



## Engineering Statement

9/12/18

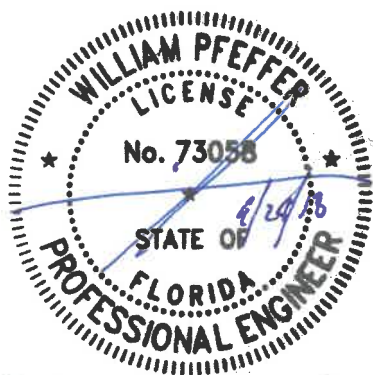
Andrew Pinney  
City of Margate  
Development Review Committee  
5790 Margate Blvd  
Margate FL 33063

Mr. Pinney,

Initial contact has been made with Florida Power and Light (FPL) regarding the City requirement to underground all overhead utilities abutting commercial developments. It is FPL's stance that the burying of overhead lines should not be done in small quantities containing one to three power poles. Their preference is to underground large runs of overhead wires at a time for safety and maintenance purposes. For safety reasons, FPL will not install more than two underground risers on a pole. Underground risers are electrical wires that are encased running along the pole which takes the service from overhead to underground, and back. The more risers a pole has, the higher the potential for an accident when FPL maintenance employees are climbing the poles. The elimination of only a few FPL poles at a time requires a riser be added to each end of the run. FPL will typically only convert overhead systems to underground if one or more full blocks are converted to cut down on unnecessary risers. From a maintenance standpoint, both underground and overhead wires present different challenges and require different methods and equipment to restore service during an outage. Underground wiring is susceptible to flooding and full line breaks from land disturbance activities, while overhead wires are more susceptible to wind damage and downed trees. FPL prefers to have long stretches of either overhead or buried lines so maintenance crews can have the proper equipment to address the needs of each and regain power during an outage as quickly as possible. Chapters 197 and 170 of the Florida Statutes were passed to help avoid the complications of underground conversions for short stretches. These statutes allow municipalities to fund larger underground conversion projects by levying special assessments and taxes. From an engineering and maintenance standpoint, it is sound practice to bury lines in larger sections containing full blocks from intersection to intersection. The Applicant will make every attempt to request the burial of the overhead lines abutting the property, however, FPL's current feedback is that a fee-in-lieu of would be the preferred path. As such, the Applicant respectfully requests a Waiver from City Ordinance 32-2(d)(4)(b). A cost estimate has been requested from FPL to determine the cost associated with burying the overhead lines abutting the subject property, which will be provided upon receipt.

As a licensed engineer in the State of Florida, I have been the engineer of record on over two hundred projects that involved the burial and/or relocation of overhead utility wires. I have worked closely with FPL staff to design these utility relocations in accordance with FPL design standards and guidelines. In my opinion, my experience with this element, qualifies me as a design engineer in the field of utility design and relocation.

Respectfully,



**Bill Pfeffer, PE | Principal | Branch Manager**  
**Bowman Consulting**

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