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GULF POWER
A SOUTHERN COMPANY

April 29, 2013

Ms. Ann Cole, Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee FL 32399-0850

Dear Ms. Cole:

In accordance with Rule 25-6.0342 and Order No. PSC-07-1022-FOF-EI, attached are the original and fifteen copies of Gulf Power Company's 2013-2015 Storm Hardening Plan.

Please call me if you have any questions.

Sincerely,

Robert L. McGee, Jr.
Regulatory and Pricing Manager

md

enclosures

cc w/encl: Beggs & Lane
Jeffrey A. Stone, Esq

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BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

GULF POWER COMPANY

STORM HARDENING PLAN 2013-2015

May 1, 2013

APPENDICES

Appendix 1 Map of Northwest Florida with Extreme Wind Loading Standards

Appendix 2 Overhead Storm Hardening Specifications

Appendix 3 Underground Storm Hardening Specifications

Appendix 4 Estimated Gulf Power Costs and Benefits Summary

1.0 Overview

Pursuant to Florida Public Service Commission (FPSC) Order No. PSC 07-1022-FOF-EI, Gulf Power Company (Gulf) submits the following Storm Hardening Plan (Plan) for calendar years 2013-2015. This proposed Storm Hardening Plan is intended to address the requirements set forth in Rule 25-6.0342 F.A.C.

Gulf Power continues to view this plan as an ongoing process to identify ways to minimize future storm damages and customer outages. As in the past, Gulf plans to build on what works well and to improve in areas that do not work as well as intended. Gulf continues to be committed to the improvement of its electrical system by building upon its experience and supporting research to address the potential benefits of initiatives that will harden transmission and distribution facilities, which could lead to less-frequent outages, improved continuity of service, and reduced restoration times during both major storm-related events and typical seasonal weather.

As in Gulf's 2010-2012 Storm Hardening Plan, the proposed 2013-2015 Storm Hardening Plan incorporates the 10-Part Storm Preparedness Plan initiatives in Section 2.0 that were originally approved in Order Nos. PSC-06-0781-PAA-EI and PSC-06-0947-PAA-EI. These initiatives have been updated to reflect approved FPSC changes and the latest company information.

Section 3.0, Wood Pole Inspection Plan, will continue to incorporate Gulf's 8-year cycle of wood pole inspection approved by the FPSC in Order No. PSC-07-0078-PAA-EU to meet storm hardening requirements.

Performance data for Sections 2.0 and 3.0 initiatives are currently filed as part of the annual March 1st Distribution Reliability Report. These initiatives comprise the foundation of Gulf's Storm Hardening Plan.

Sections 4.0 through 9.0 will address each of the requirements contained in the FPSC Storm Hardening Rules 25-6.0341 and 25-6.0342. Specifically, Section 5.0 addresses extreme wind loading for distribution facilities and Gulf will continue to focus its 2013 - 2015 extreme wind loading efforts on the continued conversion of critical infrastructure from Grade C construction standards to the stronger Grade B construction standards as approved in the previous Storm Hardening Plans. Gulf is proposing additional storm hardening initiatives in its 2013-2015 Plan that have the potential to mitigate future storm damages and reduce storm restoration times to both underground and overhead distribution facilities. The identified underground hardening projects are described in Section 6.1 and the overhead hardening projects are described in Section 8.4.

Section 10.0 summarizes Gulf's incremental cost estimates and benefits contained in the Plan. The details are provided in Appendix 4.

Sections 11.0 and 12.0 address storm hardening cost and impact to Third-Party Attachers.

In respect to overhead versus underground construction, Gulf Power Company's position does not favor one over the other as long as Gulf is able to recover associated costs. As data continues to be gathered and research progresses, Gulf will be better able to determine the best approach to storm hardening. Gulf recognizes the need to address the concerns expressed by both its customers and the FPSC to find ways to storm harden its system. At the same time, Gulf is obligated to balance storm hardening with the need to maintain reasonable costs and still achieve the expected results.

In summary, although Gulf Power Company continues to believe that the items contained in past Plans and this Plan may result in some mitigation of major storm damage, analysis of actual storm data collected over time is needed to determine their true effect and resulting benefits. Gulf will continue to focus on initiatives based on experience that have the greatest potential to reduce outages and restoration times during both major storm-related events and seasonal weather events.

2.0 Ten-Part Storm Preparedness Plan Initiatives

2.1 Vegetation Management

Gulf Power has assessed the performance of its vegetation management plan which was approved in FPSC Order No. PSC-10-0688-PAA-EI in 2010. This plan included:

- Three-year trim cycle on all main line feeders.
- Annual inspection and corrective action plan on the remaining two-thirds of main line feeders.
- Lateral distribution lines managed on a reliability-based program to achieve a four-year cycle.

This program has been successful in maintaining the tree-related reliability of Gulf's distribution system when measured by the reduced tree-caused Customer Interruptions (CI) and Customer Minutes of Interruption (CMI). During the time period of the 2010 – 2012 Storm Hardening Plan, the adjusted tree-caused CI decreased 28.5% and unadjusted CI decreased 11.6%. Adjusted tree-caused CMI for the same time period decreased 6.7% while unadjusted CMI increased 13.1%. The tree-related performance of Gulf's system for this time period is summarized in Tables 1 – 4.

Table 1. Adjusted Distribution Vegetation Caused Customer Interruptions (Does not include storm outages)						
Year	Feeder CI	Inc / Dec	Lateral CI	Inc / Dec	Total CI	Inc / Dec
2010	18,024	-	52,972	-	70,996	-
2011	22,146	22.87%	48,334	-8.76%	70,480	-0.73%
2012	12,933	-41.60%	37,824	-21.74%	50,757	-27.98%
Total		-28.25%		-28.60%		-28.51%

Table 2. Unadjusted Distribution Vegetation Caused Customer Interruptions (Includes storm outages)						
Year	Feeder CI	Inc / Dec	Lateral CI	Inc / Dec	Total CI	Inc / Dec
2010	18,024	-	52,972	-	70,996	-
2011	32,246	78.91%	74,814	41.23%	107,060	50.80%
2012	13,456	-58.27%	49,314	-34.08%	62,770	-41.37%
Total		-25.34%		-6.91%		-11.59%

Table 3. Adjusted Distribution Vegetation Caused Customer Minutes of Interruption (Does not include storm outages)						
Year	Feeder CMI	Inc / Dec	Lateral CMI	Inc / Dec	Total CMI	Inc / Dec
2010	1,254,032	-	6,926,175	-	8,180,207	-
2011	1,459,343	16.37%	6,095,170	-12.00%	7,554,513	-7.65%
2012	1,561,141	6.98%	6,071,240	-0.39%	7,632,381	1.03%
Total		24.49%		-12.34%		-6.70%

Table 4. Unadjusted Distribution Vegetation Caused Customer Minutes of Interruption (Includes storm outages)						
Year	Feeder CMI	Inc / Dec	Lateral CMI	Inc / Dec	Total CMI	Inc / Dec
2010	1,254,032	-	6,926,175	-	8,180,207	-
2011	2,921,826	132.99%	13,772,578	98.85%	16,694,404	104.08%
2012	1,578,923	-45.96%	7,676,265	-44.26%	9,255,188	-44.56%
Total		25.91%		10.83%		13.14%

Gulf has continued to utilize the Distribution Lock-Out Reporting process (DLOR) and "TreeGulf" to evaluate all tree-caused outages on main line feeders. DLOR was created to track distribution feeder lock-outs, identify root causes of lock-outs, and identify systems and operational modifications that could be implemented to prevent future feeder lock-outs. "TreeGulf" provides a proactive way for any employee to efficiently notify Gulf's Forestry Services Department of a potential vegetation problem. Tree-caused outages on mainline feeders are now being caused by the structural failure of green trees located off the right of way. These type outages will typically involve downed wire or, in some cases, broken poles. The severity of these outages requires extended restoration time which would explain an increase in tree-caused CMI on main line feeders.

Given the positive results of Gulf's present distribution vegetation program, as measured by the reduction in CI and CMI associated with trees, Gulf does not propose any modification of its trim cycles on its main line feeders or laterals for the next three years. Gulf will continue a three-year cycle on all main line feeders and a four-year cycle on all lateral lines. Gulf will continue to monitor performance metrics to evaluate the effectiveness of the program on an annual basis. Gulf will also continue coordination with local officials on vegetation management activities, emphasize tree removals during new line construction, and continue public education efforts to encourage the planting of compatible tree species near power lines.

2.2 Joint-Use Pole Attachment Audits

Field audits of joint-use poles are conducted every five years as outlined in contractual agreements with third party attachers. The audit includes poles owned by the electric utility to which other utility attachments are made (i.e., telecommunication and cable) and poles not owned by the electric utility to which the electric utility has attached its equipment. Items collected and/or verified in the 2011 joint-use field audit included the GPS pole location, pole owner, pole type, pole treatment, pole height and class, manufacture date, attachment information, and pole identification numbers. It is anticipated that similar data will be collected and/or verified in the next field audit scheduled for 2016.

Any dangerous situations identified during the joint-use field audit are immediately reported to the pole owner. Dangerous conditions may include buckling, splitting or broken poles, or low hanging conductors or cables.

2.3 Inspection Cycle of Transmission Structures

Gulf Power's current transmission inspection plans meet or exceed the approved 6-year inspection cycle of the FPSC. In 2004, Gulf adopted the Southern Company Transmission Line Inspection Standards as its program. The details of the program have been filed with the Commission as outlined in FPSC Order No. PSC-06-0144-PAA-EI. In general, Gulf contracts ground line inspections and uses a combination of company employees and contractors to perform comprehensive walking and aerial inspections. Gulf's transmission structure inspection program is based on two alternating twelve-year cycles, which results in a structure being inspected at least every six years. Gulf will continue the use of the same transmission inspection program in the 2013-2015 Storm Hardening Plan that was approved in the 2010-2012 Plan.

Historically, Gulf has not inspected a set number of poles each year. Annual inspection rates have varied as Gulf responded to its various needs. Gulf plans to utilize the same flexible approach in its proposed 2013-2015 Storm Hardening Plan to ensure the completion of its inspection cycle as required.

Gulf Power currently inspects all of its substations at least once annually. These inspections include visual inspection of all structures, buss work, switches and capacitor banks for defects. Gulf proposes to continue the same inspection process for the 2013-2015 Storm Hardening Plan.

2.4 Storm Hardening Activities for Transmission Structures

Gulf Power will continue the design and construction of new facilities based on the standards set forth by the most current version of the National Electric Safety Code (NESC). In addition, when it is practical and feasible, consideration will be given to upgrade existing transmission facilities when capital maintenance is performed. It is Gulf's position that the adherence to current design and construction standards using generally accepted engineering practices, in conjunction with the recommended 6-year structure inspection program, will maintain adequate hardening of the system in all areas.

During the 2010–2012 Storm Hardening Plan, Gulf completed the installation of storm guys on all existing wooden H-frame structures and the replacement of over 750 wood cross-arms.

Gulf plans to continue the replacement of wooden H-frame cross-arms with steel cross-arms on transmission facilities as part of the 2013-2015 Storm Hardening Plan. Because cross-arms are mounted horizontally they tend to hold water in small pockets on the top of the arm, which may lead to small

pockets of rot. H-frame structures are designed such that the load is distributed between the two poles by the cross-arm, and these small pockets of possible rot could reduce the strength of the structure. Replacing the wooden cross-arm with steel eliminates this problem. Gulf has budgeted to replace 600 additional cross-arms during the next three years.

With respect to storm hardening for "new" transmission facilities in the 2013-2015 Storm Hardening Plan, Gulf Power will continue the best practice of designing all new transmission construction facilities using loading criteria found in the NESC with a 1.0 overload factor. This includes both NESC rule 250C (extreme wind loading) and 250D (extreme ice with concurrent wind loading) criteria found on page 212, Table 253-1, in Section 25 of the 2012 NESC book. The overload factors of 1.0 call for Grade B construction, which is the standard used by Gulf on all new transmission lines. The main objective is to design a structure that has a capacity greater than the maximum expected load. The combined effect of load factors and strength factors provides an appropriate level of safety and reliability.

2.5 Geographic Information System (GIS)

Gulf Power's Geographic Information System (GIS) is a database for distribution, transmission, and land records across the service area. The distribution side of the system is using **DistGIS**, which is an abbreviation for Gulf's Distribution Geographic Information System. The system is designed to be a complete electronic model of Gulf's electrical system overlaid on a representation of the land base. DistGIS is actually a system composed of many parts based on GIS software from ArcGIS/ArcMap from Environmental Systems Research Institute (ESRI). The system also provides consistent, high-quality data to other systems such as Gulf's Trouble Call Management System (TCMS).

Transmission uses the same GIS software as distribution to map its facilities. All data that is mapped on the transmission mapping tool is pulled from the Common Transmission Database (CTDB).

Gulf Power's transmission and distribution data that is essential for asset management and forensic data analysis were mapped in GIS as part of the 2007-2009 Storm Hardening Plan. This GIS data will be maintained and updated as needed for the 2013-2015 Storm Hardening Plan.

2.6 Post-Storm Data Collection and Forensic Analysis

Gulf Power has in place a post-storm forensic process for the collection,

evaluation, and reporting of storm damage data. Contractors will aid Gulf in the collection of field data after a major storm. Hand-held computers (downloaded with Gulf's GIS database) will be utilized to collect the pertinent field data. This data will be collected on pre-determined projects constructed to extreme wind loading criteria and in other designated overhead and underground areas. The information collected by the contractor will be utilized to perform a forensic analysis for Gulf. This analysis will be the basis of a report containing an executive summary, description of the data collected, preliminary storm data, areas affected and the analysis results in tabular and graphical forms. This "fact finding" assessment of existing facilities will help in the evaluation of our construction standards going forward.

The data collection and transfer process is tested annually to ensure the process of collecting and exchanging information electronically between Gulf and its contractors will not present a problem during a storm situation.

Gulf Power did not experience an event during the 2010-2012 Storm Hardening Plan years that warranted implementation of its forensic data collection process. Gulf will utilize the above forensic program as part of its 2013-2015 Storm Hardening Plan. On-going refresher training will be given as needed over the next three years to ensure all responsible parties are fully prepared to execute the program.

2.7 Outage Data differentiating between Overhead and Underground Systems

Gulf will continue to record the number of overhead (OH) and underground (UG) customers on its system at the end of each year. This will allow the calculation of SAIDI and SAIFI indices based on the experiences of both overhead and underground customers.

Gulf will also continue to collect the following data on outages as they occur:

- UG cable is:
  - Direct Buried
  - Direct Buried but Cable Injected
  - In Conduit
- Pole type is:
  - Concrete
  - Wood
  - Steel

Gulf Power will continue to collect Pole & UG Cable outage data for future analysis as recommended by the FPSC.

2.8 Coordination with Local Governments

Consistent with its 2010-2012 Storm Hardening Plan, Gulf Power will continue its current local government coordination efforts in North West Florida for the 2013-2015 Storm Hardening Plan.

Gulf Power district managers are located in Pensacola, Ft. Walton, and Panama City. Local managers, who report to the district managers, are located in Milton, Crestview, Niceville, and Chipley. These company positions interact with city and county personnel on a regular basis regarding numerous issues, including emergency preparedness as needed. These Gulf Power employees are also actively involved in joint government and business committees that focus on emergency preparedness needs in North West Florida. Examples of those include:

- Member of BRACE (Be Ready Alliance for Coordinating for Emergencies). BRACE is an Escambia County organization unique to Florida but part of a federal government directive that encourages communities to develop more effective preparedness programs for various types of disasters.

- Member of Okaloosa County Emergency Management Committee. This Committee is a coordinated effort between government and business to address emergency preparedness issues on a monthly basis.

Gulf Power's Line Clearance specialists and Forestry Services technicians communicate routinely with local governmental officials, community groups, and homeowner associations to ensure local area involvement and communications regarding vegetation management projects are effectively maintained.

Gulf Power representatives are assigned to county emergency operations centers (EOCs) in North West Florida. The EOC representatives assist city and county agencies and officials during emergencies that warrant activation of the county EOCs. Gulf Power provides extensive coverage throughout the duration of the EOC activation.

Gulf Power will provide ongoing communications, pre-storm communications, and post-storm communications through the Corporate Communications department. Gulf news releases are delivered to the county EOCs at least twice daily during storm restoration events to keep local government agencies and officials apprised of the latest restoration activities.

2.9 Collaborative Research

As part of its 2013-2015 Storm Hardening Plan, Gulf Power will continue collaborative efforts to conduct research and development (R&D) on the effects of major hurricanes on the electrical system throughout the state of Florida. The Public Utility Research Center (PURC) located at the University of Florida continues to provide leadership necessary to serve as the R&D coordinator in the state. PURC has strong working relationships with Florida's investor-owned utilities, cooperatives and municipals.

Gulf Power will continue to participate in R&D activities that PURC initiates. These activities involve utility managers and hazard research professionals discussing means to prepare Florida's electrical infrastructure to better withstand and recover from hurricanes.

2.10 Disaster Preparedness and Recovery Plan

2.10.1 Gulf's Storm Recovery Plan

Gulf Power uses the plans described in its Storm Recovery Plan to respond to any natural disaster that may occur within its service area. These plans proved to be very effective during 2004 and 2005 in recovering from the multiple storms that impacted Gulf Power and its customers. As part of its annual operations, Gulf Power has developed and continues to refine its planning and preparations for the possibility of a natural disaster within Gulf Power's service area. This planning is updated annually to build on what works well and to improve in areas that do not work as well as intended. In these updates, Gulf Power strives for continuous improvement by building on recovery effort experiences within our service area as well as off system events when assisting other utilities with their recovery from weather-related natural disasters. Gulf Power's plan has been encapsulated within a detailed and proprietary Storm Recovery Procedure Manual. Gulf has compiled a summary of this information in a separate document which forms the basis for its Storm Recovery Plan. The Manual follows the guidelines and philosophy set forth in the Storm Recovery Plan.

