON AS POSSIBLE, AFTER THE DISCOVERY OF THE PROBLEMS, AND SHALL NOT PROCEED WITH THAT PORTION OF WORK, UNTIL THE MOBILITIE CM HAS DIRECTED THE CORRECTIVE ACTIONS TO BE TAKEN.

2. ELECTRICAL CONTRACTOR SHALL VISIT THE JOB SITE AND FAMILIARIZE THEMSELF WITH ANY/ALL CONDITIONS AFFECTING ELECTRICAL AND COMMUNICATION INSTALLATION AND MAKE PROVISIONS AS TO THE COST THEREOF. ALL (E) CONDITIONS OF ELECTRICAL EQUIP., ETC., THAT ARE PART OF THE FINAL SYSTEM, SHALL BE VERIFIED BY THE CONTRACTOR, PRIOR TO THE SUBMITTING OF THEIR BID. FAILURE TO COMPLY WITH THIS PARAGRAPH WILL IN NO WAY RELIEVE CONTRACTOR OF PERFORMING ALL WORK NECESSARY FOR A COMPLETE AND WORKING SYSTEM.

3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE NEC, ALL CODES AND ORDINANCES OF THE LOCAL JURISDICTION, AND POWER & TELEPHONE COMPANIES HAVING JURISDICTION AND SHALL INCLUDE BUT ARE NOT BE LIMITED TO:

   A) UL – UNDERWRITERS LABORATORIES
   B) NEC – NATIONAL ELECTRICAL CODE
   C) NEMA – NATIONAL ELECTRICAL MANUFACTURERS ASSOC.
   D) OSHA – OCCUPATIONAL SAFETY AND HEALTH ACT
   E) SBC – STANDARD BUILDING CODE
   F) NFPA – NATIONAL FIRE PROTECTION AGENCY
   G) ANSI – AMERICAN NATIONAL STANDARDS INSTITUTE
   H) IEEE – INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
   I) ASTM – AMERICAN SOCIETY FOR TESTING MATERIALS

4. REFER TO SITE PLANS AND ELEVATIONS FOR EXACT LOCATIONS OF ALL EQUIPMENT, AND CONFIRM WITH MOBILITIE CM ANY SIZES AND LOCATIONS WHEN NEEDED.

5. (E) SERVICES: CONTRACTOR SHALL NOT INTERRUPT (E) SERVICES WITHOUT WRITTEN PERMISSION OF THE OWNER.

6. CONTRACTOR SHALL CONFIRM WITH LOCAL UTILITY COMPANY ANY/ALL REQUIREMENTS SUCH AS THE: LUG SIZE RESTRICTIONS, CONDUIT ENTRY, SIZE OF TRANSFORMERS. SCHEDULED DOWNTIME FOR THE OWNERS' CONFIRMATION, ETC., ANY/ALL CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE MOBILITIE CM, PRIOR TO BEGINNING ANY WORK.

7. MINIMUM WIRE SIZE SHALL BE #12 AWG, NOT INCLUDING CONTROL WIRING, UNLESS NOTED OTHERWISE. ALL CONDUCTORS SHALL BE COPPER WITH THWN INSULATION, UNLESS OTHERWISE NOTED.

8. OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS, CAST ALLOY WITH THREADED HUBS IN WET/DAMP LOCATIONS AND SPECIAL ENCLOSURES FOR OTHER CLASSIFIED AREAS.

9. IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF THE CONSTRUCTION. CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS FOR THE EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.

10. ELECTRICAL SYSTEM SHALL BE AS COMPLETELY AND EFFECTIVELY GROUNDED, AS REQUIRED BY SPECIFICATIONS, SET FORTH BY APPLICANT.

11. ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS, WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY FUNCTIONAL AND SHALL BE APPROVED BY THE MOBILITIE CM AND LOCAL JURISDICTION. ANY DEFICIENCIES SHALL BE CORRECTED BY AN ELECTRICAL CONTRACTOR AT THE SOLE COST OF THE CONTRACTOR.

12. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.

mobilitie

PROJECT NO:	SFL08334B4
DRAWN BY:	RC
CHECKED BY:	SJB

A	12-23-19	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC
Stephen A. Bray
PROFESSIONAL ENGINEER
FL LICENSE: 69502 12/26/19

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

PRELIMINARY

JAB0XS495F
TALLAHASSEE, FL 32304
PROPOSED 72'-3" WOOD POLE

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-1

ELECTRICAL NOTES CONT'D

13. THE CORRECTION OF ANY DEFECTS SHALL BE COMPLETED BY THE CONTRACTOR WITHOUT ANY ADDITIONAL CHARGE AND SHALL INCLUDE THE REPLACEMENT OR THE REPAIR OF ANY OTHER PHASE OF THE INSTALLATION, WHICH MAY HAVE BEEN DAMAGED THEREIN.

14. CONTRACTOR SHALL PROVIDE AND INSTALL CONDUIT, CONDUCTORS, PULL WIRES, BOXES, COVER PLATES AND DEVICES FOR ALL OUTLETS AS INDICATED.

15. DITCHING AND BACK FILL: CONTRACTOR SHALL PROVIDE FOR ALL UNDERGROUND INSTALLED CONDUIT AND/OR CABLES INCLUDING EXCAVATION AND BACKFILLING AND COMPACTION. REFER TO NOTES AND REQUIREMENTS 'EXCAVATION, AND BACKFILLING.

16. MATERIALS, PRODUCTS AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE NEW AND SHALL APPEAR ON THE LIST OF U.L. APPROVED ITEMS AND SHALL MEET OR EXCEED THE REQUIREMENTS OF THE NEC, NEMA AND IEEE.

17. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OR MANUFACTURER'S CATALOG INFORMATION OF ANY/ALL EQUIPMENT AND ALL OTHER ELECTRICAL ITEMS FOR APPROVAL BY THE MOBILITIE CM PRIOR TO INSTALLATION.

18. ANY CUTTING OR PATCHING DEEMED NECESSARY FOR ELECTRICAL WORK IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY AND SHALL BE INCLUDED IN THE COST FOR WORK AND PERFORMED TO THE SATISFACTION OF THE MOBILITIE CM UPON FINAL ACCEPTANCE.

19. THE ELECTRICAL CONTRACTOR SHALL LABEL ALL PANELS WITH ONLY TYPEWRITTEN DIRECTORIES. ALL ELECTRICAL WIRING SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.

20. DISCONNECT SWITCHES SHALL BE UL-RATED, H.P. RATED HEAVY-DUTY, QUICK-MAKE AND QUICK-BREAK ENCLOSURES, AS REQUIRED BY EXPOSURE TYPE.

21. ALL CONNECTIONS SHALL BE MADE WITH A PROTECTIVE COATING OF AN ANTI-OXIDE COMPOUND KNOWN AS "NO-OXIDE A" BY DEARBORNE CHEMICAL CO. COAT ALL WIRE SURFACES BEFORE CONNECTING. EXPOSED COPPER SURFACES, INCLUDING GROUND BARS, SHALL BE TREATED – NO SUBSTITUTIONS.

22. RACEWAYS: CONDUIT SHALL BE SCHEDULE 80 PVC MEETING OR EXCEEDING NEMA TC2 – 1990. CONTRACTOR SHALL PLUG AND CAP EACH END OF SPARE AND EMPTY CONDUITS AND PROVIDE TWO SEPARATE PULL STRINGS – 200 LBS TEST POLYETHYLENE CORD. ALL CONDUIT BENDS SHALL BE A MINIMUM OF 2 FT. RADIUS. RGS CONDUITS WHEN SPECIFIED, SHALL MEET UL-6 FOR GALVANIZED STEEL. ALL FITTINGS SHALL BE SUITABLE FOR USE WITH THREADED RIGID CONDUIT. COAT ALL THREADS WITH 'BRITE ZINC' OR 'COLD GALV'.

23. SUPPORT OF ALL ELECTRICAL WORK SHALL BE AS REQUIRED BY NEC.

24. CONDUCTORS: CONTRACTOR SHALL USE 98% CONDUCTIVITY COPPER WITH TYPE THWN INSULATION, UNLESS OTHERWISE NOTED, 600 VOLT, COLOR CODED. USE SOLID CONDUCTORS FOR WIRE UP TO AND INCLUDING NO. 8 AWG. USE STRANDED CONDUCTORS FOR WIRE ABOVE NO. 8 AWG.

25. CONNECTORS FOR POWER CONDUCTORS: CONTRACTOR SHALL USE PRESSURE TYPE INSULATED TWIST-ON CONNECTORS FOR NO. 10 AWG AND SMALLER. USE SOLDERLESS MECHANICAL TERMINAL LUGS FOR NO. 8 AWG AND LARGER.

26. SERVICE: AS SPECIFIED ON THE DRAWINGS. OWNER OR OWNER'S AGENT WILL APPLY FOR POWER. ALL PROVISIONS FOR TEMPORARY POWER WILL BE OBTAINED BY THE CONTRACTOR.

27. TELEPHONE OR FIBER SERVICE: CONTRACTOR SHALL PROVIDE EMPTY CONDUITS WITH PULL STRINGS AS INDICATED ON DRAWINGS.

28. ELECTRICAL AND TELCO/FIBER RACEWAYS TO BE BURIED A MINIMUM DEPTH OF 30", UNLESS OTHERWISE NOTED.

29. CONTRACTOR SHALL PLACE 6" WIDE DETECTABLE WARNING TAPE AT A DEPTH OF 8" BELOW GROUND AND DIRECTLY ABOVE ELECTRICAL AND TELCO SERVICE CONDUITS. CAUTIONS TAPE TO READ "CAUTION BURIED ELECTRIC" OR "BURIED TELECOMM".

30. ALL BOLTS SHALL BE 3-18 STAINLESS STEEL.

GROUNDING NOTES:

1. ALL HARDWARE SHALL BE 3-18 STAINLESS STEEL, INCLUDING LOCK WASHERS. COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND, AS SPECIFIED, BEFORE MATING. ALL HARDWARE SHALL BE STAINLESS STEEL 3/8 INCH DIAMETER OR LARGER.

2. FOR GROUND BOND TO STEEL ONLY: INSERT A CADMIUM FLAT WASHER BETWEEN LUG AND STEEL. COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.

3. ALL STEEL CONDUIT SHALL BE BONDED AT BOTH ENDS WITH GROUNDING BUSHING.

4. ALL ELECTRICAL AND GROUNDING AT THE POLE SITE SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE (NEC), NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 780 (LATEST EDITION), AND MANUFACTURER.

5. ALL DETAILS ARE SHOWN IN GENERAL TERMS. ACTUAL GROUNDING INSTALLATION AND CONSTRUCTION MAY VARY DUE TO SITE SPECIFIC CONDITIONS.

6. GROUND ALL ANTENNA BASES, FRAMES, CABLE RUNS, AND OTHER METALLIC COMPONENTS USING #6 GROUND WIRES. FOLLOW ANTENNA AND BTS MANUFACTURER'S PRACTICES FOR GROUNDING REQUIREMENTS.

7. ALL GROUND CONNECTIONS SHALL BE #6 AWG, UNLESS OTHERWISE NOTED. ALL WIRES SHALL BE COPPER WITH THHN, UNLESS OTHERWISE NOTED. ALL GROUND WIRE SHALL BE SOLID TIN COATED OR STRANDED GREEN INSULATED WIRE.

8. CONTRACTOR TO VERIFY AND TEST GROUND TO SOURCE, 10 OHMS MAXIMUM. PROVIDE SUPPLEMENT GROUNDING RODS AS REQUIRED TO ACHIEVE SPECIFIED OHMS READING. GROUNDING AND OTHER OPTIONAL TESTING WILL BE WITNESSED BY THE MOBILITIE CM.

9. NOTIFY ARCHITECT/ENGINEER IF THERE ARE ANY DIFFICULTIES INSTALLING GROUNDING SYSTEM DUE TO SITE SOIL CONDITIONS.

10. ALL HORIZONTALLY RUN GROUNDING CONDUCTORS SHALL BE INSTALLED A MINIMUM OF 30" BELOW GRADE/ 6" BELOW FROST-LINE IN TRENCH, UNLESS OTHERWISE NOTED.BACK FILL SHALL BE COMPACTED AS REQUIRED BY ARCHITECT/ENGINEER.

11. ALL GROUND CONDUCTORS SHALL BE RUN AS STRAIGHT AND SHORT AS POSSIBLE, WITH A MINIMUM 12" BENDING RADIUS NOT LESS THAN 90 DEGREES.

12. ACCEPTABLE CONNECTIONS FOR GROUNDING SYSTEM SHALL BE:

    A. BURNDY, HY-GRADE U.L. LISTED CONNECTORS FOR OUTDOOR USE OR AS APPROVED BY APPLICANT PROJECT MANAGER.
    B. CADWELD, EXOTHERMO WELDS (WELDED CONNECTIONS).
    C. ONE (1) HOLE TINNED COPPER COMPRESSION (LONG BARREL) FITTINGS.

13. ALL CRIMPED CONNECTIONS SHALL HAVE EMBOSSED MANUFACTURER'S DISMARK VISIBLE AT THE CRIMP (RESULTING FROM USE OF PROPER CRIMPING DEVICES) AND WEATHER-PROOFED WITH HEAT SHRINK.

14. ALL CONNECTION HARDWARE SHALL BE TYPE 3-18 STAINLESS STEEL (NOT ATTRACTED TO MAGNETS).

15. ELECTRICAL SERVICE EQUIPMENT GROUNDING SHALL COMPLY WITH NEC, ARTICLE 250-82 AND SHALL BOND ALL (E) AND NEW GROUNDING ELECTRODES. NEW GROUNDING ELECTRODE SHALL INCLUDE BUT NOT LIMITED TO GROUND RODS.

TESTING AND EQUIPMENT TURN UP REQUIREMENTS:

1. RF CABLE, DATA CABLE, RADIO EQUIPMENT AND BACK HAUL EQUIPMENT TESTING WILL COMPLY WITH CURRENT INDUSTRY STANDARDS AND OR THOSE STANDARDS OF THE EQUIPMENT MANUFACTURER OR PROVIDED TO THE CONTRACTOR PRIOR TO TESTING.

2. CONTRACTOR WILL USE THE APPROPRIATE CALIBRATED TESTING EQUIPMENT IN THE TESTING OF RF CABLE, DATA CABLE, RADIO EQUIPMENT AND BACK HAUL EQUIPMENT THAT MEET INDUSTRY STANDARDS OF THE MANUFACTURER OR THOSE STANDARDS PROVIDED TO THE CONTRACTOR PRIOR TO TESTING.

3. CONTRACTOR TO VERIFY AND RECORD ALL TEST RESULTS AND PROVIDE THESE RESULTS WITHIN THE FINAL CLOSE OUT PACKAGE.

4. ALL PERSONNEL INVOLVED IN THE TESTING OF RF CABLE, DATA CABLE, RADIO EQUIPMENT AND BACK HAUL EQUIPMENT WILL BE REQUIRED TO HAVE BEEN TRAINED AND OR CERTIFIED IN THE PROPER TESTING OF RF CABLE, DATA CABLE, RADIO EQUIPMENT AND BACK HAUL EQUIPMENT.

5. ALL TEST RESULTS SHALL BE TIME STAMPED, RECORDED AND PRESENTED PRIOR TO ENERGIZING AND TURN UP OF ANY EQUIPMENT.

6. GPS EQUIPMENT IS NOT TO BE TESTED OR ATTACHED TO ANY CABLING DURING TESTING, DOING SO WILL DAMAGE THE GPS UNIT.

7. PRIOR TO TESTING IF THE CONTRACTOR HAS ANY QUESTIONS ABOUT THE TESTING PROCEDURES THEY ARE TO CALL AND OBTAIN ASSISTANCE FROM A QUALIFIED DESIGNATED TESTING REPRESENTATIVE.

8. EQUIPMENT IS NOT TO BE ENERGIZED UNTIL ALL TESTING HAS BEEN COMPLETED, APPROVED AND THE APPROPRIATE AUTHORITY HAS BEEN NOTIFIED AND GIVES APPROVAL TO ENERGIZE THE EQUIPMENT.

SITE WORK NOTES:

1. DO NOT EXCAVATE OR DISTURB BEYOND THE PROPERTY LINES OR LEASE LINES, UNLESS OTHERWISE NOTED.

2. SIZE, LOCATION AND TYPE OF ANY UNDERGROUND UTILITIES OR IMPROVEMENTS SHALL BE ACCURATELY NOTED AND PLACED ON AS-BUILT DRAWINGS BY GENERAL CONTRACTOR AND ISSUED TO ARCHITECT/ENGINEER AT COMPLETION OF PROJECT.

3. ALL (E) UTILITIES, FACILITIES, CONDITIONS AND THEIR DIMENSIONS SHOWN ON PLANS HAVE BEEN PLOTTED FROM AVAILABLE RECORDS. THE ENGINEER AND OWNER ASSUME NO RESPONSIBILITY WHATSOEVER AS TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS OR THE MANNER OF THEIR REMOVAL OR ADJUSTMENT. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL (E) UTILITIES AND FACILITIES PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL ALSO OBTAIN FROM EACH UTILITY COMPANY DETAILED INFORMATION RELATIVE TO WORKING SCHEDULES AND METHODS OF REMOVING OR ADJUSTING (E) UTILITIES.

4. CONTRACTOR SHALL VERIFY ALL (E) UTILITIES BOTH HORIZONTALLY AND VERTICALLY PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES OR DOUBTS AS TO THE INTERPRETATION OF PLANS SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT/ENGINEER OR MOBILITIE CM FOR RESOLUTION AND INSTRUCTION, AND NO FURTHER WORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS CHECKED AND CORRECTED BY THE ARCHITECT/ENGINEER. FAILURE TO SECURE SUCH INSTRUCTION MEANS CONTRACTOR WILL HAVE WORKED AT THEIR OWN RISK AND EXPENSE. CONTRACTOR SHALL CALL LOCAL UTILITY LOCATE HOT LINE, SUCH AS 811, FOR UTILITY LOCATIONS A MINIMUM OF 48 HOURS PRIOR TO START OF CONSTRUCTION.

5. ALL NEW AND (E) UTILITY STRUCTURES ON SITE AND IN AREAS TO BE DISTURBED BY CONSTRUCTION SHALL BE ADJUSTED TO FINISH ELEVATIONS PRIOR TO FINAL INSPECTION OF WORK. ANY COST RELATED TO ADJUSTING (E) STRUCTURES SHALL BE BORNE SOLELY BY THE CONTRACTOR.

6. GRADING OF THE SITE WORK AREA IS TO BE SMOOTH AND CONTINUOUS IN SLOPE AND IS TO FEATHER INTO (E) GRADES AT THE GRADING LIMITS.

7. ALL TEMPORARY EXCAVATIONS FOR THE INSTALLATION OF FOUNDATIONS, UTILITIES, ETC., SHALL BE PROPERLY LAID BACK OR BRACED IN ACCORDANCE WITH CORRECT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS.

mobilitie

PROJECT NO:	RFLB0093484
DRAWN BY:	RC
CHECKED BY:	S.B

A	08-26-16	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC
Stephen A. Bray
PROFESSIONAL ENGINEER
FL LICENSE: 69905 SIGNING

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.

PRELIMINARY

JAX0XS495F
TALLAHASSEE, FL 32304
PROPOSED 72'-2" WOOD POLE

SHEET TITLE:
GENERAL NOTES

SHEET NUMBER
GN-2

SITE WORK NOTES CONTD

8. STRUCTURAL FILLS SUPPORTING PAVEMENTS SHALL BE COMPACTED TO 98% OF MAXIMUM STANDARD PROCTOR DRY DENSITY, UNLESS OTHERWISE NOTED.

9. NEW GRADES NOT IN BUILDING AND DRIVEWAY IMPROVEMENT AREA TO BE ACHIEVED BY FILLING WITH APPROVED CLEAN FILL AND COMPACTED TO 95% OF STANDARD PROCTOR DENSITY.

10. ALL FILL SHALL BE PLACED IN UNIFORM LIFTS. THE LIFTS THICKNESS SHOULD NOT EXCEED THAT WHICH CAN BE PROPERLY COMPACTED THROUGHOUT ITS ENTIRE DEPTH WITH THE EQUIPMENT AVAILABLE.

11. ANY FILLS PLACED ON (E) SLOPES THAT ARE STEEPER THAN 10 HORIZONTAL TO 1 VERTICAL SHALL BE PROPERLY BENCHED INTO THE (E) SLOPE AS DIRECTED BY A GEOTECHNICAL ENGINEER.

12. CONTRACTOR SHALL CLEAN ENTIRE SITE AFTER CONSTRUCTION SUCH THAT NO DEBRIS, PAPER, TRASH, WEEDS, BRUSH, EXCESS FILL, OR ANY OTHER DEPOSITS WILL REMAIN. ALL MATERIALS COLLECTED DURING CLEANING OPERATIONS SHALL BE DISPOSED OF OFF-SITE BY THE GENERAL CONTRACTOR.

13. ALL TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH THE IMPROVEMENTS SHALL BE PROTECTED BY THE GENERAL CONTRACTOR.

14. ALL SITE WORK SHALL BE CAREFULLY COORDINATED BY GENERAL CONTRACTOR WITH LOCAL UTILITY COMPANY, TELEPHONE COMPANY, AND ANY OTHER UTILITY COMPANIES HAVING JURISDICTION OVER THIS LOCATION.

ENVIRONMENTAL NOTES:

1. ALL WORK PERFORMED SHALL BE DONE IN ACCORDANCE WITH ISSUED PERMITS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYMENT OF FINES AND PROPER CLEAN UP FOR AREAS IN VIOLATION.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS DURING CONSTRUCTION FOR PROTECTION OF ADJACENT PROPERTIES, ROADWAYS AND WATERWAYS. ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE MAINTAINED IN PLACE THROUGH FINAL JURISDICTIONAL INSPECTION & RELEASE OF SITE.

3. CONTRACTOR SHALL INSTALL/CONSTRUCT ALL NECESSARY SEDIMENT/SILT CONTROL FENCING AND PROTECTIVE MEASURES AS REQUIRED BY THE LOCAL JURISDICTION WITHIN THE LIMITS OF SITE DISTURBANCE PRIOR TO CONSTRUCTION.

4. NO SEDIMENT SHALL BE ALLOWED TO EXIT THE PROPERTY. THE CONTRACTOR IS RESPONSIBLE FOR TAKING ADEQUATE MEASURES FOR CONTROLLING EROSION. ADDITIONAL SEDIMENT CONTROL FENCING MAY BE REQUIRED IN ANY AREAS SUBJECT TO EROSION.

5. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE ON THE SITE AT ALL TIMES WITH SILT AND EROSION CONTROL MEASURES MAINTAINED ON THE DOWNSTREAM SIDE OF SITE DRAINAGE. ANY DAMAGE TO ADJACENT PROPERTY AS A RESULT OF EROSION WILL BE CORRECTED AT THE CONTRACTORS EXPENSE.

6. CONTRACTOR SHALL BE RESPONSIBLE FOR DAILY INSPECTIONS AND ANY REPAIRS OF ALL SEDIMENT CONTROL MEASURES INCLUDING SEDIMENT REMOVAL AS NECESSARY.

7. CLEARING OF VEGETATION AND TREE REMOVAL SHALL BE ONLY AS PERMITTED AND BE HELD TO A MINIMUM. ONLY TREES NECESSARY FOR CONSTRUCTION OF THE FACILITIES SHALL BE REMOVED.

8. SEEDING AND MULCHING AND/OR SODDING OF THE SITE WILL BE ACCOMPLISHED AS SOON AS POSSIBLE AFTER COMPLETION OF THE PROJECT FACILITIES AFFECTING LAND DISTURBANCE.

9. CONTRACTOR SHALL PROVIDE ALL EROSION AND SEDIMENTATION CONTROL MEASURES AS REQUIRED BY LOCAL, COUNTY AND STATE CODES AND ORDINANCES TO PROTECT EMBANKMENTS FROM SOIL LOSS AND TO PREVENT ACCUMULATION OF SOIL AND SILT IN STREAMS AND DRAINAGE PATHS LEAVING THE CONSTRUCTION AREA. THIS MAY INCLUDE, BUT IS NOT LIMITED TO SUCH MEASURES AS SILT FENCES, STRAW BALE SEDIMENT BARRIERS, AND CHECK DAMS.

10. RIP RAP OF SIZES INDICATED SHALL CONSIST OF CLEAN, HARD, SOUND, DURABLE, UNIFORM IN QUALITY STONE FREE OF ANY DETRIMENTAL QUANTITY OF SOFT, FRIABLE, THIN, ELONGATED OR LAMINATED PIECES, DISINTEGRATED MATERIAL, ORGANIC MATTER, OIL, ALKALI, OR OTHER DELETERIOUS SUBSTANCES.

11. GC TO PLACE FILTER MATERIAL AT ALL CATCH BASINS ADJACENT TO CONSTRUCTION SITE TO PREVENT SOLID WASTE CONTAMINATION FROM ENTERING SEWER SYSTEM

FOUNDATION EXCAVATION AND BACKFILL NOTES:

1. ALL FINAL GRADED SLOPES SHALL BE A MAXIMUM OF 3 HORIZONTAL TO 1 VERTICAL, UNLESS OTHERWISE NOTED.

2. BACKFILL OF POLE SHALL BE PERFORMED IN ONE OF THREE OPTIONS:

   A. PREFERRED: RAINSOW INDUSTRIES POLE SETTING FOAM SHALL BE INSTALLED PER MANUFACTURER SPECS. FOAM SHALL ALWAYS BE USED FOR POOR SOILS.

   B. SECONDARY: CONCRETE (REQUIRES MOBILITIE CM WRITTEN APPROVAL)
   ALLOWABLE SOIL PRESSURE = 2000 PSF (ASSUMED).
   NON-NATIVE SOILS SHALL BE REMOVE FROM BORE AREA AND SHALL NOT BE REUSED FOR BACKFILL

3. ALL EXCAVATIONS PREPARED FOR PLACEMENT OF CONCRETE SHALL BE OF UNDISTURBED SOILS, SUBSTANTIALLY HORIZONTAL AND FREE FROM ANY LOOSE, UNSUITABLE MATERIAL OR FROZEN SOILS, AND WITHOUT THE PRESENCE OF POUNDING WATER. DEWATERING FOR EXCESS GROUND WATER SHALL BE PROVIDED WHEN REQUIRED. COMPACTION OF SOILS UNDER CONCRETE PAD FOUNDATIONS SHALL NOT BE LESS THAN 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY FOR THE SOIL IN ACCORDANCE WITH ASTM D1557.

10. CONCRETE FOUNDATIONS SHALL NOT BE PLACED ON ORGANIC OR UNSUITABLE MATERIAL IF ADEQUATE BEARING CAPACITY IS NOT ACHIEVED AT THE DESIGNED EXCAVATION DEPTH, THE UNSATISFACTORY SOIL SHALL BE EXCAVATED TO ITS FULL DEPTH AND EITHER BE REPLACED WITH MECHANICALLY COMPACTED GRANULAR MATERIAL OR THE EXCAVATION SHALL BE FILLED WITH CONCRETE OF THE SAME TYPE SPECIFIED FOR THE FOUNDATION. CRUSHED STONE MAY BE USED TO STABILIZE THE BOTTOM OF THE EXCAVATION. ANY STONE SUB BASE MATERIAL, IF USED, SHALL NOT SUBSTITUTE FOR REQUIRED THICKNESS OF CONCRETE.

11. ALL EXCAVATIONS SHALL BE CLEAN OF UNSUITABLE MATERIAL SUCH AS VEGETATION, TRASH, DEBRIS, AND SO FORTH PRIOR TO BACK FILLING. BACK FILL SHALL CONSIST OF APPROVED MATERIALS SUCH AS EARTH, LOAM, SANDY CLAY, SAND AND GRAVEL, OR SOFT SHALE FREE FROM CLODS OR LARGE STONES OVER 2 1/2" MAX DIMENSIONS. ALL BACK FILL SHALL BE PLACED IN COMPACTED LAYERS.

12. ALL FILL MATERIALS AND FOUNDATION BACK FILL SHALL BE PLACED IN MAXIMUM 6" THICK LIFTS BEFORE COMPACTION. EACH LIFT SHALL BE WETTED IF REQUIRED AND COMPACTED TO NOT LESS THAN 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY FOR SOIL IN ACCORDANCE WITH ASTM D1557.

13. NEWLY PLACED CONCRETE FOUNDATIONS SHALL CURE A MINIMUM OF 72 HRS PRIOR TO BACK FILLING.

14. FINISHED GRADING SHALL BE SLOPED TO PROVIDE POSITIVE DRAINAGE AND PREVENT STANDING WATER. THE FINAL (FINISH) ELEVATION OF SLAB FOUNDATIONS SHALL SLOPE AWAY IN ALL DIRECTIONS FROM THE CENTER. FINISH GRADE OF CONCRETE PADS SHALL BE A MAXIMUM OF 4 INCHES ABOVE FINAL FINISH GRADE ELEVATIONS. PROVIDE SURFACE FILL GRAVEL TO ESTABLISH SPECIFIED ELEVATIONS WHERE REQUIRED.

15. NEWLY GRADED GRAVEL SURFACE AREAS TO RECEIVE GRAVEL SHALL BE COVERED WITH GEOTEXTILE FABRIC TYPE: TYPAR-3401 AS MANUFACTURED BY TYPAR GEOSYNTHETICS OR AN APPROVED EQUIVALENT, SHOWN ON PLANS. THE GEOTEXTILE FABRIC SHALL BE BLACK IN COLOR TO CONTROL THE RECURRENCE OF VEGETATIVE GROWTH AND EXTEND TO WITHIN 1 FOOT OUTSIDE THE SITE FENCING OR ELECTRICAL GROUNDING SYSTEM PERIMETER WHICH EVER IS GREATER. ALL FABRIC SHALL BE COVERED WITH A MINIMUM OF 4" DEEP COMPACTED STONE OR GRAVEL AS SPECIFIED, I.E. FDOT TYPE NO. 57 FOR FENCED COMPOUND; FDOT TYPE NO. 67 FOR ACCESS DRIVE AREA, UNLESS OTHERWISE NOTED.

16. IN ALL AREAS TO RECEIVE FILL: REMOVE ALL VEGETATION, TOPSOIL, DEBRIS, WET AND UNSATISFACTORY SOIL MATERIALS, OBSTRUCTIONS, AND DELETERIOUS MATERIALS FROM GROUND SURFACE. PLOW STRIP OR BREAK UP SLOPED SURFACES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL SUCH THAT FILL MATERIAL WILL BIND WITH (E)/PREPARED SOIL SURFACE.

17. WHEN SUB GRADE OR PREPARED GROUND SURFACE HAS A DENSITY LESS THAN THAT REQUIRED FOR THE FILL MATERIAL, SCARIFY THE GROUND SURFACE TO DEPTH REQUIRED, PULVERIZE, MOISTURE-CONDITION AND/OR AERATE THE SOILS AND RECOMPACT TO THE REQUIRED DENSITY PRIOR TO PLACEMENT OF FILLS.

18. IN AREAS WHICH (E) GRAVEL SURFACING IS REMOVED OR DISTURBED DURING CONSTRUCTION OPERATIONS, REPLACE GRAVEL SURFACING TO MATCH ADJACENT GRAVEL SURFACING AND RESTORED TO THE SAME THICKNESS AND COMPACTION AS SPECIFIED. ALL RESTORED GRAVEL SURFACING SHALL BE FREE FROM CORRUGATIONS AND WAVES.

19. (E) GRAVEL SURFACING MAY NOT BE REUSED.

20. GRAVEL SUB SURFACE SHALL BE PREPARED TO REQUIRED COMPACTION AND SUB GRADE ELEVATIONS BEFORE GRAVEL SURFACING IS PLACED AND/OR RESTORED. ANY LOOSE OR DISTURBED MATERIALS SHALL BE THOROUGHLY COMPACTED AND ANY DEPRESSIONS IN THE SUB GRADE SHALL BE FILLED AND COMPACTED WITH APPROVED SELECTED MATERIAL. GRAVEL SURFACING MATERIAL SHALL NOT BE USED FOR FILLING DEPRESSIONS IN THE SUB GRADE.

21. PROTECT (E) GRAVEL SURFACING AND SUB GRADE IN AREAS WHERE EQUIPMENT LOADS WILL OPERATE. USE PLANKING 'MATTS' OR OTHER SUITABLE PROTECTION DESIGNED TO SPREAD EQUIPMENT LOADS AS MAY BE NECESSARY. REPAIR ANY DAMAGE TO (E) GRAVEL SURFACING OR SUB GRADE WHERE SUCH DAMAGE IS DUE TO THE CONTRACTORS OPERATIONS.

22. DAMAGE TO (E) STRUCTURES AND/OR UTILITIES RESULTING FROM CONTRACTORS NEGLIGENCE SHALL BE REPAIRED AND/ OR REPLACED TO THE OWNERS SATISFACTION AT NO ADDITIONAL COST TO THE CONTRACT.

23. ALL SUITABLE BORROW MATERIAL FOR BACK FILL OF THE SITE SHALL BE INCLUDED IN THE BID. EXCESS TOPSOIL AND UNSUITABLE MATERIAL SHALL BE DISPOSED OF OFF SITE AT LOCATIONS APPROVED BY GOVERNING AGENCIES AT NO ADDITIONAL COST TO THE CONTRACT.

mobilitie

PROJECT NO:	SFLR035604
DRAWN BY:	RC
CHECKED BY:	S-B

A	09-25-15	RZE CLIENT REVISE

KMB DESIGN GROUP, LLC

Stephen A. Bray

PROFESSIONAL ENGINEER

FL LICENSE 55102 9/28/15

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.

PRELIMINARY

JAS9XS495F
TALLAHASSEE, FL 32304
PROPOSED 72'-2" WOOD POLE

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-3

Construction #	TYPE	Contractor Lead NAME	ITEMS TO IDENTIFY	Contractor's QUALITY/INSTALL REQUIREMENTS	Comments
1	PIC	PPE CONSTRUCTION	Photo(s) of site before and after full set of construction to document any site damage, landscape, impacted pole placement, walking etc	Do photos clearly display all site/work area requirements, including good condition of overall site prior to work start?	
2	PIC	POLE FOUNDATION	Photo of installed foundation type (spray paint/dirt) & Photo of designed depth as per engineering drawings (Caisson, Direct Embed, Anchor Bolt)	Does photo clearly show the foundation type and depth as per engineering drawings? Is the foundation free of debris and ready for pole installation?	
3	PIC	POLE SIDE #1	Photo 1 of pole installed from 2 positions 90° from each other (***If from pole) N/A for Attachments)	Does photo clearly show the pole is plumb? Is the pole free of debris and does it display a 0 degree vertical	
	PIC	POLE SIDE #2	Photo 2 of pole installed from 2 positions 90° from each other (***If from pole) N/A for Attachments)	Does photo clearly show the pole is plumb? Is the pole free of debris and does it display a 0 degree vertical	
4	PIC	GROUND ROD(s)	Photo of driven ground rod(s) with background (i.e. vault) (required)	Do photos clearly display the ground rod(s) installed in vault? Are the ground rod(s) installed with 6" of rod exposed above grade? Is the vault free of debris? Is the vault lid/cover

SITE ID-CANDIDATE LETTER/CASCADE ID-CANDIDATE LETTER:
9FLB003699/JA90XSRKDB

LATITUDE/LONGITUDE:
30.46477/-84.181519

CROSS STREET:
OAKS EDGE RD & SMOKE RISE LN

CITY, STATE, ZIP:
TALLAHASSEE, FL 32317

IF YOU DIG IN ANY STATE DIAL 811 FOR THE LOCAL "ONE CALL CENTER" - IT'S THE LAW

THE UTILITIES SHOWN HEREON ARE FOR THE CONTRACTORS CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS. THE ENGINEER/SURVEYOR ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS SHOWN AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL THE UTILITIES WITHIN THE LIMITS OF THE WORK. ALL DAMAGE MADE TO THE UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

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 (N).

SITE INFORMATION

SITE ID:	9FLB003699
CASCADE ID:	JA90XSRKDB
LATITUDE:	30.46477
LONGITUDE:	-84.181519
CROSS STREET:	OAKS EDGE RD & SMOKE RISE LN
CITY, STATE, ZIP:	TALLAHASSEE, FL 32317
COUNTY:	LEON COUNTY
JURISDICTION:	TALLAHASSEE CITY
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY
APPLICANT:	MOBILITIE, LLC 3475 PIEDMONT ROAD NE, SUITE 1000 ATLANTA, GEORGIA 30305 PHONE: (312) 858-5400

ENGINEER

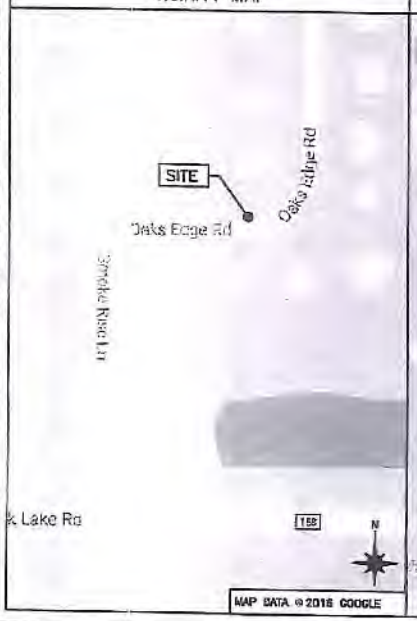
KMB DESIGN GROUP, LLC
1909 ROUTE 34, SUITE 205
WALL, NJ 07719
FOR QUESTIONS EMAIL: DESIGNTEAM@KMBDG.COM
TEL: (732) 280-5623 FAX: (732) 280-3980 www.KMBDG.com

DO NOT SCALE DRAWINGS

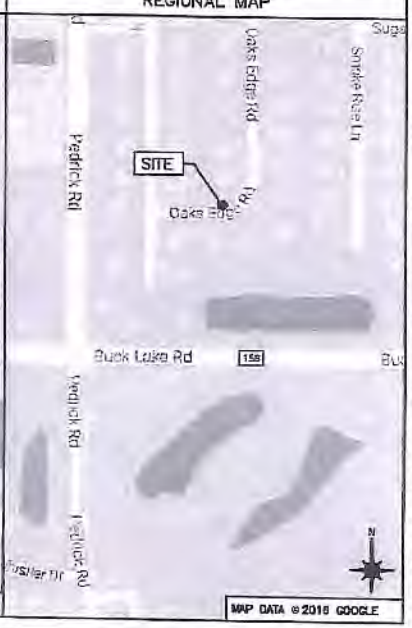
CONTRACTORS SHALL VERIFY ALL PLANS, (E) DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

LOCATION MAPS

VICINITY MAP



REGIONAL MAP



PROJECT DESCRIPTION

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

- INSTALL A NEW WOOD UTILITY POLE WITH PROPOSED BACKHAUL TRANSPORT EQUIPMENT

CODES

2015 INTERNATIONAL BUILDING CODE
2014 NATIONAL ELECTRICAL CODE
TIA/EIA-222-G-2 OR LATEST EDITION
LOCAL BUILDING/PLANNING CODE

DRAWING INDEX

SHEET NO:	SHEET TITLE
T-1	TITLE SHEET
SP-1	EXHIBIT PHOTO & SITE PLAN
EV-1	ELEVATIONS
PL-1	PLUMBING & RISER DIAGRAM
EQ-1	EQUIPMENT DETAILS
ED-2	EQUIPMENT DETAILS
EK-1	EXCAVATION DETAILS
E-1	ELECTRICAL DETAILS
G-1	GROUNDING DETAILS
S-1	EMBEDMENT DETAILS
TC-1	VEHICLE TRAFFIC CONTROL PLAN
TC-2	PEDESTRIAN TRAFFIC CONTROL PLAN
GN-1	GENERAL NOTES
GN-2	GENERAL NOTES
GN-3	GENERAL NOTES
CO-1	CLOSE OUT PACKAGE

mobilitie

PROJECT NO:	9FLB003699
DRAWN BY:	RC
CHECKED BY:	SJB
A	09-29-16 FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC
Stephen A. Bray
PROFESSIONAL ENGINEER
FL LICENSE: 66902 9/29/16

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

PRELIMINARY

JA90XSRKDB
TALLAHASSEE, FL 32317
PROPOSED 40'-0" WOOD POLE

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1



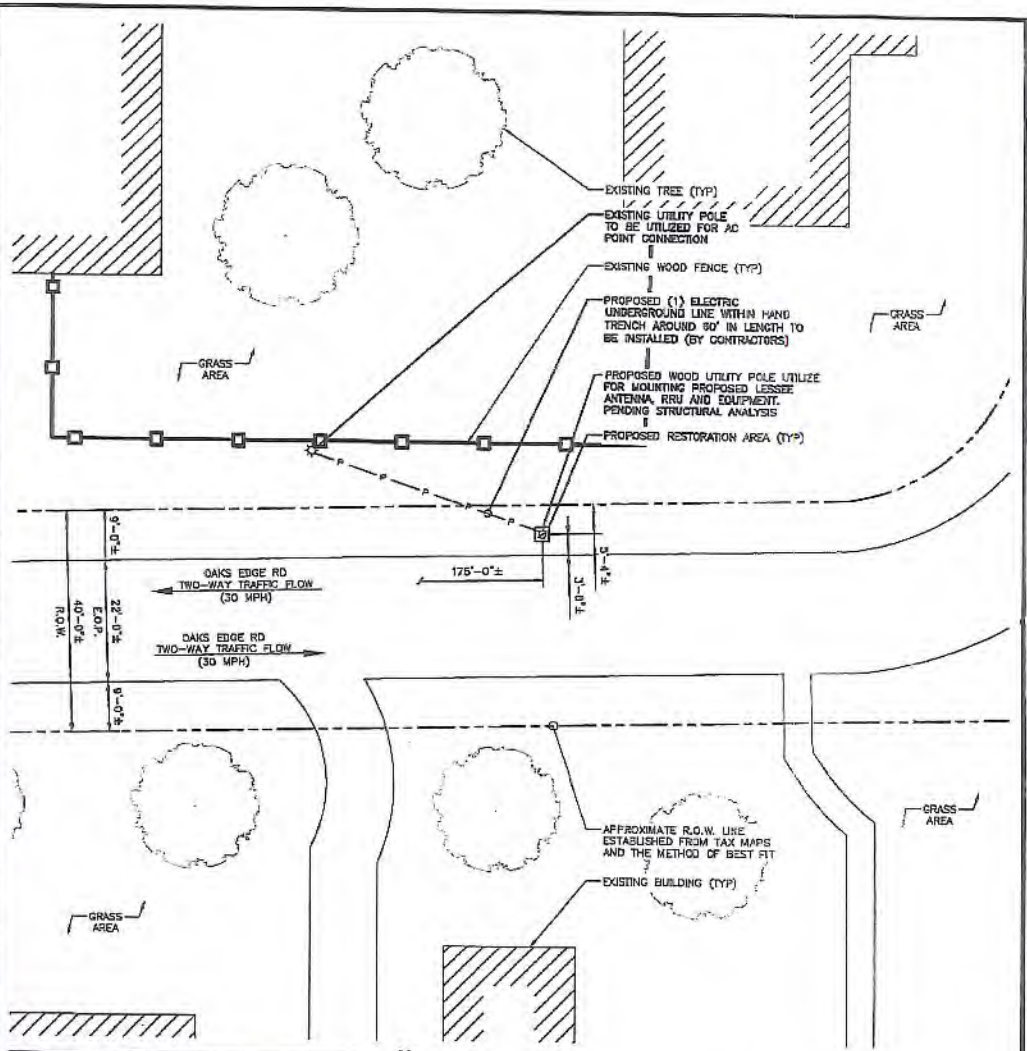
EXHIBIT PHOTO 1

SCALE: NOT TO SCALE



AERIAL SITE LOCATION 2

SCALE: NOT TO SCALE



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

ENLARGED SITE PLAN 3

SCALE: 1" = 20'-0" (1" = 10'-0" ON 22"x34" SHEET)

mobilitie

PROJECT NO:	SFLD001699
DRAWN BY:	RC
CHECKED BY:	SJB

A	09-28-18	RE CLIENT REVIEW

KMB DESIGN GROUP, LLC
Stephen A. Bray
PROFESSIONAL ENGINEER
FL LICENSE: 69503 9/28/18

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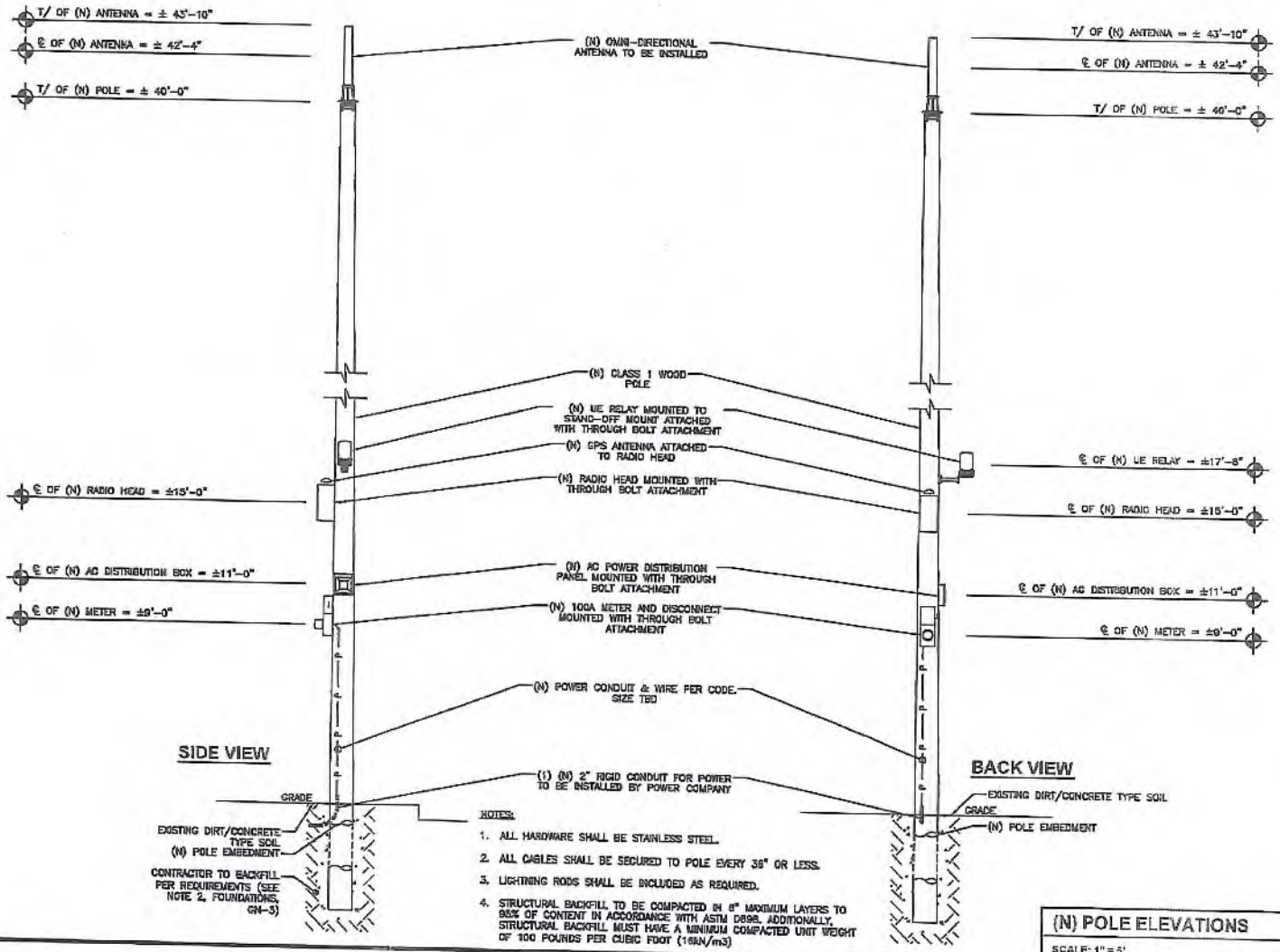
PRELIMINARY

JA90XSRKDB
TALLAHASSEE, FL 32317
PROPOSED 49'-0" WOOD POLE

SHEET TITLE
EXHIBIT PHOTO & SITE PLAN

SHEET NUMBER
SP-1



(N) POLE ELEVATIONS

SCALE: 1" = 5'

1

mobilitie

PROJECT NO:	0FLB003659
DRAWN BY:	RC
CHECKED BY:	SJS

A	09-25-18	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC
Stephen A. Bray
PROFESSIONAL ENGINEER
FL LICENSE: 64092 5/24/19

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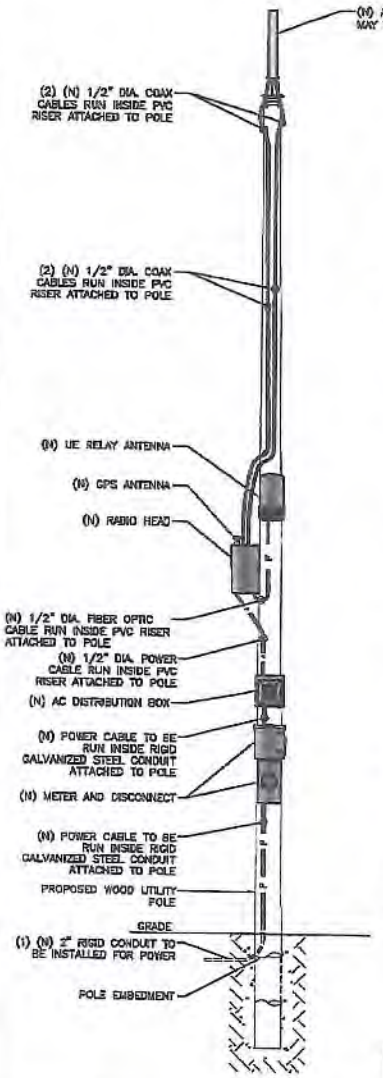
PRELIMINARY

JAB0XSRKDB
TALLAHASSEE, FL 32317
PROPOSED 40'-0" WOOD POLE

SHEET TITLE
POLE ELEVATIONS

SHEET NUMBER
EV-1



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

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

CABLING NOTES:

A) WOOD, CONCRETE AND EXISTING METALLIC POLES
   I) FROM GRADE LINE TO 11'-0" ABOVE GRADE, ALL CABLES/CONDUCTORS EXCEPT GROUNDING CONDUCTOR MUST RUN IN RIGID GALVANIZED STEEL CONDUIT (RGS)
   II) GROUNDING CONDUCTORS IN EXPOSED LOCATIONS MUST BE INSTALLED IN PVC.
   III) IN EARTH INSTALL PVC CONDUIT FOR BACKHAUL AND ELECTRICAL SERVICE. TRANSITION TO RGS AT GRADE LINE.
   IV) ABOVE 11'-0" ALL CABLES (POWER, ETHERNET, COAXIAL) MUST RUN IN PVC UTILITY POLE RISER.
      (1) AT MAJOR EQUIPMENT, EXTEND UTILITY DUCT IMMEDIATELY ADJACENT TO THE EQUIPMENT. INSTALL CABLES IN THE UTILITY POLE RISER CREATING CABLE DRIP LOOPS NOT LESS THAN THE CABLE BENDING RADIUS.
      (2) INSIDE THE UTILITY POLE RISER, UTILIZE ½" COAX BLOCKS WITH LAG SCREWS TO SUPPORT COAX, RADIO AND AW POWER, RF COAX, AND ETHERNET CABLES TO WITHIN 12" OF THE EQUIPMENT BEING SERVED AND ON INTERVALS NOT TO EXCEED 6'.
   V) FOR UNDERGROUND HFC/PUBLIC BACKHAUL, ROUTE ETHERNET CABLE IN CONDUIT UP THE POLE AND ENTER THE UTILITY POLE RISER. SEAL EXPOSED END OF CONDUIT WITH A CABLE TERMINATION FITTING.
   VI) BY APPROVAL IN SELECT CASES LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LFMC) MAY BE USED IN LENGTHS NOT TO EXCEED 36" TO EXTEND THE ELECTRICAL SERVICE CONDUIT TO THE AC DISTRIBUTION BOX. EXAMPLE: UTILITY-REQUIRED DISCONNECT ON POLE W/ AC DISTRIBUTION BOX ON OPPOSITE SIDE OF POLE.
B) NEW METALLIC POLES
   I) PROCURE NEW POLES WITH SUITABLE HAND HOLES SUCH THAT HAND HOLES EXIST AT ALL EQUIPMENT LOCATIONS.
      (1) WITH CLIENT APPROVAL IN SELECT CASES TO FACILITATE IMPROVED APPEARANCE, ½" COAXIAL CABLES MAY BE "SUPERFLEX" IN LIEU OF LDF-4.

II) WHERE POSSIBLE, INSTALL POLE BASE SUCH THAT THE ELECTRICAL FEED AND BACKHAUL (IF UNDERGROUND) CIRCUIT ENTER THE POLE THROUGH THE POLE BASE. IF A DISCONNECTING MEANS SEPARATE FROM THE AC DISTRIBUTION BOX IS REQUIRED BY JURISDICTION OR UTILITY, WITH APPROVAL IN SELECT CASES LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LFMC) MAY BE USED IN LENGTHS NOT TO EXCEED 36" TO EXTEND THE ELECTRICAL SERVICE CONDUIT TO THE AC DISTRIBUTION BOX.

PLUMBING DIAGRAM

SCALE: NOT TO SCALE

1

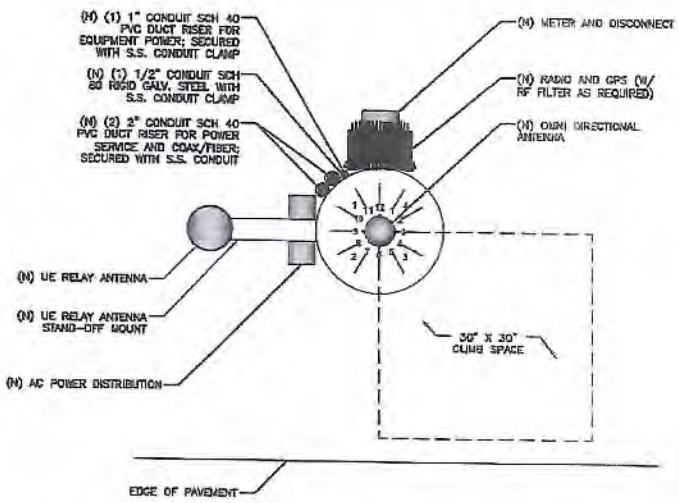
BAND 41 (2500MHz) EQUIPMENT CHART

QTY.	DESCRIPTION	MANUFACTURER	MODEL NUMBER	CABLE LENGTH	DIMENSIONS (HxWxD)	WEIGHT
1	MOUNTED ANTENNA	PLASMA ANTENNAS	LONG SC800		35.4" X 3.9" DIAMETER	11 LBS
1	UE RELAY	AIRSPAN	IR460		12.99" X 7.87" DIAMETER	9.9 LBS
1	GPS ANTENNA	TALLYSMAN	TW3012		0.6" X 2.5" DIAMETER	0.3 LBS
1	RADIO (W/ FILTER AS REQUIRED)	AIRSPAN	AH4000		20" X 8" X 7"	42 LBS
1	AC DISTRIBUTION	RAYCAP	RSTAC-3111-P-120		13.13" X 11.35" X 4.35"	14 LBS
1	DISCONNECT	TBD	TYPE-3R		9.8" X 8.8" X 4.8"	TBD
1	METER	MILBANK	U7021-RL-TG		15.5" X 8" X 4.35"	TBD

BILL OF MATERIALS

SCALE: NOT TO SCALE

2



RISER DIAGRAM

SCALE: NOT TO SCALE

3

mobilitie

PROJECT NO: SFLD003049
DRAWN BY: RC
CHECKED BY: SJB

A	08-31-18	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC
Stephen A. Bray
PROFESSIONAL ENGINEER

FL LICENSE: 68302 8/31/18

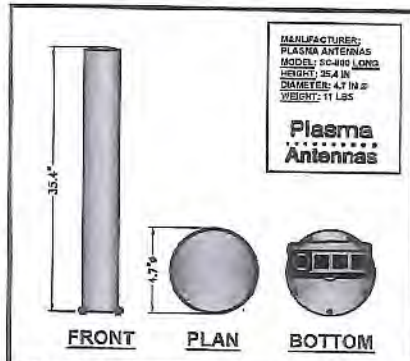
IT IS A VIOLATION OF 61G LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT

PRELIMINARY

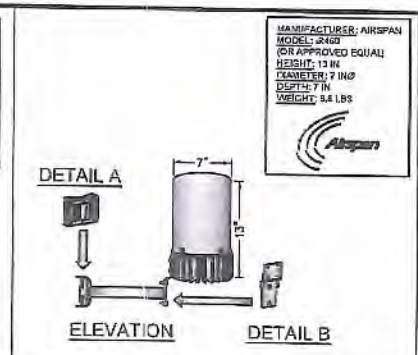
JA90XSRKDB
TALLAHASSEE, FL 32317
PROPOSED 40'-0" WOOD POLE

SHEET TITLE
PLUMBING & RISER DIAGRAM

SHEET NUMBER
PL-1

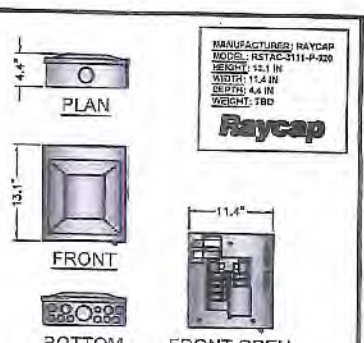


PLASMA SBA SC-800 OMNI (B41) SCALE N.T.S. 1

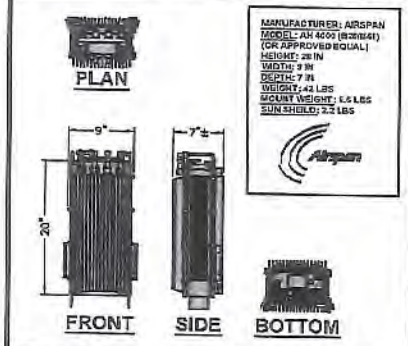


iR460 UE RELAY SCALE N.T.S. 4

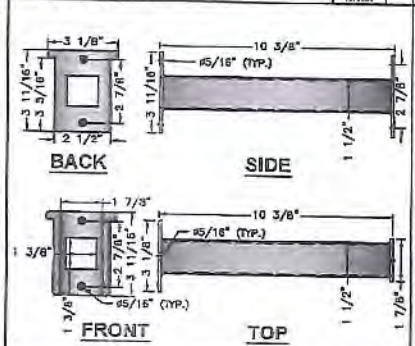
NOT USED SCALE N.T.S. 7



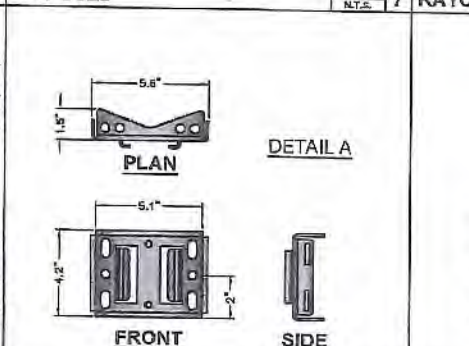
RAYCAP RSTAC-3111-P-120 SCALE N.T.S. 10



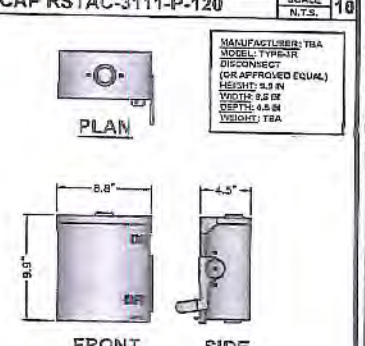
AIRSPAN RADIO AH4000 SCALE N.T.S. 2



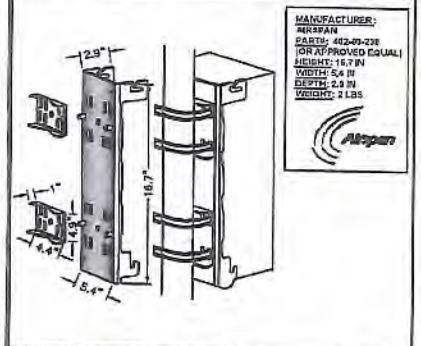
iR460 UE RELAY STAND-OFF SCALE N.T.S. 5



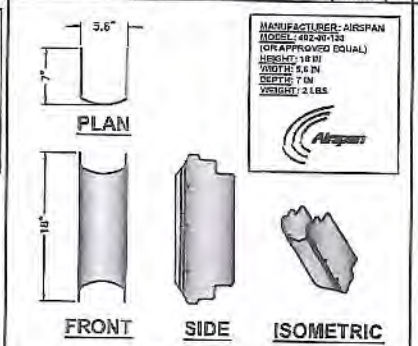
iR460 UE RELAY FLUSH MOUNT SCALE N.T.S. 8



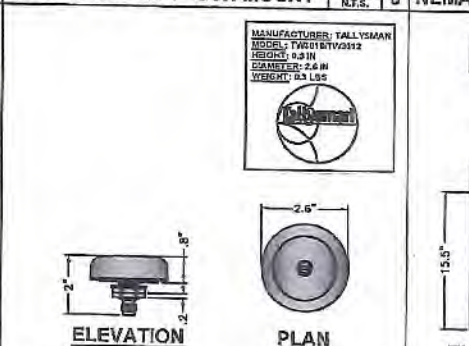
NEMA TYPE-3R DISCONNECT SCALE N.T.S. 11



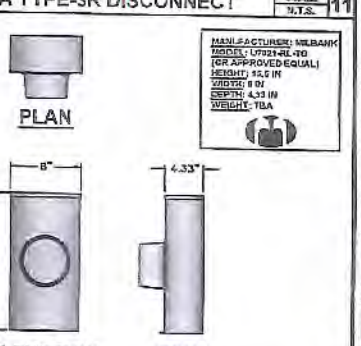
AIRSPAN RADIO MOUNT SCALE N.T.S. 3



AIRSPAN RADIO SUN SHIELD SCALE N.T.S. 6



TALLYSMAN GPS ANTENNA SCALE N.T.S. 9



MILBANK METER SOCKET SCALE N.T.S. 12

mobilitie

PROJECT NO:	SFLR003699
DRAWN BY:	RC
CHECKED BY:	JJS

4	06-28-19	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC
Stephen A. Bray
PROFESSIONAL ENGINEER
FL LICENSE: 68992 6/28/19

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

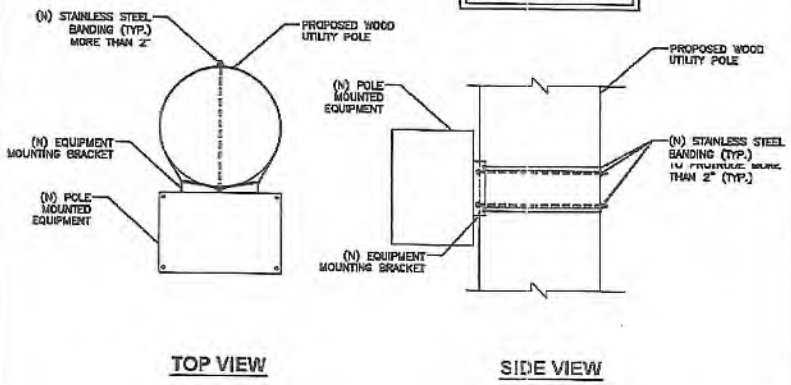
PRELIMINARY

JAS0XSRKDB
TALLAHASSEE, FL 32317
PROPOSED 40'-0" WOOD POLE

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
EQ-1

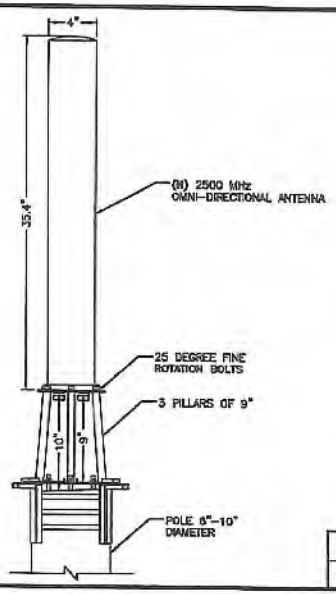
NOTE:
INSTALL BRACKETS WITH STAINLESS STEEL BANDING.



EQUIPMENT MOUNTING DETAIL

SCALE: NOT TO SCALE

1



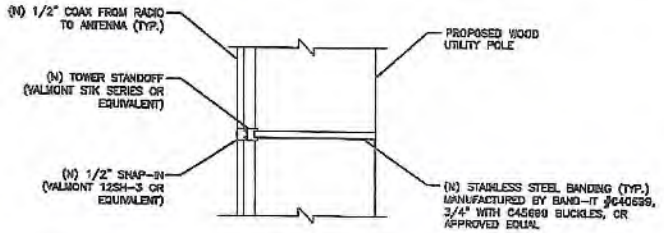
NOTE:

1. MOUNTING BRACKET ACCOMMODATES POLE SIZES FROM 3" TO 10" DIAMETER.
2. JACOBS HAS NOT PERFORMED A STRUCTURAL EVALUATION FOR THE MOUNTING BRACKET. REFER TO THIS MANUFACTURER FOR ADDITIONAL INFORMATION.

ANTENNA MOUNTING DETAIL

SCALE: NOT TO SCALE

3



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

CABLE MOUNTING DETAIL

SCALE: NOT TO SCALE

2



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"

ANTENNA SIGNAGE



OWNER / OPERATOR NOTE:
SITE ID LABEL TO BE AFFIXED AT OR NEAR THE POINT OF POWER CONNECTION 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".

EMERGENCY CONTACT SIGN

POLE MOUNTED SIGNS

SCALE: NOT TO SCALE

4

mobilitie

PROJECT NO:	SFLB087659
DRAWN BY:	RC
CHECKED BY:	SJB

A	05-25-18	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC
Stephen A. Bray
PROFESSIONAL ENGINEER

FL LICENSE: 68002 3/20/18

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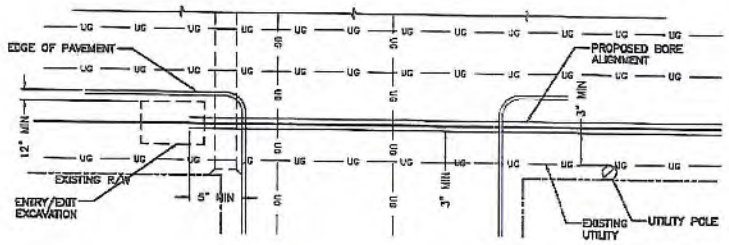
PRELIMINARY

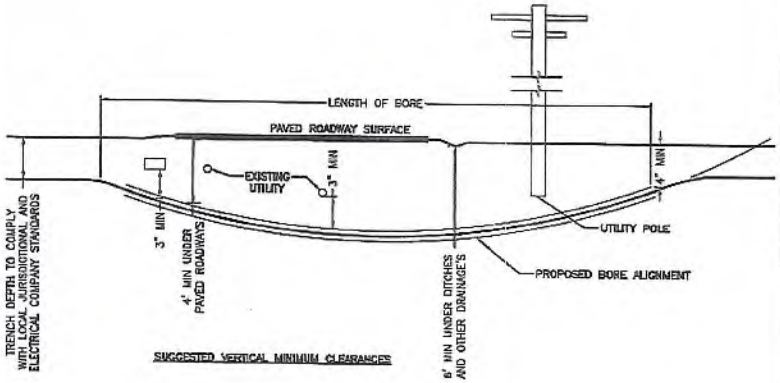
JA90XSRKDB
TALLAHASSEE, FL 32317
PROPOSED 40'-0" WOOD POLE

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
EQ-2



SUGGESTED HORIZONTAL MINIMUM CLEARANCES



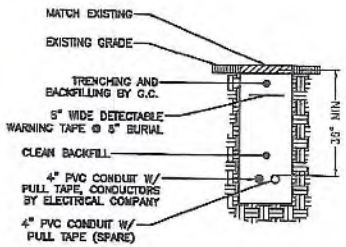
SUGGESTED VERTICAL MINIMUM CLEARANCES

DIRECTIONAL BORING DETAILS

SCALE: NOT TO SCALE

1

NOTE:
TRENCH WIDTH SHALL NOT EXCEED 16" AT ALL ACCESS DRIVE LOCATIONS AND WHEN CROSSING THE COMPOUND GATE OPENING.



TRENCH SECTION DETAIL

SCALE: NOT TO SCALE

2

NOT USED

SCALE: NOT TO SCALE

3

mobilitie

PROJECT NO:	SFLB003589
DRAWN BY:	RC
CHECKED BY:	SJB

A	03-28-18	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC
Stephen A. Bray
PROFESSIONAL ENGINEER
FL LICENSE: 58962 2/28/18

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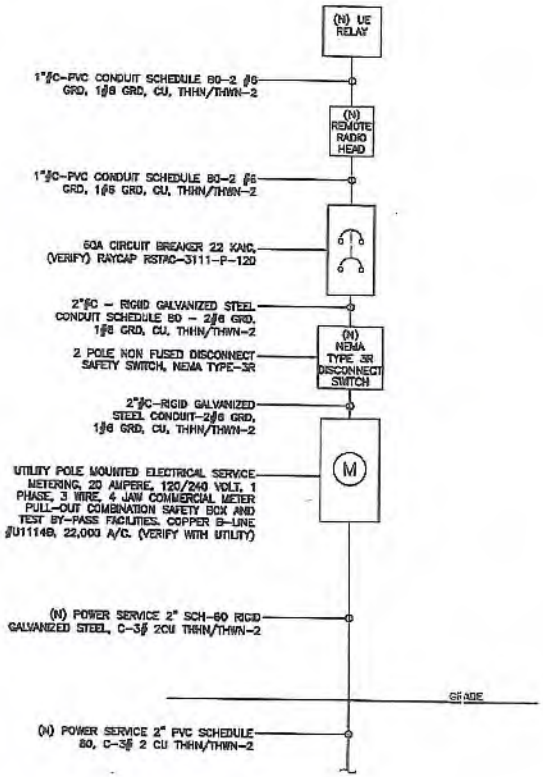
PRELIMINARY

JA90XSRKDB
TALLAHASSEE, FL 32317
PROPOSED 40'-0" WOOD POLE

SHEET TITLE
EXCAVATION DETAILS

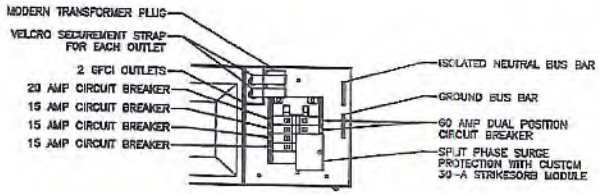
SHEET NUMBER
EX-1



ONE-LINE DIAGRAM

SCALE: NOT TO SCALE

1



BREAKER SCHEDULE

SCALE: NOT TO SCALE

2

NOTES:

1. NOMINAL POWER IS CALCULATED AS 80% OF OEM DOCUMENTED MAXIMUM POWER.
2. CALCULATIONS FOR UE W/ NOKIA DO NOT NEED TO INCLUDE THE POWER FOR THE UE ANTENNA AS IT IS INCLUDED IN THE MAX POWER FIGURE. CALCULATIONS FOR UE W/ AIRSPAN MUST INLCUDE UE AS IT IS NOT INCLUDED
3. KVA IS CALCULATED FROM THE CONSUMPTION VALUE ASSUMING A PF=1. MAXIMUM POWER WAS USED FOR KVA. WHERE MAXIMUM WAS NOTED BY THE OEM THE QUOTED FIGURE WAS USED. WHERE AVERAGE/NOMINAL POWER WAS NOTED BY THE OEM MAXIMUM POWER WAS CALCULATED BY INCREASING AVERAGE/NOMINAL POWER BY A FACTOR OF 50%
4. COST PER KW PROVIDED BY BRAIN KOOYMAN

AIRSPAN SCENARIO 2 AH4000 HIGH POWER RADIO AND UE BACKHAUL									
UNIT	SUB DESCRIPTION	MAX POWER	NOMINAL POWER	AVERAGE POWER (W)	CONS. (W)	KVA	KWH/YR	$/YR	$/MO
AH4000	B26 & B41	N/A	N/A	340	340	0.51	2978.4	$326.43	$27.20
AIRSPAN UE RELAY	IR460-SP8-ST1-P-0	N/A	N/A	20	20	0.03	175.2	$19.20	$1.60
Total					360	0.54	3153.6	$345.63	$28.80

LOAD CALCULATIONS

SCALE: NOT TO SCALE

3

mobilitie

PROJECT NO:	SFLB003699
DRAWN BY:	RC
CHECKED BY:	SJB

A	10-25-19	RE ISSUED

KMB DESIGN GROUP, LLC

Stephen A. Bray

PROFESSIONAL ENGINEER

FL LICENSE: 63092 — 9/28/19

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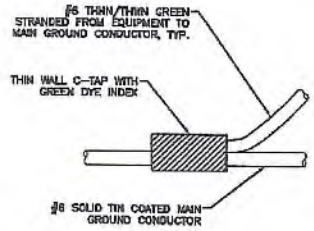
PRELIMINARY

JA90XSRKDB
TALLAHASSEE, FL 32317
PROPOSED 40'-0" WOOD POLE

SHEET TITLE
ELECTRICAL DETAILS

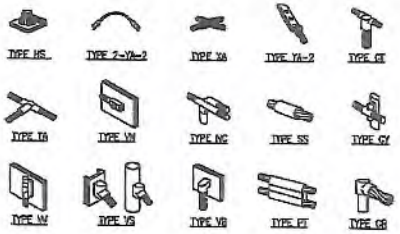
SHEET NUMBER
E-1

NOTE:
CONTRACTOR TO SURROUND COMPLETED CONNECTION WITH HEAT-SHRINK TUBING TO ENSURE WEATHER PROOF CONNECTION



C-TAP DETAIL
SCALE: NOT TO SCALE

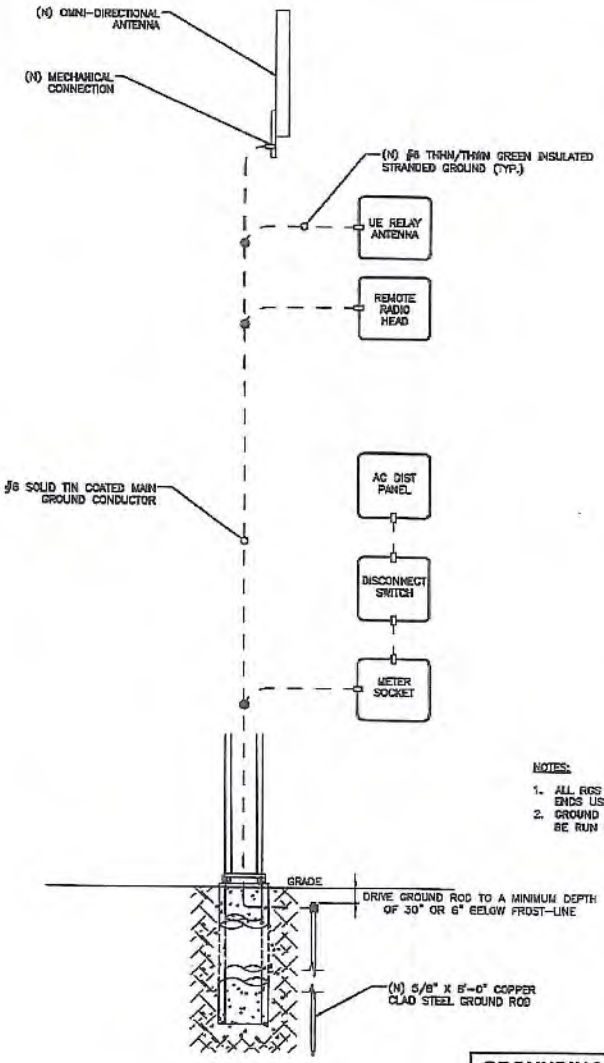
1



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

WELD CONNECTION DETAILS
SCALE: NOT TO SCALE

2



LEGEND
- CADWELD CONNECTION
- MECHANICAL CONNECTION
- COMPRESSION CONNECTION

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

NOTES:
1. ALL RGS TO BE GROUNDED AT BOTH ENDS USING GROUNDING BUSHINGS
2. GROUND WIRE BELOW 11' AGL TO BE RUN IN 1/2" SCHEDULE 40 PVC

GROUNDING RISER DIAGRAM
SCALE: NOT TO SCALE

3

mobilitie

PROJECT NO:	9FLB000699
DRAWN BY:	RC
CHECKED BY:	SJB

A	09-28-16	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC
Stephen A. Bray
PROFESSIONAL ENGINEER
FL LICENSE: 62502 9/28/16

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PRELIMINARY

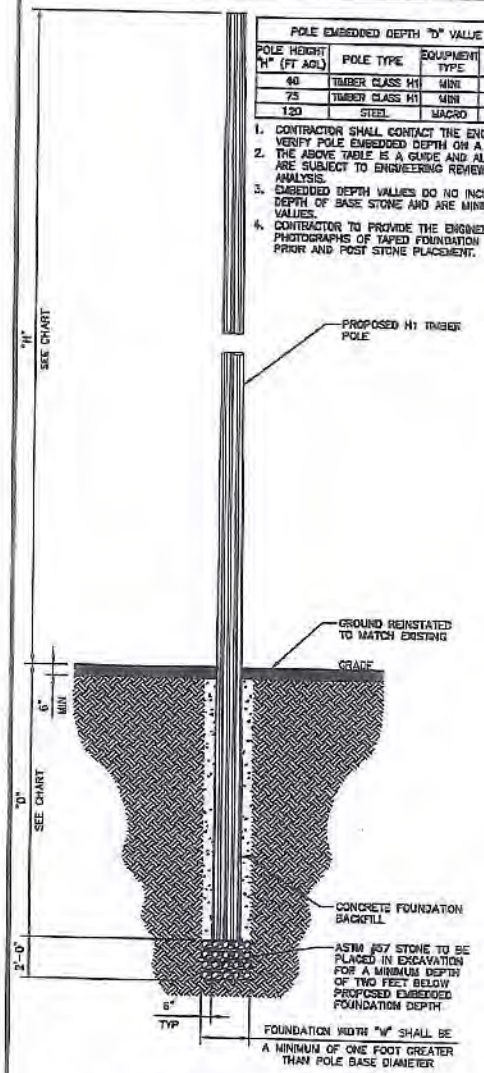
JA90XSRKDB
TALLAHASSEE, FL 32317
PROPOSED 40'-0" WOOD POLE

SHEET TITLE
GROUNDING DETAILS

SHEET NUMBER
G-1

POLE EMBEDDED DEPTH "D" VALUE CHART			
POLE HEIGHT "H" (FT AGL)	POLE TYPE	EQUIPMENT TYPE	EMBEDDED DEPTH (FT)
40	TIMBER CLASS H1	MINI	15
75	TIMBER CLASS H1	MINI	20
120	STEEL	MACRO	20

1. CONTRACTOR SHALL CONTACT THE ENGINEER TO VERIFY POLE EMBEDDED DEPTH ON A SITE BASIS.
2. THE ABOVE TABLE IS A GUIDE AND ALL POLES ARE SUBJECT TO ENGINEERING REVIEW AND ANALYSIS.
3. EMBEDDED DEPTH VALUES DO NO INCLUDE THE DEPTH OF BASE STONE AND ARE MINIMUM VALUES.
4. CONTRACTOR TO PROVIDE THE ENGINEER PHOTOGRAPHS OF TAPED FOUNDATION DEPTHS PRIOR AND POST STONE PLACEMENT.



