



Indian River County Purchasing Division

1800 27th Street

Vero Beach, FL 32960

Phone (772) 226-1416

Invitation to Bid

Project Name: Annual Bid for Telecommunication Systems
Equipment, Material, Supplies, Maintenance,
and Installation

Bid #: 2017025

Bid Bond Required: No

Public Construction Bond Required: Yes, for individual projects over \$100,000

Bid Opening Date: **April 28, 2017**

Bid Opening Time: **2:00 P.M.**

All bids must be received by the Purchasing Division, 1800 27th Street, Vero Beach, Florida 32960 or submitted online via BidExpress.com prior to the date and time shown above. Late bids will not be accepted, opened or considered.

Refer All Questions to:

Jennifer Hyde, Purchasing Manager

Phone: (772) 226-1416

Email: purchasing@ircgov.com

ADVERTISEMENT FOR BID

Notice is hereby given that the Indian River County Board of County Commissioners is calling for and requesting bids for the following:

**Indian River County Bid # 2017025
Annual Bid for Telecommunication Systems
Equipment, Material, Supplies, Maintenance, and Installation**

Detailed specifications are available at: www.bidexpress.com, www.demandstar.com or by contacting the Purchasing Division at (772) 226-1416 or purchasing@ircgov.com

Deadline for receipt of bids has been set for **2:00 P.M. on April 28, 2017**. Only bids received on or before the time and date listed will be considered. Bids should be addressed to Purchasing Division, 1800 27th Street, Vero Beach, Florida 32960 or submitted online via BidExpress.com. All bids will be opened publicly and read aloud at 2:00 PM. Bids submitted after 2:00 PM on the day specified above, will not be opened or considered.

The Board of County Commissioners reserves the right to accept or reject any and all bids in whole or in part and to waive any technicality or irregularity.

**PURCHASING MANAGER
INDIAN RIVER COUNTY**

Publish: For Publication in the Indian River Press Journal

Date: Sunday, April 2, 2017

Please furnish Tear Sheet, Affidavit of Publication, and Invoice to:

Indian River County
Purchasing Division
1800 27th Street
Vero Beach, FL 32960

Instructions to Bidders

General Terms and Conditions

Cone of Silence. Potential bidders/respondents and their agents shall not communicate in any way with the Board of County Commissioners, County Administrator or any County staff other than Purchasing personnel in reference or relation to this solicitation. This restriction shall be effective from the time of bid advertisement until the Board of County Commissioners meets to authorize award. Such communication may result in disqualification.

Submission of Bids: Bids may be either submitted electronically through BidExpress.com or by hard copy (one marked original and one copy) to the Purchasing Division. Information on Bid Express may be found at the end of this document. Electronic submittals through Bid Express will still require hard copy submittal of certain documents, as indicated on the Required Documents List (such as Sworn Statement Under Section 105.08, Indian River County Code on Disclosure of Relationships and Non-Disclosure Acknowledgement), prior to the established opening date and time. Alternately, hard copy bids (one marked original and once copy) will be accepted through return of all forms and attachments included and referenced in this document, by those bidders that prefer not to bid electronically. If both hard copy and electronic bids are received from the same vendor, the electronic bid form will be used and the paper bid form disregarded.

Envelope Markings: For hard copy submittals, unless otherwise instructed, one copy of each of the documents designated to be provided in hard copy must be submitted in a sealed opaque envelope, clearly marked with the Sealed Bid #, Title of the Bid, Date of the Bid opening, and Time of the Bid Opening and name of firm submitting on the outside. These documents must be received by the Indian River County Purchasing Division at 1800 27th Street, Vero Beach, FL 32960, prior to the stated Bid Opening time. If submitting only by hard copy (and not utilizing BidExpress.com), a marked original bid and one copy of all documents required in the invitation to bid shall be submitted.

Opening Location: Bids will be accepted, and unless obviously non-responsive, opened and read aloud at stated opening time and date in the Purchasing Division.

Bid Submission: All proposals must be submitted in the legal Firm name and by an Officer or employee having authority to bind the company or firm by his / her signature. Bids shall be submitted on forms provided by Indian River County (either as part of this document or online at BidExpress.com). Bids not submitted on the provided forms shall be rejected.

Bid Security and Public Construction Bond: Public Construction Bonds for 100% the total project cost may be required for projects exceeding \$100,000.

Withdrawal of Bids: Bids may be amended or withdrawn only by written notice prior to the bid opening. Amendments must be sealed. Amendments or withdrawals received after the bid opening will not be effective, and the original bid submitted will be considered.

Price and Discount Requirements: Quote net prices after deducting trade discounts. All discounts must be incorporated in the prices contained in the bid, and not shown separately. Invoices submitted must agree with the prices formally bid.

Taxes: Indian River County is exempt from any taxes imposed by State and / or Federal Government. Exemption Certificates, if required, are to be furnished by the successful bidder and will be filled out by the County.

Irrevocable Offer: Bidder warrants by virtue of bidding that the prices quoted in this bid shall remain firm and be considered an irrevocable offer for a period of sixty (60) days, during which time one or more of the bids received may be accepted by Indian River County.

Assignment/Delegation: No right, obligation or interest in an awarded Agreement shall be assigned or delegated by the Bidder without prior written consent of the County, without prejudice to County's other rights and remedies.

Consideration of Bids: Verbal, emailed or faxed bids will not be considered.

Affirmative Steps: CONTRACTOR shall take the following affirmative steps to ensure minority business, women's business enterprises and labor surplus area firms are used when possible:

1. Placing qualified small and minority businesses and women's business enterprises on solicitation lists.
2. Ensuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources.
3. Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises.
4. Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises.
5. Using the services and assistance of the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.

Indemnification: The successful Bidder shall indemnify and hold harmless the County, and its commissioners, 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 contractor and persons employed or utilized by the contractor in the performance of the construction contract.

Public Access: The Bidder shall allow public access to all documents and materials in accordance with the provisions of Chapter 119, Florida Statutes. If this project is federally-funded, the Department of Homeland Security (DHS) seal(s), logos, crests, or reproductions of flags or likenesses of DHS agency officials shall not be used by the Bidder without specific FEMA pre-approval.

Records/Audit: The Bidder shall maintain books, records and documents pertinent to performance under this Invitation and any resulting Agreement in accordance with generally accepted accounting principles consistently applied. The County and for federally-funded projects, the Florida Office of the Inspector General shall have inspection and audit rights to such records for audit purposes during the term of the contract and for three years following the termination of obligations hereunder. Records which relate to any litigation, appeals or settlements of claims arising from performance under this work or purchase shall be made available until a final disposition has been made of such litigation, appeals, or claims.

Acceptance: Receipt of an item shall not be an indication that the items are acceptable. Final acceptance and authorization of payment shall be given after a thorough inspection indicates that the item is delivered in accordance with the Bid Specifications. Suppliers are advised that in the event the delivered item or executed work does not meet specifications, payment will be withheld until such time the supplier takes necessary corrective action.

Permits, Impact and Inspection Fees. In accordance with Florida Statutes Section 218.80, the "Public Bid Disclosure Act", Indian River County as OWNER is obligated to disclose all license, permit, impact, or inspection fees that are payable to Indian River County in connection with the construction of the Work by the accepted bidder. All permit, impact, or inspection fees payable to Indian River County in connection with the work on this County project will be paid by Indian River County, with the exception of re-inspection fees. The Bidder shall not include ANY PERMIT, IMPACT, NOR INSPECTION FEES payable to **Indian River County** in the bid.

Descriptive Information: Descriptive literature including Specifications must accompany your bid. Manufacturer's name and model numbers are used herein solely for the purpose of establishing a standard of design, quality, and use of the merchandise required. Products of other manufacturers will be acceptable if they meet or exceed established standards with the exception of those items specified "NO SUBSTITUTION".

Variations to Specifications: For purposes of evaluation, *Bidder must indicate any variances from the specifications and / or conditions on the Affidavit of Compliance form provided with this Invitation to Bid.* Otherwise, it will be assumed that the product or service fully complies with the specifications. Items specifically described, as alternates shall be reviewed as an alternative bid to be considered by the County, in lieu of the primarily specified item(s). However, item(s) varying from the published specifications shall be considered substitutes, and the County reserves the right to consider or not to consider substitute bids. Substitutes shall be subject to disqualification if the County does not approve the substitution.

Interpretations: No oral interpretations will be made to any Bidder as to the meaning of the Specifications. Every request for such an interpretation shall be made in writing, addressed and forwarded to Indian River County (purchasing@ircgov.com) ten (10) or more days before the date fixed for opening of the bids. The County shall not be responsible for oral interpretations given by any County employee. Every interpretation made to bidder will be in the form of an Addendum to the specifications, which if issued, will be sent promptly as is practical to all persons to whom specifications have been issued. All such Addenda shall become part of the specifications. Further, it shall be the responsibility of each bidder, prior to submitting their bid, to contact Indian River County's Purchasing Division at (772) 226-1416 to determine if addenda were issued and to make such addenda a part of their bid.

Default Provision: In case of default by the Bidder, Indian River County may procure the articles or services from other sources and hold the Bidder responsible for excess costs incurred thereby, and may take such action, as it deems appropriate, including legal action for Damages or Specific Performance.

Manufacturer's Certification: Indian River County reserves the right to request from the Bidder a separate manufacturer's certification of all statements made in the proposal.

Signed Bid Considered an Offer: This signed bid shall be considered an offer on the part of the Bidder. Indian River County Board of County Commissioners shall deem the offer accepted upon approval.

Non-Collusion: By signing and submitting the Bid Form, the Bidder certifies that,

- This bid has been arrived at by the Bidder independently and has been submitted without collusion, and without any agreement, understanding, or planned common course, or action with, any vendor of materials, supplies, equipment, or services described in the invitation to bid, designed to limit independent bidding or competition, and
- The contents of the bid have not been communicated by the Bidder or its employees or agents to any person not an employee or an agent of the bidder or its surety on any bond furnished with the bid, and will not be communicated to any such person prior to the official opening of the bid.

- No attempt has been made or will be made by the Bidder to induce any other person(s) or firm(s) to submit or not to submit a bid for the purpose of restricting competition.

Public Entity Crimes: Pursuant to Florida Statutes Section 287.133(2)(a), all Bidders are hereby notified that a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity (defined as the State of Florida, any of its departments or agencies, or any political subdivision); may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in Florida Statutes Section 287.017 for CATEGORY TWO [currently \$35,000] for a period of 36 months from the date of being placed on the convicted vendor list. A "public entity crime" means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid, proposal, reply, or contract for goods or services, any lease for real property, or any contract for the construction or repair of a public building or public work, involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

Suspension and Debarment: Indian River County will not make award to parties listed on the government-wide exclusions in the System for Award Management (SAM). The bidder agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

Non-Discrimination: Indian River County will not knowingly do business with vendors or contractors who discriminate on the basis of race, color or national origin, sex, sexual orientation, gender identity, age and/or disability. Through the course of providing services to the County, Contractors shall affirmatively comply with all applicable provisions of Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987 and the Florida Civil Rights Act of 1992, as well as all other applicable regulations, guidelines and standards. Any person who believes their rights have been violated should report such discrimination to the County's Title VI/Nondiscrimination Coordinator through the office of the County Attorney.

Local Preference: Indian River County has no local ordinance or preferences, as defined in FS 255.0991 (2) in place, therefore no preference prohibited by that section will be considered in the acceptance, review or award of this bid.

Energy Policy and Conservation Act – The Contractor agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.

Regulations: It shall be the responsibility of the bidder to assure compliance with any OSHA, EPA and/or other Federal or State of Florida rules, regulations, or other requirements, as each may apply.

Applicable Law and Venue: The resulting Agreement and all rights and duties of the parties hereto shall be governed by the laws of the State of Florida, including but not limited to the provisions of the Florida Uniform Commercial Code Chapters 671-679 F.S., for any terms and conditions not specifically stated within. Venue for any lawsuit brought by either party against the other party or otherwise arising out of this Contract shall be in Indian

River County, Florida, or, in the event of a federal jurisdiction, in the United States District Court for the Southern District of Florida.

Conflict of Interest: Any entity submitting a bid or proposal or entering into a contract with the County shall disclose any relationship that may exist between the contracting entity and a County Commissioner or a County Employee. The relationship with a County Commissioner or a County Employee that must be disclosed is as follows: *father, mother, son, daughter, brother, sister, uncle, aunt, first cousin, nephew, niece, husband, wife, father-in-law, mother-in-law, daughter-in-law, son-in-law, brother-in-law, sister-in-law, stepfather, stepmother, stepson, stepdaughter, stepbrother, stepsister, half brother, half sister, grandparent, or grandchild.* The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of the entity. The disclosure of relationships shall be a sworn statement made on a County approved form. Failure to submit the form may be cause for rejection of the bid or proposal.

Cancellation: It is the intention of Indian River County to purchase material and / or services from sources of supply that will provide prompt and convenient shipment and service. Any failure of the supplier to satisfy the requirements of the County shall be reason for termination of the award.

Errors: When an error is made in the bid extension of generating total bid prices or in any other process of completing the bid, the original unit prices submitted will govern. Carelessness in quoting prices, or in preparation of the bid otherwise, will not relieve the bidder from performance.

Bid Rejection: Failure to comply with all the above instructions may result in rejection of the bid.

Bid Protest: Any actual or prospective bidder or proposer who is aggrieved in connection with a competitive selection process may protest to the Purchasing Manager. The protest shall be submitted to the Purchasing Manager in writing within seven (7) calendar days after the bidder or proposer knows or should have known of the facts giving rise to the protest. If the protest is not resolved by mutual agreement, the Purchasing Manager shall promptly issue a decision in writing, after consulting the Department and the Office of the County Attorney.

Co-Operative Purchasing: It is the intent of the Invitation of Bid to secure goods or services to be used by Indian River County. However, by virtue of bidding, the bidder accepts the right of other Florida Governmental agencies to purchase from this bid proposal. The successful bidder and the requesting Governmental agency, apart from Indian River County, shall handle any such purchases separately. Further, Indian River County assumes no liability for materials or services ordered by any other Governmental agency by virtue of this bid. *(Bidders that find this condition unsatisfactory should indicate this by showing exception on the Bid Form.)*

Supplemental Information: The County reserves the right to conduct such investigations as it deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of Bidders, proposed subcontractors, suppliers, and other relevant parties to perform and furnish the work. To demonstrate qualifications to perform the work, each Bidder must be prepared to submit, within 5 days of Owner's request, written evidence, such as financial data, previous experience, present commitments, and other such data as may be necessary to prove to the satisfaction of the Owner that the Bidder is qualified by experience to do the work and is prepared to complete the work within the stated time period. Failure to provide any requested information may result in the determination of the Bidder as non-responsible.

Awards: The County reserves the right to cancel the bid, reject any and all bids or waive any irregularity or technicality in bids received. When it is determined there is no competition to the lowest responsive, responsible

Bidder, evaluation of other bids is not required. Bidders are cautioned to make no assumptions unless their bid has been evaluated as being responsive. The County reserves the right to not make any award(s) under this bid.

Termination by the County: The County reserves the right to terminate a contract by giving thirty (30) days notice, in writing, of the intention to terminate, if at any time the contractor fails to abide by or fulfill any of the terms and conditions of the contract. The County also reserves the right to terminate this contract for convenience of the County and / or with or without cause.

Compliance with Laws and Regulations: Bidder agrees that they will comply with all Federal, State, and Local Laws and Regulations applicable to the production, sale, and delivery of the goods or the furnishing of any labor or services called for by the resulting Agreement, and any provisions required thereby to be included herein shall be deemed to be incorporated herein by reference. Noncompliance may be considered grounds for termination of contracts.

Public Record Law: Correspondence, materials, and documents received pursuant to this Invitation for Bid become public records subject to the provisions of Chapter 119, Florida Statutes. Should the Bidder assert any exemptions to the requirements of Chapter 119, Florida Statutes, and related statutes, the burden of establishing such exemption, by the way of injunctive or other relief as provided by law, shall be upon the Bidder.

Licensure: For security and CCTV work: Bidder must possess State of Florida Registered Specialty Contractor’s license and be licensed by Indian River County.

Insurance:

- **Owners and Subcontractors Insurance:** The Contractor shall not commence work until they have obtained all the insurance required under this section, and until such insurance has been approved by the owner, nor shall the contractor allow any subcontractor to commence work until the subcontractor has obtained the insurance required for a contractor herein and such insurance has been approved unless the subcontractor’s work is covered by the protections afforded by the Contractor’s insurance.
- **Worker’s Compensation Insurance:** The Contractor shall procure and maintain worker’s compensation insurance to the extent required by law for all their employees to be engaged in work under this contract. In case any employees are to be engaged in hazardous work under this contract and are not protected under the worker’s compensation statute, the Contractor shall provide adequate coverage for the protection of such employees.
- **Public Liability Insurance:** The Contractor shall procure and maintain broad form commercial general liability insurance (including contractual coverage) and commercial automobile liability insurance in amounts not less than shown below. The owner shall be an additional insured on this insurance with respect to all claims arising out of the operations or work to be performed.

<p>Commercial General (Public) Liability, other than Automobile</p> <p>\$1,000,000.00 Combined single limit for Bodily Injury and Property Damage</p>	<p>Commercial General</p> <p>A. Premises / Operations</p> <p>B. Independent Contractors</p> <p>C. Products / Completed Operations</p> <p>D. Personal Injury</p> <p>E. Contractual Liability</p> <p>F. Explosion, Collapse, and Underground Property Damage</p>
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Automobile	A. Owner Leased Automobiles
\$1,000,000.00 Combined single limit	B. Non-Owned Automobiles
Bodily Injury and Damage Liability	C. Hired Automobiles
	D. Owned Automobiles

- ***Proof of Insurance:*** The Contractor shall furnish the owner a certificate of insurance in a form acceptable to the owner for the insurance required. Such certificate or an endorsement provided by the contractor must state that the owner will be given thirty (30) days written notice prior to cancellation or material change in coverage. Copies of an endorsement-naming owner as Additional Insured must accompany the Certificate of Insurance.

Indian River County reserves the right to accept or reject any or all bids in whole or in part and waive all any technicality or irregularity.

Note: Any and all special conditions attached hereto, which may vary from these General Conditions, shall have precedence.

End of General Terms and Conditions

Technical Specifications

Overview

Indian River County is soliciting sealed bids to establish firm fixed prices from award through September 30, 2019, with two one-year renewals available.

The systems affected by this contract are sometimes critical to the operations of the County, including its emergency services. Bidders must be able to respond to emergency repairs as follows:

- ✓ Initial telephone / email response within one (1) hour of County's initial contact
- ✓ Initial repair forces on-site within four (4) hours of County's initial contact
- ✓ Equipment yard with supply of commonly used materials, tools, equipment, and vehicles within 50 miles of Indian River County.
- ✓ Technicians (minimum 2) and Installers (minimum 2) living or reporting to an office within 50 miles of Indian River County.

The term "Owner" in this solicitation refers to the owner of the fiber assets, or other electronic equipment assets that are being serviced under any agreement or purchase order resulting from this solicitation. Indian River County is soliciting this bid on its own behalf, but it is anticipated any award will also be utilized by the members of the Indian River Fiber Consortium ("Consortium"), which includes the County, the City of Vero Beach, and the Indian River School District. Under this agreement, no work may be completed on any Owner's assets without prior project-specific coordination with and authorization by that Owner.

The County may, at its discretion, award sections to more than one bidder and may allocate work to any of the awarded bidders, based on considerations such as responsiveness, workload, material availability, size of work force, price, capability, quality of work, expertise, and past experience.

This is not an exclusive contract. The County may, at its discretion, secure the services of other vendors for the work content represented in this bid package. The County may also contract with vendors who have been awarded groups in this bid under other contract arrangements and price structures, such as in cases in which simple unit pricing is not the most advantageous method of procurement.

Requirements

Protection of Information

All information provided to the Contractor and its assigns in reference to work proposed or performed for the Owner, such as Corporate data network, ISP or OSP fiber optic infrastructure (topology, routes, segments, layout, or fiber connectivity points), Electronic Data, Printed Materials, GIS Shape Files, or Maps provided to the Contractor or any member of the Contractor's organization, is of a Confidential and Security Sensitive Nature, per U.S. Homeland Security requirements. No information may be disclosed, disseminated, or otherwise allowed to be accessed by unauthorized personnel, without the specific written authorization of County and/or Owner. Acceptance of a formal Non-Disclosure Agreement (NDA) is a prerequisite to commencement of work, regardless of the section(s) awarded in this bid. The attached Non-Disclosure Agreement must be submitted with your bid.

As-Built Drawings

For all work authorized under this bid document, it will be the responsibility of and a requirement for the contractor to furnish as-built information for **each job** or project completed, no matter the simplicity or complexity. This is a requirement of the Consortium agreement.