2.10.2 Gulf's Storm Recovery Preparations

All Gulf Power employees are given a specific storm assignment as part of the planning process. At Gulf, the Corporate Emergency Management Center Specialist works with Human Resources to ensure that each

restoration area is staffed with the appropriate number of employees and that every employee has the proper skill set to perform their storm assignment. Training manuals are updated and training is conducted to ensure that employees are competent to perform the job to which they are assigned. As hurricane season approaches, there are internal communications reminding all employees to review their storm plans at work and for their homes and families. Additionally, storm preparedness and storm responsibilities are included as one of the topics at new employee orientation meetings.

Members of the Company Emergency Management Center (CEMC) leadership team attend conferences such as the Southeastern Electric Exchange (SEE) Mutual Assistance meetings each year in an effort to benefit from lessons learned by others. Gulf Power also participates in the yearly statewide storm drill under the direction of the State Emergency Operations Center (SEOC).

Contracts are reviewed, negotiated and confirmed with vendors for services such as food, lodging, materials, transportation, fuel, staging sites, and other support functions. Gulf Power's Supply Chain Management department ensures that materials on hand, along with available supplies from material vendors, are sufficient to meet the anticipated demands of the storm season.

2.10.3 Gulf's Company Emergency Management Center

The objective of the CEMC is to provide overall direction in the restoration of electric service to Gulf Power's customers as quickly as possible, while protecting the safety of everyone involved. In order to provide a coordinated response and to maximize the restoration effectiveness, Gulf organizes into three major restoration areas headquartered in Pensacola, Fort Walton Beach and Panama City. The CEMC consists of functional teams which provide support to Generation, Transmission, and Distribution as they restore their respective systems. The three primary leaders working in the CEMC are the CEMC Manager, the Human Resources Director, and the Logistics Director, who report directly to the Distribution General Manager. These three leaders work with each other to coordinate activities and resources necessary for field restoration efforts. The functional teams that are represented in the CEMC and that report to the CEMC Manager are: CEMC Staff; Accounting, Finance and Treasury; Aircraft Operations; Check-In Sites; Contractor Coordination; Customer Operations Support; Customer Service; Distribution; Environmental; Emergency Operations Center; Facilities; Fleet Services; Generation; External Affairs; Human Resources; Information Technology; Logistics; Public Affairs; Risk Management; Safety & Health; Security; Supply Chain Management and Transmission.

When the National Weather Service announces that a tropical storm or hurricane has entered the Gulf of Mexico, the System Operator will notify CEMC leadership, appropriate management and the Gulf executives. Private weather services used by Gulf Power also issue notifications to selected Gulf officials. The storm is monitored as it develops, and if there is a possibility that Gulf Power's service area will be affected, the CEMC is set up and readied for activation at Gulf Power's Pine Forest facility located in Cantonment, Florida. The hurricane is closely monitored when it may threaten Gulf Power's service area within 36 hours.

After evaluation of wind profiles and consultation with private weather services, a decision is made as to when it will become unsafe for employees to travel. At that time, and after consultation with senior management, the CEMC Manager, the Power Delivery Services Manager, or the CEMC Specialist will determine when the CEMC will be formally activated. CEMC leaders are notified of the activation plan and are responsible for ensuring their respective areas are in a state of readiness and properly staffed.

Once activated, the CEMC is staffed by a core group for the duration of the storm. The CEMC is operational 24 hours a day, 7 days a week, until such time the power is substantially restored to all customers who are able to receive service. Depending on the severity of the storm, repair work on the system may continue after the CEMC is deactivated.

3.0 Wood Pole Inspection Plan

Gulf Power has been evaluating its distribution poles through ground-line inspection since the early 1990's. Gulf's distribution pole inspection program was based on a ten-year cycle, completing its first cycle in 2002. The inspection methodology utilized sound and bore inspection techniques with excavation to a depth of 18 inches. Decayed wood was removed from the outside of the pole, and measurements were taken to determine the pole's remaining strength. The poles were then treated with preservatives. Rejected poles were scheduled for replacement or reinforcement.

Gulf Power's rate of rejection for distribution wood poles has fallen from approximately 15% on its first inspection cycle to less than 5% on the second inspection cycle. The annual pole rejection rates under this program since 2007 are shown in Table 5.

Table 5: Annual pole rejection rates for Gulf Power for the period 2007-2012

Year	2007	2008	2009	2010	2011	2012
Reject Rate (%)	2.20	2.73	1.52	3.31	2.53	2.80

In 2007, Gulf Power moved from a ten-year cycle to an eight-year cycle as required by Order No. PSC-07-0078-PAA-EU. Historically, Gulf has not inspected a set number of poles each year. While annual inspection rates have varied to respond to its various needs, Gulf has inspected 88% of its total pole population as of the end of the sixth year of the eight-year cycle. Gulf is on target to achieve the eight-year cycle presented in the 2007-2009 and 2010 - 2012 Storm Hardening Plans. Gulf plans to continue this flexible approach to ensure completion of the present inspection cycle within eight years, while also insuring other programs meet the needs of our customers each year.

Based on the lessons learned during the first pole inspection cycle, Gulf refined its pole inspection process for distribution wood poles. During its first inspection cycle, Gulf inspected all Creosote and Penta poles, but also excavated and bored a sample of CCA poles to determine if these poles required excavation and boring. Gulf learned that CCA poles provide superior decay resistance when compared to Creosote and Penta poles. Based on the findings of these inspections, Gulf refined its inspection process and developed an inspection matrix based on pole age, treatment type, and condition. This matrix brought all CCA poles into the inspection process, and by using the matrix, all poles (Creosote, Penta, and CCA) receive a visual inspection with sounding, boring and excavation as appropriate.

As part of its on-going storm hardening efforts for the 2013 – 2015 Plan, Gulf will continue its pole inspection program on an eight-year cycle utilizing the same inspection matrix approved by the FPSC in 2007 and again in 2010.

4.0 Compliance with National Electric Safety Code (NESC) in regards to Storm Hardening

4.1 Distribution

Gulf Power's distribution system complies with all applicable sections of the National Electric Safety Code and exceeds the NESC with the transition to Grade B construction on all new construction, major projects and maintenance work.

4.2 Transmission

Gulf Power's transmission system complies with all applicable sections of the National Electric Safety Code in effect at the time of initial construction.

4.3 Substation

Gulf Power uses the American Society of Civil Engineers (ASCE) 7 extreme wind loading criteria for structure design and selection, which complies with the National Electric Safety Code extreme wind loading requirements for Gulf's service area.

5.0 Adoption of Extreme Wind Loading standards specified by Figure 250-2(d) of the 2012 edition of the NESC for Distribution Facilities

Appendix 1 shows communities within Gulf's service area and the extreme wind loading standards as specified by figure 250-2(d) of the NESC. Appendix 1 also shows the approximate locations of completed extreme wind loading pilot projects, critical infrastructure upgrades, and new construction that complies with Grade B standards across Gulf's service area.

Gulf Power's approved 2007-2009 Storm Hardening Plan proposed to exceed the National Electric Safety Code standards by transitioning to Grade B construction on all new distribution construction, major projects and maintenance work. Gulf Power has continued this transition to Grade B construction standards on all new construction, major projects and maintenance work during the 2010-2012 Storm Hardening Plan and will continue with Grade B construction as our standard in the 2013-2015 Storm Hardening Plan.

As a part of its 2010-2012 Storm Hardening Plan, Gulf targeted critical pole lines with multiple feeders on them and converted them to Grade B construction. In addition, the existing wooden poles were replaced with concrete poles from the substations to strategic operational points on the feeders. Using concrete poles provides both uniform pole strength for the entire pole height and will extend the life of the installation. Gulf budgeted and invested approximately $3.0 million for this initiative over the past 3 years covered by the previous Plan.

Although Gulf has completed the implementation of 1) Grade B construction into its construction practices, 2) extreme wind loading pilot projects, and 3) the replacement of wooden poles with concrete poles on critical multiple feeder pole lines as outlined in the 2007-2009 and 2010-2012 Storm Hardening Plans, we still lack the data to support the benefits associated with the upgrades due to a lack of

major storms during this time period to test the construction practices. It is prudent to move cautiously into the further application of the extreme wind loading standards and wood to concrete pole replacements until a determination of the cost and outage benefits can be made. As relevant storm forensic data is gathered to help determine the benefits and effectiveness of Grade B construction and the targeted pilot projects, Gulf will review its plan for any needed changes.

Based on this, Gulf proposes to focus its efforts for the 2013-2015 Storm Hardening Plan on upgrading all new construction, major projects and maintenance work, including any work performed on critical infrastructure facilities to Grade B construction standards and proceed with strategic activities that may benefit the system during and after a storm. Gulf has budgeted approximately $3.7 million for critical infrastructure upgrades over the 3-year period covered by this Plan.

6.0 Mitigation of damage to Underground Facilities and Supporting Overhead Transmission and Distribution Facilities due to Flooding and Storm Surges

6.1 Distribution

Gulf Power has developed overhead and underground storm hardening specifications (Appendices 2 and 3) to minimize damage in areas subject to flooding and storm surges. These specifications will continue to evolve as Gulf continues to seek out best practices and learns from the review of gathered forensic data.

Appendix 1 shows projects completed during previous Storm Hardening Plans. These projects will be helpful in determining the effectiveness of underground with respect to storm hardening and storm surge mitigation. As stated in the past, new underground installations and conversion of overhead facilities to underground facilities is customer driven.

6.2 Transmission

Gulf Power Transmission utilizes overload and strength factors greater than or equal to those required in Sections 25 and 26 of the National Electric Safety Code. Gulf's loading criteria for new line design is derived from Section 25 of the National Electric Safety Code. At this time, Gulf is not designing transmission for any type of storm surge or flooding damage.

All future Gulf Power underground transmission projects located within the possible storm surge area will be engineered to consider the impact of flooding or storm surge from weather events.

7.0 Placement of New and Replacement Distribution Facilities so as to Facilitate Safe and Efficient Access for Installation and Maintenance

Gulf Power has always recognized that accessibility to distribution facilities is essential to safe and efficient maintenance and storm restoration. Therefore, Gulf continues to strive to promote placement of facilities adjacent to public roads; to use easements, public streets, roads and highways; to obtain easements for underground facilities; and to use road right-of-ways for conversions of overhead to underground.

Gulf will continue these initiatives in the 2013-2015 Storm Hardening Plan.

8.0 Other Key Elements

8.1 Feeder Patrols

By June 1 of every year, all critical lines will be inspected up to the first protective device for loose down guys, slack primary and leaning poles. All problems found will be corrected.

8.2 Infrared Patrols

Annually, infrared inspections of critical equipment on main line three phase feeders will be performed by June 1. This data will be utilized in repairing feeder switches, capacitors, regulators and automatic over current protective devices.

8.3 Wind Monitors

Gulf Power believes Forensic Data Analysis will be critical to determining the effectiveness of the Storm Hardening Plan. A key part of the data gathering is obtaining "granular" storm wind speeds at strategic locations that would otherwise be unavailable from the National Weather Service.

Gulf will continue to maintain the wind stations installed under previous Plans as a part of the 2013-2015 Storm Hardening Plan.

8.4 Additional Proposed Storm Hardening Initiatives

8.4.1 Distribution Automation

Gulf Power proposes to continue the installation of additional distribution automation devices to further segment the feeders for outage restoration. These devices, which protect our customers by limiting those affected by temporary faults and sustained outages, will be controlled remotely by Distribution Control Center personnel and/or placed on automated restoration schemes.

8.4.2 Strategic Installation of Automated overhead Faulted Circuit Indicators

Faulted Circuit Indicators (FCI's) are devices designed to indicate the passage of fault current that is greater than a predetermined current magnitude. These devices will reduce customer outage time by expediting the location of outage causes and the isolation of the problem so that service can be restored to some customers while the problem is being corrected. Gulf proposes to install FCI's at 14 locations per year as part of the 2013-2015 Storm Hardening Plan.

8.4.3 Distribution Supervisory Control and Data Acquisition (DSCADA) System

In order to reduce customer outage times, Gulf has implemented a DSCADA system which will continue to be expanded with the addition of line devices in this Plan.

9.0 Storm Plan Deployment Strategy for Distribution, Transmission and Substation

9.1 Description of the facilities affected, including technical design specification, construction standards, and construction methodologies employed

9.1.1 Distribution

Gulf continues to develop overhead and underground storm hardening specifications which are contained in Appendices 2 and 3. These specifications continue to evolve as Gulf seeks out best practices and learns from the review of gathered forensic data.

As stated in Section 5.0, Adoption of Extreme Wind Loading standards specified by Figure 250-2(d) of the 2012 Edition of the NESC for Distribution Facilities, Gulf will continue transitioning to Grade B construction on all new construction, major projects and maintenance work but Gulf does not propose proceeding with any additional extreme wind loading pilot projects. Gulf proposes to target critical infrastructure by focusing on sections of feeder pole lines that due to their geographic location have a higher exposure to possible storm damage and convert them to Grade B construction.

9.1.2 Transmission

Gulf Power Transmission utilizes overload and strength factors greater than or equal to those required in Sections 25 and 26 of the National Electric Safety Code. Gulf's loading criteria for new line design is derived from Section 25 of the National Electric Safety Code. These design criteria are used on all new installation and complete rebuild projects throughout Gulf's service area.

9.1.3 Substation

Coastal Substation Risk Assessments have been completed and hardening measures are not required. As part of this process, a National Oceanic and Atmospheric Administration (NOAA) SLOSH (Sea, Lake and Overland Surges from Hurricanes) model was used to define the potential maximum. SLOSH is a computerized model run by the National Hurricane Center (NHC) to estimate storm surge heights and winds resulting from historical, hypothetical, or predicted hurricanes. A risk assessment at each substation

location was completed based on the information provided by the SLOSH model.

An Emergency Response Plan has been established for all substations on Gulf's system.

9.2 Communities and areas affected and critical infrastructure as illustrated by Gulf Power Company Service Area/DistGIS Maps

9.2.1 Distribution

Appendix 1 depicts both overhead and underground projects completed during previous Plans and proposed projects for the 2013-2015 Plan. Gulf proposes to focus its extreme wind loading efforts for the 2013-2015 Storm Hardening Plan on upgrading all new construction, major projects and maintenance work, including any work performed on critical infrastructure facilities, to Grade B construction standards.

9.2.2 Transmission

The storm hardening initiative of replacement of wooden cross-arms with steel cross-arms on H-frame structures will continue to be implemented on the entire Gulf Power Transmission system.

10.0 Gulf Power Company's Estimate of Incremental Costs and Benefits

The total estimated cost for Gulf Power's 2013-2015 Storm Hardening Plan is approximately $47 million. As discussed in Sections 4.0 and 5.0 of this Plan, Gulf will continue its transition and implementation of Grade B construction. Gulf's actual costs for critical infrastructure improvements for the 2010-2012 Plan totaled approximately $3.0 million. Gulf's 2013-2015 Plan proposes critical infrastructure improvement projects totaling approximately $3.7 million.

In addition to the feeder patrols discussed in Section 8.0, Gulf plans to continue the storm hardening initiatives identified in Sections 6.1 and 8.4 at a cost of approximately $14 million during the 2013-2015 Plan.

Gulf Power's 2013-2015 Storm Hardening Plan is designed to include initiatives which have the most potential to meet the intent of storm hardening and provide the most cost-effective approach based on Gulf's years of experience with transmission and distribution construction and storm restoration.

Due to the lack of data at this time, Gulf Power cannot estimate the reductions in storm restoration cost and outages that will result from storm hardening initiatives. The effectiveness of Grade B construction and the critical infrastructure storm hardening projects will be evaluated following major storm events in the future.

See Appendix 4 for an itemized summary of Gulf's storm hardening costs.

11.0 Impact of Collocation facilities

11.1 Distribution

Gulf Power evaluates attachments made to its poles, towers, and structures to provide storm hardening for the future through the following means:

- Pole Strength and Loading Engineering calculations are performed before attachment to any pole, tower or structure and before any existing cables are upgraded or overlashed in order to determine if the increase in pole loading would necessitate pole modifications.
- Attachers comply with a pre-notification process designed to inform Gulf Power of plans to attach, upgrade, or overlash cables to any Gulf Power poles, towers, or structures. This process includes a field pre-inspection with pole measurements, strength and loading calculations, work order preparation (if necessary), and a post inspection of all work. The requesting Attacher is responsible for post inspection costs and any corrective actions if needed.
- Specification plates reflect storm hardening initiatives such as additional guying standards and the use of pole foam in potential flood prone or storm surge areas.
- Gulf has provisions in its agreement with the Florida Cable Telecommunication Association (FCTA) Attachers to place an identification tag on their facilities for ease of contacting the Attachers when supporting poles or facilities are damaged and the Attacher is needed to help remove, clear the right-of-way, or transfer their cables to a new pole in emergencies, such as storm restoration.
- Every effort is made by all pole Attachers not to box or bracket a pole, tower, or structure on both sides. This practice ensures that the attachment will not encumber the climbing space or impede the ability to straighten a leaning pole in a timely manner.

11.2 Expansion, Rebuild, or Relocation of Distribution Facilities

Each Attacher should refer to the contract they have with Gulf Power for details on notification protocol for new attachment permits and overlashing projects and any associated construction coordination. Gulf Power uses the National Joint Use Notification System (NJUNS) for joint-use notifications and coordination of construction activities with affected parties.

