Florida Power & Light Company, 215 S. Monroe St., Suite 810, Tallahassee, FL 32301

ORIGINAL

April 24, 2006

Ms. Blanca S. Bayo, Director
Commission Clerk and Administrative Services
Florida Public Service Commission
2540 Shumard Oak Boulevard
Betty Easley Conference Center, Room 110
Tallahassee, Florida 32399-0850

060355-EI

Re: Petition of Florida Power & Light Company for Emergency Rule or, Alternatively, Declaratory Statement Prohibiting Wireless Attachments in Electric Supply Space.

Dear Ms. Bayo:

Enclosed herewith for filing on behalf of Florida Power & Light Company ("FPL") are an original and seven copies of FPL's Petition for Emergency Rule or, Alternatively, Declaratory Statement Prohibiting Wireless Attachments in Electric Supply Space. Also enclosed is a computer diskette containing FPL's Petition in Word format.

Thank you for your assistance with this filing.

Sincerely,

Leonard Adams

for John T. Butler, Esq.

JTB/llc
Enclosures

BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

Petition for Emergency Rule, or	)	
Alternatively, Declaratory Statement Prohibiting	)	Docket No. 060356-EI
Wireless Attachments in Electric Supply Space	)	Filed: April 24, 2006

PETITION OF FLORIDA POWER AND LIGHT COMPANY FOR EMERGENCY RULE OR, ALTERNATIVELY, DECLARATORY STATEMENT

Florida Power and Light Company ("FPL"), by its undersigned counsel, requests the Commission, pursuant to Section 120.54(4) of the Florida Statutes, and in connection with Docket No. 060173-EU, to issue an Emergency Rule Prohibiting Wireless Telecommunications Attachments in Electric Supply Space ("Petition") to remain effective until such time as the Commission completes its rulemaking in Docket No. 060173-EU and determines whether such a practice is a safe and advisable one in the State. In the alternative, FPL asks the Commission to issue a declaratory statement, pursuant to 28-105.001 *et seq.*, of the Florida Administrative Code ("F.A.C."), that prohibits T-Mobile South LLC ("T-Mobile") from attaching wireless telecommunications devices at the top of FPL's electric distribution poles until the Commission concludes its review of its pole strengthening standards in the proceedings currently before it, including in Docket No. 060173-EU. In support thereof, FPL states as follows.

JURISDICTION

This Petition seeks an emergency rule from the Florida Public Service Commission ("Commission") that immediately prohibits the placement of wireless telecommunications devices and equipment in the electric supply space of distribution poles pending the outcome of the Commission's rulemaking concerning the hardening of electric distribution and transmission

facilities to better resist storm damage, including Docket No. 060173-EU. This Petition is not filed in response to any agency decision. FPL is not aware of any disputed issue of material fact. FPL does not seek a rule that would apply to any pole-top attachments of wireless devices that may presently exist.

The Commission possesses the authority to adopt an emergency rule. *See* Fla. Stat. § 120.54(4). FPL asks that the Commission, pursuant to this authority, immediately prohibit the attachment by wireless carriers of wireless telecommunications devices and equipment at the top of distribution poles until such time as the Commission completes its rulemaking in Docket No. 060173-EU and determines whether such a practice is a safe and advisable one in the State.

In the alternative, should the Commission determine that an emergency rule is not proper, FPL seeks a declaratory statement of the Commission, pursuant to § 28-105.001 F.A.C., that prohibits T-Mobile from attaching its wireless telecommunications devices at the top of FPL's electric distribution poles until the Commission concludes its review of its pole strengthening standards in the proceedings currently before it, including in Docket No. 060173-EU.

BACKGROUND

FPL is a public utility subject to the jurisdiction of the Commission under Chapter 366, Florida Statutes (2005). FPL's General Offices are located at 9250 West Flagler Street, Miami, FL 33174. Any pleading, motion, notice, order or other document required to be served upon the petitioner or filed by any party to this proceeding should be served upon the following individuals:

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FPL serves approximately 4.3 million retail customers in its service area in Florida. Its service area comprises approximately 27,000 square miles in 35 of the state's 67 counties, encompassing the cities of Daytona Beach, Ft. Lauderdale, Ft. Myers, Miami, Naples and West Palm Beach and other densely populated areas on the East and West coasts of Florida. Further, FPL serves a number of less densely populated areas, including all or portions of Martin, St. Lucie, Indian River, and Brevard.

Pursuant to federal law, 47 U.S.C. § 224, FPL is required to provide cable and telecommunications companies with access to its distribution facilities. FPL provides that access in accordance with NESC standards, and allows access by telecommunications carriers to the "communications space" located on FPL's poles, which is located above the ground clearance of the pole, and safely below the electric supply space of the pole.

Recently, however, a demand has been made by one telecommunications company, T-Mobile, for access to the electric supply space including, but not limited to, the top of FPL's electric distribution poles.[1] T-Mobile believes access to the electric supply space on electric distribution poles is mandated by federal law because a bureau of the Federal Communications Commission ("FCC") has indicated that such access is contemplated by federal law. *See* Public

[1] T-Mobile is one of several cellular telephone providers operating throughout the State of Florida. T-Mobile is ubiquitous in FPL's service areas. *See* Coverage Maps, true and accurate copies of which are attached hereto as Exhibit A, which reflect T-Mobile coverage in random FPL service areas. Presently, T-Mobile provides its cellular network via wireless attachments made to property not owned or operated by FPL.

Notice, DA 04-4046 of Wireless Telecommunications Bureau, (rel. Dec. 23, 2004), a true and correct copy of which is attached hereto as Exhibit B. However, the bureau's Notice is not binding precedent, does not mandate such access, or claim that such access is mandated by law. In fact, the Notice specifically states that issues of safety and sound engineering may preclude such access. *Id.* Nonetheless, FPL has investigated the feasibility of allowing access to the electric supply space and the top of the pole. Because of engineering and safety concerns regarding such attachments, FPL to date has not permitted access to the electrical supply space on its poles to any attaching entity seeking to attach wireless attachments, including T-Mobile.

To be absolutely clear, the denial of access to the electric supply space does not equate with an overall denial of access to telecommunications companies like T-Mobile. Rather, all wireless and wireline telecommunications carriers *are permitted access* in the communications portion of the pole for wireless and other telecommunications attachments. FPL has made T-Mobile aware of its policy, which is applied indiscriminately as to all current and prospective attaching entities. *See* Letter to T-Mobile and attachment thereto, a true and accurate copy of which is attached hereto as Exhibit C.

T-Mobile now has threatened, in a letter to FPL that also was sent to the FCC, that it believes the law mandates such access and that it will file a formal complaint against FPL if it does not accede to T-Mobile's demands. *See* March 6, 2006 Letter, a true and correct copy of which is attached hereto as Exhibit D. Although the law does *not* require such access, and in fact specifically states that a pole owner may deny access "where there is insufficient capacity, or for reasons of safety, reliability, and generally applicable engineering purposes," 47 U.S.C. § 224(f)(2), the threat of such a suit places FPL in an untenable situation. On one hand, FPL is taking, of its initiative and at the behest of the Commission, several steps to improve and

strengthen its electric utility infrastructure in Florida as a result of a recent spate of hurricanes and the anticipation of hurricanes to come. This includes the hardening of its distribution poles by, among other things, implementing the strictest NESC standards to reduce the risk of pole failure in severe weather. Related to this heightened standard is the necessary prohibition on certain types of attachments, including wireless attachments, which increase considerably the wind loading at the top of distribution facilities. On the other hand, taking such measures to protect its infrastructure, the reliability of its provision of electricity, and the safety of the public and of workers on the utility pole, appears to now subject FPL to legal action by T-Mobile because T-Mobile believes it should have access to the top of FPL's utility poles.

Because of this conflict, FPL seeks emergency relief from the Commission until the Commission can determine whether, in light of the hardening of infrastructure needed in the State, telecommunications companies should be permitted access to the electric supply space at the top of utility distribution poles. FPL believes the practice should be prohibited and intends to propose rule amendments addressing this issue in Docket No. 060173-EU. Until the Commission determines whether this practice should be allowed, an emergency rule prohibiting attachments in the electric supply space would serve the public interest by maintaining the integrity of electric distribution facilities and by helping to ensure the safe and reliable provision of electricity to Floridians, especially as the 2006 hurricane season rapidly approaches. An emergency rule also would eliminate the expensive and time-consuming installation and subsequent removal of such attachments were a determination made that the practice is indeed not permitted in Florida. Such relief would not harm wireless telecommunications providers in the state that already are permitted access to the communications space of utility poles, and who have myriad options for the attachment of wireless facilities in addition to utility poles.

Should the Commission determine, however, that emergency relief is not appropriate, FPL asks the Commission to declare instead that T-Mobile is not permitted to make wireless attachments to the electric supply space, including the top of the pole, of FPL facilities until such time as the Commission has determined in Docket No. 060173-EU that such a practice is advisable in the State. This temporary relief would have little impact on T-Mobile, which: (1) is permitted to attach to the communications space of FPL's facilities; (2) already has a robust footprint in FPL's territory by means of other antenna support structures; and (3) has myriad options for the installation of wireless attachments in such areas.

ARGUMENT

I. FPL's Process of Building a Stronger Grid Requires Strict Load Bearing Limits on Distribution Poles That Prohibit Wireless Attachments at the Top of the Pole.

A. FPL's Hardening Regimen Prohibits Wireless Attachments in the Electrical Supply Space, Including the Top of the Pole.

In response to the direct hit to its service territory of five hurricanes, the impact of two other hurricanes in 2004 and 2005, as well as meteorological predictions for greater numbers of increasingly severe hurricanes in the future, FPL has proposed to take several steps to increase the resilience of its distribution and transmission facilities. These steps are outlined fully in a filing made to the Commission in January of 2006 entitled, "Storm Secure: FPL's Five Point Plan to Build a Stronger Grid for the Future." A true and correct copy of this report is attached hereto as Exhibit E, and is incorporated by reference herein.

An integral part of this plan is to increase the construction standards for strengthening FPL's distribution poles. As the report indicates, FPL has adopted the most demanding loading criteria set forth by the NESC, which affects the type of poles used, the height of the poles used, and the number and type of facilities that can be accommodated on a given pole.

In order to carry out its plan to strengthen its distribution facilities, FPL has developed engineering standards for the attachment of wireless facilities to its distribution system. *See* Exhibit C. Chief among these standards is a determination that wireless attachments must be restricted to the communications space on the distribution pole, and should not be allowed in the electric supply space or otherwise at the top of the pole. The primary rationale for this determination is that, because of the high-wind nature of FPL's territory, placing such attachments at the top of the pole creates a greater risk of pole failure from wind loading than if such attachments were kept lower on the pole in the communications space. *See* Affidavit of Thomas J. Kennedy, a true and correct copy of which is attached hereto as Exhibit F. Other reasons for the location of wireless attachments in the communications space, as noted below, include keeping communications workers out of the electrical area of the pole where they would be working in proximity to lethal voltages. It also facilitates prompt restoration and repair of the electrical system, ensuring that electric utility employees' efforts are not hampered, especially during outages. This limitation on wireless attachments also benefits FPL's customers, to the extent that it will facilitate more rapid storm restoration work and reduce the cost of replacing fractured poles following severe storms. It also does not penalize would-be attachers; they remain able to attach in the communications space of the very same pole.

B. FPL's Efforts Reflect the Commission's Direction to Electric Utilities to Harden Facilities.

FPL's efforts to harden its facilities are consistent with the Commission's instructions to electric utilities in the State to take short term and long term action to improve storm preparedness. In a February 20, 2006, memorandum, a copy of which is attached hereto as Exhibit G (the "Memorandum"), the Commission indicated that electric utilities should take

actions in the short term, as the Commission promulgates long term rules, to strengthen their electric distribution facilities by, for example, increasing vigilance against unlawful attachments. *Id.* at 6. The Commission also clearly stated that electric utilities should use "stress calculations" to ensure that distribution poles are not overloaded by attachments made to them. *Id.* The Commission also indicated long-term goals for its rules, including the feasibility of electric utility companies hardening their transmission and distribution facilities to withstand Category 3 hurricanes. *Id.* at. 9. FPL's efforts to minimize the load at the top of its poles are in line with the Commission's short term dictates, as well as the direction of increased safety in which the Commission intends to lead electric utilities.

The Memorandum also seeks to clarify and strengthen the Commission's existing jurisdiction over safety standards for electric facilities. The Memorandum states that, for example, although the Commission has specific and exclusive authority over such safety issues, no centralized coordinating body in the State exists to set minimum construction standards. Rather, electric utilities are permitted to adopt their own standards, so long as they at least comply with the NESC. In an effort to advance safety of transmission and distribution facilities, the Commission has also initiated Docket No. 060173-EU.

Under current state regulations, which set a floor as to the minimum safety and engineering standards, utilities like FPL are permitted to surpass the NESC minimum standards where necessary. FPL, which meets or surpasses all NESC standards for its facilities, now seeks to increase its safety standards in response to the increasing severity of weather in the State. This effort is permitted by law and is in specific conformance with the Commission's policy expressed in the Memorandum to increase safety: "in light of a more active hurricane cycle,

Florida needs to review and possibly change the minimum acceptable constructions standards of the investor-owned electric utility transmission and distribution facilities." *Id.* at 11.

C. Demands For Attachments in the Electric Supply Space Are Counterproductive to FPL's Safety Efforts and Reflect a Misunderstanding of Law.

T-Mobile seeks to deploy wireless facilities to the top of FPL's poles without limitation, and has expressed its intent to bring suit to seek that access. *See* Exhibit D. Demands for access to the electric supply space, however, are at odds with FPL's and the Commission's safety efforts and are not, in any event, mandated by law.

In 1998, the FCC determined that, pursuant to 47 U.S.C. § 224, wireless telecommunications providers were entitled to access to utility distribution facilities. *See Implementation of Section 703(e) of the Telecommunications Act of 1996; Amendment of the Commission's Rule and Policies Governing Pole Attachments, Report and Order*, 13 FCC Rcd 6777, 6798-99 ¶¶ 39-41 (1998); *affirmed by National Cable Telecommunications Ass'n v. Gulf Power Co.*, 534 U.S. 327 (2002).

The access rights of wireless telecommunications companies, however, are not unfettered. Rather, pole owners retain the right, as they must, to deny access where "there is insufficient capacity, or for reasons of safety, reliability, and generally applicable engineering purposes," 47 U.S.C. § 224(f)(2). As set forth in this Petition, the engineering standards for FPL's service territory, as well as the safety of all workers on or around FPL's distribution poles, demand denial of access to any attaching entity that seeks to affix wireless equipment or other attachments to the tops of FPL's distribution poles. FPL's policy is grounded in solid engineering analysis and years of experience with load bearing on its distribution poles. *See*

Exhibits E and F. Moreover, the policy is applied in a non-discriminatory fashion to any party that might seek such access.

FPL's determination that safety and engineering requirements proscribe the attachment of wireless facilities to its pole tops does not leave wireless attachers like T-Mobile without access rights. FPL permits such attachments in the communications space of the utility pole. That T-Mobile or other companies would prefer access elsewhere on the pole is of no moment; safety and engineering make clear that such attachments cannot be made.

II. Immediate Commission Action Is Necessary.

A. An Emergency Rule Prohibiting Pole Top Attachments Will Preserve the Status Quo Until the Commission Concludes Such a Practice is Safe.

In Docket No. 060173-EU, the Commission is proposing to set more stringent construction standards than the minimum requirements of the NESC in order to strengthen overhead facilities in the State, especially during severe weather. FPL will suggest in that docket the types of changes it believes are advisable to reach this result, including a prohibition on wireless and other types of attachments to the top of distribution poles. *See* Exhibit C.

Working against the Commission's efforts, and those of FPL, is the threat of suit by T-Mobile, which seeks the very type of precarious attachment that FPL and the State are seeking to prohibit. The Commission must act immediately to preserve the status quo by issuing an emergency rule that prospectively prohibits wireless telecommunications carriers from attaching wireless attachments to the tops of electric distribution poles until the Commission has completed its safety standards inquiry in Docket No. 060173-EU and has determined whether such attachments pose an undue burden in Florida, which is so susceptible to hurricane force winds.

B. An Emergency Rule Will Not Prejudice Attaching Entities.

At a time when the propriety of making pole top wireless attachments is in dispute, an emergency prohibition of such attachments will serve pole owners and potential attaching entities by avoiding the costly and time-consuming construction and later removal of such attachments if the Commission determines that such attachments are not permitted under its guidelines and the NESC. Further, an emergency rule may prevent costly litigation between attaching entities and electric distribution pole owners before the FCC.

Insofar as this Petition affects T-Mobile, as the party currently seeking pole top attachments, T-Mobile would not be harmed by an emergency rule prohibiting such attachments until the Commission completes its inquiry in Docket No. 060173-EU. First, T-Mobile remains able to make attachments to FPL facilities in the telecommunications space. FPL has no interest in denying access to T-Mobile; it seeks only to ensure that those attachments are not placed in an unsafe position. *See* Exhibits C, F. Second, T-Mobile remains free to attach its wireless facilities to other locations (rooftops, steel cell towers, etc.) if it prefers, as it has done to date in the State, where its footprint already is robust. *See* Exhibit A. No allegation can seriously be made that T-Mobile will be unable to deploy its network, or to operate its network, because of FPL's prohibition on pole top attachments. T-Mobile's network is deployed, its network is operational, and if it seeks additional access to FPL facilities, it simply must be made in accordance with the FPL's safety and engineering standards, which dictate that such attachments be made only in the telecommunications space of the pole. *See* Exhibit C.

Finally, an emergency prohibition of pole top attachments to FPL distribution poles also would not negatively impact the State's telecommunications customers, who already enjoy

robust wireless coverage offered by many carriers. Like T-Mobile, other carriers also continue to have access to FPL facilities in the telecommunications space, and also continue to have other options for the placement of their wireless facilities.

III. FPL Seeks an Emergency Rule Prohibiting Attachments in the Electric Supply Space.

FPL seeks an emergency ruling of the Commission, pursuant to Fla. Stat. § 120.54(4), that wireless telecommunications carriers are immediately prohibited from attaching wireless equipment in the electrical supply space, including the pole top, of electric distribution facilities. Section 120.54(4) permits the Commission to issue an emergency ruling where an immediate danger to the public health or safety requires such action. The immediate danger presented by pole top wireless attachments is three-fold.

First, and as described above, the presence of the attachments hinders the ability of the distribution pole to handle its primary load, the electrical wires and other facilities, for which it exists. *See* Exhibit F. By placing heavy or otherwise unwieldy attachments at the top of the pole, the integrity of the pole is compromised on a day-to-day basis, and especially during times of severe wind and weather. If such attachments are made, the public safety would be affected immediately as such attachments would increase the likelihood of pole failure. The collapse of distribution poles is dangerous in and of itself. Such pole failure, however, also causes the loss of electricity to Floridians and a prolonged repair and restoration period, which carries with it inherent dangers to many residents. If such attachments were permitted, the danger to the public could be as immediate as the next major storm system to hit FPL's service territory.

Second, permitting wireless attachments in the electric supply space, or in any areas above the communications supply space, would unnecessarily place communications workers in proximity to the high voltage electric distribution lines. The purpose of the communications

space, and its location well below the electrical space, is to prevent such workers from working in areas that are dangerous and, in many cases, for which they are not adequately experienced or trained. Thus, as a matter of safety for these workers, this practice should be prohibited.

Third, the presence of wireless attachments at the top of the pole, or otherwise in the electrical supply space, needlessly complicates the work of electric utility line crews, who are called upon to make repairs and to perform other vital services, often in the very worst wind, rain and light conditions. Attempts to remove distribution facilities, when confronted with telecommunications attachments at the top of (and many times effectively capping) the poles makes these tasks more dangerous than necessary. As a matter of safety for electric utility workers, this practice should be prohibited.

The emergency rule is intended to work in conjunction with the Commission's hardening docket, such that the practice of attaching wireless attachments to the top of distribution poles will be prohibited immediately and until such time as the Commission determines in Docket No. 060173-EU whether such a practice should be permitted. Based upon its experience and testing, FPL strongly urges the Commission that the practice should not be allowed, and it looks forward to working with the Commission to develop standards that protect the Florida public.

IV. In the Alternative, FPL Seeks a Declaratory Statement Prohibiting T-Mobile From Making Attachments in the Electric Supply Space of FPL's Distribution Poles.

If the Commission does not grant the emergency relief sought, FPL seeks a declaration of the Commission, lasting until the Commission has determined these issues in its hardening docket, that pole top attachments by T-Mobile to FPL facilities are not permitted. The Commission holds the authority pursuant to § 28-105.001 to issue a declaratory statement in order to resolve a controversy or answer questions or doubts regarding the applicability of statutes, regulations, orders or rules over which it has authority. Such a declaration seeks to

resolve questions regarding how the statutes, rules, or orders may apply to the petitioner's particular circumstances. FPL seeks a declaration in light of several regulations and statutes.

First, FPL seeks a declaration from the Commission that, at least until the issue is decided in the Commission's open docket related to the issue, FPL is permitted to adopt safety standards for its facilities as set forth in the NESC, pursuant to § 25-6.034 F.A.C. and Section 366.04(5)-(6) of the Florida Statutes. Specifically, FPL seeks a declaration that the prohibition of the attachment of wireless facilities in its electric supply space and at the top of its distribution poles, which is in conformance with the higher load bearing standards of the NESC, *see* Exhibits B and F, is allowed under the Florida Administrative Code, and state law.

Second, FPL seeks a declaratory statement of the Commission that the attachment of wireless equipment by T-Mobile to the electrical space of a FPL distribution pole, including the pole top, is an improper practice within the meaning of Section 364.14 of the Florida Statutes, which specifically grants the Commission the authority to prohibit such practices, and is an unsafe practice specifically prohibited by Section 25-4.038 of the F.A.C., which requires all telecommunications utilities to protect the public from danger caused by the provider's facilities.

As with the emergency relief requested above, the grant of a declaratory statement that prevents T-Mobile from attaching to the electric supply space until the Commission has determined whether the practice is an advisable one in the State, would serve the interests of the Commission, the people of Florida and the parties in protecting the safety, reliability and integrity of electric distribution infrastructure while all relevant issues are carefully and thoughtfully resolved. A declaratory statement could also serve to avert litigation of the issue at the FCC and avoid the expensive and unnecessary construction and later removal of such attachments if the Commission determines that such attachments are not permitted under its

guidelines and the NESC. Moreover, like the emergency relief sought, a declaratory statement would not harm T-Mobile, which remains free to attach to FPL's distribution poles in the communications space and to attach to other edifices, as it does now.

CONCLUSION

FPL has embarked upon a transmission and distribution system hardening program that is in line with the Commission's policy that utilities in the State of Florida must increase safety standards across the board in order to protect the safety of all Floridians and to better serve customers with reliable energy, especially during and after severe weather. The allowance of wireless attachments at the top of utility poles and in the electric supply space runs counter to these initiatives by increasing the load on the pole and making pole repair more difficult for utility workers. The Commission has the authority to determine, immediately, that such attachments cannot be made to electric distribution facilities. Accordingly, FPL asks that the Commission issue an emergency rule stating that wireless attachments may not be made in the electric supply space of electric distribution poles, including the top of the pole, until the Commission's grid strengthening initiatives have concluded and it has determined whether such practices should be allowed in the State. Should the Commission determine that an emergency rule is not appropriate, then FPL asks that it declare that wireless attachments by T-Mobile may not be made in the electric supply space of FPL's distribution poles, including the top of the pole, until the Commission's grid strengthening initiatives have concluded and it has determined whether such practices should be allowed in the State.

Respectfully submitted,

R. Wade Litchfield, Esq.
John T. Butler, Esq.
Attorneys for
Florida Power & Light Company
700 Universe Boulevard
Juno Beach, Florida 33408-0420

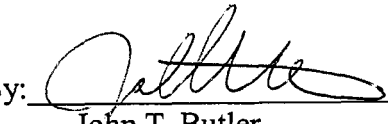
By: 
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EXHIBIT A

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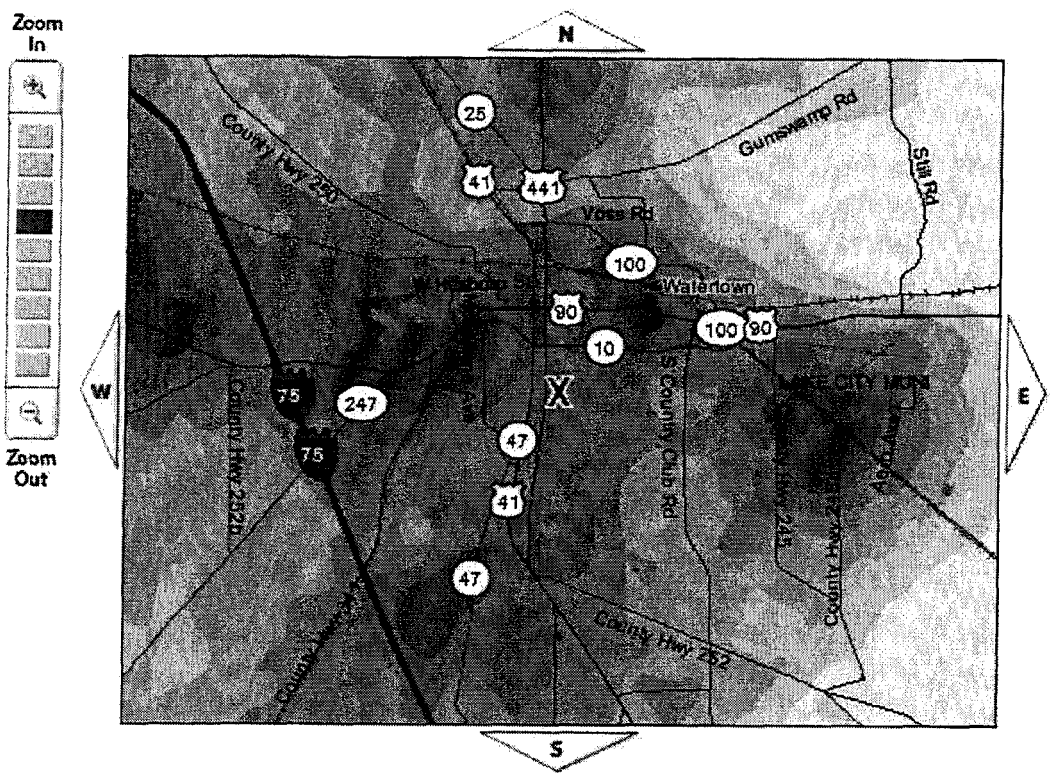

Mobile-to-mobile minutes and data services are not available in certain roaming areas included on T-Mobile's coverage maps.

Map Legend

Great Good Fair None

X Address Location
850 MHz Roaming Coverage
T-Mobile USA Roaming Coverage
T-Mobile Canada Roaming Coverage
T-Mobile Mexico Roaming Coverage

Print

This map predicts and approximates our wireless coverage area outdoors, which may vary from location to location and may change without notice. It may include locations with limited or no coverage. Our maps do not guarantee service availability. Even within a coverage area, there are several factors, such as: network changes, traffic volume, service outages, technical limitations, signal strength, your equipment, terrain, structures, foliage, weather, and other conditions that may interfere with actual service, quality, and availability, including the ability to make, receive, and maintain calls. Multi-band (850/1900 MHz) GSM/GPRS handset required for access to 850 Roaming Coverage. Ask a T-Mobile sales representative or visit www.t-mobile.com/morecoverage for more information regarding handset requirements and T-Mobile 850 MHz coverage. 850 MHz roaming is offered through our roaming partners; some features (e.g. picture messaging, mobile to mobile) may not be available while roaming. Learn more >

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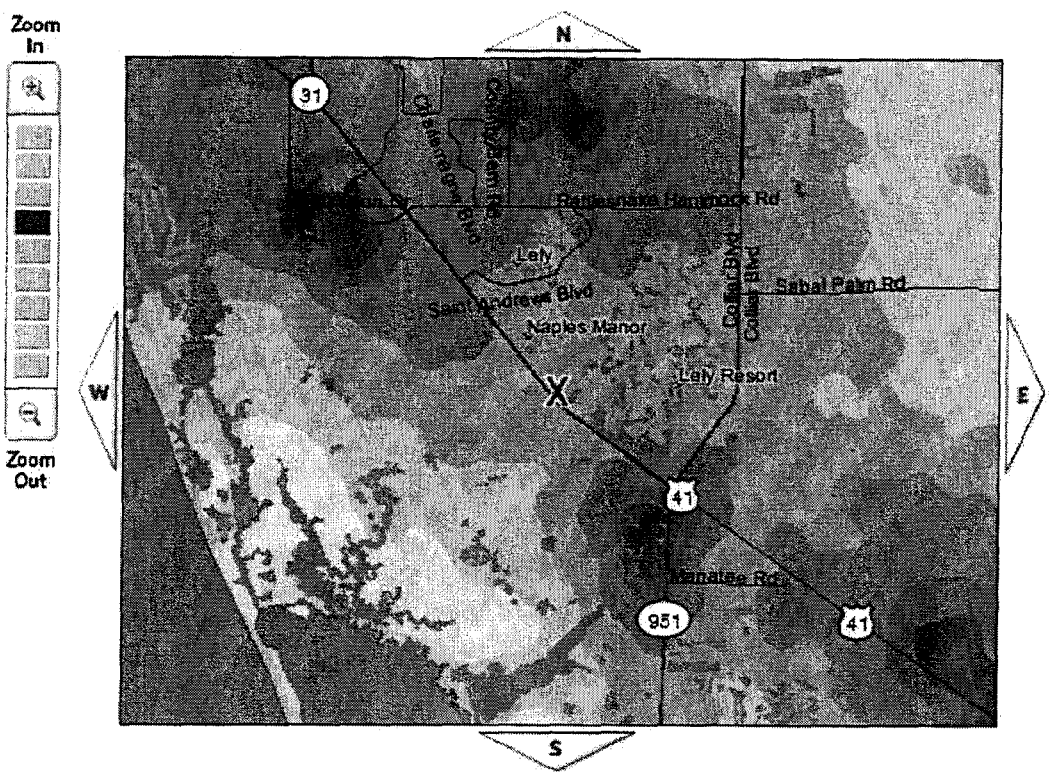

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Map Legend

Great **Good** **Fair** **None**

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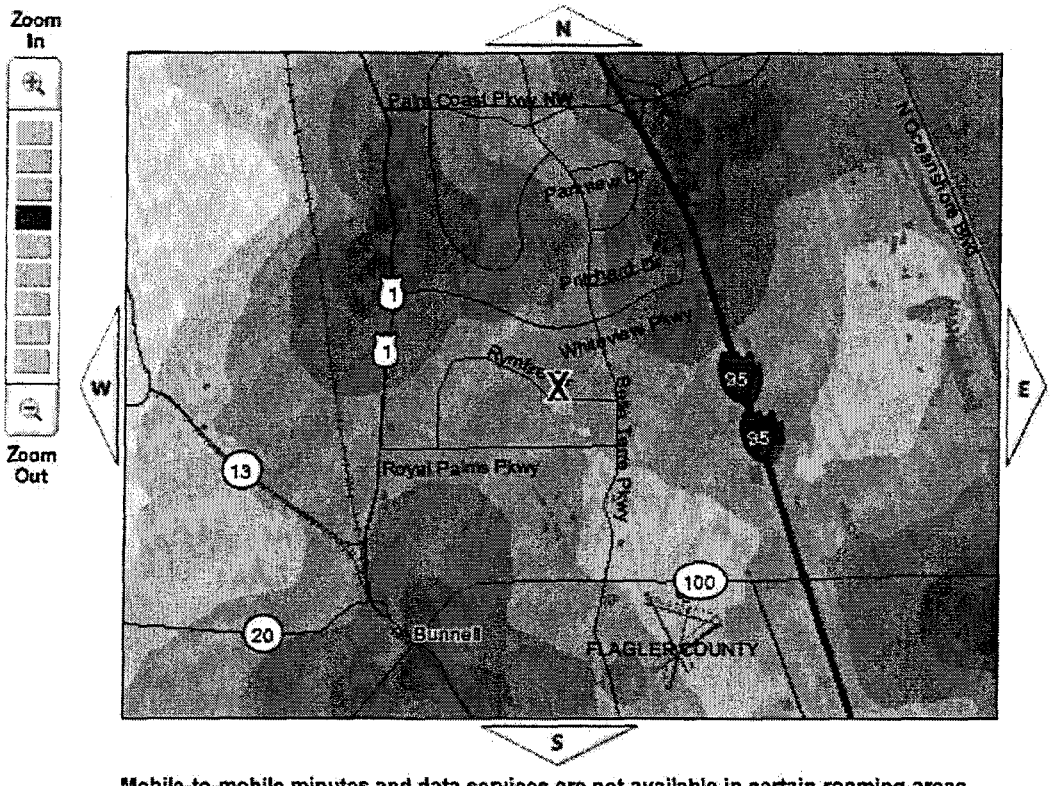

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Call anyone in America with no roaming or long-distance charges with any T-Mobile National rate plan. Make calls in more countries around the world than with any other US wireless carrier.

