

**State of Florida
Department of Transportation**



INVITATION TO BID

POMPANO BEACH TOWER REPLACEMENT

ITB-DOT-17/18-9081-GH

CONTACT FOR QUESTIONS:

Greg Hill, Procurement Agent
greg.hill@dot.state.fl.us
605 Suwannee Street, MS20
Tallahassee, FL 32399-0450
Phone: 850-414-4482

BID SHEET pg. 1 of 1

BID NUMBER: ITB-DOT-17/18-9081-GH

BID TITLE: POMPANO BEACH TOWER REPLACEMENT

Services to be provided as specified in attached Exhibit "A", Technical Specifications and Appendix "A", Contract Plans.

Grand Total: _____ (Sum of Milestones 1, 2, 3, and 4 below)

Milestone 1:

To be completed 60 days after PO is generated

Upon completion and approval of proposed tower and foundation structural analysis, and tower structure assembly, antennas, transmission lines, tower lighting, camera and lowering device, and grounding systems installation design plans by the FDOT Project Manager, the Vendor will be paid 20% of Grand Total Price.

= \$ _____

Milestone 2:

To be completed 300 days after PO is generated

Upon completion of major equipment installations (tower foundations, tower steel structure, radio antennas, waveguides, coaxial cable, air pressurization, grounding system, tower lights, and cameras), interim inspection of the equipment installations, successful cut-over of all radio systems, and successful testing witnessed by the FDOT Project Manager, the Vendor will be paid 50% of Grand Total Price.

= \$ _____

Milestone 3:

To be completed 305 days after PO is generated

Upon completion of dismantled guyed tower and restore site compound facilities, the Vendor shall be paid 10% of the Grand Total Price.

= \$ _____

Milestone 4:

To be completed 335 days after PO is generated

Upon completion of all interim inspection punch-list items, successful final acceptance, and approved submittal of all close out documentation, the Vendor shall be paid 20% of the Grand Total Price.

= \$ _____

NOTE: In submitting a response, the bidder acknowledges they have read and agree to the solicitation terms and conditions and their submission is made in conformance with those terms and conditions.

ACKNOWLEDGEMENT: I certify that I have read and agree to abide by all terms and conditions of this solicitation and that I am authorized to sign for the bidder. I certify that the response submitted is made in conformance with all requirements of the solicitation.

Bidder: _____ FEID# _____

Address: _____ City, State, Zip: _____

Phone: _____ E-mail: _____

Authorized Signature: _____ Date: _____

Printed/Typed: _____ Title: _____

INTRODUCTION SECTION

1) INVITATION

The State of Florida Department of Transportation (hereinafter referred to as the "Department") is soliciting written bids from qualified bidders to establish a contract to **Replace the FDOT FTE Pompano Beach Interchange Telecommunications tower and radio antenna systems. (See detailed technical specifications and contract plans for complete list of requirements).** It is anticipated that the term of the contract will begin on or about the date of award and be effective for approximately 12 months thereafter. All construction work must be completed by date specified in contract.

For the purpose of this document, the term "bidder" means the bidder acting on their own behalf and those individuals, partnerships, firms, or corporations comprising the bidder team. The term "bid package" means the complete response of the bidder to the Invitation to Bid, including properly completed forms and supporting documentation. After the award, said bidder will be referred to as the "Vendor".

2) TIMELINE

Provided below is a list of critical dates and actions. These dates are subject to change. Notices of changes (Addenda) will be posted on the Florida Vendor Bid System at www.myflorida.com (click on "BUSINESS", click on "Doing Business with the State", under "Everything for Vendors and Customers", click on "Vendor Bid System (VBS)", click on "Search Advertisements") under this bid number. It is the responsibility of all potential bidders to monitor this site for any changing information prior to submitting your bid.

ACTION / LOCATION	DATE	LOCAL TIME
TOWER SITE VISIT (MANDATORY) See Ex. A, Tech. Specs (2.) for location	April 30, 2018	2:00 PM
DEADLINE FOR TECHNICAL QUESTIONS -	May 4, 2018	5:00 PM
TECHNICAL Q&A POSTED - (Approx.)	May 11, 2018	5:00 PM
BIDS DUE (ON OR BEFORE) - FDOT Burns Bldg. Procurement Office Rm. 429 605 Suwannee Street, MS 20 Tallahassee, FL 32399-0450 Greg Hill (850) 414-4482	May 22, 2018	3:00 PM
PUBLIC OPENING - Florida Department of Transportation Procurement Office Rm. 429 Greg Hill (850) 414-4482 605 Suwannee Street, MS 20 Tallahassee, FL 32399-0450	May 22, 2018	3:00 PM
POSTING OF INTENDED DECISION/AWARD -	May 24, 2018	5:00 PM

3) **BID OPENING AGENDA**

The sealed bids will be opened by the Department's Procurement Office personnel at the date, time and location in the Timeline. All bid openings are open to the public and will be conducted according to the following agenda:

Opening remarks – Approximate time of 2 minutes by Department Procurement Office personnel.

Public input period – To allow a maximum of 15 minutes total for public input related to the bid solicitation.

Bids opened – At conclusion of public input or 15 minutes, whichever occurs first, bids received timely will be opened with bidder's name and prices to be read aloud.

Adjourn - After all bids received timely have been opened, the meeting will be adjourned.

4) **SPECIAL ACCOMMODATIONS**

Any person with a qualified disability requiring special accommodations at a pre-bid conference, public meeting, and/or opening shall contact the contact person at the phone number, e-mail address or fax number provided on the title page at least five (5) working days prior to the event. If you are hearing or speech impaired, please contact this office by using the Florida Relay Services which can be reached at 1 (800) 955-8771 (TDD).

SPECIAL CONDITIONS

1) **MyFloridaMarketPlace**

BIDDERS MUST BE REGISTERED IN THE STATE OF FLORIDA'S MYFLORIDAMARKETPLACE SYSTEM BY THE TIME AND DATE OF THE BID OPENING OR THEY MAY BE CONSIDERED NON-RESPONSIVE (see Special Condition 21). All prospective bidders that are not registered should go to <https://vendor.myfloridamarketplace.com/> to complete on-line registration, or call 1-866-352-3776 for assisted registration.

All payment(s) to the vendor resulting from this competitive solicitation **WILL** be subject to the MFMP Transaction Fee in accordance with the referenced Form PUR 1000 General Contract Condition #14. However, all vendors should be aware, that effective July 1, 2016 through June 30, 2017, in accordance with House Bill 5003 Sec.73, the Transaction Fee will be seven-tenths of one percent (.70%) of the payment issued. The Transaction Fees imposed shall be based upon the date of issuance of the payment.

2) **Florida Department of Financial Services (DFS) W-9 REQUIREMENT**

The Florida Department of Financial Services (DFS) requires all vendors that do business with the state to submit an electronic Substitute Form W-9. Vendors must submit their W-9 forms electronically at <https://flvendor.myfloridacfo.com> to receive payments from the state. Contact the DFS Customer Service Desk at (850) 413-5519 or FLW9@myfloridacfo.com with any questions.

3) **QUESTIONS & ANSWERS**

In accordance with section 287.057(23), Florida Statutes, respondents to this solicitation or persons acting on their behalf may not contact, between the release of the solicitation and the end of the 72-hour period following the agency posting the notice of intended award, excluding Saturdays, Sundays, and state holidays, any employee or officer of the executive or legislative branch concerning any aspect of this solicitation, except in writing to the procurement officer or as provided in the solicitation documents. Violation of this provision may be grounds for rejecting a response.

Any technical questions arising from this Invitation to Bid must be forwarded, in writing, to the procurement agent identified below. Questions must be received no later than the time and date reflected on the Timeline. The Department's written response to written inquiries submitted timely by bidders will be posted on the Florida Vendor Bid System at www.myflorida.com (click on "BUSINESS", click on "Doing Business with the

State”, under “Everything for Vendors and Customers”, click on “Vendor Bid System (VBS)”, click on “Search Advertisements”), under this bid number. It is the responsibility of all potential bidders to monitor this site for any changing information prior to submitting their bid.

WRITTEN TECHNICAL QUESTIONS should be submitted to:

greg.hill@dot.state.fl.us, or mailed to FDOT Procurement Office, Greg Hill, 605 Suwannee St., MS20, Tallahassee, FL 32399.

Questions regarding administrative aspects of the bid process should be directed to the Procurement Agent in writing at the address above or by phone: 850-414-4482

4) ORAL INSTRUCTIONS / CHANGES TO THE INVITATION TO BID (ADDENDA)

No negotiations, decisions, or actions will be initiated or executed by a bidder as a result of any oral discussions with a State employee. Only those communications which are in writing from the Department will be considered as a duly authorized expression on behalf of the Department.

Notices of changes (Addenda) will be posted on the Florida Vendor Bid System at www.myflorida.com (click on “BUSINESS”, click on “Doing Business with the State”, under “Everything for Vendors and Customers”, click on “Vendor Bid System (VBS)”, click on “Search Advertisements”) under this bid number. It is the responsibility of all potential bidders to monitor this site for any changing information prior to submitting your bid. All Addenda will be acknowledged by signature and subsequent submission of Addenda with bid when so stated in the Addenda.

5) DIVERSITY ACHIEVEMENT

MINORITY BUSINESS ENTERPRISE (MBE) UTILIZATION

The Department, in accordance with *Title VI of the Civil Rights Act of 1964, 42 USC 2000d- 2000d-4, Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21*, Nondiscrimination in federally-assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that the Department will affirmatively ensure that in any contract/agreement entered into pursuant to this advertisement, minority and disadvantaged business enterprises will be afforded the full opportunity to submit bids in response to this invitation and will not be discriminated on the basis of race, color, national origin, or sex in consideration for an award.

The Department encourages small, minority, women, and service-disabled veteran businesses to compete for Department contracts, both as “Vendor” and as subcontractors. The Department, its vendors, suppliers, and consultants should take all necessary and reasonable steps to ensure that small, minority, women, and service-disabled veteran businesses have the opportunity to compete for and perform contract work for the Department in a nondiscriminatory environment. Bidders are requested to indicate their intention regarding MBE participation on the MBE Planned Utilization form and to submit the completed form with their Bid Sheet. The contract vendor will be asked to submit payment certification for MBE subcontractors used.

To request certification or to locate certified MBEs, call the Office of Supplier Diversity, Department of Management Services at (850) 487-0915, or access their MBE directory on the Internet at www.osd.dms.state.fl.us/.

6) TECHNICAL SPECIFICATIONS/PLANS/DRAWINGS

Details of the services, information and items to be furnished by the Vendor are described in:

- Exhibit "A", Technical Specifications
- Appendix “A”, Contract Plans
- Appendix “B”, Lead-Based Paint Testing ***Attached Separately***
- Appendix “C”, Soil Boring Nearby Tower ***Attached Separately***

attached hereto and made a part hereof.

7) INTENDED AWARD

The Department intends to award this contract to the single, responsive, and responsible bidder that submits the lowest grand total bid. If the Department is confronted with identical pricing or scoring from multiple vendors, the Department shall determine the order of award in accordance with section 295.187(4), Florida Statutes, and Rule 60A-1.011 Florida Administrative Code.

8) PRE-BID SITE VISIT: (MANDATORY) April 30, 2018 2:00 PM (local time)

Each bidder must fully acquaint themselves with the conditions which may in any manner affect the work to be done or the equipment, materials and labor required to perform the services required under the conditions of this bid. This requires an on-site visit. Ignorance of the conditions or requirements will not relieve the Vendor from their liability and obligation under the contract.

9) QUALIFICATIONS

9.1 GENERAL

Bidder must meet the following minimum qualifications:

9.1.1 Been actively engaged in the type of business being requested for a minimum of **5** years.

9.1.2 Demonstrate use of laboratory grade Vector Network Analyzer for microwave antenna system trace analysis by a qualified technician with experience on a minimum of 2 projects in the last 5 years.

9.2 BIDDER QUALIFICATIONS

When submitting the bid, each bidder must submit a written statement ("Minimum Qualifications Statement" form), detailing their qualifications that demonstrate they meet the minimum qualifications contained in Special Condition 9.1.1 and 9.1.2 above. Failure by the bidder to provide the above item(s) will constitute a non-responsive determination. Bids found to be non-responsive will not be considered.

9.3 AUTHORIZED TO DO BUSINESS IN THE STATE OF FLORIDA

In accordance with sections 607.1501, 605.0211(2)(b), and 620.9102, Florida Statutes, out of state corporations, out of state limited liability companies, and out of state limited partnerships must be authorized to do business in the State of Florida. Such authorization should be obtained by the bid due date and time, but in any case, must be obtained prior to posting of the intended award of the contract. For authorization, contact:

Florida Department of State
Tallahassee, FL 32399
(850) 245-6051

9.4 LICENSE TO CONDUCT SERVICES IN THE STATE OF FLORIDA

If the services being provided requires that individuals be licensed by the Department of Business and Professional Regulation, such licenses should be obtained by the bid due date and time, but in any case, must be obtained prior to posting of the intended award of the contract.

For licensing, contact:

Florida Department of Business and Professional
Regulation Tallahassee, Florida 32399-0797
(850) 487-1395

NOTE: Provide all Certifications and Licenses (per F.A.C. 61G4-15.034 Certification of Tower Specialty Contractors) with bid submittal.

10) WARRANTY/SUBSTITUTIONS

When performance of the services requires the supply of commodities, a warranty is required on all items provided against defective materials, workmanship, and failure to perform in accordance with required industry performance criteria, for a period of not less than twelve (12) months from the date of acceptance by the purchaser. Any deviation from this criteria must be documented in the bid response or the above statement shall prevail. Delivery of substitute commodities requires prior written approval from the ordering location.

Replacement of all materials found defective within the warranty period shall be made without cost to the purchaser, including transportation if applicable. All fees associated with restocking cancelled orders shall be the responsibility of the vendor.

All items provided during the performance of the contract found to be poorly manufactured will not be accepted, but returned to the vendor, at their expense, for replacement. Replacement of all items found defective shall be made without cost to the Department, including transportation, if applicable. As it may be impossible for each facility to inspect all items upon arrival, a reasonable opportunity must be given to these facilities for inspection of the items, and returning those that are defective.

11) LIABILITY INSURANCE

The Vendor shall not commence any work until they have obtained the following types of insurance, and certificates of such insurance have been received by the Department. Nor shall the Vendor allow any subcontractor to commence work on this project until all similar insurance required of the subcontractor has been so obtained. The Vendor shall submit the required Certificates of Insurance to the **Florida Department of Transportation, Procurement Office, (Greg Hill, 605 Suwannee St., MS20 Tallahassee, FL 32309)** within ten (10) days after the ending date of the period for posting the intended award decision.

(X) The Vendor must carry and keep in force during the period of this contract a general liability insurance policy or policies with a company authorized to do business in the state of Florida, affording public liability insurance with combined bodily injury limits of at least **\$1,000,000** per person and **\$2,000,000 (minimum)** each occurrence, and property damage insurance of at least **\$1,000,000** each occurrence, for the services to be rendered in accordance with this contract.

With respect to any general liability insurance policy required pursuant to this Agreement, all such policies shall be issued by companies licensed to do business in the State of Florida. The Vendor shall provide to the Department certificates showing the required coverage to be in effect with endorsements showing the Department to be an additional insured prior to commencing any work under this Contract. The certificates and policies shall provide that in the event of any material change in or cancellation of the policies reflecting the required coverage, thirty days advance notice shall be given to the Department or as provided in accordance with Florida law.

The Department shall be exempt from, and in no way liable for, any sums of money which may represent a deductible in any insurance policy. The payment of such deductible shall be the sole responsibility of the Vendor or subcontractor providing such insurance. Policies that include Self Insured Retention (SIR) will not be accepted.

12) PERFORMANCE BOND

(X) The intended award bidder shall provide the Department with a Performance Bond in the amount of **“full amount of the bid”**. The Performance Bond shall be provided by a surety company authorized to do business in the state of Florida. The Performance Bond shall be executed and furnished to the Department prior to contract execution and no later than ten (10) days after the ending date of the period for posting the intended award decision, unless the Department extends the time period in writing. **Failure to provide the required Performance Bond (Form 375-040-27) to the Department within the aforementioned timeframe will void the Intended Award’s bid and the Department will proceed in**

contracting with the next lowest responsive bidder.

The bidder must submit, with its bid, a current letter from a surety company or bonding agent authorized to do business in the state of Florida and written on company letterhead, to document the bidder's present ability to obtain a Performance Bond in the amount of "full amount of the bid". Failure by the bidder to provide this letter with its bid will constitute a non-responsive determination for its bid.

Bids found to be non-responsive will not be considered.

13) METHOD OF COMPENSATION

The Vendor shall be paid on a lump sum basis for the successful completion and acceptance by the FDOT of the work associated with each project milestone. The request for payment for each milestone must be made through the Project Manager on approval of the milestone.

14) CONTRACT DOCUMENT

PURCHASE ORDER

The MyFloridaMarketPlace "Purchase Order Terms and Conditions" and the Department's "Purchase Order Terms & Conditions" are referenced or attached hereto and made a part hereof. The terms and conditions contained therein will become an integral part of each Purchase Order issued for this solicitation. In submitting a bid, the bidder agrees to be legally bound by these terms and conditions.

15) REVIEW OF BIDDER'S FACILITIES & QUALIFICATIONS

After the bid due date and prior to contract execution, the Department reserves the right to perform or to have performed, an on-site review of the bidder's facilities and qualifications. This review will serve to verify data and representations submitted by the bidder and may be used to determine whether the bidder has adequate facilities, equipment, qualified and experienced staff, and overall management capabilities to provide the required services. The review may also serve to verify whether the bidder has financial capabilities adequate to meet the contract requirements.

Should the Department determine that the bid package has material misrepresentations or that the size or nature of the bidder's facilities, equipment, management capabilities, or the number of experienced personnel (including technical staff) are not adequate to ensure satisfactory contract performance, the Department has the right to reject the bid.

16) PROTEST OF INVITATION TO BID SPECIFICATIONS

Any person who is adversely affected by the contents of this Invitation to Bid must file the following with the Department of Transportation, Clerk of Agency Proceedings, Office of the General Counsel, 605 Suwannee Street, Mail Station 58, Tallahassee, Florida 32399-0450:

1. A written notice of protest within seventy-two (72) hours after the posting of the solicitation, (the notice of protest may be Faxed to 850-414-5264), and
2. A formal written protest in compliance with Section 120.57(3), Florida Statutes, within ten (10) days of the date on which the written notice of protest is filed.

Failure to file a protest within the time prescribed in section 120.57(3), Florida Statutes, or failure to post the bond or other security required by law within the time allowed for filing a bond shall constitute a waiver of proceedings under Chapter 120, Florida Statutes.

17) UNAUTHORIZED ALIENS

The employment of unauthorized aliens by any contractor is considered a violation of Section 274A(e) of the Immigration and Nationality Act. If the contractor knowingly employs unauthorized aliens, such violation shall be cause for unilateral cancellation of the contract.

18) SCRUTINIZED COMPANIES LISTS

Responses of \$1 million or more must include a completed [Vendor Certification Regarding Scrutinized Companies Lists](#) to certify the respondent is not on either of those lists. The Form should be submitted with the Price Proposal.

Section 287.135, Florida Statutes, requires that at the time a vendor submits a bid or proposal for a contract for goods or services of \$1,000,000 or greater, the vendor must certify that the company is not on Scrutinized Companies with Activities in the Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or the Scrutinized Companies that Boycott Israel List.

For Contracts \$1,000,000 and greater, if the Department determines the Vendor submitted a false certification under Section 287.135(5) of the Florida Statutes, or if the Vendor has been placed on the Scrutinized Companies with Activities in the Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or the Scrutinized Companies that Boycott Israel List, the Department shall either terminate the Contract after it has given the Vendor notice and an opportunity to demonstrate the Department's determination of false certification was in error pursuant to Section 287.135(5)(a) of the Florida Statutes, or maintain the Contract if the conditions of Section 287.135(4) of the Florida Statutes are met.

19) RESERVATIONS

The Department reserves the right to accept or reject any or all bids received and reserves the right to make an award without further discussion of the bids submitted. Therefore, the bidder should make sure that the bid package submitted is complete and accurate and submitted to ensure delivery on or before the bid opening time and date specified in this solicitation. It is understood that the bid will become a part of the Department's official file, without obligation to the Department.

20) ADDITIONAL TERMS & CONDITIONS

No conditions may be applied to any aspect of the ITB by the bidder. Any conditions placed on any aspect of the bid documents by the bidder may result in the bid being rejected as a conditional bid (see "RESPONSIVENESS OF BIDS"). **DO NOT WRITE IN CHANGES ON ANY ITB SHEET.** The only recognized changes to the ITB prior to bid opening will be a written Addenda issued by the Department.

21) RESPONSIVENESS OF BIDS

Bids will not be considered if not received by the Department **on or before** the date and time specified as the due date for submission. All bids must be typed or printed in ink. A responsive bid is an offer to provide the services specified in this Invitation to Bid in accordance with all requirements of this Invitation to Bid. Bids found to be non-responsive will not be considered. Bids may be rejected if found to be irregular or not in conformance with the requirements and instructions herein contained. A bid may be found to be irregular or non-responsive by reasons that include, but are not limited to, failure to utilize or complete prescribed forms, modifying the bid requirements, submitting conditional bids or incomplete bids, submitting indefinite or ambiguous bids, or executing forms or the bid sheet with improper and/or undated signatures. Other conditions which may cause rejection of bids include, evidence of collusion among bidders, obvious lack of experience or expertise to provide the required services, and failure to perform or meet financial obligations on previous contracts.

22) BID SHEET

The bidder must use the attached Bid Sheet to submit its bid. The Bid Sheet must be signed and dated in ink

by a representative who is authorized to contractually bind the bidder. All bid sheets and other documentation submitted in response to this solicitation must be executed and submitted in a sealed envelope. **Indicate the bid number, with the time and date of the bid opening, on the envelope used to return the bid.**

23) ESTIMATED QUANTITIES

The Department anticipates purchasing the estimated quantities shown on the bid sheet(s), for a one (1) year period of any contract resulting from this bid. The estimated quantities are given only as a guideline for preparing your bid and should not be construed as representing the actual quantities to be authorized under this contract. The Vendor(s) shall supply, at bid prices, the actual quantities authorized regardless of whether the total of such quantities is more or less than anticipated. This bid and the resulting contract will be subject to annual appropriated funding.

24) "DRUG-FREE WORK PLACE" PREFERENCE

Whenever two or more bids which are equal with respect to price, quality, and service are received, the Department shall determine the order of award in accordance with section 295.187(4), Florida Statutes, and Rule 60A-1.011 Florida Administrative Code, which includes a preference for bid responses that certify the business has implemented a drug-free workplace program in accordance with Section 287.087, F.S. The "Drug-Free Workplace Program Certification" must be completed and submitted with the bid response to be eligible for this preference.

25) COPYRIGHTED MATERIAL

Copyrighted material will be accepted as part of a bid only if accompanied by a waiver that will allow the Department to make paper and electronic copies necessary for the use of Department staff and agents. It is noted that copyrighted material is not exempt from the Public Records Law, Chapter 119, Florida Statutes. Therefore, such material will be subject to viewing by the public, but copies of the material will not be provided to the public.

26) ATTACHMENT TO ITB SUBMITTAL - CONFIDENTIAL MATERIAL

The Bidder must include any materials it asserts to be exempted from public disclosure under Chapter 119, Florida Statutes, in a separate bound document labeled "Attachment to Invitation to Bid, Number ITB-DOT-(bid #) - Confidential Material". The Bidder must identify the specific Statute that authorizes exemption from the Public Records Law. Any claim of confidentiality on materials the Bidder asserts to be exempt from public disclosure and placed elsewhere in the bid will be considered waived by the Bidder upon submission, effective after opening.

27) MAIL OR DELIVER BIDS TO: (DO NOT FAX OR SEND BY E-MAIL)

**Florida Department of Transportation
Procurement Office
605 Suwannee Street, MS 20
Tallahassee, Florida 32399-0450
Attn: Greg Hill (850) 414-4482**

It is the bidder's responsibility to assure that the bid is delivered to the proper place **on or before** the Bid Due date and time (See Introduction Section 2 Timeline). Bids which for any reason are not so delivered, will not be considered.

28) MODIFICATIONS, RESUBMITTAL AND WITHDRAWAL

Bidders may modify submitted bids at any time prior to the bid due date. Requests for modification of a submitted bid shall be in writing and must be signed by an authorized signatory of the bidder. Upon receipt and acceptance of such a request, the entire bid will be returned to the bidder and not considered unless

resubmitted by the due date and time. Bidders may also send a change in a sealed envelope to be opened at the same time as the bid. The ITB number, opening date and time should appear on the envelope of the modified bid.

29) POSTING OF INTENDED DECISION/AWARD

29.1 - General:

The Department's decision will be posted on the Florida Vendor Bid System, at www.myflorida.com, (click on "BUSINESS", click on "Doing Business with the State", under "Everything for Vendors and Customers", click on "Vendor Bid System (VBS)", on date and time in the Timeline, and will remain posted for a period of seventy-two (72) hours. Any bidder who is adversely affected by the Department's recommended award or intended decision must file the following with the Department of Transportation, Clerk of Agency Proceedings, Office of the General Counsel, 605 Suwannee Street, Mail Station 58, Tallahassee, Florida 32399-0450:

1. A written notice of protest within seventy-two (72) hours after posting of the Intended Award, (the notice of protest may be Faxed to 850-414-5264), and
2. A formal written protest and protest bond in compliance with Section 120.57(3), Florida Statutes, within ten (10) days of the date on which the written notice of protest is filed. At the time of filing the formal written protest, a bond (a cashier's check or money order may be accepted) payable to the Department must also be submitted in an amount equal to one percent (1%) of the estimated contract amount based on the contract price submitted by the protestor.

Failure to file a protest within the time prescribed in Section 120.57(3), Florida Statutes, or failure to post the bond or other security required by law within the time allowed for filing a bond shall constitute a waiver of proceedings under Chapter 120, Florida Statutes.

29.2 - Inability to Post:

If the Department is unable to post as defined above, the Department will notify all bidders by electronic notification on the Florida Vendor Bid System (see special condition 29.1, above) or by mail, fax, and/or telephone. The Department will provide notification of any future posting in a timely manner.

29.3 - Request to Withdraw Bid:

Requests for withdrawal will be considered if received by the Department, in writing, within seventy-two (72) hours after the bid opening time and date. Requests received in accordance with this provision will be granted by the Department upon proof of the impossibility to perform based upon obvious error on the part of the bidder. Bidders that do not withdraw as stated above will forfeit their bid bond, if applicable.

30) AWARD OF THE CONTRACT

Services will be authorized to begin when the Vendor receives the following document(s), as appropriate, indicating the encumbrance of funds and award of the contract:

- A Purchase Order issued by the Department

31) RENEWAL

~~Upon mutual agreement, the Department and the Contract Vendor may renew the Contract for a period that may not exceed 3 years or the term of the original contract, whichever is longer. The renewal must be in writing and signed by both parties, and is subject to the same terms and conditions set forth in the initial contract and any written amendments signed by the parties. Any renewal shall specify the renewal price, as set forth in the solicitation response except that an agency may negotiate lower pricing. Renewal is contingent upon satisfactory performance evaluations and subject to the availability of funds.~~

32) ATTACHED FORMS

Bid Sheet

Minimum Qualifications Statement

Performance Bond (Form 375-040-27)

Drug-Free Workplace Program Certification (Form 375-040-18)

Vendor Certification Regarding Scrutinized Companies Lists (Form 375-030-60)

33) TERMS AND CONDITIONS

33.1 General Contract Conditions (PUR 1000)

The State of Florida's General Contract Conditions are outlined in form PUR 1000, which is a downloadable document incorporated into this Invitation to Bid (ITB) by reference. Any terms and conditions set forth in this ITB document take precedence over the PUR 1000 form where applicable.

<http://www.dms.myflorida.com/content/download/2933/11777/1000.pdf>

The following paragraphs do not apply to this Invitation to Bid:

Paragraph 31, Dispute Resolution - PUR 1000

Paragraph 40, PRIDE – PUR 1000, when federal funds are utilized.

33.2 General Instructions to Respondents (PUR 1001)

The State of Florida's General Instructions to Respondents are outlined in form PUR 1001, which is a downloadable document incorporated into this Invitation to Bid (ITB) by reference. Any terms and conditions set forth in this ITB document take precedence over the PUR 1001 form where applicable.

<http://www.dms.myflorida.com/content/download/2934/11780/1001.pdf>

The following paragraphs do not apply to this Invitation to Bid:

Paragraph 3, Electronic Submission – PUR 1001

Paragraph 4, Terms and Conditions – PUR 1001

Paragraph 5, Questions – PUR 1001

33.3 MFMP Purchase Order Terms and Conditions

All MFMP Purchase Order contracts resulting from this solicitation will include the terms and conditions of this solicitation and the State of Florida's standardized Purchase Order Terms and Conditions, which can be found at the Department of Management Services website at the following link:

http://www.dms.myflorida.com/content/download/117735/646919/Purchase_Order_Terms_Sept_1,_2015_.pdf

Section 8(B), PRIDE, is not applicable when using federal funds.

34) ORDER OF PRECEDENCE

All responses are subject to the terms and conditions of this solicitation, which, in case of conflict, shall have the following order of precedence listed:

Special Conditions

Exhibit "A", Technical Specifications

Appendix "A", Contract Plans

Bid Sheet

Department's PO Terms and Conditions

Instructions to Respondents (PUR 1001)

General Conditions (PUR 1000)

Introduction Section

EXHIBIT A

FLORIDA DEPARTMENT OF TRANSPORTATION

TECHNICAL SPECIFICATIONS

FOR

FTE POMPANO BEACH INTERCHANGE TOWER REPLACEMENT

April 16, 2018

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REFURBISHING\PHASE VI\4_POMPANO TOWER UPGRADE
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**FLORIDA DEPARTMENT OF TRANSPORTATION
FTE POMPANO BEACH INTERCHANGE TOWER REPLACEMENT**

TABLE OF CONTENTS		PAGE
1.	PROJECT SCOPE	1
1.1	General.....	1
1.2	Conduct of Work	2
1.3	Drawings and Project Plans	2
1.4	Definitions	3
1.5	Vendor's Responsibility.....	3
1.6	Changes in Work	4
1.7	No Waiver of Contract.....	4
1.8	Site Access and Security Requirements	4
1.9	Right to Remove Personnel from Project	4
1.10	Warranty	5
1.11	Material and Workmanship	6
1.12	Kick-Off Conference.....	6
1.13	Progress Reporting.....	6
1.14	Submittals.....	6
	1.14.1 General	6
	1.14.2 Coordination.....	6
	1.14.3 Processing	7
	1.14.4 Submittal Preparation.....	7
	1.14.5 Submittal Transmittal.....	8
	1.14.6 Vendor's Installation Schedule	8
	1.14.7 Drawings	9
	1.14.8 Product Data	9
	1.14.9 Submittal Actions.....	9
	1.14.10 Special Reports	10
1.15	Project Closeout	10
	1.15.1 Substantial Completion.....	10
	1.15.2 Final Acceptance.....	11
	1.15.3 Closeout Checklist.....	12
2.	SITE OF WORK.....	12
3.	INSTALLATION	13
3.1	Elliptical Waveguide and Cabling Special Concerns	13
3.2	260-Foot Solid Rod Member Self-Supporting Tower	13
3.3	Site Grounding.....	14
3.4	Antenna Systems Cut-Over	14
4.	INSPECTION AND VERIFICATION.....	15

**FLORIDA DEPARTMENT OF TRANSPORTATION
FTE POMPANO BEACH INTERCHANGE TOWER REPLACEMENT**

TABLE OF CONTENTS		PAGE
5.	PERFORMANCE TESTING AND ACCEPTANCE	15
5.1	Performance Testing.....	16
5.2	Acceptance.....	16
6.	AS-BUILT DOCUMENTATION	16
6.1	Example ITS Facility Management System Attribute Forms.....	18
APPENDIX A FDOT FTE POMPANO BEACH INTERCHANGE (8-4167) TOWER REPLACEMENT CONTRACT PLANS.....		A1
APPENDIX B LEAD BASED PAINT INSPECTION TESTING MILEPOST #67.....		B1
APPENDIX C GEOTECHNICAL REPORT NEARBY TOWER		C1

FLORIDA DEPARTMENT OF TRANSPORTATION
FTE POMPANO BEACH INTERCHANGE TOWER REPLACEMENT

1. PROJECT SCOPE

1.1 General

This document provides technical specifications and delineates the requirements for replacing the Florida Department of Transportation's (FDOT's) Florida's Turnpike Enterprise (FTE) Pompano Beach Interchange 256-foot guyed telecommunications tower and radio antenna systems. This project will supply and install a new 260-foot solid rod member self-supporting tower and radio antenna systems. The self-supporting tower and foundation shall be erected, then new radio antennas and grounding systems shall be furnished and installed in accordance with these specifications and plans. The existing microwave and land mobile radio systems shall be cut-over from the existing guyed tower to the newly erected self-supporting tower and antenna systems. Communication systems not included in this project shall be installed and cut-over by "Others" before the Vendor begins removal of the guyed tower. Finally, the guyed tower shall be dismantled and new fenced compound facilities shall be furnished and installed.