12.0 Estimate of Costs and Benefits

12.1 Seeking Input from Attachers

Pursuant to Rule 25-6.0342(6), Gulf Power continues to seek input from Third-Party Attachers in the development of its Storm Hardening Plan. The following Attachers were provided a draft copy of Gulf's 2013-2015 Storm Hardening Plan on March 21, 2013 for their input.

- Bellsouth/AT&T
- Brighthouse
- CenturyLink
- CHELCO
- City of Defuniak Springs (Walton County)
- City of Pensacola
- Comcast Cable
- Cox Communications
- Escambia County School District
- GTC, Inc./Fairpoint
- Kentucky Data Link, Inc./Windstream
- Knology
- Mediacom
- Southern Light
- Springfield Cable Company
- Telcove/Level 3
- Verizon/MCI

Gulf Power will continue to coordinate face-to-face semi-annual meetings with interested Third-Party Attachers to discuss major company and customer construction projects, construction standards, inspection programs, and operational issues.

12.2 Attachers Costs and Benefits

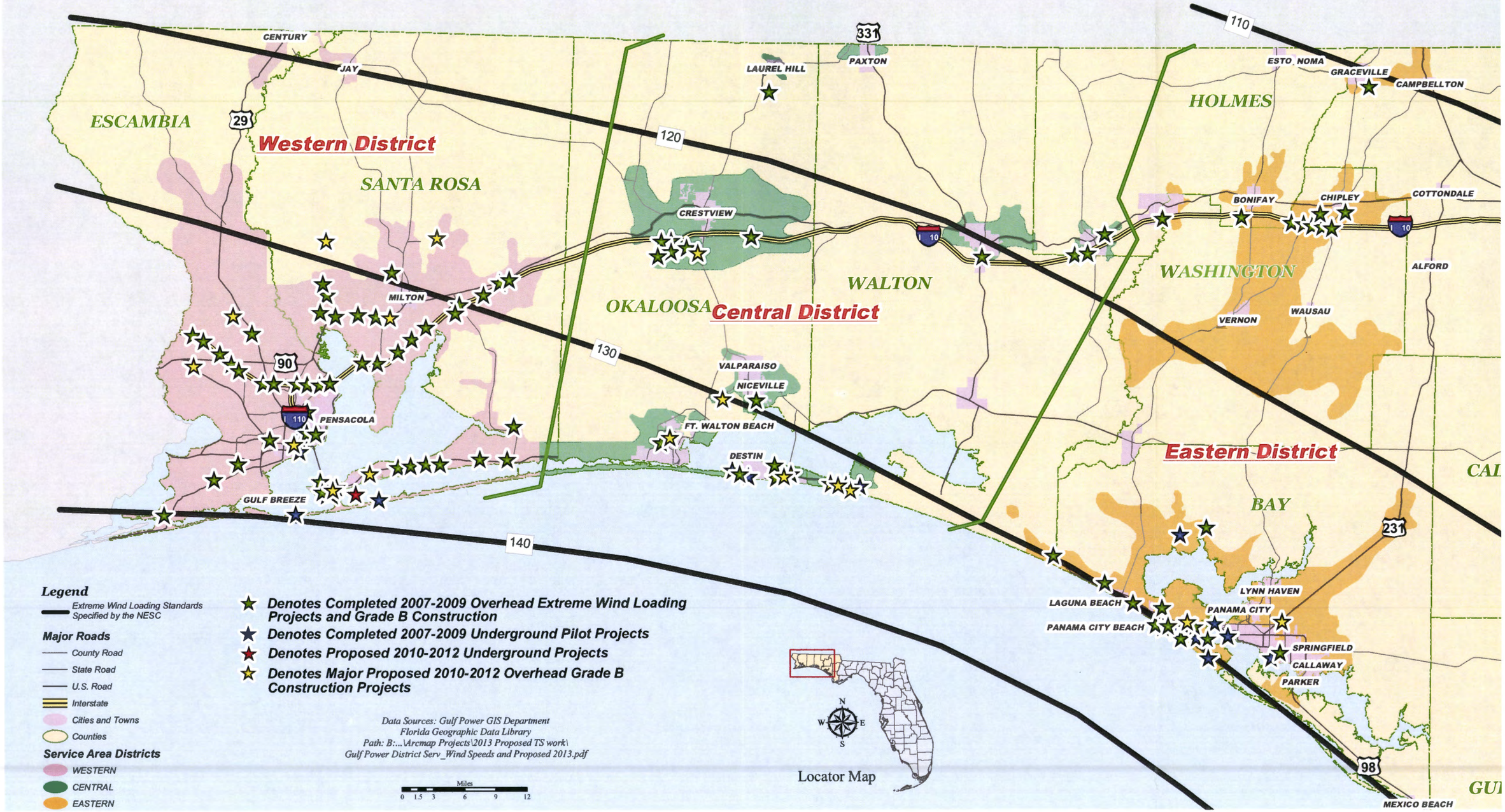
No cost and benefit data was received from Third-Party Attachers prior to the published date of this Storm Hardening Plan. Gulf Power welcomes any such data that the Attachers desire to include at a later date.

Appendix 1

GULF POWER
A SOUTHERN COMPANY

GULF POWER DISTRICT SERVICE AREAS
2013

target ZERO
Every day, every job, safely.



Legend

Extreme Wind Loading Standards Specified by the NESC

Major Roads

- *County Road*
- *State Road*
- *U.S. Road*
- *Interstate*
- *Cities and Towns*
- *Counties*

Service Area Districts

- *WESTERN*
- *CENTRAL*
- *EASTERN*

- ★ ***Denotes Completed 2007-2009 Overhead Extreme Wind Loading Projects and Grade B Construction***
- ★ ***Denotes Completed 2007-2009 Underground Pilot Projects***
- ★ ***Denotes Proposed 2010-2012 Underground Projects***
- ★ ***Denotes Major Proposed 2010-2012 Overhead Grade B Construction Projects***

Data Sources: Gulf Power GIS Department
Florida Geographic Data Library
Path: B:...\Arcmap Projects\2013 Proposed TS work
Gulf Power District Serv_Wind Speeds and Proposed 2013.pdf

Miles
0 1.5 3 6 9 12

Locator Map

Appendix 2

OVERHEAD STORM HARDENING

Gulf Power Company Electrical Distribution Facilities shall be storm hardened to the extent practical using the methods described or shown in the specification plates in this section.

The definition of "Storm Guying" is as follows and is used throughout this section:

Storm type down guys are additional down guys and anchors, positioned perpendicular to the path of conductors. These storm type down guys are not normally needed for support of the structure but provide support in the event of high winds. They are installed in pairs with as much anchor lead as possible and have the same requirements as any other down guy as far as insulating and grounding.

The following storm hardening methods shall be utilized:

Main feeder lines shall be located as far away as practical from the source of any storm surge and shall have storm guys on every pole where practical. The use of laterals from the main feeder to the coastline is highly encouraged.

Any controls for OCRs, capacitor banks, voltage regulators shall be placed as high as practical to avoid flooding with a storm surge. The use of wireless accessing is encouraged.

Any poles with OCRs, voltage regulators, capacitor banks, and underground riser poles shall be storm guyed where practical.

Pole Foreman shall be utilized to determine proper pole selection and proper anchoring. Emphasis needs to be placed upon the correct lead lengths for anchoring.

SUBJECT OVERHEAD DISTRIBUTION				
DETAIL STORM HARDENING				
Date 10-18-2007	SUPERSEDES DATE	SHEET 1 OF 1 SHEETS	Gulf Power A SOUTHERN COMPANY	A- OZZ-I A

OVERHEAD STORM HARDENING

Continued from plate OZZ-1.

Poles set in our coastal areas or storm surge areas should be set using Pole Foam to strengthen the base to lessen leaning after flooding. This is commodity number 05-5014-8 and is located in JETS under Misc. UG. Generally, one package of pole foam is used for each pole and each package comes with instructions for use.

These areas are generally defined as areas within 1 mile of the Gulf or large bays. Spec plates OSZ-1,2,3,4,5,6 & 7 illustrate these areas. Of course there are other areas where this may be useful as well.

In these areas, shorter spans should be utilized to strengthen the system. This involves the use of more poles especially in main line construction.

As a means to strengthen existing poles, Osmose or equivalent pole bracing can be used.

In a flood/storm surge prone area, customers should install meters and metering equipment above the expected maximum flood level. Where this results in meters or metering equipment being above the standard specified heights above the ground, the customer will need to build permanent platforms and stairs to allow reading and servicing of the meters and equipment, unless the location of the equipment coincides with existing porches or platforms with ready access by Gulf Power employees. The platform must extend at least three feet out from the wall and at least 18" to either side of the metering equipment. Refer the customer to the local building inspector for other requirements for the platform and stairs.Gulf' metering handbook is another source of information.

Under normal circumstances, rear lot line construction shall be avoided and metering equipment shall not be placed on the rear of buildings.

SUBJECT OVERHEAD DISTRIBUTION

DETAIL STORM HARDENING

Date 10-18-2007	SUPERSEDES DATE	SHEET 1 OF 1 SHEETS	Gulf Power A SOUTHERN COMPANY	A- OZZ-2

OVERHEAD STORM HARDENING

Joint-Use attachments

Third party attachers shall use proper anchoring and guying techniques to ensure that strength and integrity of the system is maintained.

Proper installation techniques shall be used. EX. Stringing of messengers shall be done between anchors.

Third party anchors shall be no closer than 4' from Gulf Power Company anchors to ensure integrity of the soil surrounding the anchors.

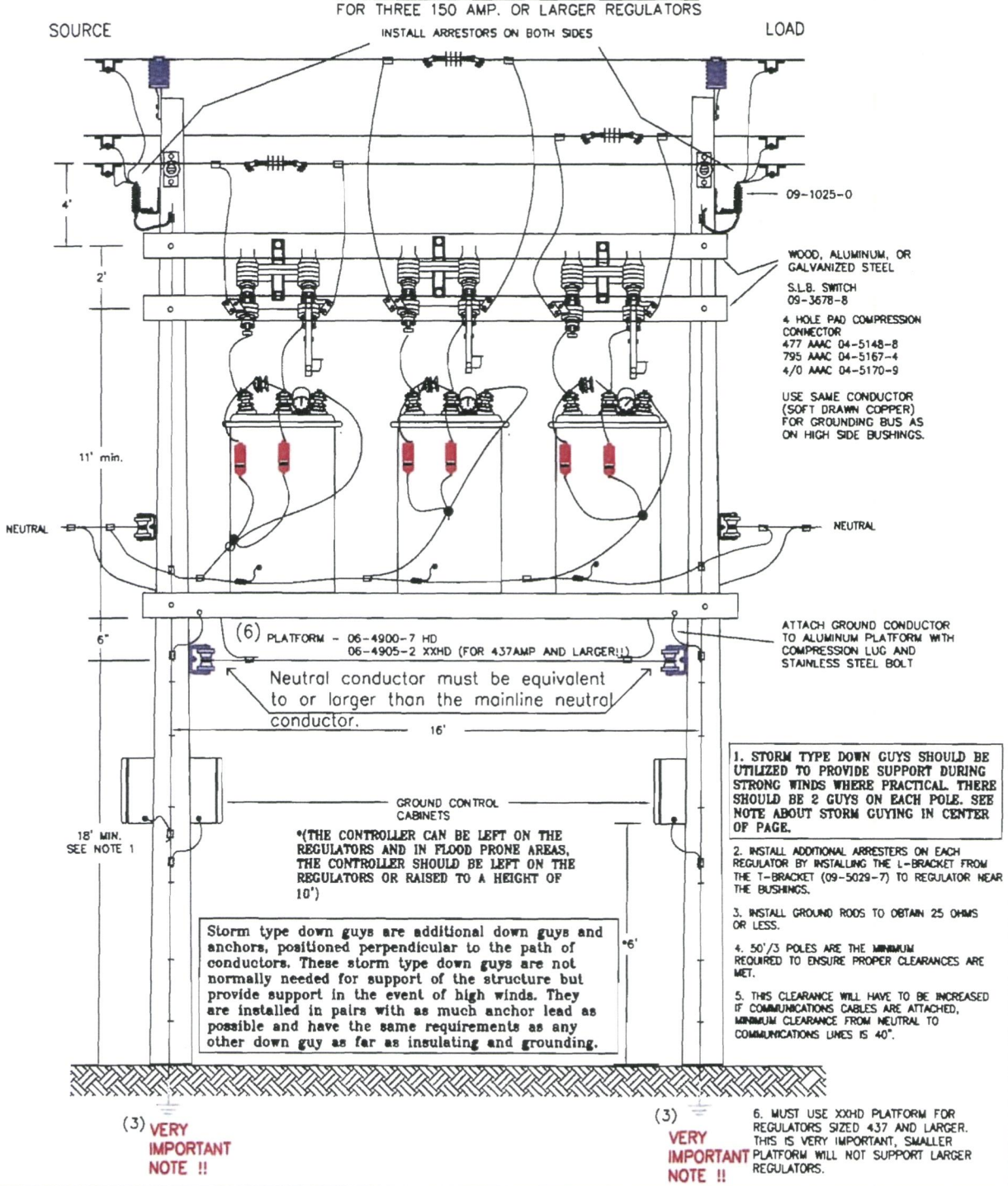
Third parties setting poles in flood prone or storm surge areas should utilize pole setting foam while setting poles to avoid leaning poles. These areas are generally defind as areas within 1 mile of the Gulf of Mexico or large bays.

SUBJECT OVERHEAD DISTRIBUTION				
DETAIL STORM HARDENING				
Date 10-18-2007	SUPERSEDES DATE	SHEET 1 OF 1 SHEETS	Gulf Power A SOUTHERN COMPANY	A- OZZ-3 A

Overhead Storm Hardening

12 KV REGULATOR PLATFORM

FOR THREE 150 AMP. OR LARGER REGULATORS



1. STORM TYPE DOWN GUYS SHOULD BE UTILIZED TO PROVIDE SUPPORT DURING STRONG WINDS WHERE PRACTICAL. THERE SHOULD BE 2 GUYS ON EACH POLE. SEE NOTE ABOUT STORM GUYING IN CENTER OF PAGE.

2. INSTALL ADDITIONAL ARRESTERS ON EACH REGULATOR BY INSTALLING THE L-BRACKET FROM THE T-BRACKET (09-5029-7) TO REGULATOR NEAR THE BUSHINGS.

3. INSTALL GROUND RODS TO OBTAIN 25 OHMS OR LESS.

4. 50'/3 POLES ARE THE MINIMUM REQUIRED TO ENSURE PROPER CLEARANCES ARE MET.

5. THIS CLEARANCE WILL HAVE TO BE INCREASED IF COMMUNICATIONS CABLES ARE ATTACHED, MINIMUM CLEARANCE FROM NEUTRAL TO COMMUNICATIONS LINES IS 40".

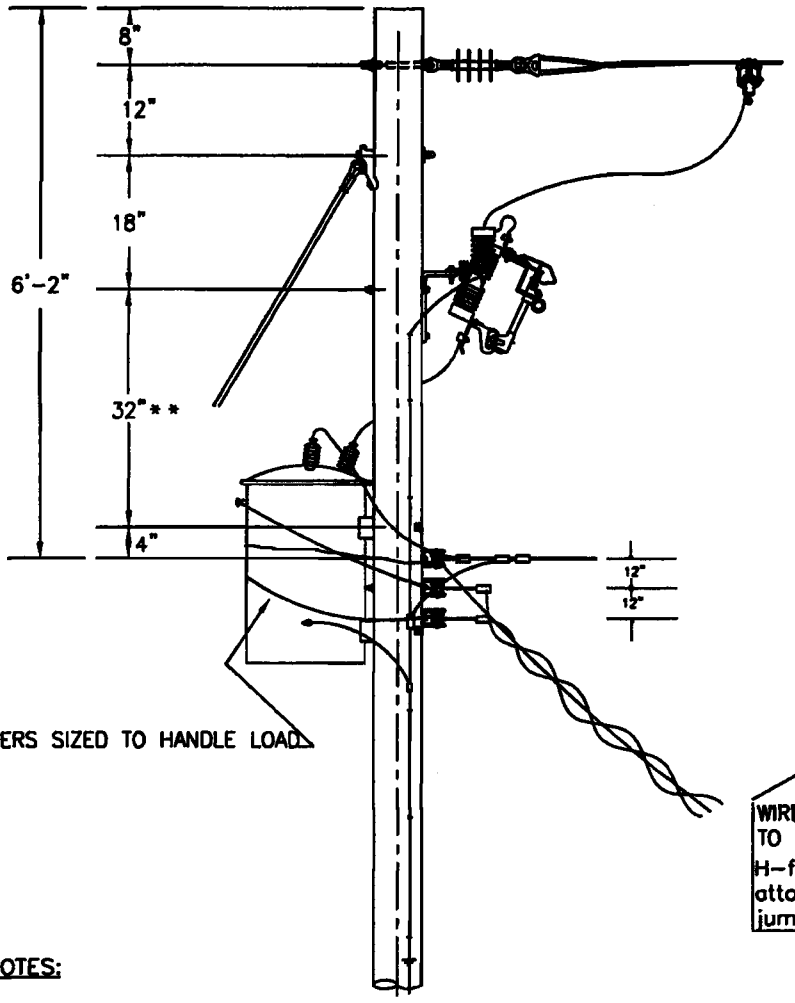
6. MUST USE XXHD PLATFORM FOR REGULATORS SIZED 437 AND LARGER. THIS IS VERY IMPORTANT, SMALLER PLATFORM WILL NOT SUPPORT LARGER REGULATORS.