H1 TIMBER POLE FOUNDATION

SCALE: NOT TO SCALE

1

KMB DESIGN GROUP, LLC

Foundation Embedded Depth Matrix - Florida

(Refer to details "D" on above chart)

Pole Height (ft AGL)	Wind Speed (mph)	Pole Type	Equipment Type	Power (Aerial/Underground)	Embedded Depth (ft)	Pole Length Required (ft)	Base Diameter (in)
40	105-120	Western Red Cedar Class H1	Mini	Aerial	15	55	32.34
40	105-120	Western Red Cedar Class H1	Mini	Underground	15	55	31.94
75	105-120	Western Red Cedar Class H1	Mini	Aerial	20	95	22.73
75	105-120	Western Red Cedar Class H1	Mini	Underground	15	90	21.45
75	105-120	Concrete*	Mini	Underground	15	90	21.45
75	105-120	Steel - Mobilite C-150th	Mini	Aerial	15	90	25.7
75	105-120	Steel - Mobilite C-150th	Mini	Underground	15	90	25.7
40	120-150	Western Red Cedar Class H1	Mini	Aerial	15	55	32.1875
40	120-150	Western Red Cedar Class H1	Mini	Underground	15	55	31.94
75	120-150	Western Red Cedar Class H1	Mini	Aerial	15	90	18.34
75	120-150	Western Red Cedar Class H1	Mini	Underground	15	90	21.45
75	120-150	Concrete	Mini	Aerial	15	90	21.45
75	120-150	Concrete	Mini	Underground	15	90	25.7
75	120-150	Steel - Mobilite C-150th	Mini	Aerial	15	90	25.7
75	120-150	Steel - Mobilite C-150th	Mini	Underground	15	90	25.1875
40	90-120	Western Red Cedar Class H1	Mini	Aerial	15	50	25.1875
40	90-120	Western Red Cedar Class H1	Mini	Underground	15	55	18.34
75	90-120	Western Red Cedar Class H1	Mini	Aerial	15	90	18.34
75	90-120	Western Red Cedar Class H1	Mini	Underground	15	90	21.45
75	90-120	Concrete	Mini	Aerial	15	90	21.45
75	90-120	Concrete	Mini	Underground	15	90	25.7
75	90-120	Steel - Mobilite C-150th	Mini	Aerial	15	90	25.7
75	90-120	Steel - Mobilite C-150th	Mini	Underground	15	90	21.1875

Notes:
1) Contractor shall contact the Engineer to verify pole embedded depth on site by site basis.
2) The above table is a guide and all poles are subject to engineering review and analysis.
3) Embedded depth values do not include the depth of base stone and are minimum values.
4) Contractor to provide the engineer photographs of taped foundation depths pre and post stone placement.
5) Timber pole dimensions based on ANSI 05.1-2002 as provided by Mobilite
* Concrete pole may only be used for underground power supply - an overhead pole power attachment, not a guy for overhead power
** 150+ mph wind speed, if this pole is required for aerial attachment, a manufacturer's pole top analysis PLA is required

FOUNDATION EMBEDDED DEPTH MATRIX - FLORIDA

SCALE: NOT TO SCALE

2

GENERAL NOTES:

1) CONTRACTOR SHALL PROVIDE A DETAILED METHOD OF PROCEDURE (MOP) TO THE ENGINEER OF RECORD FOR REVIEW PRIOR TO MOBILIZING TO THE SITE AND COMMENCING ANY CONSTRUCTION ACTIVITIES. THE MOP SHALL ENSURE ALL APPROPRIATE CODES OF PRACTICE ARE FOLLOWED IN ACCORDANCE WITH OSHA FOR ALL ACTIVITIES. FACTORS THAT SHALL BE CONSIDERED INCLUDE BUT ARE NOT LIMITED TO:
   a. TRANSPORTATION OF ALL MATERIALS AND EQUIPMENT
   b. PPE
   c. MATERIALS AND EQUIPMENT STAGING
   d. TRAFFIC CONTROL
   e. CONTAINMENT OF DRILL SLURRY FLUIDS
   f. TEMPORARY WORKS SUPPORT FOR DRILL EQUIPMENT AND POLE
2) CONTRACTOR SHALL ENSURE THAN AN 811 UTILITY MARK OUT HAS BEEN COMPLETED AND THAT ALL BELOW AND ABOVE GROUND UTILITIES ARE DOCUMENTED.
3) THIS DRAWING SUPPLEMENTS THE GENERAL CONSTRUCTION DRAWINGS FOR THE PROJECT AND SHALL BE READ IN CONJUNCTION WITH THE PE SIGNED AND SEALED CONSTRUCTION DRAWINGS BY KMB DESIGN GROUP, LLC REVISED TO STATE "ISSUED FOR CONSTRUCTION"
4) CONTRACTOR SHALL COMPLY WITH ALL RELEVANT SECTIONS OF 2015 INTERNATIONAL BUILDING CODE CHAPTER 18 AND THE USDOT/FAA DRILLED SHAFT CONSTRUCTION PROCEDURES.

CONCRETE

1) DRILLED SHAFTS SHALL BE FILLED WITH CLASS E-2 CONCRETE. AN AIR ENTRAINMENT ADMIXTURE SHALL BE USED. IN ADDITION A HIGH RANGE WATER-REDUCING ADMIXTURE MAY BE USED TO INCREASE THE SLUMP TO A MAXIMUM OF 9 INCHES ± 1 INCH. IF USED, THE WATER-REDUCING ADMIXTURE SHALL BE ADDED ONLY AFTER THE CONCRETE HAS REACHED THE JOB SITE TO REDUCE THE POTENTIAL FOR FLASH SETTING. THE CONCRETE MIX SHALL BE DENSE, HOMOGENEOUS, FLUID AND RESISTANT TO SEGREGATION, AND SHALL CONSOLIDATE UNDER SELF-WEIGHT. THE CONCRETE MIX SHALL HAVE A SET TIME THAT ENSURES THAT FLUIDITY IS MAINTAINED THROUGHOUT THE SHAFT CONCRETE PLACEMENT AND REMOVAL OF TEMPORARY CASING, IF USED. A CONCRETE RETARDER IN ACCORDANCE WITH AASHTO M 194, TYPE B, MAY BE INCORPORATED INTO THE MIX TO RETARD SET APPROXIMATELY TWO HOURS.
2) IN SITUATIONS WITH EXCESSIVE GROUND WATER OR FOUNDATION FLOODING ALL CONCRETE SHALL BE PLACED USING THE TREMIE METHOD. CONCRETE MIX DESIGN SHALL FOLLOW ACI 211.1 GUIDELINES. CONTRACTOR SHALL ENSURE THAT THE DRILLED SHAFT HAS SUFFICIENT WORKING ACCESS FOR CONCRETE PLACEMENT COMMENCING AT THE BASE OF THE SHAFT AND SHALL BE PLACED IN A SLOW AND STEADY RATE. CONCRETE SHALL NOT BE PERMITTED TO FALL INTO THE SHAFT.
3) CONCRETE MIX ALONG WITH APPROVED ACCELERATORS SHALL BE DESIGNED TO PROVIDE AN INITIAL COMPRESSIVE STRENGTH OF 3,000 PSF WITHIN 5HRS AND A 28 DAY COMPRESSIVE STRENGTH OF 5,000 PSI. CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A DETAILED CONCRETE MIX DESIGN FROM THE CONCRETE PLANT INCLUDING ALL PROPOSED ADDITIVES. A SUITABLE STRENGTH RAPID HARDENING ADMIXTURE IS SIKA RAPID-1. THIS ADDITIVE MIGHT NOT BE SUITABLE FOR ALL CIRCUMSTANCES AND ANY PRODUCT SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

GENERAL NOTES

SCALE: NOT TO SCALE

3

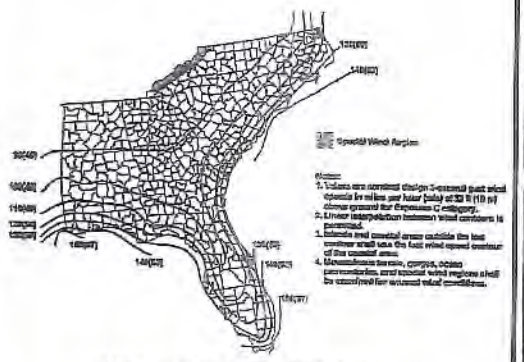


FIGURE 26.5-1B BASIC WIND SPEED WITHOUT ICE, V mph (m/s)

BASIC WIND SPEED WITHOUT ICE

SCALE: NOT TO SCALE

4

IF YOU DIG IN ANY STATE DIAL 811 FOR THE LOCAL "ONE CALL CENTER" – IT'S THE LAW

THE UTILITIES SHOWN HEREON ARE FOR THE CONTRACTORS CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS. THE ENGINEER/SURVEYOR ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS SHOWN AND IF SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL THE UTILITIES BEFORE THE START OF THE WORK. ALL DAMAGE MADE TO THE (E) UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

mobilitie

PROJECT NO:	SFLB003830
DRAWN BY:	RC
CHECKED BY:	SJB

A	05-23-16	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC

Stephen A. Bray

PROFESSIONAL ENGINEER

FL LICENSE: 63932 5/23/16

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PRELIMINARY

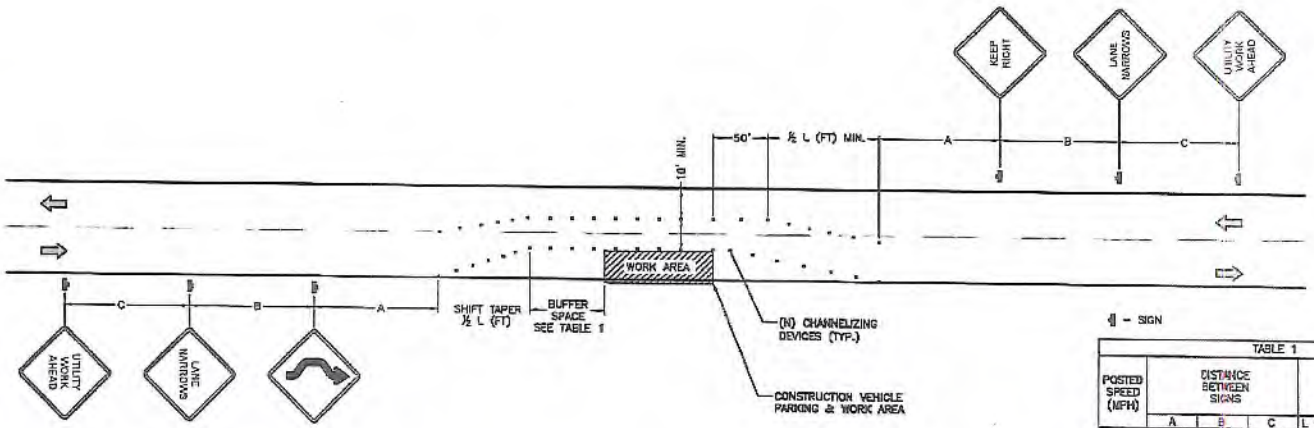
JA90XSRK0B
TALLAHASSEE, FL 32317
PROPOSED 40'-0" WOOD POLE

SHEET TITLE:
POLE FOUNDATION DETAILS

SHEET NUMBER:
S-1

PLAN NOTES:

1. PLANS DEPICTED ARE GENERAL GUIDELINES FOR TEMPORARY TRAFFIC CONTROL PLANS (TCP) TO INCLUDE PEDESTRIAN AND WORKER SAFETY. CONTRACTOR IS REQUIRED TO HAVE PREPARED A SITE-SPECIFIC TCP FOR REVIEW AND APPROVAL BY THE HIGHWAY AUTHORITY HAVING JURISDICTION. IF REQUIRED, THE FIRM PREPARING THE TCP SHALL BE AUTHORIZED OR CERTIFIED BY THE AUTHORITY HAVING JURISDICTION.
2. EXTEND CHANNELIZATION DEVICES INTO SHOULDER WHERE APPLICABLE.
3. DISTANCES AS INDICATED IN TABLE 1 SHOULD BE INCREASED FOR CONDITIONS THAT WOULD AFFECT STOPPING. DISTANCE SUCH AS DOWNGRADES OR LIMITED SIGHT DISTANCES. DISTANCES CAN BE DECREASED FOR LOW-SPEED (RESIDENTIAL) AREAS WITH APPROVAL BY THE AUTHORITY HAVING JURISDICTION. NIGHT-TIME WORK IS PROHIBITED UNLESS IT IS REQUIRED AS A CONDITION OF APPROVAL BY THE HIGHWAY AND LOCAL AUTHORITY HAVING JURISDICTION.
4. SHOULDER TAPERS SHOULD BE 1/3 OF THE ON-STREET TAPER LENGTH.
5. MAINTAIN A MINIMUM LANE WIDTH OF 10'.
6. CONTRACTOR IS REQUIRED TO INPUT ALL LANE CLOSURES ON A STATE HIGHWAY IN THE LANE CLOSURE INFORMATION SYSTEM (HTTPS://LCIS.DOT.STATE.FL.US) 14 DAYS PRIOR TO THE CLOSURE.



= SIGN

TABLE 1

POSTED SPEED (MPH)	DISTANCE BETWEEN SIGNS			TAPER	BUFFER
	A	B	C	L (SEE NOTE)	
15	100'	100'	100'	45'	100'
20	100'	100'	100'	80'	115'
25	100'	100'	100'	125'	155'
30	200'	200'	200'	180'	200'
35	200'	200'	200'	245'	250'
40	350'	350'	350'	320'	305'
45	350'	350'	350'	540'	360'
50	500'	500'	500'	600'	425'
55	500'	500'	500'	660'	495'
60	500'	500'	500'	720'	570'
65	500'	500'	500'	780'	645'

NOTES:

A) DISTANCES IN FEET UNLESS OTHERWISE NOTED.
B) CONTRACTOR TO VERIFY (E) SPEED LIMIT.
C) DISTANCES SHOWN ARE NOT VALID FOR LIMITED ACCESS HIGHWAYS. CONSULT STATE DOT MANUAL FOR DISTANCES.
D) ADJUST DISTANCES TO COMPLY WITH REQUIREMENT OF THE STATE OR LOCAL HIGHWAY AUTHORITY HAVING JURISDICTION. SEE NOTE 1, SHEET 6.1.
E) TAPER LENGTHS SHOWN BASED ON 12' LANE WIDTH. SEE NOTE 1d, SHEET 6.1.

TRAFFIC CONTROL PLAN - LANE SHIFT

1

SCALE: NOT TO SCALE

mobilitie

PROJECT NO:	9FLB003699
DRAWN BY:	RC
CHECKED BY:	SJG

A	09-28-16	PER CLIENT REVIEW

KMB DESIGN GROUP, LLC

Stephen A. Bray
PROFESSIONAL ENGINEER

FL LICENSE: 69702 9/28/16

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PRELIMINARY

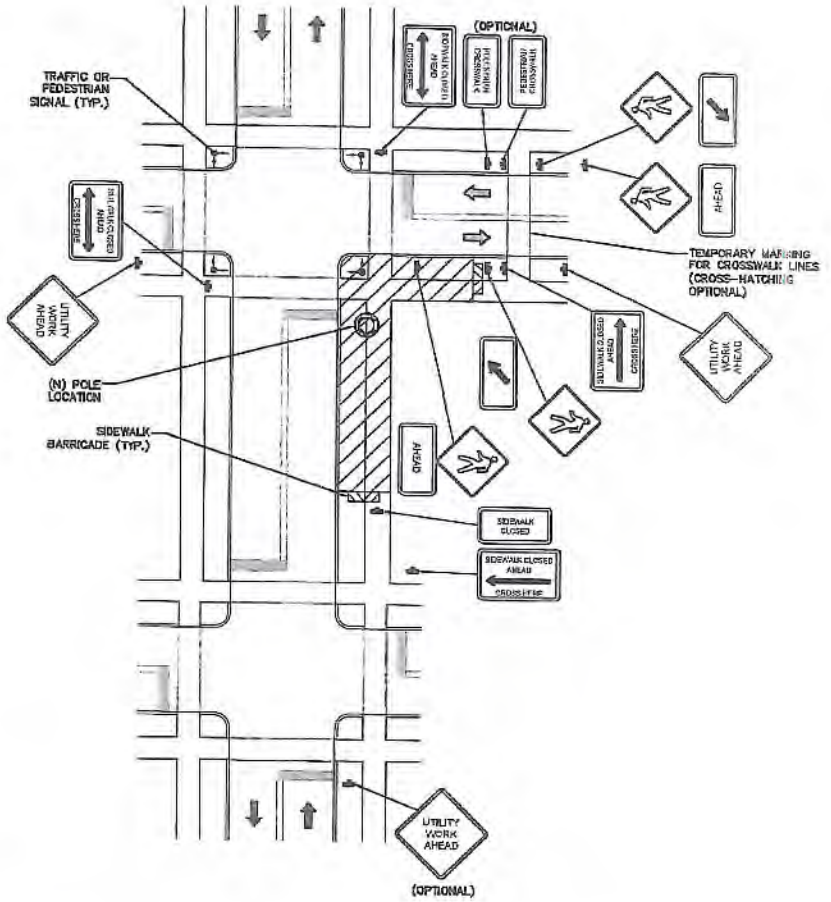
JA90XSRKDB
TALLAHASSEE, FL 32317
PROPOSED 40'-0" WOOD POLE

SHEET TITLE
TRAFFIC CONTROL NOTES

SHEET NUMBER
TC-1

TRAFFIC CONTROL GENERAL NOTES

1. ALL TEMPORARY TRAFFIC CONTROL SIGNAGE, LAYOUTS AND PROCEDURES SHALL COMPLY WITH LOCAL JURISDICTIONAL REQUIREMENTS AND MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION, WHICHEVER IS MORE STRINGENT.
2. PRIOR TO ANY ROAD CONSTRUCTION, TRAFFIC CONTROL SIGNS AND DEVICES SHALL BE IN PLACE.
3. TRAFFIC CONTROL DEVICES FOR LANE CLOSURES INCLUDING SIGNS, CONES, 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.
4. SELECTION, PLACEMENT, MAINTENANCE, AND PROTECTION OF TRAFFIC, PEDESTRIANS, AND WORKERS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) – PART VI "TEMPORARY TRAFFIC CONTROL", AND LOCAL JURISDICTIONAL REQUIREMENTS UNLESS OTHERWISE NOTED IN THE PLANS AND SPECIFICATIONS, AND SHALL BE APPROVED BY THE APPROPRIATE HIGHWAY AUTHORITY HAVING JURISDICTION.
5. ADVANCE WARNING SIGNS, DISTANCES, AND TAPER LENGTHS MAY BE EXTENDED TO ADJUST FOR REDUCED VISIBILITY DUE TO HORIZONTAL AND VERTICAL CURVATURE OF THE ROADWAY AND FOR ACTUAL TRAFFIC SPEEDS IF IN EXCESS OF POSTED SPEED LIMITS.
6. TAPERS SHALL BE LOCATED TO MAXIMIZE THE VISIBILITY OF THEIR TOTAL LENGTH.
7. CONFLICTING OR NON-OPERATING SIGNAL INDICATIONS ON THE (E) TRAFFIC SIGNAL SYSTEMS SHALL BE BAGGED OR COVERED.
8. ALL (E) ROAD SIGNS, PAVEMENT MARKINGS AND/OR FLOWABLE PAVEMENT REFLECTORS WHICH CONFLICT WITH THE (M) TRAFFIC CONTROL PLAN SHALL BE COVERED, REMOVED, OR RELOCATED. ALL TRAFFIC CONTROL DEVICES SHALL BE RESTORED TO MATCH PRE-CONSTRUCTION CONDITION AFTER COMPLETION OF WORK.
9. CONTRACTOR SHALL CONTACT LOCAL AUTHORITY HAVING HIGHWAY JURISDICTION AND PROVIDE ADDITIONAL "FLAGMEN" OR POLICE SUPERVISION, IF REQUIRED.
10. ALL EXCAVATED AREAS WITHIN OR ADJACENT TO THE ROADWAY SHALL BE BACKFILLED AND PLACED ON A MINIMUM 6H:1V SLOPE PRIOR TO END OF EACH WORK DAY. OTHER EXCAVATED AREAS WITHIN THE CLEAR ZONE ARE TO BE EITHER BACKFILLED OR PRECAST CONCRETE CURB BARRIER CONSTRUCTION BARRIER SET TEMPORARILY IN PLACE TO SHIELD VEHICULAR AND PEDESTRIAN TRAFFIC.
11. WHERE DICTATED BY LOCAL CONDITIONS, THE CONTRACTOR SHALL MAKE PROVISIONS FOR MAINTAINING PEDESTRIAN AND WORKER CROSSING LOCATIONS IN ACCORDANCE WITH ALL APPLICABLE CODES AND OSHA REQUIREMENTS.
12. CONSTRUCTION ZONE SPEED LIMIT IF REDUCED FROM POSTED LIMITS SHALL BE IN ACCORDANCE WITH MUTCD AND WILL BE DETERMINED BY THE AUTHORITY HAVING JURISDICTION.
13. THERE SHALL BE NO WORKERS, EQUIPMENT, OR OTHER VEHICLES IN THE BUFFER SPACE OR THE ROLL AHEAD SPACE.
14. DRIVEWAYS AND/OR SIDE STREETS ENTERING THE ROADWAY AFTER THE FIRST ADVANCE WARNING SIGN SHALL BE PROVIDED WITH AT LEAST ONE W20-1 SIGN (ROAD WORK AHEAD) AS A MINIMUM.
15. CONES MAY BE SUBSTITUTED FOR DRUMS AND INSTALLED UPON THE APPROVAL OF THE AUTHORITY HAVING JURISDICTION PROVIDED THEY COMPLY WITH MUTCD.
16. THE SPACING BETWEEN CONES, TUBULAR MARKERS, VERTICAL PANELS, DRUMS, AND BARRICADES SHOULD NOT EXCEED A DISTANCE IN FEET EQUAL TO 1.0 TIMES THE SPEED LIMIT IN MPH WHEN USED FOR TAPER CHANNELIZATION, AND A DISTANCE IN FEET EQUAL TO 2.0 TIMES THE SPEED LIMIT IN MPH WHEN USED FOR TANGENT CHANNELIZATION.
17. WHEN CHANNELIZATION DEVICES HAVE THE POTENTIAL OF LEADING VEHICULAR TRAFFIC OUT OF THE INTENDED VEHICULAR TRAFFIC SPACE, THE CHANNELIZATION DEVICES SHOULD BE EXTENDED A DISTANCE IN FEET OF 2.0 TIMES THE SPEED LIMIT IN MPH BEYOND THE DOWNSTREAM END OF THE TRANSITION AREA.
18. TAPER LENGTHS ARE CALCULATED AS FOLLOWS:
L= WS²/60 (40 MPH AND HIGHER) OR L2= WS (OVER 40 MPH),
WHERE W= OFFSET WIDTH (FT), S= TRAFFIC SPEED (MPH).



TYPICAL PEDESTRIAN / WORKER SAFETY PLAN

SCALE: NOT TO SCALE

1

mobilitie

PROJECT NO:	8FLB003995
DRAWN BY:	RC
CHECKED BY:	SJB

A	6-23-15	PER CLIENT REVIEW

KMB DESIGN GROUP, LLC

Stephen A. Bray

PROFESSIONAL ENGINEER

FL LICENSE: 69902 6/23/15

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

PRELIMINARY

JAS0XSRKDB
TALLAHASSEE, FL 32317
PROPOSED 40'-0" WOOD POLE

SHEET TITLE
PEDESTRIAN TRAFFIC CONTROL PLAN

SHEET NUMBER
TC-2

GENERAL CONSTRUCTION NOTES:

1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE LOCAL BUILDING CODE, THE LATEST ADOPTED EDITION AND ALL OTHER APPLICABLE CODES AND ORDINANCES.

2. CONTRACTOR SHALL CONSTRUCT SITE IN ACCORDANCE WITH THESE DRAWINGS AND LATEST MOBILITIE CONSTRUCTION STANDARDS. THE SPECIFICATION IS THE RULING DOCUMENT AND ANY DISCREPANCIES BETWEEN THE SPECIFICATION AND THE CONSTRUCTION DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER OR MOBILITIE CM PRIOR TO THE COMMENCEMENT OF WORK.

3. CONTRACTOR SHALL VISIT THE JOB SITE AND SHALL FAMILIARIZE THEMSELVES WITH ALL CONDITIONS AFFECTING THE (N) WORK AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED, AS SHOWN, PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER OR MOBILITIE CM PRIOR TO THE COMMENCEMENT OF WORK. NO COMPENSATION WILL BE AWARDED BASED ON CLAIM OF LACK OF KNOWLEDGE OF FIELD CONDITIONS.

4. IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. CONTRACTOR IS REQUIRED TO FURNISH AND INSTALL ANY/ALL ITEMS FOR A COMPLETE AND FULLY FUNCTIONAL SYSTEM SUBJECT ONLY TO OWNER-SUPPLIED ITEMS. CONTRACTOR SHALL PROVIDE ANY/ALL REQUIREMENTS FOR THE EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.

5. PLANS ARE NOT TO BE SCALED, THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT AND APPURTENANCES, AND LABOR NECESSARY TO EFFECT ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS. OWNER PROVIDED AND CONTRACTOR INSTALLED MATERIALS WILL INCLUDE THE FOLLOWING, UNLESS NOTED OTHERWISE:

   A) TRANSMITTER
   B) UHF ANTENNA AND MOUNTING BRACKETS, GPS ANTENNAS AND KU ANTENNAS
   C) UHF COAX AND HANGERS
   D) INTEGRATED LOAD CENTER

6. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS. SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, (E) CONDITIONS AND/OR DESIGN INTENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPORTING ANY DISCREPANCIES TO THE ATTENTION OF THE MOBILITIE CM IN WRITING, PRIOR TO THE COMMENCEMENT OF WORK.

7. DETAILS PROVIDED ARE FOR THE PURPOSE OF SHOWING DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR SITE CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.

8. CONTRACTOR SHALL PAY FOR APPLICABLE PERMITS, FEES, INSPECTIONS AND TESTING. CONTRACTOR IS TO OBTAIN PERMITS AND APPROVED SUBMITTALS PRIOR TO ORDERING MATERIALS AND THE COMMENCEMENT OF WORK.

9. THE TERM "PROVIDE" USED IN CONSTRUCTION DOCUMENTS AND SPECIFICATIONS, INDICATES THAT THE CONTRACTOR SHALL FURNISH AND INSTALL.

10. CONTRACTOR SHALL RECEIVE CLARIFICATION IN WRITING, AND SHALL RECEIVE IN WRITING AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEMS NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.

11. CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING ACCEPTED INDUSTRY-STANDARD SKILLS AND ATTENTION. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER CONTRACT, UNLESS OTHERWISE NOTED.

12. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFORM TO ALL OSHA REQUIREMENTS.

13. CONTRACTOR SHALL COORDINATE THEIR WORK WITH THE MOBILITIE CM AND SCHEDULE THEIR ACTIVITIES AND WORKING HOURS IN ACCORDANCE WITH THE REQUIREMENTS.

14. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THEIR WORK WITH THE WORK OF OTHERS AS IT MAY RELATE TO RADIO EQUIPMENT, ANTENNAS AND ANY OTHER PORTIONS OF THE WORK.

15. CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS UNLESS SPECIFICALLY OTHERWISE INDICATED OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.

16. CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT (E) SURFACES, EQUIPMENT, IMPROVEMENTS, PIPING ETC. AND IMMEDIATE REPAIR, TO NEW CONDITION, ANY DAMAGE THAT OCCURS DURING CONSTRUCTION AT THE SOLE COST OF THE CONTRACTOR.

17. IN DRILLING HOLES, OR CORING, INTO CONCRETE WHETHER FOR FASTENING OR ANCHORING PURPOSES, OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, PIPE RUNS, ETC., MUST BE CLEARLY UNDERSTOOD THAT REINFORCING STEEL SHALL NOT BE DRILLED INTO, CUT OR DAMAGED UNDER ANY CIRCUMSTANCES (UNLESS NOTED OTHERWISE). LOCATIONS OF REINFORCING STEEL ARE NOT DEFINITELY KNOWN AND THEREFORE MUST BE LOCATED BY THE CONTRACTOR USING APPROPRIATE METHODS AND EQUIPMENT PRIOR TO ANY DRILLING OR CORING OPERATIONS IN (E) CONCRETE.

18. CONTRACTOR SHALL REPAIR, TO NEW CONDITION, ALL (E) WALL SURFACES DAMAGED DURING CONSTRUCTION SUCH THAT THEY MATCH AND BLEND IN WITH ADJACENT SURFACES.

19. CONTRACTOR SHALL SEAL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES OR MATERIALS WITH U.L. LISTED AND FIRE CODE APPROVED MATERIALS AND SYSTEMS THAT MEET OR EXCEED THE RATING OF THE ASSEMBLY IN WHICH THE NEW PENETRATION IS PLACED.

20. CONTRACTOR SHALL KEEP CONTRACT AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS, AND RUBBISH. EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY OF THE OWNER SHALL BE REMOVED. LEAVE PREMISES IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL ITEMS UNTIL COMPLETION OF CONSTRUCTION.

21. MINIMUM BEND RADIUS OF ANTENNA CABLES SHALL BE IN ACCORDANCE WITH CABLE MANUFACTURERS RECOMMENDATIONS.

22. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO (E) SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION SHALL BE IN CONFORMANCE WITH JURISDICTIONAL OR STATE AND LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL AND COORDINATED WITH LOCAL REGULATORY AUTHORITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ANY EROSION CONTROL MEASURES, RECORD-KEEPING, MONITORING, AND REPORTING TO THE OWNER AND REGULATORY AUTHORITIES.

23. ALL CONSTRUCTION WORK IS TO ADHERE TO APPLICANT'S INTEGRATED CONSTRUCTION STANDARDS UNLESS STATE OR LOCAL CODE IS MORE STRINGENT.

24. THE INTENT OF THE PLANS AND SPECIFICATIONS IS TO PERFORM THE CONSTRUCTION IN ACCORDANCE PER STATE BUILDING STANDARDS CODE AND STATE CODE OF REGULATIONS. SHOULD ANY CONDITIONS DEVELOP NOT COVERED BY THE APPROVED PLANS AND SPECIFICATIONS WHEREIN THE FINISHED WORK WILL NOT COMPLY PER STATE CODE OF REGULATIONS, A SCOPE OF WORK DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY THE JURISDICTION BEFORE PROCEEDING WITH THE WORK. A CHANGE ORDER FOR THAT SCOPE SHALL BE SUBMITTED TO THE MOBILITIE CM PRIOR TO PROCEEDING WITH THE WORK.

25. ADEQUATE AND REQUIRED LIABILITY INSURANCE SHALL BE PROVIDED BY THE CONTRACTOR FOR PROTECTION AGAINST PUBLIC LOSS AND ANY/ALL PROPERTY DAMAGE FOR THE DURATION OF WORK.

26. CONTRACTOR SHALL GUARANTEE ANY/ALL MATERIALS AND WORK FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM DATE OF ACCEPTANCE. ANY CORRECTIVE WORK SHALL BE COMPLETED AT THE SOLE COST OF THE CONTRACTOR.

ELECTRICAL NOTES:

1. ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL ANY/ALL ELECTRICAL WORK INDICATED. ANY/ALL CONSTRUCTION SHALL BE IN ACCORDANCE W/DRAWINGS AND ANY/ALL APPLICABLE SPECIFICATIONS. IF ANY PROBLEMS ARE ENCOUNTERED BY COMPLYING WITH THESE REQUIREMENTS, CONTRACTOR SHALL NOTIFY MOBILITIE CM AS SOON AS POSSIBLE AFTER THE DISCOVERY OF THE PROBLEMS, AND SHALL NOT PROCEED WITH THAT PORTION OF WORK, UNTIL THE MOBILITIE CM HAS DIRECTED THE CORRECTIVE ACTIONS TO BE TAKEN.

2. ELECTRICAL CONTRACTOR SHALL VISIT THE JOB SITE AND FAMILIARIZE THEMSELF WITH ANY/ALL CONDITIONS AFFECTING ELECTRICAL AND COMMUNICATION INSTALLATION AND MAKE PROVISIONS AS TO THE COST THEREOF. ALL (E) CONDITIONS OF ELECTRICAL EQUIP., ETC., THAT ARE PART OF THE FINAL SYSTEM, SHALL BE VERIFIED BY THE CONTRACTOR, PRIOR TO THE SUBMITTING OF THEIR BID. FAILURE TO COMPLY WITH THIS PARAGRAPH WILL IN NO WAY RELIEVE CONTRACTOR OF PERFORMING ALL WORK NECESSARY FOR A COMPLETE AND WORKING SYSTEM.

3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE NEC, ALL CODES AND ORDINANCES OF THE LOCAL JURISDICTION, AND POWER & TELEPHONE COMPANIES HAVING JURISDICTION AND SHALL INCLUDE BUT ARE NOT BE LIMITED TO:

   A) UL – UNDERWRITERS LABORATORIES
   B) NEC – NATIONAL ELECTRICAL CODE
   C) NEMA – NATIONAL ELECTRICAL MANUFACTURERS ASSOC.
   D) OSHA – OCCUPATIONAL SAFETY AND HEALTH ACT
   E) SBC – STANDARD BUILDING CODE
   F) NFPA – NATIONAL FIRE PROTECTION AGENCY
   G) ANSI – AMERICAN NATIONAL STANDARDS INSTITUTE
   H) IEEE – INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
   I) ASTM – AMERICAN SOCIETY FOR TESTING MATERIALS

4. REFER TO SITE PLANS AND ELEVATIONS FOR EXACT LOCATIONS OF ALL EQUIPMENT, AND CONFIRM WITH MOBILITIE CM ANY SIZES AND LOCATIONS WHEN NEEDED.

5. (E) SERVICES: CONTRACTOR SHALL NOT INTERRUPT (E) SERVICES WITHOUT WRITTEN PERMISSION OF THE OWNER.

6. CONTRACTOR SHALL CONFIRM WITH LOCAL UTILITY COMPANY ANY/ALL REQUIREMENTS SUCH AS THE: LUG SIZE RESTRICTIONS, CONDUIT ENTRY, SIZE OF TRANSFORMERS, SCHEDULED DOWNTIME FOR THE OWNERS' CONFIRMATION, ETC... ANY/ALL CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE MOBILITIE CM, PRIOR TO BEGINNING ANY WORK.

7. MINIMUM WIRE SIZE SHALL BE #12 AWG, NOT INCLUDING CONTROL WIRING, UNLESS NOTED OTHERWISE. ALL CONDUCTORS SHALL BE COPPER WITH THWN INSULATION, UNLESS OTHERWISE NOTED.

8. OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS, CAST ALLOY WITH THREADED HUBS IN WET/DAMP LOCATIONS AND SPECIAL ENCLOSURES FOR OTHER CLASSIFIED AREAS.

9. IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF THE CONSTRUCTION. CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS FOR THE EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.

10. ELECTRICAL SYSTEM SHALL BE AS COMPLETELY AND EFFECTIVELY GROUNDED, AS REQUIRED BY SPECIFICATIONS, SET FORTH BY APPLICANT.

11. ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS, WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY FUNCTIONAL AND SHALL BE APPROVED BY THE MOBILITIE CM AND LOCAL JURISDICTION. ANY DEFICIENCIES SHALL BE CORRECTED BY AN ELECTRICAL CONTRACTOR AT THE SOLE COST OF THE CONTRACTOR.

12. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.

mobilitie

PROJECT NO:	SFLB005898
DRAWN BY:	RC
CHECKED BY:	SJB

A	09-25-15	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC
Stephen A. Bray
PROFESSIONAL ENGINEER
FL LICENSE: 68602 9/24/15

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

PRELIMINARY

JA90XSRKDB
TALLAHASSEE, FL 32317
PROPOSED 40'-0" WOOD POLE

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-1

ELECTRICAL NOTES CONT'D

13. THE CORRECTION OF ANY DEFECTS SHALL BE COMPLETED BY THE CONTRACTOR WITHOUT ANY ADDITIONAL CHARGE AND SHALL INCLUDE THE REPLACEMENT OR THE REPAIR OF ANY OTHER PHASE OF THE INSTALLATION, WHICH MAY HAVE BEEN DAMAGED THEREIN.

14. CONTRACTOR SHALL PROVIDE AND INSTALL CONDUIT, CONDUCTORS, PULL WIRES, BOXES, COVER PLATES AND DEVICES FOR ALL OUTLETS AS INDICATED.

15. DITCHING AND BACK FILL: CONTRACTOR SHALL PROVIDE FOR ALL UNDERGROUND INSTALLED CONDUIT AND/OR CABLES INCLUDING EXCAVATION AND BACKFILLING AND COMPACTION. REFER TO NOTES AND REQUIREMENTS 'EXCAVATION, AND BACKFILLING.

16. MATERIALS, PRODUCTS AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE NEW AND SHALL APPEAR ON THE LIST OF U.L. APPROVED ITEMS AND SHALL MEET OR EXCEED THE REQUIREMENTS OF THE NEC, NEMA AND IECE.

17. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OR MANUFACTURER'S CATALOG INFORMATION OF ANY/ALL EQUIPMENT AND ALL OTHER ELECTRICAL ITEMS FOR APPROVAL BY THE MOBILITIE CM PRIOR TO INSTALLATION.

18. ANY CUTTING OR PATCHING DEEMED NECESSARY FOR ELECTRICAL WORK IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY AND SHALL BE INCLUDED IN THE COST FOR WORK AND PERFORMED TO THE SATISFACTION OF THE MOBILITIE CM UPON FINAL ACCEPTANCE.

19. THE ELECTRICAL CONTRACTOR SHALL LABEL ALL PANELS WITH ONLY TYPEWRITTEN DIRECTORIES; ALL ELECTRICAL WIRING SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.

20. DISCONNECT SWITCHES SHALL BE UL-RATED, H.P. RATED HEAVY-DUTY, QUICK-MAKE AND QUICK-BREAK ENCLOSURES, AS REQUIRED BY EXPOSURE TYPE.

21. ALL CONNECTIONS SHALL BE MADE WITH A PROTECTIVE COATING OF AN ANTI-OXIDE COMPOUND KNOWN AS "NO-OXIDE A" BY DEARBORNE CHEMICAL CO. COAT ALL WIRE SURFACES BEFORE CONNECTING. EXPOSED COPPER SURFACES, INCLUDING GROUND BARS, SHALL BE TREATED – NO SUBSTITUTIONS.

22. RACEWAYS: CONDUIT SHALL BE SCHEDULE 80 PVC MEETING OR EXCEEDING NEMA TC2 – 1990. CONTRACTOR SHALL PLUG AND CAP EACH END OF SPARE AND EMPTY CONDUITS AND PROVIDE TWO SEPARATE PULL STRINGS – 200 LBS TEST POLYETHYLENE CORD. ALL CONDUIT BENDS SHALL BE A MINIMUM OF 2 FT. RADIUS. RGS CONDUITS WHEN SPECIFIED, SHALL MEET UL-6 FOR GALVANIZED STEEL. ALL FITTINGS SHALL BE SUITABLE FOR USE WITH THREADED RIGID CONDUIT. COAT ALL THREADS WITH 'BRITE ZINC' OR 'COLD GALV'.

23. SUPPORT OF ALL ELECTRICAL WORK SHALL BE AS REQUIRED BY NEC.

24. CONDUCTORS: CONTRACTOR SHALL USE 98% CONDUCTIVITY COPPER WITH TYPE THWN INSULATION, UNLESS OTHERWISE NOTED, 600 VOLT, COLOR CODED. USE SOLID CONDUCTORS FOR WIRE UP TO AND INCLUDING NO. 6 AWG. USE STRANDED CONDUCTORS FOR WIRE ABOVE NO. 6 AWG.

25. CONNECTORS FOR POWER CONDUCTORS: CONTRACTOR SHALL USE PRESSURE TYPE INSULATED TWIST-ON CONNECTORS FOR NO. 10 AWG AND SMALLER. USE SOLDERLESS MECHANICAL TERMINAL LUGS FOR NO. 6 AWG AND LARGER.

26. SERVICE: AS SPECIFIED ON THE DRAWINGS, OWNER OR OWNER'S AGENT WILL APPLY FOR POWER. ALL PROVISIONS FOR TEMPORARY POWER WILL BE OBTAINED BY THE CONTRACTOR.

27. TELEPHONE OR FIBER SERVICE: CONTRACTOR SHALL PROVIDE EMPTY CONDUITS WITH PULL STRINGS AS INDICATED ON DRAWINGS.

28. ELECTRICAL AND TELCO/FIBER RACEWAYS TO BE BURIED A MINIMUM DEPTH OF 30", UNLESS OTHERWISE NOTED.

29. CONTRACTOR SHALL PLACE 6" WIDE DETECTABLE WARNING TAPE AT A DEPTH OF 6" BELOW GROUND AND DIRECTLY ABOVE ELECTRICAL AND TELCO SERVICE CONDUITS. CAUTIONS TAPE TO READ "CAUTION BURIED ELECTRIC" OR "BURIED TELECOM".

30. ALL BOLTS SHALL BE 5-18 STAINLESS STEEL.

GROUNDING NOTES:

1. ALL HARDWARE SHALL BE 5-18 STAINLESS STEEL, INCLUDING LOCK WASHERS. COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND, AS SPECIFIED, BEFORE MATING. ALL HARDWARE SHALL BE STAINLESS STEEL 3/8 INCH DIAMETER OR LARGER.

2. FOR GROUND BOND TO STEEL ONLY: INSERT A CADMIUM PLAT WASHER BETWEEN LUG AND STEEL, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.

3. ALL STEEL CONDUIT SHALL BE BONDED AT BOTH ENDS WITH GROUNDING BUSHING.

4. ALL ELECTRICAL AND GROUNDING AT THE POLE SITE SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE (NEC), NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 780 (LATEST EDITION), AND MANUFACTURER.

5. ALL DETAILS ARE SHOWN IN GENERAL TERMS. ACTUAL GROUNDING INSTALLATION AND CONSTRUCTION MAY VARY DUE TO SITE SPECIFIC CONDITIONS.

6. GROUND ALL ANTENNA BASES, FRAMES, CABLE RUNS, AND OTHER METALLIC COMPONENTS USING #6 GROUND WIRES. FOLLOW ANTENNA AND BTS MANUFACTURER'S PRACTICES FOR GROUNDING REQUIREMENTS.

7. ALL GROUND CONNECTIONS SHALL BE #6 AWG, UNLESS OTHERWISE NOTED. ALL WIRES SHALL BE COPPER WITH THHN, UNLESS OTHERWISE NOTED. ALL GROUND WIRE SHALL BE SOLID TIN COATED OR STRANDED GREEN INSULATED WIRE.

8. CONTRACTOR TO VERIFY AND TEST GROUND TO SOURCE, 10 OHMS MAXIMUM. PROVIDE SUPPLEMENT GROUNDING RODS AS REQUIRED TO ACHIEVE SPECIFIED OHMS READING. GROUNDING AND OTHER OPTIONAL TESTING WILL BE WITNESSED BY THE MOBILITIE CM.

9. NOTIFY ARCHITECT/ENGINEER IF THERE ARE ANY DIFFICULTIES INSTALLING GROUNDING SYSTEM DUE TO SITE SOIL CONDITIONS.

10. ALL HORIZONTALLY RUN GROUNDING CONDUCTORS SHALL BE INSTALLED A MINIMUM OF 30" BELOW GRADE/ 6" BELOW FROST-LINE IN TRENCH, UNLESS OTHERWISE NOTED.BACK FILL SHALL BE COMPACTED AS REQUIRED BY ARCHITECT/ENGINEER.

11. ALL GROUND CONDUCTORS SHALL BE RUN AS STRAIGHT AND SHORT AS POSSIBLE, WITH A MINIMUM 12" BENDING RADIUS NOT LESS THAN 90 DEGREES.

12. ACCEPTABLE CONNECTIONS FOR GROUNDING SYSTEM SHALL BE:

    A. BURNDY, HY-GRADE U.L. LISTED CONNECTORS FOR OUTDOOR USE OR AS APPROVED BY APPLICANT PROJECT MANAGER.
    B. CADWELD, EXOTHERMIC WELDS (WELDED CONNECTIONS).
    C. ONE (1) HOLE TINNED COPPER COMPRESSION (LONG BARREL) FITTINGS.

13. ALL CRIMPED CONNECTIONS SHALL HAVE EMBOSSED MANUFACTURER'S DEMARK VISIBLE AT THE CRIMP (RESULTING FROM USE OF PROPER CRIMPING DEVICES) AND WEATHER-PROOFED WITH HEAT SHRINK.

14. ALL CONNECTION HARDWARE SHALL BE TYPE 5-18 STAINLESS STEEL (NOT ATTRACTED TO MAGNETS).

15. ELECTRICAL SERVICE EQUIPMENT GROUNDING SHALL COMPLY WITH NEC, ARTICLE 250-82 AND SHALL BOND ALL (E) AND NEW GROUNDING ELECTRODES. NEW GROUNDING ELECTRODE SHALL INCLUDE BUT NOT LIMITED TO GROUND RODS.

TESTING AND EQUIPMENT TURN UP REQUIREMENTS:

1. RF CABLE, DATA CABLE, RADIO EQUIPMENT AND BACK HAUL EQUIPMENT TESTING WILL COMPLY WITH CURRENT INDUSTRY STANDARDS AND OR THOSE STANDARDS OF THE EQUIPMENT MANUFACTURER OR PROVIDED TO THE CONTRACTOR PRIOR TO TESTING.

2. CONTRACTOR WILL USE THE APPROPRIATE CALIBRATED TESTING EQUIPMENT IN THE TESTING OF RF CABLE, DATA CABLE, RADIO EQUIPMENT AND BACK HAUL EQUIPMENT THAT MEET INDUSTRY STANDARDS OF THE MANUFACTURER OR THOSE STANDARDS PROVIDED TO THE CONTRACTOR PRIOR TO TESTING.

3. CONTRACTOR TO VERIFY AND RECORD ALL TEST RESULTS AND PROVIDE THESE RESULTS WITHIN THE FINAL CLOSE OUT PACKAGE.

4. ALL PERSONNEL INVOLVED IN THE TESTING OF RF CABLE, DATA CABLE, RADIO EQUIPMENT AND BACK HAUL EQUIPMENT WILL BE REQUIRED TO HAVE BEEN TRAINED AND OR CERTIFIED IN THE PROPER TESTING OF RF CABLE, DATA CABLE, RADIO EQUIPMENT AND BACK HAUL EQUIPMENT.

5. ALL TEST RESULTS SHALL BE TIME STAMPED, RECORDED AND PRESENTED PRIOR TO ENERGIZING AND TURN UP OF ANY EQUIPMENT.

6. GPS EQUIPMENT IS NOT TO BE TESTED OR ATTACHED TO ANY CABLING DURING TESTING, DOING SO WILL DAMAGE THE GPS UNIT.

7. PRIOR TO TESTING IF THE CONTRACTOR HAS ANY QUESTIONS ABOUT THE TESTING PROCEDURES THEY ARE TO CALL AND OBTAIN ASSISTANCE FROM A QUALIFIED DESIGNATED TESTING REPRESENTATIVE.

8. EQUIPMENT IS NOT TO BE ENERGIZED UNTIL ALL TESTING HAS BEEN COMPLETED, APPROVED AND THE APPROPRIATE AUTHORITY HAS BEEN NOTIFIED AND GIVES APPROVAL TO ENERGIZE THE EQUIPMENT.

SITE WORK NOTES:

1. DO NOT EXCAVATE OR DISTURB BEYOND THE PROPERTY LINES OR LEASE LINES, UNLESS OTHERWISE NOTED.

2. SIZE, LOCATION AND TYPE OF ANY UNDERGROUND UTILITIES OR IMPROVEMENTS SHALL BE ACCURATELY NOTED AND PLACED ON AS-BUILT DRAWINGS BY GENERAL CONTRACTOR AND ISSUED TO ARCHITECT/ENGINEER AT COMPLETION OF PROJECT.

3. ALL (E) UTILITIES, FACILITIES, CONDITIONS AND THEIR DIMENSIONS SHOWN ON PLANS HAVE BEEN PLOTTED FROM AVAILABLE RECORDS. THE ENGINEER AND OWNER ASSUME NO RESPONSIBILITY WHATSOEVER AS TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS OR THE MANNER OF THEIR REMOVAL OR ADJUSTMENT. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL (E) UTILITIES AND FACILITIES PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL ALSO OBTAIN FROM EACH UTILITY COMPANY DETAILED INFORMATION RELATIVE TO WORKING SCHEDULES AND METHODS OF REMOVING OR ADJUSTING (E) UTILITIES.

4. CONTRACTOR SHALL VERIFY ALL (E) UTILITIES BOTH HORIZONTALLY AND VERTICALLY PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES OR DOUBTS AS TO THE INTERPRETATION OF PLANS SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT/ENGINEER OR MOBILITIE CM FOR RESOLUTION AND INSTRUCTION, AND NO FURTHER WORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS CHECKED AND CORRECTED BY THE ARCHITECT/ENGINEER. FAILURE TO SECURE SUCH INSTRUCTION MEANS CONTRACTOR WILL HAVE WORKED AT THEIR OWN RISK AND EXPENSE. CONTRACTOR SHALL CALL LOCAL UTILITY LOCATE HOT LINE, SUCH AS 811, FOR UTILITY LOCATIONS A MINIMUM OF 48 HOURS PRIOR TO START OF CONSTRUCTION.

5. ALL NEW AND (E) UTILITY STRUCTURES ON SITE AND IN AREAS TO BE DISTURBED BY CONSTRUCTION SHALL BE ADJUSTED TO FINISH ELEVATIONS PRIOR TO FINAL INSPECTION OF WORK. ANY COST RELATED TO ADJUSTING (E) STRUCTURES SHALL BE BORNE SOLELY BY THE CONTRACTOR.

6. GRADING OF THE SITE WORK AREA IS TO BE SMOOTH AND CONTINUOUS IN SLOPE AND IS TO FEATHER INTO (E) GRADES AT THE GRADING LIMITS.

7. ALL TEMPORARY EXCAVATIONS FOR THE INSTALLATION OF FOUNDATIONS, UTILITIES, ETC., SHALL BE PROPERLY LAID BACK OR BRACED IN ACCORDANCE WITH CORRECT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS.

mobilitie

PROJECT NO:	SFLB003629
DRAWN BY:	RC
CHECKED BY:	SJB

A	8-3-16	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC

Stephen A. Bray

PROFESSIONAL ENGINEER

FL LICENSE: 68803 8/25/16

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

PRELIMINARY

JA90XSRKDB
TALLAHASSEE, FL 32317
PROPOSED 40'-0" WOOD POLE

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-2

SITE WORK NOTES CONT'D

8. STRUCTURAL FILLS SUPPORTING PAVEMENTS SHALL BE COMPACTED TO 98% OF MAXIMUM STANDARD PROCTOR DRY DENSITY, UNLESS OTHERWISE NOTED.

9. NEW GRADES NOT IN BUILDING AND DRIVEWAY IMPROVEMENT AREA TO BE ACHIEVED BY FILLING WITH APPROVED CLEAN FILL AND COMPACTED TO 95% OF STANDARD PROCTOR DENSITY.

10. ALL FILL SHALL BE PLACED IN UNIFORM LIFTS. THE LIFTS THICKNESS SHOULD NOT EXCEED THAT WHICH CAN BE PROPERLY COMPACTED THROUGHOUT ITS ENTIRE DEPTH WITH THE EQUIPMENT AVAILABLE.

11. ANY FILLS PLACED ON (E) SLOPES THAT ARE STEEPER THAN 10 HORIZONTAL TO 1 VERTICAL SHALL BE PROPERLY BENCHED INTO THE (E) SLOPE AS DIRECTED BY A GEOTECHNICAL ENGINEER.

12. CONTRACTOR SHALL CLEAN ENTIRE SITE AFTER CONSTRUCTION SUCH THAT NO DEBRIS, PAPER, TRASH, WEEDS, BRUSH, EXCESS FILL, OR ANY OTHER DEPOSITS WILL REMAIN. ALL MATERIALS COLLECTED DURING CLEANING OPERATIONS SHALL BE DISPOSED OF OFF-SITE BY THE GENERAL CONTRACTOR.

13. ALL TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH THE IMPROVEMENTS SHALL BE PROTECTED BY THE GENERAL CONTRACTOR.

14. ALL SITE WORK SHALL BE CAREFULLY COORDINATED BY GENERAL CONTRACTOR WITH LOCAL UTILITY COMPANY, TELEPHONE COMPANY, AND ANY OTHER UTILITY COMPANIES HAVING JURISDICTION OVER THIS LOCATION.

ENVIRONMENTAL NOTES:

1. ALL WORK PERFORMED SHALL BE DONE IN ACCORDANCE WITH ISSUED PERMITS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYMENT OF FINES AND PROPER CLEAN UP FOR AREAS IN VIOLATION.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS DURING CONSTRUCTION FOR PROTECTION OF ADJACENT PROPERTIES, ROADWAYS AND WATERWAYS. ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE MAINTAINED IN PLACE THROUGH FINAL JURISDICTIONAL INSPECTION & RELEASE OF SITE.

3. CONTRACTOR SHALL INSTALL/CONSTRUCT ALL NECESSARY SEDIMENT/SILT CONTROL FENCING AND PROTECTIVE MEASURES AS REQUIRED BY THE LOCAL JURISDICTION WITHIN THE LIMITS OF SITE DISTURBANCE PRIOR TO CONSTRUCTION.

4. NO SEDIMENT SHALL BE ALLOWED TO EXIT THE PROPERTY. THE CONTRACTOR IS RESPONSIBLE FOR TAKING ADEQUATE MEASURES FOR CONTROLLING EROSION. ADDITIONAL SEDIMENT CONTROL FENCING MAY BE REQUIRED IN ANY AREAS SUBJECT TO EROSION.

5. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE ON THE SITE AT ALL TIMES WITH SILT AND EROSION CONTROL MEASURES MAINTAINED ON THE DOWNSTREAM SIDE OF SITE DRAINAGE. ANY DAMAGE TO ADJACENT PROPERTY AS A RESULT OF EROSION WILL BE CORRECTED AT THE CONTRACTORS EXPENSE.

6. CONTRACTOR SHALL BE RESPONSIBLE FOR DAILY INSPECTIONS AND ANY REPAIRS OF ALL SEDIMENT CONTROL MEASURES INCLUDING SEDIMENT REMOVAL AS NECESSARY.

7. CLEARING OF VEGETATION AND TREE REMOVAL SHALL BE ONLY AS PERMITTED AND BE HELD TO A MINIMUM. ONLY TREES NECESSARY FOR CONSTRUCTION OF THE FACILITIES SHALL BE REMOVED.

8. SEEDING AND MULCHING AND/OR SODDING OF THE SITE WILL BE ACCOMPLISHED AS SOON AS POSSIBLE AFTER COMPLETION OF THE PROJECT FACILITIES AFFECTING LAND DISTURBANCE.

9. CONTRACTOR SHALL PROVIDE ALL EROSION AND SEDIMENTATION CONTROL MEASURES AS REQUIRED BY LOCAL, COUNTY AND STATE CODES AND ORDINANCES TO PROTECT EMBANKMENTS FROM SOIL LOSS AND TO PREVENT ACCUMULATION OF SOIL AND SILT IN STREAMS AND DRAINAGE PATHS LEAVING THE CONSTRUCTION AREA. THIS MAY INCLUDE, BUT IS NOT LIMITED TO SUCH MEASURES AS SILT FENCES, STRAW BALE SEDIMENT BARRIERS, AND CHECK DAMS.

10. RIP RAP OF SIZES INDICATED SHALL CONSIST OF CLEAN, HARD, SOUND, DURABLE, UNIFORM IN QUALITY STONE FREE OF ANY DETRIMENTAL QUANTITY OF SOFT, FRIABLE, THIN, ELONGATED OR LAMINATED PIECES, DISINTEGRATED MATERIAL, ORGANIC MATTER, OIL, ALKALI, OR OTHER DELETERIOUS SUBSTANCES.

11. GC TO PLACE FILTER MATERIAL AT ALL CATCH BASINS ADJACENT TO CONSTRUCTION SITE TO PREVENT SOLID WASTE CONTAMINATION FROM ENTERING SEWER SYSTEM

EXCAVATION, EXCAVATION AND BACKFILL NOTES:

1. ALL FINAL GRADED SLOPES SHALL BE A MAXIMUM OF 3 HORIZONTAL TO 1 VERTICAL, UNLESS OTHERWISE NOTED.

2. BACKFILL OF POLE SHALL BE PERFORMED IN ONE OF THREE OPTIONS:

   A. PREFERRED: RAINBOW INDUSTRIES POLE SETTING FOAM SHALL BE INSTALLED PER MANUFACTURER SPECS. FOAM SHALL ALWAYS BE USED FOR POOR SOILS.

   B. SECONDARY: CONCRETE (REQUIRES MOBILITIE ON WRITTEN APPROVAL)
   ALLOWABLE SOIL PRESSURE = 2000 PSF (ASSUMED).
   NON-NATIVE SOILS SHALL BE REMOVE FROM BORE AREA AND SHALL NOT BE REUSED FOR BACKFILL

3. ALL EXCAVATIONS PREPARED FOR PLACEMENT OF CONCRETE SHALL BE OF UNDISTURBED SOILS, SUBSTANTIALLY HORIZONTAL AND FREE FROM ANY LOOSE, UNSUITABLE MATERIAL OR FROZEN SOILS, AND WITHOUT THE PRESENCE OF POUNDING WATER. DEWATERING FOR EXCESS GROUND WATER SHALL BE PROVIDED WHEN REQUIRED. COMPACTION OF SOILS UNDER CONCRETE PAD FOUNDATIONS SHALL NOT BE LESS THAN 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY FOR THE SOIL IN ACCORDANCE WITH ASTM D1557.

10. CONCRETE FOUNDATIONS SHALL NOT BE PLACED ON ORGANIC OR UNSUITABLE MATERIAL. IF ADEQUATE BEARING CAPACITY IS NOT ACHIEVED AT THE DESIGNED EXCAVATION DEPTH, THE UNSATISFACTORY SOIL SHALL BE EXCAVATED TO ITS FULL DEPTH AND EITHER BE REPLACED WITH MECHANICALLY COMPACTED GRANULAR MATERIAL OR THE EXCAVATION SHALL BE FILLED WITH CONCRETE OF THE SAME TYPE SPECIFIED FOR THE FOUNDATION. CRUSHED STONE MAY BE USED TO STABILIZE THE BOTTOM OF THE EXCAVATION. ANY STONE SUB BASE MATERIAL, IF USED, SHALL NOT SUBSTITUTE FOR REQUIRED THICKNESS OF CONCRETE.

11. ALL EXCAVATIONS SHALL BE CLEAN OF UNSUITABLE MATERIAL SUCH AS VEGETATION, TRASH, DEBRIS, AND SO FORTH PRIOR TO BACK FILLING. BACK FILL SHALL CONSIST OF APPROVED MATERIALS SUCH AS EARTH, LOAM, SANDY CLAY, SAND AND GRAVEL, OR SOFT SHALE, FREE FROM CLODS OR LARGE STONES OVER 2 1/2" MAX DIMENSIONS. ALL BACK FILL SHALL BE PLACED IN COMPACTED LAYERS.

12. ALL FILL MATERIALS AND FOUNDATION BACK FILL SHALL BE PLACED IN MAXIMUM 8" THICK LIFTS BEFORE COMPACTION. EACH LIFT SHALL BE WETTED IF REQUIRED AND COMPACTED TO NOT LESS THAN 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY FOR SOIL IN ACCORDANCE WITH ASTM D1557.

13. NEWLY PLACED CONCRETE FOUNDATIONS SHALL CURE A MINIMUM OF 72 HRS PRIOR TO BACK FILLING.

14. FINISHED GRADING SHALL BE SLOPED TO PROVIDE POSITIVE DRAINAGE AND PREVENT STANDING WATER. THE FINAL (FINISH) ELEVATION OF SLAB FOUNDATIONS SHALL SLOPE AWAY IN ALL DIRECTIONS FROM THE CENTER. FINISH GRADE OF CONCRETE PADS SHALL BE A MAXIMUM OF 4 INCHES ABOVE FINAL FINISH GRADE ELEVATIONS. PROVIDE SURFACE FILL GRAVEL TO ESTABLISH SPECIFIED ELEVATIONS WHERE REQUIRED.

15. NEWLY GRADED GRAVEL SURFACE AREAS TO RECEIVE GRAVEL SHALL BE COVERED WITH GEOTEXTILE FABRIC TYPE: TYPAR-3401 AS MANUFACTURED BY TYPAR GEOSYNTHETICS OR AN APPROVED EQUIVALENT, SHOWN ON PLANS. THE GEOTEXTILE FABRIC SHALL BE BLACK IN COLOR TO CONTROL THE RECURRENCE OF VEGETATIVE GROWTH AND EXTEND TO WITHIN 1 FOOT OUTSIDE THE SITE FENCING OR ELECTRICAL GROUNDING SYSTEM PERIMETER WHICH EVER IS GREATER. ALL FABRIC SHALL BE COVERED WITH A MINIMUM OF 4" DEEP COMPACTED STONE OR GRAVEL AS SPECIFIED, I.E. FDOT TYPE NO. 57 FOR FENCED COMPOUND; FDOT TYPE NO. 57 FOR ACCESS DRIVE AREA, UNLESS OTHERWISE NOTED.

16. IN ALL AREAS TO RECEIVE FILL: REMOVE ALL VEGETATION, TOPSOIL, DEBRIS, WET AND UNSATISFACTORY SOIL MATERIALS, OBSTRUCTIONS, AND DELETERIOUS MATERIALS FROM GROUND SURFACE. PLOW STRIP OR BREAK UP SLOPED SURFACES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL SUCH THAT FILL MATERIAL WILL BIND WITH (E)/PREPARED SOIL SURFACE.

17. WHEN SUB GRADE OR PREPARED GROUND SURFACE HAS A DENSITY LESS THAN THAT REQUIRED FOR THE FILL MATERIAL, SCARIFY THE GROUND SURFACE TO DEPTH REQUIRED. PULVERIZE, MOISTURE-CONDITION AND/OR AERATE THE SOILS AND RECOMPACT TO THE REQUIRED DENSITY PRIOR TO PLACEMENT OF FILLS.

18. IN AREAS WHICH (E) GRAVEL SURFACING IS REMOVED OR DISTURBED DURING CONSTRUCTION OPERATIONS, REPLACE GRAVEL SURFACING TO MATCH ADJACENT GRAVEL SURFACING AND RESTORED TO THE SAME THICKNESS AND COMPACTION AS SPECIFIED. ALL RESTORED GRAVEL SURFACING SHALL BE FREE FROM CORRUGATIONS AND WAVES.

19. (E) GRAVEL SURFACING MAY NOT BE REUSED.

20. GRAVEL SUB SURFACE SHALL BE PREPARED TO REQUIRED COMPACTION AND SUB GRADE ELEVATIONS BEFORE GRAVEL SURFACING IS PLACED AND/OR RESTORED. ANY LOOSE OR DISTURBED MATERIALS SHALL BE THOROUGHLY COMPACTED AND ANY DEPRESSIONS IN THE SUB GRADE SHALL BE FILLED AND COMPACTED WITH APPROVED SELECTED MATERIAL. GRAVEL SURFACING MATERIAL SHALL NOT BE USED FOR FILLING DEPRESSIONS IN THE SUB GRADE.

21. PROTECT (E) GRAVEL SURFACING AND SUB GRADE IN AREAS WHERE EQUIPMENT LOADS WILL OPERATE. USE PLANKING "MATTS" OR OTHER SUITABLE PROTECTION DESIGNED TO SPREAD EQUIPMENT LOADS AS MAY BE NECESSARY. REPAIR ANY DAMAGE TO (E) GRAVEL SURFACING OR SUB GRADE WHERE SUCH DAMAGE IS DUE TO THE CONTRACTORS OPERATIONS.

22. DAMAGE TO (E) STRUCTURES AND/OR UTILITIES RESULTING FROM CONTRACTORS NEGLIGENCE SHALL BE REPAIRED AND/ OR REPLACED TO THE OWNERS SATISFACTION AT NO ADDITIONAL COST TO THE CONTRACT.

23. ALL SUITABLE BORROW MATERIAL FOR BACK FILL OF THE SITE SHALL BE INCLUDED IN THE BID. EXCESS TOPSOIL AND UNSUITABLE MATERIAL SHALL BE DISPOSED OF OFF SITE AT LOCATIONS APPROVED BY GOVERNING AGENCIES AT NO ADDITIONAL COST TO THE CONTRACT.

mobilitie

PROJECT NO:	9FLBSS6S8
DRAWN BY:	RC
CHECKED BY:	SJB

A	08-28-15	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC

Stephen A. Bray

PROFESSIONAL ENGINEER

FL LICENSE: 69932 3/29/16

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 DRAWING

PRELIMINARY

JA90XSRKD8
TALLAHASSEE, FL 32317
PROPOSED 60'-0" WOOD POLE

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-3

Construction #	TYPE	Contractor Input NAME	ITEMS TO REVIEW	Content n/a QUALITY/INSTALLATION REQUIREMENTS	Comments
1	PIC	PRE-CONSTRUCTION	Photo(s) of work before prior to START of Construction to document any damage, breakage, rejected pole or treatment marking etc.	Do not proceed with Construction if you have any questions or doubts about the condition of the pole or the work to be performed.	
2	PIC	FOUNDATION / SOCKET	Photo of hole and backfill prior to pole placing, pole mark, Anchor Assembly as per Engineering drawings (if applicable) and Rebar cage as per Engineering drawings (if applicable) (if applicable) (if applicable)

TALLAHASSEE

Public Works Department
Permit Application to Work Within the Public Right-of-Way

Project Information

Project Name: Utility Pole ID: 9FLB003697

Location Address: ROW of 683 W Virgina Street (30.44572, -84.293236)

Intersecting Streets: W Virginia ST & Raven ST

Point of commencement: W Virginia Street

Point of completion: W Virginia Street

Length of Installation: N/A

Project Description: Install backhaul transport equipment on an existing utility pole in the ROW.

Applicant Information

Applicant Name: Mobilitie, LLC

Contact Person: Megan Sikes Title: NRE Manager

Mailing Address: 3475 Piedmont Rd. Atlanta, GA 30214

Phone Number: (404) 989-8380 Cell Number:

Email Address: megan.sikes@mobilitie.com

Contractor Information

Contractors License No.: CGC1522704

Contractor/Company: TTS

Contact Person: Jason Gillis Title:

Mailing Address: 9335 Industrial Trace, Alpharetta, GA 30004

Phone Number: (770) 521-9137 Cell Number:

24 hour Emergency Contact Person: Cell Number:

Email Address:

Agent Information

Agent Name:

Contact Person:

Mailing Address:

Phone Number: Cell Number:

Email Address:

CITY OF TALLAHASSEE

Public Works Department
Permit Application to Work Within the Public Right-of-Way

Project Type and Construction Method, Circle all that apply

Cable:	Cut	Bore	Overhead
Electric:	Cut	Bore	Overhead
Telephone:	Cut	Bore	Overhead
Gas:	Cut	Bore	
Sewer:	Cut	Bore	
Water:	Cut	Bore	
Curb:	Demo	Construct	
Asphalt:	Demo	Construct	
Sidewalk:	Demo	Construct	
Driveway:	New	Reconstruct	
Drainage:	Connection		
Sign:	Permanent	Temporary	illuminated, electric permit no:_____

Fiber Optics

1. Does the installation provide local Connectivity? Yes No
   a. If YES, Is a Franchise Agreement in place with the City? Yes No
   b. If YES, Provide the date of the agreement. _____
   c. If NO, Describe the purpose of the installation, so a determination can be made if a Franchise agreement is required._____

Boring

Boring type:_____

How many bore crossings:

_____Underground Electric
_____Gas
_____Potable Water
_____Sanitary Sewer Mains & Laterals
_____Storm Sewer
_____Roads
_____Driveways
_____Sidewalks

Submit preconstruction videos of sanitary sewer mains and laterals and storm sewer lines crossing the bore.

I (print name) Megan Sikes do herby make application to the City of Tallahassee for a permit to perform the above noted construction in, on, or under the public streets of the City of Tallahassee. By my signature, I certify that I have verified the existence and location of all existing utilities within the proposed construction area with the appropriate utility or service provider in compliance with the "Specification for Construction within the City of Tallahassee Right of Way" and sound engineering practices. (Copies of the noted specifications may be obtained from the City Streets and Drainage Division)

Signature of Applicant: Megan Sikes Date:_____

1010 Pennsylvania Avenue
McDonough, GA 30253
(p) 678.565.4440 (f) 678.565.4497
info@pointtopointsurvey.com
www.P2PLS.com

FAA 1-A SURVEY CERTIFICATION

Applicant: **MOBILITIE, LLC**
660 NEWPORT CENTER DRIVE
SUITE 200
NEWPORT BEACH, CA 92660

Site Name: **"JA90XSRKBC"**

Horizontal Datum Source:
☒ Ground survey ☐ GPS survey

Vertical Datum Source:
☒ NAVD 88 ☐ NGVD 29 ☐ GPS survey

Structure Type:
☒ New Pole ☐ Existing Tower ☐ Roof Top ☐ Water Tank ☐ Smokestack

CENTER OF PROPOSED POLE:

Latitude: 30°26'44.59" NAD 83
Longitude: -84°17'35.65" NAD 83
Ground Elevation: 84.3 feet AMSL NAVD 88

CERTIFICATION: I certify that the latitude of 30°26'44.59" and the longitude of -84°17'35.65" are accurate to within +/- 20 feet horizontally, and that the site elevation of 84.3 feet AMSL is accurate to within +/- 3 feet vertically. The horizontal datum (coordinates) are based on the North American Datum of 1983 (NAD 83) and are expressed in degrees, minutes and seconds to the nearest hundredth of a second. The vertical datum (heights) are based on the North American Vertical Datum of 1988 (NAVD 88) and are determined to the nearest tenth of a foot.

Surveyor Signature/Seal: _____ **(SEAL)**
Printed Name: G. Darrell Taylor
Professional Surveyor #: 6904
Company: Point to Point Land Surveyors, Inc
Phone: 678-565-4440
Date: July 22, 2016



SITE INFORMATION

LATITUDE = 30°26'44.59" (NAD 83)
LONGITUDE = -84°17'35.69" (NAD 83)
AT CENTER PROPOSED POLE

ELEVATION AT CENTER OF PROPOSED POLE = 84.3' A.M.S.L.

UTILITY OWNERS IN AREA

1. CITY OF TALLAHASSEE
2. BAL COMMUNICATIONS
3. CITY OF TALLAHASSEE TRAFFIC
4. SOUTHERN LIGHT, LLC
5. CENTURYLINK
6. COMCAST TALLAHASSEE

GENERAL NOTES

THIS SPECIFIC PURPOSE SURVEY IS FOR THE LEASED PREMISES AND EASEMENTS ONLY. THIS SPECIFIC PURPOSE SURVEY WAS PREPARED FOR THE EXCLUSIVE USE OF MOBILITIE, LLC AND EXCLUSIVELY FOR THE TRANSFERRAL OF THE PROPOSED LEASED PREMISES AND THE RIGHTS OF EASEMENT SHOWN HEREON AND SHALL NOT BE USED AS AN EXHIBIT OR EVIDENCE IN THE FEE SIMPLE TRANSFERRAL OF THE PARENT PARCEL NOR ANY PORTION OR PORTIONS THEREOF. BOUNDARY INFORMATION SHOWN HEREON HAS BEEN COMPILED FROM TAX MAPS AND DEED DESCRIPTIONS ONLY. NO BOUNDARY SURVEY OF THE PARENT PARCEL WAS PERFORMED.

THIS DRAWING DOES NOT REPRESENT A BOUNDARY SURVEY.

THIS SPECIFIC PURPOSE SURVEY WAS PREPARED WITHOUT BENEFIT OF A TITLE REPORT WHICH MAY REVEAL ADDITIONAL CONVEYANCES, EASEMENTS, OR RIGHTS-OF-WAY NOT SHOWN HEREON.

THE FIELD DATA UPON WHICH THIS SPECIFIC PURPOSE SURVEY IS BASED HAS A CLOSURE PRECISION OF ONE FOOT IN 20,000+ FEET AND AN ANGULAR ERROR OF 5.0" PER ANGLE POINT, AND WAS ADJUSTED USING LEAST SQUARES.

EQUIPMENT USED FOR ANGULAR & LINEAR MEASUREMENTS: LEICA TPS 1200 SURVEY GRADE GPS/GNSS RECEIVER. DATE OF LAST FIELD VISIT: 7/18/2016

THE CONTOURS AND SPOT ELEVATIONS SHOWN ON THIS SPECIFIC PURPOSE SURVEY ARE ADJUSTED TO NAVD 88 DATUM COMPUTED USING GEOID 12B AND HAVE A VERTICAL ACCURACY OF +- 2.0'. CONTOURS OUTSIDE THE IMMEDIATE SITE AREA ARE APPROXIMATE.

BEARINGS SHOWN ON THIS SPECIFIC PURPOSE SURVEY ARE BASED ON GRID NORTH (NAD 83) FLORIDA NORTH.

THE PROPOSED POLE IS LOCATED IN A SPECIAL FLOOD AREA ZONE "AE" BFE=88' AS PER F.I.R.M. COMMUNITY PANEL NO. 12073C0283F DATED AUGUST 18, 2009.

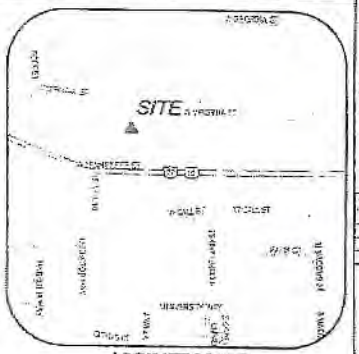
NO WETLAND AREAS HAVE BEEN INVESTIGATED BY THIS SPECIFIC PURPOSE SURVEY.

ALL ZONING INFORMATION SHOULD BE VERIFIED WITH THE PROPER ZONING OFFICIALS.

ANY UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM ABOVE GROUND FIELD SURVEY INFORMATION. THE SURVEYOR MAKES NO GUARANTEES THAT ANY UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER PRESENCE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT ANY UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED ANY UNDERGROUND UTILITIES.

ADDITIONS OR DELETIONS TO THIS SURVEY MAP BY OTHER THAN THE SIGNING PARTY IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY.

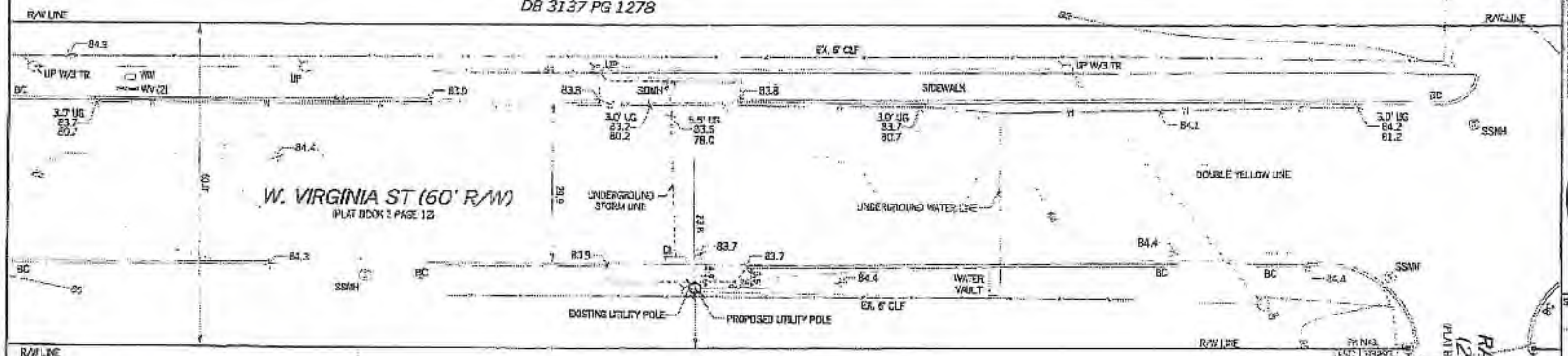
ORIGINAL SURVEY IS KEPT ON FILE IN THE SURVEYORS OFFICE.



VICINITY MAP
NOT TO SCALE

NOTE: ENTIRE SITE LOCATED IN ZONE "AE"
(BFE = 88) PER F.I.R.M. PANEL 12073C0283F

N/F
UNIVERSITY LOFTS, LLC
PARCEL # 2136500556545
ZONED CU - 45
DB 3137 PG 1278



N/F
DARYL MAE WEATHERLY NALL
PARCEL # 2136500566745
ZONED CU - 45
DB 4265 PG 1936

N/F
UNIVERSITY LOFTS, LLC
PARCEL # 2136500566740
ZONED CU - 45
DB 3137 PG 1258

LEGEND

POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PKN	PARKER KALON NAIL
PK	PARKER KALON NAIL SET
CMF	CONCRETE MONUMENT FOUND
UP	UTILITY POLE
SDMH	SANITARY SEWER MANHOLE
STMH	STORM DRAIN MANHOLE
WV	WATER VALVE
EP	EDGE OF PAVEMENT
TC	TOP OF CURB
BC	BACK OF CURB
OU	OVERHEAD UTILITY
TR	TRANSFORMER
SWSF	SINGLE WING CATCH INLET
DWSF	DOUBLE WING CATCH INLET
CLF	CHAIN LINK FENCE
WV	WATER VALVE
WM	WATER METER
N/F	NOW OR FORMERLY

I HEREBY CERTIFY THAT THIS MAP IS CORRECT AND WAS DRAWN UNDER MY DIRECT SUPERVISION. ANY VISIBLE ENCROACHMENTS ARE SHOWN HEREON.

C. DARRELL TAYLOR, FLORIDA REGISTERED LAND SURVEYOR NO. 6804 — DATE: 7/22/2016

THIS MAP IS NOT A CERTIFIED SURVEY AND WAS NOT SEEN REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS. THIS MAP IS ONLY INTENDED FOR THE PARTIES AND PURPOSES SHOWN. THIS MAP IS NOT FOR RECORDATION. NO TITLE REPORT PROVIDED.

C. DARRELL TAYLOR
License Number
6804
STATE OF FLORIDA
Professional Surveyor and Mapper

NO.:	DATE	REVISION

SPECIFIC PURPOSE SURVEY PREPARED BY:

POINT TO POINT
LAND SURVEYORS
1010 Pennsylvania Avenue
McDonough, GA 30253
(p) 678.565.4440 (f) 678.565.4497
(w) pointtopointsurvey.com

SPECIFIC PURPOSE SURVEY PREPARED FOR:

mobilitie

660 NEWPORT CENTER DRIVE
SUITE 200
NEWPORT BEACH, CA 92660

"JA90XSRKBC"

SECTION 35, TOWNSHIP 2S NORTH,
RANGE 1 WEST,
CITY OF TALLAHASSEE,
LEON COUNTY, FLORIDA

DRAWN BY: EAS	SHEET: 1
CHECKED BY: JRL	
APPROVED: C. DRL	
DATE: JULY 22, 2016	
P2P JOB #: 0160388	OF 1

SITE ID: 9FLB003697
JA90XSRKBC
W VIRGINIA ST &
RAVEN ST
TALLAHASSEE, FL 32304

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

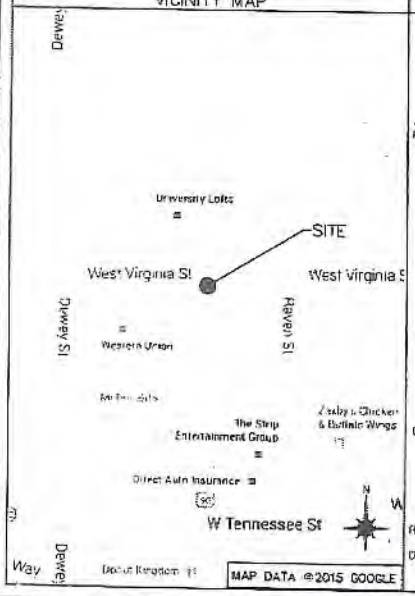
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY
ADDRESS/CROSS ST:	W VIRGINIA ST & RAVEN ST
APPLICANT:	MOBILITIE, LLC
APPLICANT ADDRESS:	3475 Piedmont Rd. NE, Suite 1000 Atlanta, GA 30305
LATITUDE:	30° 26' 44.59" N (30.445720)
LONGITUDE:	84° 17' 35.65" W (-84.293236)
LAT/LONG TYPE:	NAD 83
GROUND ELEVATION:	± 89' AMSL
COUNTY:	LEON COUNTY
JURISDICTION:	CITY OF TALLAHASSEE

BEFORE SCALING:

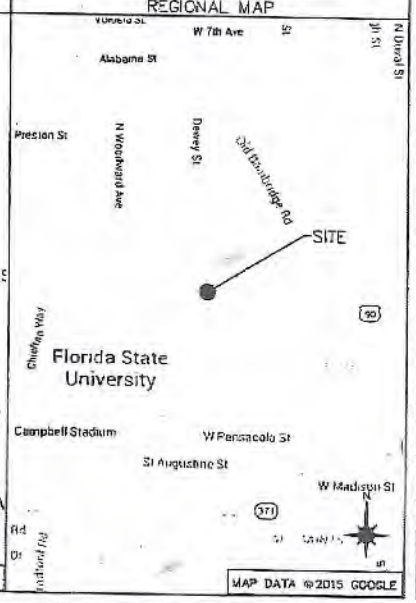
CONTRACTORS SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

LOCATION MAPS

VICINITY MAP



REGIONAL MAP



DIG ALERT

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

TWO WORKING DAYS BEFORE YOU DIG

PROJECT DESCRIPTION

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

– INSTALL PROPOSED BACKHAUL TRANSPORT EQUIPMENT ON AN EXISTING WOOD UTILITY POLE

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 ELEVATIONS
2.1	POLE ELEVATIONS
3.0	ANTENNA & EQUIPMENT MOUNTING DETAILS
3.1	ANTENNA & EQUIPMENT DETAILS
4.0	ELECTRICAL DETAILS
5.0	GROUNDING DETAILS
GN-1	GENERAL NOTES
GN-2	GENERAL NOTES
6.0	TRAFFIC CONTROL PLAN
6.1	TYPICAL PEDESTRIAN / WORKER SAFETY PLAN

ARCHITECT/ENGINEER

JACOBS ENGINEERING GROUP, INC.
5449 BELLS FERRY ROAD
ACWORTH, GA 30102
CONTACT: KARL KRATINA
PROJECT MANAGER
TEL: (678) 460-1416
FAX: (770) 701-2501

mobilitie

PROJECT NO:	ER000201
DRAWN BY:	L. TARUBAL
CHECKED BY:	N. MICHELENA

A	08.15.16	FOR REVIEW

PRELIMINARY

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.

