



**THE ESCAMBIA COUNTY DISTRICT
PURCHASING DEPARTMENT
75 NORTH PACE BLVD.
PENSACOLA, FL 32505**

REQUEST FOR PROPOSAL (RFP) & PROPOSAL ACKNOWLEDGMENT

POSTING DATE:
September 11, 2015

PURCHASING CONTACT & TELEPHONE:
Anya Klinginsmith (850-469-6204)

RFP TITLE:
Communications Cabling

RFP NUMBER:
160704

RFP OPENING DATE & TIME:

October 2, 2015 3:30 CENTRAL TIME

NOTE: PROPOSALS RECEIVED AFTER THE RFP OPENING DATE AND TIME WILL NOT BE ACCEPTED.

The District of Escambia County, Florida, solicits your company to submit a proposal on the above referenced goods or services. All terms, specifications and conditions set forth in this request are incorporated by this reference into your response. Proposals will not be accepted unless all conditions have been met. All proposals must have an authorized signature in the space provided below. All proposals must be sealed and received in the District's Purchasing Office at 75 North Pace Blvd., Pensacola, Florida, by the "RFP Opening Date & Time" referenced above. All envelopes containing sealed proposals must reference the "RFP Title", "RFP Number" and the "RFP Opening Date & Time". The District is not responsible for lost or late delivery of Proposals by the U.S. Postal Service or other delivery services used by the Responder. Proposals may not be withdrawn for a period of sixty (60) days after the opening date unless otherwise specified.

THE FOLLOWING MUST BE COMPLETED, SIGNED, AND RETURNED AS PART OF YOUR PROPOSAL. PROPOSALS WILL NOT BE ACCEPTED WITHOUT THIS FORM, SIGNED BY AN AUTHORIZED AGENT OF THE RESPONDER.

COMPANY NAME:

MAILING ADDRESS:

CITY, STATE, ZIP:

FEDERAL EMPLOYER'S IDENTIFICATION NUMBER (FEIN):

TELEPHONE NUMBER: (EXT:) FACSIMILE NUMBER:

EMAIL:

HOW DID YOU FIND OUT ABOUT THIS RFP? DISTRICT WEBSITE____ BIDNET____ DEMAND STAR____ PRIME RESPONDER____
OTHER (PLEASE SPECIFY_____)

I CERTIFY THAT THIS PROPOSAL IS MADE WITHOUT PRIOR UNDERSTANDING, AGREEMENT, OR CONNECTION WITH ANY OTHER RESPONDER SUBMITTING A PROPOSAL FOR THE SAME MATERIALS, SUPPLIES, EQUIPMENT OR SERVICES, AND IS IN ALL RESPECTS FAIR AND WITHOUT COLLUSION OR FRAUD. I AGREE TO ABIDE TO ALL TERMS AND CONDITIONS OF THIS RFP AND CERTIFY THAT I AM AUTHORIZED TO SIGN THIS RFP FOR THE RESPONDER. SIGNING THIS ACKNOWLEDGEMENT ALSO AFFIRMS THAT THE ORIGINAL REQUEST FOR PROPOSAL DOCUMENT HAS NOT BEEN ALTERED IN ANY WAY.

AUTHORIZED SIGNATURE:

TYPED OR
PRINTED NAME:

TITLE:

DATE:

I. INTRODUCTION & GENERAL INFORMATION

The School District of Escambia County (the "District") is soliciting written proposals from qualified telecommunication firms for the purpose of providing comprehensive as-needed District Wide Communications Cabling installation as described further. The District, located in Northwest Florida, consists of currently thirty-one (31) elementary schools, nine (9) middle schools, seven (7) high schools and seven (7) other educational centers. Due to the size and varied needs of the District, this RFP may be awarded to the top two (2) ranked Responders.

II. GENERAL TERMS AND CONDITIONS

NOTE: The term "Responder" as used within this Request For Proposal (RFP) refers to the person, company or organization responding to this RFP. The Responder is responsible for understanding and complying with the terms and conditions herein.

- A. **GENERAL:** Upon an RFP award, the terms and conditions of this RFP or any portion thereof, may upon mutual agreement of the parties be extended for an additional term(s) or for additional quantities (all original terms and conditions will remain in effect). Subject to the mutual consent of the parties, the pricing, terms and conditions of this RFP, for the products or services specified herein, may be extended to other municipal, city or county government agencies, school boards, community or junior colleges, or state universities within the State of Florida.
- B. **RFP OPENING AND FORM:** Proposal openings will be public on the date and time specified on the Proposal Acknowledgement form. All proposals received after the time indicated will be rejected as non-responsive and retained by the District. Proposals by email, fax, telegram, or verbally by telephone or in person will not be accepted. The public opening will acknowledge receipt of the Proposals only; details concerning pricing or the offering will not be announced. All proposals submitted will become public record upon an announcement of a recommended award or thirty (30) days after the opening date whichever occurs first. To protect any confidential information contained in their Proposal, companies must invoke the exemptions to disclosure provided by law in response to the RFP, and must identify the data and other material to be protected, and must state the reasons why such exclusion from public disclosure is necessary.
- C. **WARRANTY:** All goods and services furnished by the Responder(s), relating to and pursuant to this RFP will be warranted to meet or exceed the Specifications contained herein. In the event of breach, the Responder(s) will take all necessary action, at Responder's expense, to correct such breach in the most expeditious manner possible.
- D. **PRICING:** All pricing submitted will include all packaging, handling, shipping charges, and delivery to any point within Escambia County, Florida to a secure area or inside delivery. The School Board is exempt and does not pay Federal Excise and State of Florida Sales Taxes.
- E. **TERMS OF PAYMENT / INVOICING:** The normal terms of payment will be Net 30 Days from receipt and acceptance of goods or services and Responder's invoice. Itemized invoices, each bearing the Purchase Order Number must be mailed on the day of shipment. Invoicing subject to cash discounts will be mailed on the day that they are dated.

- F. **TRANSPORTATION AND TITLE:** (1) Title to the goods will pass to the District upon receipt and acceptance at the destination indicated herein. Until acceptance, the Responder(s) retain the sole insurable interest in the goods. (2) The shipper will prepay all transportation charges. The District will not accept collect freight charges. (3) No premium carriers will be used for the District's account without prior written consent of the Director of Purchasing.
- G. **PACKING:** All shipments will include an itemized list of each package's content, and reference the District's Purchase Order Number. No charges will be allowed for cartage or packing unless agreed upon by the District prior to shipment.
- H. **INSPECTIONS AND TESTING:** The District will have the right to expedite, inspect and test any of the goods or work covered by this RFP. All goods or services are subject to the District's inspection and approval upon arrival or completion. If rejected, they will be held for disposal at the Responders' risk. Such inspection, or the waiver thereof, however, will not relieve the Responder(s) from full responsibility for furnishing goods or work conforming to the requirements of this RFP, and will not prejudice any claim, right, or privilege the District may have because of the use of defective or unsatisfactory goods or work.
- I. **STOP WORK ORDER:** The District may at any time by written notice to the Responder stop all or any part of the work for this RFP award. Upon receiving such notice, the Responder(s) will take all reasonable steps to minimize additional costs during the period of work stoppage. The District may subsequently either cancel the stop work order resulting in an equitable adjustment in the delivery schedule, the price, or terminate the work in accordance with the provisions of the RFP terms and conditions.
- J. **INSURANCE AND INDEMNIFICATION:** The Responder(s) agrees to indemnify and save harmless the District, its officers, agents and employees from and against any and all claims and liabilities (including expenses) for injury or death of persons or damage to any property which may result, in whole or in part, from any act or omission on the part of the Responder(s), its agents, employees, or representatives, or are arising from any Responder(s) furnished goods or services, except to the extent that such damage is due solely and directly to the negligence of the District. The Responder(s) will carry comprehensive general liability insurance, including contractual and product liability coverage, with minimum limits acceptable to the District. The Responder(s) will, at the request of the District, supply certificates evidencing such coverage.
- K. **RISK OF LOSS:** The Responder(s) assumes the following risks: (1) all risks of loss or damage to all goods, work in process, materials and equipment until the delivery thereof as herein provided; (2) all risks of loss or damage to third persons and their property until delivery of all goods as herein provided; (3) all risks of loss or damage to any property received by the Responder(s) or held by the Responder(s) or its suppliers for the account of the District, until such property has been delivered to the District; (4) all risks of loss or damage to any of the goods or part thereof rejected by the District, from the time of shipment thereof to Responder(s) until redelivery thereof to the District.
- L. **LAWS AND REGULATIONS:** Responder(s) will comply with all applicable Federal, State and Local laws, statutes and ordinances including, but not limited to the rules, regulations and standards of the Occupational Safety and Health Act of 1970, the

Federal Contract Work Hours and Safety Standards Act, and the rules and regulations promulgated under these Acts. Responder(s) agree not to discriminate against any employee or applicant for employment because of race, sex, religion, color, age or national origin.

All agreements as a result of an award hereto and all extensions and modifications thereto and all questions relating to its validity, interpretation, performance or enforcement will be governed and construed in conformance to the laws of the State of Florida.

- M. **PUBLIC ENTITY CRIMES:** A Responder, person, or affiliate who has been placed on the convicted Contractor list following a conviction for a public entity crime may not submit a proposal for a RFP to provide any goods or services to a public entity for the construction or repair of a public building or public work, may not submit proposals on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, sub-contractor, 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 State Statute, Section 287.017, for CATEGORY TWO for a period of thirty-six (36) months from the date of being placed on the convicted Contractor list.
- N. **PATENTS:** Responders agree to indemnify and save harmless the District, its officers, employees, agents, or representatives using the goods specified herein from any loss, damage or injury arising out of a claim or suit at law or equity for actual or alleged infringement of letters of patent by reason of the buying, selling or using the goods supplied under this solicitation, and will assume the defense of any and all suits and will pay all costs and expenses thereto.
- O. **CONFLICT OF INTEREST:** The award hereunder is subject to the provisions of Chapter 112 Florida Statutes. All Responders must disclose the name of any company owner, officer, director or agent who is an employee of the District, is an employee of the District and owns, directly or indirectly, an interest of five percent (5%) or more of the company.
- P. **TERMINATION: DEFAULT.** The District may terminate all or any part of a subsequent award by giving notice of default to Responder(s), if Responder(s): (1) refuses or fails to deliver the goods or services within the time specified; (2) fails to comply with any of the provisions of this RFP or so fails to make progress as to endanger performances, hereunder, or; (3) becomes insolvent or subject to proceedings under any law relating to bankruptcy, insolvency, or relief of debtors. In the event of termination for default, the District's liability will be limited to the payment for goods and services delivered and accepted as of the date of termination. **CONVENIENCE.** The District may terminate for its convenience at any time, in whole or in part any subsequent award. In which event of termination for convenience, the District's sole obligations will be to reimburse Responder(s) for (1) those goods or services actually shipped/performed and accepted up to the date of termination, and (2) costs incurred by Responder(s) for unfinished goods, which are specifically manufactured for the District and which are not standard products of the Responder(s), as of the date of termination, and a reasonable profit thereon. In no event is the District responsible for loss of anticipated profit nor will reimbursement exceed the amounts paid to Responder(s) under this RFP.

- Q. **DRUG-FREE WORKPLACE:** Whenever two (2) or more RFPs are equal with respect to price, quality, and service, an RFP received from a business that certifies that it has implemented a drug-free workplace program as defined by Section 287.087 Florida Statutes, will be given preference in the award process.
- R. **PERFORMANCE:** In an effort to reduce the cost of doing business with the District, and unless indicated elsewhere, no bid or performance bond is required. However, upon award and subsequent default by Responder(s), the District reserves the right to pursue any or all of the following remedies: (1) to accept the next lowest available RFP price or to purchase materials or services on the open market, and to charge the original awardees for the difference in cost via a deduction to any outstanding or future obligations; (2) the Responder(s) in default will be prohibited from activity for a period of time determined by the severity of the default, but not exceeding two (2) years; (3) any other remedy available to the District in tort or law.
- S. **AUDIT AND INSPECTION:** The District or its representative reserves the right to inspect or audit all Responder(s) documents and records as they pertain to the products and services delivered under this RFP award. Such rights will be exercised with notice to the Responder(s) to determine compliance with and performance of the terms, conditions and specifications on all matters, rights and duties, and obligations established by this agreement. Documents/records in any form will be open to the District's representative and may include but are not limited to all correspondence, ordering, payment, inspection and receiving records, and contracts or sub-contracts that directly or indirectly pertain to the transactions between the District and the Responder(s).
- T. **SAMPLES AND BRAND NAMES: BRAND NAMES.** Specifications referencing specific brand names and models are used to reflect the kind and type of quality in materials and workmanship, and the corresponding level of performance the District expects to receive as a minimum. Responders offering equivalents or superior products to the brand/model referenced will: (1) reference in their proposal the manufacturer's name, brand name, model or part number; (2) next to the price Responders will indicate "ALT" to reflect an alternate offering; (3) where no sample is provided with the RFP; Responders will enclose sufficient technical specification sheets and literature to enable the District to reach a preliminary evaluation; (4) the District may request and Responders agree to submit a sample or to provide its product on-trial or demonstration, whichever the District may deem appropriate, at no charge to the District; (5) the District reserves the right to determine the acceptability of any alternatives offered. **SAMPLES.** Any sample requested by this RFP or to be provided at the Responder's option, should be forwarded under separate cover to the attention of the Purchasing Department of the District. The package or envelope will reference the RFP Number, RFP Title, and RFP Item Number and clearly marked "Samples". All samples will be provided free of charge, including transportation charges. Responders are responsible for notifying and making arrangements for pick up from the District if a return of samples is expected. All samples unclaimed for thirty (30) days will be disposed of at the discretion of the District.
- U. **EVALUATION CRITERIA:** Primary factors used to decide the award hereunder will be price, quality, availability, Responder(s) experience, references, and responsiveness. Other factors that may be used in the evaluation of proposals received will be: (1) administrative costs incurred by the District in association with the discharge of any subsequent award; (2) alternative payment terms; (3) Responder(s) past performance. The District reserves the right to evaluate by lot, by partial lot, or by item, and to

accept or reject any proposal in its entirety or in part, and to waive minor irregularities if the proposal is otherwise valid. In the event of a price extension error, the unit price will be accepted as correct. The District has sole discretion in determining testing and evaluation methods. The District may consider in conjunction to any award hereunder, those products, services and, prices available to them through contracts from state, federal, and local government agencies or other Districts within the State of Florida.