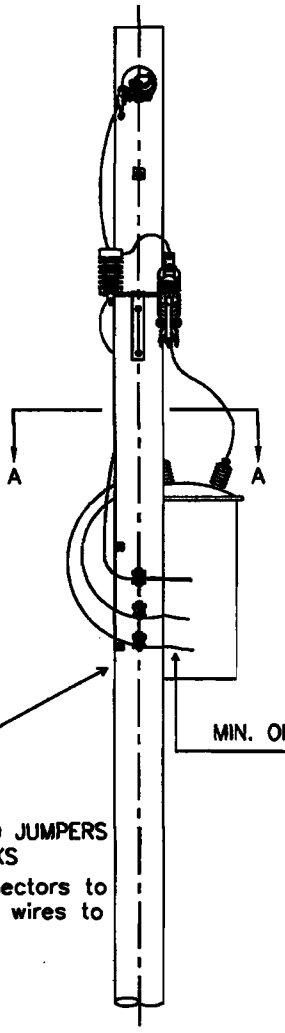
SUBJECT 12KV REGULATOR PLATFORM

DETAIL STORM HARDENING

Date 10-18-2007	SUPERSEDES DATE	SHEET 1 OF 1 SHEETS	Gulf Power A SOUTHERN COMPANY	A- OZZ-4 A

Overhead Storm Hardening



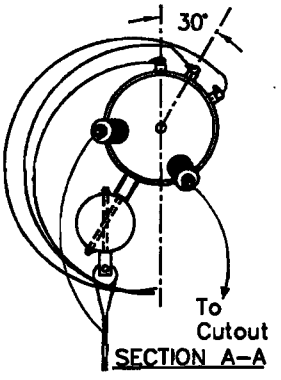


WIRE TIES HOLD JUMPERS TO SPOOL RACKS

H-frame connectors to attach service wires to jumpers.

NOTES:

1. This example shows a one phase transformer. The same method is to be used for three phase installations as well.
2. Connect transformer secondary neutral lead to system neutral and leave approximately 12 inch tail for service neutral connections.
3. Use wildlife guards and covered riser wire in areas where wildlife is expected.
4. Avoid placing cutout directly above transformer.
5. If secondary is to extend in line, extend primary wire if practical to eliminate conflict between secondary and anchor guy.
6. "FLAG" connectors may be used instead of pin-type connectors at the transformer.

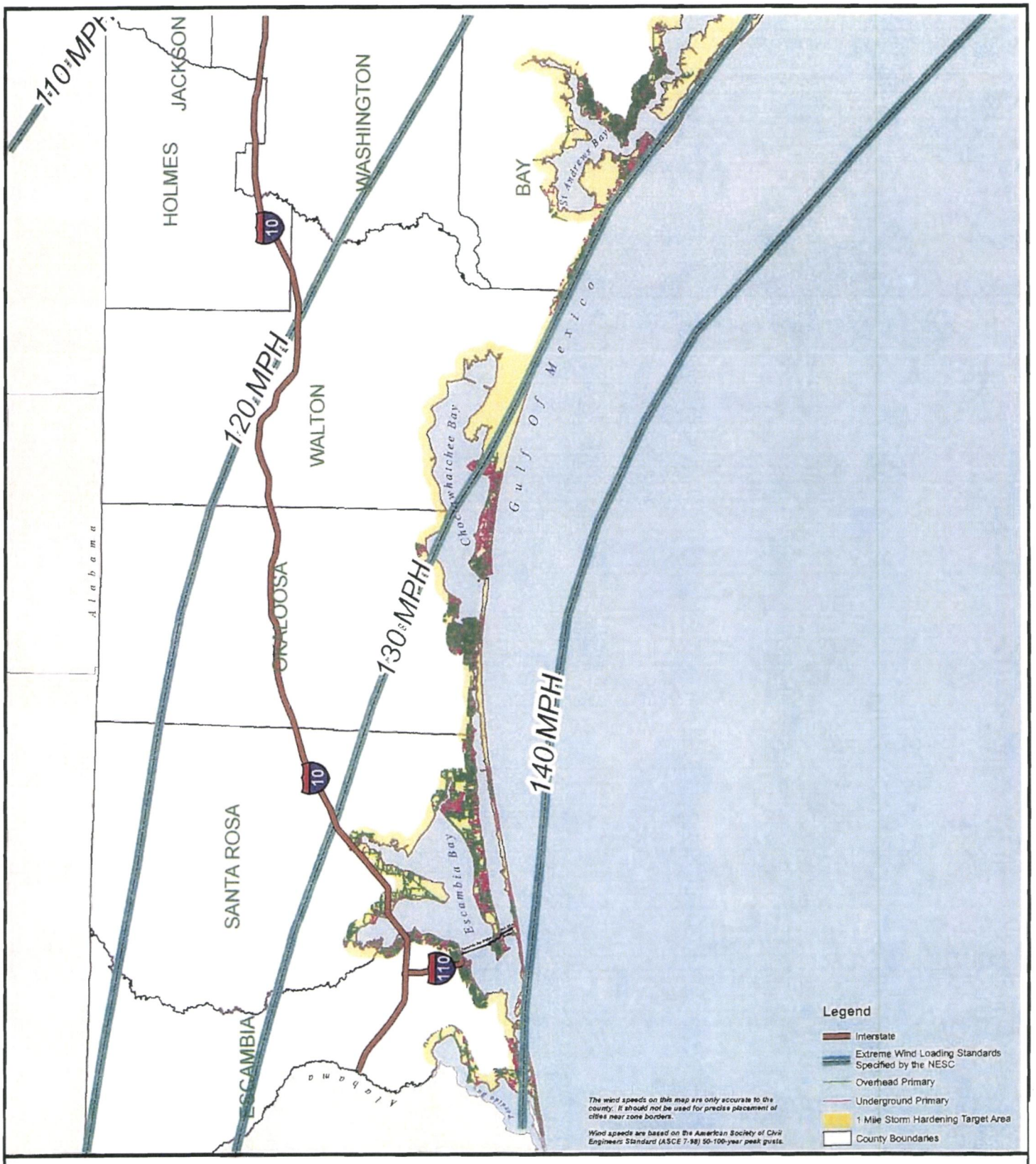


SECTION A-A

SUBJECT OVERHEAD DISTRIBUTION

DETAIL STORM HARDENING

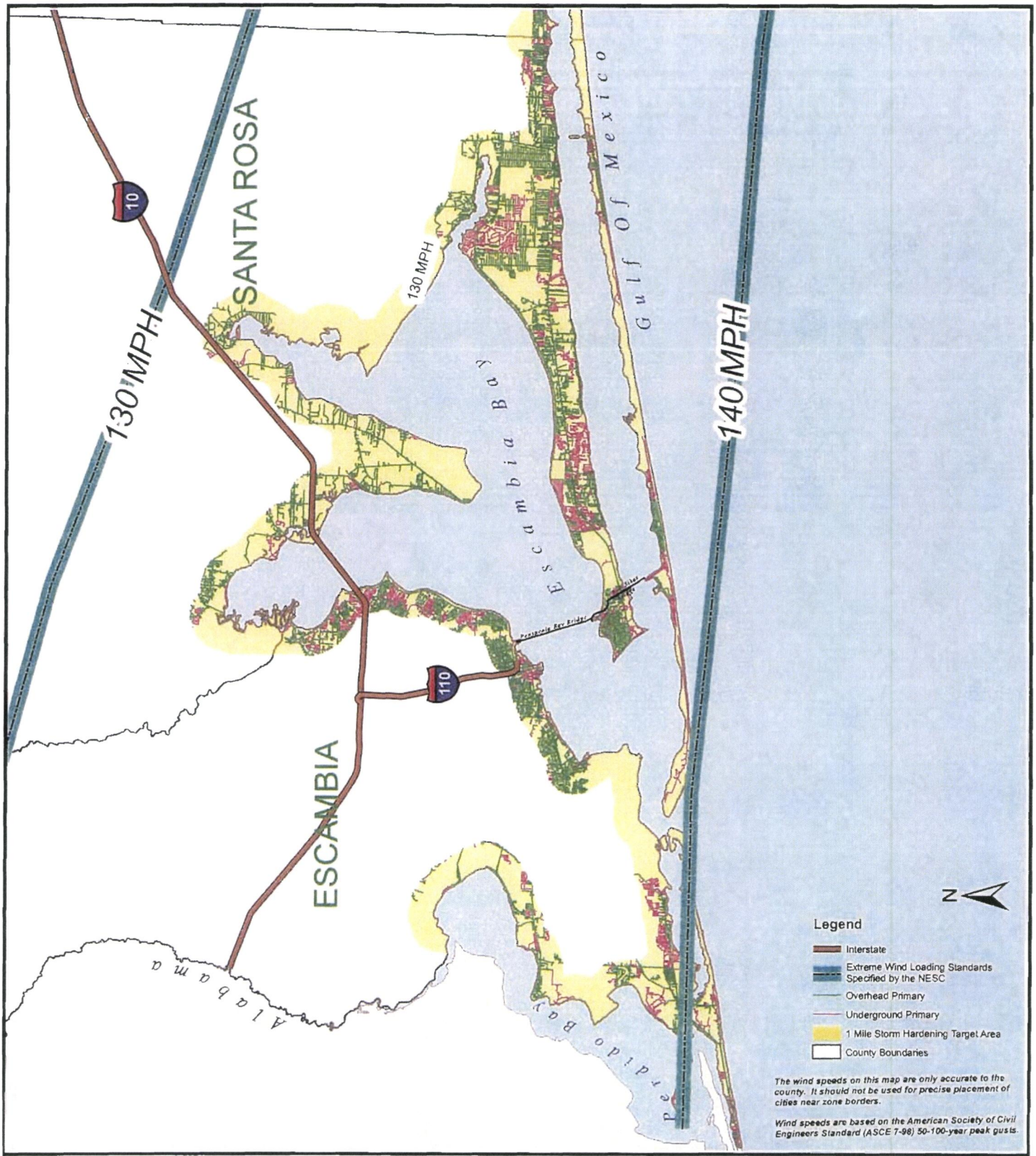
Date 10-18-2007	SUPERSEDES DATE	SHEET 1 OF 1 SHEETS	Gulf Power A SOUTHERN COMPANY	A- OZZ-5



SUBJECT OVERHEAD DISTRIBUTION

DETAIL GULF POWER STORM HARDENING AREAS

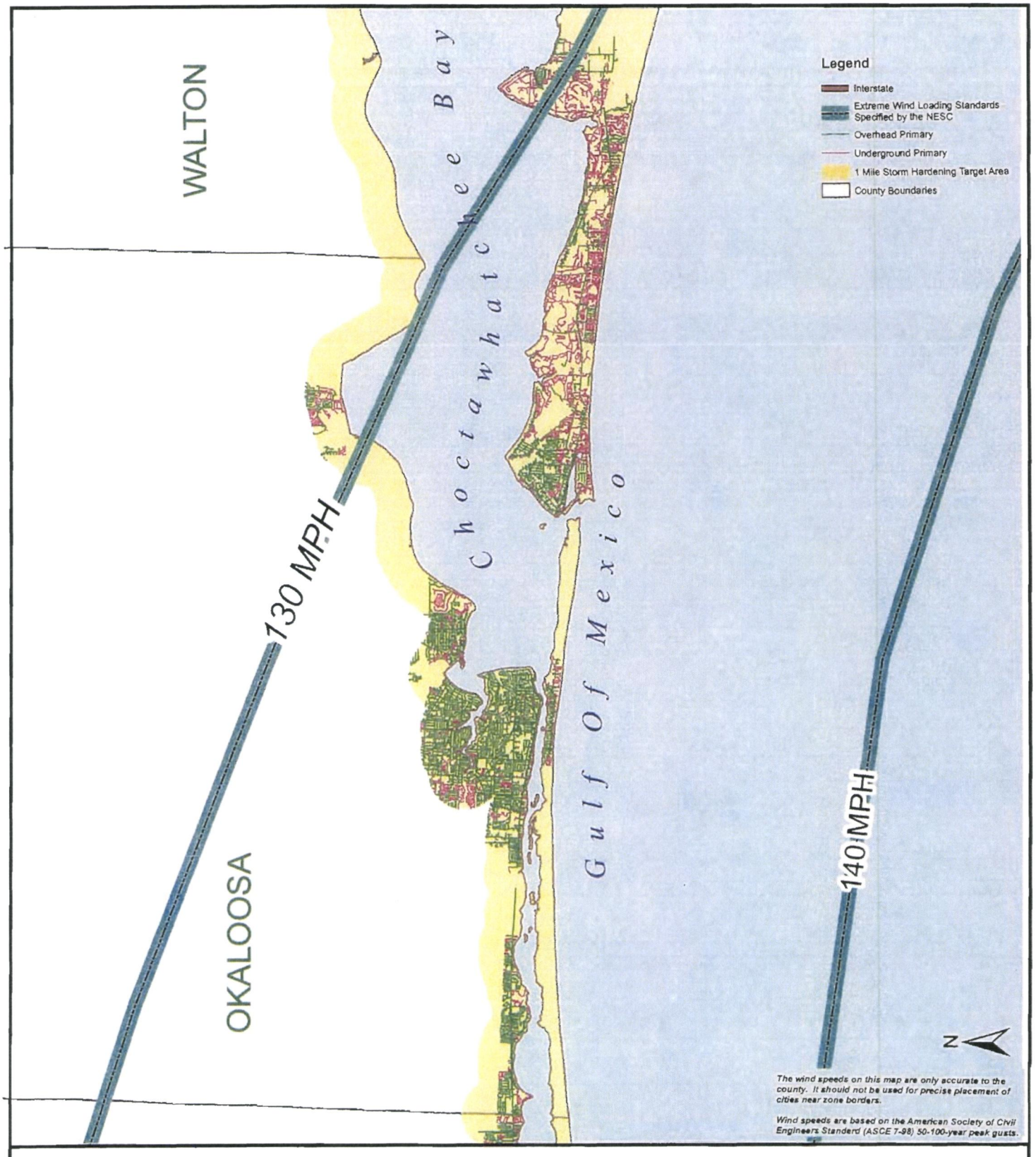
Date 3/23/07	SUPERSEDES DATE	SHEET 1 OF 1 SHEETS	Gulf Power A SOUTHERN COMPANY	A- OZZ-6



SUBJECT OVERHEAD DISTRIBUTION

DETAIL WESTERN STORM HARDENING AREAS

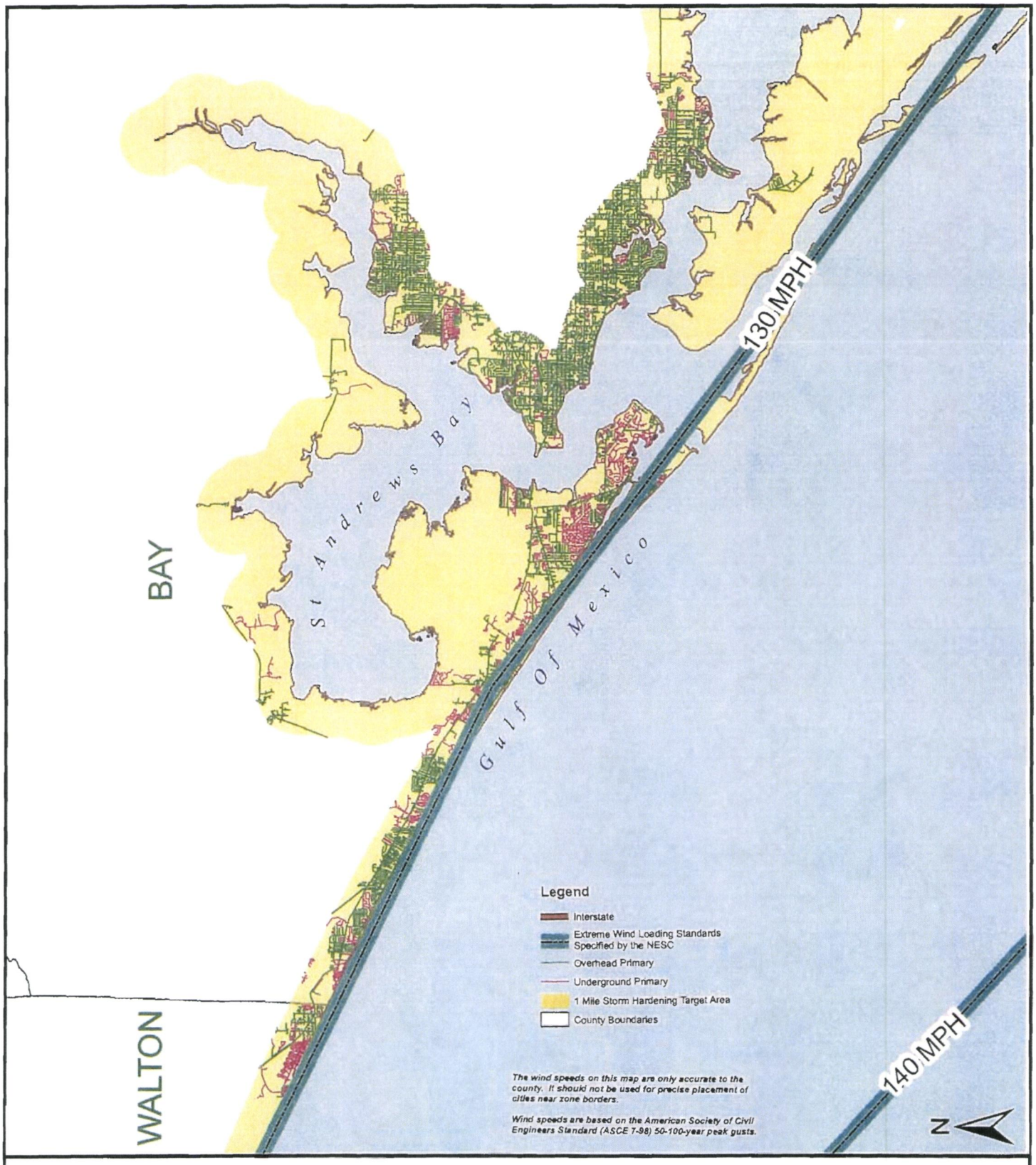
Date 3/23/07	SUPERSEDES DATE	SHEET 1 OF 1 SHEETS	Gulf Power A SOUTHERN COMPANY	A- OZZ-7