Simple as-built information should be understood to be a fiber optic splice plan drawing containing individual fiber optic strand connectivity information. The drawing shall indicate all changes made during the course of the work, including beginning and ending cable footage markings at locations where a new cable is installed, or where a new cable is connected to an existing cable, or as otherwise specified by the Owner, fiber optic cable manufacturer and stamped cable jacket information on new and existing cables being attached to, as part of the job or project, etc. This is information that would be gathered by the Contractor as a normal part of execution of the work. As-built information must be delivered electronically via e-mail or by FTP site, as directed by the Owner. There will be no separate or additional billing for this mandatory as-built information.

As part of the scope of work for certain projects, the Owner may request advanced as-built information, such as AutoCAD, Visio, or other County-approved drawing format, GPS Coordinate locates, or ESRI Shape Files. This work would be subject to a pre-approved price.

Because as-builts are part of the scope of work for each project, final payment will not be made to the Contractor until the drawings are received and approved by the Owner.

Materials

Unless expressly authorized and pre-approved in writing from an authorized representative of the Owner, all materials provided and installed by Contractor shall be factory new condition (not previously used, or recovered, refurbished, reconditioned, or otherwise repurposed fiber optic cable).

Additionally, the use of materials that have been subject to extensive storage and have a reduced life cycle should be minimized. Written authorization by the Owner shall be required prior to installation of any material that is more than two years old (based on stamped manufacture date). A request for such authorization must be made at least five business days before the material is scheduled to be installed.

Labor

Emergency restorations may require work times beyond the normally scheduled work day. Overtime labor rates, if **pre-approved** by the Owner, will be paid for emergency restorations requiring work before 6 AM or after 7 PM, or on an Owner-recognized holiday. No mobilization or travel expenses, to include travel time, may be charged. Bidders shall include the total cost to complete the services for each individual line item, and all hourly rates will only be paid from the time of arrival to the project site until time of departure. Technician travel time and standby technician time are not billable.

Bid and Project Pricing

Unit prices shall be entered on the enclosed Bid Form. It is unlikely that the work authorized in the contract period will specify all items listed. Items for which unit prices are being requested are those that the County anticipates may be used.

It should be noted that not all items described in the various sections have a corresponding billable entry in the Bid Form. These items are presented as information on the associated work content. Not all billable entries in the Bid Form have a specific corresponding explanation in the sections, but should be easily understood. Any questions regarding these entries should be addressed as indicated in the Instructions to Bidders section.

For material, products, and equipment not identified in this bid package, time and material may be billed. Technical labor rates will be identified in Section 851 and the material charges for individual jobs may be presented to the Owner for advance approval as a % below catalog retail price. The Owner may, at its discretion, choose to provide all or a portion of the material for any undertaking authorized under this bid.

Where package prices are quoted in this bid (e.g. a fully spliced, terminated, cross-connected, and tested 12 fiber termination), the price will be reduced if part of the work content or material is deleted. Such changes in price must be demonstrated as being adequate and appropriate. In most cases, unit prices for the work content or material in a package price will be available in this document so that the portion of the work omitted is easily valued. In no case should the vendor invoice the Owner for work or material that, although it is a part of a package price, was not used or required on a particular job. Likewise, labor or material beyond what is normally in a package price may be invoiced as approved by Owner. Examples of this would be specialty hardware for mounting, or extremely unusual field conditions requiring specialty tools or labor well beyond the normal range. The vendor may refuse work if in the vendor's opinion the job would be beyond its capabilities, the job is unsafe to work, or the vendor's cost to do the job will exceed billable rates. However, bidders should not respond to portions of this bid if they do not have a reasonable expectation of being able to complete all of the work authorizations at the submitted unit price. Vendor compliance with these invoicing requirements shall be considered part of the vendor's overall project performance and will be considered prior to any renewal or extension.

Since technological changes in this discipline are rapid, products that exceed the specifications of what is depicted in this bid document may be substituted with approval by the County at the unit prices in this bid document. Where demonstrated to the County's satisfaction, unit prices may be adjusted annually by the Consumer Price Index-All Urban Consumers *for the South Region ("CPI-U, South Region")* or in rare cases by extreme fluctuations in manufacturers' pricing (e.g. rapid run-up in price of copper) – subject to County approval. The County will not unreasonably withhold approval of such increases that can be adequately verified. Request for such adjustment must be provided in writing, with supporting documentation, at least 30 days prior to the requested effective date of the change.

Technical Specifications

The work is divided into nine sections, falling into six skill set groups. Bidders are not required to bid on all groups, but must bid on all items in all sections within each group listed below. The groups are as follows:

Skill Set Group	Section(s)
1 Technical Labor	Technical Labor (County Specification 851)
2 OSP Construction Conduit, Pull Boxes and Junction Boxes	630 635
3 Fiber Optic Cable, Preterm Drops, Splicing Terminations, Communication Cabinets, Communication Electronics, CCTV, Network Devices, Construction	633 680 682 Outside Plant Cabinet (County Specification 852)
4 Multi-Pair Cables	633
5 Cameras	Commercial Camera Devices (County Specification 850)
6 Wireless Communications	Wireless Network (County Specification 950)

All work under this bid shall conform to:

- ✓ the Florida Department of Transportation (FDOT) Standard Specifications for Road and Bridge Construction, latest edition
- ✓ FDOT Design Standards, latest edition, and
- ✓ the enclosed County Specifications (sections 850, 851, 852 and 950)

County Specification 850 – COMMERCIAL CAMERA DEVICES

850-1 Description: Video Surveillance Systems are crucial in the protection of life, property and the security of infrastructure and electronic data of the Owner against attacks or intrusions. It is imperative they function properly and reliably. This specification is developed to ensure all Video Surveillance Systems are installed to provide the maximum coverage at peak operability.

Referenced Documents:

- ✓ American National Standards Institute (ANSI)
- ✓ American Society of Testing and Materials (ASTM)
- ✓ Electronic Industries Association (EIA)
- ✓ Standards 170, 232, 250C and 485
- ✓ FCC Class A
- ✓ Rules Part 15, Sub-part J
- ✓ Insulated Cable Engineers Association (ICEA)
- ✓ International Municipal Signal Association (IMSA)
- ✓ International Standards Organization (ISO) 9001
- ✓ MIL-STD-454
- ✓ MIL-STD-810E Method 509 Procedure 1 – exterior salt atmospheres
- ✓ National Electric Code (NEC)
- ✓ National Electrical Manufacturers Association (NEMA)
- ✓ NEMA-4
- ✓ Underwriters Laboratory Incorporated (UL)

850-2 General Requirements: Work under this specification shall include the installation, configuration and testing of field or building located cameras and associated equipment such as Closed-Circuit Television (CCTV) cameras, lens, housing, pan/tilt drive, cabling, camera interface panel, communications interface fiber, fiber capable network switching, transceivers, mounting arm, power supply and electrical cabling and connections. Equipment shall match existing Owner deployed devices, or be an approved equal.

The Contractor shall furnish and install the required camera equipment as shown in the proposed plans. Required hardware and material shall be incidental to and included in the total bid price of the camera installation. All equipment shall mate with the conduit that contains the camera communications and electrical cables. The mounting method used shall completely conceal the camera communications and electrical cable so that exposed wiring is at a minimum. The attachment of the camera assembly to the mounting arm, the electrical connections, and the attachment of the arm to the camera support structure shall be in accordance with the camera manufacturer's installation recommendations, or as per the Owner's direction.

This equipment and system shall allow the operator to control from remote locations through an Ethernet connection, or through the Owner's fiber optic communications system.

All Network Video Recorder (NVR) or Server based Video Surveillance systems shall have a minimum video records storage capacity of 30 days, or as otherwise specified by the Owner in writing.

All Video Surveillance systems should be of centralized storage design (Single Scalable Centralized NVR or Centralized Video Server) unless otherwise specified by the Owner in writing. The use/systems design of multiple remotely distributed NVR video records storage devices in the field is highly discouraged.

Contractor shall ensure that high strength passwords are used throughout and that no systems default passwords are left in place without being changed to high strength passwords. The high strength passwords shall be provided to the Owner at the time of systems acceptance from the Contractor. Unused secondary level access accounts and passwords should also be disabled if not in use, or high strength passwords assigned to the secondary login accounts at the time of system installation.

Active full-time video recording and storage, or motion capture only recording and storage will be fully described and documented in the Video Surveillance system design submitted to the Owner by the Contractor. Additionally, video recording motion capture zones within each Video Surveillance camera's field of view (specifically, for each security camera in the system) will also be fully described and documented in the system proposal Video Surveillance system design submitted to the Owner by the Contractor for approval.

The camera system shall include a mechanical zoom lens and also use digital signal processor technology supporting electronic zoom. The camera system will also include dome style cameras with an integrated camera and lens. The camera system will also include Pan/Tilt/Zoom cameras. All types of cameras listed shall be available in both ISP and OSP models and / or housings.

The Contractor will obtain the following items: integrated camera assembly (consisting of the camera, lens, housing, pan-tilt drive unit, integral camera control receiver, and the cables for connection of each of the camera assemblies).

The Contractor shall supply all materials required to install each camera and assembly including, but not limited to, the utility power for the camera, final connection of the camera, and testing and programming, including the running of all cabling for power and communications.

For every video surveillance system proposed installation, the Contractor must meet with authorized Owner representatives on site and solicit input in identifying video surveillance system specific needs of the Owner for all sites and situations to determine and establish the project parameters. The County's Telecommunications Department Manager will be notified in advance for pre-approval to use any County or IRC Fiber Consortium fiber optic cable infrastructure or fiber optic cable strands, whether for use by Video Surveillance systems on any County property, or on any County-owned fiber optic cable. This intended use of County fiber assets will also require the approval of County Public Works Director.

Product quality, durability, reliability, operability, video records storage capacity, and ease of functionality are all key Owner issues of concern and scrutiny for all video surveillance installations, inclusive of the installation, support, termination, programming, testing, adjustment and labeling identification for all video surveillance head end assemblies, field devices, cabling and hardware, grounding, supports and pathways. For every Owner contracted video surveillance system project, it shall be the responsibility of the Contractor or, as project site specifics dictate, the video surveillance contractor or combined effort, to meet and exceed all Owner expectations and specific requirements for all video surveillance systems, additions, or individual component installations and to comply in all respects as a minimum with all directives and details of the Owner pre-approved document with no exception, or as otherwise specified by the Owner.

At the sole discretion of the Owner, Video Surveillance components being installed, on any scale end to end from the head end assemblies and equipment to the end user field camera devices and cabling, identified in writing by the Owner as inferior in any aforementioned aspect shall be removed immediately by the Contractor and replaced with Owner-approved suitable replacements at no additional cost to the Owner, with no exception. All Contractor-recommended changes or substitutions to the project installation shall be submitted by the Contractor in writing to the Owner for approval, prior to substitution or the change or substitution shall be disallowed.

These requirements shall include all programming, adjustments and testing involved to make the entire installation fully functional at all points for all newly installed items including the head end, all assemblies, and all field cabling, components and devices to the complete satisfaction of the Owner. All quotes shall be inclusive of provision and installation of all copper patch cords, connecting hardware, surge suppression and grounding. It is the Contractor's responsibility to ensure that no previously used, refurbished, or otherwise repurposed materials, hardware or electronic equipment is used throughout the entire Video Surveillance system installation, addition, to an existing system, or individual component installation. In addition, the Contractor will ensure that no electrical wiring or conduit is installed that does not meet industry standard requirements for the environment in which it is being installed – such as the use of Electric Metallic Tube (EMT) electrical conduits or indoor use electrical wiring in an outdoor environment.

Specific safety required equipment and hardware must be used in certain Video Surveillance system installation locations such as in the proximity of fuel storage tanks, fuel dispensing islands, or other potentially explosive environments; where explosion-proof conduits, fittings, and electronic equipment must be used during systems installation. Contractor must be familiar with the requirements and specifications required to install a Video Surveillance system in such potentially hazardous environments. Contractor will accept full responsibility that the correct hazardous environment safety equipment are proposed, installed, and function correctly to meet all safety specs, in such potentially hazardous Video Surveillance systems installation locations. Customer will also follow all recommended safety procedures and precautions during such installation projects or equipment repair jobs at these locations.

It shall be understood by all contractors that installation and programming shall only be accomplished by technicians of the Video Surveillance Contractor that are trained and certified to properly install and program the circuits and devices as designed.

The Owner shall designate and grant access and monitoring privileges to employees of the Owner's organization, on the Video Surveillance systems being installed by the Contractor.

Contractor shall provide end user training on all purchased equipment to Owner's staff at no additional charge for each video surveillance project installation and for all other video surveillance projects where requested by Owner authorized representatives.

Contractor shall provide to Owner all necessary client software to manage, program, and troubleshoot the video surveillance system purchased by Owner.

Contractor shall provide Owner with all necessary client software upgrades and firmware updates for video surveillance systems purchased by Owner, at no additional costs for the life of the installation.

New or refurbished repair components shall be available for all video surveillance systems purchased by Owner for a minimum of 10 years after purchase date.

Unless otherwise specified in writing by Owner, the installing video surveillance Contractor shall provide an installation inclusive of all labor, all head end component equipment and support hardware, all camera licenses, programming, testing, adjustment, training and all other materials necessary for a complete functional programmed and operational system to the complete satisfaction of the Owner. The scope of work designed with these specifications is to ensure the delivery of a complete and functional video surveillance system ready for demonstrably secure and reliable operation, and for independent control and management by the Owner.

Omission of any essential detail from these specifications or Owner generated scope of work shall not relieve the installing video surveillance Contractor of their obligation to provide a complete and functional digital video surveillance system as expected by Owner to be ready for operation at close of project and final acceptance by the Owner.

There shall be no Contractor-initiated changes for Owner specified components, devices or features without the Owner's written approval. Regardless of approval of samples, cut sheets, shop drawings, and other matter submitted by the contractor there shall be accompanying and approved documentation supporting approval which shall be obtained or there shall be no authorized substitute. Final payment for completed projects or jobs will not be made to the Contractor until the required simple or advanced as-built drawings, as required per job or project, are received by the Owner, and the information provided meets with the Owner's approval.

All video surveillance head end equipment, software, components and devices, cameras, cabling and hardware shall be contractor provided and installed and programmed. All items shall be new and where applicable shall be the most recent version and revision. All items shall be of current Owner specified manufacture and provided with standard Owner approved warranty. Contractor shall provide two complete shop repair manuals and parts lists shall be furnished with each equipment installation at the time of project closeout and delivery.

The physical installation location of all Video Surveillance Systems, Servers, NVR, or otherwise electronic equipment will be determined by the Owner's authorized representative who initiated the original project request, or as otherwise designated by the Owner, which information will be provide to the Contractor at the time of system design or installation.

The exact quantity, specifications and location of video surveillance cameras shall be site dependent as detailed and approved by the Owner.

The exact quantity, model and specific camera locations shall be dependent on the proposed site plan as approved by Owner's Authorized Representative who originated the project request. Changes to video camera positions, locations, viewing angle, addition of individual cameras, etc., may be made as the installation project progresses, as may be determined to be necessary, and approved by the Owner's Authorized Representative who originated the project request. The site plan will be adjusted by the Contractor to reflect any and all approved changes made.

850-3 Video Surveillance Contractor Qualifications and Requirements: The Contractor shall provide documented proof as evidence of the ability, capacity, and skill to provide all services specified and herein addressed. Contractor shall produce substantiating evidence they are an established business for a minimum of five (5) years and are licensed low voltage company and a duly authorized installation contractor for the Owner selected Video Surveillance System, with full manufacturer's warranty privileges. Video Surveillance Contractor shall be qualified to provide design and consulting services for video surveillance distribution systems.

Contractor shall maintain and furnish evidence of the following licenses, certifications and requirements:

- ✓ Current State of Florida Low Voltage Contractor's License specific for the low voltage systems being installed
- ✓ Current documented manufacturer installation and warranty authorization certification from the selected video surveillance manufacturer approving the contractor for installation and warranty of the selected video surveillance system installed in the State of Florida
- ✓ Liability and Workers Compensation Insurance

NOTE: All documentation and certifications required of the Project Video Surveillance Contractor apply and shall be produced for Owner regarding both their company and any and all Technology Sub-Contractors intended to assist the Video Surveillance Contractor in performance of any and all Owner project work.

No technology work shall be contracted in Owner to technology contractors that do not produce valid current documented proof of qualifications and certifications satisfying Owner requirements.

Prior approval to utilize video surveillance sub-contractors shall be obtained in written format from authorized Owner representatives or they shall not be Owner approved and authorized to proceed at any Owner contracted project.

In rare instances where Owner approved all Video Surveillance sub-contractors shall be required to provide to Owner as evidence of proof the same certification documentation required of the Owner approved selected Video Surveillance Contractor prior to approval and authorization to proceed.

Regardless of Owner approval and authorization of the use of any Video Surveillance sub-contractor by the Video Surveillance Contractor, the Video Surveillance Contractor shall always be held liable for any and all aspects, issues, certifications and warranties regarding the entire scope of each video surveillance project contracted without exception.

Upon Owner final acceptance of a completed Video Surveillance system installation, or any required changes, modifications, or repairs to these systems, the Contractor will turn over all access control of these systems to the Owner. It is the Owner's responsibility to manage system physical and virtual Corporate Network access security, including system access (log-in) password management, after final acceptance of the system from the Contractor. No Contractor back-door portal access to these Video Surveillance/Security systems is allowed after final acceptance by the Owner. Physical or Virtual Network access to these systems after project completion will be arranged and enabled by the Owner's Authorized Representative, on a case-by-case basis, or as determined to be required by the Owner.

850-4 IP Based Digital Video Surveillance System Operation: Only the Owner's Authorized Representative is authorized to determine and specify all video surveillance system equipment provided and installation labor

related to the video surveillance system end to end shall be provided and installed only by the Owner specified and approved selected video surveillance system Contractor. There shall be no deviation from this stipulation other than through prior written approval submitted and obtained previous to commencement of applicable work from the Owner. Deviation from this stipulation by the video surveillance system contractor not Owner approved or sanctioned in writing, shall result in removal of all applicable video surveillance system installation configurations and the appropriate replacement all within specified project time constraints by the contractor at no additional cost to the Owner with no exception. No Owner video surveillance system project regardless of complexity shall be sub-contracted for accomplishment by another contractor other than the original project Contractor selected by the Owner. The video surveillance system contractor shall be responsible to provide, install, terminate, label, program, test, adjust end to end and warranty through the manufacturer all installed video surveillance systems inclusive of all cabling installed as contracted for all locations by Owner based on approved recommendations. Final payment for completed projects or jobs will not be made to the Contractor until the required simple or advanced as-built drawings, as required per job or project are received by Owner, and the information provided meets with Owner's approval.

The County Telecommunications Department Manager will be notified in advance, and in writing, for pre-approval to use any County or IRC Fiber Consortium fiber optic cable infrastructure or fiber optic cable strands, for use by Video Surveillance systems, or otherwise Security Camera systems, on any County property, or on any County-owned fiber optic cable. This intended use of IRC fiber assets will also require the approval of County Public Works Director. Any IRC Fiber Consortium – Consortium Member initiated fiber projects that use County-owned fiber optic strands or communicates over County-owned fiber optic cables, whether in whole or in part, will also require the written authorization described herein, before the Contractor can commence any work involving County-owned fiber assets.

For day-to-day operation digital video surveillance systems:

- Shall be able to operate on a third party server
- Support multiple remote clients
- Support Web Clients
- Support MPEG-4, H.264, and JPEG2000 Compression
- Integrate with Active Directory

Digital video surveillance systems head end systems installed:

- Shall be capable of easy interface and connection to the Owner campus network via IP address interface.
- Shall be capable of providing availability and accessibility to operating system via installed software to enable Owner technician programming features for routine maintenance and system troubleshooting.

Digital video surveillance system installation:

- Shall be designed with head end, cabling and field components specified and indicated on conformed documents, plans and as-builts.

The video surveillance system shall provide a quality video output for all circumstances as required to the satisfaction of the Owner based on their review and approval of the proposed system.

All video surveillance system installations shall address the site specific needs of all campus or other site locations for which they are installed to complete satisfaction of the Owner.

850-5 New Construction, Retrofit and Renovation Installations: The selection process for installation of a complete IP based digital video surveillance system shall be site dependent based on numerous factors. System selection shall be determined in the planning and design phase of the project by the Owner's Authorized Representative based on the number of site specific buildings, distance between buildings with other possible site specific

considerations. All factors shall be reviewed and discussed by Owner Authorized Representatives in determining the video surveillance system needs of the location during planning and design phase of the infrastructure prior to the system selection for each project.

For new construction projects it shall be the responsibility of the Contractor to ensure all site specific details and specialized requirements are identified, discussed and addressed with Owner Representatives for any location requiring the installation of video surveillance system for new construction and more importantly retrofitted sites.