The main elements of this project include, but are not limited to:

- Submit proposed transportation Temporary Traffic Control plans for review and approval of the FDOT.
- Submit proposed tower and foundation structural analysis and structure assembly design plans for review and approval of the FDOT.
- Submit proposed antennas, transmission line, tower lighting, camera, and grounding systems installation design plans for review and approval of the FDOT.
- Obtain required building permits and coordinate all FAA and FCC filings.
- Furnish and install the concrete drilled pier tower foundations.
- Furnish and erect the 260-foot self-supporting tower.
- Furnish and install all antennas, waveguides, coaxial cables, tower obstruction lighting system, required appurtenances, cameras and lowering devices, and exterior grounding systems.
- Inspect all installation work.
- Perform waveguide air pressure leak tests. FDOT to witness.
- Perform antennas, waveguides, and coaxial cables sweep measurements. FDOT to witness.
- Cut-over operational microwave and land mobile radio systems to the new antenna systems, including microwave antenna path alignments. FDOT to witness.
- Perform and verify microwave receive signal level performance measurements. FDOT to witness.

FLORIDA DEPARTMENT OF TRANSPORTATION
FTE POMPANO BEACH INTERCHANGE TOWER REPLACEMENT

- Allowance for "Others" to cut-over communications systems outside of the scope before dismantling the guyed tower.
- Dismantle 256-foot guyed tower and remove all associated foundations 3-feet below grade.
- Dispose of all material and debris.
- Backfill holes, grade, and apply grass sod to compound.
- Furnish and install new compound fence segment.
- Final acceptance inspection.
- Entire job shall be in accordance with Appendix A: FDOT FTE Pompano Beach Interchange (8-4167) Tower Replacement Contract Plans package.

1.2 Conduct of Work

The Successful Proposer (hereafter "Vendor") shall arrange with the FDOT for access to the sites and work areas. The Vendor shall provide security for his/her equipment as required by the FDOT, and shall conduct his/her operations so as to avoid interference with the FDOT's normal operations.

Work to be performed outside the scope of these specifications shall be referred to as "By Others", or if by the State of Florida's designated representative then "By FDOT". The Vendor shall be responsible for coordinating his/her work with FDOT wherever an interface is required.

1.3 Drawings and Project Plans

The drawings and project plans are typically diagrammatic. They are as accurate as scale permits and the Vendor shall follow them as closely as possible. Any field conditions that change the required installation shall be reported to the FDOT. The Vendor shall verify all conditions and measurements relating to the work in the field prior to proceeding with installation. The Vendor shall verify all walls, rack profiles, cable trays, and conduit lengths at the existing facilities and include all conditions required to install equipment and systems as described herein and as shown on the drawings. All offsets required for installation of cabling and wiring systems shall be included in this project at no additional cost to the FDOT. The Vendor shall coordinate any modifications required by existing conditions to avoid conflicts of building systems and other building components.

The drawings, project plans, and specifications are complementary, and any work required by one and not the other shall be considered to be required by both. The FDOT Project Manager shall be the sole interpreter of the drawings and specifications.

FLORIDA DEPARTMENT OF TRANSPORTATION
FTE POMPANO BEACH INTERCHANGE TOWER REPLACEMENT

The Vendor shall note that all drawings and details are diagrammatic in general and indicate the character of the work included. Work intended, but having minor details obviously omitted or not shown, shall be furnished and installed complete to perform the functions desired.

1.4 Definitions

Department:	The Purchaser (or Owner) State of Florida Florida Department of Transportation (FDOT) Contact Person is the FDOT Project Manager (see below) in Tallahassee, Florida
Vendor:	The individual, firm, partnership, corporation, company, association, or other legal entity to whom the contract is awarded by the FDOT and who is subject to the terms thereof.
Vendor Project Manager	The Vendor's project contact person who has the project responsibility.
FDOT Project Manager:	Randy Pierce FDOT Traffic Engineering and Operations – ITS Section 605 Suwannee Street, MS 90 Tallahassee, Florida 32399-0450 V: (850) 410-5608, F: (850) 410-5501 randy.pierce@dot.state.fl.us
Project Consultant:	Danielle Morales, P.E., PMP Atkins-SNC-Lavalin c/o FDOT Traffic Engineering and Operations – ITS 605 Suwannee Street, MS 90 Tallahassee, Florida 32399-0450 V: (850) 410-5617, M: (850) 294-1076 danielle.morales@dot.state.fl.us

1.5 Vendor's Responsibility

It is understood, and the Vendor hereby agrees, that the Vendor is solely responsible for all equipment, materials, and services proposed. Notwithstanding the details presented in these specifications, the Vendor is responsible for verifying the completeness of the materials required and suitability of devices to meet these specifications. The Vendor shall provide and install, without claim, any additional equipment required for operation in accordance with these specifications.

FLORIDA DEPARTMENT OF TRANSPORTATION
FTE POMPANO BEACH INTERCHANGE TOWER REPLACEMENT

1.6 Changes in Work

FDOT may at any time, by written amendment to the contract, make changes within the general scope of the work, including, but not limited to, revisions, deletions or additions to portions of the work; or changes in the method of shipment or packaging and place of delivery, upon appropriate approvals as allowed by FDOT's procurement code.

If any change order initiated by the FDOT causes an increase or decrease in the cost or time required for the performance of any part of the work under the contract, an equitable adjustment shall be made by the FDOT in the contract price or delivery schedule, or both, and the contract shall be modified in writing accordingly. Adjustments to contract price for labor shall be based on the actual direct labor and burden reasonably incurred in the additional or unforeseen work, plus a mark-up not to exceed 10 percent. Adjustments to contract price for actual equipment and supplies shall be based on the actual cost of equipment and supplies incorporated into the work, including Vendor paid transportation charges, reasonably incurred in the additional or unforeseen work, plus a mark-up not to exceed 10 percent.

1.7 No Waiver of Contract

Changes made by the FDOT shall not be considered to waive any of the provisions of the contract, nor may the Vendor make any claim for loss of anticipated profits because of the changes, or by reason of any variation between the approximate quantities and the quantities of work actually performed. All work shall be performed as directed by the FDOT and in accordance with the contract documents.

1.8 Site Access and Security Requirements

The FDOT system addressed in this contract supports public safety applications such as Intelligent Transportation Systems and Highway Maintenance. To ensure security for the system, FDOT requires that Vendor or Sub-Vendor employees submit to security background checks performed by the Florida Department of Law Enforcement after award of contract. At any time that employees of the Vendor are working at an FDOT communications site, a minimum of one of those employees on the site shall possess this clearance.

1.9 Right to Remove Personnel from Project

The FDOT has the right to remove any Vendor or Sub-Vendor personnel from the project for any reason. The FDOT shall send a written notification to the Vendor, via email, that

FLORIDA DEPARTMENT OF TRANSPORTATION
FTE POMPANO BEACH INTERCHANGE TOWER REPLACEMENT

a particular person shall be removed from the project. The Vendor shall remove the particular person from the project within 24 hours of transmission of the written notice.

1.10 Warranty

All equipment and services furnished by the Vendor as part of this project shall be warranted to be free from defects in material and workmanship, and shall conform to this specification. In the event any such defects in equipment or services become evident within the warranty period, the Vendor shall correct the defect by, at its option, (1) repairing any defective component of the equipment; (2) furnishing and installing necessary replacement parts; or (3) redoing the faulty services. The Vendor is responsible for all charges incurred in returning defective parts to the Vendor's, Sub-Vendor's, or suppliers' plants, and in shipping repaired or replacement parts to FDOT. The Vendor shall provide labor to perform warranty services at no charge to FDOT during the warranty period.

The Vendor further warrants that during the warranty period equipment furnished under this contract shall operate under normal use and services as a complete system, which shall perform in accordance with this specification.

The warranty period shall be a period of at least 12 months from the date of final systems acceptance as defined herein. Claims under any of the warranties herein are valid if made within 30 days after termination of the warranty period. In addition, the following specific requirements apply to the Vendor's warranty:

- All equipment furnished by the Vendor hereunder shall be new and of current manufacture.
- FDOT shall notify the Vendor within a reasonable time after the discovery of any failure or defect occurring within the warranty period.

Should the Vendor fail to remedy any failure or defect within 30 consecutive days after receipt of notice thereof, or within time specified in the notice, FDOT shall have the right to replace, repair, or otherwise remedy such failure or defect at the Vendor's expense.

The Vendor shall obtain any warranties which Sub-Vendors or suppliers to the Vendor give in the regular course of commercial practice, and shall apply the same to the benefit of the FDOT.

The warranty shall be comprehensive. No deductibles shall be allowed for travel time, service hours, repair parts cost, etc.

FLORIDA DEPARTMENT OF TRANSPORTATION
FTE POMPANO BEACH INTERCHANGE TOWER REPLACEMENT

1.11 Material and Workmanship

All equipment and component parts furnished shall be new, meet or exceed the minimum requirements stated herein, and perform to manufacturer's specifications.

All parts shall be of high quality workmanship and utilize the most current technology available. No part or attachment shall be substituted or applied contrary to the manufacturer's recommendations and standard practices. At the time of delivery and installation, the most current revision model of each type of equipment meeting or exceeding the requirements of this contract shall be provided, regardless of the model offered in the proposal.

1.12 Kick-Off Conference

A kick-off conference and organizational meeting shall be held in Tallahassee, FL. Required attendees shall be notified as to the date and time of the meeting. Minutes of the meeting shall be prepared and distributed by the FDOT Project Manager.

1.13 Progress Reporting

The Vendor shall provide weekly progress reports on work schedules. The Vendor shall also provide progress reports against the approved weekly work schedule.

1.14 Submittals

1.14.1 General

This section specifies administrative and procedural requirements for submittals required for performance of the Work, including:

- Vendor's installation schedule.
- Product data.
- Special reports.

1.14.2 Coordination

The Vendor shall coordinate the preparation and processing of submittals with performance of installation activities. The Vendor shall transmit each submittal sufficiently in advance of performance of related installation activities to avoid delay.

The Vendor shall coordinate each submittal with purchasing, testing, delivery, other submittals, and related activities that require sequential activity.

**FLORIDA DEPARTMENT OF TRANSPORTATION
FTE POMPANO BEACH INTERCHANGE TOWER REPLACEMENT**

The Vendor shall coordinate transmittal of different types of submittals for related elements of the Work so processing shall not be delayed by the need to review submittals concurrently for coordination.

FDOT reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

1.14.3 Processing

The Vendor shall allow sufficient review time so that installation shall not be delayed as a result of the time required to process submittals, including time for resubmittals.

The Vendor shall allow 10 business days for initial review. The Vendor shall allow additional time if processing shall be delayed to permit coordination with subsequent submittals. FDOT shall promptly advise the Vendor when a submittal being processed shall be delayed for coordination.

If an intermediate submittal is necessary, the Vendor shall process the submittal the same as the initial submittal.

The Vendor shall allow 10 business days for reprocessing each submittal.

No extension of contract time shall be authorized because of failure to transmit submittals to FDOT sufficiently in advance of the work to permit processing.

1.14.4 Submittal Preparation

The Vendor shall place a permanent label or title block on each submittal for identification. The Vendor shall indicate the name of the entity that prepared each submittal on the label or title block.

The Vendor shall provide a space approximately 4" x 5" on the label or beside the title block on drawings to record the Vendor's review and approval markings and the action taken.

Include the following information on the label for processing and recording action taken:

- Project name.
- Date.
- Name and address of Vendor.
- Name and address of Sub-Vendor.
- Name and address of supplier.

**FLORIDA DEPARTMENT OF TRANSPORTATION
FTE POMPANO BEACH INTERCHANGE TOWER REPLACEMENT**

- Name of manufacturer.
- Number and title of appropriate specification section.
- Drawing number and detail references, as appropriate.

1.14.5 Submittal Transmittal

The Vendor shall package each submittal appropriately for transmittal and handling. The Vendor shall transmit each submittal to FDOT using a transmittal form. Submittals received from sources other than the Vendor shall be returned without action.

The Vendor shall record relevant information and requests for data on the transmittal. The Vendor shall record deviations from contract document requirements, including all variations and limitations on the transmittal or on a separate sheet. The Vendor shall include the Vendor's certification that information complies with contract document requirements.

1.14.6 Vendor's Installation Schedule

1.14.6.1 General

The Vendor shall prepare a fully developed installation schedule. The Vendor shall submit its initial schedule within 10 days of receipt of Notice to Proceed.

The Vendor shall secure time commitments for performing critical elements of the work from all parties involved. The Vendor shall coordinate each element on the schedule with other installation activities; include minor elements involved in the sequence of the work. The Vendor shall show each activity in proper sequence.

The Vendor shall coordinate the installation schedule with Sub-Vendors, submittal schedule, payment requests and other schedules.

1.14.6.2 Distribution of Schedule

The Vendor shall print and distribute copies to FDOT, Sub-Vendors, and other parties required to comply with scheduled dates.

When revisions are made, the Vendor shall distribute the updated schedule to the same parties. The Vendor shall remove parties from distribution when they have completed their assigned portion of the work and are no longer involved in installation activities.

1.14.6.3 Schedule Updating

The Vendor shall revise the schedule after each meeting or activity, where revisions have been recognized or made. The Vendor shall issue the updated schedule concurrently with

FLORIDA DEPARTMENT OF TRANSPORTATION
FTE POMPANO BEACH INTERCHANGE TOWER REPLACEMENT

report of each meeting. The Vendor shall submit Notification of Work forms weekly, and as needed.

1.14.7 Drawings

The Vendor shall submit newly prepared information and, when required, drawn to accurate scale. The Vendor shall highlight, encircle, or otherwise indicate deviations from the contract documents.

When submitting drawings that do not meet all specified requirements, the Vendor shall clearly indicate on the drawings and the transmittal letter the proposed exceptions. Any drawings without clearly identifying specification exceptions shall be subject to the same provisions of a "rejected" submittal.

Drawings include, but are not limited to, site plans, fence details and notes, grounding plan, alarm block details, indoor and outdoor equipment wall mount details, wiring diagrams, installation drawings, and similar drawings.

The Vendor shall not use drawings without a written approval from the FDOT Project Manager indicating action to be taken in connection with installation.

1.14.8 Product Data

The Vendor shall collect product data into a single submittal for each element of installation or the system. The product data shall include printed information such as manufacturer's installation instructions and performance specifications.

The Vendor shall mark each copy to show applicable choices and options. Where printed product data includes information on several products, some of which are not required, the Vendor shall mark copies to indicate the applicable information. The Vendor shall include the Vendor's certification that the product complies with contract document requirements.

The Vendor shall furnish copies of the final submittal to installers, Sub-Vendors, suppliers, manufacturers, and others required for performance of installation activities. The Vendor shall show the distribution on transmittal forms.

1.14.9 Submittal Actions

Except for submittals for record, information or similar purposes, where action and return is not required or requested, FDOT shall review each submittal and return comments to the Vendor.

FLORIDA DEPARTMENT OF TRANSPORTATION
FTE POMPANO BEACH INTERCHANGE TOWER REPLACEMENT

The Vendor shall comply with FDOT's review comments.

1.14.10 Special Reports

Except when otherwise indicated, the Vendor shall submit special reports directly to FDOT within one day of occurrence requiring special report, with copies to others affected by the occurrence.

The Vendor shall prepare and submit reports of significant accidents at the site and anywhere else work is in progress to FDOT. The Vendor shall record and document data and actions, and shall comply with industry standards. For this purpose, a significant accident is defined to include events where personal injury is sustained, or property loss of substance is sustained, or where the event posed a significant threat of loss or personal injury.

1.15 Project Closeout

1.15.1 Substantial Completion

Substantial Completion is defined as the point at which the equipment is fully installed, operational, has successfully passed field acceptance testing of all elements, and inspections are completed.

Before requesting inspection for certification of Substantial Completion, the Vendor shall complete the following:

- In the application for payment that coincides with, or first follows, the date Substantial Completion is claimed, include supporting documentation for completion as indicated in these contract documents and a statement showing an accounting of changes in the contract sum.
- If 100 percent completion cannot be shown, include a list of incomplete items, the value of incomplete installation, and reasons the work is not complete.
- Advise FDOT of pending insurance change-over requirements.
- Submit specific warranties, workmanship bonds, maintenance agreements, final certifications and similar documents.
- Obtain and submit releases enabling FDOT unrestricted use of the work and access to services and utilities; include operating certificates and similar releases.

FLORIDA DEPARTMENT OF TRANSPORTATION
FTE POMPANO BEACH INTERCHANGE TOWER REPLACEMENT

On receipt of a request for inspection for substantial completion, FDOT shall either proceed with inspection or advise the Vendor of unfulfilled requirements. FDOT shall prepare the Certificate of Substantial Completion following the inspection, or advise the Vendor of work that shall be completed or corrected before the certificate shall be issued.

FDOT shall repeat inspection when requested and assured that the work has been substantially completed.

1.15.2 Final Acceptance

Final Acceptance is defined as the point at which all work is completed, all closeout forms are completed and submitted, and equipment spares, manuals, and training have been provided.

- A. Before requesting inspection for Certification of Final Acceptance, the Vendor shall complete the following: Submit as-built documentation, maintenance manuals, final project photographs, ITS Facility Management System Attribute Forms, and similar final record information.
- B. Complete final clean up requirements.
- C. Submit the final payment request with releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.
- D. Submit an updated final statement, accounting for final additional changes to the contract sum.
- E. Submit a copy of FDOT's final inspection list of items to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance. List any and all exceptions on this list.
- F. Submit all required inspection certificates, bonds, and written guarantees.
- G. Return all FDOT provided keys for access to the site. Include affidavit that duplications of keys have not occurred.

FDOT shall re-inspect the work upon receipt of notice that all the work, including inspection list items from earlier inspections, has been completed, except items whose completion has been delayed because of circumstances acceptable to FDOT. Upon completion of re-inspection, FDOT shall prepare a Certificate of Final Acceptance, or advise the Vendor

FLORIDA DEPARTMENT OF TRANSPORTATION
FTE POMPANO BEACH INTERCHANGE TOWER REPLACEMENT

of work that is incomplete or of obligations that have not been fulfilled but are required for Final Acceptance. If necessary, re-inspection shall be repeated.

1.15.3 Closeout Checklist

All items listed below, with the exception of the first item listed, shall be bound in individual heavy-duty 3-ring vinyl covered binders. The Vendor shall mark appropriate identification on front and spine of each binder.

All items shall be submitted in triplicate within fifteen days of Substantial Completion for the project:

- Application and Certification for Payment (Final). Three copies with original signatures and seals.
- Power of Attorney from Surety to make Final Payment.
- Warrantees as required by the specifications, in the name of FDOT.
- As-built documentation of maintenance and operation manuals.
- Equipment Inventory List including manufacturer and serial numbers.
- Completed ITS Facility Management System Attribute Forms
- Notarized affidavit of all Sub-Vendor payrolls, bills for materials/equipment and other indebtedness paid and satisfied.

2. SITE OF WORK

The Vendor shall visit and inspect the FTE Pompano Beach Interchange communications facilities prior to submitting a quote. The Vendor shall submit a quote for equipment and facilities work required as delineated in this Technical Specification and Contract Plans.

The FTE Pompano Beach Interchange communications facilities are located at Mile Post 67 on Florida's Turnpike, north of SR-814.

Latitude: 26° 14' 53.42" N Longitude: 80° 9' 56.69" W (NAD 83)

FLORIDA DEPARTMENT OF TRANSPORTATION
FTE POMPANO BEACH INTERCHANGE TOWER REPLACEMENT

3. INSTALLATION

Installation of all tower and facilities equipment shall meet or exceed the design requirements of this Technical Specification and standards of good engineering practice. Any damage to the existing facilities shall be repaired by the Vendor at no additional cost to FDOT. The relative arrangement of operating equipment shall be consistent with the existing site installation and with good engineering practices.

The Vendor shall refer to Contract Plans in Appendix A for installation details.

3.1 Elliptical Waveguide and Cabling Special Concerns

The Vendor shall be responsible for all elliptical waveguides, coaxial cables, tower lights cables, camera cables, conduits, and respective hardware; as any bends, kinks, or deformation will render the elliptical waveguides and other cables unusable. Splicing of the waveguide or any cables is not permitted. Any elliptical waveguides, coaxial cables, or Ethernet cables damaged by the Vendor shall be replaced with new full-length replacements at the Vendor's cost, without claim.

The Vendor shall refer to Contract Plans in Appendix A for installation details.

3.2 260-Foot Solid Rod Member Self-Supporting Tower

The Vendor shall supply and deliver a 260-foot solid rod member self-supporting tower assembly to the FTE Pompano Beach Interchange communications site. The Vendor shall furnish and install the concrete drilled pier leg foundations. The Vendor shall erect and install the self-supporting tower assembly in accordance with these specifications.

A geotechnical soil boring report for sampled locations within the Pompano Beach compound are provided in Appendix C. The locations of the nearby soil sample borings are referenced in Appendix C, Sheet IT-7. This report does NOT include the new tower leg/caisson locations that are the subject of this procurement. Appendix C is for information purposes only. The geotechnical soil boring report for the locations of two of the proposed tower legs is being developed and shall be provided to the awarded vendor.

The Vendor shall refer to Contract Plans in Appendix A for specifications and installation details.

FLORIDA DEPARTMENT OF TRANSPORTATION
FTE POMPANO BEACH INTERCHANGE TOWER REPLACEMENT

3.3 Site Grounding

Lightning damage to equipment and structures and its prevention is a major consideration in the design of communications sites in Florida. The Vendor shall perform all facilities work in accordance with the installation requirements delineated herein to ensure that adequate grounding is installed at the FTE Pompano Beach Interchange communications facilities site.

The Vendor shall perform a 3-point ground test. The complete site ground system measurement must be 5Ω or lower.

Work performed at the FDOT site must meet the requirements herein to ensure compliance with FDOT installation practices.

ANY VARIANCE FROM THE FDOT'S PRACTICES SHALL BE SUBMITTED IN WRITING AND MUST BE PRE-APPROVED IN WRITING BY THE FDOT PROJECT MANAGER OR IT WILL NOT BE ACCEPTED.

The Vendor shall refer to Contract Plans in Appendix A for installation details.

3.4 Antenna Systems Cut-Over

The radio antenna systems' Return Loss shall be commensurate with the system component return loss specifications of the manufacturer. **The radio antennas, waveguides, and coaxial transmission lines shall be swept in accordance with this technical specification with appropriate laboratory-grade Vector Network Analyzer test equipment. Sweeps shall be conducted by an experienced and qualified technician for use of the specified test equipment.**

The Vendor shall perform three sets of two traces and submit the printed documentation of the test results to the FDOT for approval. The three sets of traces shall be performed with a short on the line, a load on the line, and the antenna on the line. Each set of tests shall include two traces:

1. Return loss of the system with frequency limits set to overshoot the lower and upper band edges of the target system by a minimum of 300MHz
2. Time Domain of the entire length of the transmission line.

The vendor shall submit a list of test equipment, with calibration dates, to the FDOT project manager for review and approval prior to testing.

**FLORIDA DEPARTMENT OF TRANSPORTATION
FTE POMPANO BEACH INTERCHANGE TOWER REPLACEMENT**

All of the FDOT radio systems are in service and carrying critical communications traffic. Any downtime to the existing system must be coordinated with the FDOT prior to the downtime occurrence. All work classified as causing minor downtime requires a minimum of two days prior notice. All work classified as causing significant downtime requires a minimum of ten days prior notice and must be coordinated with the FDOT prior to occurrence.

Microwave link performance Receive Signal Levels (RSLs) measurements shall be performed before and after cut-over by the Vendor and witnessed by the FDOT to verify proper antenna alignment. RSL measurements shall be recorded onto the FDOT approved RSL Measurements forms contained in Appendix A. The new RSL measurements must meet or exceed the original RSL measurements.

The Vendor shall refer to Contract Plans in Appendix A for cut-over details.

4. INSPECTION AND VERIFICATION

The FDOT's Project Manager or designated representative shall be present to oversee and inspect all installation activities. The Vendor shall notify the individuals listed below of the start of work a minimum of seven (7) working days in advance. The FDOT Project Manager or designated personnel has the authority to stop work at the site if the work is not being performed in a manner consistent with these specifications or if the work is being performed in an unsafe manner. The Vendor shall notify the individuals listed below of any scheduled downtime. All work classified as causing less than five minutes of downtime requires a minimum of two days prior notice. All work classified as causing five minutes or more downtime requires a minimum of ten days prior notice and must be coordinated with the FDOT prior to occurrence.

Name	Organization	Telephone Number
Randy Pierce	FDOT, Traffic Operations - ITS	(850) 410-5608
Matt Mitchell	FDOT, FTE	(407) 264-3302
Danielle Morales, P.E., PMP	FDOT, Traffic Operations - ITS	(850) 410-5617

5. PERFORMANCE TESTING AND ACCEPTANCE

The Vendor shall notify the FDOT Project Manager and the FDOT's local personnel at least 10 days prior to completion of the installation activities. The Vendor, in conjunction with the FDOT's Project Manager or designated representative(s), shall verify that all equipment is correctly installed and functioning properly.

**FLORIDA DEPARTMENT OF TRANSPORTATION
FTE POMPANO BEACH INTERCHANGE TOWER REPLACEMENT**

ALL TESTS SHALL BE WITNESSED BY THE FDOT PROJECT MANAGER OR DESIGNATED PERSONNEL. ALL TESTS RESULTS SHALL HAVE A WITNESS SIGNATURE OF THE DESIGNATED FDOT PERSONNEL OR THE TEST RESULTS WILL NOT BE ACCEPTED.

5.1 Performance Testing

Following the completion of all inspections and testing, the installed self-supporting tower, elliptical waveguide and coaxial cable transmission lines, and cameras and lowering devices shall be subjected to a minimum 20 day performance period. A performance period of 20 consecutive calendar days of successful operation shall constitute a successful performance period.

For the purpose of the successful performance period, failure of operation is defined as the failure of a major component of the tower, elliptical waveguide or coaxial cable transmission lines, or camera and lowering system. Degradation of microwave link performance is considered a failure.

The performance verification shall be accomplished and witnessed by the FDOT Project Manager or designated personnel. Upon acceptance of the criteria of the test by the FDOT Project Manager, the 20 day performance period shall begin. This requirement shall be accomplished during a period of time not to exceed 45 consecutive calendar days after equipment installation, inspection, and testing.

If a successful performance period cannot be accomplished within 45 consecutive calendar days after the equipment inspection and testing, the FDOT reserves the right to deem the Vendor in default and enforce the provisions set forth in the contract.

5.2 Acceptance

The Vendor shall provide an acceptance report at the conclusion of the testing for FDOT review and approval. Upon completion of the successful performance period the FDOT shall issue acceptance.

6. AS-BUILT DOCUMENTATION

The Vendor shall provide photographic documentation of all work performed at the site clearly showing the installation of new facilities, equipment, grounding, and installation hardware, and the removal of the old tower.

FLORIDA DEPARTMENT OF TRANSPORTATION
FTE POMPANO BEACH INTERCHANGE TOWER REPLACEMENT

The Vendor shall provide three sets of hard copy, as well as one set of soft copy, as-built documentation as part of this project. The as-built documentation shall fully detail all work activities associated with this project.

The Vendor shall complete the ITS Facility Management System Attribute Forms in accordance with this specification. The forms included in this section are for diagrammatical purposes only. The Vendor shall download the actual forms from the following ITS Facility Management System web site address:

<http://www.fdot.gov/traffic/itsfm/index.shtml>

It is important that the Vendor download and use the most current file versions prior to starting installation, survey, inventory, or feature import tasks because of the frequency of updates.