SUBJECT OVERHEAD DISTRIBUTION

DETAIL CENTRAL STORM HARDENING AREAS

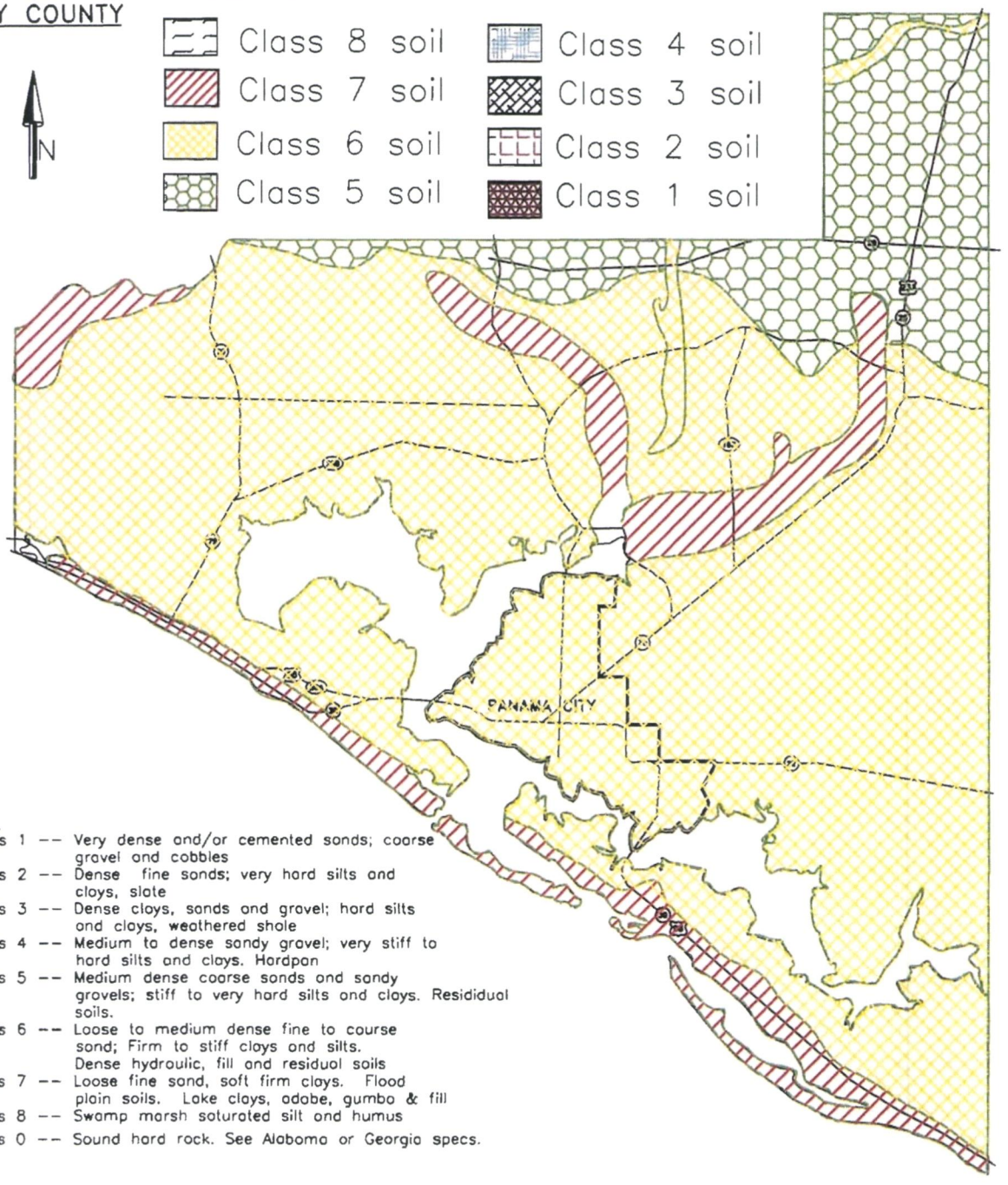
Date 3/23/07	SUPERSEDES DATE	SHEET 1 OF 1 SHEETS	Gulf Power A SOUTHERN COMPANY	A- OZZ-8



SUBJECT OVERHEAD DISTRIBUTION

DETAIL EASTERN STORM HARDENING AREAS

Date 3/23/07	SUPERSEDES DATE	SHEET 1 OF 1 SHEETS	Gulf Power A SOUTHERN COMPANY	A-OZZ-9



Key:

Class 1 -- Very dense and/or cemented sands; coarse gravel and cobbles

Class 2 -- Dense fine sands; very hard silts and clays, slate

Class 3 -- Dense clays, sands and gravel; hard silts and clays, weathered shale

Class 4 -- Medium to dense sandy gravel; very stiff to hard silts and clays. Hardpan

Class 5 -- Medium dense coarse sands and sandy gravels; stiff to very hard silts and clays. Resididual soils.

Class 6 -- Loose to medium dense fine to course sand; Firm to stiff clays and silts. Dense hydroulic, fill and residual soils

Class 7 -- Loose fine sand, soft firm clays. Flood plain soils. Lake clays, adobe, gumbo & fill

Class 8 -- Swamp marsh saturated silt and humus

*Class 0 -- Sound hard rock. See Alabama or Georgia specs.

*Class 0 soil is not typically in the Gulf Power service area. If encountered, refer to Georgia Power or Alabama Power specifications.

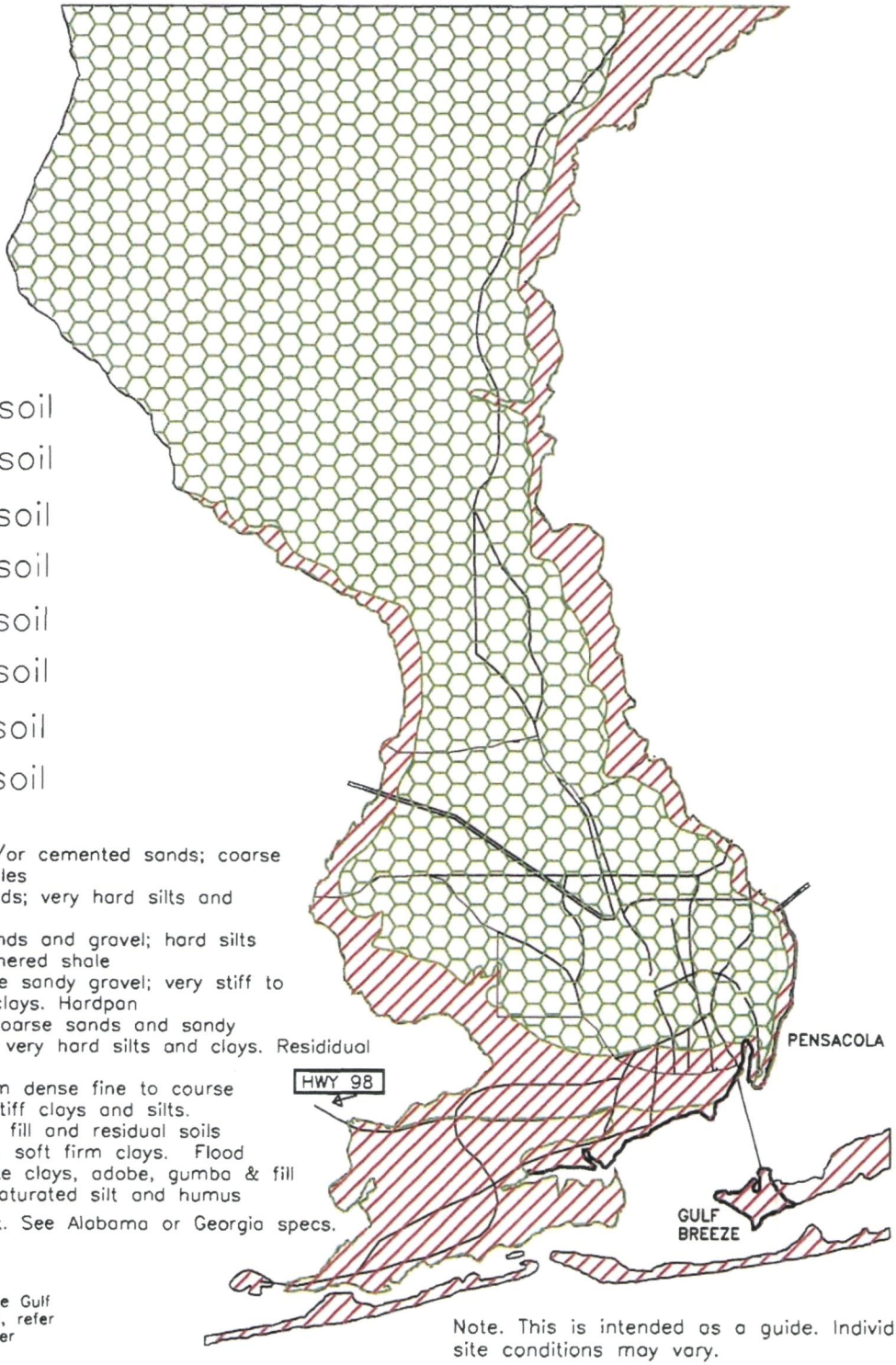
Note: This is a guide. Individual site conditions may vary.

SUBJECT OVERHEAD DISTRIBUTION

DETAIL SOIL CLASS ACCORDING TO HOLDING STRENGTH. DATA OBTAINED FROM THE FLORIDA GEOLOGICAL SURVEY.

Date 11-09-07	SUPERSEDES DATE	SHEET 1 OF 1 SHEETS	Gulf Power A SOUTHERN COMPANY	A- OZZ-10 A

ESCAMBIA COUNTY



Key:

Class 1 -- Very dense and/or cemented sands; coarse gravel and cobbles

Class 2 -- Dense fine sands; very hard silts and clays, slate

Class 3 -- Dense clays, sands and gravel; hard silts and clays, weathered shale

Class 4 -- Medium to dense sandy gravel; very stiff to hard silts and clays. Hardpan

Class 5 -- Medium dense coarse sands and sandy gravels; stiff to very hard silts and clays. Resididual soils.

Class 6 -- Loose to medium dense fine to course sand; Firm to stiff clays and silts. Dense hydraulic, fill and residual soils

Class 7 -- Loose fine sand, soft firm clays. Flood plain soils. Lake clays, adobe, gumbo & fill

Class 8 -- Swamp marsh saturated silt and humus

*Class 0 -- Sound hard rock. See Alabama or Georgia specs.

*Class 0 soil is not typically in the Gulf Power service area. If encountered, refer to Georgia Power or Alabama Power specifications.

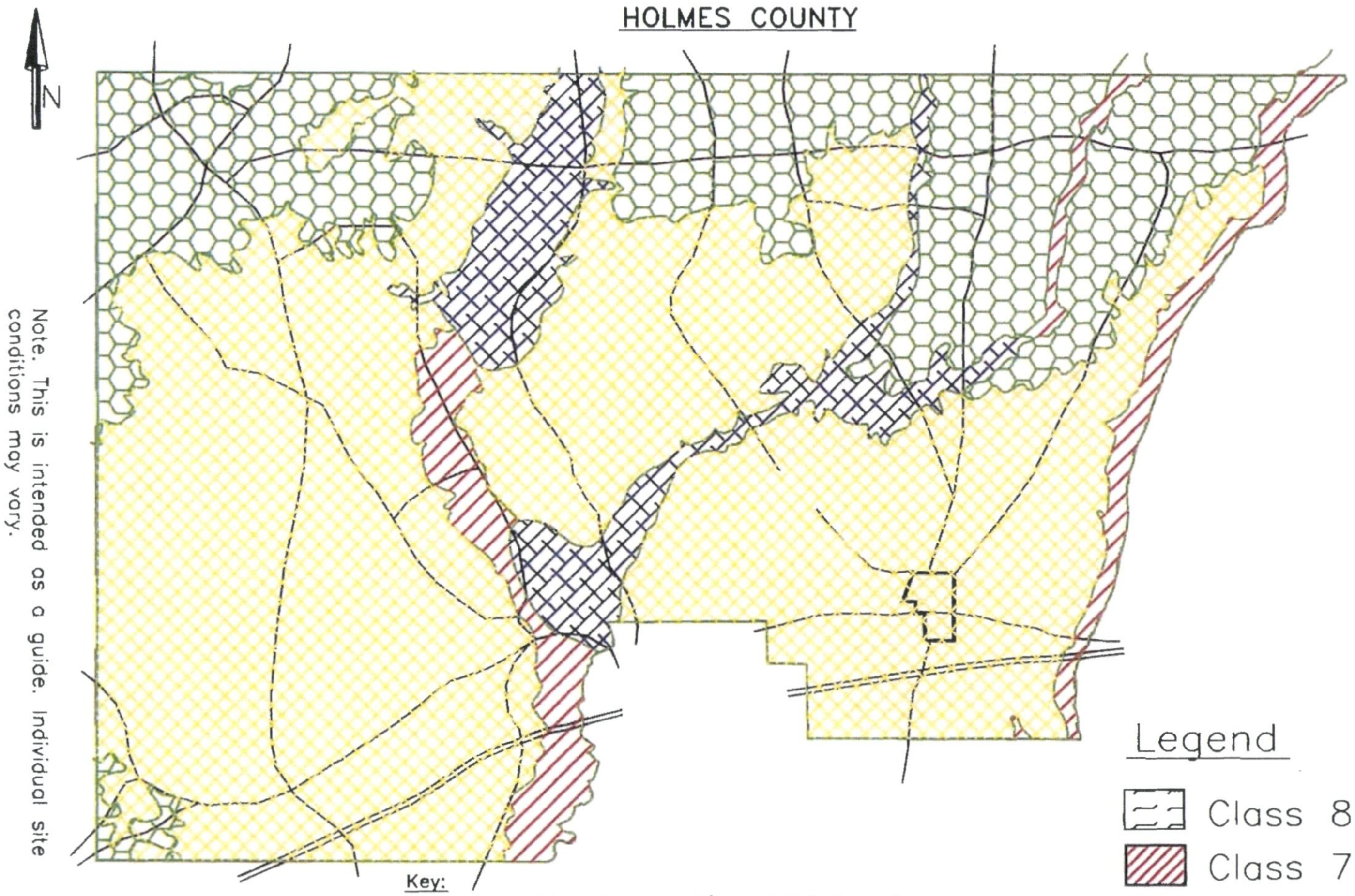
Note. This is intended as a guide. Individual site conditions may vary.

SUBJECT OVERHEAD DISTRIBUTION

DETAIL SOIL CLASS ACCORDING TO HOLDING STRENGTH. DATA OBTAINED FROM THE FLORIDA GEOLOGICAL SURVEY.

Date 10/19/2007	SUPERSEDES DATE 10/19/2007	SHEET 1 OF 1 SHEETS	Gulf Power A SOUTHERN COMPANY	A- OZZ-11 A

HOLMES COUNTY



Note. This is intended as a guide. Individual site conditions may vary.

Legend

- Class 8 soil
- Class 7 soil
- Class 6 soil
- Class 5 soil
- Class 4 soil
- Class 3 soil
- Class 2 soil
- Class 1 soil

Key:

Class 1 -- Very dense and/or cemented sands; coarse gravel and cobbles
Class 2 -- Dense fine sands; very hard silts and clays, slate
Class 3 -- Dense clays, sands and gravel; hard silts and clays, weathered shale
Class 4 -- Medium to dense sandy gravel; very stiff to hard silts and clays. Hardpan
Class 5 -- Medium dense coarse sands and sandy gravels; stiff to very hard silts and clays. Resididual soils.
Class 6 -- Loose to medium dense fine to course sand; Firm to stiff clays and silts. Dense hydraulic, fill and residual soils
Class 7 -- Loose fine sand, soft firm clays. Flood plain soils. Lake clays, adobe, gumbo & fill
Class 8 -- Swamp marsh saturated silt and humus
*Class 0 -- Sound hard rock. See Alabama or Georgia specs.

*Class 0 soil is not typically in the Gulf Power service area. If encountered, refer to Georgia Power or Alabama Power specifications.

SUBJECT OVERHEAD DISTRIBUTION

DETAIL SOIL CLASS ACCORDING TO HOLDING STRENGTH. DATA OBTAINED FROM THE FLORIDA GEOLOGICAL SURVEY.