When Owner directed for new construction locations, the Contractor will be contacted in order to submit a proposal to install a video surveillance system which shall include a complete programmed, operational and ready IP based digital video surveillance system with all Owner specified components, specified features and field devices determined necessary to address all routine requirements, events and emergent circumstances.

All Owner video surveillance systems shall be IP network industry standard systems ready for installation in Owner specified and provided network equipment enclosures or network equipment racks. If Owner requires that the Contractor recommend and/or provide an appropriate enclosure or network equipment rack, for the new application, the Contractor will include this item in the proposal for the new Video Surveillance system.

Video Surveillance Contractor Capabilities: Shall provide and install the selected digital video surveillance system for all new construction, renovation or retrofit projects. All installation in part or in whole shall be a comprehensive thorough installation to be pre-approved and determined as satisfactory and complete by the authorized Owner Representative or as otherwise determined to be acceptable by the Owner.

Shall provide and install selected and Owner approved complete new system installations, partial system additions or system upgrades, at a reasonable cost, as such systems or services may be requested by the Owner. Increase in cost of installation and equipment resultant of an emergent and unforeseen circumstance is not an acceptable practice. Additionally, inclusive cost for all installations shall always provide secure, reliable, integrated video surveillance systems that are flexible and user-friendly with all Owner detailed, selected and approved features to extend security protection and system control. Reducing availability of features and or equipment to reduce costs by the Contractor is not an acceptable practice, unless such reductions in unnecessary features and / or equipment, to the project at hand, are requested and approved by the Owner.

Provide and install all Owner specified assemblies and connecting hardware, Owner approved fiber optic and copper patch cables, all associated mounting support material.

Provide and install all Owner specified copper backbone, field device cabling, interior and exterior cameras and all other Owner specified video surveillance field device equipment and components inclusive of all mounts, grid brackets, ceiling plates, domes, stub outs and back boxes and conduit pull string (jetline).

Provide and install all cable support systems, conduit pathways, sleeving, interior and exterior wall and floor penetrations, vaults, manholes, pedestals, pull boxes and other items of a hardware nature as determined to be necessary and approved by the Owner, and completed to Owner satisfaction.

All parts utilized for all installations and in all aspects of any project shall always be new, of excellent quality and of most current version or model with no exception. Use of refurbished or used/pre-owned parts is unacceptable unless authorized in writing for use, on rare occasions, by Owner Authorized Representative. Beyond new construction video surveillance system installations Owner managed retrofit and renovation construction projects shall require careful and in-depth discussion and consideration of details regarding existing special site specific configurations and coordination to ensure all existing connections and needs are adequately identified, addressed and coordinated while retrofitting and installing a new video surveillance system and components. Examples of the site specific although not all inclusive issues for coverage may include the following:

- ✓ Identification of any previously established site specific camera locations not identified at various areas as the local administration requires

- ✓ Provision of programming to accommodate established requirements for other locations as the local administration requires
- ✓ Other established details not routinely covered or addressed under new installation of basic video surveillance systems to ensure all issues are thoroughly identified, discussed, coordinated and addressed.
- ✓ Detail specific notes covering the specifics of these issues and proposed resolutions are to be inserted on the plan design pages for each project

Video surveillance system Contractor shall ensure all video surveillance systems shall be assembled, installed and tested in compliance with all manufacturer recommendations and installed to the complete satisfaction of the Owner.

850-6 Video Surveillance System Power Specifications: Power installed for all IP Digital video surveillance head end systems installations shall be clean power as the standard unless otherwise noted. For all field cameras devices general power shall be provided and installed.

As a routine the IP Digital Video Surveillance system is installed at a designated server rack location. This location routinely has Owner provided and installed UPS equipment powered by the building power system where the video surveillance electronics shall be connected to power the video surveillance Server or NVR system.

In the event a UPS is needed for the new Video Surveillance system at the designated location, the required UPS may be provided by the Owner, or request that it be provided by the Contractor as part of the proposal for Video Surveillance system installation. Regardless, the Contractor will provide to the Owner, the recommended specifications and backup power load capacity for the required UPS. A UPS designed to handle the required backup power load can then be provided by the Owner or by the Contractor. It is preferable to install single UPS that is capable of handling the required backup power load, than multiple small UPS systems. UPS system Network monitoring may, or may not be required for the application, as will be determined to be necessary by the Owner's Authorized Representative. The Video Surveillance System Contractor shall, by e-mailed request to the Owner's Authorized Representatives, be provided any IP addresses determined to be required for new construction and renovation locations. The Contractor will provide by e-mail, a detailed list of all Video Surveillance system devices that will require a Corporate Network static IP address, which will then be filled out and provided to the Contractor. A detailed record of all Corporate Network IP address assignments must be maintained and stored by the Owner's Authorized Representative, to be used in future IP address assignment requirements for the Video Surveillance system, as well as for Video Surveillance system and Corporate Network troubleshooting purposes. The Video Surveillance System Contractor shall program and patch all connections to Owner network switch designated by Owner for use by the Video Surveillance system, for device operation confirmation and functional testing.

850-7 IP Digital Video Surveillance System Equipment: It is the responsibility of the Owner to arrange a meeting with the Contractor, also to include any additional required personnel from the Owner's organization, in order to address all project specifications and the needs of Owner.

The Video Surveillance System design shall include but not be limited to site dependent variations of the following cabling and components as defined:

- ✓ Owner IP Digital video surveillance installations shall be an IP based digital video surveillance platform authorized by Owner. All physical components installed shall be reasonably priced, durable and reliable of high quality readily available on open market for separate purchase as and where deemed prudent by Owner.
- ✓ In the best interest of the Owner, the following base list of Owner selected IP Digital video surveillance components, hardware and cabling designated and specified below shall be modified to add, delete or upgrade components and services as seen fit for any installation at any time where deemed necessary by authorized Owner Representatives in the future:

- ✓ Owner specified **Avigilon Server platform software or NVR** capable of storing a minimum of two (2) weeks of video at appropriate frame rate for each camera connected to the server or NVR
- ✓ Owner specified **Avigilon Control Center Enterprise** system camera connection license(s) will be at the level to include all cameras connecting to the server or NVR and all client connections. Contractor shall provide notification to SDIRC of license upgrade when available and provision to SDIRC as requested and required
- ✓ Owner specified **PANASONIC** i-Pro Network Color Camera (PN# WV-NS202A or Owner approved equal)
- ✓ Owner specified **PANASONIC** i-Pro Outdoor Network Day/Night PTZ Camera all-in-one unit (PN# WV-NW964 or SDIRC approved equal)
- ✓ Owner specified **Sony** Network Rapid Dome Camera Day/Night PTZ Camera (PN# SNCRX530N or SDIRC approved equal)
- ✓ Owner specified **Avigilon** HD Dome Cameras (1 MP, 2 MP, 3 MP or 5 MP or Owner approved equal)
- ✓ Owner specified **Avigilon** HD Cameras (1 MP, 2MP, 3 MP, 5 MP, 11 MP or 16 MP or Owner approved equal)
- ✓ Owner specified **Avigilon** analog video encoder for analog to digital camera system conversion at retrofit sites (PN# ENC-4PORT or SDIRC approved equal)
- ✓ Owner specified **PELCO** EH3512 Series indoor/outdoor enclosure or SDIRC approved equal
- ✓ Owner shall at their discretion purchase, provide, install and test any or all digital cameras, servers, video storage, network switches, and licenses

850-8 IP Based Digital Video Surveillance System Test and Adjustment: All equipment shall be installed as a minimum requirement to manufacturers' installation specifications.

All cameras shall be installed to manufacturers' specifications and shall be tested and adjusted to Owner satisfaction.

All equipment settings shall be set to Owner Standards for recording time as motion activated twenty-four hours a day.

All equipment settings shall be set to Owner Standards with motion set at least seven (7) FPS (frames per second) with five (5) seconds pre event and five (5) seconds post event.

Internal system programming shall be accomplished to include site mapping to identify all camera locations and shall be been accomplished and verified to Owner Standards with grouping accomplished as ADMIN Group and all others for accessing system and with layered mapping indicating each camera location including site map, building map and building floor map for multi floor buildings, or as otherwise designated and approved by Owner.

All cameras shall be internally system programmed for identification specific to physical location in addition to numeric identification visible when viewing cameras. Example: If camera 16 is located in building four (4) first floor corridor the camera will be programmed internally and viewed in the system as C16 - BLDG 4/FL 1 Corridor, or as otherwise designated and approved by Owner.

850-9 Digital Cabling, Raceway, Conduit and Support Contractor shall provide, install, terminate and test all cabling, conduit, sleeving, cable supports and labeling. All video surveillance components, hardware and cabling shall be Owner detailed and specified, or as otherwise designated and approved by Owner.

The Contractor shall be responsible to provide, install, terminate, test and label all Owner specified digital video surveillance system cabling, voice and data backboards, racks, patch panels, terminations, conduit, junction boxes, cabling supports, sleeving, pathways, cameras and devices and make all items ready to the Owner's specifications and required timeline.

850-10 Digital Video Surveillance System Field Cables: IP Digital Video cables shall be one (1) contractor provided, installed, terminated and Network certified tested Cat-6 Ethernet cable with RJ45 Modular Connector for each individual digital video surveillance camera location.

For each individual interior and exterior IP Camera from the camera field location to the local main distribution frame (MDF) or intermediate distribution frame (IDF) space as applicable the Contractor shall provide and install one (1) Cat-6 UTP Ethernet cable terminated and labeled (on both ends of each cable) and tested to

industry Ethernet network standards and specification. The Cat-6 Ethernet cables shall be terminated on a separate Cat-6 Ethernet patch panel labeled and designated installed solely for video surveillance cabling. Each patch panel and all camera cabling shall be labeled and designated solely as intended for video surveillance cabling.

All Cat-6 Ethernet cabling at all exterior camera locations shall be terminated to provided female Cat-6 RJ45 Ethernet jacks/modules (not connectors) labeled with patch panel port number inside weather-proof 4" X 4" back boxes with no less than six (6) inches of service slack for the device (camera) end and no less than 20 feet of service slack at the device/camera field end interior stub out at all specified locations.

All Cat-6 Ethernet cabling at all interior camera locations shall be terminated to female Cat-6 RJ45 Ethernet jacks/modules (not connectors) labeled with patch panel port number above ceiling coiled and strapped with Velcro and supported on a J-hook support with no less than 20 feet of service slack at the device/camera field end at all specified locations.

All digital video surveillance cables, regardless of type installed in PLENUM RATED AIR RETURN spaces and /or buildings shall be PLENUM SPEC RATED cables (Teflon) and shall be readily identifiable on all cable jackets as PLENUM RATED cable. It shall be the responsibility of the Contractor to identify the proper riser or plenum air space and/or building, and provide and install the appropriate cable for all installations and circumstances. In the case of evidence of improper type cable installation, said cable(s) shall be replaced by the Contractor at no expense to Owner. Full Responsibility for resulting damages and/or fines for incorrect cable type/specification and installation in a Plenum Rated Air Return Environment or Building, will be that of the Contractor. All infractions and corrective work of this nature shall be accomplished by the contractor for expected installation completion and shall not impede the scheduled substantial completion for any project.

All digital video surveillance system cabling to both interior and exterior camera locations shall be home run installed back to the local MDF and IDF locations for connection to the digital video surveillance system where the video signal shall be converted to run on fiber optic cabling to be connected back to the digital video surveillance system head end location in the MDF Space. Existing spare fiber optic backbone cable strands shall be utilized for this purpose.

Fiber optic backbone cabling between the MDF and each IDF space shall be of sufficient quantities to service all video surveillance requirements with minimum 20-percent (20%) spare for future expansion in the building or area installed unless otherwise noted. For new construction projects it is the responsibility of the Contractor to ensure adequate backbone video surveillance backbone fiber optic cable and strand quantities are designed for each Owner project to support not only current needs but to provide reasonable expansion capability as well. Otherwise it shall be the responsibility of the contractor to determine site specific needs in discussion with the Owner, then to insure the required types and amounts of cable required are installed to Owner satisfaction.

All building field video surveillance cabling shall be neatly and professionally installed and routed by the video surveillance contractor to the Owner's satisfaction as described and outlined in this document.

There shall be no free wired video surveillance cables installed across bar joists where the joists are the means of support. Bar joists may be utilized for installation of Owner approved and sanctioned cable supports with all video surveillance cabling installed in these supports as Owner approved for cable installations. Video Surveillance system building field infrastructure and backbone cabling:

- ✓ Shall not be installed across any electrical fixture or fastened or secured to any EMT conduit.
- ✓ Shall not be installed within 18" of florescent lighting
- ✓ Shall not lie on or against any HVAC equipment or ducting
- ✓ Shall not be fastened or secured to vent duct straps
- ✓ Shall not lie on or against and shall not be fastened or secured to any sprinkler piping, copper piping, mechanical, electrical, fire alarm and plumbing building services conduit, piping, cabling or other systems and devices or their supports
- ✓ Shall not be fastened or secured to existing ceiling grid hangars intended for the support of the ceiling grid at any location. Shall not be fastened or secured to existing ceiling grid hangars intended for the support of

any other technology systems or other systems cable runs installed at any location. Installation of video surveillance contractor installed ceiling grid hangars intended for installation of supports for video surveillance system cable runs is acceptable and encouraged. All grid hangars installed for such use shall be "swatch" painted blue in color to identify their intended use when installed

- ✓ Cable support fastening devices shall not be clamped to any existing equipment, threaded rods, ceiling grid hangars, straps, etc. J-hook support systems shall be installed using manufacturer supplied clamps and attachments for grid hangar installations and when drilled for installation on drywall or concrete shall be installed with Owner approved and sanctioned fasteners "ONLY"

Video surveillance cable bundles and all fiber optic cables shall be bundled together using Velcro wraps only. Video surveillance cable bundles shall be installed away from vibrating machinery, power cords, plug strips or other circuits with a difference of potential. All video surveillance cabling from single runs to bundles shall be supported with Owner approved supports including J-Hooks every five (5) feet with a Velcro wrap installed at all J-hook stations. J-Hooks shall be at the highest accessible point in the building ceiling.

Fanned out cable runs or excessive drooping of cable runs is not permissible or acceptable in any instance. Excessive drooping shall be by determination of the Owner. Telecommunications industry Cable ties or plastic Zip-ties are not an Owner approved means of support or bundling for video surveillance cable installations. Lacing of video surveillance cables shall not be permitted.

An Owner determined and defined amount of service slack shall be installed at all MDF and IDF locations and at field device locations. All service slack shall be neatly but not tightly coiled and shall be secured above ceiling with Velcro wraps at minimum three points on each coil and with the finished coil secured to J-hooks.

At existing as well as new construction installation sites Contractor shall make all necessary efforts to protect all existing equipment, wiring, fixtures and building materials from damage during installation of equipment including provisioning of adequate ventilation if covered during construction. All video surveillance cabling installed and not placed into operation such as spare cables for future expansion shall be properly terminated, labeled on both ends to identify far end and protected regardless of functionality. All video surveillance cable bundles or runs being installed in construction yet not currently finished and terminated shall be lifted and supported off the floor of closets in a manner to prevent any damage to sheathing. Any and all cabling damaged in any manner shall be the sole responsibility of the Contractor to replace the entire run at no additional cost to the Owner, with no exception.

NOTICE : There shall be no splicing of any video surveillance or other associated contractor installed cabling at any Owner installation site with no exception. Violations will not be tolerated. Do not splice a damaged cable and attempt to hide it to complete an installation. Take the time to demo out and install a new cable. It will not be viewed in a favorable light when an unauthorized splice infraction is discovered.

Contractor shall ensure all video surveillance cabling passing through any wall at all locations shall be properly sleeved with Contractor provided, if required, UL approved sleeves and devices. Conduit sleeves shall be carefully reamed and installed with plastic bushings on both ends.

Where interior wall mounted video surveillance system cameras are installed all cabling locations shall be connected to camera via single gang back boxes installed flush mount at six (6) inches below finished ceiling at the spot selected for camera installation. Single gang back boxes shall be in wall flush mount and coupled to minimum 3/4 inch EMT conduit stubbed out above ceiling with bushing installed at stub out end. For locations where inside wall installation is not possible or practical as deemed so by the Owner, surface mount may be permissible if approved by Owner.

Contractor ensure all video surveillance pathway penetrations shall be properly sleeved and sealed in accordance with all applicable fire and safety directives and codes. Example: Fire Wall penetration must be resealed using an Owner approved and more importantly UL approved non-flammable Fire Proof/Resistant material to ensure the Fire Wall/floor/ceiling maintains original fire rating at completion of installation. The same directives apply for all smoke ratings as well.

Upon completion of all video surveillance installation projects, a certified statement is to be submitted by the contractor assuring Owner that all interior and exterior wall and floor penetrations whether new or existing have been sleeved and sealed in compliance with fire codes and Owner Standard and Specifications. It shall be the contractor's sole responsibility to insure any existing penetrations authorized by Owner for use by the contractor are restored to fire and smoke rating as applicable even in instances where these penetrations may not have been properly sealed prior to the contractor's use.

Contractor shall not utilize any existing installed technology system sleeve with or without other technology cables installed without prior permission requested and specifically granted in writing from the Owner. Failure to comply shall result in removal of all installed cables at the sole expense of the contractor. Upon Owner inspection after removal of unauthorized cable installation if it is determined any existing original communications cables have sustained "chafing or burning" or are otherwise damaged resultant of Contractor cable installation operations of new cables, or other damage is sustained as determined by Owner all suspect cables shall be replaced at no additional cost to the Owner by the Contractor, at the sole expense of the Contractor.

All video surveillance sleeves shall be properly supported and strapped to Owner satisfaction to prevent slippage and wobbling of conduit sleeve stub outs. All video surveillance conduits shall be properly sealed at both the interior and exterior wall surface and around both the interior and exterior walls of the conduit sleeve with UL approved materials as industry standard, and Owner specified.

All video surveillance system cameras installed on the exterior at any location shall be installed at a minimum height of ten (10) feet above surface of the exterior of the building with the exception being in instance where covered walkways or other constructed surface will impede normal and intended functional operation of the installed device. In this exception the Contractor, general contractor and video surveillance contractor shall in design phase identify the issue and adjust mounting and installation height to accommodate highest possible installation while working with authorized Owner IT Department personnel to determine a different and suitable installation location to relocate the device to. This solution is also applicable for exceptions where this was not identified until time of installation where the architect, Contractor, shall identify the issue during construction and adjust mounting and installation height to accommodate highest possible installation while working with the Owner to determine a different and suitable installation location in order to correctly relocate the device.

All cable exposed to the exterior shall be installed in an Owner approved appropriately sized PVC or EMT conduit pathway as Owner and industry standard specified. All conduit raceways shall be carefully reamed to remove all burrs and sharp edges. Plastic bushings shall be installed at all open conduit end terminations. All video surveillance conduits shall be properly supported, bushed and strapped to Owner satisfaction; rule of thumb being one conduit strap within two feet of beginning and end of each conduit with a conduit strap every two feet in between the entire length of the cable run. All video surveillance system conduits shall be properly sealed around both the interior and exterior walls of the conduit with UL approved materials installed as manufacturer specified, as well as Owner, and industry standard specified, to ensure that there is no liquid or moisture entry into the building.

All analog video surveillance system binary network connector (BNC) type connectors exposed to the weather at camera locations shall be filled with an insert of silicon "grease" equal to Dow Corning DC #5 compound before mating with opposite connector half. The connection shall then be completely covered with heat shrink tubing and the cable shall be tested end to end for continuity upon completion of assembly, to ensure that there is no liquid or moisture entry into the building. No taping of electrical connections is acceptable in lieu of heat shrink.

Connector Tooling: Tooling used to provide connectors shall be specifically designed for the connector being used. Utilization of non-specified tools shall be considered as grounds for cease and desist as well as possible grounds for termination of contract. During the repair of existing analog BNC or other coaxial cable terminals shall be bayonet style two-piece connectors matched to the coaxial cable wire diameter in use. Twist on style connectors are not acceptable for Owner installations and shall not be installed. Contractor shall be fully responsible for any costs or delays incurred by Owner due to incorrect connectors or incorrect tooling being used on this installation job.

850-11 IP Digital Video Surveillance System Labeling: All Cat-6 Ethernet cable and coaxial video surveillance cable runs shall be labeled with Contactor provided and installed labels on both ends of each cable with typewritten permanent labels, supported, sleeved as appropriate and tested throughout each run. All Cat-6 Ethernet cable runs shall be installed according to Owner cable installation specifications with no exception. Typical for all camera installations.

Video Surveillance Cameras: All new Video Surveillance system cameras, housings, all cables (on both ends and all points of termination), power supplies, video adapters, monitors, and video terminals, shall be labeled with legible, permanent, indelible typewritten labels with identification numbers corresponding to camera numbers indicated on the conformed drawings or as Owner specified.

