

RESOLUTION NO. 2019 - 52

A RESOLUTION BY THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA, AUTHORIZING THE COUNTY ADMINISTRATOR, OR DESIGNEE, TO AWARD BID NO: 19-28 AND TO EXECUTE AN AGREEMENT WITH ISLAND MECHANICAL CONTRACOR INC., FOR THE BARTRAM TRAIL BRNACH LIBRARY FIRE SPRINKLER REPLACEMENT

RECITALS

WHEREAS, the County desires to enter into contract with Island Mechanical Contractor Inc., to perform the Bartram Trail Branch Library Fire Sprinkler Replacement; and

WHEREAS, the scope of the Project consists the provision of all labor, materials, equipment, transportation and any other required items to remove all of the above ground fire sprinkler system, including but not limited to piping, fittings, sprinkler heads, compressor, escutcheons, valves, and electrical supervision. The entire fire sprinkler system is to be replaced except for the backflow preventer and the underground piping. The new piping systems are to be constructed of CPVC piping except where prohibited by code. The piping shall be protected from corrosion with a nitrogen generating system and the use of CPVC piping. Ceilings that need to be removed to accomplish this project shall be removed and reinstalled under this contract. Any damaged ceilings are to be repaired/replaced as required to ensure a uniform appearance. All piping that is exposed in the public area shall be painted per the architectural drawings. All valves shall be supervised, i.e., reconnected to the fire alarm system. The nitrogen generating system shall also be supervised by the fire alarm system; and

WHEREAS, through the County's formal Bid process, Island Mechanical Contractor, Inc., was determined to be the responsive, responsible bidder to enter into a contract with the County to perform the work referenced above; and;

WHEREAS, the County has reviewed the terms, provisions, conditions and requirements of the proposed contract (attached hereto, an incorporated herein) and finds that entering into contracts to complete the work services serves a public purpose.

WHEREAS, the contract will be in substantial conformance with the attached draft contract.

NOW, THEREFORE BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA, as follows:

Section 1. The above Recitals are incorporated by reference into the body of this Resolution and such Recitals are adopted as finds of fact.

Section 2. The County Administrator, or designee, is hereby authorized to award Bid 19-28 to Island Mechanical Contractor, Inc., and to execute a contract for the services set forth therein.

Section 3. Upon Board approval, the County Administrator, or designee, is authorized to execute an agreement in substantially the same form and format as the attached draft on behalf of the County to provide the scope of services as specifically provided in Bid 19-28.

Section 4. To the extent that there are typographical and/or administrative errors that do not change the tone, tenor, or concept of this Resolution, then this Resolution may be revised without subsequent approval by the Board of County Commissioners.

PASSED AND ADOPTED by the Board of County Commissioners of St. Johns County, Florida, this 19th day of February, 2019.

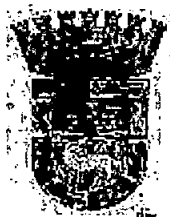
**BOARD OF COUNTY COMMISSIONERS OF
ST. JOHNS COUNTY, FLORIDA**

By: Paul M. Waldron
Paul M. Waldron, Chair

ATTEST: Hunter S. Conrad, Clerk
By: Sam Datterme
Deputy Clerk

RENDITION DATE 2/21/19





**STANDARD AGREEMENT
BETWEEN
OWNER AND CONTRACTOR**
(1992 EDITION, REVISED 12/18/13)

This Contract Agreement ("Agreement") is made as of _____, 20____ by and between **St. Johns County, FL** ("Owner"), a political subdivision of the State of Florida, whose principal offices are located at 500 San Sebastian View, St. Augustine, FL 32084, and **Islands Mechanical Contractor Inc.**, ("Contractor"), whose principal offices are located at 3070 Blanding Blvd., Middleburg, FL 32068; Phone: (904) 406-6100; Fax: (904) 291-4610; and E-mail: sturnage@islandmechanical.com, under seal for Construction of **Bid No: 19-28; Bartram Trail Branch Library Fire Sprinkler Replacement**, hereinafter referred to as the "Project".

The Owner and the Contractor hereby agree as follows:

**ARTICLE I
THE CONTRACT AND THE CONTRACT DOCUMENTS**

1.1 The Contract

1.1.1 The Contract between the Owner and the Contractor, of which this Agreement is a part, consists of the Contract Documents. It shall be effective on the date this Agreement is executed by the last party to execute it.

1.2 The Contract Documents

1.2.1 The Contract Documents consist of this Agreement, the Bid Documents and Bid Forms, Specifications, all Change Orders and Field Orders issued hereafter and executed by the parties and the Engineers, any other amendments hereto executed by the parties hereafter, together with the following: Bid Documents, Addendum 1, Bonds and Insurance.

Documents not enumerated in this Paragraph 1.2.1 are not Contract Documents and do not form part of this Agreement.

1.3 Entire Agreement

1.3.1 The Contract, together with the Contractor's Public Construction Bond for the Project, constitutes the entire and exclusive agreement between the Owner and the Contractor with reference to this Project. Specifically, but without limitation, this Agreement supersedes any Bid Documents not listed among the Contract Documents described above and all prior written or oral communications, representations and negotiations, if any, between the Owner and Contractor.

1.4 No Privity with Others

1.4.1 Nothing contained in this Agreement shall create, or be interpreted to create, privity or any other contractual agreement between the Owner and any person or entity other than the Contractor.

1.5 Intent and Interpretation

1.5.1 The intent of this Agreement is to require complete, correct and timely execution of the Work. Any work that may be required implied or inferred by the Contract Documents, or any one or more of them, as necessary to produce the intended result shall be provided by the Contractor for the Contract Price.

1.5.2 The Contract is intended to be an integral whole and shall be interpreted as internally consistent. What is required by any one Contract Document shall be considered as required by the Contract.

1.5.3 When a word, term or phrase is used in this Agreement, it shall be interpreted or construed, first, as defined herein; second, if not defined, according to its generally accepted meaning in the construction industry; and third, if there is no generally accepted meaning in the construction industry, according to its common and customary usage.

1.5.4 The words "include," "includes" or "including," as used in this Agreement, shall be deemed to be followed by the phrase "without limitation."

1.5.5 The specification herein of any act, failure, refusal, omission, event, occurrence, or condition as constituting a material breach of this Agreement shall not imply that any other, non-specified act, failure, refusal, omission, event, occurrence, or condition shall be deemed not to constitute a material breach of this Agreement.

1.5.6 Words or terms used as nouns in this Agreement shall be inclusive of their singular and plural forms, unless the context of their usage clearly requires a contrary meaning.

1.5.7 The Contractor shall have a continuing duty to read, carefully study and compare each of the Contract Documents, the Shop Drawings and the Product Data and shall give written notice to the Engineer and the Owner of any inconsistency, ambiguity, error or omission which the Contractor may discover with respect to these documents before proceeding with the affected Work. The issuance, or the express or implied approval by the Owner or the Engineer of the Contract Documents, Shop Drawings, or Product Data shall not relieve any such approval by evidence of the Contractor's compliance with the Contract. The Owner has requested the Engineer to only prepare documents for the Project, including the Drawings and Specifications for the Project, which are accurate, adequate, consistent, coordinated, and sufficient for construction. HOWEVER, THE OWNER MAKES NO REPRESENTATION OR WARRANTY OF ANY NATURE WHATSOEVER TO THE CONTRACTOR CONCERNING SUCH DOCUMENTS. By the execution hereof, the Contractor acknowledges and represents that it has received, reviewed and carefully examined such documents, has found them to be complete, accurate, adequate, consistent, coordinated and sufficient for construction, and that the Contractor has not, does not, and shall not rely upon any representation or warranties by the Owner concerning such documents as no such representation or warranties have been or are hereby made.

1.5.8 As between numbers and scaled measurements on the Drawings and in the Design, the numbers shall govern; as between larger scale and smaller scale drawings, the larger scale shall govern.

1.5.9 Neither the organization of any of the Contract Documents into divisions, sections, paragraphs, articles, (or other categories), nor the organization or arrangement of the Design, shall control the Contractor in dividing the Work or in establishing the extent or Scope of Work to be performed by Subcontractors.

1.6 Ownership of Contract Documents

1.6.1 The Contract Documents, and each of them, shall remain the property of the Owner. The Contractor shall have the right to keep one record set of the Contract Documents upon completion of the Project; provided, however, that in no event shall Contractor use, or permit to be used, any or all of such Contract Documents on other projects without Owner's prior written authorization.

ARTICLE II THE WORK

2.1 Scope of Work

The Contractor shall perform all of the Work required, implied, or reasonably inferable from, this Agreement.

2.1.1 The term "Work" shall mean whatever is done by or required of the Contractor to perform and complete its duties under this Agreement, including the following: construction of the whole or a designated part of the Project in the manner set forth in the Contract Documents; furnishing of any required Surety Bonds and insurance; and the provision or furnishing of labor, supervision, services, materials, supplies, equipment, fixtures, appliances, facilities, tools, transportation, storage, power, permits and licenses required of the Contractor, fuel, heat, light, cooling and all other utilities as required by this Agreement. The Work to be performed by the Contractor is generally described as follows:

The scope of work for this project shall consist of the provision of all labor, materials, equipment, transportation and any other required items to remove all of the above ground fire sprinkler system, including but not limited to piping, fittings, sprinkler heads, compressor, escutcheons, valves, and electrical supervision. The entire fire sprinkler system is to be replaced except for the backflow preventer and the underground piping. The new piping systems are to be constructed of CPVC piping except where prohibited by code. The piping shall be protected from corrosion with a nitrogen generating system and the use of CPVC piping. Ceilings that need to be removed to accomplish this project shall be removed and reinstalled under this contract. Any damaged ceilings are to be repaired/replaced as required to ensure a uniform appearance. All piping that is exposed in the public area shall be painted per the architectural drawings. All valves shall be supervised, i.e., reconnected to the fire alarm system. The nitrogen generating system shall also be supervised by the fire alarm system.

All work shall be performed in accordance with the plans and specifications under Bid No: 19-28.

ARTICLE III CONTRACT TIME

3.1 Time and Liquidated Damages

3.1.1 The Contractor shall commence the Work within **ten (10)** days upon receipt of the Notice to Proceed and shall Substantially Complete all Work within **One Hundred Sixty Five (165)** consecutive calendar days. Final Completion shall be reached by or before **Fifteen (15)** consecutive calendar days after Substantial Completion.

The number of calendar days from the date on which the Work is permitted to proceed, through the date set forth for Final Completion, shall constitute the "Contract Time."

3.1.2 The Contractor shall pay the Owner the sum of **\$958.00** per day for each and every calendar day of unexcused delay in achieving Substantial Completion beyond the date set forth herein for Substantial Completion of the Work. Any sum's due and payable hereunder by the Contractor shall be payable, not as a penalty, but as liquidated damages representing an estimate of delay damages likely to be sustained by the Owner, estimated at or before the time of executing this Agreement. When the Owner reasonably believes that Substantial Completion shall be inexcusably delayed the Owner shall be entitled, but not required, to withhold from any amounts otherwise due the Contractor an amount then believed by the Owner to be adequate to recover liquidated damages applicable to such delays. If and when the Contractor overcomes the delay in achieving Substantial Completion, or any part thereof, for which the Owner has withheld payment, the Owner shall promptly release to the Contractor those funds withheld, but no longer applicable, as liquidated damages.

3.2 Substantial Completion

3.2.1 "Substantial Completion" shall mean that stage in the progression of the Work when the Work is sufficiently complete in accordance with this Agreement that the Owner can enjoy beneficial use or occupancy of the Work and can utilize the Work for its intended purpose.

3.3 Time is of the Essence

3.3.1 All limitations of time set forth in the Contract Documents are of the essence of this Agreement.

ARTICLE IV CONTRACT PRICE

4.1 The Contract Price

4.1.1 The Owner shall pay, and the Contractor shall accept, as full and complete payment for all the Work required herein a total Lump Sum price of **One Hundred Eighty Seven Thousand Two Hundred Twenty Three Dollars (\$187,223.00.00)**.

The sum set forth in the Paragraph 4.1 shall constitute the Contract Price, which shall not be modified except by Change Order as provided in this Agreement.

ARTICLE V PAYMENT OF THE CONTRACT PRICE

5.1 Schedule of Values

5.1.1 Within ten (10) calendar days of the effective date hereof, the Contractor shall submit to the Owner and to the Project Director a Schedule of Values allocating the Contract Price to the various portions of the Work. The Contractor's Schedule of Values shall be prepared in such form, with such detail, and supported by such data as the Project Director or the Owner may require to substantiate its accuracy. The Contractor shall not imbalance its Schedule of Values nor artificially inflate any element thereof. The violation of this provision by the Contractor shall constitute a material breach of this Agreement. The Schedule of Values shall be used only as a basis for the Contractor's Applications for Payment and shall only constitute such basis after it has been agreed upon in writing by the Project Director and the Owner. The Owner may terminate this Agreement without liability of any kind if the Schedule of Values is not agreed upon within fifteen (15) calendar days of the effective date hereof.

5.2 Payment Procedure

5.2.1 The Owner shall pay the Contract Price to the Contractor as provided below.

5.2.2 Progress Payments - On or before the fifteen (15) day of each month after commencement of the Work, the Contractor shall submit an Application for Payment for the period ending the thirtieth (30th) day of the previous month to the Project Director in such form and manner, and with such supporting data and content, as the Project Director may require. Therein, the Contractor may request payment based upon the amount of work done or completed. All partial estimates and payments shall be subject to correction when submitted. Based upon the Contractor's Applications for Payment submitted to the Project Director and upon Certificates for Payment subsequently issued to the Owner by the Project Director, payments will be made in accordance with the Local Government Prompt Payment Act.

5.2.3 The amount of such payments shall be the total value of the Work done to the date of the estimate, based upon the quantities and the Contract unit and/or lump sum prices, less an amount retained and less payments previously made. The amount retained shall be determined in accordance with Section 255.078 of the Florida Statutes:

(a) Owner may withhold from each progress payment made to the Contractor an amount not to exceed ten (10) percent of the payment as retainage until fifty (50) percent completion of the Work.

(b) After fifty (50) percent completion of the Work is purchased pursuant to this Agreement, Owner will reduce to five (5) percent the amount of retainage withheld from each subsequent progress payment made to the Contractor. The term "fifty (50) percent completion" as used in this provision means the point at which Owner has expensed fifty (50) percent of the total cost of the Work purchased as provided herein, together with all costs associated with existing change orders and other additions or modifications to the Work described herein.

(c) After fifty (50) percent completion of the Work is purchased pursuant to this Agreement, the Contractor may present to the Owner a payment request for up one-half of the retainage held by the Owner. The Owner shall make prompt payment to the Contractor, unless in accordance with Section 255.078(6) of the Florida Statutes, such funds are the subject of a good faith dispute, claim or demand by the Owner or the Contractor.

5.2.4 Each Application for Payment shall be signed by the Contractor and shall constitute the Contractor's representation that the Work has progressed to the level for which payment is requested that the Work has been properly installed or performed in full accordance with this Agreement, and that the Contractor knows of no reason why payment should not be made as requested. Thereafter, the Project Director and Engineer shall review the Application for Payment and may also review the Work at the project site or elsewhere to determine whether the quantity and quality of the Work is as represented in the Application for Payment and is as required by this Agreement. The Project Director shall determine and certify to the Owner the amount properly owing to the Contractor. The Owner shall make partial payments on accounts of the Contract Price within thirty (30) days following the Project Director's receipt of each Application for Payment. The amount of each partial payment shall be the amount certified for payment by the Project Director less such amounts, if any, otherwise owing by the Contractor to the Owner or which the Owner shall have the right to withhold as authorized by this Agreement. The Project Director's certification of the Contractor's Application for Payment shall not preclude the Owner from the exercise of any of its rights as set forth in Paragraph 5.3 herein below.

5.2.5 The Contractor warrants that title to all Work covered by an Application shall pass to the Owner no later than time of payment. The Contractor further warrants that upon submittal of an Application for Payment, all Work for which payments have been received from the Owner shall be free and clear of liens, claims, security interest or other encumbrances in favor of the Contractor or any other person or entity whatsoever.

5.2.6 The Contractor shall promptly pay each Subcontractor out of the amount paid to the Contractor on account of such Subcontractor's Work, the amount to which such Subcontractor is entitled. In the event the Owner becomes informed that the Contractor has not paid a Subcontractor as herein provided, the Owner shall have the right, but not the duty, to issue future checks in payment to the Contractor of amounts otherwise due hereunder naming the Contractor and such Subcontractor as joint hereunder naming the Contractor and such Subcontractor as joint payees. Such joint check procedure, if employed by the Owner, shall create no rights in favor of any person or entity beyond the right of the named payees to payment of the check and shall not be deemed to commit the Owner to repeat the procedure in the future.

5.2.7 No progress payment, nor any use or occupancy of the Project by the Owner, shall be interpreted to constitute an acceptance of any Work not in strict accordance with this Agreement.

5.3 Withheld Payment

5.3.1 Owner may decline to make payment, may withhold funds and, if necessary, may demand the return of some or all of the amounts previously paid to the Contractor, to protect the Owner from loss because of:

- a) Defective Work not remedied by the Contractor and, in the opinion of the Owner, not likely to be remedied by the Contractor;
- b) claims of third parties against the Owner or the Owner's property;
- c) Failure by the Contractor to pay Subcontractors or others in a prompt and proper fashion;
- d) Evidence that the balance of the Work cannot be completed in accordance with the Contract for unpaid balance of the Contract Price;
- e) Evidence that the Work shall not be completed in the time required for Substantial or Final Completion;
- f) Persistent failure to carry out the Work in accordance with the Contract;
- g) Damage to the Owner or a third party to whom the Owner is, or may be, liable.

In the event that the Owner makes written demand upon the Contractor for amounts previously paid by the Owner as contemplated in this Subparagraph 5.3.1, the Contractor shall promptly comply with such demand.

5.4 Unexcused Failure to Pay

5.4.1 If within ten (10) days after the date established herein for payment to the Contractor by the Owner, the Owner, without cause or basis hereunder, fails to pay the Contractor any amount due and payable to the Contractor, then the Contractor may after seven (7) additional days, written notice to the Owner and the Project Director, and without prejudice to any other available rights or remedies it may have, stop the Work until payment of those amounts due from the Owner have been received. Any payment not made within ten (10) days after the date due shall bear interest at the rate of 12 percent (12%) per annum.

5.5 Substantial Completion

5.5.1 When the Contractor believes the Work is Substantially Complete, the Contractor shall submit to the Project Director a list of items to be completed or corrected. When the Project Director on the basis of an inspection determines that the Work is in fact Substantially Complete, he shall prepare a Certificate of Substantial Completion which shall establish the date of Substantial Completion, shall state the responsibilities of the Owner and the Contractor for Project security, maintenance, heat, utilities, damage to the Work, and insurance, and shall fix the time within which the Contractor shall complete the items listed therein. Guarantees required by the Contract shall commence on the date of Substantial Completion of the Work. The Certificate of Substantial Completion shall be submitted to the Owner and the Contractor for their written acceptance of the responsibilities assigned to them in such certificate.

Until Final Completion and acceptance of the Work by the Owner, the Owner shall pay the Contractor an amount equal to ninety percent (90%) of the Contract price. Ten Percent (10%) of the Contract Price shall be retained until Final Completion, acceptance of the Work by the Owner and Final Payment to the Contractor.

5.6 Final Completion and Final Payment

5.6.1 When all the Work is finally complete and the Contractor is ready for a Final Inspection, it shall notify the Owner and the Project Director thereof in writing. Thereupon, the Project Director shall make Final Inspection of the Work and, if the Work is complete in full accordance with this Agreement and this Agreement has been fully performed, the Project Director shall promptly issue a Final Certificate for Payment and if required to repeat its Final Inspection of the Work, the Contractor shall bear the cost of such repetition of the Work, the Contractor shall bear the cost of such repeat Final Inspection(s) which cost may be deducted by the Owner and all other Authorities having jurisdiction under Florida Laws or regulations.

5.6.1.1 If the Contractor fails to achieve Final Completion within the time fixed therefore by the Engineer in its Certificate of Substantial Completion, the Contractor shall pay the Owner liquidated damages at the sum shown in Paragraph 3.1.2. per day for each and every calendar day of unexcused delay in achieving Final Completion beyond the date set forth herein for Final Completion of the Work. Any sum's due and payable hereunder by the Contractor shall be payable, not as penalty, but as liquidated damages representing an estimate of delay damages likely to be sustained by the Owner, estimated at or before the time of executing the Contract. When the Owner reasonably believes that Final Completion shall be inexcusably delayed, the Owner shall be entitled, but not required, to withhold from any amounts otherwise due the Contractor an amount then believed by the Owner to be adequate to recover liquidated damages

applicable to such delays. If and when the Contractor overcomes the delay in achieving Final Completion, or any part thereof, for which the Owner has withheld payment, the Owner shall promptly release to the Contractor those funds withheld, but no longer applicable, as liquidated damages.

5.6.2 The Contractor shall not be entitled to Final Payment unless and until it submits to the Project Director its affidavit that all payrolls, invoices for materials and equipment, and other liabilities connected with the Work for which the Owner, or the Owner's property might be responsible, have been fully paid or otherwise satisfied; releases and waivers of claims and lien from all Subcontractors of the Contractor and of any and all other parties required by the Project Director or the Owner; consent of Surety, if any, to Final Payment. If any third party fails or refuses to provide a release of claim or waiver of a lien as required by Owner the Contractor shall furnish a bond satisfactory to the Owner to discharge any such lien or indemnify the Owner from liability.

5.6.3 The Owner shall make Final Payment of all sums, due the Contractor within thirty (30) days of the Project Director's execution of a Final Certificate for Payment.

5.6.4. Acceptance of Final Payment shall constitute a waiver of all claims against the Owner by the Contractor except for those claims previously made in writing against the Owner by the Contractor, pending at the time of Final Payment, and identified in writing by the Contractor as unsettled at the time of its request for Final Payment.

ARTICLE VI THE OWNER

6.1 Information, Services and Things Required from Owner

6.1.1 The Owner shall furnish to the Contractor, at the time of executing this Agreement, any and all written and tangible material in its possession concerning conditions below ground at the site of the Project. Such written and tangible material is furnished to the Contractor only in order to make complete disclosure of such material and for no other purpose. By furnishing such material, the Owner does not represent, warrant, or guarantee its accuracy either in whole, in part, implicitly, or at all, and shall have no liability therefore. The Owner shall also furnish surveys, legal limitations and utility locations (if known), and a legal description of the Project site. Copies may be provided instead of originals.

6.1.2 Excluding permits and fees normally the responsibility of the Contractor, the Owner shall obtain all approvals, easements, and the like required for construction.