- V. **CLARIFICATIONS AND INTERPRETATIONS:** The District reserves the right to allow for clarification of questionable entries, and for the Responder(s) to withdraw items with obvious mistakes. Any questions concerning terms, conditions or specifications will be directed to the designated Purchasing Agent referenced on page 1. Any ambiguities or inconsistencies will be brought to the attention of the designated Purchasing Agent in writing by 5:00 PM CST of Wednesday, September 16, 2015. The answers to the questions will be posted on the Purchasing website address no later than Friday, September 18th, 2015 by 5:00 PM CST at <http://ecsd-fl.schoolloop.com/purchasing/bids>. Failure to submit questions/concerns to the Purchasing Agent noted on Page 1 within the time required will convey a thorough understanding and acceptance of the required Scope of Work by the Responder(s) as outlined in this RFP. An addendum to the RFP will be issued and posted for those interpretations that may affect the eventual outcome of this solicitation. It is the responsibility of the Responder(s) to assure the receipt of all addendum issued. No person is authorized to give oral interpretations of, or make oral changes to the RFP. Therefore oral statements given before the RFP opening date will not be binding. The District will consider no interpretations binding unless provided for by issuance of an addendum. Addenda will be posted to the District's Purchasing website address at <http://ecsd-fl.schoolloop.com/purchasing/bids>. The Responder(s) will acknowledge receipt of all addenda by signing and enclosing said addenda with their proposal.
- W. **RFP TABULATIONS, RECOMMENDATIONS, AND PROTEST:** RFP tabulations with award recommendations are posted for seventy-two (72) hours in the Purchasing Office and are also posted to the District's Purchasing website address at <http://ecsd-fl.schoolloop.com/purchasing/bids>. Failure to file a protest within the time prescribed in Section 120.57(3) Florida State Statutes will constitute a waiver of proceedings under Chapter 120, Florida State Statutes and School Board Rules. RFP tabulations, recommendations or notices will not be automatically mailed.
- X. **CONTACT:** All questions for additional information regarding this RFP **must be directed to the designated Purchasing Agent noted on page one (1)**. Prospective Responders will not contact any member of the Escambia County School Board, Superintendent, or staff regarding this solicitation prior to posting of the final tabulation and award recommendation on the website and in the Purchasing Office. Any such contact will be cause for rejection of your proposal.
- Y. **PROPOSAL PREPARATION COSTS:** Neither the District nor its representatives will be liable for any expenses incurred in connection with the preparation of a response to this proposal.
- Z. **AGREEMENT FORM:** All subsequent agreements as a result of an award hereunder, will incorporate all terms, conditions and specifications contained herein, and in response hereto, unless mutually amended in writing.

- AA. **ADDITIONAL TERMS AND CONDITIONS:** The District reserves the right to reject offers containing terms and/or conditions contradictory to those requested in this solicitation.

III. SPECIAL CONDITIONS These "SPECIAL CONDITIONS" are in addition to or supplement Section II GENERAL TERMS AND CONDITIONS. In the event of a conflict these SPECIAL CONDITIONS will have precedence.

- A. **EMPLOYEE SCREENINGS:** If services are to be provided when District students are present, or the Responder(s) will have access to District funds, or the Responder(s) will be working directly with students, the following additional provision is herein incorporated and made a part of this agreement by this reference:

Responder(s) will comply with all requirements of Sections 1012.32 and 1012.465, Florida Statutes; by certifying that the Responder(s) and all of its employees who provide services under this RFP have completed the background screening required by the referenced statutes and meet the standards established by the statutes. This certification will be provided to the District in the form of a list of employees with current badge expiration dates to be verified no later than sixty (60) days after award or in advance of the Responder(s) providing any services on campus while students are present, whichever is sooner. The Responder(s) will bear the cost of acquiring the background screening required by Section 1012.32, Florida Statutes and any fee imposed by the Florida Department of Law Enforcement to maintain the fingerprints provided with respect to Responder(s) and its employees. The Responder(s) will follow the procedures for obtaining employee background screening as outlined on the District Website: <http://ecsd-fl.schoolloop.com>. Responder(s) will update these lists in the event that any employee listed fails to meet the statutory standards or new employees who have completed the background check and meet standards are added. The parties agree that in the event that Responder(s) fails to perform any of the duties described in this paragraph, this will constitute a material breach of the Agreement entitling the District to terminate immediately with no further responsibility to make payment or perform any other duties under this Agreement. Responder(s) agree(s) to indemnify and hold harmless the District, its officers and employees from any liability in the form of physical injury, death, or property damage resulting from Responder(s) failure to comply with the requirements of this paragraph or Sections 1012.32 and 1012.465, Florida Statutes.

- B. **RISK MANAGEMENT PROVISIONS:** Anything in the foregoing Articles to the contrary notwithstanding, each Responder thereof hereby agrees to:

1. **HOLD HARMLESS/INDEMNIFICATION AGREEMENT:** Save and hold harmless, pay on behalf of, protect, defend, and indemnify the School Board, (including the Superintendent of Schools, the District, their officers, agents, and employees) from and against any demand, claim, suit, loss, expense, or damage which may be asserted against any of them in their official or individual capacities by reason of any alleged damage to property, or injury to, or death of any person arising out of, or in any way related to, any action or inaction of the Responder (including its sub-contractors, officers, agents, and employees) in the performance or intended performance of this Agreement, or the maintenance of any facility, or the operation of any program, which is the subject of, or is related to the performance of this agreement. The obligations of the Responder(s)

pursuant to this paragraph will not be limited in any way by any limitation in the amount or type of proceeds, damages, compensation, or benefits payable under any policy of insurance or self-insurance maintained by or for the use and benefit of the Responder(s).

2. **REQUIRED INSURANCE:**
 - a. Maintain, keep in full force and effect during the term of this RFP and any extensions and renewals thereof, and furnish to the District's Purchasing Department good and sufficient evidence of general liability and auto liability insurance in an amount not less than \$1,000,000 with an insurance company rated not lower than "A" by A. M. Best and Company. The School Board will be named as an additional insured. The policy and evidence of such insurance will be endorsed so as to provide coverage for all liability hereby contractually assumed by the Responder(s) and a copy thereof will be delivered to the attention of the Purchasing Agent at the address provided on page 1 of the RFP no later than sixty (60) days after RFP award or before beginning performance of this Agreement, whichever is sooner. Such insurance will not be subject to cancellation, non-renewal, reduction in policy limits or other adverse change in coverage, except with forty-five (45) days prior written notice to the School Board, which notice will be given by U.S. Certified Mail with return receipt requested to the undersigned. No other form of notification will relieve the insurance company, or its agents, or representatives of responsibility.
 - b. If this RFP involves performance by officers, employees, agents or sub-contractors of the Responder(s), the Responder(s) will also maintain, keep in full force and effect during the term of this RFP and any extensions and renewals thereof, and furnish to the undersigned good and sufficient evidence of Workers' Compensation insurance in the amount required by Florida Statutes Chapter 440, and Employer Legal Liability Insurance in the amount of \$100,000.
- C. **CONFLICT OF INTEREST:** The Responder(s) affirm(s) that, to the best of its knowledge, there exists no actual or potential conflict between the Responder(s) family, business, or financial interests and its services under this Agreement; and, in event of change in either its private interests or services under this Agreement, the Responder(s) will raise with the District any questions regarding possible conflict of interest which may arise as a result of such change.
- D. **THE RESPONDER(S) AS INDEPENDENT CONTRACTOR(S):** The Responder(s) will have sole control over the manner and means of providing the services performed under this Agreement. The Responder(s) relationship to the District under this Agreement will be that of an Independent Contractor. The Responder(s) will not be considered an agent or employee of the District for any purpose.

As an Independent Contractor, the Responder(s) is/are responsible for all taxes incident to payments for services herein, including without limitation, all state and federal income taxes payroll and other taxes, and Workers' Compensation.
- E. **COMPLIANCE WITH LAWS:** The Responder(s) agrees to comply with all applicable laws, statutes, regulations, rulings, or enactments of any governmental authority. The Responder(s) will obtain from third parties, including State and local governments, all licenses and permissions necessary for the performance of the work. In the event that any changes or updates to the laws, regulations, statutes, rulings or enactments of

any applicable governmental authority resulting in additional administrative, reporting or documentation costs will not be charged to the District during the term of this Agreement, including any additional renewals.

- F. **GOVERNING LAWS:** This Agreement is to be governed and construed in accordance with the laws of the State of Florida. The parties agree that jurisdiction for the resolution of any legal issues arising out of this Agreement will be solely with the Circuit Courts of Escambia County, Florida. The parties hereby waive venue in any other forum.
- G. **EXAMINATION OF RECORDS:** The Responder(s) agrees that the District, the Comptroller General of the United States of America, the Inspector General of the Federal Sponsoring Agency, and the Auditor General of the State of Florida or their duly authorized representatives will have access to, and the right to examine, any directly pertinent books, papers, and records of the Responder(s) involving transactions related to this Agreement until the expiration of five (5) years after final payment under this Agreement or such longer period as required by law. In the event that any provided services are designated as either E-rate eligible or for disaster recovery, the retention period will then be ten (10) years from date of last payment.
- H. **FLORIDA'S PUBLIC RECORDS LAW:** Responder(s) will comply with Florida's Public Records Law. Specifically, Responder(s) agrees that it will:
1. Keep and maintain public records that ordinarily and necessarily would be required by the District in order to perform the services performed by Responder(s) under the Agreement.
 2. Provide the public with access to such public records on the same terms and conditions that the District would provide the records and at a cost that does not exceed that provided in Chapter 119, Florida Statutes, or as otherwise provided by law.
 3. Ensure that public records that are exempt or that are confidential and exempt from public record requirements are not disclosed except as authorized by law.
 4. Meet all requirements for retaining public records and transfer to the District, at no cost, all public records in possession of Responder(s) upon termination of the RFP and destroy any duplicate public records that are exempt or confidential and exempt. All records stored electronically must be provided to the District in a format that is compatible, as specified by the District's Information Technology Department Director or his designee.
 5. The failure of Responder(s) to comply with the provisions set forth will constitute a default and breach and may result, at the District's sole discretion, to terminate this RFP with no penalties and to pursue other remedies as available.
- I. **EX PARTE COMMUNICATION:** Ex parte communication, whether verbal or written, by any potential Responder(s) or representative of any potential Responder(s) to this solicitation with District personnel involved with or related to this RFP, other than as expressly designated in this document, is strictly prohibited. Violation of this restriction may result in the rejection/disqualification of the Responder(s) proposal.

Ex parte communication (whether verbal or written) by any potential Responder(s) or representative of any potential Responder(s) to this solicitation with District Board members is also prohibited and will result in the disqualification of the Responder(s).

Any current Responder meetings with District staff and administration, or instructional personnel will at no time include any conversation regarding the solicitation.

J. COVENANT AGAINST CONTINGENT FEES: The Responder(s) warrants that no person or selling agency has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, percentage, brokerage, or contingency fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Independent Contractor for purposes of securing business. For breach or violation of this warranty, the District will have the right to terminate this Agreement without liability, or, in its discretion, to deduct from the Agreement price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage or contingent fee.