FLORIDA DEPARTMENT OF TRANSPORTATION
FTE POMPANO BEACH INTERCHANGE TOWER REPLACEMENT

6.1 Example ITS Facility Management System Attribute Forms



STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ITS Facility Management System
Tower Support Structure Attribute Form



ITSFM053
Page 1 of 1
Rev. 01/18

Date:	Inspector:	Financial Project ID:	As-Built Drawing No:
Tower Support Structure (SIN) Site Name: _____ Owner: _____ County: _____		Latitude / Longitude (N/W) N = _____ W = _____	
Tower Support Structure			
Tower Information			
Facility Owner: _____ County: _____ Year Installed: _____ Tower Type: <input type="checkbox"/> Self-Support <input type="checkbox"/> Guyed <input type="checkbox"/> Mono Pole <input type="checkbox"/> Crank Up		Property ID# : _____ Safety Climbing Hardware: <input type="checkbox"/> Yes <input type="checkbox"/> No Tower Condition: <input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> Scrap	
Tower Manufacture: _____ Tower Model: _____ Tower Finish: <input type="checkbox"/> Galvanized <input type="checkbox"/> Painted Tower Height (Ft): _____		Antenna Structure Registration: _____ Aeronautical Study Number: _____ Tower Structure Analysis Date: _____ Tower Inspection Date: _____	
Antenna Components		Communication Cables	
Year Installed: _____ Antenna Manufacture: _____ Antenna Model: _____ Origination SIN (A Side): _____ Destination SIN (Z Side): _____ <u>Antenna Type:</u> <input type="checkbox"/> Dish <input type="checkbox"/> Panel <input type="checkbox"/> Yagi <input type="checkbox"/> Omni <input type="checkbox"/> Folded Dipole <input type="checkbox"/> Unknown <input type="checkbox"/> Other: _____ <u>Antenna Polarization:</u> <input type="checkbox"/> Horizontal <input type="checkbox"/> Vertical <input type="checkbox"/> Circular <input type="checkbox"/> Dual Antenna Direction (Azimuth in Degrees) _____ <u>Antenna Mount:</u> <input type="checkbox"/> Direct <input type="checkbox"/> Pipe <input type="checkbox"/> Side Arm <input type="checkbox"/> Wall <input type="checkbox"/> Bridge <input type="checkbox"/> Cantilever Structure <input type="checkbox"/> Overhead Structure <input type="checkbox"/> Other: _____ <u>Antenna Installed Location (Tower Leg):</u> <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> Unknown Antenna Point of Attachment (Ft.): _____ Antenna Jumper Size (Pigtail): <input type="checkbox"/> 1/2" <input type="checkbox"/> 7/8" <input type="checkbox"/> 1 1/4" <input type="checkbox"/> EW63 <input type="checkbox"/> EW90 <input type="checkbox"/> WE65 <input type="checkbox"/> Other: _____ Antenna Jumper Length: _____		<u>Communication Cable Type:</u> <input type="checkbox"/> Coax – Corrugated <input type="checkbox"/> Coax – Braided <input type="checkbox"/> Waveguide <u>Communication Cable Size:</u> <input type="checkbox"/> 1/2" <input type="checkbox"/> 7/8" <input type="checkbox"/> 1 1/4" <input type="checkbox"/> EW63 <input type="checkbox"/> EW90 <input type="checkbox"/> WE65 <input type="checkbox"/> Other: _____ Communication Cable Length (Ft.): _____ <u>Communication Cable Connector Type:</u> <input type="checkbox"/> 7/16 DIN <input type="checkbox"/> BNC <input type="checkbox"/> N-Type <input type="checkbox"/> UHF <input type="checkbox"/> WG63 <input type="checkbox"/> Other: _____	
Warning Lights			
		Date Installed(yyyy-mm-dd): _____ Beacon Type: _____ Beacon Manufacture: _____ Beacon Model: _____ Light Controller Manufacture: _____ Light Controller Model: _____ Side Markers Installed: <input type="checkbox"/> Yes <input type="checkbox"/> No Side Markers Type: _____ Side Markers Manufacture: _____ Side Markers Model: _____ Side Markers Point-of-Attachment (Ft.): _____	

**FLORIDA DEPARTMENT OF TRANSPORTATION
FTE POMPANO BEACH INTERCHANGE TOWER REPLACEMENT**



STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
**ITS Facility Management System
Wireless Communication Equipment Attribute Form**



ITSFM038
Page 1 of 1
Rev. 01/18

Date: _____	Inspector: _____	Site Identification Name: _____
Wireless Radio Components		
Radio Equipment #1	Associated Antenna	
Facility Owner: _____ County: _____ Date Installed(yyyy-mm-dd): _____ Radio Type: <input type="checkbox"/> Broadcast <input type="checkbox"/> DSRC <input type="checkbox"/> Highway Advisory Radio <input type="checkbox"/> Land Mobile Radio <input type="checkbox"/> Leased Cellular <input type="checkbox"/> Low Band <input type="checkbox"/> Microwave <input type="checkbox"/> Motorist Aid System <input type="checkbox"/> RF Amplifier <input type="checkbox"/> RFID Transceiver <input type="checkbox"/> Satellite <input type="checkbox"/> Spread Spectrum <input type="checkbox"/> UHF Receiver Multi Coupler <input type="checkbox"/> Other: _____ Frequency Band: _____ FCC Call Sign: _____ FCC License Expiration Date: _____ Manufacturer: _____ Model: _____ Serial Number: _____ IP Address: _____ MAC Address: _____ Firmware Version: _____ Output Ports: <input type="checkbox"/> Fiber: _____ <input type="checkbox"/> Copper: _____ Fiber Connector Type: _____ Input Voltage: _____ Load/Draw Amps: _____	Tower SIN: _____ <u>If Tower Support Structure Attribute Form Completed You Can Skip The Following Antenna Attributes</u> Origination SIN (A Side): _____ Destination SIN (Z Side): _____ Antenna is built-into the Radio Unit: <input type="checkbox"/> Yes <input type="checkbox"/> No Antenna Mount Type: <input type="checkbox"/> Direct <input type="checkbox"/> Pipe <input type="checkbox"/> Side Arm <input type="checkbox"/> Bridge <input type="checkbox"/> Cantilever STR <input type="checkbox"/> Overhead STR <input type="checkbox"/> Wall <input type="checkbox"/> Other: _____ Antenna Type: <input type="checkbox"/> Yagi <input type="checkbox"/> Panel <input type="checkbox"/> Omni <input type="checkbox"/> Dish <input type="checkbox"/> Other: _____ Polarization: <input type="checkbox"/> Vertical <input type="checkbox"/> Horizontal Year Installed: _____ Manufacturer: _____ Model: _____ Point of Attachment (Height): _____ Antenna Location on Tower: <input type="checkbox"/> A <input type="checkbox"/> AB <input type="checkbox"/> AC <input type="checkbox"/> B <input type="checkbox"/> BC <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> Unknown Antenna Direction (Azimuth-Degrees): _____ Antenna Jumper Size (Pigtail)(In): _____ Antenna Jumper Length (Ft): _____ Comm Cable Type: _____ Comm Cable Size (In): _____ Comm Cable Length (Ft): _____ Comm Cable Connector Type: _____	

**FLORIDA DEPARTMENT OF TRANSPORTATION
FTE POMPANO BEACH INTERCHANGE TOWER REPLACEMENT**

APPENDIX A

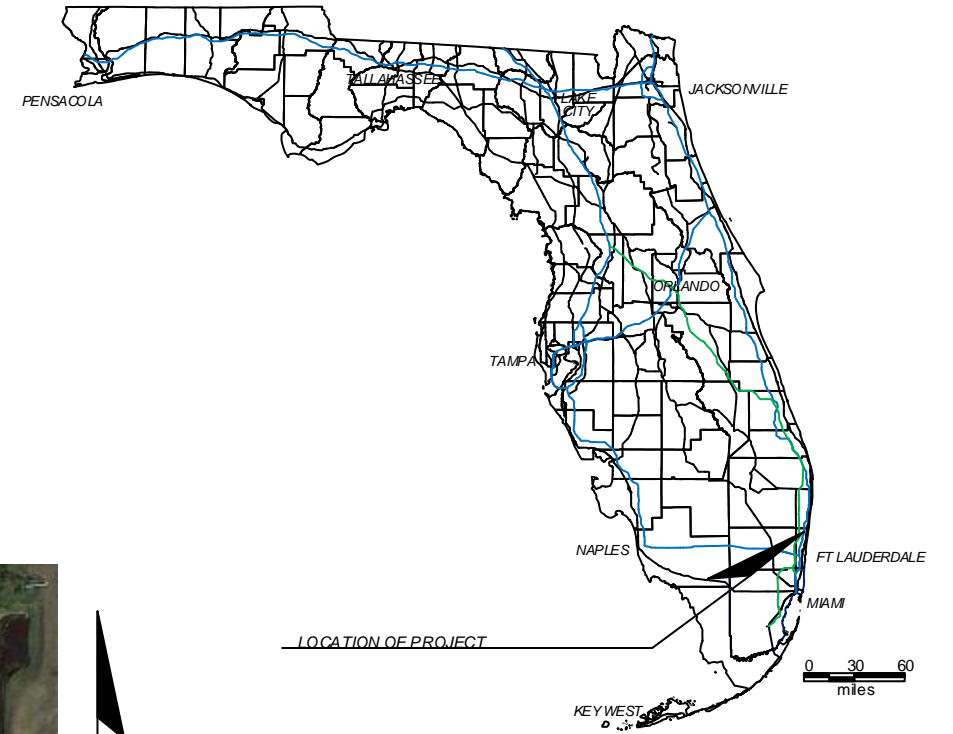
**FDOT FTE POMPANO BEACH INTERCHANGE (8-4167)
TOWER REPLACEMENT CONTRACT PLANS**

**STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION**

CONTRACT PLANS

FINANCIAL PROJECT ID 431987-1-52-08
BROWARD COUNTY
FTE POMPANO BEACH (8-4167) TOWER REPLACEMENT

INTELLIGENT TRANSPORTATION SYSTEMS PLANS



INDEX OF PLANS

SHEET NO.	SHEET DESCRIPTION
IT-1	POMPANO BEACH KEY SHEET
IT-2	POMPANO BEACH GENERAL NOTES
IT-3	POMPANO BEACH TOWER DESIGN NOTES
IT-4	POMPANO BEACH INSTALLATION AND TTC NOTES
IT-5	POMPANO BEACH CUT-OVER REQ. AND INSPECTION NOTES
IT-6, IT-7	POMPANO BEACH SITE LAYOUT PLAN
IT-8	POMPANO BEACH SITE GROUNDING PLAN
IT-9	POMPANO BEACH FACILITIES REMOVAL PLAN
IT-10	POMPANO BEACH TOWER LOADING PLAN
IT-11	POMPANO BEACH OBSTRUCTION LIGHTING INSTALLATION
IT-12	POMPANO BEACH DISH ORIENTATION
IT-13, IT-14	POMPANO BEACH COMM BUILDING PLAN
IT-15, IT-16	POMPANO BEACH RSL MEASUREMENTS



TOWER SITE ADDRESS:
1600 BLOUNT RD.
POMPANO BEACH, FL 33069

GPS COORDINATES:
LATITUDE: 26-14-53.42 N (NAD 83)
LONGITUDE: 80-09-56.69 W

NOTE: THE SCALE OF THESE PLANS MAY
HAVE CHANGED DUE TO REPRODUCTION.


GOVERNING STANDARDS AND SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION,
CURRENT DESIGN STANDARDS,
AND CURRENT STANDARD SPECIFICATIONS FOR
ROAD AND BRIDGE CONSTRUCTION,
AS AMENDED BY CONTRACT DOCUMENTS.

**FLORIDA'S TURNPIKE ENTERPRISE TOWERS
REFURBISHMENT AND REPLACEMENT PROJECT**

ENGINEER OF RECORD: DANIELLE S. MORALES, P.E.

P.E. NO.: 68460

FDOT PROJECT MANAGER: RANDY PIERCE

CONTRACT PLANS RECORD						 FLORIDA DEPARTMENT OF TRANSPORTATION 605 SUWANNEE ST. MS 90 TALLAHASSEE, FL 32399-0450 PH. (850)-410-5600 FAX. (850)-410-5501	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			POMPANO BEACH KEY SHEET	SHEET NO. IT-1
DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION		SITE NAME	COUNTY	FINANCIAL PROJECT ID		
						POMPANO BEACH	BROWARD	431987-1-52-08			

GENERAL NOTES:

1. THE VENDOR SHALL BE RESPONSIBLE FOR VERIFYING ALL CONDITIONS AND MEASUREMENTS RELATING TO THE WORK IN THE FIELD PRIOR TO PROCEEDING WITH INSTALLATION, REMOVAL, AND DISPOSAL ACTIVITIES. THE VENDOR SHALL COORDINATE ANY MODIFICATIONS REQUIRED WITH FDOT.
2. THE VENDOR IS RESPONSIBLE FOR ALL EQUIPMENT, MATERIALS, AND SERVICES REQUIRED TO COMPLETE THIS PROJECT. THE VENDOR IS RESPONSIBLE FOR VERIFYING THE COMPLETENESS OF MATERIALS REQUIRED AND SUITABILITY OF DEVICES TO MEET THESE PLANS. THE VENDOR SHALL PROVIDE AND INSTALL, WITHOUT CLAIM, ANY ADDITIONAL EQUIPMENT AND SERVICES REQUIRED FOR OPERATION PER THESE PLANS.
3. THE VENDOR SHALL BE RESPONSIBLE FOR DETERMINING LOCAL FACILITIES FOR DELIVERING, STORING, AND LEGALLY DISPOSING OF POST-INSTALLATION MATERIALS.
4. THE VENDOR SHALL PROTECT AND PRESERVE ALL EXISTING UTILITIES, EXCLUDING THOSE REQUIRING UPGRADES OR RELOCATION IN THESE PLANS, LOCATED WITHIN THE INSTALLATION LIMITS OF THE PROJECT.
5. THE VENDOR SHALL NOT BRING ANY HAZARDOUS MATERIALS ONTO THE PROJECT SITE. SHOULD THE VENDOR REQUIRE SUCH FOR PERFORMING THE WORK, THE VENDOR SHALL REQUEST, IN WRITING, PERMISSION FROM FDOT. THE VENDOR SHALL PROVIDE THE TURNPIKE CONTAMINATION IMPACT COORDINATOR (CIC) WITH A COPY OF THE MATERIAL SAFETY DATA SHEET (MSDS) FOR EACH HAZARDOUS MATERIAL PROPOSED FOR USE. FDOT SHALL COORDINATE WITH THE TURNPIKE CIC PRIOR TO ISSUING WRITTEN APPROVAL TO THE VENDOR. BECAUSE STATE LAW DOES NOT TREAT PETROLEUM PRODUCTS THAT ARE PROPERLY CONTAINERIZED AND INTENDED FOR EQUIPMENT USE AS HAZARDOUS MATERIAL, SUCH PRODUCTS DO NOT NEED MSDS SUBMITTAL. TURNPIKE CONTAMINATION IMPACT COORDINATOR: ED SAINTEN

TEL: 407-264-3408
 CELL: 407-495-8725
 EMAIL: ED.SAINTEN@DOT.STATE.FL.US

THE VENDOR IS RESPONSIBLE FOR DETERMINING IF THERE ARE ANY COATINGS/PAINT OR MATERIALS ON THE TOWER THAT WOULD BE CONSIDERED HAZARDOUS WASTE UPON DISPOSAL OF THE STRUCTURE OR ANY STRUCTURAL COMPONENTS. COPIES OF ANY TEST REPORTS ARE TO BE PROVIDED TO FDOT. IF ANY ITEMS ARE FOUND THAT MEET THE DEFINITION OF A HAZARDOUS WASTE UNDER EITHER FLORIDA ENVIRONMENTAL PROTECTION REGULATIONS OR UNITED STATES OF AMERICA ENVIRONMENTAL PROTECTION REGULATIONS, THE MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH THE MORE STRICT OF THE REGULATIONS AND FDOT SHALL BE PROVIDED WITH DOCUMENTATION OF THE PROPER DISPOSAL TO INCLUDE A SIGNED COPY OF THE MANIFEST WHERE THE WASTE WAS RECEIVED AT THE DISPOSAL SITE WITHIN 10 DAYS OF THE DISPOSAL OF THE MATERIALS.

6. ANY KNOWN OR SUSPECTED HAZARDOUS MATERIAL FOUND ON THE PROJECT SITE BY THE VENDOR SHALL BE IMMEDIATELY REPORTED TO FDOT, WHO SHALL DIRECT THE VENDOR TO PROTECT THE AREA OF KNOWN OR SUSPECTED CONTAMINATION FROM FURTHER ACCESS. FDOT IS TO NOTIFY THE TURNPIKE CIC OF THE DISCOVERY. THE TURNPIKE CIC WILL ARRANGE FOR INVESTIGATION, IDENTIFICATION, AND REMEDIATION OF THE HAZARDOUS MATERIAL. THE VENDOR SHALL NOT RETURN TO THE AREA OF CONTAMINATION UNTIL APPROVAL IS PROVIDED BY FDOT. THE TURNPIKE CIC WILL ADVISE FDOT.

FDOT HAS DETERMINED THAT LEAD-BASED PAINT IS PRESENT ON THE TOWER. THE REFERENCE TESTING REPORT (LEAD-BASED PAINT INSPECTION TESTING MILE POST #67) IS INCLUDED IN THIS DESIGN PACKAGE.

7. THE VENDOR IS RESPONSIBLE FOR OBTAINING ANY PERMITS (DEP, SOUTH FLORIDA WATER MANAGEMENT DISTRICT, ETC.) AND MEETING BUILDING OFFICIAL REQUIREMENTS, INCLUDING ASSOCIATED FEES. THE VENDOR IS RESPONSIBLE FOR CONTACTING APPLICABLE BUILDING OFFICIALS FOR PERMIT APPLICATIONS AND SUBMITTING TO THE FDOT FOR SIGNATURE.
8. THE VENDOR IS RESPONSIBLE FOR COORDINATING ALL NECESSARY NOTIFICATIONS OF WORK AND CONSTRUCTION WITH THE FEDERAL AVIATION ADMINISTRATION (FAA) AND FEDERAL COMMUNICATIONS COMMISSION (FCC) WITH THE FDOT PROJECT MANAGER. ALL FAA AND FCC FILINGS WILL BE HANDLED BY THE VENDOR BASED ON THIS COORDINATION.
 THE VENDOR SHALL FURNISH AND POST A NEW ASR SIGN ON EACH GATE OF THE PERIMETER FENCE IN ACCORDANCE WITH FCC REGULATIONS.
9. THE VENDOR SHALL SUBMIT ALL DETAILED DESIGN PLANS FOR FDOT REVIEW AND APPROVAL PER THESE PLANS AND SPECIFICATIONS. THE VENDOR SHALL NOT BEGIN INSTALLATION WORK UNTIL ALL DESIGN SUBMITTALS ARE APPROVED IN WRITING BY THE FDOT PROJECT MANAGER.
10. THE VENDOR SHALL SUBMIT AN INSTALLATION SCHEDULE TO FDOT FOR REVIEW AND APPROVAL.
11. THE VENDOR MUST COORDINATE ALL SITE WORK WITH FDOT. THE CONTACT PERSON IS RANDY PIERCE, 850-410-5608.
12. THE VENDOR SHALL COORDINATE EACH ELEMENT ON THE SCHEDULE WITH OTHER INSTALLATION ACTIVITIES AND SHOW EACH ACTIVITY IN PROPER SEQUENCE.
13. ALL TOWER AND ANTENNA INSTALLATION WORK SHALL BE DONE BY TOWER CLIMBERS CERTIFIED BY COMTRAIN, OR APPROVED EQUIVALENT.
14. THE VENDOR IS RESPONSIBLE FOR ALL FIELD LOCATES. THE VENDOR SHALL NOTIFY ALL UTILITY OWNERS THROUGH SUNSHINE STATE ONE CALL OF FLORIDA (811) THREE BUSINESS DAYS IN ADVANCE OF BEGINNING INSTALLATION ON THE JOB SITE. NOTE THAT NOT ALL UTILITY COMPANIES ARE MEMBERS OF THE SUNSHINE STATE ONE CALL, AND THEREFORE, THE VENDOR SHALL CONTACT THEM INDIVIDUALLY.
15. THE VENDOR SHALL FIELD LOCATE ALL BURIED GROUNDING, FIBER OPTIC CABLE, CONDUITS, STRUCTURES, AND UTILITIES IN AND AROUND THE WORK AREA PRIOR TO COMMENCING ANY EXCAVATIONS. ALL DIGGING AND EXCAVATING INSIDE AND AROUND THE SITE COMPOUND SHALL BE PERFORMED IN A MANNER CONSISTENT WITH GOOD ENGINEERING PRACTICES. THE USE OF HEAVY EXCAVATING MACHINERY IS NOT PERMITTED INSIDE THE FENCED AREA OTHER THAN FOR EXCAVATING THE OLD TOWER FOUNDATION AND FOR DRILLING NEW SHAFTS.

GENERAL NOTES (CONT'D.):

16. THE FDOT SHALL BE NOTIFIED 10 DAYS IN ADVANCE OF ANY SCHEDULED INTERRUPTIONS DURING CUT-OVER, WHEN ANTICIPATED TO BE LONGER THAN FIVE MINUTES, FOR SAFETY PRECAUTIONS. INTERRUPTIONS LESS THAN FIVE MINUTES REQUIRE 2 DAYS ADVANCE NOTICE. IN ADDITION TO THE ADVANCE NOTICE, THE VENDOR SHALL NOTIFY FDOT AT LEAST TWO HOURS IN ADVANCE OF ALL NECESSARY COMMUNICATIONS DISRUPTIONS AND SUCH PLANNED OUTAGES, WITH THE ANTICIPATED OUTAGE TIME.
17. THE VENDOR SHALL RESTRICT PERSONNEL, THE USE OF EQUIPMENT, AND THE STORAGE OF MATERIALS TO AREAS WITHIN THE LIMITS OF INSTALLATION. ANY OFF-SITE STORAGE AREA IS THE RESPONSIBILITY OF THE VENDOR.
18. THE VENDOR SHALL PROVIDE SECURITY FOR HIS/HER EQUIPMENT AND SHALL CONDUCT HIS/HER OPERATIONS SO AS TO AVOID INTERFERENCE WITH FDOT'S NORMAL OPERATIONS.
19. THE VENDOR SHALL PROVIDE AND MAINTAIN IN A NEAT AND SANITARY CONDITION SUCH ACCOMMODATIONS FOR THE USE OF HIS/HER EMPLOYEES AS MAY BE NECESSARY TO COMPLY WITH REGULATIONS OF THE COUNTY OR THE DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES. NO NUISANCE WILL BE PERMITTED.
20. THE VENDOR SHALL BE RESPONSIBLE FOR REMOVING AND LEGALLY DISPOSING OF THE TRASH GENERATED FROM THE INSTALLATION, INCLUDING LUNCH BAGS AND DRINKS, DAILY. THE VENDOR SHALL NOT ALLOW TRASH TO BLOW AROUND OR AWAY FROM ANY CONSTRUCTION SITE.
21. ALL EQUIPMENT AND SERVICES FURNISHED BY THE VENDOR AS PART OF THIS PROJECT SHALL BE WARRANTED TO BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP. IN THE EVENT ANY SUCH DEFECTS IN EQUIPMENT OR SERVICES BECOME EVIDENT WITHIN THE WARRANTY PERIOD, THE VENDOR SHALL CORRECT THE DEFECT BY REPAIRING OR REPLACING THE DEFECTIVE COMPONENT OR EQUIPMENT AT NO COST TO FDOT DURING THE WARRANTY PERIOD. THE WARRANTY PERIOD SHALL BE A MINIMUM OF 12 MONTHS FROM DATE OF FINAL ACCEPTANCE. CLAIMS UNDER ANY OF THE WARRANTIES HEREIN ARE VALID IF MADE WITHIN 30 DAYS AFTER TERMINATION OF THE WARRANTY PERIOD.
22. THE VENDOR SHALL COLLECT PRODUCT DATA INTO A SINGLE SUBMITTAL FOR EACH ELEMENT OF INSTALLATION OR SYSTEM. PRODUCT DATA SHALL INCLUDE INFORMATION SUCH AS MANUFACTURER'S INSTALLATION INSTRUCTIONS AND PERFORMANCE SPECIFICATIONS.
23. THE VENDOR SHALL SUBMIT (2) SETS OF AS-BUILT DRAWINGS AND PHOTOS DEPICTING THE LOCATION OF THE COMPONENTS OF THE COMMUNICATIONS FACILITIES WITH RESPECT TO LOCAL FEATURES AND BENCHMARKS. AS-BUILT DRAWINGS DEPICTING ANY FIELD CHANGES TO THE FACILITIES SHALL ALSO BE SUBMITTED. AS-BUILT DOCUMENTATION SHALL BE SUBMITTED IN ELECTRONIC FORMAT, AS WELL AS PRINTED. ALL ITS FACILITY MANAGEMENT ATTRIBUTE FORMS SHALL BE COMPLETED IN ACCORDANCE WITH THIS TECHNICAL SPECIFICATION.
24. THE VENDOR SHALL BE RESPONSIBLE FOR ALL ELLIPTICAL WAVEGUIDES, FLEXIBLE RECTANGULAR WAVEGUIDE, COAXIAL CABLES, POWER/ DATA CABLES, AND RESPECTIVE HARDWARE AND CONDUITS. ANY BENDS, KINKS, OR DEFORMATION WILL RENDER THE ELLIPTICAL WAVEGUIDES AND COAXIAL CABLES UNUSABLE. SPLICING OF THE WAVEGUIDES, COAXIAL CABLE, OR CAT5 CABLE IS NOT PERMITTED. ANY ELLIPTICAL WAVEGUIDES AND COAXIAL CABLES DAMAGED BY THE VENDOR SHALL BE REPLACED WITH NEW FULL-LENGTH WAVEGUIDES AND COAXIAL CABLES, WITHOUT CLAIM, AND AT THE VENDOR'S COST.
25. THE VENDOR SHALL BE RESPONSIBLE FOR ENSURING THE SITE IS SECURED BY TEMPORARY FENCING AT THE END OF EACH DAY.
26. "OTHERS" WILL BE INSTALLING THE ANTENNAS, TRANSMISSION LINES, AND OTHER ASSOCIATED APPURTENANCES LISTED ON SHEET IT-3, TABLE IN NOTE 5, AND SHEET IT-10, NOTE 6. THE EXISTING TOWER SHALL NOT BE DISMANTLED BY THE VENDOR UNTIL THE INSTALLATION AND CUT-OVER OF THE MENTIONED ANTENNAS IS COMPLETED BY "OTHERS." THE FDOT WILL COORDINATE WITH THE VENDOR DURING THIS TIME.

APPLICABLE PUBLICATIONS AND STANDARDS:

1. ACI 336.3R-93: DESIGN AND CONSTRUCTION OF DRILLED PIERS
2. ANSI/TIA-222-G, STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS, STRUCTURE CLASSIFICATION-III.
3. APPLICABLE MANUFACTURER'S INSTRUCTIONS AND STANDARD PRACTICES.
4. APPLICABLE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (O.S.H.A.) PRACTICES.
5. ASTM A123: STANDARD SPECIFICATION FOR: ZINC (HOT GALVANIZED) COATINGS ON PRODUCTS FABRICATED FROM ROLLED, PRESSED, AND FORGED STEEL SHAPES, PLATES, BARS, AND STRIP.
6. ASTM A153: STANDARD SPECIFICATION FOR: ZINC COATING (HOT-DIP) ON IRON AND STEEL HARDWARE.
7. EIA-81: MEASURING GROUND RESISTANCE AND POTENTIAL GRADIENTS IN THE EARTH.
8. FHWA-NHI-10-016: DRILLED SHAFTS: CONSTRUCTION PROCEDURES AND LRFD DESIGN METHODS
9. FLORIDA BUILDING CODE, CURRENT EDITION.
10. FDOT CURRENT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE DESIGN.
11. FDOT CURRENT DESIGN STANDARDS.
12. FEDERAL AVIATION ADMINISTRATION (FAA) REGULATIONS.
13. FEDERAL COMMUNICATIONS COMMISSION (FCC) REGULATIONS
14. IEEE 837: STANDARD FOR QUALIFYING PERMANENT CONNECTIONS USED IN SUBSTATION GROUNDING.
15. NATIONAL ELECTRICAL CODE (NEC) (NFPA 70), CURRENT EDITION.
16. NEC ARTICLE 250: GROUNDING AND BONDING.
17. NIST: NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.
18. UL 467: STANDARDS FOR GROUNDING AND BONDING EQUIPMENT.
19. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA 780), CURRENT EDITION
20. FDOT DESIGN STANDARDS FOR FENCE TYPE B, INDEX NO. 802

CONTRACT PLANS RECORD

DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION



FLORIDA DEPARTMENT OF TRANSPORTATION
 605 SUWANNEE ST. MS 90
 TALLAHASSEE, FL 32399-0450
 PH. (850)-410-5600
 FAX. (850)-410-5501

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
SITE NAME	COUNTY	FINANCIAL PROJECT ID
POMPANO BEACH	BROWARD	431987-1-52-08

**POMPANO BEACH
 GENERAL NOTES**

SHEET NO.
 IT-2

TOWER DESIGN CRITERIA NOTES:

1. THE TOWER MANUFACTURER SHALL BE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) CERTIFIED AND SHALL SUBMIT PROOF OF AISC CERTIFICATION FOR THE MANUFACTURING FACILITY TO THE FDOT.
2. ALL TOWER MEMBERS SHALL BE SOLID STEEL (I.E., NO HOLLOW MEMBERS ARE PERMITTED).
3. ALL TOWER STRUCTURAL STEEL SHALL BE HOT-DIP GALVANIZED PER ASTM A123.

ALL TOWER HARDWARE, INCLUDING BUT NOT LIMITED TO, BOLTS, NUTS, FASTENERS, RODS, AND OTHER HARDWARE SHALL BE HOT-DIP GALVANIZED PER ASTM A153. MECHANICALLY GALVANIZED HARDWARE (ASTM B695) IS NOT PERMITTED.

4. ANSI/TIA-222-G WITH ADDENDUMS 1-4
 3-SECOND GUST BASIC WIND SPEED: 145 MPH
 RADIAL ICE: 0"
 CLASSIFICATION OF STRUCTURE: CLASS III
 IMPORTANCE FACTOR: 1.15
 EXPOSURE CATEGORY: C
 TOPOGRAPHIC FACTOR: 1

FLORIDA BUILDING CODE 2017
 3-SECOND GUST ULTIMATE WIND SPEED : 200 MPH
 RISK CATEGORY: III-IV
 EXPOSURE CATEGORY: C
 TOPOGRAPHIC CATEGORY: 1

THE TOWER DESIGN SHALL ALSO MEET THE DEFLECTION CRITERIA OUTLINED IN ANSI/TIA-222-G-2 SECTIONS 2.8.2 AND 2.8.3 FOR MICROWAVE DISHES: TOTAL BEAM DEFLECTION (TWIST AND SWAY) FOR PROPOSED MICROWAVE DISHES SHALL NOT EXCEED 0.6 DEGREES (3 DB) AT 60 MPH.

THE TOWER SHALL ALSO MEET THE ADDITIONAL REQUIREMENTS AS DELINEATED ON THIS SHEET. THE VENDOR SHALL PROVIDE TOWER MANUFACTURER SHOP/FABRICATION DRAWINGS THAT DEPICT THE SIZE AND SPECIFICATIONS OF ALL SUPPORT GUSSETS AND/OR TABS THAT ARE DESIGNED TO SUPPORT CROSS BRACING/MEMBERS OR ANY OTHER SUPPORT POINTS. THESE DRAWINGS SHALL ALSO DEPICT THE SPECIFICATIONS AND PROCESS USED TO WELD THE SUPPORT GUSSETS AND/OR TABS TO THE TOWER LEG STEEL.

5. A GROUND BONDING TAB SHALL BE WELDED TO EACH LEG DURING FACTORY FABRICATION, PRIOR TO HOT DIP GALVANIZATION. THE TAB SHALL BE LOCATED 2-FEET ABOVE THE ANCHOR ROD BASE PLATE. SEE DETAIL 8A ON SHEET IT-8.
6. THE FOLLOWING TABLE IS A LIST OF THE ANTENNAS, THEIR ELEVATIONS, AND THE TRANSMISSION LINES TO BE USED IN THE DESIGN. (NOTE: THE ELEVATIONS ARE CENTERLINE FOR PANEL ANTENNAS AND DISHES. THEY ARE MOUNTING HEIGHTS FOR OMNI AND WHIP ANTENNAS). ALL OTHER ELEVATIONS ARE REFERENCED TO THE TOWER BASE PLATE.

ELEVATION	LEG/ FACE	DESCRIPTION	LINES
260'	A	DESIGN ANTENNAS	
260'	A	*DB-810K AZ=260E	1-5/8" COAX
260'	A	*6' SIDE ARM	—
260'	A	AIR TERMINAL	1/2"
260'	AB	TECHNOSTROBE WHITE LED FLASH HEAD	2"Ø CONDUIT
260'	B	*DB-810K AZ=140E	1-5/8" COAX
260'	B	*6' SIDE ARM	—
260'	BC	TECHNOSTROBE WHITE LED FLASH HEAD	—
260'	C	*DB-810K AZ=260E	1-5/8" COAX
260'	C	*6' SIDE ARM	—
248'	A	*(3) APL869014-44TO	(3) 1-5/8" COAX
248'	A	SECTOR MOUNT	—
230'	B	*RFS DA8-W57ACU (8' HP DISH) AZ=358.5	EP65J
230'	B	*DISH MOUNT	—
230'	B	*DB-810K AZ=140E	1-5/8" COAX
230'	B	*6' SIDE ARM	—
230'	C	*DB-810K AZ=260E	1-5/8" COAX
230'	C	*6' SIDE ARM	—
213'	A	RFS DA8-W57ACU (8' HP DISH) AZ=358.1	EP65J
213'	A	DISH MOUNT	—
189'	C	RFS DA8-W57ACU (8' HP DISH) AZ=202.9	EP65J
189'	C	DISH MOUNT	—
184'	A	RFS DA8-W57ACU (8' HP DISH) AZ=358.1	EP65J
184'	A	DISH MOUNT	—
177'	C	*RFS DA8-W57ACU (8' HP DISH) AZ=177.4	EP65J
177'	C	*DISH MOUNT	—
100'	C	FG4505	7/8" COAX
100'	C	6' SIDE ARM	—
80'	A	AXIS CCTV PTZ CAMERA W/ LOWERING DEVICE	(2) 2" CONDUIT
80'	C	AXIS CCTV PTZ CAMERA W/ LOWERING DEVICE	(2) 2" CONDUIT
13'	A	*GPS ANTENNA	1/2" COAX
3'	A	LOWERING DEVICE SECURITY BOX	—
3'	C	LOWERING DEVICE SECURITY BOX	—

* THESE ARE FUTURE LOADS TO BE CONSIDERED FOR TOWER CAPACITY DESIGN, TO BE FURNISHED OR INSTALLED BY "OTHERS".