Date 11-27-2007

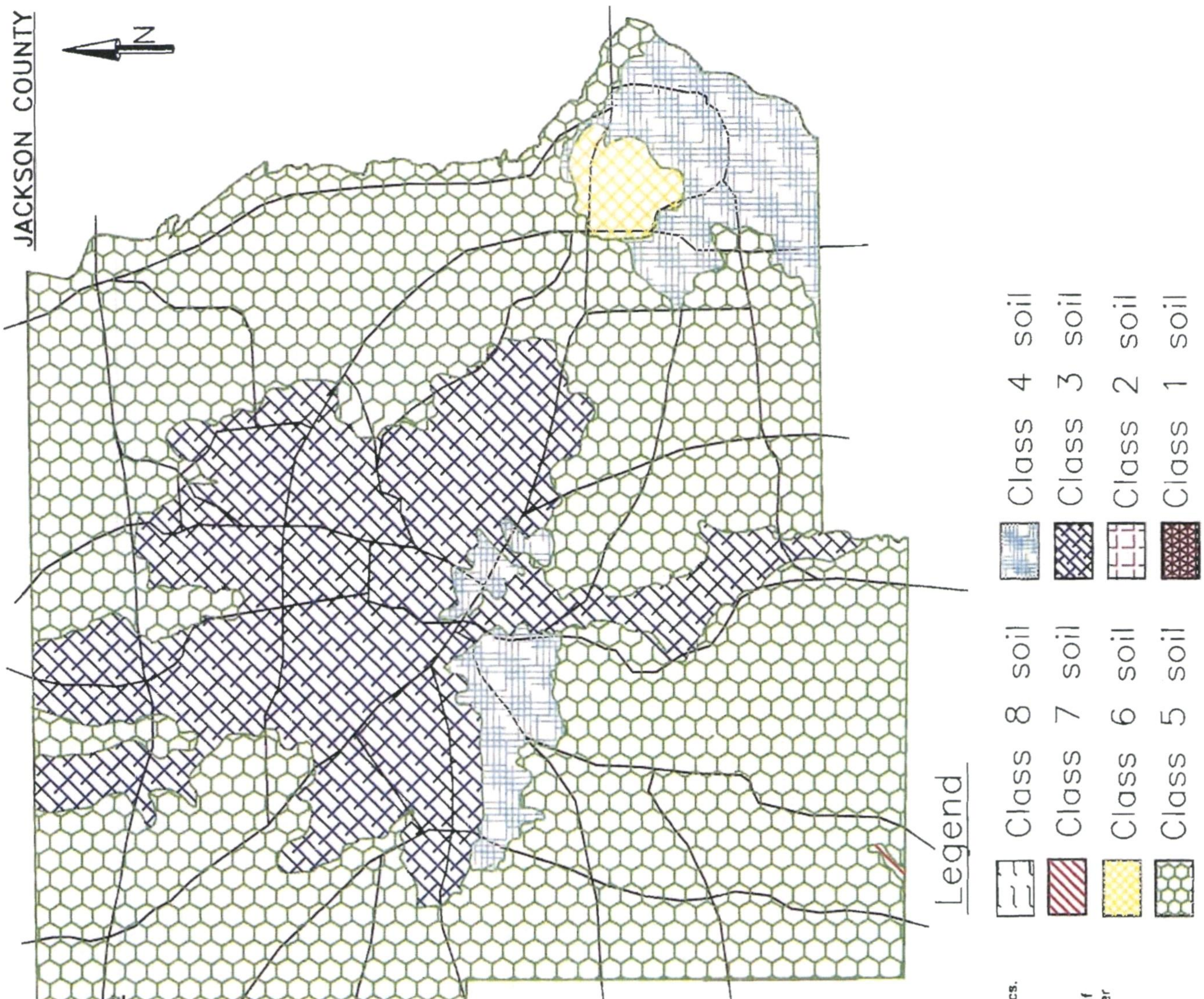
SUPERSEDES
DATE

SHEET 1 OF 1 SHEETS

Gulf Power
A SOUTHERN COMPANY

A- OZZ-12

OZZ-12



Key:

Class 1 -- Very dense and/or cemented sands; coarse gravel and cobbles

Class 2 -- Dense fine sands; very hard silts and clays, slate

Class 3 -- Dense clays, sands and gravel; hard silts and clays, weathered shale

Class 4 -- Medium to dense sandy gravel; very stiff to hard silts and clays.

Class 5 -- Medium dense coarse sands and sandy gravels; stiff to very hard silts and clays. Residual soils.

Class 6 -- Loose to medium dense fine to course sand; Firm to stiff clays and silts. Dense hydraulic, fill and residual soils

Class 7 -- Loose fine sand. Flood soft firm clays. Flood plain soils. Lake clays, adobe, gumbo & fill

Class 8 -- Swamp marsh saturated silt and humus

*Class 0 -- Sound hard rock. See Alabama or Georgia specs.

*Class 0 soil is not typically in the Gulf Power service area. If encountered, refer to Georgia Power or Alabama Power specifications.

Note. This is intended as a guide. Individual site conditions may vary.

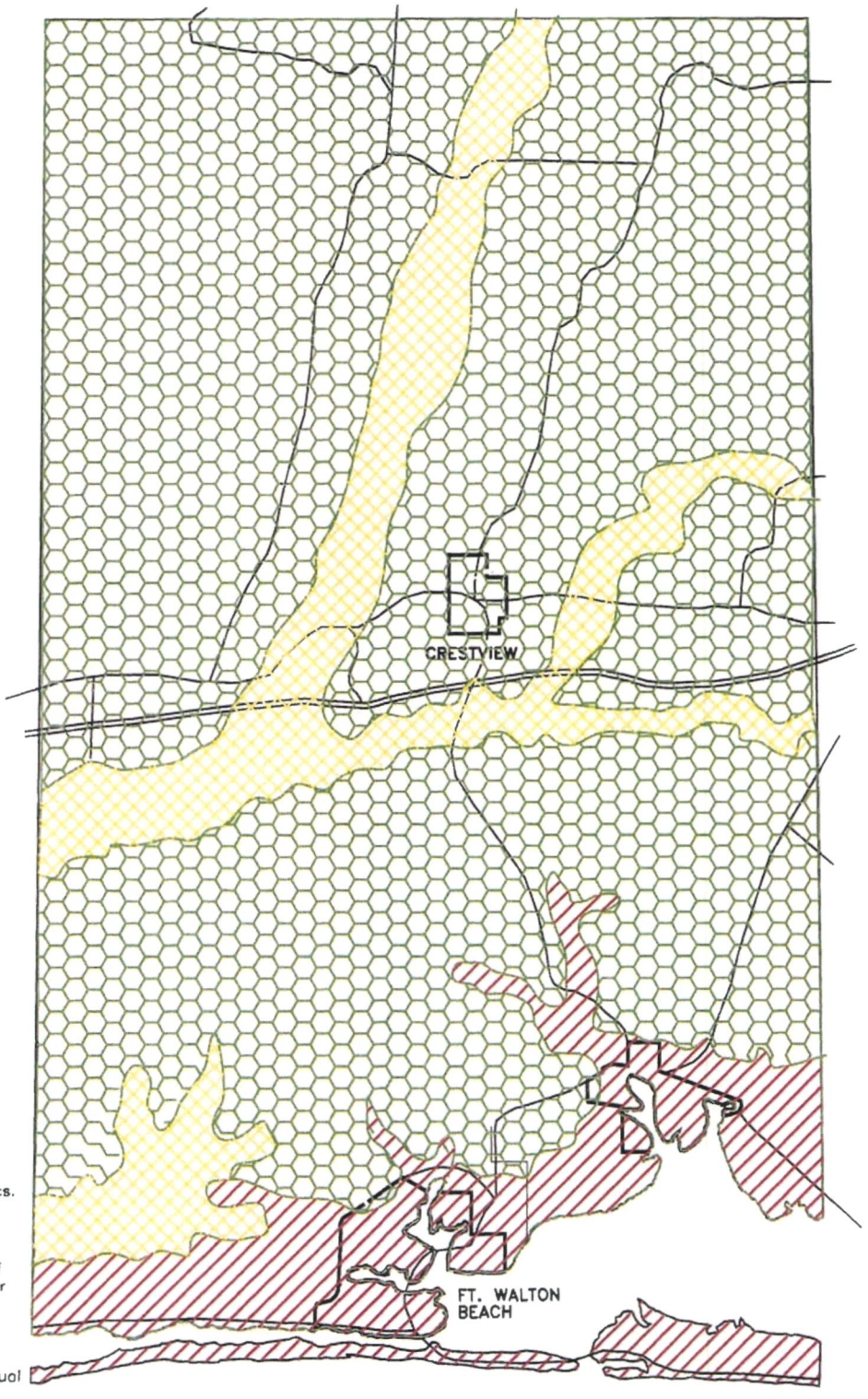
SUBJECT OVERHEAD DISTRIBUTION

DETAIL SOIL CLASS ACCORDING TO HOLDING STRENGTH. DATA OBTAINED FROM THE FLORIDA GEOLOGICAL SURVEY.

Date 11-16-2007	SUPERSEDES DATE	SHEET 1 OF 1 SHEETS	Gulf Power A SOUTHERN COMPANY	A- OZZ-13

OZZ-13

OKALOOSA COUNTY



Legend

- Class 8 soil
- Class 7 soil
- Class 6 soil
- Class 5 soil
- Class 4 soil
- Class 3 soil
- Class 2 soil
- Class 1 soil

Key:

Class 1 -- Very dense and/or cemented sands; coarse gravel and cobbles

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Class 3 -- Dense clays, sands and gravel; hard silts and clays, weathered shale

Class 4 -- Medium to dense sandy gravel; very stiff to hard silts and clays.

Class 5 -- Medium dense coarse sands and sandy gravels; stiff to very hard silts and clays. Resididuol soils.

Class 6 -- Loose to medium dense fine to course sand; Firm to stiff clays and silts. Dense hydraulic, fill and residuol soils

Class 7 -- Loose fine sand, soft firm clays. Flood plain soils. Lake clays, adobe, gumbo & fill

Class 8 -- Swamp marsh saturated silt and humus

*Class 0 -- Sound hard rock. See Alabama or Georgia specs.

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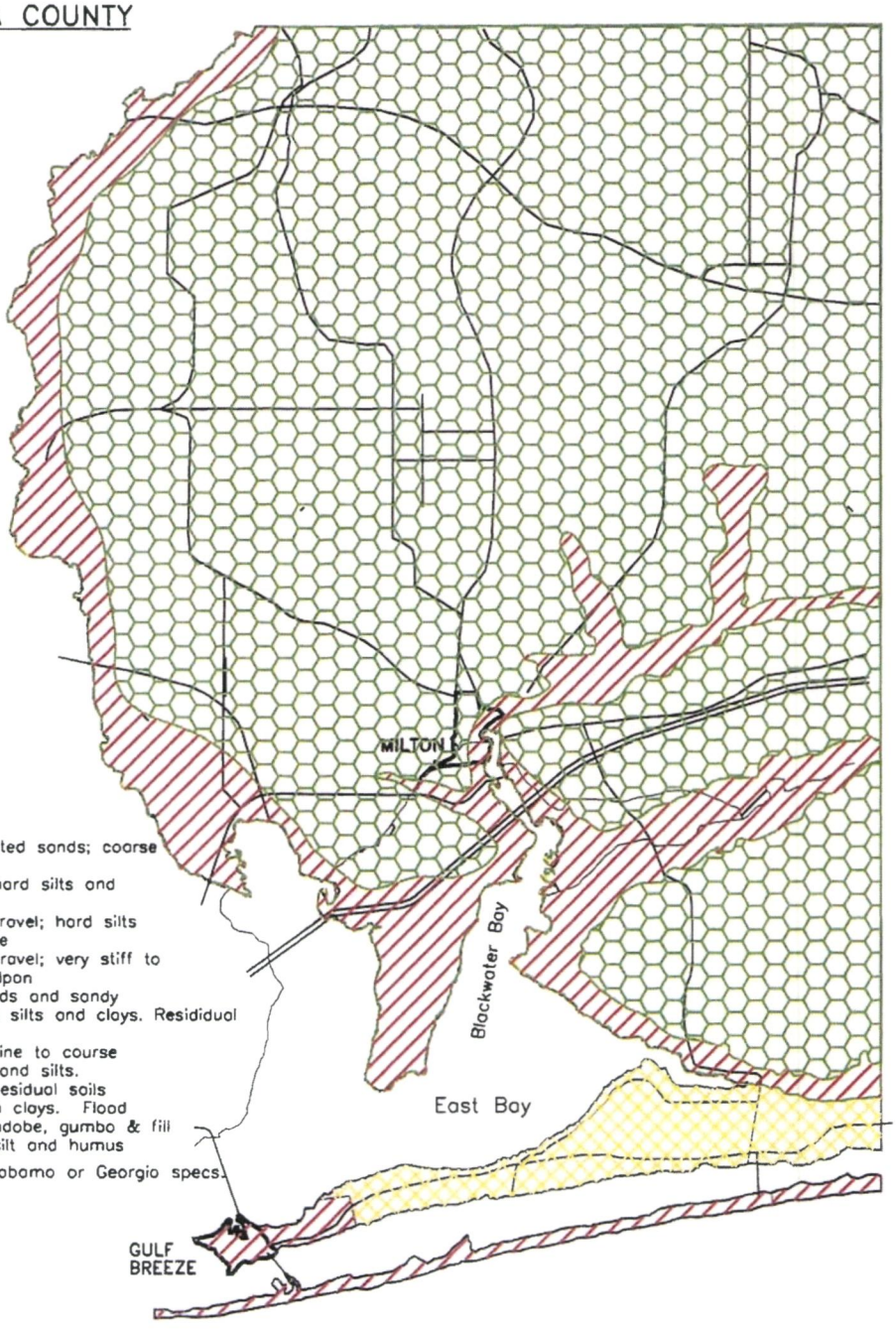
Note. This is intended as a guide. Individual site conditions may vary.

SUBJECT OVERHEAD DISTRIBUTION

DETAIL SOIL CLASS ACCORDING TO HOLDING STRENGTH. DATA OBTAINED FROM THE FLORIDA GEOLOGICAL SURVEY.

Date 10-30-07	SUPERSEDES DATE 10-30-07	SHEET 1 OF 1 SHEETS	Gulf Power A SOUTHERN COMPANY	A- OZZ-14

SANTA ROSA COUNTY



Key:

Class 1 -- Very dense and/or cemented sands; coarse gravel and cobbles

Class 2 -- Dense fine sands; very hard silts and clays, slate

Class 3 -- Dense clays, sands and gravel; hard silts and clays, weathered shale

Class 4 -- Medium to dense sandy gravel; very stiff to hard silts and clays. Hardpan

Class 5 -- Medium dense coarse sands and sandy gravels; stiff to very hard silts and clays. Resididual soils.

Class 6 -- Loose to medium dense fine to course sand; Firm to stiff clays and silts. Dense hydraulic, fill and residual soils

Class 7 -- Loose fine sand, soft firm clays. Flood plain soils. Lake clays, adobe, gumbo & fill

Class 8 -- Swamp marsh saturated silt and humus

*Class 0 -- Sound hard rock. See Alabama or Georgia specs.

*Class 0 soil is not typically in the Gulf Power service area. If encountered, refer to Georgia Power or Alabama Power specifications.

Note. This is intended as a guide. Individual site conditions may vary.

SUBJECT OVERHEAD DISTRIBUTION

DETAIL SOIL CLASS ACCORDING TO HOLDING STRENGTH. DATA OBTAINED FROM THE FLORIDA GEOLOGICAL SURVEY.

Date 10-26-07	SUPERSEDES DATE	SHEET 1 OF 1 SHEETS	Gulf Power A SOUTHERN COMPANY	A- OZZ-15

WALTON COUNTY

Key:

Class 1 -- Very dense and/or cemented sands; coorse gravel and cobbles

Class 2 -- Dense fine sands; very hard silts and clays, slate

Class 3 -- Dense clays, sands and gravel; hard silts and clays, weathered shale

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Class 7 -- Loose fine sand, soft firm clays. Flood plain soils. Loke cloys, adobe, gumbo & fill

Class 8 -- Swamp marsh saturated silt and humus

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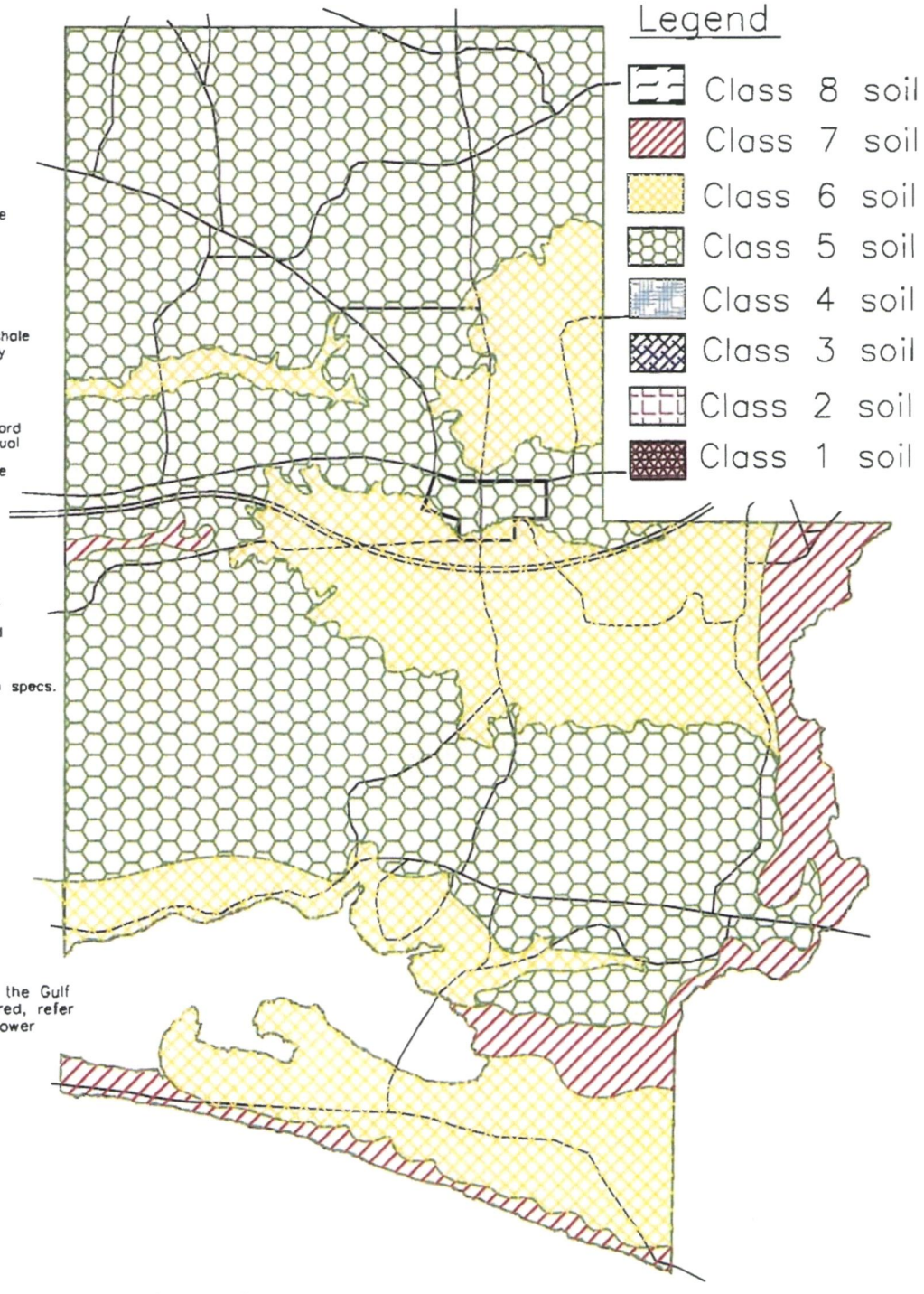


*Class 0 soil is not typically in the Gulf Power service area. If encountered, refer to Georgia Power or Alabama Power specifications.