6.1.3 The Owner shall furnish the Contractor, free of charge, 5 copies of the Contract Documents for execution of the Work. The Contractor shall be charged, and shall pay the Owner \$25.00 per additional set of Contract Documents which it may require.

6.2 Right to Stop Work

6.2.1 If the Contractor persistently fails or refuses to perform the Work in accordance with this Agreement, the Owner may order the Contractor to stop the Work, or any described portion thereof, until the cause for stoppage has been corrected, no longer exists, or the Owner orders that Work be resumed. In such event, the Contractor shall immediately obey such order.

6.3 Owner's Right to Perform Work

6.3.1 If the Contractor's Work is stopped by the Owner under Paragraph 6.2, and the Contractor fails within seven (7) days of such stoppage to provide adequate assurance to the Owner that the cause of such stoppage shall be eliminated or corrected, the Owner may, without prejudice to any other rights or remedies the Owner may have against the Contractor, proceed to carry out the subject Work.

In such a situation, an appropriate Change Order shall be issued deducting from the Contract Price the cost of correcting the subject deficiencies, and compensation for the Owner's additional services and expenses necessitated thereby, if any. If the unpaid portion of the Contract Price is insufficient to cover the amount due the Owner, the Contractor shall pay the difference to the Owner.

ARTICLE VII THE CONTRACTOR

7.1 The Contractor is again reminded of its continuing duty set forth in Subparagraph 1.5.7. The Contractor shall perform no part of the Work at any time without adequate Contract Documents or, as appropriate, approved Shop Drawings, Product Data or Samples for such portion of the Work. If the Contractor performs any of the Work where Contractor knows or should know such work involves a recognized error, inconsistency or omission in the Contract Documents without such notice to the Project Director and the Owner, the Contractor shall bear responsibility for such performance and shall bear the cost of correction.

7.2 The Contractor shall perform the Work strictly in accordance with this Agreement.

7.3 The Contractor shall supervise and direct the Work using the Contractor's best skill, effort and attention. The Contractor shall be responsible to the Owner for any and all acts or omissions of the Contractor, its employees and other engaged in the Work on behalf of the Contractor.

7.4. Warranty

7.4.1 The Contractor warrants to the Owner that all labor furnished to progress the Work under this Agreement shall be competent to perform the tasks undertaken, that the product of such labor shall yield only first-class results, that materials and equipment furnished shall be of good quality, free from faults and defects and in strict conformance with this Agreement. This warranty shall survive termination of this Agreement and shall not be affected by Final Payment hereunder. All Work not conforming to these requirements may be considered defective.

7.5 Contractor shall obtain and pay for all permits, fees and licenses necessary and ordinary for the Work. The Contractor shall comply with all lawful requirements applicable to the Work and shall give and maintain any and all notices required by applicable law pertaining to the Work.

7.6 Supervision

7.6.1 The Contractor shall employ and maintain at the Project site only competent supervisory personnel. Absent written instruction from the Contractor to the contrary, the superintendent shall be deemed the Contractor's authorized representative at the site and shall be authorized to receive and accept any and all communications from the Owner or Assignees.

7.6.2 Key supervisory personnel assigned by the Contractor to this Project are as follows:

Name	Function

So long as the individuals named above remain actively employed or retained by the Contractor, they shall perform the functions indicated next to their names unless the Owner agrees to the contrary in writing. In the event one or more individuals not listed above subsequently assume one or more of those functions listed above, the Contractor shall be bound by the provisions of this Subparagraph 7.6.2 as though such individuals have been listed above.

7.7 The Contractor, prior to commencing the Work, shall submit to the Project Director for his information, the Contractor's schedule for completing the Work. The Contractor's schedule shall be revised no less frequently than monthly (unless the parties otherwise agree in writing) and shall be revised to reflect conditions encountered from time to time and shall be related to the entire Project. Each sum revision shall be furnished to the Project Director. Failure by the Contractor to strictly comply with the provisions of this Paragraph 7.7 shall constitute a material breach of this Agreement.

7.8 The Contractor shall continuously maintain at the site, for the benefit of the Project Director, one record copy of this Agreement marked to record on a current basis changes, selections and modifications made during construction. Additionally, the Contractor shall maintain at the site for the Project Director the approved Product Data, Samples and

other similar required submittals. Upon Final Completion of the Work, all of these record documents shall be delivered to the Owner.

7.9 Product Data and Samples

7.9.1 Product Data, Samples and other submittals from the Contractor do not constitute Contract Documents. Their purpose is merely to demonstrate the manner in which the Contractor intends to implement the Work in conformance with the information received from the Contract Documents. All Product Data, Samples and other submittals shall belong to the Owner and shall be delivered, or returned to Owner, as applicable, prior to Submittals shall belong to Owner and shall be delivered, or returned to Owner, as applicable, prior to Substantial Completion.

7.10 Cleaning the Site and the Project

7.10.1 The Contractor shall keep the site reasonably clean during performance of the Work. Upon Final Completion of the Work, the Contractor shall clean the site and the Project and remove all waste, together with all of the Contractor's property therefrom.

7.11 Access to Work

7.11.1 The Owner and the Project Director shall have access to the Work at all times from commencement of the Work through Final Completion. The Contractor shall take whatever steps necessary to provide access when requested.

7.12 Indemnity

7.12.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, employees and officials from, and against, any, and all, administrative/legal/equitable liability, claims, damages, losses and expenses, including attorneys' fees, arising out of or resulting from performance of the work, noted in either the Scope of Work, or the Contract Documents, that are referenced and considered a part of this Agreement. It is specifically noted that such liability, claims, damages, loss or expense includes any of those referenced instances attributable to bodily injury, sickness, disease, or death, or to injury to, or destruction of, personal and/or real property, including the loss of use resulting therefrom or incident to, connected with, associated with or growing out of direct and/or indirect negligent or intentional acts or omissions by the Contractor, a Subcontractor, or anyone directly, or indirectly employed by them, or anyone for whose acts the Contractor or Subcontractor may be liable, regardless of whether or not such liability, claim, damage, loss or expense is caused in part by a party indemnified hereunder.

7.12.2 In claims against any person or entity indemnified under this Paragraph 7.12 by an employee of the Contractor, a Subcontractor, any one directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under this Paragraph 7.12 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefits acts or other employee benefit acts.

7.13 Safety

7.13.1 The Contractor shall be responsible for supervising all safety precautions, including initiating and maintaining such programs in connection with the performance of the Contract and for adequate maintenance of traffic.

7.13.2 The Contractor shall designate a member of the on-site construction team whose duty shall be the prevention of accidents. Unless notified otherwise in writing by the Contractor to the Owner and the Engineer, this person shall be the Contractor's Superintendent.

ARTICLE VIII CONTRACT ADMINISTRATION

8.1 Project Director

8.1.1 The Project Director, unless otherwise directed by the Owner shall perform those duties and discharge those responsibilities allocated to the Project Director as set forth in this Agreement. The Project Director shall be the Owner's representative from the effective date of this Agreement until Final Payment has been made. The Project Director shall be authorized to act on behalf of the Owner only to the extent provided in this Agreement.

8.1.2 The Owner and the Contractor shall communicate with each other in the first instance through the Project Director.

8.1.3 The Project Director shall be the initial interpreter of the requirements of the drawings and specifications and the judge of the performance there under by the Contractor. The Project Director shall render written or graphic interpretations necessary for the proper execution or progress of the Work with reasonable promptness on request of the Contractor.

8.1.4 The Project Director shall review the Contractor's Applications for Payment and shall certify to the Owner for payment to the Contractor, those amounts then due to the Contractor as provided in this Agreement.

8.1.5 The Project Director shall have authority to reject Work, which is defective or does not conform to the requirements of this Agreement. If the Project Director deems it necessary or advisable, the Project Director shall authority to require additional inspection or testing of the Work for compliance with Contract requirements at Contractor's expense.

8.1.6 The Project Director shall review and approve, or take other appropriate action as necessary, concerning the Contractor's submittals including Product Data and Samples. Such review, approval or other action shall be for the sole purpose of determining conformance with the design concept and information given through the Contract Documents.

8.1.7 The Project Director shall prepare Change Orders and may authorize minor changes in the Work by field order as provided elsewhere herein.

8.1.8 The Project Director shall, upon written request from the Contractor, conduct inspections to determine the date of Substantial Completion and the date of Final Completion, shall receive and forward to the Owner for the Owner's review and records, written warranties and related documents required by this Agreement and shall issue a Final Certificate for Payment upon compliance with the requirements of this Agreement.

8.1.9 The Project Director's decision in matters relating to aesthetic effect shall be final if consistent with the intent of this Agreement.

8.2 Claims by the Contractor

8.2.1 All Contractor claims shall be initiated by written notice and claim to the Project Director. Such written notice and claims must be furnished within seven (7) days after occurrence of the event, or the first appearance of the condition, giving rise to the claim.

8.2.2 Pending final resolution of any claim of the Contractor, the Contractor shall diligently proceed with performance of this Agreement and the Owner shall continue to make payments to the Contractor in accordance with this Agreement. The resolution of any claim under this Paragraph 8.2 shall be reflected by a Change Order executed by the Project Director and the Contractor.

8.2.3 Claims for Concealed and Unknown Conditions - Should concealed and unknown conditions encountered in the performance of the Work (a) below the surface of the ground or (b) in an existing structure be at variance with the conditions indicated by this Agreement, or should unknown conditions of an usual nature differing materially from those ordinarily encountered in the area and generally recognized as inherent in Work of the character provided for in this Agreement, be encountered, wherein the Contract Documents or Standard Construction industry practices have not placed the responsibility of discovering such concealed and unknown conditions upon the Contractor prior to the Contractor submitting his Bid for the Work, the Contract Price shall be equitably adjusted by Change Order upon the written notice and claim by either party made within seven (7) days after the first observance of the condition. As a condition precedent to the Owner having any liability to the Contractor for concealed or unknown conditions, the Contract must give the Project Director written notice of, and an opportunity to observe, the condition prior to disturbing it. The failure by the Contractor to make the written notice and claim as provided in this Subparagraph shall constitute a waiver by the Contractor of any claim arising out of or relating to such concealed or unknown condition.

8.2.4 Claims for Additional Costs - If the Contractor wishes to make a claim for an increase in the Contract Price, as a condition precedent to any liability of the Owner therefore, the Contractor shall give the Project Director written notice of such claim within seven (7) days after the occurrence of the event, or the first appearance of the condition, giving rise to such claim. Such notice shall be given by the Contractor before proceeding to execute any additional or changed Work. The failure by the Contractor to give such notice prior to executing the Work shall constitute a waiver of any claim for additional compensation.

8.2.4.1 In connection with any claim by the Contractor against the Owner for compensation in excess of the Contract Price, any liability of the Owner for the Contractor's costs shall be strictly limited to direct costs incurred by the Contractor and shall in no event include indirect costs or consequential damages of the Contractor.

The Owner shall not be liable to the Contractor for claims of third parties, including Subcontractors, unless and until liability of the Contractor has been established therefore in a court of competent jurisdiction.

8.2.5 Claims for Additional Time - If the Contractor is delayed in progressing any task which at the time of the delay is then critical or which during the delay becomes critical, as the sole result of any act or neglect to act by the Owner or someone acting in the Owner's behalf, or by changes ordered in the Work, unusual delay in transportation, unusually adverse weather conditions not reasonably anticipated, fire or any causes beyond the Contractor's control, then the date for achieving Substantial Completion of the Work shall be extended upon the written notice and claim of the Contractor to the Project Director, for such reasonable time as the Project Director may determine.

Any notice and claims for an extension of time by the Contractor shall be made not more than seven (7) days after the occurrence of the event or the first appearance of the condition giving the rise to the claim and shall set forth in detail the Contractor's basis for requiring additional time in which to complete the Project. In the event the delay to the Contractor is continuing one, only one notice and claim for additional time shall be necessary. If the Contractor fails to make such claim for an extension shall be waived. This paragraph shall not be deemed to waive any damages for delay that are covered by insurance.

8.2.5.1 Delays and Extensions of Time - An extension of Contract Time shall not be given due to weather conditions unless such weather conditions more severe than average have caused a delay. In requesting extension of time for weather conditions; Contractor shall present complete records and such requests shall document how weather conditions delayed progress of Work.

8.2.5.2 Excusable Delays - The Contractor shall not be considered in default by reason of any delay in performance if such delay arises out of causes reasonably beyond the Contractor's control and without its fault or negligence. Such cases may include, but are not limited to: acts of God; the County's ommissive and commissive failures; natural or public health emergencies; freight embargoes; and severe weather conditions.

If the delay is caused by the failure of the Contractor's subcontractor(s) to perform or make progress, and if such delay arises out of causes reasonably beyond the control of the Contractor and its subcontractor(s), and is without the fault or negligence of either of them, the Contractor shall not be deemed to be in default.

Upon the Contractor's request, the County shall consider the facts and extent of any delay in performing the work and, if the Contractor's failure to perform was without its fault or negligence, the Contract Schedule and/or any other affected provision of this Agreement may be revised accordingly; subject to the County's right to change, terminate, or stop any or all of the Work at any time.

8.3 Field Orders

8.3.1 The Project Director shall have authority to order minor changes in the Work not involving a change in the Contract Price or in Contract Time and not inconsistent with the intent of the Contract. Such changes shall be effected by field order and shall be binding upon the Contractor. The Contractor shall carry out such field orders promptly.

ARTICLE IX SUBCONTRACTORS

9.1 Definition

9.1.1 A Subcontractor is an entity, which has a direct Contract with the Contractor to perform a portion of the Work.

9.2 Award of Subcontracts

9.2.1 Upon execution of the Contract, the Contractor shall furnish the Project Director, in writing, the names of persons or entities proposed by the Contractor to act as a Subcontractor on the Project. The Project Director shall promptly reply to the Contractor, in writing, stating any objections the Project Director may have to such proposed Subcontractor. The Contractor shall not enter into a Subcontract with a proposed Subcontractor with reference to whom the Project Director has made a timely objection.

9.2.2 All subcontracts shall afford the Contractor rights against the Subcontractor, which correspond to those rights afforded to the Owner by Subparagraph 12.2.1 below.

ARTICLE X CHANGES IN THE WORK

10.1 Changes Permitted

10.1.1 Changes in the Work within the general scope of this Agreement, consisting of additions, deletions, revisions, or any combination thereof, may be ordered without invalidating this Agreement, by Change Order or by Field Order.

10.1.2 Changes in the Work shall be performed under applicable provisions of this Agreement and the Contractor shall proceed promptly with such changes.

10.2 Change Order Defined

10.2.1 Change Order shall mean a written order to the Contractor executed by the Project Director, issued after execution of this Agreement, authorizing and directing a change in the Work or an adjustment in the Contract Price or the Contract Time, or any combination thereof. Only the Change Order may change the Contract Price and the Contract Time.

10.3 Changes in the Contract Price

10.3.1 Any change in the Contract Price resulting from a Change Order shall be determined as follows: (a) by mutual agreement between the Owner and the Contractor as evidenced by (1) the change in the Contract Price being set forth in the Change Order, (2) such change in the Contract Price, together with any conditions or requirements related thereto, being initialed by both parties and (3) the Contractor's execution of the Change Order, or (b) if no mutual agreement occurs between the Owner and the Contractor, then, as provided in Subparagraph 10.3.2 below.

10.3.2 If no mutual agreement occurs between the Owner and the Contractor as contemplated in Subparagraph 10.3.1 above, the change in the Contract Price, if any, shall then be determined by the Project Director on the basis of the reasonable expenditures or savings of those performing, deleting or revising the Work attributable to the change, including, in the case of an increase or decrease in the Contract Price, a reasonable allowance for direct job site overhead and profit. In such case, the Contractor shall present, in such form and with such content as the Owner or the Project Director requires, an itemized accounting of such expenditures or savings shall be limited to the following: reasonable costs of materials, supplies, or equipment including delivery costs, reasonable costs of labor, including social security, old age and unemployment insurance, fringe benefits required by a pre-existing agreement or by custom, and workers' compensation insurance, reasonable costs of premiums for all Bonds and insurance, permit fees, and sales, use or other taxes related to the Work and paid by the Contractor, and reasonable costs of directly attributable to the change. In no event shall any expenditure or savings associated with the Contractor's home office or other non-jobsite overhead expenses be included in any change in the Contract Price. Pending final determination of reasonable expenditures or savings to the Owner, payments on account shall be made to the Contractor on the Owner's Certificate of Payment.

10.3.3 If Unit Prices are provided in the Contract, and if the quantities contemplated are so changed in proposed Change Order that application of such Unit Prices to the quantities of Work proposed shall cause substantial inequity to the Owner or to the Contractor, that applicable Unit Prices shall be equitable adjusted.

10.4 Minor Changes

10.4.1 The Project Director shall have authority to order minor changes in the Work not involving a change in the Contract Price or an extension of the Contract Time and not inconsistent with the intent of this Agreement. Such minor changes shall be made by written Field Order, and shall be binding upon the Owner and the Contractor. The Contractor shall promptly carry out such written Field Orders.

10.5 Effect of Executed Change Order

10.5.1 The execution of a Change Order by the Contractor shall constitute conclusive evidence of the Contractor's agreement to the ordered changes in the Work, this Agreement as thus amended, the Contract Price and the Contract Time. The Contractor, by executing the Change Order, waives and forever releases any claim against the Owner for additional time or compensation for matters relating to or arising out of or resulting from the Work included within or

affected by the executed Change Order.

10.6 Notice to Surety; Consent

10.6.1 The Contractor shall notify and obtain the timely consent and approval of the Contractor's surety with reference to all Change Orders if such notice, consent or approval is required by the Contractor's surety or by law. The Contractor's warranty to the Owner that the surety has been notified of and consents to, such Change Order and the surety shall be conclusively deemed to have been notified of such Change Order and to have expressly consented thereto.

ARTICLE XI UNCOVERING AND CORRECTING WORK

11.1 Uncovering Work

11.1.1 If any of the Work is covered contrary to the Project Director's request or to any provision of this Agreement, it shall, if required by the Project Director, be uncovered for the Project Director's inspection and shall be properly replaced at the Contractor's expense without change in the Contract Time.

11.1.2 If any of the Work is covered in a manner not described in Subparagraph 11.1.1 above, it shall, if required by the Project Director or Owner, be uncovered for the Project Director's inspection. If such Work conforms strictly to this Agreement, costs of uncovering and proper replacement shall by Change Order be charged to the Owner. If such Work does not strictly conform to this Agreement, the Contractor shall pay the costs of uncovering and proper replacement.

11.2 Correcting Work

11.2.1 The Contractor shall immediately proceed to correct Work rejected by the Project Director as defective or failing to conform to this Agreement. The Contractor shall pay all costs and expenses associated with correcting such rejected Work, including any additional testing and inspections, and reimbursement to the Owner for the Project Director's services and expenses made necessary thereby.

11.2.2 If within one (1) year after Substantial Completion of the Work, if any of the Work is found to be defective or not in accordance with this Agreement, the Contractor shall correct it within seven (7) days at the Contractor's expense upon receipt of written notice from the Owner. This obligation shall survive Final Payment by the Owner and termination of this Agreement. With respect to Work first performed and completed after Substantial Completion, this one (1) year obligation to specifically correct defective and nonconforming Work shall be extended by the period of time which elapses between Substantial Completion and completion of the subject Work.

11.2.3 Nothing contained in this Paragraph 11.2 shall establish any period of limitation with respect to other obligations, which the Contractor has under this Agreement. Establishment of the one (1) year time period in Subparagraph 11.2.2 relates only to the duty of the Contractor to specifically correct the Work, and has no relationship to the time which the obligation to comply with the Contract Documents may be sought to be enforced.

11.3 Owner May Accept Defective or Nonconforming Work

11.3.1 If the Owner chooses to accept defective or nonconforming Work, the Owner may do so. In such events, the Contract Price shall be reduced by the greater of (a) the reasonable cost of removing and correcting the defective or nonconforming Work, and (b) the difference between the fair market value of the Project had it not been constructed in such manner as to include defective or nonconforming Work. If the remaining portion of the unpaid Contract Price, if any, is insufficient to compensate the Owner for its acceptance of defective or nonconforming Work, the Contractor shall, upon written demand from the Owner, pay the Owner such remaining compensation for accepting defective or nonconforming Work.

ARTICLE XII CONTRACT TERMINATION

12.1 Termination by the Contractor

12.1.1 If the Work is stopped for a period of ninety (90) days by an order of any court or as a result of an act of the Government, through no fault of the Contractor or any person or entity working directly or indirectly for the Contractor, the Contractor may, upon ten (10) days written notice to the Owner, terminate performance under this Agreement and

recover from the Owner payment for the actual reasonable expenditures of the Contractor (as limited in Subparagraph 10.3.2 above) for all Work executed and for materials, equipment, tools, construction equipment and machinery actually purchased or rented solely for the Work, less any salvage value of any such items.

12.1.2 If the Owner shall persistently or repeatedly fail to perform any material obligation to the Contractor for a period of fifteen (15) days after receiving written notice from the Contractor of its intent to terminate if such failure is not substantially corrected within fifteen (15) days, the Contractor may terminate performance under this Agreement by written notice to the Project Director. In such event, the Contractor shall be entitled to recover from the Owner as though the Owner had terminated the Contractor's performance under this Agreement for convenience pursuant to Subparagraph 12.2.1 hereunder.

12.2 Termination by the Owner

12.2.1 For Convenience

12.2.1.1 The Owner may terminate this Agreement for convenience. In such instance, the Owner shall provide written notice of such termination to the Contractor specifying when termination shall become effective.

12.2.1.2 The Contractor shall incur no further obligations in connection with the Work and the Contractor shall stop Work when such termination becomes effective. The Contractor shall also terminate outstanding orders and subcontracts. The Contractor shall settle liabilities and claims arising out of the termination of subcontracts and orders. The Owner may direct the Contractor to assign the Contractor's right, title and interest under terminated orders or subcontracts to the Owner or its designee.

12.2.1.3 The Contractor shall transfer title and deliver to the Owner such completed or partially completed Work and materials, equipment, parts, fixtures, information and Contract rights as the Contractor has.

12.2.1.4 (a) The Contractor shall submit a termination claim to the Project Director specifying the amounts due because of the termination for convenience together with costs, pricing or other data required by the Project Director. If the Contractor fails to file a termination claim within one (1) year from the effective date of termination, the Owner shall pay the Contractor, an amount derived in accordance with subparagraph (c) below.

(b) The Owner and the Contractor may agree to compensation, if any, due to the Contractor hereunder.