M. INVOICES: Invoices must detail the type of activity, by whom, and the project name. Audits will be conducted at the discretion of the District. Successful Responder(s) agree(s) that all documentation necessary to validate pricing listed on invoice will be provided to the requesting District representative within ten (10) business days of the written request. In the event additional time is required to obtain the necessary documentation, the successful Responder(s) will notify the District designee within five (5) business days of the District's written request and provide a specified date that the documentation will be ready, which will not exceed thirty (30) days from the date of the written request. Further, the Responder(s) agree(s) that payment for the invoice in question will be held, without penalty to the District, until the requested documentation has been provided and reviewed by the District, which will not be unreasonably delayed.

N. MISCELLANEOUS:

1. The submission of a proposal will be prima facie evidence that the Responder(s) has/have full knowledge of the scope, nature, quantity and quality of work to be performed; the detailed requirements of the specifications; and the conditions under which the work is to be performed.
2. Any proposal may be withdrawn until the date and time set for the opening of the RFP. Any proposal not so withdrawn will constitute an irrevocable offer to provide the District the services/products set forth in this RFP. Such offer will be held open for a period of ninety (90) days from RFP opening day or until one (1) of the proposals has been awarded by the District.
3. The District reserves the right to use other existing contracts when determined to be in their best interest. The District also reserves the right to bid separately any item(s) or service(s) covered under this RFP if deemed to be in the best interest of the District at any time during the term of this Agreement.
4. Except as it relates to any warranty provision established by this Agreement, and in addition to any and all rights by the parties in law or equity, the Successful Responder(s) may terminate this Agreement at any time with ninety (90) days written notice to other without penalty. The District may unilaterally terminate this Agreement in writing at any time. In the event of termination, the Successful

Responder(s) (a) will be responsible for the delivery of all equipment for orders received up to the date of termination, or (b) may mutually be canceled without penalty upon agreement by the parties. The District will be responsible for payment of all goods, materials, and services ordered, received and accepted prior to termination. All warranty provisions as it relates to services/parts purchased during this Agreement will survive any termination between the parties regardless of cause and the supplier agrees to be obligated to continue to provide warranty repair service when and where needed as if no termination has occurred.

5. All pricing will remain firm through the term of each Agreement Year, which will be December 1 to November 30. Pricing will be comprised of reimbursement for parts at the price paid by the Responder(s) (inclusive of taxes and shipping) which will be verified by submission of the Responder(s) invoice(s) with the District's invoice and labor as priced in the proposal based on the number and type of crew required to complete the work. In the event that the materials purchased for fulfillment of District work are grouped together with a larger order for other entities; the District will only be responsible for payment of prorated taxes and shipping equal to the scope of work required.

Only price change requests for labor will be considered and must be submitted in writing, with justification, by September 1st of each Agreement year, to the Purchasing Agent listed on page one in order to be considered for the following Agreement year. Price change requests must be based on this specific Consumer Price Index (CPI) to be considered: "Consumer Price Index for All Urban Consumers (CPI-U)", South-Size Class B/C, not seasonally adjusted, as published by the Bureau of Labor Statistics, United States Department of Labor (or the replacement index therefore published by the Bureau of Labor Statistics or its successor if the Consumer Price Index has been discontinued, or if there is not such replacement index, a reasonably comparable index selected by the District). The request will be reviewed and any reasonable objections raised will be provided in writing to the Responder(s) within fifteen (15) business days. In the event there is no objection made, then the rate adjustment will be conclusive. In the event of reasonable disagreement regarding the request, the District will continue to pay the prior Agreement year rate until such disagreement is resolved, in which case, the District will pay the difference as reasonably agreed upon by the parties (such agreement to be conclusive). In the event the parties cannot reach a reasonable agreement within sixty (60) business days, then the Superintendent or his designee will conclusively determine the issue.

6. No work shall begin without first receiving either a Purchase Order for the specific job or receiving prior authorization to bill the work on the End User's District Purchasing Card (with no additional fees to be charged). Every job shall be billed separately with a detailed invoice clearly identifying the cost breakdown between materials, labor and include Responder(s) invoice(s) showing price paid by Responder(s) for materials which will be sent to the End User and then billed in one (1) total charge.
7. Responder(s) must acquire or have acquired a "Service Provider Information Number" (SPIN) from the Schools and Libraries Division (SLD) of the Universe Service Administrative Company. For further information go to the SLD website, www.sl.universalservice.org. Proof of SPIN must be provided to the Purchasing Agent listed on page 1 no later than ninety (90) days from contract award.

8. During the course of the Agreement, including renewals, should the District encounter performance issues in the execution of this RFP, the District will begin documenting information concerning those instances. After three (3) instances are recorded within an Effective Year, a meeting will occur involving representatives from the Responder in question, the Purchasing Department and the Information Technology Department to address. If performance does not improve in accordance with the established benchmarks from the joint meeting, the District reserves the right to terminate the Agreement with that Responder. Should an instance be of such severity that the District has reasonable concern for the safety or viability of network, then the District reserves the right to request an immediate meeting to address the issue without waiting for three (3) documented records.
- O. **DEFINITIONS:** For the purposes of this Request for Proposal (RFP) and future agreements, the following definitions apply:
1. **Data Communications:** Data communications is a designation referring to any stand-alone or bundled equipment, systems, or services (including but not limited to: all cable types; wireless and hardwired electronics; transport and monitoring protocols; operating systems; miscellaneous components, materials, and supplies; and certified personnel) that facilitate and/or maintain the capacity to transfer data, voice, or video over the District's LAN's, MAN, closed Circuits, and Telephony networks.
 2. **Inside Plant:** Inside plant is a designation applied to any data communications equipment, systems, or services located on District property. Predominately, but not exclusively, inside plant refers to data communications equipment, systems, and services providing connectivity within individual District facilities (LAN's, Local Area Networks).
 3. **Outside Plant:** Outside plant is a designation applied to any data communications equipment, systems, or services located outside District property. Predominately, but not exclusively, outside plant refers to data communications equipment, systems, or services providing connectivity among District facilities (collectively referred to as the District MAN, Metropolitan Area Network).

IV. PROJECT OBJECTIVES The key objectives of this project include but are not limited to:

- Develop and maintain a consistency of installation types and methods in a logical format.
- Establish a reliable source for parts and services related to Communication Cabling install and repair.
- Establish a reliable source for parts and services to critical systems during time periods designated as states of emergency or following natural disasters.
- Completion of services in a timely manner to provide the least amount of disruption to student learning.

-Use of Responder(s) qualified personnel to provide services and workmanship equal to or exceeding current industry standards.

V. SCOPE OF WORK OR SERVICES The District invites proposals from qualified firms experienced in providing comprehensive District-wide Communication Cabling installation and repair. This work includes all locations in the District both current and in the future over the course of this Agreement.

A. **Term of Agreement.** The District will enter into an annually renewable Agreement for up to five (5) years upon mutual consent (and approval by the School Board of Escambia County, Florida) with up to two (2) Responder(s). This Agreement may then be extended annually upon mutual consent (and approval by the School Board of Escambia County, Florida) for a total of five (5) additional years. The Agreement's first Effective Year begins December 1, 2015 and ends November 30, 2016. Annual expenditures will vary based on need and availability of funds. This Agreement includes all materials, equipment and labor necessary to install, test and certify systems.

B. **Distribution of Award.** The District reserves the right to award this RFP to the two (2) top ranked Responder(s). Should that occur, the Responder(s) will be labeled "Primary" or "Secondary" based on their respective final scoring. The Primary will receive first right of refusal of work offered. In the event the Primary is unable or unwilling, the work offered will be provided to the Secondary. During declared emergencies, both Responders will be offered work based on geographic area to be completed simultaneously. Should either Primary or Secondary be terminated due to performance issues, the remaining Responder will assume the full scope of award. At all times, the District reserves the right to request quotes from both Primary and Secondary for specific work with an estimated cost of \$10,000.00 or more and to award accordingly.

C. **Condition of Materials.** All services and material provided will be in accordance with the District's "TELECOMMUNICATIONS DESIGN STANDARD FOR ALL BUILDING CONSTRUCTION & TECHNOLOGY RETROFIT PROJECTS" (ATTACHMENT A). Therefore it is imperative that you are familiar with all details outlined in this document. All equipment and material will be new. Used, refurbished, damaged or deteriorated equipment and material is **NOT** acceptable.

D. **District Points of Contact following Award.**

a. **Technical/Performance of Work: Brian Johnson**
850-469-6226
bjohnson@escambia.k12.fl.us

b. **Contract Performance: Anya Klinginsmith**
850-469-6204
aklinginsmith@escambia.k12.fl.us

The Successful Responder(s) will:

-Review and study the attached District documentation titled "Telecommunications Design Standard for All Building Construction & Technology Retrofit Projects" (Attachment A).

-Submit **ANY** questions regarding the administrative or technical aspects of this RFP only to the Purchasing Agent on page 1 by the designated date and time. Communications of any form with any other person regarding this RFP may result in the Responder(s) proposal(s) being disqualified.

- Complete and submit documentation as outlined in Section VIII Questionnaire and Response.
- Provide the District with a pricing proposal that is most favorable to the District while retaining the best overall value as evaluated by the District.

VI. TIME SCHEDULE The anticipated schedule for this RFP and contract award is as follows:

Friday, September 11, 2015: RFP Posted

Wednesday, September 16, 2015, at 5:00 PM CST: Deadline for Questions

No later than Friday, September 18, 2015, at 5:00 PM CST: Answers to the submitted Questions and any applicable Addenda posted to the District Purchasing website.

Friday, October 2, 2015 at 3:30 PM CST: RFP Opening followed by distribution of copies of proposals to Evaluation Committee

Tuesday, October 20, 2015: Evaluation

On or about Monday, October 26, 2015: Finalize School Board Agenda Item / Post Award Recommendation

Tuesday, November 17, 2015: Board Approval - RFP Award Date

Tuesday, December 1, 2015: Agreement Commencement Date

Inquiries regarding the status of a proposal must not be made prior to the posting of award recommendation.

VII. PREPARATION AND SUBMISSION REQUIREMENTS It is the practice of the District to evaluate all RFP's in an open public forum pursuant to Florida Statute S286.011 and to make available for public inspection and copying any information received in response to an RFP, in accordance with Florida Statute Chapter 119, as such any information sent to the District is being sent into the public domain. No action on the part of the Responder(s) would create an obligation of confidentiality on the part of the District, including but not limited to, making a reference in the proposal to the trade secret statutes, Florida Statutes §§ 812.081, 815.045. It is recommended that potential Responders exclude from their response any information that, in their judgment, may be considered a trade secret.

VIII. QUESTIONNAIRE AND RESPONSE The Responder(s) will complete the information requested as well as provide any additional information requested. This information will be used to determine supply and material cost for a typical job as well as a factor in determining lowest and best Responder(s). Responder(s) response(s) will describe fully how they propose to accomplish the scope of services defined above. Responder(s) will provide, as requested, job estimates at no charge to the District (which may include system design). Additionally, the Responder(s) must respond to warranty service requests as outlined in Attachment A and emergency service requests within an average of two (2) hours, and act as the District advocate in warranty issues with manufacturers. **Your proposal will discuss the following in the sequence listed below.**

PROPOSAL MUST INCLUDE AND BE IN THE FORMAT AS FOLLOWS: Proposals not conforming to the instructions provided herein will be subject to disqualification at the sole option of the District. In order

to maintain comparability and enhance the review process, it is required that items 1-9 below be organized in the manner specified in all proposals. Include all information in your proposal. Responders are encouraged to provide tab separations for each item. Proposals received which do not contain ALL items listed in this section will be considered non-responsive at the sole discretion of the District. The number of points in the parenthesis is the total potential number of points for award.

1. TITLE PAGE (5 points):

*Labeled "COMMUNICATIONS CABLING, RFP 160704

*Name and address of the organization's headquarters. If there is a local office, please provide the name and address as well.

*Contact person with title, a phone number and an email address.

2. TABLE OF CONTENTS (1 point): clear identification of the material by section and by page number.

3. SIGNED LETTER OF TRANSMITTAL (5 points):

*Name(s) of the person(s) with titles, phone numbers and email addresses who will be authorized to make representations for the Responder(s)

*Include an express agreement to meet the performance specifications in this RFP

4. REQUIRED RESPONSE FORM (Page 1 of RFP) (4 points):

*All required information completed

*All signatures as specified.

**Note: Any modifications or alterations to this form will not be accepted and proposal will be rejected. The enclosed original Required Response Form will be the only acceptable form.

5. ADDENDA COPY INCLUDED (5 points).

6. NARRATIVE (65pts): addressing each of the points outlined below under the title "Narrative", in proper sequence.

7. SIGNED CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY, AND VOLUNTARY EXCLUSION FORM (see pages 19 and 20) (5 points).