Street

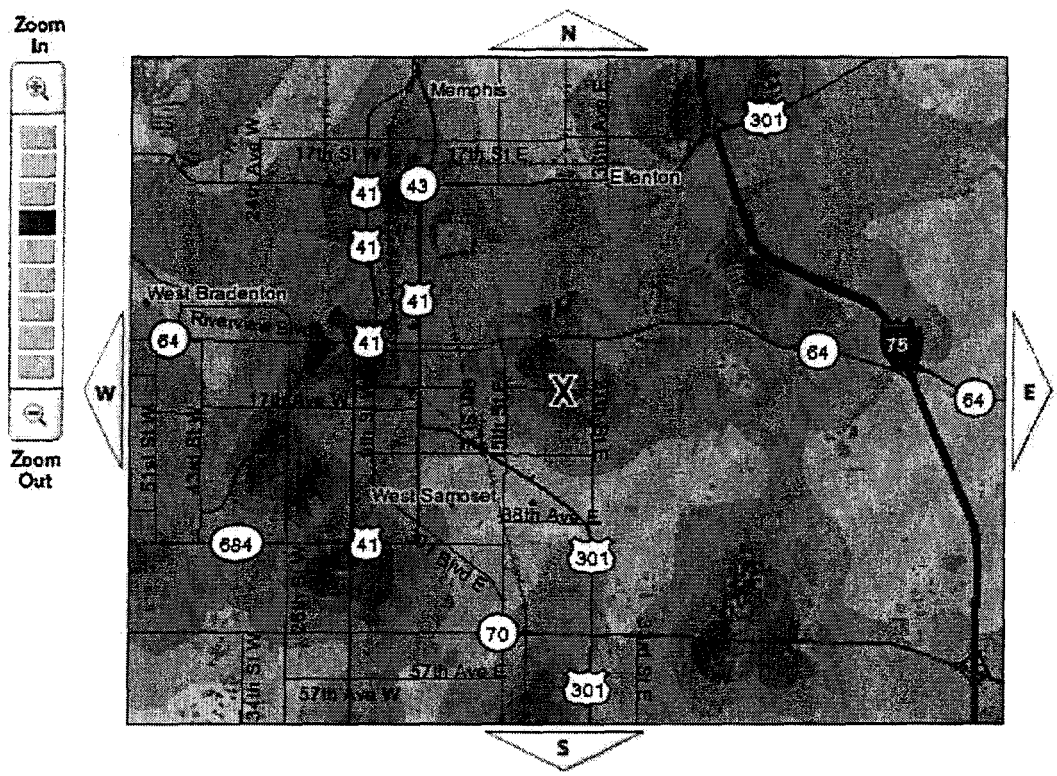
City

State **Zip** 34208

Display HotSpot locations search

Find a T-Mobile HotSpot location › clear

Prepaid coverage map ›
See international calling coverage ›
Learn more about T-Mobile's expanded coverage ›



Mobile-to-mobile minutes and data services are not available in certain roaming areas included on T-Mobile's coverage maps.

Map Legend

Great **Good** **Fair** **None**

X Address Location
850 MHz Roaming Coverage
T-Mobile USA Roaming Coverage
T-Mobile Canada Roaming Coverage
T-Mobile Mexico Roaming Coverage

Print

This map predicts and approximates our wireless coverage area outdoors, which may vary from location to location and may change without notice. It may include locations with limited or no coverage. Our maps do not guarantee service availability. Even within a coverage area, there are several factors, such as: network changes, traffic volume, service outages, technical limitations, signal strength, your equipment, terrain, structures, foliage, weather, and other conditions that may interfere with actual service, quality, and availability, including the ability to make, receive, and maintain calls. Multi-band (850/1900 MHz) GSM/GPRS handset required for access to 850 Roaming Coverage. Ask a T-Mobile sales representative or visit www.t-mobile.com/morecoverage for more information regarding handset requirements and T-Mobile 850 MHz coverage. 850 MHz roaming is offered through our roaming partners; some features (e.g. picture messaging, mobile to mobile) may not be available while roaming. Learn more >

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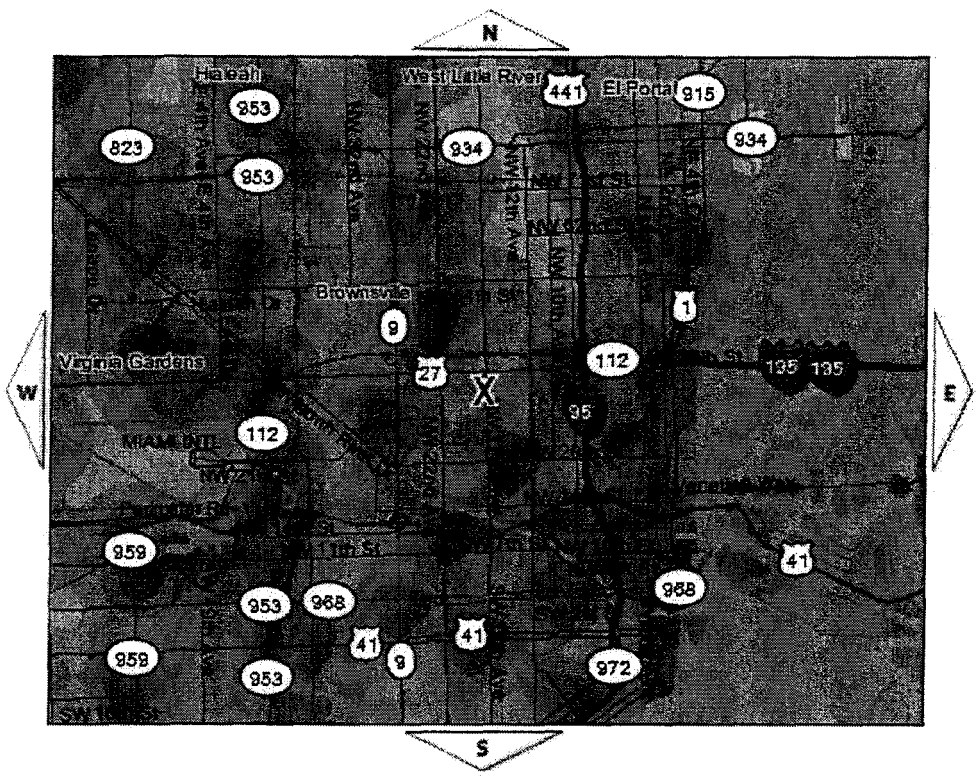
Prepaid coverage map ›
See international calling coverage ›
Learn more about T-Mobile's expanded coverage ›

Street
City Miami
State FL **Zip**
Display HotSpot locations search
Find a T-Mobile HotSpot location › clear

Zoom In
Zoom Out



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Prepaid coverage map ›
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Learn more about T-Mobile's expanded coverage ›

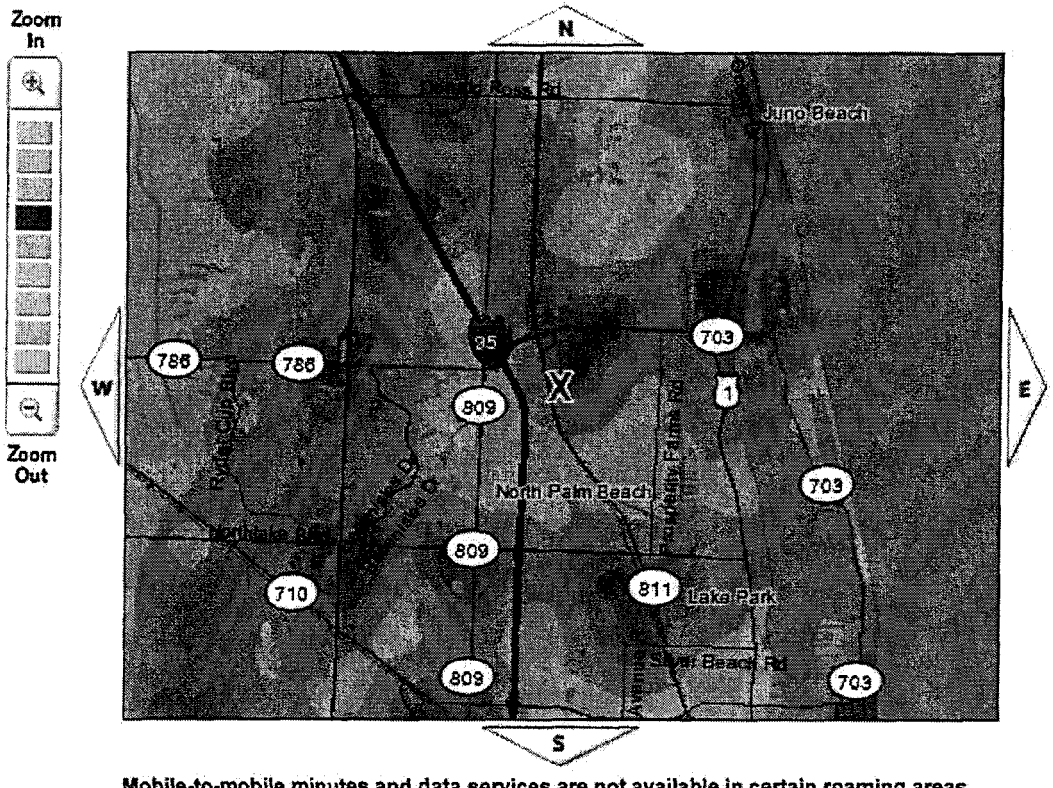
Street

City

State **Zip** 33410

Display HotSpot locations search

Find a T-Mobile HotSpot location › clear



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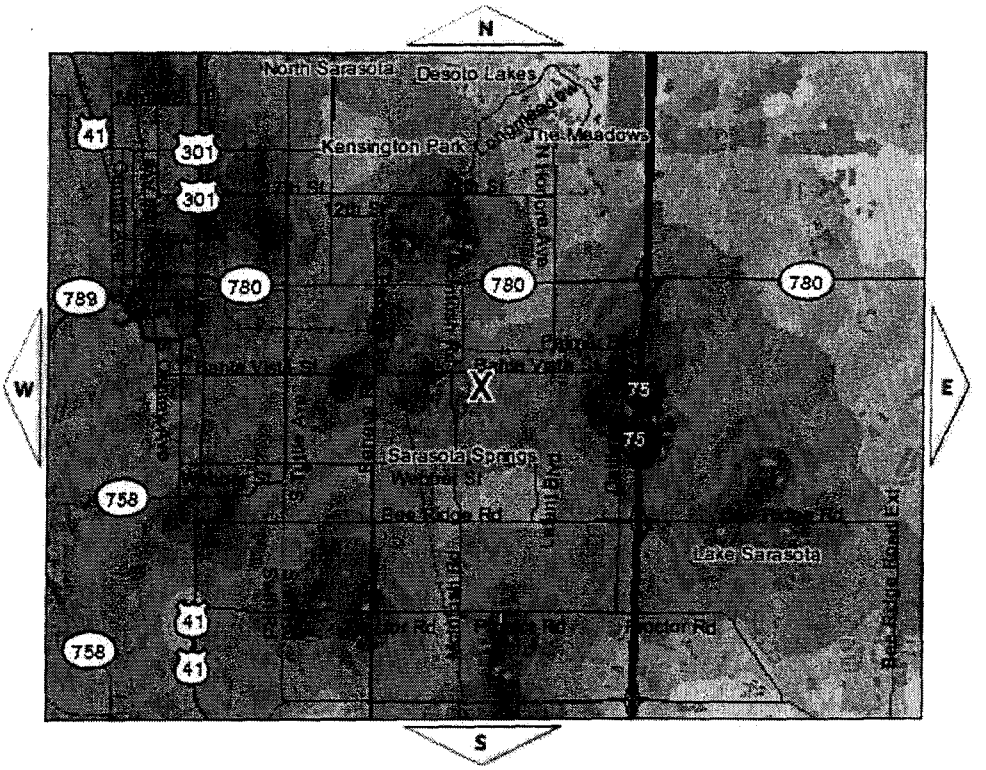
Prepaid coverage map ›
See international calling coverage ›
Learn more about T-Mobile's expanded coverage ›

Street
City
State **Zip** 34232

☐ Display HotSpot locations Search
✱ Find a T-Mobile HotSpot location › clear

Zoom In
Zoom Out



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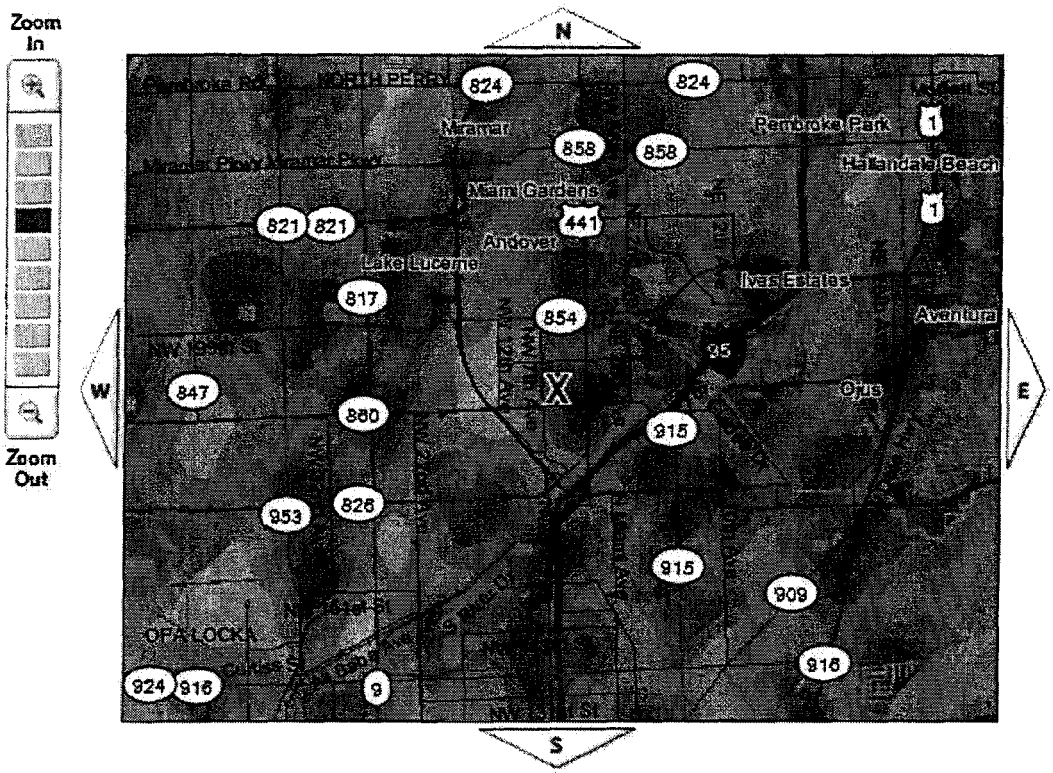
Street
City
State **Zip** 33169

Display HotSpot locations search
Find a T-Mobile HotSpot location › clear



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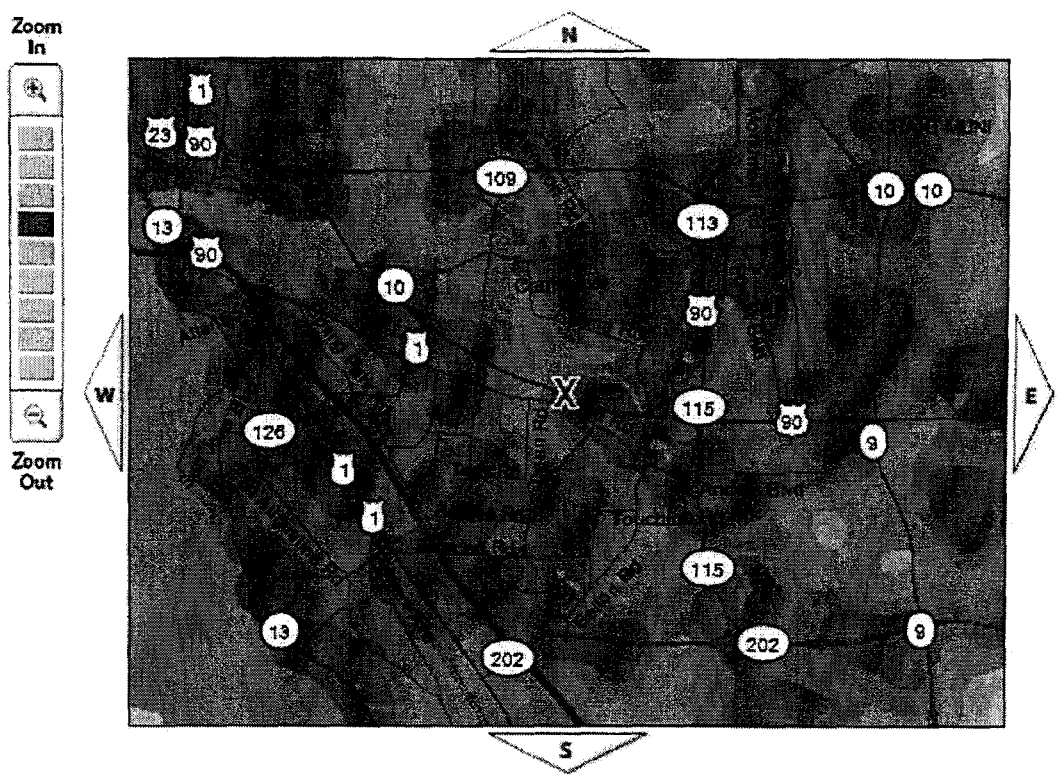
Street
City
State **Zip** 32216
Display HotSpot locations search
Find a T-Mobile HotSpot location › clear



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Street
City
State **Zip** 33317

☐ Display HotSpot locations search
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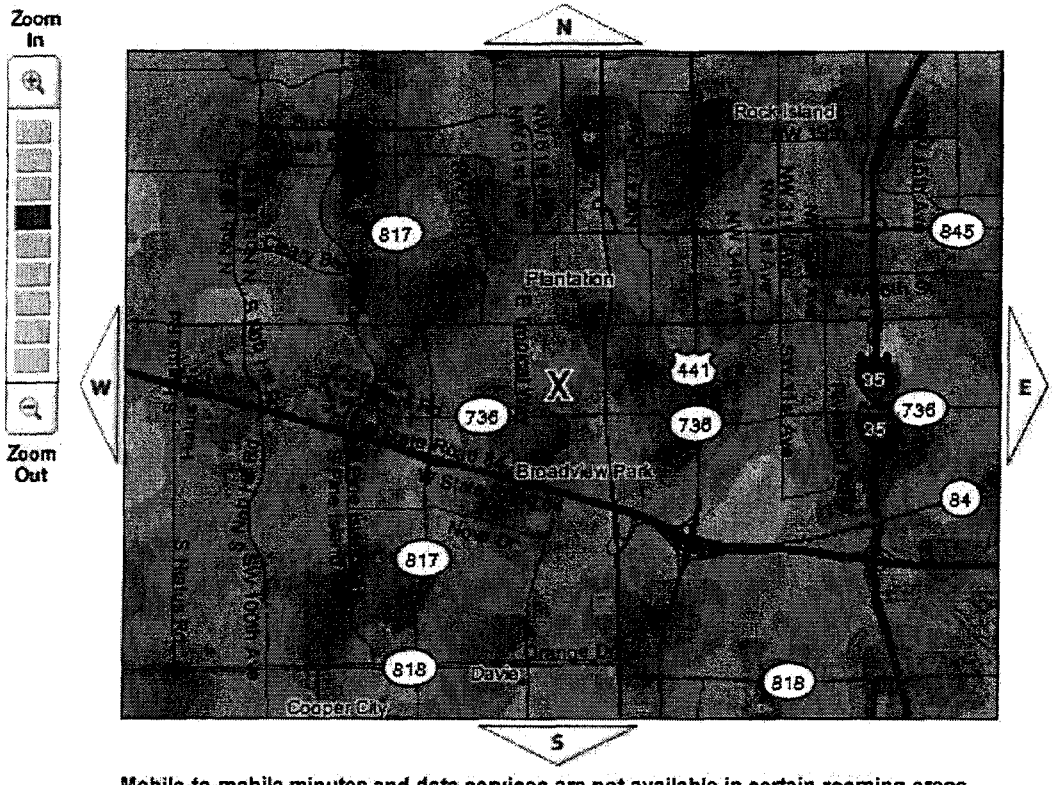

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EXHIBIT B

PUBLIC NOTICE

Federal Communications Commission
445 12th St., S.W.
Washington, D.C. 20554

News Media Information 202 / 418-0500
Internet: http://www.fcc.gov
TTY: 1-888-835-5322

DA 04-4046
Released: December 23, 2004

WIRELESS TELECOMMUNICATIONS BUREAU REMINDS UTILITY POLE OWNERS OF THEIR OBLIGATIONS TO PROVIDE WIRELESS TELECOMMUNICATIONS PROVIDERS WITH ACCESS TO UTILITY POLES AT REASONABLE RATES

The Wireless Telecommunications Bureau reiterates the obligation to provide wireless telecommunications providers with access to utility poles at reasonable rates pursuant to section 224 of the Communications Act, 47 U.S.C. § 224. In *Implementation of Section 703(e) of the Telecommunications Act of 1996; Amendment of the Commission's Rule and Policies Governing Pole Attachments, Report and Order*, 13 FCC Rcd 6777, 6798-99 ¶¶ 39-41 (1998), the Commission determined that wireless telecommunications providers are entitled to the benefits and protections of section 224 for the attachment to utility poles of antennas or antenna clusters and associated equipment. The Supreme Court affirmed this determination in *National Cable Telecommunications Ass'n v. Gulf Power Co.*, 534 U.S. 327 (2002). Providing wireless carriers with access to existing utility poles facilitates the deployment of cell sites to improve the coverage and reliability of their wireless networks in a cost-efficient and environmentally friendly manner. Such deployment will promote public safety, enable wireless carriers to better provide telecommunications and broadband services, and increase competition and consumer welfare in these markets.

Recently, wireless carriers have alleged that they have been denied access to utility poles for the placement of wireless antennas on pole tops. While we take no position on the merits of any individual case, we take this opportunity to reiterate that the Commission declined, in *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers, Order on Reconsideration*, 14 FCC Rcd 18049, 18074 ¶ 72 (1999), to establish a presumption that space above what has traditionally been referred to as "communications space" on a pole may be reserved for utility use only. Thus, the only recognized limits to access for antenna placement by wireless telecommunications carriers are those contained in the statute: "where there is insufficient capacity, or for reasons of safety, reliability, and generally applicable engineering purposes." 47 U.S.C. § 224(f)(2).

In addition, section 224 and the Commission's rules do not allow pole access fees to be levied against wireless carriers in addition to the statutory pole rental rate, which is based on the space occupied by the attachment and the number of attaching entities on the pole, together with reasonable make-ready fees. Such overcharges or denial of access for wireless pole attachments may have serious anticompetitive effects on telecommunications competition. Wireless telecommunications providers are encouraged to bring such matters to the attention of the Commission or the appropriate state regulatory authorities that have asserted jurisdiction over pole attachments.

For further information contact: Wireless Telecommunications Bureau, Aaron Goldschmidt at (202) 418-7146; Media Bureau, Katie Costello at (202) 418-2233; Enforcement Bureau, Jonathan Reel at (202) 418-7330.

EXHIBIT C

TROUTMAN SANDERS LLP
ATTORNEYS AT LAW
A LIMITED LIABILITY PARTNERSHIP

401 9TH STREET, N.W. - SUITE 1000
WASHINGTON, D.C. 20004-2134
www.troutmansanders.com
TELEPHONE: 202-274-2950

Raymond A. Kowalski
raymond.kowalski@troutmansanders.com

Direct Dial: 202-274-2927
Fax: 202-654-5677

March 31, 2006

Maria Browne, Esq.
Cole, Raywid & Braverman, L.L.P.
1919 Pennsylvania Avenue, N.W., Suite 200
Washington, DC 20006-3458

Re: T-Mobile Request for Wireless Attachments to Florida Power & Light Poles

Dear Ms. Browne:

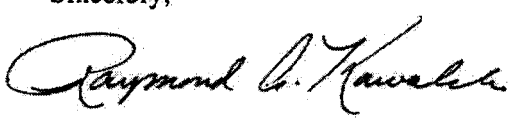
On behalf of Florida Power & Light Company ("FPL"), and as we promised in our letter to you of March 17, 2006, enclosed is Exhibit D to the company's Wireless Antenna Attachment Agreement. The Exhibit is dated March 2006 and is titled "FPL Directory and Permit Application Process Manual for use by Wireless Antenna Companies."

We have also promised to provide you with information pertaining to the rental rate for attachment of wireless antennas to FPL's distribution poles. The actual rate will depend on T-Mobile's attachment requirements. Nonetheless, as information for our upcoming negotiations, for 2006 the methodology described in the Wireless Antenna Attachment Agreement results in a rate of $15.83 times the amount of usable space (in feet) occupied by the attachment, per year, per attachment. FPL cannot say how the occupied space will be determined without seeing the specifications of the equipment that T-Mobile plans to attach.

Finally, we acknowledge receipt of your letter of March 30, 2006, which transmitted your comments, in redline, to the draft Wireless Antenna Attachment Agreement. In an additional letter, also dated March 30, 2006, you state that T-Mobile is developing the mechanical

specifications of the equipment that it plans to attach to FPL's poles and will provide that information as soon as it is available. FPL welcomes this news and looks forward to receiving the information.

Sincerely,



Raymond A. Kowalski

Enclosure

cc: Florida Power & Light
Charles A. Zdebski

Alpine Communication Corp.
595 N. Nova Rd Ste 208, Ormond Beach, Fl 32174 – Ph 386-615-3316 Fax 386-615-3317

FPL

DIRECTORY

And

PERMIT APPLICATION PROCESS MANUAL

For use by

WIRELESS ANTENNA COMPANIES

March 2006

TABLE OF CONTENTS

SECTION I.

FPL DIRECTORY for use by

WIRELESS ANTENNA COMPANIES

FPL DIRECTORY
For use by
WIRELESS ANTENNA COMPANIES

ACTIVITY/REQUEST	FPL CONTACT/PHONE NUMBER
AGREEMENTS (LEGAL CONTRACTS BETWEEN YOUR COMPANY AND FPL)	KEN GILBERT **(305) 485-6172**, MIAMI (DSBN REGULATORY STRATEGY)
CABLE LOCATIONS	SUNSHINE STATE ONE CALL **1-800-432-4770**
ENGINEERING/CONSTRUCTION INQUIRIES NOT RELATED TO POLE ATTACHMENT PERMITS	**REGIONAL PHONE CENTERS** (SEE BELOW) WILL REFER YOU TO APPROPRIATE SERVICE CENTER
METERED **ELECTRIC ACCOUNTS** (BILLING INQUIRIES)	**REGIONAL PHONE CENTERS** (SEE BELOW)
PERMITS FOR ATTACHMENTS TO FPL POLES, SYSTEM RE-BUILDS (REFER TO PERMIT #, IF KNOWN)	ALPINE COMMUNICATION CORP. **(386) 615-3316, FAX: (386) 615-3317**, 595 N. NOVA ROAD SUITE 208 ORMOND BEACH, FL 32174 **WWW.ALPINECOMCORP.COM**
POLE ATTACHMENT SURVEYS (INCLUDING BACK-BILLING)	KEN GILBERT **(305) 485-6172**, MIAMI (DSBN REGULATORY STRATEGY)
POWER SUPPLY (CALL APPROPRIATE SERVICE CENTER IF KNOWN, IF NOT, CALL REGIONAL PHONE CENTER)	**REGIONAL PHONE CENTERS** BROWARD COUNTY (954) 797-5000 MIAMI-DADE COUNTY (305) 442-8770 PALM BEACH COUNTY (561) 697-8000 OTHER AREAS IN FLORIDA (800) 226-3545
RATES (ANNUAL UPDATE TO CATV ATTACHMENT RATE)	JOE ENDER **(305) 552-4071**, MIAMI (RATES)
ANNUAL BILLINGS **- INQUIRIES / COLLECTIONS**	PAT JANZEN **(305) 552-2932**, MIAMI (DRS REGULATORY STRATEGY)

SECTION II.

AGREEMENTS, SAFETY, PLANNING AND BUDGETING

AGREEMENTS, SAFETY, PLANNING AND BUDGETING

AGREEMENTS

The use of this manual is restricted to Wireless Antenna Companies possessing a current signed attachment agreement with FPL and a current signed "Initial Review Evaluation" for each type of wireless antenna equipment.

INITIAL REVIEW PROCESS (EQUIPMENT EVALUATION)

I) **Equipment Evaluation:** means the non-reoccurring evaluation by FPL of each piece of equipment Licensee wishes to attach to FPL Distribution Poles, which evaluation includes, but not limited to, safety, reliability, engineering and system integrity considerations for each unique Attachment specification proposed by Licensee.

II) **Initial Review Process:** Prior to construction or installation of Licensee's Equipment on FPL Distribution Poles, Licensee at its sole cost and expense shall submit to FPL for FPL review a set of design plans and specifications for each Device or piece of equipment that Licensee proposes to install on FPL's Distribution Poles (collectively the "Plans") together with an actual working Device of each type that Licensee proposes to attach to FPL Distribution Poles under this Agreement. Licensee acknowledges and agrees that FPL may test each such Device submitted by Licensee on FPL's Facilities. Within forty-five (45) days of FPL's receipt of the Plans, the Devices and Licensee's Equipment Evaluation Fee (as defined in Attachment Agreement) payment, FPL will either: (i) approve Licensee's Device for attachment providing Licensee with written confirmation of said approval and identifying the Device on the list of approved Equipment attached as Exhibit "C" to this Agreement, (ii) deny Licensee's request to attach the Device or Equipment tested setting forth the reasons for denial, or (iii) advise Licensee that FPL will conditionally approve Licensee's request for Equipment Attachment provided that License fulfills certain equipment-related requirements. If the device is approved, FPL will send the Licensee an "approved" Initial Review Evaluation Form in the form of Exhibit C. A copy of the "approved" form is to be included with each Pole Attachment Permit Application the Licensee submits to FPL or FPL's Pole Attachment Permit Application vendor.

III) **Nothing herein guarantees approval of Licensee's Devices for Attachment to FPL Distribution Poles or that any permit applied for under this agreement will be granted. Each permit will be evaluated on its own merits.**

SAFETY

It is the responsibility of the licensee (Wireless Antenna Companies) to ensure that all persons involved with the application for attachment to FPL poles, and all persons involved with the field engineering, design, installation, construction and ongoing maintenance of these attachments, comply with all applicable federal, state and local safety laws and regulations including the Occupational Safety and Health Act, the National Electric Safety Code, any requirements of FPL and any additional safety requirements requested by FPL.

It is also the responsibility of the licensee to warn its employees and contractors of the fact that electrical facilities are of high voltage and to inform these persons as to safety and precautionary measures which he or she must use when working on or near FPL poles and other facilities.

Proper guying of cables, including guy guards must be accomplished by the licensee. No attachment resulting in an unguyed tension of more than 200 lbs. will be permitted.

Cable risers installed on FPL poles must conform to the requirements stated in the attachment agreement.

PLANNING AND BUDGETING

Accuracy is very important in the first step in the process, the preparation of the permit application package, since incomplete or inaccurate applications WILL BE REJECTED.

Ample time must be allotted by your company to safely, accurately, and efficiently perform the field engineering necessary to properly prepare your permit application package and to complete the remaining steps in the permit process.

To estimate the time required to complete the permit application process, you will need to sum your estimates of the time required to:

- Obtain the approved "Initial Review Evaluation Form" from FPL
- Review the permit manual
- Obtain 11" x 17" FPL primary maps
- Prepare no larger than 11" x 17" CATV company maps
- Gather field notes including existing and proposed clearances both at the pole and at mid-spans between the poles
- Perform wind loading calculations
- Make "Non-Make Ready"/"Make Ready" decisions
- Assemble permit package(s)
- Submit permit package(s)
- Allow time for Alpine Make Ready work order design and FPL construction
- Receive approval; signed Exhibit "A"(s)
- Construct attachments
- Review field attachments for compliance to standards
- Submit Exhibit "B" – Notification of Attachment/Removal

For budget purposes it is important to forecast the number of non-make ready and make ready pole attachments that will be anticipated in the coming year. Costs for permit applications are found in Section III. B. Some representative costs for make ready construction will be furnished by Alpine Communication Corp. at your request.

SECTION III.

PERMIT APPLICATION PROCESS

FOR

FPL DISTRIBUTION POLES

SECTION III. A.
OVERVIEW OF PROCESS

FPL'S WIRELESS ANTENNA POLE ATTACHMENT PERMIT PROCESS:

IT'S AS SIMPLE AS 1-2-3-4 !

1) **APPLY** for permit.

2) **RECEIVE** approved permit.

3) **CONSTRUCT/QC** attachments.

4) **NOTIFY** of construction completion.

1) **APPLY** for permit.

- Apply for permit when making new attachments, in public right of way, to FPL poles. Apply for a permit for Non-FPL poles that require FPL make-ready.
- Permits are not granted for attachments to poles that are exclusively part of an FPL street lighting system unless a specific agreement for this type of attachment exists.
- The attachment permit is for antennas, communication cables, and supporting hardware only, not for power supplies, amplifiers or similar equipment.
- Create appropriate permit application package(s) and retain appropriate copies for your company:
    - Non-make ready
    - Make ready (requires design, cost approval, invoice, payment, and construction of FPL work order prior to FPL permit approval)
- Review permit application package for accuracy and completeness to avoid rejection.
- Submit complete permit package (Permit number must include submittal year).

2) **RECEIVE** approved permit. (Exhibit "A")

3) **CONSTRUCT/QC** attachments.

- You must have an approved permit.
(Exhibit "A")
- A copy of the approved permit (Exhibit "A" and highlighted wireless antenna and FPL Primary maps) must be available for inspection on the job site during construction of the attachments.
- You must complete construction within 60 days of permit approval, or permit will automatically expire, and you will need to re-apply.
- Build facilities as designed in approved permit package.
- Conform to FPL requirements (clearances, tagging, bonding, proper brackets for attachments per approved "Initial Review Evaluation Form") and NESC standards.
- Upon completion of construction, perform quality control review of facilities for compliance and make adjustments if necessary.

4) **NOTIFY** of construction completion. (Exhibit "B")

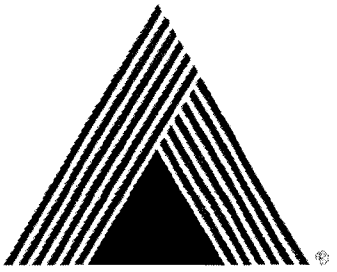
- Send notice monthly (provided there have been attachments/removals during that month).

- Notice (Exhibit "B") must be sent to permit process contractor (Alpine).

- Notice (Exhibit "B") must be sent within 30 days after construction of the attachments is complete.