Consult with Owner in the event there is no numbering system indicated or identified for appropriate number plan which shall require prior Owner clarification and approval. Failure to label at all, or gain prior approval for label plan shall result in removal of the installed labeling and replacement with Owner approved suitable labeling system at the sole expense of the Contractor.

Contact Owner for information and clarification where uncertain on how to proceed regarding labeling. This includes labeling specifics for any site specific device and to determine site specific cable labeling location requirements not clarified. Contact shall be made for label scheme approval prior to installation labeling. Failure to gain prior approval shall result in removal of the installed labeling and replacement with Owner approved suitable labeling system at the sole expense of the Contractor.

Owner approved identification numbers shall be permanently labeled and installed on each device and all cable ends and points of termination. Labeling descriptions for all video surveillance system devices and cable shall be as follows:

- ✓ Exterior (C1) Cameras and cables shall be labeled - C1 – 1 through C1 - XX (“XX” being the number of Exterior (C1) Cameras there are on the approved project plans.)
- ✓ Interior (C2) Cameras and cables shall be labeled – C2 – 1 through C2 - XX (“XX” being the number of Interior (C2) Cameras there are on the approved project plans.)
- ✓ PTZ camera power supply cables shall be labeled – C1 – 1 through C1 - XX (“XX” being the number of the Exterior (C1) Camera the cable feeds as indicated on the approved project plans.)
- ✓ PTZ camera power supply cables shall be labeled – C2 – 1 through C2 - XX (“XX” being the number of the Interior (C2) Camera the cable feeds as indicated on the approved project plans.)

850-12 Digital Video Surveillance System Project Completion Requirements: The video surveillance system installation shall be considered complete when all of the following requirements have been achieved to the complete satisfaction of the Owner in reference to all aspects of the site specific project installation:

All head end and components and field devices are installed in accordance with the approved construction plans, all manufacturer installation specifications, as well as any specific changes, additions, or deletions, as may be required by the Owner.

All new installed video surveillance cables and their unused ports are terminated, tested and identified with typewritten labels on all ends and points of termination and test results for all cables installed provided for owner retention in printed and electronic format for owner retention.

All digital video surveillance equipment installed is programmed, adjusted and tuned to manufacturers’ specification and to Owner’s satisfaction.

All field and backbone intercom cabling installed to each device, enclosure, cabinet and MDF and IDF location is terminated and identified with typewritten labels on all ends including all interim points of connection to Owner satisfaction.

Removal of all replaced pre-existing cabling and equipment / hardware has been accomplished by the Contractor to the complete satisfaction of the Owner. An as-built plan in CADD, VISIO, PDF or other Owner

designated approved format indicating the head end location and all interior and exterior cameras and cabling with any and all changes from the "original design configuration" has been submitted to the owner for review and retention, and has received final. Approval, and system acceptance by the Owner.

It shall be the responsibility of the Contractor to verify the condition of all ceiling tiles and the work spaces prior to system acceptance and final approval of project completion. All broken, gouged, cracked or otherwise damaged ceiling tiles, gouged or otherwise damaged walls, gouged or otherwise damaged flooring carpet and tile or other damages not previously documented that are identified by the Owner, and determined to have been caused by the Contractor's personnel during the system installation process, shall be repaired and or replaced as applicable by the contractor at no expense to Owner prior to final payment authorization. Final and completed project as-built drawings must all be received and determined to be acceptable by the Owner, prior to final payment authorization.

It shall be the responsibility of the Contractor to repair any exposed surface which has been scratched or damaged during project installation to like-new condition to the satisfaction of the Owner. Upon completion of project, all exterior surfaces of equipment and construction areas shall be cleaned of fingerprints, paint splatters, and other foreign substances. All construction debris such as wire trimmings, mortar, cable spools and boxes and foreign debris shall be removed from equipment areas and any area directly affected during the installation or service of equipment, and properly disposed of. All trenches shall be filled in and firmly tamped down until smooth and level with surrounding surface. Trenched and filled areas may require a return visit by the Contractor in order to restore the excavated area to previous 'level to grade' conditions, due to settling of fill material. All affected landscape, sod and planted areas, shall be restored to previous pre-construction state, at no further expense to the Owner.

The Contractor shall provide a bound document complete with the as-built drawings, Video Surveillance Camera Matrix, license information, warranty information, installed programming, component cut-sheets for all equipment installed and completed training documentation information. For cable installed by the video surveillance contractor they shall provide all fiber optic and Ethernet copper cable certification test results in electronic format for owner acceptance, review and retention. Printed format reports for Fiber optic and Ethernet copper cable certification tests are not acceptable. All cable testing and certification reports must be submitted in electronic format for acceptable by the Owner, prior to final payment authorization.

850-13 Digital Video Surveillance Acceptance Inspection: Contractor, applicable for each site specific project and Owner, along with any Owner organization personnel determined by Owner to be necessary to the process, shall conduct both a substantial and final inspection of all video surveillance system installations to ensure they are in compliance with all Owner Standards and Specifications as well as those requirements specific to the installation of video surveillance systems. At substantial inspection Contractor shall demonstrate to the complete satisfaction of the Owner, and to additional Owner organization staff required to be present, the functionality and operation of the complete installed system in the following manner.

Observe picture quality at all monitor / video terminal locations and where software interfaces are installed. All cameras shall have a picture and all pictures shall be clear, focused, adjusted and tuned free of snow, grain, lines, ghosts, waves and distortion of any other unacceptable condition and directed at the appropriate Owner designated target area. All camera windows shown on the monitor / video terminal shall have been programmed and labeled to Owner designated location identification, accurate and updating time and date stamp that shall be synchronized with Owner designated network clock synchronization source. Confirmation that all devices connected to the Video Surveillance system Server(s), NVR , Local and Remote Network Switches, and all electronic equipment associated with the reliable and secure functionality of the new system is currently and verifiable backed up and surge protected by UPS systems throughout.

Inspection and observation of video surveillance space head end and field terminations, grounding, surge suppression and labeling shall be satisfactory and complete. Support systems and cable runs inspected above and

below ceiling for compliance with Owner standards and specifications in addition to all video surveillance areas in each MDF and IDF space being inspected for neatness and cleanliness shall be satisfactory and complete in all areas of each cable run.

Confirm that the new Video Surveillance System Server backups (stored video records as well as Video Surveillance system – custom configuration restoration backups) have been performed, and are regularly scheduled, for reliable backup and restoration of all stored video records, in addition to Video Surveillance Server custom configuration, and/or NVR system custom configuration – System Restoration Process. Ensure that Owner receives an electronic copy of the backup files containing video records storage and Server custom configuration restoration backup. Confirm that Video Surveillance System - video records storage capacity is at a minimum level of 30 days storage capacity, (or as otherwise designated and approved of in writing by Owner) on the Video Surveillance Server or NVR; System video record storage capacity calculations may be based on video records currently stored on the system, from the initial date of Video Surveillance system activation and functionality testing.

Inspection and observation of all other system and system functionality tests deemed necessary by Owner to establish proper system operability shall be satisfactory and complete to the full satisfaction of Owner.

Verification that the installed video surveillance system head end is collecting, recording, and storing information as Owner established programming guidelines dictate and that the digital system head end can be remotely accessed for view of recorded information, retrieval of recorded information and video records, observation of individual or multiple camera views and for maintenance, troubleshooting and remote programming by Owner.

Verification that the above tests and measurements are documented in the operation and maintenance manuals as as-built conditions.

A written report shall be provided at substantial inspection for owner's retention and for random testing and comparison during substantial inspection detailing all testing and operability results for all individual installed field devices in all buildings and floors identifying each device status inclusive of cabling with respect to all installed interior and exterior cameras.

Verification of documented formal instruction given to owner designated key personnel at a time selected by owner and that said instruction consists of a minimum of not less than two (2) hours training delivered in two (2) separate sessions for a minimum total of four (4) hours training.

Verification of documented training covering operation, programming, troubleshooting and maintenance for Owner designated staff members. Included for owner's retention for each head end project installation shall be two (2) installation and service manuals for the applicable model of video surveillance system head end equipment assemblies and devices installed.

Upon resolution of all issues identified and listed by Owner during Substantial Inspection a Final Inspection shall be conducted by Owner to verify all issues have been resolved to the Owner's complete satisfaction. At this time, the Contractor shall also deliver the installation warranty certificate and all documentation for owner retention. Closeout documentation from contractor shall include a final Owner verified Video Surveillance Camera Matrix Worksheet containing the following information:

- ✓ Camera number as marked on as-builts
- ✓ Camera serial number
- ✓ Camera MAC Address
- ✓ Camera IP address
- ✓ Camera location
- ✓ Camera model number
- ✓ Camera installation building number
- ✓ Camera installation IDF or MDF location room number
- ✓ IDF or MDF network switch number

- ✓ Network switch port number
- ✓ IDF or MDF patch panel number and port number

All documentation required and specified in this document shall be provided upon completion to Owner for retention purposes.

850-14 Digital Video Surveillance System Warranty: For a period of one year from the date of Owner approved and documented final inspection completion the installed video surveillance system as detailed shall be guaranteed free of defects in materials and workmanship by the Contractor for all video surveillance system equipment, programming, components, field devices and cabling.

Any video surveillance system assembly, device or component inclusive of all cabling indicating evidence of failure, improper or incorrect operation during this one (1) year warranty period shall be repaired or replaced by the video surveillance contractor at no expense to Owner as specified in the contract documentation.

All video surveillance system equipment and cabling shall be guaranteed by the installing video surveillance contractor for a period of five (5) years from the date of Owner approved and documented final inspection completion for the installed video surveillance system to be free of defects in materials and workmanship at no cost to Owner for labor to repair.

During the course of any Owner project where Cat-6 Ethernet copper and fiber optic data cabling as well as for all other copper coaxial and cables required for provision and installation by the video surveillance contractor during the installation of the video surveillance system or as otherwise required in support of the installation are subject to the Owner's satisfaction. Cabling installation requirements, certifications and warranty specifics apply for all technology and technology related cable installations. The technology systems cabling warranty for all such contractor installed applicable installations shall be provided by the Contractor at Final Inspection and shall accompany the applicable Video Surveillance System Warranty documentation for owner retention inclusive of all cabling test results in electronic format for all such installations prior to final payment.

850-15 Digital Video Surveillance System As built Drawing: General: A comprehensive video surveillance system as-built drawing of all project red lines shall be provided in CADD, VISIO, PDF or other Owner requested format for owner retention at substantial inspection containing at a minimum the following information.

A block diagram of the installed system indicating all cameras types, cable types, cable quantities, active and passive components and devices.

A block diagram of the building or campus sites indicating the head end location, newly installed camera types and locations interior and exterior for the new installed system.

850-16 Basis of Payment: Price and payment will be full compensation for all work specified in this Section.

Payment will be made under:

- ✓ Owner specified **Avigilon Server platform software or NVR** capable of storing a minimum of four (4) weeks of video at appropriate frame rate for each camera connected to the server or NVR
- ✓ Owner specified **Avigilon Control Center Enterprise** system camera connection license(s) will be at the level to include all cameras connecting to the server or NVR and all client connections Contractor shall provide notification to SDIRC of license upgrade when available and provision to Owner as requested and required
- ✓ Owner specified **PANASONIC** i-Pro Network Color Camera (PN# WV-NS202A or Owner approved equal)
- ✓ Owner specified **PANASONIC** i-Pro Outdoor Network Day/Night PTZ Camera all-in-one unit (PN# WV-NW964 or Owner approved equal)
- ✓ Owner specified **Sony** Network Rapid Dome Camera Day/Night PTZ Camera (PN# SNCRX530N or Owner approved equal)

- ✓ Owner specified **Avigilon** HD Dome Cameras (1 MP, 2 MP, 3 MP or 5 MP or Owner approved equal)
- ✓ Owner specified **Avigilon** HD Cameras (1 Mp, 2MP, 3 MP, 5 MP, 11 MP or 16 MP or Owner approved equal)
- ✓ Owner specified **Avigilon** analog video encoder for analog to digital camera system conversion at retrofit sites (PN# ENC-4PORT or Owner approved equal)
- ✓ Owner specified **PELCO** EH3512 Series indoor/outdoor enclosure or Owner approved equal

County Specification 851 - Technical Labor

851-1 Description: The requirements contained herein address the procurement of fiber optic (FO), electronic, or system related labor and mobilization services for the Owner.

851-2 General Requirements: Furnish labor only in either hourly or lump sum units, as listed below to cover electrical, copper/wireless/fiber optic communications, electronics, and systems related work as requested by the Owner. This will include but not be limited to communication systems installation, splicing, repairs, testing, and troubleshooting, electronic testing, and troubleshooting, and equipment replacements or upgrades. The labor classifications listed below should generally be on-staff or readily available to your firm in some verifiable arrangement. The description of work that might be performed by someone in the following labor categories is typical. The technical educational and experience level is suggested and not necessarily required.

851-3 Electronics Technician: The individual in this position will interact with all Owner as well as other employees of the Contractor. Direction will be taken from the Contractor, Foreman or Superintendent. The Foreman or Superintendent reports to the Contractor on behalf of the Owner.

a) **Duties:** The duties of this individual include, but are not limited to the following:

- ✓ Review plans and specifications with Lead Technician, Area Manager, or Owner's representative prior to assignment of technicians to a project
- ✓ Maintain all splice/test equipment, keep equipment clean, advise of calibration dates
- ✓ Report any/all equipment problems to the Equipment Manager
- ✓ Make Lead Technician or Area Manager aware of material needs. Ensure owner required paperwork is submitted each day and ensure that data report is accurate
- ✓ Update the Lead Technician or Area Manager with project status each day so scheduling can be adjusted based on progress
- ✓ Assist with GPS locates
- ✓ Must have a clear understanding and be able to install cable in aerial, underground, and inside plant environments. Must have an understanding of the operation of bucket truck, lasher, blower, and tugger – including slack requirements for cable. Must be capable of reading and comprehending project plans and specifications and the ability to apply this understanding in the field
- ✓ Cable Management: Slack and proper routing, dressing cable in cabinet, vaults, manholes, pullboxes, Telecommunication / Network Equipment Rooms, hubs, and any/all accessible points
- ✓ Prepping cable: Practice proper management in splice enclosures, termination cabinets to allow for re-entry for maintenance through the life of the cable plant. Prep for proper length of fiber for fan-out kits if applicable

b) **Splicing:** Technician must be familiar with the Fusion Splicer being used for the fiber optic job or project, and not a first time splicer, unless under the direct supervision of the contractor's lead fiber splicer. The Fusion Splicer used for the owner's fiber optic installation and repair requirements must be an industry standard Fusion Splicer type, and compatible with Corning fiber optic cable / Corning optical glass specifications. Fusion splices performed must meet industry standard decibel (dB) losses per splice completed. Contractor is responsible for correcting any unacceptable fiber splices at their own expense.

c) **Fusion Splicing:** Preparing, analyzing and reading FO splice diagrams, must be able to determine continuity on a system/project. Must be capable of reading and comprehending project plans and specifications with ability to apply this understanding to field conditions including:

- ✓ Follow manufacturer's set-up procedures for the fusion splicer. Select proper V-grooves for the size of fiber
- ✓ Maintain a high level of cleanliness throughout the fusion splice process, so as not to degrade the optical splice connection due to dust, residue on the glass strands, or other foreign contaminants in the

- general vicinity of the fiber optic splice work being performed
- ✓ Use proper techniques when taking buffer tubes into the splice enclosure or fiber optic termination panel. Simulate their placement in the tray to determine proper lacing of fibers in the tray
 - ✓ Prep and cut fiber as needed to ensure the fibers will lay properly in the trays
 - ✓ Bring all buffer tubes into the tray on the same end of the tray
 - ✓ Label buffer tubes and fibers inside the splice tray
 - ✓ Add Heat Shrink to all fibers in the buffer tube
 - ✓ Strip, clean and cleave fiber to proper length and angle
 - ✓ Splice must be below .03 dB to meet specifications when testing with an optical time domain reflectometer (OTDR) after placement of fusion heat shrink
 - ✓ Place splices in the tray in color code order
- d) **Testing:** Individual must be proficient in above procedures as well as the ability to develop and determine optical loss budget calculation. The individual must have the ability to OTDR test using the proper Index of Refraction (IOR), be knowledgeable in the operation of Light Source/Power Meter testing and industry standard labeling practices.
- e) **Troubleshooting:** Must be able to determine why a system is not operational-and solve the problem.
- f) **Knowledge, Abilities, and Skills:** Proficiency in applying best practices for industry regulations, rules while following state/local ordinances and industry standard structured cabling standards. Proficient with proper installation, termination and testing of communication networks as detailed above while applying safety practices applicable.
- g) **Technical Education and Experience:** Two years of technical experience, or an equivalent combination of training and experience is preferred.
- h) **Licenses and Certifications:** Possession of a valid Florida Commercial Driver's License, Class B.

851-4 Cable Installer:

- a) **Duties:** The duties of this individual include, but are not limited to the following:
- ✓ Perform aerial installation of fiber optic cable, span wire and necessary hardware
 - ✓ Perform underground installation of fiber optic cable and/or tracer wire
 - ✓ Perform down guy installation
 - ✓ Direct other Fiber Optic Cable Installer
 - ✓ Ability to read and comprehend plans
 - ✓ Perform equipment inspections
 - ✓ Follows direction of the Jobsite Foreman, Superintendent, and / or Area Manager for project schedules, materials, equipment, and crews
 - ✓ Possession of a valid Florida Commercial Driver's License, Class B
 - ✓ Work in all types of weather conditions is a requirement
 - ✓ Other duties as assigned by Management
- b) **Knowledge, Abilities, and Skills:** Proficiency in applying best practices for industry regulations, rules while following state/local ordinances and industry standard structured cabling standards. Proficient with proper aerial, underground and wireless installation of communication networks as detailed above while applying safety practices applicable.
- c) **Technical Education and Experience:** Two years of technical experience, or an equivalent combination of training and experience is preferred.
- d) **Licenses and Certifications:** Possession of a valid Florida Commercial Driver's License, Class B.

851-5 Duct Installer:

- a) **Duties:** The duties of this individual include, but are not limited to the following:
- ✓ Install pull boxes and conduit (by plow-trench-bore methods)

- ✓ Place fiber delineator markers
 - ✓ Ability to read and comprehend plans
 - ✓ Perform equipment inspections
 - ✓ Follows direction of the Jobsite Foreman, Superintendent, and / or Area Manager for project schedules, materials, equipment, and crews
 - ✓ Work in all types of weather conditions is a requirement
 - ✓ Other duties as assigned by Management
 - ✓ Possession of a valid Florida Commercial Driver's License, Class B
- b) **Knowledge, Abilities, and Skills:** Proficiency in applying best practices for industry regulations, rules while following state/local ordinances and FDOT duct placement specifications. Proficient with all Florida Sunshine One Call locate and notification activities; all underground trench-plow-bore installation procedures in support of both electrical and low voltage communication networks as detailed above while applying safety practices applicable.
- c) **Technical Education and Experience:** High School Diploma or the equivalent of a High School Diploma, and (1) one year of technical experience; or an equivalent combination of training and experience.
- d) **Licenses and Certifications:** Possession of a valid Florida Commercial Driver's License, Class B.

851-6 Basis of Payment: Price and payment will be full compensation for all work specified in this section. Payment will be made under:

- Item No. 851-3 Labor – Electronics Technician, Onsite, (per Hour)
- Item No. 851-4 Labor – Cable Installer, Onsite, (per Hour)
- Item No. 851-5 Labor – Duct Installer, Onsite, (per Hour)

County Specification 852 - OUTSIDE PLANT CABINETS

852-1 Description: Install only Field Device Cabinets Type II (336S Special), Type III (332 Special), and Type VI (Hub Cabinet). This shall encompass all labor, equipment, materials required for pick-up and site delivery, foundation, power hook-up, and all required appurtenances for a complete and operational cabinet.

852-2 Field Device Cabinet Type II (336S Special): Install Field Device Cabinet that provides an environmentally secure enclosure to house ITS field device equipment, subsystems and systems, lighting and surge protection. The cabinet shall be designed for the explicit use of housing and protecting sensitive electronic equipment (Encoders, 10/100/1000 Ethernet switches, media converters, port/terminal servers, fiber optics equipment, and other related components, etc.) within a controlled environment necessary for the proper operation of installed electronic equipment.