(c) Absent agreement to the amount due to the Contractor, the Owner shall pay the Contractor the following amounts;

(d) Contract prices for labor, materials, equipment, and other services accepted under this Agreement;

(e) Reasonable costs incurred in preparing to perform and in performing a portion of the Work prior to termination and not included in (d) or (e), and in terminating the Contractor's performance, plus a fair and reasonable allowance for overhead and profit thereon (such profit shall not include anticipated profit or consequential damages); provided, however, that if it appears that the Contractor would have not profited or would have sustained a loss if the entire Contract had been completed, no profit shall be allowed or included and the amount of compensation shall be reduced to reflect the anticipated rate of loss, if any;

(f) Reasonable costs of settling and paying claims arising out of the termination of Subcontracts or orders pursuant to Subparagraph 12.2.1.2 of this Paragraph. These costs shall not include amounts paid in accordance with other provisions hereof.

The total sum to be paid the Contractor under this Subparagraph 12.2.1 shall not exceed the total Contract Price, as properly adjusted, reduced by the amount of payments otherwise made, and shall in no event include duplication of payment.

12.2.2 For Cause

12.2.2.1 If the Contractor persistently or repeatedly refuses or fails to perform the Work in a timely manner, supply enough properly skilled Workers, supervisory personnel or proper equipment or materials, or if it fails to make prompt payment to Subcontractors, or for materials or labor, or persistently disregards laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, or otherwise substantially violates a material provision of this

Agreement, then the Owner may, by written notice to the Contractor, without prejudice to any other right or remedy, terminate the employment of the Contractor and take possession of the site and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor and may finish the Work by whatever methods it may deem expedient. In such case, the Contractor shall not be entitled to receive any further payment until the Work is finished.

12.2.2.2 If the unpaid balance of the Contract Price less any liquidated damages due under this Agreement, exceeds the cost of finishing the Work, including compensation for the Project Director's additional services and expenses made necessary thereby, such exceed the unpaid balance, the Contractor shall pay the difference to the Owner. This obligation for payment shall survive the termination of the Contract.

12.2.2.3 In the event the employment of the Contractor is terminated by the Owner for cause pursuant to Subparagraph 12.2.2 and it is subsequently determined by a Court of competent jurisdiction that such termination was without cause, such termination shall thereupon be deemed a Termination for Convenience under Subparagraph 12.2.1 and the provisions of Subparagraph 12.2.1 shall apply.

12.2.2.4 Neither the Contractor nor the Owner shall be liable to the other for any failure to perform under this Agreement to the extent that such performance is prevented by an act of God, war, riots, natural catastrophe, strikes, lockouts, labor disputes, or other event(s) beyond the control of the non-performing party and which could not have been avoided or overcome by the exercise of due diligence; providing that the party claiming the excuse from performance has (a) promptly notified the other party of the occurrence and its estimated duration; (b) promptly remedied or mitigated the effect of the occurrence to the extent possible; and (c) resumed performance as soon as possible.

ARTICLE XIII INSURANCE

13.1 Contractor's Insurance:

The Contractor shall not commence work under this Agreement until he/she has obtained all insurance required under this section and such insurance has been approved by the County. All insurance policies shall be issued by companies authorized to do business under the laws of the State of Florida. The Contractor shall furnish proof of Insurance to the County prior to the commencement of operations. The Certificate(s) shall clearly indicate the Contractor has obtained insurance of the type, amount, and classification as required by contract and that no material change or cancellation of the insurance shall be effective without thirty (30) days prior written notice to the County. **Certificates shall specifically include the County as Additional Insured for all lines of coverage except Workers' Compensation and Professional Liability. A copy of the endorsement must accompany the certificate.** Compliance with the foregoing requirements shall not relieve the Contractor of its liability and obligations under this Agreement.

Certificate Holder Address: St. Johns County, a political subdivision of the State of Florida
500 San Sebastian View
St. Augustine, FL 32084

The Contractor shall maintain during the life of this Agreement, Comprehensive General Liability Insurance with minimum limits of \$1,000,000 per occurrence, \$2,000,000 aggregate, to protect the Contractor from claims for damages for bodily injury, including wrongful death, as well as from claims of property damages which may arise from any operations under this contract, whether such operations be by the Contractor or by anyone directly employed by or contracting with the Contractor.

The Contractor shall maintain Umbrella or Excess Liability Insurance covering workers compensation, commercial general liability and business auto liability with minimum limits of liability of \$1,000,000.

The Contractor shall maintain throughout the duration of the awarded Contract, Comprehensive Automobile Liability Insurance with minimum limits of \$2,000,000 combined single limit for bodily injury and property damage liability to protect the Contractor from claims for damages for bodily injury, including the ownership, use, or maintenance of owned and non-owned automobiles, including rented/hired automobiles whether such operations be by the Contractor or by anyone directly or indirectly employed by a Contractor.

The Contractor shall maintain during the life of this Agreement, adequate Workers' Compensation Insurance in at least such amounts as is required by the law for all of its employees per Florida Statute 440.02.

The Contractor shall maintain, throughout the duration of the awarded Contract, Builders Risk insurance, property insurance written on an "all risk" policy form including coverage for Earthquake, Flood, Windstorm, Debris Removal, Hot and Cold Testing in the amount of the initial contract sum, plus the value of subsequent contract modification and cost of material supplied or installed by others, comprising total value for the entire project at the site on replacement cost basis. The named insured should include Owner, General Contractor and Subcontractors. The policy should waive any co-insurance penalties. Covered Property to include Permanent Works: Materials, supplies, equipment, machinery and property of others, if the insured is contractually responsible and the value is included in the total project, Temporary Work: scaffolding, form work, fences, shoring, falsework, temporary buildings, Offsite Locations, Offsite Storage and Transit.

The Contractor shall be responsible for the deductible for the required insurance coverage. Such property insurance shall be maintained until final payment has been made. If the policy is terminated for any reason, notice should be provided to the owner within a minimum of thirty (30) consecutive calendar days by the carrier. The Owner, contractors and subcontractors waive their rights of subrogation against one another.

In the event of unusual circumstances, the County Administrator or his designee may adjust these insurance requirements.

ARTICLE XIV MISCELLANEOUS

14.1 Governing Law & Venue

14.1.1 The Contract shall be governed by the laws of the State of Florida. Venue for any administrative and/or legal action arising under the Contract shall be St. Johns County, Florida.

14.2 Successors and Assigns

14.2.1 The Owner and Contractor bind themselves, their successors, assigns and legal representatives to the other party hereto and to successors, assigns and legal representatives of such other party in respect to covenants, agreements and obligations contained in this Agreement. The Contractor shall not assign this Agreement without written consent of the Owner.

14.3 Surety Bonds

14.3.1 The Contractor shall furnish a separate Public Construction Bond to the Owner. Such Bonds shall set forth a penal sum in an amount not less than the Contract Price. The Bond furnished by the Contractor shall incorporate by reference the terms of this Agreement as fully as though they were set forth verbatim in such Bonds. The Public Construction Bond shall provide that in the event the Contract Price is adjusted by Change Order executed by the Contractor. The Public Construction Bond furnished by the Contractor shall be in form suitable to the Owner and shall be executed by a Surety, or Sureties, reasonably suitable to the Owner.

14.4 Safety of Persons and Property

14.4.1 When existing utility lines shown on the Drawings are to be removed or relocated, the Contractor shall notify the Engineer in ample time for taking measures for prevention of the interruption of any required services prior to the beginning of operations. In the event that the Contractor damages any existing utility lines not shown on the Drawings, the location of which is not known to the Contractor report thereof shall be made immediately to the Engineer.

14.4.2 Locations of existing utility lines shown on the Drawings are based on the best information available to the Engineer, but shall not be considered exact either as to location or number of such lines.

14.4.3 Contractor shall protect utility lines constructed under terms of the agreement and those discovered or shown on Drawings to be existing. Damage occurring to utility lines due to Contractor's operations shall be repaired at no cost to the Owner.

14.5 Authority to Execute

14.5.1 Each party represents that it has the lawful authority to enter into this Agreement and has authorized the execution of this Agreement by the party's authorized representative shown below.

**ARTICLE XV
EQUAL EMPLOYMENT OPPORTUNITY**

15.1 Contractor's Employment Opportunity

15.1.1 The Contractor and all Subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin or age.

The Contractor shall take affirmative action to insure that applicants are employed, and that employees are treated during employment without regard to their race, religion, color, sex, national origin or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertisement, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the policies of non-discrimination.

15.1.2 The Contractor and all Subcontractors shall, in all solicitations or advertisements for employees placed by them or on their behalf, state that all qualified applicants shall receive consideration for employment without regard to race, religion, color, sex, national origin or age.

**ARTICLE XVI
APPRENTICESHIP LAW REQUIREMENTS**

16.1 Apprenticeship Law (Chapter 446, Florida Statutes)

16.1.1 The Contractor shall make a diligent effort to hire for Performance of the Contract a number of apprentices in each occupation which bears to the average number of journeyman in that occupation to be employed in the performance of the Contract, the ratio of at least one (1) apprentice or trainee to every five (5) journeymen.

16.1.2 The Contractor shall, when feasible and except when the number of apprentices or trainees to be hired is fewer than four (4), assure that twenty-five (25) percent of such apprentices or trainees are in their first year of training. Feasibility here involves a consideration of the availability of training opportunities for first year apprentices or trainees, the hazardous nature of the Work for beginning workers, and excessive unemployment of apprentices or trainees in their second or subsequent years of training.

16.1.3 The Contractor, during the performance of the Contract, shall make diligent efforts to employ the number of apprentices or trainees necessary to meet requirements of Subparagraphs a. and b. However, on-the-job training programs shall only be established in non-apprenticable trades or occupations to meet the requirements of this section.

16.1.4 The Contractor agrees to return records of employment, by trade, of the number of apprentices or trainees by first year of training, and the number of journeymen and the wages paid, and hours of work, of such persons on a form as prescribed by the Bureau of Apprenticeship of the Division of Labor at three (3) month intervals. Submission of duplicate copies of forms submitted to the United States Department of Labor shall be sufficient compliance with the provisions of the section.

16.1.5 The Contractor agrees to supply the Bureau of Apprenticeship of the Division of Labor, at three (3) months intervals, a statement describing steps taken toward making diligent effort and containing a breakdown by craft or hours worked and wages paid for first year apprentices or trainees, other apprentices or trainees and journeymen.

16.1.6 The Contractor agrees to insert in any Subcontract under this Agreement the requirements contained in this section. "The term Contractor" as used in such clauses and any Subcontract shall mean the Subcontractor.

16.1.7 Anything herein to the Contrary notwithstanding, Contractor agrees to comply with all of the provisions of Florida Statutes 446 and all regulations prescribed by the Bureau of Apprenticeship of the Division of Labor.

**ARTICLE XVII
PUBLIC RECORDS**

17.1 Public Records

17.1.1 The cost of reproduction, access to, disclosure, non-disclosure, or exemption of records, data, documents, and/or materials, associated with this Agreement shall be subject to the applicable provisions of the Florida Public Records Law (Chapter 119, Florida Statutes), and other applicable State and Federal provisions. Access to such public records, may not be blocked, thwarted, and/or hindered by placing the public records in the possession of a third party, or an unaffiliated party.

17.1.2 In accordance with Florida law, to the extent that Contractor's performance under this Contract constitutes an act on behalf of the County, Contractor shall comply with all requirements of Florida's public records law. Specifically, if Contractor is expressly authorized, and acts on behalf of the County under this Agreement, Contractor shall:

- (1) Keep and maintain public records that ordinarily and necessarily would be required by the County in order to perform the Services;
- (2) Upon request from the County's custodian of public records, provide the County with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost as provided in Chapter 119, Florida Statutes, or as otherwise provided by law;
- (3) Ensure that public records related to this Agreement that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by applicable law for the duration of this Agreement and following completion of this Agreement if the Contractor does not transfer the records to the County; and
- (4) Upon completion of this Agreement, transfer, at no cost, to the County all public records in possession of the Contractor or keep and maintain public records required by the County to perform the Services.

17.1.3 If the Contractor transfers all public records to the County upon completion of this Agreement, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of this Agreement, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the County, upon request from the County's custodian of public records, in a format that is compatible with the County's information technology systems.

17.1.4 Failure by the Contractor to comply with the requirements of this section shall be grounds for immediate, unilateral termination of this Agreement by the County.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO ITS DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT: OCA, ATTN: Public Records Manager, 500 San Sebastian View, St. Augustine, FL 32084, PH: (904) 209-0805, EMAIL: publicrecords@sjcfl.us.

Bid No: 19-28; Bartram Trail Branch Library Fire Sprinkler Replacement

Owner:

St. Johns County, FL (Seal)
(Typed Name)

By: _____
Signature of Authorized Representative

Jaime T. Locklear, MPA, CPPO, CPPB, FCCM
Printed Name

Purchasing Manager
Title

Date of Execution

ATTEST:
St. Johns County, FL
Clerk of Courts

By: _____
Deputy Clerk

Date of Execution

Legally Sufficient:

Deputy County Attorney

Date of Execution

Contractor:

Island Mechanical Contractor Inc. (Seal)
(Typed Name)

By: _____
Signature of Authorized Representative

Printed Name & Title

Date of Execution



St. Johns County Board of County Commissioners

Purchasing Division

NOTICE OF INTENT TO AWARD

January 15, 2019

RE: Bid No: 19-28; Bartram Trail Branch Library Fire Sprinkler Replacement

Please be advised that the Purchasing Department of the St. Johns County Board of County Commissioners is issuing this notice of its Intent to Award a contract to Island Mechanical Contractor Inc., as the responsive, responsible bidder for Bid No: 19-28; Bartram Trail Branch Library Fire Sprinkler Replacement. This notice will remain posted on the **St. Johns County Purchasing Department bulletin board** until 1:00 PM, Friday, January 18, 2019.

Any person (including any bidder or proposer) who is, or claims to be, adversely affected by the County's decision or proposed decision shall file a written Notice of Protest with the Purchasing Department of St. Johns County within 72 hours after the posting of the notice of decision or proposed decision. Failure to file a Notice of Protest within the time prescribed in Section 304.10 of the St. Johns County Purchasing Manual (the Bid Protest Procedure), or failure to post the bond or other security required by the County within the time allowed for filing a bond, shall constitute a waiver of proceedings and a waiver of the right to protest. The protest procedures may be obtained from the Purchasing Department and are included in the County's Purchasing Manual. All of the terms and conditions of the County Purchasing Manual are incorporated herein by reference and are fully binding.

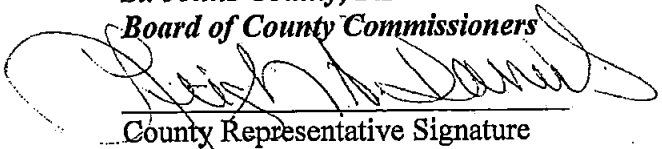
Should the Purchasing Department receive no protests in response to this notice, an agenda item will be submitted to the St. Johns County Board of County Commissioners for their consideration and subsequent approval to award and execute a contract.

Please forward all correspondence, requests or inquiries directly to Leigh Daniels, CCPB, Procurement Supervisor, at ldaniels@sjcfl.us.

Sincerely,

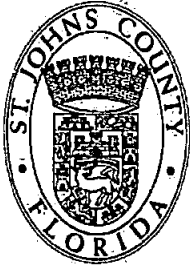
St. Johns County, FL

Board of County Commissioners


County Representative Signature

Date: 1/15/19

Leigh A. Daniels, CCPB
Procurement Supervisor
(904) 209-0154 – Direct
(904) 209-0155 – Fax
ldaniels@sjcfl.us



**ST. JOHNS COUNTY
PURCHASING DEPARTMENT**

500 San Sebastian View
St. Augustine, Florida 32084

I N T E R O F F I C E M E M O R A N D U M

TO: Bill Freeman, P.E., Chief Engineer, Public Works Department
FROM: Leigh A. Daniels, CPPB, Procurement Supervisor *LAD*
SUBJECT: Bid No. 19-28, Bartram Trail Branch Library Fire Sprinkler Replacement
DATE: January 9, 2019

Attached are copies of the bid proposals received for the above mentioned along with a copy of the Bid Tabulation Sheet.

Please review, evaluate and make a written recommendation for this project. Also, indicate the budgeted amount for this item along with the appropriate charge code and return at your earliest convenience. We will prepare the agenda item and contract.

Please let me know if I can assist your department in any other way.

Department Head Approval *William H. Freeman*
Date *1/10/19*
Budget Amount *196,904.00*
Account Funding Title *Library maintenance*
Deferred maintenance
Funding Charge Code *0031-54623 / 0078-54600*
Award to *IMC*
Award Amount *\$ 187,223.00*

ST. JOHNS COUNTY BID TABULATION

BID TITLE	<u>BARTRAM TRAIL BRANCH LIBRARY FIRE SPRINKLER</u>		ANY BIDDER AFFECTED ADVERSELY BY AN INTENDED	OPENED BY	<u>LEIGH DANIELS</u>
	<u>REPLACEMENT</u>		DECISION WITH RESPECT TO THE AWARD OF ANY BID,	TABULATED BY	<u>SHELLY VONGCHANATA</u>
			SHALL FILE WITH THE PURCHASING DEPARTMENT FOR	VERIFIED BY	<u></u>
BID NUMBER	<u>19-28</u>		ST. JOHNS COUNTY, A WRITTEN NOTICE OF INTENT		
OPENING DATE/TIME	<u>January 9, 2019</u>	<u>2:00 PM</u>	FILE A PROTEST NOT LATER THAN SEVENTY-TWO (72)		
			HOURS (EXCLUDING SATURDAY, SUNDAY AND LEGAL		
			HOLIDAYS) AFTER THE POSTING OF THE BID TABULATION		
POSTING DATE/TIME	<u>01/09/19</u>	<u>01/14/19</u>	PROTEST PROCEDURES MAY BE OBTAINED IN THE	PAGE (S)	1 of 1
	<u>3:00 PM</u>	<u>3:00 PM</u>	PURCHASING DEPARTMENT.		

BIDDERS	TOTAL LUMP SUM BID	ALTERNATE BID LUMP SUM PRICE	BID BOND	ADDENDUM # 1	ATTENDED MANATORY PRE-BID MEETING			
IMC	\$187,223.00	N/A	Yes	Yes	Yes			

BID AWARD DATE - _____

BID NO: 19-28

REVISED OFFICIAL COUNTY BID FORM
ST. JOHNS COUNTY, FLORIDA

PROJECT: BARTRAM TRAIL BRANCH LIBRARY FIRE SPRINKLER REPLACEMENT

TO: THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA

DATE SUBMITTED: 01/08/2019

BID PROPOSAL OF

Islands Mechanical Contractor Inc (IMC)

Full Legal Company Name

3070 BLANDIND BLVD. MIDDLEBURG, FL 32068

904-406-6100

904-291-4610

Mailing Address

Telephone Number

Fax Number

Bidders: Having become familiar with requirements of the project, and having carefully examined the Bidding Documents and Specifications entitled for Bid No: 19-28; Bartram Trail Branch Library Fire Sprinkler Replacement in St. Johns County, Florida, the undersigned proposes to furnish all materials, labor and equipment, supervision and all other requirements necessary to comply with the Contract Documents to submit the following Bid Proposal summarized as follows:

LUMP SUM BID PRICE: The Lump Sum Bid for this project shall be for the complete construction of the project, in accordance with the plans and specifications.

\$ 187,223.00

Lump Sum Bid Price (Numerical)

one hundred eighty-seven thousand two hundred twenty-three and 00 /100 Dollars

Lump Sum Bid Price (Amount written or typed in words)

ALTERNATE BID LUMP SUM PRICE:

Should the bidder wish to submit an alternate proposal, they shall provide sufficient detail in their proposed plan, so that the engineer can evaluate its feasibility.

\$ N/A (Add or Deduct) circle one

N/A

/100 Dollars

Alternate Lump Sum Bid Price (Amount written or typed in words)

Bidders shall input amounts in numerals and in words. Any discrepancy between the amounts provided shall be determined by the amount written in words for each bid item above.

BID NO: 19-28

During the preparation of the Bid, the following addenda, if any, were received:

No.: 1 Date Received: 01/02/2019

No.: _____ Date Received: _____

No.: _____ Date Received: _____

We, the undersigned, hereby declare that no person or persons, firm or corporation, other than the undersigned are interested, in this proposal, as principals, and that this proposal is made without collusion with any person, firm or corporation, and we have carefully and to our satisfaction examined the Bid Documents and Project Specifications.

We have made a full examination of the location of the proposed work and the sources of supply of materials, and we hereby agree to furnish all necessary labor, equipment and materials, fully understanding that any quantities shown therewith are approximate only, and that we will fully complete all requirements therein as prepared by the Owner, within the same time limit specified in the Bid Documents as indicated above.

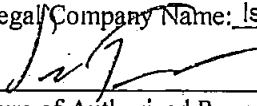
If the Undersigned is notified of the acceptance of this Bid Proposal by the Board within ninety (90) calendar days for the time set for the opening of Bids, the Undersigned further agrees, to execute a contract for the above work within ten (10) days after notice that his Bid has been accepted for the above stated compensation in the form of a Contract presented by the Owner.

The Undersigned further agrees that security in the form of a Bid Bond, certified or cashier's check in the amount of not less than five percent (5%) of Total Lump Sum Bid Price, payable to the Owner, accompanies this Bid; that the amount is not to be construed as a penalty, but as liquidated damages which said Owner will sustain by failure of the Undersigned to execute and deliver the Contract and Bond within ten (10) days of the written notification of the Award of the Contract to him; thereupon, the security shall become the property of the Owner, but if this Bid is not accepted within ninety (90) days of the time set for the submission of Bids, or if the Undersigned delivers the executed Contract upon receipt, the Security shall be returned to the Bidder within seven (7) working days.

BID NO: 19-28

CORPORATE/COMPANY

Full Legal Company Name: Islands Mechanical Contractor Inc (IMC) (Seal)

By:  SEAN TURNAGE CFO
Signature of Authorized Representative (Name & Title typed or printed)

By: _____
Signature of Authorized Representative (Name & Title typed or printed)

Address: 3070 BLANDIND BLVD. MIDDLEBURG, FL 32068
Telephone No.: () 904-406-6100 Fax No.: () 904-291-4610

Email Address for Authorized Company Representative: sturnage@islandsmechanical.com
Federal I.D. Tax Number: 59-3144925 DUNS #: 809013252
(If applicable)

INDIVIDUAL

Name: N/A
(Signature) (Name typed or printed) (Title)

Address: N/A
Telephone No.: () _____ Fax No.: _____
Email Address: _____
Federal I.D. Tax Number: _____

Submittal Requirements:

- Official County Bid Form
- Attachment "A" – St Johns County Board of County Commissioners Affidavit
- Attachment "B" – Certificate as to Corporate Principal
- Attachment "C" – License / Certification List
- Attachment "D" – List of Proposed Sub-Contractors/Suppliers
- Attachment "E" – Conflict of Interest Disclosure Form
- Attachment "F" - Proof of Insurance
- Attachment "G" – Experience of Bidder Form
- Bid Bond Form
- Fully Acknowledged Addenda Applicable to this bid

Official County Bid Form, Attachments "A", "B", "C", "D", "E", "F", and "G" Bid Bond must be completed, along with a fully acknowledged copy of each Addendum applicable to this Bid and submitted with each copy of the Bid Proposal. One (1) original and two (2) copies of all required forms must be submitted.