8. SIGNED DRUG FREE WORKPLACE (if applicable, see page 21) (5 points).

9. SIGNED CONFLICT OF INTEREST DISCLOSURE (see page 22) (5 points).

10. One (1) original, plus five (5) copies of your proposal, in a sealed package will be delivered to:

Attn: Anya Klinginsmith, Purchasing Department

Escambia County School District

75 North Pace Blvd.

Pensacola, FL 32505

Tag: COMMUNICATIONS CABLING – RFP #160704

NARRATIVE SECTION:

1. **Company Background (5 points):** Provide a brief company biography (two (2) pages maximum), including:

a. Overview of the organization

b. Ownership structure with location of corporate headquarters and number of branch offices

c. Short history about how the organization has developed

d. Years in business as a Telecommunications provider

e. Primary focus of business dealings

- f. Location and hours of operation for the office from which the work for the District would be performed
- g. Number of employees
 - i) Total in organization
 - ii) Total at location servicing District
- h. Number of technicians, split out by full-time, part-time and “as-needed” located at the office that will service the District
- i. Number of technicians certified as Registered Communications Distribution Designer (“RCDD”)
 - i) Number of technicians located at the office that will service the District
- j. Number of BICSI certified technicians
 - i) Number of technicians located at the office that will service the District
- k. Provide information on current multi-year contracts held by the office that will service the District. If there are other contracts held by corporate, indicate whether the staff at the local office serving the District may be recalled to assist on other projects.
- l. What makes your firm unique?
- m. Include with proposal three prior years of income statements and balance sheets to demonstrate stability through i n c r e a s e d /steady sales, income, and net worth.

2. References (5 points): Provide a list of at least five (5) references (educational/institutional clients preferred), in which you have provided similar services as proposed in this RFP, preferably within the past five (5) years. These references will be contacted and asked questions by the District relative to your performance. By supplying reference contact information in your proposal, you are authorizing the District to check your previous performance. Please include the following:

- a) Client name
- b) Client address
- c) Contact name
- d) Phone number
- e) Email address if available

3. Catastrophe Response (10 points): The District has experienced interruptions in other lengthy projects in the past due to catastrophes such as hurricanes. Provide a plan to deal with catastrophes experienced by the District or by your organization. Include a ranking of the District’s priority in relation to other entities within government, private and public sectors in the event that your organization’s services are requested. Also state the number of current contracts for those entities.

4. Performance Parameter Commitment (15 points):

- a) State the average time it will take to respond on site to a request for quote.
- b) State the average time it will take to respond on site after a receipt of a Purchase Order.
- c) State the average time it will take to respond to a trouble call for warranty repairs.
- d) Describe the process the District would utilize to effect repair/replacement of a malfunctioning cable drop or network component.
- e) Indicate if components acquired from other sources would be installed by your organization at labor only rates.
- f) List equipment / brands which your company is an authorized reseller and certified installer.
- g) List a site within fifty (50) miles of Pensacola, FL where we may view a project your company has completed, preferably one of in the range of \$ 300,000.00 to \$ 500,000.00. Please include point of contact and phone number to arrange a site visit.
- h) State whether subcontractors are anticipated to be utilized in the performance of this RFP. If sub-contractors are used, provide an overview of the level of service that will be provided by the sub-contractor. Over the course of performance of the Agreement resulting from this RFP, should the sub-contracting parameters change, the Purchasing Agent on page 1 must be notified in writing and School Board approval must be provided prior to the implementation of change.

5. **Primary Manufacturer's Catalog (5 points):** Catalog used for supplies and materials with price sheet showing supplier's cost structure must accompany this proposal submission.

6. **Certification Verification (5 points):** Provide copies of all BICSI certifications for employees that will be located at the office servicing the District.

7. **Pricing (10 points):** As specified with III. Special Conditions, Letter N. Miscellaneous, #5.

- a) Labor Rates (as occurring during the hours of Monday-Friday 7am – 5pm, CST excluding nationally recognized holidays)
 - i) State the hourly rate for a 1 man crew
 - ii) State the hourly rate for a 2 man crew
- b) Labor Rates (as occurring between 5:01pm – 6:59am, CST or during declared states of emergency)
 - i) State the hourly rate for a 1 man crew
 - ii) State the hourly rate for a 2 man crew
- c) How are partial hours billed?
- d) State percentage discounts for jobs in the following price ranges. If none, please state.
 - i) \$ 2,500 - \$ 7,500
 - ii) \$ 7,501 - \$ 10,000
 - iii) \$ 10,001 - \$ 50,000
 - iv) \$ 50,001 - \$ 100,000
 - v) \$ 100,001 and over
- e) E-rate: State the maximum percentage your organization is willing to fund when SPI billing is utilized.
- f) E-rate: List the "Service Provider Information Number" (SPIN) from the Schools and Libraries Division (SLD) of the Universe Service Administrative Company if already acquired.

8. **Warranties (10 points):**

- a) Stated verification of commitment to warranty requirement for Communications Structured Cabling System as listed in Attachment A, Section 17000, Item 10.0. If unable to commit as specified, provide details of what equivalent warranty is offered.
- b) Stated verification of commitment to warranty requirement for Metropolitan Area Network Communications System listed in Attachment A, Section 17150, Item 3.1.2. If unable to commit as specified, provide details of what equivalent warranty is offered.
- c) Stated verification of commitment to warranty requirement for Audio/Visual System listed in Attachment A, Section 17300, Item 1.6. If unable to commit as specified, provide details of what equivalent warranty is offered.
- d) Wiring, both copper and fiber, will carry a five (5) year warranty. The warranty will cover the cost of any and all parts, materials, supplies, and equipment as well as related labor required to return the system to its proper working condition.
- c) Describe your warranty covering parts and workmanship beyond the designated warranty periods specified above. Your response will clearly acknowledge your warranty policy period, exclusions and acceptable warranty repair rate.

IX. EVALUATION AND AWARD Points will be awarded based on the responses in each proposal received. Lack of a response for any item above will receive (0) zero points for that item. All attachments will be clearly marked and reference the appropriate item. Additional information may be submitted by the Responder(s), however, the evaluation committee will be solely responsible for determining the weight if any such information will be assigned.

The District reserves the right to award this RFP to the two (2) top-rated Responders in a Primary and Secondary listing. In the event that this RFP is awarded to two (2) Responders, as outlined in Section V. Scope of Work or Services, Letter B. Distribution of Award.

PROPOSAL EVALUATION PROCESS:

- a) Proposals are received and publicly opened. Only names of Responders are read at this time.
- b) An Evaluation Committee will convene, review and evaluate all proposals submitted based on the factors set forth in the RFP. Purchasing personnel will participate in an administrative and advisory capacity only. The District reserves the right to waive any irregularities and technicalities.
- c) The Evaluation Committee reserves the right to interview any or all Responders and to require a formal presentation with the key people who will administer and be assigned to work on the RFP before recommendation of award. This interview is to be based upon the written proposal received. The District will not be liable for any costs incurred by the Responder in connection with such interviews (i.e., travel, accommodations, etc.). The District also has the right to require Responders(s) to submit additional evidence of qualifications or any other information the District may deem necessary. Such information will not materially change the original proposal response nor serve to allow the addition of new information that was not originally expressed or referenced.
- d) All proposals will be evaluated in accordance with the evaluation criteria specified in this document. Information derived by investigation and overall due diligence of District staff will be considered. Based on the proposals received, the District may elect to proceed based on any of the following options, but will not necessarily be limited only to these options: (1) Award to the two (2) best initial proposals without any further discussion or negotiation; (2) Negotiate with the highest ranked Responder; or, (3) Allow the top ranked Responders to make oral presentations.
- e) Responders are advised to provide their best offer with the initial proposal because the District reserves the right to award a contract based on initial proposals without further discussion or negotiation.
- f) The proposal(s) most advantageous to the District in its sole discretion will be selected. The District reserves the right to negotiate out unacceptable clauses or restrictions incorporated within an otherwise acceptable proposal. In the event that a mutually acceptable Agreement between the District and the selected Responder(s) cannot be successfully negotiated and executed, then the District reserves the right to discontinue negotiations with such Responder(s) and to negotiate and execute a contract with the next-ranked Responder(s).
- g) The District reserves all rights, in its sole discretion, not to issue an award to any Responder, to cancel this RFP at any time, to reissue this RFP for any reason, or a combination of any or all of the above. The District will not be liable to any Responder for any costs incurred in connection with this RFP as a result of any of the above stated actions taken by the District.
- h) The Purchasing Department will prepare and submit a recommendation agenda item to the Superintendent of Schools, Escambia County, Florida. The Superintendent will then recommend the award(s) to the School Board. The School Board will then approve or reject the recommendation.

Certification Regarding Debarment, Suspension, Ineligibility and
Voluntary Exclusion - Lower Tier Covered Transactions

This certification is required by the Department of Education regulations implementing Executive Order 12549, Debarment and Suspension, 34 CFR Part 85, for all lower tier transactions meeting the threshold and tier requirements stated at Section 85.110.

Instructions for Certification

1. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant will provide immediate written notice to the person to whom this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it will not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion-Lower Tier Covered Transactions," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
8. Nothing contained in the foregoing will be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification

(1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

(2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant will attach an explanation to this proposal.

NAME OF APPLICANT	AWARD NUMBER AND/OR PROJECT NAME
PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE	
SIGNATURE	DATE

DRUG FREE WORKPLACE

Preference will be given to businesses with drug-free workplace programs. Whenever two or more proposals which are equal with respect to price, quality, and service are received by the State or by any political subdivision for the procurement of commodities or contractual services, a proposal received from a business that certifies that it has implemented a drug-free workplace program will be given preference in the award process. Established procedures for processing tie proposals will be followed if none of the tied Responders have a drug-free workplace program. In order to have a drug-free workplace program, a business will:

- 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 RFP 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 RFP, the employees 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 five (5) days after such conviction.
- 5) Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
- 6) Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

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

Responder's Signature _____

CONFLICT OF INTEREST DISCLOSURE

Due to the broad scope of this RFP, you as a Responder, are required to sign indicating disclosing any potential conflicts of interest. In the event you believe there is or the possibility of a potential conflict of interest, please supply the information in writing to the Purchasing Agent listed on page 1.

Conflict of Interest and Ethical Considerations. The Responder affirms that, to the best of its knowledge, there exists no actual or potential conflict between the Responder's family, business, or financial interests and its services under this RFP; and, in event of change in either its private interests or services under this RFP, the Responder will raise with the District any questions regarding possible conflict of interest which may arise as a result of such change.

Examples of potential conflicts of interest are listed below:

1. Recent hiring or in-progress consideration for employment of persons that are currently or have been with the District (last three (3) years) in connection to the Information Technology or Facilities Planning Departments.
2. Recent termination (voluntary or otherwise) of Responder's employee(s) to be gainfully employed by the District in connection with either the Information Technology or Facilities Planning Departments.
3. Current bid submission directly or as a sub-contractor with the District's Facilities Planning Department.
4. Holding a consulting, advisory, or other similar position with the District outside of direct correlation of authorized work.
5. Holding any current membership on a committee, board, or similar position with the District.
6. Having a relationship with District personnel specifically connected to Information Technology, Facilities Planning or Purchasing Departments. Additionally, having a relationship specifically connected with School Board personnel or School District Administration, inclusive of the Superintendent, Deputy Superintendent and Assistant Superintendents. This includes any affiliation or relationship by marriage or through family membership, any business or professional partnership, close personal friendship, or any other relationship.

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

Responder's Signature _____

Telecommunications
Design Standard
For
All Building Construction &
Technology Retrofit Projects
For the



Tenth Revision
May 01, 2015

Prepared by:

ECSD Office of Information Technology
850.469.5344

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17000/COMMUNICATIONS STRUCTURED CABLING SYSTEM **Revised 05/01/2015**

1. INTRODUCTION

All telecommunications design work for any facility owned and operated by The School District of Escambia County (ECSD) shall be done in accordance with the most recent revision of these standards.

This section is intended to provide the Architect/Engineer (A/E) guidance in the design of Communications Structured Cabling Systems (SCS). The SCS consists of conduit, cabling, terminal equipment, racks, backboards, wire management and the like that make up the infrastructure serving various technologies including:

- Data Local Area Networks (LANs).
- Metropolitan Area Networks (MANs).
- Telephone service distribution.
- Current and future services offered by the local telephone exchange carrier including plain old telephone (POTS) and the various higher bandwidth offerings.

All related systems shall share common communications spaces and pathways with the SCS. See paragraph 5.0 of this section and related sections.

1.1 DESIGN REQUIREMENTS

The A/E team shall be responsible for a fully developed structured cabling systems (SCS) and related communications systems design. This section provides overall guidance in specific ECSD requirements, but is not intended to provide an exhaustive design methodology nor construction specifications. Unless specifically exempted, the ECSD Office of Information Technology (IT) also requires the services of a BICSI certified (Registered Communications Distribution Designer (RCDD) for all communications systems design services. The A/E shall provide a competent designer who, in the judgment of ECSD IT, is sufficiently experienced to design the SCS in accordance with these guidelines and all applicable standards.