JA90XSRKBC
9FLB003697
W VIRGINIA ST &
RAVEN ST
TALLAHASSEE, FL 32304
UTILITY POLE

SHEET TITLE

TITLE SHEET

SHEET NUMBER

0.0

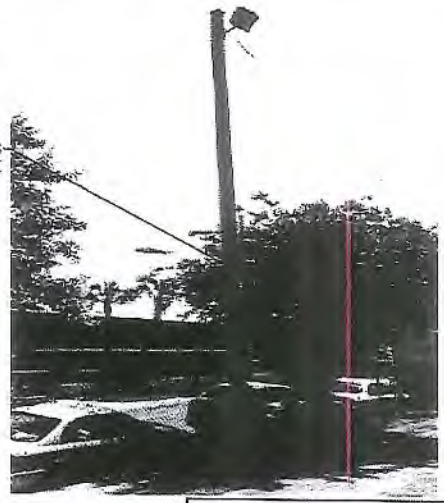
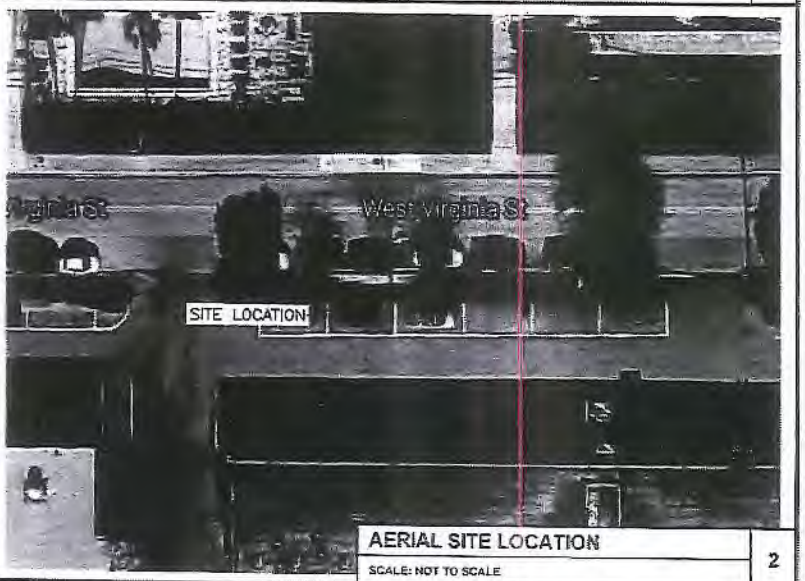


EXHIBIT PHOTO

SCALE: NOT TO SCALE

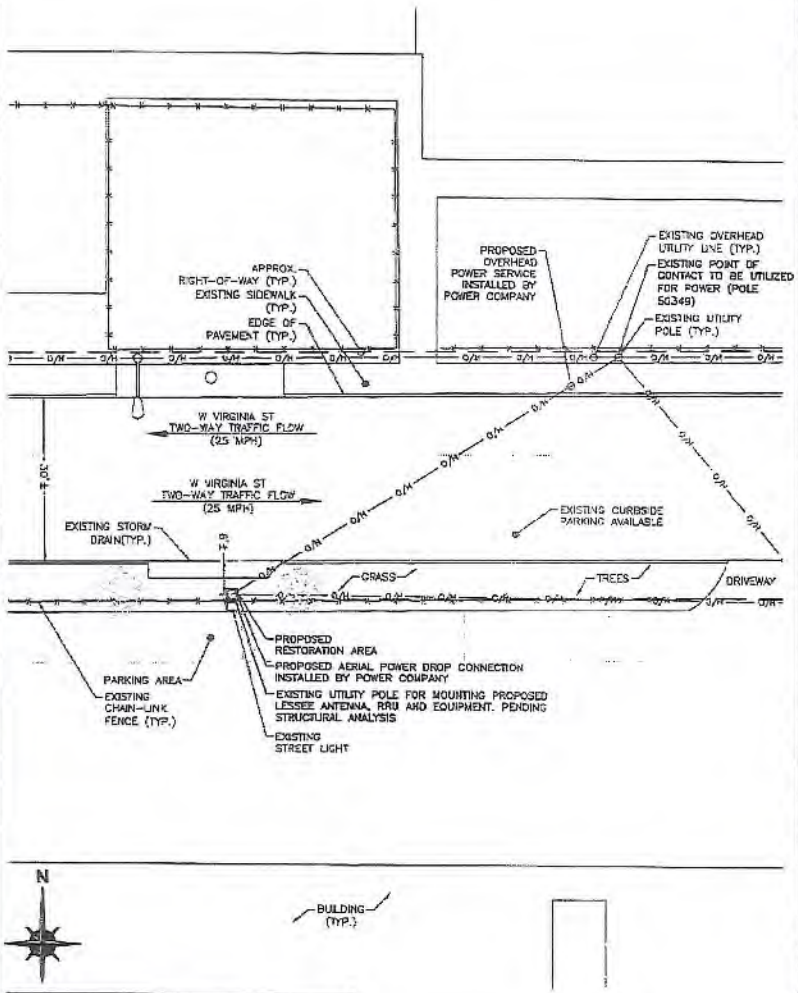
1



AERIAL SITE LOCATION

SCALE: NOT TO SCALE

2



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

ENLARGED SITE PLAN

SCALE: 1"=20'-0" (1"=10'-0" ON 22"x34" SHEET)

3

mobilitie

PROJECT NO:	ER502201
DRAWN BY:	L. TARUBAL
CHECKED BY:	M. MICHELENA

A	06.15.15	FOR REVIEW

PRELIMINARY

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

JA90XSRKBC
9FLB003697
W VIRGINIA ST &
RAVEN ST
TALLAHASSEE, FL 32304
UTILITY POLE

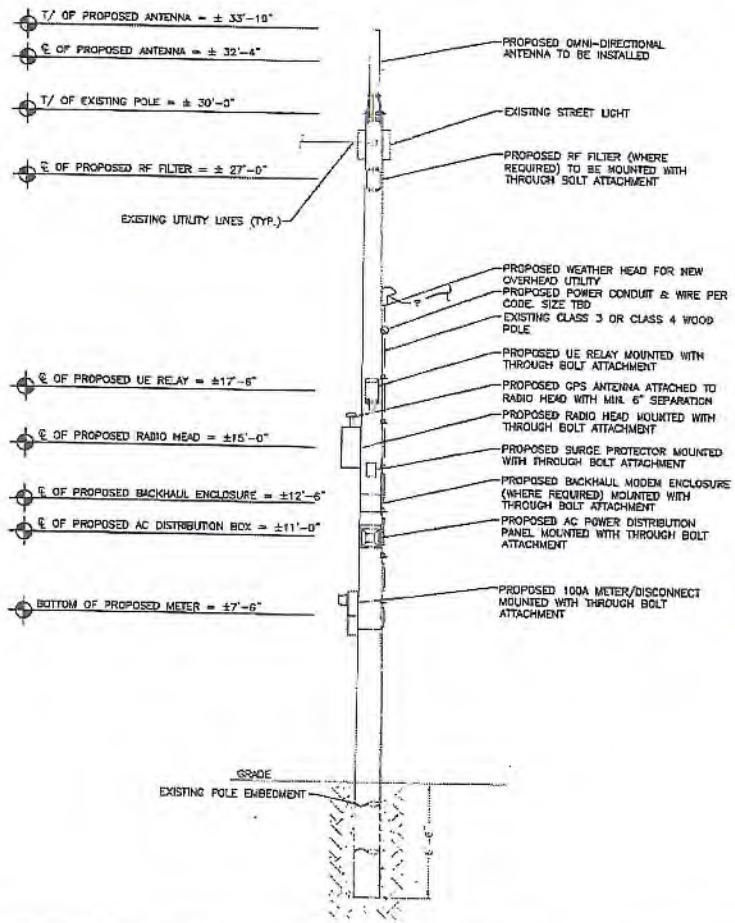
SHEET TITLE

SITE PLAN & EXHIBIT PHOTO

SHEET NUMBER

1.0

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



NOTES:

1. ALL HARDWARE SHALL BE STAINLESS STEEL.
2. ALL CABLES SHALL BE SECURED TO POLE EVERY 36" OR LESS.
3. LIGHTNING RODS SHALL BE INCLUDED AS REQUIRED.
4. STRUCTURAL BACKFILL TO BE COMPACTED IN 8" MAXIMUM LAYERS TO 95% OF CONTENT IN ACCORDANCE WITH ASTM D698. ADDITIONALLY, STRUCTURAL BACKFILL MUST HAVE A MINIMUM COMPACTED UNIT WEIGHT OF 100 POUNDS PER CUBIC FOOT (15kN/m3)

BAND 41 (2500MHz) EQUIPMENT CHART			
QUANTITY	DESCRIPTION	DIMENSIONS (HxWxD)	WEIGHT
1	MOUNTED ANTENNA	35.4" X 4.7" DIAMETER	11 LBS
1	MOUNTED RADIO	20.1" X 9.1" X 8.9"	55.1 LBS
1	GPS ANTENNA	0.8" X 2.6" DIAMETER	0.3 LBS
1	AC DISTRIBUTION	9.25" X 13.5" X 3.81"	14 LBS
1	MOUNTED RELAY	13.0" X 7.9" DIAMETER	9.9 LBS
1	SURGE PROTECTOR	6.46" X 4.69" X 3.5"	TBD
1	REJECT FILTER	13.6" X 8.1" X 2.4"	7.7 LBS

PROPOSED FRONT POLE ELEVATIONS

SCALE: 1" = 5'

1

mobilitie

PROJECT NO:	ER000201
DRAWN BY:	L. TARUBAL
CHECKED BY:	M. MICHELENA

1	06.15.16	FOR REVIEW

PRELIMINARY

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

JAX0XSRKBC
8FLB005697
W VIRGINIA ST &
RAVEN ST
TALLAHASSEE, FL 32304
UTILITY POLE

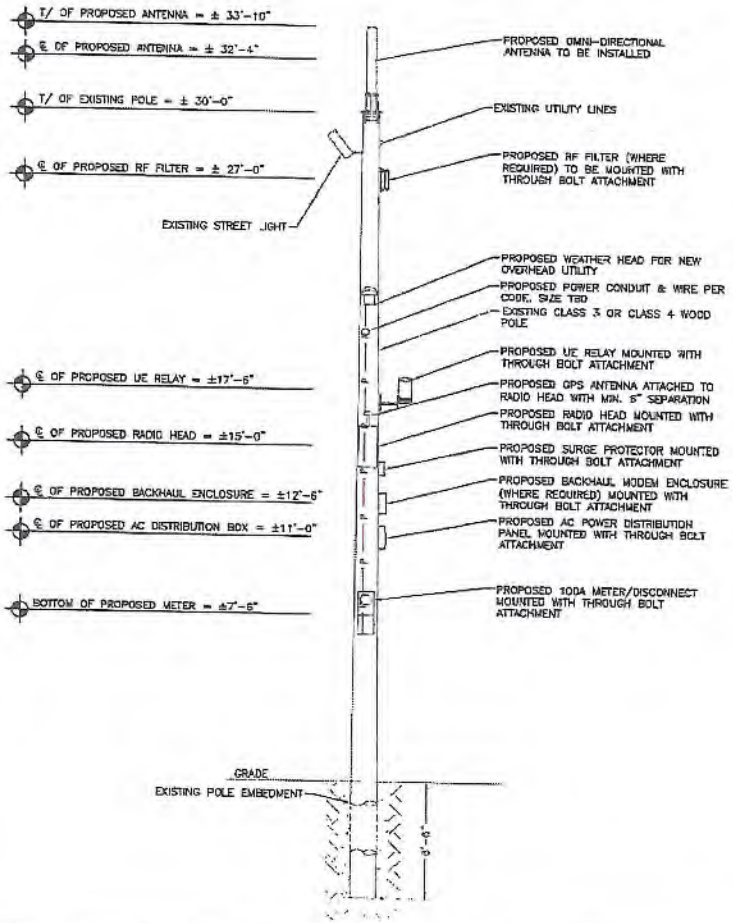
SHEET TITLE

POLE ELEVATIONS

SHEET NUMBER

2.0

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



NOTES:

1. ALL HARDWARE SHALL BE STAINLESS STEEL.
2. ALL CABLES SHALL BE SECURED TO POLE EVERY 36" OR LESS.
3. LIGHTNING RODS SHALL BE INCLUDED AS REQUIRED.
4. STRUCTURAL BACKFILL TO BE COMPACTED IN 8" MAXIMUM LAYERS TO 95% OF CONTENT IN ACCORDANCE WITH ASTM D698. ADDITIONALLY, STRUCTURAL BACKFILL MUST HAVE A MINIMUM COMPACTED UNIT WEIGHT OF 100 POUNDS PER CUBIC FOOT (16kN/m3)

BAND 41 (2500MHz) EQUIPMENT CHART			
QUANTITY	DESCRIPTION	DIMENSIONS (HxWxD)	WEIGHT
1	MOUNTED ANTENNA	35.4" X 4.7" DIAMETER	11 LBS
1	MOUNTED RADIO	20.1" X 8.1" X 8.9"	55.1 LBS
1	GPS ANTENNA	0.8" X 2.5" DIAMETER	0.3 LBS
1	AC DISTRIBUTION	9.25" X 9.5" X 3.81"	14 LBS
1	MOUNTED RELAY	13.0" X 7.9" DIAMETER	9.9 LBS
1	SURGE PROTECTOR	6.44" X 4.88" X 3.5"	TBD
1	REJECT FILTER	13.6" X 8.1" X 2.4"	7.7 LBS

PROPOSED SIDE POLE ELEVATIONS

SCALE: 1" = 5'

1

mobilitie

PROJECT NO:	ERS20201
DRAWN BY:	L. TARUDAL
CHECKED BY:	M. MICHELENA

A	05.15.15	FOR REVIEW

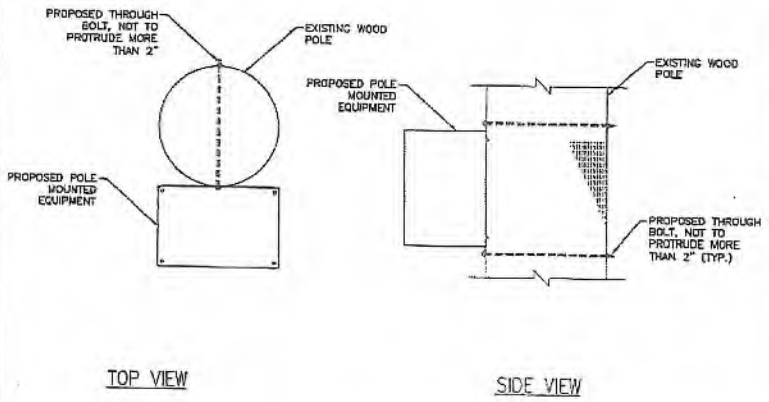
PRELIMINARY

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

JA00XSRKBC
BFLB003697
W VIRGINIA ST &
RAVEN ST
TALLAHASSEE, FL 32304
UTILITY POLE

SHEET TITLE
POLE ELEVATIONS

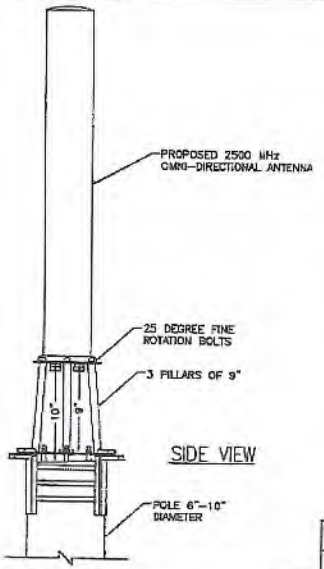
SHEET NUMBER
2.1



EQUIPMENT MOUNTING DETAIL

SCALE: NOT TO SCALE

1



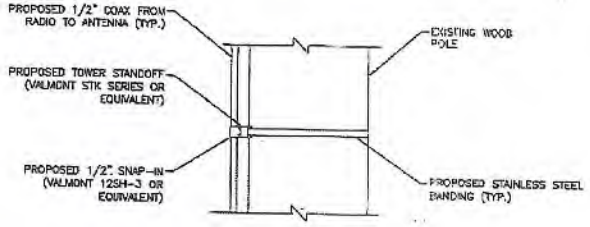
NOTE:

1. MOUNTING BRACKET ACCOMMODATES POLE SIZES FROM 3" TO 10" DIAMETER.
2. JACOBS 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



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

CABLE MOUNTING DETAIL

SCALE: NOT TO SCALE

2



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. 6" x 5.5"



OWNER / OPERATOR NOTE:
SITE ID LABEL TO BE AFFIXED WITH TZe5241 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".

POLE MOUNTED SIGNS

SCALE: NOT TO SCALE

4

mobilitie

PROJECT NO:	ER600269
DRAWN BY:	L. TARUBAL
CHECKED BY:	M. MICHELENA

A	05.17.16	FOR REVIEW

PRELIMINARY

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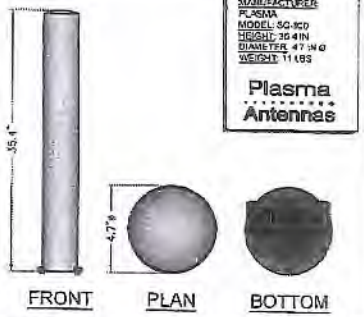
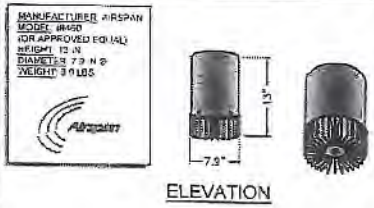
JAS0XSRKSC
9FLB003697
W VIRGINIA ST &
RAVEN ST
TALLAHASSEE, FL 32304
UTILITY POLE

SHEET TITLE
ANTENNA & EQUIPMENT MOUNTING DETAILS

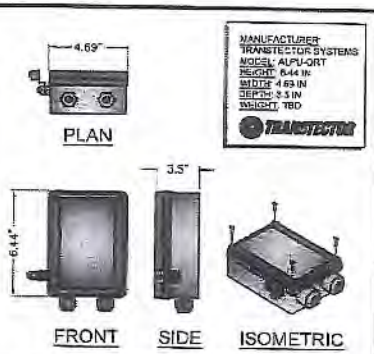
SHEET NUMBER
3.0



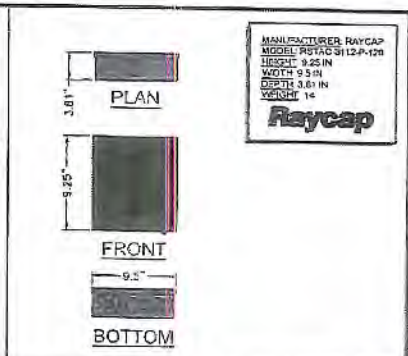
PLASMA SB SC-800 OMNI (B41) SCALE N.T.S 1



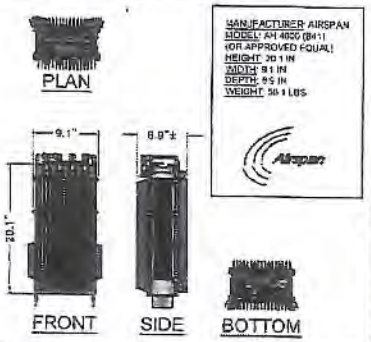
MOUNTED RELAY SCALE N.T.S 4



TRANSTECTOR ALPU-ORT SCALE N.T.S 7

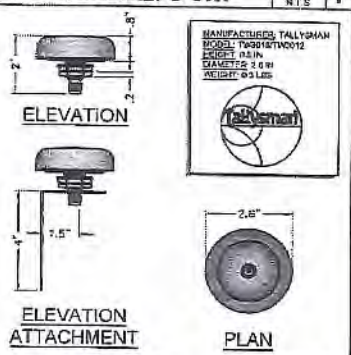


RAYCAP RSTAC-3112-P-120 SCALE N.T.S 10

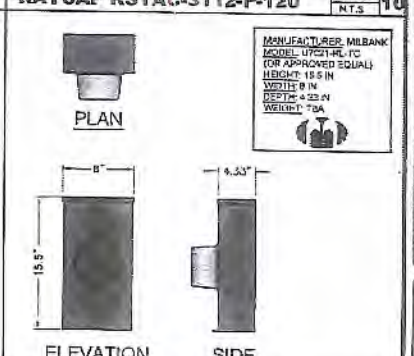


AIRSPAN AH 4000 (B41) SCALE N.T.S 2

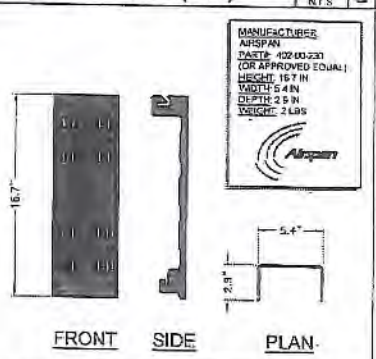
NOT USED SCALE N.T.S 5



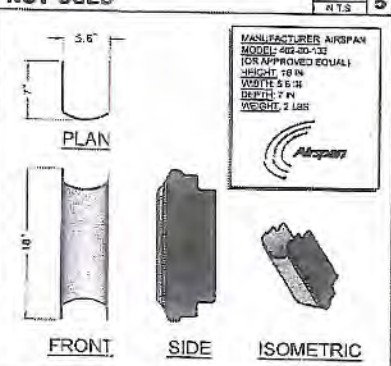
TALLYSMAN GPS ANTENNA SCALE N.T.S 8



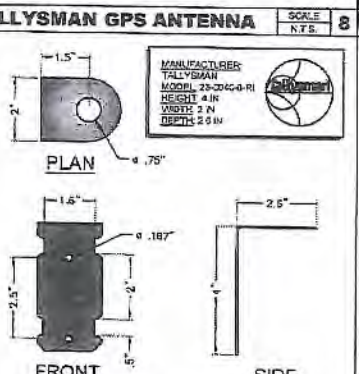
MILBANK METER SOCKET SCALE N.T.S 11



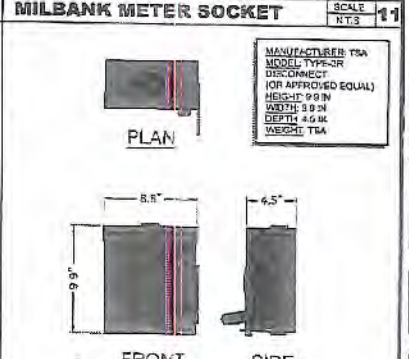
AIRSPAN WALL MOUNTING SCALE N.T.S 3



AIRSPAN SUN SHIELD SCALE N.T.S 6



TALLYSMAN GPS MOUNTING SCALE N.T.S 9



NEMA TYPE-3R DISCONNECT SCALE N.T.S 12

mobilitie

PROJECT NO:	ER600231
DRAWN BY:	L. TARUBAL
CHECKED BY:	M. MICHELENA

A	08.15.16	ISSD 90% SITE

PRELIMINARY

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 DRAWING

JA80XSRKBC
9FLB003697
W VIRGINIA ST S
RAVEN ST
TALLAHASSEE, FL 32304
UTILITY POLE

SHEET TITLE
ANTENNA & EQUIPMENT 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:

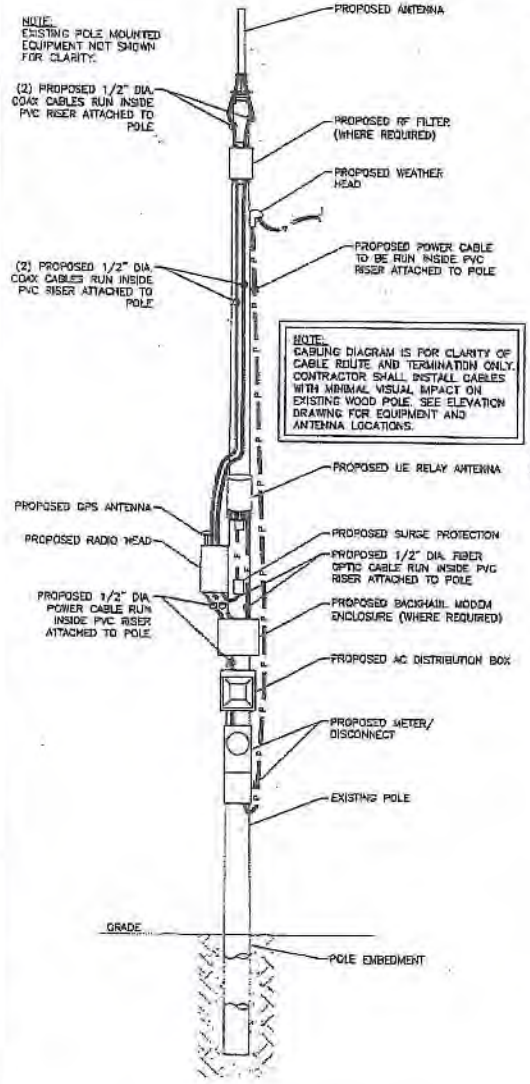
1. ALL REQUIRED PERMITS, LICENSES, INSPECTIONS AND APPROVALS SHALL BE SECURED AND ALL FEES FOR SAME PAID BY CONTRACTOR.
2. THE INSTALLATION SHALL COMPLY WITH ALL APPLICABLE CODES: STATE, LOCAL AND NATIONAL AND THE DESIGN, PERFORMANCE CHARACTERISTICS AND METHODS OF CONSTRUCTION OF ALL ITEMS AND EQUIPMENT 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.

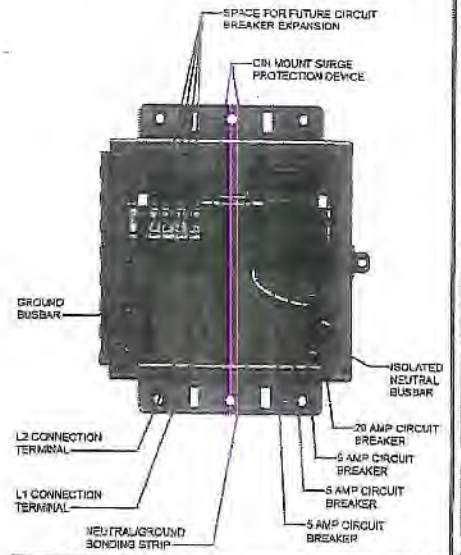
COORDINATION WITH UTILITY COMPANY:
THE ELECTRICAL CONTRACTOR SHALL COORDINATE COMPLETE ELECTRICAL SERVICE WITH LOCAL UTILITY COMPANY FOR A COMPLETE OPERATIONS SYSTEM, INCLUDING TRANSFORMER CONNECTIONS, CONCRETE TRANSFORMER PADS, IF REQUIRED, METER SOCKETS, PRIMARY CABLE RACEWAY REQUIREMENTS, SECONDARY 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.



CABLING NOTES:

A) WOOD, CONCRETE AND DOSTING METALLIC POLES
   I) FROM GRADE LINE TO 11'-0" ABOVE GRADE, ALL CABLES/CONDUCTORS EXCEPT GROUNDING CONDUCTOR MUST RUN IN RIGID GALVANIZED STEEL CONDUIT (RGS)
   II) GROUNDING CONDUCTORS IN EXPOSED LOCATIONS MUST BE INSTALLED IN PVC.
   III) IN EARTH INSTALL PVC CONDUIT FOR BACKHAUL AND ELECTRICAL SERVICE. TRANSITION TO RGS AT GRADE LINE
   IV) ABOVE 11'-0" ALL CABLES (POWER, ETHERNET, COAXIAL) MUST RUN IN PVC UTILITY POLE RISER.
      (1) AT MAJOR EQUIPMENT, EXTEND UTILITY RISER IMMEDIATELY ADJACENT TO THE EQUIPMENT. INSTALL CABLES IN THE UTILITY POLE RISER CREATING CABLE DRIP LOOPS NOT LESS THAN THE CABLE BENDING RADIUS.
      (2) INSIDE THE UTILITY POLE RISER, UTILIZE ½" COAX BLOCKS WITH LAG SCREWS TO SUPPORT COAX, RADIO AND MW POWER, RF COAX, AND ETHERNET CABLES TO WITHIN 12" OF THE EQUIPMENT BEING SERVED AND ON INTERVALS NOT TO EXCEED 6'.
   V) FOR UNDERGROUND MFG/PUBLIC BACKHAUL, ROUTE ETHERNET CABLE IN CONDUIT UP THE POLE AND ENTER THE UTILITY POLE RISER. SEAL EXPOSED END OF CONDUIT WITH A CABLE TERMINATION FITTING.
   VI) BY APPROVAL IN SELECT CASES LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LFMC) MAY BE USED IN LENGTHS NOT TO EXCEED 36" TO EXTEND THE ELECTRICAL SERVICE CONDUIT TO THE AC DISTRIBUTION BOX. EXAMPLE: UTILITY-REQUIRED DISCONNECT ON POLE W/ AC DISTRIBUTION BOX ON OPPOSITE SIDE OF POLE.
B) NEW METALLIC POLES
   I) PROCURE NEW POLES WITH SUITABLE HAND HOLES SUCH THAT HAND HOLES EXIST AT ALL EQUIPMENT LOCATIONS.
      (1) WITH CLIENT APPROVAL IN SELECT CASES TO FACILITATE IMPROVED APPEARANCE. ½" COAXIAL CABLES MAY BE "SUPERFLEX" IN LIEU OF LDF-4

II) WHERE POSSIBLE, INSTALL POLE BASE SUCH THAT THE ELECTRICAL FEED AND BACKHAUL (IF UNDERGROUND) CIRCUIT ENTER THE POLE THROUGH THE POLE BASE. IF A DISCONNECTING MEANS SEPARATE FROM THE AC DISTRIBUTION BOX IS REQUIRED BY JURISDICTION OR UTILITY, WITH APPROVAL IN SELECT CASES LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LFMC) MAY BE USED IN LENGTHS NOT TO EXCEED 36" TO EXTEND THE ELECTRICAL SERVICE CONDUIT TO THE AC DISTRIBUTION BOX.



CABLING DIAGRAM — SCALE: NOT TO SCALE — 1

mobilitie

PROJECT NO:	SR900224
DRAWN BY:	L. TARUSKI
CHECKED BY:	M. MICHELENA

A	05.05.15	FOR REVIEW

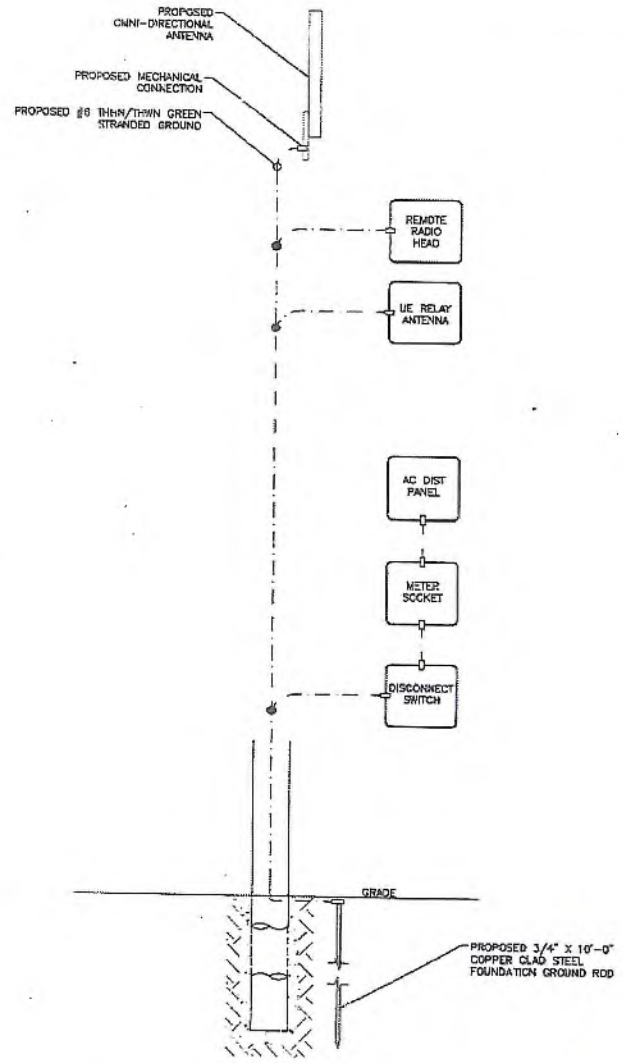
PRELIMINARY

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

JABDXSRKBC
3FLB003697
W VIRGINIA ST &
RAVEN ST
TALLAHASSEE, FL 32304
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 — 1

SCALE: NOT TO SCALE

mobilitie

PROJECT NO:	ER600201
DRAWN BY:	L. TARUBAL
CHECKED BY:	M. MICHELENA

A	05.15.16	FOR REVIEW

PRELIMINARY

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9FLB003697
W VIRGINIA ST &
RAVEN ST
TALLAHASSEE, FL 32304
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 MANHOLES, 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 PREMOUSLY 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) 565-6000

      PHASAR CORPORATION
      P.O. BOX 5123
      DEARBORN, MI 48126

      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

PROJECT NO:	ER60029P
DRAWN BY:	L. TARUBAL
CHECKED BY:	M. NICHELENA

A	06.15.16	FOR REVIEW

PRELIMINARY

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

JAGOXSRKBC
9FL9003697
W VIRGINIA ST S
RAVEN ST
TALLAHASSEE, FL 32304
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 IEC, 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 DLD	54680BE
B.	262 MCM DLD	54672BE
C.	#1/0 DLD	54652BE
D.	#4/0 THWN AND BARE	54656BE
E.	#2/0 THWN	54652BE
F.	#2 THHN	54207BE
G.	#6 DLD	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.# 27280) 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.

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PROJECT NO:	EM60201
DRAWN BY:	L.TARUBAL
CHECKED BY:	M.MICHELENA

A	05.13.15	FOR REVIEW

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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

JAB0XSRKBC
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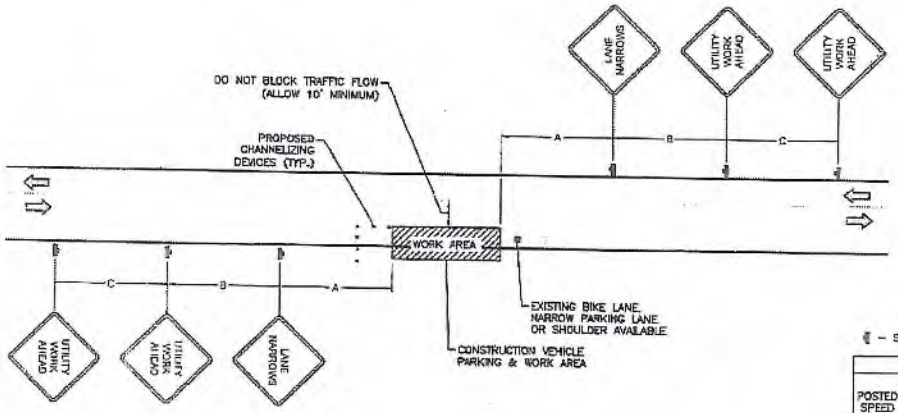
UTILITY POLE

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-2

PLAN NOTES:

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



◐ – SIGN

TABLE 1

POSTED SPEED (MPH)	DISTANCE BETWEEN SIGNS			TAPER	BUFFER
	A	B	C	L (SEE NOTE E)	
15	100'	100'	100'	45'	100'
20	100'	100'	100'	80'	115'
25	100'	100'	100'	125'	155'
30	200'	200'	200'	180'	200'
35	200'	200'	200'	245'	250'
40	350'	350'	350'	320'	305'
45	350'	350'	350'	540'	360'
50	500'	500'	500'	600'	425'
55	500'	500'	500'	660'	495'
60	500'	500'	500'	720'	570'
65	500'	500'	500'	780'	645'

NOTES:

A) DISTANCES IN FEET UNLESS OTHERWISE NOTED.
B) CONTRACTOR TO VERIFY EXISTING SPEED LIMIT.
C) DISTANCES SHOWN ARE NOT VALID FOR LIMITED ACCESS HIGHWAYS. CONSULT STATE DOT MANUAL FOR DISTANCES.
D) ADJUST DISTANCES TO COMPLY WITH REQUIREMENT OF THE STATE OR LOCAL HIGHWAY AUTHORITY HAVING JURISDICTION. SEE NOTE 1, SHEET 6.1.
E) TAPER LENGTHS SHOWN BASED ON 12' LANE WIDTH. SEE NOTE 16, SHEET 6.1.

TRAFFIC CONTROL PLAN - CURBSIDE PARKING

1

SCALE: NOT TO SCALE

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PROJECT NO:	ER550201
DRAWN BY:	L. TARUBAL
CHECKED BY:	M. MICHELENA

A	08.15.16	FOR REVIEW

PRELIMINARY

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

JA90XSRKBC
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UTILITY POLE

SHEET TITLE

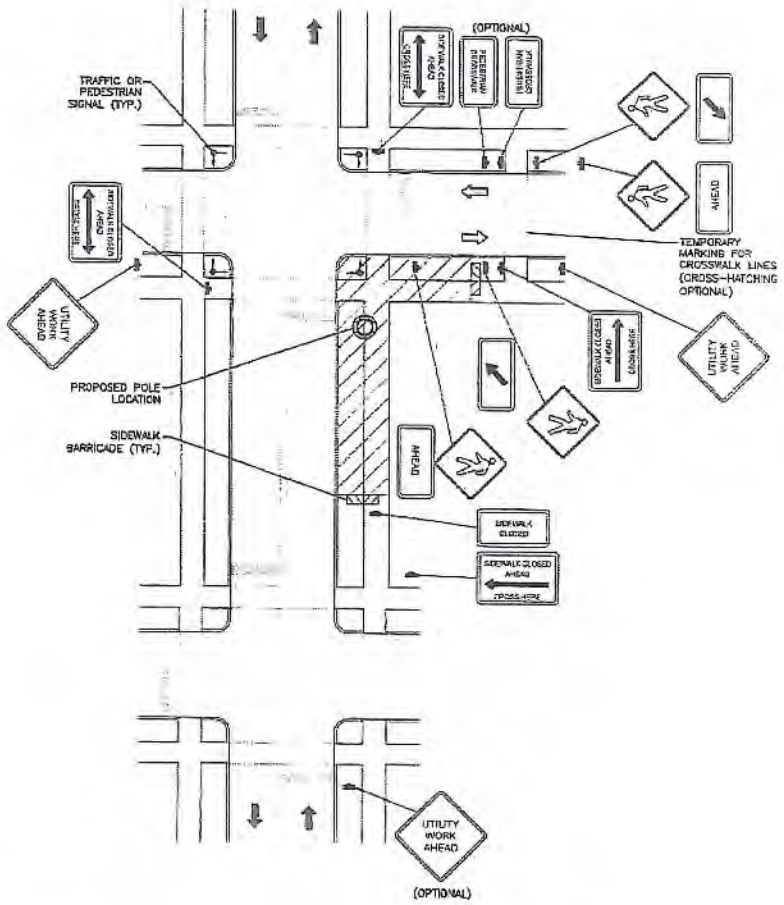
TRAFFIC CONTROL PLAN

SHEET NUMBER

6.0

TRAFFIC CONTROL GENERAL NOTES

1. ALL TEMPORARY TRAFFIC CONTROL SIGNAGE, LAYOUTS AND PROCEDURES SHALL COMPLY WITH LOCAL JURISDICTIONAL REQUIREMENTS AND MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION, WHICHEVER IS MORE STRINGENT.
2. PRIOR TO ANY ROAD CONSTRUCTION, TRAFFIC CONTROL SIGNS AND DEVICES SHALL BE IN PLACE.
3. TRAFFIC CONTROL DEVICES FOR LANE CLOSURES INCLUDING SIGNS, CONES, 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.
4. SELECTION, PLACEMENT, MAINTENANCE, AND PROTECTION OF TRAFFIC, PEDESTRIANS, AND WORKERS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) – PART VI "TEMPORARY TRAFFIC CONTROL", AND LOCAL JURISDICTIONAL REQUIREMENTS UNLESS OTHERWISE NOTED IN THE PLANS AND SPECIFICATIONS, AND SHALL BE APPROVED BY THE APPROPRIATE HIGHWAY AUTHORITY HAVING JURISDICTION.
5. ADVANCE WARNING SIGNS, DISTANCES, AND TAPER LENGTHS MAY BE EXTENDED TO ADJUST FOR REDUCED VISIBILITY DUE TO HORIZONTAL AND VERTICAL CURVATURE OF THE ROADWAY AND FOR ACTUAL TRAFFIC SPEEDS IF IN EXCESS OF POSTED SPEED LIMITS.
6. TAPERS SHALL BE LOCATED TO MAXIMIZE THE VISIBILITY OF THEIR TOTAL LENGTH.
7. CONFLICTING OR NON-OPERATING SIGNAL INDICATIONS ON THE EXISTING TRAFFIC SIGNAL SYSTEMS SHALL BE BAGGED OR COVERED.
8. 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. ALL TRAFFIC CONTROL DEVICES SHALL BE RESTORED TO MATCH PRE-CONSTRUCTION CONDITION AFTER COMPLETION OF WORK.
9. CONTRACTOR SHALL CONTACT LOCAL AUTHORITY HAVING HIGHWAY JURISDICTION AND PROVIDE ADDITIONAL "FLAGMEN" OR POLICE SUPERVISION, IF REQUIRED.
10. ALL EXCAVATED AREAS WITHIN OR ADJACENT TO THE ROADWAY SHALL BE BACKFILLED AND PLACED ON A MINIMUM 6H:1V SLOPE PRIOR TO END OF EACH WORK DAY. OTHER EXCAVATED AREAS WITHIN THE CLEAR ZONE ARE TO BE EITHER BACKFILLED OR PRECAST CONCRETE CURB BARRIER CONSTRUCTION BARRIER SET TEMPORARILY IN PLACE TO SHIELD VEHICULAR AND PEDESTRIAN TRAFFIC.
11. WHERE DICTATED BY LOCAL CONDITIONS, THE CONTRACTOR SHALL MAKE PROVISIONS FOR MAINTAINING PEDESTRIAN AND WORKER CROSSING LOCATIONS IN ACCORDANCE WITH ALL APPLICABLE CODES AND OSHA REQUIREMENTS.
12. CONSTRUCTION ZONE SPEED LIMIT IF REDUCED FROM POSTED LIMITS SHALL BE IN ACCORDANCE WITH MUTCD AND WILL BE DETERMINED BY THE AUTHORITY HAVING JURISDICTION.
13. THERE SHALL BE NO WORKERS, EQUIPMENT, OR OTHER VEHICLES IN THE BUFFER SPACE OR THE ROLL AHEAD SPACE.
14. DRIVEWAYS AND/OR SIDE STREETS ENTERING THE ROADWAY AFTER THE FIRST ADVANCE WARNING SIGN SHALL BE PROVIDED WITH AT LEAST ONE W20-1 SIGN (ROAD WORK AHEAD) AS A MINIMUM.
15. CONES MAY BE SUBSTITUTED FOR DRUMS AND INSTALLED UPON THE APPROVAL OF THE AUTHORITY HAVING JURISDICTION PROVIDED THEY COMPLY WITH MUTCD.
16. THE SPACING BETWEEN CONES, TUBULAR MARKERS, VERTICAL PANELS, DRUMS, AND BARRICADES SHOULD NOT EXCEED A DISTANCE IN FEET EQUAL TO 1.0 TIMES THE SPEED LIMIT IN MPH WHEN USED FOR TAPER CHANNELIZATION, AND A DISTANCE IN FEET EQUAL TO 2.0 TIMES THE SPEED LIMIT IN MPH WHEN USED FOR TANGENT CHANNELIZATION.
17. WHEN CHANNELIZATION DEVICES HAVE THE POTENTIAL OF LEADING VEHICULAR TRAFFIC OUT OF THE INTENDED VEHICULAR TRAFFIC SPACE, THE CHANNELIZATION DEVICES SHOULD BE EXTENDED A DISTANCE, IN FEET OF 2.0 TIMES THE SPEED LIMIT IN MPH BEYOND THE DOWNSTREAM END OF THE TRANSITION AREA.
18. TAPER LENGTHS ARE CALCULATED AS FOLLOWS:
L= WS²/60 (40 MPH AND HIGHER) OR L2= WS (OVER 40 MPH).
WHERE W= OFFSET WIDTH (FT), S= TRAFFIC SPEED (MPH).



TYPICAL PEDESTRIAN / WORKER SAFETY PLAN

SCALE: NOT TO SCALE

1

mobilitie

PROJECT NO:	0150003
DRAWN BY:	L. TARUBAL
CHECKED BY:	M. MICHELENA

A	05.13.15	FOR REVIEW

PRELIMINARY

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JASDXSRKBC
9FLB003697
W VIRGINIA ST &
RAVEN ST
TALLAHASSEE, FL 32304
UTILITY POLE

SHEET TITLE

TYPICAL PEDESTRIAN / WORKER SAFETY PLAN

SHEET NUMBER

6.1

9FLB003534

TALLAHASSEE

Public Works Department
Permit Application to Work Within the Public Right-of-Way

Project Information

Project Name: Utility Pole ID: 9FLB003534

Location Address: ROW of 699-711 Suwanee Street (30.436274, -84.275387)

Intersecting Streets: Suwannee ST & E Lafayette ST

Point of commencement: Suwannee ST

Point of completion: Suwanee ST

Length of Installation: N/A

Project Description: Install back haul transport equipment on existing utility pole in the ROW

Applicant Information

Applicant Name: Mobilitie, LLC

Contact Person: Megan Sikes Title: NRE Manager

Mailing Address: 3475 Piedmont Rd. Atlanta, GA 30214

Phone Number: (404) 989-8380 Cell Number:

Email Address: megan.sikes@mobilitie.com

Contractor Information

Contractors License No.: CGC1522704

Contractor/Company: TTS

Contact Person: Jason Gillis Title:

Mailing Address: 9335 Industrial Trace, Alpharetta, GA 30004

Phone Number: (770) 521-9137 Cell Number:

24 hour Emergency Contact Person: Cell Number:

Email Address:

Agent Information

Agent Name:

Contact Person:

Mailing Address:

Phone Number: Cell Number:

Email Address:

CITY OF TALLAHASSEE

Public Works Department
Permit Application to Work Within the Public Right-of-Way

Project Type and Construction Method, Circle all that apply

Cable:	Cut	Bore	Overhead
Electric:	Cut	Bore	Overhead
Telephone:	Cut	Bore	Overhead
Gas:	Cut	Bore	
Sewer:	Cut	Bore	
Water:	Cut	Bore	
Curb:	Demo	Construct	
Asphalt:	Demo	Construct	
Sidewalk:	Demo	Construct	
Driveway:	New	Reconstruct	
Drainage:	Connection		
Sign:	Permanent	Temporary	illuminated, electric permit no:_____

Fiber Optics

1. Does the installation provide local Connectivity? Yes No
   a. If YES, Is a Franchise Agreement in place with the City? Yes No
   b. If YES, Provide the date of the agreement. _____
   c. If NO, Describe the purpose of the installation, so a determination can be made if a Franchise agreement is required._____

Boring

Boring type:_____

How many bore crossings:

_____Underground Electric	_____Storm Sewer
_____Gas	_____Roads
_____Potable Water	_____Driveways
_____Sanitary Sewer Mains & Laterals	_____Sidewalks

Submit preconstruction videos of sanitary sewer mains and laterals and storm sewer lines crossing the bore.

I (print name) Megan Sikes do herby make application to the City of Tallahassee for a permit to perform the above noted construction in, on, or under the public streets of the City of Tallahassee. By my signature, I certify that I have verified the existence and location of all existing utilities within the proposed construction area with the appropriate utility or service provider in compliance with the "Specification for Construction within the City of Tallahassee Right of Way" and sound engineering practices. (Copies of the noted specifications may be obtained from the City Streets and Drainage Division)

Signature of Applicant: Megan Sikes Date: 7/28/10

SITE ID: 9FLB003534 / JA90XS675B
SUWANNEE ST & E LAFAYETTE ST
TALLAHASSEE, FL 32399

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

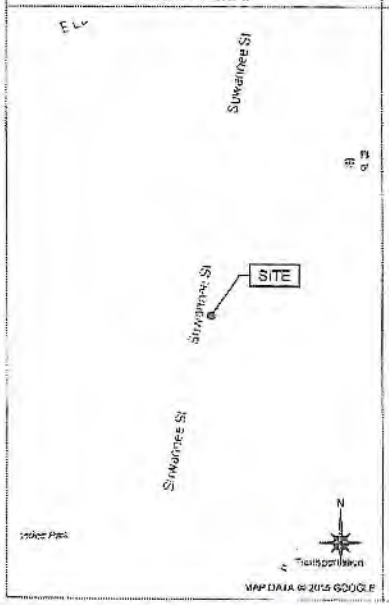
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY
ADDRESS/CROSS STREET:	SUWANNEE ST & E LAFAYETTE ST TALLAHASSEE, FL 32399
APPLICANT:	MOBILITIE, LLC
APPLICANT ADDRESS:	3475 PIEDMONT ROAD NE, SUITE 1000 ATLANTA, GEORGIA 30305 PHONE: 312-638-5402
LATITUDE:	N 30° 26' 10.6" (30.436274)
LONGITUDE:	W 84° 16' 31.1" (-84.275307)
LAT/LONG TYPE:	NAD 83
GROUND ELEVATION:	±118' AMSL
COUNTY:	LEON COUNTY
JURISDICTION:	TALLAHASSEE

BEFORE SCALING:

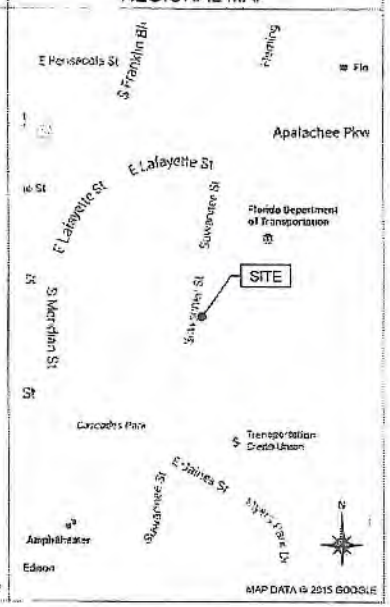
CONTRACTORS SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

LOCATION MAPS

VICINITY MAP



REGIONAL MAP



PROJECT DESCRIPTION

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

- INSTALL PROPOSED BACKHAUL TRANSPORT ON EXISTING 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
5.0	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
1200 ROUTE 34, SUITE 209
WALL, NJ 07719
FOR QUESTIONS EMAIL: designteam@kmbdg.com
TEL: (732) 280-5500
FAX: (732) 280-3990
www.KMBDG.com

mobilitie

PROJECT NO:	9FLB003534
DRAWN BY:	RC
CHECKED BY:	SJB

A	07/17/18	ISSUED FOR CONSTRUCTION

KMB DESIGN GROUP, LLC

Stephen A. Bray
PROFESSIONAL ENGINEER

PRELIMINARY
NOT FOR CONSTRUCTION

FL LICENSE: 88902 7/13/18

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JA90XS675B

SUWANNEE ST & E LAFAYETTE ST
TALLAHASSEE, FL 32399

UTILITY POLE

SHEET TITLE

TITLE SHEET

SHEET NUMBER

0.0



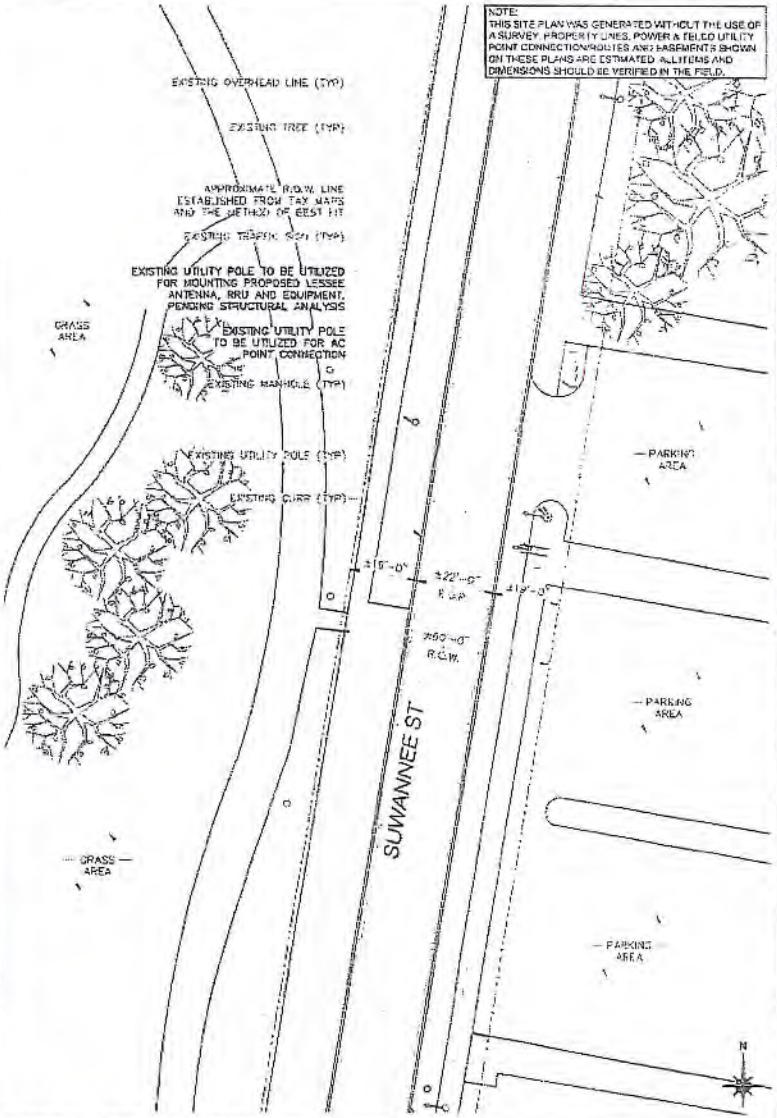
1 EXHIBIT PHOTO

SCALE: NTS



2 AERIAL SITE LOCATION

SCALE: NTS



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

3 ENLARGED SITE PLAN

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

mobilitie

PROJECT NO:	0FLB003534
DRAWN BY:	RC
CHECKED BY:	SJB

A 07/31/18 FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC

Stephen A. Bray
PROFESSIONAL ENGINEER

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FL LICENSE: 81602 7/31/18

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JA90XS375S

SUWANNEE ST & E LAFAYETTE ST
TALLAHASSEE, FL 32399

UTILITY POLE

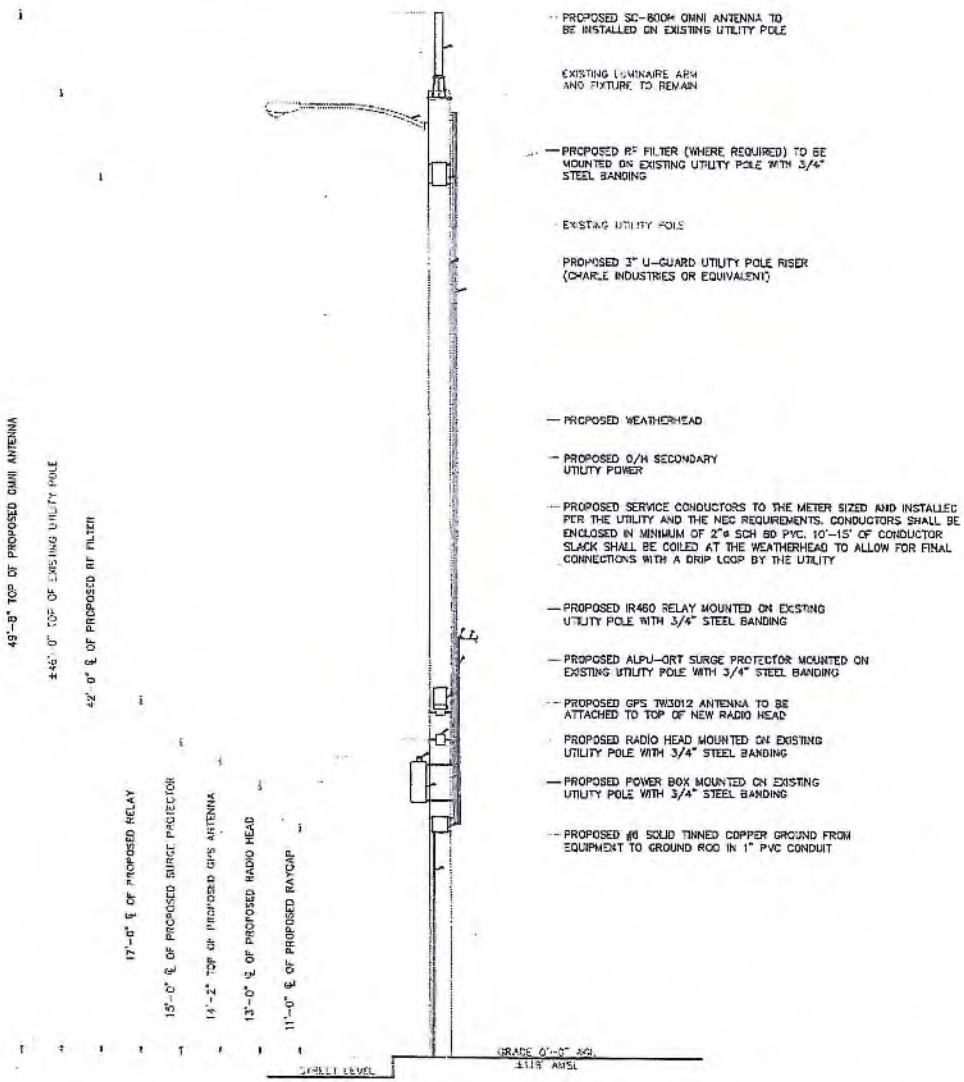
SHEET TITLE

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 SOUTHWEST ELEVATION

11x17 SCALE: 3/16" = 1'-0" | 24x36 SCALE: 3/8" = 1'-0"

mobilitie

PROJECT NO:	0FLB003534
DRAWN BY:	NC
CHECKED BY:	SJB

4	27-13-16	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC

Stephen A. Bray
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FL LICENSE: 62902 7/13/16

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JA90XS675B

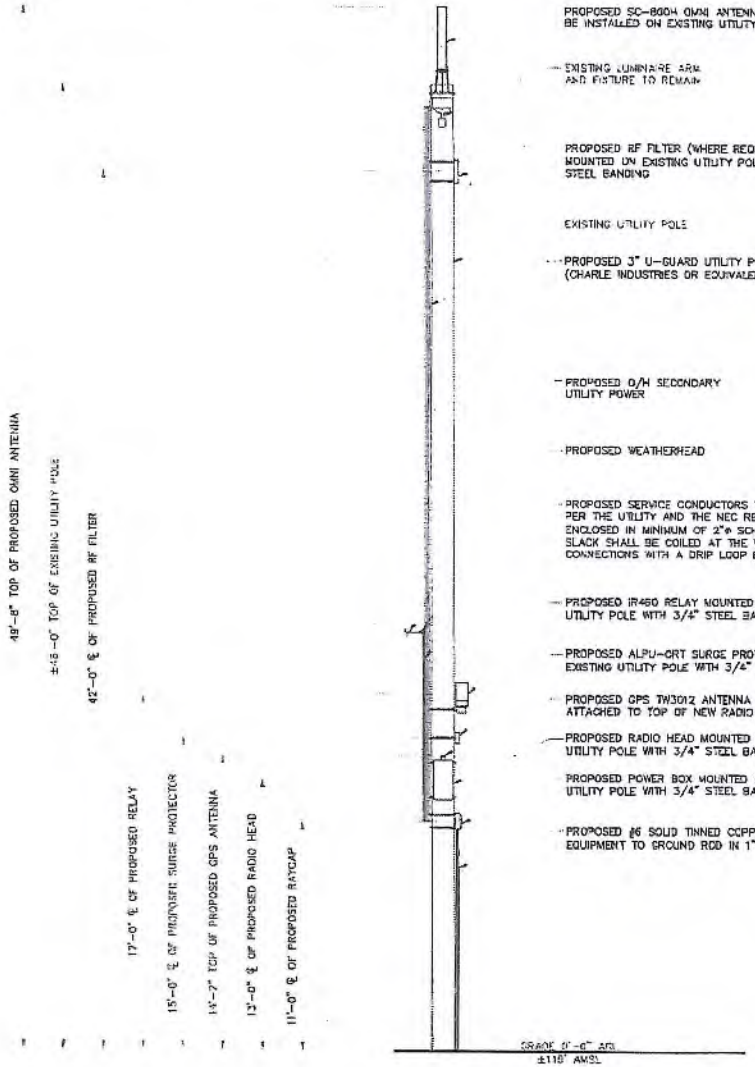
SUWANNEE ST & E LAFAYETTE ST
TALLAHASSEE, FL 32399

UTILITY POLE

SHEET TITLE
POLE ELEVATION

SHEET NUMBER
2.0

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 NORTHWEST ELEVATION

11x17 SCALE: 3/16" = 1'-0" | 24x36 SCALE: 3/8" = 1'-0

mobilitie

PROJECT NO:	9FL9003534
DRAWN BY:	RC
CHECKED BY:	SJS

A	07-13-16	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC

Stephen A. Bray
PROFESSIONAL ENGINEER

PRELIMINARY
NOT FOR CONSTRUCTION

FL LICENSE: 63902 7/13/16

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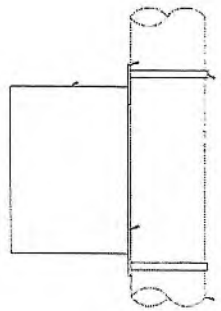
JA30XS675B

SUWANNEE ST & E LAFAYETTE ST
TALLAHASSEE, FL 32399

UTILITY POLE

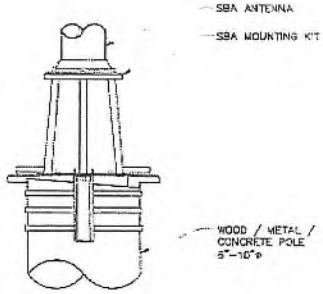
SHEET TITLE
POLE ELEVATION

SHEET NUMBER
2.1



1 EQUIPMENT CONNECTION DETAIL

SCALE: NTS



2 ANTENNA MOUNTING DETAIL

SCALE: NTS



3 CABLE ROUTING DETAIL

SCALE: NTS

mobilitie

PROJECT NO:	9FL9003534
DRAWN BY:	RC
CHECKED BY:	SJB

1	07/13/16	FOR QUALITY REVIEW

KMB DESIGN GROUP, LLC

Stephen A. Bray

PROFESSIONAL ENGINEER

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FL LICENSE: 69202 7/13/16

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JAS0XS675B

SUWANNEE ST & E LAFAYETTE ST
TALLAHASSEE, FL 32399

UTILITY POLE

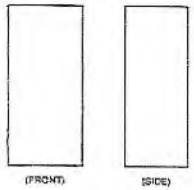
SHEET TITLE

ANTENNA & EQUIPMENT MOUNTING DETAILS

SHEET NUMBER

3.0

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



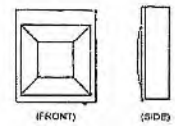
1 EQUIPMENT SPECIFICATIONS
SCALE: NTS

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



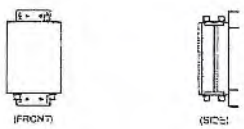
2 EQUIPMENT SPECIFICATIONS
SCALE: NTS

RSTAC-3112-P-120
AC POWER PANEL
9.25" x 9.50" x 3.61



3 EQUIPMENT SPECIFICATIONS
SCALE: NTS

FIMBW2593S-1C
RF FILTER
13.6" x 8.1" x 2.4 x 7.7 lbs



4 EQUIPMENT SPECIFICATIONS
SCALE: NTS

SC-900
2.5 OMNI ANTENNA
35.4" x 4.7"Ø, ±11 lbs



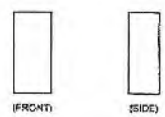
5 ANTENNA SPECIFICATIONS
SCALE: NTS

IRELAY 450
BACKHAUL ANTENNA
13.2" x 7.9"Ø, ±9.9 lbs



6 EQUIPMENT SPECIFICATIONS
SCALE: NTS

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



7 EQUIPMENT SPECIFICATIONS
SCALE: NTS

mobilitie

PROJECT NO:	9FL6003534
DRAWN BY:	RC
CHECKED BY:	SJB

A	[illegible]	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC

Stephen A. Bray
PROFESSIONAL ENGINEER

PRELIMINARY
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FL LICENSE: 68902 7/13/16

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JA90XS675B

SUWANNEE ST & E LAFAYETTE ST
TALLAHASSEE, FL 32399

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

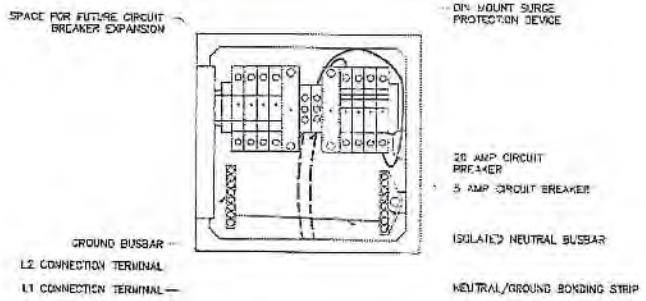
RACEWAYS AND WIRING:

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 THHN, 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.

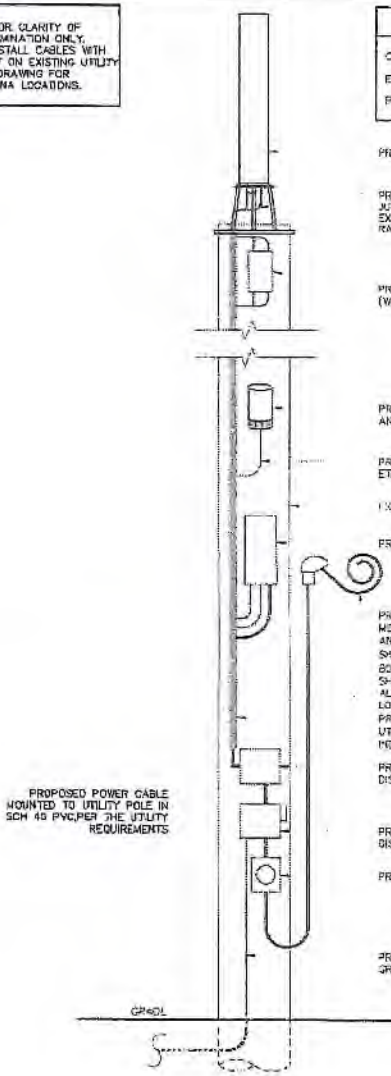
1 NOTES



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 EXISTING UTILITY POLE. SEE ELEVATION DRAWING FOR EQUIPMENT AND ANTENNA LOCATIONS.



LEGEND

COAX CABLES	
ETHERNET CABLES	
POWER CABLES	

PROPOSED ANTENNA

PROPOSED (2) 1/2" COAX JUMPERS. DRIP LOOP NOT TO EXCEED RATED BENDING RADIUS OF CABLE

PROPOSED RF FILTER (WHERE REQUIRED)

PROPOSED DC RELAY ANTENNA

PROPOSED CAT 5 ETHERNET CABLE

EXISTING UTILITY POLE

PROPOSED RRU

PROPOSED SERVICE CONDUCTORS TO THE METER SIZED AND INSTALLED PER THE UTILITY AND THE NEC REQUIREMENTS. CONDUCTORS SHALL BE ENCLOSED IN MINIMUM OF 2"ø SCH 80 PVC. 10'–15' OF CONDUCTOR SLACK SHALL BE COILED AT THE WEATHERHEAD TO ALLOW FOR FINAL CONNECTIONS WITH A DRIP LOOP BY THE UTILITY

PROPOSED 3' U-GUARD UTILITY POLE RISER (CHARLE INDUSTRIES OR EQUIVALENT)

PROPOSED AC DISTRIBUTION BOX

PROPOSED DISCONNECT SWITCH

PROPOSED METER SOCKET

PROPOSED 1" SCH 40 PVC GROUNDING CONDUIT

3 CABLE DIAGRAM

SCALE: NTS

mobilitie

PROJECT NO: 9FLBC025H
DRAWN BY: RC
CHECKED BY: SJB

KMB DESIGN GROUP, LLC

Stephen A. Bray
PROFESSIONAL ENGINEER

PRELIMINARY
NOT FOR CONSTRUCTION

FL LICENSE: 68802 7/13/16

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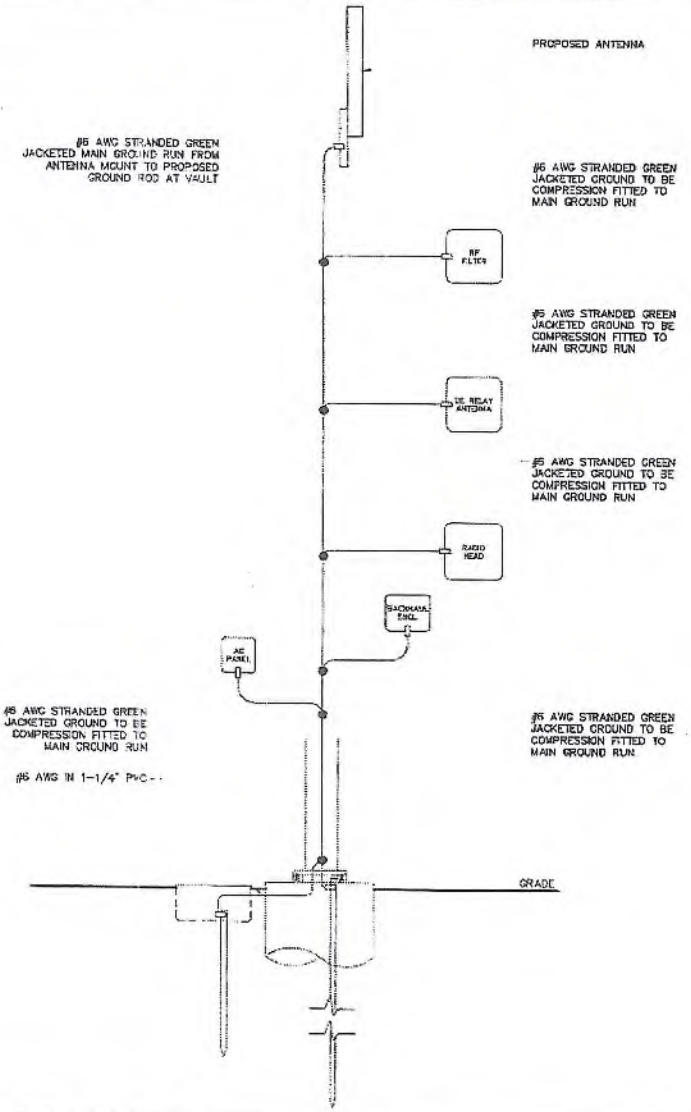
JA90X667SB

SUWANNEE ST & E LAFAYETTE ST
TALLAHASSEE, FL 32389

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:	SFLH003534
DRAWN BY:	RC
CHECKED BY:	SJB

A 12-7-18 100 CLIENT REVIEW

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SUWANNEE ST & E LAFAYETTE ST
TALLAHASSEE, FL 32399

UTILITY POLE

SHEET TITLE
GROUNDING DETAILS

SHEET NUMBER
5.0

5.5"



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

5"

INTERSTATE
TRANSPORT AND BROADBAND

In case of emergency contact:
EMAIL: NOC@ITBUTILITY.COM
PHONE: (877) 244 - 7889

SITE ID: 9FLB003534

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:	9FLB003534
DRAWN BY:	RC
CHECKED BY:	SJB

A	6/13/16	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC

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JA90X5575B

SUWANNEE ST & E LAFAYETTE ST
TALLAHASSEE, FL 32399

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 must be in place.
2. Traffic control devices, warning lights, signs, barricades, etc. shall be placed as shown on plans. Signs shall not be placed so as to obscure each other or be obscured by vehicles or other objects.
3. Fencing, if applicable, as per the requirements during construction.
4. Erection, placement, maintenance, and protection of traffic signs to be in accordance with the Manual of Uniform Traffic Control Devices - Part VI "Standards and Guides for Traffic Controls for Street and Highway Construction, Maintenance, Utility, and Incident Management Operations," and the State Department of Transportation Standards and Specifications, unless otherwise noted on the plans and specifications, and shall be approved by the appropriate agency authority prior to erection.
5. Traffic signs to be placed to maximize the visibility of their sign light.
6. Advance warning signs, distances, and taper lengths may be increased, at discretion of the Engineer, to allow adequate visibility due to horizontal and vertical curvature of the roadway.
7. All existing guide signs, pavement markings and/or signals, pavement markings, and/or pavement markings made obsolete by the construction operations shall be covered, removed, or relocated as directed by the Project Engineer and/or Owner to match pre-construction conditions.
8. Contractor is responsible for repair, replacement, or relocation of any traffic control devices damaged or removed.
9. Contractor shall contact local appropriate highway, transportation and construction authorities for additional requirements or policy determinations as they deem appropriate.
10. All applicable local and state requirements for workers shall be complied with, and adequate protection for safety of workers and the public shall be provided at all times. Contractor shall provide adequate traffic control devices, flagmen, and protection for safety of workers and the public.
11. Where required by the Manual of Uniform Traffic Control Devices, or where deemed necessary by the Engineer, temporary traffic control devices shall be installed.
12. Contractor personnel shall be trained in the proper use and placement of traffic control devices.
13. Shoulder drop-offs greater than 3" shall be backfilled with suitable material and compacted to provide a safe, stable surface.
14. Temporary pavement markings shall be placed as directed by the Engineer.
15. Construction signs shall be removed or covered when not in use.
16. Flagmen shall be provided with safety vests, hard hats, and flags.
17. Flagmen shall be stationed at locations where visibility is restricted or where traffic control devices cannot adequately control traffic.
18. Flagmen shall be provided with adequate communication devices, such as radios or cell phones.
19. Flagmen shall be trained in the proper use of flags and signals.
20. Flagmen shall be positioned to provide adequate warning to approaching traffic.
21. Flagmen shall be relieved at regular intervals to prevent fatigue.
22. Flagmen shall be provided with adequate lighting for nighttime operations.
23. Flagmen shall be provided with adequate shelter from the elements.
24. Flagmen shall be provided with adequate first aid supplies.
25. Flagmen shall be provided with adequate emergency procedures.
26. Flagmen shall be provided with adequate training in emergency procedures.
27. Flagmen shall be provided with adequate supervision.
28. Flagmen shall be provided with adequate equipment.
29. Flagmen shall be provided with adequate clothing.
30. Flagmen shall be provided with adequate footwear.
31. Flagmen shall be provided with adequate eye protection.
32. Flagmen shall be provided with adequate hearing protection.
33. Flagmen shall be provided with adequate respiratory protection.
34. Flagmen shall be provided with adequate protection from the elements.
35. Flagmen shall be provided with adequate protection from traffic.
36. Flagmen shall be provided with adequate protection from construction equipment.
37. Flagmen shall be provided with adequate protection from excavations.
38. Flagmen shall be provided with adequate protection from falling objects.
39. Flagmen shall be provided with adequate protection from noise.
40. Flagmen shall be provided with adequate protection from vibration.
41. Flagmen shall be provided with adequate protection from dust.
42. Flagmen shall be provided with adequate protection from fumes.
43. Flagmen shall be provided with adequate protection from chemicals.
44. Flagmen shall be provided with adequate protection from biological hazards.
45. Flagmen shall be provided with adequate protection from radiation.
46. Flagmen shall be provided with adequate protection from electrical hazards.
47. Flagmen shall be provided with adequate protection from fire.
48. Flagmen shall be provided with adequate protection from explosions.
49. Flagmen shall be provided with adequate protection from confined spaces.
50. Flagmen shall be provided with adequate protection from hot work.
51. Flagmen shall be provided with adequate protection from cold work.
52. Flagmen shall be provided with adequate protection from heat stress.
53. Flagmen shall be provided with adequate protection from cold stress.
54. Flagmen shall be provided with adequate protection from sunburn.
55. Flagmen shall be provided with adequate protection from insect bites.
56. Flagmen shall be provided with adequate protection from animal bites.
57. Flagmen shall be provided with adequate protection from plant hazards.
58. Flagmen shall be provided with adequate protection from poisonous plants.
59. Flagmen shall be provided with adequate protection from allergens.
60. Flagmen shall be provided with adequate protection from asthma triggers.
61. Flagmen shall be provided with adequate protection from heart conditions.
62. Flagmen shall be provided with adequate protection from diabetes.
63. Flagmen shall be provided with adequate protection from epilepsy.
64. Flagmen shall be provided with adequate protection from mental health conditions.
65. Flagmen shall be provided with adequate protection from substance abuse.
66. Flagmen shall be provided with adequate protection from domestic violence.
67. Flagmen shall be provided with adequate protection from workplace violence.
68. Flagmen shall be provided with adequate protection from harassment.
69. Flagmen shall be provided with adequate protection from discrimination.
70. Flagmen shall be provided with adequate protection from retaliation.
71. Flagmen shall be provided with adequate protection from whistleblower retaliation.
72. Flagmen shall be provided with adequate protection from occupational safety and health violations.
73. Flagmen shall be provided with adequate protection from environmental violations.
74. Flagmen shall be provided with adequate protection from transportation violations.
75. Flagmen shall be provided with adequate protection from hazardous materials violations.
76. Flagmen shall be provided with adequate protection from waste management violations.
77. Flagmen shall be provided with adequate protection from water quality violations.
78. Flagmen shall be provided with adequate protection from air quality violations.
79. Flagmen shall be provided with adequate protection from noise violations.
80. Flagmen shall be provided with adequate protection from vibration violations.
81. Flagmen shall be provided with adequate protection from dust violations.
82. Flagmen shall be provided with adequate protection from fumes violations.
83. Flagmen shall be provided with adequate protection from chemical violations.
84. Flagmen shall be provided with adequate protection from biological hazard violations.
85. Flagmen shall be provided with adequate protection from radiation violations.
86. Flagmen shall be provided with adequate protection from electrical hazard violations.
87. Flagmen shall be provided with adequate protection from fire violations.
88. Flagmen shall be provided with adequate protection from explosion violations.
89. Flagmen shall be provided with adequate protection from confined space violations.
90. Flagmen shall be provided with adequate protection from hot work violations.
91. Flagmen shall be provided with adequate protection from cold work violations.
92. Flagmen shall be provided with adequate protection from heat stress violations.
93. Flagmen shall be provided with adequate protection from cold stress violations.
94. Flagmen shall be provided with adequate protection from sunburn violations.
95. Flagmen shall be provided with adequate protection from insect bite violations.
96. Flagmen shall be provided with adequate protection from animal bite violations.
97. Flagmen shall be provided with adequate protection from plant hazard violations.
98. Flagmen shall be provided with adequate protection from poisonous plant violations.
99. Flagmen shall be provided with adequate protection from allergen violations.
100. Flagmen shall be provided with adequate protection from asthma trigger violations.

1 TRAFFIC CONTROL NOTES

SCALE: NTS

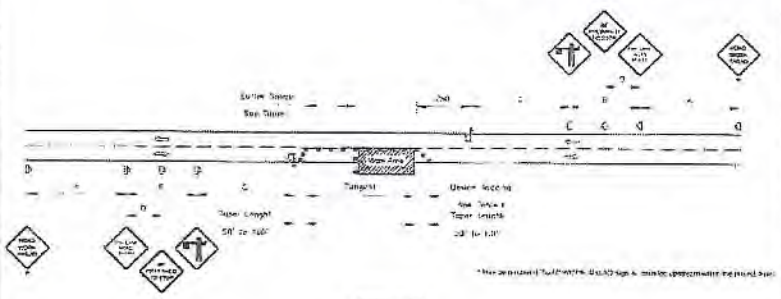
SYMBOLS

- Work Area
- Channelizing Device
- Work Zone Sign
- Flagger
- Arrow Board or Portable Changeable Message Sign (PCMS)
- Direction of Traffic Flow

Table 1

Posted Speed	Minimum Spacing of Channelizing Devices		Maximum Spacing of Channelizing Devices		Desirable Taper Length				Sight Distance
	One Lane	Two Lanes	One Lane	Two Lanes					
20	20	40	40	80	20	40	80	160	100
25	25	50	50	100	25	50	100	200	150
30	30	60	60	120	30	60	120	240	200
35	35	70	70	140	35	70	140	280	250
40	40	80	80	160	40	80	160	320	300
45	45	90	90	180	45	90	180	360	350
50	50	100	100	200	50	100	200	400	400
55	55	110	110	220	55	110	220	440	450
60	60	120	120	240	60	120	240	480	500
65	65	130	130	260	65	130	260	520	550
70	70	140	140	280	70	140	280	560	600

LONGITUDINAL: When using channelizing devices in the longitudinal direction, the distance between devices shall be equal to the posted speed.