BID NO: 19-28

ATTACHMENT "A"

ST. JOHNS COUNTY, BOARD OF COUNTY COMMISSIONERS AFFIDAVIT

TO: ST. JOHNS COUNTY, BOARD OF COUNTY COMMISSIONERS,
ST. JOHNS COUNTY, ST. AUGUSTINE, FLORIDA.

At the time the proposal is submitted, the Bidder shall attach to his Bid a sworn statement.

This sworn statement shall be an affidavit in the following form, executed by an officer of the firm, association, or corporation submitting the proposal, and shall be sworn to before a person who is authorized by law to administer oaths.

STATE OF FLORIDA, COUNTY OF ST. JOHNS

Before me, the Undersigned authority, personally appeared SEAN TURNAGE who being duly sworn, deposes and says he is CFO (Title) of the firm of Islands Mechanical Contractor Bidder submitting the attached proposal for the services covered by the bid documents for Bid No: 19-28; Bartram Trail Branch Library Fire Sprinkler Replacement, in St. Johns County, Florida.

The affiant further states that no more than one proposal for the above-referenced project will be submitted from the individual, his firm or corporation under the same or different name, and that such Bidder has no financial interest in the firm of another bidder for the same work. That neither he, his firm, association nor corporation has either directly or indirectly entered into any agreement, participated in any collusion, nor otherwise taken any action in restraint of free competitive bidding in connection with this firm's Bid on the above-described project. Furthermore, neither the firm nor any of its officers are barred from participating in public contract lettings in the State of Florida or any other state.

Islands Mechanical Contractor Inc (IMC)

(Bidder)
By: [Signature]
CFO
(Title)

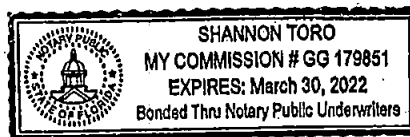
Sworn and subscribed to me this 8 day
of January, 2019.

Notary Public:

[Signature]
Signature
Shannon Toro
Printed

My commission Expires: 2.30.2022

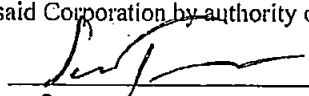
BIDDER ON ALL COUNTY PROJECTS MUST EXECUTE AND ATTACH THIS AFFIDAVIT TO EACH BID.



BID NO: 19-28

ATTACHMENT "B"
CERTIFICATES AS TO CORPORATE PRINCIPAL

I, Jean Turnage, certify that I am the Secretary of the Corporation named as Principal in the attached bond; that Ronald Chapon who signed the said bond on behalf of the Principal, was then CEO of said Corporation; that I know his signature, and his signature hereto is genuine; and that said bond was duly signed, sealed, and attested for and in behalf of said Corporation by authority of its governing body.


Secretary

Corporate Seal

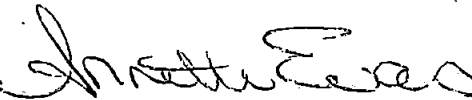
(STATE OF FLORIDA
COUNTY OF ST. JOHNS)

Before me, a Notary Public duly commissioned, qualified and acting, personally appeared Benjamin Powell to me well known, who being by me first duly sworn upon oath, says that he is the Attorney-In-Fact, for the Travelers Casualty and Surety Company of America and that he has been authorized by Power of Attorney to execute the foregoing bond on behalf of the surety named therein in favor of St. Johns County, Florida.

Subscribed and sworn to me this 9th day of January, 2019, A.D.

ANNETTE EVANS
Notary Public, State of Florida
My Comm. Expires 04/29/2022
Commission No. GG182968

NOTARY PUBLIC
State of Florida-at-large



My Commission Expires: April 29 2022

(Attach Power of Attorney to original Bid Bond and Financial Statement of Surety Company)

BID NO: 19-28

ATTACHMENT "C"
LICENSE / CERTIFICATION LIST

In the space below, the Bidder shall list all **current** licenses and certifications held.

The bidder shall attach a copy of each current license or certification listed below to this form.

[illegible]



RICK SCOTT, GOVERNOR

JONATHAN ZACHEM, SECRETARY



STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD

THE GENERAL CONTRACTOR HEREIN IS CERTIFIED UNDER THE
PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

TURNAGE, ROBERT JAMES

ISLANDS MECHANICAL CONTRACTOR INC
3070 BLANDING BLVD.
MIDDLEBURG FL 32068

LICENSE NUMBER: CGC1506563

EXPIRATION DATE: AUGUST 31, 2020

Always verify licenses online at MyFloridaLicense.com



Do not alter this document in any form.

This is your license. It is unlawful for anyone other than the licensee to use this document.



RICK SCOTT, GOVERNOR

JONATHAN ZACHEM, SECRETARY



STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
ELECTRICAL CONTRACTORS LICENSING BOARD

THE ELECTRICAL CONTRACTOR HEREIN IS CERTIFIED UNDER THE
PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

CLINARD, KEVIN DALE

ISLANDS MECHANICAL CONTRACTOR, INC.
3070 BLANDING BLVD. SUITE B
MIDDLEBURG FL 32068

LICENSE NUMBER: EC13005227

EXPIRATION DATE: AUGUST 31, 2020

Always verify licenses online at MyFloridaLicense.com



Do not alter this document in any form.

This is your license. It is unlawful for anyone other than the licensee to use this document.

Jimmy Patronis
CHIEF FINANCIAL OFFICER

Julius Halas
DIVISION DIRECTOR



Casia Sinco
BUREAU CHIEF

Keith McCarthy
SAFETY PROGRAM MANAGER

FLORIDA DEPARTMENT OF FINANCIAL SERVICES
DIVISION OF STATE FIRE MARSHAL
200 East Gaines Street - Tallahassee, Florida 32399-0342
Tel. 850-413-3644 Fax. 850-410-2467

CERTIFICATE OF COMPETENCY
OFFICIAL COPY

THIS CERTIFIES THAT: Lee M Moody
3070 Blanding Blvd
Middleburg FL 32068

BUSINESS ORGANIZATION: IMC Fire Protection, LLC

Contractor I includes the execution of contracts requiring the ability, experience, knowledge, science, and skill to intelligently layout, fabricate, install, inspect, alter, repair, or service all types of Fire Protection Systems, excluding Pre-Engineered Systems.

Issue Date: 07/01/2018
Type: 07
Class: 10
County: Clay
License/Permit #: FPC18-000062
Expiration Date: 06/30/2020



Jimmy Patronis
Chief Financial Officer



**NATIONAL INSTITUTE FOR CERTIFICATION
IN ENGINEERING TECHNOLOGIES®**

Providing Certification Programs Since 1961

BE IT KNOWN THAT

James A Duke

IS HEREBY AWARDED CERTIFICATION AT

LEVEL III

**IN FIRE PROTECTION ENGINEERING TECHNOLOGY
WATER-BASED SYSTEMS LAYOUT**

**BASED UPON SUCCESSFUL DEMONSTRATION OF REQUISITE KNOWLEDGE,
EXPERIENCE AND WORK PERFORMANCE AS SET FORTH BY THIS INSTITUTE.**

Certification Valid through November 1, 2020

CERTIFICATION NUMBER 124062

CHAIRMAN OF THE NICET BOARD OF GOVERNORS

A DIVISION OF THE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

BID NO: 19-28

ATTACHMENT "D"
LIST OF PROPOSED SUBCONTRACTORS/SUPPLIER LIST

All subcontractors and major materials suppliers are subject to approval of Owner. The following are subcontractors and manufacturers of materials and/or equipment that are proposed to be utilized by the Contractor in the performance of this work:

[illegible]

BID NO: 19-28

ATTACHMENT "E"

**St. Johns County Board of County Commissioners
Conflict of Interest Disclosure Form**

Project Number/Description: Bid No: 19-28; Bartram Trail Branch Library Fire Sprinkler Replacement

The term "conflict of interest" refers to situations in which financial or other considerations may adversely affect, or have the appearance of adversely affecting a consultant's/contractor's professional judgment in completing work for the benefit of St. Johns County ("County"). The bias such conflicts could conceivably impart may inappropriately affect the goals, processes, methods of analysis or outcomes desired by the County.

Consultants/Contractors are expected to safeguard their ability to make objective, fair, and impartial decisions when performing work for the benefit of the County. Consultants/Contractors, therefore must there avoid situations in which financial or other considerations may adversely affect, or have the appearance of adversely affecting the consultant's/contractor's professional judgement when completing work for the benefit of the County.

The mere appearance of a conflict may be as serious and potentially damaging as an actual distortion of goals, processes, methods of analysis or outcomes. Reports of conflicts based upon appearances can undermine public trust in ways that may not be adequately restored even when the mitigating facts of a situation are brought to light. Apparent conflicts, therefore, should be disclosed and evaluated with the same vigor as actual conflicts.

It is expressly understood that failure to disclose conflicts of interest as described herein may result in immediate disqualification from evaluation or immediate termination from work for the County.

Please check the appropriate statement:



I hereby attest that the undersigned Respondent has no actual or potential conflict of interest due to any other clients, contracts, or property interests for completing work on the above referenced project.

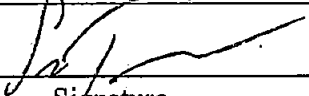


The undersigned Respondent, by attachment to this form, submits information which may be a potential conflict of interest due to other clients, contracts or property interests for completing work on the above referenced project.

Legal Name of Respondent:

Islands Mechanical Contractor Inc

Authorized Representative(s) :


Signature

SEAN TURNAGE CFO
Print Name/Title

Signature

Print Name/Title

BID NO: 19-28

ATTACHMENT "F"

CERTIFICATE OF INSURANCE

INSERT CERTIFICATE OF INSURANCE HERE



ISLAMEC-01

CORBETTA

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

11/1/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER License # 0E67768 Insurance Office of America, Inc. 1 Sleiman Parkway Suite 130 Jacksonville, FL 32216		CONTACT Robbie Parke PHONE (A/C, No, Ext): (904) 596-2859 22136 FAX (A/C, No): (904) 448-9788 E-MAIL ADDRESS: Robbie.Parke@loausa.com		
INSURED Islands Mechanical Contractor, Inc. P.O. Box 2039 Middleburg, FL 32060		INSURER(S) AFFORDING COVERAGE		NAIC #
		INSURER A: Travelers Property Casualty Insurance Company		36161
		INSURER B: Travelers Indemnity Company of Connecticut		25682
		INSURER C: St Paul Fire & Marine Insurance Company		24767
		INSURER D: Bridgfield Employers Insurance Company		10701
		INSURER E: XL Specialty Insurance Company		37885
		INSURER F:		

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR ☒ XCU Included ☒ Contractual GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☐ PRO-JECT ☐ LOC OTHER:	X	X	CO5910B301	11/04/2018	11/04/2019	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 EA EMPLOYEE LIM \$ 1,000,000
B	AUTOMOBILE LIABILITY ☒ ANY AUTO OWNED AUTOS ONLY ☒ HIRED AUTOS ONLY Comp ded \$1,000 ☐ SCHEDULED AUTOS ☒ NON-OWNED AUTOS ONLY ☒ Collision ded \$1,000	X	X	8105910B301	11/04/2018	11/04/2019	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$ \$
C	☒ UMBRELLA LIAB ☐ EXCESS LIAB DED ☒ RETENTIONS 10,000	☒ OCCUR ☐ CLAIMS-MADE		ZUP11T57721	11/04/2018	11/04/2019	EACH OCCURRENCE \$ 2,000,000 AGGREGATE \$ 2,000,000 \$
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N ☐ N/A	X	0830-44476 FL	03/23/2018	03/23/2019	☒ PER STATUTE ☐ OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
E	Equipment Floater			UM00045376MA18A	11/04/2018	11/04/2019	Leased Rented 250,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Certificate Holder is named additional insured with respect to General Liability and Auto Liability buy only as respects to operations of the insured in behalf of the certificate holder. Waiver of Subrogation in favor of the certificate holder applies to all policies. All loss payments made payable to subcontractor and contractor.

CERTIFICATE HOLDER

CANCELLATION

St. Johns County Building Services 4040 Lewis Speedway Saint Augustine, FL 32084	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE

ACORD 25 (2016/03)

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BID NO: 19-28

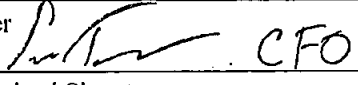
ATTACHMENT "G"

EXPERIENCE OF BIDDER

Bidder acknowledges that he is fully licensed to perform work in the STATE OF FLORIDA.

The Bidder shall provide the following information regarding experience within the past five (5) years of this solicitation. Bidder must demonstrate the successful completion of three (3) projects of similar complexity, nature, size, and dollar amount of project.

Any material misrepresentation, as determined by the County, shall result in disqualification.

By: Islands Mechanical Contractor Inc (IMC) 01/08/2019
Bidder  Date
Authorized Signature

DATE OF CONTRACT	CLIENT'S NAME, ADDRESS, PHONE AND EMAIL	CONTRACT AMOUNT	PROJECT AND LOCATION
02-09-2017 until 12-07-2018	Naval Facilities Engineering Command Southeast Box 30 Naval Air Station Jacksonville, FL 32212 CQMC ET. Jim Braken 904-660-7422	399,864.00	Camp Justice CHU Fire Protection US NAVY Base GITMO
09-27-2016 until 08-31-2018	Naval Facilities Engineering Command Southeast Box 30 Naval Air Station Jacksonville, FL 32212 CQMC ET. Jim Braken 904-660-7422	355,439.00	Gold Hill, Pirate's Cove Fire Protection US NAVY Base GITMO
06-18-2018 until 03-31-2019	Naval Facilities Engineering Command Southeast Box 30 Naval Air Station Jacksonville, FL 32212 LT. Kyle Costa 757-458-5633	430,644.00	Bowling Alley Fire Suppression US NAVY BASE GITMO

Do you have any similar work in progress at this time? X Yes No

Length of time in business: 27 Years

Is your company currently involved in any active litigation? No If Yes, explain: N/A

Has your company ever been sued? No If Yes, explain and/or submit court decision or judgment, as applicable:

 N/A



ISLANDS MECHANICAL CONTRACTOR

3070 Blanding Boulevard P.O. Box 2039
Middleburg, Florida 32068 Middleburg, FL 32050
Office: (904) 406.6100 • Facsimile: (904) 291.4610
www.IslandsMechanical.com General #CGC1506563

Bank Reference

Ameris Bank

Contact: Rob Kowkabany or Lindsay Harmon
100 North Laura Street
Suite 1000
Jacksonville, FL 32202
Office: (904) 421.3047

Surety Reference

Travelers Casualty & Surety Company

Contact: Cecil W. Powell & Co. – Bob Theus
219 N. Newman Street
Jacksonville, FL 32202
Office: (904) 353.3181

Trade References

Ferguson Enterprises, Contact: John Zwirschitz

3003 Philips Highway
Jacksonville, FL 32207
Phone: (904) 737.6280 Fax: (904) 398.4532

Florida Hydronics, Contact: Bayard Von Herman

2929 Edison Avenue
Jacksonville, FL 32254
Phone: (904) 389.1322 Fax: (904) 389.1324

City Electric Supply, Contact: Bruce Appling

329 I Parkridge Ave
Orange Park, FL 32065
Phone: (904) 272.8488 Fax: (904) 272.6199

World Electric Supply, Inc., Contact: John Harbison

569 Stuart Lane
Jacksonville, FL 32254-3420
Phone: (904) 378.4034 Fax: (770) 590.6112

Hughes Supply, Inc., Contact: Tom Buck

5311 Doolittle Road
Jacksonville, FL 32205
Phone: (904) 388.8315 Fax: (904) 388.5933

REXEL

2365 Dennis St.
Jacksonville, FL 32204
Phone: (904) 356.9000 Fax: (904) 356.4702

BID NO: 19-28

BID BOND

STATE OF FLORIDA
COUNTY OF ST. JOHNS

KNOW ALL MEN BY THESE PRESENTS, that Islands Mechanical Contractor Inc. as Principal, and Travelers Casualty and Surety Company of America as Surety, are held and firmly bound unto St. Johns County, Florida, in the penal sum of Five Percent of Bid Amount Dollars (\$ 5%) lawful money of the United States, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATIONS IS SUCH that whereas the Principal has submitted the accompanying Bid, dated January 9, 20 19,

For

BARTRAM TRAIL BRANCH LIBRARY FIRE SPRINKLER REPLACEMENT

St. Johns County, Florida

NOW THEREFORE,

- (a) If the Principal shall not withdraw said Bid within ninety (90) days after Bid Award date, and shall within ten (10) days after prescribed forms are presented to him for signature, enter into a written Contract with the County in accordance with the Bid as accepted, and give Bond with good and sufficient Surety or Sureties, as may be required, for the faithful performance and proper fulfillment of such Contract, then the above obligations shall be void and of no effect, otherwise to remain in full force and virtue.
- (b) In the event of the withdrawal of said Bid within the period specified, or the failure to enter into such Contract and give such Bond within the time specified, if the Principal shall pay the County the difference between the amount specified, in said Bid and the amount for which the County may procure the required Work and supplies, if the latter amount be in excess of the former, then the above obligations shall be void and of no effect, otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above bounded parties have executed this instrument under their several seals, this 9th day of January, A.D., 2019, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

BID NO: 19-28

WITNESSES:

(If Sole Ownership or Partnership two (2) Witnesses required).
(If Corporation, Secretary only will attest and affix seal).

WITNESSES:

[Signature]
[Signature]

Ronnie Chason
PRINCIPAL:

Islands Mechanical Contractor Inc.

NAME OF FIRM:

[Signature]
SIGNATURE OF AUTHORIZED
OFFICER (AFFIX SEAL)

CEO

TITLE

3070 Blanding Blvd

BUSINESS ADDRESS

Middleburg FL 32068

CITY

STATE

WITNESS:

[Signature]

SURETY:

Travelers Casualty and Surety Company of America

CORPORATE SURETY

[Signature]
ATTORNEY-IN-FACT (AFFIX SEAL)

Benjamin Powell, Attorney in Fact

One Tower Square

BUSINESS ADDRESS

Hartford CT 06183

CITY

STATE

Cecil W Powell & Company Inc.

NAME OF LOCAL INSURANCE AGENCY

TRAVELERS

**Travelers Casualty and Surety Company of America
Travelers Casualty and Surety Company
St. Paul Fire and Marine Insurance Company**

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint Benjamin Powell of Jacksonville Florida, their true and lawful Attorney-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this 3rd day of February, 2017.



State of Connecticut

City of Hartford ss.

By: Robert L. Raney
Robert L. Raney, Senior Vice President

On this the 3rd day of February, 2017, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.

My Commission expires the 30th day of June, 2021



Marie C. Tetreault
Marie C. Tetreault, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kevin E. Hughes, the undersigned, Assistant Secretary of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this 9th day of January, 2019



Kevin E. Hughes
Kevin E. Hughes, Assistant Secretary

To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.
Please refer to the above-named Attorney-in-Fact and the details of the bond to which the power is attached.



St. Johns County Board of County Commissioners

Purchasing Division

January 2, 2019

ADDENDUM #1

To: Prospective Bidders
From: St. Johns County Purchasing Department
Subject: Bid No. 19-28, Bartram Trail Branch Library Fire Sprinkler Replacement

This Addendum #1 is issued for further respondent's information and is hereby incorporated into the Bid documents. Each respondent will ascertain before submitting a proposal that he/she has received all Addenda. Please return an original copy of this signed Addendum with proposal to the St. Johns County Purchasing Department, Leigh A. Daniels, CPPB; 500 San Sebastian View; St. Augustine, FL 32084.

Clarifications:

1. As- Built Drawings: existing as built drawings are available and are attached to this addendum. Although they are made a part of the available information for this project, the contractor is still responsible for verifying their accuracy.

2. Contractor qualifications: as stated in the Notice to Bidders, the contractor's minimum qualifications are:

Minimum Qualifications

Prime bidder must be fully licensed to do business in the State of Florida and be currently licensed as a Certified Fire Protection System Contractor II in the State of Florida with State Fire Marshal, and provide proof of licensure with the submitted Bid Proposal. Bidders must have successfully completed, as a Prime or Sub-contractor, at least three (3) projects, in the past five (5) years, of similar type, size and dollar value of the project described herein.

Also, as stated in the specifications, the minimum qualifications for the person(s) preparing the drawings and hydraulic calculations to be submitted, are:

Layout and hydraulic calculation shall be performed by a NICET Level III or IV Technician certified in Automatic Sprinkler Systems Layout or a Registered Fire Protection Engineer.

3. Schedule: The bid proposal shall include your estimated time from Notice to Proceed to mobilization to site (including engineering, permitting, and materials procurement), as well as estimated time on site (including demolition, new system installation, any needed architectural and/or electrical repairs, and clean-up/C.O.). These schedule estimates will not be used as criteria for awarding the contract, but they are needed for library staff planning prior to contract award. The library will be closed during the entire time the contractor is on site.

4. Nitrogen generating system: The building currently has a ventilated attic with batt insulation laying on the ceiling. A dry pipe system with the nitrogen generating system is required due to the potential for freezing within this space. Should the bidder wish to submit an alternate proposal, they shall provide sufficient detail in their proposed plan, so that the engineer can evaluate its feasibility, and the additive or deductive price shall be stated on the attached revised bid form. Please see question 3 below of this addendum.
5. The extent of the system replacement is the entire sprinkler system within the building as well as the piping from the point the piping comes out of the ground (adjacent to the building) to the riser within the building. The piping and valves from the backflow preventer to the point the piping comes out of the ground (adjacent to the building) shall remain.
6. The budget for the project is \$150,000. However, contractors are asked to provide their proposals even if their number exceeds this budget.
7. Site condition: Contractor shall protect books and all facility contents from construction debris, and shall leave the facility in pre-construction condition. Prior to commencing on-site work, contractor shall provide the County with photographs clearly showing the pre-construction condition of the facility. Contractor shall also give the County a minimum of two weeks advance notice should any computer equipment need to be removed, which the County will do in-house.

Questions:

1. What are the anticipated working days and hours for this project?

Answer: Once the contractor has mobilized to the site, the library will be closed for the duration of the project. The contractor will be given a key, so the contractor will be free to work any days, any hours during construction time.

2. At what location will be the anticipated material storage for the project? I.E. indoors or outdoors.

Answer: The material storage location will be determined by the contractor, and the contractor will provide the County with their proposed lay-down area at the preconstruction meeting. However, if the contractor chooses to bring materials inside the building for temporary storage, it will be the contractor's responsibility to protect the library flooring, furnishings, etc., leaving them in pre-construction condition at completion.