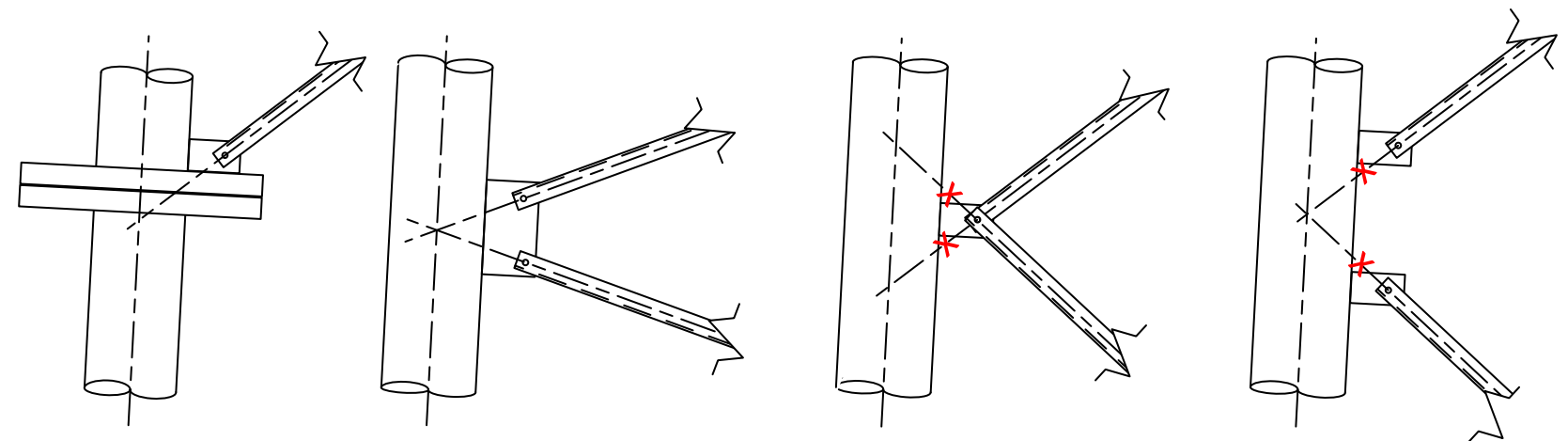
TOWER DESIGN CRITERIA NOTES (CONT'D.):

7. THE WIND FORCE ON ANY ANTENNA SHALL BE COMPUTED USING THE MOST CRITICAL WIND DIRECTION AND ANTENNA AREA.
8. THE WIND LOADING FOR THE MICROWAVE DISHES SHALL BE CALCULATED FOR EACH WIND DIRECTION USING THE VALUES FROM ANSI/TIA-222-G, ANNEX C (C.2 AND TABLE C3). THE DISH AZIMUTHS RELATIVE TO THE TOWER ORIENTATION SHALL BE IN ACCORDANCE WITH SHEET IT-10, AND INCORPORATED IN THE FINAL TOWER DESIGN.
9. TWO (2) WAVEGUIDE LADDERS MUST BE INCLUDED IN THE WIND LOADING (ONE FOR "OTHERS", THE OTHER FOR ALL FDOT LINES). NO STACKING OF TRANSMISSION LINES SHALL BE CONSIDERED IN THE ORIGINAL DESIGN. ALL LINEAR APPURTENANCES ON ALL FACES ARE TO BE INCLUDED IN THE DESIGN LOADING. NO SHIELDING OF LINEAR APPURTENANCES MAY BE CONSIDERED EXCEPT THAT Ka, IN ACCORDANCE WITH ANSI/TIA-222-G, SECTION 2.6.9.2, MAY BE INCLUDED FOR LINEAR APPURTENANCES ENTIRELY WITHIN THE FACE ZONE.
10. OTHER ANCILLARY ITEMS SUCH AS CLIMBING HARDWARE, SAFETY CLIMB CABLE AND ATTACHMENTS, WAVEGUIDE LADDERS, LIGHTNING PROTECTION, ETC. SHALL BE INCLUDED IN THE WIND LOADING OF THE TOWER.
11. THE ANCHOR BOLTS SHALL BE PROPERLY DESIGNED IN ACCORDANCE WITH ANSI/TIA-222-G. FOR THE PURPOSES OF DESIGN, THE ANCHOR BOLTS SHALL BE DESIGNED FOR REACTIONS 10 PERCENT HIGHER THAN CALCULATED FOR THE TOWER DESIGN. FOR THE PURPOSES OF DESIGN, THE ANCHOR BOLTS SHALL BE DESIGNED ASSUMING THAT NO GROUT IS INSTALLED UNDER THE BASE PLATE.

THE ANCHOR BOLT DESIGN TEMPLATE SHALL BE SUBMITTED AS PART OF THE TOWER DESIGN SUBMITTAL.
12. IF USED, **ALL FACE, PLAN AND HIP REDUNDANT BRACING MEMBERS ON THE NEW TOWER MUST BE TRIANGULATED** IN ACCORDANCE WITH THE REQUIREMENTS OF ANSI/TIA-222-G, TABLE 4-7. ANY TOWER DESIGN INCLUDING NON-TRIANGULATED BRACING MEMBERS WILL BE CONSIDERED IN NON-COMPLIANCE WITH THESE SPECIFICATIONS.
13. FOR TOWER DESIGNS USING DOUBLE ANGLE MEMBERS, OR OTHER BUILT UP MEMBERS, THESE MEMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ANSI/TIA-222-G, SECTION 4.5.3 (I.E. THE SLENDERNESS OF THE MEMBERS MUST BE ADJUSTED IN ACCORDANCE WITH THE APPLICABLE STITCH BOLT MODIFICATION FORMULA).
14. ALL TOWER MEMBERS AND CONNECTIONS SHALL BE DETAILED SO THAT THE WORK LINES OF THE TOWER MEMBERS ARE WITHIN THE "NORMAL FRAMING ECCENTRICITIES" AS DEFINED BY ANTI/TIA-222-G, SECTION 4.4.4.
15. ALL GUSSET PLATES, CONNECTION PLATES, BRACING MEMBERS, ETC. SHALL HAVE CONNECTIONS THAT ARE PROPERLY DESIGNED AND DETAILED FOR BOLT HOLE BEARING, BLOCK SHEAR, AND RUPTURE PER THE REQUIREMENTS OF ANSI/TIA-222-G SECTION 4.9.6 AS WELL AS ALL OTHER FORCES APPLIED TO THEM. ALL GUSSET PLATES, CONNECTION PLATES, ETC. SHALL BE DETAILED SO THAT THE WORK LINES HAVE A CONTINUOUS LOAD PATH THROUGH THE GUSSET STEEL OR CONNECTION PLATE STEEL TO THE MEMBERS BEING CONNECTED. DETAILING THAT INDUCES BENDING FORCES INTO THE GUSSETS OR CONNECTION PLATES, OR THAT DO NOT PROVIDE A CONTINUOUS LOAD PATH ALONG THE WORK LINES SHALL BE CONSIDERED IN NONCOMPLIANCE WITH THESE SPECIFICATIONS.
16. THE DRILLED SHAFT PIERS SHALL EXTEND A MINIMUM 12 INCHES ABOVE FINISHED GRADE. CORNERS SHALL HAVE A MINIMUM ONE (1) INCH CHAMFER. THE TOP OF THE PIERS SHALL BE SLOPED TO DRAIN WATER FROM THE CENTER.
17. THE FOUNDATIONS SHALL BE DESIGNED FOR TOWER REACTIONS 10 PERCENT HIGHER THAN CALCULATED FOR TOWER DESIGN.


THE FOUNDATION MATERIALS SHALL MEET OR EXCEED THE FOLLOWING CRITERIA: CONCRETE $f_c = 3,000$ PSI AT 28 DAYS, REINFORCED STEEL ASTM A-160 GRADE 60, CEMENT ASTM C 150 TYPE 1 LOW-ALKALAI CONTENT WITH A Na_2O EQUIVALENT LESS THAN 0.5 PERCENT.

CONCRETE DESIGN MIX SHALL BE SUBMITTED TO THE FDOT PROJECT MANAGER FOR REVIEW AND APPROVAL.



PROPER GUSSET/TAB DESIGN

IMPROPER GUSSET/TAB DESIGN

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DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION		SITE NAME	COUNTY	FINANCIAL PROJECT ID		
						POMPANO BEACH	BROWARD	431987-1-52-08			

INSTALLATION NOTES:

1. THE VENDOR SHALL SUBMIT A DETAILED INSTALLATION PLAN FOR APPROVAL BY FDOT. THE PLAN SHALL INCLUDE A SCHEDULE OF EVENTS DETAILING EACH PHASE OF INSTALLATION, INCLUDING A PROJECTED TIMELINE.
2. ALL EQUIPMENT AND COMPONENT PARTS FURNISHED SHALL BE NEW, MEET OR EXCEED THE MINIMUM REQUIREMENTS STATED HEREIN, AND PERFORM TO MANUFACTURER'S SPECIFICATIONS. NO PART OR ATTACHMENT SHALL BE SUBSTITUTED OR APPLIED CONTRARY TO THE MANUFACTURER'S RECOMMENDATIONS AND STANDARD PRACTICES.

3. THE VENDOR SHALL PROVIDE AND INSTALL A NEW 260 FT. SOLID ROD MEMBER SELF-SUPPORTING TOWER AND CONCRETE DRILLED SHAFT FOUNDATIONS PER THESE PLANS.

4. THE VENDOR SHALL PROVIDE AND INSTALL TWO (2) NEW HORIZONTAL TRANSMISSION LINE BRIDGES AND ALL ASSOCIATED SUPPORT AND INSTALLATION HARDWARE. THE TRANSMISSION LINE BRIDGES SHALL INCLUDE TWO LEVELS OF TRAPEZE KITS, INSTALLED WITH MAXIMUM SEPARATION OF 36 IN. ON CENTER. THE TRANSMISSION LINE BRIDGES SHALL BE INSTALLED IN SUCH A MANNER AS TO NOT COMPROMISE THE MINIMUM BEND RADII OF EACH WAVEGUIDE AND TRANSMISSION LINE DURING INSTALLATION AND MOUNTING.

THE TWO (2) HORIZONTAL TRANSMISSION LINE LADDER SUPPORT POLE HEIGHTS SHALL MATCH THE HEIGHT OF THE EXISTING TRANSMISSION LINE BRIDGES ABOVE FINISHED GRADE, AND THE ASSOCIATED TRAPEZE KITS SHALL BE INSTALLED IN SUCH A MANNER TO PROVIDE SMOOTH TRANSITION AND ENTRANCE OF ALL WAVEGUIDES AND TRANSMISSION LINES INTO THEIR RESPECTIVE BULKHEAD PORTS. THE HORIZONTAL TRANSMISSION LINE BRIDGES SHALL BE SUPPORTED SEPARATE FROM THE TOWER, AND SHALL RUN FROM THE FACE OF THE TOWER TO WITHIN 3 IN. OF THE TRANSMISSION LINE BULKHEAD LOCATED ON THE COMMUNICATIONS BUILDING EXTERIOR WALL. THE TRANSMISSION LINE BRIDGE FOR FDOT NEEDS TO MATCH THAT OF THE EXISTING BRIDGE, AND EXTEND FROM THE EXISTING TRANSMISSION LINE BRIDGE.

THE VENDOR SHALL BE RESPONSIBLE FOR REMOVING THE EXISTING "OTHERS" TRANSMISSION LINE BRIDGE AND INSTALLING TEMPORARY TRANSMISSION LINE SUPPORTS FOR THE EXISTING TRANSMISSION LINES.

5. THE VENDOR SHALL PROVIDE AND INSTALL THE TOWER LIGHTNING PROTECTION AND GROUNDING SYSTEM PER THESE PLANS.
6. ALL WAVEGUIDES AND COAXIAL TRANSMISSION LINES SHALL BE HOISTED UP THE TOWER USING APPROPRIATELY SIZED HOISTING GRIPS. USING THE FLANGES AND CONNECTORS TO LIFT THE TRANSMISSION LINES IS PROHIBITED. THE HOISTING GRIPS SHALL BE SECURED TO THE TOWER AND PROVIDE SUPPORT FOR THE WAVEGUIDES AND COAXIAL TRANSMISSION LINES. HOISTING GRIPS SHALL BE INSTALLED AT INTERVALS NOT TO EXCEED 200 FT. FLEXIBLE RECTANGULAR WAVEGUIDE SECTIONS MAY BE INSTALLED ON THE TOP END OF THE ELLIPTICAL WAVEGUIDE RUNS AFTER THE WAVEGUIDES ARE HOISTED UP AND SECURED TO THE TOWER.
7. ALL WAVEGUIDES AND COAXIAL TRANSMISSION LINES SHALL BE MOUNTED AND SECURED TO THE TOWER, VERTICAL TRANSMISSION LINE LADDER, AND HORIZONTAL TRANSMISSION LINE BRIDGE WITH APPROPRIATELY SIZED STAINLESS STEEL BOLT-ON HANGERS AND HARDWARE. THE HANGERS SHALL BE SPACED WITH A MAXIMUM SEPARATION OF 36 IN. ON CENTER. SNAP-ON HANGERS ARE NOT PERMITTED.

THE CCTV LOWERING CABLE AND POWER/DATA CABLE SHALL BE INSTALLED IN THE APPROPRIATELY SIZED GALVANIZED CONDUITS. THE CONDUITS SHALL BE SECURED TO THE TOWER WITH STAINLESS STEEL HARDWARE WITH MAXIMUM SEPARATION OF 10 FT ON CENTER.

THE VENDOR SHALL PROVIDE AND INSTALL SURGE PROTECTIVE DEVICES FOR THE CAMERA SYSTEM AT BOTH ENDS OF THE POWER/DATA CABLE. THE SURGE PROTECTIVE DEVICES SHALL BE INSTALLED AND GROUNDED INSIDE THE TOWER TOP CONNECTION BOX AND MOUNTED TO THE TRANSMISSION LINE BULKHEAD INSIDE THE SHELTER.

THE VENDOR SHALL FURNISH TWO (2) MIDSPAN POE INJECTORS INSIDE THE COMMUNICATIONS BUILDING FOR FUTURE INSTALLATION BY OTHERS.

8. THE WAVEGUIDES AND COAXIAL TRANSMISSION LINES SHALL BE SECURED TO THE OVERHEAD TRAPEZE HANGERS AND CABLE TRAYS INSIDE THE COMMUNICATIONS BUILDING IN ACCORDANCE WITH THE COMMUNICATIONS BUILDING PLAN. SEE SHEET IT-14.
9. THE WAVEGUIDES AND COAXIAL TRANSMISSION LINES SHALL BE GROUNDED TO THE TOWER AND TRANSMISSION LINE BULKHEAD IN ACCORDANCE WITH THE GROUNDING NOTES. SEE SHEET IT-8.
10. THE WAVEGUIDES SHALL BE INSTALLED IN SUCH A MANNER THAT DOES NOT VIOLATE THE MANUFACTURER'S MAXIMUM TWIST, MINIMUM E-BEND RADIUS, AND MINIMUM H-BEND RADIUS SPECIFICATIONS. THE COAXIAL TRANSMISSION LINES SHALL BE INSTALLED IN SUCH A MANNER THAT DOES NOT VIOLATE THE MANUFACTURER'S MINIMUM BEND RADIUS.
11. THE VENDOR IS RESPONSIBLE FOR VERIFYING CORRECT SIZE, GENDER, AND SUITABILITY OF ALL WAVEGUIDE AND COAXIAL TRANSMISSION LINE CONNECTORS AND SURGE PROTECTION DEVICES. THE VENDOR SHALL SUBMIT A DETAILED LIST OF CONNECTORS AND SURGE PROTECTION DEVICES TO THE FDOT PROJECT MANAGER FOR REVIEW AND APPROVAL.
12. THE RADIO ANTENNA SYSTEMS' RETURN LOSS SHALL BE COMMENSURATE WITH THE SYSTEM COMPONENT RETURN LOSS SPECIFICATIONS OF THE MANUFACTURER. **THE RADIO ANTENNAS, WAVEGUIDES, AND COAXIAL TRANSMISSION LINES SHALL BE SWEEPED IN BOTH FREQUENCY AND TIME DOMAIN IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS WITH APPROPRIATE LABORATORY-GRADE VECTOR NETWORK ANALYZER TEST EQUIPMENT.** THE VENDOR SHALL PERFORM THREE SETS OF TWO TRACES AS DETAILED IN THE TECHNICAL SPECIFICATIONS. PRINTED DOCUMENTATION OF THE TEST RESULTS SHALL BE SUBMITTED TO THE FDOT FOR APPROVAL. THE VENDOR SHALL SUBMIT A LIST OF STANDARDS-TRACEABLE TEST EQUIPMENT, INTERCONNECTION CABLES, ADAPTERS, AND CALIBRATION KITS, WITH CALIBRATION DATES, TO THE FDOT PROJECT MANAGER FOR REVIEW AND APPROVAL PRIOR TO TESTING. TESTING MUST BE PERFORMED BY A QUALIFIED AND EXPERIENCED TECHNICIAN, WHO IS TRAINED AND CREDENTIALLED FOR USE OF THE SPECIFIC TEST EQUIPMENT.

INSTALLATION NOTES (CONTD.):

13. ALL WAVEGUIDES AND COAXIAL TRANSMISSION LINES, AND CCTV POWER/DATA CABLES SHALL BE MARKED WITH COLORED TAPE AT THE TOP AND BOTTOM (NEAR THE ANTENNA/CAMERA AND NEAR THE BULKHEAD). THE COLORED TAPE SHALL BE APPLIED IN RINGS (BANDS) AROUND THE WAVEGUIDES, COAXIAL TRANSMISSION LINES, AND CCTV POWER/DATA CABLES FOR EASY IDENTIFICATION. DUE TO HARSH ENVIRONMENTAL CONDITIONS. EACH WAVEGUIDE, COAXIAL TRANSMISSION LINE, AND CCTV POWER/DATA CABLE SHALL BE MARKED WITH A DIFFERENT NUMBER OF RINGS OF COLORED TAPE:

- 1 THRU 4 RINGS ON THE WAVEGUIDES
- 1 THRU 4 RINGS ON THE COAXIAL TRANSMISSION LINES
- 1 THRU 2 RINGS ON THE CCTV POWER/DATA CABLES

14. FTE REQUIRES AT LEAST 7 CALENDAR DAYS NOTICE PRIOR TO CONNECTION OF CCTV CAMERAS TO THEIR ITS NETWORK. FTE SHALL BE RESPONSIBLE FOR THE NETWORK CONNECTION.


15. THE VENDOR SHALL CUT-OVER THE FDOT'S EXISTING RADIO SYSTEMS FROM THE OLD TOWER'S ANTENNAS TO THE NEWLY INSTALLED TOWER AND ANTENNA SYSTEMS. THE FDOT'S EXISTING RADIO SYSTEM CARRIES LIVE CRITICAL TRAFFIC. THE CUT-OVER PROCEDURE SHALL BE PERFORMED EFFICIENTLY TO MINIMIZE CRITICAL TRAFFIC INTERRUPTION.

16. UPON SUCCESSFUL OPERATIONAL CUT-OVER OF THE FDOT AND "OTHERS" ANTENNA SYSTEMS TO THE NEW TOWER, THE VENDOR SHALL DISMANTLE AND LEGALLY DISPOSE OF THE OLD 256FT. GUYED TOWER AND ANTENNA SYSTEM.

17. THE VENDOR SHALL PROVIDE AND INSTALL NEW TYPE B (CHAIN LINK) SITE COMPOUND FENCING WITH TOP RAIL PER SECTION 550 OF THE CURRENT FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND PER INDEX 802 OF THE CURRENT FDOT DESIGN STANDARDS. IN ADDITION, THE FENCE FABRIC SHALL BE FASTENED TO THE TOP RAIL.

TEMPORARY TRAFFIC CONTROL NOTES:

1. THE VENDOR IS RESPONSIBLE FOR ALL TEMPORARY TRAFFIC CONTROL (TTC), INCLUDING THE TRAFFIC CONTROL PLAN. THE TTC FOR THIS PROJECT SHALL BE PER THE FDOT CURRENT DESIGN STANDARDS. ALL RELATED ITEMS AS REQUIRED BY THE STANDARD INDEX 600 SERIES. THE VENDOR MAY BE REQUIRED TO PERFORM SOME WORK ACTIVITIES AT NIGHT AND/OR OUTSIDE OF PEEK TRAFFIC HOURS.
2. THE VENDOR SHALL SUBMIT THE TTC PLAN TO THE FDOT FOR REVIEW AND APPROVAL. AFTER APPROVAL OF THE TTC PLAN, THE VENDOR SHALL PROVIDE A TWO-WEEK NOTICE PRIOR TO IMPLEMENTATION TO ALLOW FOR APPROPRIATE NOTIFICATION.
3. MODIFICATIONS OR ADJUSTMENTS TO THE TTC PLAN SHALL BE SUBMITTED FOR APPROVAL TO TURNPIKE TRAFFIC OPERATIONS BEFORE IMPLEMENTATION.
4. THE EXISTING POSTED SPEED IS 65 MPH ON SR 91 (FLORIDA'S TURNPIKE). NO SPEED LIMIT REDUCTION IS REQUIRED FOR THIS PROJECT.
5. INSTALL CONSTRUCTION SIGNS PRIOR TO COMMENCEMENT OF CONSTRUCTION AND MAINTAIN SAME PER THE FDOT CURRENT DESIGN STANDARDS AND FDOT INDEXES.
6. THE VENDOR SHALL ADHERE TO STANDARD TTC INDEXES WHEN WORK TAKES PLACE OVER TRAVEL LANES.
7. GROUND MOUNTED SIGNS MAY BE USED IN LIEU OF POST MOUNTED SIGNS ONLY IF INSTALLATION OPERATIONS WILL NOT EXCEED A 12 HOUR PERIOD. SIGNS ARE TO BE PER THE FDOT STANDARD INDEX 600 SERIES AND AS SPECIFIED IN THE MUTCD.
8. ALL SPECIFIC SIGNS SHALL BE COMPLETELY COVERED OR REMOVED WHEN NOT IN USE.
9. INSTALL ADVANCE WARNING SIGNS AND TRAFFIC CONTROL DEVICES UTILIZING FDOT STANDARD INDEX NO. 600 SERIES.
10. IMMEDIATELY INFORM THE ENGINEER WHEN IDENTIFYING ANY ERRORS OR OMISSIONS IN THE TRAFFIC CONTROL PLAN OR MAKING ANY MODIFICATION OR CHANGE TO THE TRAFFIC CONTROL PLAN TO OBTAIN APPROVAL BY THE ENGINEER PRIOR TO WORK COMMENCING OR BEING RESUMED THAT IS AFFECTED BY ERRORS OR OMISSIONS.
11. INFORM THE ENGINEER OF ANY HAZARDS WITHIN THE WORK AREA NOT ADDRESSED BY THE TRAFFIC CONTROL PLAN AND ANY POTENTIAL IMPROVEMENTS TO PROPOSED OR IMPLEMENTED PHASES OF THE TRAFFIC CONTROL PLANS.

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DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION		SITE NAME	COUNTY	FINANCIAL PROJECT ID		
						POMPANO BEACH	BROWARD	431987-1-52-08			

CUT-OVER REQUIREMENTS:

1. GENERAL

- 1.1 THE VENDOR SHALL SUBMIT A DETAILED COMMUNICATION CUT OVER PLAN FOR APPROVAL BY FDOT. THE PLAN SHALL INCLUDE A DETAILED ORDER OF INSTALLATIONS, REMOVALS, AND TESTING.
- 1.2 THE VENDOR SHALL PROVIDE AND INSTALL ANTENNAS, ELLIPTICAL WAVEGUIDES, FLEXIBLE RECTANGULAR WAVEGUIDES (BETWEEN DISH AND ELLIPTICAL WAVEGUIDE), COAXIAL CABLES, MOUNTING APPARATUS, AND INSTALLATION HARDWARE FOR ALL RADIO SYSTEMS. THE VENDOR SHALL BE RESPONSIBLE FOR FURNISHING ALL OF THE NECESSARY EQUIPMENT, HARDWARE, LABOR, AND INSTALLATION PROCEDURES TO EFFECT PROPER INSTALLATION OF THE RADIO ANTENNA SYSTEMS.
- 1.3 ALL OF THE FDOT RADIO SYSTEMS ARE IN SERVICE AND CARRYING CRITICAL COMMUNICATIONS TRAFFIC. ANY DOWNTIME OF THE EXISTING SYSTEM MUST BE COORDINATED WITH THE FDOT PRIOR TO THE DOWNTIME OCCURRENCE. ALL WORK CLASSIFIED AS CAUSING LESS THAN FIVE MINUTES OF DOWNTIME REQUIRES A MINIMUM OF TWO DAYS PRIOR NOTICE. ALL WORK CLASSIFIED AS CAUSING FIVE MINUTES OR MORE DOWNTIME REQUIRES A MINIMUM OF TEN DAYS PRIOR NOTICE AND MUST BE COORDINATED WITH THE FDOT PRIOR TO OCCURRENCE.

2. PRE CUT-OVER

- 2.1 INSTALL TOWER, ANTENNAS, ELLIPTICAL AND FLEXIBLE RECTANGULAR WAVEGUIDES, AND COAXIAL TRANSMISSION LINES.
- 2.2 INSTALL NEW AIR PRESSURIZATION MANIFOLD EQUIPMENT.
- 2.3 INSTALL WAVEGUIDES FROM ANTENNA POSITION TO MICROWAVE RACK POSITION AND IMMEDIATELY PRESSURIZE (DO NOT CONNECT TO ANTENNA). ANY WAVEGUIDES NOT PRESSURIZED WITHIN 12 HOURS (EXCLUDING FLEXIBLE RECTANGULAR WAVEGUIDE SECTIONS) SHALL BE PURGED WITH DRY NITROGEN IN ACCORDANCE WITH TRANSMISSION LINE AND WAVEGUIDE MANUFACTURERS SPECIFIED PROCEDURES.
- 2.4 INSTALL NEW COAXIAL TRANSMISSION LINES TO THE SHELTER BULKHEAD MOUNTED SURGE PROTECTIVE DEVICES (DO NOT CONNECT TO ANTENNA).
- 2.5 THE RADIO ANTENNA SYSTEMS' RETURN LOSS SHALL BE COMMENSURATE WITH THE SYSTEM COMPONENT RETURN LOSS SPECIFICATIONS OF THE MANUFACTURER. **THE RADIO ANTENNAS, WAVEGUIDES, AND COAXIAL TRANSMISSION LINES SHALL BE SWEEPED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS WITH APPROPRIATE LABORATORY-GRADE VECTOR NETWORK ANALYZER TEST EQUIPMENT.** THE VENDOR SHALL PERFORM THREE SETS OF TWO TRACES AS DETAILED IN THE TECHNICAL SPECIFICATIONS. PRINTED DOCUMENTATION OF THE TEST RESULTS SHALL BE SUBMITTED TO THE FDOT FOR APPROVAL. THE VENDOR SHALL SUBMIT A LIST OF TEST EQUIPMENT, WITH CALIBRATION DATES, TO THE FDOT PROJECT MANAGER FOR REVIEW AND APPROVAL PRIOR TO TESTING.

3. CUT-OVER

- 3.1 PERFORM POMPANO BEACH COORDINATE SITE RECEIVE SIGNAL LEVEL (RSL) MEASUREMENTS. RECORD EXISTING ANTENNA SYSTEMS RSL MEASUREMENTS ONTO THE FDOT APPROVED FORMS. SEE IT-15 AND IT-16, POMPANO BEACH RSL MEASUREMENTS FORMS.
- 3.2 CUT-OVER THE NEW DELRAY BEACH DIVERSITY ANTENNA TO THE POMPANO BEACH MICROWAVE RADIO. THE VENDOR SHALL UTILIZE THE EXISTING FLEXIBLE RECTANGULAR WAVEGUIDE AT THE RADIO END FOR CUTOVER. **THE OLD WAVEGUIDE SHALL REMAIN PRESSURIZED UNTIL SUCCESSFUL CUTOVER.**
- 3.3 ALIGN THE DELRAY BEACH DIVERSITY ANTENNA FOR PEAK MAIN LOBE RSL. UTILIZATION OF THE LABORATORY-GRADE VECTOR NETWORK ANALYZER FOR ANTENNA ALIGNMENT IS RECOMMENDED.
- 3.4 RECORD THE CUT-OVER DELRAY DIVERSITY ANTENNA RSL ONTO THE RSL FORM AND VERIFY PROPER RSL PERFORMANCE FOR THE NEW ANTENNA.
- 3.5 CUT-OVER THE NEW DELRAY BEACH MAIN ANTENNA TO THE POMPANO BEACH MICROWAVE RADIO. THE VENDOR SHALL UTILIZE THE EXISTING FLEXIBLE RECTANGULAR WAVEGUIDE AT THE RADIO END FOR CUTOVER. **THE OLD WAVEGUIDE SHALL REMAIN PRESSURIZED UNTIL SUCCESSFUL CUTOVER.**
- 3.6 ALIGN THE NEW DELRAY BEACH MAIN ANTENNA FOR PEAK MAIN LOBE RSL. UTILIZATION OF THE LABORATORY-GRADE VECTOR NETWORK ANALYZER FOR ANTENNA ALIGNMENT IS RECOMMENDED.
- 3.7 RECORD THE CUT-OVER DELRAY BEACH MAIN ANTENNA RSL ONTO THE RSL FORM AND VERIFY PROPER RSL PERFORMANCE FOR THE NEW ANTENNA.

CUT-OVER REQUIREMENTS (CONT'D.):


- 3.8 CUT-OVER THE NEW MCARTHUR INTERCHANGE MAIN ANTENNA TO THE POMPANO BEACH MICROWAVE RADIO. THE VENDOR SHALL UTILIZE THE EXISTING FLEXIBLE RECTANGULAR WAVEGUIDE AT THE RADIO END FOR CUTOVER. THE OLD WAVEGUIDE SHALL REMAIN PRESSURIZED UNTIL SUCCESSFUL CUTOVER.
- 3.9 ALIGN THE NEW MCARTHUR INTERCHANGE MAIN ANTENNA FOR PEAK MAIN LOBE RSL. UTILIZATION OF THE LABORATORY-GRADE VECTOR NETWORK ANALYZER FOR ANTENNA ALIGNMENT IS RECOMMENDED.
- 3.10 RECORD THE CUT-OVER MCARTHUR INTERCHANGE MAIN ANTENNA RSL ONTO THE RSL FORM AND VERIFY PROPER RSL PERFORMANCE FOR THE NEW ANTENNA.
- 3.11 CUT-OVER ALL NEW COAXIAL CABLES TO THE POMPANO BEACH LAND MOBILE RADIO EQUIPMENT, WHILE MINIMIZING RADIO SYSTEM DOWNTIME.
- 3.12 EACH NEW PRESSURIZED ANTENNA SYSTEM SHALL BE VERIFIED TO BE FREE OF LEAKS. THE VENDOR SHALL PERFORM A PRESSURE TEST THAT SHALL START AT NOON AND RUN FOR A PERIOD OF 48 HOURS. AT THE START OF THE TEST, THE VENDOR SHALL CLOSE THE VALVE FOR THE PRESSURIZED WAVEGUIDE AND RECORD THE PRESSURE. AT THE END OF THE TEST, THE VENDOR SHALL RECORD THE PRESSURE FOR THE WAVEGUIDE AND COMPARE IT TO THE ORIGINAL PRESSURE. IF THE DIFFERENCE IN PRESSURE IS LESS THAN OR EQUAL TO 1 PSI (0.69 KPA), THEN THE LINE WILL BE CONSIDERED TO BE FREE OF LEAKS. IF THE DIFFERENCE IN PRESSURE OF THE WAVEGUIDE IS GREATER THAN 1 PSI, THEN THE VENDOR SHALL REPAIR THE LINE AND REPEAT THE TEST, WITHOUT CLAIM.