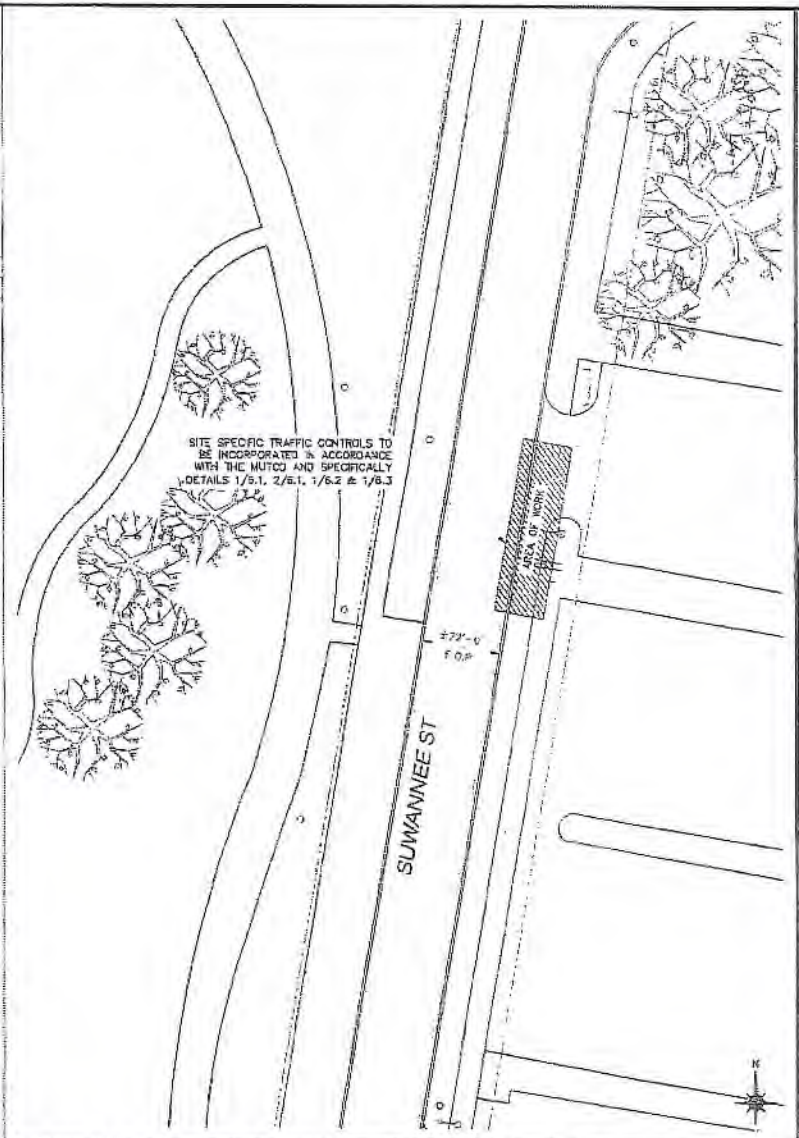


General Notes:

1. Special Conditions may be required at locations of intersections and the following events:
2. At the Work Area, work shall occur on the Centerline, use the Taper for Temporary Lane Shifts (See Note 4 on Sheet 2 only) to the Existing Paved Shoulder when sufficient width is available for all 12' lane between the Work Area and the Edge of Existing Paved Shoulder. Reduce the posted speed when necessary.
3. Temporary Added Shoulder Strips:
   a. Shall be 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. Shall be installed after paver has left the work area
   c. Shall be removed before paver has entered the work area
   d. Use Option 1 or Option 2 as shown on Sheet 2 (Actual) or as noted in the typical work zone
4. Additional devices permitted may be determined by the following events:
   a. Any Leaving vehicle,
   b. Official vehicle,
   c. Fleet vehicles,
   d. Police cruiser
5. When Engineer determines the need for a Flagger, the Flagger shall be stationed at each approach to the work area and shall be equipped with a Stop/Slow paddle and a two-way radio for communicating with other flaggers.
6. When a Flagger is required by the Engineer, the Flagger shall be stationed at each approach to the work area and shall be equipped with a Stop/Slow paddle and a two-way radio for communicating with other flaggers.
7. When Traffic Control Devices are placed on a paved surface, they shall be weighted with sandbags or other approved means to prevent displacement by wind or traffic.
8. Removal Sequence:
   a. Shall follow the installation sequence in reverse order.
   b. Shall be removed as soon as practicable after the work is completed.
   c. Shall be removed before the end of the day.
   d. Shall be removed before the end of the week.
   e. Shall be removed before the end of the month.
   f. Shall be removed before the end of the year.
   g. Shall be removed before the end of the project.
9. All traffic control devices shall be maintained in good condition at all times. Damaged or missing devices shall be repaired or replaced immediately.
10. All traffic control devices shall be removed when no longer required.

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	SFL9002534
DRAWN BY	RC
CHECKED BY	SAB

A	12/01/16	PER CLIENT REVIEW

KMB DESIGN GROUP, LLC

Stephen A. Bray
PROFESSIONAL ENGINEER

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JAX0XS675S

SUWANNEE ST & E LAFAYETTE ST
TALLAHASSEE, FL 32399

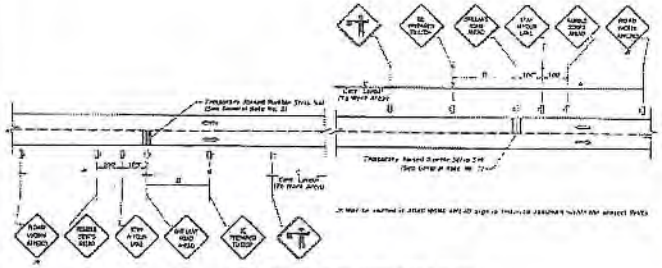
UTILITY POLE

SHEET TITLE

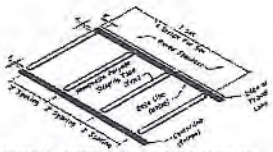
TRAFFIC CONTROL PLAN

SHEET NUMBER

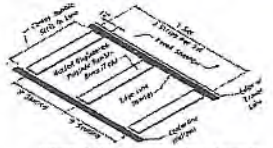
6.1



LAYOUT FOR TEMPORARY RAISED RUMBLE STRIPS
WHEN REQUIRED WITH ADDITIONAL SIGNS



OPTION 1 - REMOVABLE POLYMER STRIPING TAPE
RUMBLE STRIP SET

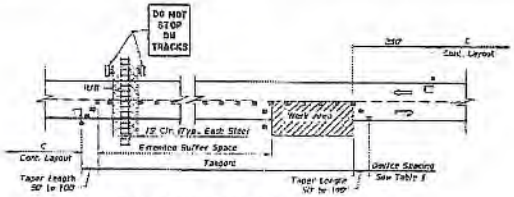


OPTION 2 - MOLDED ENGINEERED POLYMER
RUMBLE STRIP SET

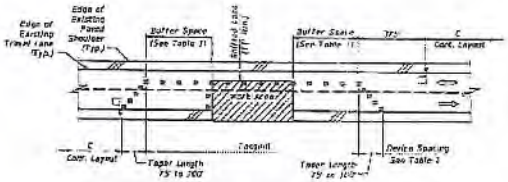
TEMPORARY RAISED RUMBLE STRIPS

1 TEMPORARY RAISED RUMBLE STRIPS

SCALE: NTS



LAYOUT FOR RAILROAD CROSSING
BUFFER SPACE EXTENSION

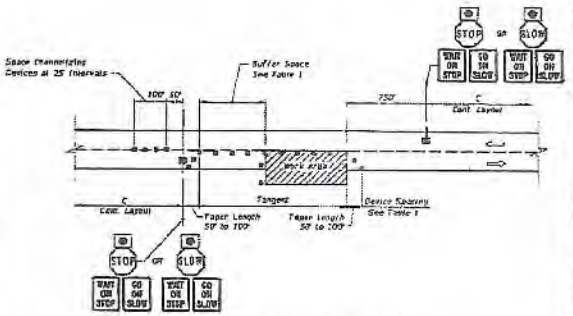


LAYOUT FOR TEMPORARY LANE SHIFT TO SHOULDER
WHEN WORK AREA ENCROACHES ON THE CENTERLINE

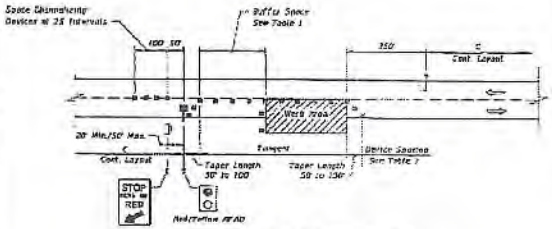
SPECIAL CONDITIONS

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 at 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 200 ft apart. For Method 2, the AFAD and the flagger are less than 500 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:	9FLB003534
DRAWN BY	RC
CHECKED BY:	SJB

A	8/30/16	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC

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FL LICENSE: 68002 7/13/16

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JA80X5675B

SUWANNEE ST & E LAFAYETTE ST
TALLAHASSEE, FL 32399

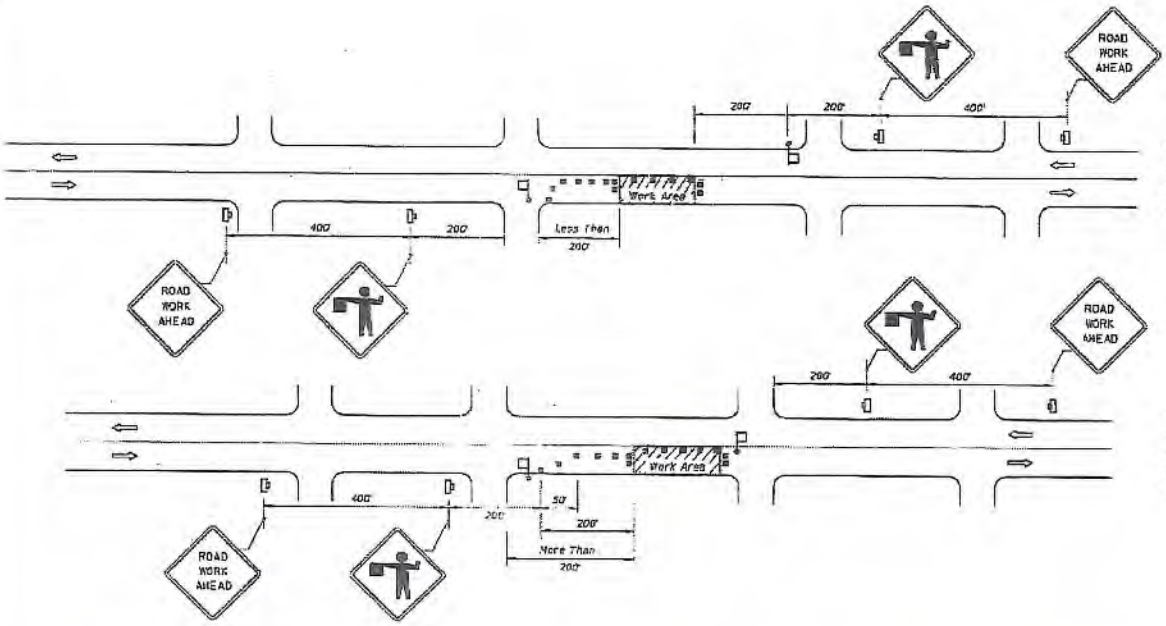
UTILITY POLE

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:	BFLB003534
DRAWN BY:	RC
CHECKED BY:	SJB

A	07/13/16	FOR CLIENT REVIEW

KMB DESIGN GROUP, LLC

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PRELIMINARY
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FL LICENSE 69992 7/13/16

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JA90XS875D

SUWANNEE ST & E LAFAYETTE ST
TALLAHASSEE, FL 32399

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
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) 565-6008

     PHASAR CORPORATION
     P.O. BOX 5123
     DEARBORN, MI 48126

     AMBUSH HERBICIDE
     EPA REGISTERED

     (800) 526-4824

     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

PROJECT NO:	SFLB003594
DRAWN BY:	RC
CHECKED BY:	SAB

1	07/31/16	PERMIT REVIEW

KMB DESIGN GROUP, LLC

Stephen A. Bray
PROFESSIONAL ENGINEER

PRELIMINARY
NOT FOR CONSTRUCTION

FL LICENSE #8902 7/31/16

"ITEMS INDICATED ON THIS LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT"

JAB0XS875B

SUWANNEE ST & E LAFAYETTE ST
TALLAHASSEE, FL 32399

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 NEC, NFG 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 JUNTS 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 "MAKE" 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 BETTIS SERIES #54____BE OR EQUIVALENT

A.	535 MCM DLO	54980BE
B.	262 MCM DLO	54972BE
C.	#1/0 DLO	54962BE
D.	#4/0 THWN AND BARE	54866BE
E.	#2/0 THWN	54862BE
F.	#2 T-HN	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 SOUND 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.# 27296) 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 (JMPER/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

PROJECT NO:	BFL0003534
DRAWN BY:	RC
CHECKED BY:	SAB

1	07-03-18

KMB DESIGN GROUP, LLC

Stephen A. Bray
PROFESSIONAL ENGINEER

PRELIMINARY
NOT FOR CONSTRUCTION

FL LICENSE: 69807 7/13/18

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

JAS0XS875B

SUWANNEE ST & E LAFAYETTE ST
TALLAHASSEE, FL 32399

UTILITY POLE

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-2

TALLAHASSEE

Public Works Department
Permit Application to Work Within the Public Right-of-Way

Project Information

Project Name: Utility Pole ID: 9FLB003402

Location Address: 2585 Merchants Row Blvd (30.392581,-84.229623)

Intersecting Streets: Merchants Row Blvd & CEP Way

Point of commencement: Merchants Row

Point of completion: Merchants Row

Length of Installation: N/A

Project Description: Install utility pole in the ROW.

Applicant Information

Applicant Name: Mobilitie, LLC

Contact Person: Megan Sikes Title: NRE Manager

Mailing Address: 3475 Piedmont Rd, Atlanta, GA 30214

Phone Number: (404) 989-8380 Cell Number:

Email Address: megan.sikes@mobilitie.com

Contractor Information

Contractors License No.: CGC1522704

Contractor/Company: TTS

Contact Person: Jason Gillis Title:

Mailing Address: 9335 Industrial Trace, Alpharetta, GA 30004

Phone Number: (770) 521-9137 Cell Number:

24 hour Emergency Contact Person: Cell Number:

Email Address:

Agent Information

Agent Name:

Contact Person:

Mailing Address:

Phone Number: Cell Number:

Email Address:

CITY OF TALLAHASSEE

Public Works Department
Permit Application to Work Within the Public Right-of-Way

Project Type and Construction Method, Circle all that apply

Cable:	Cut	Bore	Overhead
Electric:	Cut	Bore	Overhead
Telephone:	Cut	Bore	Overhead
Gas:	Cut	Bore	
Sewer:	Cut	Bore	
Water:	Cut	Bore	
Curb:	Demo	Construct	
Asphalt:	Demo	Construct	
Sidewalk:	Demo	Construct	
Driveway:	New	Reconstruct	
Drainage:	Connection		
Sign:	Permanent	Temporary	illuminated, electric permit no:_____

Fiber Optics

1. Does the installation provide local Connectivity? Yes No
   a. If YES, Is a Franchise Agreement in place with the City? Yes No
   b. If YES, Provide the date of the agreement. _____
   c. If NO, Describe the purpose of the installation, so a determination can be made if a Franchise agreement is required._____

Boring

Boring type:_____

How many bore crossings:

_____Underground Electric	_____Storm Sewer
_____Gas	_____Roads
_____Potable Water	_____Driveways
_____Sanitary Sewer Mains & Laterals	_____Sidewalks

Submit preconstruction videos of sanitary sewer mains and laterals and storm sewer lines crossing the bore.

I (print name) Megan Sikes do herby make application to the City of Tallahassee for a permit to perform the above noted construction in, on, or under the public streets of the City of Tallahassee. By my signature, I certify that I have verified the existence and location of all existing utilities within the proposed construction area with the appropriate utility or service provider in compliance with the "Specification for Construction within the City of Tallahassee Right of Way" and sound engineering practices. (Copies of the noted specifications may be obtained from the City Streets and Drainage Division)

Signature of Applicant: Megan Sikes Date: 4/27/16

SAM Surveying And Mapping, LLC
4801 Southwest Parkway, Building Two, Suite 100, Austin, TX 78735
Ofc 512.447.0575 Fax 512.326.3029
info@sam.biz www.sam.biz Florida License No. #LB7908

Date: 07-19-2016

Re: FAA 2C Survey Accuracy Certification for a new monopole

Candidate Code: JA90XS212A
General Site Location: 9FLB003402
County: Leon

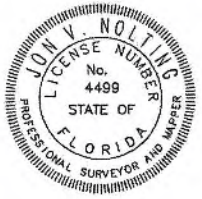
I hereby certify, to the best of my knowledge and belief, that the following geodetic position and elevation values for the above-referenced proposed pole location have been surveyed to be accurate to within +/- 50 feet horizontally; and that the corresponding elevation is accurate to within +/- 20 feet vertically.

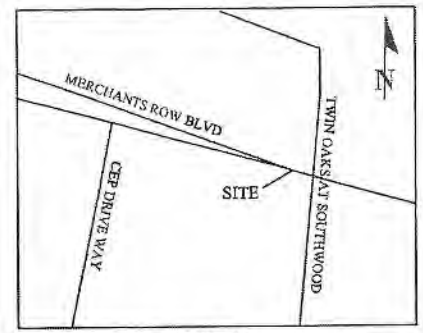
North American Datum of 1983 (2011)
Latitude: N30°23'33.27"
Longitude: W84°13'46.65"

North American Vertical Datum of 1988
Ground Elevation in feet: 68

Surveying And Mapping, LLC

Jon V. Nolting
Professional Surveyor & Mapper
No. 4499 - State of Florida





VICINITY MAP
(NOT TO SCALE)

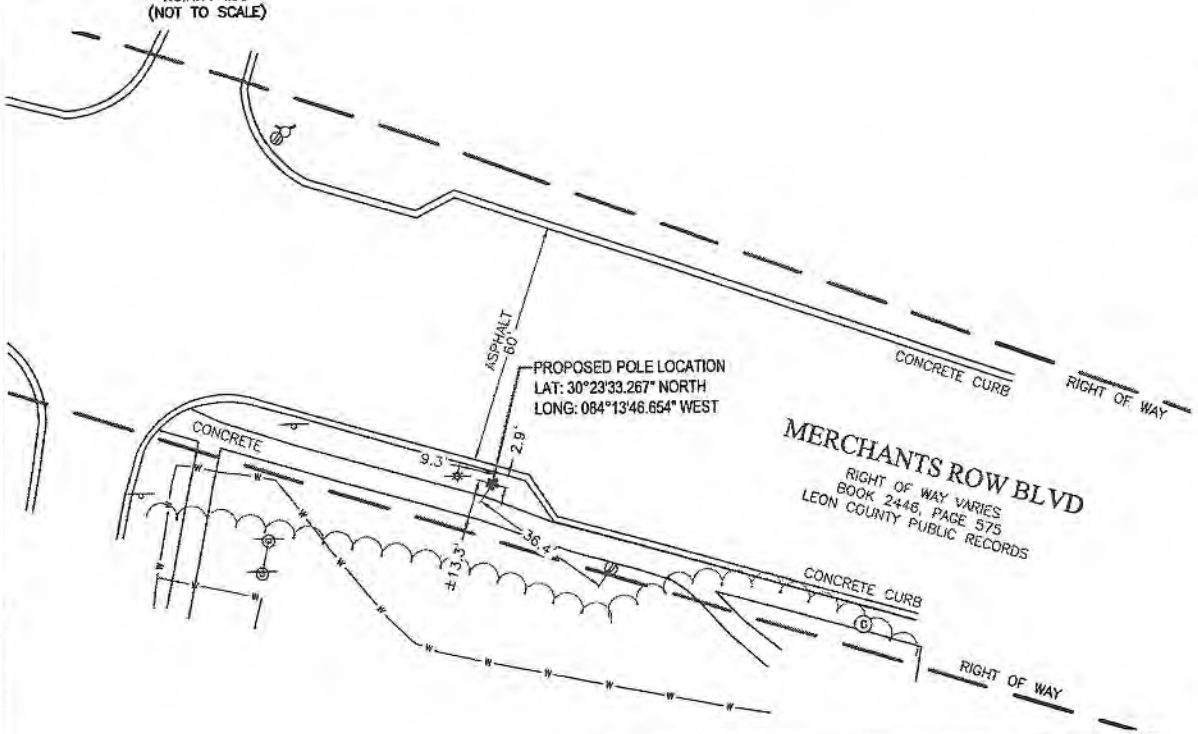
LEGEND

- TREE LINE
- WATER UTILITY
- REBAR SET
- SIGN
- LIGHT POLE
- HYDRANT
- MANHOLE DRAINAGE

N

0 30' 60'

GRAPHIC SCALE



UTILITY LOCATE TICKET #159609821
FOR UTILITY QUESTIONS: CONTACT SUNSHINE 811 AT 1-800-852-8057

NOTES:

THE PURPOSE OF THIS TOPOGRAPHIC MAP IS TO DOCUMENT THE HORIZONTAL AND VERTICAL POSITIONS OF THE PERMANENT FEATURES VISIBLE ON THE GROUND IN THE MAPPED AREA AS FOUND ON THE DATE OF SURVEY, JUNE 11, 2016.

THE RIGHT OF WAY SHOWN HEREON WAS DERIVED FROM EVIDENCE LOCATED IN THE FIELD, DEED, PLAT AND RIGHT OF WAY RECORDS SHOWN HEREON. THIS IS NOT A BOUNDARY SURVEY.

UNDERGROUND UTILITIES: SURFACE EVIDENCE OF UNDERGROUND UTILITIES WAS LOCATED BY SURVEYING AND MAPPING, LLC. (SAM, LLC) WHEN MARKED IMMEDIATELY PRIOR TO FIELD WORK. IT IS REQUIRED THAT THE POSITIONS OF UNDERGROUND UTILITIES BE VERIFIED PRIOR TO CONSTRUCTION. NO UTILITIES WERE DESIGNATED EXCEPT AS SHOWN HEREON.

THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE COMMITMENT. NO ABSTRACT EXAMINATION IS IMPLIED. INFORMATION SHOWN HEREON MAY BE SUBJECT TO EASEMENTS, RESTRICTIONS AND RESERVATIONS OF RECORD.

AT THE TIME OF SURVEY, THE PROPOSED POLE LOCATION APPEARS TO BE LOCATED WITHIN FLOOD HAZARD AREA ZONE X AS DESIGNATED AND DELINEATED ON FEMA FLOOD INSURANCE RATE MAP COMMUNITY PANEL 12073C0315F (LEON COUNTY, FLORIDA), WITH EFFECTIVE DATE OF AUGUST 18, 2009.

THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER OR A UNIQUE ELECTRONIC SIGNATURE.

CERTIFICATION:

I HEREBY CERTIFY THAT THIS TOPOGRAPHIC SURVEY AND OTHER PERTINENT DATA SHOWN HEREON, OF THE HEREON DEPICTED PROPERTY WAS MADE ON THE GROUND, CONFORMS TO THE STANDARDS OF PRACTICE FOR LAND SURVEYING IN THE STATE OF FLORIDA, AS OUTLINED IN CHAPTER 5J-17, (FLORIDA ADMINISTRATIVE CODE) AS ADOPTED BY THE DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION, BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN SEPTEMBER, 1981, AS AMENDED, PURSUANT TO CHAPTER 472.027, FLORIDA STATUTES, AND SECTION E OF THE NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS STANDARDS FOR TOPOGRAPHIC STANDARDS APPROVED ON 3/12/02 AND THAT SAID SURVEY IS TRUE AND CORRECT TO THE BEST OF OUR KNOWLEDGE AND BELIEF AS SURVEYED UNDER OUR DIRECTION.

7/12/16

JON V. NOLTING
PROFESSIONAL SURVEYOR & MAPPER NO. 4499
STATE OF FLORIDA

JON V. NOLTING
LICENSE NUMBER
No. 4499
STATE OF FLORIDA
PROFESSIONAL SURVEYOR AND MAPPER

NO.	REVISIONS	BY	DATE

SAM
SURVEYING•AERIAL MAPPING•ENGINEERING

SAM Surveying and Mapping, LLC.
4801 Southwest Parkway
Building Two, Suite 100
Austin, Texas, 78735
Ofc: 512.447.0575
Fax: 512.326.3029
email: info@sam.biz
Florida License No. LB7908

CANDIDATE ID: JA90XS212A
SITE ID: 9FLB003402
ADDRESS: 2585 MERCHANTS ROW BLVD TALLAHASSEE, FL

TOPOGRAPHIC SURVEY TO SUPPORT LOCATION OF A TELECOMMUNICATION STRUCTURE

PROJECT: MOBILITE 1018038723

SHEET 1 OF 1

PATH: \\SAM\CAD\PROJECTS\1018038723\100\SURVEY\02BASE\JA90XS212A\JA90XS212A.DWG

SITE ID: 9FLB003402
JA90XS212A
MERCHANTS ROW BLVD & CEP WAY
TALLAHASSEE, FL 32311

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

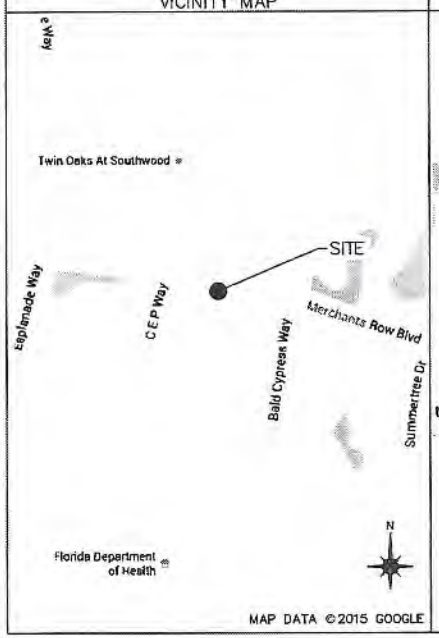
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY
ADDRESS/CROSS ST:	MERCHANTS ROW BLVD & CEP WAY
APPLICANT:	**MOBILITIE, LLC**
APPLICANT ADDRESS:	3475 Piedmont Rd. NE, Suite 1000 Atlanta, GA 30305
LATITUDE:	30° 23' 33.29" N (30.392581)
LONGITUDE:	84° 13' 46.64" W (-84.229623)
LAT/LONG TYPE:	NAD 83
GROUND ELEVATION:	± 71' AMSL
COUNTY:	TALLAHASSEE/LEON COUNTY
JURISDICTION:	CITY OF TALLAHASSEE

BEFORE SCALING:

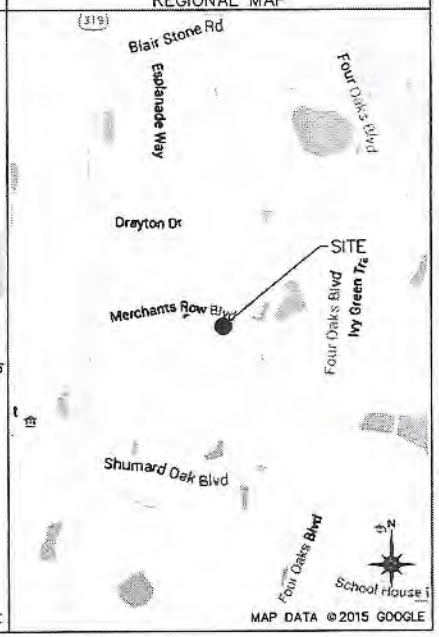
CONTRACTORS SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

LOCATION MAPS

VICINITY MAP



REGIONAL MAP



DIG ALERT

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

TWO WORKING DAYS BEFORE YOU DIG

PROJECT DESCRIPTION

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

- INSTALL PROPOSED BACKHAUL TRANSPORT EQUIPMENT ON A PROPOSED STEEL 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 ELEVATIONS
2.1	POLE ELEVATIONS
3.0	ANTENNA & EQUIPMENT MOUNTING DETAILS
4.0	ELECTRICAL DETAILS
5.0	GROUNDING DETAILS
GN-1	GENERAL NOTES
GN-2	GENERAL NOTES
6.0	TRAFFIC CONTROL PLAN

ARCHITECT/ENGINEER

JACOBS ENGINEERING GROUP, INC.
5449 BELLS FERRY ROAD
ACWORTH, GA 30102
CONTACT: KARL KRATINA
PROJECT MANAGER
TEL: (678) 460-1416
FAX: (770) 701-2501

mobilitie
3475 Piedmont Rd. NE,
Suite 1000 Atlanta, GA 30305
PHONE: (877) 999-7070
EMAIL: SOLUTIONS@MOBILITIE.COM

PROJECT NO:	ER600201
DRAWN BY:	J. BRAZA
CHECKED BY:	R.SHOLTIS

B	04.21.16	REVISION
A	12.07.15	FOR CLIENT REVIEW

PRELIMINARY

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

JA90XS212A
9FLB003402
MERCHANTS ROW BLVD &
CEP WAY
TALLAHASSEE, FL 32311
UTILITY POLE

SHEET TITLE
TITLE SHEET

SHEET NUMBER
0.0



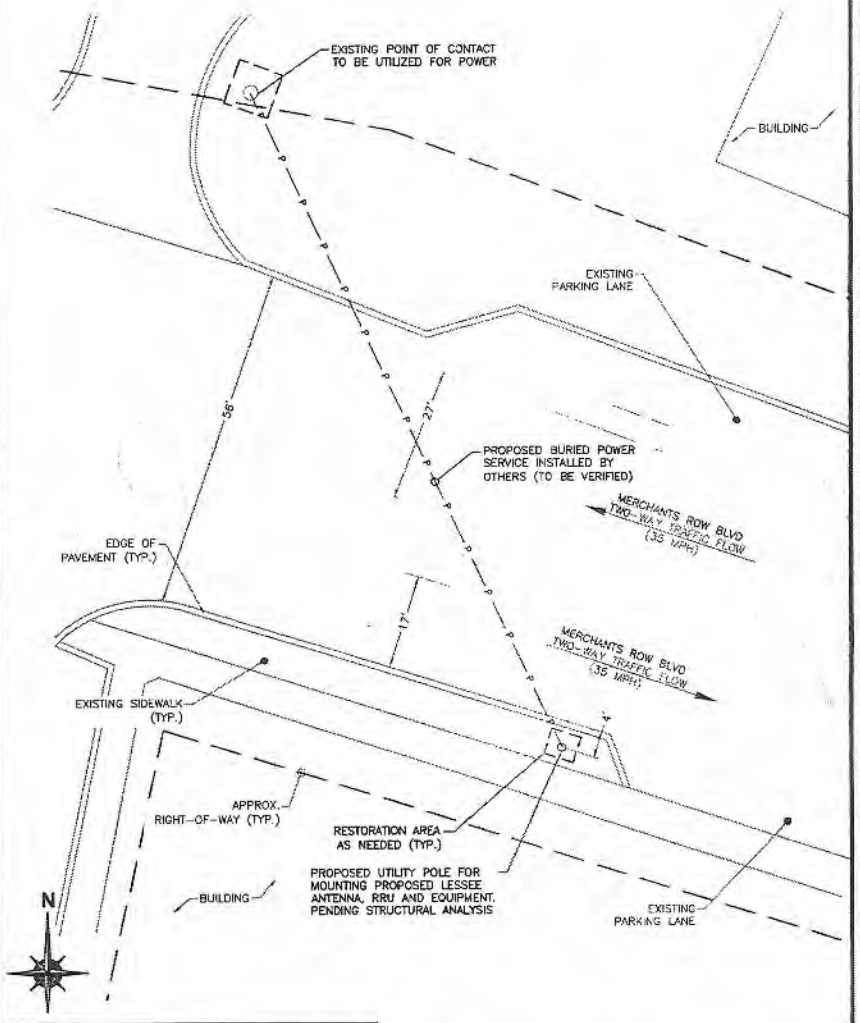
EXHIBIT PHOTO | 1

SCALE: NOT TO SCALE



AERIAL SITE LOCATION | 2

SCALE: NOT TO SCALE



NOTE:
THIS SITE PLAN WAS GENERATED WITHOUT THE USE OF A SURVEY. PROPERTY 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.

ENLARGED SITE PLAN | 3

SCALE: 1" = 20'-0" (1" = 10'-0" ON 22"x34" SHEET)

mobilitie
3475 Piedmont Rd. NE,
Suite 1000 Atlanta, GA 30305
PHONE: (877) 999-7070
EMAIL: SOLUTIONS@MOBILITIE.COM

PROJECT NO:	ER800201
DRAWN BY:	J. BRAZA
CHECKED BY:	R.SHOLTIS

B	04.28.15	REVISION
A	12.07.15	FOR CLIENT REVIEW

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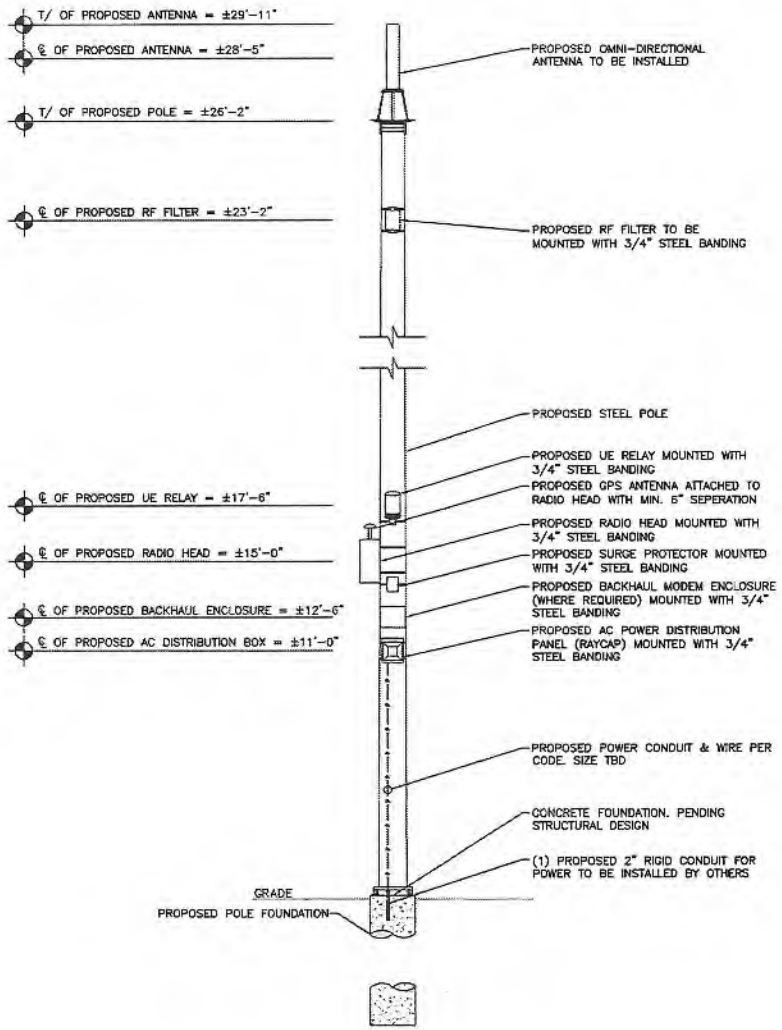
JAS0XS212A
9FLB003402
MERCHANTS ROW BLVD &
CEP WAY
TALLAHASSEE, FL 32311
UTILITY POLE

SHEET TITLE
SITE PLAN & EXHIBIT PHOTO

SHEET NUMBER
1.0



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

NOTES:

1. ALL HARDWARE SHALL BE STAINLESS STEEL.
2. ALL CABLES SHALL BE SECURED TO POLE EVERY 36" OR LESS.
3. LIGHTNING RODS SHALL BE INCLUDED AS REQUIRED.
4. STRUCTURAL BACKFILL TO BE COMPACTED IN 8" MAXIMUM LAYERS TO 95% OF CONTENT IN ACCORDANCE WITH ASTM D698. ADDITIONALLY, STRUCTURAL BACKFILL MUST HAVE A MINIMUM COMPACTED UNIT WEIGHT OF 100 POUNDS PER CUBIC FOOT (16kN/m3)

BAND 41 (2500MHz) EQUIPMENT CHART			
QUANTITY	DESCRIPTION	DIMENSIONS (HxWxD)	WEIGHT
1	MOUNTED ANTENNA	35.4" X 4.7" DIAMETER	11 LBS
1	MOUNTED RADIO	20.1" X 9.1" X 8.9"	55.1 LBS
1	GPS ANTENNA	0.8" X 2.6" DIAMETER	0.3 LBS
1	AC DIST (RAYCAP)	13.1" X 11.4" X 4.4"	TBD
1	REJECT FILTER	13.6" X 8.1" X 2.4"	7.7 LBS
1	MOUNTED RELAY	13.0" X 7.9" DIAMETER	9.9 LBS
1	SURGE PROTECTOR	6.1" X 4.5" X 2.5"	TBD

PROPOSED FRONT POLE ELEVATIONS

SCALE: 1" = 5'

1

mobilitie
3475 Piedmont Rd. NE,
Suite 1000 Atlanta, GA 30305
PHONE: (877) 999-7070
EMAIL: SOLUTIONS@MOBILITIE.COM

PROJECT NO:	ER600201
DRAWN BY:	J. BRAZA
CHECKED BY:	R.SHOLTIS

B	04.21.16	REVISION
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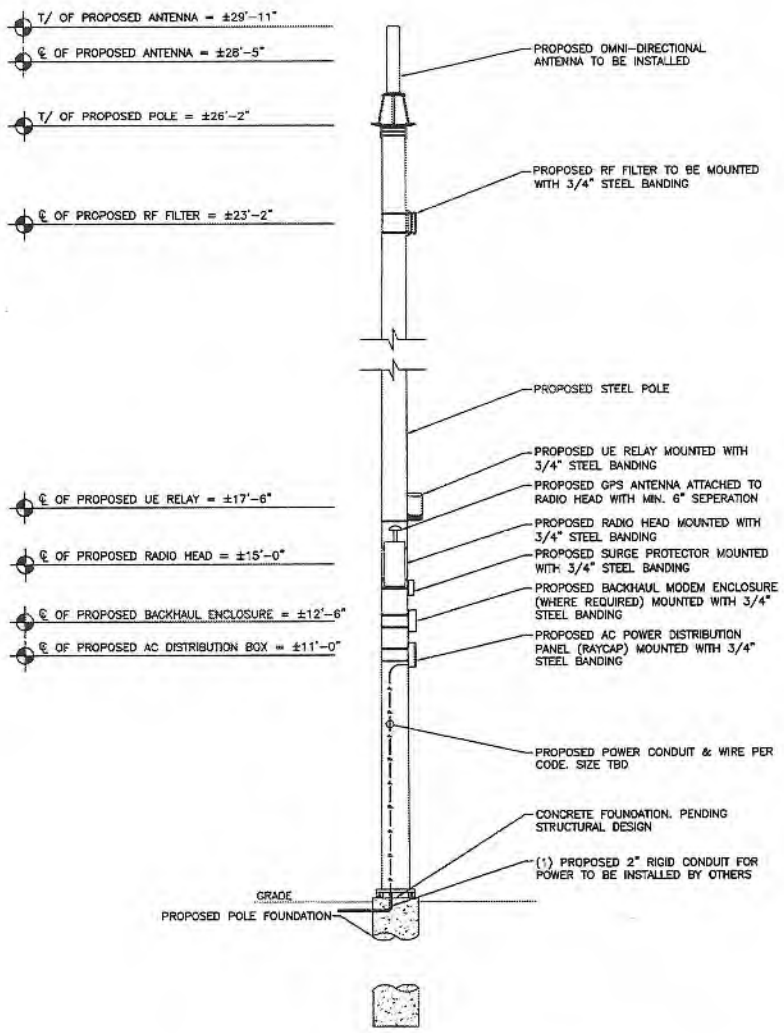
9FLB003402
MERCHANTS ROW BLVD & CEP WAY
TALLAHASSEE, FL 32311
UTILITY POLE

SHEET TITLE

POLE ELEVATIONS

SHEET NUMBER

2.0



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NOTES:

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1	SURGE PROTECTOR	6.1" X 4.5" X 2.5"	TBD

PROPOSED SIDE POLE ELEVATION

SCALE: 1" = 5'

1

mobilitie
3475 Piedmont Rd. NE,
Suite 1000 Atlanta, GA 30305
PHONE: (877) 999-7070
EMAIL: SOLUTIONS@MOBILITIE.COM

PROJECT NO:	ER600201
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CHECKED BY:	R.SHOLTIS

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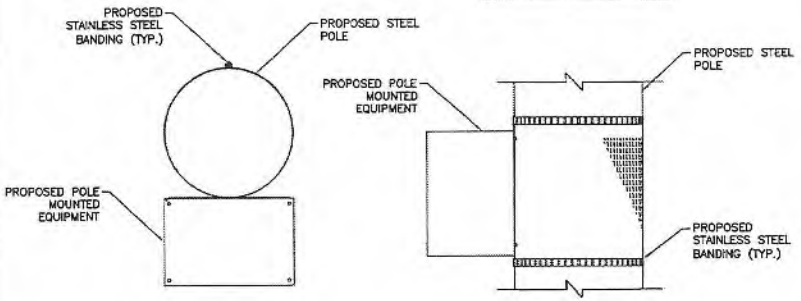
JA90XS212A
9FLB003402
MERCHANTS ROW BLVD & CEP WAY
TALLAHASSEE, FL 32311
UTILITY POLE

SHEET TITLE
POLE ELEVATIONS

SHEET NUMBER
2.1

NOTE:
INSTALL BRACKETS WITH STAINLESS STEEL BANDING.



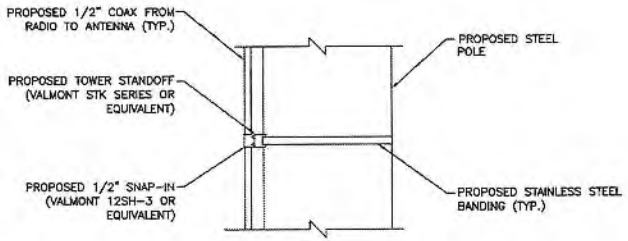
TOP VIEW

SIDE VIEW

EQUIPMENT BANDING DETAIL

SCALE: NOT TO SCALE

1

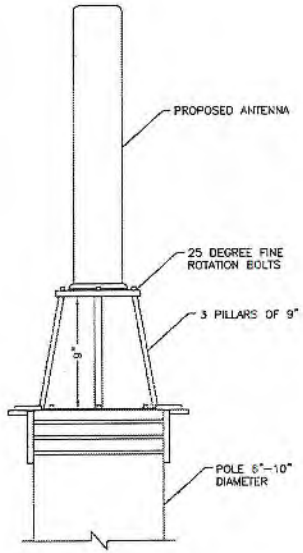


NOTE:
SPACE SNAP-INS PER CABLE MANUFACTURER'S SPECIFICATIONS

CABLE MOUNTING DETAIL

SCALE: NOT TO SCALE

2



SIDE VIEW

NOTE:

1. MOUNTING BRACKET ACCOMMODATES POLE SIZES FROM 6" TO 10" DIAMETER.
2. MOUNTING BRACKET MAY BE USED FOR WOOD, CONCRETE & STEEL POLES.
3. JACOBS 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

mobilitie

3475 Piedmont Rd. NE,
Suite 1000 Atlanta, GA 30305

PHONE: (877) 999-7070
EMAIL: SOLUTIONS@MOBILITE.COM

PROJECT NO:	ER600201
DRAWN BY:	J. BRAZA
CHECKED BY:	R.SHOLTIS

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JA90XS212A
9FLB003402
MERCHANTS ROW BLVD & CEP WAY
TALLAHASSEE, FL 32311
UTILITY POLE

SHEET TITLE

ANTENNA & EQUIPMENT MOUNTING DETAILS

SHEET NUMBER

3.0

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:

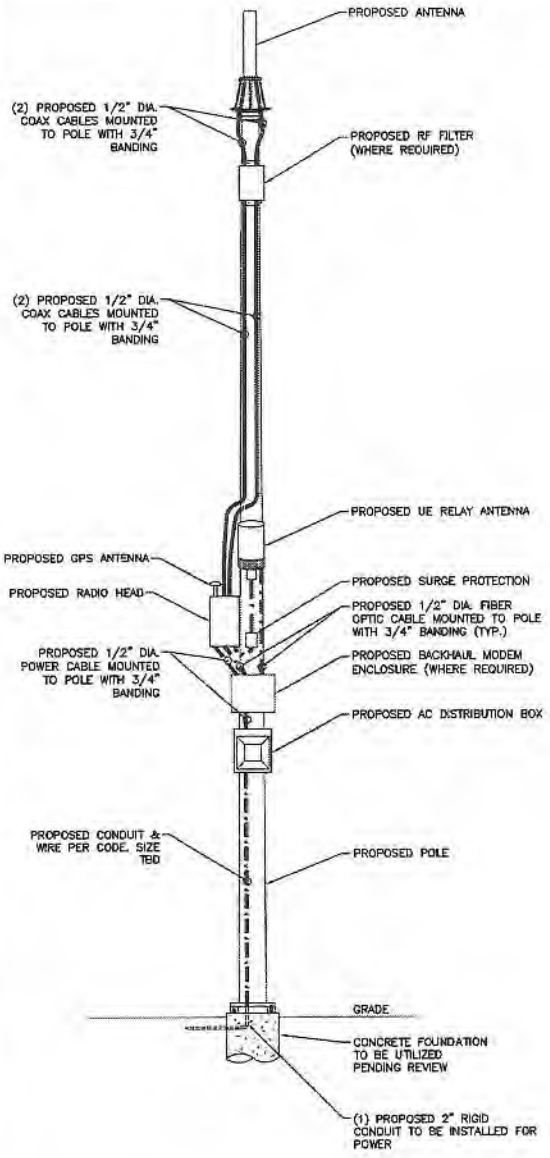
N.E.C.	NATIONAL ELECTRICAL CODE
A.N.S.I.	AMERICAN NATIONAL STANDARDS INSTITUTE
I.E.E.E.	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
A.S.T.M.	AMERICAN SOCIETY FOR TESTING MATERIALS
N.E.M.A.	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
U.L.	UNDERWRITERS LABORATORIES, INC.
N.F.P.A.	NATIONAL FIRE PROTECTION ASSOCIATION

RACEWAYS AND WIRING:

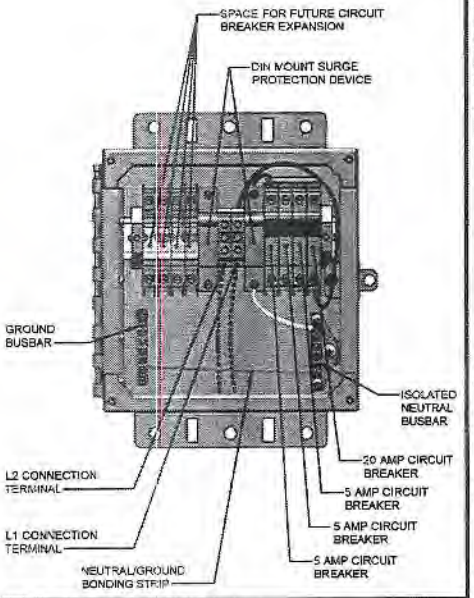
1. WIRING OF EVERY KIND MUST BY INSTALLED IN CONDUIT, UNLESS NOTED OTHERWISE, OR AS APPROVED BY THE ARCHITECT/ENGINEER.
2. UNLESS OTHERWISE SPECIFIED, ALL WIRING SHALL BE COPPER (CU) TYPE THWN, SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL CODES.
3. RACEWAYS SHALL BE GALVANIZED STEEL, 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.



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



CABLING DIAGRAM — 1

SCALE: NOT TO SCALE

mobilitie
3475 Piedmont Rd. NE,
Suite 1000 Atlanta, GA 30305
PHONE: (877) 999-7070
EMAIL: SOLUTIONS@MOBILITIE.COM

PROJECT NO:	ERS00201
DRAWN BY:	J. BRAZA
CHECKED BY:	R.SHOLTIS

B	04.21.16	REVISION
A	12.07.15	FOR CLIENT REVIEW

PRELIMINARY

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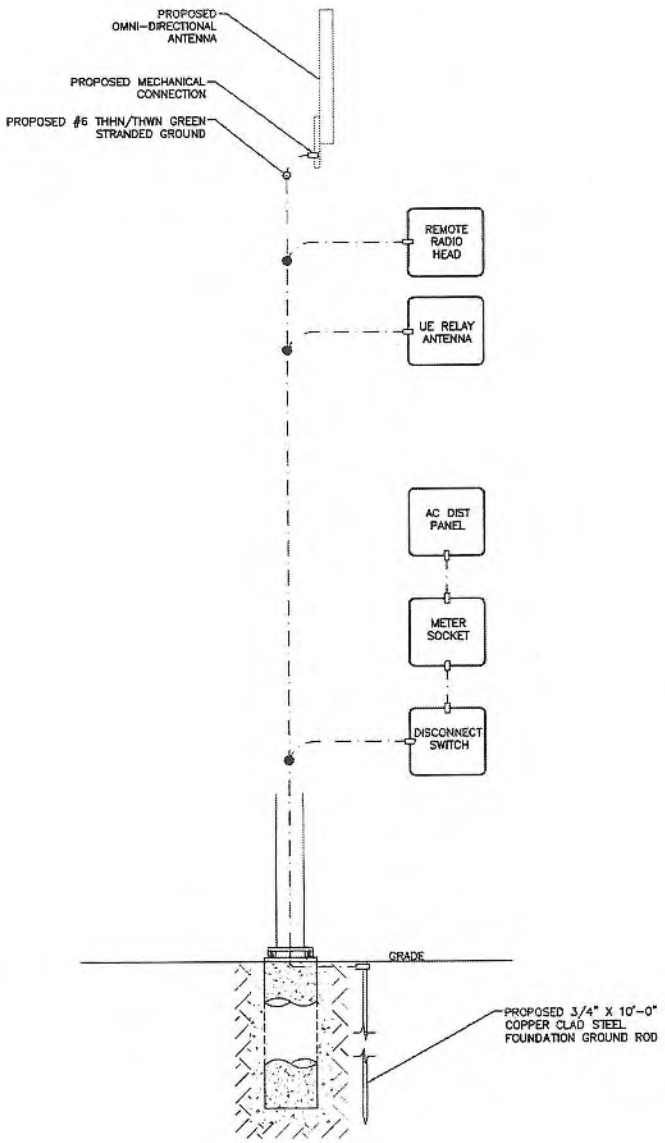
JA90XS212A
9FLB003402
MERCHANTS ROW BLVD & CEP WAY
TALLAHASSEE, FL 32311
UTILITY POLE

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 | 1

SCALE: NOT TO SCALE

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TALLAHASSEE, FL 32311
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) 583-8000 — 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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B	04.26.16	REVISION
A	12.07.15	FOR CLIENT REVIEW

PRELIMINARY

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

JA90XS212A
9FLB003402
MERCHANTS ROW BLVD &
CEP WAY
TALLAHASSEE, FL 32311
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	54680BE
B.	262 MCM DLO	54672BE
C.	#1/0 DLO	54662BE
D.	#4/0 THWN AND BARE	54666BE
E.	#2/0 THWN	54662BE
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.

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B	04.21.16	REVISION
A	12.07.15	FOR CLIENT REVIEW

PRELIMINARY

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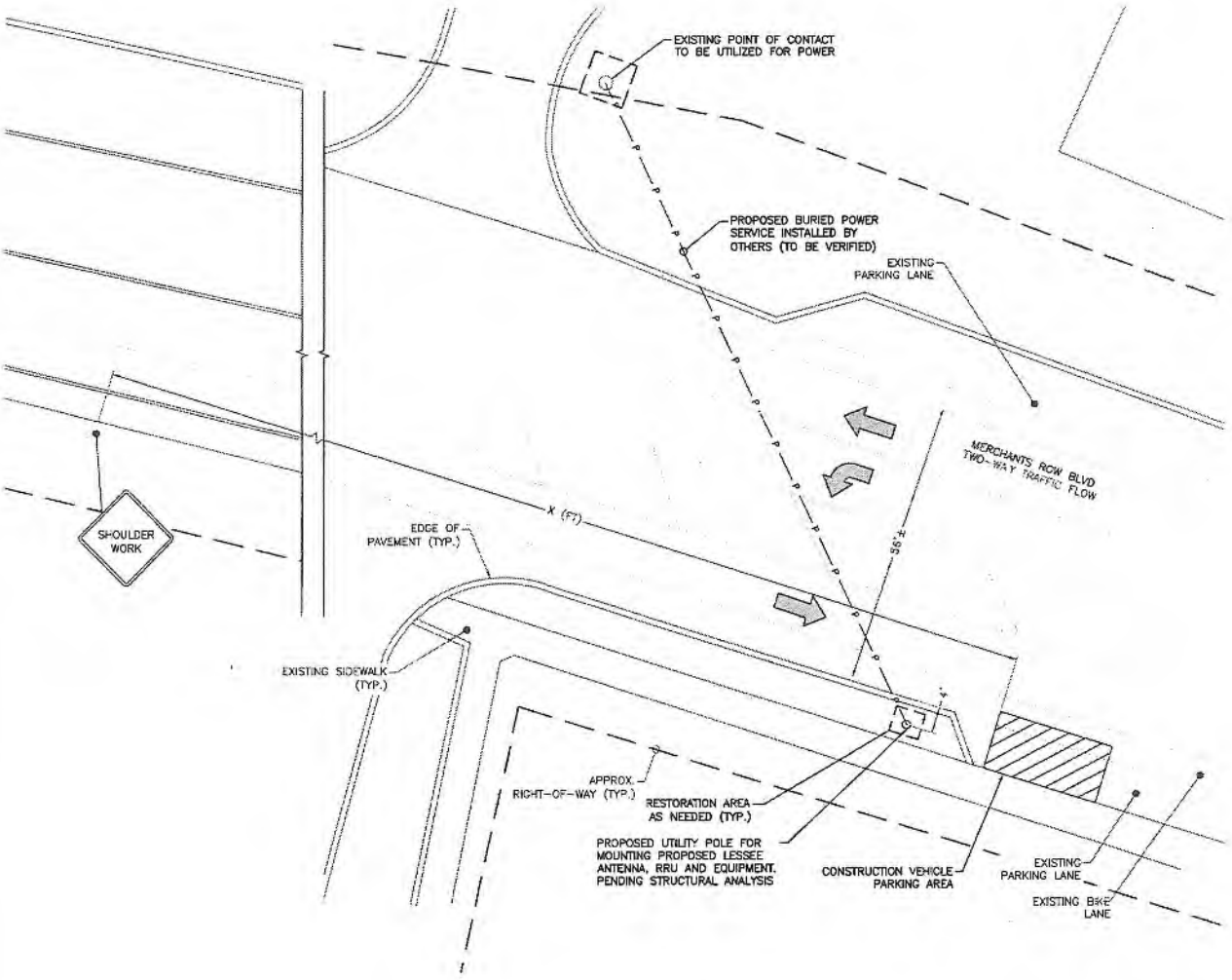
JA9CXS212A
9FLB003402
MERCHANTS ROW BLVD &
CEP WAY
TALLAHASSEE, FL 32311
UTILITY POLE

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-2



NOTE:

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 DURATION OR MOBILE OPERATION, ALL SIGNS AND CHANNELIZING DEVICES MAY BE ELIMINATED IF A VEHICLE WITH ACTIVATED HIGH-INTENSITY ROTATING, FLASHING, OSCILLATION, OR STROBE LIGHT IS USED.
4. VEHICLE HAZARD WARNING SIGNALS SHALL NOT BE USED INSTEAD OF THE VEHICLE'S HIGH-INTENSITY ROTATING, FLASHING, OSCILLATION, OR STROBE LIGHTS.

TRAFFIC CONTROL SPACING			
SPEED (MPH)	X (FT)	L (FT)	B (FT)
15	90	55	100
20	120	95	115
25	150	150	155
30	180	215	200
35	210	295	250
40	240	385	305
45	270	650	360
50	300	720	425
55	330	790	495
60	360	865	570
65	390	935	645
70	420	1010	730

NOTE: CONTRACTOR TO VERIFY EXISTING SPEED LIMIT.

TRAFFIC CONTROL PLAN — 1

SCALE: NOT TO SCALE

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JA90XS212A
9FLB003402
MERCHANTS ROW BLVD &
CEP WAY
TALLAHASSEE, FL 32311
UTILITY POLE

SHEET TITLE

TRAFFIC CONTROL PLAN

SHEET NUMBER

6.0

ATTACHMENT E

CITY OF TAMPA

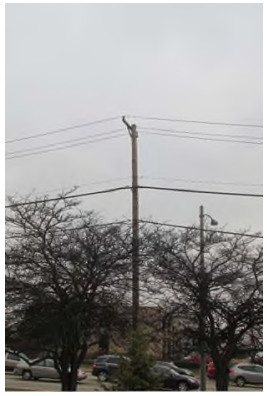
Mobilitie Candidate Code	Latitude (from Site Selection)*	Longitude (from Site Selection)*	Cross Roads Location of Proposed Candidate	Zoning	Mobilite Site Walk Notes (Height Observations)	Mobilite Additional Comments for Consideration	Mobilitie Requested Height	Tampa City Recommended Revised Height (if applicable)
TA90XS243B	28.032234	-82.420682	Approximately 80' South of the Intersection of N. Larkhall Pl. and E. Busch Blvd.	Commercial	Observed 35' wood utility poles in the area.		35' (with antenna)	Possible conflicts with water/wastewater/mailbox . Must meet all COT Technical requirements-Clarify if antenna height is included int requested height-Poles must be maintained @ 35'
TA90XS285C	27.988914	-82.514467	W. Osborne Ave. and N. Thatcher Ave.	Industrial (IG)	Observed steel Light poles and Wood utility poles ranging from 35' - 40'.		40' (with antenna)	Must meet all COT Technical requirements-Clarify if antenna height is included int requested height-Poles must be maintained @ 35'
TA90XS707A	27.944517	-82.501199	W. Kennedy Blvd. and S Gunlock Ave.	Commercial (CG)	Observed 35' wood utility poles in the area.	Observed a 75'-90' monopole in the area.	35' (with antenna)	Must meet all COT Technical requirements-Clarify if antenna height is included int requested height-Poles must be maintained @ 35'
TA90XS704A	27.926652	-82.514369	W. San Rafael St. and S. Lois Ave.	Commercial (CG)	Observed wood utility poles ranging from 25'-30'		30' (with antenna)	Possible conflict with overhead powerlines.Must meet all COT Technical requirements-Clarify if antenna height is included int requested height-Poles must be maintained @ 35'
TA90XS752A	28.145552	-82.304699	Approximately 1100' South East of the Intersection of Sandy Point Dr. and Cross Creek Blvd.	Planned Development (PD-A)	Observed 25' poles.		25' (with antenna)	Possible conflict with water. Must meet all COT Technical requirements-Clarify if antenna height is included int requested height-Poles must be maintained @ 35'
TA90XS080B	27.943068	-82.523774	Approximately 130' East of S. West Shore Blvd. and W. Cleveland St.	Commercial (CG)	Observed steel light and wood utility poles ranging from 25'-30'		30' (with antenna)	Must meet all COT Technical requirements-Clarify if antenna height is included int requested height-Poles must be maintained @ 35'
TA90XS076C	27.943441	-82.536078	Approximately 475' West of the Intersection of Mariner St. and S. Hoover Blvd.	Commercial (OP-1)	Observed utility wood poles in the area ranging from 30'-35'.		35' (with antenna)	Possible conflict with trees/utilities. Must meet all COT Technical requirements-Clarify if antenna height is included int requested height-Poles must be maintained @ 35'

*Latitude and longitude can be adjusted as needed to place candidate against the back of the ROW line and comply with required set-backs. Please provide feedback on any additional candidate specific location concerns so that we can make the proper adjustments to the coordinates for the Construction Drawings that will be submitted with the full application.

POLE ELEVATIONS



FACING SOUTH

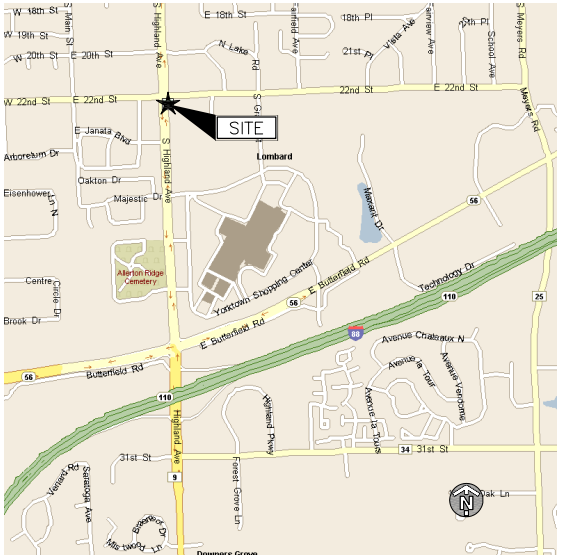


FACING WEST

mobilitie®

telecommunications infrastructure

ANTENNA INSTALLATION ON EXISTING UTILITY POLES



AREA MAP



LOCATION MAP

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www.mobilitie.com
CONTACT
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TEL: 847-292-0200 FAX: 847-292-0206
DESIGN FIRM NO. 184-002498
www.FullertonEngineering.com
CONTACT
JASON PALMER
EMAIL
jpalmer@fullertonengineering.com
PHONE
(224) 585-4446

#	DATE	DESCRIPTION	INT.
	12/16/14	90% REVIEW	MY
	01/12/15	FINAL	MY

APPROVED BY: JP | CHECKED BY: KF

SIGNED DATE: 01/12/2015

STREET WITH NEAREST CROSS STREET
S HIGHLAND AVE & 22ND ST

SCOPE OF WORK

THE SCOPE OF WORK CONSISTS OF MODIFYING THE EXISTING UTILITY POLE:

- INSTALLING NEW DISTRIBUTION ANTENNA SYSTEM

EXISTING STRUCTURAL CONDITION

EXISTING CONDITION WILL BE CHECKED AND VERIFIED IN FIELD. IF SIGNIFICANT DEVIATIONS OR DETERIORATION ARE ENCOUNTERED AT THE TIME OF CONSTRUCTION A REPAIR PERMIT WILL BE OBTAINED AND CONTRACTOR SHALL NOTIFY STRUCTURAL ENGINEER IMMEDIATELY.

APPLICABLE CODES

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES.

BUILDING CODE: 2009 INTERNATIONAL BUILDING CODE WITH AMENDMENTS
ELECTRICAL CODE: 2008 NATIONAL ELECTRIC CODE

ACCESSIBILITY REQUIREMENTS:

- FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. ADA ACCESS REQUIREMENTS ARE NOT REQUIRED.
- THIS FACILITY DOES NOT REQUIRE POTABLE WATER AND WILL NOT PRODUCE ANY SEWAGE.

ENGINEER'S STATEMENT

CERTIFICATION STATEMENT:

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION AND TO THE BEST OF MY PROFESSIONAL KNOWLEDGE THEY CONFORM TO THE 2009 INTERNATIONAL BUILDING CODE

DATE SIGNED:	EXPIRES:	IL LICENSE#:
01/12/2015	11/30/2015	062-063291

SHEET INDEX

SHEET	DESCRIPTION
T-1	TITLE SHEET
C-1	SITE PLAN
C-2	ENLARGED SITE PLAN
C-3	EXISTING POLE ELEVATIONS
C-4	PROPOSED POLE ELEVATIONS
C-5	DETAILS

NOTE: DRAWING SCALES ARE FOR 11"X17" SHEETS UNLESS OTHERWISE NOTED.

SITE NUMBER	SITE NAME
CH66XS301	NODE 1
JURISDICTION: VILLAGE OF LOMBARD	CITY, STATE AND ZIP CODE: LOMBARD, ILLINOIS 60148-5335
LATITUDE/LONGITUDE: 41.845311 -88.011336	
SHEET NAME: TITLE SHEET	SHEET NUMBER: T-1

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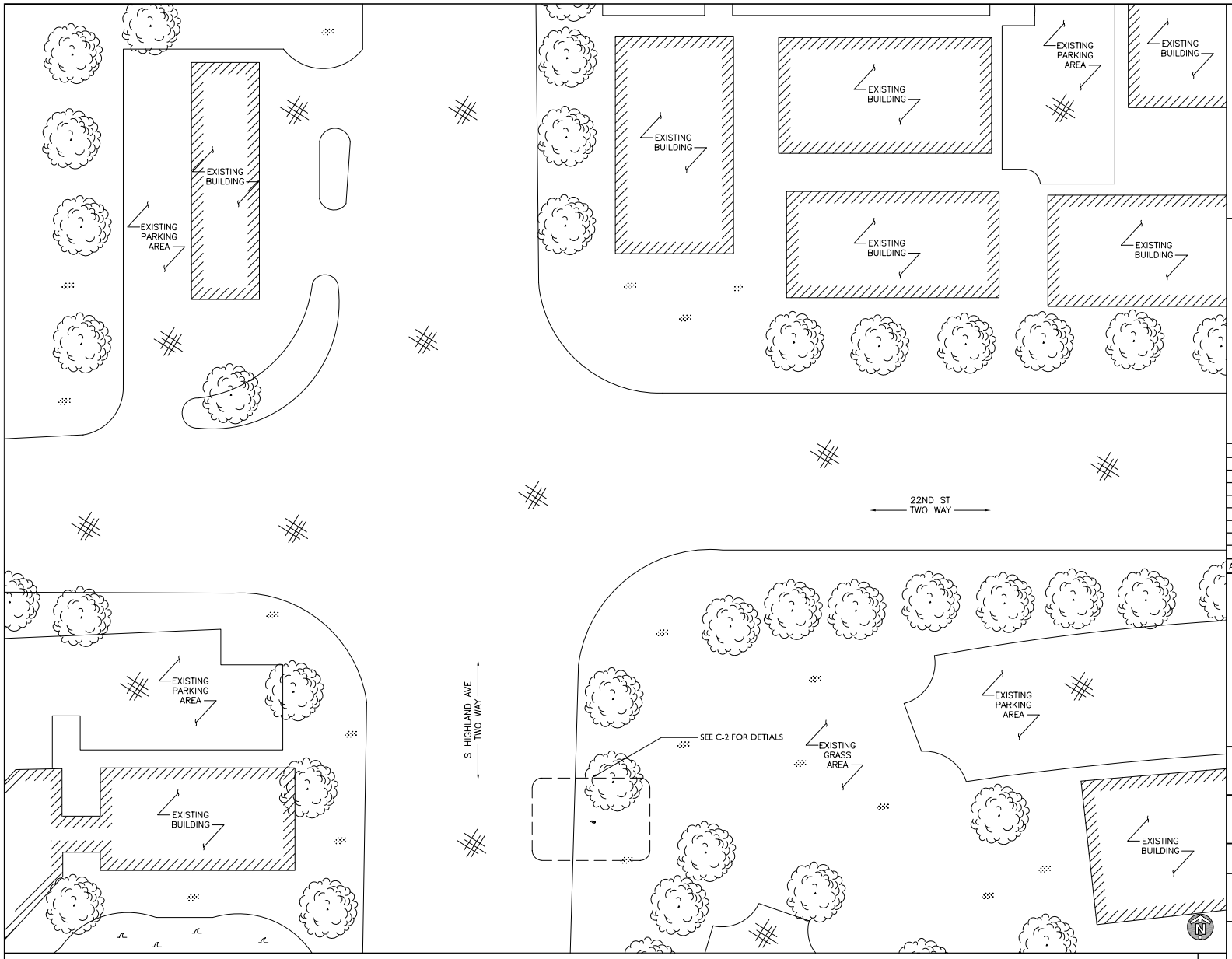

OVERALL SITE PLAN

SCALE: = 1" = 50'-0" | 1

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telecommunications infrastructure

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LATITUDE/LONGITUDE: 41.845311 -88.011336	
SHEET NAME: OVERALL SITE PLAN	SHEET NUMBER: C-1

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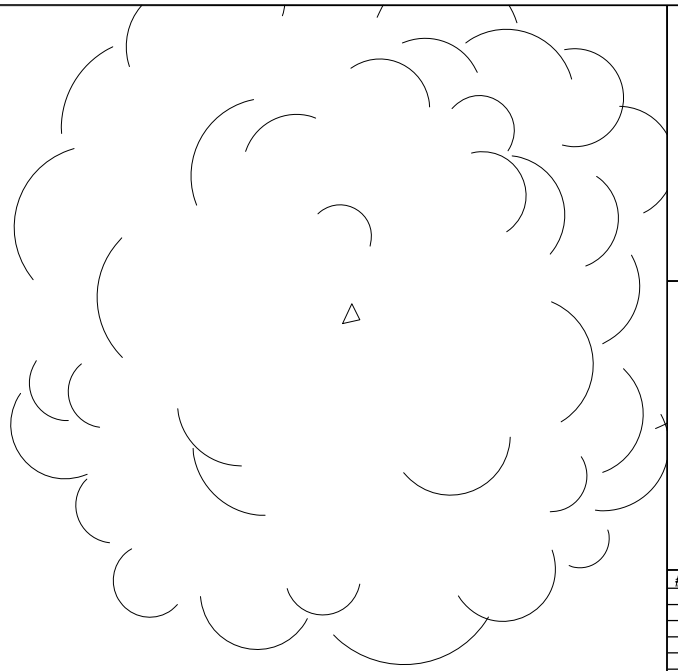

S HIGHLAND AVE
TWO WAY

SECTOR: 1
AZ: 60°
RAD:48'11"

EXISTING UTILITY POLE FOR NEW DISTRIBUTION ANTENNA SYSTEM INSTALLATION

EXISTING GRASS AREA

SITE PLAN

SCALE: 3/16" = 1'-0" | 1

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SITE NUMBER	SITE NAME
CH66XS301	NODE 1
JURISDICTION: VILLAGE OF LOMBARD	CITY, STATE AND ZIP CODE: LOMBARD, ILLINOIS 60148-5335
LATITUDE/LONGITUDE: 41.845311 -88.011336	
SHEET NAME: SITE PLAN	SHEET NUMBER: C-2

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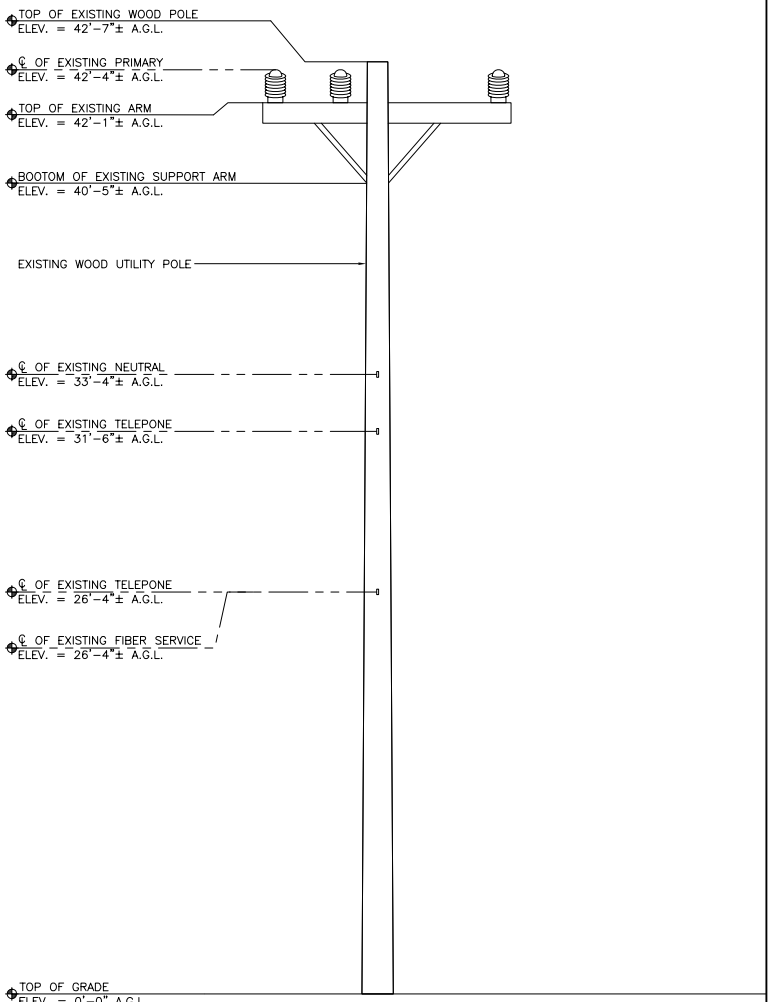
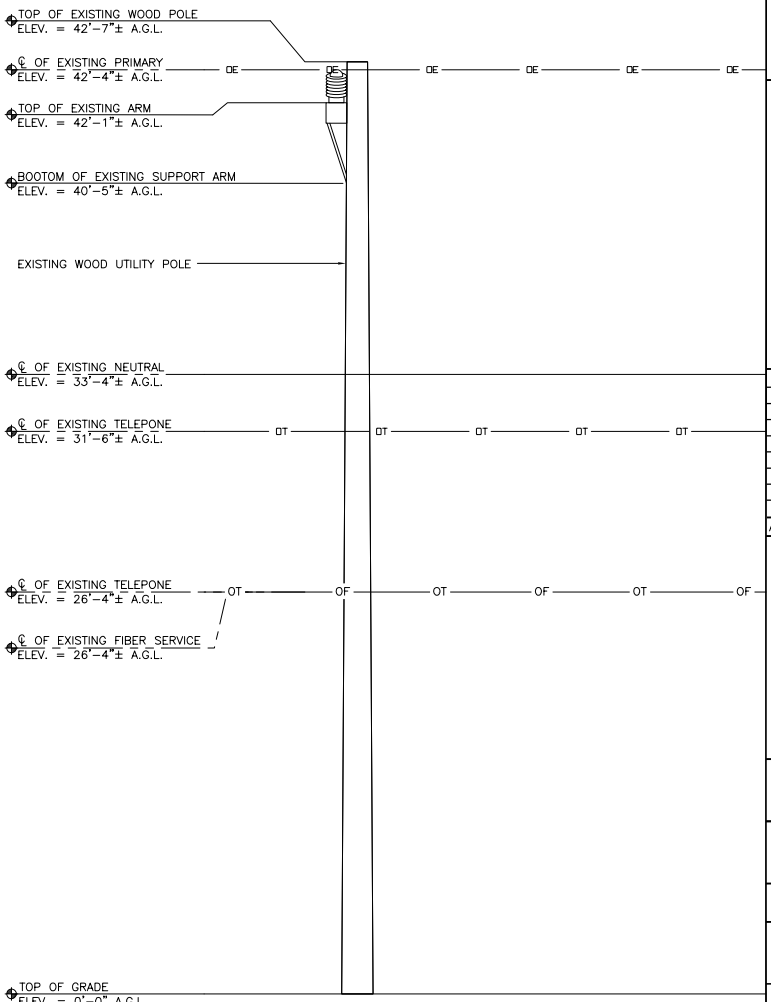


(SIDE) EXISTING POLE ELEVATION SCALE: N.T.S. 1



(FRONT) EXISTING POLE ELEVATION SCALE: N.T.S. 2

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STREET WITH NEAREST CROSS STREET
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SITE NUMBER	SITE NAME
CH66XS301	NODE 1
JURISDICTION: VILLAGE OF LOMBARD	CITY, STATE AND ZIP CODE: LOMBARD, ILLINOIS 60148-5335
LATITUDE/LONGITUDE: 41.845311 -88.011336	
SHEET NAME: EXISTING POLE ELEVATIONS	SHEET NUMBER: C-3

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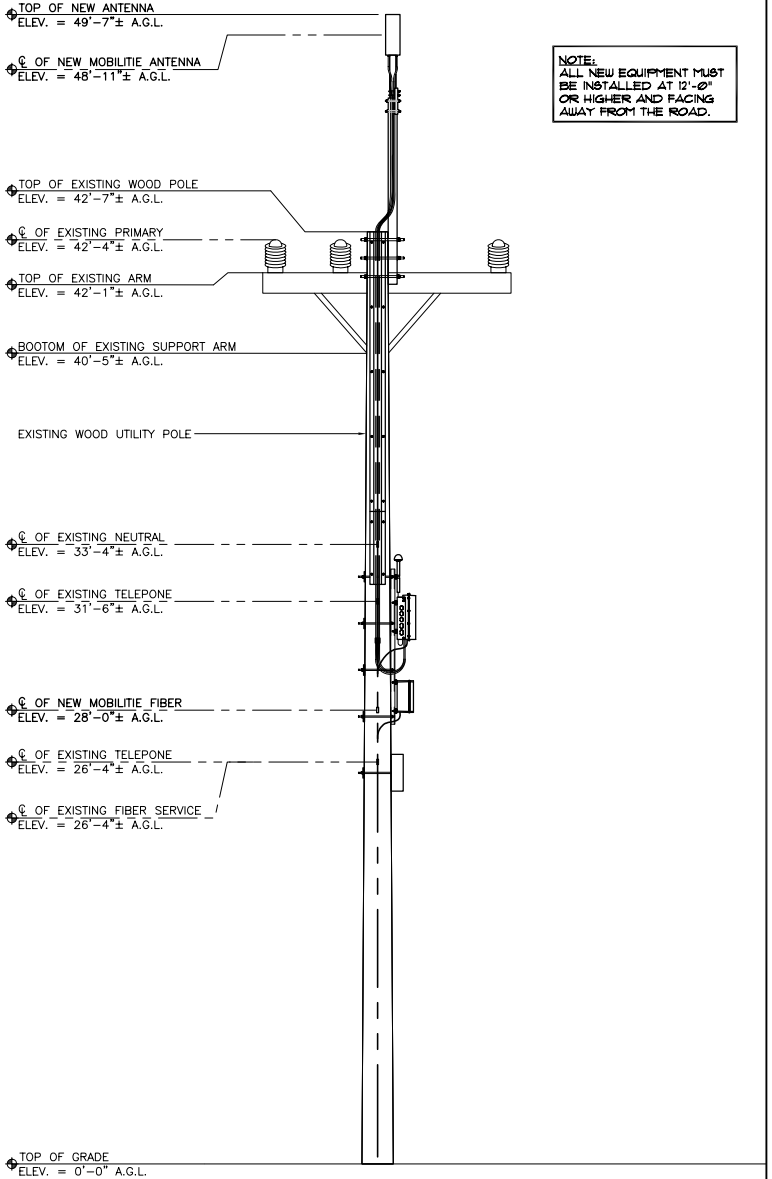
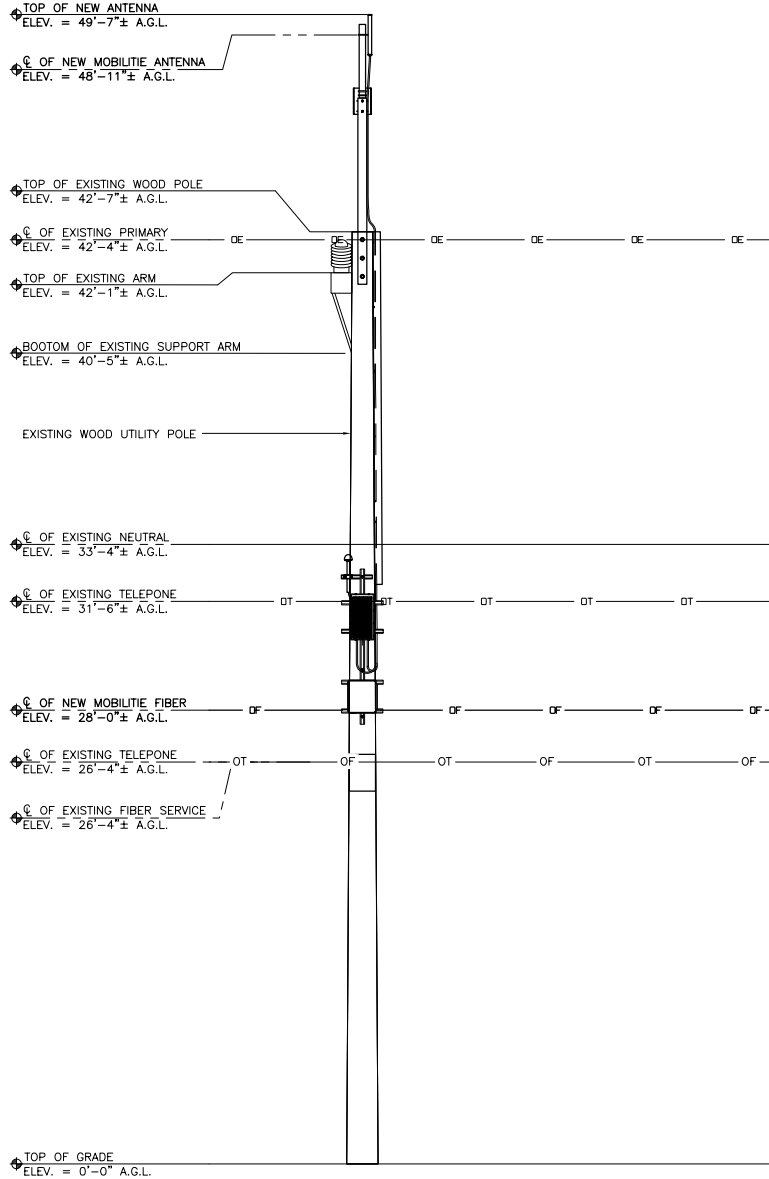


NOTE:
ALL NEW EQUIPMENT MUST BE INSTALLED AT 12'-0" OR HIGHER AND FACING AWAY FROM THE ROAD.