3. Will the addition of upper chord insulation and the installation of a wet-pipe sprinkler system be allowed as a substitute of the dry-pipe system? This will be to benefit cost on the project and reduce the amount of corrosion due to the mixture of air and water. The cost of the spray-foam insulation will be provided by the sprinkler contractor.

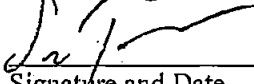
Answer: As stated above in clarification # 4, alternate proposals will be accepted for evaluation. Contractor will be responsible for obtaining the necessary permits to do the alternate work. For the description above, the contractor will also be responsible for ensuring that the attic is properly sealed and that this alternate will not impact the existing warranty/warranties on the facility's roof.

ATTACHMENTS:

Bartram Trail Branch Library As-Built Drawings

THE BID DUE DATE REMAINS January 9, 2019 AT 2:00 P.M.

Acknowledgment



01/08/2019

Signature and Date

SEAN TURNAGE CFO

Printed Name/Title

Islands Mechanical Contractor Inc (IMC)

Company Name (Print)

Sincerely,

Leigh A. Daniels, CPPB
Procurement Supervisor

END OF ADDENDUM NO. 1



St. Johns County Board of County Commissioners

Purchasing Division

January 2, 2019

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Signature and Date

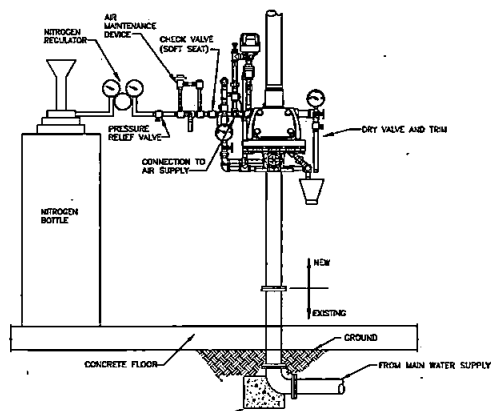
Printed Name/Title

Company Name (Print)

Sincerely,

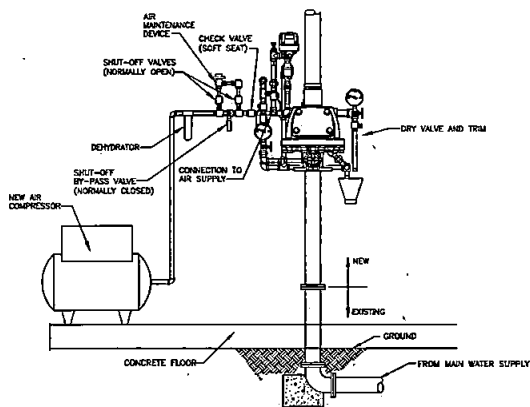
Leigh A. Daniels, CPPB
Procurement Supervisor

END OF ADDENDUM NO. 1



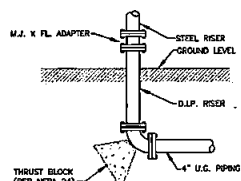
RISER FOR STEEL PIPING DETAIL

NOT TO SCALE



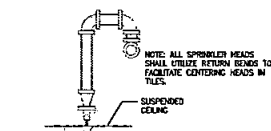
RISER FOR CPVC PIPING DETAIL

NOT TO SCALE



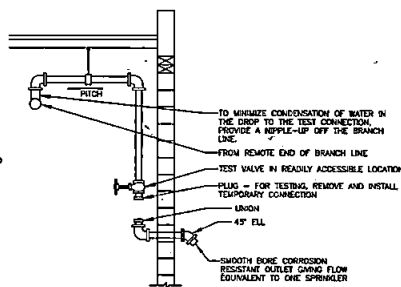
UNDERGROUND RISER DETAIL

NOT TO SCALE



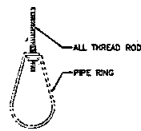
RETURN BEND ASSEMBLY

NOT TO SCALE



INSPECTORS TEST CONNECTION

NOT TO SCALE



HANGER DETAIL

NOT TO SCALE

FIRE PROTECTION GENERAL NOTES

1. THE FIRE PROTECTION SYSTEM TO COMPLY WITH NFPA 13 (2016), NFPA 14 (2016), THE 2014 FLORIDA FIRE PREVENTION CODE, AND ALL APPLICABLE STATE AND LOCAL CODES.
2. ADHERE TO AND OBTAIN ALL PERMITS, LICENSES AND ALL CONVENIENT REQUIREMENTS.
3. FINAL INSPECTION AND APPROVAL SHALL BE BY AUTHORITY HAVING JURISDICTION.
4. PROVIDE SYSTEMS WITH FLUSHING CONNECTIONS, DRAINAGE AND INSPECTOR'S TEST IN ACCORDANCE WITH NFPA 13.
5. THE CUTTING OF STRUCTURAL AND/OR ARCHITECTURAL MEMBERS IS TO BE DONE ONLY WITH THE WRITTEN APPROVAL OF THE ARCHITECT.
6. PROVIDE HEAD GUARDS ON SPRINKLER HEADS IN ELECTRICAL, TELEPHONE AND MECHANICAL CONDUIT RIGGS IF THEY ARE LESS THAN 7'-0\"/>

FIRE PROTECTION NOTES 61G15-32.004 (2)

- a. THE FIRE PROTECTION SYSTEM SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THE 2014 FLORIDA FIRE PREVENTION CODE. THIS BUILDING IS TO BE FULLY SPRINKLED.
 - b. SPRINKLER SYSTEM POINT OF SERVICE PER F.S. 633.021 (17) FOR THIS PROJECT IS AS SHOWN WITHIN THESE PLANS.
 - c. THE ONE STORY BUILDING (13,537 SQFT) IS PROTECTED THROUGHOUT BY A WET SPRINKLER SYSTEM, THAT WAS PERMITTED, TESTED, AND INSTALLED IN ACCORDANCE WITH NFPA-13. THE AREA TO BE SPRINKLED INCLUDES ENTIRE LIBRARY.
 - d. DESIGN BASIS FOR THE BUILDING WILL BE AREA/DENSITY METHOD AS FOLLOWS:
LIGHT HAZARD - DENSITY WILL BE 0.1 GPM OVER THE MOST REMOTE 1,500 SQUARE FEET. DESIGN AREA REDUCTIONS FOR QUICK RESPONSE SPRINKLERS AND CEILINGS LESS THAN 20 FEET HIGH PER 7-2.3.2.4 ARE PERMISSIBLE. TEMPERATURE FOR SPRINKLERS THROUGH OUT WILL BE ORDINARY. MAXIMUM SPACING OF SPRINKLERS IN LIGHT HAZARD WILL BE 225 SQUARE FEET. UNLESS SPECIFICALLY LISTED EXTENDED-COVERAGE SPRINKLERS ARE TO BE UTILIZED AND INSTALLED WITHIN THEIR LISTING.
HOSE ALLOWANCE FOR OUTSIDE HOSE STREAMS SHALL BE INCLUDED IN HYDRAULIC CALCULATIONS AT 100 GPM FOR LIGHT HAZARD PER NFPA-13.
 - e. FLOW TEST RESULTS HAVE NOT BEEN PERFORMED YET AS SHOWN ON THIS SHEET.
 - f. THE SYSTEM RISER HAS INDICATOR VALVES WITH TAMPER SWITCHES. WHEN AN ELECTRIC FLOW SWITCH INITIATES, LOCAL ALARM BELL AND CENTRAL STATION MONITORING SIGNALS.
 - g. M.I.C. (MICROBIOLOGICALLY INDUCED CORROSION) HAS BEEN IDENTIFIED AS A PROBLEM IN THIS COUNTY. THE WATER SERVING THIS FACILITY SHALL BE TESTED FOR CONDITIONS THAT CONTRIBUTE TO UNUSUAL CORROSION PROPERTIES. THE CONTRACTOR SHALL TREAT ALL WATER THAT ENTERS THE SYSTEM WITH AN APPROVED CORROSION INHIBITOR. CONTRACTOR SHALL ALSO PROVIDE ADEQUATE VENTS TO REMOVE AIR FROM SYSTEM. A NITROGEN SYSTEM SHALL BE FURNISHED AND INSTALLED FOR ALL STEEL PIPING SYSTEMS.
 - h. BACKFLOW PREVENTER IS EXISTING TO REMAIN.
 - i. ALL MATERIALS FOR THIS FACILITY SHALL BE U.L. OR F.M. APPROVED FOR THEIR PURPOSE AND OR FUNCTION THEY SERVE. ALL MATERIALS SHALL BE APPROVED BY THE AUTHORITY HAVING JURISDICTION.
 - j. ALL WORK AND MATERIALS ARE TO BE IN ACCORDANCE WITH NFPA 13.
 - k. THERE ARE NO HIGH HAZARD OCCUPANCY CLASSIFICATIONS, AND FACTORY OCCUPANCIES.
 - l. FIREWATER STORAGE TANK IS NOT REQUIRED.
 - m. OWNER'S INFORMATION CERTIFICATE SHALL BE PROVIDED FOR STORAGE SPACES.
- SIDEWALL HEADS ARE TO BE USED IN ALL ELECTRICAL AND COMMUNICATIONS ROOMS WITH NO PIPING IN THESE ROOMS. ALL OTHER HEAD LOCATIONS ARE TO BE CENTERED IN CEILING TILES AND COORDINATED WITH THE STRUCTURE, OTHER DISCIPLES AND THE ARCHITECTURAL REFLECTED CEILING PLAN.

FLOW TEST DATA

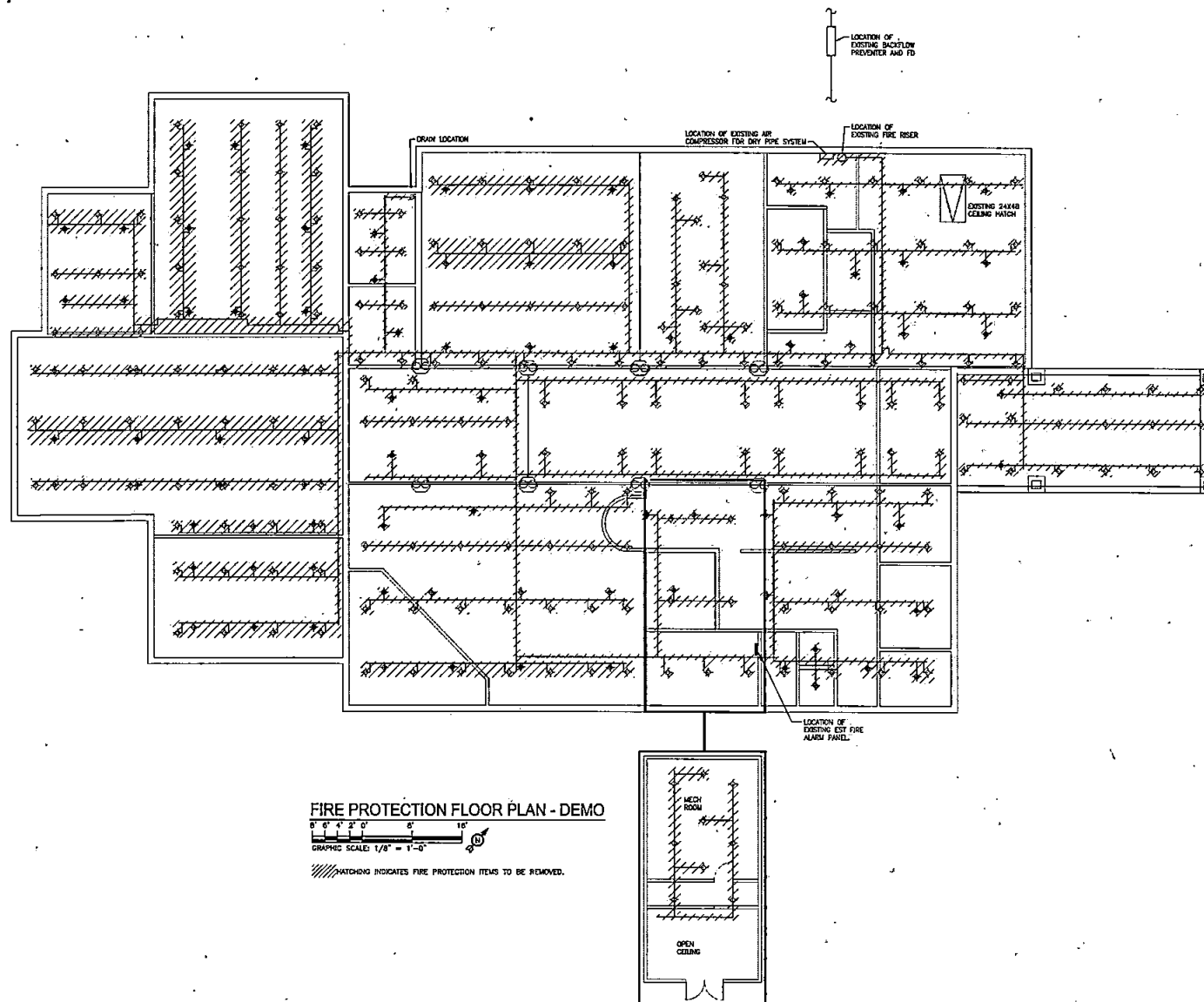
STATIC PRESSURE: _____ PSI
RESIDUAL PRESSURE: _____ PSI
CALCULATED FLOW: _____ GPM
DATE OF TEST: _____
TIME OF TEST: _____
TESTED BY: _____
WITNESSED BY: _____
ELEVATION: _____
HYDRAULIC: _____

BARTRAM LIBRARY

ONE STORY BUILDING, THE AREA TO BE SPRINKLED INCLUDES A LIBRARY. THE ONE STORY BUILDING (13,537 SQFT) DESIGNED PER NFPA 13-2016 FOR LIGHT HAZARD OCCUPANCY. DESIGN CRITERIA TO BE 0.10 GPM/500 FT. OVER THE MOST REMOTE 1,500 SQ. FT. SPRINKLERS TO BE QUICK RESPONSE RATED AT 150°F AT A MAXIMUM OF 225 SQ. FT. ALL WORK AND MATERIALS TO BE IN ACCORDANCE WITH NFPA 13-2016 AND FACTORY MANUAL REQUIREMENTS. SIDEWALL HEADS ARE TO BE USED IN ELECTRICAL AND COMMUNICATIONS ROOMS WITH NO PIPING IN THESE ROOMS.

SPRINKLER LEGEND

- ◆ PENDENT SPRINKLER
- ◇ UPRIGHT SPRINKLER

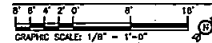


HADDAD ENGINEERING, INC. 2501 HARTLEY ROAD, SUITE 205 JACKSONVILLE, FL 32217 TEL: 904.352.0000 FAX: 904.352.0000																					
BLIDE & HALL ARCHITECTS, P.A. 100 UNIVERSITY AVENUE, SUITE 1000 JACKSONVILLE, FL 32202 TEL: 904.352.0000 FAX: 904.352.0000																					
FIRE PROTECTION SYSTEM REPLACEMENT STUDY Bartram Library 60 DAYS ROAD BLDG, FRUIT COVE, FLORIDA 32259																					
REVISIONS <table border="1"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>																					
TITLE: 02 OF 308 DR: NLL CR: M DATE: 06/09/09																					
FP201																					

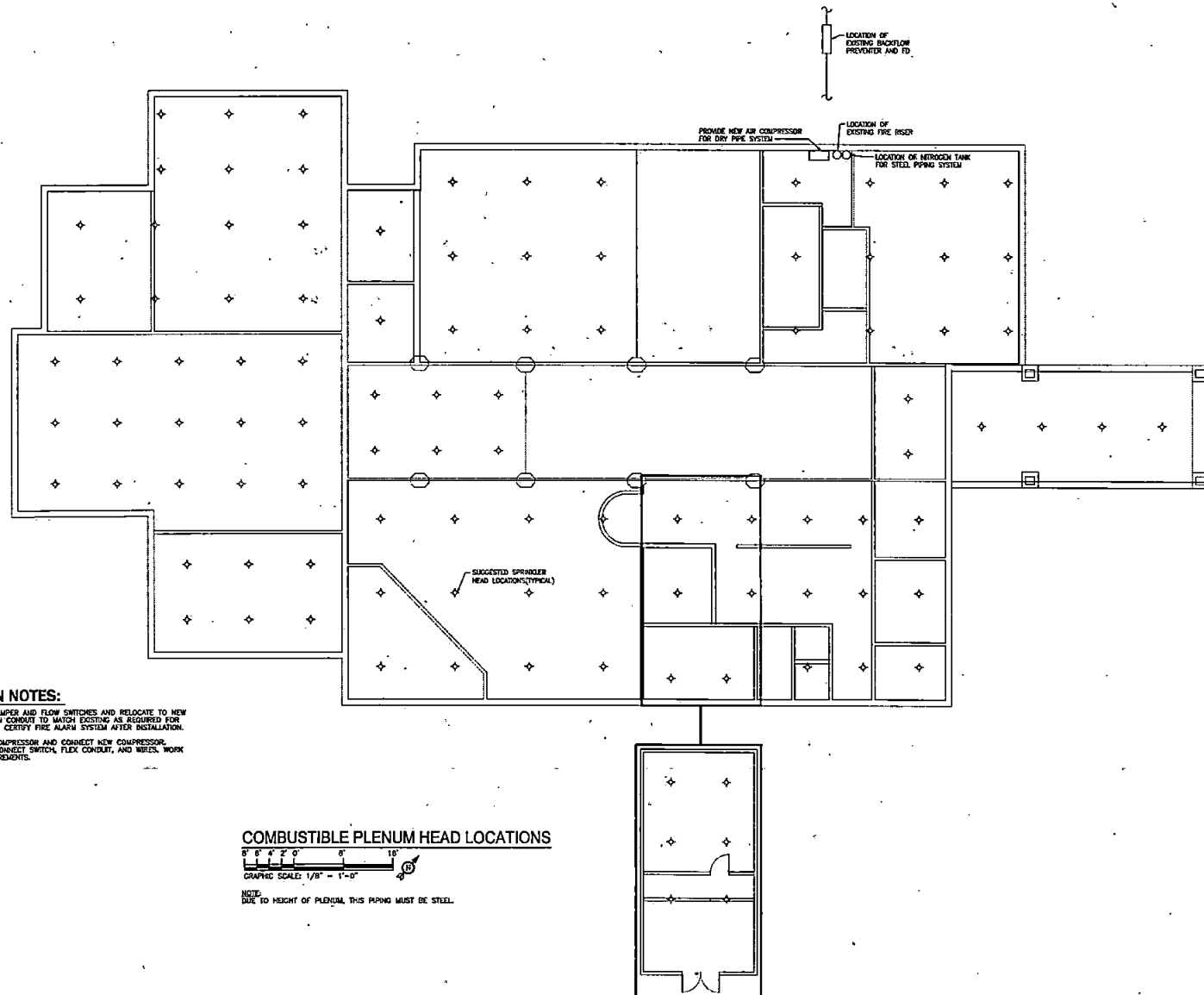
FLOOR PLAN NOTES:

- ① DISCONNECT EXISTING TAMPER AND FLOW SWITCHES AND RELOCATE TO NEW FIRE RISER. PROVIDE IN CONDUIT TO MATCH EXISTING AS REQUIRED FOR CONNECTIONS. TEST AND CERTIFY FIRE ALARM SYSTEM AFTER INSTALLATION.
- ② DISCONNECT EXISTING COMPRESSOR AND CONNECT NEW COMPRESSOR. PROVIDE REQUIRED DISCONNECT SWITCH, FLEX CONDUIT, AND WIRING. WORK SHALL MEET NEC REQUIREMENTS.

COMBUSTIBLE PLENUM HEAD LOCATIONS



NOTE:
DUE TO HEIGHT OF PLENUM, THIS PIPING MUST BE STEEL.



HADDAD ENGINEERING, INC.
2705 HARTLEY ROAD, SUITE 205
JACKSONVILLE, FLORIDA 32217
TEL: 904.252.5966
CERTIFICATE OF REGISTRATION NO. 0000

BLIDE & HALL ARCHITECTS, P.A.
1200 UNIVERSITY AVENUE, SUITE 200
JACKSONVILLE, FLORIDA 32202
TEL: 904.252.5966
CERTIFICATE OF REGISTRATION NO. 0000

FIRE PROTECTION SYSTEM REPLACEMENT STUDY
Bartram Library
60 DAVIS POND BLVD., FRUIT COVE, FLORIDA 32259

REVISIONS

DATE: 02/01/2006
DES: NIT
CHK: SU
FPM NO. 10009

FP301

BARTRAM TRAIL BRANCH LIBRARY ST. JOHNS COUNTY

Date: November 26, 2018

Haddad Engineering, Inc.
2955 Hartley Road, Suite 205
Jacksonville, FL 32257
Tel: 904/262-5066
Fax: 904/262-7139

Bartram Trail Branch Library
St. Johns County

SPECIFICATIONS

**GENERAL REQUIREMENTS
SECTIONS**

012500	Substitution Procedures
012600	Contract Modification Procedures
013100	Project Management and Coordination
013200	Construction Progress Documentation
013300	Submittal Procedures
016000	Product Requirements
017300	Execution
017700	Closeout Procedures
017823	Operation and Maintenance Data

**ARCHITECTURAL
SECTIONS**

02050	Demolition
07300	Sealants
09100	Acoustical Ceilings
09200	Gypsum Board
09800	Painting

Bartram Trail Branch Library
St. Johns County

**FIRE PROTECTION
SECTION**

215560 Automatic Sprinkler System

**ELECTRICAL
SECTIONS**

260519 Low-Voltage Electrical Power Conductors and Cables

260526 Grounding and Bonding for Electrical Systems

260529 Hangers and Supports for Electrical Systems

260533 Raceways and Boxes for Electrical Systems

260544 Sleeves and Sleeve Seals for Electrical Raceways and Cabling

SUBSTITUTION PROCEDURES – SECTION 012500

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.
- B. Related Requirements:
 - 1. Section 016000 "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.

1.2 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
 - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
 - 2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

1.3 ACTION SUBMITTALS

- A. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified product or fabrication or installation method cannot be provided, if applicable.
 - b. Coordination of information, including a list of changes or revisions needed to other parts of the Work and to construction performed by Owner and separate contractors that will be necessary to accommodate proposed substitution.
 - c. Detailed comparison of significant qualities of proposed substitutions with those of the Work specified. Include annotated copy of applicable Specification Section. Significant qualities may include attributes, such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
 - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.