Note. This is intended as a guide. Individual site conditions may vary.

SUBJECT OVERHEAD DISTRIBUTION

DETAIL SOIL CLASS ACCORDING TO HOLDING STRENGTH. DATA OBTAINED FROM THE FLORIDA GEOLOGICAL SURVEY.

Date 11-02-2007	SUPERSEDES DATE	SHEET 1 OF 1 SHEETS	Gulf Power A SOUTHERN COMPANY	A- OZZ-16

Appendix 3

Underground Storm Hardening

Gulf Power's Underground Distribution Facilities shall, where practical, be storm hardened to the extent practical using the methods described in this section if they are to be installed within One Mile of the Gulf of Mexico or any other large body of salt water (Pensacola Bay, Escambia Bay, Intercoastal Waterway, Choctawhatchee Bay, St Andrew Bay, etc). See Plates UZZ-2, UZZ-3, UZZ-4, and UZZ-5.

Underground circuits and feeders shall, where practical, be designed and built in the road right-of-way. In a flood/storm surge prone area, customers must install meters and metering equipment above the expected maximum flood level. Where this results in meters or metering equipment being above the standard specified heights above the ground, the customer will need to build permanent platforms and stairs to allow reading and servicing of the meters and equipment, unless the location of the equipment coincides with existing porches or platforms with ready access by Gulf Power employees. The platform must extend at least three feet out from the wall and at least 18" to either side of the metering equipment. Refer the customer to the local building inspector for other requirements for the platform and stairs.

Under normal circumstances, rear lot line construction shall be avoided and metering equipment shall not be placed on the rear of buildings.

Padmounted equipment that utilize (primary) live front connections and/or air break switches shall not be used in areas prone to flooding.

Consideration should be given to anchoring below grade boxes or vaults with pilings. See Plate UZZ-8.

Consideration should also be given to using transformer box pad in sandy or in storm surge areas. See Plate UZZ-9.

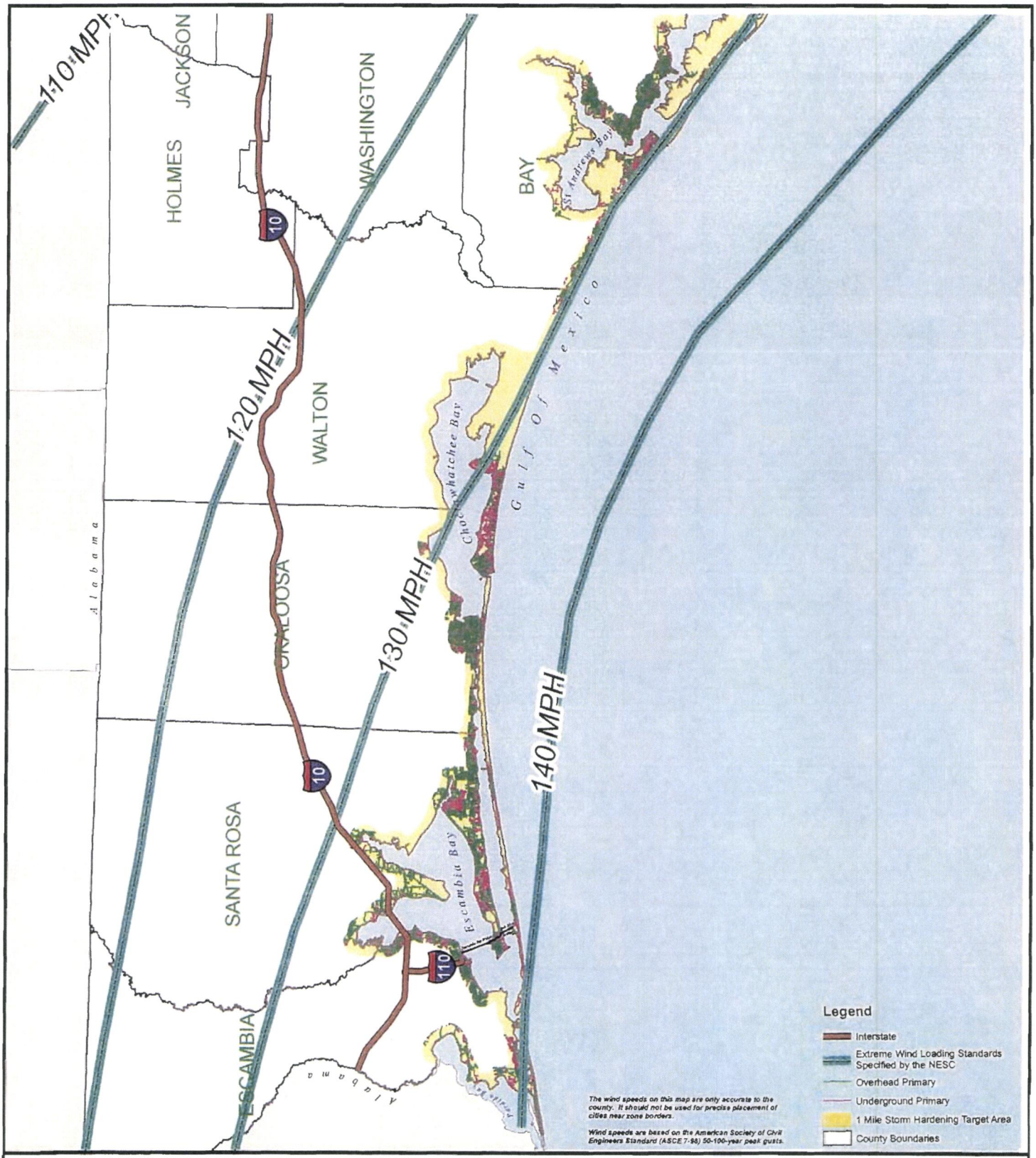
Underground feeders, especially those with large conductors (600 amp or 900 amp systems), utilizing a duct system, should be concrete encased and should be installed as far as practical from seacoasts, lakes, rivers, bays and other low lying areas to protect them from washouts and flooding. If possible the feeder should be built several blocks from these areas and the use of laterals, from the main feeder, should be used to serve the seacoast.

Padmounted equipment (such as transformers, pedestals, feed-thru cabinets, etc) should be located in places that naturally provide storm surge protection. Examples include: behind buildings, behind trees, high areas, etc.

3Ø transformers serving Gulf Front condo's, motels, restaurants, etc., shall, where practical, be installed on the opposite side of the building to the Gulf and as close to the center of the building as practical. The transformer should never be installed between two buildings, due to the extreme erosion of sand during a storm surge.

Where practical, underground circuits should be looped.

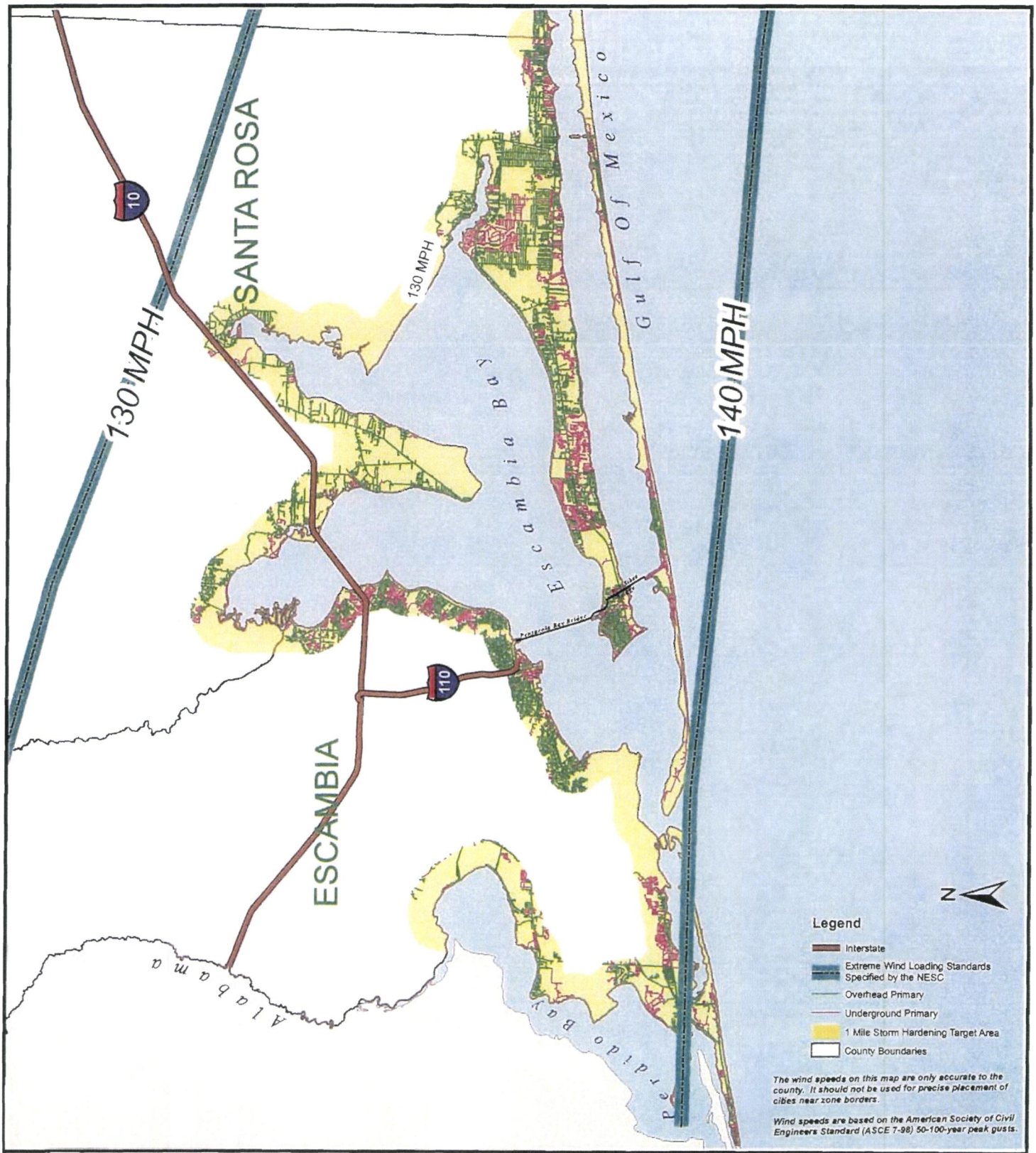
SUBJECT UNDERGROUND STORM HARDENING				
DETAIL GENERAL STATEMENTS				
Date 12-16-08	SUPERSEDES 03-14-07 DATE	SHEET 1 OF 1 SHEETS	Gulf Power A SOUTHERN COMPANY	A- UZZ-1



SUBJECT UNDERGROUND DISTRIBUTION

DETAIL STORM HARDENING AREAS

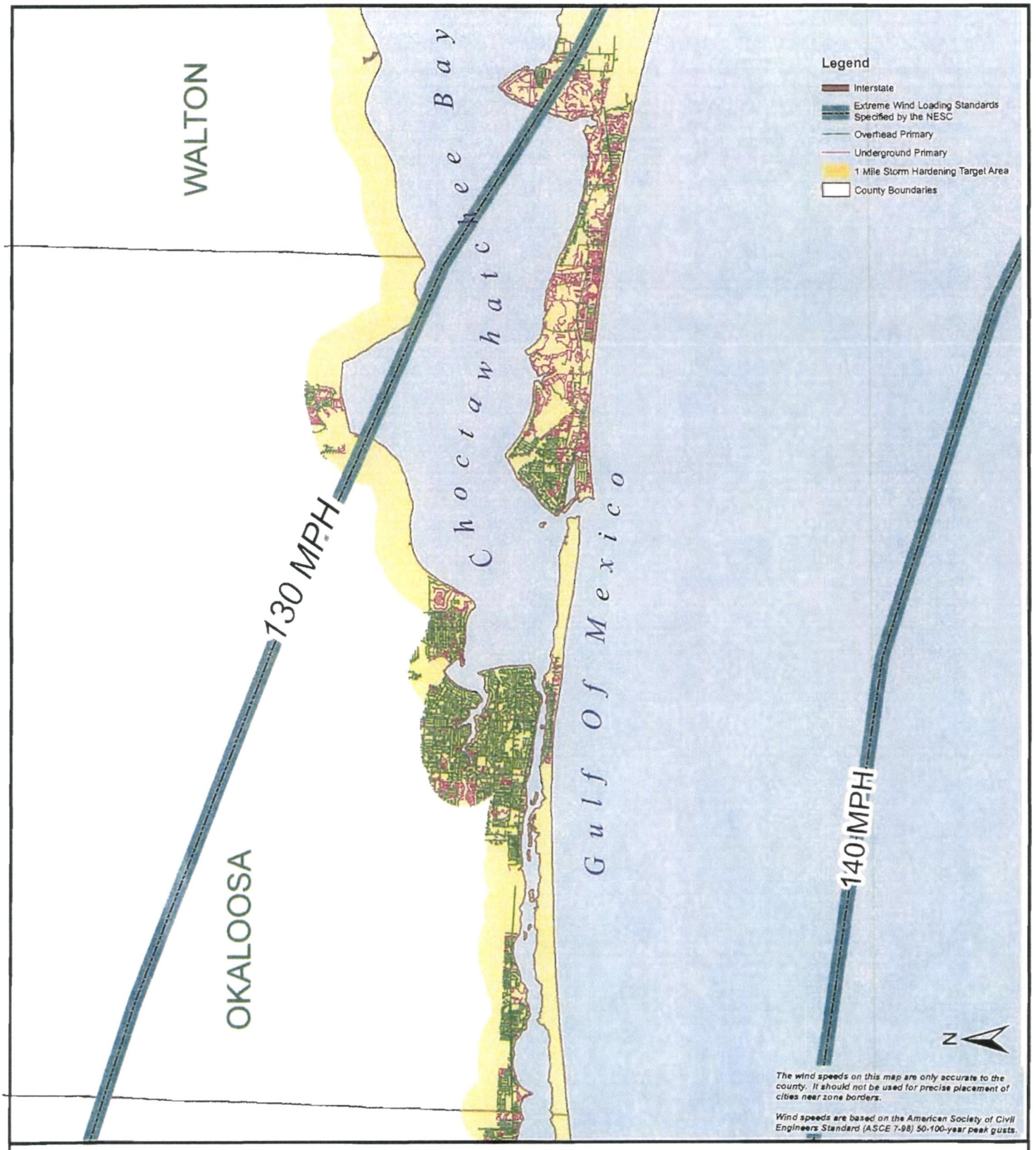
Date 3/23/07	SUPERSEDES DATE	SHEET 1 OF 1 SHEETS	Gulf Power A SOUTHERN COMPANY	A- UZZ-2