(SIDE) PROPOSED POLE ELEVATION SCALE: N.T.S. 1



(FRONT) PROPOSED POLE ELEVATION SCALE: N.T.S. 2

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SITE NUMBER	SITE NAME
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LATITUDE/LONGITUDE: 41.845311 -88.011336	
SHEET NAME: PROPOSED POLE ELEVATIONS	SHEET NUMBER: C-4

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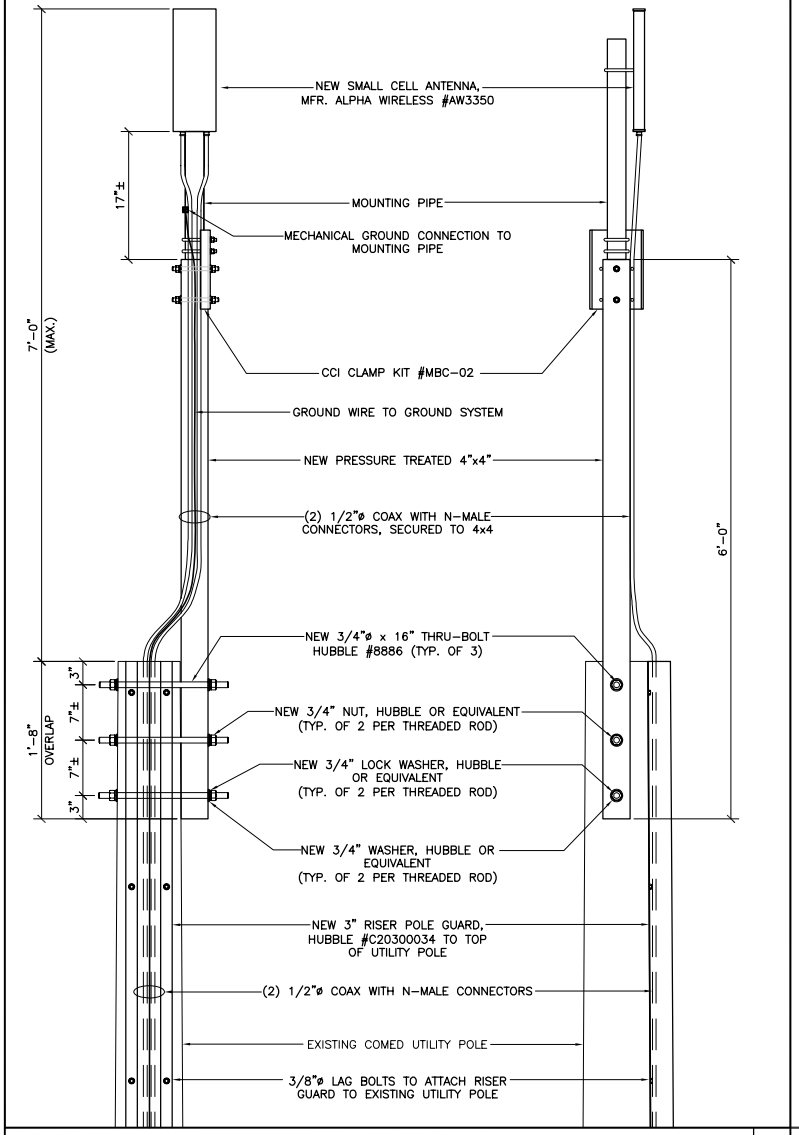
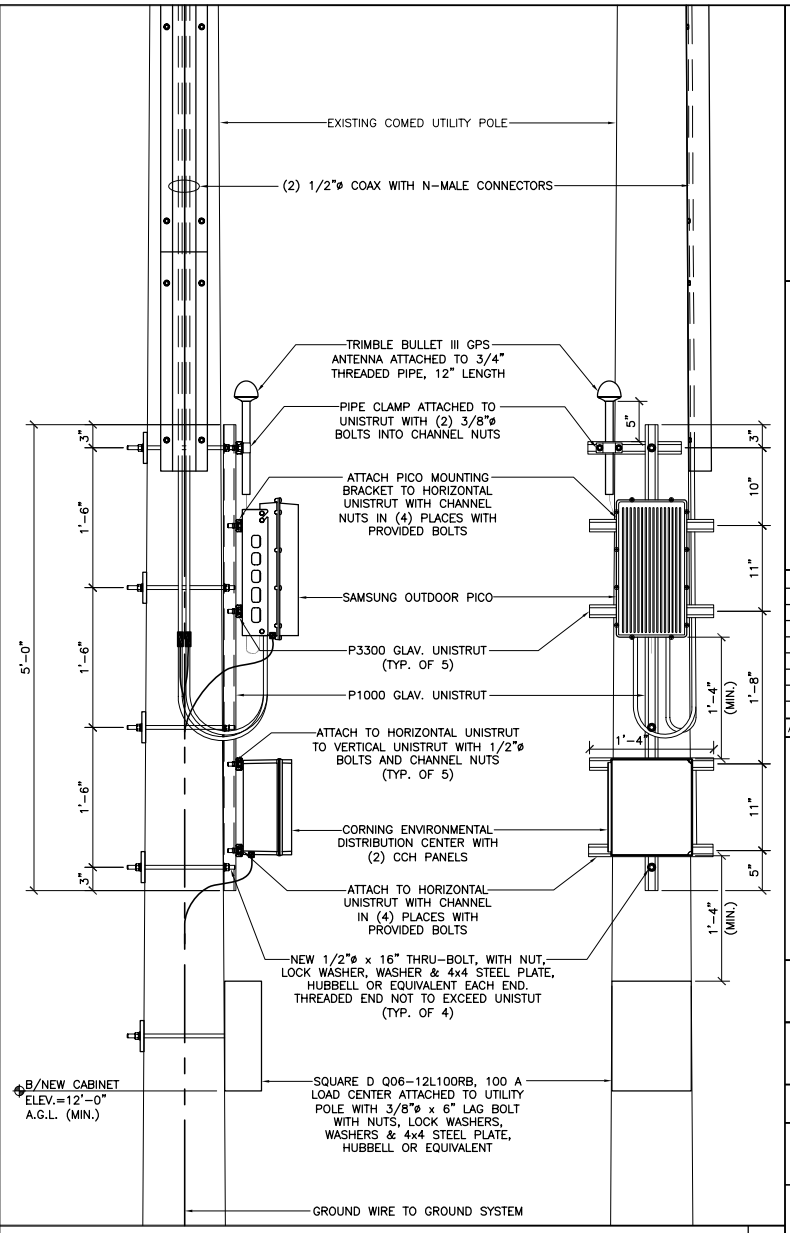


ANTENNA ATTACHMENT TO UTILITY POLE SCALE: 3/4" = 1'-0" 1



EQUIPMENT ATTACHMENT TO UTILITY POLE SCALE: 3/4" = 1'-0" 2

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LATITUDE/LONGITUDE: 41.845311 -88.011336	
SHEET NAME: DETAILS	SHEET NUMBER: C-5

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ATTACHMENT F

ESCAMBIA COUNTY

Standard Operating Procedures for Right-of-Way Permitting in Escambia County

Existing procedures (05/23/14)

1) Applicants that wish to perform work within the County's right-of-way shall provide a bond in the amount of $10,000.00
2) Prior to the issuance of the permit, the applicant shall complete the Construction in County Right-of-Way form (available online, in person from the Central Office Complex, USPS, or email)
3) Provide a drawing depicting the intended scope of work
4) If required, a Maintenance of Traffic plan (M.O.T.) designed by someone with a certification in Intermediate Maintenance of Traffic, at a minimum; an Advanced Maintenance of Traffic certification is preferred
5) Make the appropriate payment, contingent on the scope of work
6) All steps above are processed / received through an Office Assistant (O.A.)
7) Permit, drawing, and M.O.T. are forwarded to the responsible staff for the review of such
8) Responsible staff shall review all associated forms (permit, drawing(s), M.O.T.) for compliance
9) If additional information is required, staff will contact the applicant to request / require such
10) Assuming all is well with the submitted permit, staff will provide specifics regarding the proposed work to be performed
11) Staff returns the completed / approved permit application to the O.A.
12) O.A. contacts the applicant informing them that permit application is approved and that they may pick up the permit
13) Permits are valid for 90 days; one extension is allowed for an additional 90 days
14) If the work requires more time than mentioned above, depending on the circumstances, an additional permit may be required [TBD]
15) Periodically, during the life of the permit, an Escambia County inspector shall visit the area(s) of construction and provide guidance / requirements regarding Best Management Practices (BMP) and to enforce / encourage the specifics of the permit issued by county staff
16) After the work is complete and has been inspected by an Escambia County inspector, if all aspects of the permit have been met, the permit may be noted as "inspected and approved"

ALISON PERDUE ROGERS
County Attorney
Board Certified City, County, and Local Government Law

CHARLES V. PEPPLER
Deputy County Attorney
Board Certified Civil Trial Law

STEPHEN G. WEST
Senior Assistant County Attorney
Board Certified Real Estate Law

KRISTIN D. HUAL
Assistant County Attorney
Board Certified City, County, and Local Government Law

MEREDITH D. CRAWFORD
Assistant County Attorney

BOBBIE ELLIS-WIGGINS
Assistant County Attorney

BOARD OF COUNTY COMMISSIONERS
ESCAMBIA COUNTY, FLORIDA
OFFICE OF THE COUNTY ATTORNEY

221 PALAFOX PLACE, SUITE 430
PENSACOLA, FLORIDA 32502

TELEPHONE: (850) 595-4970
TELEFAX: (850) 595-4979

June 16, 2016

Roger Simpson
Director of Government Relations
Florida Network Transport, LLC
925B Peachtree Street NE, Suite 710
Atlanta, GA 30309

Re: Permit Revocation

Dear Mr. Simpson:

I am writing in response to your letter of June 1, 2016, as well as the e-mail correspondence to Escambia County's engineering department by your permitting manager, Mike Nuckols, regarding the right-of-way permits that were issued earlier this year but subsequently revoked by the County's engineering specialist, Jason Walters.

As you know, Interstate Transport and Broadband (ITB) sought the permits to construct "utility" poles in the County's rights-of-way but misrepresented the nature of the structures. The applications appeared to be for common utility poles, such as those used by Gulf Power, and thus the permits were issued. The County subsequently revoked the permits when it became clear that ITB intended to construct more elaborate monopoles for telecommunication antennas. Please recognize that these have not been previously permitted in the County's rights-of-way and are not contemplated in the County's ordinances and policies.

Note that Mr. Nuckols represented that ITB was the utility registered with the Florida Public Service Commission. However, my office did not find a company with that name registered with the Public Service Commission or authorized by the Secretary of State to conduct business in Florida. Apparently, ITB is now operating as FL Network Transport, LLC, and is taking steps to address this concern. Still, the most recent information available on the Florida Public Service Commission website indicates that it has not yet processed your application to be regulated as a telecommunications utility. In any case, even if FL Network Transport, LLC, were able to complete its registration with the Public Service Commission, it would not change the County's position regarding monopoles as described in the previous paragraph.

Please let me know if you need anything further.

Very truly yours,



Alison Rogers
County Attorney

APR:SGW/el
cc: Jack Brown, County Administrator
Joy Blackmon, P.E., Department Director, Public Works

mobilitie
intelligent infrastructure

3475 Piedmont Road NE
Suite 1000
Atlanta, Georgia 30305

July 14, 2016

cc: Colby
Jason W.
Thanks,
7/20/16

Allison Rogers
Escambia County Attorney
221 Palafox Place
Suite 430
Pensacola, FL 32502

RE: Amendment of Applicant Name
Proposed Mobilitie Utility Poles located in Public Right-of-Way

Dear Ms. Rogers:

As a preliminary matter we would like to clarify Mobilitie's relationship to Interstate Transport and Broadband, LLC ("ITB") and Florida Network Transport, LLC ("FNT"). ITB and FNT are wholly owned subsidiaries of Mobilitie who provided the application submissions thus far to Escambia County. This letter's purpose is to clarify FNT/Mobilitie's position as having public utility status in Florida. Mobilitie is a regulated telephone utility and communications service provider within the State of Florida by virtue of its certification from the Florida Public Service Commission ("FPSC") to provide Alternative Access Vendor services.[1] We have included our AAV certificate with this letter. In particular, Mobilitie operates a hybrid transport network, which transports telephone services and data by utilizing both fiber and wireless backhaul solutions. In order for its network to operate, Mobilitie must install and maintain certain utility poles and equipment at specific locations at minimum heights. As a regulated telephone utility, Mobilitie is authorized under Florida state law to install its proposed utility pole in the County's right-of-way.[2]

Mobilitie acknowledges that Florida state law also authorizes the County to regulate the placement and maintenance of utility facilities in its rights-of-way pursuant to its police power. Specifically, the County 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[3] lines; poles lines; poles ... or other structures referred to in this section as the 'utility.'"[4] At the same time, the Florida Legislature acknowledged "the unique circumstances applicable to providers of

---

[1] *See* Fla. Stat. § 350.111 (defining "regulated company" as any person holding a valid and current certificate from the commission under Chapter 364); *See* Fla. Stat. § 364.33 (stating that while the commission will no longer issue certificates of necessity or authority after July 1, 2011, those certificates existing will remain valid.)

[2] *See* Fla. Stat. § 362.01 (providing that "any ... telephone company chartered by this or another state ... may erect posts, wires and other fixtures for ... telephone purposes on or beside any public road or highway".)

[3] *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".)

[4] Fla. Stat. § 337.401(1) (a).

mobilitie
intelligent infrastructure

3475 Piedmont Road NE
Suite 1000
Atlanta, Georgia 30305

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."[5] Evidently, 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."[6] There is no statutory support in Florida that says a utility company may access a local jurisdiction's ROW without compensation to the local government entity but there is a law that prohibits the local jurisdiction from forcing the utility into a franchise agreement.[7] The Statute essentially prohibits municipalities from requiring utility companies to enter into individual license, franchise or other agreements as a condition of ROW access.[8]

All of this being said, there is no statute that prevents the County from imposing permit fees. Mobilitie requests the County reconsider its decision to revoke the previously approved permits and if you choose to charge a permitting or siting fee to make it neutral and non-discriminatory. Mobilitie looks forward to cooperating fully with the County and if there is any additional information we can provide we will be happy to send a representative to meet with you and any staff or commission members if necessary. We appreciate the County's swift response to our request from June 1st and Mobilitie look forward to cooperating with the County in placing utility infrastructure within its rights-of-way. Should you have any questions, please do not hesitate to contact me at my mobile phone (470) 755-8667 or by e-mail at roger.simpson@itbutility.com. Thank you for your time and commitment to enhancing your community.

Sincerely,

Roger Simpson

Roger Simpson
Director, Government Relations

Attachment

CC: Jack R. Brown, County Administrator
Joy Blackmon, P.E., Department Director, Public Works

[5] Fla. Stat. § 337.401(3) (a).
[6] Fla. Stat. § 337.401(3) (e).
[7] *See* Fla. Stat. § 337.401(3)(a).
[8] Id.

BEFORE THE PUBLIC SERVICE COMMISSION

In re: Application for certificate to provide alternative access vendor service by Mobilitie, LLC.	DOCKET NO. 060626-TA ORDER NO. PSC-06-0953-PAA-TA ISSUED: November 15, 2006

The following Commissioners participated in the disposition of this matter:

LISA POLAK EDGAR, Chairman
J. TERRY DEASON
ISILIO ARRIAGA
MATTHEW M. CARTER II
KATRINA J. TEW

NOTICE OF PROPOSED AGENCY ACTION
ORDER GRANTING CERTIFICATE TO PROVIDE
ALTERNATIVE ACCESS VENDOR SERVICES

BY THE COMMISSION:

NOTICE is hereby given by the Florida Public Service Commission that the action discussed herein is preliminary in nature and will become final unless a person whose interests are substantially affected files a petition for a formal proceeding, pursuant to Rule 25-22.029, Florida Administrative Code.

Mobilitie, LLC (Mobilitie) has applied for a certificate to provide Alternative Access Vendor (AAV) services pursuant to Section 364.337, Florida Statutes. Upon review of its application, it appears that Mobilitie has sufficient technical, financial, and managerial capability to provide such service. Accordingly, we hereby grant Certificate No. TA079 to Mobilitie.

If this Order becomes final and effective, it shall serve as Mobilitie's certificate. Mobilitie should, therefore, retain this Order as proof of certification. We are vested with jurisdiction over this matter pursuant to Sections 364.335 and 364.337, Florida Statutes.

AAV providers are subject to Chapter 25-24, Florida Administrative Code, Part XIV, Rules Governing Alternative Access Vendor services. AAV providers are also required to comply with all applicable provisions of Chapter 364, Florida Statutes.

DOCUMENT NUMBER-DATE
10487 NOV 15 g
FPSC-COMMISSION CLERK

In addition, under Section 364.336, Florida Statutes, certificate holders must pay a minimum annual Regulatory Assessment Fee (RAFs) of $50 if the certificate was active during any portion of the calendar year. A RAFs Return notice will be mailed each December to Mobilitie for payment by January 30th. Neither the cancellation of the certificate nor the failure to receive a RAFs Return notice shall relieve Mobilitie from its obligation to pay RAFs.

Based on the foregoing, it

ORDERED by the Florida Public Service Commission that we hereby grant Certificate No. TA079 to Mobilitie, LLC, which shall authorize it to provide Alternative Access Vendor services, subject to the terms and conditions specified in the body of this Order. It is further

ORDERED that this Order shall serve as Mobilitie, LLC's certificate and should be retained by Mobilitie, LLC as proof of certification. It is further

ORDERED that the provisions of this Order, issued as proposed agency action, shall become final and effective upon the issuance of a Consummating Order unless an appropriate petition, in the form provided by Rule 28-106.201, Florida Administrative Code, is received by the Director, Division of the Commission Clerk and Administrative Services, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on the date set forth in the "Notice of Further Proceedings" attached hereto. It is further

ORDERED that in the event this Order becomes final, this docket shall be closed.

By ORDER of the Florida Public Service Commission this 15th day of November, 2006.

BLANCA S. BAYÓ, Director
Division of the Commission Clerk
and Administrative Services

By: Kay Flynn
Kay Flynn, Chief
Bureau of Records

(SEAL)

VSM

NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.569(1), Florida Statutes, to notify parties of any administrative hearing that is available under Section 120.57, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing will be granted or result in the relief sought.

Mediation may be available on a case-by-case basis. If mediation is conducted, it does not affect a substantially interested person's right to a hearing.

The action proposed herein is preliminary in nature. Any person whose substantial interests are affected by the action proposed by this order may file a petition for a formal proceeding, in the form provided by Rule 28-106.201, Florida Administrative Code. This petition must be received by the Director, Division of the Commission Clerk and Administrative Services, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on December 6, 2006.

In the absence of such a petition, this order shall become final and effective upon the issuance of a Consummating Order.

Any objection or protest filed in this/these docket(s) before the issuance date of this order is considered abandoned unless it satisfies the foregoing conditions and is renewed within the specified protest period.

POLE ID:
9FLX001419

30.464142, -87.255235

YOAKUM CT & ROCK ISLAND PL
PENSACOLA, FL 32505

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

SITE INFORMATION

POLE ID:	9FLX001419
LATITUDE:	30.464142
LONGITUDE:	-87.255235
ADDRESS/CROSS STREET:	YOAKUM CT & ROCK ISLAND PL
CITY, STATE, ZIP:	PENSACOLA, FL, 32505
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY
APPLICANT:	FL NETWORK TRANSPORT, LLC
APPLICANT ADDRESS:	925B PEACHTREE ST. NE, SUITE 710 ATLANTA, GA 30309 (312) 638-5400

DO NOT SCALE 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.

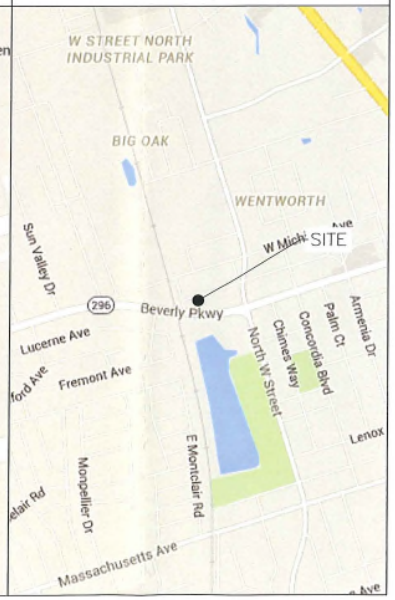
LOCATION MAPS

NORTH

VICINITY MAP



REGIONAL MAP



PROJECT DESCRIPTION

END USER PROPOSES TO INSTALL A NEW 120' UTILITY POLE WITHIN AN EXISTING RIGHT-OF-WAY. THE SCOPE WILL CONSIST OF THE FOLLOWING

- INSTALL PROPOSED 120' UTILITY POLE

CODES

2015 INTERNATIONAL BUILDING CODE
2014 NATIONAL ELECTRICAL CODE

SHEET INDEX

SHEET NO:	SHEET TITLE
0.0	TITLE SHEET
1.0	EXHIBIT PHOTO & SITE PLAN
2.0	UTILITY POLE ELEVATIONS
3.0	ELECTRICAL

ARCHITECT/ENGINEER

JACOBS ENGINEERING GROUP, INC.
5449 BELLS FERRY ROAD
ACWORTH, GA 30102
CONTACT: KARL KRATINA
PROJECT MANAGER
TEL: (678) 460-1416
FAX: (770) 701-2501

FL NETWORK TRANSPORT, LLC

PROJECT NO:	ER600201
DRAWN BY:	C. MARCOS
CHECKED BY:	L. BROUGHTON

A	02.24.16	FOR REVIEW

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SITE INFORMATION
9FLX001419
30.464142, -87.255235
YOAKUM CT &
ROCK ISLAND PL
PENSACOLA, FL 32505
UTILITY POLE

SHEET TITLE
TITLE SHEET

SHEET NUMBER
0.0



EXHIBIT PHOTO — 1

SCALE: NOT TO SCALE



N

AERIAL SITE LOCATION — 2

SCALE: NOT TO SCALE

NOTE:
THIS SITE PLAN WAS GENERATED WITHOUT THE USE OF A SURVEY. PROPERTY 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.



N

0 8' 16' 32'

ENLARGED SITE PLAN — 3

SCALE: 1/16" = 1'-0" (1/32" = 1'-0" ON 11"X17" SHEET)

FL NETWORK TRANSPORT, LLC

PROJECT NO:	ER600201
DRAWN BY:	C. MARCOS
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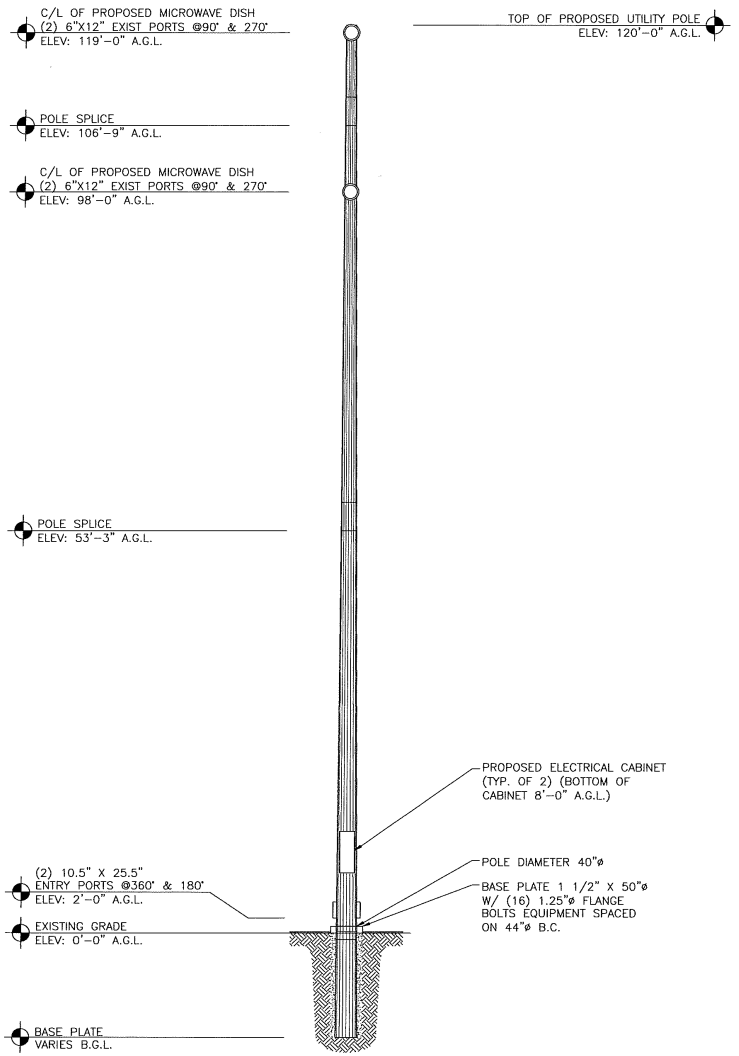
SITE INFORMATION
9FLX001419
30.464142, -87.255235
YOAKUM CT &
ROCK ISLAND PL
PENSACOLA, FL 32505
UTILITY POLE

SHEET TITLE
EXHIBIT PHOTO &
ENLARGED SITE PLAN

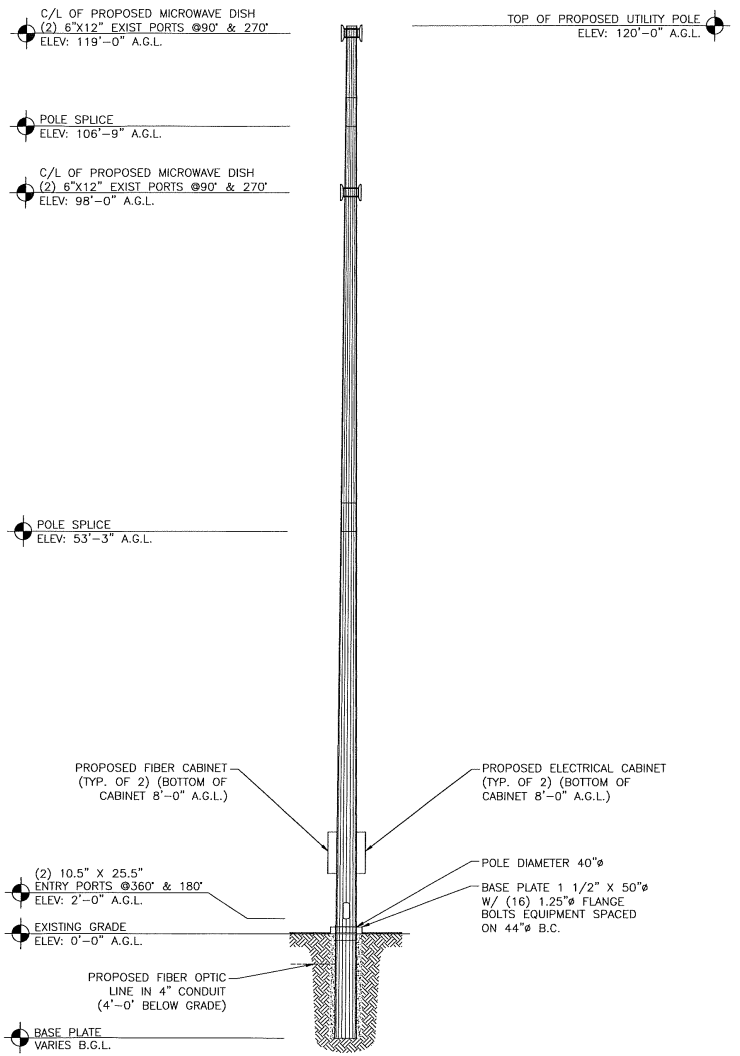
SHEET NUMBER
1.0



EAST POLE ELEVATION

SCALE: 1/8" = 1'-0" (1/16" = 1'-0" ON 11"X17" SHEET)

1



SOUTH POLE ELEVATION

SCALE: 1/8" = 1'-0" (1/16" = 1'-0" ON 11"X17" SHEET)

1

FL NETWORK TRANSPORT, LLC

PROJECT NO:	ER600201
DRAWN BY:	C. MARCOS
CHECKED BY:	L. BROUGHTON

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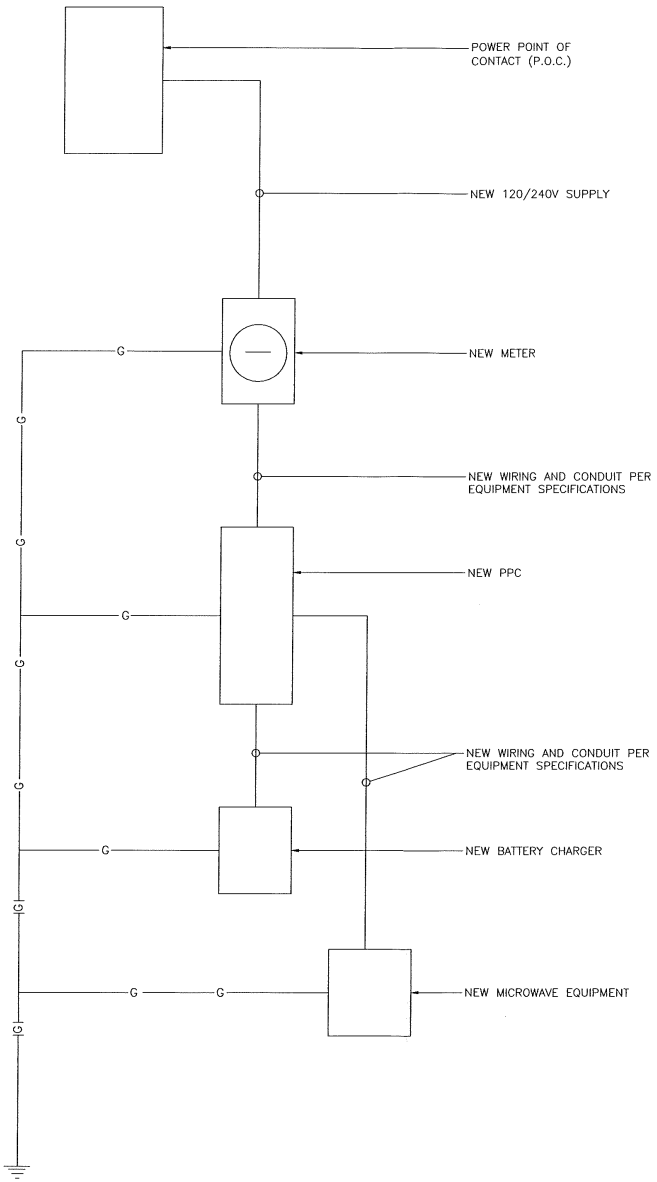
SITE INFORMATION
9FLX0001419
30.464142, -87.255235
YOAKUM CT &
ROCK ISLAND PL
PENSACOLA, FL 32505
UTILITY POLE

SHEET TITLE
UTILITY POLE ELEVATIONS

SHEET NUMBER
2.0



ONE LINE DIAGRAM

SCALE: NOT APPLICABLE

1

FL NETWORK TRANSPORT, LLC

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30.464142, -87.255235
YOAKUM CT &
ROCK ISLAND PL
PENSACOLA, FL 32505
UTILITY POLE

SHEET TITLE

ELECTRICAL

SHEET NUMBER

3.0

POLE ID:
9FLX001413

30.499011, -87.226560

UNIVERSITY OFFICE BLVD & OFFICE BLVD
PENSACOLA, FL 32504

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

GENERAL NOTES

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SITE INFORMATION

POLE ID:	9FLX001413
LATITUDE:	30.499011
LONGITUDE:	-87.226560
ADDRESS/CROSS STREET:	UNIVERSITY OFFICE BLVD & OFFICE BLVD
CITY, STATE, ZIP:	PENSACOLA, FL, 32504
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY
APPLICANT:	FL NETWORK TRANSPORT, LLC
APPLICANT ADDRESS:	925B PEACHTREE ST. NE, SUITE 710 ATLANTA, GA 30309 (312) 638-5400

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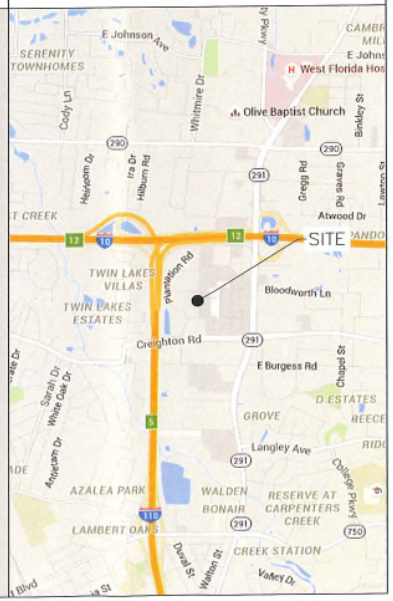

PROJECT DESCRIPTION

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CODES

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FL NETWORK TRANSPORT, LLC

PROJECT NO:	ER600201
DRAWN BY:	N. GLIPONEO
CHECKED BY:	L. BROUGHTON

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SITE INFORMATION
9FLX001413
30.499011, -87.226560
UNIVERSITY OFFICE BLVD & OFFICE BLVD
PENSACOLA, FL 32504
UTILITY POLE

SHEET TITLE
TITLE SHEET

SHEET NUMBER
0.0



EXHIBIT PHOTO — 1

SCALE: NOT TO SCALE



N

AERIAL SITE LOCATION — 2

SCALE: NOT TO SCALE

NOTE:
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N

0 8' 16' 32'

ENLARGED SITE PLAN — 3

SCALE: 1/16" = 1'-0" (1/32" = 1'-0" ON 11"X17" SHEET)

FL NETWORK TRANSPORT, LLC

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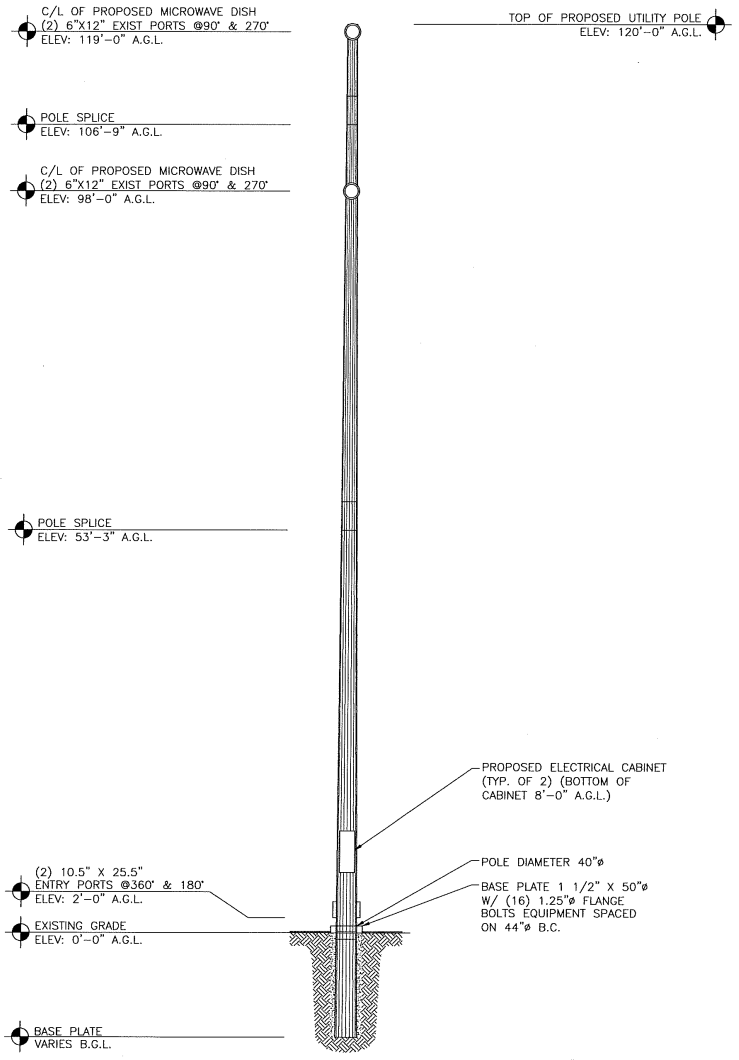
9FLX001413
30.499011, -87.226560
UNIVERSITY OFFICE BLVD &
OFFICE BLVD
PENSACOLA, FL 32504
UTILITY POLE

SHEET TITLE
EXHIBIT PHOTO &
ENLARGED SITE PLAN

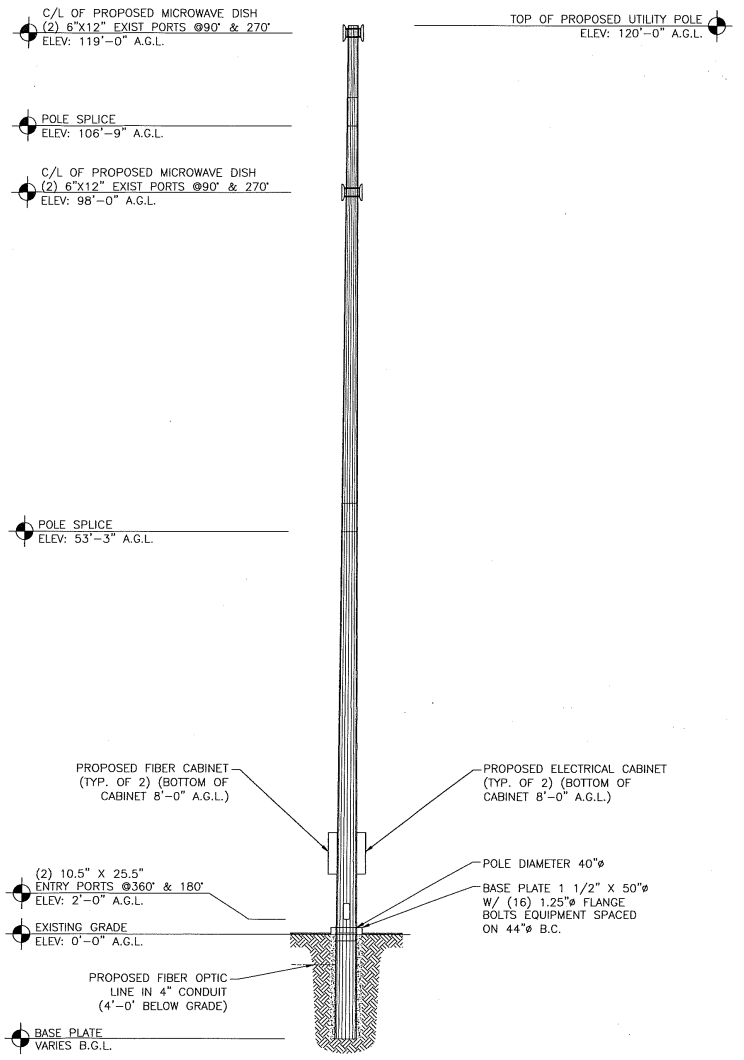
SHEET NUMBER
1.0



EAST POLE ELEVATION

SCALE: 1/8" = 1'-0" (1/16" = 1'-0" ON 11"X17" SHEET)

1



SOUTH POLE ELEVATION

SCALE: 1/8" = 1'-0" (1/16" = 1'-0" ON 11"X17" SHEET)

1

FL NETWORK TRANSPORT, LLC

PROJECT NO:	ER600201
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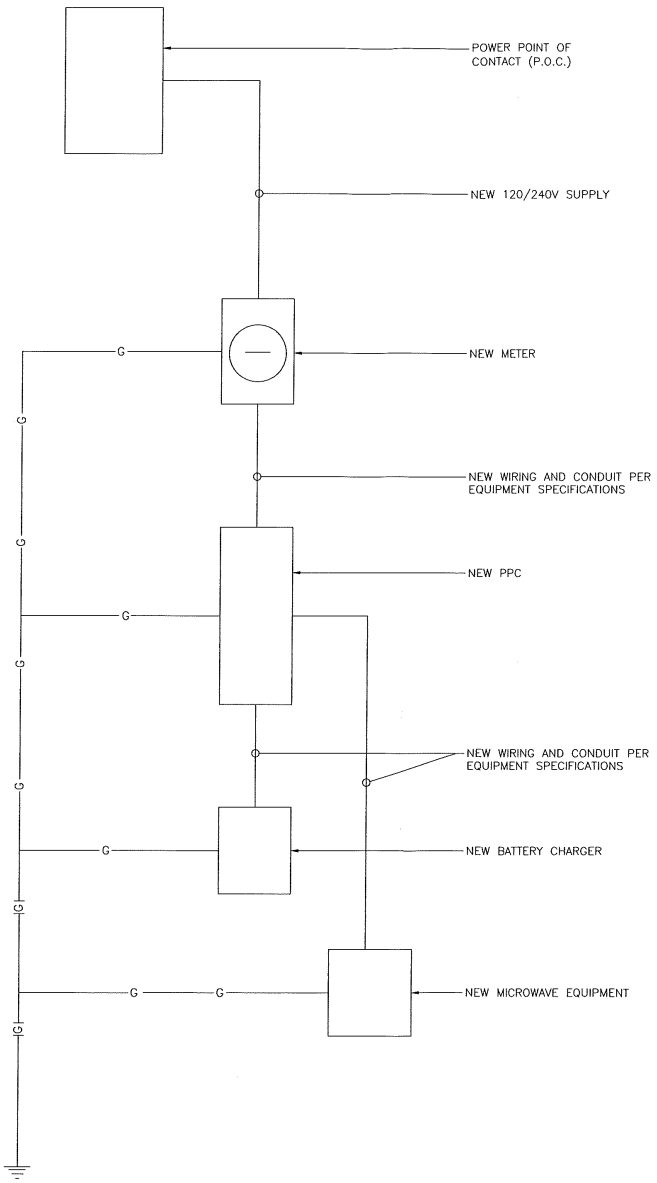
SITE INFORMATION
9FLX001413
30.499011, -87.226560
UNIVERSITY OFFICE BLVD &
OFFICE BLVD
PENSACOLA, FL 32504
UTILITY POLE

SHEET TITLE
UTILITY POLE ELEVATIONS

SHEET NUMBER
2.0



ONE LINE DIAGRAM

SCALE: NOT APPLICABLE

1

FL NETWORK TRANSPORT, LLC

PROJECT NO:	ER600201
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CHECKED BY:	L. BROUGHTON

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SITE INFORMATION
9FLX001413
30.499011, -87.226560
UNIVERSITY OFFICE BLVD & OFFICE BLVD
PENSACOLA, FL 32504
UTILITY POLE

SHEET TITLE
ELECTRICAL

SHEET NUMBER
3.0

POLE ID:
9FLX001418

30.489665, -87.253536

KENMORE RD & TIKI LN
PENSACOLA, FL 32503

811
Know what's **below.**
Call before you dig.

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SITE INFORMATION

POLE ID:	9FLX001418
LATITUDE:	30.489665
LONGITUDE:	-87.253536
ADDRESS/CROSS STREET:	KENMORE RD & TIKI LN
CITY, STATE, ZIP:	PENSACOLA, FL, 32503
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY
APPLICANT:	FL NETWORK TRANSPORT, LLC
APPLICANT ADDRESS:	925B PEACHTREE ST. NE, SUITE 710 ATLANTA, GA 30309 (312) 638-5400

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LOCATION MAPS

NORTH

VICINITY MAP



REGIONAL MAP



PROJECT DESCRIPTION

END USER PROPOSES TO INSTALL A NEW 120' UTILITY POLE WITHIN AN EXISTING RIGHT-OF-WAY. THE SCOPE WILL CONSIST OF THE FOLLOWING

- INSTALL PROPOSED 120' UTILITY POLE

CODES

2015 INTERNATIONAL BUILDING CODE
2014 NATIONAL ELECTRICAL CODE

SHEET INDEX

SHEET NO:	SHEET TITLE
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2.0	UTILITY POLE ELEVATIONS
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5449 BELLS FERRY ROAD
ACWORTH, GA 30102
CONTACT: KARL KRATINA
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TEL: (678) 460-1416
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DRAWN BY:	C. MARCOS
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SITE INFORMATION
9FLX001418
30.489665, -87.253536
KENMORE RD &
TIKI LN
PENSACOLA, FL 32503
UTILITY POLE

SHEET TITLE
TITLE SHEET

SHEET NUMBER
0.0



EXHIBIT PHOTO | 1

SCALE: NOT TO SCALE



N

AERIAL SITE LOCATION | 2

SCALE: NOT TO SCALE

NOTE:
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N

0 8' 16' 32'

ENLARGED SITE PLAN | 3

SCALE: 1/16" = 1'-0" (1/32" = 1'-0" ON 11"X17" SHEET)

FL NETWORK TRANSPORT, LLC

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30.489665, -87.253536
KENMORE RD &
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SHEET TITLE
EXHIBIT PHOTO &
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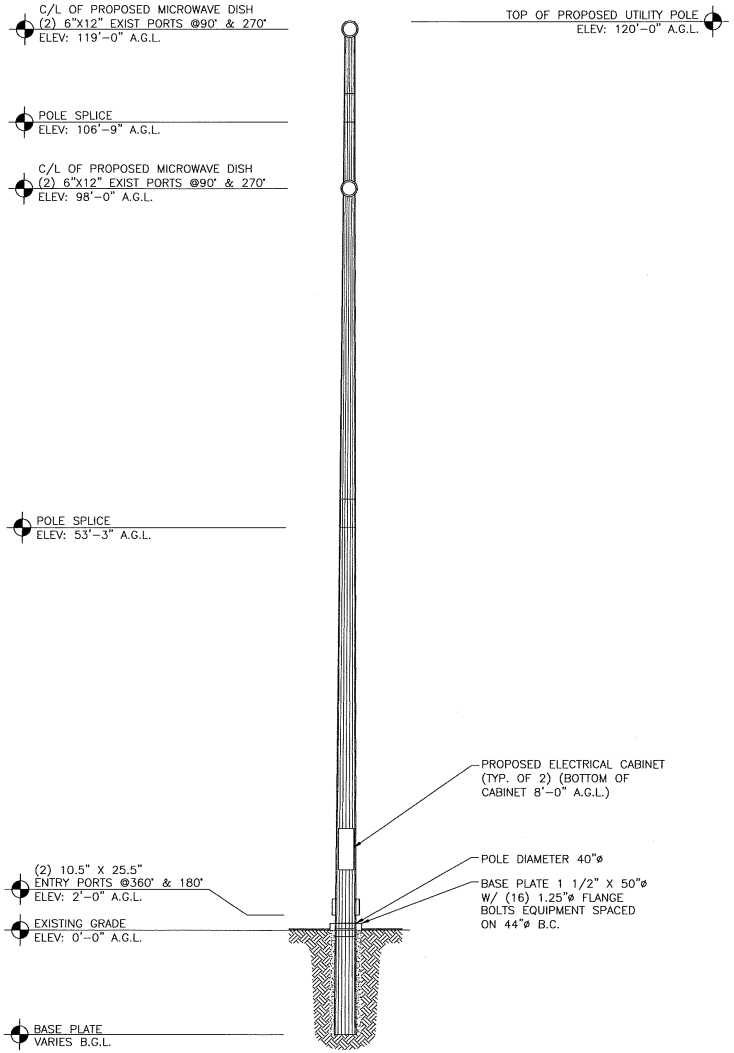
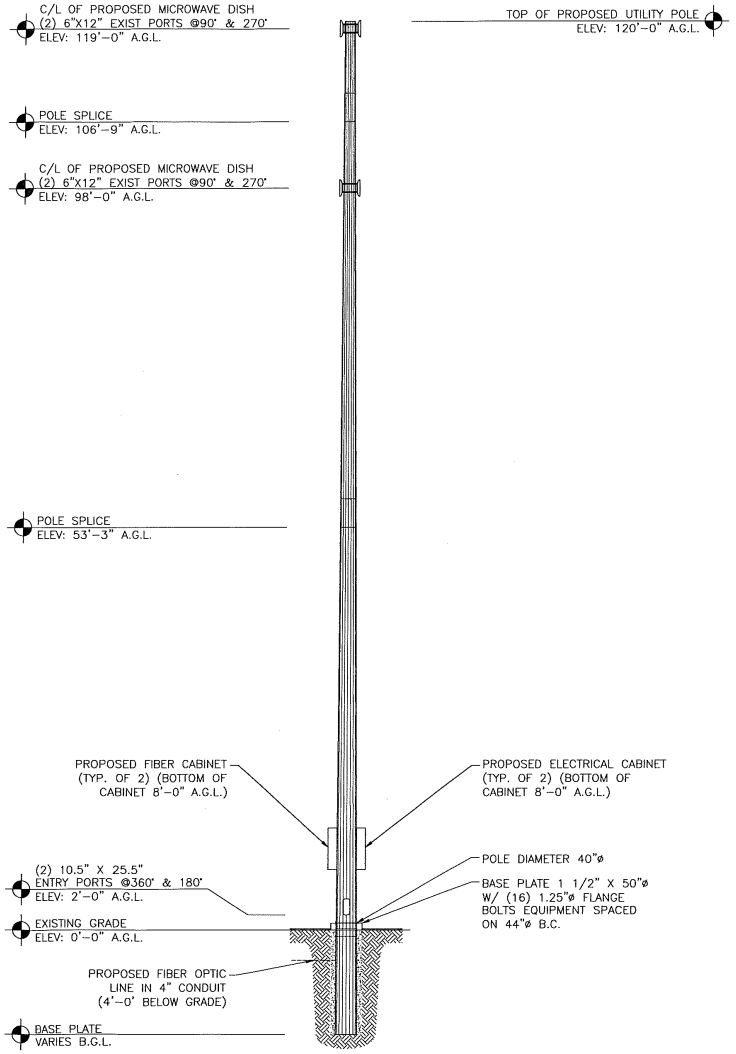
1.0



EAST POLE ELEVATION

SCALE: 1/8" = 1'-0" (1/16" = 1'-0" ON 11"X17" SHEET)

1



SOUTH POLE ELEVATION

SCALE: 1/8" = 1'-0" (1/16" = 1'-0" ON 11"X17" SHEET)

1

FL NETWORK
TRANSPORT, LLC

PROJECT NO:	ER600201
DRAWN BY:	C. MARCOS
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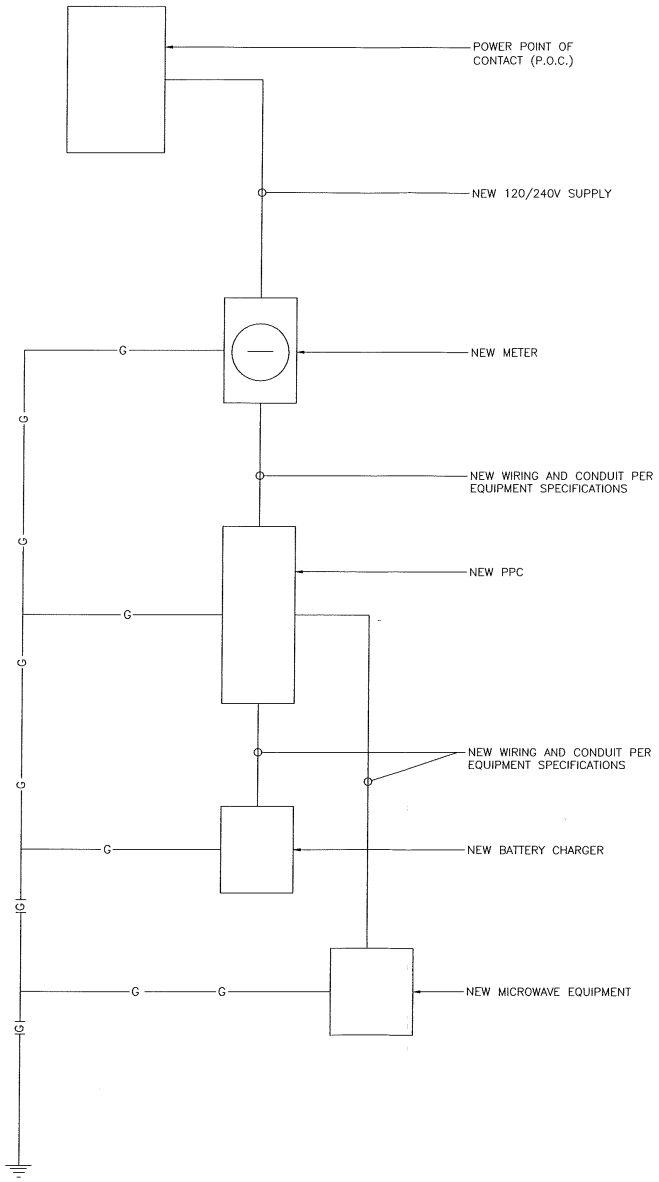
SITE INFORMATION
9FLX001418
30.489665, -87.253536
KENMORE RD &
TIKI LN
PENSACOLA, FL 32503
UTILITY POLE

SHEET TITLE
UTILITY POLE
ELEVATIONS

SHEET NUMBER
2.0



ONE LINE DIAGRAM

SCALE: NOT APPLICABLE

1

FL NETWORK TRANSPORT, LLC

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9FLX001418
30.489665, -87.253536
KENMORE RD &
TIKI LN
PENSACOLA, FL 32503
UTILITY POLE

SHEET TITLE
ELECTRICAL

SHEET NUMBER
3.0

POLE ID:
9FLX001438

30.540461, -87.219000

HILLVIEW DR & UNIVERSITY PKWY
PENSACOLA, FL 32514

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

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SITE INFORMATION

POLE ID:	9FLX001438
LATITUDE:	30.540461
LONGITUDE:	-87.219000
ADDRESS/CROSS STREET:	HILLVIEW DR & UNIVERSITY PKWY
CITY, STATE, ZIP:	PENSACOLA, FL, 32514
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY
APPLICANT:	FL NETWORK TRANSPORT, LLC
APPLICANT ADDRESS:	925B PEACHTREE ST. NE, SUITE 710 ATLANTA, GA 30309 (312) 638-5400

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LOCATION MAPS

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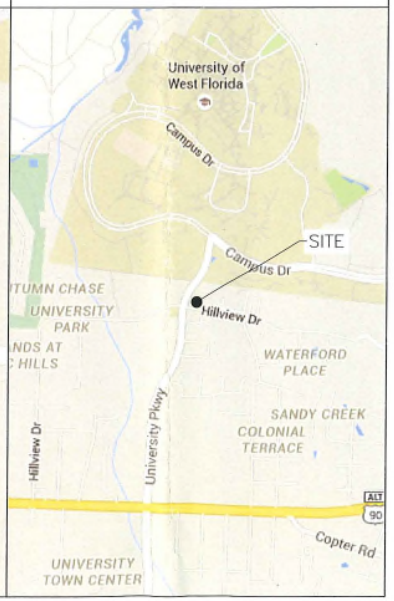

PROJECT DESCRIPTION

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CODES

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PENSACOLA, FL 32514
UTILITY POLE

SHEET TITLE
TITLE SHEET

SHEET NUMBER
0.0



EXHIBIT PHOTO | 1

SCALE: NOT TO SCALE



N

AERIAL SITE LOCATION | 2

SCALE: NOT TO SCALE

NOTE:
THIS SITE PLAN WAS GENERATED WITHOUT THE USE OF A SURVEY. PROPERTY 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.



N

0 8' 16' 32'

ENLARGED SITE PLAN | 3

SCALE: 1/16" = 1'-0" (1/32" = 1'-0" ON 11"X17" SHEET)

FL NETWORK TRANSPORT, LLC

PROJECT NO:	ER600201
DRAWN BY:	C. MARCOS
CHECKED BY:	L. BROUGHTON

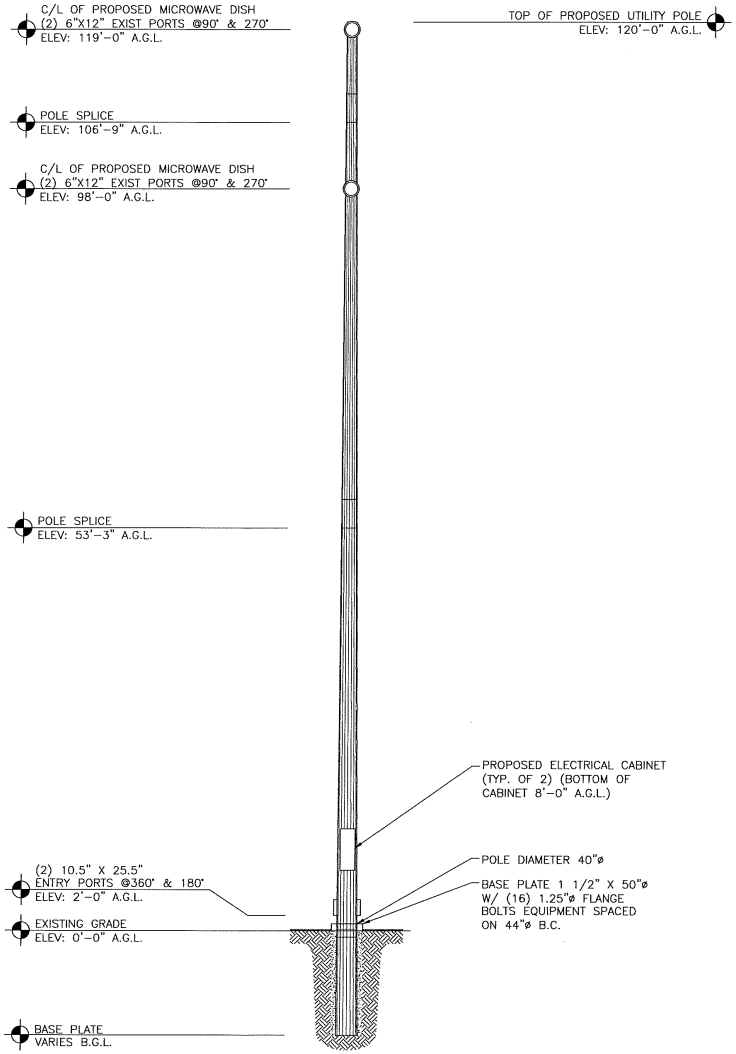
A	02.24.16	FOR REVIEW

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 INFORMATION
9FLX001438
30.540461, -87.219000
HILLVIEW DR &
UNIVERSITY PKWY
PENSACOLA, FL 32514
UTILITY POLE

SHEET TITLE
EXHIBIT PHOTO &
ENLARGED SITE PLAN

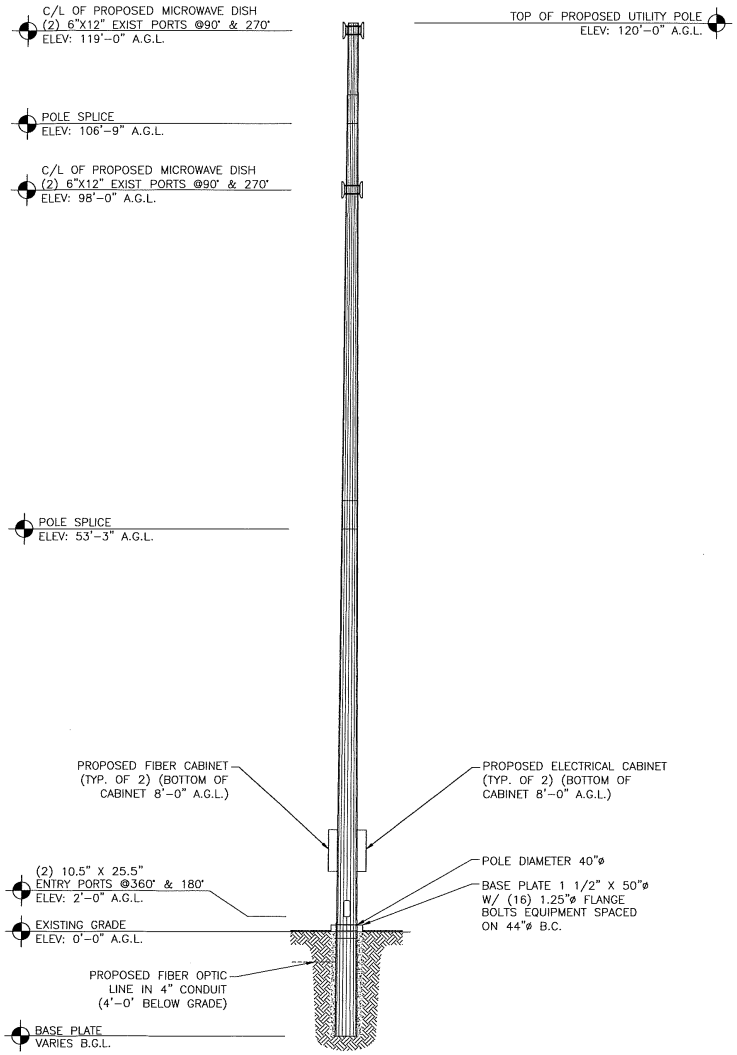
SHEET NUMBER
1.0



EAST POLE ELEVATION

SCALE: 1/8" = 1'-0" (1/16" = 1'-0" ON 11"X17" SHEET)

1



SOUTH POLE ELEVATION

SCALE: 1/8" = 1'-0" (1/16" = 1'-0" ON 11"X17" SHEET)

1

FL NETWORK TRANSPORT, LLC

PROJECT NO:	ER600201
DRAWN BY:	C. MARCOS
CHECKED BY:	L. BROUGHTON

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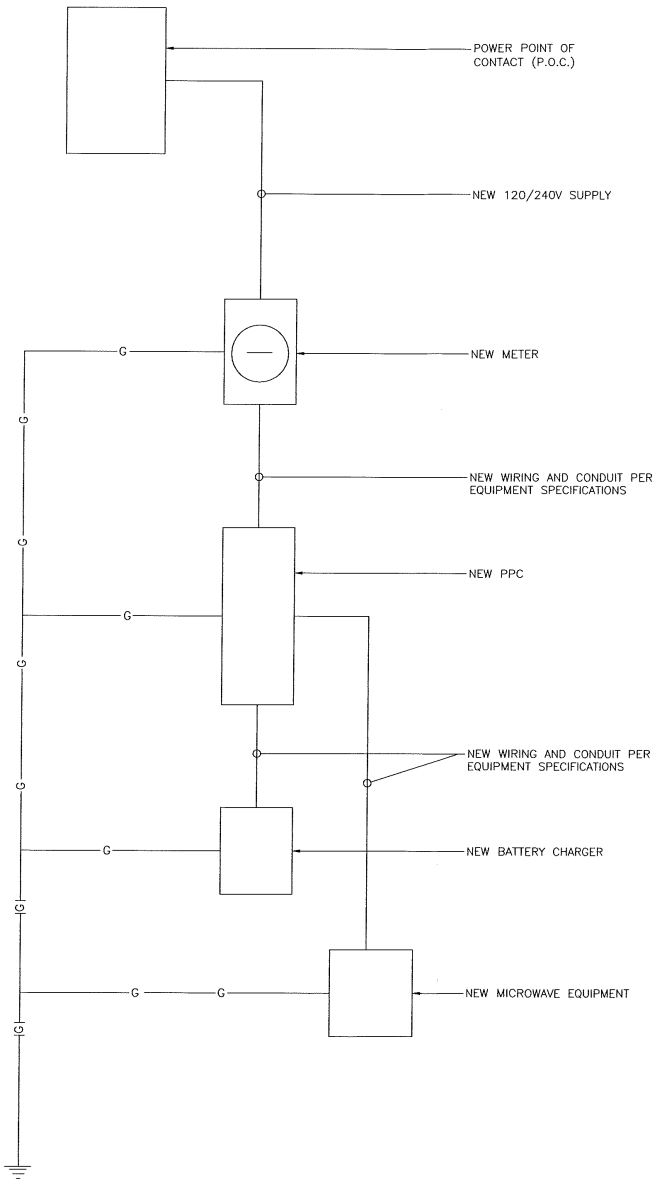
9FLX001438
30.540461, -87.219000
HILLVIEW DR &
UNIVERSITY PKWY
PENSACOLA, FL 32514
UTILITY POLE

SHEET TITLE
UTILITY POLE ELEVATIONS

SHEET NUMBER
2.0



ONE LINE DIAGRAM

SCALE: NOT APPLICABLE

1

FL NETWORK TRANSPORT, LLC

PROJECT NO:	ER600201
DRAWN BY:	C. MARCOS
CHECKED BY:	L. BROUGHTON

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HILLVIEW DR &
UNIVERSITY PKWY
PENSACOLA, FL 32514
UTILITY POLE

SHEET TITLE
ELECTRICAL

SHEET NUMBER
3.0

POLE ID:
9FLX001414

30.475891, -87.307164

GODWIN LN & PINE FOREST RD
BELLVIEW, FL 32526

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

SITE INFORMATION

POLE ID:	9FLX001414
LATITUDE:	30.475891
LONGITUDE:	-87.307164
ADDRESS/CROSS STREET:	GODWIN LN & PINE FOREST RD
CITY, STATE, ZIP:	BELLVIEW, FL, 32526
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY
APPLICANT:	FL NETWORK TRANSPORT, LLC
APPLICANT ADDRESS:	925B PEACHTREE ST. NE, SUITE 710 ATLANTA, GA 30309 (312) 638-5400

DO NOT SCALE DRAWINGS

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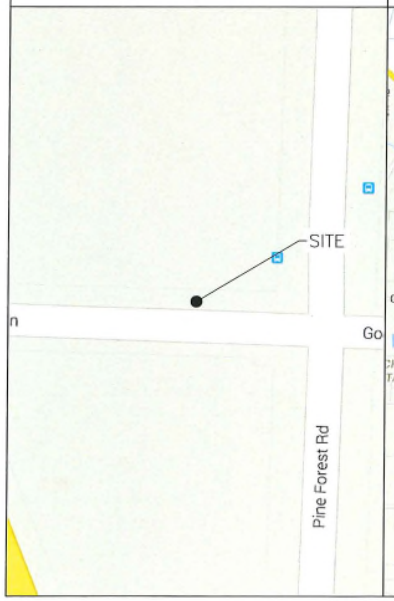
LOCATION MAPS

NORTH

VICINITY MAP



REGIONAL MAP



PROJECT DESCRIPTION

END USER PROPOSES TO INSTALL A NEW 120' UTILITY POLE WITHIN AN EXISTING RIGHT-OF-WAY. THE SCOPE WILL CONSIST OF THE FOLLOWING

- INSTALL PROPOSED 120' UTILITY POLE

CODES

2015 INTERNATIONAL BUILDING CODE
2014 NATIONAL ELECTRICAL CODE

SHEET INDEX

SHEET NO:	SHEET TITLE
0.0	TITLE SHEET
1.0	EXHIBIT PHOTO & SITE PLAN
2.0	UTILITY POLE ELEVATIONS
3.0	ELECTRICAL

ARCHITECT/ENGINEER

JACOBS ENGINEERING GROUP, INC.
5449 BELLS FERRY ROAD
ACWORTH, GA 30102
CONTACT: KARL KRATINA
PROJECT MANAGER
TEL: (678) 460-1416
FAX: (770) 701-2501

FL NETWORK TRANSPORT, LLC

PROJECT NO:	ER600201
DRAWN BY:	N. GLIPONEO
CHECKED BY:	L. BROUGHTON

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SITE INFORMATION
9FLX001414
30.475891, -87.307164
GODWIN LN &
PINE FOREST RD
BELLVIEW, FL 32526
UTILITY POLE

SHEET TITLE
TITLE SHEET

SHEET NUMBER
0.0



EXHIBIT PHOTO 1

SCALE: NOT TO SCALE



N

AERIAL SITE LOCATION 2

SCALE: NOT TO SCALE

NOTE:
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N

0 8' 16' 32'

ENLARGED SITE PLAN 3

SCALE: 1/16" = 1'-0" (1/32" = 1'-0" ON 11"X17" SHEET)

FL NETWORK TRANSPORT, LLC

PROJECT NO:	ER600201
DRAWN BY:	N. GLIPONEO
CHECKED BY:	L. BROUGHTON

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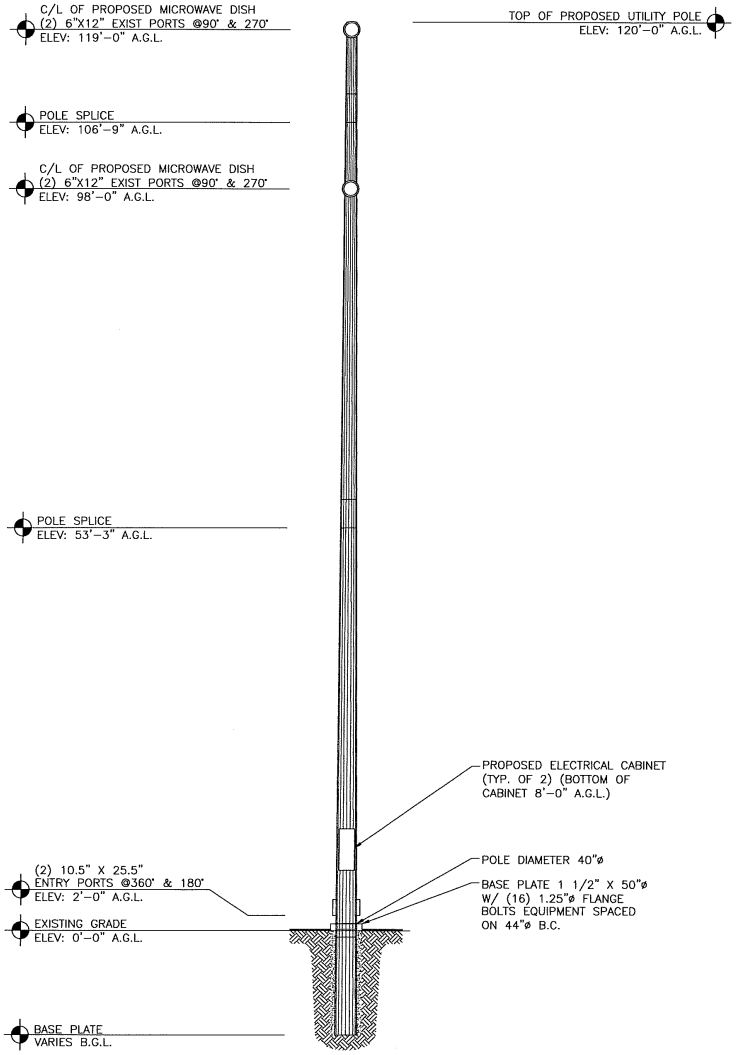
30.475891, -87.307164
GODWIN LN &
PINE FOREST RD
BELLVIEW, FL 32526
UTILITY POLE

SHEET TITLE
EXHIBIT PHOTO &
ENLARGED SITE PLAN

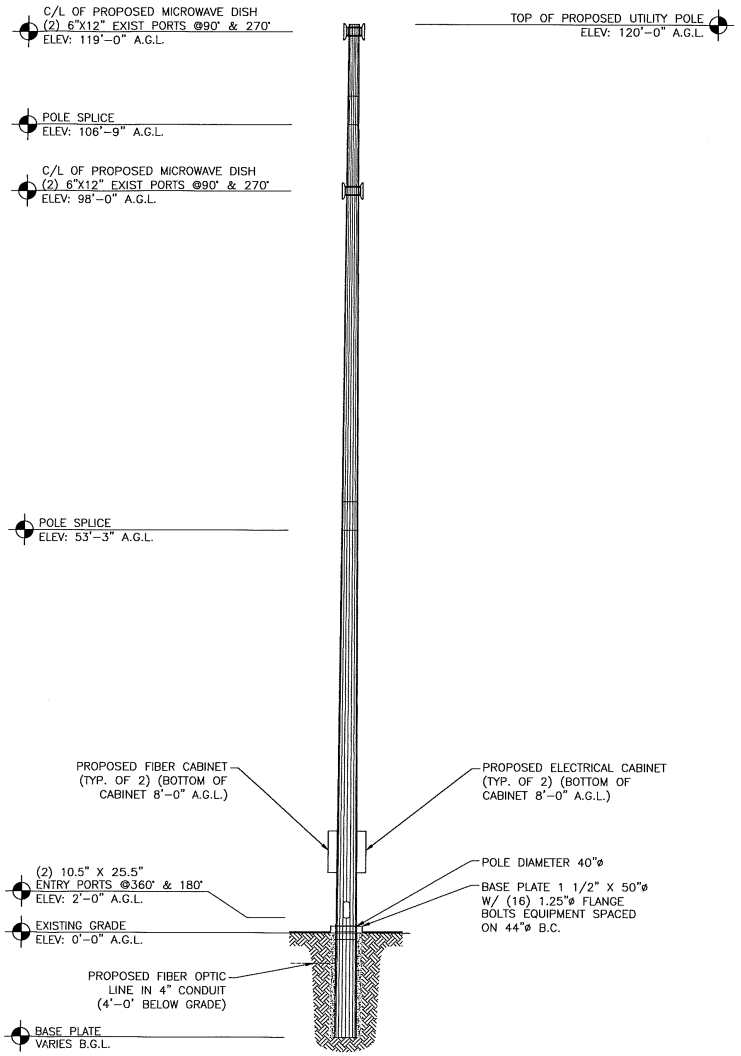
SHEET NUMBER
1.0



EAST POLE ELEVATION

SCALE: 1/8" = 1'-0" (1/16" = 1'-0" ON 11"X17" SHEET)

1



SOUTH POLE ELEVATION

SCALE: 1/8" = 1'-0" (1/16" = 1'-0" ON 11"X17" SHEET)

1

FL NETWORK TRANSPORT, LLC

PROJECT NO:	ER600201
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CHECKED BY:	L. BROUGHTON

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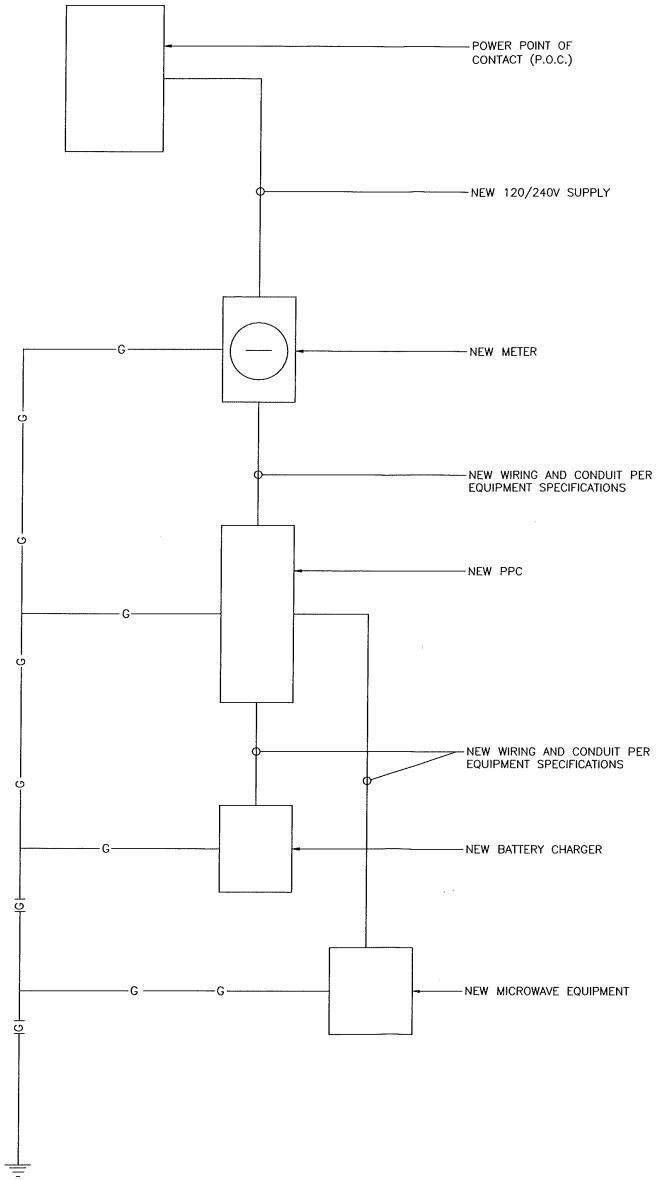
9FLX001414
30.475891, -87.307164
GODWIN LN &
PINE FOREST RD
BELLVIEW, FL 32526
UTILITY POLE

SHEET TITLE
UTILITY POLE ELEVATIONS

SHEET NUMBER
2.0



ONE LINE DIAGRAM

SCALE: NOT APPLICABLE

1

FL NETWORK TRANSPORT, LLC

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9FLX001414
30.475891, -87.307164
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BELLVIEW, FL 32526
UTILITY POLE

SHEET TITLE
ELECTRICAL

SHEET NUMBER
3.0

POLE ID:
9FLX001417

30.510368, -87.218921

E OLIVE RD & GREGG RD
PENSACOLA, FL 32514

811
Know what's **below.**
Call before you dig.

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SITE INFORMATION

POLE ID:	9FLX001417
LATITUDE:	30.510368
LONGITUDE:	-87.218921
ADDRESS/CROSS STREET:	E OLIVE RD & GREGG RD
CITY, STATE, ZIP:	PENSACOLA, FL, 32514
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY
APPLICANT:	FL NETWORK TRANSPORT, LLC
APPLICANT ADDRESS:	925B PEACHTREE ST. NE, SUITE 710 ATLANTA, GA 30309 (312) 638-5400

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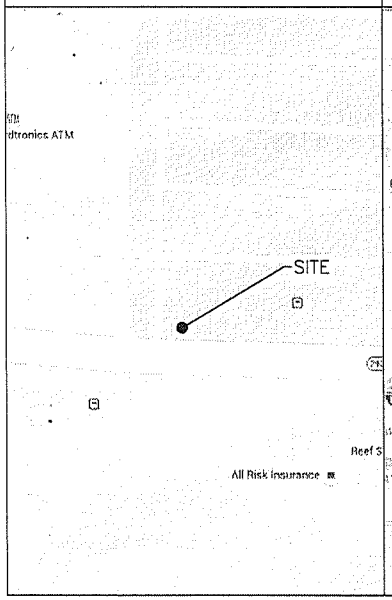
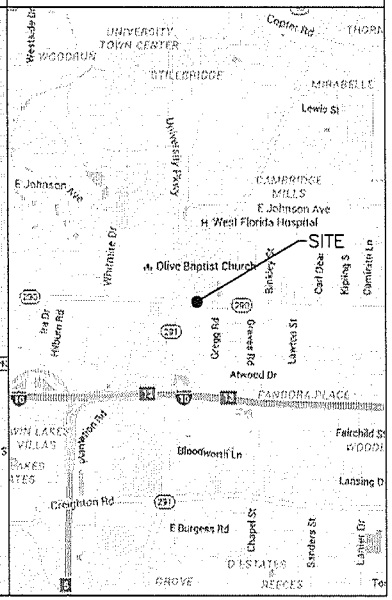
LOCATION MAPS

NORTH

VICINITY MAP



REGIONAL MAP



PROJECT DESCRIPTION

END USER PROPOSES TO INSTALL A NEW 120' UTILITY POLE WITHIN AN EXISTING RIGHT-OF-WAY. THE SCOPE WILL CONSIST OF THE FOLLOWING

- INSTALL PROPOSED 120' UTILITY POLE

CODES

2015 INTERNATIONAL BUILDING CODE
2014 NATIONAL ELECTRICAL CODE

SHEET INDEX

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2.0	UTILITY POLE ELEVATIONS
3.0	ELECTRICAL

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FL NETWORK TRANSPORT, LLC

PROJECT NO:	ER600201
DRAWN BY:	N. GLIPONEO
CHECKED BY:	L. BROUGHTON

A	02.24.15	FOR REVIEW

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SITE INFORMATION
9FLX001417
30.510368, -87.218921
E OLIVE RD &
GREGG RD
PENSACOLA, FL 32514
UTILITY POLE

SHEET TITLE
TITLE SHEET

SHEET NUMBER
0.0

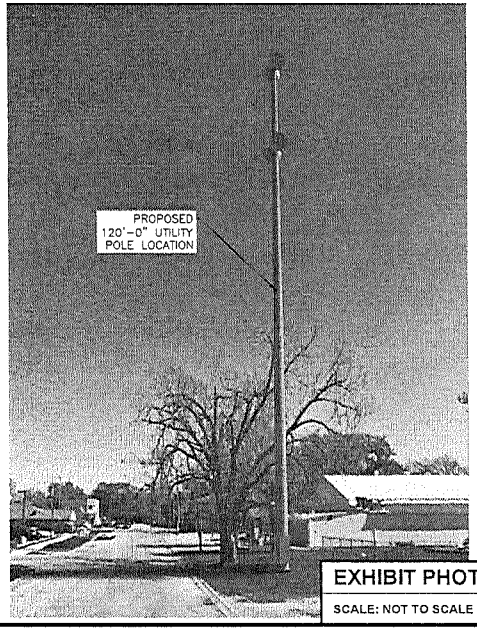
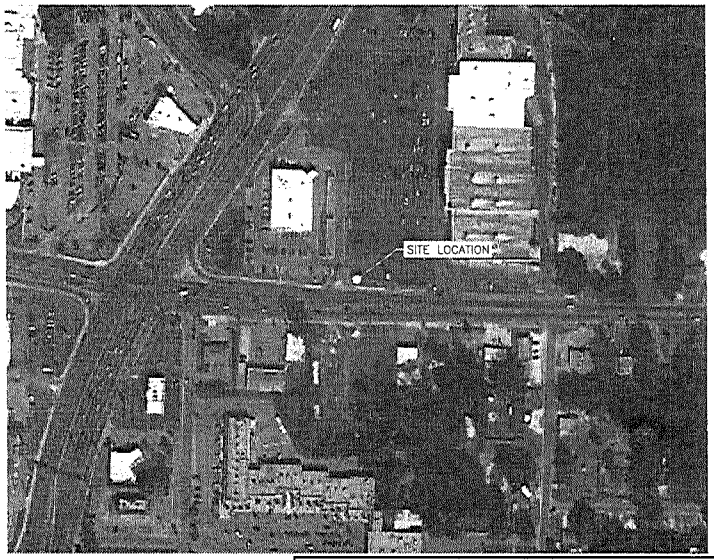


EXHIBIT PHOTO | 1

SCALE: NOT TO SCALE



N

AERIAL SITE LOCATION | 2

SCALE: NOT TO SCALE

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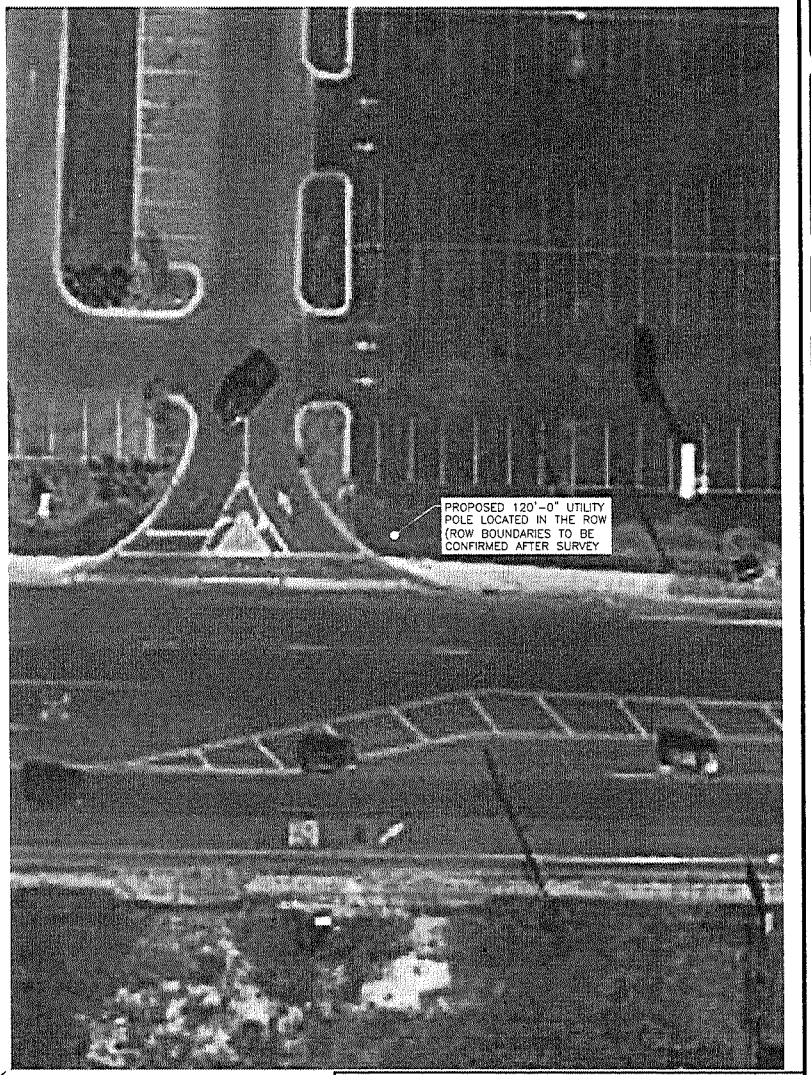