INSPECTION NOTES:

- 1. THE INSPECTION SHALL BE PERFORMED BY THE VENDOR AND WITNESSED BY FDOT. THE VENDOR SHALL NOTIFY FDOT AT LEAST 10 DAYS PRIOR TO COMPLETION OF INSTALLATION. THE VENDOR AND FDOT SHALL VERIFY JOINTLY THAT ALL INSTALLATION WORK IS CORRECTLY INSTALLED AND FUNCTIONAL.
- 2. THE VENDOR SHALL NOTIFY FDOT AT LEAST TWO DAYS PRIOR TO COMPLETION OF GROUNDING INSTALLATION FOR INSPECTION. BELOW GRADE GROUNDING INSTALLATIONS AND GROUND CONNECTIONS SHALL NOT BE BACKFILLED UNTIL INSPECTED AND APPROVED BY THE FDOT.

GROUNDING SHALL BE INSPECTED FOR PROPER CONNECTION TYPES, TIGHTNESS, WORKMANSHIP, AND CONFORMANCE WITH THE APPROVED DESIGN. ANY EXOTHERMIC BONDS THAT ARE DEEMED UNSATISFACTORY SHALL BE REPAIRED BY THE VENDOR WITH NEW BONDS, WITHOUT CLAIM.
- 3. THE INSTALLATION OF DRILLED SHAFT FOUNDATIONS SHALL BE INSPECTED IN ACCORDANCE WITH THE RECOMMENDATIONS OF FHWA-NHI-10-016 "DRILLED SHAFTS: CONSTRUCTION PROCEDURES AND LRFD DESIGN METHODS" AND ACI 336.3R-93 "DESIGN AND CONSTRUCTION OF DRILLED PIERS". NON-DESTRUCTIVE INTEGRITY TESTS ARE NOT REQUIRED FOR THIS TELECOMMUNICATIONS PROJECT.

FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 455 DOES NOT APPLY FOR THIS PROJECT.
- 4. THE SITE SHALL BE INSPECTED TO BE FREE OF DEBRIS AND THAT EXCAVATIONS ARE BACKFILLED AND COMPOUND RESTORED.
- 5. FOLLOWING THE COMPLETION OF INSPECTIONS, THE INSTALLED EQUIPMENT AND FACILITIES SHALL BE SUBJECTED TO A MINIMUM 20-DAY PERFORMANCE PERIOD. FOR THE PURPOSE OF THE SUCCESSFUL PERFORMANCE PERIOD, FAILURE OF OPERATION IS DEFINED AS THE FAILURE OF A MAJOR COMPONENT OF THE SITE (WAVEGUIDES, COAXIAL TRANSMISSION LINES, ANTENNAS, ETC.). DEGRADATION OF MICROWAVE LINK PERFORMANCE IS A FAILURE. THE PERFORMANCE VERIFICATION SHALL BE ACCOMPLISHED WITH THE FDOT. UPON ACCEPTANCE OF THE PERFORMANCE AND TEST CRITERIA BY FDOT, THE 20-DAY PERFORMANCE PERIOD SHALL BEGIN.

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DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION		SITE NAME	COUNTY	FINANCIAL PROJECT ID		
						POMPANO BEACH	BROWARD	431987-1-52-08			

PROJECT PLAN:

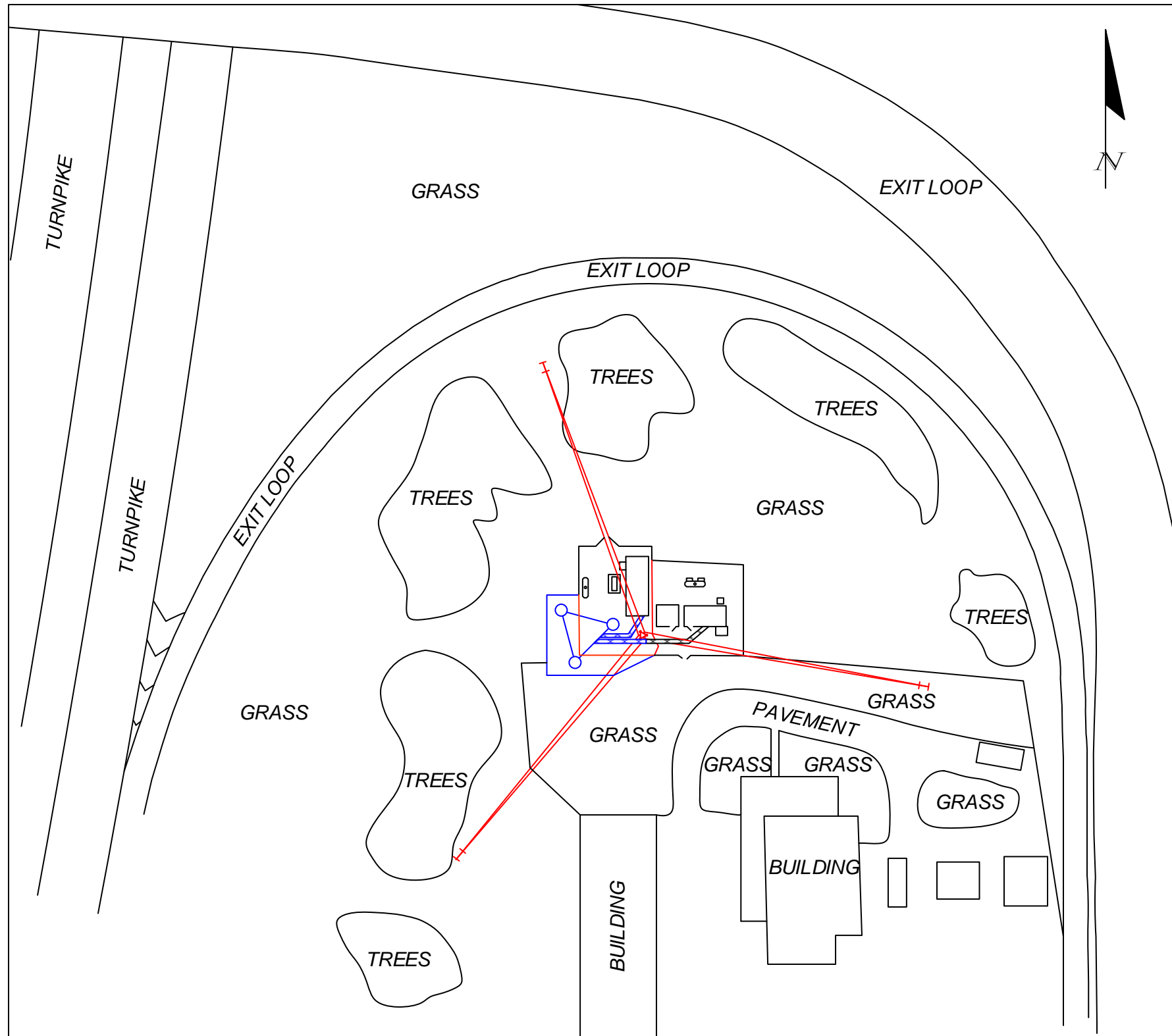
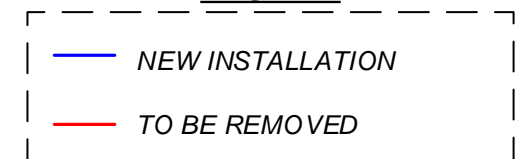
1. THE VENDOR SHALL SUBMIT TOWER, FOUNDATION, ANTENNA SYSTEMS, SITE LAYOUT, AND CONSTRUCTION STAGING AREA DESIGN PLANS TO THE FDOT PROJECT MANAGER FOR REVIEW AND APPROVAL.
TOWER AND FOUNDATION DESIGNS MUST INCLUDE A FABRICATION REPORT, ERECTING PLAN, AND ANCHOR BOLT TEMPLATE.
2. THE VENDOR SHALL FURNISH AND INSTALL TOWER FOUNDATIONS PER THESE PLANS.
3. THE VENDOR SHALL FURNISH AND INSTALL A NEW 260 FT. GALVANIZED SOLID ROD MEMBER SELF-SUPPORTING TOWER PER THESE PLANS. THE TOWER SHALL BE DESIGNED TO SUPPORT THE ANTENNAS, LINES, AND APPURTENANCES, AND PER THE DESIGN CRITERIA DELINEATED ON SHEET IT-3.
4. THE VENDOR SHALL SECURE THE TOWER SITE COMPOUND AT ALL TIMES. ADDITIONAL OR TEMPORARY TYPE B FENCING MAY BE REQUIRED. THE VENDOR SHALL BE RESPONSIBLE FOR ALL ADDITIONAL FENCING, AT NO ADDITIONAL COST TO FDOT.
5. THE VENDOR SHALL FURNISH AND INSTALL A TOWER SAFETY CLIMBING ASSEMBLY ON THE NEW 260 FT. SELF-SUPPORTING TOWER. THE CLIMBING ASSEMBLY SHALL BE MANUFACTURED SPECIFICALLY FOR THE TOWER THAT IS INSTALLED. THE CLIMBING ASSEMBLY MAY INCLUDE STEP BOLTS OR A CLIMBING LADDER.
6. THE VENDOR SHALL FURNISH AND INSTALL ANTENNAS, CCTV CAMERAS WITH LOWERING DEVICES AND MESSENGER WIRES, SURGE PROTECTION, ELLIPTICAL AND FLEXIBLE RECTANGULAR WAVEGUIDES, COAXIAL CABLES, AND CCTV LOWERING AND POWER/DATA CABLES PER SHEETS IT-10, IT-11, IT-12, IT-13, AND IT-14.

THE VENDOR SHALL SUBMIT A DETAILED ANTENNA SYSTEM MOUNTING DESIGN TO THE FDOT PROJECT MANAGER FOR REVIEW AND APPROVAL.

THE VENDOR SHALL SUBMIT A DETAILED INTERIOR AND EXTERIOR CABLE MANAGEMENT DESIGN PLAN TO THE FDOT PROJECT MANAGER FOR REVIEW AND APPROVAL.

THE VENDOR SHALL SUBMIT A DETAILED CCTV MOUNTING SYSTEM DESIGN PLAN TO THE FDOT PROJECT MANAGER FOR REVIEW AND APPROVAL.
7. THE VENDOR SHALL INSTALL THE GROUNDING SYSTEM PER IT-8.
8. THE FDOT OR APPROVED REPRESENTATIVE SHALL INSPECT TOWER, ANTENNAS, AND GROUNDING SYSTEM INSTALLATIONS PRIOR TO FINAL ACCEPTANCE.
9. THE VENDOR SHALL TEST ANTENNA SYSTEMS, CUT-OVER RADIO SYSTEMS AND ALIGN ANTENNAS.
10. "OTHERS" SHALL INSTALL ANTENNA LINES AND APPURTENANCES THAT ARE OUTSIDE THE SCOPE OF THIS WORK BEFORE GUYED TOWER IS REMOVED. THE VENDOR SHALL ALLOW UP TO ONE MONTH OF TIME FOR "OTHERS" TO COMPLETE WORK.
11. THE VENDOR SHALL SCHEDULE REMOVAL OF TOWER WITH FDOT OR APPROVED REPRESENTATIVE AFTER ALL COMMUNICATIONS BY "OTHERS" HAVE BEEN CUT-OVER.
12. THE VENDOR SHALL REMOVE GUYED TOWER AND FACILITIES AND INSTALL NEW PERIMETER FENCE PER SHEET IT-9.

LEGEND:



CONTRACT PLANS RECORD

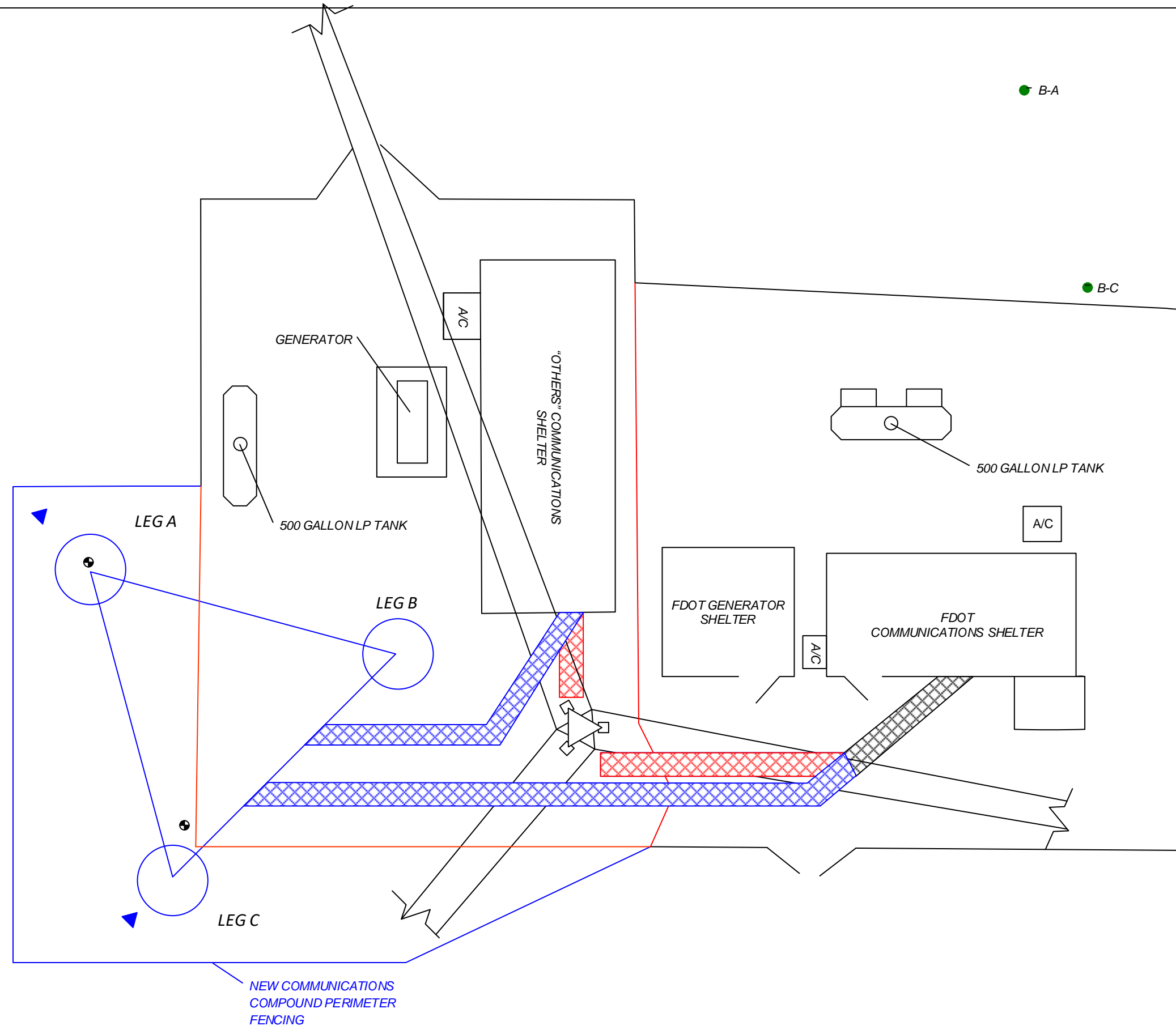
DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION

FDOT **TSM&O**
 FLORIDA DEPARTMENT OF TRANSPORTATION
 605 SUWANNEE ST. MS 90
 TALLAHASSEE, FL 32399-0450
 PH. (850)-410-5600
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
SITE NAME	COUNTY	FINANCIAL PROJECT ID
POMPANO BEACH	BROWARD	431987-1-52-08

POMPANO BEACH
SITE LAYOUT PLAN

SHEET NO.
 IT-6



PROJECT PLAN (CONT'D.):

- 13. PROPOSED 260 FT. TOWER LEG LOCATIONS ARE PRESENTLY MARKED WITH STAKES. PROPOSED TOWER LEG LOCATIONS ARE BASED ON SOIL BORINGS AND GOOD ENGINEERING PRACTICE. IT IS THE RESPONSIBILITY OF THE VENDOR TO DETERMINE THE ACTUAL TOWER FACE DIMENSION.
- 14. THE VENDOR SHALL REMOVE SPECIFIED EXISTING FENCE SECTION PER SHEET IT-9.
- 15. THE VENDOR SHALL FURNISH AND INSTALL A NEW HORIZONTAL TRANSMISSION LINE BRIDGE PER THESE PLANS.
IT IS THE RESPONSIBILITY OF THE VENDOR TO DETERMINE THE BEST PRACTICAL LOCATION OF THE NEW TRANSMISSION LINE BRIDGE. THE PROPOSED LOCATION SHALL BE INCLUDED IN THE SITE LAYOUT DESIGN.
- 16. THE FDOT OR APPROVED REPRESENTATIVE SHALL PERFORM FINAL INSPECTION OF COMPLETE JOB.

LEGEND:

- NEW INSTALLATION
- TO BE REMOVED
- TOWER LEG SOIL BORING
- NEARBY SOIL BORING
- ▲ CAMERA LOWERING SYSTEM POLE

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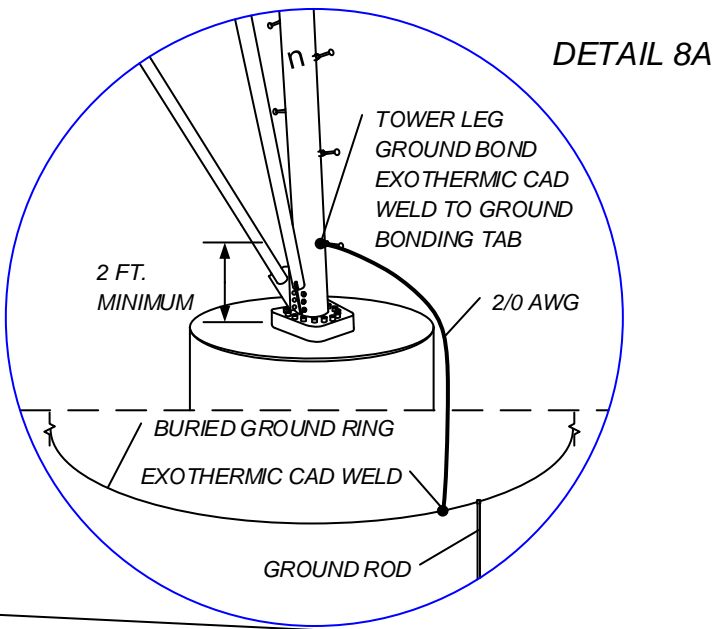
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
SITE NAME	COUNTY	FINANCIAL PROJECT ID
POMPANO BEACH	BROWARD	431987-1-52-08

POMPANO BEACH
SITE LAYOUT PLAN
 SHEET NO.
 IT-7

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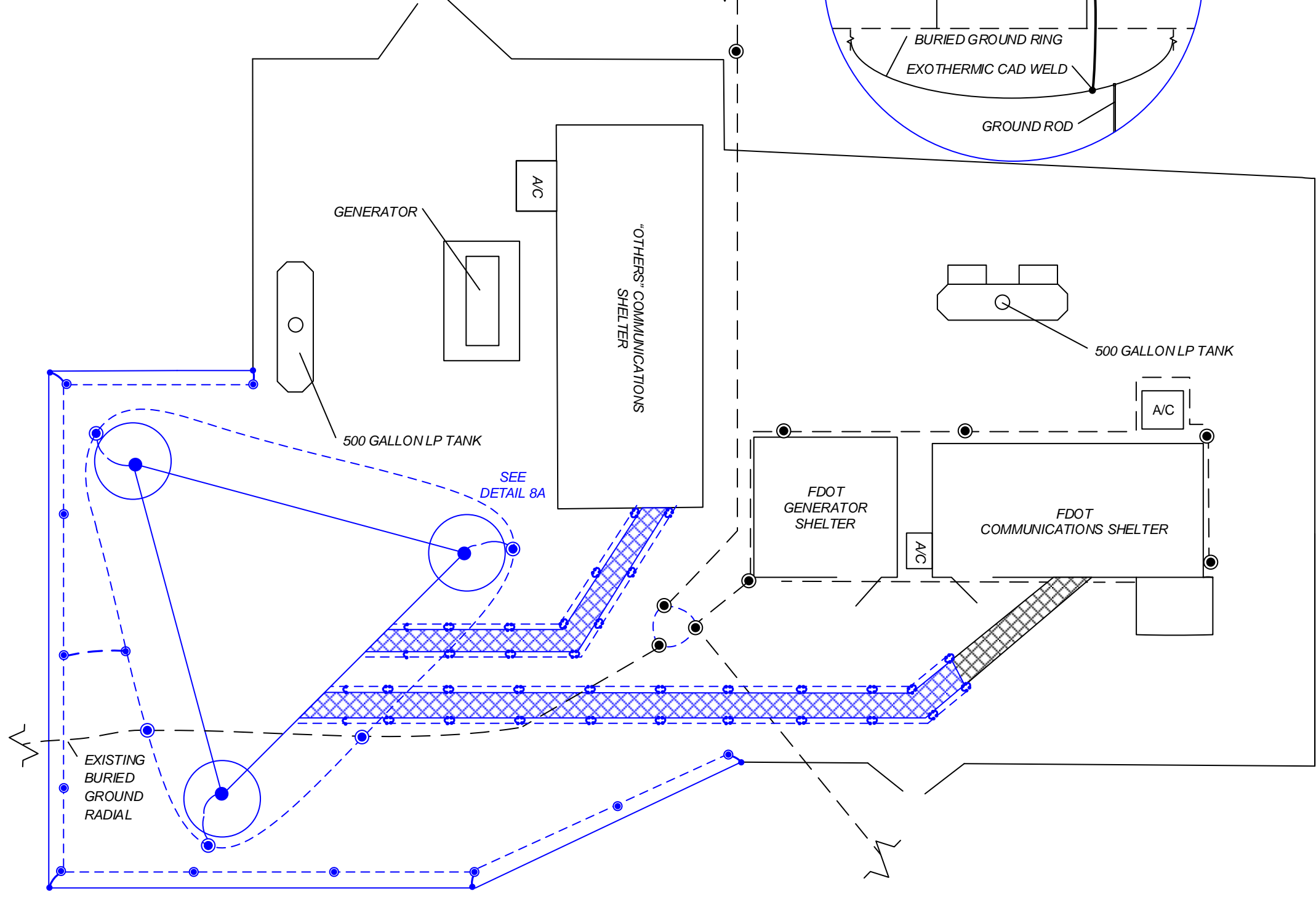
LEGEND:

- NEW FENCING
- - - EXISTING GROUNDING
- - - NEW GROUNDING
- 20' EXISTING GROUND ROD
- 10' GROUND ROD
- EXOTHERMIC BOND



GROUNDING NOTES:

1. THE VENDOR SHALL SUBMIT A DETAILED GROUNDING PLAN TO THE FDOT PROJECT MANAGER FOR REVIEW AND APPROVAL.
2. EXISTING TOWER AND PARTIAL FENCING REMOVED FOR VISUAL CLARITY.
3. ALL GROUND RODS SHALL BE 10 FEET LONG, COPPER-CLAD STEEL WITH A MINIMUM DIAMETER OF 5/8 IN.
4. THE INSTALLATION OF GROUND RODS SHALL BE PER THESE SPECIFICATIONS. SPACING BETWEEN GROUND RODS SHALL BE 20 FT. MAXIMUM.
5. #2 AWG TINNED SOLID COPPER WIRE IS REQUIRED FOR ALL ABOVE GROUND AND BELOW GROUND INSTALLATIONS OF GROUND WIRE. ALL FENCE GATE GROUND CONDUCTORS SHALL BE 2/0 AWG STRANDED WELDING CABLE WITH BLACK INSULATION.
2/0 AWG IS REQUIRED TO BOND THE GROUND BONDING TAB ON EACH TOWER LEG TO THE BURIED GROUND RING AS SHOWN IN DETAIL 8A.
6. GROUND CONDUCTORS (WIRES AND STRAPS) SHALL BE DOWNWARD COURSING AND VERTICAL, AS MUCH AS POSSIBLE, AND BE AS SHORT AND STRAIGHT AS PRACTICAL. SHARP BENDS AND MULTIPLE BENDS IN CONDUCTORS SHALL BE AVOIDED IN ALL CASES. THE MINIMUM BEND RADIUS SHALL BE EIGHT (8) INCHES PER NFPA 780.
7. ALL BELOW GROUND GROUNDING CONNECTIONS SHALL BE EXOTHERMIC BOND CONNECTIONS. ALL BELOW GROUND GROUNDING CONDUCTORS SHALL BE INSTALLED AT A MINIMUM OF 36 IN. BELOW GRADE.
8. ALL ABOVE GROUND GROUNDING CONNECTIONS SHALL BE EXOTHERMIC BOND, MECHANICAL CLAMP, OR IRREVERSIBLE CRIMP CONNECTIONS.
9. THE VENDOR SHALL CLEAN AND PREPARE ALL GROUND CONDUCTORS AND SURFACES PRIOR TO PERFORMING EXOTHERMIC BONDS. ALL NON-CONDUCTING SURFACE COATINGS SHALL BE REMOVED BEFORE EACH CONNECTION IS MADE.
10. THE VENDOR SHALL CONNECT THE NEW TOWER GROUND RING TO THE EXISTING 4-1/2 IN. FLAT COPPER STRAP RADIAL ASSOCIATED WITH THE PREVIOUS TOWER PER THESE SPECIFICATIONS.
11. THE VENDOR SHALL INSTALL A GROUND BUS BAR AT THE BASE OF THE NEW 260 FT. SELF-SUPPORT TOWER PER THESE PLANS. THE GROUND BUS BAR SHALL BE TINNED COPPER, EQUIPPED WITH A #2 AWG TINNED SOLID COPPER WIRE PIGTAIL. THE VENDOR SHALL INSTALL THE GROUND BUS BAR AT A LOWER HEIGHT THAN THE HORIZONTAL TRANSMISSION LINE BRIDGE, BUT NO MORE THAN 2 FT. BELOW THE HEIGHT OF THE HORIZONTAL TRANSMISSION LINE BRIDGE TRAPEZE ASSEMBLIES. THE GROUND BUS BAR SHALL BE INSULATED FROM THE TOWER STEEL. THE VENDOR SHALL EXOTHERMICALLY BOND THE #2 AWG TINNED SOLID COPPER PIGTAIL OF THE GROUND BUS BAR TO THE TOWER GROUND RING.
12. THE VENDOR SHALL EXOTHERMICALLY BOND ALL HORIZONTAL TRANSMISSION LINE BRIDGE SUPPORT POLES TO THE NEW TOWER GROUND RING, AND ALL NEW FENCE POSTS TO THE NEW PERIMETER GROUND RING WITH #2 AWG TINNED SOLID COPPER WIRE.
13. ALL EXOTHERMIC BONDS SHALL BE ONSHOT UNLESS PRE-APPROVED IN WRITING BY THE FDOT PROJECT MANAGER.
14. THE VENDOR SHALL NOT BACKFILL OPENINGS WHERE UNDERGROUND EXOTHERMIC BONDS ARE MADE UNTIL FDOT HAS INSPECTED AND APPROVED THE GROUNDING SYSTEM.
15. ALL RADIO FREQUENCY (RF) WAVEGUIDES AND COAXIAL TRANSMISSION LINES SHALL BE GROUNDED TO THE TOWER AND BULKHEAD AT A MINIMUM OF FOUR (4) LOCATIONS PER THESE SPECIFICATIONS: 1) TOP OF TRANSMISSION LINE SYSTEM, 2) MIDDLE OF THE TRANSMISSION LINE SPAN, 3) BASE OF THE TOWER WHERE TRANSITION IS MADE TO THE HORIZONTAL TRANSMISSION LINE BRIDGE (TOWER BASE GROUND BUS BAR), AND 4) AT THE TRANSMISSION LINE BULKHEAD PRIOR TO ENTERING THE COMMUNICATIONS BUILDING.
16. ALL RF COAXIAL TRANSMISSION LINES SHALL BE EQUIPPED WITH SURGE PROTECTIVE DEVICES (SPD) PER THESE SPECIFICATIONS. ALL SPDs SHALL BE CONNECTED DIRECTLY TO THE BULKHEAD UPON ENTERING THE COMMUNICATIONS BUILDING.
17. THE COMPLETE SITE GROUND SYSTEM MEASUREMENT SHALL BE 5Ω OR LESS.
18. NEW FENCING SHALL BE PER FDOT DESIGN STANDARDS FOR FENCE TYPE B, INDEX NO 802.