SUBJECT UNDERGROUND DISTRIBUTION

DETAIL WESTERN STORM HARDENING AREAS

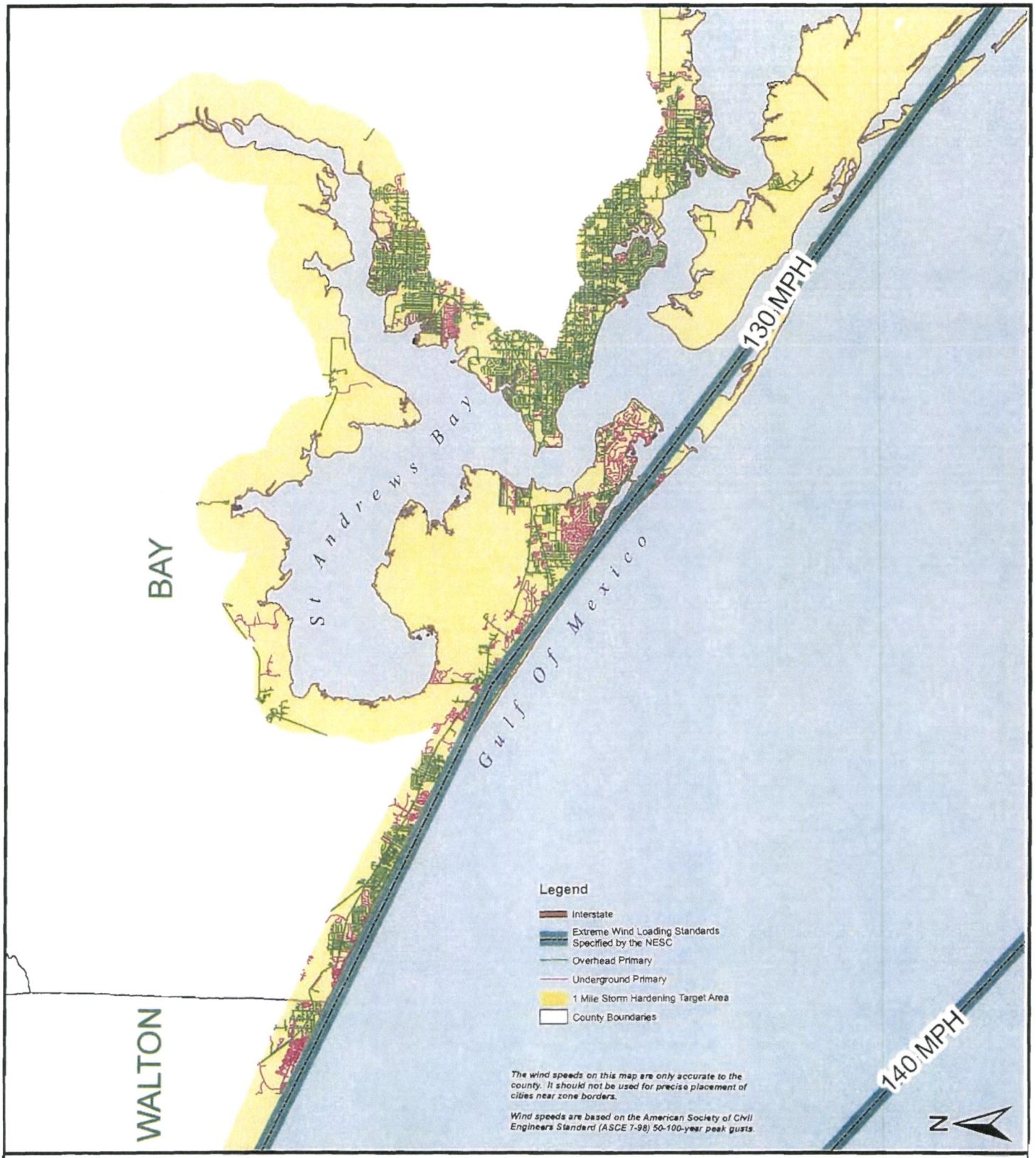
Date 3/23/07	SUPERSEDES DATE	SHEET 1 OF 1 SHEETS	Gulf Power A SOUTHERN COMPANY	A- UZZ-3



SUBJECT UNDERGROUND DISTRIBUTION

DETAIL CENTRAL STORM HARDENING AREAS

Date 3/23/07	SUPERSEDES DATE	SHEET 1 OF 1 SHEETS	Gulf Power A SOUTHERN COMPANY	A- UZZ-4



SUBJECT UNDERGROUND DISTRIBUTION

DETAIL EASTERN STORM HARDENING AREAS

Date 3/23/07	SUPERSEDES DATE	SHEET 1 OF 1 SHEETS	Gulf Power A SOUTHERN COMPANY	A-UZZ-5

Concrete Duct Banks

600/900 amp circuits shall be designed with concrete encased duct banks in order to better protect these circuits from storm surges.

The concrete used should be 1:3:5 mix with 1/2 inch or smaller gravel or crushed stone aggregate. This mix should have a nominal compressive strength of 3000 psi. All concrete should be poured within 1-1/2 hours of mixing.

When placing concrete around the conduit adjust the delivery chute so that the fall of the concrete into the trench is as short as possible. Use a splash board to divert the flow of the concrete away from the trench sides to avoid dislodging soil.

(Con't on next sheet)

SUBJECT UNDERGROUND STORM HARDENING

DETAIL CONCRETE DUCT BANKS

Date 03-14-07	SUPERSEDES DATE	SHEET 1 OF 2 SHEETS	Gulf Power A SOUTHERN COMPANY	A- UZZ-6 A

Concrete Duct Banks (con't)

Use a vibrator (one inch maximum), slicing bar or equivalent to work the concrete down the sides of the conduit bank and between the conduits. It should be possible to see the concrete flowing along the of the trench just ahead of the point where the concrete falls from the chute.

The trench can be back filled any time after the concrete has been poured and leveled. The concrete should be covered with a minimum of six inches of selected backfill. Spoils from the trench can be used for the remaining backfill.

On warm sunny days, if the concrete can not be covered immediately after leveling, one or two inches of fine soil or sand should be placed over the concrete. This cover prevents rapid evaporation of water from the surface of the concrete, allowing the concrete to cure properly.

When necessary to stop construction, plastic plugs should be used to temporarily seal the conduit end against mud, dirt, and debris. If conduit is to be left uncovered over night, tie down only at one end.

Duct banks should be inspected by an operating Company representative before being covered with backfill or encased in concrete.

SUBJECT UNDERGROUND STORM HARDENING				
DETAIL CONCRETE DUCT BANKS				
Date 03-14-07	SUPERSEDES DATE	SHEET 2 OF 2 SHEETS	Gulf Power A SOUTHERN COMPANY	A- UZZ-7 A

Anchoring Vaults

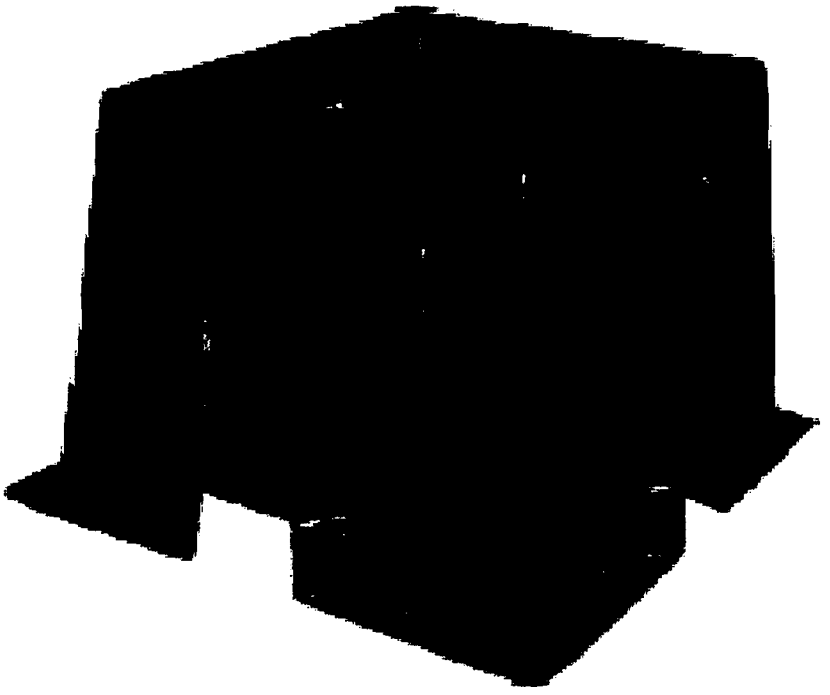
Consideration should be given to anchoring vaults/boxes with two 10' pilings.

These pilings should be installed on the front left and back right corners of the vault/box.

Pilings shall be 10' long and can be made out of 10" conduit filled with concrete or any preformed circular or square concrete at least 10" in diameter or square. After piling has been installed the area around the piling shall be filled with concrete to unitize the structure and vault/box.

SUBJECT UNDERGROUND STORM HARDENING				
DETAIL ANCHORING VAULTS/BOXES				
Date 03-14-07	SUPERSEDES DATE	SHEET 1 OF 1 SHEETS	Gulf Power A SOUTHERN COMPANY	A- UZZ-8

1Ø Transformer Box Pad



The use of a transformer box pad instead of the traditional transformer pad should be considered in loose sandy soils that are subject to storm surges or flooding.

The use of these in subdivisions automatically makes the subdivision a 'Non-Typical Subdivision' and an Overhead to Underground Differential must be calculated.

SUBJECT UNDERGROUND STORM HARDENING				
DETAIL 1Ø TRANSFORMER BOX PAD				
Date 12-08-08	SUPERSEDES DATE	SHEET 1 OF 1 SHEETS	Gulf Power A SOUTHERN COMPANY	A- UZZ-9

Appendix 4

Rule 25-6.0342 - Gulf Power Company Storm Hardening Plan

	Activity	Docket No.	Actual/Estimated Utility Costs						Estimated Benefits to Utility Customers: Impact on Storm Restoration Costs			Estimated Benefits to Utility Customers: Impact on Storm Caused Outages - avoided CMI			Other Estimated Company Benefits			Estimated Benefits to Third Party Attachers: Impact on Storm Restoration Costs			Estimated Benefits to Third Party Attachers: Impact on Storm Caused Outages		
			2010	2011	2012	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015
	Wooden Pole Inspections.	060078-EI	$2,174,138	$2,701,600	$1,415,988	$2,061,333	$2,061,333	$2,061,333	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 11	Note 11	Note 11	Note 11	Note 11	Note 11
	Ten Storm Hardening Initiatives.	060198-EI																					
1	A Three-Year Vegetation Management Cycle for Distribution Circuits		$4,907,230	$5,912,112	$4,290,215	$5,593,128	$5,947,800	$5,947,800	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 11	Note 11	Note 11	Note 11	Note 11	Note 11
2	An Audit of Joint-Use Attachment Agreements	Note 6	$0	$337,722	$0	$0	$0	$0	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 11	Note 11	Note 11	Note 11	Note 11	Note 11
3	A Six-Year Transmission Structure Inspection Program		$668,369	$305,890	$198,796	$244,526	$243,345	$262,908	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 12	Note 12	Note 12	Note 12	Note 12	Note 12
4	Hardening of Existing Transmission Structures		$1,326,200	$2,940,400	$3,411,400	$1,040,000	$1,040,000	$1,040,000	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 12	Note 12	Note 12	Note 12	Note 12	Note 12
5	Transmission and Distribution GIS		$0	$0	$0	$0	$0	$0	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 11	Note 11	Note 11	Note 11	Note 11	Note 11
6	Post-Storm Data Collection and Forensic Analysis	Note 5	$0	$0	$0	Note 5	Note 5	Note 5	Note 5	Note 5	Note 5	Note 7	Note 7	Note 7	Note 2	Note 2	Note 2	Note 11	Note 11	Note 11	Note 11	Note 11	Note 11
7	Collection of Detailed Outage Data Differentiating Between the Reliability Performance of Overhead and Underground Systems		$0	$0	$0	$0	$0	$0	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 2	Note 2	Note 2	Note 11	Note 11	Note 11	Note 11	Note 11	Note 11
8	Increased Utility Coordination with Local Governments		$0	$0	$0	$0	$0	$0	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 2	Note 2	Note 2	Note 11	Note 11	Note 11	Note 11	Note 11	Note 11
9	Collaborative Research on Effects of Hurricane Winds and Storm Surge		$0	$32,059	$32,059	Note 13	Note 13	Note 13	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 2	Note 2	Note 2	Note 11	Note 11	Note 11	Note 11	Note 11	Note 11
10	A Natural Disaster Preparedness and Recovery Program		$0	$0	$0	$0	$0	$0	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 2	Note 2	Note 2	Note 11	Note 11	Note 11	Note 11	Note 11	Note 11
	Compliance with National Electric Safety Code's adoption of Extreme Wind Loading Standards.	070xxx-EI																					
1	New Distribution Facilities - incremental (Exc Lighting, Meters, Transformers & Underground)	Note 8	$146,880	$143,865	$119,777	$116,450	$161,775	$173,100	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 2	Note 2	Note 2	Note 11	Note 11	Note 11	Note 11	Note 11	Note 11
	Base amount		$5,728,305	$5,610,732	$4,671,291	$4,541,550	$6,309,225	$6,750,900	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	Major Planned expansion, rebuild, or relocation of distribution facilities - incremental	Note 8	$257,900	$289,909	$315,512	$347,025	$284,175	$305,525	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 2	Note 2	Note 2	Note 11	Note 11	Note 11	Note 11	Note 11	Note 11
	Base amount		$10,058,087	$11,306,444	$12,304,951	$13,533,975	$11,082,825	$11,915,475	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3	Critical infrastructure and major thoroughfares	Note 10	$387,341	$1,228,650	$1,328,227	$1,227,940	$1,233,297	$1,239,672	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 11	Note 11	Note 11	Note 11	Note 11	Note 11
	Mitigating flood and storm surge damage to underground and supporting overhead facilities.	070xxx-EI																					
1	Transmission		Note 3																				
2	Distribution - Piloted Project costs	Note 4	$934,590	$1,716,744	$1,859,987	$869,000	$875,000	$881,000	Note 4	Note 4	Note 4	Note 4	Note 4	Note 4	Note 4	Note 4	Note 4	Note 11	Note 11	Note 11	Note 11	Note 11	Note 11
3	Distribution - Use of Stainless Steel equipment	Note 9	$773,348	$1,414,805	$1,990,428	$1,392,860	$1,392,860	$1,392,860	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 4	Note 4	Note 4	Note 11	Note 11	Note 11	Note 11	Note 11	Note 11
4	Distribution - Underground Network improvements		$328,038	$251,660	$63,160	$114,000	$117,000	$119,000	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 4	Note 4	Note 4	Note 11	Note 11	Note 11	Note 11	Note 11	Note 11
	Placement of new and replacement distribution facilities to facilitate safe and efficient access for installation and maintenance.	070xxx-EI	Note 1																				
	Other Key Elements																						
1	Feeder Patrols prior to the start of storm season		$573,118	$185,881	$183,946	$150,000	$150,000	$150,000	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 11	Note 11	Note 11	Note 11	Note 11	Note 11
2	Infrared Patrols prior to the start of storm season		$4,447	$20,394	$17,870	$25,000	$25,000	$25,000	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 11	Note 11	Note 11	Note 11	Note 11	Note 11
3	Wind Monitors to provide needed wind data		$1,670	$0	$11,884	$5,000	$5,000	$5,000	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 11	Note 11	Note 11	Note 11	Note 11	Note 11
	Additional Proposed Storm Hardening Initiatives																						
1	Conversion of 4kV Distribution Feeders		$217,720	$151,111	$0	$0	$0	$0	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 11	Note 11	Note 11	Note 11	Note 11	Note 11
2	Distribution Automation		$3,990,831	$6,356,716	$4,070,853	$2,164,148	$2,164,148	$1,980,000	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 11	Note 11	Note 11	Note 11	Note 11	Note 11
3	Automated Overhead Faulted Circuit Indicators		$0	$0	$119,959	$100,000	$100,000	$100,000	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 11	Note 11	Note 11	Note 11	Note 11	Note 11
4	Distribution Supervisory Control and Data Acquisition		$209,605	$820,079	$1,283,511	$265,852	$65,852	$0	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 7	Note 11	Note 11	Note 11	Note 11	Note 11	Note 11
	TOTALS		$16,901,425	$24,809,597	$20,713,572	$15,716,262	$15,866,585	$15,683,198															
	SH Cost per customer using 2012 YE customers of 434,571 equates to $36 per customer based on the average annual forecast for years 2013 - 2015.					2013 - 2015 = $47,266,045			Note 14														

Notes:

1 Gulf has always recognized that accessibility to distribution facilities is essential to safe and efficient maintenance and storm restoration.
Since this activity is already integral to our construction practices, there is no added cost impact nor can these costs be determined.
There is no incremental cost impact or benefits associated with this activity.

2 Until the program is complete and a storm hits it is not possible to estimate benefits resulting from this activity.

3 Gulf does not have underground transmission/substation facilities.

4 Gulf recognized and piloted underground system storm hardening design changes in response to lessons learned from Ivan in 2004.
Gulf has not determined a methodology at this time for determining the benefits of undergrounding in coastal areas as a storm hardening technique.

5 Computer Code was setup upon implementation of Storm Hardening, no new cost since implementation.
Post storm forensic data collection and analysis will initially increase the cost of the storm due to cost associated with collection and analysis of data.
System storm hardening improvements identified through data analysis will not occur until improvements can be budgeted the year after the storm strikes
and implemented during the year in which they are budgeted. This time lag for initiating system improvements will be approximately two years after a storm strike.
Cost of Forensic data collection will vary greatly, ranging from zero in non-storm years to $100,000+ in storm years, depending on the size of the storm and extent of storm damage.

6 In 2011, the most recent Joint-Use attachment audit was completed. Gulf performs these audits every five years across the system, and the next field audit is scheduled for 2016.

7 It is not possible to estimate benefits at this time.

8 Transitioning to Grade B construction.

9 Gulf has historically used stainless steel transformers and switchgear within coastal areas which mitigates damage after a storm surge.

10 The 2010 - 2012 are actuals associated for applying Grade B construction on targeted critical pole lines with multiple circuits; and 2013 - 2015 represents the revised initiative.

11 Estimates to be determined and provided by Third Party Attachers.

12 There are no Third Party Attachers on transmission structures.

13 Costs cannot be determined at this time.

14 Total Cost do not include the base amounts, only incremental cost