N

0 8' 16' 32'

ENLARGED SITE PLAN | 3

SCALE: 1/16" = 1'-0" (1/32" = 1'-0" ON 11"X17" SHEET)

FL NETWORK
TRANSPORT, LLC

PROJECT NO:	ER600201
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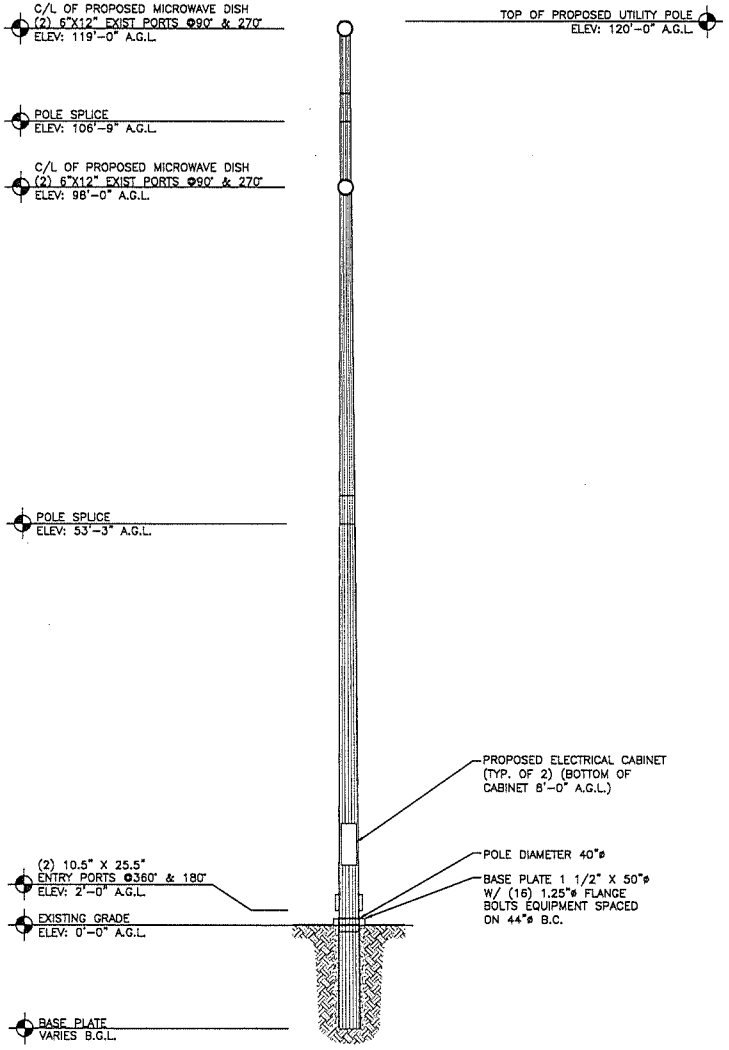

EAST POLE ELEVATION

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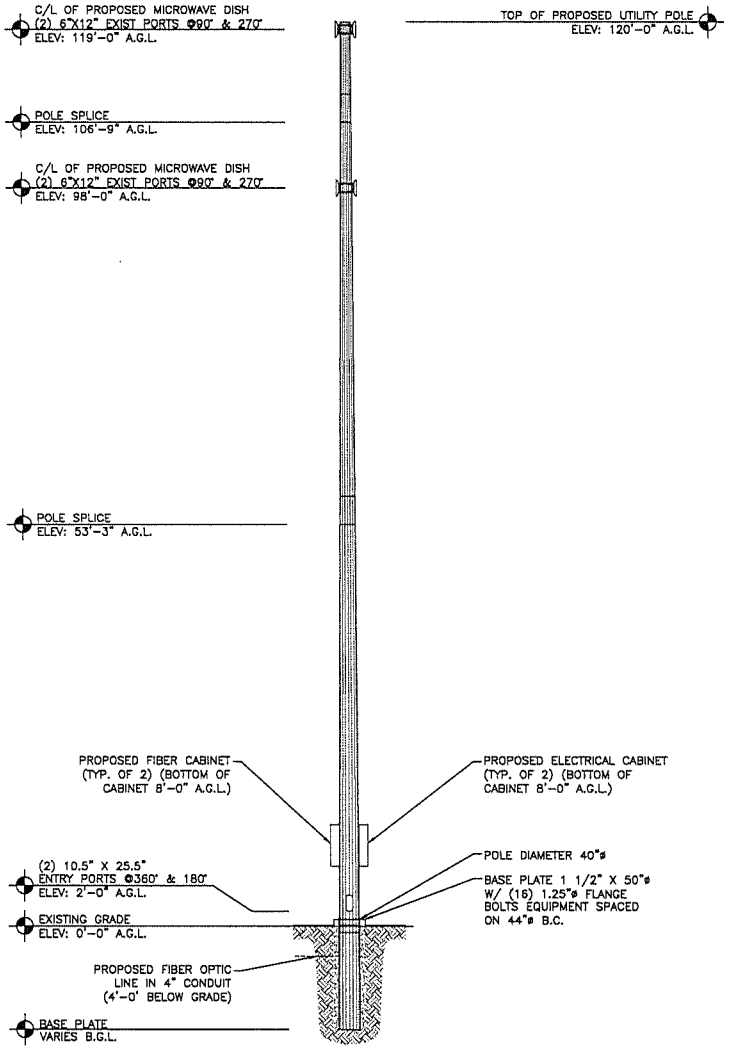
1



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FL NETWORK TRANSPORT, LLC

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UTILITY POLE

SHEET TITLE
UTILITY POLE ELEVATIONS

SHEET NUMBER
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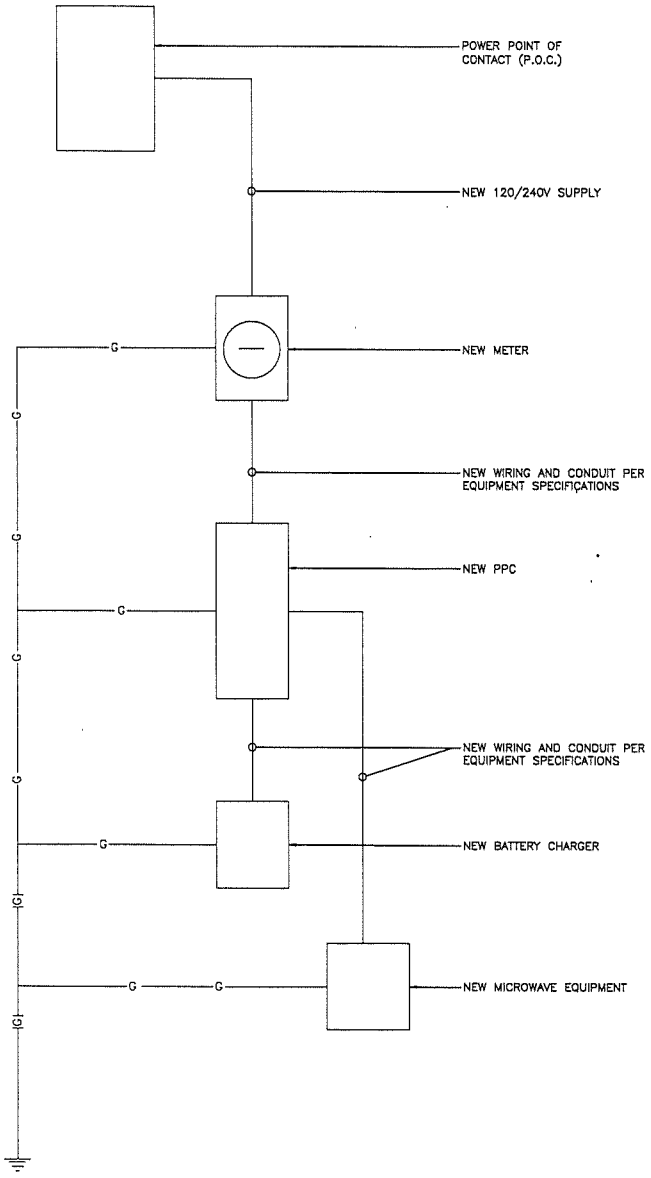

ONE LINE DIAGRAM

SCALE: NOT APPLICABLE

1

FL NETWORK TRANSPORT, LLC

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30.510368, -87.218921
E OLIVE RD &
GREGG RD
PENSACOLA, FL 32514
UTILITY POLE

SHEET TITLE
ELECTRICAL

SHEET NUMBER
3.0

POLE ID:
9FLX001415

30.532773, -87.240777

E 9 MILE RD & NORTHMINSTER LN
PENSACLA, FL 32514

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

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SITE INFORMATION

POLE ID:	9FLX001415
LATITUDE:	30.532773
LONGITUDE:	-87.240777
ADDRESS/CROSS STREET:	E 9 MILE RD & NORTHMINSTER LN
CITY, STATE, ZIP:	PENSACOLA, FL, 32514
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY
APPLICANT:	FL NETWORK TRANSPORT, LLC
APPLICANT ADDRESS:	925B PEACHTREE ST. NE, SUITE 710 ATLANTA, GA 30309 (312) 638-5400

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LOCATION MAPS

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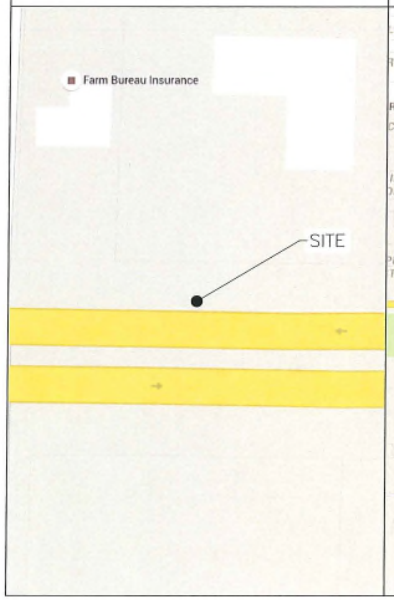
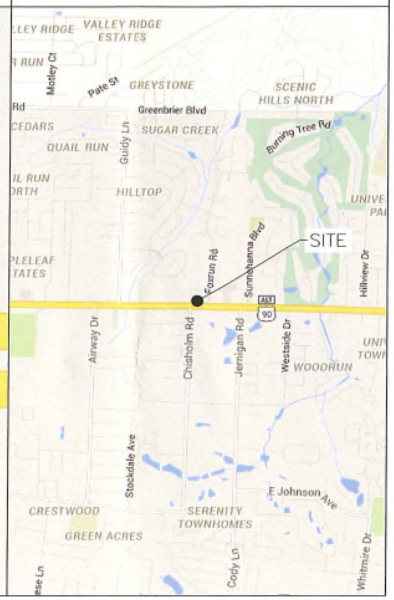
VICINITY MAP



REGIONAL MAP



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PENSACOLA, FL 32514
UTILITY POLE

SHEET TITLE
TITLE SHEET

SHEET NUMBER
0.0



EXHIBIT PHOTO | 1

SCALE: NOT TO SCALE



N

AERIAL SITE LOCATION | 2

SCALE: NOT TO SCALE

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0 8' 16' 32'

ENLARGED SITE PLAN | 3

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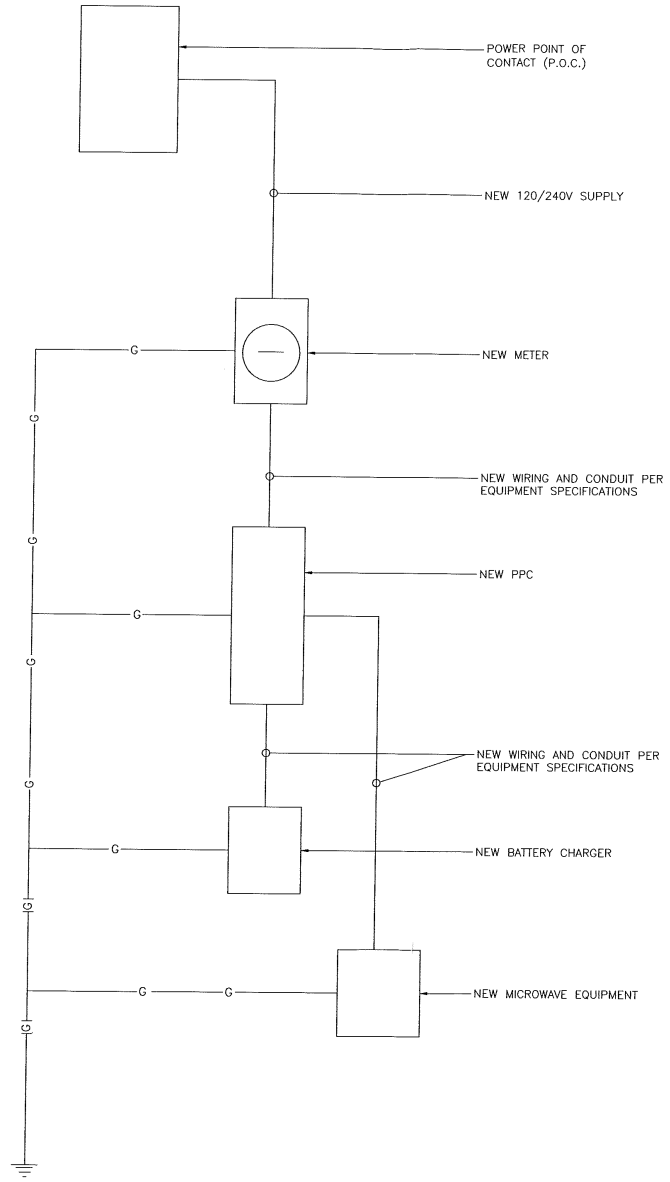

ONE LINE DIAGRAM | 1

SCALE: NOT APPLICABLE

FL NETWORK TRANSPORT, LLC

PROJECT NO:	ER600201
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CHECKED BY:	L. BROUGHTON

A	02.24.16	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 INFORMATION
9FLX001415
30.532773, -87.240777
E 9 MILE RD &
NORTHMINSTER LN
PENSACOLA, FL 32514
UTILITY POLE

SHEET TITLE
ELECTRICAL

SHEET NUMBER
3.0

POLE ID:
9FLX001417

30.510368, -87.218921

E OLIVE RD & GREGG RD
PENSACOLA, FL 32514

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

SITE INFORMATION

POLE ID:	9FLX001417
LATITUDE:	30.510368
LONGITUDE:	-87.218921
ADDRESS/CROSS STREET:	E OLIVE RD & GREGG RD
CITY, STATE, ZIP:	PENSACOLA, FL, 32514
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY
APPLICANT:	FL NETWORK TRANSPORT, LLC
APPLICANT ADDRESS:	925B PEACHTREE ST. NE, SUITE 710 ATLANTA, GA 30309 (312) 638-5400

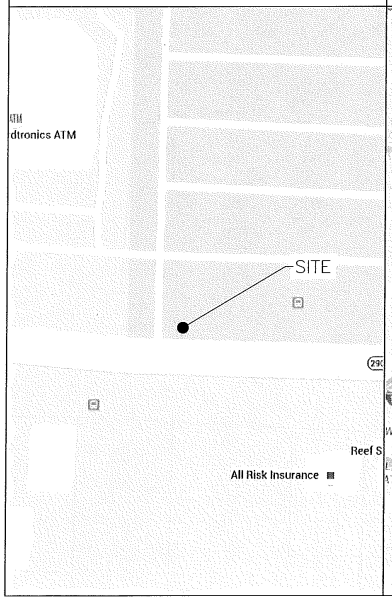
DO NOT SCALE DRAWINGS

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.

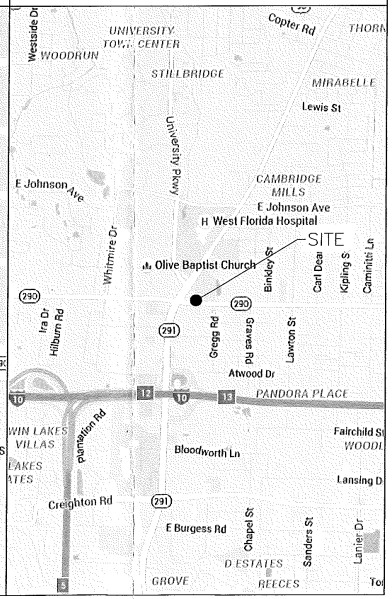
LOCATION MAPS

NORTH

VICINITY MAP



REGIONAL MAP



PROJECT DESCRIPTION

END USER PROPOSES TO INSTALL A NEW 120' UTILITY POLE WITHIN AN EXISTING RIGHT-OF-WAY. THE SCOPE WILL CONSIST OF THE FOLLOWING

- INSTALL PROPOSED 120' UTILITY POLE

CODES

2015 INTERNATIONAL BUILDING CODE
2014 NATIONAL ELECTRICAL CODE

SHEET INDEX

SHEET NO:	SHEET TITLE
0.0	TITLE SHEET
1.0	EXHIBIT PHOTO & SITE PLAN
2.0	UTILITY POLE ELEVATIONS
3.0	ELECTRICAL

ARCHITECT/ENGINEER

JACOBS ENGINEERING GROUP, INC.
5449 BELLS FERRY ROAD
ACWORTH, GA 30102
CONTACT: KARL KRATINA
PROJECT MANAGER
TEL: (678) 460-1416
FAX: (770) 701-2501

FL NETWORK TRANSPORT, LLC

PROJECT NO:	ER600201
DRAWN BY:	N. GLIPONEO
CHECKED BY:	L. BROUGHTON

A	02.24.16	FOR REVIEW

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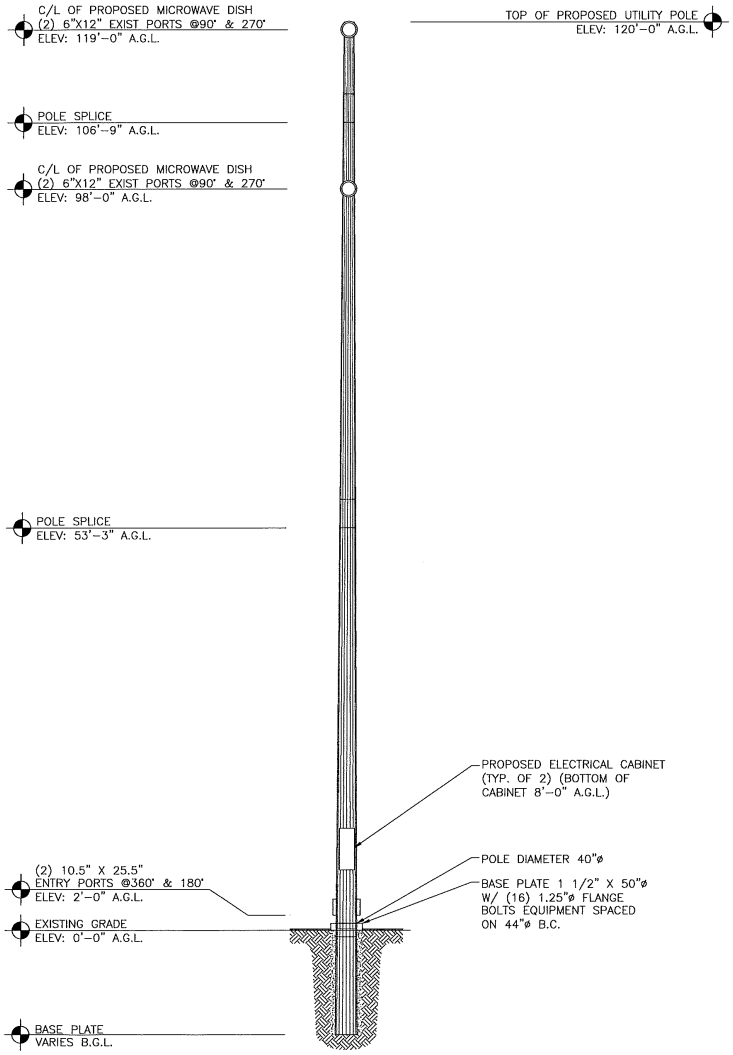
9FLX001417
30.510368, -87.218921
E OLIVE RD &
GREGG RD
PENSACOLA, FL 32514
UTILITY POLE

SHEET TITLE
TITLE SHEET

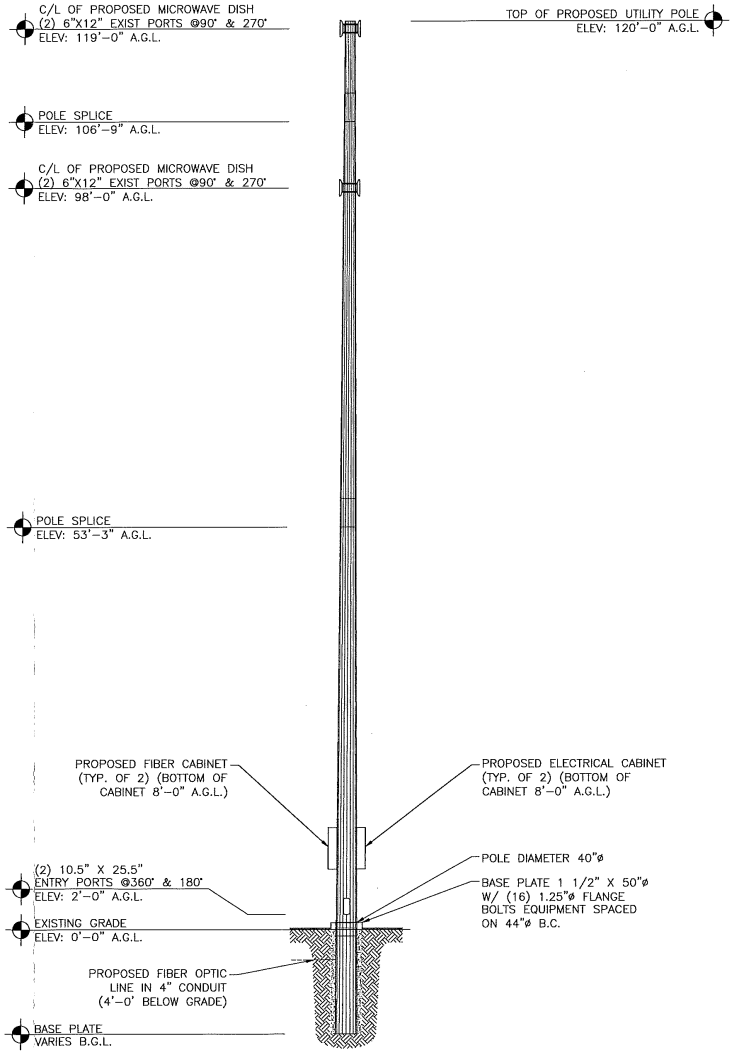
SHEET NUMBER
0.0



EAST POLE ELEVATION

SCALE: 1/8" = 1'-0" (1/16" = 1'-0" ON 11"X17" SHEET)

1



SOUTH POLE ELEVATION

SCALE: 1/8" = 1'-0" (1/16" = 1'-0" ON 11"X17" SHEET)

1

FL NETWORK TRANSPORT, LLC

PROJECT NO:	ER600201
DRAWN BY:	N. GLIPONEO
CHECKED BY:	L. BROUGHTON

A	02.24.16	FOR REVIEW

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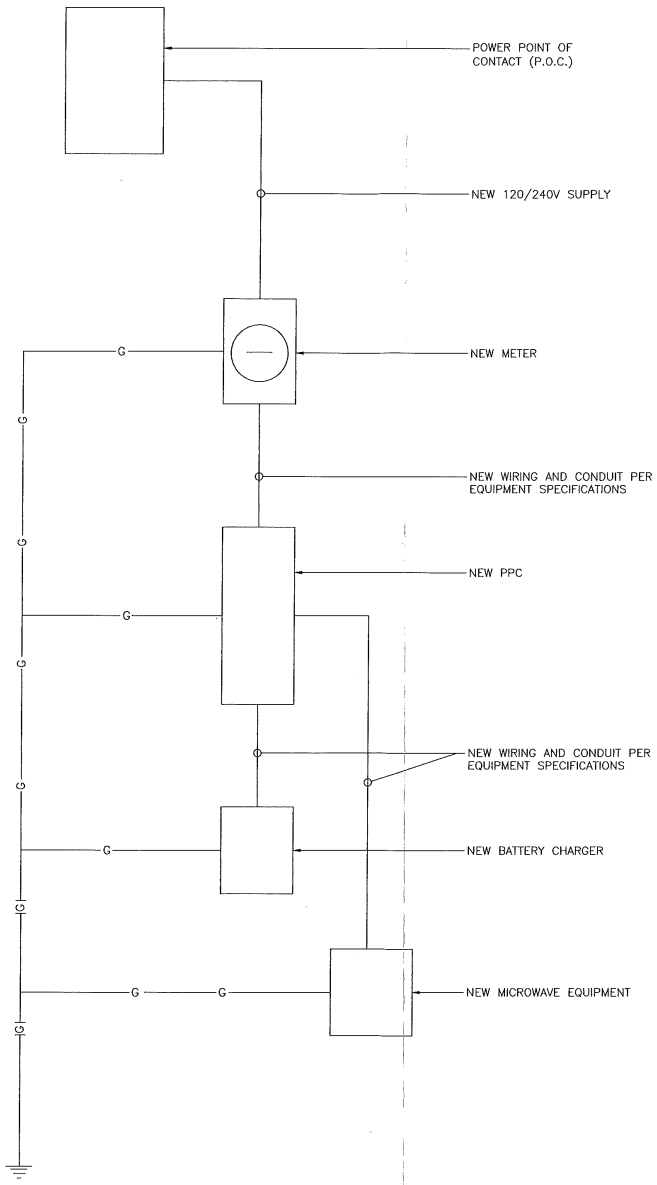
E OLIVE RD &
GREGG RD
PENSACOLA, FL 32514
UTILITY POLE

SHEET TITLE
UTILITY POLE ELEVATIONS

SHEET NUMBER
2.0



ONE LINE DIAGRAM | 1

SCALE: NOT APPLICABLE

FL NETWORK TRANSPORT, LLC

PROJECT NO:	ER600201
DRAWN BY:	N. GLIPONEO
CHECKED BY:	L. BROUGHTON

A	02.24.16	FOR REVIEW

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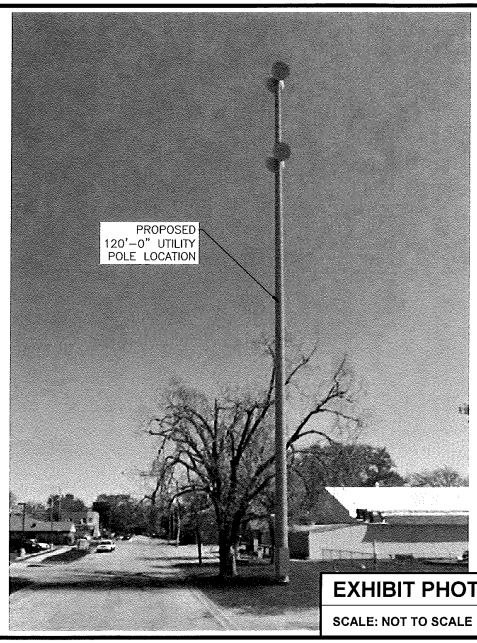


EXHIBIT PHOTO

SCALE: NOT TO SCALE

1



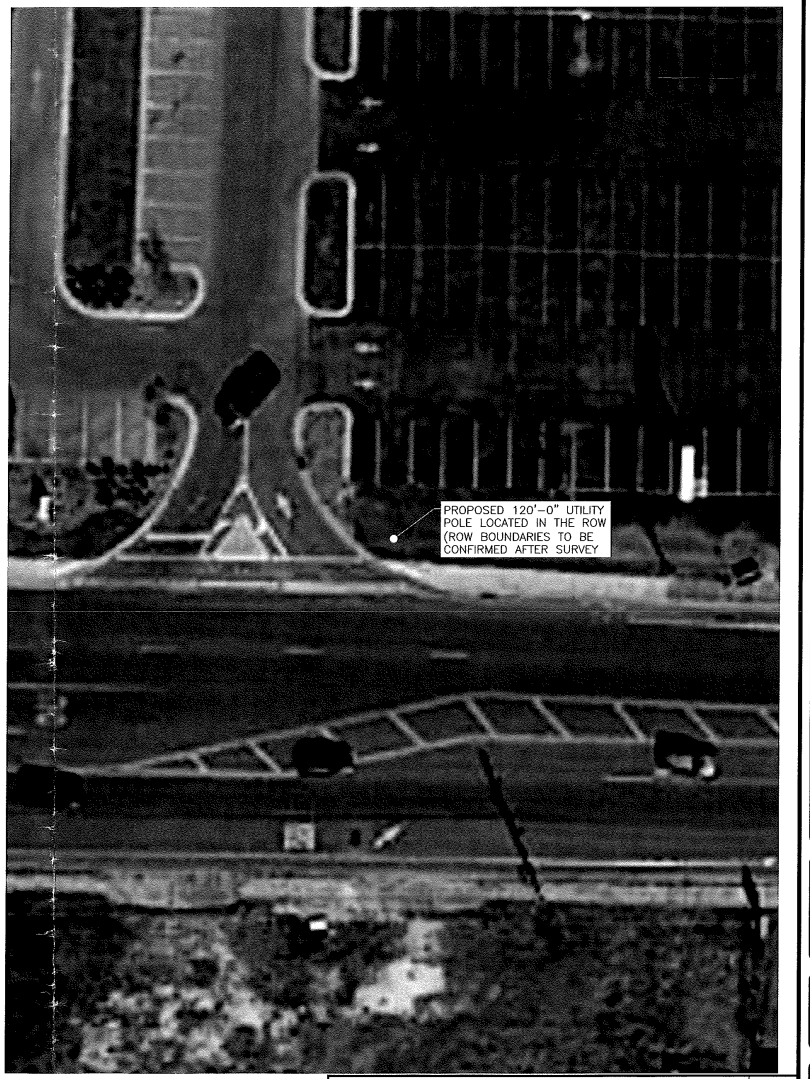
N

AERIAL SITE LOCATION

SCALE: NOT TO SCALE

2

NOTE:
THIS SITE PLAN WAS GENERATED WITHOUT THE USE OF A SURVEY. PROPERTY 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.



N

0 8' 16' 32'

ENLARGED SITE PLAN

SCALE: 1/16" = 1'-0" (1/32" = 1'-0" ON 11"X17" SHEET)

3

FL NETWORK TRANSPORT, LLC

PROJECT NO:	ER600201
DRAWN BY:	N. GLIPONEO
CHECKED BY:	L. BROUGHTON

A	02.24.16	FOR REVIEW

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UTILITY POLE

SHEET TITLE
EXHIBIT PHOTO &
ENLARGED SITE PLAN

SHEET NUMBER
1.0

ATTACHMENT G

WINTER HAVEN

mobilitie
intelligent infrastructure

925B Peachtree Street NE STE. 710
Atlanta, Georgia 30309

June 9, 2016

City of Winter Haven
Engineering Department
Attn: Keri Sorensen
Attn: Sean Byers
490 Third Street NW
Winter Haven, FL 323880

RE: Mobilitie LLC Right of Way Permit Application (9FLB00004615, 9FLB004614, 9FLB004612, 9FLX002227, 9FLX002226, and 9FLX002223)

Dear Ms. Sorensen:

Please find the enclosed Mobilitie, LLC Permit Applications for six (6) new proposed utility infrastructure facilities in the City of Winter Haven. Along with the attached permit applications, you will also find construction drawings and photo simulations for each facility. I have had the pleasure of previously meeting with Mr. Sean Byers about a previous permit application. Mobilitie, LLC understands that our project proposal is currently under consideration by your City. We would like to schedule another meeting with you, Mr. Byers, and anyone else who would like to attend to provide any additional information that is needed.

As we mentioned to the City in our previous letter, Mobilitie, LLC is a public utility company regulated by the Florida Public Service Commission to provide telephone related services, such as facilities based competitive local exchange and interexchange services. To meet the growing demand for connectivity, Mobilitie LLC is deploying a hybrid transport network that provides high-speed, high-capacity bandwidth in order to facilitate the next generation of devices and data-driven services. This network can support a variety of technologies and services that require connectivity to the internet, including, but not limited to, driverless and connected vehicles (commercial, personal and agricultural), remote weather stations and mobile service providers. These transport utility poles and facilities are not dedicated to any particular customer, and, to the extent capacity on the structures is available, are available to be used by other entities, including the City of Winter Haven. Mobilitie LLC's hybrid transport network is an industry changing approach that seeks to improve backhaul connectivity for the City's residents.

Mobilitie, LLC plans to construct the applied for utility infrastructures within the next 18 months. We are excited and hope to work with the City of Winter Haven and I invite you to call me with any questions or comments you may have. My phone number is 727-512-5599. Also, please feel free to reach out to Michele Visconti, the Network Real Estate Specialist handling this market at 470-240-3222, or her cell phone 239-249-2472.

Thank you for your attention to this matter.

Respectfully submitted,

Mike Nuckols
Permitting Manager

*Enclosures

CITY OF WINTER HAVEN

Engineering Services Division
490 3rd Street N.W. 33881
Phone 863-291-5851

9FLX002226

USE PERMIT

Street Name Lake Shipp Dr. Date June 9, 2016

Located between Lake Shipp Dr., Street and Ave Q SW Street

Permission Granted to Mobilitie, LLC Phone number - 727-512-5599

For construction and maintenance of End user proposes to install a 120' new pole within an existing ROW.

Scope of work: Install a new pole with proposed backhaul transport equipment.

This permit is subject to the following conditions:

1. The construction and maintenance of such utility shall not interfere with the property and the rights of a prior occupant.

2. All work shall be done in keeping with standards established by the Engineering Services Director and under the supervision of Mike Foster, City Construction Inspector, Phone (863) 291-5850, Cell (863) 287-2727.

3. All material and equipment shall be subject to inspection by a representative of the Engineering Services Director.

4. Construction shall be performed in a safe manner and in accordance with the regulations of OSHA, USDA and other applicable agencies. The City shall be relieved of all responsibilities for damages of any nature arising from this permit. Subject to the above terms and conditions, the permittee shall take such safety measures, including placing and display of caution signs, as good practice dictates in conduct of construction and maintenance work herein described.

5. The permittee shall provide for safe pedestrian traffic throughout the construction time. Where existing sidewalks and other walkways exist prior to this work, they or safe alternate trafficable ways, shall be maintained.

6. All city property shall be restored to its original condition to the satisfaction of the Engineering Services Director and/ or his authorized representative.

7. The applicant shall indemnify, defend, and hold harmless the City from and against any and all claims, suits, actions, judgments, demands, taxes, losses, costs, expenses, damages, and liability caused by, resulting from, or arising out of the negligent acts, errors, or omissions of the applicant, its officers, employees, agents, or representatives that may occur by reason of this construction.

8. The attached sketch covering details of this construction shall be made a part of this permit.

9. The applicant, at a minimum, shall obtain insurance coverage for specific risks and in such amounts and with insurers as determined acceptable by the City. Any such insurance coverage(s) required by the City shall represent the minimum amount of coverage required. The applicant, at its sole cost, shall obtain insurance coverage(s) as follows:

   a. Workers' Compensation/Employer's Liability:
      - For each accident ($5,000,000.00)
      - Disease – Policy Limit ($5,000,000.00)
      - Disease – Each Employee ($5,000,000.00)

   b. Commercial General Liability ("CGL"):
      - For each occurrence ($5,000,000.00)
      - General Aggregate ($5,000,000.00)
      - Products/Completed Operations Aggregate ($5,000,000.00)
      - Personal and Advertising Injury ($5,000,000.00)

   c. Business Automobile Policy:
      - Each occurrence and bodily injury and property damage liability combined ($5,000,000.00)

10. It is expressly stipulated that this permit is a license for permissive use only and that placing of facility upon public property pursuant to this permit shall not operate to create or to vest any property in the permittee or his client.

Pursuant to section 337.403(1), Florida statutes, whenever necessary for the construction, repair, improvement maintenance, safe and efficient operation, alteration or relocation of all, or any portion of said Transportation Facility/City Property as determined by the Engineering Services Director, any or all utilities and appurtenances authorized here under or any shall be immediately removed from said Transportation Facility/City Property or reset or relocate thereon as requested by the Engineering Services Director and at the expense of the Permittee.

11. The permittee shall commence actual construction in good faith on TBD and shall complete the construction within 7 days. This permit shall be void if the work is not started within sixty (60) days from date of said permit.

12. Applicant declares that prior to filling out the application he has ascertained the location of all existing utilities, both aerial and underground. Applicant also declares that all other utilities within the area were notified and that he is including a notification copy with this permit application. List the name of the Utility, Date, and the authorized Contact person from each Utility that were contacted: Mobilitie, LLC will send all required utility notification letters, and proof of such notification, when Mobilitie's project to install utility poles within the City's rights-of-way has been spproved by the City.

13. Notify the Engineering Services Division (863) 291-5851 a minimum of 48 hours prior to the commencement of construction. A SUNSHINE ONE number must be provided at this time. Failure to provide proper notification may result in the stoppage of work. **Notify the Engineering Services Division the day construction actually commences.**

14. If the applicant transfers or assigns its assets located within the City's right-of-way, the transferee or assignee shall be obligated to comply with the terms of this Use Permit and any and all applicable provisions of the WHC.

15. Nothing herein is intended to waive the City's sovereign immunity or the limits of its liability under Section 768.28 of the Florida Statutes regardless of whether such claims are based on contract, statute, tort, strict liability, product liability, negligence or otherwise.

16. **The use of missiles is limited and must be approved by the Engineering Services Director prior to Construction.**

Approved by:_____
(Engineering Services Director)

Submitted by : Michael Nuckols
(Applicant' Signature)

Date:_____

Michael Nuckols
(Applicant's name printed)

SUNSHINE ONE#_____

City of Winter Haven Engineering Services Division Permit #_____

Note: Attach Applicable Plans as Required

9FLX002226A

28.004937, -81.751479

Winter Haven, FL 33880

811

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

SITE INFORMATION

POLE ID:	9FLX002226A
LATITUDE:	28.004937
LONGITUDE:	-81.751479
ADDRESS/CROSS STREET:	
CITY, STATE ZIP:	Winter Haven, FL 33880
PROPERTY OWNER	PUBLIC RIGHT-OF-WAY
APPLICANT	FL Network Transport, LLC
APPLICANT ADDRESS	9258 Peachtree St. NE, Suite 710 Atlanta, GA 30309

DO NOT SCALE DRAWINGS

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

LOCATION MAPS

NORTH

VICINITY MAP



REGIONAL MAP



PROJECT DESCRIPTION

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

1. INSTALL PROPOSED 120' UTILITY POLE

CODES

2015 INTERNATIONAL BUILDING CODE
2014 NATIONAL ELECTRICAL CODE

SHEET INDEX

SHEET #	SHEET DESCRIPTION
0.0	TITLE SHEET
1.0	EXHIBIT PHOTO & SITE PLAN
2.0	UTILITY POLE ELEVATIONS
3.0	ELECTRICAL

ENGINEER

FL Network Transport, LLC

PROJECT NUMBER:	9FLX002226A
DRAWN BY:	####
CHECKED BY:	####

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SITE INFORMATION

9FLX002226A
28.004937,-81.751479
Winter Haven, FL 33880

UTILITY POLE

SHEET TITLE

TITLE SHEET

SHEET NUMBER

0.0



1 EXHIBIT PHOTO – GENERIC (NOT SITE SPECIFIC)
SCALE: N.T.S.



2 AERIAL SITE LOCATION
SCALE: N.T.S.

NOTE:
THIS SITE PLAN WAS GENERATED WITHOUT THE USE OF A SURVEY. PROPERTY LINES, POWER & TELCO UTILITY PINT CONNECTIONS/ROUTES AND EASEMENTS SHOWN ON THESE PLANS ARE ESTIMATED.

TRUE NORTH

NOTE:
PROPOSED 120'0" POLE IN THE R.O.W.
R.O.W. BOUNDARIES TO BE CONFIRMED AFTER SURVEY



3 ENLARGED SITE PLAN
SCALE: N.T.S.

FL Network Transport, LLC

PROJECT NUMBER:	9FLX002226A
DRAWN BY:	####
CHECKED BY:	####

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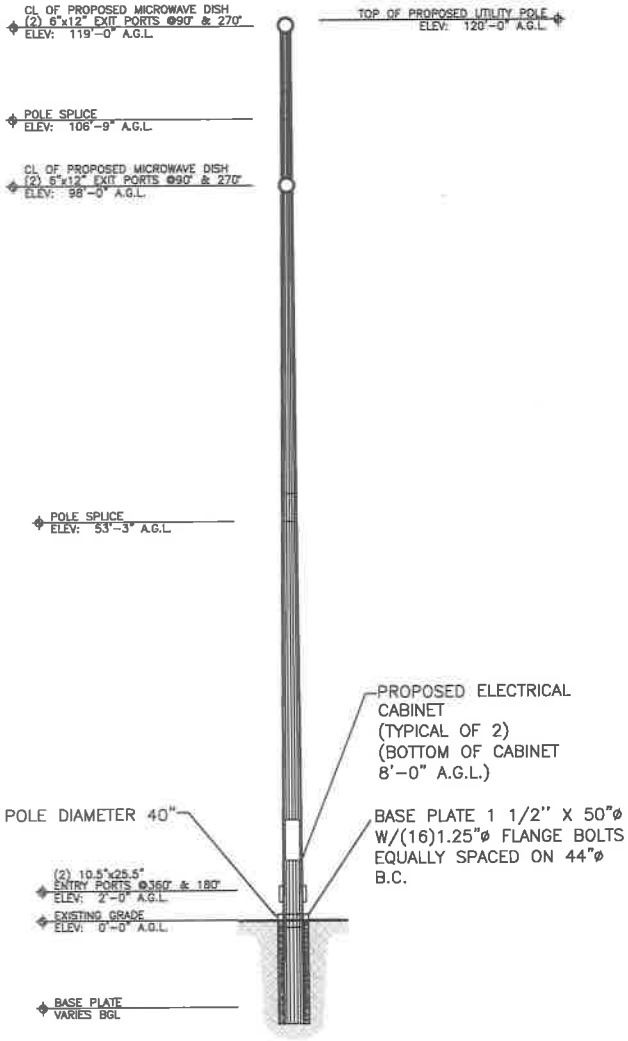
SITE INFORMATION
9FLX002226A
28.004937,-81.751479
Winter Haven, FL 33880

UTILITY POLE

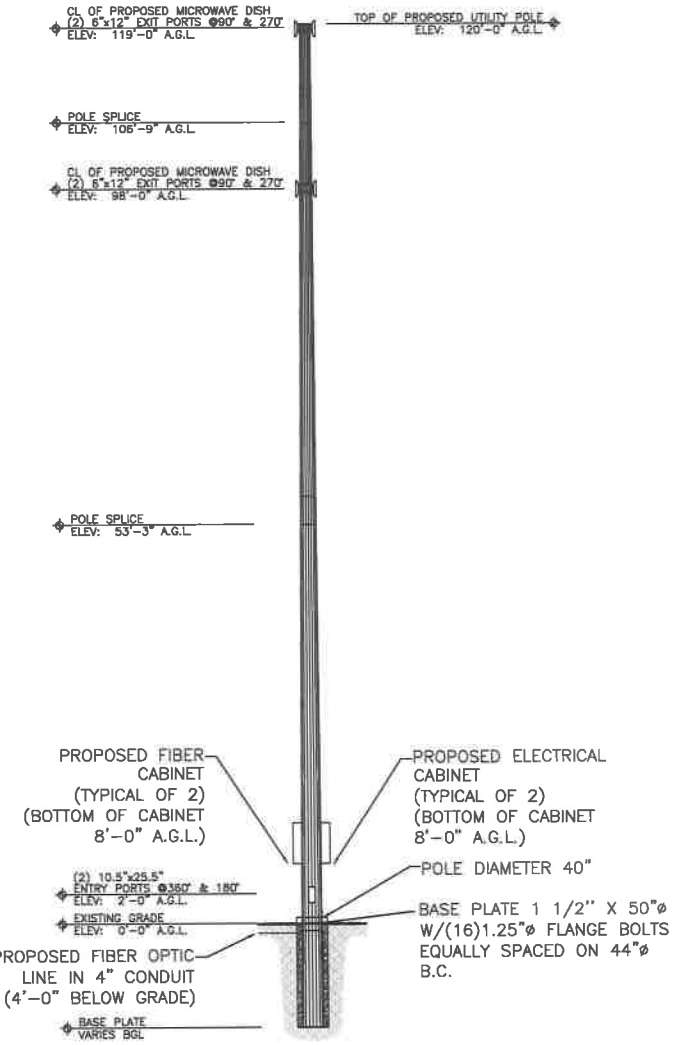
SHEET TITLE
EXHIBIT PHOTO & ENLARGED SITE PLAN

SHEET NUMBER
1.0



1 FRONT UTILITY POLE ELEVATION
SCALE: 0.010399

GRAPHIC SCALE: 1/8"=1'-0"



1 SIDE UTILITY POLE ELEVATION
SCALE: 1/8" = 1'-0"

GRAPHIC SCALE: 1/8"=1'-0"

FL Network Transport, LLC

PROJECT NUMBER:	9FLX002226A
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CHECKED BY:	####

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SITE INFORMATION

9FLX002226A
28.004937,-81.751479
Winter Haven, FL 33880

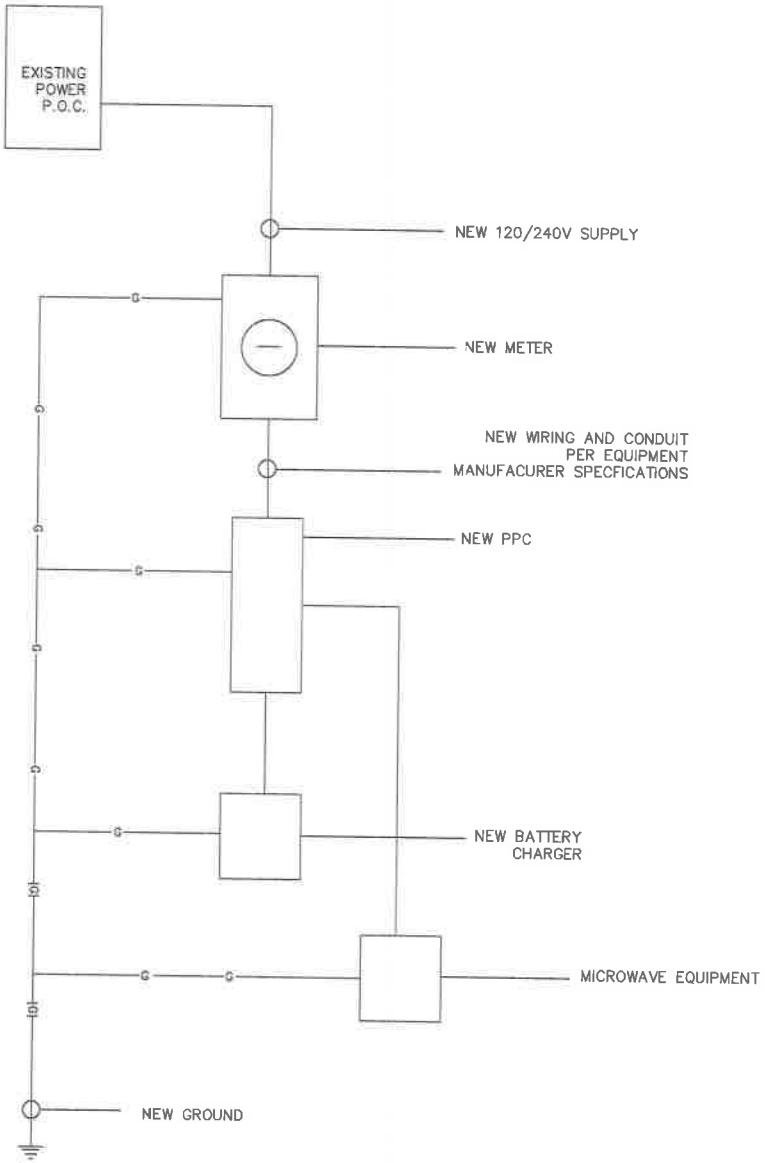
UTILITY POLE

SHEET TITLE

UTILITY POLE ELEVATIONS

SHEET NUMBER

2.0



ONE LINE DIAGRAM

FL Network Transport, LLC

PROJECT NUMBER:	9FLX002226A
DRAWN BY:	####
CHECKED BY:	####

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SITE INFORMATION

9FLX002226A
28.004937,-81.751479
Winter Haven, FL 33880

UTILITY POLE

SHEET TITLE

ELECTRICAL

SHEET NUMBER

3.0

9FLX002227

CITY OF WINTER HAVEN

Engineering Services Division
490 3rd Street N.W. 33881
Phone 863-291-5851

USE PERMIT

Street Name Post Ave SW Date June 9, 2016

Located between 2nd Street SW, Street and 1st Street South Street

Permission Granted to Mobilitie, LLC Phone number - 727-512-5599

For construction and maintenance of End user proposes to install a 120' new pole within an existing ROW.

Scope of work: Install a new pole with proposed backhaul transport equipment.

This permit is subject to the following conditions:

1. The construction and maintenance of such utility shall not interfere with the property and the rights of a prior occupant.

2. All work shall be done in keeping with standards established by the Engineering Services Director and under the supervision of Mike Foster, City Construction Inspector, Phone (863) 291-5850, Cell (863) 287-2727.

3. All material and equipment shall be subject to inspection by a representative of the Engineering Services Director.

4. Construction shall be performed in a safe manner and in accordance with the regulations of OSHA, USDA and other applicable agencies. The City shall be relieved of all responsibilities for damages of any nature arising from this permit. Subject to the above terms and conditions, the permittee shall take such safety measures, including placing and display of caution signs, as good practice dictates in conduct of construction and maintenance work herein described.

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6. All city property shall be restored to its original condition to the satisfaction of the Engineering Services Director and/ or his authorized representative.

7. The applicant shall indemnify, defend, and hold harmless the City from and against any and all claims, suits, actions, judgments, demands, taxes, losses, costs, expenses, damages, and liability caused by, resulting from, or arising out of the negligent acts, errors, or omissions of the applicant, its officers, employees, agents, or representatives that may occur by reason of this construction.

8. The attached sketch covering details of this construction shall be made a part of this permit.

9. The applicant, at a minimum, shall obtain insurance coverage for specific risks and in such amounts and with insurers as determined acceptable by the City. Any such insurance coverage(s) required by the City shall represent the minimum amount of coverage required. The applicant, at its sole cost, shall obtain insurance coverage(s) as follows:

   a. Workers' Compensation/Employer's Liability:
      - For each accident ($5,000,000.00)
      - Disease – Policy Limit ($5,000,000.00)
      - Disease – Each Employee ($5,000,000.00)

   b. Commercial General Liability ("CGL"):
      - For each occurrence ($5,000,000.00)
      - General Aggregate ($5,000,000.00)
      - Products/Completed Operations Aggregate ($5,000,000.00)
      - Personal and Advertising Injury ($5,000,000.00)

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      - Each occurrence and bodily injury and property damage liability combined ($5,000,000.00)

10. It is expressly stipulated that this permit is a license for permissive use only and that placing of facility upon public property pursuant to this permit shall not operate to create or to vest any property in the permittee or his client.

Pursuant to section 337.403(1), Florida statutes, whenever necessary for the construction, repair, improvement maintenance, safe and efficient operation, alteration or relocation of all, or any portion of said Transportation Facility/City Property as determined by the Engineering Services Director, any or all utilities and appurtenances authorized here under or any shall be immediately removed from said Transportation Facility/City Property or reset or relocate thereon as requested by the Engineering Services Director and at the expense of the Permittee.

11. The permittee shall commence actual construction in good faith on TBD and shall complete the construction within 7 days. This permit shall be void if the work is not started within sixty (60) days from date of said permit.

12. Applicant declares that prior to filling out the application he has ascertained the location of all existing utilities, both aerial and underground. Applicant also declares that all other utilities within the area were notified and that he is including a notification copy with this permit application. List the name of the Utility, Date, and the authorized Contact person from each Utility that were contacted: Mobilitie, LLC will send all required utility notification letters, and proof of such notification, when Mobilitie's project to install utility poles within the City's rights-of-way has been spproved by the City.

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15. Nothing herein is intended to waive the City's sovereign immunity or the limits of its liability under Section 768.28 of the Florida Statutes regardless of whether such claims are based on contract, statute, tort, strict liability, product liability, negligence or otherwise.

16. **The use of missiles is limited and must be approved by the Engineering Services Director prior to Construction.**

Approved by: _____
(Engineering Services Director)

Submitted by: Michael Nuckols
(Applicant' Signature)

Date: _____

Michael Nuckols
(Applicant's name printed)

SUNSHINE ONE# _____

City of Winter Haven Engineering Services Division Permit # _____

Note: Attach Applicable Plans as Required

9FLX002227A

28.005889, -81.727988

Winter Haven, FL 33880

811

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

SITE INFORMATION

POLE ID:	9FLX002227A
LATITUDE:	28.005889
LONGITUDE:	-81.727988
ADDRESS/CROSS STREET:	
CITY, STATE ZIP:	Winter Haven, FL 33880
PROPERTY OWNER	PUBLIC RIGHT-OF-WAY
APPLICANT	FL Network Transport, LLC
APPLICANT ADDRESS	9258 Peachtree St. NE, Suite 710 Atlanta, GA 30309

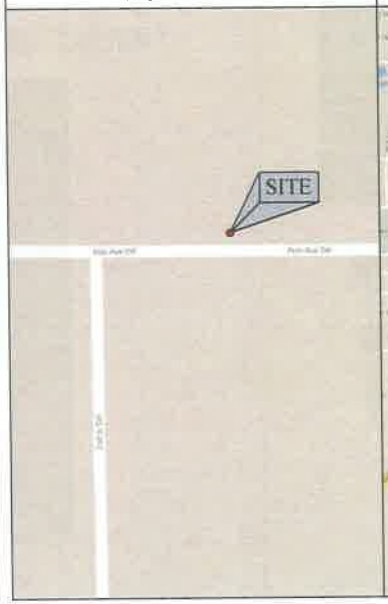
DO NOT SCALE DRAWINGS

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

LOCATION MAPS

NORTH

VICINITY MAP



REGIONAL MAP



PROJECT DESCRIPTION

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

1. INSTALL PROPOSED 120' UTILITY POLE

CODES

2015 INTERNATIONAL BUILDING CODE
2014 NATIONAL ELECTRICAL CODE

SHEET INDEX

SHEET #	SHEET DESCRIPTION
0.0	TITLE SHEET
1.0	EXHIBIT PHOTO & SITE PLAN
2.0	UTILITY POLE ELEVATIONS
3.0	ELECTRICAL

ENGINEER

FL Network Transport, LLC

PROJECT NUMBER:	9FLX002227A
DRAWN BY:	####
CHECKED BY:	####

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 INFORMATION

9FLX002227A
28.005889,-81.727988
Winter Haven, FL 33880

UTILITY POLE

SHEET TITLE

TITLE SHEET

SHEET NUMBER

0.0



1 EXHIBIT PHOTO – GENERIC (NOT SITE SPECIFIC)
SCALE: N.T.S.



2 AERIAL SITE LOCATION
SCALE: N.T.S.

NOTE:
THIS SITE PLAN WAS GENERATED WITHOUT THE USE OF A SURVEY. PROPERTY LINES, POWER & TELCO UTILITY PINT CONNECTIONS/ROUTES AND EASEMENTS SHOWN ON THESE PLANS ARE ESTIMATED.

TRUE NORTH

NOTE:
PROPOSED 120'0" POLE IN THE R.O.W.
R.O.W. BOUNDARIES TO BE CONFIRMED AFTER SURVEY



3 ENLARGED SITE PLAN
SCALE: N.T.S.

FL Network Transport, LLC

PROJECT NUMBER:	9FLX002227A
DRAWN BY:	####
CHECKED BY:	####

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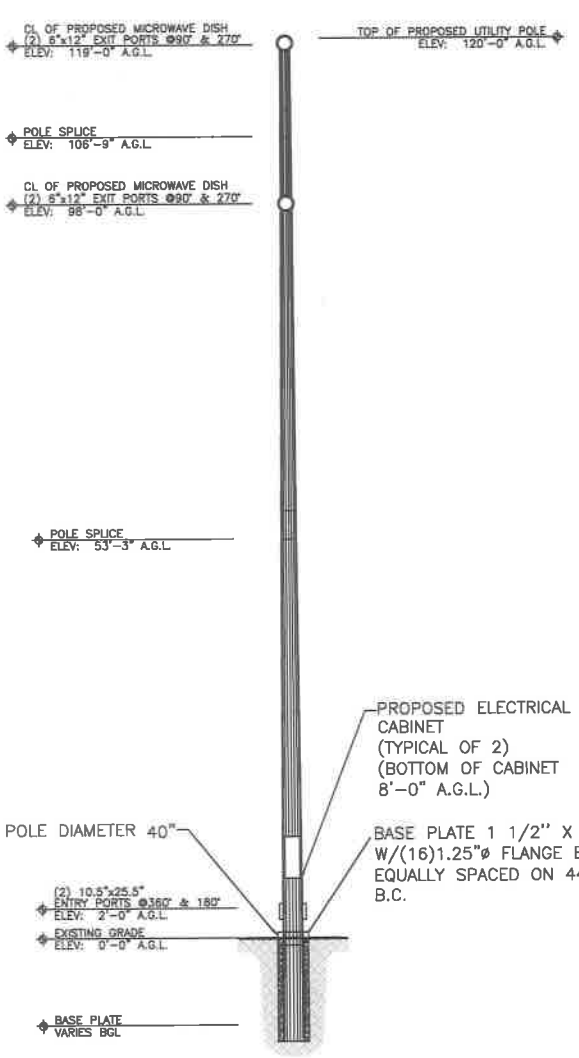
SITE INFORMATION
9FLX002227A
28.005889,-81.727988
Winter Haven, FL 33880
UTILITY POLE

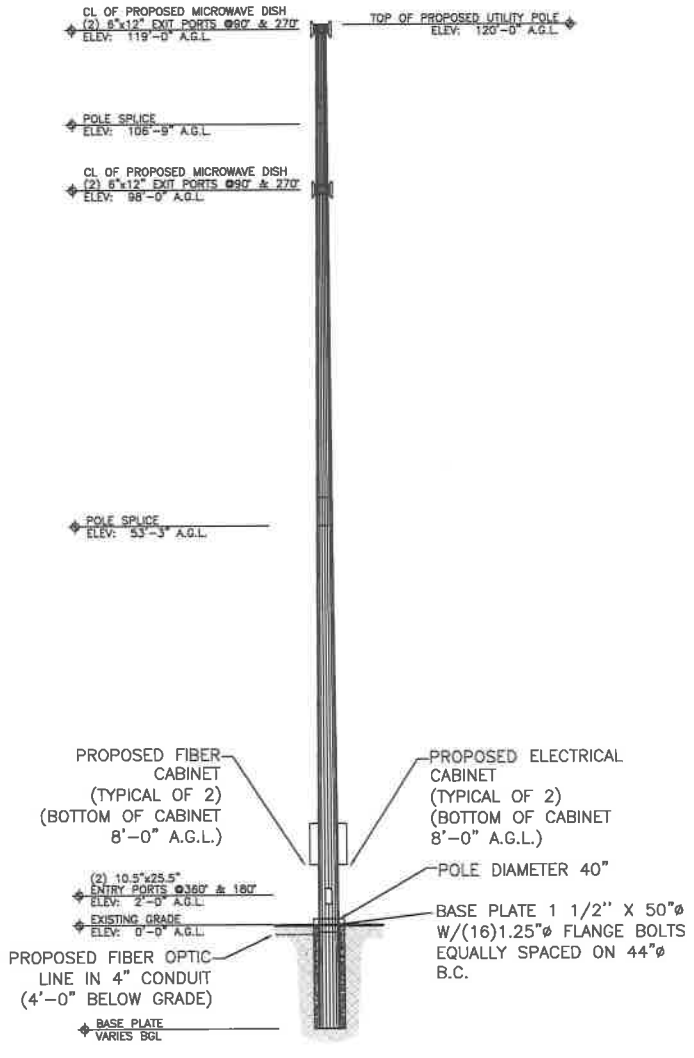
SHEET TITLE
EXHIBIT PHOTO & ENLARGED SITE PLAN

SHEET NUMBER
1.0



1 FRONT UTILITY POLE ELEVATION
SCALE: 0.010399

GRAPHIC SCALE: 1/8"=1'-0"



1 SIDE UTILITY POLE ELEVATION
SCALE: 1/8" = 1'-0"

GRAPHIC SCALE: 1/8"=1'-0"

FL Network Transport, LLC

PROJECT NUMBER:	9FLX002227A
DRAWN BY:	####
CHECKED BY:	####

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SITE INFORMATION

9FLX002227A
28.005889,-81.727988
Winter Haven, FL 33880

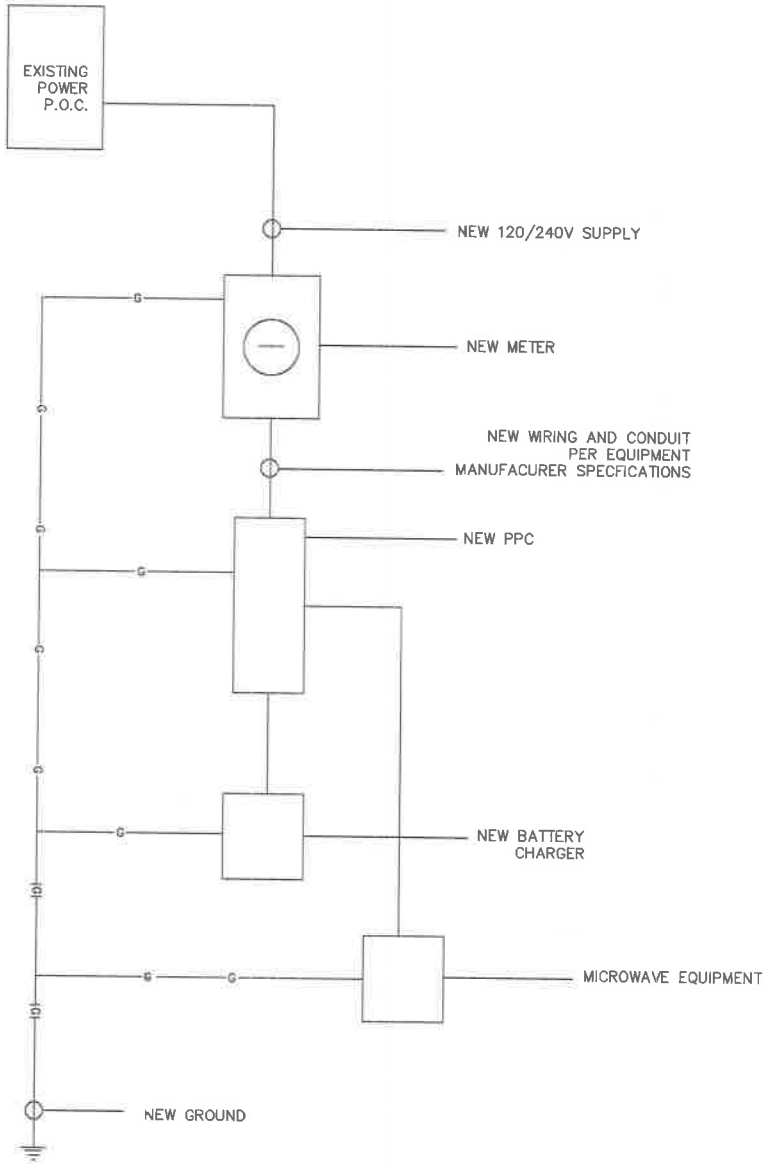
UTILITY POLE

SHEET TITLE

UTILITY POLE ELEVATIONS

SHEET NUMBER

2.0



ONE LINE DIAGRAM

FL Network Transport, LLC

PROJECT NUMBER:	9FLX002227A
DRAWN BY:	####
CHECKED BY:	####

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SITE INFORMATION

9FLX002227A
28.005889,-81.727988
Winter Haven, FL 33880

UTILITY POLE

SHEET TITLE

ELECTRICAL

SHEET NUMBER

3.0

9FLB004615

CITY OF WINTER HAVEN

Engineering Services Division
490 3rd Street N.W. 33881
Phone 863-291-5851

USE PERMIT

Street Name Corner of Ave H NE & 10th St. NE Date June 9, 2016

Located between 10th Street NE, Street and 9th Street NE Street

Permission Granted to Mobilitie, LLC Phone number - 727-512-5599

For construction and maintenance of End user proposes to install equipment on a new pole within an existing ROW.

Scope of work: Install a new pole with proposed backhaul transport equipment.

This permit is subject to the following conditions:

1. The construction and maintenance of such utility shall not interfere with the property and the rights of a prior occupant.

2. All work shall be done in keeping with standards established by the Engineering Services Director and under the supervision of Mike Foster, City Construction Inspector, Phone (863) 291-5850, Cell (863) 287-2727.

3. All material and equipment shall be subject to inspection by a representative of the Engineering Services Director.

4. Construction shall be performed in a safe manner and in accordance with the regulations of OSHA, USDA and other applicable agencies. The City shall be relieved of all responsibilities for damages of any nature arising from this permit. Subject to the above terms and conditions, the permittee shall take such safety measures, including placing and display of caution signs, as good practice dictates in conduct of construction and maintenance work herein described.

5. The permittee shall provide for safe pedestrian traffic throughout the construction time. Where existing sidewalks and other walkways exist prior to this work, they or safe alternate trafficable ways, shall be maintained.

6. All city property shall be restored to its original condition to the satisfaction of the Engineering Services Director and/ or his authorized representative.

7. The applicant shall indemnify, defend, and hold harmless the City from and against any and all claims, suits, actions, judgments, demands, taxes, losses, costs, expenses, damages, and liability caused by, resulting from, or arising out of the negligent acts, errors, or omissions of the applicant, its officers, employees, agents, or representatives that may occur by reason of this construction.

8. The attached sketch covering details of this construction shall be made a part of this permit.

9. The applicant, at a minimum, shall obtain insurance coverage for specific risks and in such amounts and with insurers as determined acceptable by the City. Any such insurance coverage(s) required by the City shall represent the minimum amount of coverage required. The applicant, at its sole cost, shall obtain insurance coverage(s) as follows:

   a. Workers' Compensation/Employer's Liability:
      - For each accident ($5,000,000.00)
      - Disease – Policy Limit ($5,000,000.00)
      - Disease – Each Employee ($5,000,000.00)

   b. Commercial General Liability ("CGL"):
      - For each occurrence ($5,000,000.00)
      - General Aggregate ($5,000,000.00)
      - Products/Completed Operations Aggregate ($5,000,000.00)
      - Personal and Advertising Injury ($5,000,000.00)

   c. Business Automobile Policy:
      - Each occurrence and bodily injury and property damage liability combined ($5,000,000.00)

10. It is expressly stipulated that this permit is a license for permissive use only and that placing of facility upon public property pursuant to this permit shall not operate to create or to vest any property in the permittee or his client.

Pursuant to section 337.403(1), Florida statutes, whenever necessary for the construction, repair, improvement maintenance, safe and efficient operation, alteration or relocation of all, or any portion of said Transportation Facility/City Property as determined by the Engineering Services Director, any or all utilities and appurtenances authorized here under or any shall be immediately removed from said Transportation Facility/City Property or reset or relocate thereon as requested by the Engineering Services Director and at the expense of the Permittee.

11. The permittee shall commence actual construction in good faith on TBD and shall complete the construction within 7 days. This permit shall be void if the work is not started within sixty (60) days from date of said permit.

12. Applicant declares that prior to filling out the application he has ascertained the location of all existing utilities, both aerial and underground. Applicant also declares that all other utilities within the area were notified and that he is including a notification copy with this permit application. List the name of the Utility, Date, and the authorized Contact person from each Utility that were contacted: Mobilitie, LLC will send all required utility notification letters, and proof of such notification, when Mobilitie's project to install utility poles within the City's rights-of-way has been spproved by the City.

13. Notify the Engineering Services Division (863) 291-5851 a minimum of 48 hours prior to the commencement of construction. A SUNSHINE ONE number must be provided at this time. Failure to provide proper notification may result in the stoppage of work. **Notify the Engineering Services Division the day construction actually commences.**

14. If the applicant transfers or assigns its assets located within the City's right-of-way, the transferee or assignee shall be obligated to comply with the terms of this Use Permit and any and all applicable provisions of the WHC.

15. Nothing herein is intended to waive the City's sovereign immunity or the limits of its liability under Section 768.28 of the Florida Statutes regardless of whether such claims are based on contract, statute, tort, strict liability, product liability, negligence or otherwise.

16. **The use of missiles is limited and must be approved by the Engineering Services Director prior to Construction.**

Approved by:_____
(Engineering Services Director)

Submitted by: Michael Nuckols
(Applicant' Signature)

Date:_____

Michael Nuckols
(Applicant's name printed)

SUNSHINE ONE#_____

City of Winter Haven Engineering Services Division Permit #_____

Note: Attach Applicable Plans as Required

SITE ID: 9FLB004615
TA90XSDQKA
AVE H NE &
10TH ST NE
WINTER HAVEN, FL 33881

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:	AVE H NE & 10TH ST NE
APPLICANT:	MOBILITIE, LLC
APPLICANT ADDRESS:	925B PEACHTREE ST. NE, SUITE 710 ATLANTA, GA 30309 PHONE: (312) 638-5400
LATITUDE:	28° 1' 48.93" N (28.030257)
LONGITUDE:	81° 42' 45.62" W (-81.712672)
LAT/LONG TYPE:	NAD 83
GROUND ELEVATION:	± 152' AMSL
COUNTY:	POLK COUNTY
JURISDICTION:	CITY OF WINTER HAVEN

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



REGIONAL MAP



DIG ALERT

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

TWO WORKING DAYS BEFORE YOU DIG

PROJECT DESCRIPTION

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

- INSTALL PROPOSED BACKHAUL TRANSPORT EQUIPMENT ON AN EXISTING WOOD LIGHT 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 ELEVATIONS
2.1	POLE ELEVATIONS
3.0	ANTENNA & EQUIPMENT MOUNTING DETAILS
3.1	ANTENNA & EQUIPMENT DETAILS
4.0	ELECTRICAL DETAILS
5.0	GROUNDING DETAILS
GN-1	GENERAL NOTES
GN-2	GENERAL NOTES
6.0	TRAFFIC CONTROL PLAN
6.1	TYPICAL PEDESTRIAN / WORKER SAFETY PLAN

ARCHITECT/ENGINEER

JACOBS ENGINEERING GROUP, INC.
5449 BELLS FERRY ROAD
ACWORTH, GA 30102
CONTACT: KARL KRATINA
PROJECT MANAGER
TEL: (678) 480-1418
FAX: (770) 701-2501

mobilitie
925B PEACHTREE ST. NE,
SUITE 710
ATLANTA, GA 30309
PHONE: (312) 638-5400

PROJECT NO:	ER600201
DRAWN BY:	A. AZUCENA
CHECKED BY:	S. BO

A	05.16.16	FOR REVIEW

PRELIMINARY

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TA90XSDQKA
9FLB004615
AVE H NE &
10TH ST NE
WINTER HAVEN, FL 33881
LIGHT POLE

SHEET TITLE
TITLE SHEET

SHEET NUMBER
0.0



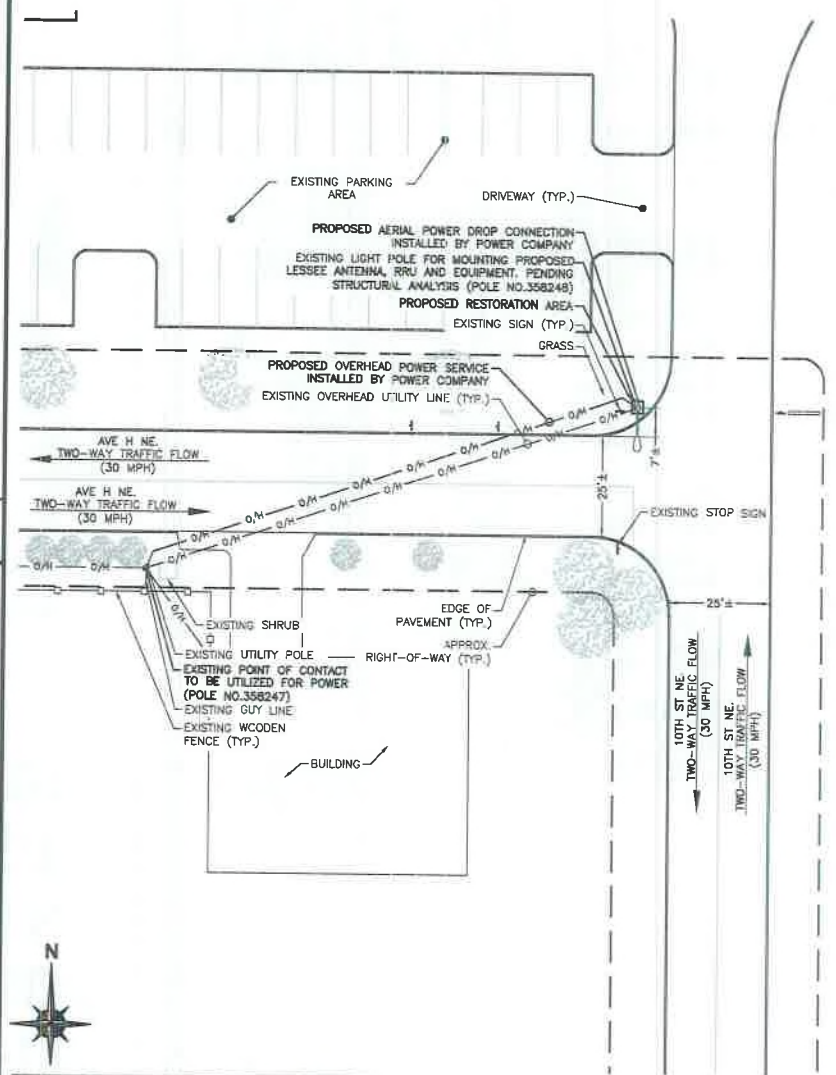
EXHIBIT PHOTO 1

SCALE: NOT TO SCALE



AERIAL SITE LOCATION 2

SCALE: NOT TO SCALE



NOTE:
THIS SITE PLAN WAS GENERATED WITHOUT THE USE OF A SURVEY. PROPERTY 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.