CONTRACT PLANS RECORD					
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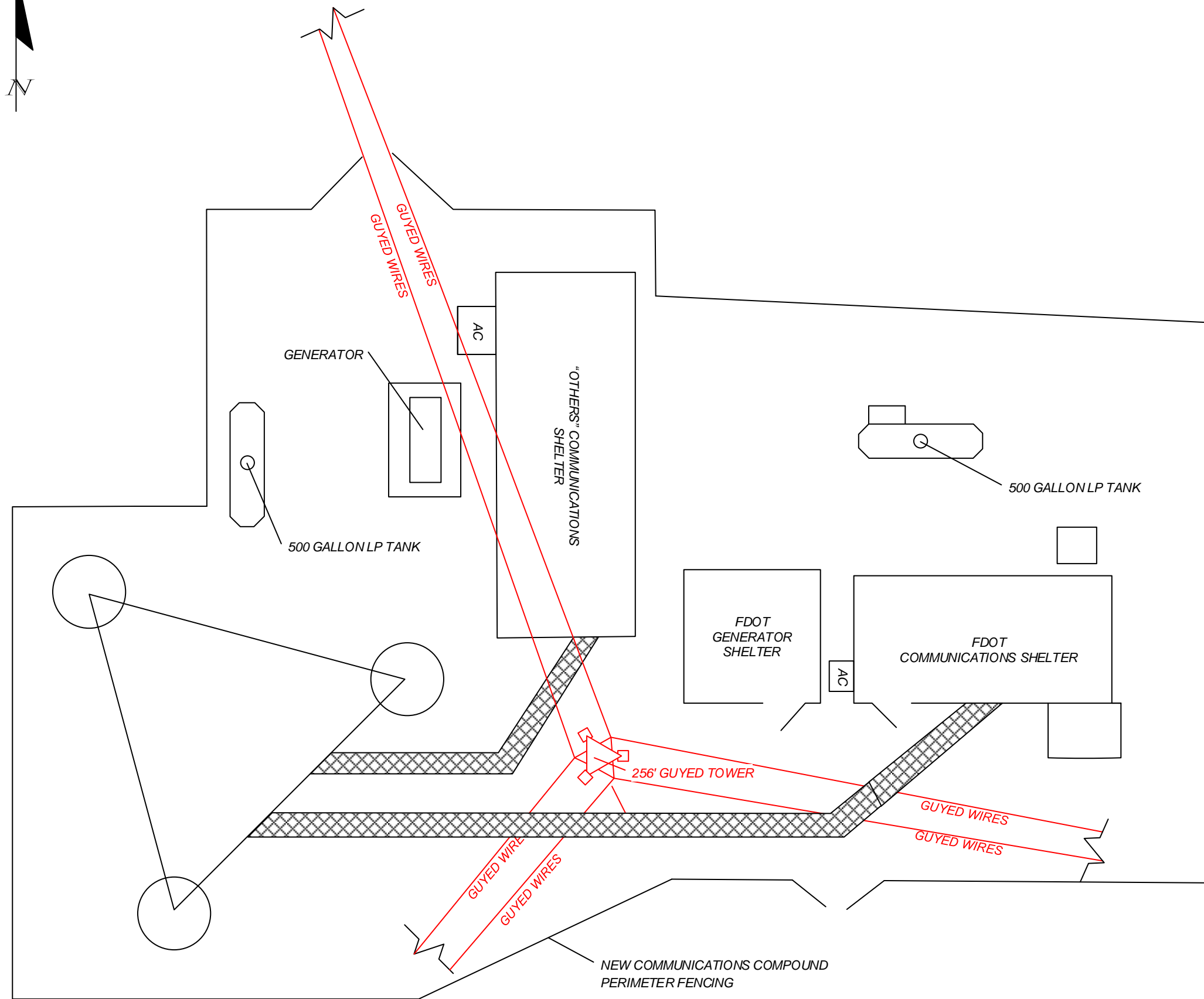
FDOT **TSMO**
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
SITE NAME	COUNTY	FINANCIAL PROJECT ID
POMPAÑO BEACH	BROWARD	431987-1-52-08

**POMPAÑO BEACH
 SITE GROUNDING
 PLAN**

SHEET NO.
IT-8

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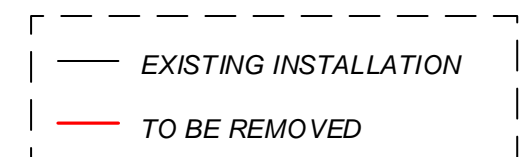


FACILITIES REMOVAL PLAN:

1. THE VENDOR SHALL SUBMIT A DETAILED REMOVAL/DEMOLITION PLAN FOR APPROVAL BY FDOT. THE PLAN SHALL INCLUDE A DETAILED SCHEDULE OF EVENTS DETAILING EACH PHASE OF REMOVAL/DEMOLITION; A SAFETY PLAN DETAILING THE ACTIVITIES AND THE ACTIONS TO BE TAKEN TO MITIGATE HAZARDS; AND AN EMERGENCY PLAN.
2. THE VENDOR SHALL REMOVE A PORTION OF THE EXISTING FENCE SYSTEM PER THESE SPECIFICATIONS.
3. "OTHERS" SHALL INSTALL ANTENNA LINES AND APPURTENANCES THAT ARE OUTSIDE THE SCOPE OF THIS WORK BEFORE GUYED TOWER IS REMOVED. THE VENDOR SHALL ALLOW UP TO ONE MONTH OF TIME FOR "OTHERS" TO COMPLETE WORK.
4. UPON SUCCESSFUL OPERATIONAL CUT-OVER OF THE FDOT AND "OTHERS" ANTENNA SYSTEMS TO THE NEW TOWER, THE VENDOR SHALL DISMANTLE AND LEGALLY DISPOSE OF THE OLD 256FT. GUYED TOWER AND ANTENNA SYSTEM.
5. THE VENDOR SHALL REMOVE TOWER BASE FOUNDATION AND ALL GUY ANCHOR FOUNDATIONS NO LESS THAN 3 FT. BELOW EXISTING GRADE.
6. THE VENDOR SHALL SUBMIT A DETAILED SITE RESTORATION PLAN TO THE FDOT PROJECT MANAGER FOR REVIEW AND APPROVAL.
7. THE VENDOR SHALL INSTALL NEW PERIMETER FENCING PER THESE PLANS AND PER FDOT 2014 DESIGN STANDARDS FOR FENCE TYPE B, INDEX NO 802.
THE VENDOR SHALL MATCH THE EXISTING FENCE AND GATE HEIGHTS TO THEIR RESPECTIVE COMPOUNDS. THE VENDOR HAS FLEXIBILITY AS TO THE ACTUAL LAYOUT OF THE NEW PERIMETER FENCING.
8. THE VENDOR SHALL BACKFILL AND COMPACT ALL EXCAVATIONS, HOLES AND TRENCHES (AFTER INSPECTION AND APPROVAL IS PERFORMED BY FDOT), LEVEL COMPOUND WITH TOP SOIL, AND SOD ALL DISTURBED AREAS TO MATCH SURROUNDING GROUND COVER.
9. THE VENDOR SHALL LEGALLY DISPOSE OF ALL TOWER STEEL, FOUNDATION MATERIAL, FENCING, EXTRACTION MATERIAL, DEBRIS, AND TRASH.

EXISTING GUYED TOWER PAINT HAS TESTED POSITIVE FOR LEAD BASED PAINT. REFERENCE LEAD-BASED PAINT INSPECTION TESTING MP #67 INCLUDED IN THESE PLANS.

LEGEND:



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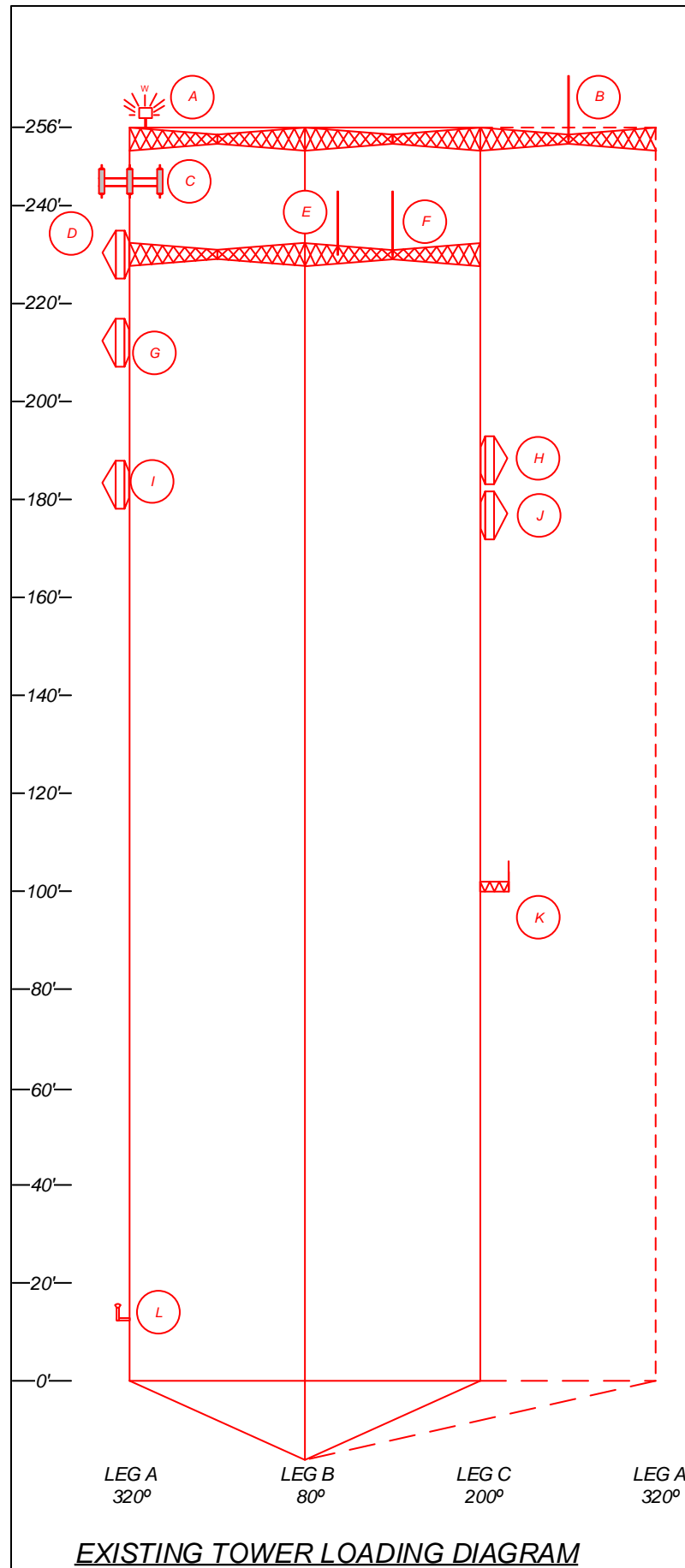
FDOT **TSMO**
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POMPANO BEACH	BROWARD	431987-1-52-08

*POMPANO BEACH
 FACILITIES REMOVAL
 PLAN*

SHEET NO.
IT-9

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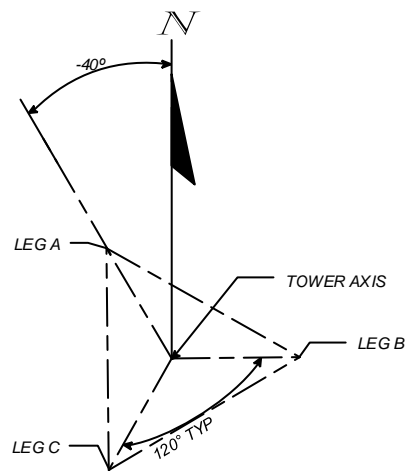


EXISTING TOWER LOADING DIAGRAM

ID	MODEL	LEG/FACE	MTG. HGT.	TX LINE	AZIM.	NOTES
A	WHITE STROBE	A	256' (BASE)	-	-	2
B	DB-810K	AC	256' (BASE)	1-5/8"	285°	1
C	(3) APL869014-44TO	A	250' (C.L.)	1-5/8"	340°	1
D	PA 865 8' RFS DISH	A	230' (C.L.)	EW63	358.5°	1
E	DB-810K W/ AMP	BC	230' (BASE)	1-5/8"	285°	1
F	DB-810K	BC	230' (BASE)	1-5/8"	285°	1
G	PA 865 8' RFS DISH	A	213' (C.L.)	EW63	358.1°	1
H	PA 865 8' RFS DISH	C	189' (C.L.)	EW63	202.9°	1
I	PA 865 8' RFS DISH	A	184' (C.L.)	EW63	358.1°	1
J	PA 865 8' RFS DISH	C	177' (C.L.)	EW63	177.4°	1
K	FG4505	C	100' (BASE)	7/8"	-	1
L	GPS ANTENNA	A	13' (BASE)	1/2"	-	1

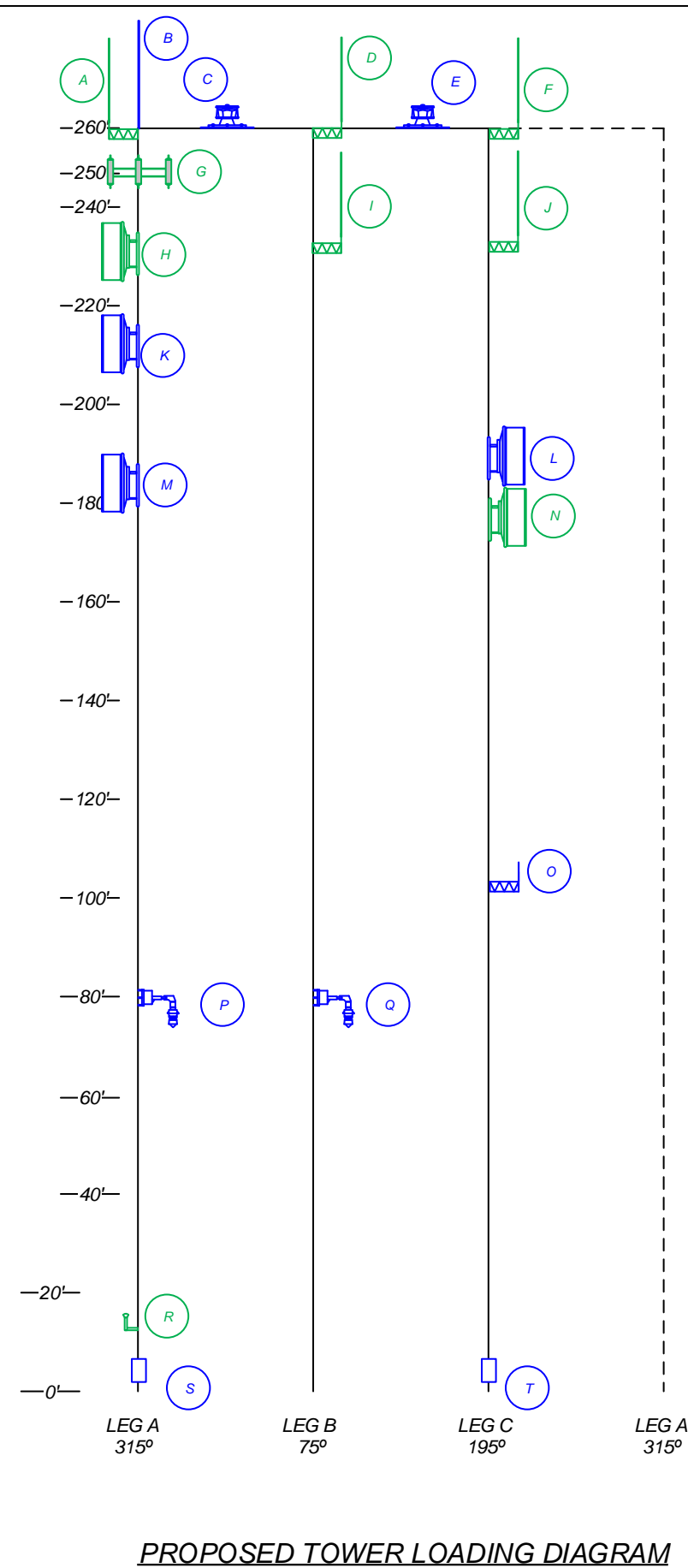
NOTES:

1. REMOVE AND PROPERLY DISPOSE OF THE SPECIFIED ANTENNAS, TRANSMISSION LINES, AND ASSOCIATED MOUNTING HARDWARE PER THESE PLANS.
2. REMOVE WHITE STROBE AND RETURN TO "OTHERS," TO BE USED FOR SPARES.
3. RESTORE SITE COMPOUND PER THESE PLANS.



LEGEND:

- TO BE REMOVED/INSTALLED BY OTHERS
- TO BE REMOVED BY THE VENDOR
- TO BE INSTALLED BY THE VENDOR



PROPOSED TOWER LOADING DIAGRAM

ID	MODEL	LEG/FACE	MTG. HGT.	TX LINE	AZIM.	NOTES
A	DB-810K W/ 6' SIDEARM	A	260' (BASE)	1-5/8"	260°	6
B	AIR TERMINAL	A	260' (BASE)	-	-	7
C	TECHNOSTROBE WHITE LED FLASH HEAD	AB	260' (BASE)	2" CONDUIT	-	1
D	DB-810K W/ 6' SIDEARM	B	260' (BASE)	1-5/8"	140°	6
E	TECHNOSTROBE WHITE LED FLASH HEAD	BC	260' (BASE)	1 1/2" CONDUIT	-	1
F	DB-810K W/ 6' SIDEARM	C	260' (BASE)	1-5/8"	260°	6
G	(3) APL869014-44TO	A	(3) 248' (C.L.)	(3) 1-5/8"	-	6
H	RFS DAB-W57ACU	A	230' (C.L.)	EP65J	358.5°	6
I	DB-810K W/ 6' SIDEARM	B	230' (BASE)	1-5/8"	140°	6
J	DB-810K W/ 6' SIDEARM	C	230' (BASE)	1-5/8"	260°	6
K	RFS DAB-W57ACU	A	213' (C.L.)	EP65J	358.1°	2,5
L	RFS DAB-W57ACU	C	189' (C.L.)	EP65J	202.9°	2,4
M	RFS DAB-W57ACU	A	184' (C.L.)	EP65J	358.1°	2,5
N	RFS DAB-W57ACU	C	177' (C.L.)	EP65J	177.4°	6
O	FG4505 W/ 6' SIDE ARM	C	100' (BASE)	7/8"	-	2
P	AXIS CCTV/PTZ CAMERA W/ LOWERING DEVICE	A	80' (BASE)	(2) 2" CONDUIT	-	2,3
Q	AXIS CCTV/PTZ CAMERA W/ LOWERING DEVICE	B	80' (BASE)	(2) 2" CONDUIT	-	2,3
R	GPS ANTENNA	A	13' (BASE)	1/2"	-	6
S	LOWERING DEVICE SECURITY BOX	A	3' (BASE)	-	-	3
T	LOWERING DEVICE SECURITY BOX	C	3' (BASE)	-	-	3

NOTES:

1. THE LED LIGHTING SYSTEM SHALL BE TECHNOSTROBE MODEL D1-1-LED-B-WHITE-48VDC-SNMP-C-APT-DS.
ALL TOWER LIGHT CONTROL WIRING SHALL BE INSTALLED IN THE SAME GALVANIZED RIGID STEEL CONDUIT OF SIZE RECOMMENDED BY THE MANUFACTURER. THE VENDOR SHALL INSTALL THE NEW TOWER LIGHTING SYSTEM WITH ASSOCIATED PHOTOCELL, SURGE PROTECTION AND GROUNDING.
2. INSTALL SPECIFIED ANTENNAS, AIR TERMINAL, CCTV CAMERA, AND LOWERING DEVICE WITH MESSENGER WIRES, TRANSMISSION LINES, CCTV POWER/DATA CABLES, SAFETY CLIMB SYSTEM, CONDUITS, SURGE PROTECTION, AND ASSOCIATED MOUNTING AND GROUNDING HARDWARE PER THESE PLANS.
3. INSTALL CCTV LOWERING DEVICE SECURITY BOX AND ASSOCIATED MOUNTING HARDWARE, AT THE BASE OF THE TOWER.
THE CCTV CAMERA SHALL BE AXIS Q6055-E WITH MG-SQUARED CLDMG2-EXT LOWERING DEVICE. THE CAMERA SHALL BE POWERED AND CONTROLLED BY AXIS T8124 DC MIDSPAN POE INJECTOR. THE SURGE PROTECTIVE DEVICES SHALL BE MJ8-POE-A.
4. VERTICAL POLARIZATION – KVE46 CALL SIGN.
5. HORIZONTAL POLARIZATION – KVE46 CALL SIGN.
6. THIS IS A FUTURE LOAD ANTENNA SYSTEM TO BE CONSIDERED FOR TOWER CAPACITY DESIGN, NOT TO BE FURNISHED OR INSTALLED AS A PART OF THIS PROJECT.
7. THE TOP OF THE AIR TERMINAL MUST BE THE HIGHEST POINT OF THE STRUCTURE.

CONTRACT PLANS RECORD					
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FLORIDA DEPARTMENT OF TRANSPORTATION
 605 SUWANNEE ST. MS 90
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
SITE NAME	COUNTY	FINANCIAL PROJECT ID
POMPAÑO BEACH	BROWARD	431987-1-52-08

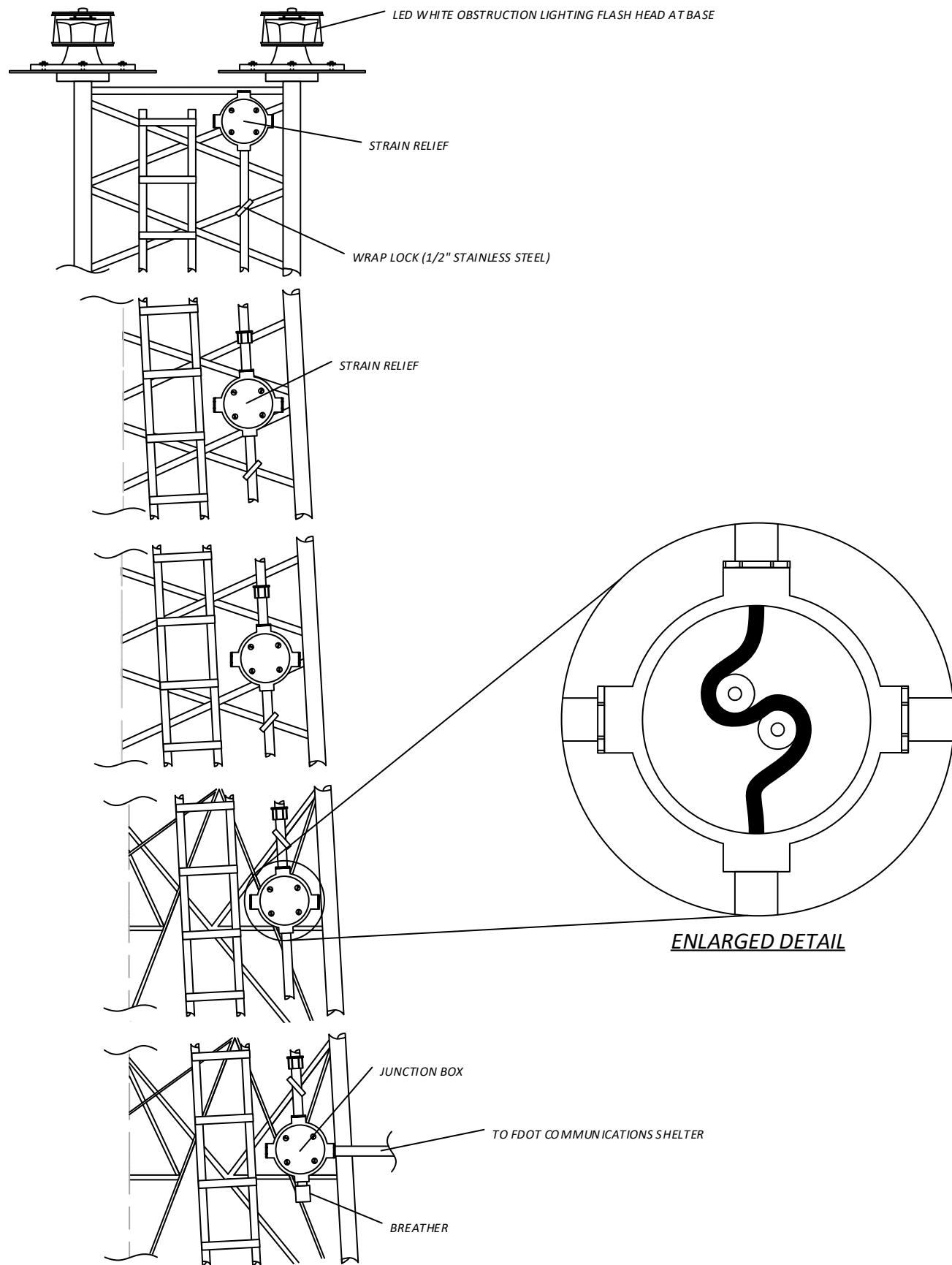
**POMPAÑO BEACH
TOWER LOADING
PLAN**

SHEET NO. IT-10

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INSTALLATION NOTES:

1. THE VENDOR SHALL PROVIDE AND INSTALL THE TOWER LIGHTNING PROTECTION AND GROUNDING SYSTEM PER THESE PLANS.
2. THE OBSTRUCTION LIGHTING SYSTEM SHALL BE MOUNTED TO THE TOWER WITH GALVANIZED OR STAINLESS STEEL HARDWARE. ALL TOWER LIGHTING CABLES SHALL BE INSTALLED IN APPROPRIATELY SIZED GALVANIZED RIGID STEEL CONDUIT. THE CONDUIT SYSTEM SHALL BE EQUIPPED WITH CABLE STRAIN RELIEF JUNCTION BOXES EVERY 100 FT. (MAXIMUM). ALL TOWER LIGHTING SYSTEM CONDUIT SHALL BE SECURED TO THE TOWER USING GALVANIZED OR STAINLESS STEEL 1/2 INCH BOLT-ON WRAP LOCKS. SNAP-IN HARDWARE IS NOT PERMITTED.
3. THE VENDOR SHALL PROVIDE AND INSTALL A NEW TOWER OBSTRUCTION LIGHTING SYSTEM PER THESE PLANS. THE TECHNOSTROBE TOWER LIGHT CONTROLLERS SHALL BE MECHANICALLY BONDED TO THE COMMUNICATIONS BUILDING'S INTERIOR GROUND.
THE VENDOR SHALL INSTALL A #12 AWG WHITE INSULATED CONDUCTOR FROM THE NEGATIVE DC POWER TERMINAL OF THE TOWER LIGHTING SYSTEM TO THE -48 VDC POWER DISTRIBUTION RACK BREAKER PANEL. THE VENDOR SHALL INSTALL A #12 AWG BLACK INSULATED CONDUCTOR FROM THE POSITIVE DC POWER TERMINAL OF THE TOWER LIGHTING SYSTEM TO THE -48 VDC POWER SYSTEM (GROUNDED) RETURN BUS BAR. THE VENDOR SHALL INSTALL A 15 AMP BREAKER IN THE -48 VDC POWER DISTRIBUTION RACK BREAKER PANEL.
4. GROUND CONDUCTORS SHALL BE DOWNWARD COURSING AND VERTICAL, AS MUCH AS POSSIBLE, AND BE AS SHORT AND STRAIGHT AS PRACTICAL. SHARP BENDS AND MULTIPLE BENDS IN CONDUCTORS SHALL BE AVOIDED IN ALL CASES. THE MINIMUM BEND RADIUS SHALL BE EIGHT (8) INCHES PER NFPA 780.
5. ALL ABOVE GROUND GROUNDING CONNECTIONS SHALL BE MECHANICAL CLAMP, OR IRREVERSIBLE CRIMP CONNECTIONS.
6. THE VENDOR SHALL CLEAN AND PREPARE ALL GROUND CONDUCTORS AND SURFACES PRIOR TO PERFORMING EXOTHERMIC BONDS. ALL NON-CONDUCTING SURFACE COATINGS SHALL BE REMOVED BEFORE EACH CONNECTION IS MADE.




ENLARGED DETAIL

TOWER OBSTRUCTION LIGHTING INSTALLATION DETAIL

CONTRACT PLANS RECORD					
DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION

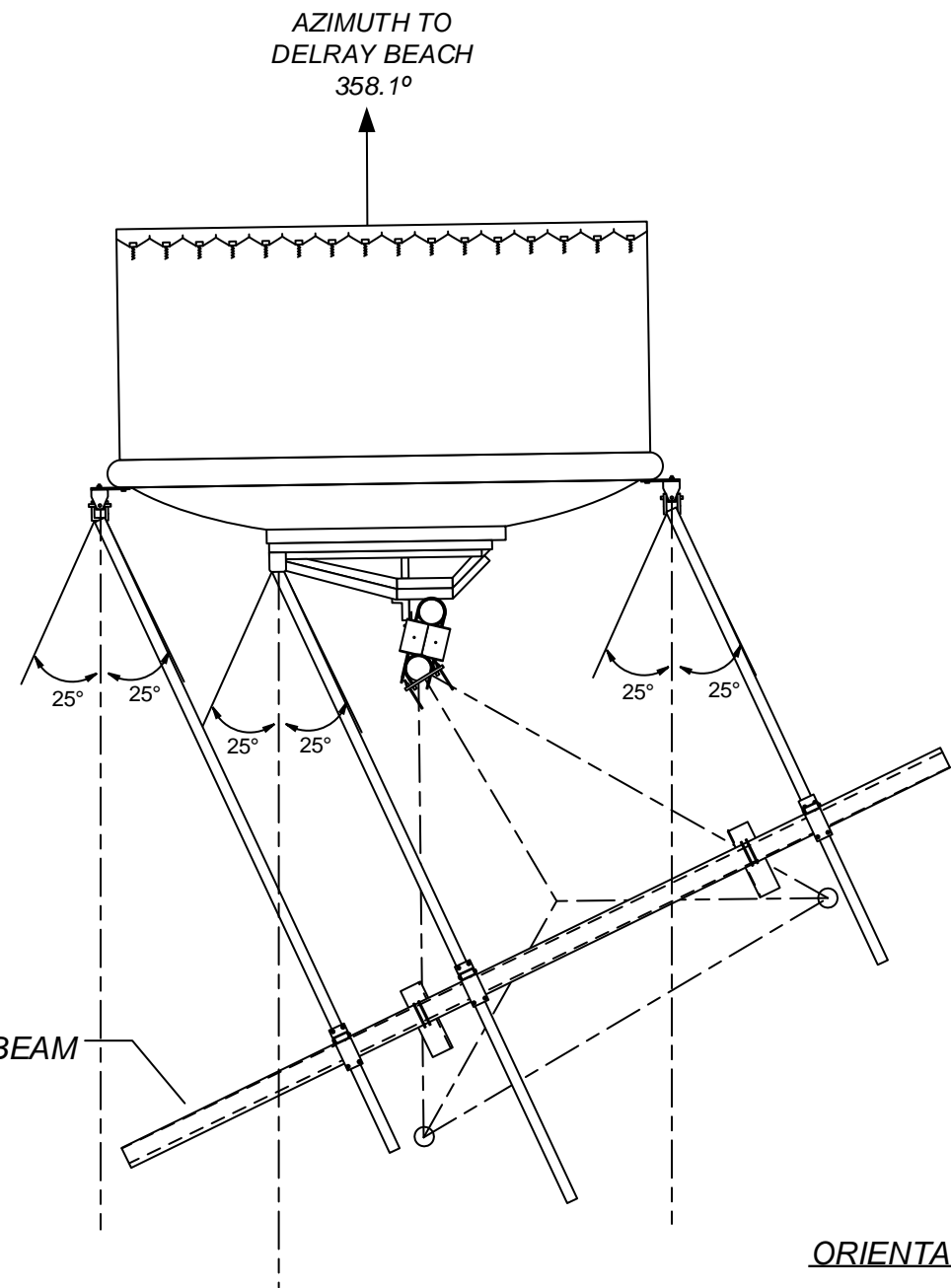
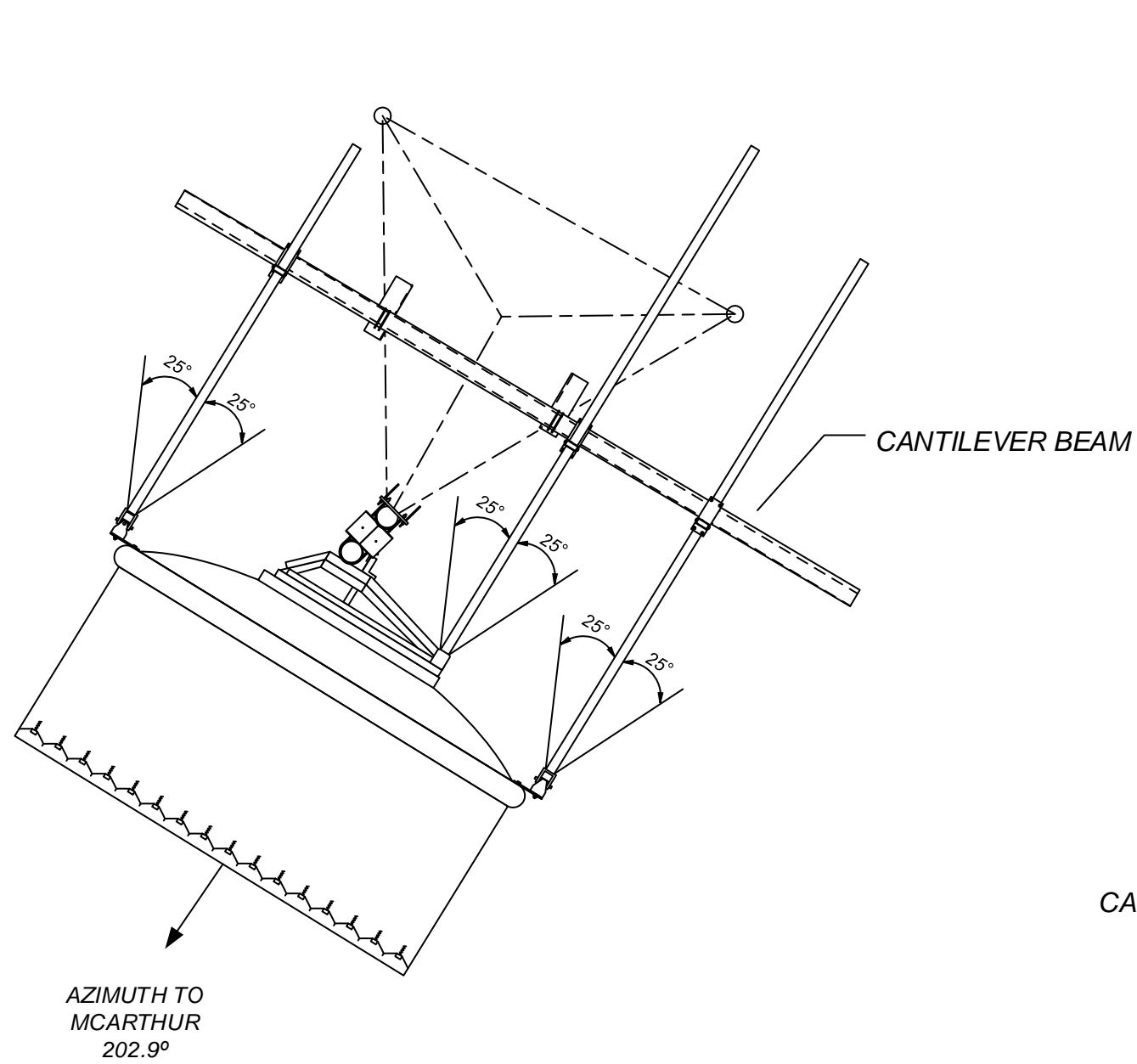
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
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POMPANO BEACH	BROWARD	431987-1-52-08

**POMPANO BEACH
OBSTRUCTION LIGHTING
INSTALLATION**

SHEET NO.
IT-11




**TYPICAL LEG MOUNT MICROWAVE
DISH – TOP VIEW**

ORIENTATION NOTES:

1. THE VENDOR SHALL SECURE EACH MICROWAVE DISH TO THE TOWER USING THE APPROPRIATE HARDWARE AS SHOWN IN THE TYPICAL DISH MOUNT DETAILS ON THIS SHEET.