The Detector Cabinet shall meet or exceed the following minimum requirements:

- ✓ **Size:** Outside dimensions shall be approximately 46-inches (height) x 24- inches (width) x 24-inches (depth);
- ✓ **Lighting:** The cabinet shall include door activated 20W cool white fluorescent lights
- ✓ **Electrical Outlets:** One duplex (GFI) receptacle shall be included with every cabinet
- ✓ **Equipment Racks:** One 19" equipment rack, adjustable 4-post design, with 5/8-inches -5/8-inches -1/2-inches spacing with holes tapped for #12-24 screws, a rack-mounted drawer shall be included with the rack
- ✓ **Air Filtration:** The cabinet shall contain a filtered air intake vent featuring re-usable, washable type filters
- ✓ **Power Distribution:** The 30A main breaker provided in the cabinet shall distribute power to rack mounted equipment, lighting, and outlets
- ✓ **Surge Protection:**
 1. Primary surge suppression shall consist of a wall or flush mounted unit with 12 AWG terminals with a maximum 80kA (8/20 μ s), protecting lines L-N, L-G, L-L, and N-G. The unit shall meet the following environmental requirements: ambient temperatures of -40°F to 185°F (-40°C to 85°C working) and 95% RH (non-condensing). Dimensions shall be 4.5-inches x 2.9-inches x 2.3-inches.
 2. A nine-outlet (seven switched, two un-switched) rack mounted surge suppressor unit shall be installed. The maximum surge current shall be 84kA with a load current of 15A or 20A at a working voltage of 120V 50/60Hz.
 3. A 19" DIN Rail kit assembly shall be installed and have enough space for 32 modular surge suppressor devices (RJ11, RJ45, or BNC connector type) attached meeting the following criteria: ambient temperature of -40°F to 185°F (-20°C to 85°C working) and 95% RH (non-condensing) Dimensions shall be 5.04-inches (height) x .99-inches (width) x 2.25-inches (depth):
- ✓ **Common Grounding System:** A floor mounted 12-position ground bar is to be provided with the cabinet.
- ✓ **Cabinet Construction:**
 1. The cabinet shall contain R-4 insulation to control the effect of environmental conditions.
 2. Cabinet shall be of 1/8", 5052 Aluminum construction with white powder coat finish to eliminate rusting.
 3. Doors shall have NEMA 3R rated with neoprene gasketing for maximum equipment protection, and shall have heavy-duty 3- point hardware on all doors.
 4. All hinges shall be 1/8" aluminum with stainless steel piano hinge, or continuous door length stainless steel hinges.

852-3 Field Device Cabinet Type III (332 Special): Install Field Device Cabinet that provides an environmentally secure enclosure to house ITS field device equipment, subsystems and systems, lighting and surge protection. The cabinet shall be designed for the explicit use of housing and protecting sensitive electronic equipment (Encoders,

10/100/1000 Ethernet switches, media converters, port/terminal servers, fiber optics equipment, and other related components, etc.) within a controlled environment necessary for the proper operation of installed electronic equipment.

The Detector Cabinet shall meet or exceed the following minimum requirements:

- ✓ **Size:** Outside dimensions shall be approximately 66-inches (height) x 24- inches (width) x 30-inches (depth)
- ✓ **Lighting:** The cabinet shall include door activated 20W cool white fluorescent lights
- ✓ **Electrical Outlets:** One duplex (GFI) receptacle shall be included with every cabinet;
- ✓ **Equipment Racks:** One 19" equipment rack, adjustable 4-post design, with 5/8-inches -5/8-inches -1/2-inches spacing with holes tapped for #12-24 screws, a rack-mounted drawer shall be included with the rack
- ✓ **Air Filtration:** The cabinet shall contain a filtered air intake vent featuring re-usable, washable type filters
- ✓ **Power Distribution:** The 30A main breaker provided in the cabinet shall distribute power to rack mounted equipment, lighting, and outlets
- ✓ **Surge Protection:**
 1. Primary surge suppression shall consist of a wall or flush mounted unit with 12 AWG terminals with a maximum 80kA (8/20 μ s), protecting lines L-N, L-G, L-L, and N-G. The unit shall meet the following environmental requirements: ambient temperatures of -40°F to 185°F (-40°C to 85°C working) and 95% RH (non-condensing). Dimensions shall be 4.5-inches x 2.9-inches x 2.3-inches:
 2. A nine-outlet (seven switched, two un-switched) rack mounted surge suppressor unit shall be installed. The maximum surge current shall be 84kA with a load current of 15A or 20A at a working voltage of 120V 50/60Hz.
 3. A 19" DIN Rail kit assembly shall be installed and have enough space for 32 modular surge suppressor devices (RJ11, RJ45, or BNC connector type) attached meeting the following criteria: ambient temperature of -40°F to 185°F (-20°C to 85°C working) and 95% RH (non-condensing) Dimensions shall be 5.04-inches (height) x .99-inches (width) x 2.25-inches (depth).
- ✓ **Common Grounding System:** A floor mounted 12-position ground bar is to be provided with the cabinet
- ✓ **Cabinet Construction:**
 1. The cabinet shall contain R-4 insulation to control the effect of environmental conditions.
 2. Cabinet shall be of 1/8", 5052 Aluminum construction with white powder coat finish to eliminate rusting.
 3. Doors shall have NEMA 3R rated with neoprene gasketing for maximum equipment protection, and shall have heavy-duty 3- point hardware on all doors.
 4. All hinges shall be 1/8" aluminum with stainless steel piano hinge, or continuous door length stainless steel hinges.

852-4 Hub Cabinet Type IV (Model 336S Special): Install cabinet that provides an environmentally secure enclosure to house ITS field device equipment, subsystems and systems, lighting and surge protection. The cabinet shall be designed for the explicit use of housing and protecting sensitive electronic equipment (Encoders, 10/100/1000 Ethernet switches, media converters, port/terminal servers, fiber optics equipment, and other related components, etc.) within a controlled environment necessary for the proper operation of installed electronic equipment.

The Cabinet shall meet or exceed the following minimum requirements:

- ✓ **Size:** Outside dimensions shall be approximately 48-inches (height) x 24- inches (width) x 24-inches (depth)

- ✓ **Cabinet Configuration:** The cabinet is a single door cabinet with one NEMA 4 rated internal cabinet mounted to the interior of the outer cabinet
- ✓ **Lighting:** The cabinet shall include door activated 20W cool white fluorescent lights
- ✓ **Electrical Outlets:** One duplex (GFI) receptacle shall be included with every cabinet
- ✓ **Equipment Racks:** One 19" equipment rack, adjustable 4-post design, with 5/8-inches -5/8-inches -1/2-inches spacing with holes tapped for #12-24 screws, a rack-mounted drawer with tabletop shall be included with the rack. Cable management guides shall be included with the rack and shall be constructed of an 18-gauge steel base plate with hook and loop fasteners. Four (4), two front, two rear 19" horizontal cable management guides and four (4), two front, two rear vertical cable management guides that shall run the vertical length of the rack
- ✓ **Air Handling/Filtration:** The cabinet shall contain two (2) thermostatically controlled fans; 100 cfm rated. The cabinet shall contain a filtered air intake vent featuring re-usable, washable type filters
- ✓ **Power Distribution:** The cabinet shall contain one 480/120 Volt transformer (Dry Type, 10KVA). A 30A main breaker shall be provided in the cabinet shall distribute power to equipment, lighting, and outlets. The transformer and main breaker shall be mounted inside the outer cabinet
- ✓ **UPS:** The cabinet shall contain one managed uninterruptible power supply. The UPS shall be 19" rack mounted. The UPS shall be 120V input/120V output. Output power capacity shall be 1400VA/1050Watts. The unit shall have a serial interface port for management. The unit shall be no more than 3U high
- ✓ **Surge Protection:** Primary surge suppression shall consist of a wall or flush mounted unit with 12 AWG terminals with a maximum 80kA (8/20 μ s), protecting lines L-N, L-G, L-L, and N-G. The unit shall meet the following environmental requirements:
 1. Ambient temperatures of -40°F to 185°F (-40°C to 85°C working) and 95% RH (non-condensing). Dimensions shall be 4.5-inches x 2.9-inches x 2.3-inches:
 2. A nine-outlet (seven switched, two un-switched) rack mounted surge suppressor unit shall be installed. The maximum surge current shall be 84kA with a load current of 15A or 20A at a working voltage of 120V 50/60Hz.
 3. A 19" DIN Rail kit assembly shall be installed and have enough space for 32 modular surge suppressor devices (RJ11, RJ45, or BNC connector type) attached meeting the following criteria: ambient temperature of -40°F to 185°F (-20°C to 85°C working) and 95% RH (non-condensing) Dimensions shall be 5.04-inches (height) x .99-inches (width) x 2.25-inches (depth).
- ✓ **Common Grounding System:** A floor mounted 12-position ground bar is to be provided with the cabinet

852-5 Outer Cabinet Construction: The cabinet shall contain R-4 insulation to control the effect of environmental conditions. Cabinet shall be of 1/8", 5052 Aluminum construction with white powder coat finish to eliminate rusting. Outer door shall have NEMA 3R rated with neoprene gasketing for maximum equipment protection, and shall have heavy-duty 3-point hardware. All hinges shall be 1/8" aluminum with stainless steel piano hinge, or continuous door length stainless steel hinges.

852-6 Inner Cabinet (NEMA 4) Construction: The cabinet shall be a NEMA 4 rated cabinet with approximate dimensions of 20"W x 24"H x 12"D. The cabinet shall be constructed of 16-gauge stainless steel or other non-corrosive material. The cabinet shall contain one 12-gauge mounting plate with 10-32 x 2" treaded hole pattern mounted to the rear of the cabinet. The cabinet shall contain one heat sink mounted to the outside rear of the inner cabinet tangent to the mounting plate.

852-7 Device Cabinet Base: Install Device Cabinet Base that provides an environmentally secure enclosure to house fiber optic splice closure, fiber optic drop cable slack, data cable slack, and power cable slack. The base shall

specifically fabricate to accommodate the detector cabinet as specified within this Section A668. Neoprene gasketing shall be supplied by the Device Cabinet Base vendor that shall be applied by the installation Contractor between the Base and the Detector Cabinet. The Device Cabinet Base shall meet or exceed the following minimum requirements:

- ✓ **Size:** Outside dimensions shall be approximately 16-inches (height) x 40-inches (width) x 24-inches (depth); or 16-inches (height) x 24-inches (width) x 24-inches (depth)
- ✓ Be fabricated from 1/8-inch aluminum
- ✓ Shall have a epoxy powder coating
- ✓ Shall have a front access panel with captive stainless steel screws
- ✓ Shall have an open top and open bottom, each with a 2-inch lip for mounting and/or attachment of the Detector Cabinet
- ✓ Shall have a conduit mounting plate of same size (width and depth) made of ¼" Stainless Steel 316.
- ✓ All screws and hardware shall be stainless steel

852-8 Base Plate: All bridge pedestals shall have the existing open cable raceways sealed. These raceways shall be sealed by way of ¼-inch stainless steel plates, anchored over the raceway by way of epoxy anchor drilled into the pedestal at a minimum depth of 1 ¼- inch. There shall be two sizes of Base Plates, 18-inch by 12-inch and 10-inch by 10- inch. The Contractor shall install the Owner-supplied Base Plates where noted and/or depicted within the plan set.

852-9 Hub Cabinet Type VI (Master Hub Cabinet): Install a Master Hub Cabinet that provides an environmentally cooled enclosure facility required for the sensitive network equipment to be furnished on this project. The cabinet shall be designed for the explicit use of housing sensitive electronic equipment (Gigabit Ethernet switches, 10/100 Ethernet switches, media converters, port/terminal servers, fiber optics equipment, and other related components, etc.) within a controlled atmosphere required for the proper operating conditions for installed equipment and shall be furnished by the Owner.

The Master Hub cabinet shall meet or exceed the following minimum requirements:

- ✓ **Size:** Dimensions shall be approximately 104" (height) x 108" (width) x 77"(depth)
- ✓ **AC Unit/Cooling Unit:** The cabinet shall have an air conditioner/cooling unit or units with a minimum total cooling capacity of 20,000 BTUs. The air conditioner/cooling unit shall be designed specifically for outdoor electronic enclosures, and shall be designed for a fully-gasketed, leak-proof installation in accordance with the NEMA 4/4X enclosure rating. Refrigerant shall be CFC-free
- ✓ **Lighting:** The cabinet shall include a switch controlled fluorescent light fixture providing adequate work lighting throughout the cabinet
- ✓ **Electrical Outlets:** Two separate duplex (GFCI) wall electrical outlets for test/maintenance equipment shall be provided. Two separate standard duplex outlets shall be supplied for equipment power
- ✓ **Equipment Racks:** Two 19-inch Electronic Industries Alliance (EIA) equipment racks, with two vertical and four horizontal cable management panels per rack, placed as specified within the plan set
- ✓ **Ladder Racks:** Ladder rack cable management system as depicted within the plan set
- ✓ **Power Distribution:** The cabinet shall provide for power distribution to all installed equipment racks, lighting and the air conditioning unit
- ✓ **Lightning Protection System:** Provide for lightning protection for the overall, integrated structure, including each metallic (copper) conductor penetrating the cabinet
- ✓ **Common Grounding System:** A cabinet grounding system shall be provided
- ✓ **Cabinet Monitoring System:** A cabinet monitoring system shall be provided to continuously monitor and report local conditions (temperature, humidity, smoke and door alarm)

852-10 Construction: Construct a flat, level, concrete base, meeting the requirements for Class 1, non- stressed concrete and shall be accepted according to Section 347 of the FDOT Standard Specifications, and the latest supplements. The minimum final grade shall be set at nominal eight inches above the surrounding grade to insure that water drains away from the cabinet. Restore surrounding surfaces to their original condition.

852-11 Method of Measurement: The Detector Cabinet Type II, Detector Cabinet III, and Detector Cabinet VI shall be measured for payment at each site as installed. Detector Cabinet IV and its corresponding base (A668-4.1) shall be paid as each installed. The Detector Cabinet Base installed shall be an appurtenance of the Type IV Detector Cabinet. The Contract unit price each for Master Hub cabinet, installed, shall include all labor, equipment, foundations, mounting hardware, and miscellaneous material necessary for a complete and acceptable installation. The Owner will supply the cabinet assemblies as specified in the Contract Document.

852-12 Basis of Payment: The unit bid for an installed Detector Cabinet shall consist of the furnishing and installation of a foundation, slab, electrical service and the transport and placement of the Detector Cabinet on said foundation and/or slab. The installed Detector Cabinet shall also include any ancillary equipment or incidental items, including mounting hardware, cabinet base, foundation, bridge pedestal base plate, and restoration of the surrounding ground to its original condition.

County Specification 950 – WIRELESS NETWORK CONNECTIVITY DEVICES

950-1 Description: The requirements contained herein address the procurement and installation of Wireless Network Connectivity systems including, but not limited to radios, antennas, and cables for the owner in various applications. The Wireless Network Connectivity devices shall be point-to-point/point to multipoint device, designed to enable the owner to bridge multiple locations wirelessly in the 5 GHz range. Wireless network connectivity systems described in this section will be demonstrably secure and exhibit reliable operational and durability, when connected to the Owner's deployed Corporate network. Contractor will stand behind the proposed wireless connectivity hardware and replace any defective or failed wireless equipment to the Owner's full satisfaction.

950-2 General Requirements: Furnish, install, test, and deploy selected Wireless Network Connectivity Devices as required by the owner; including all required cables, and passive devices, including the required wireless systems antenna for any given application.

- ✓ Furnish all tools, equipment, materials, supplies, and perform all operations and wireless network equipment integration necessary to provide a complete, fully operational Wireless point-to-point, or point-to-multi-point connection
- ✓ Install all wireless systems proposed in accordance with the manufacturer's instructions or as otherwise required and directed by the Owner
- ✓ Wireless network devices will be demonstrably secure over the Owner's deployed Corporate Network
- ✓ All Outdoor mounting hardware will consist of stainless steel or aluminum mounting hardware, regardless of mounting hardware that is factory shipped with the wireless equipment or peripheral devices
- ✓ Contractor will stand behind the proposed wireless connectivity hardware and replace any defective or failed wireless equipment to the Owner's full satisfaction, at minimal or no expense to the Owner, while maintaining deployed systems - wireless network service outages to a minimum

950-3.1 5054 Wireless Devices: This device shall be point-to-point / point to multipoint device, designed to enabled the owner to bridge multiple locations wirelessly in the 5 GHz range. Features shall include: Quality of Service (QoS); dynamic frequency selection (DFS), which has received EN301-893 v1.3.1 and FCC-DFS (part 15) certification and extended range. Shall be available in outdoor and indoor models, the MP.11 series is capable of supporting converged voice, video and data transmission in fixed and mobile applications, license-free designated frequency bands.

All equipment and materials used shall be comprised of standard off the shelf components that are industry standard compliant, and readily available. All systems and components shall be thoroughly tested and wireless industry proven.

All systems and components shall be supported with a one-day turnaround repair express and 24-hour parts replacement. All repair and replacement parts shall be guaranteed by the Contractor and/or manufacturer as warranty and non-warranty items.

The wireless device(s) shall be installed by the Contractor, who is a certified dealer/integrator of the product line manufacturer. Certification for installation shall be conducted by the manufacturer and shall provide all necessary skills and technical to install, configure, troubleshoot, and support these Wireless point-to-point, or point-to-multi-point network systems.

The Wireless device shall meet the following networking standards:

- ✓ Spanning Tree (802.1d)
- ✓ IP/ RIPv1 (RFC 1058)

- ✓ IP/ RIPv2 (RFC 1388)
- ✓ ICMP (RFC 792)
- ✓ ARP (RFC 826)
- ✓ VLAN (802.1Q)
- ✓ Simple Network Management Protocol (SNMP) v1/v2 (RFC 1157)
- ✓ SNMP v2c (RFC 1907)
- ✓ HTTP Server (RFC 2616)
- ✓ Telnet (RFC 855)
- ✓ TFTP client (RFC 783)

The wireless device shall meet the following safety standards:

- ✓ UL 60950, UL50
- ✓ CSA 22.2 No. 60950-00
- ✓ IEC 60950 3rd Ed (1999)

The wireless device shall support operation in the 5GHz U-NII band. The wireless device(s) shall support the Owner's requirement to select wireless transmission channel bandwidths from 5 MHz, 10MHz, or 20MHz.

The radio shall not be WiFi capable nor shall the equipment possess WiFi certification. The wireless device shall utilize a polling-based, contention free MAC wherein each remote SU only communicates based upon instruction of the Base Station Unit (BSU). The wireless device(s) shall support a mechanism for decreasing the receive sensitivity to compensate and protect from noisy environments. The wireless device(s) shall support 802.3 standards for Ethernet. The wireless device shall draw its power and operate over Ethernet supplied by an external power supply. The devices PoE power supply shall be equipped with the functionality required to reset/reload the device in the event of communication loss. The wireless device shall provide LED indicators of Ethernet and RF link. The wireless device must natively support the following mechanisms for management:

- ✓ HTTP
- ✓ Telnet
- ✓ SNMP v1, v2, v2c
- ✓ Serial access (local)

The wireless device shall support MD5 Authentication between Base and Satellite units, as well as Advanced Encryption Standard (AES) encryption on all wireless communications between devices. The wireless device shall be rated for installation in an outdoor environment without additional enclosure and shall meet the IP67 standard. The wireless device(s) shall be equipped with an internal solid-state heating/cooling element for use in extreme environments. The wireless device(s) shall provide a mount for installation to a wall or pole (1.5" to 3" diameter). The subscriber unit (SU) mount shall be articulating both Vertically and Horizontally. The wireless device(s), when deployed in a multipoint topology, shall be capable of SU roaming between multiple BSU's. Roaming shall be highly controllable by the operator with the ability to adjust roaming trigger events. The wireless device, when configured as a BSU shall allow for a maximum of 250 remote SUs. The Max SU count must also be configurable to allow the operator of limiting the amount of SU's per Base Station. Once the Maximum SU value has been reached by active SU's the protocol shall cease further advertising for additional devices. When configured as a Base Station in a multipoint network, and with sufficient link margin, a single unit shall provide up to 25Mbps of Layer 2 throughput. This capacity shall be dynamically assigned to remote subscriber units based upon their load and according to the QoS policy set forth within the BSU. The Wireless device(s) shall support a highly configurable QoS scheduling mechanism. QoS shall be configurable by the user via web graphical user interface (GUI) and both administered and controlled from the BSU for all associated SU's. Controls within the QoS configuration must include:

- ✓ Max Information Rate and Committed information rate (MIR/CIR)
- ✓ Latency and Jitter control with 5ms steps

- ✓ Priority with 7 steps
- ✓ Packet Identification Rule (PIR) – support for up to 64 PIR's.
- ✓ Service Flow class (SFC) – up to 32 SFC's and allow up to 8 PIRs to be associated per SFC
- ✓ QoS class – Allow up to 8 QoS classes and support up to 4 SFC's to be associated per QoS class

The wireless device shall be equipped with a mechanism for Dynamic Data Rate Selection a.k.a. Adaptive Modulation. This function will automatically adjust the modulation/data rate for the radio device based upon both signal to noise ration (SNR), and data retransmissions over the wireless link. The BSU shall be able to maintain different Data Rates to different SU's independently. Control of this function shall be available via BSU web interface and shall include the ability to limit the Minimum and Maximum data rate as well as the ability to define the SNR and Retransmission 'triggers' used to make this determination. The wireless device(s) shall support the ability to asymmetrically configure bandwidth of the wireless interface with 64kbps granularity for upload and download.