- e. Samples, where applicable or requested.
 - f. Certificates and qualification data, where applicable or requested.
 - g. List of similar installations for completed projects, with project names and addresses as well as names and addresses of architects and owners.
 - h. Material test reports from a qualified testing agency, indicating and interpreting test results for compliance with requirements indicated.
 - i. Research reports evidencing compliance with building code in effect for Project.
 - j. Detailed comparison of Contractor's construction schedule using proposed substitutions with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
 - k. Cost information, including a proposal of change, if any, in the Contract Sum.
 - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents, except as indicated in substitution request, is compatible with related materials and is appropriate for applications indicated.
 - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
2. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
- a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
 - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

1.4 QUALITY ASSURANCE

- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

1.5 PROCEDURES

- A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions.

1.6 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than 15 days prior to time required for preparation and review of related submittals.

1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - b. Substitution request is fully documented and properly submitted.
 - c. Requested substitution will not adversely affect Contractor's construction schedule.
 - d. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - e. Requested substitution is compatible with other portions of the Work.
 - f. Requested substitution has been coordinated with other portions of the Work.
 - g. Requested substitution provides specified warranty.
 - h. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

B. Substitutions for Convenience: Not allowed unless otherwise indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012500

SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for handling and processing Contract modifications.

1.2 MINOR CHANGES IN THE WORK

- A. Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time.

1.3 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 1. Work Change Proposal Requests issued by Architect are not instructions either to stop work in progress or to execute the proposed change.
 - 2. Within time specified in Proposal Request after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - c. Include costs of labor and supervision directly attributable to the change.
 - d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
- B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Architect.
 - 1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
 - 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.

3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
4. Include costs of labor and supervision directly attributable to the change.
5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
6. Comply with requirements in Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.

1.4 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Work Change Proposal Request, Architect will issue a Change Order for signatures of Owner and Contractor.

1.5 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: Architect may issue a Construction Change Directive. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
 1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.
 1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012600

SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. General coordination procedures.
 - 2. Coordination drawings.
 - 3. RFIs.
 - 4. Digital project management procedures.
 - 5. Project meetings.
- B. Related Requirements:
 - 1. Section 017300 "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.

1.3 DEFINITIONS

- A. BIM: Building Information Modeling.
- B. RFI: Request for Information. Request from Owner, Architect, or Contractor seeking information required by or clarifications of the Contract Documents.

1.4 INFORMATIONAL SUBMITTALS

- A. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
 - 1. Name, address, telephone number, and email address of entity performing subcontract or supplying products.
 - 2. Number and title of related Specification Section(s) covered by subcontract.
 - 3. Drawing number and detail references, as appropriate, covered by subcontract.

1.5 GENERAL COORDINATION PROCEDURES

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations included in different Sections that depend on each other for proper installation, connection, and operation:
 - 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 - 2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
 - 3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of Contractor's construction schedule.
 - 2. Preparation of the schedule of values.
 - 3. Installation and removal of temporary facilities and controls.
 - 4. Delivery and processing of submittals.
 - 5. Progress meetings.
 - 6. Preinstallation conferences.
 - 7. Project closeout activities.
 - 8. Startup and adjustment of systems.

1.6 COORDINATION DRAWINGS

- A. Coordination Drawings, General: Prepare coordination drawings according to requirements in individual Sections, and additionally where installation is not completely indicated on Shop Drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than one entity.
 - 1. Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordination drawings on standard printed data. Include the following information, as applicable:
 - a. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
 - b. Indicate dimensions shown on Drawings. Specifically note dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternative sketches to Architect indicating proposed resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.
- B. Coordination Drawing Organization: Organize coordination drawings as follows:

1. Floor Plans and Reflected Ceiling Plans: Show architectural and structural elements, and mechanical, plumbing, fire-protection, fire-alarm, and electrical Work. Show locations of visible ceiling-mounted devices relative to acoustical ceiling grid. Supplement plan drawings with section drawings where required to adequately represent the Work.
2. Plenum Space: Indicate subframing for support of ceiling and wall systems, mechanical and electrical equipment, and related Work. Locate components within plenums to accommodate layout of light fixtures and other components indicated on Drawings. Indicate areas of conflict between light fixtures and other components.
3. Mechanical Rooms: Provide coordination drawings for mechanical rooms showing plans and elevations of mechanical, plumbing, fire-protection, fire-alarm, and electrical equipment.
4. Structural Penetrations: Indicate penetrations and openings required for all disciplines.
5. Slab Edge and Embedded Items: Indicate slab edge locations and sizes and locations of embedded items for metal fabrications, sleeves, anchor bolts, bearing plates, angles, door floor closers, slab depressions for floor finishes, curbs and housekeeping pads, and similar items.
6. Review: Architect will review coordination drawings to confirm that in general the Work is being coordinated, but not for the details of the coordination, which are Contractor's responsibility.

1.7 REQUEST FOR INFORMATION (RFI)

- A. General: Immediately on discovery of the need for additional information, clarification, or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
 1. Architect will return without response those RFIs submitted to Architect by other entities controlled by Contractor.
 2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
 1. Project name.
 2. Project number.
 3. Date.
 4. Name of Contractor.
 5. Name of Architect.
 6. RFI number, numbered sequentially.
 7. RFI subject.
 8. Specification Section number and title and related paragraphs, as appropriate.
 9. Drawing number and detail references, as appropriate.
 10. Field dimensions and conditions, as appropriate.
 11. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 12. Contractor's signature.
 13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.

- C. RFI Forms: AIA Document G716 Software-generated form with substantially the same content as indicated above, acceptable to Architect.
- D. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow seven working days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.

1. The following Contractor-generated RFIs will be returned without action:

- a. Requests for approval of submittals.
- b. Requests for approval of substitutions.
- c. Requests for approval of Contractor's means and methods.
- d. Requests for coordination information already indicated in the Contract Documents.
- e. Requests for adjustments in the Contract Time or the Contract Sum.
- f. Requests for interpretation of Architect's actions on submittals.
- g. Incomplete RFIs or inaccurately prepared RFIs.

2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt by Architect of additional information.

3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 012600 "Contract Modification Procedures."

- a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 10 days of receipt of the RFI response.

E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Include the following:

- 1. Project name.
- 2. Name and address of Contractor.
- 3. Name and address of Architect.
- 4. RFI number including RFIs that were returned without action or withdrawn.
- 5. RFI description.
- 6. Date the RFI was submitted.
- 7. Date Architect's response was received.

F. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven days if Contractor disagrees with response.

1.8 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site unless otherwise indicated.

B. Preconstruction Conference: Schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement.

1. Attendees: Authorized representatives of Owner, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
2. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Responsibilities and personnel assignments.
 - b. Tentative construction schedule.
 - c. Phasing.
 - d. Critical work sequencing and long lead items.
 - e. Designation of key personnel and their duties.
 - f. Lines of communications.
 - g. Use of web-based Project software.
 - h. Procedures for processing field decisions and Change Orders.
 - i. Procedures for RFIs.
 - j. Procedures for testing and inspecting.
 - k. Procedures for processing Applications for Payment.
 - l. Distribution of the Contract Documents.
 - m. Submittal procedures.
 - n. Sustainable design requirements.
 - o. Preparation of Record Documents.
 - p. Use of the premises and existing building.
 - q. Work restrictions.
 - r. Working hours.
 - s. Owner's occupancy requirements.
 - t. Responsibility for temporary facilities and controls.
 - u. Procedures for moisture and mold control.
 - v. Procedures for disruptions and shutdowns.
 - w. Construction waste management and recycling.
 - x. Parking availability.
 - y. Office, work, and storage areas.
 - z. Equipment deliveries and priorities.
 - aa. First aid.
 - bb. Security.
 - cc. Progress cleaning.
3. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.

C. Progress Meetings: Conduct progress meetings as required.

1. Coordinate dates of meetings with preparation of payment requests.
2. Attendees: In addition to representatives of Owner, and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.

3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - 1) Review schedule for next period.
 - b. Review present and future needs of each entity present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Resolution of BIM component conflicts.
 - 4) Status of submittals.
 - 5) Status of sustainable design documentation.
 - 6) Deliveries.
 - 7) Off-site fabrication.
 - 8) Access.
 - 9) Site use.
 - 10) Temporary facilities and controls.
 - 11) Progress cleaning.
 - 12) Quality and work standards.
 - 13) Status of correction of deficient items.
 - 14) Field observations.
 - 15) Status of RFIs.
 - 16) Status of Proposal Requests.
 - 17) Pending changes.
 - 18) Status of Change Orders.
 - 19) Pending claims and disputes.
 - 20) Documentation of information for payment requests.
4. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.
 - a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:

1. Contractor's Construction Schedule.
2. Construction schedule updating reports.
3. Daily construction reports.
4. Site condition reports.

1.2 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction Project. Activities included in a construction schedule consume time and resources.
1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
 2. Predecessor Activity: An activity that precedes another activity in the network.
 3. Successor Activity: An activity that follows another activity in the network.
- B. CPM: Critical path method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of Project.
- C. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- D. Event: The starting or ending point of an activity.
- E. Float: The measure of leeway in starting and completing an activity.
1. Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.

1.3 INFORMATIONAL SUBMITTALS

- A. Format for Submittals: Submit required submittals in the following format:

1. Working electronic copy of schedule file, where indicated.
 2. PDF file.
- B. Startup Network Diagram: Of size required to display entire network for entire construction period. Show logic ties for activities.
- C. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.
1. Submit a working digital copy of schedule, using software indicated, and labeled to comply with requirements for submittals.
- D. CPM Reports: Concurrent with CPM schedule, submit each of the following reports. Format for each activity in reports shall contain activity number, activity description, original duration, remaining duration, early start date, early finish date, late start date, late finish date, and total float in calendar days.
1. Activity Report: List of activities sorted by activity number and then early start date, or actual start date if known.
 2. Logic Report: List of preceding and succeeding activities for each activity, sorted in ascending order by activity number and then by early start date, or actual start date if known.
 3. Total Float Report: List of activities sorted in ascending order of total float.
- E. Construction Schedule Updating Reports: Submit with Applications for Payment.
- F. Site Condition Reports: Submit at time of discovery of differing conditions.

1.4 COORDINATION

- A. Coordinate Contractor's Construction Schedule with the schedule of values, submittal schedule, progress reports, payment requests, and other required schedules and reports.
1. Secure time commitments for performing critical elements of the Work from entities involved.
 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

1.5 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.
- B. Time Frame: Extend schedule from date established for commencement of the Work to date of Substantial Completion.
1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.

- C. Activities: Treat each floor or separate area as a separate numbered activity for each main element of the Work. Comply with the following:
1. Activity Duration: Define activities so no activity is longer than 20 days, unless specifically allowed by Architect.
 2. Procurement Activities: Include procurement process activities for the following long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
 - a. Generator.
 3. Submittal Review Time: Include review and resubmittal times indicated in Section 013300 "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's Construction Schedule with submittal schedule.
 4. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Architect's administrative procedures necessary for certification of Substantial Completion.
 5. Punch List and Final Completion: Include not more than 30 days for completion of punch list items and final completion.
- D. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
1. Phasing: Arrange list of activities on schedule by phase.
 2. Work Restrictions: Show the effect of the following items on the schedule:
 - a. Coordination with existing construction.
 - b. Limitations of continued occupancies.
 - c. Uninterruptible services.
 - d. Partial occupancy before Substantial Completion.
 - e. Use-of-premises restrictions.
 - f. Provisions for future construction.
 - g. Seasonal variations.
 - h. Environmental control.
- E. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and final completion.
- F. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:
1. Unresolved issues.
 2. Unanswered Requests for Information.
 3. Rejected or unreturned submittals.
 4. Notations on returned submittals.
 5. Pending modifications affecting the Work and the Contract Time.
- G. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.

1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
3. As the Work progresses, indicate final completion percentage for each activity.

H. Recovery Schedule: When periodic update indicates the Work is 14 or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, equipment required to achieve compliance, and date by which recovery will be accomplished.

I. Distribution: Distribute copies of approved schedule to Architect, Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.

1. Post copies in Project meeting rooms and temporary field offices.
2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

1.6 CPM SCHEDULE REQUIREMENTS

A. General: Prepare network diagrams using AON (activity-on-node) format.

B. Startup Network Diagram: Submit diagram within 14 days of date established for commencement of the Work. Outline significant construction activities for the first 90 days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.

C. CPM Schedule: Prepare Contractor's Construction Schedule using a time-scaled CPM network analysis diagram for the Work.

1. Develop network diagram in sufficient time to submit CPM schedule so it can be accepted for use no later than 60 days after date established for commencement of the Work.
 - a. Failure to include any work item required for performance of this Contract shall not excuse Contractor from completing all work within applicable completion dates.
2. Conduct educational workshops to train and inform key Project personnel, including subcontractors' personnel, in proper methods of providing data and using CPM schedule information.
3. Establish procedures for monitoring and updating CPM schedule and for reporting progress. Coordinate procedures with progress meeting and payment request dates.
4. Use "one workday" as the unit of time for individual activities. Indicate nonworking days and holidays incorporated into the schedule to coordinate with the Contract Time.

- D. CPM Schedule Preparation: Prepare a list of all activities required to complete the Work. Using the startup network diagram, prepare a skeleton network to identify probable critical paths.
1. Activities: Indicate the estimated time duration, sequence requirements, and relationship of each activity in relation to other activities. Include estimated time frames for the following activities:
 - a. Preparation and processing of submittals.
 - b. Mobilization and demobilization.
 - c. Purchase of materials.
 - d. Delivery.
 - e. Fabrication.
 - f. Utility interruptions.
 - g. Installation.
 - h. Work by Owner that may affect or be affected by Contractor's activities.
 - i. Testing and inspection.
 - j. Commissioning.
 - k. Punch list and final completion.
 - l. Activities occurring following final completion.
 2. Critical Path Activities: Identify critical path activities, including those for interim completion dates. Scheduled start and completion dates shall be consistent with Contract milestone dates.
 3. Processing: Process data to produce output data on a computer-drawn, time-scaled network. Revise data, reorganize activity sequences, and reproduce as often as necessary to produce the CPM schedule within the limitations of the Contract Time.
 4. Format: Mark the critical path. Locate the critical path near center of network; locate paths with most float near the edges.
 - a. Subnetworks on separate sheets are permissible for activities clearly off the critical path.
- E. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using a network fragment to demonstrate the effect of the proposed change on the overall Project schedule.
- F. Initial Issue of Schedule: Prepare initial network diagram from a sorted activity list indicating straight "early start-total float." Identify critical activities. Prepare tabulated reports showing the following:
1. Contractor or subcontractor and the Work or activity.
 2. Description of activity.
 3. Main events of activity.
 4. Immediate preceding and succeeding activities.
 5. Early and late start dates.
 6. Early and late finish dates.
 7. Activity duration in workdays.
 8. Total float or slack time.
 9. Average size of workforce.
 10. Dollar value of activity (coordinated with the schedule of values).

G. Schedule Updating: Concurrent with making revisions to schedule, prepare tabulated reports showing the following:

1. Identification of activities that have changed.
2. Changes in early and late start dates.
3. Changes in early and late finish dates.
4. Changes in activity durations in workdays.
5. Changes in the critical path.
6. Changes in total float or slack time.
7. Changes in the Contract Time.

H. Value Summaries: Prepare two cumulative value lists, sorted by finish dates.

1. In first list, tabulate activity number, early finish date, dollar value, and cumulative dollar value.
2. In second list, tabulate activity number, late finish date, dollar value, and cumulative dollar value.
3. In subsequent issues of both lists, substitute actual finish dates for activities completed as of list date.
4. Prepare list for ease of comparison with payment requests; coordinate timing with progress meetings.
 - a. In both value summary lists, tabulate "actual percent complete" and "cumulative value completed" with total at bottom.
 - b. Submit value summary printouts one week before each regularly scheduled progress meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013200

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Submittal schedule requirements.
2. Administrative and procedural requirements for submittals.

1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals."

1.3 SUBMITTAL SCHEDULE

- A. Submittal Schedule: Submit, as an action submittal, a list of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Architect and additional time for handling and reviewing submittals required by those corrections.

1.4 SUBMITTAL FORMATS

A. Submittal Information: Include the following information in each submittal:

1. Project name.
2. Date.
3. Name of Architect.
4. Name of Construction Manager.
5. Name of Contractor.
6. Name of firm or entity that prepared submittal.
7. Names of subcontractor, manufacturer, and supplier.
8. Unique submittal number, including revision identifier. Include Specification Section number with sequential alphanumeric identifier; and alphanumeric suffix for resubmittals.
9. Category and type of submittal.
10. Submittal purpose and description.

11. Number and title of Specification Section, with paragraph number and generic name for each of multiple items.
 12. Drawing number and detail references, as appropriate.
 13. Indication of full or partial submittal.
 14. Location(s) where product is to be installed, as appropriate.
 15. Other necessary identification.
 16. Remarks.
 17. Signature of transmitter.
- B. Options: Identify options requiring selection by Architect.
- C. Deviations and Additional Information: On each submittal, clearly indicate deviations from requirements in the Contract Documents, including minor variations and limitations; include relevant additional information and revisions, other than those requested by Architect on previous submittals. Indicate by highlighting on each submittal or noting on attached separate sheet.
- D. PDF Submittals: Prepare submittals as PDF package, incorporating complete information into each PDF file. Name PDF file with submittal number.

1.5 SUBMITTAL PROCEDURES

- A. Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
1. Email: Prepare submittals as PDF package, and transmit to Architect by sending via email. Include PDF transmittal form. Include information in email subject line as requested by Architect.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
 3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
 2. Resubmittal Review: Allow 15 days for review of each resubmittal.
- D. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.

- E. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- F. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's action stamp.

1.6 SUBMITTAL REQUIREMENTS

- A. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
 - 1. If information must be specially prepared for submittal because standard published data are unsuitable for use, submit as Shop Drawings, not as Product Data.
 - 2. Mark each copy of each submittal to show which products and options are applicable.
 - 3. Include the following information, as applicable:
 - a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 - h. Availability and delivery time information.
 - 4. For equipment, include the following in addition to the above, as applicable:
 - a. Wiring diagrams that show factory-installed wiring.
 - b. Printed performance curves.
 - c. Operational range diagrams.
 - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
 - 5. Submit Product Data before Shop Drawings, and before or concurrent with Samples.
- B. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
 - 1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Identification of products.
 - b. Schedules.
 - c. Compliance with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurement.
 - f. Relationship and attachment to adjoining construction clearly indicated.
 - g. Seal and signature of professional engineer if specified.

- C. **Product Schedule:** As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
- D. **Qualification Data:** Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- E. **Design Data:** Prepare and submit written and graphic information indicating compliance with indicated performance and design criteria in individual Specification Sections. Include list of assumptions and summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Number each page of submittal.
- F. **Certificates:**
 - 1. **Certificates and Certifications Submittals:** Submit a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity. Provide a notarized signature where indicated.
 - 2. **Installer Certificates:** Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
 - 3. **Manufacturer Certificates:** Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
 - 4. **Material Certificates:** Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
 - 5. **Product Certificates:** Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
 - 6. **Welding Certificates:** Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on AWS forms. Include names of firms and personnel certified.
- G. **Test and Research Reports:**
 - 1. **Compatibility Test Reports:** Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
 - 2. **Field Test Reports:** Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
 - 3. **Material Test Reports:** Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
 - 4. **Preconstruction Test Reports:** Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.

5. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
6. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
 - a. Name of evaluation organization.
 - b. Date of evaluation.
 - c. Time period when report is in effect.
 - d. Product and manufacturers' names.
 - e. Description of product.
 - f. Test procedures and results.
 - g. Limitations of use.

1.7 CONTRACTOR'S REVIEW

- A. Action Submittals and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Contractor's Approval: Indicate Contractor's approval for each submittal with a uniform approval stamp. Include name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.
 1. Architect will not review submittals received from Contractor that do not have Contractor's review and approval.

1.8 ARCHITECT'S REVIEW

- A. Action Submittals: Architect will review each submittal, indicate corrections or revisions required.
 1. PDF Submittals: Architect will indicate, via markup on each submittal, the appropriate action.
- B. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.
- C. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- D. Architect will return without review submittals received from sources other than Contractor.
- E. Submittals not required by the Contract Documents will be returned by Architect without action.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013300

SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.
- B. Related Requirements:
 - 1. Section 012500 "Substitution Procedures" for requests for substitutions.

1.2 DEFINITIONS

- A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.
 - 2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
 - 3. Comparable Product: Product that is demonstrated and approved by Architect through submittal process to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Basis-of-Design Product Specification: A specification in which a single manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation. In addition to the basis-of-design product description, product attributes and characteristics may be listed to establish the significant qualities related to type, function, in-service performance and physical properties, weight, dimension, durability, visual characteristics, and other special features and requirements for purposes of evaluating comparable products of additional manufacturers named in the specification.

1.3 ACTION SUBMITTALS

- A. Comparable Product Request Submittal: Submit request for consideration of each comparable product. Identify basis-of-design product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Include data to indicate compliance with the requirements specified in "Comparable Products" Article.

2. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within **seven** days of receipt of a comparable product request. Architect will notify Contractor of approval or rejection of proposed comparable product request within **15** days of receipt of request, or **seven** days of receipt of additional information or documentation, whichever is later.

- a. Form of Architect's Approval of Submittal: As specified in Section 013300 "Submittal Procedures."
- b. Use product specified if Architect does not issue a decision on use of a comparable product request within time allocated.

- B. Basis-of-Design Product Specification Submittal: Comply with requirements in Section 013300 "Submittal Procedures." Show compliance with requirements.

1.4 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.

1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.

- B. Delivery and Handling:

1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
4. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.

- C. Storage:

1. Store products to allow for inspection and measurement of quantity or counting of units.
2. Store materials in a manner that will not endanger Project structure.
3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
4. Protect foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
5. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.

6. Protect stored products from damage and liquids from freezing.

1.6 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
 1. Manufacturer's Warranty: Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
 2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.
 1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
 2. Specified Form: When specified forms are included with the Specifications, prepare a written document using indicated form properly executed.
 3. See other Sections for specific content requirements and particular requirements for submitting special warranties.

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.
 1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
 2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
 3. Owner reserves the right to limit selection to products with warranties meeting requirements of the Contract Documents.
 4. Where products are accompanied by the term "as selected," Architect will make selection.
 5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
- B. Product Selection Procedures:
 1. Sole Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.

- a. Sole product may be indicated by the phrase: "Subject to compliance with requirements, provide the following: ..."
2. Sole Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
 - a. Sole manufacturer/source may be indicated by the phrase: "Subject to compliance with requirements, provide products by the following: ..."
3. Limited List of Products: Where Specifications include a list of names of both manufacturers and products, provide one of the products listed that complies with requirements.
 - a. Limited list of products may be indicated by the phrase: "Subject to compliance with requirements, provide one of the following: ..."
4. Limited List of Manufacturers: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements.
 - a. Limited list of manufacturers is indicated by the phrase: "Subject to compliance with requirements, provide products by one of the following: ..."
5. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers.
 - a. For approval of products by unnamed manufacturers, comply with requirements in Section 012500 "Substitution Procedures" for substitutions for convenience.