FAILURE TO FILE AN EXHIBIT "B" WILL DELAY THE POST INSPECTION AND RECORDING OF YOUR ATTACHMENTS AND WILL PREJUDICE OTHER ENTITIES DESIRING TO ATTACH TO FPL POLES. FAILURE TO TIMELY FILE AN EXHIBIT "B", THEREFORE, WILL RESULT IN A REQUIREMENT FOR YOUR PAYMENT FOR A FIELD INSPECTION OF ALL POLES ON THE EXPIRED EXHIBIT "A", AND MAY RESULT IN TERMINATION OF THE POLE ATTACHMENT AGREEMENT IN WHOLE OR PART. IT MAY ALSO LEAD TO POST AUDIT BACKBILLINGS AND ADMINISTRATIVE FEES. THE LICENSEE APPLICANT AND COMPANY MANAGEMENT WILL BE NOTIFIED IN WRITING OF ANY FAILURE TO COMPLY.

SECTION III. B.
PERMIT PROCESSING FEES



Alpine Communication Corp.

595 N. Nova Rd Ste 208, Ormond Beach, Fl 32174 - Ph 386-615-3316 Fax 386-615-3317

PERMIT PROCESSING FEES

(60 day permit life applies to all unless otherwise noted)

Non-Make Ready Application (New and Existing Attachments)

$7.95 per pole – administrative fee

Make Ready Application (New and Existing Attachments)
(For those poles requiring FPL Make Ready)

$7.95 per pole – administrative fee
$108.00 per pole – engineering fee

Expired Exhibit "A" Inspection Fee
(For failure to timely file Exhibit "B" only)

$9.95 per pole

Non-Standard Attachment
(Billed following Post-Inspection of Exhibit "B")

$24.95 per pole – For poles not in compliance with NESC/FPL standards

Re-Inspection of Non-Standard Attachments
(Upon notification of correction)

$9.95 per pole

Returned Application ($10.00 min)
(Application does not meet minimum standards for processing)

$3.95 per pole

Permit Duplication Fees

For Hardcopies
$30.00 per hour - $20.00 min
$.15 per copy up to 11" x 17"
plus shipping

For Electronic Copies (E-mail .pdf)
$9.95 up to 50 pages
$5.00 for each additional 50 page increment

SECTION III. C.
APPLY FOR PERMIT

- Apply for permit when making new attachments, in public right of way, to FPL poles. Apply for a permit for Non-FPL poles that require FPL make-ready.

- Permits are not granted for attachments to poles that are exclusively part of an FPL street lighting system unless a specific agreement for this type of attachment exists.

- Remember that in order to construct your attachments, you must also secure any necessary permit, consent, or certification from state, county or municipal authorities attachments are not allowed on private property.

- The attachment permit is for antennas, communication cables, and supporting hardware only, not for power supplies, amplifiers or similar equipment.

- Create appropriate permit application package(s) and retain appropriate copies for your company.

    - Non-make ready

    - Make ready (requires design, cost approval, invoice, payment, and construction of FPL work order prior to FPL approval)

- Review permit application package for accuracy and completeness to avoid rejection.

- Check list of common reasons for permit application package rejection:

    1. Omission of copy of approved "Initial Review Evaluation Form"
    2. Omission of check payable to Alpine Communication Corp. for the processing fee, with transmittal identifying permit number.
    3. Packages not submitted in duplicate.
    4. Exhibit "A" incomplete or missing.
    5. Pole Measurement Worksheet incomplete or missing.
    6. Make Ready photos per page 51 not included.
    7. Wind load documentation incomplete or missing.
    8. No larger than 11" x 17" Licensee maps with route highlighted, affected pole(s) numbered in sequence, and with span footages shown, incomplete or missing.
    9. Marked (highlighted route) 11" x 17" FPL primary maps incomplete or missing.
    10. Permit number not included on all documents.
    11. Submittal year not included in permit number.

- Submit complete package to permit process contractor (Alpine). (Permit number must include submittal year).

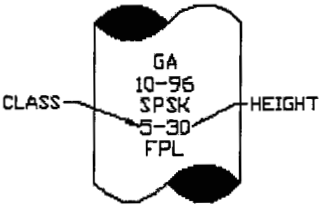
SECTION III. C. 1.
POLE IDENTIFICATION

How do you identify an FPL owned distribution pole?

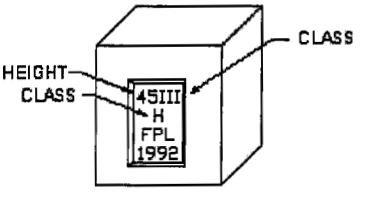
A pole having a FPL TLN tag does not indicate FPL ownership. This tag may be on any pole to which FPL is attached (i.e. Bellsouth, DOT, and Verizon poles)

Most FPL wood poles have a pitched rooftop (double slant).

FPL owned poles have brands placed approximately eight feet above grade on wood poles. Included in the pole brand will be the letters "FPL". Other pole owner's brands on wood poles can be found three to four feet above grade.



FPL owned concrete poles have a brand that includes the letters "FPL". Other concrete poles could be municipal or Department of Transportation-owned.



Other wood pole owners have a flat or slant cut top.

Various other pole owners have their own method to indicate pole ownership. The licensee should familiarize themselves with these identification methods in their areas.

Wood Pole Setting Depth and Size

Normal Setting Depth	Size	Approx. Circumference (inches) of FPL wood poles at 5 Ft. above grade Class					
		1	2	3	4	5	6
5'-6"	30	34.5	32.1	30.1	27.7	25.7	23.3
6'	35	36.9	34.5	32.1	29.7	27.3	25.3
6'-6"	40	38.9	36.5	34.1	31.7	29.2	26.8
7'	45	40.9	38.5	35.6	33.2	30.8	28.3
7'	50	42.5	39.7				
7'-6"	55	43.7	40.9				
8'	60	45.3	42.4				
8'-6"	65	46.4	43.6				
9'	70	48.0	45.1				
9'-6"	75	49.2	45.9				
10'	80	50.4	47.5				
10'-6"	85	51.5	48.1				

SECTION III. C. 2.
REQUIRED FIELD FORMS AND ABBREVIATIONS

In order to determine if there is space on the pole for the licensee attachment, and to have the information needed to perform wind load calculations, **a complete "Pole Measurement" form is required for each pole listed in the licensee permit application.** The form and instructions follow.

POLE MEASUREMENT WORKSHEET

(1) MAKE READY REQ'D? ☐

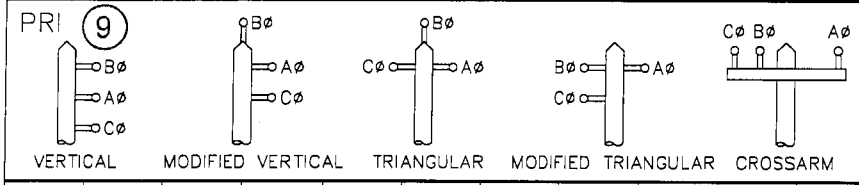
(2) 2 LANE ☐ 4 LANE ☐ ROAD

POLE SPAN LENGTH

PREVIOUS (3) NEXT (4)

	QTY	SIZE		ATT HEIGHT	MISC HEIGHT
	(5)	(6)		(7)	(8)

PRI (9)



NEU	SEC	SCBL	QPX	TPX	DPX	WA	SDL	CAP	TX	REC	SG
PR	CSR	SR	SL	SLDL	TS	CATV	TELC	TEL	DP	REG	(11)
		(10)									

OWNER (12) TYPE (13) HT-CL (14) TLN __ – __ __ __ – (15) __ __ – __ – __

POLE# (16) WA MAP# (17) FPL MAP# (18)

ADDRESS (19) PERMIT# __ __ – (20) – __ __ __

INSPECTED BY (21) DATE (22) JUNCTION POLE SEE ADD'L SHEET (23) ☐

COMMENTS / MAKE READY REQUESTED (24)

Instructions for Pole Measurement Worksheet

1) Check this box if Make ready is required
2) If pole requires make ready, check this box to indicate whether the road is 2 or 4 lanes
3) Fill in the span length to the previous pole
4) Fill in the span length to the next pole
5) Number of primary wires attached at the same height
6) Size of the attached cable (i.e. 1/0, .625 or ½") or transformer/capacitor/FPL riser.
7) Height of the attachments on the pole (i.e. 25'6") for WA use proposed height for the bottom of the device
8) Height of the top TX bolt and the bottom arrester L bracket bolt
9) Mark how the primary is framed on the pole
10) Mark proper description of attachment being measured, and measure all attachments from top to bottom in descending order of height
11) Use this spot to record a "P" if this is a proposed attachment
12) Use to classify ownership of the pole (i.e. FPL, BST, VER, etc.)
13) Type of pole; wood or concrete
14) Indicate height and class of pole (i.e. 45-3, 45IIIH etc.)
15) The number that FPL has assigned to that pole location (i.e. 5-4475-6756-0-2)
16) The licensee must assign a consecutive number to each pole affected by the proposed construction
17) The licensee map number for this pole location
18) Please enter FPL primary map number for this pole location
19) Street address of pole location if available
20) Permit number assigned for this pole application (i.e. 71-06-001)
21) Fill in name of field representative making notes
22) Date pole is surveyed
23) Check this box if FPL's distribution lines run perpendicular to proposed cable route, also mark in the comments that this is page 1 of 2
24) Please make comments or make ready requests that apply to this pole

ABBREVIATIONS FOR USE WITH FPL PERMIT PACKAGES

ABR..	ATTACHMENT	COMMENTS / DESCRIPTION	MINIMUM CLR	MINIMUM MS
PRI	PRIMARY	HIGH VOLTAGE CONDUCTORS NEAR THE TOP OF THE POLE	**	**
PRG	PRIMARY RISER	MEASURE TO WHERE THE GROUND SPLITS FROM THE CABLE	40"	N/A
PR	PRIMARY RISER	TO THE TOP OF THE CONDUIT	3"	N/A
NEU	NEUTRAL	BARE CONDUCTOR BONDED TO THE VERTICAL GROUND	40" *	30"
SEC	SECONDARY	OPEN WIRE CONDUCTORS	40"	30"
SCBL	CABLED SECONDARY	LASHED, 2 COATED, 1 BARE MESSENGER	40"	30"
QPX	QUADRAPLEX	TWISTED CONDUCTOR, 1 BARE, 3 COATED, FOR COMMERCIAL	40"	30"
TPX	TRIPLEX	TWISTED CONDUCTOR, 1 BARE, 2 COATED, FOR HOMES	40"	30"
DPX	DUPLEX	TWISTED CONDUCTOR, 1 BARE, 1 COATED, FOR STREET LIGHTS	40"	30"
SA	SERVICE ATTACHMENT	ATTACHMENT POINT FOR QPX, TPX, OR DPX	40"	N/A
SDL	SVC DRIP LOOP	MEASURE TO THE LOWEST POINT OF THE CABLE	40"	N/A
SR	SERVICE RISER	MEASURE TO THE TOP OF THE SVC RISER, U-GUARD, OR PIPE	40"	N/A
CSR	CUST. OWNED SVC RISER	ANY SERVICE RISER THAT HAS A WEATHER HEAD	40"	N/A
REG	REGULATOR	MEASURE TO THE BOTTOM OF THE REGULATOR	30"	N/A
REC	RECLOSER	MEASURE TO THE BOTTOM OF THE RECLOSER	30"	N/A
CAP	CAPACITOR	MEASURE TO THE BOTTOM OF THE CAPACITOR	30"	N/A
TX	TRANSFORMER	MEASURE TO THE BOTTOM OF THE TRANSFORMER	30"	N/A
SLDL	STREET LIGHT DRIP LOOP	MEASURE TO THE LOWEST POINT OF THE CABLE	12"	N/A
SL	STREET LIGHT	MEASURE TO THE LOWEST PART OF THE BRACKET	4"	N/A
TS	TRAFFIC SIGNAL	CABLE OFTEN ATTACHED WITH A SINGLE BOLT & "J" BRACKET	12"	12"
TELC	TELECOMMUNICATIONS	KMC, MFS, ETC...	12"	12"
CATV	CABLE TV CABLE	TIME WARNER CABLE, COMCAST, ETC...	12"	12"
TEL	TELEPHONE	BELL SOUTH, VERIZON, ETC...	12"	12"
WA	WIRELESS ATTACHMENT	ANTENNA AND ASSOCIATED HARDWARE	40"	N/A
OHGW	OVERHEAD GROUND WIRE	JOINT USE IS AVOIDED	**	**
DP	DROP	TELEPHONE OR CATV SERVICE DROP		
RWA	RIGHT OF WAY ACCESSIBLE	RIGHT OF WAY MAY BE ACCESSIBLE TO VEHICLES		
RWI	RIGHT OF WAY INACCESSIBLE	RIGHT OF WAY IS NOT ACCESSIBLE TO VEHICLES		

DW	DRIVEWAY	RD	ROAD	CN	CANAL
RR	RAILROAD	MS	MIDSPAN	ANC	ANCHOR
SG	SPAN GUY	DG	DOWN GUY	GG	GUY GUARD
CLR	CLEARANCE	P	PROPOSED	MR	MAKE READY
TXB	TRANSFORMER TOP BOLT	REGB	REGULATOR TOP BOLT	RECB	RECLOSER TOP BOLT
CAPB	CAPACITOR TOP BOLT	LB	L BRACKET BOTTOM BOLT	PHB	POT HEAD BRACKET BOLT

* WHERE NO SECONDARY IS PLANNED BY FPL, 30" MINIMUM CLEARANCE IS PERMISSIBLE IF COMMUNICATION IS BONDED TO FPL'S GROUNDING SYSTEM

** SEE MANUAL

Minimum Primary Conductor Heights for Various Pole Sizes and Framing

Height	Vertical			Modified Vertical			Triangular		Modified Triangular		Crossarm
30	23.08	21.08	19.08	25.5	23.08	21.08	25.5	23.08	23.08	21.08	25.17
35	27.58	25.58	23.58	30	27.58	25.58	30	27.58	27.58	25.58	29.67
40	32.08	30.08	28.08	34.5	32.08	30.08	34.5	32.08	32.08	30.08	34.17
45	36.58	34.58	32.58	39	36.58	34.58	39	36.58	36.58	34.58	38.67
50	41.58	39.58	37.58	44	41.58	39.58	44	41.58	41.58	39.58	43.67
55	46.08	44.08	42.08	48.5	46.08	44.08	48.5	46.08	46.08	44.08	48.17
60	50.58	48.58	46.58	53	50.58	48.58	53	50.58	50.58	48.58	52.67
65	55.08	53.08	51.08	57.5	55.08	53.08	57.5	55.08	55.08	53.08	57.17
70	59.58	57.58	55.58	62	59.58	57.58	62	59.58	59.58	57.58	61.67
75	64.08	62.08	60.08	66.5	64.08	62.08	66.5	64.08	64.08	62.08	66.17
80	68.58	66.58	64.58	71	68.58	66.58	71	68.58	68.58	66.58	70.67
85	73.08	71.08	69.08	75.5	73.08	71.08	75.5	73.08	73.08	71.08	75.17

All attachment heights are in feet.
The above table is for wind loading use only. Poles requiring Make-Ready will require accurate measurements of primaries.

Wind load factor for common Telephone, CATV and Telecom cable bundle diameters

Bundle Size (inches)	Wind Load Factor
0.25	0.1875
0.5	0.375
0.75	0.5625
1.0	0.75
1.5	1.125
2.0	1.5
2.5	1.875
3.0	2.25

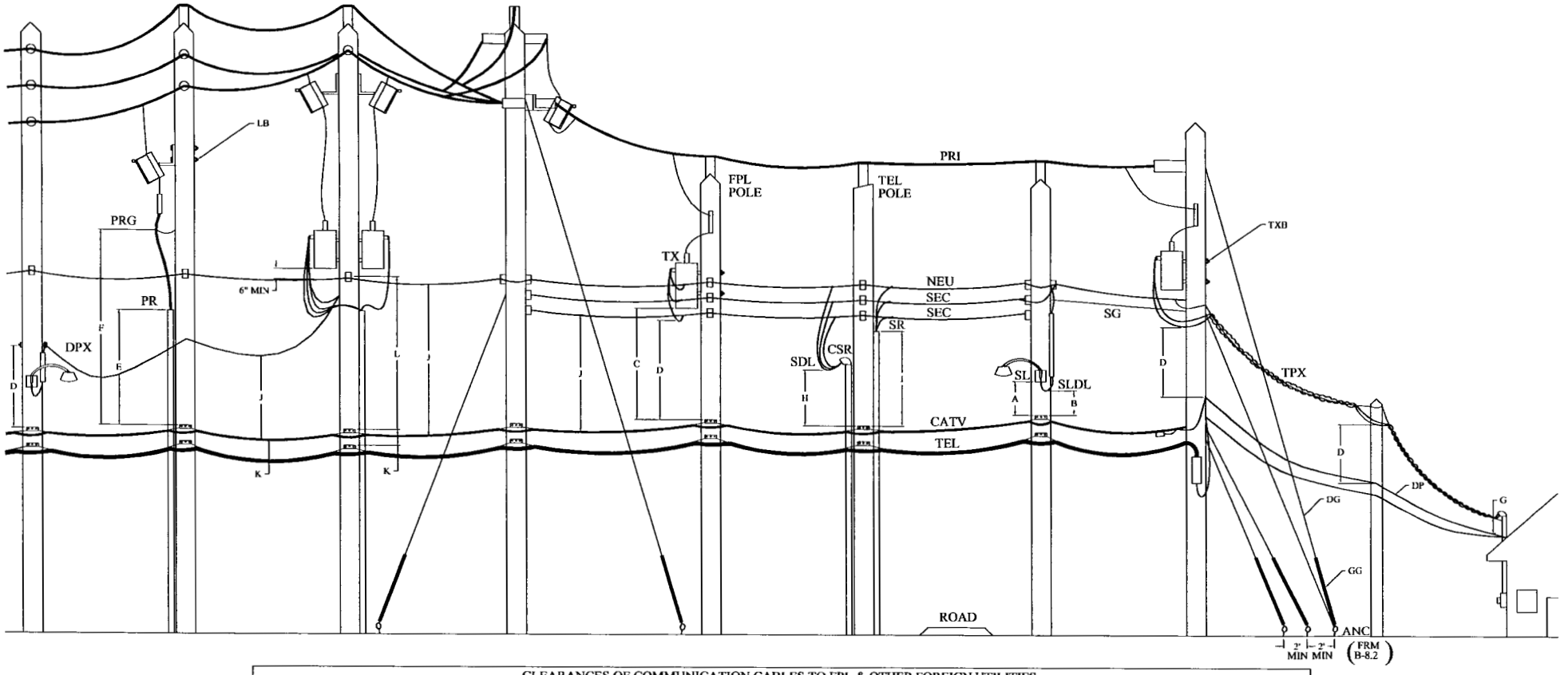
SECTION III. C. 3.
CLEARANCES

Included in this section are:

1) A drawing and table of clearances entitled "Clearances of Foreign Communication Cables to FPL & Other Foreign Utilities"
2) A table entitled "Abbreviations For Use With FPL Permit Packages"

It is the responsibility of the Licensee to ensure that attachments are designed and constructed in accordance with the National Electric Safety Code and these guidelines, and to secure any necessary permit, consent or certification from state, county or municipal authorities or from the owners of the property to construct and maintain attachments to FPL poles.

CLEARANCES OF COMMUNICATION CABLES TO FPL & OTHER FOREIGN UTILITIES



CLEARANCES OF COMMUNICATION CABLES TO FPL & OTHER FOREIGN UTILITIES				
DIMENSION (LETTER)	SEPARATION FROM FOREIGN UTILITIES TO ..	* FPL MINIMUM REQUIREMENT	** NESC MINIMUM REQUIREMENT	NESC APPLICABLE REFERENCE SECTION
A	STREETLIGHT BRACKET	4 INCHES	4 INCHES	238 C. TABLE 238-2
B	STREETLIGHT DRIP LOOP	12 INCHES	12 INCHES	238 D
C	TRANSFORMER BOTTOM	30 INCHES	30 INCHES	238 B. TABLE 238-1
D	SVC DRP LP, SECONDARY	40 INCHES	40 INCHES	235, TABLE 235-5
E	PRIMARY RISER SHIELD	3 INCHES	NONE	NONE
F	PRIMARY RISER GROUND	40 INCHES	40 INCHES	239 G1
G	SVC DROP AND DRIP LOOP	12 INCHES	12 INCHES	235 C1, EXCEPTION 3
H	CUSTOMER OWNED SERVICE DRIP LOOP	40 INCHES	40 INCHES	TABLE 235-5
		16" IF COMMUNICATION CABLE AND RISER OPERATED BY SAME UTILITY		TABLE 235-5 EXCEPTION 3
I	SERVICE RISER	40 INCHES	40 INCHES	239 G7
J	MID SPAN	30 INCHES	30 INCHES	238-1
K	FOREIGN UTILITIES	12 INCHES	NONE	NA
L	NEUTRAL	40 INCHES ***	30 INCHES	TABLE 235-5 EXCEPTION 6

* FOLLOW FPL MINIMUM ** NESC INFORMATION PROVIDED FOR REFERENCE ONLY *** WHERE NO SEC IS PLANNED BY FPL, 30" MIN CLEARANCE IS PERMISSABLE IF COMMUNICATION IS BONDED TO FPL'S GROUNDING SYSTEM

ABBREVIATIONS FOR USE WITH FPL PERMIT PACKAGES

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CAP	CAPACITOR	MEASURE TO THE BOTTOM OF THE CAPACITOR	30"	N/A
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SL	STREET LIGHT	MEASURE TO THE LOWEST PART OF THE BRACKET	4"	N/A
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WA	WIRELESS ATTACHMENT	ANTENNA AND ASSOCIATED HARDWARE	40"	N/A
OHGW	OVERHEAD GROUND WIRE	JOINT USE IS AVOIDED	**	**
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RWA	RIGHT OF WAY ACCESSIBLE	RIGHT OF WAY MAY BE ACCESSIBLE TO VEHICLES		
RWI	RIGHT OF WAY INACCESSIBLE	RIGHT OF WAY IS NOT ACCESSIBLE TO VEHICLES		

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RR	RAILROAD	MS	MIDSPAN	ANC	ANCHOR
SG	SPAN GUY	DG	DOWN GUY	GG	GUY GUARD
CLR	CLEARANCE	P	PROPOSED	MR	MAKE READY
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** SEE MANUAL

SECTION III. C. 4.
WIND LOADING – For Wireless Antenna Applicants – See Note*

WIND LOAD CALCULATIONS
TRAINING PACKAGE

***NOTE: ALTHOUGH THIS SECTION WAS DEVELOPED FOR APPLICANTS FOR ATTACHMENTS OF CABLES TO FPL DISTRIBUTION POLES, ALL PRINCIPLES ARE APPLICABLE FOR ANTENNA ATTACHMENTS. FOR PROPOSED ANTENNA ATTACHMENTS USE THE FORCE CALCULATION FOR "OTHER EQUIPMENT" AT THE BOTTOM OF THIS PAGE (IN BOLD) TO CALCULATE THE "FORCE DUE TO ANTENNA" PORTION OF YOUR OVERALL WINDLOAD CALCULATION.**

To determine if a pole has sufficient strength for the proposed attachments the total wind loading moment due to conductors and equipment must be calculated and compared to the maximum allowable moment for the pole.

The direction of the wind is to be assumed, which results in the maximum calculated wind load. Generally this is found to be a wind which is perpendicular to the route of the pole line

Calculating Wind Loading of Conductors

The wind load moment of each cable or conductor is calculated using the following formula:

$$\text{wind load moment for conductors} = \text{wind load force per foot} \times \text{average span length (Ft)} \times \left[\text{attachment height} + \frac{\text{setting depth}}{3}\right]$$

The wind load force per foot may be obtained from the TABLE A -2 or calculated using the following formula:

$$\text{wind load force in pounds per foot} = \frac{\text{wire diameter in inches}}{12} \times 9 \text{ pounds per Sq. Ft.}$$

If the attachment consists of multiple cables lashed to a messenger the effective diameter should be used to calculate the wind load force.
The diameter used for a cable must include the messenger. Therefore a single ½ inch cable with a ¼ inch messenger would be calculated as follows:

$$\text{wind load force} = \frac{(.5 + .25)}{12} \times 9 = .5625 \text{ Pounds/Ft}$$

Calculating Wind loading of Equipment

The wind load moment of each piece of equipment is calculated using the following formula:

$$\text{wind load moment for equipment} = \text{wind load force} \times \left[\text{attachment height} + \frac{\text{setting depth}}{3}\right]$$

$$\text{wind load moment for risers} = \text{riser height above ground} \times \text{wind load force pounds per foot} \times \left[\frac{\text{riser height}}{2} + \frac{\text{setting depth}}{3}\right]$$

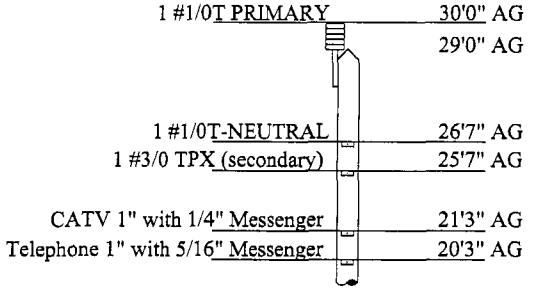
The wind load force for FPL equipment should be obtained from the TABLE A–2.
For other equipment the force may be calculated using the following formula:

wind load force (Pounds) = size of equipment (Sq. Ft.) x 9 Pounds per Sq. Ft.

All conductor and equipment moments are added together and the total is compared with the allowable moments for attachments from TABLE A-3. Note that the wind loading due to the pole itself along with the appropriate safety factors have already been factored into TABLE A-3.

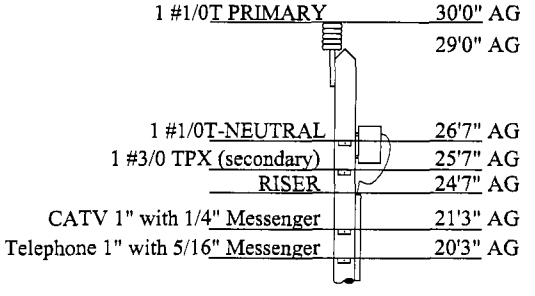
DETERMINING THE TOTAL MOMENT

Example #1
35 foot, class 5 pole
190 ft average span
Grade B construction area maximum allowable moment = 16834 FT-LBS



	Number of Conductors		Wind Load Factor		Avg. Span Length		(Height A.G. + set depth / 3)		Load in Ft.-Lbs
Primary 1/0T	1	x	0.299	x	190	x	(30 + 2)	=	1817.92
Neutral 1/0T	1	x	0.299	x	190	x	(26.583 + 2)	=	1623.8
Sec 3/0tpx	1	x	0.951	x	190	x	(25.583 + 2)	=	4983.97
CATV 1 ¼ "	1	x	0.938	x	190	x	(21.25 + 2)	=	4143.62
Tel. 1 5/16 "	1	x	0.984	x	190	x	(20.25 + 2)	=	4159.86
					Total conductor moment			=	16729.17

Example #2
35 foot, class 5 pole
50 KVA transformer and 2" secondary riser
300 ft average span
Grade B construction area maximum allowable moment = 16834 FT-LBS



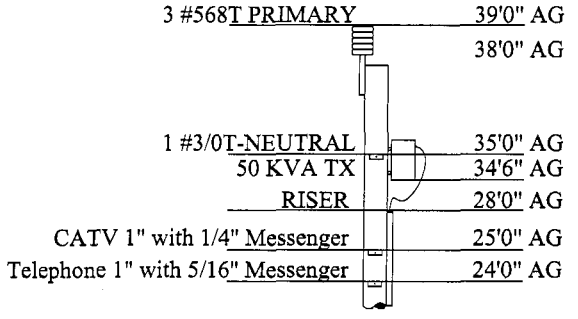
	Number of Conductors		Wind Load Factor		Avg. Span Length		(Height A.G. + set depth / 3)		Load in Ft.-Lbs
Primary 1/0T	1	x	0.299	x	300	x	(30 + 2)	=	2870.4
Neutral 1/0T	1	x	0.299	x	300	x	(26.583 + 2)	=	2563.9
Sec 3/0tpx	1	x	0.951	x	300	x	(25.583 + 2)	=	7869.43
CATV 1 ¼ "	1	x	0.938	x	300	x	(21.25 + 2)	=	6542.55
Tel. 1 5/16 "	1	x	0.984	x	300	x	(20.25 + 2)	=	6568.2
					Total conductor moment			=	26414.48
The Wind load for the transformer is					49	x	(26 + 2)	=	1372
The Wind load for the riser is					24.583	x 2 x	(24.583/2 + 2)	=	777.308
					total equipment moment			=	2074.66
					total all moment			=	28489.14

The wind loading portion of an attachment permit does not need to be excessively burdensome. The goal of the wind load calculations is to know that all the poles have sufficient strength for the proposed attachments.
One way to prove that all poles have adequate strength is to include a calculation sheet for each pole. Another way is to use one calculation sheet to show that a number of poles with similar characteristics meet the wind loading requirements.

The wind load calculated in example #1 shows that a 35 class 5 pole (or stronger) with the attachments shown (or less) at the heights shown (or lower) with an average span length of 190 ft (or less) will meet the wind load requirements. If the pole has no secondary, (and all the other attachments remain the same) an average span length of 271 feet would result in a calculated moment of 16776.3 ft-lbs.
If the poles being considered are relatively uniform a few wind load calculation sheets could show that most of the poles meet the requirements.

CALCULATE THE MAXIMUM SPAN LENGTH
A helpful approach is to solve for the maximum span length of common poles.
An example follows:

Example #3
45III H concrete pole — max. Allowable moment grade B area = 51238 ft-lbs.
50 KVA transformer
2" sec/svc riser conduit



To solve for the maximum span length, first subtract the equipment load from the max. allowable then divide by the total conductor moment per foot of span.

	Number of Conductors		Wind Load Factor		(Height A.G. + set depth / 3)		Load in Ft.-Lbs/ Ft
Primary 568T	3	x	0.659	x	(39. + 2.33)	=	81.71
Neutral 3/0T	1	x	0.377	x	(35. + 2.33)	=	14.07
CATV 1 ¼ "	1	x	0.938	x	(25. + 2.33)	=	25.64
Tel. 1 5/16 "	1	x	0.984	x	(24. + 2.33)	=	25.91
					Total moment per foot	=	147.33

The Wind load for the transformer is 49 x (34.5 + 2.33) = 1804.67
The Wind load for the riser is 28 x 1.7 x (28/2 + 2.33) = 777.308
total equipment moment = 2581.978

For Grade B this is (51238 - 2582) / 147.33 = 330.25 Ft = max. span length

A few wind load calculation sheets showing the max. span (as calculated above) for the more common pole sizes/configurations may greatly simplify the work required in preparing this portion of a permit and reduce the number of pages included in the permit.
When using one calculation sheet for more than one pole a few cautions must be remembered:

1. Poles must be the same size and class (or stronger)
   a calculation sheet for a 40 class 5 also qualifies 40 class 4 poles but a calculation sheet for a 40/3 does not qualify a 40/4 or a 40/5

2. Attachments must be similar (or smaller)
   a calculation sheet showing 3#568T (primary) and 3/0T (neutral) and 1/0T st-lt. (street light) will also qualify the same pole without the street light circuit but will not qualify the same pole with a secondary cable (1/0tpx or 3/0tpx or even 6 dpx.)

3. Attachments must be at the same height (or lower)
   a calculation sheet showing 3 primaries at 39'AG, 36.5'AG and 34.5'AG and neutral at 28'AG will also qualify the same size and class pole with lower attachments but does not qualify the same size/class pole with all 3 primaries on a cross-arm at the top of the pole

4. Equipment must be included in the calculations.

POLES THAT FAIL WIND LOAD

For each pole that does not meet wind loading requirements individually, the wind load calculations must be included for that pole and the poles on both side of the pole that fails. (see # 3 below)

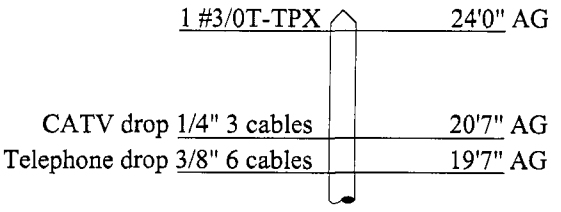
Some additional factors that affect the allowable wind load may be considered. These may allow attachment to a pole that, if considered alone, does not meet the strength requirements:

1. Where a guyed lateral pulls off another line, the pole is, in effect, storm guyed and one class lighter pole may be used.
2. Calculated transverse loads (except when crossing over a railroad or major communication facility) shall be based on the average span length of a uniform section of line, providing the average span length used is not less than 75% of the actual average of the two spans adjacent to the pole being considered.
3. A pole not individually meeting the transverse strength requirements will be permitted when reinforced by a stronger pole on each side, provided the average strength for the three poles meets the transverse requirement and the weak pole has not less than 75% of the requirement.
4. A dead-end pole has only half the transverse load that it would have if the line continued on.
5. Intermediate poles set in line may be lighter than the existing poles if no conductors are added.

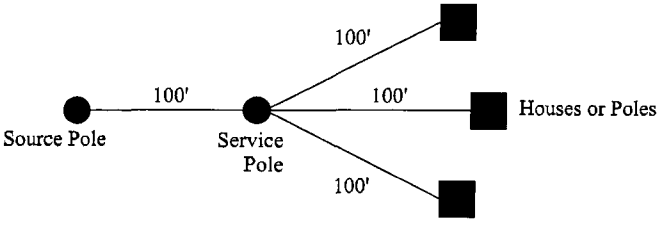
Any time the above factors are required for a pole to meet the wind loading requirements, the permit must include documentation of the calculations referring to each pole in question.

If a pole does not meet the wind loading requirements after considering the above factors then attachment will only be permitted with a make-ready permit. The make-ready permit should specify CATV preference for added pole(s) or pole replacement.