The A/E shall provide detailed drawings and specifications that fully document the SCS. The A/E shall not rely upon the installing contractor to develop the SCS design or to provide detailed drawings for the system.

The types of drawings and level of detail indicated below are mandatory requirements for each telecommunications design project for ECSD with individual considerations to be taken into account for each project. A custom design shall be provided for each school.

17000/COMMUNICATIONS STRUCTURED CABLING SYSTEM **Revised 05/01/2015**

Key design requirements are as follows:

- 1.1.1 Develop and indicate specific topology for the SCS including location and sizing of equipment rooms, backbone conduit sizes and configuration, and backbone cabling pair or strand counts and configuration.
- 1.1.2 Provide dimensionally accurate site floor plans indicating location of all buildings and rooms, correct FISH room numbers, location of all equipment rooms and communications outlets, conduit routing, and other pertinent information.
- 1.1.3 Indicate all cable types and sizes, including end connections and terminal equipment. Provide detailed single line riser diagrams of all voice, data and video systems indicating manufacturer and model number for each system component.
- 1.1.4 Provide detailed layout elevations of all backboards and racks, including all wire management, drawn to scale.
- 1.1.5 Select and properly apply all data equipment including high speed backbone interconnections. Indicate location and mounting of equipment. Incorporate into riser diagrams and backboard and rack elevations.
- 1.1.6 Select and properly apply equipment for wireless network access for all instructional and administrative areas for each facility. Indicate physical location of all access points and their required power connections. Incorporate into riser diagrams and specify equipment requirements. Quantity of access points shall be dependent on the anticipated data connectivity demands for each area served.
- 1.1.7 Select and properly apply all telephone equipment. Indicate location and mounting. Incorporate into riser diagrams and backboard elevations. Indicate interfaces to Media Retrieval and Intercom System equipment as required.
- 1.1.8 Select and properly apply all ITV and Media Retrieval equipment. Indicate location and mounting. Incorporate into riser diagrams and backboard elevations.

2.1 STANDARDS AND ABBREVIATIONS

2.2 STANDARDS

All work shall be designed in accordance with the most recent School Board approved revision of these standards. Where there is a perceived conflict between a listed standard and this guideline, the A/E shall design the work as directed by ECSD IT.

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NFPA	National Fire Protection Association
TIA/EIA568	Telecommunications Industry Association / Electronic Industries Association "Commercial Building Telecommunications Wiring Standard" –B.1, 2, 3
EIA/TIA569	Electronic Industries Association / Telecommunications Industry Association "Commercial Building Standard for Telecommunications Pathways and Spaces" – B – 2004
TIA/EIA607	Telecommunications Industry Association / Electronic Industries Association Commercial Building "Grounding and Bonding Requirements for Telecommunications"
TIA/EIA606A	Telecommunications Industry Association / Electronic Industries Association Commercial Building "Administrative Standard"
TIA/EIA758	Telecommunications Industry Association / Electronic Industries Association Commercial Building "Customer-Owned Outside Plant Telecommunications Cabling Standard"
IEEE 802.3	Institute of Electrical and Electronics Engineers - LAN Standard for Ethernet
IEEE 802.11	Institute of Electrical and Electronics Engineers - LAN Standard for Wireless Ethernet
BICSI TDMM	BICSI, A Telecommunications Association, "Telecommunications Distribution Methods Manual", Twelfth Edition, adopted 2010

All materials and equipment shall be UL listed for the intended application.

2.3 ABBREVIATIONS

A/E	- Architect/Engineer
SCS	- Communications Structured Cabling System
OSP	- Outside Plant
CER	- Communications Equipment Room
CC	- Communications Closet
CP	- Communications Panel
CO	- Communications Outlet
BICSI	- Building Industry Consulting Service International
RCDD	- Registered Communications Distribution Designer

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3.0 EXISTING TECHNOLOGIES

The design for new networks shall include detailed provisions for integration with or replacement of all existing networks as directed by ECSD IT.

ECSD provides MAN (Metropolitan Area Network) interface equipment, but each design must conveniently accommodate such interfaces.

4.0 SCS TOPOLOGY

The general design of the SCS shall be in accordance with TIA/EIA-568 and shall be a hierarchical star. Horizontal cabling shall extend from the CER, CCs and CPs to COs and shall not exceed 90 meters (295 feet) in actual length. Backbone cabling shall extend from the CER to CCs and from the CER to CPs and shall not exceed 500 meters (1640 feet) in actual length to accommodate **Ten** Gigabit Ethernet services over multimode fiber optic cabling. The SCS shall incorporate cabling and equipment for wireless Ethernet access for all instructional and administrative areas.

The SCS shall be designed to support telephone services as well as data services. Current data equipment requirements are specified under Section 17025 and Appendix A. Current telephone equipment requirements are specified under Section 17050.

5.1 COMMUNICATIONS SPACES AND PATHWAYS

5.2 COMMUNICATIONS EQUIPMENT ROOM (CER)

A CER is defined as a telecommunications room that serves as the main communications equipment room in a school campus. This room will house some or all of the following systems:

- telecommunications (PBX/KSU/ESSX/VoIP) equipment
- broadband CATV equipment
- data network equipment
- lightning protection
- fiber optic cable terminations
- building automation system equipment
- building security and fire alarm equipment
- overhead paging systems

All school campuses shall have one Communications Equipment Room. The smallest dimension permitted for any CER shall not be less than 12' X 12'.

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ECSD IT shall provide final square footage approval for any CER before construction documents are issued however this room shall not be less than 12' x 12', except in specifically approved situations. The Communications Equipment Room is the central equipment space to which all star wired segments of the network attach. Space shall be reserved for other technologies that share the same space. CERs shall not be located in rooms which house HVAC, plumbing, electrical power panels, or other equipment.

CERs shall be cooled by the primary building HVAC with a supplemental mini-split unit for times when the primary system set point is raised. CERs shall be provided with HVAC services with dedicated thermostats. Do not locate CERs in a perimeter space with vented doors (i.e. similar to outside access mechanical and electrical rooms). All CER's shall be environmentally controlled to maintain a temperature range of 65 to 85 degrees Fahrenheit and relative humidity of 50%. Conditions shall be capable of being maintained 24 hours per day, 7 days per week.

Cover all walls of CER with 8'-0" high 3/4" exterior grade AC plywood primed and finished with 2 coats of gray fire retardant semi-gloss enamel paint. Provide lighting to 50 footcandles at 3'-0" above the finished floor. Provide surge protected and filtered power as required for convenient service to all devices requiring power. As a minimum provide three quadraplex power receptacles on each long wall and one quadraplex power receptacle on each short wall. Indicate specific location of receptacles relative to equipment served. All receptacles shall be non-switched and surge suppression type. Provide racks, cable tray, and wire management as required for a uniformly organized installation.

5.3 COMMUNICATIONS CLOSET (CC)

A CC is defined as a telecommunications room that serves as an intermediate connecting point for the building horizontal and vertical cabling and information systems. This room will typically serve a portion of a floor for a large building or a free-standing school building.

CCs shall not be located in rooms which house HVAC, plumbing, electrical power panels, or other equipment. CCs shall be cooled by the primary building HVAC with a supplemental mini-split unit for times when the primary system set point is raised. All CC's shall be environmentally controlled to maintain a temperature range of 65 to 85 degrees Fahrenheit and relative humidity of 50% shall be maintained 24 hours per day, 7 days per week. Do not locate CCs in a perimeter space with vented doors (i.e. similar to outside access mechanical and electrical rooms).

CC's shall be approximately 8' x 8' in size or equivalent. The smallest dimension of any room (CER or CC) shall not be less than 6' for any reason.

GENERAL REQUIREMENTS

Janitorial or storage space is not suitable for telecommunications rooms. Telecommunications rooms shall not be used to store materials or janitorial supplies.

Shallow telecommunications closets are strictly prohibited and shall not be permitted for any reason.

Minimum clearances for equipment and cross-connect fields in the telecommunications closet:

- Allow a minimum of 3.0 ft. of clear working space from equipment and cross connect fields.
- Equipment racks or cabinets should be provided within the telecommunications closet (room). Allocate a space at least 32 in. deep and 7 ft., 6 in. high for each rack or cabinet. Provide space for an aisle at least 32 in. wide

To facilitate the proper installation, routing and placement of cables, wires, premise equipment and terminal fields, CC's shall be located in the middle of the floor, and stacked one above the other (if multiple floors). Rooms shall be placed to minimize cable lengths, such that no length of cable exceeds 260 feet horizontally (this length will assure the maximum cable distance of 295' is maintained.).

Doors shall be 3' W x 7' H. Doors shall open fully into the corridor. Some exceptions may apply. Floors shall be tile or sealed concrete. No carpet shall be installed in telecommunications rooms.

All rooms shall be provided with 2' x 2' acoustical ceiling tile grid ceilings. No rooms shall be permitted to have ceilings exposed to the building structure.

Fire treated plywood, 3/4" thick, shall be provided on all walls in the CER and CCs with (2) coats of fire retardant paint, light gray in color.

Install multiple 3" or 4" conduits sleeves between CC's and CER's. Quantity shall be as required by the project.

Install overhead ladder cable tray in CER's and CC's on all walls and extend to the data racks in the room. Cable tray shall be 12" W x 1-1/2"D, typical. Provide racks, cable tray, and wire management as required for a uniformly organized installation.

ELECTRICAL AND MECHANICAL REQUIREMENTS

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All CER's and CC's shall be environmentally controlled to maintain a temperature range of 65 to 85 degrees Fahrenheit and relative humidity of 50%. Conditions shall be capable of being maintained 24 hours per day, 7 days per week. If these conditions cannot be maintained 24 hours per day, 7 days per week, HVAC units dedicated to these rooms must be installed.

Whenever possible; plumbing, HVAC ductwork, and electrical conduit shall be routed around telecommunications spaces. Active supply ducts shall not be allowed over rack or communications equipment in any situation.

Provide 2' X 4' fluorescent fixtures, ceiling mounted, as required, to provide 50 foot-candles at 3' AFF. All lighting should be connected to emergency power when available and/or contain battery backup. All ballast types shall be electronic.

Provide quad 120V receptacles on each wall at 6' intervals, at standard 18" AFF height. Provide additional, dedicated 20 amp, duplex 120V receptacles mounted on overhead cable tray. Quantity and locations shall be as shown on construction drawings. Coordinate with Information Technology for any 30A or atypical power requirements. Provide surge protected and filtered power as required for convenient service to all devices requiring power. All power receptacles shall be non-switched and surge suppression type.

5.4 COMMUNICATIONS PANEL (CP)

Communication Panels shall only be used when specifically permitted by ECSD IT.

A Communications Panel is a mini-CC within an enclosed hinged lockable Panel or a specific purpose wall mounted cabinet. All components of the CP, including a surge protected and filtered power source, surge suppression type power receptacle, and telephone terminal blocks, shall be enclosed within the panel or cabinet. CPs shall be star attached to the CER unless special topologies are needed and approved by ECSD IT. Provide slotted wireway and wire management as required for a uniformly organized installation.

5.5 COMMUNICATIONS CONDUIT, RACEWAY AND CABLE TRAY

Design in accordance with all applicable standards and the following specific requirements:

5.4.1 CONDUITS FOR BACKBONE CABLING

All backbone cabling shall be run continuously in conduit. Provide conduits between the

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CER and CCs and between the CER and CPs as follows:

- Exterior underground: Direct burial grade schedule 80 PVC electrical conduit. Elbows turning up to aboveground shall be rigid galvanized threaded and coated. All underground conduits shall be installed with a traceable identifier marker and aboveground markers shall be placed at all turns in conduit runs.
- Exterior aboveground: Rigid galvanized threaded.
- Indoors: EMT with set steel screw fittings where concealed and steel compression fitting where exposed.

Size conduit as required to prevent excess tension on cabling while being pulled using proper equipment and methods. Analyze each pull segment separately. A fill rate of 30% or less will allow for a reasonable amount of future expansion as well as ease of service.

Require that a pull tape with sequential footage markings be pulled in along with cables.

Require that all underground conduit be cleaned and verified with a test mandrel. Spare underground conduits should then have pull tape installed and closed at each end by a conduit plug with rope tie.

5.4.2 CONDUITS, CABLE TRAY & RACEWAYS FOR HORIZONTAL CABLING

All wall mounted communications outlets shall consist of a dual-gang back box, a single gang plaster ring, and a 1" conduit stubbed above the ceiling with a pull string. Under no circumstances shall conduit smaller than 1" be used for communications cabling. All conduit ends shall be furnished with a plastic bushing to prevent damage to communications cables. Where conduit is extended to a cable tray or CC/CER, no more than two 90 degree sweeping bends shall be used without adding a junction box. Junction boxes shall NOT be used at 90 degree bends.

In new buildings where horizontal cabling may be damaged during construction, provide homerun conduits serving all COs, or provide cable tray with conduit drops to COs. Cable tray shall not extend between floors.