The Wireless device shall support the following VLAN configurations:

Transparent Mode: BSU and SU shall pass any/all packets with or without VLAN specific information.

Trunk Mode: The SU and BSU shall transfer only tagged frames received on the Ethernet or wireless interface. Both tagged and untagged management frames can access the device. In Trunk Mode, BSU shall support up to 256 VLAN ID's SU shall support up to 16 VLAN ID's.

Access Mode: Available on SU only, Frames received on the Ethernet interface are tagged with the configured Access VLAN ID before forwarding them to the wireless interface. Both tagged and untagged management frames can access the device from the wireless interface. However, only untagged management frames can access the device from the Ethernet Interface.

Q in Q 'VLAN Stacking': Using the Q-in-Q mechanism, an Outer VLAN ID and Priority are added to VLAN tagged packets on top of the existing VLAN ID, such that interference is avoided and traffic is properly routed.

Management VLAN: When VLAN's are enabled on the devices they shall also support provisioning of a Management VLAN to separate and secure all IP based radio management functions. A BSU in a multipoint topology shall provide a function separate of VLAN's to block communications between SU's. The wireless device(s) shall support extensive Monitoring abilities. The ability to monitor the following values shall exist on both SU and BSU devices.

Per Station Statistics: RSL, Noise, Tx Rate, Tx Success, Tx Retries, Tx Failures

Ethernet interface: CRC errors, In/Out octets, In/Out Errors

Wireless interface: FCS errors, In/Out octets, In/Out Errors

MAC Address Learn table with indication of interface of which MAC was detected

The wireless device(s) shall support temperature logging of the unit's internal temperature. Logging interval shall be user configurable in 5 minute increments between 1 and 60 minutes. Results shall be available via Web GUI. Furthermore, SNMP traps shall be sent when/if unit reaches limits defined by the manufacturer. The wireless device(s) shall support uploading or downloading of device configurations for record keeping and simplified configuration of other devices.

POWER SPECIFICATIONS:

- ✓ The device must operate via Power Over Ethernet (PoE)
- ✓ Power supply Input shall be 110/250 VAC
- ✓ Power supply Output shall be current 420mA at 48V
- ✓ Power consumption shall be maximum 20 Watt
- ✓ Power over Ethernet shall be via RJ-45 Ethernet interface port

ENVIRONMENTAL SPECIFICATIONS:

- ✓ Operating temperature shall be between -33 and 60 degrees Celsius
- ✓ Storage temperatures shall be between -55 and 80 degrees Celsius
- ✓ Humidity shall be max 100% relative humidity (non-condensing)

SYSTEM SPECIFICATIONS:

Radio and Transmission Specifications

- ✓ Modulation method shall be OFDM
- ✓ No frequency licenses shall be required in the 5Ghz range
- ✓ Available RF Data Rates shall be 54, 48, 36, 24, 18, 12, 9, 6, 4.5, 2.25, 1.5 Mbps
- ✓ Wireless Protocol shall be WERP.
- ✓ Antenna connector shall be Standard Type-N Female for radios equipped with external coaxial connectors.
- ✓ Integrated antenna models shall possess a 23dBi Flat Panel antenna.

WARRANTY

- ✓ 100,000 hours – 1 year parts and labor

950-3.2 8100 Wireless Devices: All equipment and materials used shall be wireless industry standard components that are readily available. All systems and components shall have been thoroughly tested and proven in actual use. All systems and components shall be provided with the availability of a toll-free (U.S. and Canada), 24-hour technical assistance program from the manufacturer. All systems and components shall be equipped with a one-day Advanced Replacement policy. The repair and parts express shall be guaranteed by the manufacturer on warranty and non-warranty items. The wireless device(s) shall be installed by a Manufacturer certified dealer/integrator. Certification for installation shall be conducted by the manufacturer and shall provide all necessary knowledge to fulfill deployment across diverse networks and infrastructures. The wireless device shall be fully compatible with IPv4 Ethernet without conversion, along with the following networking standards:

- ✓ Spanning Tree (802.1d)
- ✓ ICMP
- ✓ ARP (RFC 826)
- ✓ VLAN (802.1Q)
- ✓ SNMPv1/v2
- ✓ SNMP v2c
- ✓ SNMP v3
- ✓ HTTP Server
- ✓ Telnet
- ✓ TFTP client
- ✓ RADIUS

The wireless device shall support operation in either the; 5.8GHz UNII bands as specified within FCC CFR47 Part15. The radio used for surveillance or security shall not be WiFi compliant, nor shall the equipment possess WiFi certification. The wireless device shall support MD5 Authentication between Base and Satellite units, as well as AES encryption on all wireless communications between devices. The wireless device shall use Power over Ethernet (PoE) to operate. The devices PoE power supply shall be equipped with the functionality required to reset reload in the event of loss of communication. The PoE supply shall allow for adequate power to supply the secondary PoE 'Out" port located on the radio. The wireless subscriber devices shall be available with integrated antenna or connectorized to allow for external antenna. Connectorized units shall possess three (3) N-Female coaxial connectors. All coaxial connectors shall include built-in surge protection with field replaceable gas tubes.

The wireless device shall be easy to install. It shall provide indicators that are readable in daylight for both Ethernet status and RF link. The wireless device must support the following management functions:

- ✓ HTTP
- ✓ Telnet
- ✓ SNMP v1, v2c, v3
- ✓ Serial access (local)

The wireless device(s) shall support the operator's ability to select operating channel bandwidths of either 20MHz or 40MHz. The wireless device(s) shall support a mechanism for decreasing the receive sensitivity. The wireless device shall be rated for installation in an outdoor environment without additional enclosure and shall meet the IP67 standard. The wireless device(s) shall provide a mount for installation to a wall or pole (1.5" to 3" diameter). The SU mount shall be articulating in both Vertical and Horizontal directions. The wireless device(s) shall support 802.3 standards for Gigabit Ethernet. The wireless device(s) shall support the ability to asymmetrically configure bandwidth. The wireless device, when configured as a BSU must allow for a maximum of 250 remote subscriber units (SU). The Max SU count must also be configurable to allow the operator of limiting the amount of SU's per Base Station. When configured as a Base Station in a multipoint network, and with sufficient link margin, a single unit shall be capable of providing up to 250Mbps of Layer 2 throughput. This capacity shall be dynamically assigned to remote subscriber units based upon their load and according to the QoS policy set forth within the BSU. The Wireless device(s) shall support a highly configurable QoS scheduling mechanism. QoS shall be configurable by the user via web GUI and both administered and controlled from the BSU for all associated SU's. Controls within the QoS configuration must include: Max Information Rate and Committed information rate (MIR/CIR), Latency and Jitter control with 5ms steps, Priority with 7 steps, Packet Identification Rule (PIR) – support for up to 64 PIR's. Service Flow class (SFC) – up to 32 SFC's and allow up to 8 PIRs to be associated per SFC QoS class – Allow up to 8 QoS classes and support up to 4 SFC's to be associated per QoS class The Wireless device shall support VLAN's.

Transparent Mode: BSU and SU shall pass any/all packets with or without VLAN specific information.

Trunk Mode: The SU and BSU shall transfer only tagged frames received on the Ethernet or wireless interface. Both tagged and untagged management frames can access the device. In Trunk Mode, BSU shall support up to 256 VLAN ID's / SU shall support up to 16 VLAN ID's.

Access Mode: Available on SU only, Frames received on the Ethernet interface are tagged with the configured Access VLAN ID before forwarding them to the wireless interface. Both tagged and untagged management frames can access the device from the wireless interface. However, only untagged management frames can access the device from the Ethernet Interface.

Q in Q 'VLAN Stacking': Using the Q-in-Q mechanism, an Outer VLAN ID and Priority are added to VLAN tagged packets on top of the existing VLAN ID, such that interference is avoided and traffic is properly routed.

Management VLAN: When VLAN's are enabled on the devices they shall also support provisioning of a Management VLAN to separate and secure all IP based radio management functions.

The BSU shall provide a function separate of VLAN's to block communications between SU's. The wireless device(s) shall support extensive Monitoring abilities. The ability to monitor the following values shall exist on both SU and BSU devices.

Per Station Statistics: RSL, Noise, Tx Rate, Tx Success, Tx Retries, Tx Failures.

Ethernet interface: CRC errors, In/Out octets, In/Out Errors

Wireless interface: CRC errors, In/Out octets, In/Out Errors

MAC Address Learn table with indication of interface of which MAC was detected.

The wireless device(s) shall support temperature logging of the unit's internal temperature. Logging interval shall be user configurable in 5 minute increments between 1 and 60 minutes. Results shall be available via Web GUI.

Furthermore, SNMP traps shall be sent when/if unit reaches limits defined by the manufacturer.

The wireless device(s) shall support uploading or downloading of device configurations.

POWER SPECIFICATIONS:

- ✓ Input shall be 110/250 VAC
- ✓ Output shall be current .67A at 48V
- ✓ Power consumption shall be maximum 32 Watts
- ✓ Power over Ethernet shall be via RJ-45 Gigabit Ethernet interface port
- ✓ Secondary 802.3af Gigabit Ethernet Port shall be available on Radio

ENVIRONMENTAL SPECIFICATIONS:

- ✓ Operating temperature shall be between -40 and 60 degrees Celsius
- ✓ Storage temperatures shall be between -55 and 80 degrees Celsius
- ✓ Humidity shall be max 100% relative humidity (non-condensing)

SYSTEM SPECIFICATIONS:

- ✓ Radio and Transmission Specifications:
- ✓ Modulation method shall be OFDM with BPSK, QPSK, QAM16, QAM64
- ✓ Frequency shall be 2.3/2.5Ghz and 4.9/6.0Ghz (Subject to country regulations)
- ✓ Data Rates shall be MCS 0-15 for High Throughput mode (6.5 – 300Mbps)
- ✓ 3x3 MIMO (Multi-Input Multi-Output)
- ✓ Channel sizes shall be software selectable 20Mhz or 40Mhz
- ✓ Interfaces:
- ✓ Wired Ethernet shall be two auto MDI-X RJ45 10/100/1000Mbps Ethernet Port #1 with PoE in and Data – Port #2 with PoE out (802.3af pin out) and data
- ✓ Wireless Protocol shall be WORP (Wireless Outdoor Router Protocol)

WARRANTY:

- ✓ 1 year parts and labor

950-9 Basis of Payment: Price and payment will be full compensation for all work specified in this Section. Payment will be made under the Items listed on the Bid Form.

PROXIM MODEL NUMBERS

- ✓ Base Station: MP.11 5054-BSUR
- ✓ Base Station: MP.11 5054-BSUR-LR
- ✓ Subscriber Unit (integrated antenna): MP.11 5054-SUR
- ✓ Subscriber Unit (connectorized): MP.11 5054-SUA
- ✓ Subscriber Unit (integrated antenna, long-range): MP.11 5054-SUR-LR
- ✓ Subscriber Unit (connectorized, long-range): MP.11 5054-SUA-LR

SUPPLIED ACCESSORIES

- ✓ One wall pole mounting bracket

- ✓ One power injector and country specific power cord
- ✓ One Ethernet cable water-proof plug
- ✓ One documentation
- ✓ Software CD-ROM

OPTIONAL ACCESSORIES MODEL NUMBERS

- ✓ PoE Surge Arrestor (73944)
- ✓ Spare Power DC Injector (69823)
- ✓ Surge Arrestor 5Ghz (5054-SURGE)
- ✓ 5Ghz Antenna Omni Directional 8dbi (5054-QA-8)
- ✓ 5Ghz Antenna Omni Directional 10dbi (5054-QA-10)
- ✓ 5Ghz Antenna 60 degree sectional 17dbi (5054-SA60-17)
- ✓ 5Ghz Antenna 120 degree sectional 14dbi (5054-SA120-14)
- ✓ 6ft Low Loss Antenna Cable LMR-600 (69828)
- ✓ 20ft Low Loss Antenna Cable LMR-400 (848 332 789)
- ✓ 50ft Low Loss Antenna Cable LMR-600 (5054-LMR600-50)
- ✓ 50ft Low Loss Antenna Cable LMR-400 (5054-ULA400-50)

PROXIM MODEL NUMBERS

- ✓ Base Station: MP-8100-BSU-US
- ✓ Subscriber Unit (integrated antenna): MP-8150-SUR-US
- ✓ Subscriber Unit (connectorized): MP-8100-SUA-US

SUPPLIED ACCESSORIES

- ✓ One wall pole mounting bracket
- ✓ One power injector and country specific power cord
- ✓ One Connector weatherproofing kit (Includes all recommended weatherproofing material)
- ✓ Three N-connector weatherproofing caps installed at factory (for connectorized version only)
- ✓ One serial (RJ11 –DB9) dongle
- ✓ One grounding Kit
- ✓ One Gigabit PoE Surge Arrestor
- ✓ One documentation
- ✓ Software CD-ROM

OPTIONAL ACCESSORIES MODEL NUMBERS

- ✓ PoE Surge Arrestor (76394)
- ✓ Spare Power DC Injector (76346)
- ✓ Dual-Polarity 60 Degree 17dBi 5GHz Sector antenna (77067)
- ✓ Dual-Polarity 5GHz 23dBi Panel antenna (76955)
- ✓ 25Meter Outdoor UV-Rated CAT5e pre-terminated (76590)
- ✓ 50Meter Outdoor UV-Rated CAT5e pre-terminated (76592)
- ✓ 75Meter Outdoor UV-Rated CAT5e pre-terminated (76394)
- ✓ 6ft Low Loss Antenna Cable LMR-600 (69828)
- ✓ 20ft Low Loss Antenna Cable LMR-400 (848 332 789)
- ✓ 50ft Low Loss Antenna Cable LMR-600 (5054-LMR600-50)
- ✓ 50ft Low Loss Antenna Cable LMR-400 (5054-ULA400-50)

End of Technical Specifications

Bid Form

Annual Bid for Telecommunication Systems Equipment, Material, Supplies, Maintenance, and Installation

Bid #: 2017025
 Bid Opening Date and Time: April 28, 2017 2:00 P.M.
 Bid Opening Location: Purchasing Division
 1800 27th Street
 Vero Beach, FL 32960

The following addenda have been received and are hereby acknowledged:

Number	Date
_____	_____
_____	_____
_____	_____
_____	_____

The following forms are attached to this bid form:

- Drug Free Workplace Certification
- Affidavit of Compliance
- Sworn Statement under 105.08 County Code on Disclosure of Relationships (**hard copy** with original signatures and notarization must be delivered to Purchasing prior to time slated for bid opening)
- Certification Regarding Lobbying
- Bidder Questionnaire
- Indian River County Fiber Infrastructure Non-Disclosure Acknowledgement (**hard copy** with original signatures and corporate seal (if applicable) must be delivered to Purchasing prior to time slated for bid opening)

In accordance with all terms, conditions, specifications, and requirements, the bidder offers the following (Bidders are not required to bid on all groups, but are required to bid on all items within each group they choose to bid on):

Item Code	Group 1 Technical Labor	Per	Unit Price
851-3	Comm Cable-Electronics Technician (Onsite)	HR	\$
851-4	Communication Cable Installer (Onsite)	HR	\$
851-5	Communication Duct Installer (Onsite)	HR	\$

Group 2		Per	Unit Price
OSP Construction Conduit, Pull and Junction Boxes			
630-5-12-24	Conduit, 2" 10' PVC @ 24", Machine Trench (F&I)	LF	\$
630-5-12-36	Conduit, 2" PVC @ 36" Machine Trench (F&I)	LF	\$
630-5-13-24	Conduit, 2" PVC @ 24", Hand Trench (F&I)	LF	\$
630-5-13-36	Conduit, 2" PVC @ 36", Hand Trench (F&I)	LF	\$
630-5-12-ep	Conduit, 2" PVC Additional Pipe In Trench (F&I)	LF	\$
630-6-1.25	Innerduct, 1 1/4" Corrugated, Colored (F&I)	LF	\$
630-6-41.25	Conduit Plowing 4W1.25" HDPE, Colored (F&I)	LF	\$
630-6-23	MaxCell Placement in existing 2" Conduit - 2" - 3 Cell (F&I)	LF	\$
630-6-33	MaxCell Placement in existing 3" Conduit - 3" - 3 Cell (F&I)	LF	\$
630-6-43	MaxCell Placement in existing 4" Conduit - 4" - 3 Cell (F&I)	LF	\$
630-6-00-18	Cable Direct Bury, Hand Dig @ 18" (I Only)	LF	\$
630-6-00-30	Cable Direct Bury, Plow @ 30" (I Only)	LF	\$
630-6-12-db	Directional Bore, 2" HDPE (F&I)	LF	\$
630-6-14-db	Directional Bore, 2" HDPE, Special Conditions (F&I)	LF	\$
630-6-18-db	Directional Bore, 8" Under Waterway <1,000 lf (F&I)	LF	\$
630-6-12-grs	Conduit, 2" GRS, (F&I)	LF	\$
630-6-14-grs	Conduit, 4" GRS, (F&I)	LF	\$
630-6-12-grs	Conduit, 2" Fiberglass Bridge Mount (F&I)	LF	\$
630-6-14-grs	Conduit, 4" Fiberglass Bridge Mount (F&I)	LF	\$
630-7-TW	Detectable Tracer Wire (F&I)	LF	\$
630-7-MT	Detectable Marking Tape (F&I)	LF	\$
630-7-JL	Jet Line (F&I)	LF	\$
630-7-ROW	ROW Delineator Marker Post Orange 6' (F&I)	EA	\$
Pull Boxes and Junction Boxes		Per	Unit Price
635-8-444	Manhole, Concrete 4'x4'x4' Steel Lid (F&I)	EA	\$
635-8-232	Handhole, Composite 24"x36"x24" W/ Lid (F&I)	EA	\$
635-8-232TR	Handhole, Composite 24"x36"x24" W/ Lid Traffic Rated (F&I)	EA	\$
635-8-121	Pullboxes, Composite 17"x30"x12" W/ Lid (F&I)	EA	\$
635-8-121TR	Pullboxes, Composite 17"x30"x12" W/ Lid Traffic Rated (F&I)	EA	\$

Group 3		Per	Unit Price
Fiber Optic Cable			
633-4-111-12	FO Cable 12F, SM, LT, Aerial (F&I)	LF	\$
633-4-111-24	FO Cable 24F, SM, LT, Aerial (F&I)	LF	\$
633-4-111-48	FO Cable 48F, SM, LT, Aerial (F&I)	LF	\$
633-4-111-96	FO Cable 96F, SM, LT, Aerial (F&I)	LF	\$
633-4-111-144	FO Cable 144F, SM, LT, Aerial (F&I)	LF	\$
633-4-112-12	FO Cable 12F, SM, ADSS, Aerial (F&I)	LF	\$
633-4-112-24	FO Cable 24F, SM, ADSS, Aerial (F&I)	LF	\$
633-4-112-48	FO Cable 48F, SM, ADSS, Aerial (F&I)	LF	\$
633-4-112-96	FO Cable 96F, SM, ADSS, Aerial (F&I)	LF	\$
633-4-112-144	FO Cable 144F, SM, ADSS, Aerial (F&I)	LF	\$
633-4-113-12	FO Cable 12F, SM, LT, UG (F&I)	LF	\$
633-4-113-24	FO Cable 24F, SM, LT, UG (F&I)	LF	\$
633-4-113-48	FO Cable 48F, SM, LT, UG (F&I)	LF	\$
633-4-113-96	FO Cable 96F, SM, LT, UG (F&I)	LF	\$
633-4-113-144	FO Cable 144F, SM, LT, UG (F&I)	LF	\$
633-4-117-12	FO Cable 12F, SM, Drop Cable (F&I)	LF	\$
633-4-123-12	FO Cable 12F, MM, LT, UG (F&I)	LF	\$
633-4-123-24	FO Cable 24F, MM, LT, UG (F&I)	LF	\$
633-4-123-48	FO Cable 48F, MM, LT, UG (F&I)	LF	\$
633-4-123-96	FO Cable 96F, MM, LT, UG (F&I)	LF	\$
633-4-123-144	FO Cable 144F, MM, LT, UG (F&I)	LF	\$
Fiber Optic Cable - ISP		Per	Unit Price
633-4-115-12	FO Cable 12F, SM, Riser (F&I)	LF	\$
633-4-115-24	FO Cable 24F, SM, Riser (F&I)	LF	\$
633-4-115-48	FO Cable 48F, SM, Riser (F&I)	LF	\$
633-4-115-96	FO Cable 96F, SM, Riser (F&I)	LF	\$
633-4-115-144	FO Cable 144F, SM, Riser (F&I)	LF	\$
633-4-116-12	FO Cable 12F, SM, Plenum (F&I)	LF	\$
633-4-116-24	FO Cable 24F, SM, Plenum (F&I)	LF	\$
633-4-116-48	FO Cable 48F, SM, Plenum (F&I)	LF	\$
633-4-116-96	FO Cable 96F, SM, Plenum (F&I)	LF	\$
633-4-116-144	FO Cable 144F, SM, Plenum (F&I)	LF	\$
633-4-125-12	FO Cable 12F, MM, Riser (F&I)	LF	\$
633-4-125-24	FO Cable 24F, MM, Riser (F&I)	LF	\$
633-4-125-48	FO Cable 48F, MM, Riser (F&I)	LF	\$
633-4-125-96	FO Cable 96F, MM, Riser (F&I)	LF	\$
633-4-125-144	FO Cable 144F, MM, Riser (F&I)	LF	\$
633-4-126-12	FO Cable 12F, MM, Plenum (F&I)	LF	\$
633-4-126-24	FO Cable 24F, MM, Plenum (F&I)	LF	\$
633-4-126-48	FO Cable 48F, MM, Plenum (F&I)	LF	\$
633-4-126-96	FO Cable 96F, MM, Plenum (F&I)	LF	\$
633-4-126-144	FO Cable 144F, MM, Plenum (F&I)	LF	\$
Fiber Optic Cable - Preterm Drops		Per	Unit Price
633-7-151-6PT	FO Cable 6F, SM, Preterm ST, 150' W/Housing (F&I)	EA	\$
633-7-151-12PT	FO Cable 12F, SM, Preterm ST, 150' W/Housing (F&I)	EA	\$