GUIDE TO ELIMINATE WIND LOAD CALCULATIONS OF SERVICE DROPS ON SERVICE POLES
Service poles 30' and 35'
Class 6 or stronger
profile for a 30' pole



PLAN VIEW



For a 30' Service Pole

	Number of Conductors	x	Wind Load Factor	x	Avg. Span Length	x	(A.G. plus set/3)	=	Load in Ft.-Lbs.
FPL Sec/Svc	2	x	0.951	x	100	x	(24.00 + 1.83)	=	4912.87
CATV	3	x	0.1875	x	100	x	(20.58 + 1.83)	=	1260.56
Telephone	6	x	0.28125	x	100	x	(19.58 +1.83)	=	3612.94
									9786.37 okay for 30-6

For a 35' Service Pole

	Number of Conductors	x	Wind Load Factor	x	Avg. Span Length	x	(A.G. plus set/3)	=	Load in Ft.-Lbs.
FPL Sec/Svc	2	x	0.951	x	100	x	(28.50 + 2)	=	5801.10
CATV	3	x	0.1875	x	100	x	(25.17 + 2)	=	1528.31
Telephone	6	x	0.28125	x	100	x	(24.17 +2)	=	4416.19
									11745.60 okay for 35-6

Alpine has used these calculations to determine that any unguyed service pole with 100' spans or less serving 3 customers (or less) with a total of 9 (or fewer) drops (CATV and telephone combined) has sufficient strength. This analysis of service (drop or lift) poles has been used to allow attachments to these poles to be made without first obtaining a permit from FPL. These attachments must be noted and applied for per section III. F, EXAMPLE #3.

TABLE A – 1

D.C.S. D-5.0.0

COMMON FPL WIRE SIZE AND COMBINATIONS

PRIMARY - NEUTRAL COMBINATIONS
Aluminum
568T - 3/0T
343T - 3/0T
3/0T - 3/0T OR 1/0T
1/0T - 1/0T OR 2T

Copper
350 - 2/0
4/0 - 2/0 or 1/0
2/0 - 2/0 or 1/0
2 - 2

OPEN WIRE SECONDARY (Bare Wire usually 2 wires in addition to neutral)
3/0T
1/0T
1/0 copper
2 copper

STREET LIGHT CIRCUITS
1/0T
2T
4T
6 DPX (1 insulated wrapped around 1 bare-neutral)

COMMON SECONDARY CABLE
4/0 Cable (2 insulated, 1 bare-neutral, Lashed)
3/0 Triplex (2 insulated wrapped around 1 bare-neutral)
1/0 Triplex
NOTE: large FPL lashed secondary and service cable is field lashed. The maximum size commonly used is 556 quadruplex (3#556(insulated) with a 3/0T bare- neutral, Lashed)

TABLE A – 2
D.E.R.M. 4.2.2
FPL CONDUCTORS SIZE AND WIND LOAD FORCE
wind load for conductors is measured in LBS/FT of span

Wind load FORCE in LBS/.FT = DIAMETER IN INCHES / 12 x 9 LBS/Sq-Ft

FPL Primary map symbols	Wire Size	Diameter (in inches)	Wind load factor (Force in LBS/FT)
BARE WIRE: used for Primary, Neutral or Secondary			
568T OR 556A OR 556AA	568 aluminum	0.8790	0.659
343T OR 336A OR 336AA	343 aluminum	0.6840	0.513
350	350 copper	0.6790	0.509
4/0	4/0 copper	0.5220	0.392
3/0T OR 3/0A	3/0 aluminum	0.5020	0.377
2/0	2/0 copper	0.4140	0.311
1/0T	1/0 aluminum	0.3980	0.299
1/0	1/0 copper	0.3680	0.276
2T	2 aluminum	0.3160	0.237
2	2 copper	0.2920	0.219
4T	4 aluminum	0.2500	0.188
4	4 copper	0.2043	0.153
6	6 copper	0.1620	0.122
RUBBER COATED: used for Primary (Tree Wire)			
note: from DERM 4.2.2 pg32 tw diameters are different in DCS F-7.0.0			
568T (TW) or 556A (TW)	568 aluminum TW	1.2190	0.914
4/0 (TW)	4/0 copper TW	0.8617	0.646
2T (TW) or 2A (TW)	#2 aluminum TW	0.6560	0.492
2 (TW)	#2 copper TW	0.6322	0.474
CABLES: for overhead secondary or service or street light			
	556 Quadruplex	2.788	2.091
	336 Quadruplex	2.215	1.661
	3/0 Quadruplex	1.553	1.165
	1/0 Quadruplex	1.1900	0.893
	2 Quadruplex	0.9270	0.695
	4/0 Cable (lashed 3wire)	1.3760	1.032
	3/0 Triplex	1.2680	0.951
	1/0 Triplex	1.0650	0.799
	2 Triplex	0.8290	0.622
	4 Triplex	0.7040	0.528
	6 Duplex	0.4760	0.357
HENDRIX AERIAL SPACER CABLE SYSTEM			
	636 Aluminum	1.43	1.073
	4/0 Aluminum	1.039	0.779
	½" AWA Messenger	0.500	0.375
	Spacer	--	0.092

TABLE A – 2 continued
D.E.R.M. 4.2.2
WIND LOAD ON FPL EQUIPMENT

TRANSFORMERS	SIZE	FORCE IN LBS.
	10 KVA	29
	15 KVA	29.5
	25 KVA	33
	37 KVA	41
	50 KVA	49
	75 KVA	68
	100 KVA	70
	167 KVA	80
	FOR 2 PHASE BANK, ADD TX WIND LOADS	
	FOR 3 PHASE BANK, DOUBLE WIND LOAD OF LARGEST TX	
CAPACITORS	SIZE BANK	FORCE IN LBS.
	1200 kvar SWITCHED	112
	1200 kvar FIXED	95
REGULATORS	SIZE	FORCE IN LBS.
1 PHASE, POLE MTD	76.2 KVA, 100 A	104
	167 KVA, 219 A	153
RECLOSERS	SIZE	FORCE IN LBS.
	1 PHASE (DCS C-7)	36
	3 PHASE (DCS C-8.0.0)	95
RISER CONDUITS (PREFERRED FOR SUBSTATIONS ONLY)	NOMINAL SIZE	FORCE IN LBS. ABOVE GRADE
	2"	1.7
	4"	3.2
	5"	3.9
	6"	4.7
	WIND LOAD IS MEASURED IN LBS PER FT OF CONDUIT	

TABLE A – 3
DERM 4.2.2

NET ALLOWABLE LOADING OF POLES **(GRADE B)**

*IN LBS./FT AT FULCRUM **FULCRUM ARM IS EQUAL TO HEIGHT AG + (SET DEPTH/3)

WOOD POLE HEIGHT AND CLASS			
POLE SIZE	SET DEPTH IN EARTH	ALLOWABLE MOMENT FOR ATTACHMENT	
		INITIAL	BEFORE REPLACEMENT
30/6	5.5	7400	11087
30/5	5.5	10176	15244
30/3	5.5	16587	24849
35/6	6.0	8873	13300
35/5	6.0	11237	16834
35/4	6.0	14835	22225
35/3	6.0	19089	28598
40/5	6.5	13129	19668
40/4	6.5	17115	25640
40/3	6.5	21790	32644
40/2	6.5	27163	40694
45/4	7.0	18636	27767
45/3	7.0	23535	35258
45/2	7.0	30585	45820
50/2	7.0	33016	49463
55/2	7.5	35273	52844
60/1	8.0	47193	70702
65/1	8.5	50032	74954
70/1	9.0	52944	79317
75/1	9.5	55931	83792
85/1	10.5	59805	89596
CONCRETE POLE HEIGHT AND TYPE			
POLE SIZE	SET DEPTH IN EARTH	ALLOWABLE MOMENT FOR ATTACHMENT	
35III	6.0	9613	
35IIIG	6.0	21493	
35IIIH	6.0	39211	
40III	6.5	10581	
40IIIG	6.5	24661	
40IIIH	6.5	45419	
45III	7.0	11237	
45IIIG	7.0	27517	
45IIIH	7.0	51238	
50IIIH	7.0	56410	
55IIIH	7.5	61356	
60IIIH	8.0	65852	

*WIND FORCE ON POLE SURFACE HAS BEEN DEDUCTED

SECTION III. C. 5.
EXHIBIT A PREPARATION

Instructions for completing an Exhibit "A"

1) List company name as it appears on your FPL attachment agreement
2) Specify make-ready (FPL required make-ready) or non make-ready.
   Note: Do not combine make-ready and non make-ready on the same permit application. Different rates and time frames apply for make-ready and non make-ready permits
3) These fields are for entering the number of New, Existing, Foreign and Removal poles; Foreign poles are listed on make-ready permits only; Removal poles are only for Exhibit "A"s filed with Exhibit "B" removals
4) Company enters the date that the permit is being submitted
5) Alpine Communication Corp. enters the date that the permit is received
6) Enter the date that appears on your attachment agreement
7) Enter the city of the proposed attachment
8) Enter the county of the proposed attachment, this must correspond to your authorized service area in your agreement
9) These are numbers that you assign to the FPL pole(s) that are part of this permit application
10) Fill in the FPL primary map number(s), and licensee map number(s), or map title(s) (i.e. Map #40-41 or map title Tuttle Ave. Extension). Include the WA project #if desired. For removal permits list the reason for the removal, (i.e. pole owner changed)
11) Exhibit C Identification-Name or Identification of WA Device
12) Licensee – this is your company name as it appears on your agreement
    Name/Title - of the person authorized to submit permits for your company
    Phone, Fax, and E-Mail address of the person submitting the permit
    Signature – must be an original signature on all Exhibit "A"'s
13) Permit granted/denied - will be filled out by Alpine Communication Corp.
14) To be filled out by Alpine Communication Corp. – (Note: Ordinarily your make-ready cost will be submitted to your company by mail as a miscellaneous FPL billing. Your permit number will be included on this billing.)
15) Permit number consists of your WA ID number (CARMS CODE), followed by the last two digits of the submittal year (Prior year applications will not be accepted after Feb. 1 of submittal year.), and followed by a sequence number that you assign. The first permit of the year will be 001, the second 002 etc. (example 71-06-001)
16) Total previous poles - to be reported on the Exhibit "B"
17) Poles this permit – should only be the new attachments for this permit
18) New total poles – to be reported on the Exhibit "B"
19) This will be filled in and signed by the Permit Administrator
20) Show other permit numbers related to this project, or original permit # if application for Make-Ready is in response to a Notification of Non-Standard Attachment

EXHIBIT A

WIRELESS ANTENNA ATTACHMENT APPLICATION AND PERMIT

(1) _____
Corporation / Partnership

TYPE OF APPLICATION
(Check One)
☐ Make-Ready * (2)
☐ Non Make-Ready
*Antenna bond to FPL pole bond required.
Make–Ready required to install FPL pole bond if non-existent

New ____ Foreign ____
(3) Existing ____ Removal ____

(4) _____, _____
Date submitted by Co.

(5) _____, _____
Date received by FPL

I. APPLICATION

In accordance with the terms of Agreement dated (6) ____, ____ application is hereby made for permit to make attachment to the following poles. Included with this exhibit is an affidavit or a copy there of notifying FPL of authorization to attach by the appropriate government agencies.

Location City: (7) _____ County: (8) _____ Florida

Pole Numbers (TLN if available) (9)	Pole Locations (GPS & Street) (10)	Exhibit C Identification (11)

I certify that the attachments shall be in compliance with the latest edition of the National Electric Safety Code and FPL requirements. Copy of FPL approved Exhibit C is attached.

Licensee: _____

By: _____
NAME (PRINT)

_____
SIGNATURE

_____
TITLE

(12)

_____ Ext. _____
PHONE

_____
FAX

_____
E-MAIL

II. PERMIT

(13) Permit Granted _____, _____
(Subject to your approval of Make-Ready Cost)
Permit Denied _____, _____

FLORIDA POWER & LIGHT COMPANY

By: _____
(19) Title: _____

(15) Estimated Make-Ready Cost (14)

$____ payable in advance.

(16) Permit Number _____
(17) Total Previous Poles _____
Poles this Permit _____
(18) New Total Poles _____

Corresponding Permits (20) _____

III. GENERAL CONDITIONS

1. A "Make-Ready" permit will automatically expire if attachments are not made and completed within 60 days after notification in writing to Licensee by FPL that Make-Ready work has been completed.
2. A "Non Make-Ready" permit will automatically expire if attachments are not made and completed within 60 days after date of approval and is subject to field conditions and facilities on each pole at the time attachment is made. Licensee shall be required to bear any and all "Make-Ready" cost necessitated by previous attachments.
3. If permit is granted under Section II above, this permit automatically expires, as to the affected poles 30 days after written notice to Licensee that FPL intends to abandon a particular pole line. Within 30 days after such notice, Licensee shall either remove its attachments from those poles or obtain all necessary permits and easements, at the discretion of FPL, arrange to purchase such poles from FPL.

(OVER)

SECTION III. C. 6.
NON-MAKE READY PERMITS

WHEN IS A NON-MAKE READY PERMIT REQUIRED?

A non-make ready permit is required when making new attachments to FPL distribution poles when no FPL construction is required to adjust FPL facilities to accommodate the attachments.

A NON-MAKE READY PERMIT APPLICATION CONSISTS OF **TWO** COMPLETE PACKAGES IN THE FOLLOWING ORDER:

PACKAGE 1

1) Copy of approved "Initial Review Evaluation Form"
2) Payment for the permit
3) Original signed Exhibit A (front and back)
4) Wind load sheets for each pole applied for
5) Pole measurement sheets for each pole applied for
6) No larger than 11" x 17" Licensee maps with route highlighted, affected pole(s) numbered in sequence, and with span footages shown.
7) Copy of 11" x 17" FPL primary map with the affected area highlighted

PACKAGE 2

1) Copy of approved "Initial Review Evaluation Form"
2) Original signed Exhibit A (front and back)
3) No larger than 11" x 17" Licensee maps with route highlighted, affected pole(s) numbered in sequence, and with span footages shown.
4) Copy of 11" x 17" FPL primary map with the affected area highlighted

XYZ TELECOM 1235

DATE 1/3/2006

PAY
TO THE
ORDER OF Alpine Communication Corp. $ 31.80
Thirty-one dollars and 80/100

John Smith

XYZ TELECOM Check Date 1/3/2006 Check No. 1235

Invoice Number	Invoice Date	Amount
71-06-002	12/1/2005	31.80

EXHIBIT A

WIRELESS ANTENNA ATTACHMENT APPLICATION AND PERMIT

XYZ TELECOM
Corporation / Partnership

TYPE OF APPLICATION
(Check One) New 1 Foreign ____ Date submitted by Co.

☐ Make-Ready *

☒ Non Make-Ready Existing ____ Removal ____ Date received by FPL

*Antenna bond to FPL pole bond required.
Make-Ready required to install FPL pole bond if non-existent

I. APPLICATION

In accordance with the terms of Agreement dated 12/17 , 2005 application is hereby made for permit to make attachment to the following poles. Included with this exhibit is an affidavit or a copy there of notifying FPL of authorization to attach by the appropriate government agencies.

Location City: Daytona Beach County: Volusia Florida

Pole Numbers (TLN if available)	Pole Locations (GPS & Street)	Exhibit C Identification
1 (3-7901-8470-0-1)	4507 Ridgewood Ave	

I certify that the attachments shall be in compliance with the latest edition of the National Electric Safety Code and FPL requirements. Copy of FPL approved Exhibit C is attached.

Licensee: XYZ TELECOM

By: John Smith (NAME (PRINT)) 123-456-7892 Ext. 123 (PHONE)

John Smith (SIGNATURE) 123-456-7893 (FAX)

CONSTRUCTION MANAGER (TITLE) J.SMITH@XYZTELECOM.COM (E-MAIL)

II. PERMIT

Permit Granted ____ , ____
(Subject to your approval of Make-Ready Cost)
Permit Denied ____ , ____

Estimated Make-Ready Cost

$____ payable in advance.

Permit Number 71-06-002
Total Previous Poles ____
Poles this Permit 1
New Total Poles ____

FLORIDA POWER & LIGHT COMPANY

By: ____

Title: ____

Corresponding Permits 71-06-001

III. GENERAL CONDITIONS

1. A "Make-Ready" permit will automatically expire if attachments are not made and completed within 60 days after notification in writing to Licensee by FPL that Make-Ready work has been completed.

2. A "Non Make-Ready" permit will automatically expire if attachments are not made and completed within 60 days after date of approval and is subject to field conditions and facilities on each pole at the time attachment is made. Licensee shall be required to bear any and all "Make-Ready" cost necessitated by previous attachments.

3. If permit is granted under Section II above, this permit automatically expires, as to the affected poles 30 days after written notice to Licensee that FPL intends to abandon a particular pole line. Within 30 days after such notice, Licensee shall either remove its attachments from those poles or obtain all necessary permits and easements, at the discretion of FPL, arrange to purchase such poles from FPL.

(OVER)

Attachment Criteria

NON JOINT USE POLE

(no telephone)

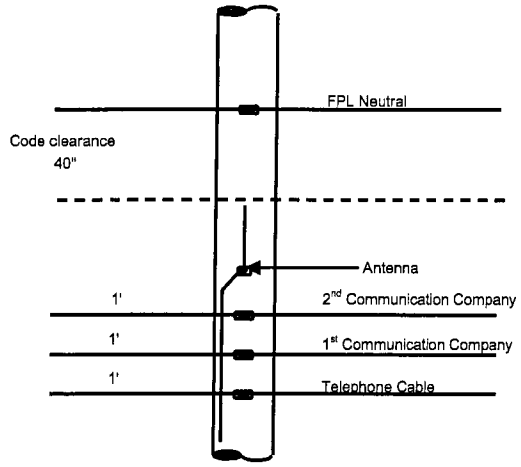


Fig. 1

1. The 1st cable attachment will be located at a height providing minimum clearance over roads, obstacles, etc.
2. All additional cable or antenna attachments will be located 1' above the highest existing communication cable, with antenna highest

JOINT USE POLE

(power & telephone)

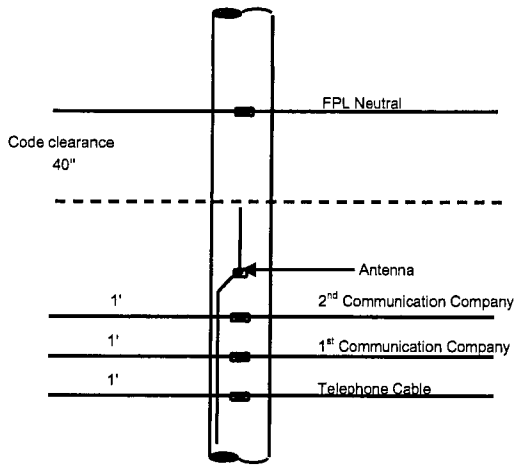


Fig. 2

1. The 1st cable attachment will be located 1' above Telephone's highest cable Attachment
2. The 2nd cable attachment will be located 1' above the existing communication cable
3. The antenna attachment will be a minimum of 1' above highest communication cable

NOTE: No communication cable or antenna attachment will intrude on the 40" NESC code clearance space.

Space Allocation

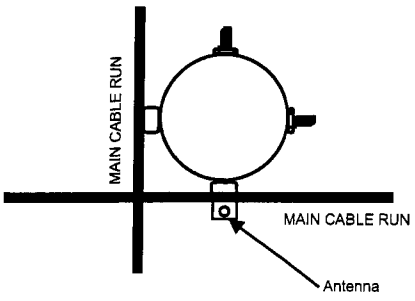


Fig. 3

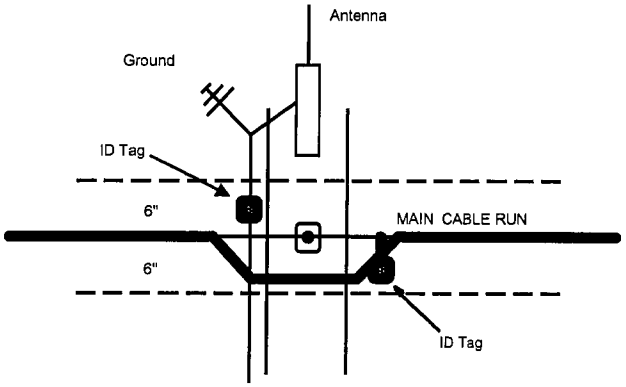


Fig. 4

POLE ATTACHMENT LOCATION

1. Attachment is limited to the communication space or lower.
2. All main cable attachments shall be located either on the same side of the pole as FPL's neutral or on one adjacent side.
3. No main line cable attachments shall be located on the side of the pole opposite FPL's neutral.
4. Only 2 sides of the pole, FPL's neutral and one adjacent side, shall be occupied on any given pole.
5. All electrical connections must be made off the pole.
6. No more than two risers will be allowed per pole. FPL's service to Licensee may be one of these risers.

IDENTIFICATION TAG

1. Each separate attachment shall be identified in accordance with the FUCC's Foreign Attachment Guidelines specifications.
2. Each company shall register their unique ID tag with the FUCC's Joint Use Subcommittee
3. An ID Tag will be installed at every pole attachment.

WIND LOAD CALCULATIONS

Date: 01/02/06

Pole # 1
Pole Type (wood/concrete) WOOD
Pole Class 4
Grade B Const. Pole Length 45
B Setting Depth 7
Span length 1 212
Span length 2 165
AVG SPAN 188.5

WINDLOADING MOMENT
ALLOWABLE 27767
CALCULATED 22959

Wind Loading OK? YES (YES/NO)

Permit No. 71-06-002

CONDUCTORS		Number of Conductors		Wind Load Per Ft. (Table I)		Avg. Span Length		Height Above Ground		Setting Depth 3		MOMENT (ft.-lb.)
Primary	**SIZE**											
Primary	2/0C	3	x	0.311	x	188.5	x	(38.75	+	2.33)	=	7225.35
			x	0	x	188.5	x	(	+	2.33)	=	0.00
			x	0	x	188.5	x	(	+	2.33)	=	0.00
NEU,SEC	**SIZE**											
NEU	1/0C	1	x	0.276	x	188.5	x	(31.5	+	2.33)	=	1760.21
SEC	1/0C	1	x	0.276	x	188.5	x	(30.4	+	2.33)	=	1702.98
SEC	1/0C	1	x	0.276	x	188.5	x	(29.4	+	2.33)	=	1650.96
			x	0	x	188.5	x	(	+	2.33)	=	0.00
			x	0	x	188.5	x	(	+	2.33)	=	0.00
			x	0	x	188.5	x	(	+	2.33)	=	0.00
FOREIGN UTILITIES	**SIZE**											
FIBER TELC		0.625	x	0.46875	x	188.5	x	(23.083	+	2.33)	=	2245.77
CATV		1	x	0.75	x	188.5	x	(22.4	+	2.33)	=	3496.68
TRAFFIC SIGNAL		0.5	x	0.375	x	188.5	x	(19.083	+	2.33)	=	1513.87
			x	0	x	188.5	x	(	+	2.33)	=	0.00
			x	0	x	188.5	x	(	+	2.33)	=	0.00
TELEPHONE	**SIZE**											
TELEPHONE		1	x	0.75	x	188.5	x	(20.917	+	2.33)	=	3287.02
			x	0	x	188.5	x	(	+	2.33)	=	0.00
			x	0	x	188.5	x	(	+	2.33)	=	0.00
						TOTAL MOMENT DUE TO CONDUCTORS					=	22882.83

EQUIPMENT		Wind Load Force in lbs		Height Above Ground		Setting Depth 3		MOMENT (ft.-lb.)
PROPOSED	**QTY**							
XYZ TELECOM	1	x 2.79	x	(25.08	+	2.33)	=	76.4832
TRANSFORMERS	**KVA**							
1 Phase		0	x	(	+	2.33)	=	0
2 Phase		0	x	(	+	2.33)	=	0
3 Phase		0	x	(	+	2.33)	=	0
CAPACITORS	**Enter #1**							
Switched		x 112	x	(	+	2.33)	=	0
Fixed		x 95	x	(	+	2.33)	=	0
REGULATORS	**Enter #1**							
76.2 kVA		x 104	x	(	+	2.33)	=	0
167 kVA		x 153	x	(	+	2.33)	=	0
RECLOSERS	**Enter #1**							
1 phase		x 36	x	(	+	2.33)	=	0
3 phase		x 95	x	(	+	2.33)	=	0
AUTOMATED SWITCH	**Enter #1**							
Joslyn		x 80	x	(	+	2.33)	=	0
Coopers		x 95	x	(	+	2.33)	=	0

RISER CONDUITS	Riser Height above Grnd	Wind Load Force in lbs per ft.		Riser Height above Ground 2		Setting Depth 3		MOMENT (ft.-lb.)
2"		x 1.7	x	(0	+	2.33)	=	0
4"		x 3.2	x	(0	+	2.33)	=	0
5"		x 3.9	x	(0	+	2.33)	=	0
6"		x 4.7	x	(0	+	2.33)	=	0
RISER SHIELDS								
2"		x 2	x	(0	+	2.33)	=	0
4"		x 4	x	(0	+	2.33)	=	0
5"		x 7	x	(0	+	2.33)	=	0
				TOTAL MOMENT DUE TO EQIPMENT			=	76.4832 ft.-lb.

WINDLOAD 2000 - 31 August 00

TOTAL ALL MOMENTS = 22959.31 ft.-lb.

POLE MEASUREMENT WORKSHEET

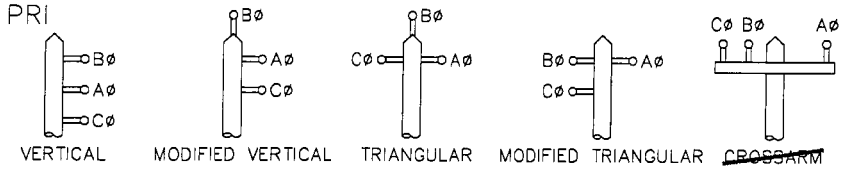
MAKE READY REQ'D? ☐

2 LANE ☐ 4 LANE ☐ ROAD

POLE SPAN LENGTH

PREVIOUS *212'* NEXT *165'*

PRI



QTY	SIZE		ATT HEIGHT	MISC HEIGHT
3	*2/0*		*38'9"*	
	1/0		*31'5"*	
	1/0		*30'5"*	
	1/0		*29'5"*	
	.625		*23'1"*	
	1"		*22'3"*	
	1"		*20'11"*	
	.5		*19'1"*	
P	*24"*		*24'1"*	

NEU / SEC / SCBL / QPX / TPX / DPX / WA / SDL / CAP / TX / REC / SG

PR / CSR / SR / SL / SLDL / TS / CATV / TELC / TEL / DP / REG

OWNER *FPL* TYPE *WOOD* HT-CL *45-4* TLN *3-7901-8470-0-1*

POLE# *1* WA MAP# *57-09* FPL MAP# *P38002*

ADDRESS *4507 RIDGEWOOD AVE.* PERMIT# *71-06-002*

INSPECTED BY *JIM SMITH* DATE *1-1-06* JUNCTION POLE SEE ADD'L SHEET ☒

COMMENTS / MAKE READY REQUESTED *PAGE 1 OF 2*

POLE MEASUREMENT WORKSHEET

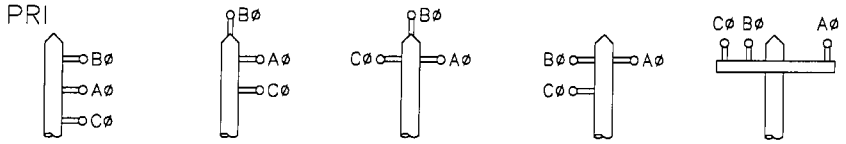
MAKE READY REQ'D? ☐

2 LANE ☐ 4 LANE ☐ ROAD

POLE SPAN LENGTH

PREVIOUS --- NEXT 95'

PRI



QTY	SIZE		ATT HEIGHT	MISC HEIGHT
3	2/0		36'6"	
	1/0		31'5"	
	1"		22'3"	
	1"		20'11"	

NEU / SEC / SCBL / QPX / TPX / DPX / WA / SDL / CAP / TX / REC / SG
PR / CSR / SR / SL / SLDL / TS / CATV / TELC / TEL / DP / REG

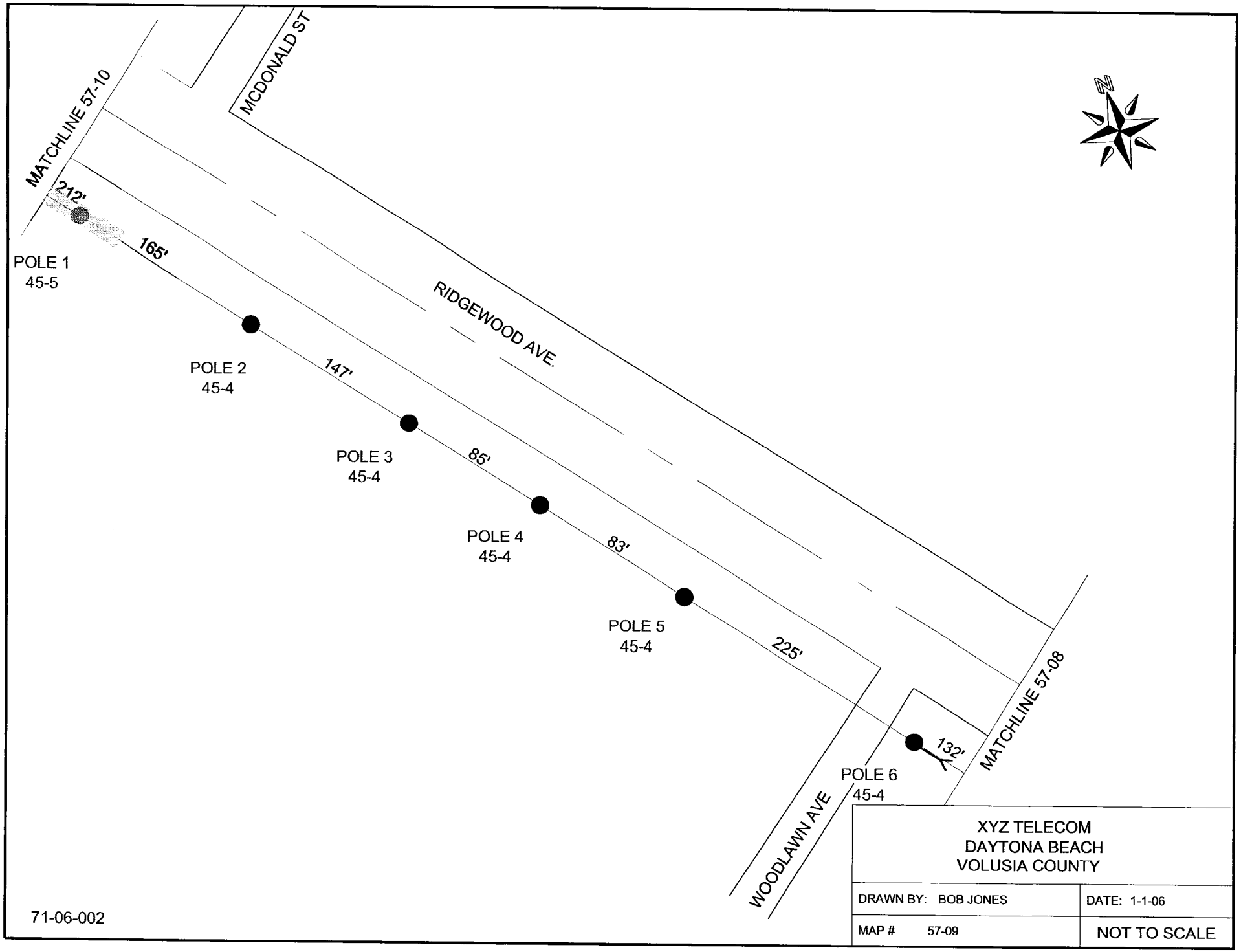
OWNER FPL TYPE WOOD HT-CL 45-4 TLN 3-7901-8470-0-1

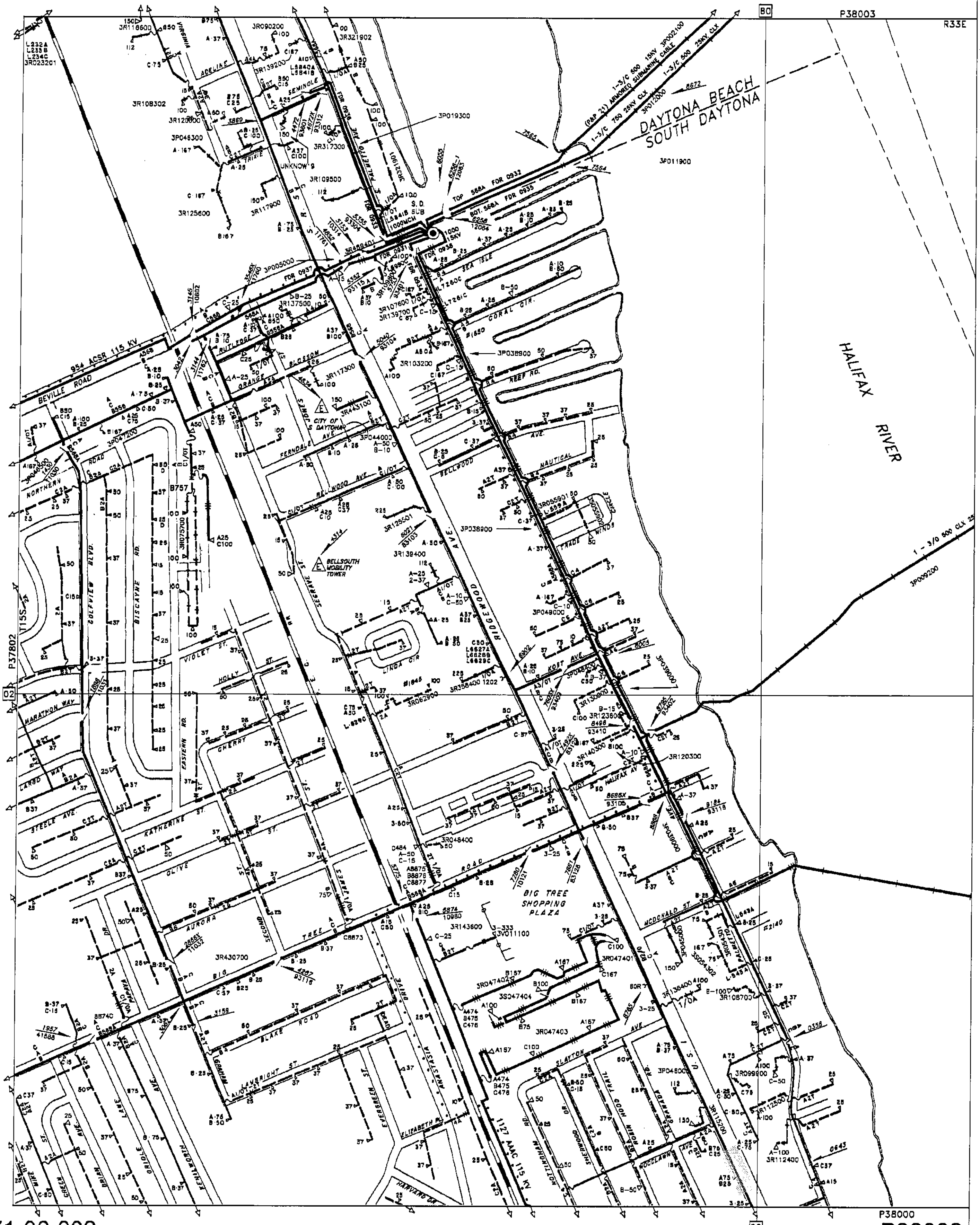
POLE# 1 WA MAP# 57-09 FPL MAP# P38002

ADDRESS 4507 RIDGEWOOD AVE. PERMIT# 71-06-002

INSPECTED BY JIM SMITH DATE 1-1-06 JUNCTION POLE SEE ADD'L SHEET ☐

COMMENTS / MAKE READY REQUESTED PAGE 2 OF 2 - JUNCTION WORKSHEET


MATCHLINE 57-10
MCDONALD ST
N
212'
165'
147'
85'
83'
225'
132'
POLE 1
45-5
POLE 2
45-4
POLE 3
45-4
POLE 4
45-4
POLE 5
45-4
POLE 6
45-4
RIDGEWOOD AVE.
WOODLAWN AVE
MATCHLINE 57-08
XYZ TELECOM
DAYTONA BEACH
VOLUSIA COUNTY
DRAWN BY: BOB JONES
DATE: 1-1-06
MAP # 57-09
NOT TO SCALE
71-06-002



71-06-002

REVISION DATE: 05/13/99

DY U.S. 1 AND BEVILLE ROAD

P38002

NO

TELEPHONE: BELLSOUTH

CATV: TCI CABLE OF FL (07)

SECTION III. C. 7.
MAKE READY PERMITS

WHEN IS A MAKE READY PERMIT REQUIRED?