In existing buildings and where horizontal cabling is not subject to physical abuse, free route cabling above ceiling, supported with J-hooks at 4 feet on center minimum.

Size conduit as required to prevent excess tension on cabling while being pulled using proper equipment and methods. Analyze each pull segment separately. A fill rate of 30% or less will allow for a reasonable amount of future expansion as well as ease of service. Higher fill rates may be employed with ECSD IT approval.

Conduits: EMT with set steel screw fittings where concealed and steel compression fittings where exposed. Paint all exposed conduits to match surroundings.

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Raceway: Non-metallic with TIA/EIA Category 6 compliant fittings shall be used for small raceways. **Color shall match that of any existing raceway and/or wall color.** Panduit Type T70 or equal for large raceways. Surface mounted raceways shall only be used in existing buildings where concealed cabling is not possible and only then with the written permission of the Owner and Engineer. Where surface raceways exist, any new raceways shall match existing for color and type.

5.5 COMMUNICATIONS SYSTEMS GROUNDING

Provide a telecommunications grounding busbar in each CER and CC. The bar shall be a minimum of 12" W X 2" H with pre-drilled 1/4" holes. This bar shall be attached to the main building grounding system with a #4 AWG copper wire, minimum. All bonding and grounding shall meet the minimum requirements of the NEC.

Communications Systems Grounding shall comply with the NEC and EIA/TIA-607, Grounding and Bonding Requirements for Telecommunications.

Provide grounding busbars in all communication closets. Ground main busbar to building main electrical service ground with #2/o AWG insulated (green) copper grounding conductor. Run conductor from busbar location to building service ground in conduit. **Grounding to building structure, conduits, utility piping, or electrical subpanels in lieu of bonding to building main electrical service ground shall not be acceptable.** All ground connections shall be made with heavy duty 2 hole compression lugs.

All communication racks, cable trays, conduits, etc. shall be grounded with #6 AWG insulated (green) copper grounding conductor to main grounding busbar. Ground racks individually to busbar (do not loop grounds).

5.5.1 GROUNDING EXISTING COMMUNICATIONS ROOMS, CLOSETS, PANELS

When any additions are made to pre-existing communications systems, the affected room, closet or panel shall be tested for compliance with section 5.5. Any outstanding deficiencies must be reported to ECSD IT.

6.1 CABLING AND TERMINAL DEVICES

The installed system shall be a complete Category 6 Structured Cabling System solution with all outlet and termination hardware provided by one single manufacturer. The corresponding cable required to make up the complete channel solution must be an approved and tested cable with the outlet and termination hardware provider.

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For existing schools, the specified SCS manufacturer **solution shall match that of the “incumbent” system already installed at that facility.** For example, if School “A” has Panduit Mini-Com Category 5E outlets installed throughout the school, any new cabling installations for any new additions or renovations shall be Panduit Mini-Com category 6 outlets using the same general components (patch panel types, outlet types, etc.) of the previously installed system unless directed differently by ECSD IT.

Any new schools shall be a certified Category 6 solution utilizing either Siemon MX jacks or Panduit Mini-Com jacks. No other manufacturers will be accepted.

Unless specifically directed otherwise by ECSD IT’s project manager, provide four jacks per classroom for student computers, a wireless access point connection, an IP TV connection and three jacks per classroom for a teacher station (including one jack for data, one jack for teacher telephone, and one for a printer).

6.2 Horizontal cabling shall be UL or ETL verified TIA Category 6 UTP. In general, the horizontal cabling system will consist of multiple category 6 cables routed to communications outlets on each floor. Cables shall be terminated in patch panels in each corresponding communications closet. Install all cabling in conduit or cable tray, unless specific approval is given by ECSD IT to free route bundled cable above ceilings. Where cable is not installed in conduit, cabling shall be supported at 4'-0" on center with CADDY "CableCat" cable support hangers. All cabling installed above ceilings and not in conduit shall be plenum rated, regardless of code requirements.

6.3 The Backbone Cabling connects each communications closet to the main communications equipment room. It consists of the fiber optic and multi-pair copper backbone transmission media between these locations and the associated connecting hardware terminating this media.
All multimode optical fiber cable must be an **OM3 or OM4 50/125 multimode, regardless of existing infrastructure.**

50 micron fiber is different than the 62.5 fiber installed in the majority of schools. patch cables for this cable are NOT interchangeable. Fiber optic patch panels MUST be labeled accordingly, notifying user as to the fiber type.

Terminate all strands with **Duplex-LC connectors, do not use SC connectors.** Install all fiber optic cabling in conduit. A quantity 12, 18, or 24 strands of fiber optic cabling shall be distributed to each CC with the quantity dependent of the network connectivity density of each closet. A fiber optic cable suitable for both indoor and outdoor use shall be provided in all cases.

6.4 25 pair telephone backbone cabling shall be tested and certified by the manufacturer to TIA Category 3 performance. Install backbone cabling from the CER to each CC to

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support analog devices and provide emergency backup. Install all backbone cabling in conduit. Provide telephone backbone cabling as follows:

- Exterior underground in conduit: Type AFMW Category 3 multi-pair direct burial grade gel-filled cable. Extend into indoors only in conduit. If not, splice to ARMM-type cable, ground splice, continue shield to point of termination, then ground shield and surge protect all pairs with UL listed primary and secondary protection devices.
- Exterior aboveground in conduit: Type ARMM Category 3 multi-pair shielded cable. Must continue to point of termination indoors, then ground shield and surge protect all pairs with UL listed primary and secondary protection devices.
- Indoors in conduit or cable tray: Type Category 3 multi-pair cable, rated as required.

6.5 PATCH CORDS

6.4.1 Fiber optic patch cords shall be aqua jacketed 10 Gigabit Multimode 50/125 provided with connectorized ends as required to suit new and existing LAN equipment and fiber optic terminal cabinets at each school. Provide quantity equal to the number of connections required to fully interconnect all fiber optic equipment, plus 10 percent extra. Provide various lengths of each type of fiber patch cords to suit each CER, CC and CP and to make all connections required without excess length.

6.4.2 Copper patch cords shall be Category 6 (minimum) snagless factory built and tested cables. Field built or assembled patch cords will not be accepted. Cables should conform to the following color table:

Data	Grey or Black
Security/Cameras	Red
IP Telephone	Orange
Analog Telephone	Blue
Wireless Access Points	Violet

6.4.2.1 Communications closet cables shall be of the shortest feasible length to effect the connection between patch panel port and network equipment port. In most cases that will be 18" cables for standard and POE data ports and 3' or 5' cables for telephone devices. Provide quantity equal to the number of terminated cables plus 10 percent extra.

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6.4.2.2 Provide workstation patch cables in quantity equal to the number of terminated cables plus 10 percent extra. Provide cables in the following lengths and ratios:

7'	20% of total
10'	50% of total
15'	20% of total
20'	10% of total

6.5 GENERAL CABLING REQUIREMENTS:

In general, a certified, tested, and warranted structured data and voice cabling system shall be designed and installed in accordance with these standards

The complete installation shall be installed with highly skilled and trained technicians providing a quality and professional system. Installers shall be trained and certified to install all specified materials and also certified to use all system test equipment. Workmanship shall be of the highest grade in accordance with the best modern practice and the highest standards of the industry.

The installed system shall be neat, clean, and well organized in appearance. Provide working clearances for normal system operation, reconfiguration and repair.

The installation shall be in strict accordance with all applicable codes and standards, the respective manufacturer's written recommendations, the contract drawings and these specifications.

Provide wire management on backboards, such as exposed cabling ladder runway, to organize and protect all cabling.

Provide wire management equal to Panduit WMP series on racks to organize, protect, and conceal patch cords. Provide appropriate wiring rings on sides of racks for vertical routing of patch cords. Horizontal wire management should only be utilized in multiple rack environments and be limited to the top, middle and bottom of each rack.

Provide slack at each end of each cable to allow for a minimum of five future re-terminations without rerouting or replacing cable.

All cables routed through a return air plenum must be plenum rated cable. **Plenum rated cable should be used for all locations terminated in or above the ceiling regardless of whether or not a return air plenum exists.**

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All cables shall be independently supported throughout the entire Project.

Cables shall be routed in accordance with TIA/EIA 568A and standards.

The BICSI Telecommunications Distribution Methods Manual is to also be used as a guide for cable installations.

All cable shall be neatly routed in the ceiling at parallel or right angles to the building structure. Route cables by the shortest path to the cable tray at these angles.

Route cables along cable rack trays in a neat and straight order in 24 cable bundles. Use drop out shields to protect cables as they drop out of cable trays or cable rack trays. Use rear vertical cable management rails at racks to support and manage cables terminated to rear of patch panels. Maintain a neat and straight order of the cables inside the cable management rails. Adjust length of cables terminating on the rear of patch panels so that cables exit out of vertical cable management rail, fan into the proper port and are punched down in the proper order.

All cables shall be neatly bundled and velcroed to the racks and patch panels. Group outlet cables with not more than 24 cables per bundle. **Ty-wraps or other similar cable securing means shall strictly NOT be used for securing cables in patch panels or wire-management.**

All cables being pulled shall not exceed the manufacturers recommendations for pulling tensions.

All cables shall be installed following the manufacturer's recommendations for minimum bending radius.

All cables shall be tested after installation is complete. All test results are to be documented. All cables shall pass acceptable test requirements and levels. The Contractor shall remedy any cabling problems or defects in order to pass or comply with testing. This includes the re-pull of new cable as required at no additional cost to the owner.

7.1 OTHER CONSTRUCTION CONSIDERATIONS

7.2 FIRESTOPPING

The A/E shall require that the contractor firestop all penetrations of all floors, all fire rated walls, and all fire rated ceilings. Firestopping shall be accomplished using UL classified systems with a fire rating equal to or greater than the floor, wall or ceiling penetrated. Firestop systems shall be installed in accordance with the manufacturer's standard detail for the each type of floor, wall or ceiling penetration encountered. The A/E shall require that the contractor submit the manufacturer's standard details that he proposes to use for approval.

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7.3 ASBESTOS CONTAINING MATERIALS (ACMs)

No asbestos or asbestos-bearing materials in any form shall be used in the construction of the SCS.

Prior to the commencement of work, ECSD will identify known asbestos containing materials (ACMs) at the site in the presence of the contractor. All ACM abatement required to complete work under this contract will be performed by an asbestos abatement contractor employed directly by ECSD outside of this contract. The contractor shall coordinate the location of ACMs which require abatement with the asbestos abatement contractor.

The contractor shall instruct his employees not to disturb any ACMs identified by ECSD or the asbestos abatement contractor. When ACM abatement is in progress, the contractor shall limit his activities and location within buildings as directed by the asbestos abatement contractor. Any violation of directions provided by the asbestos abatement contractor shall be at the risk of and the sole responsibility of the contractor.

8.1 CONTRACTOR QUALIFICATIONS

The A/E shall specify and enforce the following qualifications for SCS contractors:

- 8.2 The SCS contractor shall be an experienced firm regularly engaged in the layout and installation of structured cabling systems of similar size and complexity as required for this installation. The SCS contractor, under the same company name, shall have successfully completed the layout, installation, testing and warranty of not less than five structured cabling systems of the scope of the largest system on this project for a minimum period of three years prior to the bid date. The contractor shall have an existing permanent office located within 75 miles of the job site from which installation and warranty service operations will be performed.
- 8.3 The SCS contractor shall present, with his bid, the name and certification number of a BICSI certified Registered Communications Distribution Designer (RCDD) who is a permanent employee of the contractor. The contractor shall maintain this RCDD, or another RCDD approved by the A/E, in his permanent employment throughout this project. The RCDD shall have overall responsibility for certifying that the installed structured cabling system conforms to these contract documents and to the referenced EIA/TIA, IEEE, BICSI, and UL standards. Specific requirements for the RCDD are as follows:
- 8.4 The RCDD shall be, in the judgment of the A/E, thoroughly experienced in the layout and

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installation of structured cabling systems of similar size and complexity as required for this installation. The RCDD shall submit evidence of these qualifications to the A/E upon request.

- 8.5 The RCDD shall affix his stamp to the contractor's pre-installation submittal drawings, indicating that he has reviewed and approved the drawings for conformance to the contract documents and to the referenced codes and standards.
- 8.6 The RCDD shall periodically visit the site and inspect the work in progress. RCDD site visits shall be made not less than twice per month when the job is in active progress. The RCDD shall prepare a field report for each site visit for submission to the Engineer.
- 8.7 The RCDD shall sign off on all copper and fiber optic cable test results, indicating that he was responsible for all cable testing procedures and that all cables were tested in compliance with the contract documents and met or exceeded the requirements stated therein.
- 8.8 The RCDD shall affix his stamp to the contractor's as-built drawings, indicating that he has reviewed and approved the drawings as being complete, accurate, and representative of the system as actually installed.
- 8.9 All conduit and cable tray systems shall be installed by a licensed electrical contractor using tradesmen who are skilled and experienced in the types of conduit installations indicated in the bid documents.