ENLARGED SITE PLAN 3

SCALE: 1"=30'-0" (1"=15'-0" ON 22"x34" SHEET)

mobilitie
925B PEACHTREE ST. NE,
SUITE 710
ATLANTA, GA 30309
PHONE: (312) 638-5400

PROJECT NO:	ER600201
DRAWN BY:	A. AZUCENA
CHECKED BY:	S. BO

A	05.15.15	FOR REVIEW

PRELIMINARY

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TA90XSDQKA
9FLB004615
AVE H NE &
10TH ST NE
WINTER HAVEN, FL 33881
LIGHT POLE

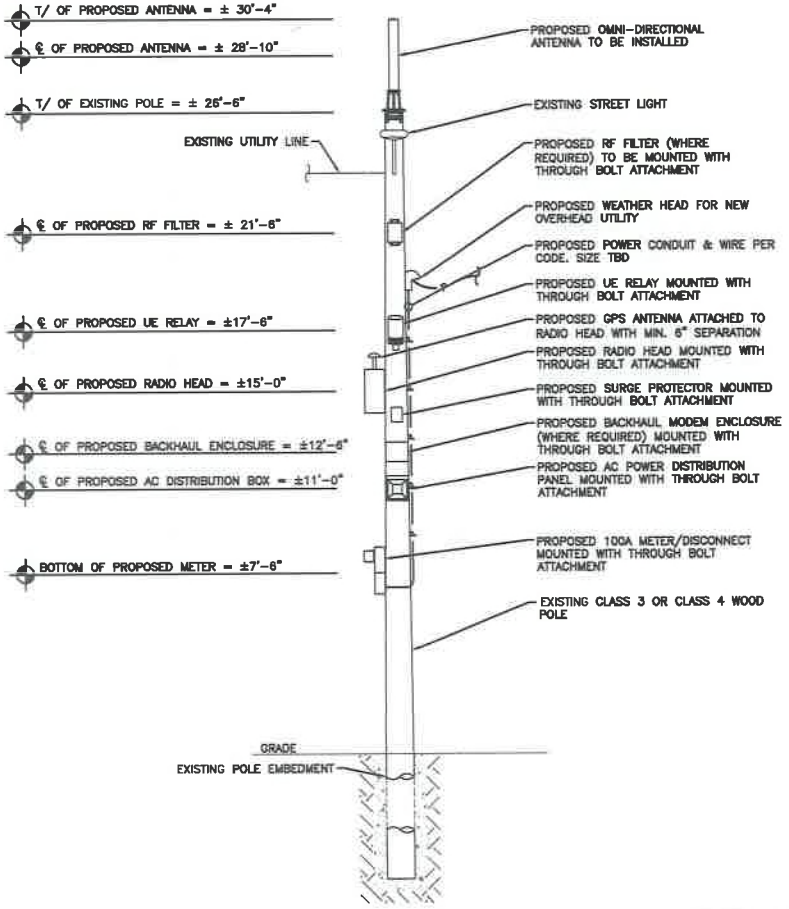
SHEET TITLE

SITE PLAN & EXHIBIT PHOTO

SHEET NUMBER

1.0

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



NOTES:

1. ALL HARDWARE SHALL BE STAINLESS STEEL.
2. ALL CABLES SHALL BE SECURED TO POLE EVERY 36" OR LESS.
3. LIGHTNING RODS SHALL BE INCLUDED AS REQUIRED.
4. STRUCTURAL BACKFILL TO BE COMPACTED IN 8" MAXIMUM LAYERS TO 95% OF CONTENT IN ACCORDANCE WITH ASTM D698. ADDITIONALLY, STRUCTURAL BACKFILL MUST HAVE A MINIMUM COMPACTED UNIT WEIGHT OF 100 POUNDS PER CUBIC FOOT (16kN/m3)

BAND 41 (2500MHz) EQUIPMENT CHART			
QUANTITY	DESCRIPTION	DIMENSIONS (HxWxD)	WEIGHT
1	MOUNTED ANTENNA	35.4" X 4.7" DIAMETER	11 LBS
1	MOUNTED RADIO	20.1" X 9.1" X 8.9"	55.1 LBS
1	GPS ANTENNA	0.8" X 2.6" DIAMETER	0.3 LBS
1	AC DISTRIBUTION	9.25" X 9.5" X 3.81"	14 LBS
1	REJECT FILTER	13.6" X 8.1" X 2.4"	7.7 LBS
1	MOUNTED RELAY	13.0" X 7.9" DIAMETER	9.9 LBS
1	SURGE PROTECTOR	6.44" X 4.69" X 3.5"	TBD

PROPOSED FRONT POLE ELEVATIONS

SCALE: 1" = 5'

1

mobilitie
Intelligent Infrastructure
9258 PEACHTREE ST. NE,
SUITE 710
ATLANTA, GA 30309
PHONE: (312) 638-5400

PROJECT NO:	ER600201
DRAWN BY:	A. AZUCENA
CHECKED BY:	S. BO

A	05.16.16	FOR REVIEW

PRELIMINARY

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TA90XSDQKA
9FLB004615
AVE H NE &
10TH ST NE
WINTER HAVEN, FL 33881
LIGHT POLE

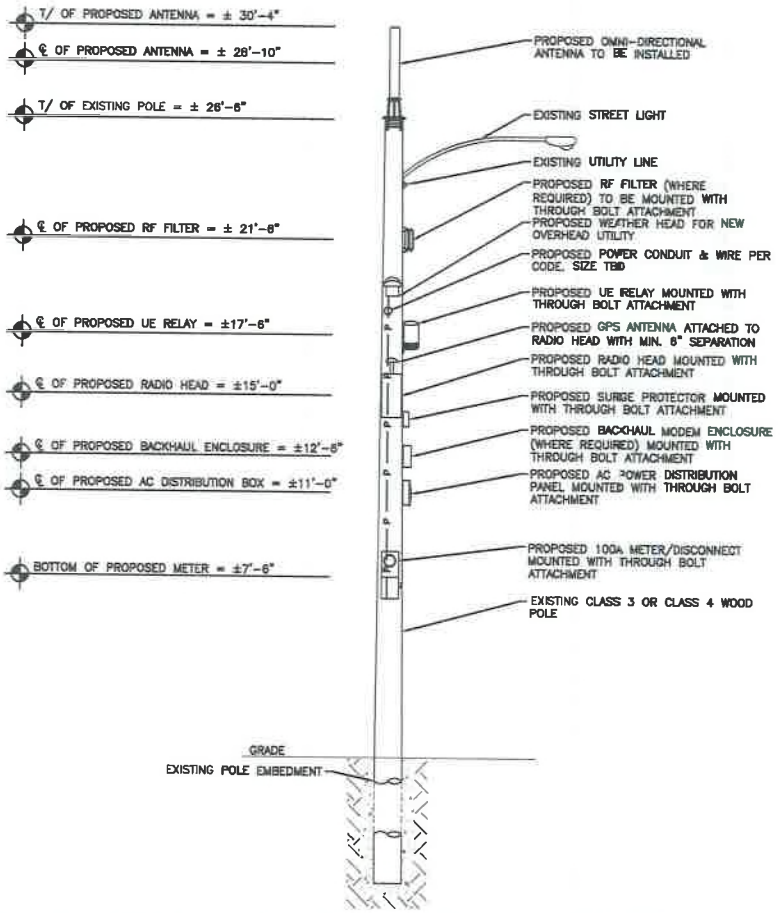
SHEET TITLE

POLE ELEVATIONS

SHEET NUMBER

2.0

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



NOTES:

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3. LIGHTNING RODS SHALL BE INCLUDED AS REQUIRED.
4. STRUCTURAL BACKFILL TO BE COMPACTED IN 8" MAXIMUM LAYERS TO 95% OF CONTENT IN ACCORDANCE WITH ASTM D698. ADDITIONALLY, STRUCTURAL BACKFILL MUST HAVE A MINIMUM COMPACTED UNIT WEIGHT OF 100 POUNDS PER CUBIC FOOT (16kN/m3)

BAND 41 (2500MHz) EQUIPMENT CHART

QUANTITY	DESCRIPTION	DIMENSIONS (HxWxD)	WEIGHT
1	MOUNTED ANTENNA	35.4" X 4.7" DIAMETER	11 LBS
1	MOUNTED RADIO	20.1" X 9.1" X 8.9"	55.1 LBS
1	GPS ANTENNA	0.8" X 2.6" DIAMETER	0.3 LBS
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1	MOUNTED RELAY	13.0" X 7.9" DIAMETER	9.9 LBS
1	SURGE PROTECTOR	6.44" X 4.88" X 3.5"	TBD

PROPOSED SIDE POLE ELEVATION

SCALE: 1" = 5'

1

mobilitie
intelligent infrastructure
925B PEACHTREE ST. NE,
SUITE 710
ATLANTA, GA 30309
PHONE: (312) 638-5400

PROJECT NO:	ER600201
DRAWN BY:	A. AZUCENA
CHECKED BY:	S. BO

A	05.11.16	FOR REVIEW

PRELIMINARY

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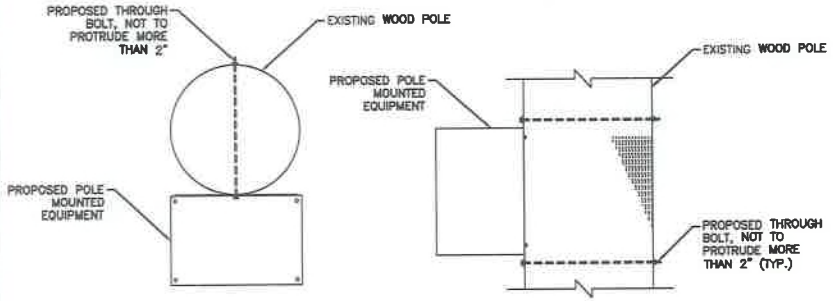
TA90XSDQKA
9FLB004615
AVE H NE &
10TH ST NE
WINTER HAVEN, FL 33881
LIGHT POLE

SHEET TITLE

POLE ELEVATIONS

SHEET NUMBER

2.1



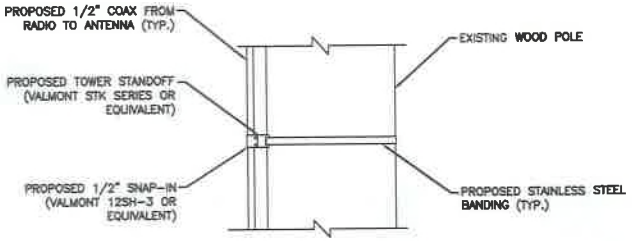
TOP VIEW

SIDE VIEW

EQUIPMENT MOUNTING DETAIL

SCALE: NOT TO SCALE

1

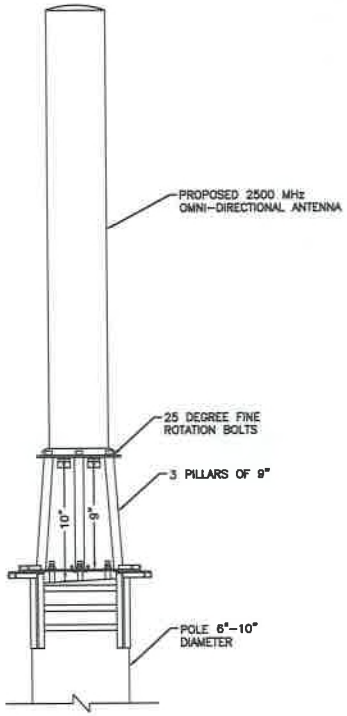


NOTE:
SPACE SNAP-INS PER CABLE MANUFACTURER'S SPECIFICATIONS

CABLE MOUNTING DETAIL

SCALE: NOT TO SCALE

2



SIDE VIEW

NOTE:

1. MOUNTING BRACKET ACCOMMODATES POLE SIZES FROM 6" TO 10" DIAMETER.
2. MOUNTING BRACKET MAY BE USED FOR WOOD, CONCRETE & STEEL POLES.
3. JACOBS 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

mobilitie
intelligent infrastructure
925B PEACHTREE ST. NE,
SUITE 710
ATLANTA, GA 30309
PHONE: (312) 638-5400

PROJECT NO:	ER600201
DRAWN BY:	A. AZUCENA
CHECKED BY:	S. BO

A	05.18.10	FOR REVIEW

PRELIMINARY

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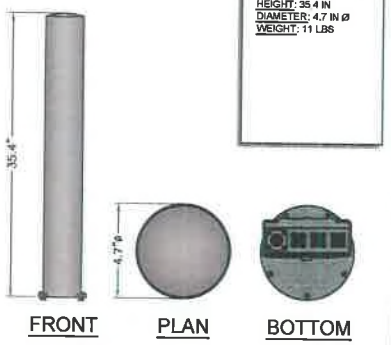
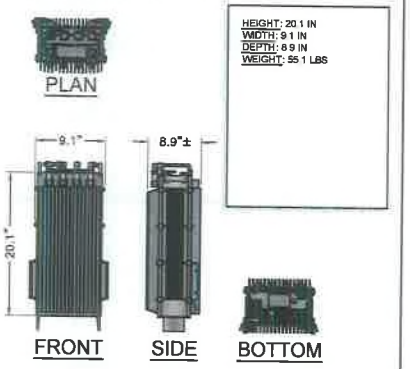
TA90XSDQKA
9FLB004615
AVE H NE &
10TH ST NE
WINTER HAVEN, FL 33881
LIGHT POLE

SHEET TITLE
ANTENNA & EQUIPMENT MOUNTING DETAILS

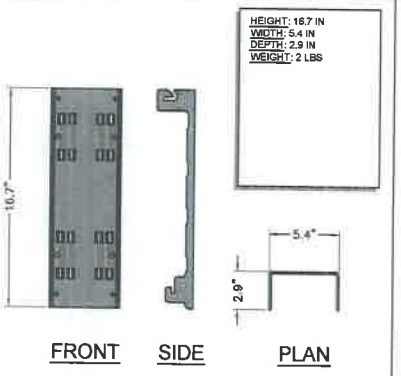
SHEET NUMBER
3.0



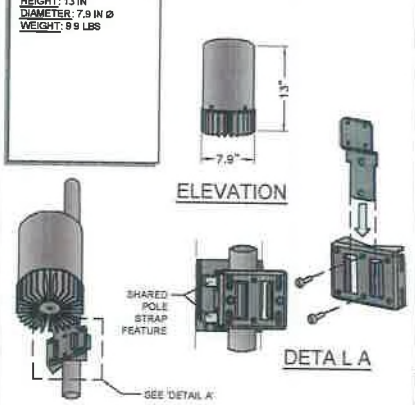
MOUNTED ANTENNA SCALE N.T.S. 1



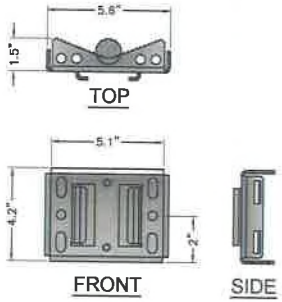
MOUNTED RADIO SCALE N.T.S. 2



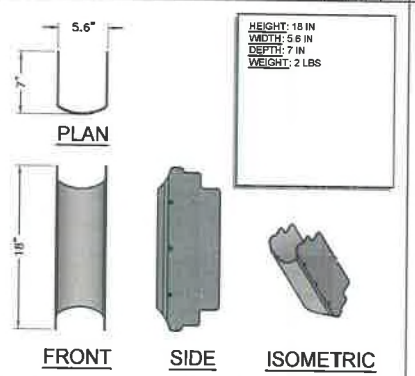
RADIO MOUNT SCALE N.T.S. 3



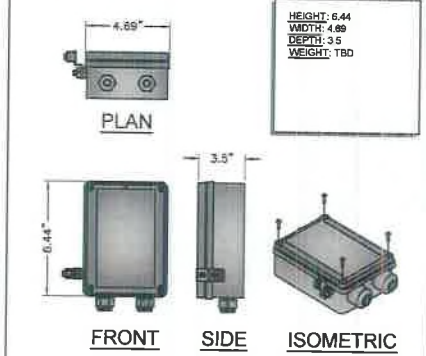
RELAY MOUNTING BRACKET



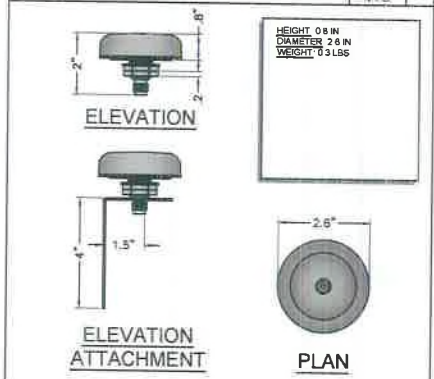
MOUNTED RELAY SCALE N.T.S. 4



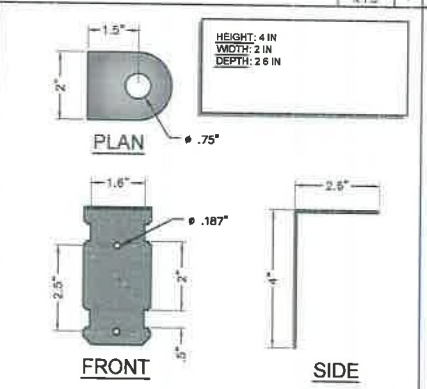
RADIO SUN SHIELD SCALE N.T.S. 5



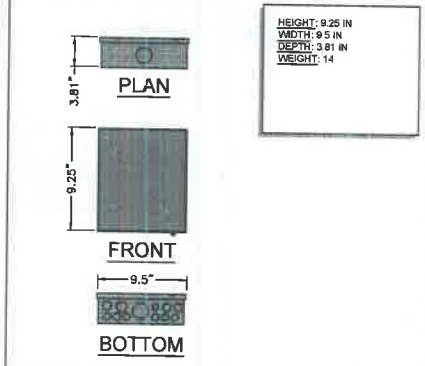
SURGE PROTECTOR SCALE N.T.S. 6



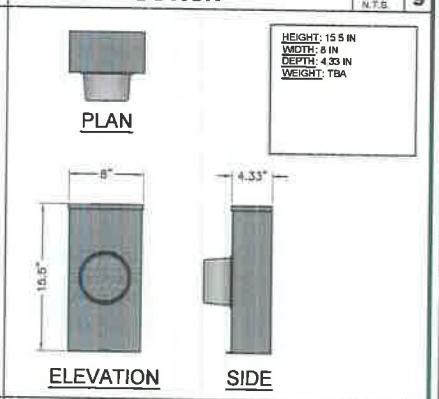
GPS ANTENNA SCALE N.T.S. 7



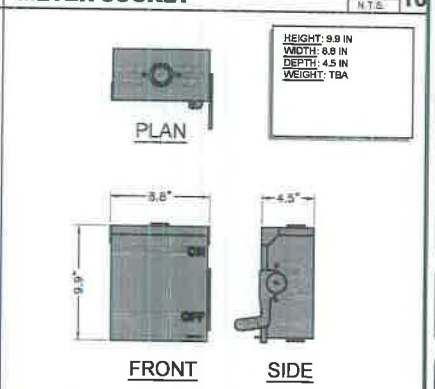
GPS MOUNTING SCALE N.T.S. 8



AC DISTRIBUTION SCALE N.T.S. 9



METER SOCKET SCALE N.T.S. 10



DISCONNECT SCALE N.T.S. 11

mobilitie
intelligent infrastructure
925B PEACHTREE ST. NE,
SUITE 710
ATLANTA, GA 30309
PHONE: (312) 638-5400

PROJECT NO:	ER800201
DRAWN BY:	A. AZUCENA
CHECKED BY:	S. BO

A	05.16.16	FOR REVIEW

PRELIMINARY

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

TA90XSDQKA
9FLB004615
AVE H NE &
10TH ST NE
WINTER HAVEN, FL 33881
LIGHT POLE

SHEET TITLE
ANTENNA & EQUIPMENT 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:

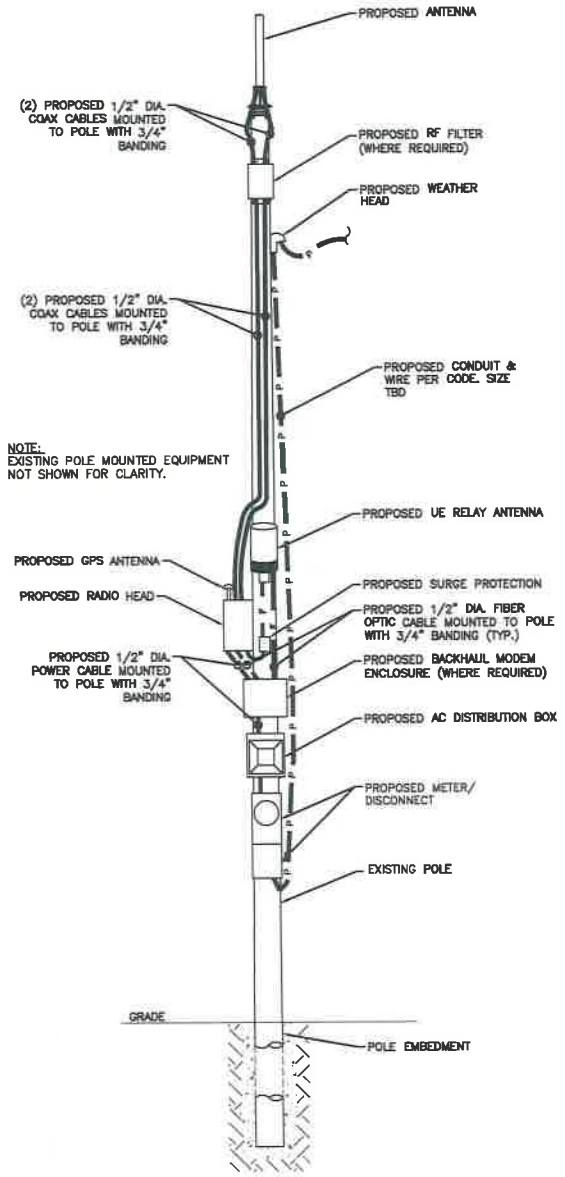
1. WIRING OF EVERY KIND MUST BY INSTALLED IN CONDUIT, UNLESS NOTED OTHERWISE, OR AS APPROVED BY THE ARCHITECT/ENGINEER.
2. UNLESS OTHERWISE SPECIFIED, ALL WIRING SHALL BE COPPER (CU) TYPE THWN, SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL CODES.
3. RACEWAYS SHALL BE GALVANIZED STEEL, 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:

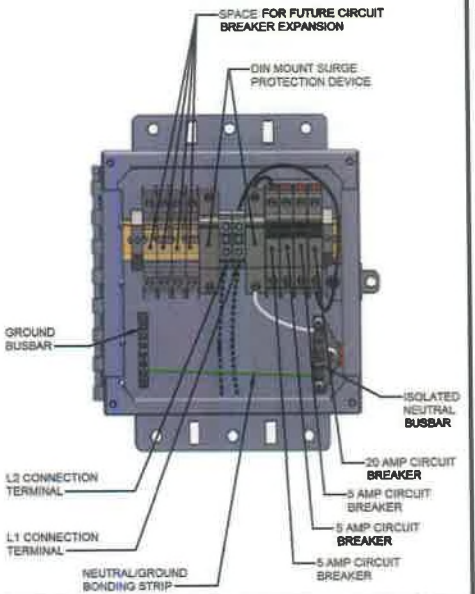
SEE DETAILS, SCHEDULES AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND INFORMATION. CHECK ARCHITECTURAL, STRUCTURAL, AND OTHER MECHANICAL AND ELECTRICAL DRAWINGS FOR SCALE, SPACE LIMITATIONS, COORDINATION, AND ADDITIONAL INFORMATION, ETC. REPORT ANY DISCREPANCIES, CONFLICTS, ETC. TO ARCHITECT/ENGINEER 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.



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



CABLING DIAGRAM — 1

SCALE: NOT TO SCALE

mobilitie
intelligent infrastructure
9258 PEACHTREE ST. NE,
SUITE 710
ATLANTA, GA 30309
PHONE: (312) 638-5400

PROJECT NO:	ER500201
DRAWN BY:	A. AZUCENA
CHECKED BY:	S. BO

A	05.16.16	FOR REVIEW

PRELIMINARY

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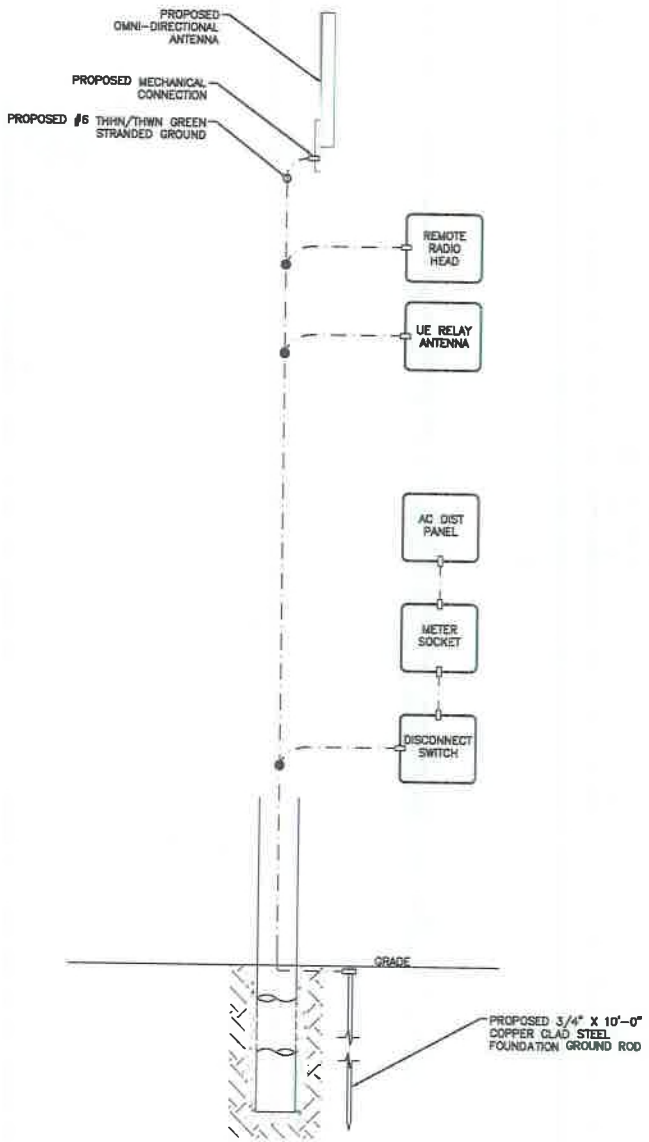
TA90XSDQKA
9FLB004615
AVE H NE &
10TH ST NE
WINTER HAVEN, FL 33881
LIGHT POLE

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

mobilitie
925B PEACHTREE ST. NE,
SUITE 710
ATLANTA, GA 30309
PHONE: (312) 838-5400

PROJECT NO:	ER600201
DRAWN BY:	A AZUCENA
CHECKED BY:	S BO

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TA90XSDQKA
9FLB004615
AVE H NE &
10TH ST NE
WINTER HAVEN, FL 33881
LIGHT 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.

mobilitie
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A	05.18.18	FOR REVIEW

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TA90XSDQKA
9FLB004615
AVE H NE &
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WINTER HAVEN, FL 33881
LIGHT 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 "IAKE" 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.

mobilitie
intelligent infrastructure
925B PEACHTREE ST. NE,
SUITE 710
ATLANTA, GA 30309
PHONE: (312) 638-5400

PROJECT NO:	ER500201
DRAWN BY:	A. AZUCENA
CHECKED BY:	S BO

A	05.16.18	FOR REVIEW

PRELIMINARY

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

TA90XSDQKA
9FLB004615
AVE H NE &
10TH ST NE
WINTER HAVEN, FL 33881
LIGHT POLE

SHEET TITLE

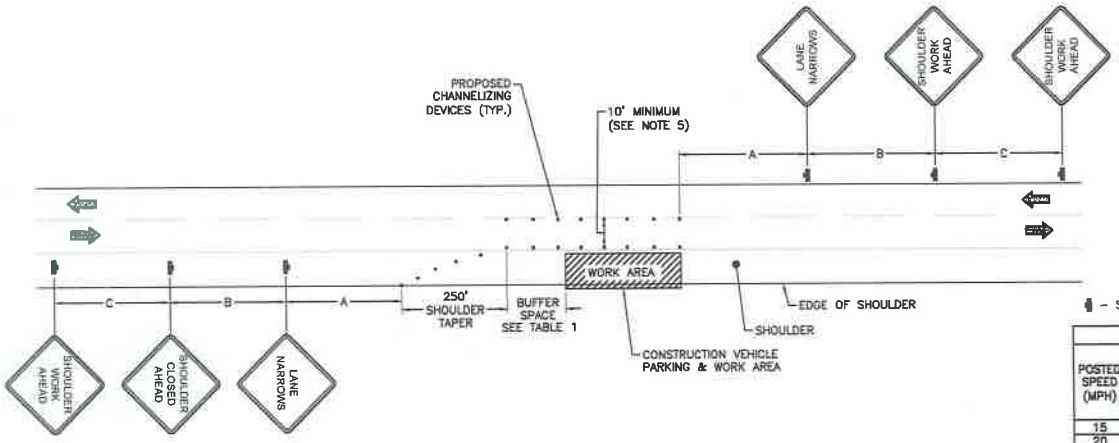
GENERAL NOTES

SHEET NUMBER

GN-2

PLAN NOTES:

1. PLANS DEPICTED ARE GENERAL GUIDELINES FOR TEMPORARY TRAFFIC CONTROL PLANS (TCP) TO INCLUDE PEDESTRIAN AND WORKER SAFETY. CONTRACTOR IS REQUIRED TO HAVE PREPARED A SITE-SPECIFIC TCP FOR REVIEW AND APPROVAL BY THE HIGHWAY AUTHORITY HAVING JURISDICTION. IF REQUIRED, THE FIRM PREPARING THE TCP SHALL BE AUTHORIZED OR CERTIFIED BY THE AUTHORITY HAVING JURISDICTION.
2. EXTEND CHANNELIZATION DEVICES INTO SHOULDER WHERE APPLICABLE.
3. DISTANCES AS INDICATED IN TABLE 1 SHOULD BE INCREASED FOR CONDITIONS THAT WOULD AFFECT STOPPING DISTANCE SUCH AS DOWNGRADES OR LIMITED SIGHT DISTANCES. DISTANCES CAN BE DECREASED FOR LOW-SPEED (RESIDENTIAL) AREAS WITH APPROVAL BY THE AUTHORITY HAVING JURISDICTION. NIGHT-TIME WORK IS PROHIBITED UNLESS IT IS REQUIRED AS A CONDITION OF APPROVAL BY THE HIGHWAY AND LOCAL AUTHORITY HAVING JURISDICTION.
4. SHOULDER TAPERS SHOULD BE 1/3 OF THE ON-STREET TAPER LENGTH.
5. MAINTAIN A MINIMUM LANE WIDTH OF 10'.
6. THIS LAYOUT APPLIES TO SPEEDS 55 MPH OR LESS.



– SIGN

TABLE 1

POSTED SPEED (MPH)	DISTANCE BETWEEN SIGNS			TAPER	BUFFER
	A	B	C	L (SEE NOTE)	
15	100'	100'	100'	45'	100'
20	100'	100'	100'	80'	115'
25	100'	100'	100'	125'	155'
30	200'	200'	200'	180'	200'
35	200'	200'	200'	245'	250'
40	350'	350'	350'	320'	305'
45	350'	350'	350'	540'	360'
50	500'	500'	500'	600'	425'
55	500'	500'	500'	660'	495'
60	500'	500'	500'	720'	570'
65	500'	500'	500'	780'	645'

NOTES:

A) DISTANCES IN FEET UNLESS OTHERWISE NOTED.
B) CONTRACTOR TO VERIFY EXISTING SPEED LIMIT.
C) DISTANCES SHOWN ARE NOT VALID FOR LIMITED ACCESS HIGHWAYS. CONSULT STATE DOT MANUAL FOR DISTANCES.
D) ADJUST DISTANCES TO COMPLY WITH REQUIREMENT OF THE STATE OR LOCAL HIGHWAY AUTHORITY HAVING JURISDICTION. SEE NOTE 1, SHEET 6.1.
E) TAPER LENGTHS SHOWN BASED ON 12' LANE WIDTH. SEE NOTE 18, SHEET 6.1.

TRAFFIC CONTROL PLAN - SHOULDER WORK | 1

SCALE: NOT TO SCALE

mobilitie
intelligent infrastructure
925B PEACHTREE ST. NE,
SUITE 710
ATLANTA, GA 30309
PHONE: (312) 638-5400

PROJECT NO:	ER800201
DRAWN BY:	A. AZUCENA
CHECKED BY:	S. BO

A	05.16.18	FOR REVIEW

PRELIMINARY

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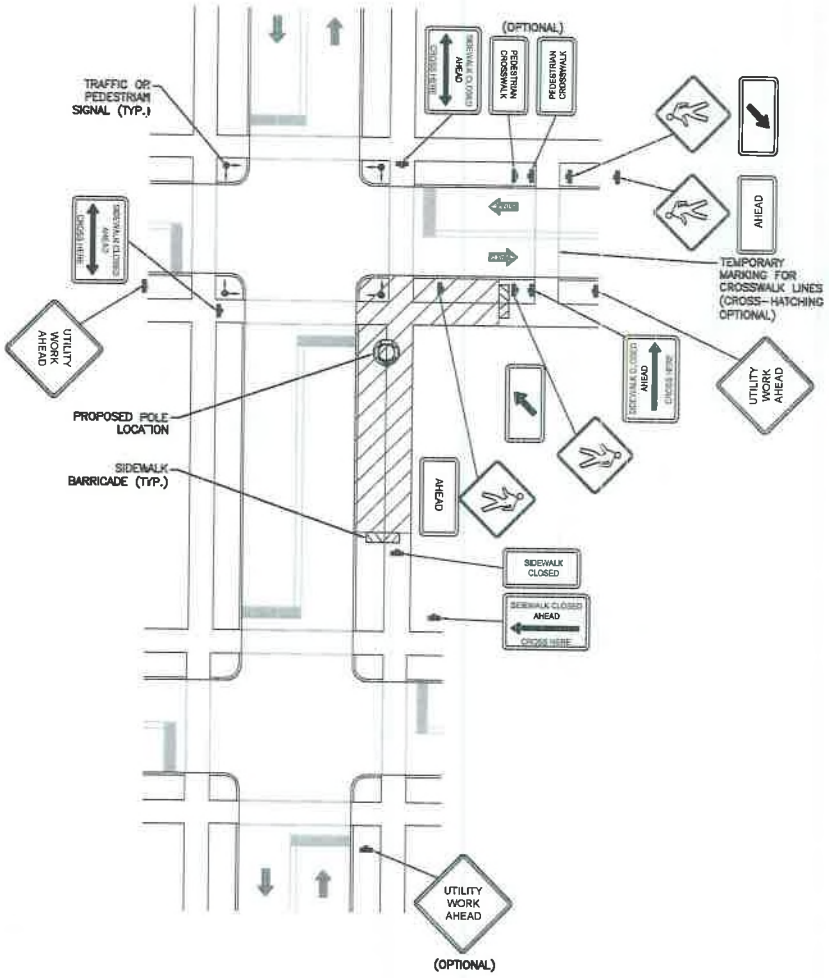
TA90XSDQKA
9FLB004615
AVE H NE &
10TH ST NE
WINTER HAVEN, FL 33881
LIGHT POLE

SHEET TITLE
TRAFFIC CONTROL PLAN

SHEET NUMBER
6.0

TRAFFIC CONTROL GENERAL NOTES

1. ALL TEMPORARY TRAFFIC CONTROL SIGNAGE, LAYOUTS AND PROCEDURES SHALL COMPLY WITH LOCAL JURISDICTIONAL REQUIREMENTS AND MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION, WHICHEVER IS MORE STRINGENT.
2. PRIOR TO ANY ROAD CONSTRUCTION, TRAFFIC CONTROL SIGNS AND DEVICES SHALL BE IN PLACE.
3. TRAFFIC CONTROL DEVICES FOR LANE CLOSURES INCLUDING SIGNS, CONES, 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.
4. SELECTION, PLACEMENT, MAINTENANCE, AND PROTECTION OF TRAFFIC, PEDESTRIANS, AND WORKERS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) – PART VI "TEMPORARY TRAFFIC CONTROL", AND LOCAL JURISDICTIONAL REQUIREMENTS UNLESS OTHERWISE NOTED IN THE PLANS AND SPECIFICATIONS, AND SHALL BE APPROVED BY THE APPROPRIATE HIGHWAY AUTHORITY HAVING JURISDICTION.
5. ADVANCE WARNING SIGNS, DISTANCES, AND TAPER LENGTHS MAY BE EXTENDED TO ADJUST FOR REDUCED VISIBILITY DUE TO HORIZONTAL AND VERTICAL CURVATURE OF THE ROADWAY AND FOR ACTUAL TRAFFIC SPEEDS IF IN EXCESS OF POSTED SPEED LIMITS.
6. TAPERS SHALL BE LOCATED TO MAXIMIZE THE VISIBILITY OF THEIR TOTAL LENGTH.
7. CONFLICTING OR NON-OPERATING SIGNAL INDICATIONS ON THE EXISTING TRAFFIC SIGNAL SYSTEMS SHALL BE BAGGED OR COVERED.
8. 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. ALL TRAFFIC CONTROL DEVICES SHALL BE RESTORED TO MATCH PRE-CONSTRUCTION CONDITION AFTER COMPLETION OF WORK.
9. CONTRACTOR SHALL CONTACT LOCAL AUTHORITY HAVING HIGHWAY JURISDICTION AND PROVIDE ADDITIONAL "FLAGMEN" OR POLICE SUPERVISION, IF REQUIRED.
10. ALL EXCAVATED AREAS WITHIN OR ADJACENT TO THE ROADWAY SHALL BE BACKFILLED AND PLACED ON A MINIMUM 6H:1V SLOPE PRIOR TO END OF EACH WORK DAY. OTHER EXCAVATED AREAS WITHIN THE CLEAR ZONE ARE TO BE EITHER BACKFILLED OR PRECAST CONCRETE CURB BARRIER CONSTRUCTION BARRIER SET TEMPORARILY IN PLACE TO SHIELD VEHICULAR AND PEDESTRIAN TRAFFIC.
11. WHERE DICTATED BY LOCAL CONDITIONS, THE CONTRACTOR SHALL MAKE PROVISIONS FOR MAINTAINING PEDESTRIAN AND WORKER CROSSING LOCATIONS IN ACCORDANCE WITH ALL APPLICABLE CODES AND OSHA REQUIREMENTS.
12. CONSTRUCTION ZONE SPEED LIMIT IF REDUCED FROM POSTED LIMITS SHALL BE IN ACCORDANCE WITH MUTCD AND WILL BE DETERMINED BY THE AUTHORITY HAVING JURISDICTION.
13. THERE SHALL BE NO WORKERS, EQUIPMENT, OR OTHER VEHICLES IN THE BUFFER SPACE OR THE ROLL AHEAD SPACE.
14. DRIVEWAYS AND/OR SIDE STREETS ENTERING THE ROADWAY AFTER THE FIRST ADVANCE WARNING SIGN SHALL BE PROVIDED WITH AT LEAST ONE W20-1 SIGN (ROAD WORK AHEAD) AS A MINIMUM.
15. CONES MAY BE SUBSTITUTED FOR DRUMS AND INSTALLED UPON THE APPROVAL OF THE AUTHORITY HAVING JURISDICTION PROVIDED THEY COMPLY WITH MUTCD.
16. THE SPACING BETWEEN CONES, TUBULAR MARKERS, VERTICAL PANELS, DRUMS, AND BARRICADES SHOULD NOT EXCEED A DISTANCE IN FEET EQUAL TO 1.0 TIMES THE SPEED LIMIT IN MPH WHEN USED FOR TAPER CHANNELIZATION, AND A DISTANCE IN FEET EQUAL TO 2.0 TIMES THE SPEED LIMIT IN MPH WHEN USED FOR TANGENT CHANNELIZATION.
17. WHEN CHANNELIZATION DEVICES HAVE THE POTENTIAL OF LEADING VEHICULAR TRAFFIC OUT OF THE INTENDED VEHICULAR TRAFFIC SPACE, THE CHANNELIZATION DEVICES SHOULD BE EXTENDED A DISTANCE IN FEET OF 2.0 TIMES THE SPEED LIMIT IN MPH BEYOND THE DOWNSTREAM END OF THE TRANSITION AREA.
18. TAPER LENGTHS ARE CALCULATED AS FOLLOWS:
    L= WS²/60 (40 MPH AND HIGHER) OR L2= WS (OVER 40 MPH).
    WHERE W= OFFSET WIDTH (FT), S= TRAFFIC SPEED (MPH).



TYPICAL PEDESTRIAN / WORKER SAFETY PLAN | 1

SCALE: NOT TO SCALE

mobilitie
intelligent infrastructure
925B PEACHTREE ST. NE,
SUITE 710
ATLANTA, GA 30309
PHONE: (312) 638-5400

PROJECT NO:	ER600201
DRAWN BY:	A AZUCENA
CHECKED BY:	S BO

A	05.16.18	FOR REVIEW

PRELIMINARY

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TA90XSDQKA
9FLB004615
AVE H NE &
10TH ST NE
WINTER HAVEN, FL 33881
LIGHT POLE

SHEET TITLE

TYPICAL PEDESTRIAN / WORKER SAFETY PLAN

SHEET NUMBER

6.1

9FLX002223

CITY OF WINTER HAVEN

Engineering Services Division
490 3rd Street N.W. 33881
Phone 863-291-5851

USE PERMIT

Street Name Ave C NW Date June 9, 2016

Located between 2nd Street NW, Street and 1st Terrace NW Street

Permission Granted to Mobilitie, LLC Phone number - 727-512-5599

For construction and maintenance of End user proposes to install a 120' new pole within an existing ROW.

Scope of work: Install a new pole with proposed backhaul transport equipment.

This permit is subject to the following conditions:

1. The construction and maintenance of such utility shall not interfere with the property and the rights of a prior occupant.

2. All work shall be done in keeping with standards established by the Engineering Services Director and under the supervision of Mike Foster, City Construction Inspector, Phone (863) 291-5850, Cell (863) 287-2727.

3. All material and equipment shall be subject to inspection by a representative of the Engineering Services Director.

4. Construction shall be performed in a safe manner and in accordance with the regulations of OSHA, USDA and other applicable agencies. The City shall be relieved of all responsibilities for damages of any nature arising from this permit. Subject to the above terms and conditions, the permittee shall take such safety measures, including placing and display of caution signs, as good practice dictates in conduct of construction and maintenance work herein described.

5. The permittee shall provide for safe pedestrian traffic throughout the construction time. Where existing sidewalks and other walkways exist prior to this work, they or safe alternate trafficable ways, shall be maintained.

6. All city property shall be restored to its original condition to the satisfaction of the Engineering Services Director and/ or his authorized representative.

7. The applicant shall indemnify, defend, and hold harmless the City from and against any and all claims, suits, actions, judgments, demands, taxes, losses, costs, expenses, damages, and liability caused by, resulting from, or arising out of the negligent acts, errors, or omissions of the applicant, its officers, employees, agents, or representatives that may occur by reason of this construction.

8. The attached sketch covering details of this construction shall be made a part of this permit.

9. The applicant, at a minimum, shall obtain insurance coverage for specific risks and in such amounts and with insurers as determined acceptable by the City. Any such insurance coverage(s) required by the City shall represent the minimum amount of coverage required. The applicant, at its sole cost, shall obtain insurance coverage(s) as follows:

   a. Workers' Compensation/Employer's Liability:
      - For each accident ($5,000,000.00)
      - Disease – Policy Limit ($5,000,000.00)
      - Disease – Each Employee ($5,000,000.00)

   b. Commercial General Liability ("CGL"):
      - For each occurrence ($5,000,000.00)
      - General Aggregate ($5,000,000.00)
      - Products/Completed Operations Aggregate ($5,000,000.00)
      - Personal and Advertising Injury ($5,000,000.00)

   c. Business Automobile Policy:
      - Each occurrence and bodily injury and property damage liability combined ($5,000,000.00)

10. It is expressly stipulated that this permit is a license for permissive use only and that placing of facility upon public property pursuant to this permit shall not operate to create or to vest any property in the permittee or his client.

Pursuant to section 337.403(1), Florida statutes, whenever necessary for the construction, repair, improvement maintenance, safe and efficient operation, alteration or relocation of all, or any portion of said Transportation Facility/City Property as determined by the Engineering Services Director, any or all utilities and appurtenances authorized here under or any shall be immediately removed from said Transportation Facility/City Property or reset or relocate thereon as requested by the Engineering Services Director and at the expense of the Permittee.

11. The permittee shall commence actual construction in good faith on TBD and shall complete the construction within 7 days. This permit shall be void if the work is not started within sixty (60) days from date of said permit.

12. Applicant declares that prior to filling out the application he has ascertained the location of all existing utilities, both aerial and underground. Applicant also declares that all other utilities within the area were notified and that he is including a notification copy with this permit application. List the name of the Utility, Date, and the authorized Contact person from each Utility that were contacted: Mobilitie, LLC will send all required utility notification letters, and proof of such notification, when Mobilitie's project to install utility poles within the City's rights-of-way has been spproved by the City.

13. Notify the Engineering Services Division (863) 291-5851 a minimum of 48 hours prior to the commencement of construction. A SUNSHINE ONE number must be provided at this time. Failure to provide proper notification may result in the stoppage of work. **Notify the Engineering Services Division the day construction actually commences.**

14. If the applicant transfers or assigns its assets located within the City's right-of-way, the transferee or assignee shall be obligated to comply with the terms of this Use Permit and any and all applicable provisions of the WHC.

15. Nothing herein is intended to waive the City's sovereign immunity or the limits of its liability under Section 768.28 of the Florida Statutes regardless of whether such claims are based on contract, statute, tort, strict liability, product liability, negligence or otherwise.

16. **The use of missiles is limited and must be approved by the Engineering Services Director prior to Construction.**

Approved by:_____
(Engineering Services Director)

Submitted by: Michael Nuckols
(Applicant' Signature)

Date:_____

Michael Nuckols
(Applicant's name printed)

SUNSHINE ONE#_____

City of Winter Haven Engineering Services Division Permit #_____

Note: Attach Applicable Plans as Required

9FLX002223A

28.025009, -81.728178

Winter Haven, FL 33881

811

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

SITE INFORMATION

POLE ID:	9FLX002223A
LATITUDE:	28.025009
LONGITUDE:	-81.728178
ADDRESS/CROSS STREET:	
CITY, STATE ZIP:	Winter Haven, FL 33881
PROPERTY OWNER	PUBLIC RIGHT-OF-WAY
APPLICANT	FL Network Transport, LLC
APPLICANT ADDRESS	925B Peachtree St. NE, Suite 710 Atlanta, GA 30309

DO NOT SCALE DRAWINGS

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

LOCATION MAPS

NORTH

VICINITY MAP



REGIONAL MAP



PROJECT DESCRIPTION

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

1. INSTALL PROPOSED 120' UTILITY POLE

CODES

2015 INTERNATIONAL BUILDING CODE
2014 NATIONAL ELECTRICAL CODE

SHEET INDEX

SHEET #	SHEET DESCRIPTION
0.0	TITLE SHEET
1.0	EXHIBIT PHOTO & SITE PLAN
2.0	UTILITY POLE ELEVATIONS
3.0	ELECTRICAL

ENGINEER

FL Network Transport, LLC

PROJECT NUMBER:	9FLX002223A
DRAWN BY:	####
CHECKED BY:	####

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SITE INFORMATION

9FLX002223A
28.025009,-81.728178
Winter Haven, FL 33881

UTILITY POLE

SHEET TITLE

TITLE SHEET

SHEET NUMBER

0.0



1 EXHIBIT PHOTO – GENERIC (NOT SITE SPECIFIC)
SCALE: N.T.S.



2 AERIAL SITE LOCATION
SCALE: N.T.S.

NOTE:
THIS SITE PLAN WAS GENERATED WITHOUT THE USE OF A SURVEY. PROPERTY LINES, POWER & TELCO UTILITY PINT CONNECTIONS/ROUTES AND EASEMENTS SHOWN ON THESE PLANS ARE ESTIMATED.

TRUE NORTH

NOTE:
PROPOSED 120'0" POLE IN THE R.O.W.
R.O.W. BOUNDARIES TO BE CONFIRMED AFTER SURVEY



3 ENLARGED SITE PLAN
SCALE: N.T.S.

FL Network Transport, LLC

PROJECT NUMBER: 9FLX002223A
DRAWN BY: ####
CHECKED BY: ####

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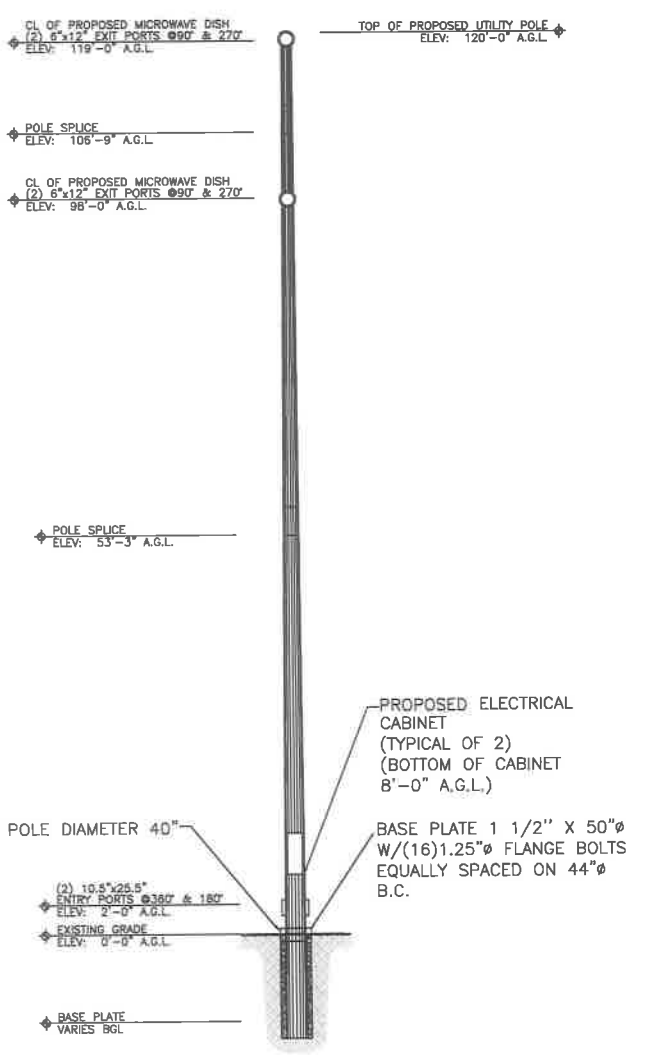
SITE INFORMATION
9FLX002223A
28.025009,-81.728178
Winter Haven, FL 33881

UTILITY POLE

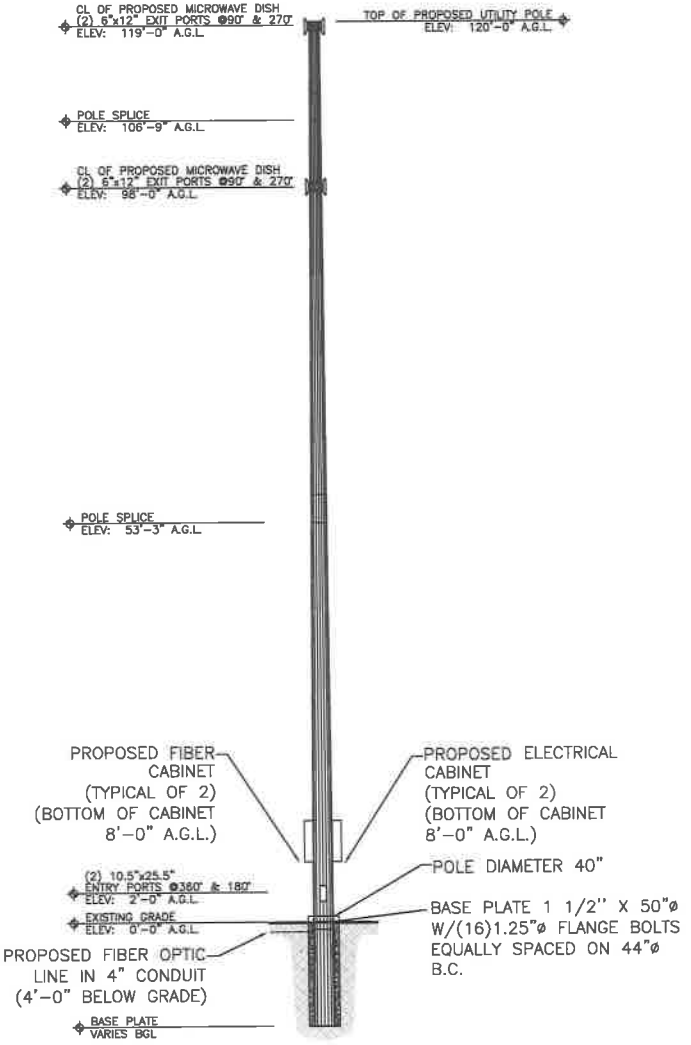
SHEET TITLE
EXHIBIT PHOTO & ENLARGED SITE PLAN

SHEET NUMBER
1.0



1 FRONT UTILITY POLE ELEVATION
SCALE: 0.010399

GRAPHIC SCALE: 1/8"=1'-0"



1 SIDE UTILITY POLE ELEVATION
SCALE: 1/8" = 1'-0"

GRAPHIC SCALE: 1/8"=1'-0"

FL Network Transport, LLC

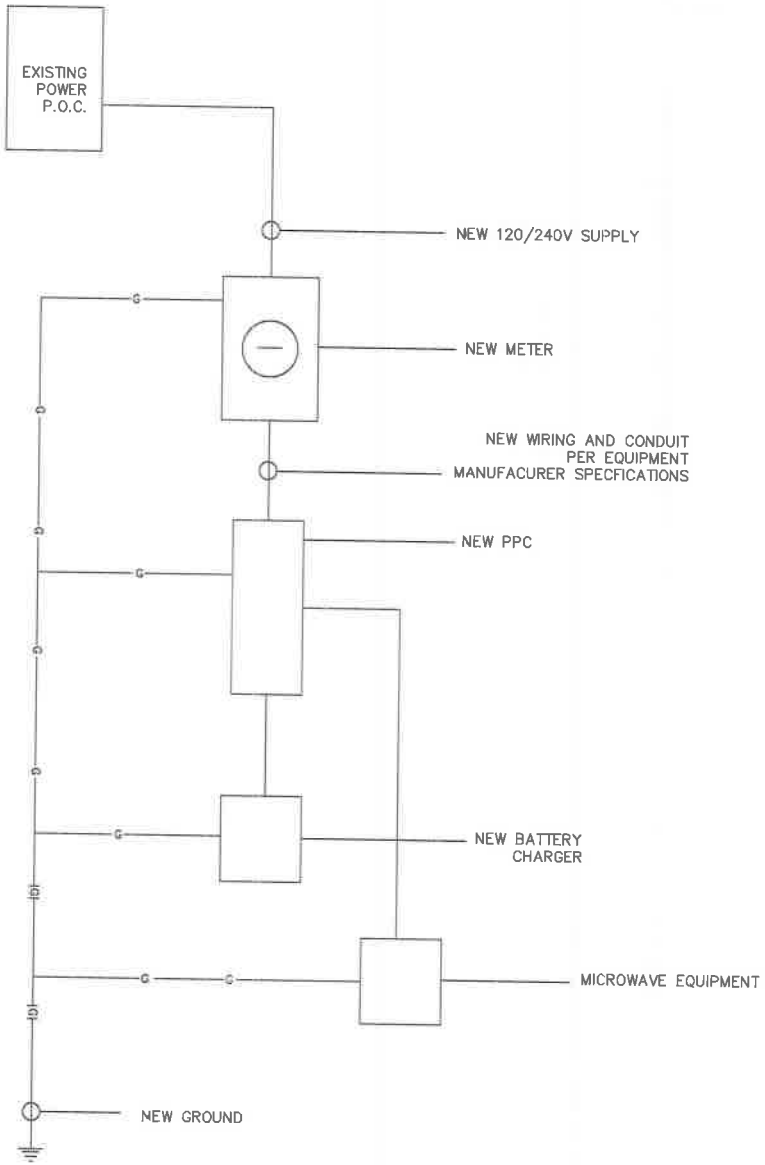
PROJECT NUMBER:	9FLX002223A
DRAWN BY:	####
CHECKED BY:	####

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 INFORMATION:
9FLX002223A
28.025009,-81.728178
Winter Haven, FL 33881
UTILITY POLE

SHEET TITLE
UTILITY POLE ELEVATIONS

SHEET NUMBER
2.0



ONE LINE DIAGRAM

FL Network Transport, LLC

PROJECT NUMBER:	9FLX002223A
DRAWN BY:	####
CHECKED BY:	####

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SITE INFORMATION

9FLX002223A
28.025009,-81.728178
Winter Haven, FL 33881

UTILITY POLE

SHEET TITLE

ELECTRICAL

SHEET NUMBER

3.0

CITY OF WINTER HAVEN

Engineering Services Division
490 3rd Street N.W. 33881
Phone 863-291-5851

USE PERMIT

Site Location: 28.004107-81.716575

Street Name Cypress Gardens Blvd Date June 9, 2016

Located between 6th Street SE, Street and 8th Street SE Street

Permission Granted to Mobilitie, LLC Phone number - 727-512-5599

For construction and maintenance of End user proposes to install equipment on a new pole within an existing ROW.

Scope of work: Install a new pole with proposed backhaul transport equipment.

This permit is subject to the following conditions:

1. The construction and maintenance of such utility shall not interfere with the property and the rights of a prior occupant.

2. All work shall be done in keeping with standards established by the Engineering Services Director and under the supervision of Mike Foster, City Construction Inspector, Phone (863) 291-5850, Cell (863) 287-2727.

3. All material and equipment shall be subject to inspection by a representative of the Engineering Services Director.

4. Construction shall be performed in a safe manner and in accordance with the regulations of OSHA, USDA and other applicable agencies. The City shall be relieved of all responsibilities for damages of any nature arising from this permit. Subject to the above terms and conditions, the permittee shall take such safety measures, including placing and display of caution signs, as good practice dictates in conduct of construction and maintenance work herein described.

5. The permittee shall provide for safe pedestrian traffic throughout the construction time. Where existing sidewalks and other walkways exist prior to this work, they or safe alternate trafficable ways, shall be maintained.

6. All city property shall be restored to its original condition to the satisfaction of the Engineering Services Director and/ or his authorized representative.

7. The applicant shall indemnify, defend, and hold harmless the City from and against any and all claims, suits, actions, judgments, demands, taxes, losses, costs, expenses, damages, and liability caused by, resulting from, or arising out of the negligent acts, errors, or omissions of the applicant, its officers, employees, agents, or representatives that may occur by reason of this construction.

8. The attached sketch covering details of this construction shall be made a part of this permit.

9. The applicant, at a minimum, shall obtain insurance coverage for specific risks and in such amounts and with insurers as determined acceptable by the City. Any such insurance coverage(s) required by the City shall represent the minimum amount of coverage required. The applicant, at its sole cost, shall obtain insurance coverage(s) as follows:

   a. Workers' Compensation/Employer's Liability:
      - For each accident ($5,000,000.00)
      - Disease – Policy Limit ($5,000,000.00)
      - Disease – Each Employee ($5,000,000.00)

   b. Commercial General Liability ("CGL"):
      - For each occurrence ($5,000,000.00)
      - General Aggregate ($5,000,000.00)
      - Products/Completed Operations Aggregate ($5,000,000.00)
      - Personal and Advertising Injury ($5,000,000.00)

   c. Business Automobile Policy:
      - Each occurrence and bodily injury and property damage liability combined ($5,000,000.00)

10. It is expressly stipulated that this permit is a license for permissive use only and that placing of facility upon public property pursuant to this permit shall not operate to create or to vest any property in the permittee or his client.

Pursuant to section 337.403(1), Florida statutes, whenever necessary for the construction, repair, improvement maintenance, safe and efficient operation, alteration or relocation of all, or any portion of said Transportation Facility/City Property as determined by the Engineering Services Director, any or all utilities and appurtenances authorized here under or any shall be immediately removed from said Transportation Facility/City Property or reset or relocate thereon as requested by the Engineering Services Director and at the expense of the Permittee.

11. The permittee shall commence actual construction in good faith on TBD and shall complete the construction within 7 days. This permit shall be void if the work is not started within sixty (60) days from date of said permit.

12. Applicant declares that prior to filling out the application he has ascertained the location of all existing utilities, both aerial and underground. Applicant also declares that all other utilities within the area were notified and that he is including a notification copy with this permit application. List the name of the Utility, Date, and the authorized Contact person from each Utility that were contacted: Mobilitie, LLC will send all required utility notification letters, and proof of such notification, when Mobilitie's project to install utility poles within the City's rights-of-way has been spproved by the City.

13. Notify the Engineering Services Division (863) 291-5851 a minimum of 48 hours prior to the commencement of construction. A SUNSHINE ONE number must be provided at this time. Failure to provide proper notification may result in the stoppage of work. **Notify the Engineering Services Division the day construction actually commences.**

14. If the applicant transfers or assigns its assets located within the City's right-of-way, the transferee or assignee shall be obligated to comply with the terms of this Use Permit and any and all applicable provisions of the WHC.

15. Nothing herein is intended to waive the City's sovereign immunity or the limits of its liability under Section 768.28 of the Florida Statutes regardless of whether such claims are based on contract, statute, tort, strict liability, product liability, negligence or otherwise.

16. **The use of missiles is limited and must be approved by the Engineering Services Director prior to Construction.**

Approved by:_____
(Engineering Services Director)

Submitted by : Michael Nuckols
(Applicant' Signature)

Date:_____

Michael Nuckols
(Applicant's name printed)

SUNSHINE ONE#_____

City of Winter Haven Engineering Services Division Permit #_____

Note: Attach Applicable Plans as Required

SITE ID: 9FLB004612
TA90XSDQHA
CYPRESS GARDENS BLVD &
SE PLAZA RD
WINTER HAVEN, FL 33880

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:	CYPRESS GARDENS BLVD & SE PLAZA RD
APPLICANT:	MOBILITIE, LLC
APPLICANT ADDRESS:	9258 PEACHTREE ST. NE, SUITE 710 ATLANTA, GA 30309 PHONE: (312) 638-5400
LATITUDE:	28° 0' 14.79" N (28.004107)
LONGITUDE:	81° 42' 59.67" W (-81.716575)
LAT/LONG TYPE:	NAD 83
GROUND ELEVATION:	± 170' AMSL
COUNTY:	POLK COUNTY
JURISDICTION:	CITY OF WINTER HAVEN

BEFORE SCALING:

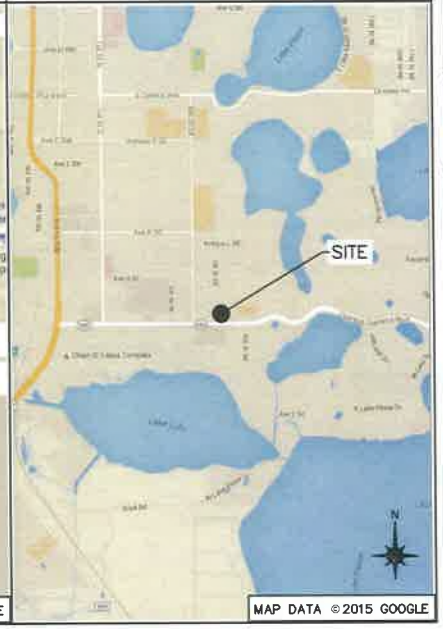
CONTRACTORS SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

LOCATION MAPS

VICINITY MAP



REGIONAL MAP



DIG ALERT

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

TWO WORKING DAYS BEFORE YOU DIG

PROJECT DESCRIPTION

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

- INSTALL PROPOSED BACKHAUL TRANSPORT EQUIPMENT ON AN EXISTING CONCRETE 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 ELEVATIONS
2.1	POLE ELEVATIONS
3.0	ANTENNA & EQUIPMENT MOUNTING DETAILS
3.1	ANTENNA & EQUIPMENT DETAILS
4.0	ELECTRICAL DETAILS
5.0	GROUNDING DETAILS
GN-1	GENERAL NOTES
GN-2	GENERAL NOTES
6.0	TRAFFIC CONTROL PLAN
6.1	TYPICAL PEDESTRIAN / WORKER SAFETY PLAN

ARCHITECT/ENGINEER

JACOBS ENGINEERING GROUP, INC.
5449 BELLS FERRY ROAD
ACWORTH, GA 30102
CONTACT: KARL KRATINA
PROJECT MANAGER
TEL: (678) 460-1416
FAX: (770) 701-2501

mobilitie
9258 PEACHTREE ST. NE,
SUITE 710
ATLANTA, GA 30309
PHONE: (312) 638-5400

PROJECT NO:	ER600201
DRAWN BY:	J. BRAZA
CHECKED BY:	W. WOODS

A	05.17.16	FOR REVIEW

PRELIMINARY

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TA90XSDQHA
9FLB004612
CYPRESS GARDENS BLVD &
SE PLAZA RD
WINTER HAVEN, FL 33880
UTILITY POLE

SHEET TITLE

TITLE SHEET

SHEET NUMBER

0.0



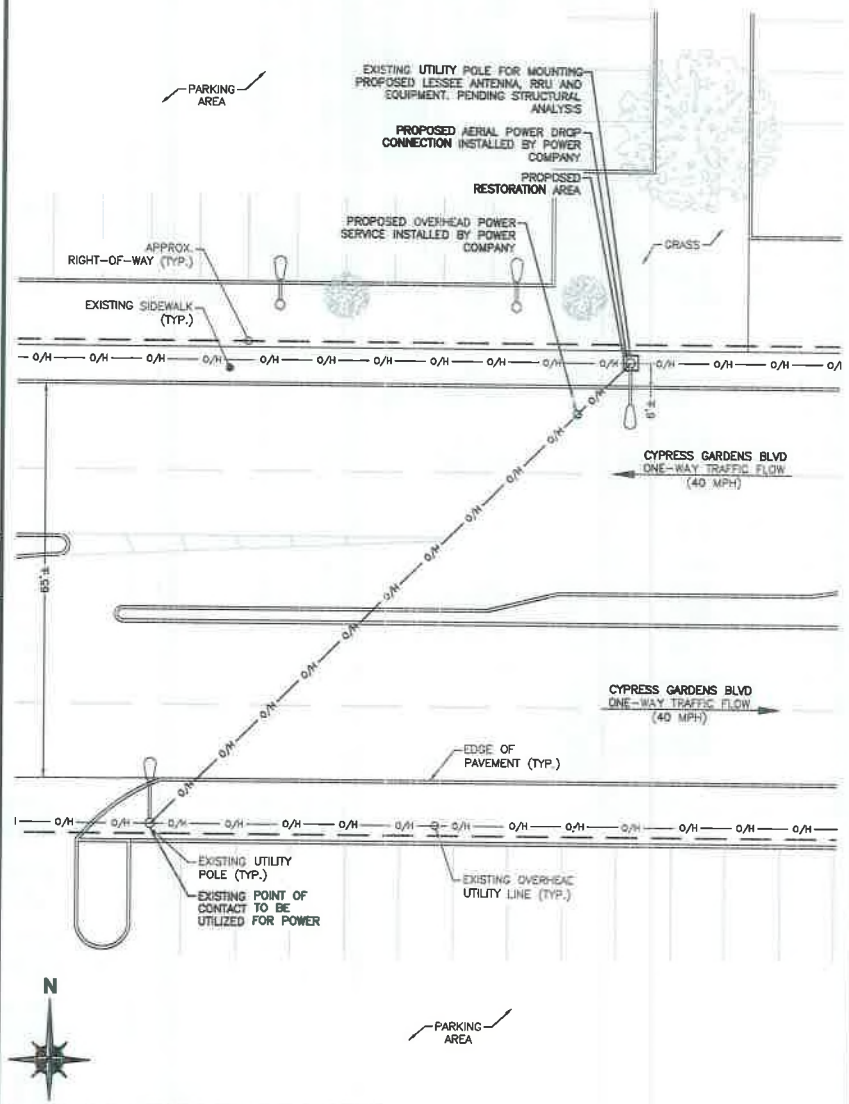
EXHIBIT PHOTO | 1

SCALE: NOT TO SCALE



AERIAL SITE LOCATION | 2

SCALE: NOT TO SCALE



NOTE:
THIS SITE PLAN WAS GENERATED WITHOUT THE USE OF A SURVEY. PROPERTY 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.

ENLARGED SITE PLAN | 3

SCALE: 1"=20'-0" (1"=10'-0" ON 22"x34" SHEET)

mobilitie
9258 PEACHTREE ST. NE,
SUITE 710
ATLANTA, GA 30309
PHONE: (312) 638-5400

PROJECT NO:	ER600201
DRAWN BY:	J. BRAZA
CHECKED BY:	W. WOODS

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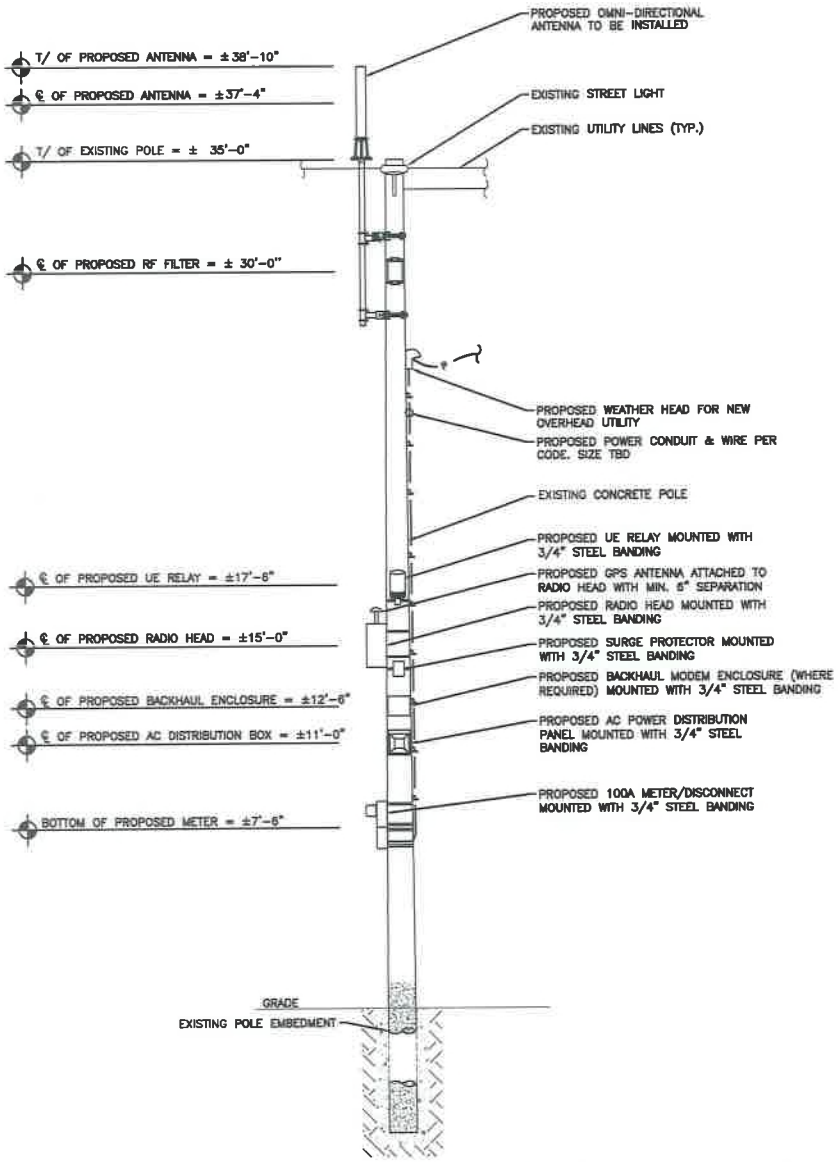
TA90XSDQHA
9FLB004612
CYPRESS GARDENS BLVD &
SE PLAZA RD
WINTER HAVEN, FL 33880
UTILITY POLE

SHEET TITLE

SITE PLAN & EXHIBIT PHOTO

SHEET NUMBER

1.0



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

NOTES:

1. ALL HARDWARE SHALL BE STAINLESS STEEL.
2. ALL CABLES SHALL BE SECURED TO POLE EVERY 36" OR LESS.
3. LIGHTNING RODS SHALL BE INCLUDED AS REQUIRED.
4. STRUCTURAL BACKFILL TO BE COMPACTED IN 8" MAXIMUM LAYERS TO 95% OF CONTENT IN ACCORDANCE WITH ASTM D698. ADDITIONALLY, STRUCTURAL BACKFILL MUST HAVE A MINIMUM COMPACTED UNIT WEIGHT OF 100 POUNDS PER CUBIC FOOT (16kN/m3)

BAND 41 (2500MHz) EQUIPMENT CHART			
QUANTITY	DESCRIPTION	DIMENSIONS (HxWxD)	WEIGHT
1	MOUNTED ANTENNA	35.4" X 4.7" DIAMETER	11 LBS
1	MOUNTED RADIO	20.1" X 9.1" X 8.9"	55.1 LBS
1	GPS ANTENNA	0.8" X 2.6" DIAMETER	0.3 LBS
1	AC DISTRIBUTION	9.25" X 9.5" X 3.81"	14 LBS
1	REJECT FILTER	13.6" X 8.1" X 2.4"	7.7 LBS
1	MOUNTED RELAY	13.0" X 7.9" DIAMETER	9.9 LBS
1	SURGE PROTECTOR	6.44" X 4.69" X 3.5"	TBD

PROPOSED FRONT POLE ELEVATIONS

SCALE: 1" = 5'

1

mobilitie
925B PEACHTREE ST. NE,
SUITE 710
ATLANTA, GA 30309
PHONE: (312) 638-5400

PROJECT NO:	ER600201
DRAWN BY:	J. BRAZA
CHECKED BY:	W. WOODS

A	05.17.16	FOR REVIEW

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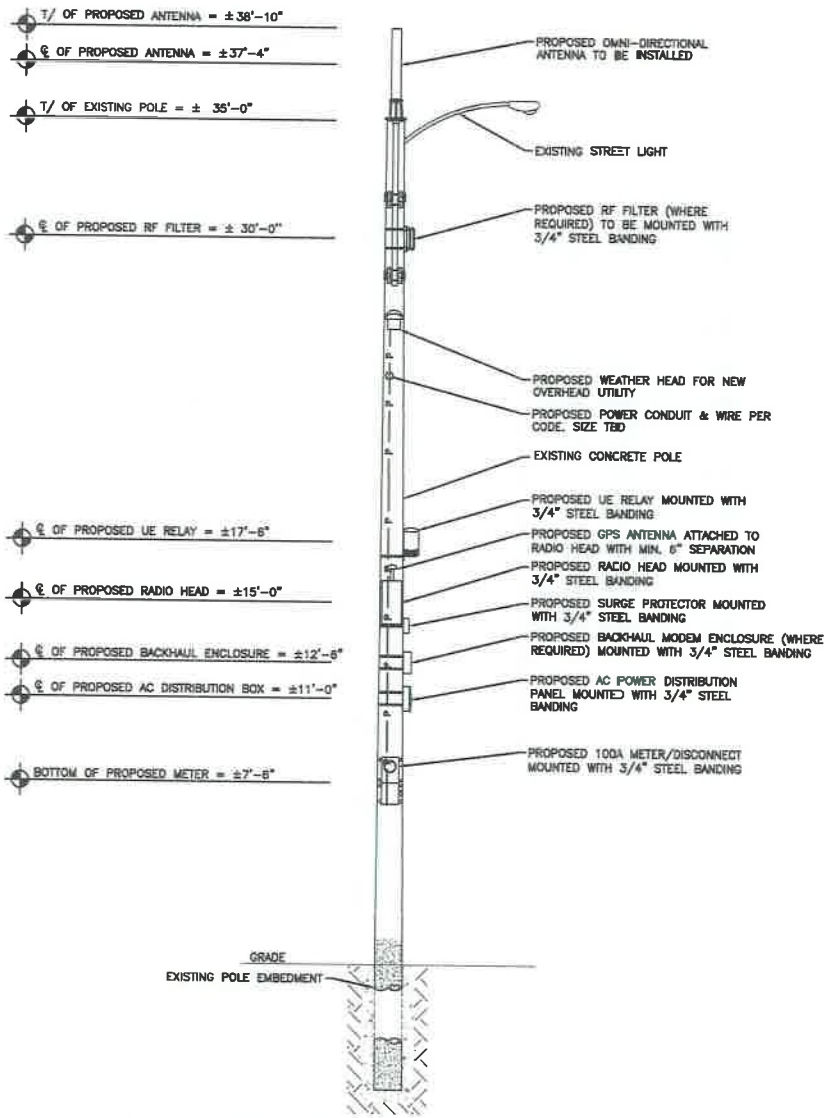
TA90XSDQHA
9FLB004612
CYPRESS GARDENS BLVD &
SE PLAZA RD
WINTER HAVEN, FL 33880
UTILITY POLE

SHEET TITLE
POLE ELEVATIONS

SHEET NUMBER
2.0



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NOTES:

1. ALL HARDWARE SHALL BE STAINLESS STEEL.
2. ALL CABLES SHALL BE SECURED TO POLE EVERY 36" OR LESS.
3. LIGHTNING RODS SHALL BE INCLUDED AS REQUIRED.
4. STRUCTURAL BACKFILL TO BE COMPACTED IN 8" MAXIMUM LAYERS TO 95% OF CONTENT IN ACCORDANCE WITH ASTM D698. ADDITIONALLY, STRUCTURAL BACKFILL MUST HAVE A MINIMUM COMPACTED UNIT WEIGHT OF 100 POUNDS PER CUBIC FOOT (16kN/m3)

BAND 41 (2500MHz) EQUIPMENT CHART			
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1	MOUNTED RELAY	13.3" X 7.9" DIAMETER	9.9 LBS
1	SURGE PROTECTOR	6.44" X 4.69" X 3.5"	TBD

PROPOSED SIDE POLE ELEVATION

SCALE: 1" = 5'

1

mobilitie
925B PEACHTREE ST, NE,
SUITE 710
ATLANTA, GA 30309
PHONE: (312) 638-5400

PROJECT NO:	ER500201
DRAWN BY:	J BRAZA
CHECKED BY:	W. WOODS

A	05.17.16	FOR REVIEW

PRELIMINARY

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TA90XSDQHA
9FLB004612
CYPRESS GARDENS BLVD &
SE PLAZA RD
WINTER HAVEN, FL 33880
UTILITY POLE

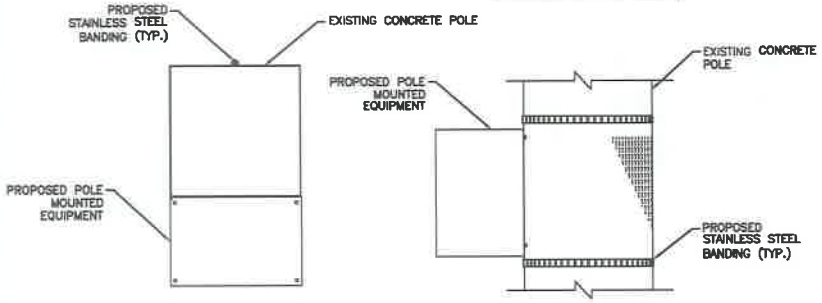
SHEET TITLE

POLE ELEVATIONS

SHEET NUMBER

2.1

NOTE:
INSTALL BRACKETS WITH STAINLESS STEEL BANDING.



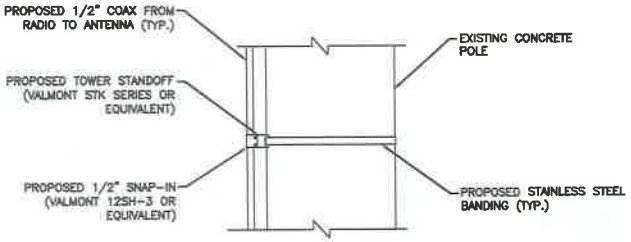
TOP VIEW

SIDE VIEW

EQUIPMENT MOUNTING DETAIL

SCALE: NOT TO SCALE

1

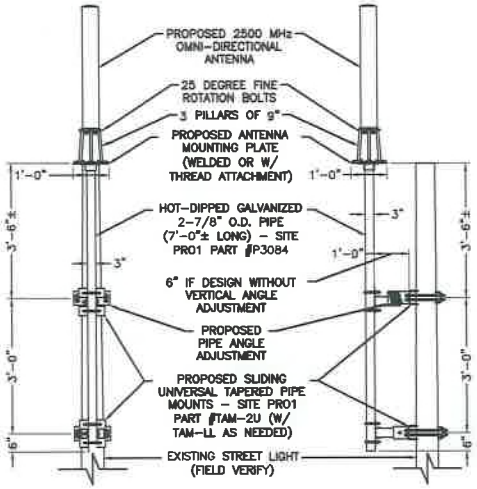


NOTE:
SPACE SNAP-INS PER CABLE MANUFACTURER'S SPECIFICATIONS

CABLE MOUNTING DETAIL

SCALE: NOT TO SCALE

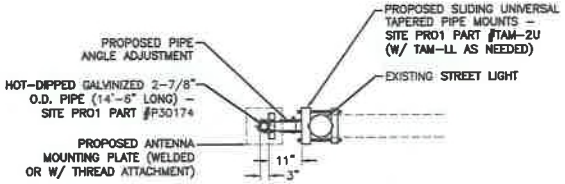
2



BACK AND SIDE ELEVATIONS

NOTE:

1. TAM-2U MOUNTING BRACKET ACCOMMODATES POLE SIZES FROM 3" TO 8" DIAMETER. ADD TAM-LL (LARGE LEG ADAPTER KIT AS NEEDED.
2. MOUNTING BRACKET MAY BE USED FOR WOOD, CONCRETE & STEEL POLES.
3. JACOBS HAS NOT PERFORMED A STRUCTURAL EVALUATION FOR THE MOUNTING BRACKET. REFER TO THE MANUFACTURER FOR ADDITIONAL INFORMATION.



HORIZONTAL MOUNT

ANTENNA MOUNTING DETAIL

SCALE: NOT TO SCALE

3

mobilitie
intelligent infrastructure
925B PEACHTREE ST. NE,
SUITE 710
ATLANTA, GA 30309
PHONE: (312) 638-5400

PROJECT NO:	ER600201
DRAWN BY:	J. BRAZA
CHECKED BY:	W. WOODS

A	05.17.18	FOR REVIEW

PRELIMINARY

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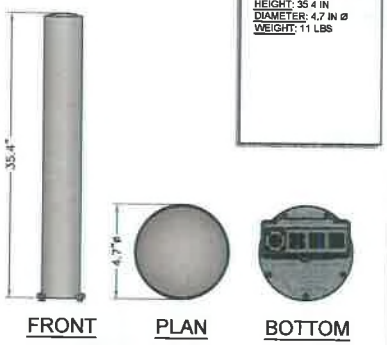
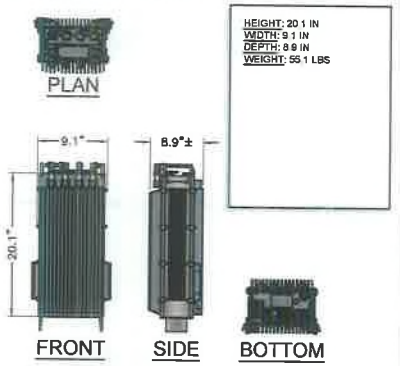
TA90XSDQHA
9FLB004612
CYPRESS GARDENS BLVD & SE PLAZA RD
WINTER HAVEN, FL 33880
UTILITY POLE

SHEET TITLE
ANTENNA & EQUIPMENT MOUNTING DETAILS

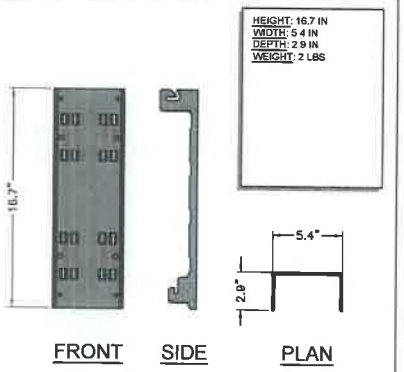
SHEET NUMBER
3.0



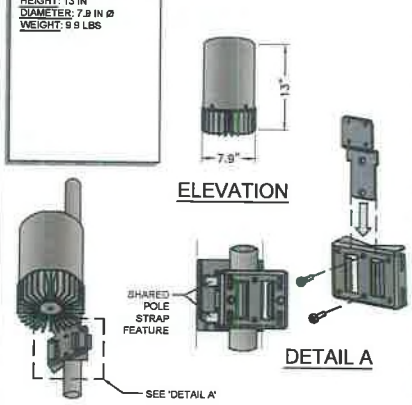
MOUNTED ANTENNA SCALE N.T.S. 1



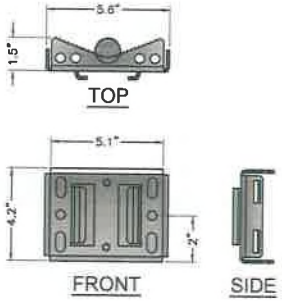
MOUNTED RADIO SCALE N.T.S. 2



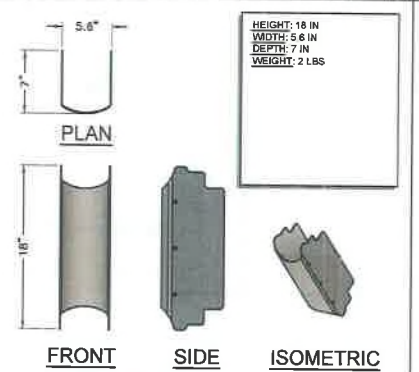
RADIO MOUNT SCALE N.T.S. 3



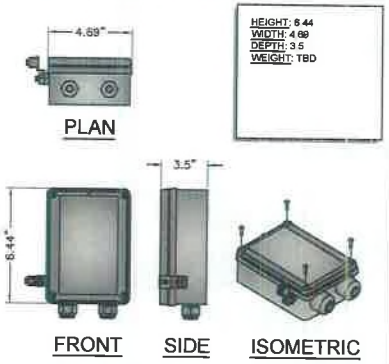
RELAY MOUNTING BRACKET



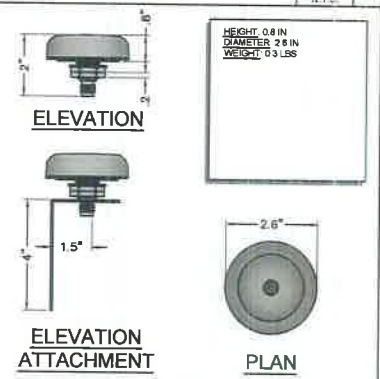
MOUNTED RELAY SCALE N.T.S. 4



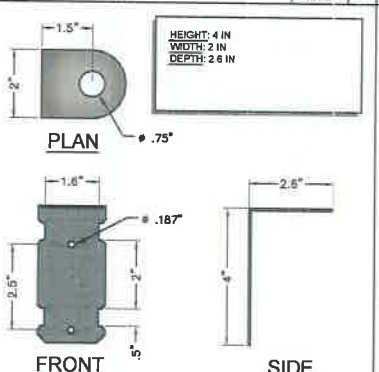
RADIO SUN SHIELD SCALE N.T.S. 5



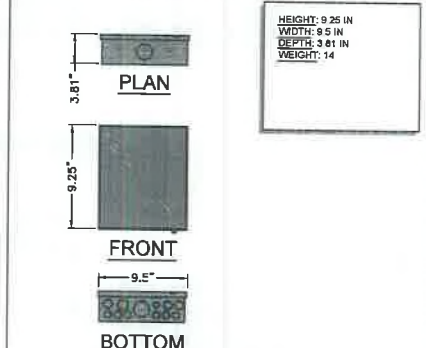
SURGE PROTECTOR SCALE N.T.S. 6



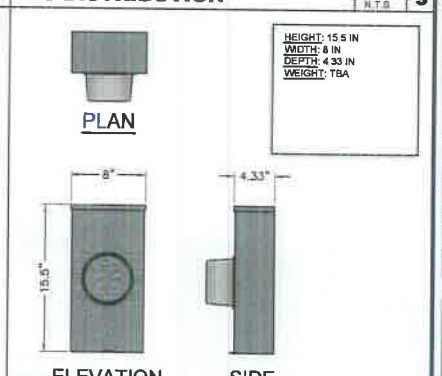
GPS ANTENNA SCALE N.T.S. 7



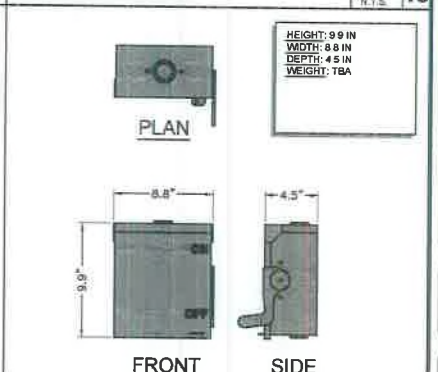
GPS MOUNTING SCALE N.T.S. 8



AC DISTRIBUTION SCALE N.T.S. 9



METER SOCKET SCALE N.T.S. 10



DISCONNECT SCALE N.T.S. 11

mobilitie
intelligent infrastructure
9258 PEACHTREE ST. NE,
SUITE 710
ATLANTA, GA 30309
PHONE: (312) 638-5400

PROJECT NO:	ER600201
DRAWN BY:	J. BRAZA
CHECKED BY:	W. WOODS

A	05.17.18	FOR REVIEW

PRELIMINARY

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

TA90XSDQHA
9FLB004612
CYPRESS GARDENS BLVD &
SE PLAZA RD
WINTER HAVEN, FL 33880
UTILITY POLE

SHEET TITLE
ANTENNA & EQUIPMENT 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:

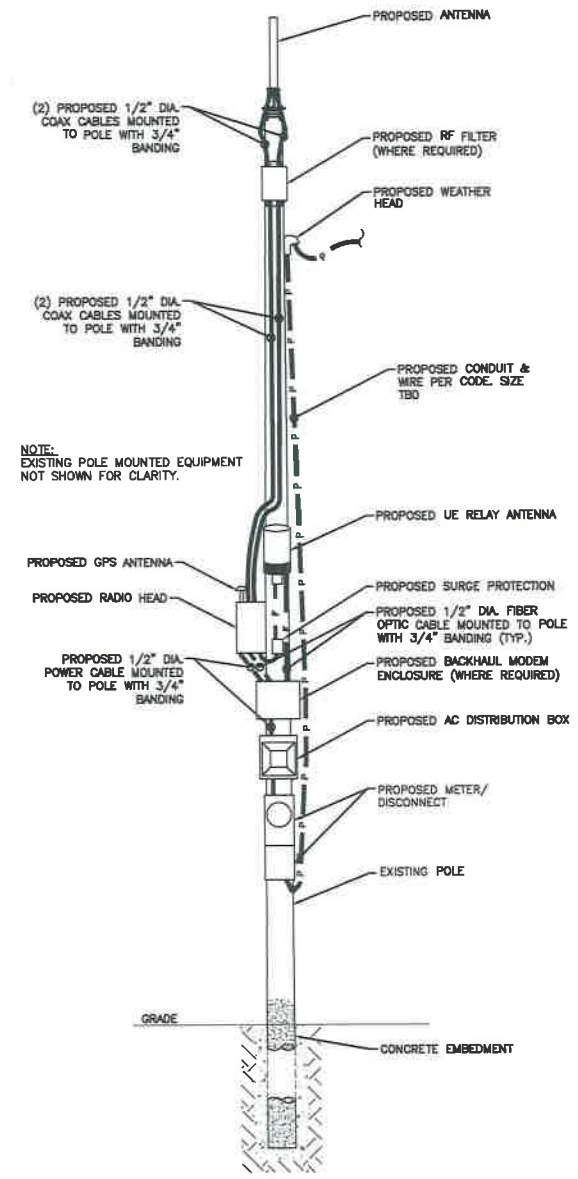
N.E.C.	NATIONAL ELECTRICAL CODE
A.N.S.I.	AMERICAN NATIONAL STANDARDS INSTITUTE
I.E.E.E.	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
A.S.T.M.	AMERICAN SOCIETY FOR TESTING MATERIALS
N.E.M.A.	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
U.L.	UNDERWRITERS LABORATORIES, INC.
N.F.P.A.	NATIONAL FIRE PROTECTION ASSOCIATION

RACEWAYS AND WIRING:

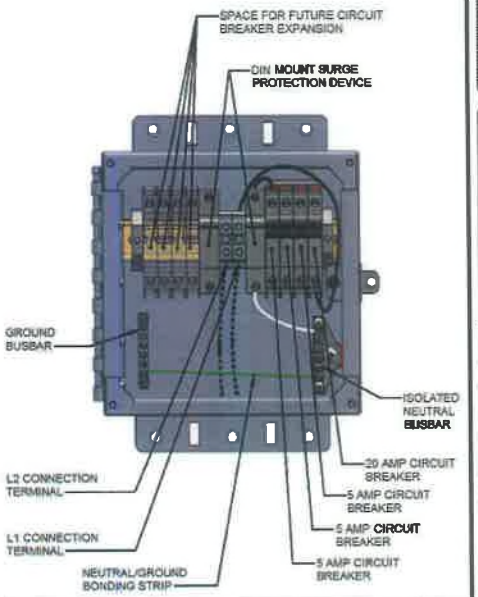
1. WIRING OF EVERY KIND MUST BY INSTALLED IN CONDUIT, UNLESS NOTED OTHERWISE, OR AS APPROVED BY THE ARCHITECT/ENGINEER.
2. UNLESS OTHERWISE SPECIFIED, ALL WIRING SHALL BE COPPER (CU) TYPE THWN, SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL CODES.
3. RACEWAYS SHALL BE GALVANIZED STEEL, 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.