A make ready permit is required for pole regardless of ownership, if any FPL construction is required to adjust FPL facilities to allow the licensee to attach to the poles or to eliminate a clearance violation.

CHANGES IN SCOPE OF WORK
After a make ready work order has been designed by Alpine, it may be possible to delete locations due to changes in applicants' scope of work. All other changes in scope of make ready work must be submitted on an additional make ready permit application, whether due to licensee choice or FPL construction requirements.

A MAKE READY PERMIT APPLICATION CONSISTS OF **TWO** COMPLETE PACKAGES IN THE FOLLOWING ORDER:

PACKAGE 1

1) Copy of approved "Initial Review Evaluation Form"
2) Payment for the permit
3) Original signed Exhibit A (front and back)
4) Wind load sheets for each pole applied for
5) Pole measurement sheets for each pole applied for
6) No larger than 11" x 17" Licensee maps with route highlighted, affected pole(s) numbered in sequence, and with span footages shown.
7) Copy of 11" x 17" FPL primary map with the affected area highlighted
8) Include environmental impact form if applicable.

PACKAGE 2

1) Copy of approved "Initial Review Evaluation Form"
2) Original signed Exhibit A (front and back)
3) Wind load sheets for each pole applied for
4) Pole measurement sheets for each pole applied for
5) No larger than 11" x 17" Licensee maps with route highlighted, affected pole(s) numbered in sequence, and with span footages shown.
6) Copy of 11" x 17" FPL primary map with the affected area highlighted
7) Include environmental impact form if applicable.

DIGITAL MAKE READY PHOTO REQUIREMENTS

All make ready photos need to be submitted in digital format with a resolution of 2 to 5 megapixels, and an optical zoom of 2X or higher, **NO** digital zoom.

A minimum of **two** photos are required for each make ready pole. The first picture will show the entire pole from the ground to the top of the pole. The second photo will show the pole from the lowest attachment to the top of the pole. See examples of these photos on pages 53 thru 54.

The photos should be taken so that the facilities on the pole are clearly visible. It may require multiple photos to do this. Try to avoid taking photos directly into the sun or with trees in the background. Permits submitted with unusable photos will be returned and will delay the construction of your facilities.

Each photo should be renamed to reflect the permit number and pole number. For example for permit number 71-06-001, pole 4, the first photo would be named 71-06-001p4a.jpg, and the second photo for the same pole would be 71-06-001p4b.jpg and so on.

XYZ TELECOM 1234

DATE 1/3/2006

PAY
TO THE
ORDER OF Alpine Communication Corp. $ 231.90
Two Hundred Thirty-one dollars and 90/100

John Smith

XYZ TELECOM Check Date 1/3/2006 Check No. 1234

Invoice Number	Invoice Date	Amount
71-06-001	12/1/2005	231.90

EXHIBIT A

WIRELESS ANTENNA ATTACHMENT APPLICATION AND PERMIT

XYZ TELECOM
Corporation / Partnership

TYPE OF APPLICATION
(Check One) New 1 Foreign _____ Date submitted by Co.

☒ Make-Ready *

☐ Non Make-Ready Existing _____ Removal _____ Date received by FPL

*Antenna bond to FPL pole bond required.
Make–Ready required to install FPL pole bond if non-existent

I. APPLICATION

In accordance with the terms of Agreement dated 12/17 , 2005 application is hereby made for permit to make attachment to the following poles. Included with this exhibit is an affidavit or a copy there of notifying FPL of authorization to attach by the appropriate government agencies.

Location City: Daytona Beach County: Volusia Florida

Pole Numbers (TLN if available)	Pole Locations (GPS & Street)	Exhibit C Identification
4 (3-7901-8862-0-2)	4493 Ridgewood Ave	

I certify that the attachments shall be in compliance with the latest edition of the National Electric Safety Code and FPL requirements. Copy of FPL approved Exhibit C is attached.

Licensee: XYZ TELECOM

By: John Smith (NAME (PRINT)) 123-456-7892 Ext. 123 (PHONE)

John Smith (SIGNATURE) 123-456-7893 (FAX)

CONSTRUCTION MANAGER (TITLE) J.SMITH@XYZTELECOM.COM (E-MAIL)

II. PERMIT

Permit Granted _____ , _____
(Subject to your approval of Make-Ready Cost)
Permit Denied _____ , _____

Estimated Make-Ready Cost

$_____ payable in advance.

Permit Number 71-06-001
Total Previous Poles _____
Poles this Permit 1
New Total Poles _____

FLORIDA POWER & LIGHT COMPANY

By: _____

Title: _____

Corresponding Permits 71-06-002

III. GENERAL CONDITIONS

1. A "Make-Ready" permit will automatically expire if attachments are not made and completed within 60 days after notification in writing to Licensee by FPL that Make-Ready work has been completed.
2. A "Non Make-Ready" permit will automatically expire if attachments are not made and completed within 60 days after date of approval and is subject to field conditions and facilities on each pole at the time attachment is made. Licensee shall be required to bear any and all "Make-Ready" cost necessitated by previous attachments.
3. If permit is granted under Section II above, this permit automatically expires, as to the affected poles 30 days after written notice to Licensee that FPL intends to abandon a particular pole line. Within 30 days after such notice, Licensee shall either remove its attachments from those poles or obtain all necessary permits and easements, at the discretion of FPL, arrange to purchase such poles from FPL.

(OVER)

Attachment Criteria

NON JOINT USE POLE

(no telephone)

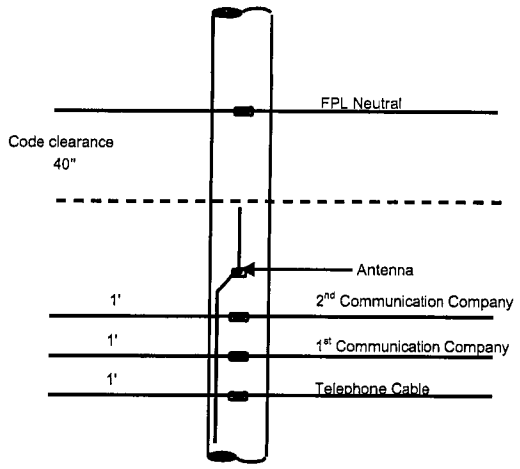


Fig. 1

1. The 1st cable attachment will be located at a height providing minimum clearance over roads, obstacles, etc.
2. All additional cable or antenna attachments will be located 1' above the highest existing communication cable, with antenna highest

JOINT USE POLE

(power & telephone)

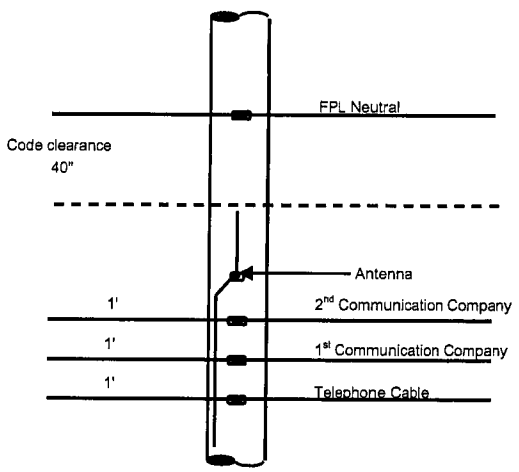


Fig. 2

1. The 1st cable attachment will be located 1' above Telephone's highest cable Attachment
2. The 2nd cable attachment will be located 1' above the existing communication cable
3. The antenna attachment will be a minimum of 1' above highest communication cable

NOTE: No communication cable or antenna attachment will intrude on the 40" NESC code clearance space.

Space Allocation

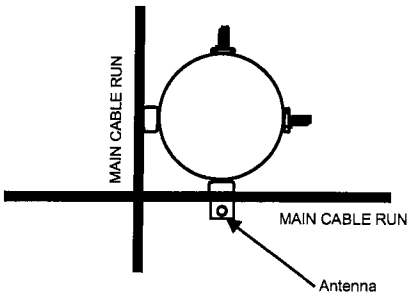


Fig. 3

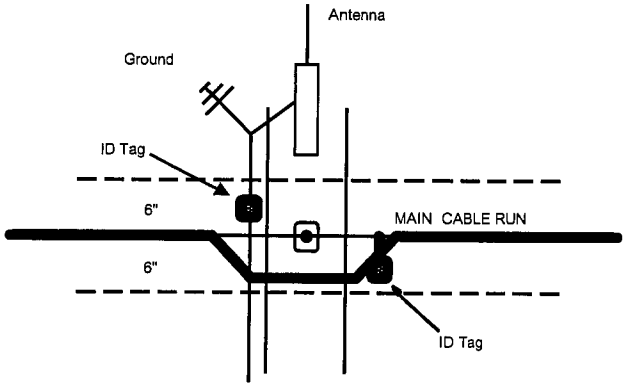


Fig. 4

POLE ATTACHMENT LOCATION

1. Attachment is limited to the communication space or lower.
2. All main cable attachments shall be located either on the same side of the pole as FPL's neutral or on one adjacent side.
3. No main line cable attachments shall be located on the side of the pole opposite FPL's neutral.
4. Only 2 sides of the pole, FPL's neutral and one adjacent side, shall be occupied on any given pole.
5. All electrical connections must be made off the pole.
6. No more than two risers will be allowed per pole. FPL's service to Licensee may be one of these risers.

IDENTIFICATION TAG

1. Each separate attachment shall be identified in accordance with the FUCC's Foreign Attachment Guidelines specifications.
2. Each company shall register their unique ID tag with the FUCC's Joint Use Subcommittee
3. An ID Tag will be installed at every pole attachment.

WIND LOAD CALCULATIONS

Date: 01/02/06

Pole # 4
Pole Type (wood/concrete) WOOD
Pole Class 4
Grade B Const. Pole Length 45
B Setting Depth 7
Span length 1 85
Span length 2 83
AVG SPAN 84

WINDLOADING MOMENT
ALLOWABLE 27767
CALCULATED 10443

Wind Loading OK? YES (YES/NO)

Permit No. 71-06-001

CONDUCTORS		Number of Conductors		Wind Load Per Ft. (Table I)		Avg. Span Length			Height Above Ground		Setting Depth 3		MOMENT (ft.-lb.)
Primary	**SIZE**												
Primary	2/0C	3	x	0.311	x	84	x	(	38.75	+	2.33	) =	3219.78
			x	0	x	84	x	(		+	2.33	) =	0.00
			x	0	x	84	x	(		+	2.33	) =	0.00
NEU,SEC	**SIZE**												
NEU	1/0C	1	x	0.276	x	84	x	(	30.75	+	2.33	) =	767.00
SEC	1/0C	1	x	0.276	x	84	x	(	29.75	+	2.33	) =	743.82
SEC	1/0C	1	x	0.276	x	84	x	(	28.66	+	2.33	) =	718.55
			x	0	x	84	x	(		+	2.33	) =	0.00
			x	0	x	84	x	(		+	2.33	) =	0.00
			x	0	x	84	x	(		+	2.33	) =	0.00
FOREIGN UTILITIES		**SIZE**											
FIBER TELC		0.625	x	0.46875	x	84	x	(	22.17	+	2.33	) =	964.82
CATV		1	x	0.75	x	84	x	(	20.75	+	2.33	) =	1454.25
TRAFFIC SIGNAL		0.5	x	0.375	x	84	x	(	18.5	+	2.33	) =	656.25
			x	0	x	84	x	(		+	2.33	) =	0.00
			x	0	x	84	x	(		+	2.33	) =	0.00
TELEPHONE		**SIZE**											
TELEPHONE		1	x	0.75	x	84	x	(	19.25	+	2.33	) =	1359.75
			x	0	x	84	x	(		+	2.33	) =	0.00
			x	0	x	84	x	(		+	2.33	) =	0.00
						TOTAL MOMENT DUE TO CONDUCTORS						=	9884.23

EQUIPMENT		Wind Load Force in lbs		Height Above Ground		Setting Depth 3		MOMENT (ft.-lb.)
PROPOSED	**SIZE**							
XYZ TELECOM	1	x 2.79	x	(25.83	+	2.33	) =	78.5757
TRANSFORMERS	**KVA**							
1 Phase		0	x	(	+	2.33	) =	0
2 Phase		0	x	(	+	2.33	) =	0
3 Phase		0	x	(	+	2.33	) =	0
CAPACITORS	**Enter #1**							
Switched		x 112	x	(	+	2.33	) =	0
Fixed		x 95	x	(	+	2.33	) =	0
REGULATORS	**Enter #1**							
76.2 kVA		x 104	x	(	+	2.33	) =	0
167 kVA		x 153	x	(	+	2.33	) =	0
RECLOSERS	**Enter #1**							
1 phase		x 36	x	(	+	2.33	) =	0
3 phase		x 95	x	(	+	2.33	) =	0
AUTOMATED SWITCH	**Enter #1**							
Joslyn		x 80	x	(	+	2.33	) =	0
Coopers		x 95	x	(	+	2.33	) =	0

RISER CONDUITS	Riser Height above Grnd	Wind Load Force in lbs per ft.		Riser Height above Ground 2		Setting Depth 3		MOMENT (ft.-lb.)
2"	23.42	x 1.7	x	(11.71	+	2.33	) =	559.121273
4"		x 3.2	x	(0	+	2.33	) =	0
5"		x 3.9	x	(0	+	2.33	) =	0
6"		x 4.7	x	(0	+	2.33	) =	0
RISER SHIELDS								
2"		x 2	x	(0	+	2.33	) =	0
4"		x 4	x	(0	+	2.33	) =	0
5"		x 7	x	(0	+	2.33	) =	0
				TOTAL MOMENT DUE TO EQUIPMENT			=	559.121273 ft.-lb.

WINDLOAD 2000 - 31 August 00

TOTAL ALL MOMENTS = 10443.35 ft.-lb.

POLE MEASUREMENT WORKSHEET

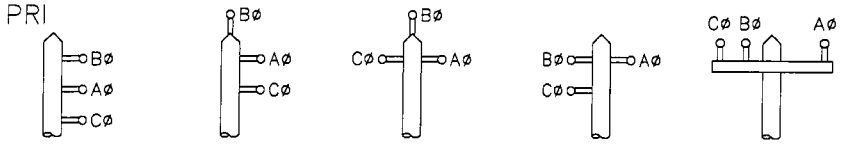
MAKE READY REQ'D? ☒

2 LANE ☐ 4 LANE ☒ ROAD

POLE SPAN LENGTH

PREVIOUS *85'* NEXT *83'*

PRI



QTY	SIZE		ATT HEIGHT	MISC HEIGHT
3	2/0		38'9"	
			31'5"	TXB 33'9"
	25			
	1/0		30'9"	
			30'1"	
	1/0		29'9"	
	1/0		28'8"	
	1"		23'5"	
	.625		22'2"	
	1"		20'9"	
	1"		19'3"	
	.5		18'6"	

NEU SEC SCBL QPX TPX DPX WA SDL CAP TX REC SG
PR CSR SR SL SLDL TS CATV TELC TEL DP REG

OWNER *FPL* TYPE *WOOD* HT-CL *45-4* TLN *3 – 7901 – 8862 – 02*

POLE# *4* WA MAP# *57-09* FPL MAP# *P38002*

ADDRESS *4493 RIDGEWOOD AVE.* PERMIT# *71 – 06 – 001*

INSPECTED BY *JIM SMITH* DATE *1-1-06* JUNCTION POLE SEE ADD'L SHEET ☐

COMMENTS / MAKE READY REQUESTED *SHEET 1 OF 2 - PICTURES 71-06-001P4a.JPG AND 71-06-001P4b.JPG, 1" GALV RISER - MR = EXTEND SR 61"*

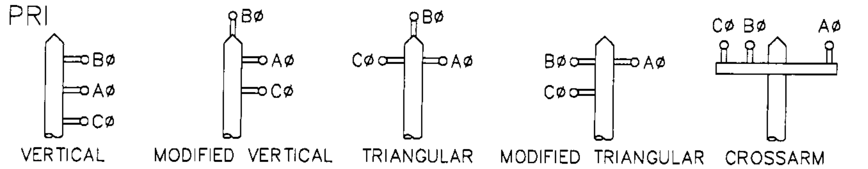
POLE MEASUREMENT WORKSHEET

MAKE READY REQ'D? ☒

2 LANE ☐ 4 LANE ☒ ROAD

POLE SPAN LENGTH

PREVIOUS *85'* NEXT *83'*



Attachment	QTY	SIZE		ATT HEIGHT	MISC HEIGHT
NEU / PR, SEC / CSR, SCBL / SR, QPX / SL, TPX / SLDL, DPX / TS, WA / CATV, SDL / TELC, CAP / TEL, TX / DP, REC / REG, SG					
NEU / PR, SEC / CSR, SCBL / SR, QPX / SL, TPX / SLDL, DPX / TS, WA / CATV, SDL / TELC, CAP / TEL, TX / DP, REC / REG, SG					
NEU / PR, SEC / CSR, SCBL / SR, QPX / SL, TPX / SLDL, DPX / TS, WA / CATV, SDL / TELC, CAP / TEL, TX / DP, REC / REG, SG					
NEU / PR, SEC / CSR, SCBL / SR, QPX / SL, TPX / SLDL, DPX / TS, WA / CATV, SDL / TELC, CAP / TEL, TX / DP, REC / REG, SG					
NEU / PR, SEC / CSR, SCBL / SR, QPX / SL, TPX / SLDL, DPX / TS, WA / CATV, SDL / TELC, CAP / TEL, TX / DP, REC / REG, SG					
NEU / PR, SEC / CSR, SCBL / SR, QPX / SL, TPX / SLDL, DPX / TS, WA / CATV, SDL / TELC, CAP / TEL, TX / DP, REC / REG, SG					
NEU / PR, SEC / CSR, SCBL / SR, QPX / SL, TPX / SLDL, DPX / TS, WA / CATV, SDL / TELC, CAP / TEL, TX / DP, REC / REG, SG					
NEU / PR, SEC / CSR, SCBL / SR, QPX / SL, TPX / SLDL, DPX / TS, WA / CATV, SDL / TELC, CAP / TEL, TX / DP, REC / REG, SG					
NEU / PR, SEC / CSR, SCBL / SR, QPX / SL, TPX / SLDL, DPX / TS, WA / CATV, SDL / TELC, CAP / TEL, TX / DP, REC / REG, SG					
NEU / PR, SEC / CSR, SCBL / SR, QPX / SL, TPX / SLDL, DPX / TS, ~~WA~~ / CATV, SDL / TELC, CAP / TEL, TX / DP, REC / REG, SG / *P*		*.625*		*23'2"*	

OWNER *FPL* TYPE *WOOD* HT-CL *45-4* TLN *3 – 7 9 0 1 – 8 8 6 2 – 0 – 2*

POLE# *4* WA MAP# *57-09* FPL MAP# *P38002*

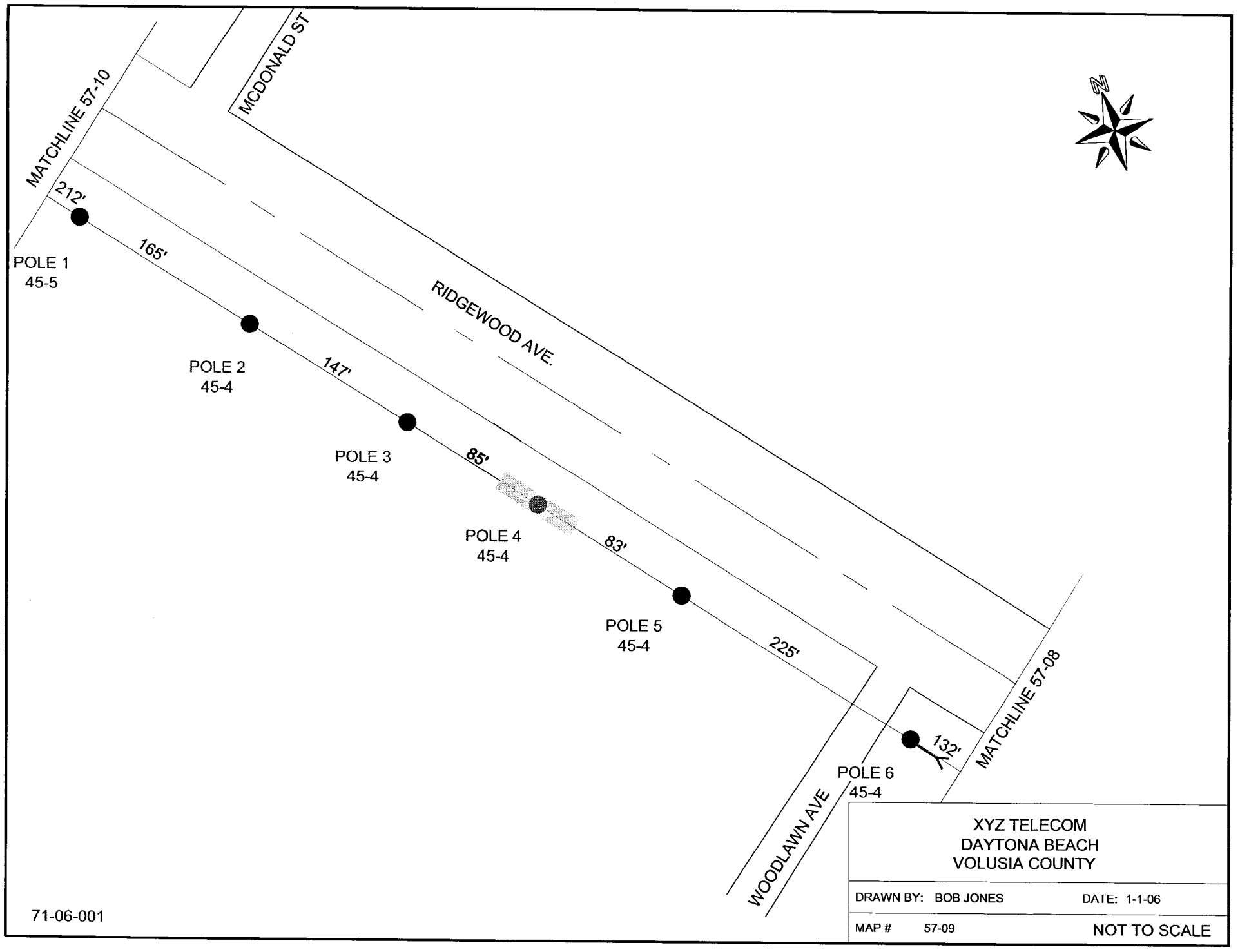
ADDRESS *4493 RIDGEWOOD AVE.* PERMIT# *7 1 – 0 6 – 0 0 1*

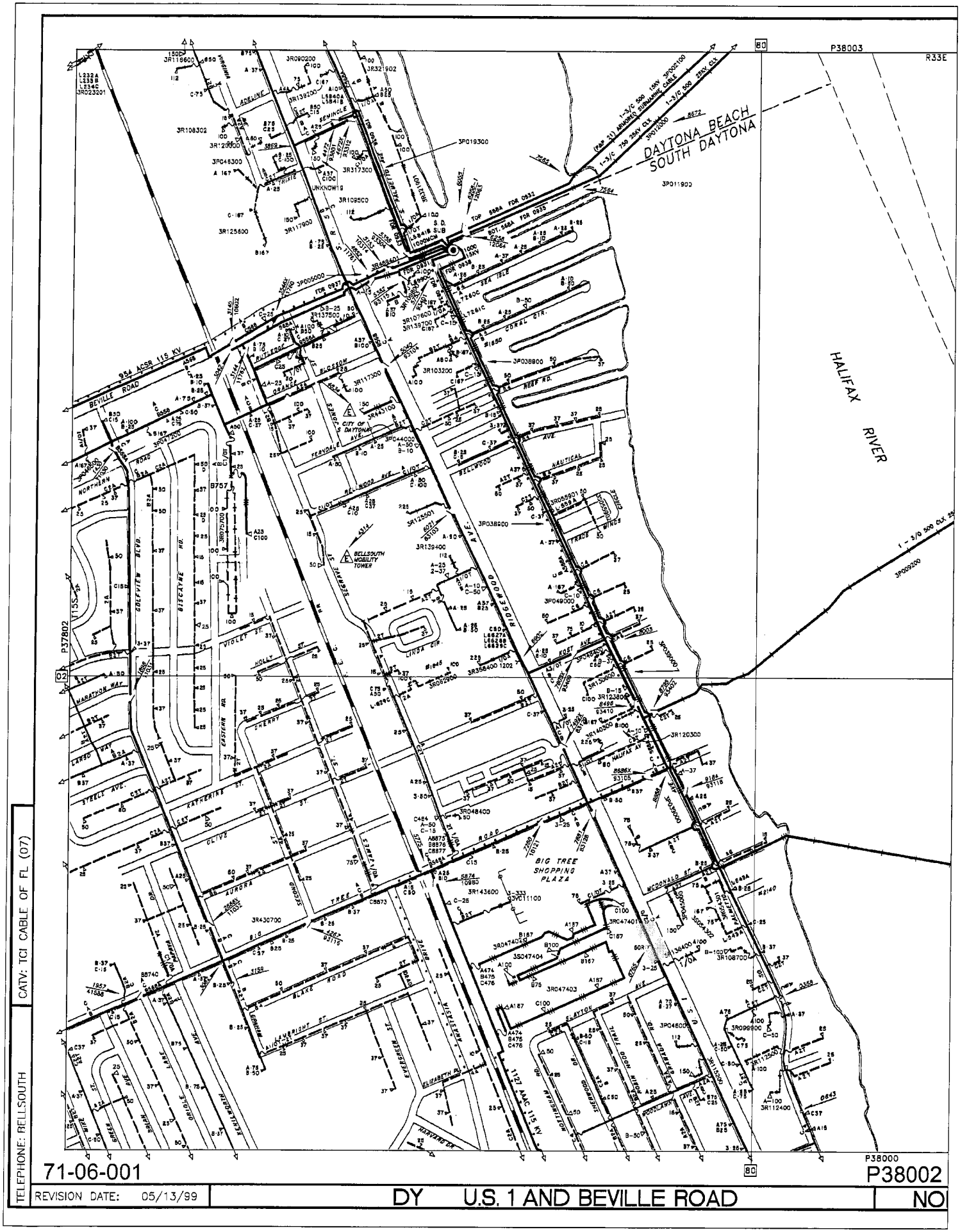
INSPECTED BY *JIM SMITH* DATE *1-1-06* JUNCTION POLE SEE ADD'L SHEET ☐

COMMENTS / MAKE READY REQUESTED *SHEET 2 OF 2 - PICTURES 71-06-001P4a.JPG AND 71-06-001P4b.JPG, 1" GALV RISER - MR = EXTEND SR 61"*

71-06-001p4a.jpg

71-06-001p4b.jpg


MATCHLINE 57-10
MCDONALD ST
212'
165'
147'
85'
83'
225'
132'
POLE 1
45-5
POLE 2
45-4
POLE 3
45-4
POLE 4
45-4
POLE 5
45-4
POLE 6
45-4
RIDGEWOOD AVE.
WOODLAWN AVE
MATCHLINE 57-08
N
XYZ TELECOM
DAYTONA BEACH
VOLUSIA COUNTY
DRAWN BY: BOB JONES
DATE: 1-1-06
MAP # 57-09
NOT TO SCALE
71-06-001


P38003
R33E
DAYTONA BEACH
SOUTH DAYTONA
HALIFAX RIVER
BEVILLE ROAD
RIDGEWOOD AVE.
BIG TREE SHOPPING PLAZA
P37802
P38000
P38002
71-06-001
REVISION DATE: 05/13/99
DY U.S. 1 AND BEVILLE ROAD
NO
TELEPHONE: BELLSOUTH
CATV: TCI CABLE OF FL (07)

SECTION III. D.
RECEIVE APPROVED PERMIT

It is our goal to process Non-make ready permit applications within a time span of about two weeks.

Permit applications which require Make ready work will take longer. Our goal is to grant or deny make ready applications within 45 days after submission of a correct and complete application. Make ready applications involving very large numbers of poles may take longer and may be approved or denied in groups of poles as the review work progresses. Additional time will be required for CATV approval of the make ready cost, CATV payment of the make ready cost, scheduling of FPL construction work and performance of FPL construction work.

Upon approval of your permit application, Alpine will fax a copy of the approved Exhibit "A". This copy will be signed by Alpine's representative.

Your permit will automatically expire if:

1) Non-Make Ready permits: attachments are not made and completed within 60 days of the date of permit approval;
2) Make Ready permits: attachments are not made and completed within 60 days of notification of make ready work complete, or FPL invoice not paid within 120 days of invoice date;

It is your responsibility to ensure that copies of the signed Exhibit "A" are maintained in your company's files and in the possession of your company or contract construction personnel during the field installation of the attachments.

SECTION III. E.
CONSTRUCT/QC ATTACHMENTS

- Remember that in order to construct your attachments,you must also secure any necessary permit,consent, or certification from state,county or municipal authorities.

- Construction personnel must be properly trained,including familiarization with this page and p.23 of this manual,"Cl earances of Foreign Communication Cables to FPL &Other Foreign Utilities".

- You must have an approved permit Exhibit 'A)'

- A copy of the approved permit Exhibit 'A ''and highlighted wireless antenna and FPL Primary maps)must be available for inspection on the job site during construction of the attachments.

- You must complete construction within 60 days of permit approval,or permit will automatically expire,and you will need to re-apply.

- **Build your facilities as designed in approved permit package.**

- Conform to FPL requirements (clearan ces,tagging,bonding, proper brackets for attachments per approved 'Initial Review Evaluation'form)and NESC standards, during installation of strand and cable. These requirements apply to all FPL poles.

- Grounding and bonding: in accordance with the attachment agreement licensees equipment will be bonded to the pole bond on every pole,to which licensee is attached.

- **Upon completion of construction, perform quality control review of facilities for compliance and make adjustments if necessary.**

- Where possible,withhold payment to c ontractors/construction crews until it can be determined that their construction conforms to NESC and FPL requirements.

SECTION III. F.
NOTIFY OF CONSTRUCTION COMPLETION
- EXHIBIT "B" PREPARATION

The final and very important step in the permit process is the submittal of an EXHIBIT "B" NOTIFICATION OF ATTACHMENT/REMOVAL. (Use of FPL's Exhibit "B" word doc e-mailed by the person authorized to sign permits for your company is acceptable.)

- Send the notice monthly (provided there have been attachments/removals during the month)
- Notice (EXHIBIT "B") must be sent to Alpine Communication Corp., FPL's permit process contractor
- Notice (EXHIBIT "B") must be sent within thirty days after construction of the attachments is complete

Upon receipt of the Exhibit "B" Alpine will schedule a post inspection of the attachments reported.

FAILURE TO FILE AN EXHIBIT "B" WILL DELAY THE POST INSPECTION AND RECORDING OF YOUR ATTACHMENTS AND WILL PREJUDICE OTHER ENTITIES DESIRING TO ATTACH TO FPL POLES. FAILURE TO TIMELY FILE AN EXHIBIT "B", THEREFORE, WILL RESULT IN A REQUIREMENT FOR YOUR PAYMENT FOR A FIELD INSPECTION OF ALL POLES ON THE EXPIRED EXHIBIT "A", AND MAY RESULT IN TERMINATION OF THE POLE ATTACHMENT AGREEMENT IN WHOLE OR PART. IT MAY ALSO LEAD TO POST AUDIT BACKBILLINGS AND ADMINISTRATIVE FEES. THE LICENSEE APPLICANT AND COMPANY MANAGEMENT WILL BE NOTIFIED IN WRITING OF ANY FAILURE TO COMPLY.