Group 3 - continued			
633-7-152-6PT	FO Cable 6F, SM, Preterm ST, 150' W/Coupler (F&I)	EA	\$
633-7-152-12PT	FO Cable 12F, SM, Preterm ST, 150' W/Coupler (F&I)	EA	\$
Fiber Optic Splicing Terminations - ISP		Per	Unit Price
633-8-12A	FO Splice-Term. Cabinet, 12F, Wall/Rack (F&I)	EA	\$
633-8-12B	FO Splice-Term. Cabinet, 12F, Wall/Rack (F only)	EA	\$
633-8-24A	FO Splice-Term. Cabinet, 24F Wall/Rack (F&I)	EA	\$
633-8-24B	FO Splice-Term. Cabinet, 24F Wall/Rack (F only)	EA	\$
633-8-48A	FO Splice-Term. Cabinet, 48F Wall/Rack (F&I)	EA	\$
633-8-48B	FO Splice-Term. Cabinet, 48F Wall/Rack (F only)	EA	\$
633-8-96A	FO Term. Housing, 96F Wall/Rack (F&I)	EA	\$
633-8-96B	FO Term. Housing, 96F Wall/Rack (F only)	EA	\$
633-8-128A	FO Splice Housing 48-144F (F&I)	EA	\$
633-8-128B	FO Splice Housing 48-144F (F only)	EA	\$
633-8-196A	FO Ter. Housing, 96F Wall/Rack (F&I)	EA	\$
633-8-196B	FO Ter. Housing, 96F Wall/Rack (F only)	EA	\$
633-8-BF-06A	FO Cable Prep, Fanout Kit, Buffer 6F (F&I)	EA	\$
633-8-BF-06B	FO Cable Prep, Fanout Kit, Buffer 6F (F only)	EA	\$
633-8-BF-12A	FO Cable Prep, Fanout Kit, Buffer 12F (F&I)	EA	\$
633-8-BF-12B	FO Cable Prep, Fanout Kit, Buffer 12F (F only)	EA	\$
633-8-SF-12A	FO Cable Prep, Fanout Kit, Spider 12F SM/MM (F&I)	EA	\$
633-8-SF-12B	FO Cable Prep, Fanout Kit, Spider 12F SM/MM (F only)	EA	\$
633-8-912-STA	FO Connector, ST, MM, Unicam (F&I)	EA	\$
633-8-912-STB	FO Connector, ST, MM, Unicam (F only)	EA	\$
633-8-913-STA	FO Connector, ST, SM, Unicam (F&I)	EA	\$
633-8-913-STB	FO Connector, ST, SM, Unicam (F only)	EA	\$
633-8-913-SCA	FO Connector, SC, SM, Unicam (F&I)	EA	\$
633-8-913-SCB	FO Connector, SC, SM, Unicam (F only)	EA	\$
633-8-9-A	FO Jumper, Duplex ST-ST, SM, 10' (F Only)	EA	\$
633-8-9-B	FO Jumper, Duplex ST-SC, SM, 10' (F Only)	EA	\$
633-8-9-D	FO Jumper, Duplex ST-LC, SM, 10' (F Only)	EA	\$
633-8-9-E	FO Jumper, Duplex ST-FC, SM, 10' (F Only)	EA	\$
633-8-9-F	FO Jumper, Duplex SC-SC, SM, 10' (F Only)	EA	\$
633-8-9-G	FO Jumper, Duplex SC-LC, SM, 10' (F Only)	EA	\$
633-8-9-H	FO Jumper, Duplex ST-ST, MM, 10' (F Only)	EA	\$
633-8-9-J	FO Jumper, Duplex SC-SC, MM, 10' (F Only)	EA	\$
Fiber Optic Splicing Terminations - OSP		Per	Unit Price
633-8-12A	FO Splice Closure 12F, Aerial/UG (F&I)	EA	\$
633-8-12B	FO Splice Closure 12F, Aerial/UG (F only)	EA	\$
633-8-24A	FO Splice Closure 24F, Aerial/UG (F&I)	EA	\$
633-8-24B	FO Splice Closure 24F, Aerial/UG (F only)	EA	\$
633-8-48A	FO Splice Closure 48F, Aerial/UG (F&I)	EA	\$
633-8-48B	FO Splice Closure 48F, Aerial/UG (F only)	EA	\$
633-8-96A	FO Splice Closure 96F, Aerial/UG (F&I)	EA	\$
633-8-96B	FO Splice Closure 96F, Aerial/UG (F only)	EA	\$
633-8-RE	FO Closure Reentry Kit, Cable Prep (F&I)	EA	\$

Group 3 - Continued			
633-8-ST-12A	Splice Tray, Fusion Heatshrink, 12F, 12" (F&I)	EA	\$
633-8-ST-12B	Splice Tray, Fusion Heatshrink, 12F, 12" (F only)	EA	\$
633-8-ST-24A	Splice Tray, Fusion Heatshrink, 24F, 12" (F&I)	EA	\$
633-8-ST-24B	Splice Tray, Fusion Heatshrink, 24F, 12" (F only)	EA	\$
633-8-A	Fusion Splice Heat Shrink <.1db OSP includes pigtail as needed (F&I)	EA	\$
633-8-B	OTDR Test Any Wavelength Bare Fiber FOOSC (I only)	EA	\$
OSP Construction - Aerial		Per	Unit Price
633-10-1A	Messenger Cable 1/4" (F&I)	LF	\$
633-10-20	Remove Messenger Cable 1/4" (I Only)	LF	\$
633-10-B	Pole Attach Loose Tube W/J-Hook Concrete (F&I)	EA	\$
633-10-C	Pole Attach Loose Tube W/J-Hook Wood (F&I)	EA	\$
633-10-D	Place Pole Riser 2" GRS (F&I)	LF	\$
633-10-E	Place Riser U-Guard To 20' (F&I)	LF	\$
633-10-F	Place 2" Riser Sealing Bushing 1-3 Hole (F&I)	EA	\$
633-10-G	Place 2" Riser Heatshrink (F&I)	EA	\$
633-10-145	Wood Pole 45' Utility - For CCTV (F&I)	EA	\$
633-10-170	Prestressed Conc Pole 70' Utility For CCTV (F&I)	EA	\$
633-10-600	Down Guy, 1/4", 6' Anchor (F&I)	EA	\$
OSP Construction - UG		Per	Unit Price
633-11-100A	Cat-6 Plenum UTP (avg 150) (F&I)	LF	\$
633-11-100B	Cat-6 Plenum UTP (avg 150) (F only)	LF	\$
633-11-101A	Cat-6 PVC UTP (avg 150) (F&I)	LF	\$
633-11-101B	Cat-6 PVC UTP (avg 150) (F only)	LF	\$
Communication Cabinets - OSP		Per	Unit Price
852-110-336	Cabinet, 35"x24"x22" W/ Conc Base (F&I)	EA	\$
852-110-334	Cabinet, 51.25"x20"x18" W/ Conc Base (F&I)	EA	\$
852-110-60	Cabinet, 37"x20"x17" W/ Conc Base (F&I)	EA	\$
852-130-1	Nema, 3R 19.7"x19.7"x7.9" (F&I)	EA	\$
852-130-2	Nema, 3R 23.6"x23.6"x7.9" (F&I)	EA	\$
852-110-6-1	FO Splice Housing Industrial Nema 3S (F&I)	EA	\$
852-110-6-2	FO Splice Housing Environmental (F&I)	EA	\$
852-110-6-3	FO Splice Housing Cross Connect (F&I)	EA	\$
852-336-1	Device Cabinet Type 336 46"x 24" x 24" (F&I)	EA	\$
852-332-2	Device Cabinet Type 332 66"x 24" x 30" (F&I)	EA	\$
852-336S-3	Device Cabinet Type 336S 48"x 24" x 24" (F&I)	EA	\$
852-335-4	Detector Cabinet Type VI 104" x 108" x 77" (F&I)	EA	\$
Communication Electronics - Power		Per	Unit Price
680-106-1	System UPS, 120VAC 125, Un-Managed (F only)	EA	\$
680-106-3	System UPS, 120VAC 300, Un-Managed (F only)	EA	\$
680-106-5	System UPS, 120VAC 500, Un-Managed (F only)	EA	\$
680-106-7	System UPS, 120VAC 750, Un-Managed (F only)	EA	\$
680-106-15	System UPS, 120VAC 1500, Un-Managed (F only)	EA	\$
680-106-22	System UPS, 120VAC 2200, Un-Managed (F only)	EA	\$

Group 3 - Continued				
Communication Electronics - Datacom			Per	Unit Price
680-201-2	Terminal Server, Ethernet-RS232, 2 Port (F&I)		EA	\$
680-201-4	Terminal Server, Ethernet-RS232, 4 Port (F&I)		EA	\$
680-202-16R	Port Concentrator, RS 232, 16 Port (F&I)		EA	\$
Closed Circuit Television Cameras			Per	Unit Price
682-101B-A	Camera Assembly, OSP (F&I)		EA	\$
682-101B-B	Camera Assembly, OSP (F only)		EA	\$
682-101C-A	Camera Assembly, OSP (F&I)		EA	\$
682-101C-B	Camera Assembly, OSP (F only)		EA	\$
682-101K-A	Camera Assembly, OSP (F&I)		EA	\$
682-101K-B	Camera Assembly, OSP (F only)		EA	\$
682-101V-A	Camera Assembly, OSP (F&I)		EA	\$
682-101V-B	Camera Assembly, OSP (F only)		EA	\$
682-101-VP1	Video Decoder, 1 channel, BNC to Ethernet, (F&I)		EA	\$
682-101-VP2	Video Decoder, 2 channel, BNC to Ethernet, (F&I)		EA	\$
682-101a	Camera Assembly, OSP w/ Lightning Protection, Air Terminals, #2 Cabling, Ground Rod (F&I)		EA	\$
682-101b	CCTV Mount, Mastobrac (F&I)		EA	\$
682-101c	Video Surge Arrestor (F&I)		EA	\$
682-101d	Video Encoder MPEG IV (ITV) (F&I)		EA	\$
682-101e	Video Decoder MPEG IV (ITV)		EA	\$
682-101f	Cable Comp Video Data Power (F&I)		LF	\$
682-101g	Cable, Copper 18ga (F&I)		LF	\$
682-101h	Coax Hybrid RG6 (F&I)		LF	\$
Communication Electronics - Network Devices			Per	Unit Price
684-011-26A	FO Ethernet Switch 10/100, 2opt-6cu (F&I)		EA	\$
684-011-26B	FO Ethernet Switch 10/100, 2opt-6cu (F only)		EA	\$
684-011-44A	FO Ethernet Switch 10/100, 4opt-4cu (F&I)		EA	\$
684-011-44B	FO Ethernet Switch 10/100, 4opt-4cu (F only)		EA	\$
684-011-88A	FO Ethernet Switch 10/100, 8opt-8cu (F&I)		EA	\$
684-011-88B	FO Ethernet Switch 10/100, 8opt-8cu (F only)		EA	\$
684-111-64A	FO Ethernet Switch 10/100/1000, 6opt-4cu (F&I)		EA	\$
684-111-64B	FO Ethernet Switch 10/100/1000, 6opt-4cu (F only)		EA	\$
684-0-1R	FO Ethernet Switch Rack (F&I)		EA	\$
684-0-1PS	FO Ethernet Switch Redundant Power Supply (F&I)		EA	\$
684-121-100	Gigabit Ethernet Switch SM 48 Port 1RU Layer 4 (F&I)		EA	\$
684-121-200	Gigabit Ethernet Switch Layer 3 Upgrade (F&I)		EA	\$
684-121-300	GIBIC Optical Transceiver Port 1 Port SC 10KM (F&I)		EA	\$
684-121-400	Epicenter V4.1 NTWK Mgmt S/W (F&I)		EA	\$

Group 4 Multi-Pair Cables		Per	Unit Price
633-15-101A	Cat 6 Plenum Enhanced (avg 150) (F&I)	LF	\$
633-15-101B	Cat 6 Plenum Enhanced (avg 150) (F only)	LF	\$
633-15-102A	Cat 6 PVC Enhanced (avg 150) (F&I)	LF	\$
633-15-102B	Cat 6 PVC Enhanced (avg 150) (F only)	LF	\$
633-15-100	Cat 5E 25 Pair PVC Plenum (F&I)	LF	\$
633-15-101	Cat 5E 25 Pair PVC Riser (F&I)	LF	\$
633-15-102	Cat 5E 25 Pair PE 89 OSP (F&I)	LF	\$
633-15-110	Face Plate 1 Gang Surface Or Flush (F&I)	EA	\$
633-15-111	Face Plate 2 Gang Surface Or Flush (F&I)	EA	\$
633-15-120	Cat 6 Jacks RJ45 568A/B 1 Port Data (F&I)	EA	\$
633-15-121	Cat 6 Jacks RJ45 568A/B 2 Port Data/Voice (F&I)	EA	\$
633-15-130	Cat 6 Patch Panel Wall Mount 24 Port (F&I)	EA	\$
633-15-131	Cat 6 Patch Panel Rack Mount 48 Port (F&I)	EA	\$
633-15-132	Cat 6 Patch Panel Rack Mount 96 Port (F&I)	EA	\$
633-15-140	Wire Management Panel 19"x1.75" (F&I)	EA	\$
633-15-141	Wire Management Panel 19"x5.25" (F&I)	EA	\$
633-15-100-1	Cat 6 Patch Cords RJ45 1-6' Standard (F&I)	EA	\$
633-15-110-1	Cat 5E Punch Block 110 25 Pair (F&I)	EA	\$
633-15-111-1	Cat 5E Punch Block 66 25 Pair (F&I)	EA	\$
633-15-100-2	Cat 6 CU Drop Certification Test (F&I)	EA	\$
633-15-hdw-br	Cable Support Brackets, Bridle Rings (F&I)	UNIT	\$
633-15-hdw-sp	Cable Raceway, Surface Mount Per Drop (F&I)	DROP	\$
633-15-12	Conduit, EMT 2" W/ All Fittings (F&I)	LF	\$
633-15-13	Conduit, EMT Fire Sleeve 2" (F&I)	EA	\$
633-15-14	Conduit, EMT Fire Sleeve 4" (F&I)	EA	\$
633-15-ST-12	Cable Tray 12" Ladder Alum Black (F&I)	LF	\$
633-15-ST-hdw	Cable Tray, 12", Misc. Hardware (F&I)	LF	\$
633-15-ST-12-1	EIA Rack Wall Mt Hinged 19"x36" (F&I) (Bldg Entry)	EA	\$
633-15-ST-12-2	EIA Rack Free Standing 19"x84" (F&I)	EA	\$
633-15-ST-12-3	Cable Management Kit Horizontal (F&I)	EA	\$
633-15-ST-12-4	Cable Management Kit Vertical (F&I)	EA	\$
633-15-ST-12-5	EIA Cabinets 19"x84"x30" Complete (F&I)	EA	\$

Group 5 Cameras		Per	Unit Price
850-3.1	Camera Assembly, ISP Fixed in wedge housing (F&I)	EA	\$
850-3.1f	Camera Assembly, ISP Fixed in wedge housing (F only)	EA	\$
850-3.2	Camera Assembly, ISP fixed in Dome housing (F&I)	EA	\$
850-3.2f	Camera Assembly, ISP fixed in Dome housing (F only)	EA	\$
850-3.3	Camera Assembly, ISP PTZ in weatherproof / Vandalproof housing (F&I)	EA	\$
850-3.3f	Camera Assembly, ISP PTZ in weatherproof / Vandalproof housing (F only)	EA	\$
850-4.1	Camera Assembly, OSP Fixed in weatherproof housing (F&I)	EA	\$
850-4.1f	Camera Assembly, OSP Fixed in weatherproof housing (F only)	EA	\$
850-4.2	Camera Assembly, OSP fixed in Dome housing (F&I)	EA	\$
850-4.2f	Camera Assembly, OSP fixed in Dome housing (F only)	EA	\$
850-4.3	Camera Assembly, OSP PTZ in weatherproof/Vandalproof housing (F&I)	EA	\$
850-4.3f	Camera Assembly, OSP PTZ in weatherproof/Vandalproof housing (F only)	EA	\$
850-5.1	Network Video Recorder (F&I) 500 GB	EA	\$
850-5.2	Network Video Recorder (F&I) 1 TB	EA	\$
850-5.3	Network Video Recorder (F&I) 2 TB	EA	\$
850-6.1	Video Management Software	EA	\$
682-101f	Cable Comp Video Data Power (F Only)	EA	\$
682-101g	Cable, Copper 18ga (F Only)	EA	\$
682-101h	Coax Hybrid RG6 (F Only)	EA	\$

Group 6 Wireless Communications		Per	Unit Price
950-10-100	Radio 802.11g.AP.54Mb (F&I)	EA	\$
950-10-101	Radio 802.11g.Sub.54Mb (F&I)	EA	\$
950-10-102	Radio 802.11b.AP.11Mb (F&I)	EA	\$
950-10-103	Radio 802.11b.Sub.11Mb (F&I)	EA	\$
950-10-104	Radio 802.11b.P-P.11Mb (F&I)	EA	\$
950-10-105	Radio 802.11a.AP.54Mb (F&I)	EA	\$
950-11-100	Antennae Monopole (F&I)	EA	\$
950-11-101	Antennae Yagi (F&I)	EA	\$
950-11-102	Antennae Flat Panel (F&I)	EA	\$

Will your company extend these prices to other governmental agencies within the State of Florida?

Yes No

The undersigned hereby certifies that they have read and understand the contents of this solicitation and agree to furnish at the prices shown any or all of the items above, subject to all instructions, conditions, specifications, and attachments hereto. Failure to have read all the provisions of this solicitation shall not be cause to alter any resulting contract or request additional compensation.

Company Name: _____

Company Address: _____

City, State _____ Zip Code _____

Telephone: _____

E-mail: _____

Business Tax Receipt Number: _____ FEIN Number: _____

Authorized Signature: _____ **Date:** _____

Name: _____ Title: _____
(Type / Printed)

DRUG-FREE WORKPLACE CERTIFICATION

(Please include this form with your bid)

The undersigned vendor in accordance with Florida Statute 287.087 hereby certifies that _____ does:

(Name of Business)

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 Section 287.087.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.

Company Name

Bidder's Signature

Date: _____

Affidavit of Compliance

(Please include this form with your bid. Failure to include will be interpreted as indication you take no exceptions.)

Indian River County Bid # 2017025 for Annual Bid for Telecommunication Systems Equipment, Material, Supplies, Maintenance, and Installation

We DO NOT take exception to the Bid / Specifications.

We TAKE exception to the Bid / Specifications as follows: _____

Company Name: _____

Company Address: _____

Telephone Number: _____

E-mail: _____

Authorized Signature: _____ Date: _____

Name: _____ Title: _____
(Typed / Printed)

SWORN STATEMENT UNDER SECTION 105.08, INDIAN RIVER COUNTY CODE, ON DISCLOSURE OF RELATIONSHIPS

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICER AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement **MUST** be submitted with Bid, Proposal or Contract No. 2017025 for Annual Bid for Telecommunication Systems Equipment, Material, Supplies, Maintenance, and Installation

2. This sworn statement is submitted by: _____
(Name of entity submitting Statement)

whose business address is: _____
_____ and its Federal Employer Identification Number
(FEIN) is _____

3. My name is _____
(Please print name of individual signing)

and my relationship to the entity named above is _____

4. I understand that an "affiliate" as defined in Section 105.08, Indian River County Code, means:

The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of the entity.