THE VENDOR SHALL SUBMIT A COMPLETE LIST OF PROPOSED MICROWAVE DISH MOUNTING HARDWARE TO THE FDOT PROJECT MANAGER FOR REVIEW AND APPROVAL.
2. THE VENDOR SHALL INSTALL, AT A MINIMUM, (1) INBOARD SIDE STRUT WITH AZIMUTH ADJUSTMENT KIT AND (2) OUTBOARD SIDE STRUTS FOR EACH MICROWAVE DISH. IT IS THE VENDOR'S RESPONSIBILITY TO VERIFY PROPER PARTS AND QUANTITIES FOR MOUNTING AND SECURING EACH MICROWAVE DISH TO THE TOWER.
3. THE VENDOR SHALL ORIENT EACH MICROWAVE DISH PER THESE PLANS. SEE SHEET IT-10.
4. THE VENDOR SHALL ORIENT THE POLARIZATION OF EACH MICROWAVE DISH PER THESE PLANS. SEE SHEET IT-10.

CONTRACT PLANS RECORD					
DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION

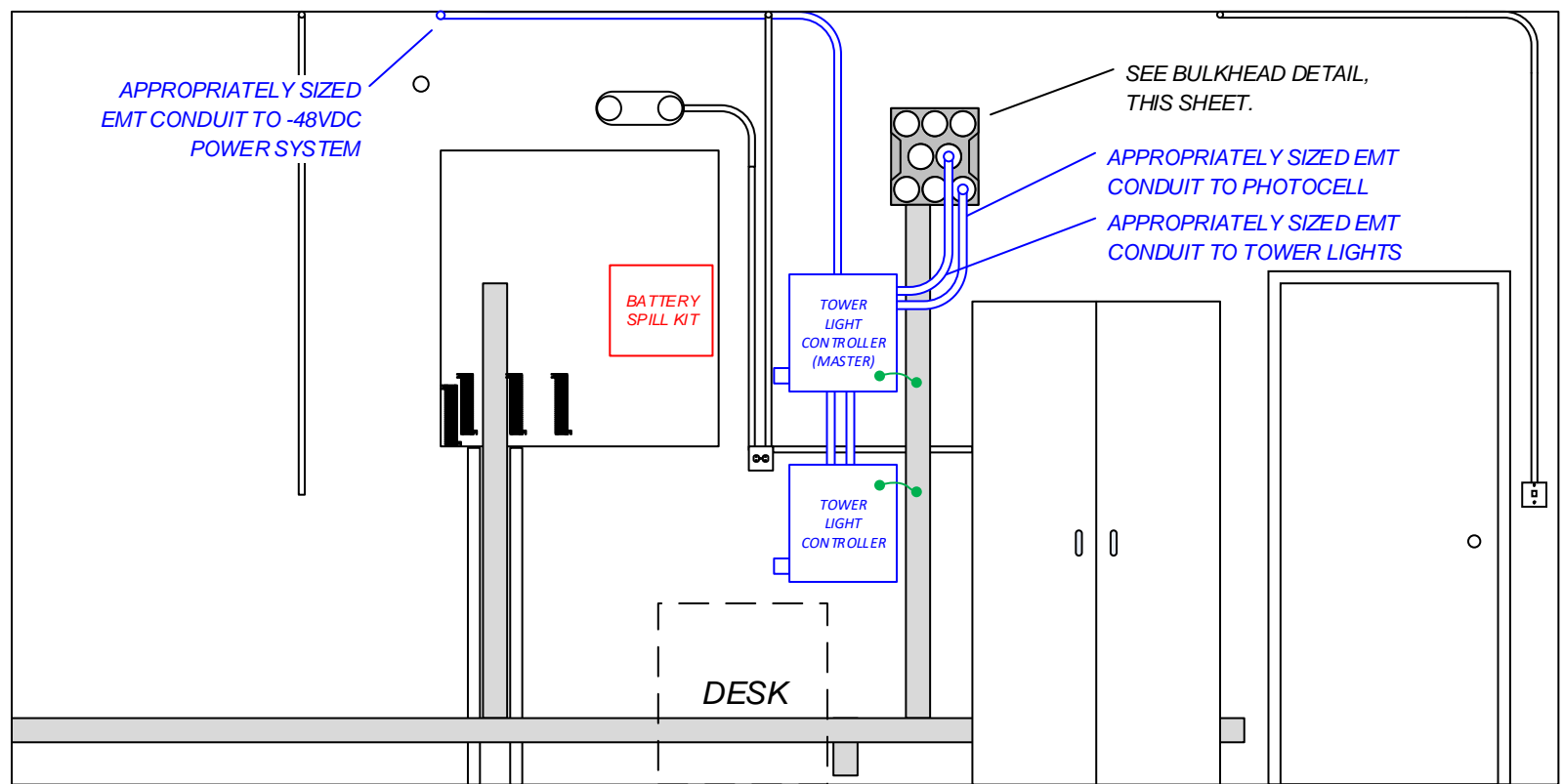

FLORIDA DEPARTMENT OF TRANSPORTATION
 605 SUWANNEE ST. MS 90
 TALLAHASSEE, FL 32399-0450
 PH. (850)-410-5600
 FAX. (850)-410-5501

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
SITE NAME	COUNTY	FINANCIAL PROJECT ID
POMPANO BEACH	BROWARD	431987-1-52-08

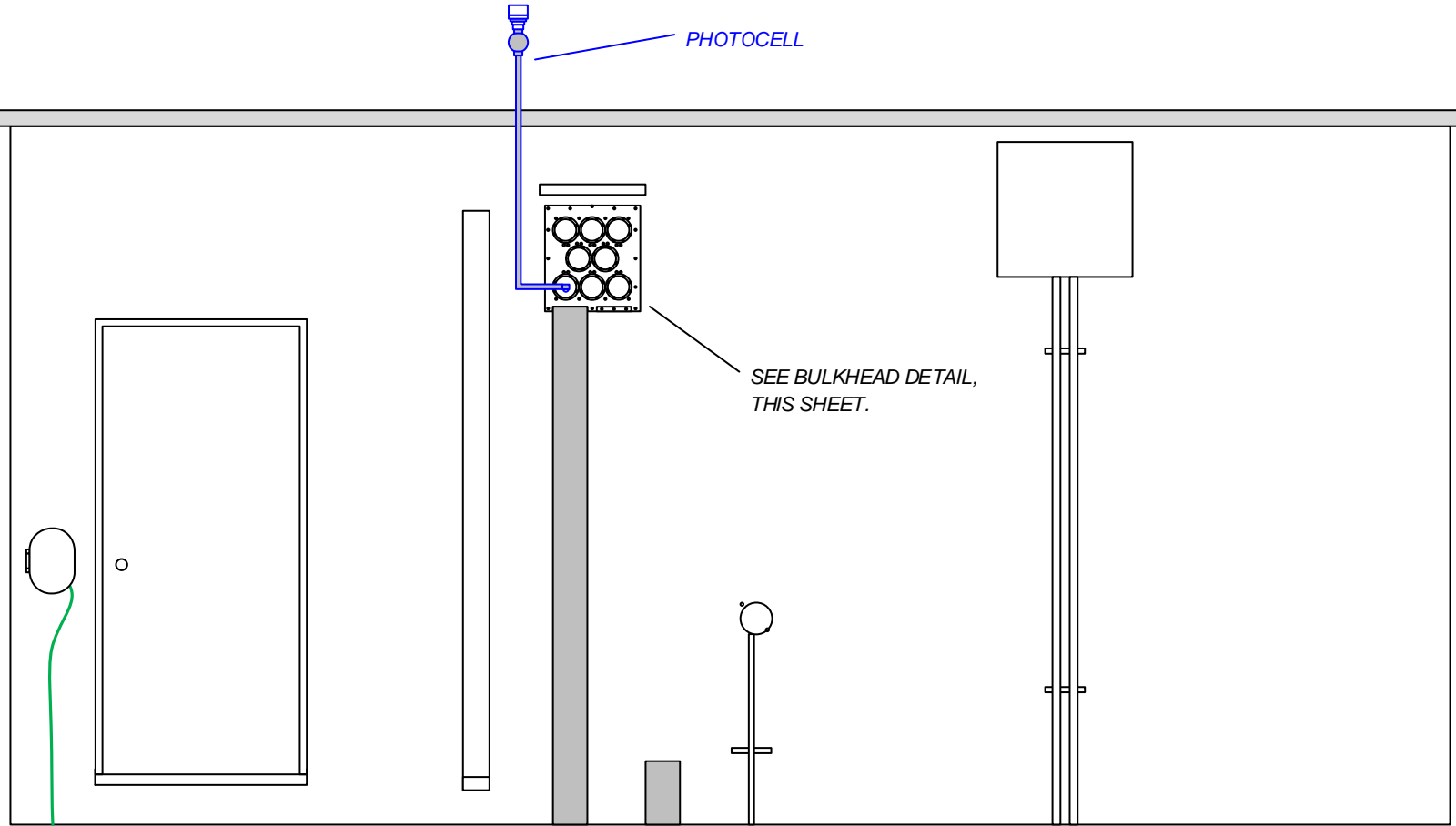
**POMPANO BEACH
DISH ORIENTATION**

SHEET NO.
IT-12

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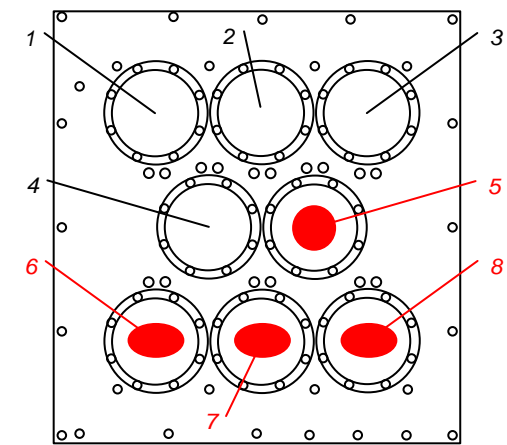
INTERIOR SOUTH WALL



EXTERIOR SOUTH WALL

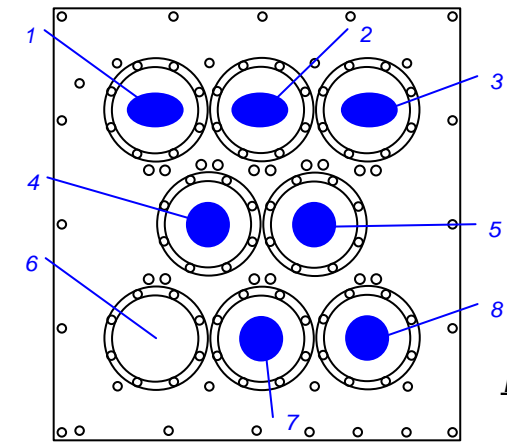
NOTES:

1. THE APPROXIMATE LOCATION OF THE EQUIPMENT IS FOR DIAGRAMMATICAL PURPOSES ONLY. THE VENDOR IS RESPONSIBLE FOR DETERMINING THE BEST LOCATIONS FOR EQUIPMENT AND ALL ASSOCIATED CONDUITS AND MOUNTING AND GROUNDING HARDWARE. THE VENDOR SHALL SUBMIT DETAILED PLANS FOR APPROVAL BY THE FDOT.
2. THE VENDOR SHALL INSTALL THE NEW CCTV POWER/DATA CABLES IN THE TRANSMISSION LINE BULKHEAD, AND NEATLY COIL ALL EXCESS CABLE FOR FUTURE TERMINATION. EXCESS CABLE LENGTHS SHALL BE MINIMUM 15 FT. THE VENDOR SHALL ALSO PROVIDE TWO (2) MIDSPAN POE INJECTORS INSIDE THE COMMUNICATIONS BUILDING FOR FUTURE INSTALLATION BY OTHERS.
3. THE VENDOR SHALL INSTALL THE NEW SURGE PROTECTIVE DEVICES DIRECTLY ON THE TRANSMISSION LINE BULKHEAD.
4. AFTER SUCCESSFUL TESTING OF ALL ANTENNAS AND CAMERAS, THE VENDOR SHALL INSTALL NEW BOOT COVERS ON ALL USED AND UNUSED BULKHEAD PORTS.
5. THE VENDOR SHALL INSTALL ONE (1) NEW TECHNOSTROBE -48 VDC TOWER OBSTRUCTION LIGHTING SYSTEM MODEL D1-1-LED-B-WHITE-48VDC-SNMP-C-APT-DS WITH ASSOCIATED SURGE PROTECTION AND GROUNDING. THE PHOTOCELL MAY BE MOUNTED ON THE WAVEGUIDE BRIDGE.



1. EMPTY
2. EMPTY
3. EMPTY
4. EMPTY
5. UHF 5DB 100FT SW LEG
6. RFS CABLEWAVE WE 65 (DELRAY BEACH INTERCHANGE MAIN)
7. RFS CABLEWAVE WE 65 (DELRAY BEACH INTERCHANGE DIVERSITY)
8. RFS CABLEWAVE WE 65 (MCARTHUR INTERCHANGE MAIN)

EXISTING BULKHEAD DETAIL – INTERIOR VIEW



1. RFS EP65J ELLIPTICAL WAVEGUIDE (DELRAY BEACH INTERCHANGE MAIN)
2. RFS EP65J ELLIPTICAL WAVEGUIDE (DELRAY BEACH INTERCHANGE DIVERSITY)
3. RFS EP65J ELLIPTICAL WAVEGUIDE (MCARTHUR INTERCHANGE MAIN)
4. UHF 5DB 100FT SW LEG
5. OBSTRUCTION LIGHTING
6. EMPTY (WITH ENTRY PORT BOOT COVER)
7. CAMERA LOWERING
8. PHOTOCELL

PROPOSED BULKHEAD DETAIL – INTERIOR VIEW

LEGEND:

- EXISTING INSTALLATION
- NEW INSTALLATION
- TO BE REMOVED

CONTRACT PLANS RECORD					
DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION

FDOT TSM&O
 TRANSPORTATION SYSTEMS MANAGEMENT & OPERATIONS

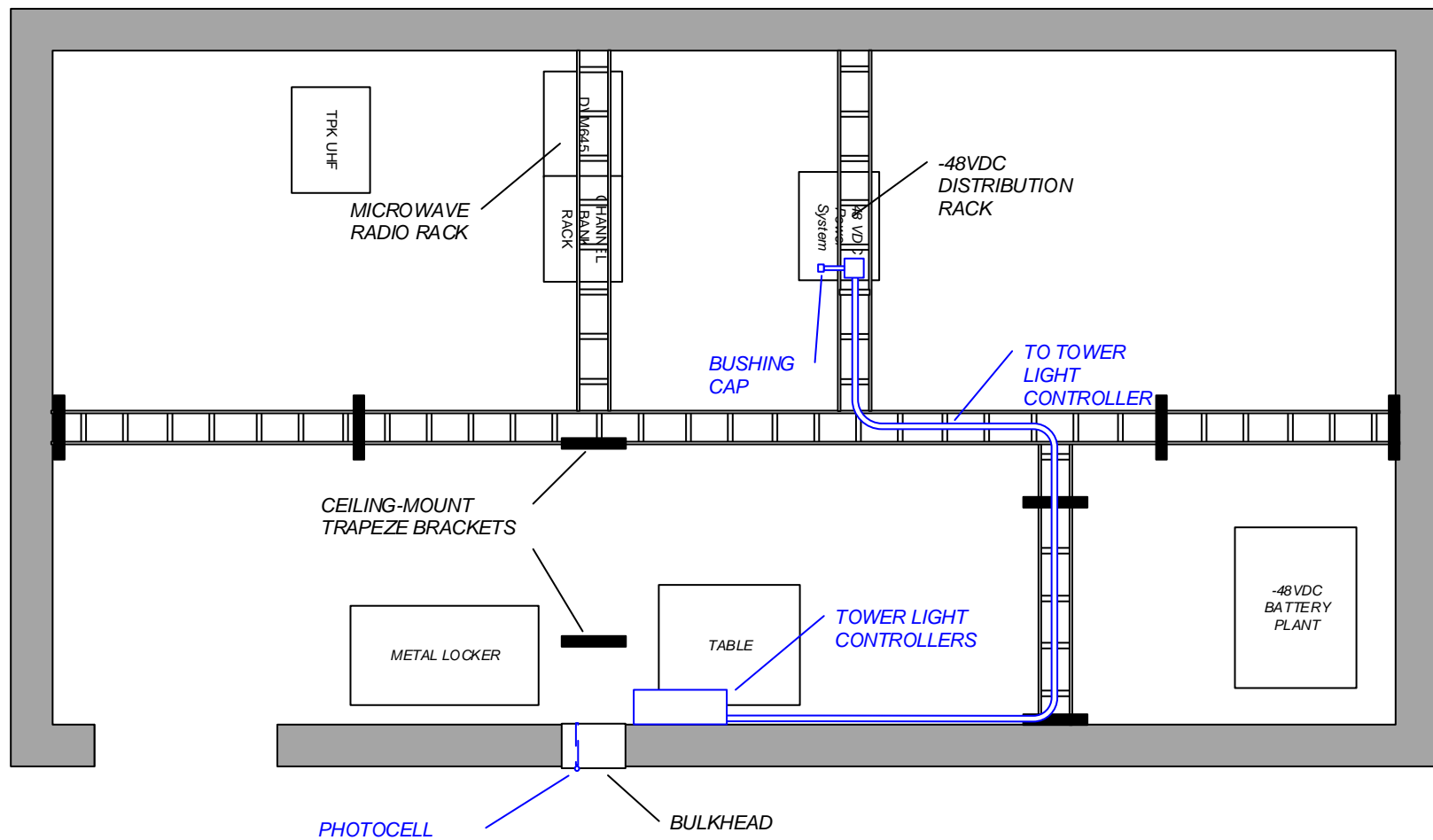
FLORIDA DEPARTMENT OF TRANSPORTATION
 605 SUWANNEE ST. MS 90
 TALLAHASSEE, FL 32399-0450
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
SITE NAME	COUNTY	FINANCIAL PROJECT ID
POMPANO BEACH	BROWARD	431987-1-52-08

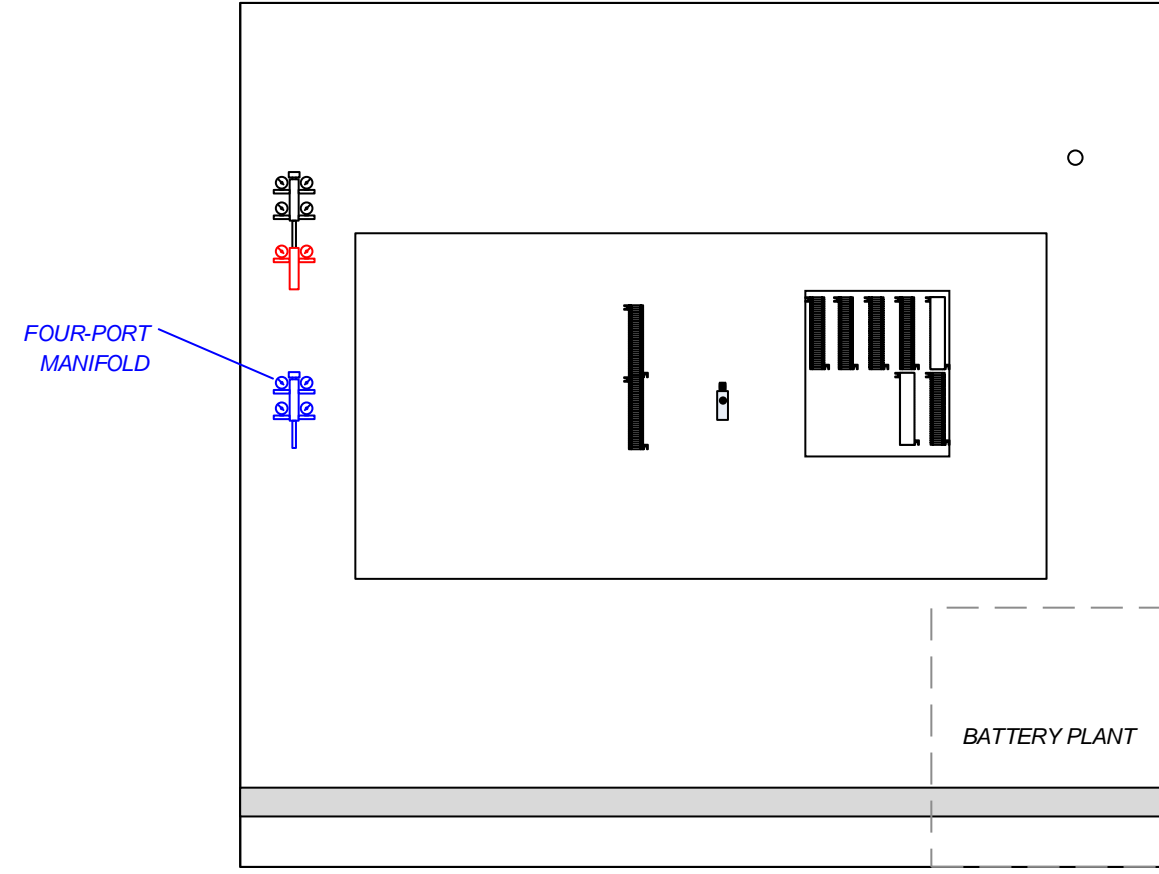
**POMPANO BEACH
 COMM BUILDING
 PLAN**

SHEET NO.
 IT-13

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SHELTER FLOOR PLAN



INTERIOR EAST WALL

NOTES:

1. THE APPROXIMATE LOCATION OF THE EQUIPMENT IS FOR DIAGRAMMATICAL PURPOSES ONLY. THE VENDOR IS RESPONSIBLE FOR DETERMINING THE BEST LOCATIONS FOR EQUIPMENT AND ALL ASSOCIATED CONDUITS AND MOUNTING AND GROUNDING HARDWARE. THE VENDOR SHALL SUBMIT DETAILED PLANS FOR APPROVAL BY THE FDOT.
2. THE VENDOR SHALL REMOVE THE OLD WAVEGUIDES AND ASSOCIATED PRESSURIZATION TUBING AFTER SUCCESSFUL CUTOVER OF THE MICROWAVE ANTENNA SYSTEMS. THE VENDOR SHALL CAP AND CLOSE OFF ALL UNUSED GAUGES TO PREVENT AIR LEAKS.
3. THE VENDOR SHALL ROUTE THE NEW WAVEGUIDES ALONG THE EXISTING CEILING-MOUNT TRAPEZE ASSEMBLIES, AND EXISTING CEILING-MOUNT THREADED RODS, TO THE MICROWAVE RADIO RACKS. THE VENDOR SHALL SECURE THE WAVEGUIDES TO THE TRAPEZE ASSEMBLIES USING STAINLESS STEEL BOLT-ON WAVEGUIDE HANGER KITS.
4. THE VENDOR SHALL INSTALL A NEW GAS DISTRIBUTION MANIFOLD KIT AND ASSOCIATED GAUGES AND PLASTIC TUBING FOR THE NEW WAVEGUIDES. THE VENDOR SHALL INTEGRATE THIS EQUIPMENT WITH THE EXISTING PRESSURIZATION EQUIPMENT.
5. THE VENDOR SHALL ROUTE THE NEW COAXIAL TRANSMISSION LINES ALONG THE OVERHEAD CABLE TRAYS, PARALLEL TO THE EXISTING UHF COAXIAL TRANSMISSION LINES TO THE APPROPRIATE UHF RADIO RACKS. THE VENDOR SHALL SECURE THE TRANSMISSION LINES TO THE OVERHEAD CABLE TRAYS WITH ZIP TIES, AT 36 IN. INTERVALS, MAXIMUM.
6. THE VENDOR SHALL REMOVE THE EXISTING 2 PORT GAS DISTRIBUTION MANIFOLD BEFORE INSTALLING THE NEW 4 PORT MANIFOLD KIT. THE VENDOR SHALL INSTALL A NEW 4 PORT GAS DISTRIBUTION MANIFOLD KIT AND ASSOCIATED GAUGES AND PLASTIC TUBING FOR THE NEW WAVEGUIDES. THE VENDOR SHALL INTEGRATE THIS EQUIPMENT WITH THE EXISTING PRESSURIZATION EQUIPMENT.

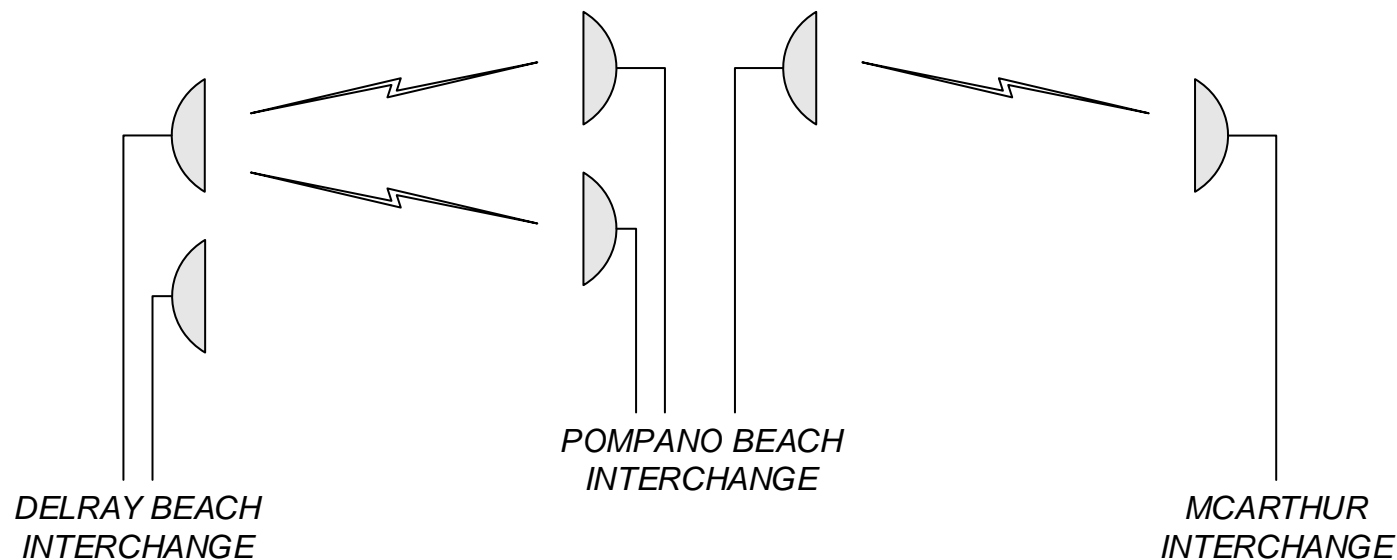
LEGEND:

- EXISTING INSTALLATION
- NEW INSTALLATION
- TO BE REMOVED

CONTRACT PLANS RECORD						 FLORIDA DEPARTMENT OF TRANSPORTATION 605 SUWANNEE ST. MS 90 TALLAHASSEE, FL 32399-0450 PH. (850)-410-5600 FAX. (850)-410-5501	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			POMPANO BEACH COMM BUILDING PLAN	SHEET NO.
DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION		SITE NAME	COUNTY	FINANCIAL PROJECT ID		IT-14
						POMPANO BEACH	BROWARD	431987-1-52-08			

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EXISTING ANTENNAS



POMPANO BEACH SITE RSL MEASUREMENTS

RX FROM MCARTHUR INTERCHANGE SITE*

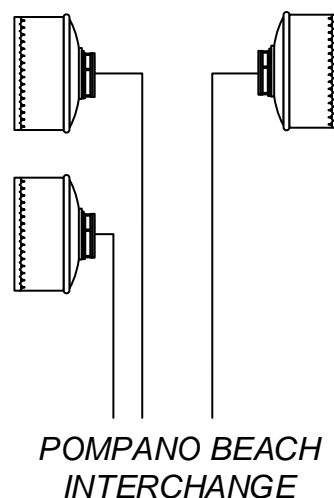
MAIN ANTENNA	
EXISTING	CUT-OVER
RSL (dBm)	RSL (dBm)

RX FROM DELRAY BEACH INTERCHANGE SITE*

MAIN ANTENNA	
EXISTING	CUT-OVER
RSL (dBm)	RSL (dBm)

DIVERSITY ANTENNA	
EXISTING	CUT-OVER
RSL (dBm)	RSL (dBm)

NEW CUT-OVER ANTENNAS



*RSL MEASUREMENT TAKEN AT POMPANO BEACH INTERCHANGE

VENDOR: _____ DATE: _____

FDOT REP: _____ DATE: _____

CONTRACT PLANS RECORD					
DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION

FLORIDA DEPARTMENT OF TRANSPORTATION
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
SITE NAME	COUNTY	FINANCIAL PROJECT ID
POMPANO BEACH	BROWARD	431987-1-52-08