EXHIBIT B
NOTIFICATION OF WIRELESS ANTENNA ATTACHMENT/REMOVAL

(1) _____
Corporation / Partnership

(2) Attachment ☐
Removal ☐

(3)

In accordance with the terms of Licensee's Agreement dated , please (add to) or (delete from) your records the following poles to which (attachments) or (removals) were made during this calendar month.

(4) **Location**

City , County , Florida

Pole Numbers	Date Added	Date Deleted	Permit Number	Pole Locations (Number of Poles)
(5)	(6)	(6)	(7)	(8)

Total Attachment this Notice:

Added (9) _____
Removed (10) _____
Total Previous Attachments (11) _____
Total Attachments to Date (12) _____

Licensee: _____

By: _____ _____ Ext.
Name (Print) Phone

(13)
_____ _____
Signature Fax

_____ _____
Title E-Mail

Florida Power & Light Company

By: _____

(14) Title: _____

Date Received _____

(15) Notice Number: _____

Form 1710B (Non-Stocked) Rev. 9/89

STEPS TO COMPLETE EXHIBIT "B"

1) List the company as it appears on your FPL CATV attachment agreement
2) You may combine attachments and removal on the same Exhibit "B", please check if one or both applies
3) Date of the FPL CATV attachment agreement
4) Location –this must be the service area in which the Exhibit "B" applies
5) Pole numbers – should correspond to pole numbers on the approved Exhibit "A", for deletions please submit a CATV map and reference FPL map. Deleted poles should be numbered on CATV map.
6) Date added or deleted – company should list the day, month, year and the number of attachments or deletions
7) Permit # -you must list the permit number on all additions. If you are adding service poles that were not previously permitted, you must include an Exhibit "A" package.
8) Pole locations – please list locations as they originally appeared on the Exhibit "A".
9) New attachments added this notice
10) Attachments deleted this notice
11) Total previous attachments – this total is from company's previous month's Exhibit "B" or FPL attachment audit, if applicable.
12) Total attachments to date – equals poles added, less poles deleted plus previous attachments (line 9 minus line 10 plus line 11)
13) Licensee – the company name as it appears on the FPL CATV attachments
    Name/Title - of the person authorized to submit permits for your company
    Phone, Fax, and E-Mail address of the person submitting the permit
    Signature – must be an original signature on the Exhibit "B"
14) Filled out by Alpine Communication Corp.
15) Notice Number – please assign a notice number comprised of the last two digits of the current year followed by a sequence number (The first Exhibit "B" of 2006 would be number as 06-001)

Exhibit "B" (Example)

The following is an example of an Exhibit "B" package, properly submitted within thirty days of construction completion, and based upon the permit application examples shown in the sections III C. 6 and III C. 7 of this manual.

EXHIBIT B
NOTIFICATION OF WIRELESS ANTENNA ATTACHMENT/REMOVAL

XYZ TELECOM
Corporation / Partnership

Attachment ☒
Removal ☐

In accordance with the terms of Licensee's Agreement dated 2-17, 1996 please (add to) or (delete from) your records the following poles to which (attachments) or (removals) were made during this calendar month.

Location

City Daytona Beach , County Volusia , Florida

Pole Numbers	Date Added	Date Deleted	Permit Number	Pole Locations (Number of Poles)
1	3-5-06		71-06-002	FPL MAP P38002, CATV MAP 57-09
4	3-5-06		71-06-001	FPL MAP P38002, CATV MAP 57-09

Total Attachment this Notice:

Added 2
Removed
Total Previous Attachments 1231
Total Attachments to Date 1233

Licensee: XYZ TELECOM

By: JOHN SMITH (Name (Print))

123-456-7892 Ext. 123 (Phone)

John Smith (Signature)

123-456-7893 (Fax)

CONSTRUCTION MANAGER (Title)

J.SMITHS@XYZTELECOM.COM (E-Mail)

Florida Power & Light Company

By:

Title:

Date Received

Notice Number: 06-001

Form 1710B (Non-Stocked) Rev. 9/89

SECTION III. G.
EXPIRED EXHIBIT "A"

An expired Exhibit "A" is an Exhibit "A" that has not been cancelled or for which no timely Exhibit "B" was filed, or an Exhibit "A" for Make ready, where the FPL invoice was cancelled for non-payment.

Licensee will be required to make payment for field inspection of all poles on an expired Exhibit "A".

This requirement can be avoided by the timely filing of Exhibit B's.

SECTION III. H.
FPL POST INSPECTION OF CABLE ATTACHMENTS

Based on the guidelines in sections III.C.3 and III.C.4 a post inspection will follow upon receipt of the licensee Exhibit "B". The results of the post inspection will cause Alpine to take the following actions.

Alpine will post the attachments to the licensee total for pole rental billing by FPL. If non-standard attachments are found, the licensee will receive a "NOTICE OF NON-STANDARD ATTACHMENT" form, along with an invoice for a processing fee for each non-standard attachment and a re-inspection fee for each non-standard attachment.

The licensee will be required to respond within fifteen days of this notice with a statement of the corrective actions to be taken. The licensee will be given an additional 15 days to make such corrections or file an FPL make-ready permit application, with old permit # and pole #'s referenced on the "Corresponding Permits" line i.e.71-06-001 p2. Upon receipt of the notice that the licensee corrections have been completed, Alpine will re-inspect to verify compliance with FPL and N.E.S.C. requirements.

If Alpine does not receive a response to the above notice within the fifteen day period, a "SECOND NOTICE OF NON-STANDARD ATTACHMENT" form will be sent to the licensee applicant and general manager, with response required in seven days.

If Alpine does not receive a response to the above notices within 30 days from the date of the first notice, a "FINAL NOTICE OF NON-STANDARD ATTACHMENT" will be sent to the licensee applicant and general manager by E-Mail, advising of future suspension of new permit approval until all non-standard attachments have been corrected.

Each of the above notices will include the following:

LICENSEE HAS SIGNED FPL'S EXHIBIT A, "CABLE SERVICE ATTACHMENT APPLICATION AND PERMIT", CERTIFYING THAT "THE ATTACHMENTS SHALL BE IN COMPLIANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRIC SAFETY CODE AND FPL REQUIREMENTS". THIS CERTIFICATION MUST BE ADHERED TO. USEFUL REFERENCES ARE PROVIDED TO THE LICENSEE IN "FPL DIRECTORY AND PERMIT APPLICATION PROCESS MANUAL FOR USE BY CATV COMPANIES AND NON-LEC TELECOM COMPANIES", SECTION III.C.3. "CLEARANCES" AND SECTION III.E. "CONSTRUCT ATTACHMENTS". FAILURE TO CONSTRUCT ATTACHMENTS IN ACCORDANCE WITH THESE CRITERIA WILL RESULT IN SUSPENSION OF APPROVAL OF FUTURE PERMITS AND MAY RESULT IN TERMINATION OF THE POLE ATTACHMENT AGREEMENT IN WHOLE OR PART. THE LICENSEE APPLICANT AND COMPANY MANAGEMENT WILL BE NOTIFIED OF ANY FAILURE TO COMPLY.

NOTIFICATION OF NON-STANDARD ATTACHMENTS

CATV COMPANY	PERMIT #	DATE
XYZ TELECOM	71-06-001	3/22/2006

Pole #	Pole #	M.S.	Location	Non-Standard Attachment	Reference Standard	CATV Corrected by
1		☐	CATV MAP 57-09	TELC CLR TO SLDL	12"	
		☐				
		☐				
		☐				
		☐				
		☐				
		☐				
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		☐				

Note: There may be additional violations at these locations.

Abbreviations used in filling out this form are:

PRI: Primary	**SA:** Service Attachment	**SLDL:** Street Light Drip Loop	**M.S.:** Midspan
PR: Primary Riser	**SDL:** Service Drip Loop	**SL:** Street Light	**CLR:** Clearance
NEU: Neutral	**SR:** Servce Riser	**TS:** Traffic Signal	**DW:** Driveway
SEC: Secondary	**CSR:** Cust. Owned Svc. Riser	**TELC:** Telecommunications	**R/W:** Right Of Way
SCBL: Cabled Secondary	**REC:** Recloser	**CATV:** Cable TV Cable	**RD:** Road
QPX: Quadraplex	**REG:** Regulator	**TEL:** Telephone	**ATT:** Attachment
TPX: Triplex	**CAP:** Capacitor	**BOX:** CATV Framed opposite NEU	**GG:** Guy Guard
DPX: Duplex	**TX:** Transformer	**UB:** Unauthorized Bracket	**DP:** Drop

SECTION IV.

PERMIT APPLICATION FORMS

EXHIBIT A

WIRELESS ANTENNA ATTACHMENT APPLICATION AND PERMIT

_____
Corporation / Partnership

TYPE OF APPLICATION
(Check One) New _____ Foreign _____ _____, _____
Date submitted by Co.

☐ Make-Ready *

☐ Non Make-Ready Existing _____ Removal _____ _____, _____
Date received by FPL

*Antenna bond to FPL pole bond required.
Make–Ready required to install FPL pole bond if non-existent

I. APPLICATION

In accordance with the terms of Agreement dated _____ , ____ application is hereby made for permit to make attachment to the following poles. Included with this exhibit is an affidavit or a copy there of notifying FPL of authorization to attach by the appropriate government agencies.

Location City: _____ County: _____ Florida

Pole Numbers (TLN if available)	Pole Locations (GPS & Street)	Exhibit C Identification

I certify that the attachments shall be in compliance with the latest edition of the National Electric Safety Code and FPL requirements. Copy of FPL approved Exhibit C is attached.

Licensee: _____

By: _____ NAME (PRINT) _____ Ext. PHONE

_____ SIGNATURE _____ FAX

_____ TITLE _____ E-MAIL

II. PERMIT

Permit Granted _____ , _____
(Subject to your approval of Make-Ready Cost)
Permit Denied _____ , _____

FLORIDA POWER & LIGHT COMPANY

By: _____

Title: _____

Estimated Make-Ready Cost

$_____ payable in advance.

Permit Number _____
Total Previous Poles _____
Poles this Permit _____
New Total Poles _____

Corresponding Permits _____

III. GENERAL CONDITIONS

1. A "Make-Ready" permit will automatically expire if attachments are not made and completed within 60 days after notification in writing to Licensee by FPL that Make-Ready work has been completed.

2. A "Non Make-Ready" permit will automatically expire if attachments are not made and completed within 60 days after date of approval and is subject to field conditions and facilities on each pole at the time attachment is made. Licensee shall be required to bear any and all "Make-Ready" cost necessitated by previous attachments.

3. If permit is granted under Section II above, this permit automatically expires, as to the affected poles 30 days after written notice to Licensee that FPL intends to abandon a particular pole line. Within 30 days after such notice, Licensee shall either remove its attachments from those poles or obtain all necessary permits and easements, at the discretion of FPL, arrange to purchase such poles from FPL.

(OVER)

Attachment Criteria

NON JOINT USE POLE

(no telephone)

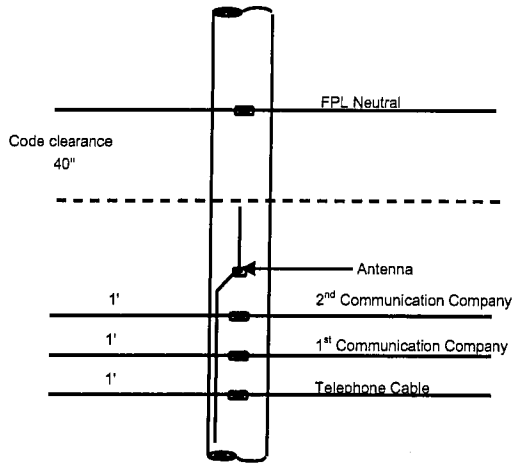


Fig. 1

1. The 1st cable attachment will be located at a height providing minimum clearance over roads, obstacles, etc.
2. All additional cable or antenna attachments will be located 1' above the highest existing communication cable, with antenna highest

JOINT USE POLE

(power & telephone)

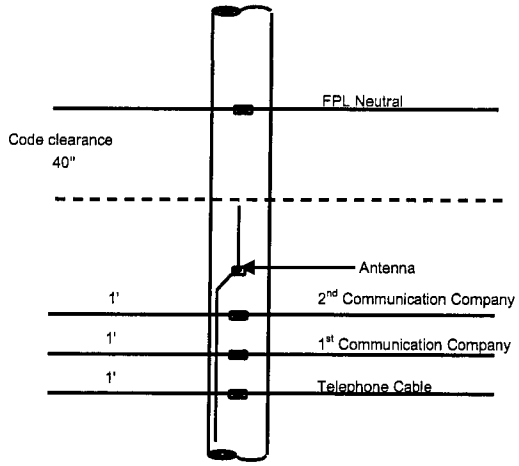


Fig. 2

1. The 1st cable attachment will be located 1' above Telephone's highest cable Attachment
2. The 2nd cable attachment will be located 1' above the existing communication cable
3. The antenna attachment will be a minimum of 1' above highest communication cable

NOTE: No communication cable or antenna attachment will intrude on the 40" NESC code clearance space.

Space Allocation

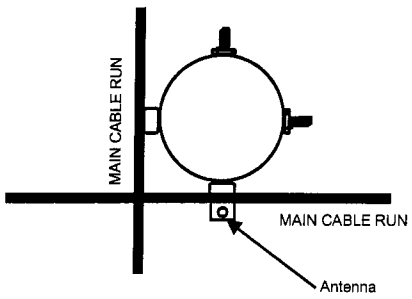


Fig. 3

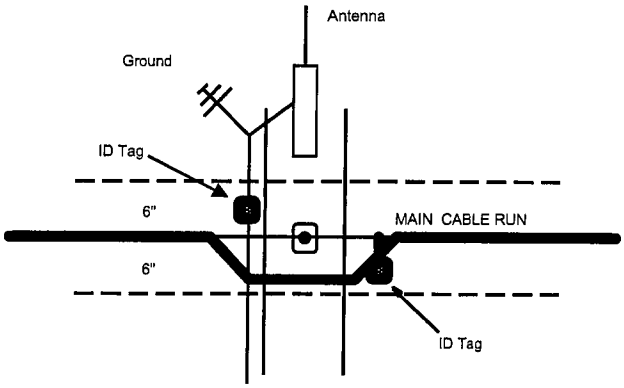


Fig. 4

POLE ATTACHMENT LOCATION

1. Attachment is limited to the communication space or lower.
2. All main cable attachments shall be located either on the same side of the pole as FPL's neutral or on one adjacent side.
3. No main line cable attachments shall be located on the side of the pole opposite FPL's neutral.
4. Only 2 sides of the pole, FPL's neutral and one adjacent side, shall be occupied on any given pole.
5. All electrical connections must be made off the pole.
6. No more than two risers will be allowed per pole. FPL's service to Licensee may be one of these risers.

IDENTIFICATION TAG

1. Each separate attachment shall be identified in accordance with the FUCC's Foreign Attachment Guidelines specifications.
2. Each company shall register their unique ID tag with the FUCC's Joint Use Subcommittee
3. An ID Tag will be installed at every pole attachment.

WIND LOAD CALCULATIONS

Date: _____

Pole # _____

Pole Type (wood/concrete) _____

Pole Class _____

Grade B Const. — Pole Length _____

B — Setting Depth _____

Span length 1 _____

Span length 2 _____

AVG SPAN _____

WINDLOADING MOMENT

ALLOWABLE _____

CALCULATED _____

Wind Loading OK? _____ (YES/NO)

Permit No. _____

CONDUCTORS	Number of Conductors	x	Wind Load Per Ft. (Table I)	x	Avg. Span Length	x	(	Height Above Ground	+	Setting Depth 3	)	=	MOMENT (ft.-lb.)
Primary SIZE		x		x		x	(		+		)	=	
		x		x		x	(		+		)	=	
		x		x		x	(		+		)	=	
NEU,SEC SIZE		x		x		x	(		+		)	=	
		x		x		x	(		+		)	=	
		x		x		x	(		+		)	=	
		x		x		x	(		+		)	=	
		x		x		x	(		+		)	=	
		x		x		x	(		+		)	=	
FOREIGN UTILITIES SIZE		x		x		x	(		+		)	=	
		x		x		x	(		+		)	=	
		x		x		x	(		+		)	=	
		x		x		x	(		+		)	=	
		x		x		x	(		+		)	=	
TELEPHONE SIZE		x		x		x	(		+		)	=	
		x		x		x	(		+		)	=	
		x		x		x	(		+		)	=	
					TOTAL MOMENT DUE TO CONDUCTORS								=	

EQUIPMENT		Wind Load Force in lbs		(	Height Above Ground	+	Setting Depth 3	)	=	MOMENT (ft.-lb.)
PROPOSED	SIZE	x	x	(		+		)	=	
TRANSFORMERS	KVA									
1 Phase			x	(		+		)	=	
2 Phase			x	(		+		)	=	
3 Phase			x	(		+		)	=	
CAPACITORS	Enter #1									
Switched		x	x	(		+		)	=	
Fixed		x	x	(		+		)	=	
REGULATORS	Enter #1									
76.2 kVA		x	x	(		+		)	=	
167 kVA		x	x	(		+		)	=	
RECLOSERS	Enter #1									
1 phase		x	x	(		+		)	=	
3 phase		x	x	(		+		)	=	
AUTOMATED SWITCH	Enter #1									
Joslyn		x	x	(		+		)	=	
Coopers		x	x	(		+		)	=	

RISER CONDUITS	Riser Height above Grnd	x	Wind Load Force in lbs per ft.	x	(	Riser Height above Ground 2	+	Setting Depth 3	)	=	MOMENT (ft.-lb.)
2"		x	1.7	x	(		+		)	=	
4"		x	3.2	x	(		+		)	=	
5"		x	3.9	x	(		+		)	=	
6"		x	4.7	x	(		+		)	=	
RISER SHIELDS											
2"		x	2	x	(		+		)	=	
4"		x	4	x	(		+		)	=	
5"		x	7	x	(		+		)	=	

TOTAL MOMENT DUE TO EQUIPMENT = ft.-lb.

WINDLOAD 900 - August 00

TOTAL ALL MOMENTS = ft.-lb.

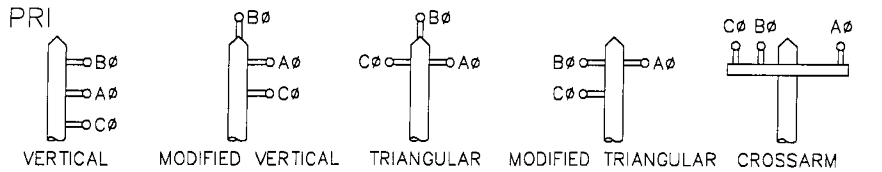
POLE MEASUREMENT WORKSHEET

MAKE READY REQ'D? ☐

2 LANE ☐ 4 LANE ☐ ROAD

POLE SPAN LENGTH

PREVIOUS ____________ NEXT ____________



	QTY	SIZE		ATT HEIGHT	MISC HEIGHT
NEU SEC SCBL QPX TPX DPX WA SDL CAP TX REC SG PR CSR SR SL SLDL TS CATV TELC TEL DP REG					
NEU SEC SCBL QPX TPX DPX WA SDL CAP TX REC SG PR CSR SR SL SLDL TS CATV TELC TEL DP REG					
NEU SEC SCBL QPX TPX DPX WA SDL CAP TX REC SG PR CSR SR SL SLDL TS CATV TELC TEL DP REG					
NEU SEC SCBL QPX TPX DPX WA SDL CAP TX REC SG PR CSR SR SL SLDL TS CATV TELC TEL DP REG					
NEU SEC SCBL QPX TPX DPX WA SDL CAP TX REC SG PR CSR SR SL SLDL TS CATV TELC TEL DP REG					
NEU SEC SCBL QPX TPX DPX WA SDL CAP TX REC SG PR CSR SR SL SLDL TS CATV TELC TEL DP REG					
NEU SEC SCBL QPX TPX DPX WA SDL CAP TX REC SG PR CSR SR SL SLDL TS CATV TELC TEL DP REG					
NEU SEC SCBL QPX TPX DPX WA SDL CAP TX REC SG PR CSR SR SL SLDL TS CATV TELC TEL DP REG					
NEU SEC SCBL QPX TPX DPX WA SDL CAP TX REC SG PR CSR SR SL SLDL TS CATV TELC TEL DP REG					
NEU SEC SCBL QPX TPX DPX WA SDL CAP TX REC SG PR CSR SR SL SLDL TS CATV TELC TEL DP REG					

OWNER ________ TYPE ________ HT-CL ____________ TLN __ – __ __ __ __ – __ __ __ __ – __ – __

POLE# __________ WA MAP# ______________________ FPL MAP# ______________

ADDRESS ____________________________________ PERMIT# __ __ – __ __ – __ __ __

INSPECTED BY ________________ DATE ____________ JUNCTION POLE SEE ADD'L SHEET ☐

COMMENTS / MAKE READY REQUESTED ____________________________________

DESIGNER FIELD ENVIRONMENTAL IMPACT EVALUATION SHEET

(To be included in all job packages)

SITE ADDRESS _____ **WR#** _____

(include town/city)

This form is designed to assist you in making "Wetlands and Wildlife" decisions that may impact the planning for each job. If the job you are planning affects a wetlands area or has wildlife or protected species issues, permits may be required before the job can be worked. Some permits/easements may take up to 18 months to obtain. If a job is worked without the required permits, regulatory agencies can stop the job and impose very large monetary fines on FPL.

If you answer "YES" to any of these questions you should contact your Area Environmental Coordinator (AEC) for assistance before continuing with your planning process. To assist you, here are some places you **don't** need to look for "WETLANDS": in developed residential, commercial or industrial urban (city) areas, or in unincorporated developed sub-divisions, commercial, and industrial areas developed after 1983. However, this may not apply to vacant land in any of the areas above. All other locations need to be reviewed using this form.

JOB PLANNING:

1. Check for presence of a wetland.

Impacting wetlands without a permit is an environmental violation punishable by fine and/or imprisonment. If yes, the permit filing may add 90-120 days to the job-planning horizon. This time indicated DOES NOT include the time it may take to prepare and submit documents required for the permit or the time to fill out and file the permit.

- **If you meet the criteria above for places you don't need to look for wetlands, go to item #2 below**

- **Is the job site free of palmetto's and lower than the surrounding land?** ☐ YES ☐ NO
  (Water is not a good indicator as it may not always be present above grade, but the area may still be a wetland)
- **Is the soil dark gray, black, or muck/clay?** ☐ YES ☐ NO
  (You could have a wetland)
- **Will job cross under, enter, or impact a ditch?** ☐ YES ☐ NO
  (In Florida, ditches are regulated as wetlands)

2. Conservation easements that may be in your proposed route.

Only while the developer is in negotiations for approval of his plan, can he negotiate for FPL to go through the area.

Before you begin, review the developer's plan that has been approved by a Water Management District. Once a developer has an approved plan, the conservation areas are set in stone. You cannot cross over, on or under a conservation easement, you must reroute around them.

- **Does the developer's approved plan for the conservation easement affect your job?** ☐ YES ☐ NO
- **Does your job plan impact the conservation easement?** ☐ YES ☐ NO

3. Public easements from the State of Florida that may be required for your proposed route.

Allow 12-18 months to apply for and receive the easement. This time indicated DOES NOT include the time it may take to prepare and submit documents required for the permit or the time to fill out and file the permit.

- **Will a river, bay, or any state lands (parks, preserves, etc.) be crossed** by your job? If "YES", a public easement is required before starting work. ☐ YES ☐ NO
- **Are you crossing within a Florida Department of Transportation (FDOT) bridge/causeway right of way?** ☐ YES ☐ NO
  If "YES", a "use agreement" from Fla. Dept of Environmental Protection (FDEP) is required; timeframe 12-18 months.

DESIGNER FIELD ENVIRONMENTAL IMPACT EVALUATION SHEET (continued)

(To be included in all job packages)

JOB PLANNING (continued):

4. WILDLIFE IMPACTS.

(Additional information for the listings below can be found in the online Power Systems Environmental Website under Environmental Guidelines Section.)

- **EAGLE: Is your job within 1500 ft of an active eagle's nest?** ☐ YES ☐ NO
  (If yes, reroute or wait until nest is inactive. ***DO NOT REMOVE NEST***!)
  Contact AEC.

- **SCRUB JAY: Will your job impact scrub jay habitat? (loss of scrub oaks** or myrtle"s is an impact to habitat) ☐ YES ☐ NO
  (If yes, establish another means to cross-area. Contact AEC for alternate construction technology)
  DO NOT DISTURB!)

- **GOPHER TORTOISE: Are Gopher tortoise burrows present?** ☐ YES ☐ NO
  (If yes, Contact AEC to make determination. ***DO NOT DISTURB !)***

- **BURROWING OWL: Are burrowing owls nesting in trench route?** ☐ YES ☐ NO
  (If yes, delay jobs until fledglings are off the nest or reroute your job. Contact AEC.)

- **WOODPECKER: Is there a woodpecker nest in the pole?** ☐ YES ☐ NO
  (If yes, cut pole section containing nest and reattach to new pole. Contact AEC.)

- **OSPREY: Is there an osprey nest present on our poles?** ☐ YES ☐ NO
  (If yes, and it is inactive, contact AEC to move it under permit)
  (If yes and the nest is active, reroute your job or wait until the nest is inactive.
  DO NOT REMOVE NEST !

5. AVIAN PROTECTION:

State and Federal laws prohibit the "take" of any protected species. A "take" is defined as, "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or to attempt to engage in any such conduct."

Power Systems Environmental (PSE) is working with Product Engineering and Construction Services to develop avian friendly design standards.

- **Is your facility route within 2 miles of an eagle nest?** ☐ YES ☐ NO
  (If yes, avian friendly design standards are to be implemented on a case by case basis. Contact AEC.)

- **Is your facility route near a water body?** ☐ YES ☐ NO
  (If yes, there could be a potential for feeding or nesting area – implement avian friendly design standard. Contact AEC.)

(CPM/Designer Signature) *Work Location & Ph #* **DATE**

Send copy to your Area Environmental Coordinator (AEC)

*** ***Form completed to the best of my ability*** ***

EXHIBIT C

WIRELESS ANTENNA EQUIPMENT EVALUATION FORM

_____
Telecommunications Carrier

Date submitted by Telecommunications Carrier _____,_____
Date received by FPL _____,_____

I. **Equipment to be Installed** (Working Equipment to be installed and this document must accompany one another for the FPL evaluation)

Brief explanation of equipment to be installed:

Pictures of Equipment to be Installed

II. FPL's Evaluation

☐ Equipment Approved ☐ Equipment Denied Reason for denial or additional conditions of attachment: (See Attached)	Usable Pole Space (Includes six inches of clearance above and below the attachment): Pole Space Used By Equipment (Usable Space) _____

FLORIDA POWER & LIGHT COMPANY

By: _____ Title: _____

III. GENERAL CONDITIONS

1. Approval under this exhibit by FPL grants the Licensee the right to request permission to attach this identical equipment to FPL Distribution Poles using Exhibit A.
2. Unless FPL specifies otherwise, Licensee is not required to resubmit this equipment for re-approval.
3. All attachments are to be made below the communication worker's safety space on distribution poles only.
4. A copy of this document must be included with each permit application(Exhibit A) submitted by the Licensee requesting attachment to FPL distribution poles.

Initial Review Process. Prior to construction or installation of Licensee's Equipment on FPL Distribution Poles, Licensee at its sole cost and expense shall submit to FPL for FPL review a set of design plans and specifications for each Device or piece of equipment that Licensee proposes to install on FPL's Distribution Poles (collectively the "Plans") together with an actual working Device of each type that Licensee proposes to attach to FPL Distribution Poles under this Agreement. Licensee shall complete and submit to FPL with the Plans and Device the form attached hereto as Exhibit "C". Licensee acknowledges and agrees that FPL may test each such Device submitted by Licensee on FPL's Facilities. Within forty-five (45) days of FPL's receipt of the Plans, the Devices, the Exhibit "C" form completed by Licensee, and Licensee's Equipment Evaluation Fee payment, FPL will either: (i) approve Licensee's Device for attachment providing Licensee with written confirmation of said approval and identifying the Device on the list of approved Equipment attached as Exhibit "C" to this Agreement, (ii) deny Licensee's request to attach the Device or Equipment tested setting forth the reasons for the denial, or (iii) advise Licensee that FPL will conditionally approve Licensee's request for Equipment Attachment provided that Licensee fulfills certain equipment-related requirements. If the Device is approved, FPL will send the Licensee an "approved" Initial Review Evaluation Form in the form of Exhibit C. A copy of the "approved" form is to be included with each Pole Attachment Permit Application the Licensee submits to FPL or FPL's Pole Attachment Permit Application vendor.

At the conclusion of the Initial Review Process, FPL will provide Licensee and any other person or entity designated by Licensee on Exhibit "C" to receive such notice, with the specific information as to where and when the Devices tested may be retrieved by Licensee. Licensee's Devices that remain on FPL property for more than sixty (60) days after conclusion of the Initial Review Process will be deemed abandoned and may be disposed of by FPL, without liability to Licensee, as it deems appropriate.

Nothing herein guarantees approval of Licensee's Devices for attachment to FPL Distribution Poles or that any permit applied for under this Agreement will be granted. Each permit will be evaluated on its own merits.

Licensee acknowledges and agrees that FPL is not staffed to evaluate Licensee's Devices as a business, and that forty-five (45) days will be required for the evaluation of each Device type arrangement submitted by Licensee (the ***"Evaluation Period"***). If the Licensee should submit more than one Device for evaluation, the Evaluation Period for the second Device type will not begin until the evaluation of the first Device is completed. The Evaluation Periods for additional Devices submitted by Licensee for FPL evaluation will follow the same pattern, that is, that the Evaluation Periods for review of these Devices will not run simultaneously, and will not begin until review of a Device then under review by FPL (or prioritized by Licensee) is completed. It is the Licensee's responsibility to prioritize the evaluation of its Devices prior to submitting the Device/Equipment review request to FPL. If at any time, the Licensee's priorities change, Licensees shall notify FPL in writing and FPL will endeavor to accommodate the Licensee's request.

EXHIBIT D

COLE, RAYWID & BRAVERMAN, L.L.P.

ATTORNEYS AT LAW
1919 PENNSYLVANIA AVENUE, N.W., SUITE 200
WASHINGTON, D.C. 20006-3458
TELEPHONE (202) 659-9750
FAX (202) 452-0067
WWW.CRBLAW.COM

MARIA BROWNE ESQUIRE

DIRECT DIAL
202-828-9881

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LOS ANGELES OFFICE
2381 ROSECRANS AVENUE,
SUITE 110
EL SEGUNDO, CALIFORNIA
90245-4290
TELEPHONE (310) 643-7999
FAX (310) 643-7997

March 6, 2006

Via Certified Mail –
Return Receipt Requested & E-Mail

Mr. Ken Gilbert
Florida Power & Light
9250 W. Flagler Street
Miami, Florida 33174

Re: Florida Power & Light Pole Attachment Agreement

Dear Mr. Gilbert:

I am writing on behalf of T-Mobile USA Inc. ("T-Mobile") to address the considerable delay it has experienced in attempting to gain access to poles owned or controlled by Florida Power & Light ("FPL"), and to express concern over specific terms and conditions set forth in the incomplete draft pole attachment agreement that FPL provided to T-Mobile more than one year after T-Mobile first requested access to FPL poles.

The FCC's rules state that if access is not granted within 45 days of a request, the utility must confirm the denial in writing by the 45th day. 47 C.F.R. 1.403(b). The FCC has expressed its understanding that "time is critical in establishing the rate, terms and conditions for attaching [and that] [p]rolonged negotiations can deter competition because they can force a new entrant to choose between unfavorable and inefficient terms on the one hand or delayed entry and, thus, a weaker position in the market on the other."[1] Moreover, the FCC requires that "all parties negotiate in good faith for non-discriminatory access at just and reasonable rates."[2] As a respondent in the Supreme Court's decision upholding the FCC's order applying its rules to wireless attachments, FPL should be well aware of its obligation to provide T-Mobile non-discriminatory access to FPL poles consistent with FCC rules.[3] Indeed, the FCC previously rejected FPL's attempts to place unreasonable terms and conditions in its pole attachment

[1] *Implementation of Section 703(e) of the Telecommunications Act of 1996; Amendment of the Commission's Rules and Policies Governing Pole Attachments*, 13 FCC Rcd 6777, ¶ 17 (rel. Feb. 6, 1998) (rejecting the utilities' proposal to mandate a 180-day negotiation period prior to filing a complaint).
[2] *Id.* at ¶ 21.
[3] *NCTA, Inc. v. Gulf Power Co. et al.*, 534 U.S. 327 (2002).

agreements in *Time Warner Entertainment/Advance-Newhouse Partnership v. Florida Power & Light Company*, 14 FCC 9149 (rel. June 9, 1999).

Notwithstanding the FCC's clear rules and precedent, it has been nearly two years since T-Mobile first contacted FPL concerning its desire to attach to FPL poles. An entire year passed before FPL finally provided a draft pole agreement to T-Mobile in late May 2005. Even that agreement, however, did not include FPL's proposed pole attachment rental rate and lacked essential exhibits which set forth critical terms and conditions of attachment, including FPL's engineering requirements, the application for attachment, and the forms required for the initial review evaluation and for providing notice of attachment and removal.

As of today, T-Mobile still has not been told what the attachment rate will be and the exhibits still have not been provided to T-Mobile, notwithstanding repeated attempts by the company, through its representative Mr. Jim West, to obtain the rate information and exhibits from you, and your predecessor, Tom Kennedy. In fact, you have neglected even to respond to Mr. West's email correspondence since November 2005. This unresponsiveness is indicative of the stonewalling and delay tactics that have characterized FPL's behavior from the outset. A timeline showing T-Mobile's attempts to obtain information, and FPL's lack of responsiveness, is attached.