5. I understand that the relationship with a County Commissioner or County employee that must be disclosed as follows:

Father, mother, son, daughter, brother, sister, uncle, aunt, first cousin, nephew, niece, husband, wife, father-in-law, mother-in-law, daughter-in-law, son-in-law, brother-in-law, sister-in-law, stepfather, stepmother, stepson, stepdaughter, stepbrother, stepsister, half brother, half sister, grandparent, or grandchild.

6. Based on information and belief, the statement, which I have marked below, is true in relation to the entity submitting this sworn statement. [Please indicate which statement applies.]

_____ Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the

entity, have any relationships as defined in section 105.08, Indian River County Code, with any County Commissioner or County employee.

_____ The entity submitting this sworn statement, or one or more of the officers, directors, executives, partners, shareholders, employees, members, or agents, who are active in management of the entity have the following relationships with a County Commissioner or County employee:

Name of Affiliate or employee	Name of County Commissioner	Relationship	or entity
<hr/>			
<hr/>			

(Signature)

(Date)

STATE OF _____

COUNTY OF _____

The foregoing instrument was acknowledged before me this __ day of _____, 20, by _____, who is personally known to me or who has produced _____ as identification.

NOTARY PUBLIC

SIGN: _____

PRINT: _____

Notary Public, State at large

My Commission Expires:

(Seal)

CERTIFICATION REGARDING LOBBYING

The undersigned Contractor certifies, to the best of his or her knowledge, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The Contractor, _____, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. § 3801 et seq., apply to this certification and disclosure, if any.

Signature of Contractor's Authorized Official

Name and Title of Contractor's Authorized Official

Date

Bidder Questionnaire

(All Blanks must be filled in and Submitted with your Bid)

Indian River County Bid # 2017025 for Annual Bid for Telecommunication Systems Equipment, Material, Supplies, Maintenance, and Installation

1. How many years has your organization been in the business? _____
2. Number of employees "ON THE JOB" each week? _____
3. Will you subcontract any part of this work? If so, give details and provide name and license number of subcontractors:

4. List Three (3) references of Firms in the State of Florida for which you have performed this type of work. References listed will be contacted for verification purposes.

- 1) Firm _____ Phone # () _____ - _____
Contact _____ Email: _____
- 2) Firm _____ Phone # () _____ - _____
Contact _____ Email: _____
- 3) Firm _____ Phone # () _____ - _____
Contact _____ Email: _____

5. List the location of the local office that will respond to calls for emergency service:

6. List the number of employees (installers, splicers, technicians) that live or are dispatched within 50 miles of Indian River County: _____

7. List license numbers for your firm: _____

8. Have you ever failed to complete work awarded to you: Yes No
If so, where and why? _____

Signed by: _____ Date: _____

Printed Name: _____ Title: _____

Indian River County Fiber Infrastructure Non-Disclosure Acknowledgement

The undersigned hereby acknowledges that pursuant to section 119.071(3), Florida Statutes, security system plans, which include records, information, photographs, audio and visual presentations, schematic diagrams, surveys, recommendations, or consultations or portions thereof relating directly to the physical security of the facility or revealing security systems; threat assessments conducted by Indian River County or any private entity; threat response plans; emergency evacuation plans; sheltering arrangements; or manuals for security personnel, emergency equipment, or security training are confidential and exempt from Florida’s Public Records Law. Additionally, building plans, blueprints, schematic drawings, and diagrams, including draft, preliminary, and final formats, which depict the internal layout and structural elements of a building, arena, stadium, water treatment facility, or other structure owned or operated by Indian River County including Indian River County’s fiber infrastructure are also confidential and exempt from Florida’s Public Records Law.

Therefore, as provided under State law, the undersigned acknowledges and agrees not use any such information described above for any reason other than as expressly authorized in writing by Indian River County. The undersigned further acknowledges that such information will not be disclosed or made available, directly or indirectly, to any other person or entity without Indian River County’s express written consent, except as such disclosure may be required by Florida law. In the event such disclosure is required by Florida law, the undersigned acknowledges and agrees to provide Indian River County with adequate notice in order to allow Indian River County to seek a protective order to preserve the secrecy of such information.

Undersigned hereby declares that the terms of this Fiber Infrastructure Non-Disclosure Acknowledgement have been completely read and are fully understood including the right to retain counsel to review this Fiber Infrastructure Non-Disclosure Acknowledgement. The undersigned knowingly and voluntarily accepts and agrees to abide by the terms of this Fiber Infrastructure Non-Disclosure Acknowledgement.

In witness whereof, undersigned hereto sets my hand(s) and seal(s):

(Printed Name)

Signature

Date

(Title)

(Company Name)

WITNESS:

(Printed Name)

Signature

Date

Sample Agreement

THIS AGREEMENT is by and between INDIAN RIVER COUNTY, a Political Subdivision of the State of Florida organized and existing under the Laws of the State of Florida, (hereinafter called OWNER) and _____ (hereinafter called CONTRACTOR). OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

ARTICLE 1 - WORK

CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

As needed Telecommunication Systems Equipment, Material, Supplies, Maintenance, and Installation

ARTICLE 2 - THE PROJECT

The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

Project Name:	Telecommunication Systems Equipment, Material, Supplies, Maintenance, and Installation
Bid Number:	2017025
Project Address:	Throughout Indian River County

ARTICLE 3 – CONTRACT TIMES

The initial term of this award is from _____ through September 30, 2019, with two one-year renewals available.

ARTICLE 4 – CONTRACT PRICE

Work shall be completed at the prices provided in the Contractor’s bid, and as modified by amendment to this agreement.

ARTICLE 5 – METHOD OF PAYMENT

5.01 Owner shall make only one payment for the entire amount of each work order when the work has been completed. Upon a determination of satisfactory completion, the COUNTY Project Manager will authorize payment to be made. All payments for services shall be made to the CONTRACTOR by the COUNTY in accordance with the Local Government Prompt Payment Act, as may be amended from time to time (Section 218.70, Florida Statutes, et seq.).

ARTICLE 6 - INDEMNIFICATION

6.01 CONTRACTOR shall indemnify and hold harmless the OWNER, 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 CONTRACTOR and persons employed or utilized by the CONTRACTOR in the performance of the Work.

ARTICLE 7 - CONTRACTOR'S REPRESENTATIONS

7.01 In order to induce OWNER to enter into this Agreement CONTRACTOR makes the following representations:

- A. CONTRACTOR has examined and carefully studied the Contract Documents and the other related data identified in the Invitation to Bid documents.
- B. CONTRACTOR has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. CONTRACTOR is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. CONTRACTOR has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by CONTRACTOR, including applying the specific means, methods, techniques, sequences, and procedures of construction, if any, expressly required by the Contract Documents to be employed by CONTRACTOR, and safety precautions and programs incident thereto.
- E. CONTRACTOR does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- F. CONTRACTOR is aware of the general nature of work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Contract Documents.
- G. CONTRACTOR has correlated the information known to CONTRACTOR, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.
- H. CONTRACTOR has given OWNER written notice of all conflicts, errors, ambiguities, or discrepancies that CONTRACTOR has discovered in the Contract Documents, and the written resolution thereof by OWNER is acceptable to CONTRACTOR.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

ARTICLE 8 - CONTRACT DOCUMENTS

8.01 *Contents*

- A. The Contract Documents consist of the following:

- (1) This Agreement (pages 1 to __, inclusive);
- (2) Notice to Proceed or Purchase Order
- (3) Public Construction Bond(s) (as required by Owner for projects exceeding \$100,000);
- (4) Certificate of Liability Insurance
- (5) Invitation to Bid 2017025
- (6) Addenda (numbers __ to __, inclusive);
- (7) CONTRACTOR'S Bid Form (pages __ to __, inclusive);
- (8) Bidders Questionnaire (pages __ to __, inclusive);
- (9) Drug Free Workplace Form (pages __ to __, inclusive)
- (10) Affidavit of Compliance (page __);
- (11) Sworn Statement Under Section 105.08, Indian River County Code, on Disclosure of Relationships (pages __ to __, inclusive);
- (12) Certification Regarding Lobbying
- (13) Non-Disclosure Statement
- (14) The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
 - a) Written Amendments;
 - b) Work Change Directives;
 - c) Change Order(s).

ARTICLE 9 - MISCELLANEOUS

9.01 *Terms*

- A. Terms used in this Agreement will have the meanings indicated in the Invitation to Bid.

9.02 *Assignment of Contract*

- A. No assignment by a party hereto of any rights under or interests in the Agreement will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may

not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

9.03 *Successors and Assigns*

- A. OWNER and CONTRACTOR each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

9.04 *Severability*

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and CONTRACTOR, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

9.05 *Venue*

- A. This Agreement shall be governed by the laws of the State of Florida. Venue for any lawsuit brought by either party against the other party or otherwise arising out of this Agreement shall be in Indian River County, Florida, or, in the event of a federal jurisdiction, in the United States District Court for the Southern District of Florida.

9.06 *Public Records Compliance*

- A. Indian River County is a public agency subject to Chapter 119, Florida Statutes. The Contractor shall comply with Florida's Public Records Law. Specifically, the Contractor shall:

- (1) Keep and maintain public records required by the County to perform the service.
- (2) Upon request from the County's Custodian of Public Records, provide the County with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119 or as otherwise provided by law.
- (3) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the County.
- (4) Upon completion of the contract, transfer, at no cost, to the County all public records in possession of the Contractor or keep and maintain public records required by the County to perform the service. If the Contractor transfers all public records to the County upon completion of the contract, the Contractor shall destroy any duplicate public records that are exempt or

confidential and exempt from public records disclosure requirements. If the contractor keeps and maintains public records upon completion of the contract, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the County, upon request from the Custodian of Public Records, in a format that is compatible with the information technology systems of the County.

B. IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT:

(772) 226-1424

publicrecords@ircgov.com

Indian River County Office of the County Attorney

1801 27th Street

Vero Beach, FL 32960

C. Failure of the Contractor to comply with these requirements shall be a material breach of this Agreement.

ARTICLE 10 – FEDERAL CLAUSES

10.01 OWNER and CONTRACTOR will adhere to the following, as applicable to any work under this agreement that is eligible for federal funding:

A. Equal Employment Opportunity:

During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.

(3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(5) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions as may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, That in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the contractor may request the United States to enter into such litigation to protect the interests of the United States.

B. Compliance with the Contract Work Hours and Safety Standards Act:

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The Owner shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for

unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section.

C. Clean Air Act:

(1) The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.

(2) The contractor agrees to report each violation to the Owner and understands and agrees that the Owner will, in turn, report each violation as required to assure notification to the Recipient (if applicable), Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.

(3) The contractor agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FEMA.

D. Federal Water Pollution Control Act:

(1) The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.

(2) The contractor agrees to report each violation to the Owner and understands and agrees that the Owner will, in turn, report each violation as required to assure notification to the Recipient (if applicable), Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.

(3) The contractor agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FEMA.

E. Energy Policy and Conservation Act – The Contractor agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.

F. Suspension and Debarment

(1) This contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such the contractor is required to verify that none of the contractor, its principals (defined at 2 C.F.R. § 180.995), or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).

(2) The contractor must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.

(3) This certification is a material representation of fact relied upon by Indian River County. If it is later determined that the contractor did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to Recipient and Indian River County, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.

(4) The bidder or proposer agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any

contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

- G. Byrd Anti-Lobbying Amendment** (31 U.S.C. § 1352 (as amended)—Contractors who apply or bid for an award of \$100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient.
- H. Procurement of Recycled/Recovered Materials:**
- (1) In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired—
- (i) Competitively within a timeframe providing for compliance with the contract performance schedule;
 - (ii) Meeting contract performance requirements; or
 - (iii) At a reasonable price.
- (2) Information about this requirement is available at EPA’s Comprehensive Procurement Guidelines website, <http://www.epa.gov/cpg/>. The list of EPA-designate items is available at <http://www.epa.gov/cpg/products.htm>.
- I. Access to Records** The following access to records requirements apply to this contract:
- (1) The contractor agrees to provide Owner, the FEMA Administrator, the Comptroller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions.
- (2) The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.
- (3) The contractor agrees to provide the FEMA Administrator or his authorized representatives access to construction or other work sites pertaining to the work being completed under the contract.
- J. DHS Seal, Logo, and Flags:** If any work under this agreement is federally-funded, the contractor shall not use the DHS seal(s), logos, crests, or reproductions of flags or likenesses of DHS agency officials without specific FEMA pre-approval.
- K. Compliance with Federal Law, Regulations, and Executive Orders:** This is an acknowledgement that FEMA financial assistance may be used to fund work under this contract. The contractor will comply with all applicable federal law, regulations, executive orders, FEMA policies, procedures, and directives.
- L. No Obligation by Federal Government:** The Federal Government is not a party to this contract and is not subject to any obligations or liabilities to the non-Federal entity, contractor, or any other party pertaining to any matter resulting from the contract.

- M. **Program Fraud and False or Fraudulent Statements or Related Acts:** The contractor acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to the contractor's actions pertaining to this contract that may be federally-funded.
- P. **AFFIRMATIVE STEPS:** CONTRACTOR shall take the following affirmative steps to ensure minority business, women's business enterprises and labor surplus area firms are used when possible:
- (1) Placing qualified small and minority businesses and women's business enterprises on solicitation lists.
 - (2) Ensuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources.
 - (3) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises.
 - (4) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises.
 - (5) Using the services and assistance of the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.

Article 11: TERMINATION OF CONTRACT

- A. The occurrence of any of the following shall constitute a default by CONTRACTOR and shall provide the OWNER with a right to terminate this Contract in accordance with this Article, in addition to pursuing any other remedies which the OWNER may have under this Contract or under law:
- (1) if in the OWNER's opinion CONTRACTOR is improperly performing work or violating any provision(s) of the Contract Documents;
 - (2) if CONTRACTOR neglects or refuses to correct defective work or replace defective parts or equipment, as directed by the Engineer pursuant to an inspection;
 - (3) if in the OWNER's opinion CONTRACTOR's work is being unnecessarily delayed and will not be finished within the prescribed time;
 - (4) if CONTRACTOR assigns this Contract or any money accruing thereon or approved thereon; or
 - (5) if CONTRACTOR abandons the work, is adjudged bankrupt, or if he makes a general assignment for the benefit of his creditors, or if a trustee or receiver is appointed for CONTRACTOR or for any of his property.
- B. OWNER shall, before terminating the Contract for any of the foregoing reasons, notify CONTRACTOR in writing of the grounds for termination and provide CONTRACTOR with ten (10) calendar days to cure the default to the reasonable satisfaction of the OWNER.
- C. If the CONTRACTOR fails to correct or cure within the time provided in the preceding Sub-Article B, OWNER may terminate this Contract by notifying CONTRACTOR in writing. Upon receiving such notification, CONTRACTOR shall immediately cease all work hereunder and shall forfeit any further right to possess or occupy the site or any materials thereon; provided, however, that the OWNER may authorize CONTRACTOR to restore any work sites.
- D. The CONTRACTOR shall be liable for:

- (1) any new cost incurred by the OWNER in soliciting bids or proposals for and letting a new contract; and
- (2) the difference between the cost of completing the new contract and the cost of completing this Contract;
- (3) any court costs and attorney's fees associated with any lawsuit undertaken by OWNER to enforce its rights herein.

E. TERMINATION FOR CONVENIENCE: OWNER may at any time and for any reason terminate CONTRACTOR's services and work for OWNER's convenience. Upon receipt of notice of such termination CONTRACTOR shall, unless the notice directs otherwise, immediately discontinue the work and immediately cease ordering of any materials, labor, equipment, facilities, or supplies in connection with the performance of this Contract. Upon such termination Contractor shall be entitled to payment only as follows:

- (1) the actual cost of the work completed in conformity with this Contract and the specifications; plus,
- (2) such other costs actually incurred by CONTRACTOR as are permitted by the prime contract and approved by the OWNER.

Contractor shall not be entitled to any other claim for compensation or damages against the County in the event of such termination.

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement in duplicate. One counterpart each has been delivered to OWNER and CONTRACTOR. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR or on their behalf.

This Agreement will be effective on _____, 20__ (the date the Agreement is approved by the Indian River County Board of County Commissioners, which is the Effective Date of the Agreement).

OWNER:

CONTRACTOR:

INDIAN RIVER COUNTY _____

By: _____
Joseph E. Flescher, Chairman

By: _____
(Contractor)

By: _____
Jason E. Brown, County Administrator

(CORPORATE SEAL)

Attest _____

APPROVED AS TO FORM AND LEGAL SUFFICIENCY:

By: _____
Dylan Reingold, County Attorney

Address for giving notices:

Jeffrey R. Smith, Clerk of Court and Comptroller

License No. _____
(Where applicable)

Attest: _____
Deputy Clerk

(SEAL)

Agent for service of process: _____

Designated Representative:
Name: Manny Cabo
Title: Telecommunications Manager
Address: 1801 27th Street, Vero Beach, FL 32960
Phone: 772-226-1318
Email: mcabo@ircgov.com

Designated Representative:
Name: _____
Title: _____
Address: _____

Phone: _____
Email: _____

(If CONTRACTOR is a corporation or a partnership, attach evidence of authority to sign.)

PUBLIC CONSTRUCTION BOND

INSTRUCTION FOR PUBLIC CONSTRUCTION BOND

The front or cover page to the required public construction/payment and performance bond shall contain the information required by Fla. Stat. 255.05(1)(a), and be substantially in the format shown on the first page following this instruction.

The Public Construction Bond shall be in the form suggested by Fla. Stat. 255.05(3) as shown on the second page following this instruction.

A Power of Attorney from a surety insurer authorized to do business in Florida, authorizing the signature of the Attorney in Fact who executes the Public Construction Bond shall accompany that Bond.

**Public Work
F.S. Chapter 255.05 (1)(a)
Cover Page**

THIS BOND IS GIVEN TO COMPLY WITH SECTION 255.05 OR SECTION 713.23 FLORIDA STATUTES, AND ANY ACTION INSTITUTED BY A CLAIMANT UNDER THIS BOND FOR PAYMENT MUST BE IN ACCORDANCE WITH THE NOTICE AND TIME LIMITATION PROVISIONS IN SECTION 255.05(2) OR SECTION 713.23 FLORIDA STATUTES.

BOND NO: _____

CONTRACTOR NAME: _____

CONTRACTOR ADDRESS: _____

CONTRACTOR PHONE NO: _____

SURETY COMPANY NAME: _____

SURETY PRINCIPAL _____

BUSINESS ADDRESS: _____

SURETY PHONE NO: _____

OWNER NAME: _____

OWNER ADDRESS: _____

OWNER PHONE NO: _____

OBLIGEE NAME: _____

(If contracting entity is different from the owner, the contracting public entity)

OBLIGEE ADDRESS: _____

OBLIGEE PHONE NO: _____

BOND AMOUNT: _____

CONTRACT NO: _____

(If applicable)

DESCRIPTION OF WORK: _____

PROJECT LOCATION: _____

LEGAL DESCRIPTION: _____

(If applicable)

FRONT PAGE

All other bond page(s) are deemed subsequent to this page regardless of any page number(s) that may be printed thereon.

PUBLIC CONSTRUCTION BOND

Bond No. _____
(enter bond number)

BY THIS BOND, We _____, as Principal and _____, _____ a corporation, as Surety, are bound to _____, herein called Owner, in the sum of \$_____, for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.

THE CONDITION OF THIS BOND is that if Principal:

1. Performs the contract dated _____, _____, between Principal and Owner for construction of _____, the contract being made a part of this bond by reference, at the times and in the manner prescribed in the contract; and
2. Promptly makes payments to all claimants, as defined in Section 255.05(1), Florida Statutes, supplying Principal with labor, materials, or supplies, used directly or indirectly by Principal in the prosecution of the work provided for in the contract; and
3. Pays Owner all losses, damages, expenses, costs, and attorney's fees, including appellate proceedings, that Owner sustains because of a default by Principal under the contract; and
4. Performs the guarantee of all work and materials furnished under the contract for the time specified in the contract, then this bond is void; otherwise it remains in full force.

Any action instituted by a claimant under this bond for payment must be in accordance with the notice and time limitation provisions in Section 255.05(2), Florida Statutes.

Any changes in or under the contract documents and compliance or noncompliance with any formalities connected with the contract or the changes does not affect Surety's obligation under this bond.

DATED ON _____,

(Name of Principal)

By _____
(As Attorney in Fact)

(Name of Surety)