2.2 COMPARABLE PRODUCTS

- A. Conditions for Consideration of Comparable Products: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with these requirements:
 1. Evidence that proposed product does not require revisions to the Contract Documents, is consistent with the Contract Documents, will produce the indicated results, and is compatible with other portions of the Work. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant product qualities include attributes such as type, function, in-service performance and physical properties, weight, dimension, durability, visual characteristics, and other specific features and requirements.

2. Evidence that proposed product provides specified warranty.
3. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

SECTION 017300 - EXECUTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:

1. Construction layout.
2. Field engineering and surveying.
3. Installation of the Work.
4. Cutting and patching.
5. Progress cleaning.
6. Starting and adjusting.
7. Protection of installed construction.

- B. Related Requirements:

1. Section 011000 "Summary" for limits on use of Project site.
2. Section 017700 "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, replacing defective work, and final cleaning.

1.2 INFORMATIONAL SUBMITTALS

- A. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.

1.3 QUALITY ASSURANCE

- A. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.

1. Structural Elements: When cutting and patching structural elements, notify Architect of locations and details of cutting and await directions from Architect before proceeding. Shore, brace, and support structural elements during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection.
2. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
3. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.

4. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

- B. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of products and equipment.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
 1. For projects requiring compliance with sustainable design and construction practices and procedures, use products for patching that comply with sustainable design requirements.
- B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to Architect for the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, mechanical and electrical systems, and other construction affecting the Work.
 1. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
 1. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 3. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.

- C. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Existing Utility Information: Furnish information to local utility that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of Contractor, submit a request for information to Architect according to requirements in Section 013100 "Project Management and Coordination."

3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect promptly.
- B. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and rim and invert elevations.

3.4 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
 - 1. Make vertical work plumb and make horizontal work level.
 - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
 - 3. Conceal pipes, ducts, and wiring in finished areas unless otherwise indicated.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.

- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on site and placement in permanent locations.
- F. Tools and Equipment: Where possible, select tools or equipment that minimize production of excessive noise levels.
- G. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other portions of the Work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- H. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
 - 2. Allow for building movement, including thermal expansion and contraction.
 - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- I. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- J. Remove and replace damaged, defective, or non-conforming Work.

3.5 CUTTING AND PATCHING

- A. Cutting and Patching, General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.
- C. Temporary Support: Provide temporary support of work to be cut.
- D. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.

- E. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching according to requirements in Section 011000 "Summary."
- F. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to minimize interruption to occupied areas.
- G. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
 - 4. Excavating and Backfilling: Comply with requirements in applicable Sections where required by cutting and patching operations.
 - 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
 - 6. Proceed with patching after construction operations requiring cutting are complete.
- H. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.
 - 1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
 - 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.
 - 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 - 4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
 - 5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition and ensures thermal and moisture integrity of building enclosure.
- I. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.6 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
 - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 - 2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F (27 deg C).
 - 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
 - a. Use containers intended for holding waste materials of type to be stored.
 - 4. Coordinate progress cleaning for joint-use areas where Contractor and other contractors are working concurrently.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
 - 1. Remove liquid spills promptly.
 - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with State waste disposal requirements.
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to ensure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.7 STARTING AND ADJUSTING

- A. Coordinate startup and adjusting of equipment and operating components with requirements in Section 019113 "General Commissioning Requirements."
- B. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- C. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.
- D. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- E. Manufacturer's Field Service: Comply with qualification requirements in Section 014000 "Quality Requirements."

3.8 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Protection of Existing Items: Provide protection and ensure that existing items to remain undisturbed by construction are maintained in condition that existed at commencement of the Work.
- C. Comply with manufacturer's written instructions for temperature and relative humidity.

END OF SECTION 017300

SECTION 017700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Substantial Completion procedures.
 - 2. Final completion procedures.
 - 3. Warranties.
 - 4. Final cleaning.
 - 5. Repair of the Work.
- B. Related Requirements:
 - 1. Section 017823 "Operation and Maintenance Data" for additional operation and maintenance manual requirements.
 - 2. Section 017839 "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
 - 3. Section 017900 "Demonstration and Training" for requirements to train the Owner's maintenance personnel to adjust, operate, and maintain products, equipment, and systems.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of cleaning agent.
- B. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.
- C. Certified List of Incomplete Items: Final submittal at final completion.

1.3 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction.
- B. Certificate of Insurance: For continuing coverage.
- C. Field Report: For pest control inspection.

1.4 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's punch list), indicating the value of each item on the list and reasons why the Work is incomplete.

- B. Submittals Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 2. Submit closeout submittals specified in other Division 01 Sections, including project record documents, operation and maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.
 3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Architect Label with manufacturer's name and model number.
 5. Submit testing, adjusting, and balancing records.
 6. Submit sustainable design submittals not previously submitted.
 7. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- C. Procedures Prior to Substantial Completion: Complete the following a minimum 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
1. Advise Owner of pending insurance changeover requirements.
 2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 3. Complete startup and testing of systems and equipment.
 4. Perform preventive maintenance on equipment used prior to Substantial Completion.
 5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training video recordings specified in Section 017900 "Demonstration and Training."
 6. Advise Owner of changeover in utility services.
 7. Participate with Owner in conducting inspection and walkthrough with local emergency responders.
 8. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 9. Complete final cleaning requirements.
 10. Touch up paint and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of 10 days prior to date the Work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.

1.5 FINAL COMPLETION PROCEDURES

- A. Submittals Prior to Final Completion: Before requesting final inspection for determining final completion, complete the following:
 - 1. Certified List of Incomplete Items: Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 - 2. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 - 3. Submit pest-control final inspection report.
- B. Inspection: Submit a written request for final inspection to determine acceptance a minimum of 10 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.

1.6 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
 - 1. Organize list of spaces in sequential order.
 - 2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
 - 3. Submit list of incomplete items in the following format:
 - a. MS Excel electronic file. Architect will return annotated file.
 - b. PDF electronic file. Architect will return annotated file.

1.7 SUBMITTAL OF PROJECT WARRANTIES

- A. Time of Submittal: Submit written warranties on request of Architect for designated portions of the Work where warranties are indicated to commence on dates other than date of Substantial Completion, or when delay in submittal of warranties might limit Owner's rights under warranty.
- B. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.
- C. Warranty Electronic File: Provide warranties and bonds in PDF format. Assemble complete warranty and bond submittal package into a single electronic PDF file with bookmarks enabling navigation to each item. Provide bookmarked table of contents at beginning of document.
 - 1. Submit by email to Architect.

D. Warranties in Paper Form:

1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch (215-by-280-mm) paper.

E. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - c. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - d. Sweep concrete floors broom clean in unoccupied spaces.
 - e. Vacuum carpet and similar soft surfaces, removing debris and excess nap; clean according to manufacturer's recommendations if visible soil or stains remain.
 - f. Leave Project clean and ready for occupancy.

3.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations, before requesting inspection for determination of Substantial Completion.
- B. Repair, or remove and replace, defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.

END OF SECTION 017700

SECTION 017823 - OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
 - 1. Operation and maintenance documentation directory manuals.
 - 2. Emergency manuals.
 - 3. Systems and equipment operation manuals.
 - 4. Systems and equipment maintenance manuals.
 - 5. Product maintenance manuals.

1.2 CLOSEOUT SUBMITTALS

- A. Submit operation and maintenance manuals indicated. Provide content for each manual as specified in individual Specification Sections, and as reviewed and approved at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.
 - 1. Architect will comment on whether content of operation and maintenance submittals is acceptable.
 - 2. Where applicable, clarify and update reviewed manual content to correspond to revisions and field conditions.
- B. Format: Submit operation and maintenance manuals in the following format:
 - 1. Submit by email to Architect. Enable reviewer comments on draft submittals.
- C. Final Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion and at least 15 days before commencing demonstration and training. Architect will return copy with comments.
 - 1. Correct or revise each manual to comply with Architect's comments. Submit copies of each corrected manual within 15 days of receipt of Architect's comments and prior to commencing demonstration and training.
- D. Comply with Section 017700 "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

1.3 FORMAT OF OPERATION AND MAINTENANCE MANUALS

- A. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.

1. Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
2. File Names and Bookmarks: Bookmark individual documents based on file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel on opening file.

1.4 SYSTEMS AND EQUIPMENT OPERATION MANUALS

- A. Systems and Equipment Operation Manual: Assemble a complete set of data indicating operation of each system, subsystem, and piece of equipment not part of a system. Include information required for daily operation and management, operating standards, and routine and special operating procedures.
- B. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:
 1. System, subsystem, and equipment descriptions. Use designations for systems and equipment indicated on Contract Documents.
 2. Performance and design criteria if Contractor has delegated design responsibility.
 3. Operating standards.
 4. Operating procedures.
 5. Operating logs.
 6. Wiring diagrams.
 7. Control diagrams.
 8. Piped system diagrams.
 9. Precautions against improper use.
 10. License requirements including inspection and renewal dates.
- C. Descriptions: Include the following:
 1. Product name and model number. Use designations for products indicated on Contract Documents.
 2. Manufacturer's name.
 3. Equipment identification with serial number of each component.
 4. Equipment function.
 5. Operating characteristics.
 6. Limiting conditions.
 7. Performance curves.
 8. Engineering data and tests.
 9. Complete nomenclature and number of replacement parts.
- D. Operating Procedures: Include the following, as applicable:
 1. Startup procedures.
 2. Equipment or system break-in procedures.
 3. Routine and normal operating instructions.

4. Regulation and control procedures.
 5. Instructions on stopping.
 6. Normal shutdown instructions.
 7. Seasonal and weekend operating instructions.
 8. Required sequences for electric or electronic systems.
 9. Special operating instructions and procedures.
- E. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.
- F. Piped Systems: Diagram piping as installed, and identify color coding where required for identification.

1.5 SYSTEMS AND EQUIPMENT MAINTENANCE MANUALS

- A. Systems and Equipment Maintenance Manuals: Assemble a complete set of data indicating maintenance of each system, subsystem, and piece of equipment not part of a system. Include manufacturers' maintenance documentation, preventive maintenance procedures and frequency, repair procedures, wiring and systems diagrams, lists of spare parts, and warranty information.
- B. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranties and bonds, as described below.
- C. Manufacturers' Maintenance Documentation: Include the following information for each component part or piece of equipment:
1. Standard maintenance instructions and bulletins; include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
 - a. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.
 2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
 3. Identification and nomenclature of parts and components.
 4. List of items recommended to be stocked as spare parts.
- D. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
1. Test and inspection instructions.
 2. Troubleshooting guide.
 3. Precautions against improper maintenance.
 4. Disassembly; component removal, repair, and replacement; and reassembly instructions.

5. Aligning, adjusting, and checking instructions.
6. Demonstration and training video recording, if available.

- E. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
- F. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
- G. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
 1. Include procedures to follow and required notifications for warranty claims.
- H. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in record Drawings to ensure correct illustration of completed installation.

1.6 PRODUCT MAINTENANCE MANUALS

- A. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- B. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.
- C. Product Information: Include the following, as applicable:
 1. Product name and model number.
 2. Manufacturer's name.
 3. Color, pattern, and texture.
 4. Material and chemical composition.
 5. Reordering information for specially manufactured products.
- D. Maintenance Procedures: Include manufacturer's written recommendations and the following:
 1. Inspection procedures.
 2. Types of cleaning agents to be used and methods of cleaning.
 3. List of cleaning agents and methods of cleaning detrimental to product.
 4. Schedule for routine cleaning and maintenance.
 5. Repair instructions.
- E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.

- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

1. Include procedures to follow and required notifications for warranty claims.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 017823

SECTION 02050

DEMOLITION

1. GENERAL:

- 1.1. **Scope:** This contract involves selective demolition of existing building systems as shown. Demolition operations will require coordination with the Owner's activities and must be carefully scheduled. Frequent meetings between Owner and Contractor may be required to monitor and adjust the demolition/renovation schedule as made necessary by events.
- 1.2. **Pre-Demolition Conference:** The Owner's Facilities and Maintenance Department will schedule a pre-demolition conference between the owner, the contractor, and the contractor's subcontractors scheduled to engage in demolition operations, prior to the commencement of demolition. The conference will be held on the project site and will inspect and discuss the condition of existing construction to be selectively demolished, review areas where existing construction is to remain and requires protection, and review the initial list of items to be salvaged and delivered to the owner.
- 1.3. Demolish as necessary to accomplish the result indicated. Remove existing items carefully. Protect those items remaining within spaces during demolition. Reduce dust and other air-borne particulates by sprinkling of debris with water.
- 1.4. Existing work removed in areas not otherwise indicated as receiving new finish work shall have existing surfaces patched with material matching the existing work remaining. Final finishing of patched areas shall be of type, kind and color to match adjacent surfaces.
- 1.5. Owner shall be given the opportunity of retaining for his own use any existing material removed. Material not reused in new work and not claimed by the Owner shall become the property of the Contractor who shall remove same from the premises.
- 1.6. **Existing furniture/equipment:** Existing furniture and/or equipment typical to the functions and use of the facility will remain in place throughout the duration of this Contract. The Contractor shall construct a Protection Plan for all existing items to remain and schedule a meeting with the Owner to coordinate and advise of any conflicts with the Protection Plan regarding demolition and/or new work to be performed prior to the commencement of the project. The Contractor shall revise the Protection Plan based on the outcome of this coordination meeting with the Owner, if required. Contractor shall obtain approval of the Protection Plan prior to the commencement of the project. Contractor shall cover and protect any existing furniture and/or equipment that may remain in place throughout the duration of the project.

1.7. Pre-Demolition Photographs: Contractor shall take photographs of existing conditions adjoining areas of demolition and any areas that of existing conditions that might be misconstrued as damage caused by selective demolition procedures. (Objective of these photographs is to eliminate incorrect claims against the contractor for collateral damages he did not cause.) In addition, contractor shall photograph items requested by the owner to be salvaged for the owner. Owner shall deliver a list of items to be salvaged prior to commencement of demolition operations. Print and submit all photographic documentation prior to the start of demolition.

1.8. Burning and/or burial of demolished materials on-site is strictly prohibited.

2. HANDLING DEBRIS:

2.1. All debris shall be removed from site. Sprinkle with water as necessary to eliminate dust during chuting and transport.

3. PROTECTION:

3.1. Protect existing work that is to remain in place. Where safety is endangered in area of removal of work, provide protection as required.

4. CLEAN-UP:

4.1. Clean-up spillage from streets and adjacent areas.

4.2. Comply with Federal, State, and local hauling and disposal regulations.

END OF SECTION

SECTION 02055

CUTTING & PATCHING

1. DESCRIPTION OF REQUIREMENTS:

1.1 Definition: Cutting and patching includes cutting into existing construction to provide for the installation or performance of other work and subsequent fitting and patching required to restore surfaces to their original condition.

1.1.1 Cutting and patching is performed for coordination of the work, to uncover work for access or inspection, to obtain samples for testing, to permit alterations to be performed or for other similar purposes.

1.1.2 Cutting and patching performed during the manufacture of products, or during the initial fabrication, erection or installation processes is not considered to be cutting and patching under this definition. Drilling of holes to install fasteners and similar operations are also not considered to be cutting and patching. Core-drilling of holes larger than 1" requires approval of the project structural engineer.

1.2 Quality Assurance:

1.2.1 Requirements for Structural Work: Do not cut and patch structural work in a manner that would result in a reduction of load-carrying capacity or of load deflection ratio.

1.2.2 Before cutting and patching the following categories of work, obtain the Structural Engineer's approval to proceed with cutting and patching:

- A. Miscellaneous structural metals, including lintels, equipment supports, and similar categories of work.
- B. Masonry bearing walls.
- C. Structural concrete including floor slabs.
- D. Exterior wall construction.

1.2.3 Operational and Safety Limitations: Do not cut and patch operational elements or safety related components in a manner intended, including energy performance, or that would result in increased maintenance, or decreased operational life or decreased safety.

- 1.2.4 Visual Requirements: Do not cut and patch work exposed on the building's exterior or in its occupied spaces, in a manner that would, in the Design Professional's opinion, result in lessening the building's aesthetic substantial visual evidence of cut and patch work. Remove and replace work judged by the Design Professional to be cut and patched in a visually unsatisfactory manner.

2. PRODUCTS:

- 2.1 General: Except as otherwise indicated, or as directed by the Design Professional, use materials for cutting and patching that are identical to existing materials. If identical materials are not available, or cannot be used, use materials that match existing adjacent surfaces to the fullest extent possible with regard to visual effect. Use materials for cutting and patching that will result in equal-or-better performance characteristics.

3. EXECUTION:

- 3.1 Inspection: Before cutting, examine the surfaces to be cut and patched and the conditions under which the work is to be performed. Examination should include a study of the existing drawings for the building. If unsafe or otherwise unsatisfactory conditions are encountered, take corrective action before proceeding with the work.

- 3.1.1 Before the start of cutting work, meet at the work site with all parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict between the various trades. Coordinate layout of the work and resolve potential conflicts before proceeding with the work.

3.2 Preparation:

- 3.2.1 Temporary Support: To prevent failure, provide temporary support of work to be cut. Provide shoring, bracing and support as required to maintain structural integrity of the work.

- 3.2.2 Protection: Protect other work during cutting and patching to prevent damage. Provide protection from adverse weather conditions for that part of the project that may be exposed during cutting and patching operations. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

Take precautions not to cut existing pipe, conduit or duct serving the building but scheduled to be relocated until provisions have been made to bypass them.

3.3 Performance:

- 3.3.1 Employ skilled workmen to perform cutting and patching work. Except as

otherwise indicated or as approved by the Design Professional, proceed with cutting and patching at the earliest feasible time and complete work without delay.

- 3.3.2 Cutting: Cut the work using methods that are least likely to damage work to be retained or adjoining work. Where possible review proposed procedures with the original installer; comply with original installers recommendations.

- 3.3.2.1 In general, where cutting is required, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut through concrete and masonry using a cutting machine or core drill to insure a neat hole. Cut holes and slots neatly to size required with minimum disturbance of adjacent work. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces. Temporarily cover openings when not in use.

- 3.3.2.2 By-pass utility services such as pipe and conduit, before cutting, where such utility services are shown or required to be removed, relocated or abandoned. Cut-off conduit and pipe in walls or partitions to be removed. After by-pass and cutting, cap, valve, or plug and seal tight remaining portion of pipe and conduit to prevent entrance of moisture or other foreign matter.

- 3.3.3 Patching: Patch with seams which are durable and as invisible as possible. Comply with specified tolerances for the work.

- 3.3.3.1 Where feasible, inspect and test patched areas to demonstrate integrity of work.

- 3.3.3.2 Restore exposed finishes of patched areas and where necessary extend finish restoration into retained adjoining work in a manner which will eliminate evidence of patching and refinishing.

- 3.3.3.3 Patch and repair floor and wall surfaces to provide an even surface of uniform color and appearance remove existing floor and wall coverings and replace with new materials, if required by the Architect.

3.4 Cleaning:

- 3.4.1 Thoroughly clean areas and spaces where work is performed or used as access to work. Remove completely point, mortar, oils, putty, and items of similar nature. Thoroughly clean piping, conduit and similar features before painting or other finishing is applied. Restore damaged pipe covering to its original condition.

END OF SECTION

SECTION 07300

SEALANTS AND CAULKING

1. GENERAL:

1.1 Submittals: Submit manufacturer's data samples of each material specified herein for approval, including samples of available color.

1.2 DELIVERY: AND STORAGE;

1.2.1 Materials delivered to the job site shall be in unopened containers or cartons, each bearing the product name, color, type, and grade.

1.2.2 Materials shall be stored in waterproof, dry building or sheds. Materials shall not be allowed to freeze nor be stacked in such a way as to cause damage to the container.

1.3 WARRANTY: The Contractor shall provide a warranty to the Owner against material and workmanship failure for a period of five years.

2. PRODUCTS: (Products by Mameco, USG, 3M, Dow Chemical Co, GE are specified by name. However, most of these manufacturers have product lines equivalent to each other.)

2.1 Exterior:

2.1.1. Horizontal Joints- Vulkem # 245, as manufactured by Mameco International, Cleveland, Ohio, or approved equal, shall be used in interior and exterior floor joints. The use of the one-component Vulkem 45 is optional if temperatures during installation are at or above 70 degrees F.

2.1.2 Vertical and Inclined Joints- Vulkem # 227, as manufactured by Mameco International, Cleveland, Ohio, or approved equal, shall be used in all exterior non-horizontal joints. The use of the one-component Vulkem #116 is optional if temperatures during installation are at or above 70 degrees F.

2.1.3 PRIMER: If required, shall be non-staining and a type as recommended by the Sealant manufacturer.

2.1.4 BACK-UP: Shall be a polyethylene foam, closed cell 25% wider than joint width, as manufactured by the Dow Chemical Co, Midland, Michigan.

2.1.5. BOND BREAKER: If required, shall be as recommended by the Sealant manufacturer.

2.1.6 Colors of Sealant and Caulking shall be from the manufacturer's standard colors and shall be as selected.

2.2 INTERIOR:

2.2.1 Non-Combustible Caulking "Acousti-seal" by USG.

2.2.2 Acrylic-Latex or clear silicone, as appropriate. Dap, GE.

2.3 Metal Building Sealants: Sealants for the metal building system shall be provided by the metal building manufacturer. These sealants are different from those specified in this section and function under different environmental constraints and stresses.

3. APPLICATION:

3.1 Surface Preparation: All surfaces to which the sealant is to adhere must be cleaned of any contaminants, including but not limited to, curing compounds, for release oil, lubricants, paints, (particularly fluoro-carbon finishes, used for example, on some aluminum window frames, louver etc.) dust dirt, and unsound, damaged, substrates. Such cleaning must precede sealants installation; the sealant applicator shall notify the General Contractor before installing sealant if any unsound and/or damaged substrates are encountered which are not removable by solvents recommended by the manufacturer or similar normal surface preparation requirements.

3.2 Back-up Material: Shall be installed at the proper depth to provide sealant dimensions as specified earlier, using only round or blunt tools. Sharp tools (such as putty knife) are prohibited. Backer rod shall be 33% oversize.

3.3 Masking: If required, shall be used where recommended by the Sealant manufacturer. If primer is not used on surfaces other than concrete, concrete block or anodized aluminum, a manufacturer's letter must be submitted specifically authorizing its omission.

3.4 Sealant: Shall be applied under pressure, using hand or power caulking guns, or approved methods.

3.4.1 Nozzles shall be of the proper size and shape to form the required bead and completely fill the joint. Joint shall be filled from the bottom, making sure air bubbles are not left in the joint.

3.4.2 Joints shall be tooled in the opposite direction from that at installation, as directed or approved, using lubricants recommended by the manufacturer. Joints shall be slightly concave and recessed at least 1/8 inch from the top of the joint.