Moreover, the draft agreement that was provided to T-Mobile was replete with egregious terms and conditions, many of which blatantly violate 47 U.S.C. § 224 and FCC rules and precedent. For example, the agreement contains a global reservation of space of the top 11 feet of the pole for FPL's use. This is unreasonable and inconsistent with FCC rules. Those rules allow an electric utility to reserve space for its core utility service only pursuant to a *bona fide* development plan that reasonably and specifically projects a need for that space for the provision of core electric service.[4] Indeed, the Commission expressly declined to establish a presumption that space above what has traditionally been referred to as "communications space" on a pole may be reserved for utility use only and recently reminded pole owners of this fact in the context of wireless attachments.[5]

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[4] *See Implementation of the Local Competition Provisions in the Telecommunications At of 1996; Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, 11 FCC Rcd 15499, ¶¶ 1165-1170 (rel. Aug. 8, 1996), *aff'd Southern Co. v. FCC*, 293 F.3d 1338, 1348-49 (11th Cir. 2003) ("The FCC recognized that utilities enjoy the power to reserve space on their facilities for future utility-related needs. However, the FCC must have some way of assessing whether these needs are bona fide; otherwise, a utility could arbitrarily reserve space on a pole, claiming it necessary on the basis of unsupportable 'future needs,' and proceed to deny attachers space on the basis of 'insufficient capacity.' This is clearly not what Congress intended when it passed the Act; such a construction would undermine the plain intent of the nondiscrimination provisions found in 224(f)(1).")

[5] *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers, Order on Reconsideration*, 14 FCC Rcd 18049, 18074 P72 (1999); *Wireless Telecommunications Bureau Reminds Utility Pole Owners Of Their Obligations To Provide Wireless Telecommunications Providers With Access To Utility Poles At Reasonable Rates*, Public Notice, DA 04-4046, 19 FCC Rcd 24930 (rel. Dec. 23, 2004) ("[W]e take this opportunity to reiterate that the Commission declined . . . to establish a presumption that space above what has traditionally been referred to as "communications space" on a pole may be reserved for utility use only.").

In addition, the draft agreement contains a one-sided indemnity provision requiring T-Mobile to indemnify FPL from all liability and damages, including those liabilities caused in whole or in part by FPL's negligence. This attempt by FPL to limit liability for its own negligence is patently unreasonable. In fact, the FCC has ruled that indemnity provisions contained in pole attachment agreements must be reciprocal.[6]

The draft agreement also unreasonably requires T-Mobile to submit to FPL the design plans and an actual working device of each type of equipment T-Mobile plans to attach to the poles. Not only would this process impose an unreasonable delay on the permitting process, but it also would give FPL access to proprietary information about T-Mobile's equipment and devices and thus could have anticompetitive implications. The FCC specifically declined to require certification, negotiation or other disclosure requirements that would place unnecessary burdens on attachers or that would require disclosure of commercially sensitive data.[7]

While T-Mobile is able to comment on these provisions, it has been unable to provide comprehensive responsive comments on the agreement because it still has not even seen the incorporated exhibits or been told what the attachment rate will be. T-Mobile has been patient and has tried to work with FPL, but believes the only way to advance the process at this point is to involve the FCC. Consequently, Elizabeth Mumaw of the Enforcement Bureau, and Alex Starr, Chief of the Market Disputes Resolution Division, are copied on this letter, to alert the FCC to FPL's continued failure to comply with the Pole Attachment Act and FCC rules.

Please let me know by February 21, 2006, if and when FPL intends to provide T-Mobile with the proposed pole attachment rental rate and the exhibits to the draft agreement. In addition, please propose a timeline for the parties' future negotiations which should not extend beyond May 31, 2006 – which will be a full two years after T-Mobile first contacted FPL concerning pole attachments. Otherwise, T-Mobile will have no choice but to escalate this matter to a formal FCC pole attachment complaint.

Sincerely,

Maria Browne

Maria Browne

---

[6] *See Cable Television Ass'n of Georgia v. Georgia Power Co.*, 18 FCC Rcd.16333, ¶ 31 (rel. Aug. 8, 2003), *recon. denied*, 18 FCC Rcd. 22287 (Oct. 29,2003) ("[The utility] argues that because of mandatory access, a non-reciprocal indemnification provision is warranted given that the Cable Operators allegedly pose a 'far greater, and unwanted, risk' to [the utility] in the pole attachment process. A reciprocal indemnification provision, however, simply would result in each party assuming responsibility for losses occasioned by its own misconduct. Consequently, if [the utility] is correct that the Cable Operators more frequently are the 'bad actors,' then the Cable Operators more frequently would be called upon to indemnify . . . We cannot discern any rationale basis to support those contractual provisions.").

[7] *Implementation of Section 703(e) of the Telecommunications Act of 1996*, 16 FCC Rcd. 12103 at ¶ 84 (rel. May 25, 2001), *aff'd sub nom, Southern Co. Serv., Inc. v. FCC*, 313 F.3d 574 (D.C. Cir. 2002).

cc: Alex Starr, Chief of the Market Disputes Resolution Division (FCC) (w/ Attachment)
Elizabeth Mumaw, Legal Advisor, Enforcement Bureau (FCC) (w/ Attachment)
Edwin Lee
Kathleen Ham
Allan Tantillo

Attachment

Florida Power & Light
Pole Attachment Agreement
Negotiation Timeline

5/18/04 –	Initial phone and email contact with Tom Kennedy (Florida Power) indicating that T-Mobile wants to take advantage of the Pole Attachment Act and sent him a list of questions to help calculate the regulated rate.
5/21/04 -	Follow-up email to Kennedy on information request
5/27/04 -	Follow-up email to Kennedy on information request, Kennedy requests verification from T-Mobile that I represent the company
6/1/04 -	Call and email with Kennedy on T-Mobile response and information request
6/2/04 -	Email with Kennedy on T-Mobile response
6/3/04 -	Call and email with Kennedy regarding specifics on information request
6/11/04 -	Kennedy emails response to some of the questions in our information request
6/16/04 -	Call with Kennedy who requests additional information from T-Mobile that I am authorized to negotiate on their behalf and copies of T-Mobile's licenses to operate in South Florida. He indicates that FPL will move forward on complying with the Pole Attachment Act in a timely fashion
6/17/04 -	Email with Kennedy regarding FCC documentation and T-Mobile authorization
6/18/04 -	Email from Kennedy regarding FCC documentation
6/22/04 -	Email with Kennedy on FCC documentation
6/23/04 -	Email Kennedy T-Mobile's FCC licenses
6/29/04 -	Call with Kennedy on documentation of T-Mobiles authority to do business in Florida and form of agreement T-Mobile is seeking, Email Kennedy copy of Florida business license
6/30/04 -	Call with Kennedy on types of attachments T-Mobile is seeking to use, Email Kennedy draft Utility Agreement and samples of pole attachments
7/8/04 -	Calls and email with Kennedy regarding attachments
7/14/04 -	Email Kennedy seeking update (no response)
7/21/04 -	Email Kennedy seeking update (no response)
7/29/04 -	Call to Kennedy seeking update
7/30/04 -	Call and email with Kennedy regarding update and problems FPL had with specific attachments, send additional attachment technical info to FPL
8/12/04 -	Call and email with Kennedy, he indicated that FPL would be using the draft agreement T-Mobile prepared as a template and would be returning it for our review, he also indicated that an approaching hurricane would put him out of commission for a couple of weeks
8/24/04 -	Call Kennedy seeking update (no response)

8/26/04 -	Email Kennedy seeking update (no response)
8/30/04 -	Emails with Kennedy seeking update (no response)
9/7/04 -	Call Kennedy seeking update (no response)
9/24/04 -	Call and email with Kennedy seeking update (no response)
10/8/04 -	Email Kennedy seeking update (no response)
10/14/04 -	Emails with Kennedy seeking update
10/19/04 -	Call with Kennedy on update, he indicated that FPL in-house attorney had changed for this project and the new one was currently reviewing the draft agreement
11/9/04 -	Email Kennedy seeking update (no response)
11/15/04 -	Email Kennedy seeking update
11/19/04 -	Email Kennedy seeking update, he requests information regarding RF emissions and working standards which I sent to him
11/30/04 -	Email Kennedy seeking update
12/2/04 -	Email Kennedy with additional RF emissions information
12/9/04 -	Email Kennedy with additional RF emissions working standards
12/16/04 -	Email Kennedy seeking update (no response)
12/24/04 -	Email Kennedy seeking update (no response)
12/27/04 -	Email Kennedy with FCC Public Notice on "communication space"
1/6/05 -	Email Kennedy seeking update
1/21/05 -	Call and email with Kennedy regarding draft agreement
1/24/05 -	Call with Kennedy on status of draft agreement, he indicated that T-Mobile should have a draft agreement to review within two weeks
2/7/05 -	Call with Kennedy regarding draft agreement
2/11/05 -	Email with Kennedy seeking update (no response)
3/15/05 -	Email with Kennedy seeking update (no response)
3/21/05 -	Email with Kennedy seeking update
3/23/05 -	Emails with Kennedy with further RF emissions standard information
3/24/05 -	Email Kennedy with RF information (no response)
5/5/05 -	Email with Kennedy seeking update on draft agreement, Kennedy responds that it is almost completed
5/20/05 -	Emails with Kennedy concerning technical information for the draft agreement
5/23/05 -	Email with Kennedy on info for inclusion in draft agreement
5/24/05 -	Kennedy supplies draft agreement for T-Mobile to review, the agreement is sent to in-house and outside counsel for review (no exhibits are attached)
5/26/05 -	Email with Kennedy on FPL's calculated regulated rate
5/30/05 -	Call with Kennedy on regulated rate and exhibits
6/8/05 -	Call with Kennedy on regulated rate and exhibits, he indicates that exhibits A, B & C are completed and that they are working on D (which is the operations manual)
6/15/05	Call with Kennedy on exhibits and tell him that T-Mobile wants to have the exhibits prior to providing comments on the entire draft agreement
7/12/05 -	Email Kennedy seeking status of exhibits (no response)
7/14/05 -	Email with Kennedy seeking update (no response)

7/15/05 -	Email with Kennedy, he indicates that FPL is working on the exhibits
8/2/05 -	Email with Kennedy seeking update (no response)
8/11/05 -	Call with Kennedy on exhibits, he indicated that they are completed and are being reviewed in-house and that T-Mobile should have them within two weeks
8/23/05 -	Email with Kennedy seeking update
8/24/05 -	Call with Kennedy, he indicates that everyone is deployed for hurricane duty
9/1/05 -	Email with Kennedy seeking update (no response)
9/16/05 -	Email with Kennedy seeking update (no response)
9/28/05 -	Email with Kennedy seeking update
9/29/05 -	Email from Kennedy indicating that he has moved to a new job at FPL and that Ken Gilbert will now be handling the Pole Attachment Project
10/3/05 -	Call to Gilbert seeking update (no response)
10/11/05 -	Call to Gilbert seeking update (no response)
10/18/05 -	Call to Gilbert seeking update (no response)
11/1/05 -	Call to Gilbert seeking update (no response)
11/10/05 -	Call to Gilbert seeking update (no response)
11/16/05 -	Call to Gilbert seeking update (no response)
11/30/05 -	Email and Call with Gilbert who indicates that he is just now getting up to speed on the project and requests the same information on T-Mobile's FCC licenses that was supplied to FPL 18 months previously
12/9/05 -	Email Gilbert seeking update (no response)
12/20/05 -	Email Gilbert seeking update (no response)
1/4/06 -	Call to Gilbert seeking update (no response)

EXHIBIT E

STORM SECURE: FPL'S FIVE-POINT PLAN TO BUILD A STRONGER GRID FOR THE FUTURE

January 30, 2006

The purpose of this paper is two-fold: to explain the steps that FPL proposes to take to substantially increase the resistance of its distribution, transmission and substation network to severe weather impacts; and to identify areas where assistance will be required, either from the Florida Public Service Commission (FPSC) or from state and local government bodies and communities.

BACKGROUND

Two extraordinary hurricane seasons have made it clear that significant changes are required in the way that Florida utilities design, construct and operate their electrical systems. This is particularly true for FPL, whose service area has experienced the direct hit of five hurricanes as well as the impact of two others in 2004 and 2005. Standards that have worked well and provided customers with reliable service in the past will need to be enhanced going forward. Florida generally, and South Florida in particular, are much more heavily and densely populated than they were at the time of Hurricane Andrew; customers' expectations have changed; and there is good evidence that we are in a more active part of a multi-decade hurricane cycle and can expect more frequent events. Even if 2004 and 2005 were aberrations, as long-term statistics suggest, we must be prepared for further, significant storm activity in the years ahead.

The issue is not whether changes should be made, but what those changes should be. Although no electrical system can be rendered fully resistant to hurricane impacts under the current state of technology and economics, this paper outlines changes that FPL proposes to make to benefit our customers and the communities we serve. Our approach to new construction, system upgrades and maintenance will provide significant improvements in our system's resiliency to storms and our restoration time after a storm passes. In addition, it will ensure that a critical mass of providers of basic services that are essential to the health and safety of our communities will have a reliable supply of electricity as promptly as possible after a hurricane strike. In developing these proposals, some of which will require FPSC approval, we have kept in mind the following essential points:

1. FPL's distribution, transmission and substation systems, as validated by KEMA's independent analysis, meet or exceed all required safety standards set forth by the National Electrical Safety Code (NESC) and performed as designed and expected during recent hurricanes. However, given the severe nature of the 2004 and 2005 hurricane seasons and, as the FPSC has recognized, the fact that meteorological experts have determined that this is likely part of a long term cycle of increased hurricane activity, we are proposing many changes to the current standards for our distribution system.

2. Significant changes to the resiliency of our system will take many years of sustained effort to achieve. Unfortunately, our system is so large and geographically diverse that it cannot be changed overnight, and all parts of our extensive service territory are susceptible to hurricane impacts. Therefore, we must be intelligent in the development of our programs and focus early efforts on those parts of the system where we can have the greatest impact for a given level of effort, whether this be by geography or by element of the network.

3. Substantial improvements to our system's resiliency will have cost implications (for example, converting the entire grid to underground could double our customers' rates). We know that would be unacceptable to most customers. That is why we must focus on spending resources efficiently and wisely.

4. We must avoid focusing excessively on any one aspect of the problem. Electrical systems are exposed to a variety of different failure modes under the stress of hurricane conditions and typically each specific failure mode only accounts for a relatively small proportion of the total problem. For example, FPL and every other utility experiences pole failures during hurricane conditions. However, even if FPL had experienced zero pole failures during the 2004 and 2005 storm seasons, we would still have experienced millions of customer outages.

We have used these points as guidelines in assisting us to formulate the initiatives that follow and in their refinement in the coming months.

BASIS OF OUR PROPOSALS

We have developed our proposals based in part on the extensive analyses that we have conducted either directly ourselves, or with the aid of external resources such as KEMA, on the evidence of seven hurricane events that our system has experienced in the last two seasons: Charley, Frances, Jeanne, Dennis, Katrina, Rita and Wilma, [1] and also taking into consideration

[1] FPL Hurricane Assessment prepared by Davies Consulting, Inc. (February 18, 2005); FPL Transmission and Substation – 2004 Storm Season Report (2005); FPL Hurricane Assessment (January 25, 2005); FPL Infrastructure Resilience Team Report on 2004 Hurricanes (2005); FPL Vegetation Management Study (2005); FPL Wilma Engineering Analysis prepared by KEMA (January 12, 2006).

customer and governmental expectations that have been expressed in the wake of this past storm season. We are happy to provide further background to the Commission and its Staff. However, we note that we have not by any means completed our analysis and we expect to learn more as we continue to probe the evidence. In addition, while our proposals have been subjected to a preliminary and general economic assessment, we are not yet at the point where we can specify exactly what each element of the program will cost. Accordingly, we expect to refine our proposed program over time, both by adding elements as we develop new ideas and by adjusting the timing, level or focus of current elements. FPL is committed to the approach and initiatives set forth in this paper, subject to FPSC review and approval where needed.

ELEMENTS OF THE PLAN

1. Complete **post-hurricane repairs and targeted facility upgrades** to rehabilitate and strengthen the electrical infrastructure in order to prepare for the 2006 hurricane season.

2. Modify our existing **pole inspection, treatment and replacement** program to include a systematic ten-year inspection and treatment cycle for all distribution wood poles, including those poles owned by other utilities, in order to proactively address any identified pole deficiencies (consistent with recent FPSC staff recommendations) and work with other utilities to address joint use issues pertaining to loading.

3. **Harden the electrical infrastructure** by (a) adopting NESC extreme wind velocity zone criteria as the standard for all new distribution construction and system upgrades (up to 150 mph in certain areas) using construction methods such as undergrounding, stronger poles (including concrete poles where appropriate), shorter spans, guying, etc., (b) upgrading existing overhead main lines (feeders) initially targeting those serving top critical infrastructure facilities and major thoroughfares within the first five years, with the objective of applying NESC extreme wind-loading criteria where feasible and practical, and (c) replacing targeted components of remaining transmission and substation facilities constructed under legacy standards -- all as part of a comprehensive, detailed ten-year hardening plan for distribution, transmission and substation infrastructure.

4. Promote **undergrounding** by (a) investing 25% of the cost of local-government sponsored overhead-to-underground conversion projects otherwise borne by the requesting locality, (b) aggressively encouraging local ordinances and legislation requiring developers to provide underground electrical service for all new subdivisions, developments and projects, and (c) facilitating local undergrounding projects by allowing underground conduit and cable, and associated above-ground transformers and switch cabinets to be placed in road rights-of-way under specific standards and agreements.

5. Enhance **vegetation management initiatives** by (a) accelerating main line (feeder) clearing to complete 75% of each year's planned line clearing work before the peak hurricane season, (b) completing line clearing for circuits serving top critical infrastructure facilities (CIFs) prior to hurricane season 2006 and prior to every hurricane season thereafter, (c) ensuring a 3-year line clearing cycle for all main lines (feeders), (d) aggressively promoting our "Right Tree – Right Place" program to educate communities and improve shared responsibility with customers regarding the placement, removal, species and type of trees in proximity to power lines, and (e) supporting legislation that would regulate and enforce the species, type, placement and removal of trees and vegetation in proximity to electric facilities, and enhance utility rights of access to property to clear lines through local code enforcement assistance.

We are confident that these initiatives will ultimately result in fewer outages during severe weather events. When outages do occur, service will be restored faster, particularly to critical infrastructure facilities and to main thoroughfares where businesses that provide basic necessities such as gas stations and grocery stores are located. Our plan clearly demonstrates that just as Florida's weather is changing, so are we.

INITIATIVES

I. Post-Hurricane Repairs and Targeted Facility Upgrades to Prepare FPL's System for the 2006 Hurricane Season

Our restoration process has two components – the initial restoration phase, when all customers affected by storm-related outages are restored; and the recovery phase, when facilities affected by hurricane are restored to pre-storm condition. As a result of the 2005 hurricane season, a comprehensive field assessment of all distribution, transmission and substation facilities was initiated. Follow-up work to our system is ongoing to repair and restore distribution, transmission and substation facilities that were damaged and left weakened during the 2005 hurricane season, and to replace facilities where necessary. Additionally, certain near-term work is being performed to strengthen targeted facilities prior to the onset of the 2006 hurricane season. Our action plan includes the following:

- Distribution Follow-Up Work on Poles
  - Replace damaged poles, including those braced during restoration
  - Straighten leaning poles
  - Remove pole stubs
- Other Distribution Follow-Up Work
  - Replace damaged lightning arrestors
  - Replace or repair capacitor banks
  - Replace or repair switches
  - Address various other components of electrical infrastructure damaged during last year's hurricane season
- Distribution Facility Strengthening
  - Replace conductor along targeted main lines (feeders) serving critical infrastructure facilities (*e.g.*, Port Everglades)
  - Complete Thermovision inspections and follow-up repairs to identified 500 main lines (feeders) to proactively address potential causes of interruptions
- Transmission Line Follow-Up Work and Targeted Facility Strengthening
  - Rebuild seven miles of the Conservation-Corbett 500kV transmission line that experienced structural damage
  - Inspect all 500kV lines within the impacted area of Hurricane Wilma and make hurricane-related repairs as identified
  - Relocate the wood pole line off the berm of Lake Okeechobee and rebuild with concrete poles

- Replace existing ceramic post insulators with better performing polymer post insulators on facilities with the highest customer impacts
- Substation Facility Strengthening
  - Accelerate replacement of silicon carbide arrestors to better performing arrestors on transformers with the highest customer impact
  - Harden selected equipment assemblies at 500 kV substations and bus connections at 15 substations

As we complete our follow-up work on facilities during this recovery phase, it should be noted that we are also often replacing identified facilities with ones that meet current, higher standards than those in place at the time of initial installation, which will improve the overall robustness of FPL's system.

The above initiatives help to address the immediate operating viability and reliability of our infrastructure prior to the onset of the 2006 hurricane season. The initiatives that follow are more comprehensive in nature and address the longer-term strength and resiliency of our electrical system.

II. Pole Inspection, Treatment and Replacement

FPL's distribution poles are currently designed to meet NESC standards, and most poles are designed 50% stronger than NESC minimum requirements. FPL's distribution poles are inspected as part of a three-pronged approach: (1) a Thermovision program that visually inspects all main line (feeder) poles; (2) a targeted wood-pole inspect and treat program; and (3) pole inspections that are done as part of daily work activities. FPL's transmission poles have been designed to meet extreme wind-loading criteria at the time of construction, and are currently inspected, treated and replaced as necessary on a 3, 4 or 8-year cycle, depending on material and customer count.

The failure rate of FPL's distribution poles during the 2004 and 2005 hurricanes was low. With respect to Hurricane Wilma, KEMA determined that of the distribution poles that experienced hurricane force winds, the distribution pole failure rate (1.46% of the total population of distribution poles that were exposed to hurricane-force winds) was consistent with the failure rate that would have otherwise been expected for a hurricane of that storm's size and strength. KEMA concluded that wind was the predominant root cause of pole breakage. Notwithstanding the low distribution pole failure rate, given the expectation that Florida is experiencing a heightened cycle of increased hurricane activity, FPL is taking the following action:

- Modify the existing pole inspection and treatment program to establish a systematic inspection and treatment cycle of ten (10) years for all distribution wood poles, including those poles carrying FPL facilities that are owned by other utilities (consistent with recent FPSC staff recommendations)

- Prioritize inspection of creosote-treated wood poles (the oldest type of pole within distribution system) by the onset of the 2006 hurricane season
- Replace as necessary those poles identified as having deficiencies
- Report findings to the FPSC of such inspections, treatment and replacement on an annual basis
- Work with other utilities (*e.g.*, telephone, cable) to address joint use issues pertaining to loading and their own inspection programs

III. Hardening the Electrical Infrastructure

New Construction

All of FPL's distribution facilities meet or exceed NESC standards. However, given the severe nature of the 2004 and 2005 hurricane seasons and, as the FPSC has recognized, the fact that meteorological experts have determined that Florida is in a long-term cycle of increased hurricane activity. FPL proposes to take the following action:

- Adopt the NESC extreme wind-loading criteria as the standard for all new distribution construction (up to 150 mph in certain areas). This standard will be applied as specified by established NESC extreme wind velocity zones (*see* Exhibit A), and may be achieved using construction methods such as undergrounding, stronger poles (including concrete poles where appropriate), shorter spans, guying, etc.

Changes in new construction standards for transmission and substation facilities are not indicated or recommended.[2] That said, we are taking proactive action as follows:

- Enhance our current standards for substation fences and control house roofs where appropriate (Note: Although this damage did not cause any outages, substation roof and fence damage was found at 26 locations after Hurricane Wilma.)

[2] FPL's transmission and substation facilities are designed in accordance with NESC extreme wind loading criteria applicable at the time of design. During the 2004 and 2005 hurricanes, the transmission lines built to the current standard of concrete poles and polymer insulators performed well. During Hurricane Wilma, a total of 345 transmission line sections were interrupted; of these 65% had no damage. (Note that countermeasures to address the 35% of transmission line sections that were damaged are included in the "Hardening the Electrical Infrastructure" section of this paper). The most probable cause of the interruption of those undamaged transmission lines was wind-blown debris including trees, branches and vegetative material from outside FPL's easements and rights-of-way, which likely self-cleared the impacted facilities. In total, these 345 line sections disrupted service to 241 substations, of which only 8 had damage requiring repairs prior to restoring service.

System Upgrades

System upgrades are generally described as projects aimed at substantially changing the current state of existing facilities, through programs such as system expansion, relocations and major maintenance/rebuild projects. FPL intends to take the following action with respect to system upgrades:

- Apply NESC extreme wind velocity zone criteria in those instances when main lines (feeders) have to be relocated along road rights-of-way or are being substantially upgraded due to increased electrical demand

Long-Term Hardening of Targeted Facilities

In addition to new construction and system upgrades, a targeted, long-term approach to systematically increasing the strength and resiliency of existing electrical infrastructure that serves critical infrastructure facilities (CIFs) and major thoroughfares is necessary. To accomplish this, long-term retrofit projects will be undertaken with the sole purpose of hardening identified facilities. The following proactive hardening plans are being initiated:

- Develop a comprehensive, detailed ten-year hardening plan for distribution infrastructure based on additional independent and internal analyses, including recommendations for infrastructure hardening developed with assistance from KEMA
- Upgrade existing overhead main lines (feeders), initially targeting those serving top critical infrastructure facilities and major thoroughfares (with gas stations, grocery stores, etc.) within the first five years, with the objective of applying NESC extreme wind-loading criteria where feasible and practical
- Initiate a long-term plan to replace remaining transmission line ceramic post insulators, single-pole unguyed wood transmission structures, and substation transformer surge arresters constructed under legacy standards

This will be the first time that any electric utility operating in the United States has adopted the NESC extreme wind-loading criteria for distribution facilities. This will, undoubtedly, have profound long-term benefits to all our customers and the communities we serve.

IV. Undergrounding

Currently 37% of FPL's distribution infrastructure is underground. FPL's current policy is to install underground facilities in high density areas where multiple power lines are required to serve customers, or where local ordinances require underground construction for new residential subdivisions. Pursuant to FPSC rule, FPL's customers pay the differential cost between overhead and underground pursuant to existing tariff. There are specific applications under which underground service is less desirable than overhead service for reasons of site engineering or due to extended outages after storm surge or flooding. However, analysis from the 2004 hurricanes and Hurricane Katrina which impacted FPL's service area indicated that underground facilities incurred fewer main line (feeder) interruptions during each hurricane. In addition, we recognize that many communities have expressed an interest in pursuing conversion from overhead to underground. Therefore, FPL intends to take the following actions:

- Promote the conversion of electric distribution facilities from overhead to underground by offering to invest 25% of the cost of local government-sponsored conversion projects otherwise borne by the requesting locality, with the FPSC recognizing such investment as new plant in service
    - All property located within any area designated by the locality for conversion would be required to convert from overhead to underground service in order to ensure that the potential benefits to the new underground area's robustness are not compromised by interceding overhead facilities that are exposed to causes of overhead outages
- Aggressively enhance existing efforts with local governments to strongly encourage ordinances requiring developers to provide underground electrical service for all new subdivisions, developments and projects
- Support legislation that would require developers throughout the state to provide underground electrical service for all new subdivisions, developments and projects
- Support and assist efforts of communities to obtain funding assistance from federal and state agencies to defray costs of underground conversion projects
- Facilitate local undergrounding projects by allowing underground conduit and cable, and associated above-ground transformers and switch cabinets to be placed in road rights-of-way under specific standards and agreements

V. Vegetation Management

Evidence and analysis from the 2004 and 2005 hurricane seasons shows that trees and vegetation interfering, damaging or breaking poles, lines and other facilities were the greatest cause of hurricane-related outages. FPL's current line clearing practice is to clear distribution lines on a 3-year average cycle (an average of 4,600 feeder miles annually). Our line clearing practices, which include directional pruning methods, meet ANSI A-300 and NESC tree trimming

standards and follow the guidelines recommended by both the International Society of Arboriculture and the National Arborist Association.

That said, vegetation management is an area that FPL cannot unilaterally control. Our forensic team's analysis of tree-related distribution feeder and lateral outages from Hurricanes Katrina and Wilma in 2005 concluded that 81% of tree-related outages were not preventable by FPL; that is, no trimming standard or work performed by FPL would have prevented these outages from occurring. These outages were caused by damage to FPL facilities from trees located off rights-of-way or outside of FPL's property or its easements which toppled into FPL's poles, lines and other facilities, or by limbs breaking off from trees and vegetative material located outside of FPL's trim zone. In addition, FPL's transmission system had 22 trees located outside of FPL's transmission rights-of-way that impacted facilities. As previously indicated, no damage was observed on the vast majority of transmission line sections interrupted by Hurricane Wilma, indicating that these facilities were impacted by flying debris, including tree branches and other vegetative material from outside FPL's easements and rights-of-way, that likely self-cleared from the impacted lines. For its part, to mitigate the prospect of outages caused by trees and vegetation interfering with, damaging or breaking electrical facilities, FPL is taking the following action:

- Accelerate main line (feeder) clearing to complete 75% of each year's planned line clearing work before the peak hurricane season
- Complete line clearing for circuits serving top critical infrastructure facilities (CIFs) prior to hurricane season 2006 and prior to every hurricane season thereafter
- Ensure a 3-year line clearing cycle for all main lines (feeders)
- Aggressively promote "Right Tree – Right Place" program to heighten community education and shared responsibility between FPL, communities and customers for tree species, type, location and proximity to power lines
- Support legislation that would regulate and enforce the species, type, placement and removal of trees and vegetation in proximity to electric facilities, and also enhance utility rights of access to property to clear lines through local code enforcement assistance

CONCLUSION

We have all experienced firsthand the significant impact of recent hurricanes in our state. No utility has had to respond to as many direct hits by hurricanes in recent years as FPL. We recognize that if the recent cycle of increased hurricanes activity is the new storm paradigm for our state, FPL's service area and its customers will undoubtedly be impacted. Without fundamental and significant changes in the way we prepare for storms and harden our infrastructure to prevent outages, we believe that the level of disruptions to our electrical system may well continue into the future. That is unacceptable to FPL, as it is unacceptable to our customers.

However, it is a reality that, regardless of the initiatives that we set forth above, when hurricanes and severe weather events impact our state, outages will occur. It is our intention, however, to take the steps necessary to mitigate such impact. The tactical and strategic initiatives we have outlined not only address the resiliency of our system to future severe weather events, but also provide for an increased level of day-to-day reliability for our customers. In addition to the initiatives outlined above, FPL intends to make further refinements to this action plan based on additional input and analyses, and will include such refinements as part of our 10-year hardening plan. We expect this plan to provide a clear roadmap to improving the long-term resiliency of our electric infrastructure, and will submit it to you later this year. Furthermore, we will include localized hardening plans that we will share with respective community leaders and local emergency managers.

EXHIBIT F

STATE OF FLORIDA)
) **AFFIDAVIT OF THOMAS J. KENNEDY P.E.**
COUNTY OF MIAMI DADE)

BEFORE ME the undersigned authority, personally appeared Thomas J. Kennedy P.E. who, being first duly sworn, deposes and says:

1. My name is Thomas J. Kennedy P.E. I am currently employed by Florida Power & Light Company ("FPL") as Joint Use Manager in the Power Systems Division. My business address is 9250 W. Flagler Street, Miami, FL 33174. I have personal and professional knowledge of the matters stated in this affidavit.

2. Allowing the addition of second or third party attachments in the power supply space will make it less safe for FPL employees to work in the power supply space because there would be more congestion in that space and less room to work. Additionally, these carriers are demanding access to poles in easements which FPL has no access to by bucket truck. This makes it even less safe to work on these facilities. While working in the power supply space, second and third party workers will be exposed to lethal voltage conditions they are not normally accustomed to on a regular basis. A simple slip of consciousness or failure to take appropriate precautionary measures can be deadly.

3. Reliability will be impacted if second and third party attachments are allowed in the power supply space. More time consuming safety precautions will have to be taken when working around these facilities which will increase the duration of electric customer outages during restoration efforts. During construction of these facilities in the power supply space, outages would likely be required. Any regular maintenance of these antenna facilities would require either an outage or coordination with FPL's dispatch centers for a temporary modified breaker relay setting (Recloser Off) that would trip a feeder for extra worker protection. This impacts reliability in two ways. If the feeder trips for any reason, including something as simple as a branch brushing the conductor while the recloser is off, the electric customers on that feeder are without power until it is determined that all workers, grounds

and equipment have been verified to be in the clear. The second impact involves the dispatch centers. Time taken away from a dispatcher or service restoration specialist to provide a communication worker with a clearance or a recloser off relay setting for their (non-electric) work is time that dispatcher or restoration specialist is not applying to service restoration. Additionally, these carriers are demanding that FPL notify them prior to performing any work on FPL's poles that may affect their service. This only increases the outage time to the electric customer waiting for service restoration. In addition, ANY mishap of second or third party equipment in the power supply space (i.e. if the antenna breaks; if the antenna is blown over by the wind; if the antenna catches flying objects and drops them or the antenna into the conductor; if lightning destroys the antenna) WILL affect the reliability of FPL's electric service

4. Finally, but just as important, moving facilities higher on the pole can substantially increase the windloading on that pole. The static moment (stress) caused by windloading of any object on a pole increases proportionately with the height of that object. For example, an antenna placed on the top of a 45 foot pole would subject that pole to more than twice the stress caused by wind of the exact same antenna placed at 16 feet. In addition, cast concrete poles are not designed to contain rebar on the top and are therefore substantially weaker in this area.

5. Affiant says nothing further.

Thomas J. Kennedy P.E.

SWORN TO AND SUBSCRIBED before me this 17th day of April, 2006, by Thomas J. Kennedy P.E. who is personally known to me or who has produced Fla DL (type of identification) as identification and who did take an oath.

K530-830-[illegible]

Notary Public, ~~State of Florida~~ North Carolina

My Commission Expires: [illegible] 2009

EXHIBIT G

State of Florida

Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD
TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE: February 20, 2006

TO: Mary Andrews Bane, Executive Director

FROM: Division of Economic Regulation (Breman, Topling, D.Lee, Lewis, Matlock, McRoy, Ballinger, Kummer, McNulty, Trapp)
Office of the General Counsel (Helton)

RE: *Florida's Electric Infrastructure – Storm Hardening*
Critical Information: Please place on the February 27, 2006, Internal Affairs. Commission approval is sought for recommended actions.