9.1 BID REQUIREMENTS

The SCS contractor shall provide the following documentation, to be presented with the bid, as evidence that the requirements for SCS contractor qualifications listed above are satisfied. If the bidder does not meet the requirements of this specification section for structured cabling system work, he shall provide the following documentation, to be presented with the bid, as evidence that the requirements listed above are satisfied by the SCS subcontractor he proposes to use to perform work under this section. In either case, all work under this section shall be performed by permanent employees of the SCS contractor listed on the bid form, and shall not be performed by another subcontractor, employees of another company, or by temporary employees.

- 9.2 A list of not less than five (5) references for jobs of similar size and complexity including project name, location, and contact person and phone number.
- 9.3 RCDD name, BICSI certification number, and qualifications.
- 9.4 Location of office from which installation and warranty work will be performed.

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9.5 Qualifications of conduit and cable tray installer.

10.0 WARRANTY REQUIREMENTS

The following shall be a requirement for all installed systems. Contractor shall provide certificate of such warranty at project completion.

The Contractor shall warrant the entire structured cabling system under the manufacturer's systems warranty for a minimum period of 5 years. The warranty will begin on the first day after final acceptance. The warranty shall include materials, parts and labor. If any failure or defect occurs within the warranty period, the contractor and/or manufacturers shall remedy it within 48 hours at no cost to the owner, or any owner representative or consultant. Structured cabling systems warranty shall cover applications assurance, cable, connecting hardware and the labor cost for the repair or replacement

The Contractor shall warrant the remainder of installed systems for a period of one year. The warranty will begin on the first day after final acceptance. The warranty shall include materials, parts and labor. If any failure or defect occurs within the warranty period, the contractor and/or manufacturers shall remedy it within 48 hours at no cost to the owner, or any owner representative or consultant.

END OF SECTION 17000

17025/LOCAL AREA NETWORK EQUIPMENT**Revised 05/01/2015****1. INTRODUCTION**

This section is intended to provide the A/E guidance in the design of data equipment for Local Area Networks (LANs):

1.1 DESIGN REQUIREMENTS - refer to Section 17000.

2.0 STANDARDS AND ABBREVIATIONS - refer to Section 17000.

3.0 TECHNOLOGIES - refer to Section 17000.

4.0 SCS TOPOLOGY - refer to Section 17000.

5.1 DATA EQUIPMENT

Coordinate all data equipment design with ECSD IT. Coordinate site specific requirements with a school technology coordinator assigned by the Principal. Coordinate throughout the design process.

5.2 QUANTITIES

Provide the types and quantities of LAN equipment ports sufficient to connect all terminated cables:

5.2.1 Desktop ports - provide 100/1000 Base-T/TX auto-negotiating switched Ethernet ports serving each desktop as follows:

- Each instructional area: Unless specifically directed otherwise by ECSD IT's project manager, provide four desktop ports for student computers, one connection to a wireless access point (located center of classroom, above ceiling), two desktop ports for the teacher PC and printer, one connection at TV location for future IP TV use, (total of eight desktop ports per classroom or other instructional area). The 3rd teacher location is reserved for telephone connection.
- Administrative areas: Provide one desktop port for each computer workstation (existing or firmly planned in the next three years), one desktop port for each network connected printer, one port for telephone (analog/VoIP) and one for fax (if appropriate).
- Computer labs: Provide one desktop port for each computer workstation (existing or firmly planned in the next three years), one desktop port for each network connected printer, one port for telephone (analog/VoIP) Provide ceiling mounted ports as required for any wireless access points required as well.
- Miscellaneous areas: Provide a desktop port for each computer workstation

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(existing or firmly planned in the next three years) and one desktop port for each network connected printer.

- In no case shall a single desktop port be installed. A minimum of two ports should be installed in each location.

5.2.2 Wireless ports - provide current model wireless access points throughout school to provide wireless network access from all instructional and administrative areas of the school. Provide and locate access points throughout school as required to fulfill the anticipated network connectivity demands for each area covered. Wireless ports will typically be located above the ceiling and the wireless access point attached to the ceiling grid and the network connecting through the ceiling tile. Coordinate access point locations with ECSD IT.

5.3 CURRENT BASIS OF DESIGN - DATA EQUIPMENT: Current accepted models are listed in Appendix A, which shall be kept current by ECSD IT.

5.3.1 Managed Desktop (edge) Switches: 48 or 24 port 100/1000Base-TX switch with appropriate 10GbE-SFP+ Gb fiber uplink modules for connection to CER. The switches shall be standalone with each having at least one Gigabit-Ethernet uplink module and shall be connected to the backbone switch via fiber optic backbone cabling. Provide alternate switch types as required to suit individual requirements (i.e. 8 port switch with 1000base-SX transceiver uplink for cafeteria or gymnasium buildings when low port connectivity is required in building served).

5.3.2 Server/Power-user Switches: 24 port 10GbE switch with SFP+ fiber/twinax uplink modules for connection to servers and to the CER.

5.3.3 Backbone Switch (CER): 24 or 48 port 10GbE switch with SFP+ fiber/twinax uplink modules for connection to servers and edge switches. Switch shall provide wire-speed layer 3/4 routing capabilities, port-level Quality of Service (QoS), per port bandwidth allocation, and VLAN capability in order to control streaming/high bandwidth applications on school LANs. Provide correct series model as required for port densities and MAN capabilities to facility. Provide 10Gb uplinks as required for each desktop switch with 25% of slots open on final router configuration. In addition, size backbone switch as required to provide open slots for addition of three (3) 1000base-LX or 10Gb-LR/ZR uplinks.

5.3.4 WLAN Controller Switch: Provide an appropriately sized Mobility Controller. Solution should integrate with existing District WLAN implementation and fully support eDirectory Services and District security standards.

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- 5.3.5 Wireless Access Points (WAP): Wireless access points shall be the current district standard as appropriate to the location served. Locate wireless access points in each classroom and throughout school to provide full coverage of wireless connectivity for each instructional and administrative area. The A/E shall coordinate with ECSD IT for exact placement and shall provide specifications for the contractor to utilize the manufacturer's utility software to determine in the field the best location and coverage for each access point.

Mount cables in outlet box above ceiling and mount access point on the ceiling grid below the outlet box, with cabling penetrating the ceiling panel and concealed behind WAP.

At the switch end (in communications closet), provide Power over Ethernet (PoE+) 802.3at (minimum) enabled desktop switches. No Access Points shall be powered locally at the access point location, unless the actual access point is located at the communications closet.

6.0 **CONTRACTOR'S RESPONSIBILITY**

Contractor shall provide a system of data equipment and cabling as indicated on the final design drawings. Contractor shall determine absolutely whether each piece of equipment is to be owner furnished or contractor furnished and communicate their understanding to ECSD IT before bidding or commencing work.

Contractor shall install equipment as directed by ECSD IT and Engineer and shall complete all manufacturer recommended startup and checkout procedures. Verify proper equipment operation and startup. Once set up, contractor shall coordinate with ECSD IT personnel for final configuration.

The Contractor is not responsible for installation or configuration of Network Operating Software (NOS) or Network Interface Cards (NICs).

Provide and install fiber optic and copper patch cords to interconnect data network equipment and to connect each port of data equipment to horizontal wiring connections as specified herein and as indicated on the drawings.

END OF SECTION 17025

17050/TELEPHONE EQUIPMENT**Revised 05/01/2015****1.1 INTRODUCTION**

This section is intended to provide the A/E guidance in the design of telephone equipment:

1.2 DESIGN REQUIREMENTS - refer to Section 17000.

2.0 STANDARDS AND ABBREVIATIONS - refer to Section 17000.

3.0 TECHNOLOGIES - refer to Section 17000.

4.0 SCS TOPOLOGY - refer to Section 17000.

5.1 TELEPHONE EQUIPMENT

Coordinate all telephone equipment design with ECSD IT Telecommunications Staff. Coordinate site specific requirements with technology personnel assigned by the Principal. Coordinate throughout the design process.

5.2 Station ports - provide digital station ports as follows:

- Provide a station port for the teacher location in each instructional area.
- Provide a station port for each teacher workroom location.
- Provide a station port for each administrative location requiring a telephone instrument.
- Provide a station port for all other locations requiring a telephone instrument.

6.0 THE CONTRACTOR

The system shall be furnished, installed and fully configured by an Authorized Dealer of the system manufacturer. The Authorized Dealer shall have an existing permanent office located within 75 miles of the job site. The Authorized Dealer shall provide a permanent employee who is certified as a technician by the system manufacturer in the installation and configuration of the specific equipment furnished for this project. The certified technician shall install, configure, and maintain the system throughout the project and warranty period.

The contractor shall provide all miscellaneous equipment, hardware, materials, labor and programming required for a complete system that is functional in every respect, whether or not those items are called for in the drawings or specifications.

The contractor shall provide full system, trunk, station and set programming as directed by ECSD IT.

17050/TELEPHONE EQUIPMENT

Revised 05/01/2015

The Contractor shall install the telephone instruments in the locations specified by ECSD IT, install patch cables to connect to station ports, and verify that each instrument is functioning properly.

END OF SECTION 17050

17100/INSTRUCTIONAL TELEVISION SYSTEM

Revised 05/01/2015

1.0 SECTION DEPRECATED:

Unified Communications standards have removed the need for separate ITV cabling in new installations. See section 17000 for standards.

Legacy repairs/additions are to be handled on a case-by-case basis coordinating with ECSD IT.

END OF SECTION 17100

17125/CAMERA SURVEILLANCE SYSTEMS**Revised 05/01/2015****1. INTRODUCTION**

This section is intended to provide the A/E guidance in the design of infrastructure and related equipment for camera surveillance systems (CCTV)

1.1 DESIGN REQUIREMENTS

1.1.1 The surveillance systems system shall be a March Networks CCTV system with high-resolution color cameras using Category 6 cabling. Specific equipment needed shall be coordinated with ECSD IT.

1.1.2 The system shall be designed in conjunction with the structured cabling system infrastructure and shall utilize the same communications closets and backbone conduits for distribution.

1.1.3 All exposed cabling shall be installed in conduit. No camera cables shall be run exposed on any interior or exterior of any building.

1.1.4 The end result from the contractor shall be a complete and warranted system ready for operation. The installation shall include all accessories and appurtenances required to provide a complete and fully operational system. Any materials not specifically mentioned in these specifications, but required for a finished installation shall be furnished and installed at no additional cost to the Owner.

2.1 HEADEND AND CAMERA EQUIPMENT

2.2 The proposed CCTV system shall be a complete and functional digital video surveillance system. The system shall include all required cameras, lenses, cabling, conduit, power supplies, camera enclosures, support brackets, network video recording servers, control enclosures, surge protection, and all other device, equipment, and appurtenances not specifically listed herein.

2.3 All set-up and system programming to suit ECSD's requirements shall be included. System shall include anti-virus software in accordance with current district policies. Anti-virus software must be installed, configured and current before the system can be connected to the district network. ECSD IT shall be provided with complete administrative access to system. Coordinate with school technology coordinator as appointed by principal.

3.1 CABLING INFRASTRUCTURE

3.2 The facilities existing cabling infrastructure shall be used whenever possible.

17125/CAMERA SURVEILLANCE SYSTEMS**Revised 05/01/2015**

- 3.3 The camera shall be connected via existing and new twisted pair infrastructure (Category 6 or higher) and Ethernet network. The systems shall be designed so that adequate spare cables remain on existing cabling systems.
- 3.4 Lightning protection shall be provided on any exterior cabling.
- 3.5 The system shall be designed alongside the structured cabling system infrastructure and shall utilize the same communications closets and backbone conduits for distribution.
- 3.6 All exposed cable cabling shall be installed in conduit. No camera cables shall be run exposed on any interior or exterior of any building.
- 4.1 LAYOUT
- 4.2 Coordinate the layout of cameras and placement of the headend with ECSD IT. Coordinate site specific requirements with a school technology coordinator assigned by the Principal. Coordinate throughout the design process.
- 4.3 Based on budget and need, each school will have different coverage requirements. Coordinate with ECSD IT for budgeting and design systems as allowable.
- 5.1 CONTRACTOR'S RESPONSIBILITY
- 5.2 The contractor shall deliver, install, program, test, start-up, checkout and otherwise provide a fully operational and warranted system in accordance with the A/E design.
- 6.1 TRAINING
- 6.2 The contractor shall provide a minimum of four hours training for the system. Additionally, the contractor shall be available for periodic additional training as required to keep personnel up to date on the use of the system.

END OF SECTION 17125

**17150/METROPOLITAN AREA NETWORK
COMMUNICATIONS SYSTEM**

Revised 05/01/2015**1. INTRODUCTION**

ECSD has standardized on Outside Plant Fiber Optic Cabling for connection to each district facility into its Metropolitan Area Network.