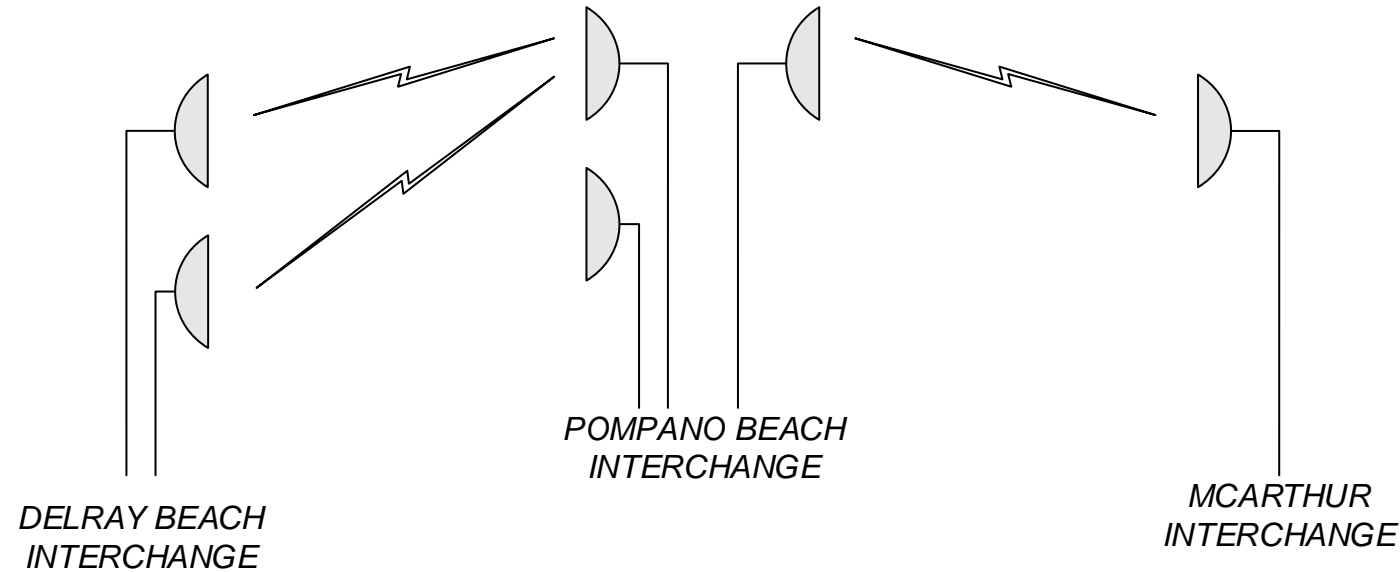
*POMPANO BEACH
RSL MEASUREMENTS*

SHEET NO.
IT-15

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EXISTING ANTENNAS

POMPANO BEACH COORDINATE SITES RSL MEASUREMENTS



TX TO MCARTHUR INTERCHANGE SITE*

MAIN ANTENNA

EXISTING	CUT-OVER
RSL (dBm)	RSL (dBm)

*RSL MEASUREMENT TAKEN AT MCARTHUR INTERCHANGE

TX TO DELRAY BEACH INTERCHANGE SITE**

MAIN ANTENNA

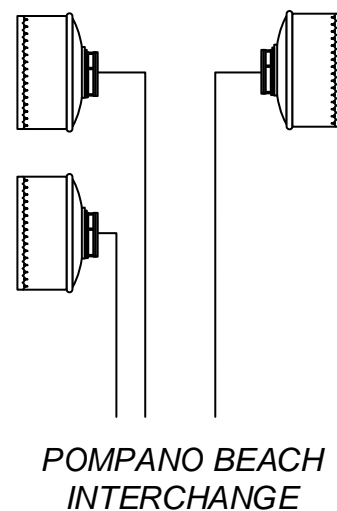
EXISTING	CUT-OVER
RSL (dBm)	RSL (dBm)

DIVERSITY ANTENNA

EXISTING	CUT-OVER
RSL (dBm)	RSL (dBm)

**RSL MEASUREMENT TAKEN AT DELRAY BEACH INTERCHANGE

NEW CUT-OVER ANTENNAS



VENDOR: _____ DATE: _____

FDOT REP: _____ DATE: _____

CONTRACT PLANS RECORD

DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION

FDOT **TSM&O**
 FLORIDA DEPARTMENT OF TRANSPORTATION
 605 SUWANNEE ST. MS 90
 TALLAHASSEE, FL 32399-0450
 PH. (850)-410-5600
 FAX. (850)-410-5501

STATE OF FLORIDA
 DEPARTMENT OF TRANSPORTATION

SITE NAME	COUNTY	FINANCIAL PROJECT ID
POMPANO BEACH	BROWARD	431987-1-52-08

POMPANO BEACH
RSL MEASUREMENTS

SHEET NO.
 IT-16

**FLORIDA DEPARTMENT OF TRANSPORTATION
FTE POMPANO BEACH INTERCHANGE TOWER REPLACEMENT**

APPENDIX B

LEAD BASED PAINT INSPECTION TESTING MILEPOST #67

*****ATTACHED AS A SEPARATE DOCUMENT*****

**FLORIDA DEPARTMENT OF TRANSPORTATION
FTE POMPANO BEACH INTERCHANGE TOWER REPLACEMENT**

APPENDIX C

GEOTECHNICAL REPORT NEARBY TOWER

*****ATTACHED AS A SEPARATE DOCUMENT*****

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: That we, _____
(name)
_____ (hereinafter called Vendor) of _____
(address)

_____ and
_____ (hereinafter called Surety) of
(name)

(address)

duly authorized to do business in the State of Florida, are held and firmly bound unto the State of Florida in the full and just sum of _____ Dollars (\$ _____), lawful money of the United States of America, to be paid to the Florida Department of Transportation (hereinafter called the Department), to which payment will and truly to be made we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally and firmly by these presents;

WHEREAS, the above Vendor has subscribed to an agreement with the Department to bear the date of _____, for contractual services agreement in connection with _____

_____ in _____ County(ies), particularly known as _____

(hereinafter called the Agreement), upon certain terms and conditions in said Agreement more particularly mentioned; and

NOW, THEREFORE, The condition of this obligation is such that if the above Vendor in all respects will comply with the terms and conditions of said Agreement, and its obligations thereunder, including the Scope of Services, Specifications, General Conditions, Special Conditions, Bid Blank therein referred to and made a part thereof, and such alterations as may be made in said conditions and specifications, as therein provided for; and, further, if such Vendor will promptly make payment to all persons supplying labor, material, equipment and supplies, used directly or indirectly by the said Vendor or any subcontractor(s) in the prosecution of the work provided for in said Agreement, and promptly will pay all State Workers' Compensation and Unemployment Compensation taxes incurred in the performance of the said Agreement and will pay to the Department any amount in money or property, the Department may lose or be overcharged or otherwise defrauded of, by reason of any wrongful or criminal act of the Vendor, its agents, or employees, then this obligation is to be void; otherwise, to be and remain in full force and virtue in law.

WITNESS the signature of the Vendor and the signature of the Surety by _____ its

(Agent or Attorney-in-Fact, or otherwise)

with seals of said Vendor and Surety hereunto affixed this _____ day of _____.

Surety
BY: _____
Signature
TITLE: _____
Attorney-in-Fact/Agent
(Surety Seal)

Name/Telephone #: _____
Address: _____

Vendor
BY: _____
Authorized Signature(s)
TITLE: _____

ATTEST: _____
Secretary/Notary

BY: _____
Signature

Note: Attach Power of Attorney showing authority of Surety's Agent or Attorney-in-Fact. This bond is not for public works contracts required by Section 25.05, Florida Statutes.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
**VENDOR CERTIFICATION REGARDING
SCRUTINIZED COMPANIES LISTS**

Respondent Vendor Name: _____
Vendor FEIN: _____
Vendor's Authorized Representative Name and Title: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone Number: _____
Email Address: _____

Section 287.135, Florida Statutes, prohibits agencies from contracting with companies for goods or services of \$1,000,000 or more, that are on either the Scrutinized Companies with Activities in Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector Lists which are created pursuant to s. 215.473, F.S., or the Scrutinized Companies that Boycott Israel List, created pursuant to s. 215.4725, F.S., or companies that are engaged in a boycott of Israel. This requirement is not applicable to federally funded contracts.

As the person authorized to sign on behalf of Respondent, I hereby certify that the company identified above in the section entitled "Respondent Vendor Name" is not listed on either the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or the Scrutinized Companies that Boycott Israel List. I further certify that the company is not engaged in a boycott of Israel. I understand that pursuant to section 287.135, Florida Statutes, the submission of a false certification may subject company to civil penalties, attorney's fees, and/or costs.

Certified By: _____,
who is authorized to sign on behalf of the above referenced company.
Authorized Signature Print Name and Title: _____
Date: _____

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
DRUG-FREE WORKPLACE PROGRAM CERTIFICATION

375-040-18
PROCUREMENT
03/17

287.087 Preference to businesses with drug-free workplace programs. --Whenever two or more bids, proposals, or replies that are equal with respect to price, quality, and service are received by the state or by any political subdivision for the procurement of commodities or contractual services, a bid, proposal, or reply received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. In order to have a drug-free workplace program, a business shall:

(1) Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.

(2) Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.

(3) Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).

(4) In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than 5 days after such conviction.

(5) Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community by, any employee who is so convicted.

(6) Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

Does the individual responding to this solicitation certify that their firm has implemented a drug-free workplace program in accordance with the provision of Section 287.087, Florida Statutes, as stated above?

YES

NO

NAME OF BUSINESS: _____

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
PURCHASE ORDER TERMS & CONDITIONS

375-040-55
PROCUREMENT
OGC - 09/16
Page 1 of 7

Purchase Order No.: _____

Appropriation Bill Number(s) / Line Item Number(s) for 1st year of contract, pursuant to s. 216.313, F.S.: _____

(required for contracts in excess of \$5 million)

1. SERVICES AND PERFORMANCE

- A. The Department does hereby retain the Vendor to furnish, within the manner and at the location specified, certain services, information and items as specified in the competitive procurement documents, the completed purchase order form, and attached Exhibits which are integral parts of this purchase order contract (hereinafter called the Purchase Order). If additional terms and conditions of the Vendor are attached, only those provisions not in conflict with the State of Florida Purchase Order Conditions and Instructions and Purchase Order Terms and Conditions herein may be made a part of this Purchase Order. The Purchase Order Terms and Conditions, whether generic or specific, shall take precedence over and supersede any inconsistent or conflicting provision in the State of Florida Purchase Order Conditions and Instructions, and any attached terms and conditions of the Vendor.
- B. Before making any additions or deletions to the work described in this Purchase Order, and before undertaking any changes or revisions to such work, the parties shall negotiate any necessary cost changes and the Department shall issue a Change Order covering such work and compensation. Reference herein to this Purchase Order shall be considered to include any Change Orders.
- C. All tracings, plans, specifications, maps, computer files, and reports prepared or obtained under this Purchase Order, as well as all data collected, together with summaries and charts derived therefrom, shall be the exclusive property of the Department without restriction or limitation on their use and shall be made available, upon request, to the Department at any time during the performance of such services and/or upon completion or termination of this Purchase Order. Upon delivery to the Department of said document(s), the Department shall become the custodian thereof in accordance with Chapter 119, Florida Statutes. The Vendor shall not copyright any material and products or patent any invention developed under this Purchase Order. The Department shall have the right to visit the site for inspection of the work and the products of the Vendor at any time.
- D. All final plans, documents, reports, studies, and other data prepared by the Vendor shall bear the professional's seal/signature, in accordance with applicable Florida law that governs and Administrative Rules promulgated by the Department of Business and Professional Regulation, and guidelines published by the Department, in effect at the time of execution of this Purchase Order. In the event that changes in the statute or rules create a conflict with the requirements of the published guidelines, requirements of the statute and rules shall take precedence.
- E. The Vendor agrees to provide project schedule progress reports in a format acceptable to the Department and at intervals established by the Department. The Department shall be entitled at all times to be advised, at its request, as to the status of work being done by the Vendor and of the details thereof. Coordination shall be maintained by the Vendor with representatives of the Department, or of other agencies interested in the project on behalf of the Department. Either party to the Purchase Order may request and be granted a conference.
- F. All services shall be performed by the Vendor to the satisfaction of the Director who shall decide all questions, difficulties and disputes of any nature whatsoever that may arise under or by reason of this Purchase Order. The Director's decision upon all claims, questions, and disputes shall be final and binding upon all parties. Adjustments of compensation and contract time because of any major changes in the work that may become necessary or desirable shall be left to the absolute discretion of the Director.

Reference herein to the Director shall mean the Department's

Chief Engineer _____.

2. TERM

- A. Initial Term. Unless otherwise specified, this Purchase Order begins on the date of issuance.

Services to be rendered by the Vendor shall be completed by the date specified on the Purchase Order.

- B, EXTENSIONS. In the event that circumstances arise which make performance by the Vendor impracticable or impossible within the time allowed or which prevent a new contract from being executed, the Department, in its discretion, may grant an extension of this Purchase Order. Extension of this Purchase Order must be in writing for a period not to exceed six (6) months and is subject to the same terms and conditions set forth in this Purchase Order and any written amendments signed by the parties; provided the Department may, in its discretion, grant a proportional increase in the total dollar amount based on the method and rate established herein. There may be only one extension of this Purchase Order unless the failure to meet the criteria set forth in this Purchase Order for completion of this Purchase Order is due to events beyond the control of the Vendor.

It shall be the responsibility of the Vendor to ensure at all times that sufficient time remains in the Project Schedule within which to complete services on the project. In the event there have been delays which would affect the project completion date, the Vendor shall submit a written request to the Department which identifies the reason(s) for the delay and the amount of time related to each reason. The Department shall review the request and make a determination as to granting all or part of the requested extension.

3. COMPENSATION AND PAYMENT

- A. Payment shall be made only after receipt and approval of goods and services unless advance payments are authorized by the Chief Financial Officer of the State of Florida under Chapters 215 and 216, Florida Statutes. Deliverable(s) must be received and accepted in writing by the Contract Manager on the Department's invoice transmittal forms prior to payment. If the Department determines that the performance of the Vendor is unsatisfactory, the Department shall notify the Vendor of the deficiency to be corrected, which correction shall be made within a time-frame to be specified by the Department. The Vendor shall, within five days after notice from the Department, provide the Department with a corrective action plan describing how the Vendor will address all issues of contract non-performance, unacceptable performance, failure to meet the minimum performance levels, deliverable deficiencies, or contract non-compliance. If the corrective action plan is unacceptable to the Department, the Vendor shall be assessed a non-performance retainage equivalent to 10% of the total invoice amount. The retainage shall be applied to the invoice for the then-current billing period. The retainage shall be withheld until the vendor resolves the deficiency. If the deficiency is subsequently resolved, the Vendor may bill the Department for the retained amount during the next billing period. If the Vendor is unable to resolve the deficiency, the funds retained will be forfeited at the end of the agreement period.
- B. Vendors providing goods and services to the Department should be aware of the following time frames. Upon receipt, the Department has five (5) working days to inspect and approve the goods and services, unless the Purchase Order specifies otherwise. The Department has 20 days to deliver a request for payment (voucher) to the Department of Financial Services. The 20 days are measured from the latter of the date the invoice is received or the goods or services are received, inspected, and approved. Interest penalties of less than one (1) dollar shall not be enforced unless the Vendor requests payment. Invoices which have to be returned to a Vendor because of Vendor preparation errors shall result in a delay in the payment. The invoice payment requirements do not start until a properly completed invoice is provided to the Department.
- C. The State of Florida, through the Department of Management Services, has instituted MyFloridaMarketPlace, a statewide eProcurement system. Pursuant to Section 287.057(23), Florida Statutes, all payments shall be assessed a transaction fee of one percent (1%), which the Vendor shall pay to the State. For payments within the State accounting system (FLAIR or its successor), the transaction fee shall, when possible, be automatically deducted from payments to the Vendor. If automatic deduction is not possible, the Vendor shall pay the transaction fee pursuant to Rule 60A-1.031(2), Florida Administrative Code. By submission of these reports and

corresponding payments, Vendor certifies their correctness. All such reports and payments shall be subject to audit by the State or its designee. The Vendor shall receive a credit for any transaction fee paid by the Vendor for the purchase of any item(s) if such item(s) are returned to the Vendor through no fault, act, or omission of the Vendor. Notwithstanding the foregoing, a transaction fee is non-refundable when an item is rejected or returned, or declined, due to the Vendor's failure to perform or comply with specifications or requirements of the Purchase Order. Failure to comply with these requirements shall constitute grounds for declaring the Vendor in default and recovering procurement costs from the Vendor in addition to all outstanding fees. VENDORS DELINQUENT IN PAYING TRANSACTION FEES MAY BE EXCLUDED FROM CONDUCTING FUTURE BUSINESS WITH THE STATE.

- D. Records of costs incurred under terms of this Purchase Order shall be maintained and made available upon request to the Department at all times during the period of this Purchase Order and for three years after final payment for the work pursuant to this Purchase Order is made. Copies of these documents and records shall be furnished to the Department upon request. Records of costs incurred shall include the Vendor's general accounting records and the project records, together with supporting documents and records, of the Vendor and all subcontractors performing work on the project, and all other records of the Vendor and subcontractors considered necessary by the Department for a proper audit of project costs.
- E. The Department, during any fiscal year, shall not expend money, incur any liability, or enter into any contract which, by its terms, involves the expenditure of money in excess of the amounts budgeted as available for expenditure during such fiscal year. Any contract, verbal or written, made in violation of this subsection is null and void, and no money may be paid on such contract. The Department shall require a statement from the comptroller of the Department that funds are available prior to entering into any such contract or other binding commitment of funds. Nothing herein contained shall prevent the making of contracts for periods exceeding one year, but any contract so made shall be executory only for the value of the services to be rendered or agreed to be paid for in succeeding fiscal years. Accordingly, the State of Florida's performance and obligation to pay under this Contract is contingent upon an annual appropriation by the Legislature.
- F. The bills for any travel expenses, when authorized by terms of this Agreement and the Department, will be submitted in accordance with Section 112.061, Florida Statutes. In addition, if compensation for travel is authorized by terms of this Agreement and the Department, then the Department shall not compensate the Vendor for lodging/hotel expenses in excess of \$150.00 per day (excluding taxes and fees). The Vendor may expend their own funds to the extent the lodging/hotel expense exceeds \$150.00 per day. The Department, in its sole discretion and pursuant to its internal policies and procedures, may approve compensation to the Vendor for lodging/hotel expenses in excess of \$150.00 per day.

4. INDEMNITY AND PAYMENT FOR CLAIMS

- A. **INDEMNITY:** To the extent permitted by Florida Law, the Vendor shall indemnify and hold harmless the Department, and its officers and employees from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorney's fees, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the Vendor and persons employed or utilized by the Vendor in the performance of this Purchase Order.

It is specifically agreed between the parties executing this Purchase Order that it is not intended by any of the provisions of any part of the Purchase Order to create in the public or any member thereof, a third party beneficiary hereunder, or to authorize anyone not a party to this Purchase Order to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of this Purchase Order.

PAYMENT FOR CLAIMS: The Vendor guaranties the payment of all just claims for materials, supplies, tools, or labor and other just claims against the Vendor or any subcontractor, in connection with the Purchase Order. The Department's final acceptance and payment does not release the Vendor's bond until all such claims are paid or released.

B. LIABILITY INSURANCE. (Select and complete as appropriate):

- No general liability insurance required.
- The Vendor shall carry and keep in force during the term of this Purchase Order a general liability insurance policy or policies with a company or companies authorized to do business in Florida, affording public liability insurance with combined bodily injury limits of at least \$ 1,000,000.00 per person and \$ 2,000,000.00 each occurrence, and property damage insurance of at least \$ 1,000,000.00 each occurrence, for the services to be rendered in accordance with this Purchase Order.
- The Vendor shall have and maintain during the term of this Purchase Order, a professional liability insurance policy or policies or an irrevocable letter of credit established pursuant to chapter 675 and section 337.106, Florida Statutes, with a company or companies authorized to do business in the State of Florida, affording liability coverage for the professional services to be rendered in accordance with this Purchase Order in the amount of \$ _____.

C. WORKERS' COMPENSATION. The Vendor shall also carry and keep in force Workers' Compensation insurance as required for the State of Florida under the Workers' Compensation Law.

D. PERFORMANCE AND PAYMENT BOND. (Select as appropriate):

- No Bond required.
- Prior to commencement of any services pursuant to this Purchase Order and at all times during the term hereof, including renewals and extensions, the Vendor will supply to the Department and keep in force a bond provided by a surety authorized to do business in the State of Florida, payable to the Department and conditioned for the prompt, faithful, and efficient performance of this Purchase Order according to the terms and conditions hereof and within the time periods specified herein, and for the prompt payment of all persons furnishing labor, materials, equipment, and supplies therefor.

E. CERTIFICATION. With respect to any general liability insurance policy required pursuant to this Purchase Order, all such policies shall be issued by companies licensed to do business in the State of Florida. The Vendor shall provide to the Department certificates showing the required coverage to be in effect with endorsements showing the Department to be an additional insured prior to commencing any work under this Contract. Policies that include Self Insured Retention (SIR) will not be accepted. The certificates and policies shall provide that in the event of any material change in or cancellation of the policies reflecting the required coverage, thirty days advance notice shall be given to the Department or as provided in accordance with Florida law.

5. COMPLIANCE WITH LAWS

- A. The Vendor agrees that it shall make no statements, press releases, or publicity releases concerning this Purchase Order or its subject matter or otherwise disclose or permit to be disclosed any of the data or other information obtained or furnished in compliance with this Purchase Order, or any particulars thereof, during the period of the Purchase Order, without first notifying the Department's Contract Manager and securing prior written consent.
- B. If the Vendor is licensed by the Department of Business and Professional Regulation to perform the services herein contracted, then section 337.162, Florida Statutes, applies as follows:
- (1) If the Department has knowledge or reason to believe that any person has violated the provisions of state professional licensing laws or rules, it shall submit a complaint regarding the violations to the Department of Business and Professional Regulation. The complaint shall be confidential.
 - (2) Any person who is employed by the Department and who is licensed by the Department of Business and Professional Regulation and who, through the course of the person's employment, has knowledge to believe that any person has violated the provisions of state

professional licensing laws or rules shall submit a complaint regarding the violations to the Department of Business and Professional Regulation. Failure to submit a complaint about the violations may be grounds for disciplinary action pursuant to chapter 455, Florida Statutes, and the state licensing law applicable to that licensee. The complaint shall be confidential.

(3) Any complaints submitted to the Department of Business and Professional Regulation are confidential and exempt from Section 119.07(1), Florida Statutes, pursuant to chapter 455, Florida Statutes, and applicable state law.

- C. The Vendor covenants and agrees that it and its employees and agents shall be bound by the standards of conduct provided in applicable Florida law and applicable rules of the Board of Business and Professional Regulation as they relate to work performed under this Purchase Order. The Vendor further covenants and agrees that when a former state employee is employed by the Vendor, the Vendor shall require that strict adherence by the former state employee to Sections 112.313 and 112.3185, Florida Statutes, is a condition of employment for said former state employee. These statutes will by reference be made a part of this Purchase Order as though set forth in full. The Vendor agrees to incorporate the provisions of this paragraph in any subcontract into which it might enter with reference to the work performed pursuant to this Purchase Order.
- D. The Vendor agrees to comply with the Title VI Nondiscrimination Contract Provisions, Appendices A and E, available at <http://www.fdot.gov/procurement/index.shtm>, incorporated herein by reference and made a part of this Agreement.
- E. Any intellectual property developed as a result of this Agreement will belong to and be the sole property of the State. This provision will survive the termination or expiration of the Agreement.
- F. The Vendor agrees to comply with s.20.055(5), Florida Statutes, and to incorporate in all subcontracts the obligation to comply with s.20.055(5), Florida Statutes.

6. TERMINATION AND DEFAULT

- A. This Purchase Order may be canceled by the Department in whole or in part at any time the interest of the Department requires such termination. The Department further reserves the right to terminate or cancel this Purchase Order in the event an assignment is made for the benefit of creditors.
- B. If the Department determines that the performance of the Vendor is not satisfactory, the Department shall have the option of (a) immediately terminating the Purchase Order, or (b) notifying the Vendor of the deficiency with a requirement that the deficiency be corrected within a specified time, otherwise the Purchase Order will be terminated at the end of such time, or (c) take whatever action is deemed appropriate by the Department.
- C. If the Department requires termination of the Purchase Order for reasons other than unsatisfactory performance of the Vendor, the Department shall notify the Vendor of such termination, with instructions as to the effective date of termination or specify the stage of work at which the Purchase Order is to be terminated.
- D. If the Purchase Order is terminated before performance is completed, the Vendor shall be paid only for that work satisfactorily performed for which costs can be substantiated. Such payment, however, may not exceed an amount which is the same percentage of the agreement price as the amount of work satisfactorily completed is a percentage of the total work called for by this Purchase Order. All work in progress shall become the property of the Department and shall be turned over promptly by the Vendor.
- E. For Contracts \$1,000,000 and greater, if the Department determines the Contractor submitted a false certification under Section 287.135(5) of the Florida Statutes, or if the Contractor has been placed on the Scrutinized Companies with Activities in the Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or the Scrutinized Companies that Boycott Israel List, the Department shall either terminate the Contract after it has given the Contractor notice and an opportunity to demonstrate the Department's determination of false certification was in error pursuant to Section 287.135(5)(a) of the Florida Statutes, or maintain the Contract if the conditions of Section 287.135(4) of the Florida Statutes are met.

7. ASSIGNMENT AND SUBCONTRACTS

A. The Vendor shall maintain an adequate and competent staff so as to enable Vendor to timely perform under this Purchase Order and must be authorized to do business within the State of Florida and may associate with it such subcontractors, for the purpose of its services hereunder, without additional cost to the Department, other than those costs within the limits and terms of this Purchase Order. The Vendor is fully responsible for satisfactory completion of all subcontracted work. The Vendor, however, shall not sublet, assign, or transfer any work under this Purchase Order to other than subcontractors specified in the proposal, bid and/or Purchase Order without the prior written consent of the Department.

B. Select the appropriate box:

The following provision is not applicable to this Purchase Order.

The following provision is hereby incorporated in and made a part of this Purchase Order:

It is expressly understood and agreed that any articles that are the subject of, or required to carry out this Purchase Order shall be purchased from a nonprofit agency for the blind or for the severely handicapped that is qualified pursuant to Chapter 413, Florida Statutes, in the same manner and under the same procedures set forth in Section 413.036(1) and (2), Florida Statutes; and for purposes of this Contract the person, firm, or other business entity carrying out the provisions of this Purchase Order shall be deemed to be substituted for the state agency insofar as dealings with such qualified nonprofit agency are concerned. RESPECT of Florida provides governmental agencies within the State of Florida with quality products and services produced by persons with disabilities. Available pricing, products, and delivery schedules may be obtained by contacting:

RESPECT
2475 Apalachee Pkwy
Tallahassee, Florida 32301-4946
Phone: (850) 487-1471

The following provision is hereby incorporated in and made a part of this Purchase Order:

It is expressly understood and agreed that any articles that are the subject of, or required to carry out this Purchase Order shall be purchased from the corporation identified under Chapter 946, Florida Statutes, in the same manner and under the procedures set forth in section 946.515(2) and (4), Florida Statutes; and for purposes of this Purchase Order, the person, firm, or other business entity (Vendor) carrying out the provisions of this Purchase Order shall be deemed to be substituted for this agency (Department) insofar as dealings with such corporation are concerned.

The "Corporation identified" is Prison Rehabilitative Industries and Diversified Enterprises, Inc. (PRIDE). Available pricing, products, and delivery schedules may be obtained by contacting:

PRIDE Enterprises
12425 - 28th Street, North
St. Petersburg, Florida 33716-1826
Telephone: (800) 643-8459

This Purchase Order involves the expenditure of Federal funds and hence, Section 946.515, as noted above, does not apply. However, Appendix I is applicable to all parties and is hereof made a part of this Purchase Order.

8. MISCELLANEOUS

A. The Vendor and its employees, agents, representatives, or subcontractors are not employees of the Department and are not entitled to the benefits of State of Florida employees. Except to the extent expressly authorized herein, Vendor and its employees, agents, representatives, or subcontractors are not agents of the Department or the State for any purpose or authority such as to bind or represent the interests thereof, and shall not represent that it is an agent or that it is acting on the behalf of the Department or the State. The Department shall not be bound by any unauthorized acts or conduct of the Vendor or its employees, agents, representatives, or subcontractors. Vendor agrees to include this provision in all its subcontracts under this Purchase Order.

- B. All words used herein in the singular form shall extend to and include the plural. All words used in the plural form shall extend to and include the singular. All words used in any gender shall extend to and include all genders.
- C. It is understood and agreed by the parties hereto that if any part, term or provision of this Purchase Order is by the courts held to be illegal or in conflict with any law of the State of Florida, the validity of the remaining portions or provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Purchase Order did not contain the particular part, term or provision held to be invalid.
- D. This Purchase Order shall be governed by and construed in accordance with the laws of the State of Florida.
- E. In any legal action related to this Purchase Order, instituted by either party, the Vendor hereby waives any and all privileges and rights it may have under Chapter 47 and section 337.19, Florida Statutes, relating to venue, as it now exists or may hereafter be amended, and any and all such privileges and rights it may have under any other statute, rule, or case law, including, but not limited to those grounded on convenience. Any such legal action may be brought in the appropriate Court in the county chosen by the Department and in the event that any such legal action is filed by Vendor, Vendor hereby consents to the transfer of venue to the county chosen by the Department upon the Department filing a motion requesting the same.
- F. Time is of the essence as to each and every obligation under this Purchase Order.
- G. If this Purchase Order involves the purchase or maintenance of information technology as defined in Section 282.0041, Florida Statutes, the selected provisions of the attached Appendix II are made a part of this Purchase Order and shall take precedence over any inconsistent provisions in this Purchase Order.
- H. If this Purchase Order is the result of a formal solicitation (Invitation to Bid, Request for Proposal or Invitation to Negotiate), the Department of Management Services Forms PUR1000 and PUR1001, included in the solicitation, are incorporated herein by reference and made a part of this Purchase Order.
- I. This Purchase Order embodies the whole agreement of the parties. There are no promises, terms, conditions, or obligations other than those contained herein, and this Purchase Order shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties hereto.
- J. The Department may grant the Vendor's employees or subconsultants access to the Department's secure networks as part of the project. In the event such employees' or subconsultants' participation in the project is terminated or will be terminated, the Vendor shall notify the Department's project manager no later than the employees' or subconsultants' separation date from participation in the project or immediately upon the Vendor acquiring knowledge of such termination of employees' or subconsultants' participation in the project, whichever occurs later.
- K. Vendor/Contractor:
1. shall utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the Vendor/Contractor during the term of the contract; and
 2. shall expressly require any subcontractors performing work or providing services pursuant to the state contract to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the contract term.

The provisions in the PURCHASE ORDER TERMS & CONDITIONS constitute an integral part of the Purchase Order contract. The Vendor acknowledges acceptance of the terms and conditions of this Purchase Order by providing the services described in this Purchase Order.

BID CHECKLIST

(DOES NOT NEED TO BE RETURNED WITH YOUR BID)

This Checklist is provided as a guideline, only, to assist bidders in the preparation of their bid response. Included are some important matters that the bidder should check. This checklist is just a guideline, and is not intended to include all matters required by the ITB. Bidders are responsible to read and comply with the ITB in its entirety.

Check off each the following:

- 1. The “Bid Sheet” has been filled out completely, signed, and enclosed in the bid response.
- 2. **Exhibit “A”, Technical Specifications** have been thoroughly reviewed for compliance to the bid requirements.
- 3. The **Appendix “A”, Contract Plans** and have been thoroughly reviewed for compliance to the bid requirements. Appendices “B” and “C” have been reviewed.
- 4. “Performance Bond/Surety Letter” form has been read, signed, and enclosed in the bid response.
- 4. “Liability Insurance” form has been enclosed in the bid response.
- 5. “Minimum Qualifications Statement” form has been completed
- 6. “Business Certifications and Licenses” included in bid response.
- 7. “Drug-Free Workplace Program Certification” form has been read, signed, and enclosed in the bid response, if applicable.
- 8. “Scrutinized Companies Lists” certification form has been read, signed, and enclosed in the bid response, if applicable (bids of \$1 million or more).
- 9. The www.myflorida.com website has been checked and any Addendums posted have been completed, signed, and included in the bid response.
- 10. The bid response must be received, at the location specified, **on or before** the Bid Due Date and Time designated in the ITB.
- 11. On the Lower Left Hand Corner of the Envelope transmitting your bid response, write in the following information:

Bid No.: ITB-DOT-17/18-9081-GH

Title: POMPANO BEACH TOWER REPLACEMENT

Opening Date & Time: See “TIMELINE” in INTRODUCTION SECTION .