On January 23, 2006, the Commission held a staff workshop to discuss damage to electric utility facilities resulting from recent hurricanes, to explore ways of minimizing future storm damage, and reduce outages to customers. State and local government officials, independent technical experts, and Florida's electric utilities participated in the workshop. On January 30, 2006, post workshop comments were received from the participants.

The purpose of this memorandum is to recommend specific short-term and long-term actions to prepare Florida's electric infrastructure to better withstand severe storms. Staff also addresses areas where legislation may be helpful to address storm ready electric infrastructure.

Summary of Recommendations

I) Recommended Short-Term Actions for the Investor-Owned Electric Utilities

(1) June 5, 2006 Internal Affairs – Provide a Briefing on Hurricane Preparedness

(2) On or Before June 1, 2006 – File Implementation Plans for Ongoing Storm Preparedness Initiatives that include:
  (a) A Three-year vegetation management cycle for all circuits,
  (b) A Transmission and Distribution Geographic Information System,
  (c) Replacement of Wooden Structures with Concrete and Steel,
  (d) Post-Storm Data Collection and Forensic Analysis,
  (e) Audit of Joint-Use Pole Attachment Agreements,
  (f) A Six-Year Transmission Inspection Program,

(g) Collection of Detailed Outage Data Differentiating Between the Reliability Performance of Overhead and Underground Systems,
(h) Increased Utility Coordination with Local Governments, and
(i) Collaborative Research Through PURC.

II) Recommended Long-Term Actions for the Investor-Owned Electric Utilities

(1) Open a Docket to Investigate Measures to Withstand a Category 3 Hurricane.

(2) Open a Docket to Investigate How to Facilitate Undergrounding of Distribution Facilities.

III) Legislation

(1) Commission Oversight of Electric Reliability.
Clarify and strengthen the Commission's authority to adopt, implement, and enforce construction standards and follow-up inspections for transmission and distribution facilities for reliability purposes.

(2) Tree Trimming within Public Road Right-of-Ways and Easements.
Increase the ability of electric utilities to conduct vegetation management in all public road right-of-ways and easements.

(3) Tree Trimming outside of Public Road Right-of-Ways and Easements.
Increase the ability of electric utilities to work with local communities and private land-owners to conduct vegetation management on private property.

Attachment A to this memorandum is staff's recommendation and analysis. Attachment B is a summary of the post-workshop comments.

CC: Dr. Mary Bane
Chuck Hill
Tim Devlin

Florida's Electric Infrastructure – Storm Hardening

Introduction

On January 23, 2006, the Commission held a staff workshop to discuss the damage to electric utility facilities resulting from recent hurricanes, to explore ways of minimizing future storm damage and reduce outages to customers. State and local government officials, independent technical experts, and Florida electric utilities participated in the workshop. On January 30, 2006, post-workshop comments were received from the following participants: Florida Power & Light Company (FPL), Progress Energy Florida, Inc. (PEF), Tampa Electric Company (TECO), Gulf Power Company (GULF), the Town of Jupiter Island, the Town of Palm Beach, Dr. Kurtis Gurley (University of Florida), and Dr. Alex Domijan (University of South Florida). A summary of the post-workshop comments is included in Attachment B.

Staff Recommendation

Staff's recommendations address various key points discussed at the workshop and in the post-workshop comments. Focus is placed on three areas: Short-Term Actions, Long-Term Actions, and Legislation.

I) Recommended Short-Term Actions for the Investor-Owned Electric Utilities

Staff proposes two broad short-term actions. First, in preparation for the 2006 hurricane season, each investor-owned electric utility should be required to report its hurricane preparedness at the June 5, 2006, Internal Affairs. Second, on or before June 1, 2006, each investor-owned electric utility should be required to prepare and file plans implementing certain ongoing storm preparedness initiatives.

(1) June 5, 2006 Internal Affairs – Provide a Briefing on Hurricane Preparedness

Each investor-owned electric utility should report its pre-hurricane season readiness status at the June 5, 2006, Internal Affairs. This reporting should occur annually thereafter.

Utilities routinely perform various types of inspections after severe storms. However, based on comments received at the workshop, the thoroughness of each inspection is unclear. [TR 165, 166, 238, 239, 240, 242, 261, 262] In preparation for the June 5, 2006, Internal Affairs, each investor-owned electric utility should be required to complete and report on the following pre-hurricane preparation activities:

(a) Inspect all transmission lines, poles, and towers to ensure their structural integrity. Specific inspections should be required for all bolts, insulators, lines, and structures.

(b) Re-inspect and clear all transmission and primary distribution feeder right-of-ways for dead or dying vegetation, hanging branches, and any vegetation that does not meet minimum clearance requirements.

(c) Verify that all sweeps and backlogged storm repairs to transmission and distribution facilities, structurally compromised facilities, and leaning poles have been completed.

(2) File Implementation Plans for Ongoing Storm Preparedness Initiatives

At the workshop, numerous initiatives contributing to improved storm preparedness were discussed by the investor-owned electric utilities, other workshop participants, and staff. Staff believes each investor-owned electric utility should be required to prepare and file plans implementing each of the initiatives identified below on or before June 1, 2006.

(a) A Three-year vegetation management cycle for all circuits.

An inescapable observation is that trees significantly contribute to storm damages. Intuitively, it would seem that utilities would be aggressively engaged in vegetation management.

A July 2005 audit of PEF's vegetation management found that the miles trimmed had declined during a period when tree-caused outages had increased. During the same period, PEF's targeted 3-year trim cycle was not being met. Staff's July 2005 audit of FPL's vegetation management program revealed similar patterns. A June audit of TECO's vegetation management showed an increasing pattern in vegetation-caused outages for the five years prior to 2005. Yet TECO's 2005 vegetation management budget was lower than in prior years. Consequently, staff believes the utilities have not demonstrated aggressive implementation of vegetation management to adequately prepare for future storms.

In its post-workshop comments, FPL stated that it would ensure a three-year clearing cycle for all main lines (feeders). Staff notes that trees exist in the proximity of other circuits, not just the main lines. Storm damages and storm restoration can be abated by clearing all circuits, not just the main lines.

Staff recommends utilities should be required to establish a plan that achieves a three-year vegetation management cycle for all its facilities. Staff bases the three-year criteria based on efforts by FPL and PEF to target a three-year cycle.

(b) A Transmission and Distribution Geographic Information System

During the workshop it became apparent that utilities need to do a better job keeping track of the facilities in the field. Utilities capture and maintain varying degrees of inspection data, vintage data, and other performance related data. Lack of performance

data makes it difficult conduct forensic reviews and assess whether appropriate maintenance is being performed.

GULF is implementing a transmission and distribution geographic information system. The information system will include facility specific data and performance data. GULF found that the information system improves its storm restoration process. [TR 264]

Staff believes that other utilities should adopt a program similar to GULF's. Staff recommends each investor-owned utility should be required to prepare and file plans implementing a transmission and distribution geographic information system.

(c) Replacement of Wooden Structures with Concrete and Steel.

Utility transmission practices are gradually replacing wooden structures with steel and concrete transmission structures. Even though utilities are no longer installing new wooden transmission poles, there remain many existing wooden structures that are now sub-standard.

In 1993, after Hurricane Andrew, FPL stated it was reconsidering use of wooden transmission structures. At the workshop, FPL stated it is replacing the wooden structures on a maintenance basis and whenever relocations occur. [TR 165] In 2001, PEF decided to begin replacing all of its wooden transmission structures with either steel or concrete construction.

Staff recommends that each investor-owned utility should be required to prepare and file plans implementing a program that replaces existing wood transmission structures with steel and concrete construction by a date certain.

(d) Post-Storm Data Gathering, Data Retention, and Forensic Analysis.

Utilities need to increase data collection and forensic analysis. FPL hired a consultant, KEMA, to conduct a post-Hurricane Wilma forensic review. KEMA's review discusses a lack of inspection data retention and lack of facilities specific data. Some portions of KEMA's review relied on interviews with FPL staff rather than records because FPL did not have maintenance records and facility specific data.

In its post-workshop comments, GULF stated it is initiating a detailed post storm data collection process to provide improved storm damage analysis. The post-storm data collection will be in addition to any existing data collection. Such data is expected to provide information associated with the failure of facilities during storms that is not currently gathered. Thus, GULF will be better able to address hardening options.

Staff recommends each investor-owned utility should be required to prepare and file plans implementing a detailed post storm data collection process to provide improved storm hardening options.

(e) Audit of Joint-Use Pole Attachment Agreements.

Representations were made by independent technical experts during the workshop that as much as 20 percent of pole attachments go undetected. It was also asserted that an estimated five percent of existing poles are overloaded and another 10 percent of existing poles are approaching overloading or are subject to failure in extreme weather. While these estimates were based on national data, they were not rebutted by the Florida electric utilities.

Staff recommends that the Florida utilities be required to establish a pole attachment audit plan to fully address the reliability of their joint-use facilities. These audits should include both poles owned by the electric utility to which other utility attachments are made (i.e., telecommunications and cable) and poles not owned by the electric utility to which the electric utility has attached its electrical equipment. The location of each pole, the type and ownership of the facilities attached, and the age of the pole and the attachments to it should be identified. Utilities should verify that such attachments have been made pursuant to a current join-use agreement. Stress calculations should be made to ensure that each joint-use pole is not overloaded or approaching overloading. Any disputes arising from the audit should be immediately filed with the Commission for expedited resolution.

(f) A Six-Year Transmission Inspection Program.

Based on information presented at the workshop and in recent Commission audits of utility programs, it is evident that transmission inspection practices vary widely among the investor-owned electric utilities. FPL practices a four-year cycle using a ten percent sample criteria for its 500 KV transmission system. KEMA, concluded that FPL's inspections were not sufficient to discover loose or missing bolts on transmission towers. In a July 2005 Commission audit of PEF's transmission pole inspection and maintenance programs, staff noted that PEF did not perform ground-line inspections on transmission poles from 1999 through 2004. A June 2005 audit of TECO's transmission inspection program noted that TECO performed few, if any, pole inspections from 2000 through 2003. While GULF completes at least one of the six types of transmission inspections within a six-year period, some types of inspections occur more frequently than others. Overall, the types of transmission inspections that GULF performs are scheduled such that, on a total basis, GULF completes all types of inspections on a 12-year cycle.

Based on this wide divergence of utility practices, staff is not convinced that current utility transmission facility inspections are adequate. Staff recommends the utilities be required to establish a plan that achieves a six-year transmission inspection program. Staff bases the six-year criteria in part on GULF's efforts to achieve at least one detailed inspection within a six-year period. Additionally, staff believes the critical nature of transmission facilities requires utilities to complete full inspections within a shorter period than the period established for distribution facilities. By Commission vote on February 7, 2006, in Docket No. 060078-EI, In Re: Proposal to Require Investor-Owned Electric Utilities to Implement a Ten-Year Wood Pole Inspection Program, the

Commission is requiring investor-owned electric utilities to establish an eight-year inspection cycle for wood distribution poles.

(g) Collection of Detailed Outage Data Differentiating Between the Reliability Performance of Overhead and Underground Systems.

Utilities do not currently collect performance data that differentiates between overhead and underground facilities. Overhead and underground performance data is needed to adequately address options that reduce storm damage, storm restoration costs, and customer outages.

Staff recommends that each investor-owned utility be required to prepare and file plans implementing a program that specifically collects data on the performance of overhead and underground facilities such that informed review of hardening options can performed.

(h) Increased Utility Coordination With Local Governments.

A key element in providing good service is knowing the needs and desires of your customers. While utilities have various public outreach programs, the workshop highlighted the need for better communication between the utilities and the cities and counties they serve. While utilities work with local governments prior to and immediately after a storm, staff believes that each utility should actively work with local communities year round to identify and address issues of common concern.

This point was raised by Mayor Anne Castro of the City of Dania Beach who suggested that a more integrated partnership between local governments and the utility could assist the utility in better serving its customers. Mayor Castro explained:

> "We want to be the eyes and ears for FPL. We have offered ...[to]..train our public service people, our public safety people, especially after a hurricane or even on an ongoing basis during the year, as to what to look for in their infrastructure. If they could teach us what to look for as far as poles being bad or wires being bad or fuses hanging or loose ends hanging, our folks, as they routinely do this through code enforcement, through the fire department, through the police department, are happy to go out there and take a look. Even our citizens on patrol...turn in half of the code violations anyway...they can report all that, they can create a list..." [TR 20-21]

Staff agrees. The comments of Mayor Castro demonstrate the precise type of cooperative spirit that can help utilities target their resources to meet local needs and priorities.

The intent of such a liaison program is to establish an on-going dialogue on key issues with the goal of reaching some accommodation or agreement on how the utility and the governmental agency will work together to address concerns. One key role of the liaison

is to help local governments prioritize their needs, given the time and financial constraints associated with given actions.

There is already precedent for this level of cooperation with local governments. The Department of Community Affairs has developed a statewide local mitigation strategy which local governments adopt. Several of the proposals listed in the mitigation guidelines are easily adaptable and equally applicable to utility/government relationships. For example, the guidelines require local governments to provide a multi-hazard map of the community. This would identify flood zones and areas prone to wind damage, consistent with the discussions by Dr. Domijan, University of South Florida, and Dr. Gurley, University of Florida. The mitigation guidelines also cite the need for land use patterns and discussion on development trends provided by the Future Land Use and Coastal elements of the local comprehensive plans. The section on mitigation techniques notes the importance of identifying areas subject to repetitive damage from disasters. It cites the need to develop plans to protect critical functions and structures. In other words, electric utilities need to develop plans to provide service to critical functions and structures. All of these functions are best performed in conjunction with the local governments most familiar with local needs and tolerances. This type of information can only assist the utility in designing and operating its system in the most cost efficient manner. An example of improved dialogue with local communities is FPL's decision to use public right-of-way in its placement of underground facilities.

Staff recommends that utilities immediately begin discussions with the communities they serve. This would include discussing issues such as local flood areas or other specialized problems that might assist in determining whether undergrounding is a reasonable option for the locality. Using local knowledge of terrain and governmental restrictions such as tree trimming ordinances, the utility can better explain options for addressing vegetation management concerns.

(i) Collaborative Research Through PURC

During the workshop it appeared that the utilities were unaware of work being done by universities to study the effects of hurricane winds and storm surge within Florida. Each utility appeared engaged in independent efforts to gather their own data with little, if any, coordination of resources and information.

Staff believes Florida would be better served by consolidating utility resources through a centrally coordinated research and development effort. The purpose of such effort would be to further the development of storm resilient electric utility infrastructure and technologies that reduce storm restoration costs and outages to customers.

Staff believes that the Public Utility Research Center (PURC) in the Warrington College of Business Administration, at the University of Florida, is uniquely well-positioned to guide a coordinated research and development effort of this type. Staff recommends the Commission direct the utilities to meet with the appropriate PURC representatives to identify areas of collaborative research and required funding.

II) Recommended Long-Term Actions for the Investor-Owned Electric Utilities

The objective of the following long-term actions is to identify and establish a procedure for resolving key issues of fact and policy associated with hardening Florida's electric infrastructure.

(1) Open a Docket to Investigate Measures to Withstand a Category 3 Hurricane

Staff recommends the Commission establish a docket that focuses on hardening of overhead facilities. The docket will provide all stakeholders the opportunity to explore concerns and matters of policy such that the Commission can move forward with decisions are deemed appropriate related to hardening.

The docket should specifically investigate the effects on system robustness and cost of requiring electric transmission and distribution facilities to be constructed to withstand a Category 3 hurricane (wind speeds 111-130 miles per hour with a storm surge of 9-12 feet). Utilities should be required to provide individual analysis of system robustness and costs for each of the following cases:

1. Implementation of a Category 3 hurricane construction standard for all new overhead and underground construction,
2. Upgrade of all existing overhead and underground facilities,
3. Upgrade of existing overhead and underground facilities on a targeted basis such as geographic and critical needs, and
4. Upgrade of overhead and underground facilities through normal maintenance activities such as upgrades, relocations, during storm restoration, and end of life replacements.

The utilities should include the following in each of the above analyses:

1. The effect of hardening facilities on operation and maintenance costs,
2. The effect of hardening facilities on storm restoration costs, and
3. The effect of hardening on the cost differentials between overhead and underground construction. The cost differentials should include the differences in O&M costs between overhead and underground inclusive of hurricane restoration costs.

In addition to the above analyses, the utilities should be required to provide funding and billing alternatives. Funding and billing alternatives should address cost recovery for voluntary utility actions, recovery of costs incurred to address specific requests by local communities, and recovery of costs to harden transmission and distribution facilities.

(2) Open a Docket to Investigate How to Facilitate Undergrounding of Distribution Facilities

Staff recommends the Commission establish a second docket that focuses on underground facilities. The docket will provide all stakeholders the opportunity to

explore concerns and matters of policy such that the Commission can move forward with decisions deemed appropriate related to undergrounding.

The undergrounding docket should follow the hardening docket. The docket should investigate the effect on system robustness and cost of placing electric distribution facilities underground. Such docket should require utilities to provide individual analysis of system robustness and costs for each of the following cases:

1. Placing all new distribution facilities underground,
2. Conversion of all existing overhead facilities to underground facilities,
3. Conversion of existing overhead facilities to underground facilities on a targeted basis such as geographic and critical needs,
4. Conversion of existing overhead facilities to underground facilities through normal maintenance activities such as upgrades, relocations, and end of life replacements, and
5. Conversion of overhead primary feeders to underground primary feeders.

The utilities should include the following in each of the above analyses:

1. The effect on operation and maintenance costs,
2. The effect on storm restoration costs, and
3. The effect on the cost differentials between overhead and underground construction. The cost differentials should include the differences in O&M costs between overhead and underground inclusive of hurricane restoration costs.

In addition to the above analyses, the utilities should be required to provide funding and billing alternatives. Funding and billing alternatives should address cost recovery for voluntary utility actions, recovery of costs incurred to address specific requests by local communities, and recovery of costs to underground distribution facilities.

FPL's Recent Voluntary Actions

FPL voluntarily decided to reduce by 25 percent the contribution in aid of construction (CIAC) normally required for local government sponsored overhead-to-underground conversion projects. FPL's voluntary actions do not provide substantive and competent evidence on which the Commission can implement changes in policy that affects all investor-owned electric utilities and their customers in terms of cost and reliability. The existing policies, rules, and tariffs remain in effect until the Commission changes them. Staff notes that FPL's voluntary actions may be in tension with Rule 25-6.064(11), Florida Administrative Code, which states in part "if the utility waives the CIAC, the Commission will reduce the utility's net plant in service by an equal amount for ratemaking purposes." The longstanding practice has been to avoid including such costs in future rate proceeding because including such costs will result in the general body of ratepayers paying for a portion of the costs of a specific undergrounding project. The prudence of FPL's actions and policy considerations should be addressed if and when FPL seeks recovery of incurred costs.

The two dockets previously discussed will help determine whether policies and rules need to be changed. The sequential process of both dockets will provide the appropriate basis to establish comprehensive policies and rule changes necessary to prepare Florida's electric infrastructure to better withstand severe storms.

III) Legislation

(1) Commission Oversight of Electric Reliability

For the purposes of reliability, the Commission should support legislation that clarifies, with express authority, the Commission's jurisdiction to adopt and enforce construction standards and subsequent inspections that meet or exceed the National Electric Safety Code (NESC) for investor-owned electric utility transmission and distribution facilities.

Currently, each utility develops its own construction guidelines using the NESC standards as the underlying guide. There is no evidence of a central coordinating body that sets or reviews Florida's electric utility construction standards. [TR 269, 270] In reference to the NESC, Section 366.04(6), Florida Statutes, states "compliance with the minimum requirements of that code shall constitute good engineering practice by the utilities." Nevertheless, staff notes apparent consensus that, in light of a more active hurricane cycle, Florida needs to review and possibly change the minimum acceptable construction standards of the investor-owned electric utility transmission and distribution facilities. [TR 102, 103, 109] Staff believes Section 366.04(5) and (6), Florida Statutes, provides the Commission with implicit authority to set construction standards for reliability purposes. Staff believes express legislative authority will clarify the existing implicit authority and facilitate setting public policies regarding minimum construction standards for Florida investor-owned electric utility infrastructure. For purposes of reliability, staff believes the Commission should support legislation that clarifies the Commission's jurisdiction to adopt and enforce construction standards that meet or exceed construction standards of the NESC for investor-owned electric utility transmission and distribution facilities.

(2) Tree Trimming within Public Road Right-of-Ways and Easements

The Commission should support legislation that would strengthen a utility's ability to trim trees along public road right-of-ways and easements where electric transmission and distribution facilities are located.

The investor-owned electric utilities unanimously advocated for greater authority for them to trim and remove trees. Staff agrees. During the workshop, vegetation management was identified as a primary cause of hurricane damage. [TR 107, 161] Dania Beach Mayor Castro indicated that people plant trees in the wrong place and sometimes the trees are not maintained. [TR 18] Utilities should have wide latitude and authority to perform tree trimming in public areas in order to decrease hurricane damages. Staff believes the Commission should support legislation that would strengthen

a utility's ability to trim trees along public road right-of-ways and easements where electric transmission and distribution facilities are located.

(3) Tree Trimming outside of Public Road Right-of-Ways and Easements

The Commission should support legislation that would encourage local communities and private land-owners to work with utilities to increase a utility's ability to conduct vegetation management, including condemnation of "danger trees," outside the public road right-of-ways or easements.

Private property rights are important. There is a difference between trees in public road right-of-ways and trees on private property. Of specific concern to the utilities are tall trees, outside of the right-of-ways and easements, that are in proximity to overhead power lines. These tall trees are considered "danger trees" because storms can cause the tall trees to fall into or onto utility facilities. [TR 108, 223, 228] Increased dialogue between local communities, the private land-owners, and the utility may address many of these "danger trees." There may be a need for a specific legal process which provided for an objective ruling should dialogue not be effective. In such cases, a specific condemnation procedure can address "danger trees" where agreement cannot be reached.

Florida's Electric Infrastructure – Storm Hardening
Summary of Post-Workshop Comments

I) Short-Term Actions

FPL

Complete post-hurricane repairs and targeted facility upgrades to rehabilitate and strengthen the electric infrastructure in order to prepare for the 2006 hurricane season.

Modify our existing pole inspection, treatment and replacement program to include a systematic ten-year inspection and treatment cycle for all distribution wood poles, including those poles owned by other utilities, in order to proactively address any identified pole deficiencies (consistent with recent FPSC staff recommendations) and work with other utilities to address joint use issues pertaining to loading.

Promote undergrounding by investing 25% of the cost of local-government sponsored overhead-to-underground conversion projects otherwise borne by the requesting locality and facilitating local undergrounding projects by allowing underground conduit and cable, and associated above-ground transformers and switch cabinets to be placed in road right-of-way under specific standards and agreements.

Enhance vegetation management initiatives by (a) accelerating main line (feeder) clearing to complete 75% of each year's planned line clearing work before the peak hurricane season, (b) completing line clearing for circuits serving top critical infrastructure facilities (CIFs) prior to hurricane season 2006 and prior to every hurricane season thereafter, (c) ensuring a 3-year line clearing cycle for all main lines (feeders), and (d) aggressively promoting our "Right Tree – Right Place" program to educate communities and improve shared responsibility with customers regarding the placement, removal, species and type of trees in proximity to power lines.

PEF

The Commission should consider initiating and funding a pilot program under which utilities would study the feasibility of new technologies, including the limited installation of certain new technologies on utilities system.

The Commission and the Legislature should consider funding a study with the University of Florida and University of South Florida to identify potential T&D system "hot spots" that may warrant additional hardening or underground.

TECO Tampa Electric will initiate dialogue with each of the local governments in its service area to discuss the feasibility of developing an effective program for assistance in infrastructure review.

Tampa Electric will develop similar materials as GULF to assist its customer in making decisions with respect to undergrounding.

GULF Gulf Power Company is constructing an interim emergency operations center (EOC) to be used during the 2006 storm season. This interim EOC will be used in the event of a hurricane producing a storm surge the height of that seen during Katrina.

GULF's Transmission system restoration plan will be supported by Southern company's *Transmission Emergency response Plan* (TERP). The TERP will be developed and maintained to serve as restoration guidelines to consistently provide a quick response and proper coordination of emergency restoration efforts.

Prior to each storm season, patrol and correct problems on main circuits serving essential facilities.

GULF will install storm guying for new installations of regulator stations and transformer bank poles where practical.

Begin collaborating with independent weather services and universities to determine areas most vulnerable to storm surges. This effort will address the need for updated and more accurate "slosh" (Sea, Lake and Overland Surges from Hurricanes) models to show possible storm surge scenarios and the impacted transmission and distribution facilities.

GULF will continue its 10 year cycle on distribution pole inspection. In addition, through the Pole Manager software implemented in 2005, GULF will improve pole data collection and from such data begin development of accurate pole maps.

GULF will conduct a pilot program for stainless steel flush mounted switch gear; utilize existing land topography and buildings to help shield pad mounted equipment from storm surges; and modify pad designs to incorporate anchoring.

GULF will implement a pilot program incorporating the use of secondary spool racks. This pilot will evaluate how damage could be mitigated to overhead transformer stations when trees or other debris impact overhead service drops.

GULF will initiate a detailed post storm data collection process to provide improved storm damage analysis and data collection. This process would be in addition to GULF's current restoration process, which it finds to be very effective. It is essential that the new data collection process be conducted as a parallel process that would not hamper the existing restoration process.

Towns (Recommended changes to rules are not considered short term for purposes of this analysis.)

Universities (None recommended.)

II) Long Term Actions

FPL Harden the electrical infrastructure by (a) adopting NESC extreme wind velocity zone criteria as the standard for all new distribution construction and system upgrades (up to 150 mph in certain areas) using construction methods such as undergrounding, stronger poles (including concrete poles where appropriate), shorter spans, guying, etc., (b) upgrading existing overhead main lines (feeders) initially targeting those serving top critical infrastructure facilities and major thoroughfares within the first five years, with the objective of applying NESC extreme wind-loading criteria where feasible and practical, and (c) replacing targeted components of remaining transmission and substation facilities constructed under legacy standards -- all as part of a comprehensive, detailed ten-year hardening plan for distribution, transmission and substation infrastructure.

PEF The Commission should consider initiating and funding a pilot program under which utilities would study the feasibility of new technologies, including the limited installation of certain new technologies on utility's system.

The utilities, working with all stakeholders, should undertake a detailed study to identify specific T&D system hardening "toolboxes" and "roadmaps," which could include targeted underground conversion projects, wood transmission pole replacements, and other promising new technologies, as well as evaluation of specific tools most applicable to specific local conditions, the costs, and benefits to all stakeholders of implementing the roadmap, and the funding mechanisms for the roadmap.

TECO The Commission should include electric, cable and telephone companies in dialogue to consider the following: (1) the options for placement of telephone and cable infrastructure if electric facilities are relocated underground; and (2) the options for eliminating unauthorized and unnoticed attachments to electric poles.

During the workshop a presentation was made by the Homac Companies of new electric products which may prevent storm damage. Tampa Electric proposes to design an experimental program of installation of an appropriate sample of such devices and to test the effectiveness of damage mitigation and long term day-to-day reliability under normal operating conditions.

GULF

Construct a new permanent Emergency Operating Center incorporating the best design features seen in other EOCs along with the latest technology. This facility will be located further inland than the current EOC. This relocation is based on the valuation of current facility locations against storm surges similar to those seen in the impact zone of Hurricane Katrina.

GULF will use the "slosh" maps developed under the short term solutions to evaluate hardening options for facilities located in the identified most vulnerable areas.

In an effort to capitalize on opportunities to apply solutions to "hardening" distribution facilities from storms, GULF will expand its current planning processes to facilitate cooperative efforts with local governments.

Where practical, GULF will install storm guying for regulator stations and transformer bank poles on existing installations.

Endeavor to develop infrastructure maps showing all utilities [overhead and underground] to facilitate joint "hardening" options where needed. This will have to be a collaborative effort among all utility companies in GULF Power's service area.

Collaborate with fellow IOU's to develop and evaluate a "hardening road map" for transmission and distribution facilities.

GULF is continuing the development of a Distribution Geographic Information System (DistGIS) which will replace its existing mapping system. The new application has the ability to hold and query more detailed data (i.e. pole and structure GIS locations) on the transmission and distribution system.

Seek the collaboration of universities on our research. GULF will establish a single point of contact to lead this effort with universities, with Georgia Tech's National Electric Energy Testing Research and Applications Center (NEETRAC) and with the Southern Company Distribution Research Advisory Team (DRAT).

Towns

The present situation where most distribution poles are apparently designed for between 60 MPH winds and 90 MPH is not adequate to avoid

unacceptable outages in Category 1-2 conditions, and is obviously not adequate for more powerful storms.

The Commission should amend its rules, and require Florida's public utilities to amend their tariffs, to require that the cost of "hardened" [overhead] OH facilities be used as the basis for determining the utility-funded amount in developing CIACfor underground (UG) conversion and new UG installation costs.

The Commission should also mandate that operating and maintenance cost savings, e.g., avoided tree-trimming costs, be reflected in the calculation of CIACs for new UG installations and for UG conversion projects.

The Commission should also require that appropriate values for avoided hurricane restoration costs be included in determining UG CIACs.

The Commission should evaluate and encourage the "hardening" of UG facilities, e.g., by the use of waterproof switches, switch cabinets, and other facilities.

The Commission should prohibit public utilities from including indirect and general costs, other than the normal hourly-rate costs for "reviewing and inspecting" UG construction work in progress to ensure compliance with codes and utility construction standards, in applicant costs where an applicant local government does the installation of the UG facilities itself.

The Commission should also consider at least the value of lost goods, food, and medicine, as well as lost economic productivity, to all Floridians in formulating its policies for improving and enhancing the reliability of Florida's electric distribution system.

Universities It is recommended to monitor common weather, severe weather and interruptions to locate areas of concern and determine correlations with the electrical grid. This should be done for both underground and overhead systems. Grid hot spots may first be determined in the short term by evaluating the effect of common weather (and for severe weather, such as hurricanes, as they pass over parts of Florida) with variations in interruptions due to temperature, rain, humidity, lightning, wind, and pressure. All weather factors must be considered as each one individually or in combination affect power system elements (substations, transformers, relays, communications, etc) to a different extent. Once this is accomplished it becomes feasible to provide advance warnings of problem areas and predictive tools to solve interruption issues in advance of adverse weather patterns, develop appropriate vegetation management strategies, and provide guidance on manpower and reserve equipment needs for fast restoration of electrical service to the citizens of Florida.

Develop the Protect Florida Now Electrical Grid Initiative to provide collaborative interactions via a public information sharing, monitoring and grid restoration. The Protect Florida Now Electrical Grid initiative may include regular outreach programs (educational workshops, courses, briefing papers, conferences), testing facilities (wind tunnel, field weather stations at utility locations, reliability evaluations, field monitoring of electrical conditions), and formation of a central database with on-going monitoring of weather patterns, interruptions, determination of electrical grid system hot spots, modeling and forecasting of potential problem areas and development and comparison of solutions.

The Power Center for Utility Explorations with the Florida Coastal Monitoring Program, coordinate and provide relevant testing, monitoring, reporting and modeling capabilities in collaboration with the Florida PSC and utilities, and other partners from the state university systems of Florida.

III) Legislation

FPL Legislation that would regulate and enforce the species, type, placement and removal of trees and vegetation in proximity to electric facilities, and enhance utility rights of access to property to clear lines through local code enforcement assistance.

Promote undergrounding by aggressively encouraging local ordinances and legislation requiring developers to provide underground electric service for all new subdivisions, developments and projects.

PEF Utilities need greater authority to trim and remove trees. Legislation should be introduced this year that would: (1) preempt local government tree-trimming ordinances that allow tree planting in conflict with utility infrastructure; (2) expressly authorize utilities to condemn for danger trees; and (3) allow tree-trimming to NESC standards and preempt inconsistent local ordinances. These relatively simple steps will allow for additional hardening of the system.

Changes to the Federal Communications Commission policies regarding attachments to utility poles without the prior authorization by the utility.

The Commission and the Legislature should consider implementing new incentives to foster underground conversions. These should include:

- State and/or local fees collected on utility customer bills that the utility sets aside to cover the cost of targeted undergrounding projects.
- Tax incentives to assist in funding underground projects.
- Promoting special purpose financing vehicles to privately finance undergrounding projects.

- Implementing a state tax to fund undergrounding projects in identified system "hot spots".
- Establishing special taxing districts in which local governments within the district may join to raise funds for undergrounding projects.

TECO The Commission should support legislation which grants priority to cost-effective utility vegetation management programs over local tree ordinances and which prevents planting of vegetation which will likely interfere with electric infrastructure.

The Commission should support legislation providing funding for the production of more detailed flood zone maps with improved granularity and detail which will be very helpful in emergency management and utility infrastructure planning.

The Commission should support legislative action to provide funding to the Commission for the purpose of hiring experts and managing the employment contract to provide: (1) a detailed meteorological study, and (2) an electric utility transmission and distribution infrastructure study to identify available cost-effective options to harden electric infrastructure to withstand severe weather conditions. The objective of the study would be an assessment of current design standards from a durability standpoint and development of a road map for the cost-effective implementation of prospective design standards. The studies would be presented for review by the Commission, taking into account comments by all interested parties. The end result of this process would be a final report based on the experts' findings and the interested parties' comments submitted by the Commission to the Governor and Legislature.

The Commission should include electric, cable and telephone companies in dialogue to consider whether the Commission should seek jurisdiction from the Legislature to regulate pole attachments.

GULF Requests governmental assistance with the following: Increasing the ability of utilities to conduct vegetation management activities outside the road right-of-way or easement when necessary to eliminate vegetative conditions that pose a hazard to power lines and discouraging the planting of trees outside of the right-of-way or easement that, when mature, could grow into or fall into a power line.

Towns None recommended.

Universities None recommended.