**2.1 DESIGN REQUIREMENTS - OUTSIDE PLANT FIBER OPTIC CABLING
CONNECTIVITY**

This section is intended to provide the A/E with guidance in the design/routing of outside plant rated fiber optic cabling. Although, underground installations is the preferred method, in certain circumstances, aerial may be required. Design for the following must be included for this system:

- Underground installations (in conduit **with tracer**)
- Aerial installations (when applicable)
- Points of connection (i.e. existing/new facilities, exterior, etc.)
- Grounding and bonding

Each site shall be designed as determined to be best route. In some cases, when aerial may be a requirement, contact with entity (i.e. Southern Company; DBA Gulf Power) may be required for permission in use of pathway, for example: attachment to Gulf Power electrical poles, Make Ready requirements, etc. This shall be taken in consideration by the designer but the ultimate responsibility shall be placed with the general contractor.

The A/E team shall be responsible for a fully developed outside plant cabling systems (OSP) and related communications systems design. This section provides overall guidance in specific ECSD requirements, but is not intended to provide an exhaustive design methodology nor construction specifications. ECSD also requires the services of a BICSI certified (Registered Communications Distribution Designer (RCDD) for all OSP communications systems design services. The A/E shall provide a competent designer who, in the judgment of ECSD IT, is sufficiently experienced to design the OSP requirements in accordance with these guidelines and all applicable standards.

The A/E shall provide detailed drawings and specifications that fully document the OSP requirements. The A/E shall not rely upon the installing contractor to develop the OSP design or to provide detailed drawings for the system, however, the contractor, for the purposes of permitting, the contractor shall provide signed and sealed

The types of drawings and level of detail indicated below are mandatory requirements for each telecommunications design project for ECSD with individual considerations to be taken into account for each project. A custom design shall be provided for each school.

**17150/METROPOLITAN AREA NETWORK
COMMUNICATIONS SYSTEM****Revised 05/01/2015**

Key design requirements are as follows:

- 3.1.1 Provide dimensionally accurate site plans indicating location of all conduits, cabling, required points of connection, buildings, correct FISH room numbers, location of all required equipment rooms for tie-in purposes, and other pertinent information.
- 3.1.2 Make ready requirements with all required height indications.
- 3.1.3 All required sections/details including directional boring requirements and lengths.

**3.1 INSTALLATION REQUIREMENTS – OUTSIDE PLANT FIBER OPTIC
CONNECTIVITY****3.1.1 CONTRACTOR QUALIFICATIONS**

The Cabling Contractor shall be an experienced firm regularly engaged in the layout and installation of outside plant (OSP) buried and aerial infrastructure of similar size and complexity as required for this installation. The Contractor, under the same company name, shall have successfully completed the layout, installation, testing and warranty of not less than five systems similar to the scope of this project for a minimum period of three years prior to the bid date, and shall have been regularly engaged in the business of OSP Cabling Systems contracting continuously since. The Contractor shall have an existing permanent office located within 75 miles of the job site from which installation and warranty service operations will be performed. The contractor shall verify and comply with all inspection and permitting requirements. Contractor shall be solely responsible for determining and complying with requirements relative to the scope of work. Contractor shall submit all finalized drawings to the regulating authorities for right-of-way permitting, joint-use, or as required. The contractor shall be responsible for all pre- and post construction notifications to all required entities, and inspection hereof. These entities shall include, but are not limited to, FDOT, Escambia County, The City of Pensacola, Railroads, AT&T, Cox Communications, ECUA, and Gulf Power. ECSD currently has joint use agreements in hand for Gulf Power aerial pole use. Coordination with Gulf Power and Gulf Power inspections of the affected aerial work will be required.

Contractor shall install and test the OSP FO media in accordance with contract drawings, specifications, IEEE C2, NFPA 70, and TIA-590-A. Contractor shall provide all necessary power, utility services, permits, utility spotting, technicians, test equipment, calibration equipment as required to perform reel and final acceptance tests of the media.

Contractor shall promptly repair any and all utility lines or systems (water, gas, telephone, sprinkler, etc.) damaged during site preparation and construction.

**17150/METROPOLITAN AREA NETWORK
COMMUNICATIONS SYSTEM****Revised 05/01/2015****3.1.2 WARRANTY**

- A. The Contractor shall warrant the installed cabling system for one year. The warranty shall include materials, parts and labor. If any failure or defect occurs within the warranty period, the contractor and/or manufacturers shall remedy it within the next calendar day at no cost to the owner, or any owner representative or consultant. The cabling systems warranty shall cover cable, mounting, connecting hardware and the labor cost for the repair or replacement.
- B. Any damage caused by any events outside of human control (Force Majeure) and/or caused by any outside entities (i.e. other utility companies) shall not be covered under this warranty.
- C. Contractor warrants all work performed by him directly and all work performed for him by others.
- D. All materials, equipment and workmanship incorporated in the work shall be guaranteed by the Contractor.
- E. Any work, material or equipment which during the warranty period is, in the opinion of the Engineer or the Owner's Authorized Representative, defective or inferior and not in accordance with the contract documents, shall be made good at no additional cost to the Owner, including any other work which may have been damaged because of such deficiencies. The Contractor shall be the contact person and the person responsible for coordinating all warranty work for the Owner.
- F. Provide a warranty letter at the project closeout from the contractor stating these requirements and agreement herein.

3.1.3 CABLE LOCATES

During the one year warranty period, the Contractor shall provide cable locates for other utility work as part of the Sunshine State One Call of Florida (811) "call before you dig" program. The contractor will be responsible for reviewing all locate tickets and marking all required locations. This includes updates on all ongoing construction project locations every ten days. The contractor will also be available on standby 24-hours-a-day, 7-days-a-week for emergency locates and storm damage with a two hour response time.

END OF SECTION 17150

17200/NEW COST CENTER CONSTRUCTION**Revised 05/01/2015****1. INTRODUCTION**

New cost center construction offers opportunity to build to new standards without the concern of interfacing with existing equipment. This section is intended to provide general guidance for how this will differ from additions to existing cost centers. It is expected that the A/E team will work closely with the ECSD IT contact to design the appropriate solution for the cost center.

1.1 STRUCTURED CABLING SYSTEM

It is anticipated that new cost centers will rely even more heavily on a multipurpose category 6 cabling infrastructure.

1.2 LAN EQUIPMENT

New cost centers can be expected to include more in-line powered equipment and thus more Power-Over-Ethernet+ enabled switches.

1.3 TELEPHONE EQUIPMENT

New cost centers can be expected to include Voice-Over-IP calling systems. The A/E team must consult with ECSD IT to determine the desired equipment and configuration.

1.4 ITV/MEDIA RETRIEVAL

New cost centers will utilize category 6 cabling and video over twisted pair drivers and receivers to deliver ITV. The A/E team should consult with ECSD IT to determine the desired equipment and configuration.

1.5 CCTV SYSTEM

Camera surveillance systems shall utilize the category 6 infrastructure without exception. Consult with ECSD IT to determine the desired equipment and configuration.

1.6 METROPOLITAN AREA NETWORK

New cost centers must connect to the ECSD MAN. The A/E team should consult with ECSD IT to determine the most effective method of implementing that connection.

1.7 CER/CCs

CER/CCs shall be cooled by the primary building HVAC with a supplemental mini-split

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unit for times when the primary system set point is raised. CERs shall be provided with HVAC services with dedicated thermostats.

1.8 OTHER CONSIDERATIONS

Other systems expected to utilize the network infrastructure include intercom/paging, HVAC controls, and clock/scheduling systems. The A/E team should consult with ECSD IT to determine the desired equipment and configuration.

ECSD IT actively seeks to improve the utilization of the network infrastructure. The A/E team is encouraged to recommend new technologies and techniques for leveraging ECSD's technology investment to provide a safer, more productive learning and working environment.

END OF SECTION 17200

17300/AUDIO/VISUAL SYSTEM**Revised 05/01/2015****1. INTRODUCTION**

This section is intended to provide the A/E guidance in the design of Audio/Visual Systems (AV). The AV system consists of conduit, cabling infrastructure, electronic appurtenances (i.e. switches, controllers, amplifiers), LCDs/projectors, screens, mounting hardware, cabinets/racks, wire management as required for a fully functioning AV system.

1.1 DESIGN REQUIREMENTS

The A/E team shall be responsible for a fully developed audio/visual system (AV) design. This section provides overall guidance in specific ECSD requirements, but is not intended to provide an exhaustive design methodology nor construction specifications. ECSD also requires the services of a Certified Technology Specialist (CTS) for all audio visual systems design services. The A/E shall provide a competent designer who, in the judgment of ECSD IT, is sufficiently experienced to design the AV systems in accordance with these guidelines and all applicable standards.

The A/E shall provide detailed drawings and specifications that fully document the AV system. The A/E shall not rely upon the installing contractor to develop the AV design or to provide detailed drawings for the system.

1.2 AUDIO / VISUAL SCOPE OF WORK

AV system needs may vary between existing schools, classrooms, media centers, cafeterias, auditoriums, conference rooms, etc. Each shall be designed in a manner consistent with existing facility or as deemed applicable by ECSD IT and/or end users as applicable to that facility. Scope shall include entire system described above with required programming, training of staff and warranty of entire system.

1.3 CONTRACTOR QUALIFICATIONS

The A/E shall specify and enforce the following qualifications for AV contractors:

- 1.4 The AV contractor shall be an experienced firm regularly engaged in the layout and installation of AV systems of similar size and complexity as required for this installation. The AV contractor, under the same company name, shall have successfully completed the layout, installation, testing and warranty of not less than five audio visual systems of the scope of the largest system on this project for a minimum period of three years prior to the bid date. The contractor shall have an existing permanent office located within 75 miles of the job site from which installation and warranty service operations will be

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performed.

- 1.5 All conduit and cable tray systems shall be installed by a licensed electrical contractor using tradesmen who are skilled and experienced in the types of conduit installations indicated in the bid documents.

1.6 **WARRANTY REQUIREMENTS**

The following shall be a requirement for all installed systems. Contractor shall provide certificate of such warranty at project completion.

- 1.6.1 All equipment including material used in the installation thereof shall be warranted for one full year by the contractor against mechanical, electrical, and workmanship defects. In the event defects become evident within the warranty period, the contractor shall repair or replace the defective parts and materials at no additional cost to the Owner. The warranty period shall start with the date of substantial completion. The warranty shall apply to all equipment provided under the provisions of this contract regardless of the location. Warranties submitted with bids, either appearing separately or included in pre-printed literature and price lists, shall not be acceptable and provisions herein take precedence.

END OF SECTION 17300

APPENDIX A/CURRENT NETWORK EQUIPMENT**Revised 05/01/2015**

- 1.1 Approved equipment as of this date. Consult ECSD IT Network Services personnel for guidance in selecting the appropriate equipment.
- 1.2 Managed Desktop (edge) Switches:
 - Brocade ICX7250-24-2X10G 24 port 1000TX, 2 port 10GbE SFP+ licenses with appropriate uplink modules.
 - Brocade ICX7250-48-2X10G 48 port 1000TX, 2 port 10GbE SFP+ licenses with appropriate uplink modules.
- 1.3 Server/Power-user Switches:
 - Brocade ICX7250-24-2X10G 24 port 1000TX with ICX7250-8X10G-LIC-POD 8 port 10GbE SFP+ licenses with appropriate uplink modules for connection to servers and CER.
- 1.4 Backbone Switch (CER):
 - Brocade VDX-6740-24-F 24 port 10GbE SFP+ with appropriate uplink modules for connection to servers and edge switches.
 - Brocade VDX-6740-48-F 48 port 10GbE SFP+ with appropriate uplink modules for connection to servers and edge switches.
- 1.5 Managed POE+ Switches for Access Points:
 - Aruba Networks S2500-24P 24 port 1000TX POE+, 4 port 10GbE SFP+ with appropriate uplink modules.
 - Brocade ICX7250-24P-2X10G 24 port 1000TX POE+, 2 port 10GbE SFP+ licenses with appropriate uplink modules.
- 1.6 Managed POE+ Switches for IP Cameras and IP Telephones:
 - Brocade ICX6450-24P 24 port 1000TX POE+, 2 port 10GbE SFP+ with appropriate uplink modules.
 - Brocade ICX6450-48P 48 port 1000TX POE+, 2 port 10GbE SFP+ with appropriate uplink modules.
 - Brocade ICX6450-C12-PD 12 port 1000TX POE+, 2 port 1GbE SFP with appropriate uplink modules.
- 1.7 Wireless Controller:
 - Aruba Networks 7210 Mobility Controller. Consult ECSD IT to determine if/which AP licenses are required.
- 1.6 Wireless Access Points:
 - Aruba Networks AP-215 for classrooms and office environments.
 - Aruba Networks AP-225 for auditorium, gymnasium, cafeteria & similar environments.
 - Aruba Networks AP-27x as appropriate for outdoor environments.