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



CABLING DIAGRAM — 1

SCALE: NOT TO SCALE

mobilitie
925B PEACHTREE ST. NE,
SUITE 710
ATLANTA, GA 30309
PHONE: (312) 638-5400

PROJECT NO:	ERS00201
DRAWN BY:	J. BRAZA
CHECKED BY:	W. WOODS

A	05.17.16	FOR REVIEW

PRELIMINARY

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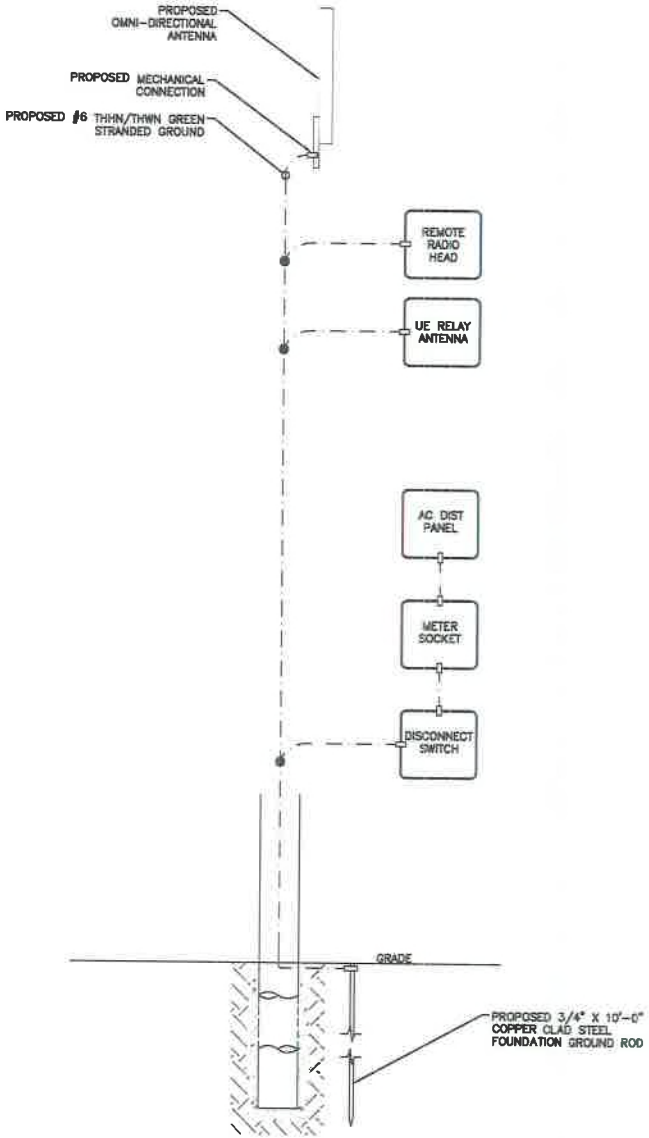
WINTER HAVEN, FL 33880
UTILITY POLE

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

mobilitie
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SUITE 710
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PHONE: (312) 638-5400

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WINTER HAVEN, FL 33880
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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WINTER HAVEN, FL 33880
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	54886BE
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.

mobilitie
building and infrastructure
925B PEACHTREE ST. NE,
SUITE 710
ATLANTA, GA 30309
PHONE: (312) 638-5400

PROJECT NO:	ER600201
DRAWN BY:	J. BRAZA
CHECKED BY:	W. WOODS

A	05.17.18	FOR REVIEW

PRELIMINARY

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

TA90XSDQHA
9FLB004612
CYPRESS GARDENS BLVD &
SE PLAZA RD
WINTER HAVEN, FL 33880
UTILITY POLE

SHEET TITLE

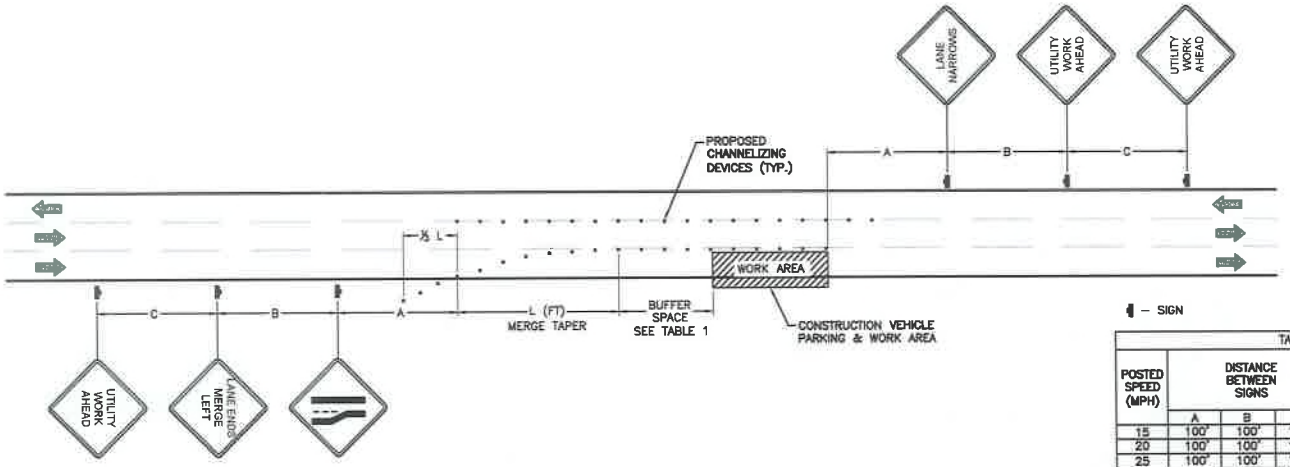
GENERAL NOTES

SHEET NUMBER

GN-2

PLAN NOTES:

1. PLANS DEPICTED ARE GENERAL GUIDELINES FOR TEMPORARY TRAFFIC CONTROL PLANS (TCP) TO INCLUDE PEDESTRIAN AND WORKER SAFETY. CONTRACTOR IS REQUIRED TO HAVE PREPARED A SITE-SPECIFIC TCP FOR REVIEW AND APPROVAL BY THE HIGHWAY AUTHORITY HAVING JURISDICTION. IF REQUIRED, THE FIRM PREPARING THE TCP SHALL BE AUTHORIZED OR CERTIFIED BY THE AUTHORITY HAVING JURISDICTION.
2. EXTEND CHANNELIZATION DEVICES INTO SHOULDER WHERE APPLICABLE.
3. DISTANCES AS INDICATED IN TABLE 1 SHOULD BE INCREASED FOR CONDITIONS THAT WOULD AFFECT STOPPING DISTANCE SUCH AS DOWNGRADES OR LIMITED SIGHT DISTANCES. DISTANCES CAN BE DECREASED FOR LOW-SPEED (RESIDENTIAL) AREAS WITH APPROVAL BY THE AUTHORITY HAVING JURISDICTION. NIGHT-TIME WORK IS PROHIBITED UNLESS IT IS REQUIRED AS A CONDITION OF APPROVAL BY THE HIGHWAY AND LOCAL AUTHORITY HAVING JURISDICTION.
4. SHOULDER TAPERS SHOULD BE 1/3 OF THE ON-STREET TAPER LENGTH.
5. "A", "B", AND "C" SHOULD BE IN EXCESS OF 500' FOR ROAD SPEEDS 45 MPH OR HIGHER



◀ – SIGN

TABLE 1

POSTED SPEED (MPH)	DISTANCE BETWEEN SIGNS A	B	C	TAPER L (SEE NOTE)	BUFFER
15	100'	100'	100'	45'	100'
20	100'	100'	100'	80'	115'
25	100'	100'	100'	125'	155'
30	200'	200'	200'	180'	200'
35	200'	200'	200'	245'	250'
40	350'	350'	350'	320'	305'
45	350'	350'	350'	540'	360'
50	500'	500'	500'	600'	425'
55	500'	500'	500'	660'	495'
60	500'	500'	500'	720'	570'
65	500'	500'	500'	780'	645'

NOTES:

A) DISTANCES IN FEET UNLESS OTHERWISE NOTED.
B) CONTRACTOR TO VERIFY EXISTING SPEED LIMIT.
C) DISTANCES SHOWN ARE NOT VALID FOR LIMITED ACCESS HIGHWAYS. CONSULT STATE DOT MANUAL FOR DISTANCES.
D) ADJUST DISTANCES TO COMPLY WITH REQUIREMENT OF THE STATE OR LOCAL HIGHWAY AUTHORITY HAVING JURISDICTION. SEE NOTE 1, SHEET X.X.
E) TAPER LENGTHS SHOWN BASED ON 12' LANE WIDTH. SEE NOTE 18, SHEET 6.1.

TRAFFIC CONTROL PLAN - LANE MERGE | 1

SCALE: NOT TO SCALE

mobilitie
intelligent infrastructure
925B PEACHTREE ST. NE,
SUITE 710
ATLANTA, GA 30309
PHONE: (312) 638-5400

PROJECT NO:	ER800201
DRAWN BY:	J. BRAZA
CHECKED BY:	W. WOODS

A	05.17.16	FOR REVIEW

PRELIMINARY

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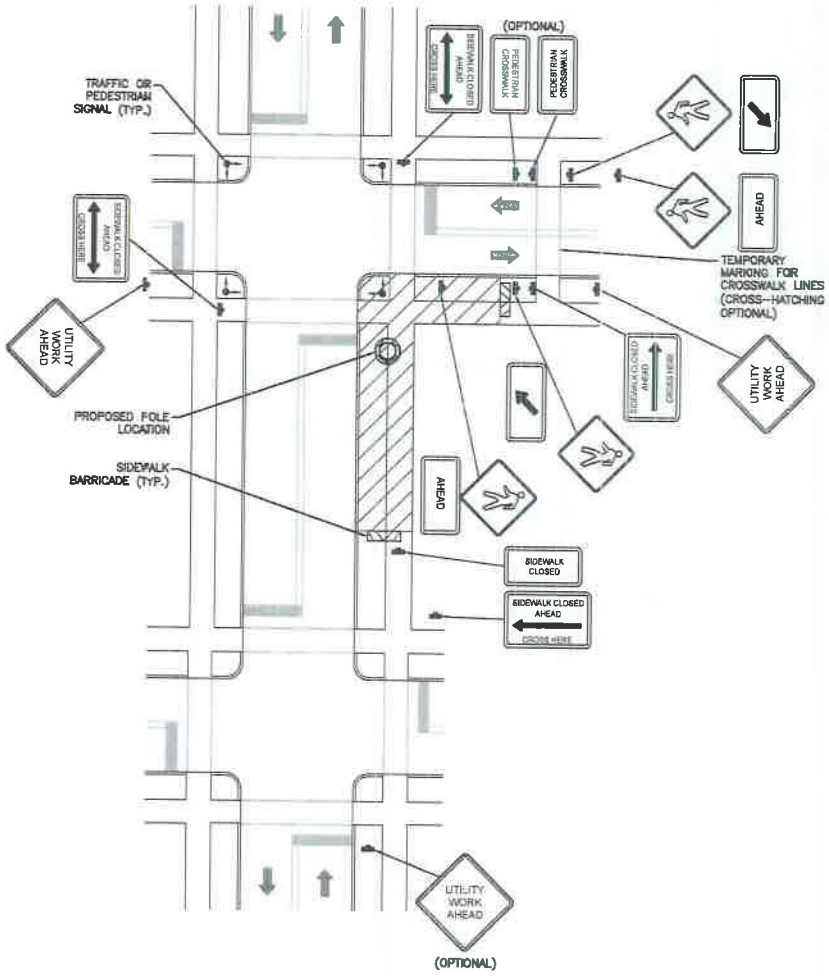
TA90XSDQHA
9FLB004612
CYPRESS GARDENS BLVD &
SE PLAZA RD
WINTER HAVEN, FL 33880
UTILITY POLE

SHEET TITLE
TRAFFIC CONTROL PLAN

SHEET NUMBER
6.0

TRAFFIC CONTROL GENERAL NOTES

1. ALL TEMPORARY TRAFFIC CONTROL SIGNAGE, LAYOUTS AND PROCEDURES SHALL COMPLY WITH LOCAL JURISDICTIONAL REQUIREMENTS AND MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION, WHICHEVER IS MORE STRINGENT.
2. PRIOR TO ANY ROAD CONSTRUCTION, TRAFFIC CONTROL SIGNS AND DEVICES SHALL BE IN PLACE.
3. TRAFFIC CONTROL DEVICES FOR LANE CLOSURES INCLUDING SIGNS, CONES, 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.
4. SELECTION, PLACEMENT, MAINTENANCE, AND PROTECTION OF TRAFFIC, PEDESTRIANS, AND WORKERS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) – PART VI "TEMPORARY TRAFFIC CONTROL", AND LOCAL JURISDICTIONAL REQUIREMENTS UNLESS OTHERWISE NOTED IN THE PLANS AND SPECIFICATIONS, AND SHALL BE APPROVED BY THE APPROPRIATE HIGHWAY AUTHORITY HAVING JURISDICTION.
5. ADVANCE WARNING SIGNS, DISTANCES, AND TAPER LENGTHS MAY BE EXTENDED TO ADJUST FOR REDUCED VISIBILITY DUE TO HORIZONTAL AND VERTICAL CURVATURE OF THE ROADWAY AND FOR ACTUAL TRAFFIC SPEEDS IF IN EXCESS OF POSTED SPEED LIMITS.
6. **TAPERS SHALL BE LOCATED TO MAXIMIZE THE VISIBILITY OF THEIR TOTAL LENGTH.**
7. **CONFLICTING OR NON-OPERATING SIGNAL INDICATIONS ON THE EXISTING TRAFFIC SIGNAL SYSTEMS SHALL BE BAGGED OR COVERED.**
8. 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. ALL TRAFFIC CONTROL DEVICES SHALL BE RESTORED TO MATCH PRE-CONSTRUCTION CONDITION AFTER COMPLETION OF WORK.
9. **CONTRACTOR SHALL CONTACT LOCAL AUTHORITY HAVING HIGHWAY JURISDICTION AND PROVIDE ADDITIONAL "FLAGMEN" OR POLICE SUPERVISION, IF REQUIRED.**
10. ALL EXCAVATED AREAS WITHIN OR ADJACENT TO THE ROADWAY SHALL BE BACKFILLED AND PLACED ON A MINIMUM 6H:1V SLOPE PRIOR TO END OF EACH WORK DAY. OTHER EXCAVATED AREAS WITHIN THE CLEAR ZONE ARE TO BE EITHER BACKFILLED OR PRECAST CONCRETE CURB BARRIER CONSTRUCTION BARRIER SET TEMPORARILY IN PLACE TO SHIELD VEHICULAR AND PEDESTRIAN TRAFFIC.
11. WHERE DICTATED BY LOCAL CONDITIONS, THE CONTRACTOR SHALL MAKE PROVISIONS FOR MAINTAINING PEDESTRIAN AND WORKER CROSSING LOCATIONS IN ACCORDANCE WITH ALL APPLICABLE CODES AND OSHA REQUIREMENTS.
12. CONSTRUCTION ZONE SPEED LIMIT IF REDUCED FROM POSTED LIMITS SHALL BE IN ACCORDANCE WITH MUTCD AND WILL BE DETERMINED BY THE AUTHORITY HAVING JURISDICTION.
13. THERE SHALL BE NO WORKERS, EQUIPMENT, OR OTHER VEHICLES IN THE BUFFER SPACE OR THE ROLL AHEAD SPACE.
14. DRIVEWAYS AND/OR SIDE STREETS ENTERING THE ROADWAY AFTER THE FIRST ADVANCE WARNING SIGN SHALL BE PROVIDED WITH AT LEAST ONE W20-1 SIGN (ROAD WORK AHEAD) AS A MINIMUM.
15. CONES MAY BE SUBSTITUTED FOR DRUMS AND INSTALLED UPON THE APPROVAL OF THE AUTHORITY HAVING JURISDICTION PROVIDED THEY COMPLY WITH MUTCD.
16. THE SPACING BETWEEN CONES, TUBULAR MARKERS, VERTICAL PANELS, DRUMS, AND BARRICADES SHOULD NOT EXCEED A DISTANCE IN FEET EQUAL TO 1.0 TIMES THE SPEED LIMIT IN MPH WHEN USED FOR TAPER CHANNELIZATION, AND A DISTANCE IN FEET EQUAL TO 2.0 TIMES THE SPEED LIMIT IN MPH WHEN USED FOR TANGENT CHANNELIZATION.
17. WHEN CHANNELIZATION DEVICES HAVE THE POTENTIAL OF LEADING VEHICULAR TRAFFIC OUT OF THE INTENDED VEHICULAR TRAFFIC SPACE, THE CHANNELIZATION DEVICES SHOULD BE EXTENDED A DISTANCE IN FEET OF 2.0 TIMES THE SPEED LIMIT IN MPH BEYOND THE DOWNSTREAM END OF THE TRANSITION AREA.
18. TAPER LENGTHS ARE CALCULATED AS FOLLOWS:
L= $WS^2/60$ (40 MPH AND HIGHER) OR L2= WS (OVER 40 MPH).
WHERE W= OFFSET WIDTH (FT), S= TRAFFIC SPEED (MPH).



TYPICAL PEDESTRIAN / WORKER SAFETY PLAN | 1

SCALE: NOT TO SCALE

mobilitie
intelligent infrastructure
9258 PEACHTREE ST. NE,
SUITE 710
ATLANTA, GA 30309
PHONE: (312) 638-5400

PROJECT NO:	ER600201
DRAWN BY:	J. BRAZA
CHECKED BY:	W. WOODS

A	05.17.16	FOR REVIEW

PRELIMINARY

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TA90XSDQHA
9FLB004612
CYPRESS GARDENS BLVD & SE PLAZA RD
WINTER HAVEN, FL 33880
UTILITY POLE

SHEET TITLE

TYPICAL PEDESTRIAN / WORKER SAFETY PLAN

SHEET NUMBER

6.1

CITY OF WINTER HAVEN

Engineering Services Division
490 3rd Street N.W. 33881
Phone 863-291-5851

9FLB004614

USE PERMIT

Site Location: 28.012841-81.718489

Street Name 6th Street NE Date June 9, 2016

Located between Avenue I SE, Street and Avenue J SE Street

Permission Granted to Mobilitie, LLC Phone number - 727-512-5599

For construction and maintenance of End user proposes to install equipment on a new pole within an existing ROW.

Scope of work: Install a new pole with proposed backhaul transport equipment.

This permit is subject to the following conditions:

1. The construction and maintenance of such utility shall not interfere with the property and the rights of a prior occupant.

2. All work shall be done in keeping with standards established by the Engineering Services Director and under the supervision of Mike Foster, City Construction Inspector, Phone (863) 291-5850, Cell (863) 287-2727.

3. All material and equipment shall be subject to inspection by a representative of the Engineering Services Director.

4. Construction shall be performed in a safe manner and in accordance with the regulations of OSHA, USDA and other applicable agencies. The City shall be relieved of all responsibilities for damages of any nature arising from this permit. Subject to the above terms and conditions, the permittee shall take such safety measures, including placing and display of caution signs, as good practice dictates in conduct of construction and maintenance work herein described.

5. The permittee shall provide for safe pedestrian traffic throughout the construction time. Where existing sidewalks and other walkways exist prior to this work, they or safe alternate trafficable ways, shall be maintained.

6. All city property shall be restored to its original condition to the satisfaction of the Engineering Services Director and/ or his authorized representative.

7. The applicant shall indemnify, defend, and hold harmless the City from and against any and all claims, suits, actions, judgments, demands, taxes, losses, costs, expenses, damages, and liability caused by, resulting from, or arising out of the negligent acts, errors, or omissions of the applicant, its officers, employees, agents, or representatives that may occur by reason of this construction.

8. The attached sketch covering details of this construction shall be made a part of this permit.

9. The applicant, at a minimum, shall obtain insurance coverage for specific risks and in such amounts and with insurers as determined acceptable by the City. Any such insurance coverage(s) required by the City shall represent the minimum amount of coverage required. The applicant, at its sole cost, shall obtain insurance coverage(s) as follows:

   a. Workers' Compensation/Employer's Liability:
      - For each accident ($5,000,000.00)
      - Disease – Policy Limit ($5,000,000.00)
      - Disease – Each Employee ($5,000,000.00)

   b. Commercial General Liability ("CGL"):
      - For each occurrence ($5,000,000.00)
      - General Aggregate ($5,000,000.00)
      - Products/Completed Operations Aggregate ($5,000,000.00)
      - Personal and Advertising Injury ($5,000,000.00)

   c. Business Automobile Policy:
      - Each occurrence and bodily injury and property damage liability combined ($5,000,000.00)

10. It is expressly stipulated that this permit is a license for permissive use only and that placing of facility upon public property pursuant to this permit shall not operate to create or to vest any property in the permittee or his client.

Pursuant to section 337.403(1), Florida statutes, whenever necessary for the construction, repair, improvement maintenance, safe and efficient operation, alteration or relocation of all, or any portion of said Transportation Facility/City Property as determined by the Engineering Services Director, any or all utilities and appurtenances authorized here under or any shall be immediately removed from said Transportation Facility/City Property or reset or relocate thereon as requested by the Engineering Services Director and at the expense of the Permittee.

11. The permittee shall commence actual construction in good faith on TBD and shall complete the construction within 7 days. This permit shall be void if the work is not started within sixty (60) days from date of said permit.

12. Applicant declares that prior to filling out the application he has ascertained the location of all existing utilities, both aerial and underground. Applicant also declares that all other utilities within the area were notified and that he is including a notification copy with this permit application. List the name of the Utility, Date, and the authorized Contact person from each Utility that were contacted: Mobilitie, LLC will send all required utility notification letters, and proof of such notification, when Mobilitie's project to install utility poles within the City's rights-of-way has been spproved by the City.

13. Notify the Engineering Services Division (863) 291-5851 a minimum of 48 hours prior to the commencement of construction. A SUNSHINE ONE number must be provided at this time. Failure to provide proper notification may result in the stoppage of work. **Notify the Engineering Services Division the day construction actually commences.**

14. If the applicant transfers or assigns its assets located within the City's right-of-way, the transferee or assignee shall be obligated to comply with the terms of this Use Permit and any and all applicable provisions of the WHC.

15. Nothing herein is intended to waive the City's sovereign immunity or the limits of its liability under Section 768.28 of the Florida Statutes regardless of whether such claims are based on contract, statute, tort, strict liability, product liability, negligence or otherwise.

16. **The use of missiles is limited and must be approved by the Engineering Services Director prior to Construction.**

Approved by: _____
(Engineering Services Director)

Submitted by : Michael Nuckols
(Applicant' Signature)

Date: _____

Michael Nuckols
(Applicant's name printed)

SUNSHINE ONE# _____

City of Winter Haven Engineering Services Division Permit # _____

Note: Attach Applicable Plans as Required

SITE ID: 9FLB004614
TA90XSDQJA
6TH ST SE &
AVENUE I SE
WINTER HAVEN, FL 33880

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

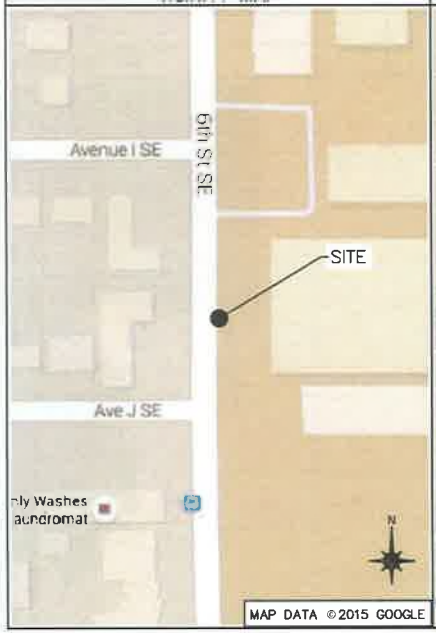
PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY
ADDRESS/CROSS ST:	6TH ST SE & AVENUE I SE
APPLICANT:	FL NETWORK TRANSPORT, LLC
APPLICANT ADDRESS:	9258 PEACHTREE ST. NE, SUITE 710 ATLANTA, GA 30309 PHONE: (312) 638-5400
LATITUDE:	28° 0' 48.23" N (28.012841)
LONGITUDE:	81° 43' 6.56" W (-81.718489)
LAT/LONG TYPE:	NAD 83
GROUND ELEVATION:	± 171' AMSL
COUNTY:	POLK COUNTY
JURISDICTION:	CITY OF WINTER HAVEN

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



REGIONAL MAP



DIG ALERT

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

TWO WORKING DAYS BEFORE YOU DIG

PROJECT DESCRIPTION

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

- INSTALL PROPOSED BACKHAUL TRANSPORT EQUIPMENT ON A PROPOSED WOOD 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 ELEVATIONS
2.1	POLE ELEVATIONS
3.0	ANTENNA & EQUIPMENT MOUNTING DETAILS
3.1	ANTENNA & EQUIPMENT DETAILS
4.0	ELECTRICAL DETAILS
5.0	GROUNDING DETAILS
GN-1	GENERAL NOTES
GN-2	GENERAL NOTES
6.0	TRAFFIC CONTROL PLAN
6.1	TYPICAL PEDESTRIAN / WORKER SAFETY PLAN

ARCHITECT/ENGINEER

JACOBS ENGINEERING GROUP, INC.
5449 BELLS FERRY ROAD
ACWORTH, GA 30102
CONTACT: KARL KRATINA
PROJECT MANAGER
TEL: (678) 460-1416
FAX: (770) 701-2501

FL NETWORK TRANSPORT, LLC

PROJECT NO:	ER600201
DRAWN BY:	T. VIDAL
CHECKED BY:	L. THREEWITT

A	05.08.18	FOR REVIEW

PRELIMINARY

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TA90XSDQJA
9FLB004614
6TH ST SE &
AVENUE I SE
WINTER HAVEN, FL 33880
UTILITY POLE

SHEET TITLE

TITLE SHEET

SHEET NUMBER

0.0



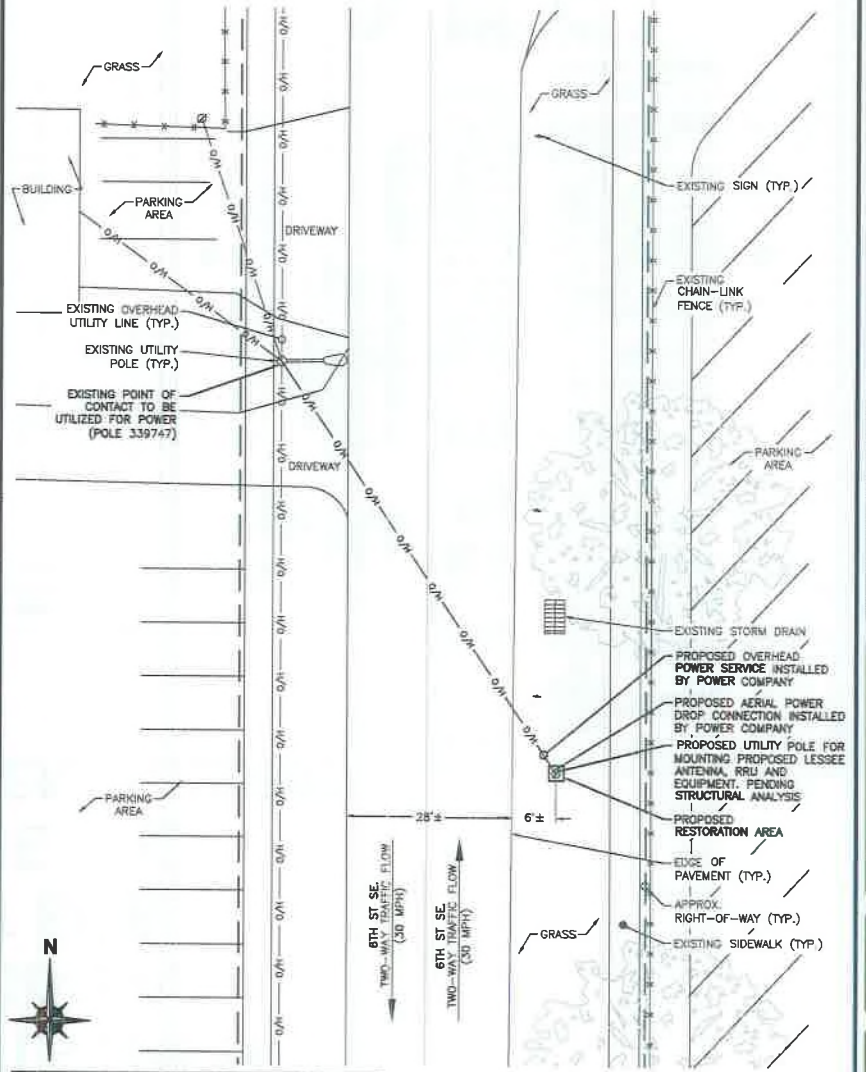
EXHIBIT PHOTO — 1

SCALE: NOT TO SCALE



AERIAL SITE LOCATION — 2

SCALE: NOT TO SCALE



NOTE:
THIS SITE PLAN WAS GENERATED WITHOUT THE USE OF A SURVEY. PROPERTY 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.

ENLARGED SITE PLAN — 3

SCALE: 1"=20'-0" (1"=10'-0" ON 22"x34" SHEET)

FL NETWORK TRANSPORT, LLC

PROJECT NO:	ER600201
DRAWN BY:	T. VIDAL
CHECKED BY:	L. THREEWITT

4	05.06.15	FOR REVIEW

PRELIMINARY

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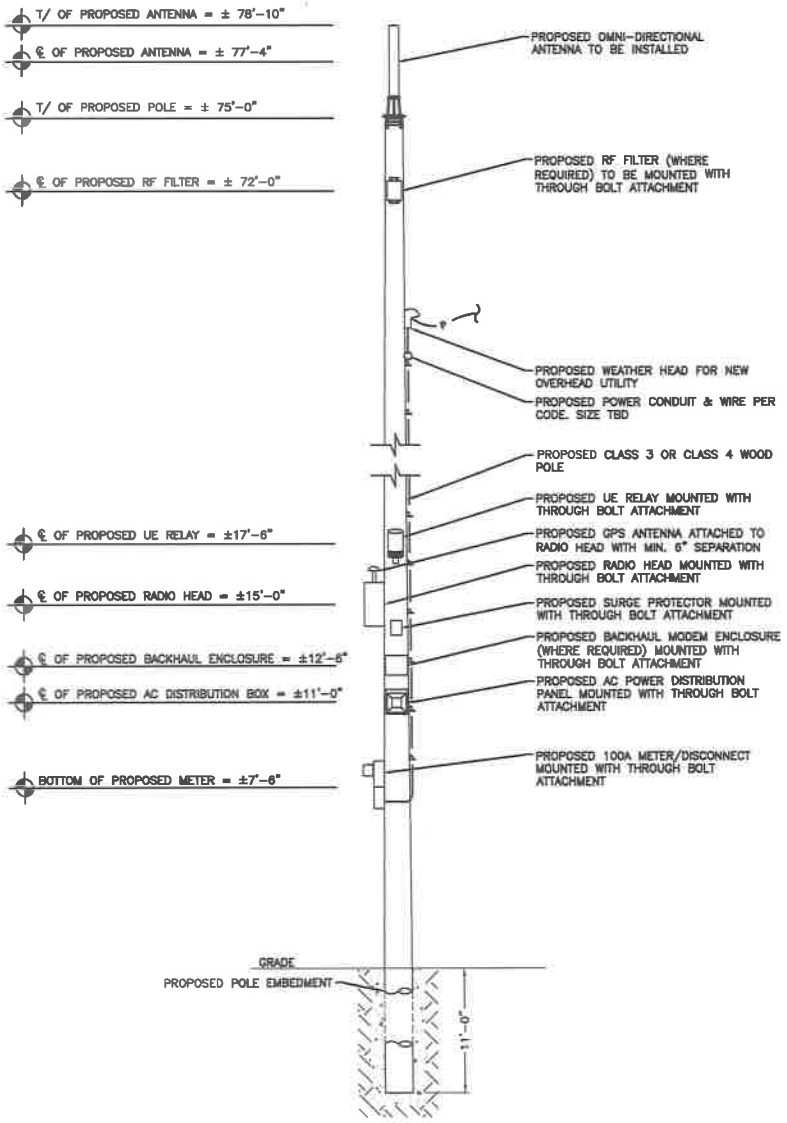
TA90XSDQJA
9FLB004614
6TH ST SE &
AVENUE I SE
WINTER HAVEN, FL 33880
UTILITY POLE

SHEET TITLE

SITE PLAN & EXHIBIT PHOTO

SHEET NUMBER

1.0



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

NOTES:

1. ALL HARDWARE SHALL BE STAINLESS STEEL.
2. ALL CABLES SHALL BE SECURED TO POLE EVERY 36" OR LESS.
3. LIGHTNING RODS SHALL BE INCLUDED AS REQUIRED.
4. STRUCTURAL BACKFILL TO BE COMPACTED IN 8" MAXIMUM LAYERS TO 95% OF CONTENT IN ACCORDANCE WITH ASTM D698. ADDITIONALLY, STRUCTURAL BACKFILL MUST HAVE A MINIMUM COMPACTED UNIT WEIGHT OF 100 POUNDS PER CUBIC FOOT (16kN/m3)

BAND 41 (2500MHz) EQUIPMENT CHART			
QUANTITY	DESCRIPTION	DIMENSIONS (HxWxD)	WEIGHT
1	MOUNTED ANTENNA	35.4" X 4.7" DIAMETER	11 LBS
1	MOUNTED RADIO	20.1" X 9.1" X 8.9"	55.1 LBS
1	GPS ANTENNA	0.8" X 2.6" DIAMETER	0.3 LBS
1	AC DISTRIBUTION	9.25" X 9.5" X 3.81"	14 LBS
1	REJECT FILTER	13.6" X 8.1" X 2.4"	7.7 LBS
1	MOUNTED RELAY	13.0" X 7.9" DIAMETER	9.9 LBS
1	SURGE PROTECTOR	6.44" X 4.69" X 3.5"	TBD

PROPOSED FRONT POLE ELEVATIONS

SCALE: 1" = 5'

1

FL NETWORK TRANSPORT, LLC

PROJECT NO:	ER800201
DRAWN BY:	T. VIDAL
CHECKED BY:	L. THREEWITT

A	05.29.19	FOR REVIEW

PRELIMINARY

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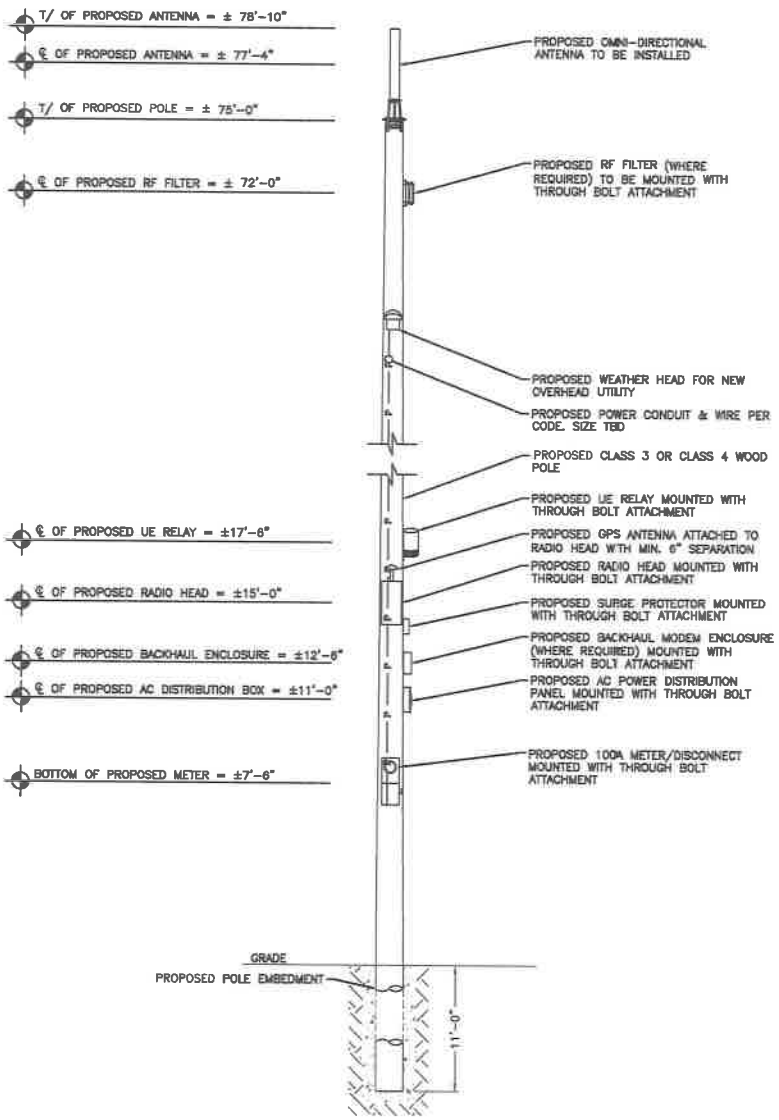
TA90XSDQJA
9FLB004614
6TH ST SE &
AVENUE I SE
WINTER HAVEN, FL 33880
UTILITY POLE

SHEET TITLE

POLE ELEVATIONS

SHEET NUMBER

2.0



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

NOTES:

1. ALL HARDWARE SHALL BE STAINLESS STEEL.
2. ALL CABLES SHALL BE SECURED TO POLE EVERY 36" OR LESS.
3. LIGHTNING RODS SHALL BE INCLUDED AS REQUIRED.
4. STRUCTURAL BACKFILL TO BE COMPACTED IN 8" MAXIMUM LAYERS TO 95% OF CONTENT IN ACCORDANCE WITH ASTM D698. ADDITIONALLY, STRUCTURAL BACKFILL MUST HAVE A MINIMUM COMPACTED UNIT WEIGHT OF 100 POUNDS PER CUBIC FOOT (16kN/m3)

BAND 41 (2500MHz) EQUIPMENT CHART

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1	MOUNTED RELAY	13.0" X 7.9" DIAMETER	9.9 LBS
1	SURGE PROTECTOR	6.44" X 4.69" X 3.5"	TBD

PROPOSED SIDE POLE ELEVATION

SCALE: 1" = 5'

1

FL NETWORK TRANSPORT, LLC

PROJECT NO:	ER800201
DRAWN BY:	T. VIDAL
CHECKED BY:	L. THREEWITT

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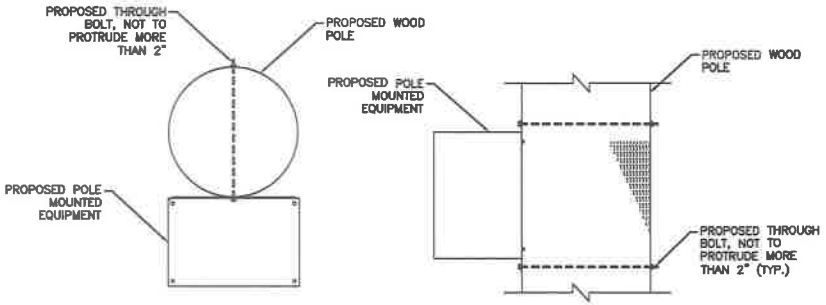
UTILITY POLE

SHEET TITLE

POLE ELEVATIONS

SHEET NUMBER

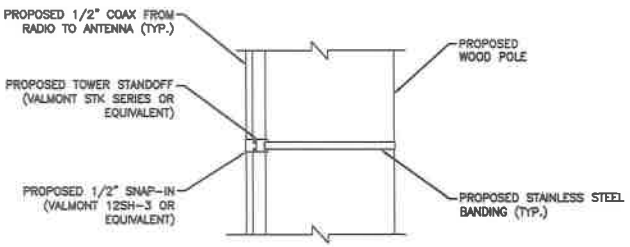
2.1



EQUIPMENT MOUNTING DETAIL

SCALE: NOT TO SCALE

1

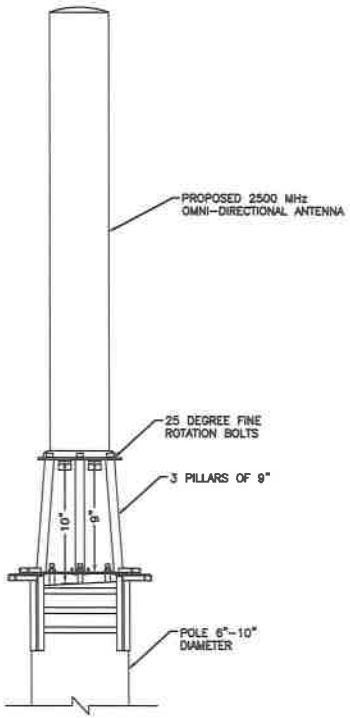


NOTE:
SPACE SNAP-INS PER CABLE MANUFACTURER'S SPECIFICATIONS

CABLE MOUNTING DETAIL

SCALE: NOT TO SCALE

2



NOTE:

1. MOUNTING BRACKET ACCOMMODATES POLE SIZES FROM 6" TO 10" DIAMETER.
2. MOUNTING BRACKET MAY BE USED FOR WOOD, CONCRETE & STEEL POLES.
3. JACOBS 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

FL NETWORK TRANSPORT, LLC

PROJECT NO:	ER600201
DRAWN BY:	T. VIDAL
CHECKED BY:	L. THREEWITT

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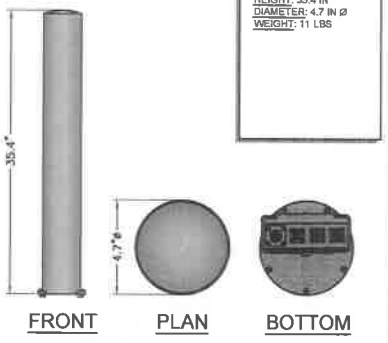
AVENUE I SE
WINTER HAVEN, FL 33880
UTILITY POLE

SHEET TITLE

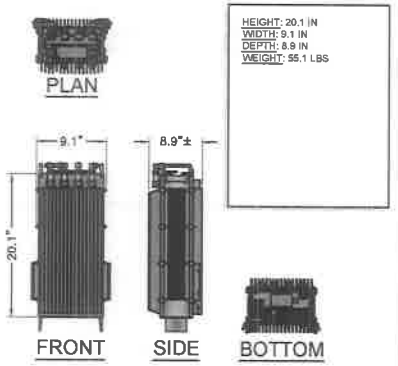
ANTENNA & EQUIPMENT MOUNTING DETAILS

SHEET NUMBER

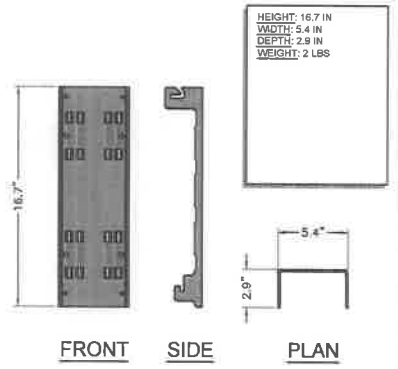
3.0



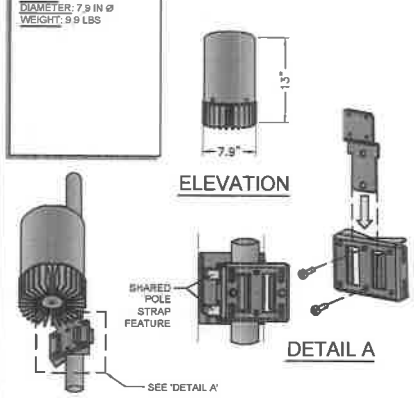
MOUNTED ANTENNA SCALE N.T.S. 1



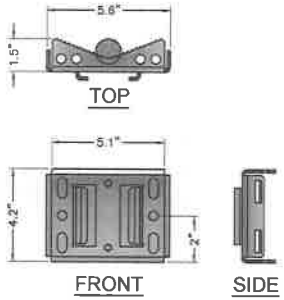
MOUNTED RADIO SCALE N.T.S. 2



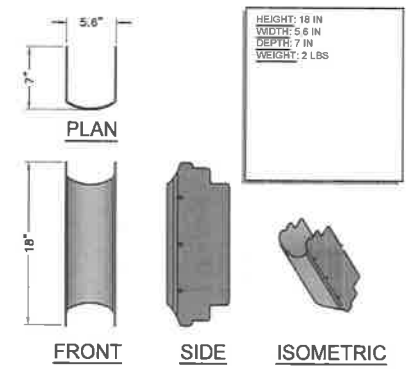
RADIO MOUNT SCALE N.T.S. 3



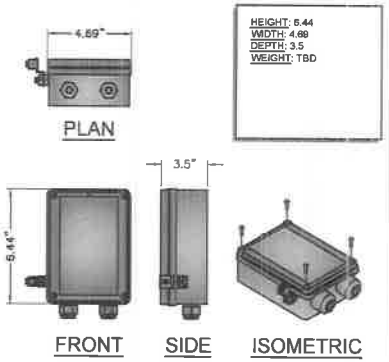
RELAY MOUNTING BRACKET



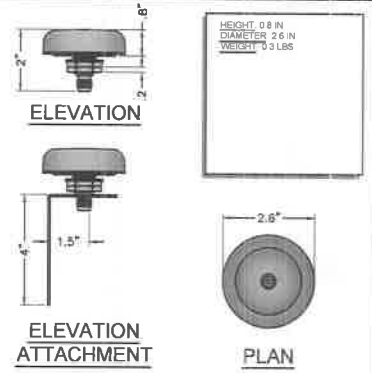
MOUNTED RELAY SCALE N.T.S. 4



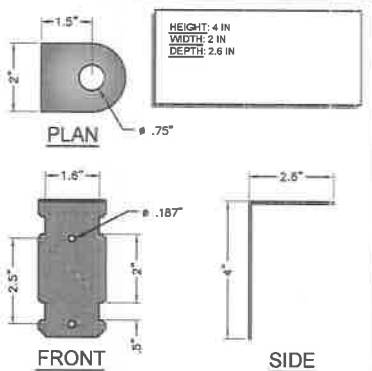
RADIO SUN SHIELD SCALE N.T.S. 5



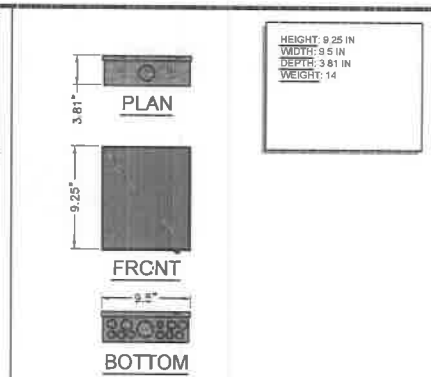
SURGE PROTECTOR SCALE N.T.S. 6



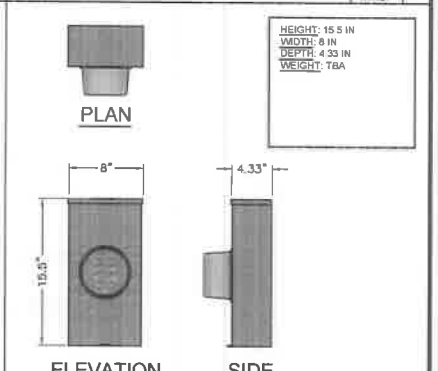
GPS ANTENNA SCALE N.T.S. 7



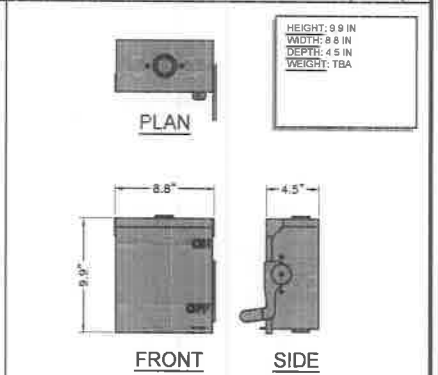
GPS MOUNTING SCALE N.T.S. 8



AC DISTRIBUTION SCALE N.T.S. 9



METER SOCKET SCALE N.T.S. 10



DISCONNECT SCALE N.T.S. 11

FL NETWORK TRANSPORT, LLC

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WINTER HAVEN, FL 33880
UTILITY POLE

SHEET TITLE
ANTENNA & EQUIPMENT 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:

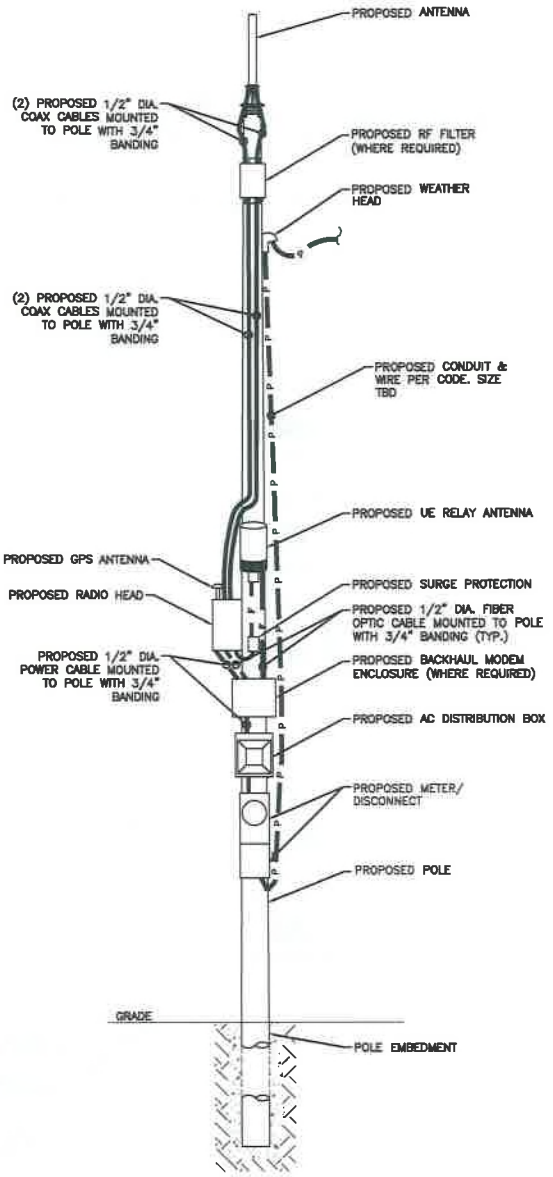
N.E.C.	NATIONAL ELECTRICAL CODE
A.N.S.I.	AMERICAN NATIONAL STANDARDS INSTITUTE
I.E.E.E.	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
A.S.T.M.	AMERICAN SOCIETY FOR TESTING MATERIALS
N.E.M.A.	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
U.L.	UNDERWRITERS LABORATORIES, INC.
N.F.P.A.	NATIONAL FIRE PROTECTION ASSOCIATION

RACEWAYS AND WIRING:

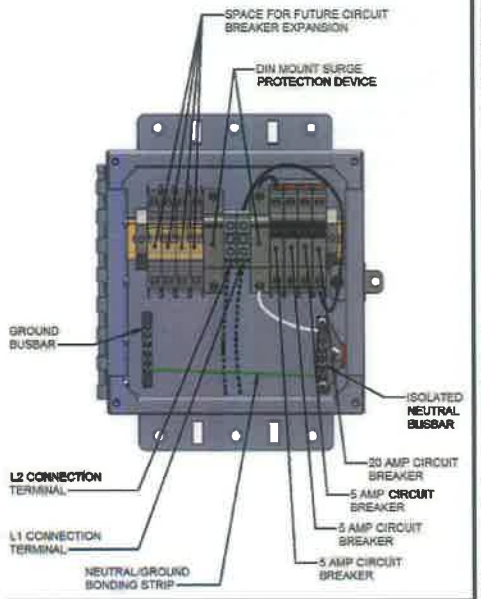
1. WIRING OF EVERY KIND MUST BY INSTALLED IN CONDUIT, UNLESS NOTED OTHERWISE, OR AS APPROVED BY THE ARCHITECT/ENGINEER.
2. UNLESS OTHERWISE SPECIFIED, ALL WIRING SHALL BE COPPER (CU) TYPE THWN, SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL CODES.
3. RACEWAYS SHALL BE GALVANIZED STEEL, 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.



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.



CABLING DIAGRAM 1

SCALE: NOT TO SCALE

FL NETWORK TRANSPORT, LLC

PROJECT NO:	ER600201
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CHECKED BY:	L. THREEWITT

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SHEET TITLE
ELECTRICAL DETAILS

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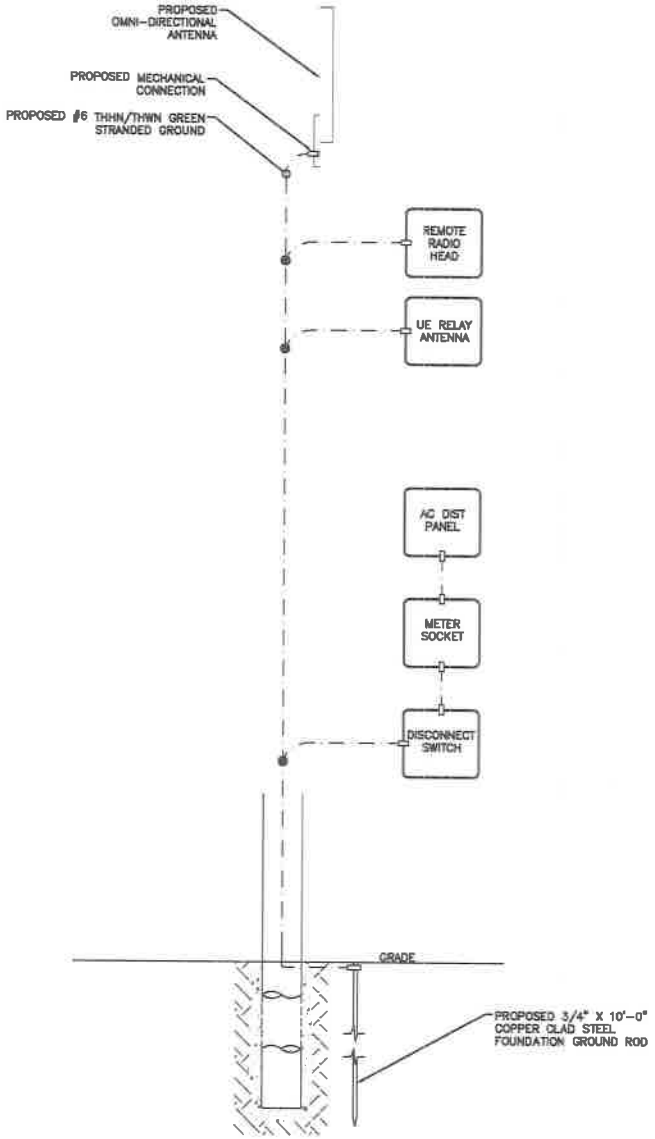

LEGEND
- CADWELD CONNECTION
- MECHANICAL CONNECTION
- COMPRESSION CONNECTION

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

GROUNDING RISER DIAGRAM | 1

SCALE: NOT TO SCALE

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WINTER HAVEN, FL 33880
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) 583-8000

     PHASAR CORPORATION
     P.O. BOX 5123
     DEARBORN, MI 48128

     AMBUSH HERBICIDE
     EPA REGISTERED

     (800) 528-4924

     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.

FL NETWORK TRANSPORT, LLC

INTERSTATE

PROJECT NO:	ER800201
DRAWN BY:	T. VIDAL
CHECKED BY:	L. THREEWITT

A	05.09.18	FOR REVIEW

PRELIMINARY

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TA90XSDQJA
9FLB004614
6TH ST SE &
AVENUE I SE
WINTER HAVEN, FL 33880
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	54886BE
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.

FL NETWORK TRANSPORT, LLC

INTERSTATE

PROJECT NO:	ER500201
DRAWN BY:	T. VIDAL
CHECKED BY:	L. THREEWITT

A	05.09.16	FOR REVIEW

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TA90XSDQJA
9FLB004614
6TH ST SE &
AVENUE I SE
WINTER HAVEN, FL 33880
UTILITY POLE

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-2

PLAN NOTES:

1. PLANS DEPICTED ARE GENERAL GUIDELINES FOR TEMPORARY TRAFFIC CONTROL PLANS (TCP) TO INCLUDE PEDESTRIAN AND WORKER SAFETY. CONTRACTOR IS REQUIRED TO HAVE PREPARED A SITE-SPECIFIC TCP FOR REVIEW AND APPROVAL BY THE HIGHWAY AUTHORITY HAVING JURISDICTION. IF REQUIRED, THE FIRM PREPARING THE TCP SHALL BE AUTHORIZED OR CERTIFIED BY THE AUTHORITY HAVING JURISDICTION.
2. EXTEND CHANNELIZATION DEVICES INTO SHOULDER WHERE APPLICABLE.
3. DISTANCES AS INDICATED IN TABLE 1 SHOULD BE INCREASED FOR CONDITIONS THAT WOULD AFFECT STOPPING DISTANCE SUCH AS DOWNGRADES OR LIMITED SIGHT DISTANCES. DISTANCES CAN BE DECREASED FOR LOW-SPEED (RESIDENTIAL) AREAS WITH APPROVAL BY THE AUTHORITY HAVING JURISDICTION. NIGHT-TIME WORK IS PROHIBITED UNLESS IT IS REQUIRED AS A CONDITION OF APPROVAL BY THE HIGHWAY AND LOCAL AUTHORITY HAVING JURISDICTION.
4. SHOULDER TAPERS SHOULD BE 1/3 OF THE ON-STREET TAPER LENGTH.
5. MAINTAIN A MINIMUM LANE WIDTH OF 10'.
6. THIS LAYOUT APPLIES TO SPEEDS 55 MPH OR LESS.

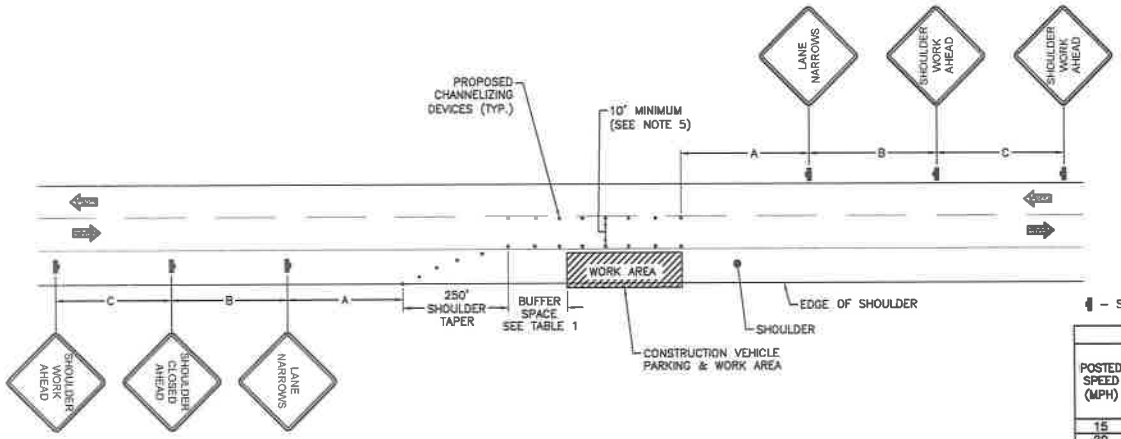

TABLE 1					
POSTED SPEED (MPH)	DISTANCE BETWEEN SIGNS			TAPER	BUFFER
	A	B	C	L (SEE NOTE)	
15	100'	100'	100'	45'	100'
20	100'	100'	100'	80'	115'
25	100'	100'	100'	125'	155'
30	200'	200'	200'	180'	200'
35	200'	200'	200'	245'	250'
40	350'	350'	350'	320'	305'
45	350'	350'	350'	540'	360'
50	500'	500'	500'	600'	425'
55	500'	500'	500'	660'	495'
60	500'	500'	500'	720'	570'
65	500'	500'	500'	780'	645'

NOTES:

A) DISTANCES IN FEET UNLESS OTHERWISE NOTED.
B) CONTRACTOR TO VERIFY EXISTING SPEED LIMIT.
C) DISTANCES SHOWN ARE NOT VALID FOR LIMITED ACCESS HIGHWAYS. CONSULT STATE DOT MANUAL FOR DISTANCES.
D) ADJUST DISTANCES TO COMPLY WITH REQUIREMENT OF THE STATE OR LOCAL HIGHWAY AUTHORITY HAVING JURISDICTION. SEE NOTE 1, SHEET X.X.
E) TAPER LENGTHS SHOWN BASED ON 12' LANE WIDTH. SEE NOTE 18, SHEET 6.1.

TRAFFIC CONTROL PLAN - SHOULDER WORK | 1

SCALE: NOT TO SCALE

FL NETWORK TRANSPORT, LLC

PROJECT NO:	ER600201
DRAWN BY:	T. VIDAL
CHECKED BY:	L. THREEWITT

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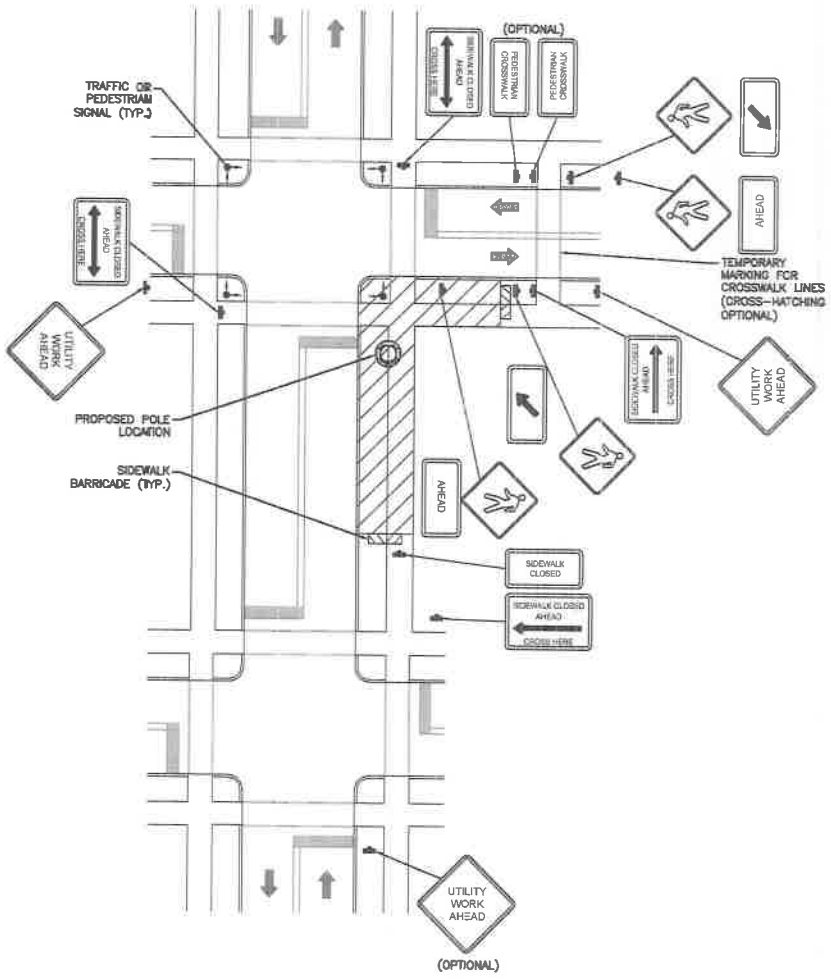
TAS0XSDQJA
9FLB004614
6TH ST SE &
AVENUE I SE
WINTER HAVEN, FL 33880
UTILITY POLE

SHEET TITLE
TRAFFIC CONTROL PLAN

SHEET NUMBER
6.0

TRAFFIC CONTROL GENERAL NOTES

1. ALL TEMPORARY TRAFFIC CONTROL SIGNAGE, LAYOUTS AND PROCEDURES SHALL COMPLY WITH LOCAL JURISDICTIONAL REQUIREMENTS AND MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION, WHICHEVER IS MORE STRINGENT.
2. PRIOR TO ANY ROAD CONSTRUCTION, TRAFFIC CONTROL SIGNS AND DEVICES SHALL BE IN PLACE.
3. TRAFFIC CONTROL DEVICES FOR LANE CLOSURES INCLUDING SIGNS, CONES, 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.
4. SELECTION, PLACEMENT, MAINTENANCE, AND PROTECTION OF TRAFFIC, PEDESTRIANS, AND WORKERS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) – PART VI "TEMPORARY TRAFFIC CONTROL", AND LOCAL JURISDICTIONAL REQUIREMENTS UNLESS OTHERWISE NOTED IN THE PLANS AND SPECIFICATIONS, AND SHALL BE APPROVED BY THE APPROPRIATE HIGHWAY AUTHORITY HAVING JURISDICTION.
5. ADVANCE WARNING SIGNS, DISTANCES, AND TAPER LENGTHS MAY BE EXTENDED TO ADJUST FOR REDUCED VISIBILITY DUE TO HORIZONTAL AND VERTICAL CURVATURE OF THE ROADWAY AND FOR ACTUAL TRAFFIC SPEEDS IF IN EXCESS OF POSTED SPEED LIMITS.
6. TAPERS SHALL BE LOCATED TO MAXIMIZE THE VISIBILITY OF THEIR TOTAL LENGTH.
7. CONFLICTING OR NON–OPERATING SIGNAL INDICATIONS ON THE EXISTING TRAFFIC SIGNAL SYSTEMS SHALL BE BAGGED OR COVERED.
8. 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. ALL TRAFFIC CONTROL DEVICES SHALL BE RESTORED TO MATCH PRE–CONSTRUCTION CONDITION AFTER COMPLETION OF WORK.
9. CONTRACTOR SHALL CONTACT LOCAL AUTHORITY HAVING HIGHWAY JURISDICTION AND PROVIDE ADDITIONAL "FLAGMEN" OR POLICE SUPERVISION, IF REQUIRED.
10. ALL EXCAVATED AREAS WITHIN OR ADJACENT TO THE ROADWAY SHALL BE BACKFILLED AND PLACED ON A MINIMUM 6H:1V SLOPE PRIOR TO END OF EACH WORK DAY. OTHER EXCAVATED AREAS WITHIN THE CLEAR ZONE ARE TO BE EITHER BACKFILLED OR PRECAST CONCRETE CURB BARRIER CONSTRUCTION BARRIER SET TEMPORARILY IN PLACE TO SHIELD VEHICULAR AND PEDESTRIAN TRAFFIC.
11. WHERE DICTATED BY LOCAL CONDITIONS, THE CONTRACTOR SHALL MAKE PROVISIONS FOR MAINTAINING PEDESTRIAN AND WORKER CROSSING LOCATIONS IN ACCORDANCE WITH ALL APPLICABLE CODES AND OSHA REQUIREMENTS.
12. CONSTRUCTION ZONE SPEED LIMIT IF REDUCED FROM POSTED LIMITS SHALL BE IN ACCORDANCE WITH MUTCD AND WILL BE DETERMINED BY THE AUTHORITY HAVING JURISDICTION.
13. THERE SHALL BE NO WORKERS, EQUIPMENT, OR OTHER VEHICLES IN THE BUFFER SPACE OR THE ROLL AHEAD SPACE.
14. DRIVEWAYS AND/OR SIDE STREETS ENTERING THE ROADWAY AFTER THE FIRST ADVANCE WARNING SIGN SHALL BE PROVIDED WITH AT LEAST ONE W20–1 SIGN (ROAD WORK AHEAD) AS A MINIMUM.
15. CONES MAY BE SUBSTITUTED FOR DRUMS AND INSTALLED UPON THE APPROVAL OF THE AUTHORITY HAVING JURISDICTION PROVIDED THEY COMPLY WITH MUTCD.
16. THE SPACING BETWEEN CONES, TUBULAR MARKERS, VERTICAL PANELS, DRUMS, AND BARRICADES SHOULD NOT EXCEED A DISTANCE IN FEET EQUAL TO 1.0 TIMES THE SPEED LIMIT IN MPH WHEN USED FOR TAPER CHANNELIZATION, AND A DISTANCE IN FEET EQUAL TO 2.0 TIMES THE SPEED LIMIT IN MPH WHEN USED FOR TANGENT CHANNELIZATION.
17. WHEN CHANNELIZATION DEVICES HAVE THE POTENTIAL OF LEADING VEHICULAR TRAFFIC OUT OF THE INTENDED VEHICULAR TRAFFIC SPACE, THE CHANNELIZATION DEVICES SHOULD BE EXTENDED A DISTANCE IN FEET OF 2.0 TIMES THE SPEED LIMIT IN MPH BEYOND THE DOWNSTREAM END OF THE TRANSITION AREA.
18. TAPER LENGTHS ARE CALCULATED AS FOLLOWS:
    L= $WS^2/60$ (40 MPH AND HIGHER) OR L2= WS (OVER 40 MPH),
    WHERE W= OFFSET WIDTH (FT), S= TRAFFIC SPEED (MPH).



TYPICAL PEDESTRIAN / WORKER SAFETY PLAN | 1

SCALE: NOT TO SCALE

FL NETWORK TRANSPORT, LLC

PROJECT NO:	ERS00201
DRAWN BY:	T. VIDAL
CHECKED BY:	L. THREEWITT

A	05.09.16	FOR REVIEW

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TA90XSDQJA
9FLB004614
6TH ST SE &
AVENUE I SE
WINTER HAVEN, FL 33880
UTILITY POLE

SHEET TITLE

TYPICAL PEDESTRIAN / WORKER SAFETY PLAN

SHEET NUMBER

6.1

WINTER HAVEN
The Chain of Lakes City

October 6, 2016

Michael Nuckols- Via Certified US Mail
Mobilitie, LLC
3475 Piedmont Road, NE
Suite 1000
Atlanta, GA 30305

RE: Right-of-way use permits

Dear Mr. Nuckols:

On June 9, 2016, six Right-of-way Use Permits were submitted to the City of Winter Haven's Engineering Services Division for the installation of poles upon which communication infrastructure will be attached. The applications and corresponding locations covered by this letter include:

1. Application 9FLB004612- Presumably an existing 35-foot pole with a new antenna to be located at 28.004107°N and 81.716575°W (generally in front of 699 Cypress Gardens Blvd). This will need to be clarified however as noted below.

2. Application 9FLB004614- A new 75-foot pole and antenna to be located at 28.012841°N and 81.718489°W (generally in front of Winter Haven High School on Sixth Street, SE).

3. Application 9FLB004615- Presumably an existing 35-foot pole with a new antenna to be located at 28.030257°N and 81.712672°W (generally located at the NW corner of Avenue H, NE and Tenth Street, NE near Polk State College). This will need to be clarified as noted below.

4. Application 9FLX002223- A new 120-foot pole and antenna to be located at 28.025009°N and 81.728178°W (generally located on Avenue C, NW, north of 199 Avenue B, NW).

5. Application 9FLX002226- A new 120-foot pole and antenna to be located at 28.004937°N and 81.751479°W (generally located at the NE corner of Recker Highway and South Lake Ship Drive near Sertoma Park).

6. Application 9FLX002227- A new 120-foot pole and antenna to be located at 28.005889°N and 81.727988°W (generally located on Post Avenue, SW, north of 101 Cypress Gardens Blvd).

Upon receipt of the applications, staff conducted research on the proposed communication infrastructure as well as reviewed applicable sections of the Winter Haven Code of Ordinances. Upon completion of this review, staff concluded the following:

1. The proposed poles meet the definition of a communication tower contained in Chapter 21, Article IX, of the Winter Haven Code of Ordinances (WHC). A communication tower is defined as "any

structure that is designed and constructed primarily for the purpose of supporting one (1) or more communication antenna for telephone, radio, and similar communication purposes, including self-supporting lattice towers, guyed towers, or monopole towers. The term includes radio and television transmission towers, microwave towers, common carrier towers, cellular telephone towers, camouflaged towers, and any support structures thereto."

2. The proposed poles and related antennas are subject to the provisions of the City's Communication Tower and Communication Antenna Regulations contained in Chapter 21, Article III, Division 12 of the Winter Haven Code of Ordinances (WHC).

3. As the proposed poles are classified as communication towers, per Section 21-235, WHC, they are required to be sited in locations designated as Commercial, Industrial, or Institutional on the City's Future Land Use Map upon receiving Special Use Approval from the Winter Haven Planning Commission. As right-of-ways are not designated with Future Land Use designations, the Future Land Use of the adjoining parcel was used to determine compliance with this Section. Special Use Approvals have not been obtained for the submitted applications. Furthermore, the proposed pole contained in application 9FLX002226 is proposed to be adjacent to property designated as Recreation on the City's 2025 Future Land Use Map, and is not eligible for Special Use Approval.

4. Proposed antennas contained in applications 9FLB004612 and 9FLB004615 are presumed to be installed on existing utility poles. If that is the case they are considered a co-location onto an existing use. Please clarify the foregoing as there is some internal inconsistency/ambiguity in the applications submitted. Co-location onto an existing structure does not require Special Use Approval from the Planning Commission; however, notwithstanding the foregoing, the antenna proposed by application 9FLB004612 is located within a right-of-way owned and maintained by the Florida Department of Transportation (FDOT). You will need to receive approval from FDOT to install any proposed antenna within the FDOT right-of-way.

5. The proposed pole contained in application 9FLX002223 does not appear to meet the minimum 1,500-foot separation from an existing communication tower located near the intersection of Third Street, NW and Avenue B, NW as required by Section 21-235 (e) (2), Table 3.7, WHC.

6. In addition to Planning Commission approval, design standards and siting requirements contained in Sections 21-235(d), 21-235 (e), 21-235(f), and 21-235(g), WHC are required to be met. A review of each of the proposed sites found insufficient space to meet these requirements.

In summary, as stated in the above conclusions, four of the submitted applications referenced above, fail to comply with one or more of the requirements contained Section 21-235 of the Winter Haven Code of Ordinances and are denied. These applications are 9FLB004614, 9FLX002223, 9FLX002226, and 9FLX002227. Permit application 9FLB004612 cannot be approved by the City as we lack jurisdiction for this approval. Please contact FDOT regarding approval of this location.

Permit application 9FLB004615 falls under the City's jurisdiction and has been reviewed by the City's Engineering Services Division which offers the following comments:

1. We will need a copy of TECO's approval of the proposed antenna installation on their light pole(s).

2. We will need TECO's approval of the "structural evaluation" to determine if the subject pole has capacity to adequately support the equipment. See the note on sheet 2 of the plans.

3. Remove the "Preliminary" stamp on all the plans.

4. Plan sheets 6.0 and 6.1 needs to reference FDOT Index 600 series.

5. Applicant shall provide proof of insurance as noted in item #9 of the permit application.

6. Please clarify if the proposed antenna will be mounted to an existing utility pole as indicated on Sheet Number 2.0 dated May 16, 2016, or on a new pole as indicated on the City of Winter Haven Use Permit application dated June 9, 2016. If the antenna is to be mounted to a new pole, this location will not meet the criteria for a new communication tower as contained in Section 21-235, WHC.

Please provide the clarifications regarding the two (2) noted applications referenced above.

Thank you and I look forward to hearing from you.

Sincerely,

Sean H. Byers, AICP
Senior Planner

cc: Cleveland Bain, Jr. NRE Permitting Manager (via e-mail -cbain@mobilitie.com)

mobilitie
intelligent infrastructure

RECEIVED
Boswell & Dunlap LLP
JAN - 3 2017
by FJM, Jr.

3475 Piedmont Road NE
Suite 1000
Atlanta, GA 30305

December 28, 2016

T. Michael Stavres
Interim City Manager
Winter Haven City Hall
451 Third Street NW
Winter Haven, FL 33881

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

Dear Mr. Stavres:

Thank you for the time you and your staff have spent reviewing Mobilitie's proposed utility poles in Winter Haven, Florida (the "City"). Pursuant to correspondence and conversations between you and Cleveland Bain, Permitting Manager, the City requested a letter explaining Mobilitie's legal right to occupy the City's rights-of-way. 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 essential service 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

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[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 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; Chapter 10, Riviera 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. 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 Winter Haven. 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. Cleveland Bain, 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. Cleveland can be reached at 407-280-4920, or via email at CBain@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: Frederick John Murphy, Jr. - City Attorney

[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).