3.4.3 Weather Conditions: Sealants is NOT to be installed on any damp or wet substrate. If the exterior surface at the joint substrates are of a porous material, the manufacturer must be consulted for special procedures to minimize adhesion problems from rains within 24 hours of installation absorbing through the exterior substrate surface, wetting the joint adhesion face. Manufacturer must be consulted if temperatures below 40° F. within 24 hours after application are expected.

4. JOINT DIMENSIONS:

- 4.1 Joint dimensions shall be as shown on the Drawings. In joints up to 1/4 inch in width, the depth of the sealant or caulking shall be 1/4 inch.
- 4.2 In open joints over 1/4 inch wide, the depth of the sealant or caulking shall be approximately one-half the width of the joint, but in no case less than 1/4 inch deep.
- 4.3 When open joints exceed the depth requirements, insert backup material to the necessary depth stated above.
- 4.4 When perimeter joints around frames that are to be sealed and caulked do not have built-in stops, insert backup material to provide a joint with a minimum depth of 3/8 inch and a maximum depth of 1/2 inch.

5. WORKMANSHIP:

- 5.1 At the start of the installation, the manufacturer shall supply sufficient job-site instructions in the use of his product to ensure that proper installation procedures are followed.
- 5.2 As work progresses, sealant or caulking that may adhere to adjacent materials must be removed immediately.

6. CLEANING:

- 6.1 At the completion of this work, all surfaces adjoining shall be cleaned of all excess sealants or caulking and left in a neat condition, subject to the approval of the Architect.

END OF SECTION

SECTION 09100

ACOUSTICAL CEILINGS

1. GENERAL:

- 1.1 Scope of Work of this Section shall only include replacement of acoustical ceiling tiles and systems damaged during removal of existing systems to facilitate new fire sprinkler system work. All new materials and systems shall match existing adjacent materials and systems. Materials and systems listed herein are Architect's understanding of existing in-place items. Contractor to field verify all systems prior to commencement of work in Contract. Coordinate the work with all other trades.
- 1.2 Related Work: Division 15000, Mechanical.
Division 16000, Electrical.
- 1.3 Submittals: Manufacturer's data for acoustical panels and suspension system; sample of ceiling panel for approval of pattern and color, and swatches of acoustical fabric.
- 1.4 Performance Requirements:
 - 1.4.1 Comply with the requirements of SCAQMD Rule 1168 and Green Seal Standards, GS-36, GS-11, and GC-03 for VOC limits for each product, adhesive, sealant, etc. used in the work.
- 1.5 Materials shall be Class A per NFPA 255 with a Flame Spread of 0-25 and Smoke Developed 0-450.

2. PRODUCTS:

- 2.1 All Suspended Acoustical Panels shall be sag resistant, anti-microbial, and deliver a minimum light reflectance of 0.85:
- 2.2 Suspended Acoustical Ceiling Type A:
 - 2.3.1 Armstrong Item # 1732: "Fine Fissured" square-edge panels by Armstrong; 24" x 24" x 3/4"; or to match existing. Color shall be standard white. Acceptable Product: USG 'Radar ClimaPlus' #2210.
 - 2.3.2 Exposed suspension grid system shall be intermediate duty steel in standard white finish. Framing shall comply with ASTM C635.

2.3 Suspended Acoustical Ceiling Type B:

2.3.1 Armstrong Item # 248: "Designer" square-edge panels by Armstrong; 24" x 24" x 3/4"; or to match existing. Color shall be standard white. Acceptable Product: USG "CGC Cheyenne".

2.3.2 Exposed suspension grid system shall be intermediate duty steel in standard white finish. Framing shall comply with ASTM C635.

3. METHODS:

3.1 Ceiling suspension system: Install ceiling units using "Direct hung suspension system" as described and defined by Acoustical Materials Association publication, "Specifications for Acoustical Tile and Lay-in Panel Ceiling Suspension System", except as specified herein.

3.1.1 Where direct hung suspension is used, hangers, runners, cross tees, etc., shall be spaced as recommended by manufacturer to prevent deflection in excess of 1/360 of span of cross tee or runner, except that the maximum spacing of hangers shall be four feet on center. Provide extra hangers and bracing as required at or near items of mechanical, electrical, and miscellaneous equipment supported by ceiling suspension system.

3.2 Lay out ceilings as shown on the Reflected Ceiling Plan of the drawings.

4. COORDINATION: The acoustical subcontractor shall coordinate the acoustical work with the electrical and mechanical work. All electrical and mechanical items shall be supported by the grid system.

5. LOCATIONS:

Type A: As noted on Drawings.

Type B: As noted on Drawings.

END OF SECTION

SECTION 09200

GYPSUM BOARD

1. GENERAL:

- 1.1 All gypsum panels shall comply with ASTM C36. Materials specified are products of United States Gypsum Co (USG) or G-P Gypsum Corporation. Similar products manufactured by National Gypsum Company are acceptable.
 - 1.1.1 Quality Assurance: All gypsum board products shall be of domestic manufacture. None shall be imported from any other country, especially from China. Contractor shall receive certification documenting manufacturing location from manufacturer and submit same for approval.
- 1.2 Submittals:
 - a. Manufacturers data on all material furnished under this Section.
 - b. Certification of Manufacturer attesting to the fact that all gypsum board and components have been manufactured in the United States. Certification shall specifically indicate location of the place of manufacture.
- 1.4 All interior gypsum board/metal stud ceiling soffits indicated on the Contract Drawings shall be constructed using metal framing and gypsum board as indicated and shall be designed by a specialty engineer registered in the State of Florida. Provide signed/sealed shop drawings including calculations for approval.

2. PRODUCTS:

- 2.1 For General Use: USG's 5/8" thick 'Fiberock VHI" Very-High-Impact Abuse Resistant gypsum panels with tapered edge from floor to ceiling height (drywall ceilings) or 6" above acoustical tile ceilings. Use standard gypsum panels of 5/8" thickness above 8'-0".
- 2.2 For Wet Areas: USG's 5/8" thick "Fiberock Aqua-Tough" Interior abuse and moisture resistant panels. (5/8" DensGlass Gold by GP acceptable)
- 2.3 Drywall Accessories: Metal corner beads, metal casing beads and trim as shown or required. Material shall be galvanized.
- 2.4 USG Screws: 1 ¼ inch Type S, Bugle Head, for fastening gypsum panels to studs or furring; 1 1/2" Type G, Bugle Head, for fastening gypsum to gypsum.
- 2.5 Joint Cement and reinforcing tape shall be as recommended by the manufacturer of gypsum wall board.

3. INSTALLATION:

- 3.1 Installation of gypsum board shall be in strict accordance with manufacturer's printed instructions, specifically, USG Product Bulletins SA 923 and SA 927 for installation over metal framing systems.
- 3.2 Position all ends and edges of gypsum panels staggered over framing members, except when joints are at right angles to framing members as in perpendicular application.
- 3.3 Extend ceiling board into corners and make firm contact with studs or furring. To minimize end joints, use panels of maximum practical lengths. Fit ends and edges closely, but not forced together. Stagger end joints and edge joints on opposite sides of partitions and place on different studs. Both vertical and horizontal drywall joints shall be staggered on both sides of the partitions. Hold bottom edge of gypsum board 3/8 inch off concrete floor slab.
- 3.4 Attach panels to framing supports by Standard Single Nailing Method as appropriate to the installation or Power driven USG Screws. Space fasteners not less than 3/8" from edges and ends of panels. Drive as recommended for specified fastening method. Drive fasteners in field of panels first, working toward ends and edges. Hold panel in firm contact with framing while driving fasteners. Drive fastener heads slightly below surface of gypsum panels in a uniform dimple without breaking face paper.
- 3.5 Cut ends, edges, scribe or make cutouts within field of panels in a workmanlike manner.
- 3.6 Install trim at all internal and external angles formed by the intersection of either panel surfaces or other surfaces. Apply corner bead to all vertical or horizontal external corners in accordance with manufacturer's directions.

4. FINISHING:

- 4.1 Level 4 Finish throughout: Application of joint compound and joint reinforcing and finishing of panels shall be in strict accordance with manufacturer's printed instructions to achieve level of finish noted.

5. CEILINGS:

- 5.1 Suspend gypsum board ceilings shall matching existing systems. If new ceiling systems must be provided, use Don Products 10,000 Series Rigid "X" drywall grid suspension system or equivalent system.

- 5.2 Soffits and Ceiling shapes: Several existing soffits and special ceiling shapes are existing within the facility. Contractor shall take care to avoid disturbance of these areas to extents possible. If new work affects these areas, Contractor shall restore all areas to pre-existing conditions using materials and systems currently installed in affected areas.
- 5.3 Ceiling Textures:
- 5.3.1 All gypsum board ceilings, soffits, and dropped headers shall be smooth, finish level 4 unless noted otherwise.

END OF SECTION

SECTION 09800

PAINTING

1. GENERAL:

- 1.1 The following specifications cover the complete painting and finishing of all surfaces, interior and exterior, as shown on the drawings and described in the specifications except as otherwise specified.
- 1.2 Work not included:
 - 1.2.1 Copper, bronze, chromium plate, nickel, stainless steel, anodized aluminum, lead, and bright metals normally not intended to be painted.
 - 1.2.2 Factory applied finishes.
 - 1.2.3 Shop painting of structural and miscellaneous iron and steel.
- 1.3 The painting contractor shall supply all labor, materials, tools, ladders, scaffolding and equipment necessary for the completion of the work according to the drawings and specifications.
- 1.4 The painting contractor is responsible for inspecting the work of others prior to the application of any paint or finishing material. If any surface to be finished cannot be put in proper condition for finishing by customary cleaning, sanding and puttying operations, the painting contractor will immediately notify the general contractor or the Architect in writing, and shall not proceed with this work until conditions have been corrected and are acceptable.
- 1.5 Before proceeding with any painting, the painting contractor shall prepare and finish a sample room complete or in part, as directed by the Architect. Finish all areas or items in accordance with the specification and in colors selected by the Architect. These areas or items will be inspected by the Architect. When approved, they shall serve as a standard for workmanship, appearance, and materials approved for similar areas or items throughout this project.
- 1.6 Submittals: Manufacturer's data on painting products, item by item.

2. STORAGE: Store all materials used on the job in a single place designated by Architect. Keep storage place neat and clean. All damaged areas shall be corrected by cleaning, repairing or replacing. All soiled or used rags, waste and trash must be removed from the building every night, and every precaution taken to avoid the danger of fire.
3. EXTRAS: The painting contractor shall not be entitled to payment in excess of the amount agreed upon in his contract for any extra work over and above that specified, unless authorized in writing by the Architect or the Architect's duly authorized representative.
4. MATERIALS:
 - 4.1 All paints, varnishes, enamels, lacquers, stains, paste fillers, and similar materials must be delivered in the original containers, with the seals unbroken and labels intact and shall be used from the original containers.
 - 4.2 Use only first line products of approved manufacturers.
 - 4.3 Use materials only in accordance with the manufacturer's directions.
 - 4.4 The Architect will select colors and determine the number of colors to be used on the job. If required, prepare panels for finish and color in advance, with the materials as specified, for the approval of the Architect. Six accent colors will be selected in addition to three neutral colors to be used throughout.
5. WORKMANSHIP:
 - 5.1 Employ skilled mechanics to insure the very best workmanship. Quality workmanship is required. Materials to be applied by craftsman experienced in the use of the specific product involved.
 - 5.2 Where interior or exterior wood and metal are primed in the mill or shop as a part of the painting contract, use materials specified in every case for such surfaces and use in accordance with manufacturer's directions for the first or priming coat.
 - 5.3 When surface temperature is below 50 degrees F., do not apply paints, varnishes, and special coatings, unless otherwise specified. Do not prime exteriors during frosty or rainy weather. Avoid painting surfaces while they are exposed to direct sunlight.

- 5.4 Clean floors and adjacent surfaces, as well as all surfaces to be painted, before painting. Painting environment shall be relatively dust free.
- 5.5 Touch up knots, pitch streaks and sappy spots with recommended sealer before priming.
- 5.6 Putty nail holes, cracks and other defects after the first coat, with putty color to match the finish. Bring putty flush with the adjoining surface.
- 5.7 Wash metal surfaces with mineral spirits to remove dirt, oil and grease, before applying materials. Remove rust and scale by wire brushing or sanding clean before painting. Clean and touch up shop coats of paint that have become badly weathered, worn or marred with the primer specified.
- 5.8 Clean galvanized metal thoroughly and apply recommended primer.
- 5.9 Back-prime interior and exterior trim before installation with primer specified.
- 5.10 Apply all materials under adequate illumination, spread evenly and flow on smoothly without runs or sags.
- 5.11 All coats must be thoroughly dry before applying succeeding coats.
- 5.12 Sand smooth all woodwork to be finished with enamel or varnish. Clean surface before proceeding with the application of the first coat.
- 5.13 After doors are fitted, finish tops, bottoms and edges same as face and back. Finish tops and bottoms in a yellow or brown-pigmented sealer.
- 5.14 Secure color schedules before applying paint or finish. Tint primer and undercoat to the approximate shade of the finish coat.
- 5.15 Masonry surfaces shall be dry and clean from all dust, dirt, oil and efflorescence before painting. When recommended, etch concrete that is dense and smooth or that has had a hardener applied before painting. Fill masonry before painting.

- 5.16 Do not paint drywall containing more than 15% moisture. Touch up suction spots or "hot spots" as recommended after application of the first coat and before applying the second coat.
 - 5.17 Repair scratches, cracks and abrasions in drywall surfaces and openings adjoining trim with a spackling compound, flush with adjoining surface, and when dry, sand smooth and seal before applying prime coat.
 - 5.18 Cover surfaces to be stained with a uniform coat and wipe off if required.
 - 5.19 Between coats, sand enamel or varnish finish, applied to wood or metal, with fine sandpaper and clean to produce an even, smooth finish.
 - 5.20 Finish closets the same as adjoining rooms, unless otherwise specified. Finish all other surfaces the same as nearest or adjoining surfaces unless specified or directed otherwise by the Architect.
 - 5.21 Protect work, adjacent work, and materials at all times, by suitable covering. Upon completion of the work, remove all paint and varnish spots from the floors, glass and other surfaces. Remove from the premises all rubbish and accumulated materials of whatever nature not caused by others and leave work in clean, orderly and acceptable condition.
6. PAINTING SCHEDULE: (Note: The number of coats scheduled shall establish a minimum requirement. Apply additional coats as necessary to achieve full coverage. It is the Architect's intent for paint to fully cover substrate creating a smooth, opaque finish.)
- 6.1 Exterior:
 - 6.1.1 Galvanized Metal: (Remove oil and grease by solvent cleaning and rust by sanding.)
 - 1 coat alkyd primer for galvanized metal primer
 - 2 coats exterior alkyd enamel (gloss)

6.1.2 Ferrous Metal (including steel doors and frames):
(Remove oil and grease by solvent cleaning and rust by sanding.)

1 coat oleo resinous primer (field or factory applied): rust inhibitor. (Touch up factory applied primer before applying finish coats).

2 coats exterior alkyd enamel, (semi-gloss)

6.1.2.1 Existing cast iron corner guards (2) and downspouts boots (3):
Strip all existing paint. Apply (2) coats new finish alkyd enamel (semi-gloss)

6.1.3 Aluminum (not specified to be factory finished):

1 coat alkyd zinc chromate primer

2 coats exterior alkyd enamel, (gloss)

6.1.4 Concrete Block, Concrete and Stucco
Elastomeric waterproofing as follows:

2 coats "Pitt-Flex Exterior Masonry Coating :
(100% acrylic elastomeric) 4-110, 45.3% VS,
MWF 16.0 mils, MDF 7.2 mils per coat. This
coating is manufactured by PPG. Other coatings of
equal specifications will be reviewed for approval.

6.1.5 Masonry Sealer: As specified in Section 04350, Masonry Sealer.

6.2 Interior:

6.2.1 Ferrous Metal: Including steel doors, steel door frames,
door vision panel frames:

1 coat oleo resinous primer (field or factory applied)
2 coats alkyd enamel, (eggshell)

6.2.2 Concrete or Concrete Masonry Vertical Surfaces:

Min. 2 coats latex block filler, brushed on (fill all voids before applying paint. If the holes are big, use a slurry coat of grout before applying block filler.) Block filler may be deleted on previously painted surfaces.

2 coats acrylic latex enamel, eggshell or satin sheen.

6.2.3 Concrete Floors:

As specified in Section 03360, Concrete Finishes.

6.2.4 Gypsum Board:

1 prime coat

2 coats acrylic latex enamel, (satin on walls, flat at ceiling)

7. APPROVED MANUFACTURER:

- 7.1 All painting products shall be Benjamin Moore, Moorcraft quality. Products from recognized major manufacturers such as PPG, Sherwin-Williams, ICI and Devco, are acceptable.

END OF SECTION

SECTION 10500
ACCESS PANELS

1. GENERAL:

1.1 Products listed are as manufactured by Inryco Inc., Division of Milcor. Access panels are not required to be fire-rated.

1.2 Submittals: Manufacturer's data and installation detail.

2. PRODUCTS:

2.1 Drywall Access Door: Equal to Model DW, 16 gauge frame, 14 gauge panel, with drywall bead, primed, complete with all required installation/mounting hardware and accessories by Inryco, Inc. Division of Milcor.

Nominal size: 24" x 48" or as indicated on Drawings.

2.2 Bid Quantities: Contractor shall include in his bid the furnishing and installation of four (4) drywall access doors. Location to be determined or as indicated on drawings.

3. INSTALLATION:

3.1 Install in accordance with manufacturer's instructions and approved shop drawings.

3.2 Align true and plumb. Units shall be installed parallel with building lines, unless specifically shown otherwise.

3.3 Adjust for smooth and positive operation.

END OF SECTION

AUTOMATIC SPRINKLER SYSTEM – SECTION 215560

PART 1 – GENERAL

1.1 DESCRIPTION

- A. Provide all labor materials, equipment and services necessary to design, furnish and install a complete automatic fire sprinkler system as indicated or specified. All products shall be UL approved. The design and installation shall be in accordance with NFPA 13 and NFPA 241.
- B. The work includes installation of both a dry pipe automatic sprinkler system to afford complete fire protection throughout as well as a nitrogen generating system to protect the system from corrosion.
- C. The entire dry pipe automatic sprinkler system shall be modified in accordance with the specification and NFPA 13. Any reference to "authority having jurisdiction" shall be interpreted to mean the St. Johns County Fire Marshal. All material and equipment used shall be listed or approved by UL, FM, or another nationally recognized testing agency, for their intended use and service.

1.2 SUMMARY

- A. Section includes:
 - 1. Pipes, fittings and specialties.
 - 2. Fire protection valves.
 - 3. Sprinklers.
 - 4. Alarm devices.
 - 5. Other fire sprinkler related appurtenances.
 - 6. Nitrogen generating system.

1.3 APPROVED MANUFACTURERS

- A. The following manufacturers are approved for use subject to the detailed requirements of the drawings and these specifications.
 - 1. Sprinkler Heads: Viking, Grinnell, Star, Gem, Reliable, Central.
 - 2. Hangers: Elcen, Fee & Mason, Grinnell, F & M, Michigan.
 - 3. Check, Gate, and Globe Valves: Jenkins, Crane, Mueller, Kennedy, Grinnell, United, Nibco, Clow, Central.
 - 4. Butterfly Valves: Grinnell, Demco, Keystone, Milwaukee, Kennedy, Nibco.
 - 5. Grooved Pipe and Fittings: Tyler\Gustin-Bacon, Victaulic, GruvLok.
 - 6. Nitrogen Generating System: Viking, Potter Corrosion, South-Tek Systems.

1.4 QUALIFICATIONS

- A. Verification of Qualification: Prior to installation, submit documentation to the Engineer of Record showing that the Contractor has successfully installed

automatic fire suppression sprinkler systems of comparable size, type and design as specified herein or that the Contractor has a firm contractual agreement with a subcontractor having such experience.

1. The data shall include the names and locations of at least three installations where the Contractor or subcontractor installed such systems.
2. The Contractor or subcontractor shall certify that each system has performed satisfactorily for a period of not less than one year.
3. The Contractor or subcontractor shall submit the NICET/PE certification/license number and expiration date.

1.5 QUALITY ASSURANCE

A. Qualifications:

1. Layout and hydraulic calculation shall be performed by a NICET Level III or IV Technician certified in Automatic Sprinkler Systems Layout or a Registered Fire Protection Engineer.
2. Installation shall be performed by a licensed sprinkler contractor who is experienced in the layout and installation of automatic sprinkler systems (minimum 3 years) of comparable size and type.
3. Installer's responsibilities include layout, fabrication, and installation of sprinkler systems. Layout calculations shall be based on water flow test arranged by this contractor.
4. Drawings shall be sealed by a licensed Professional Fire Protection Engineer or be stamped by a NICET Level III or IV Technician in automatic sprinkler systems layout.

B. Applicable References: Sprinkler system equipment, specialties, accessories, installation, and testing shall comply with the latest editions of the following codes and standards:

1. National Fire Protection Association (NFPA), including all amendments and annexes.
 - a. NFPA 13, "Installation of Sprinkler Systems"
 - b. NFPA 241, "Standard for Safeguarding Construction, Alteration, and Demolition Operations"
2. Underwriter's Laboratories (UL)
 - a. "Fire Protection Equipment Directory"
3. Factory Mutual Global (FM)
 - a. Approval Guide
4. American Standard for Testing Materials (ASTM)
 - a. ASTM A53/53M, "Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless"
 - b. ASTM A47/47M, "Standard Specification for Ferritic Malleable Iron Castings"
 - c. ASTM A153, "Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware"

- d. ASTM A234/234M, "Standard Specification for Piping Fittings of Wrought Carbon Steel and Alloy Steel for Moderate and High Temperature Service"
- e. ASTM A536, "Standard Specification for Ductile Iron Castings"
- f. ASTM A733, "Standard Specification for Welded and Seamless Carbon Steel and Austenitic Stainless Steel Pipe Nipples"
- g. ASTM A795, "Standard Specification for Black and Hot-Dipped Zinc-Coated (Galvanized) Welded and Seamless Steel Pipe for Fire Protection Use"
- h. ASTM A865, "Standard Specification for Threaded Couplings, Steel, Black, or Zinc-Coated (Galvanized) Welded or Seamless, for Use in Steel Pipe Joints"
- i. ASTM B633, "Standard Specification for Electrodeposited Coatings of Zinc on Iron and Steel"
- j. ASTM F2014, "Standard Specification for Non-Reinforced Extruded Tee Connections for Piping Applications"
- 5. American Water Works Association (AWWA)
 - a. AWWA C110, "Standard for Ductile Iron and Gray Iron Fittings for Water"
 - b. AWWA C606, "Standard for Grooved and Shouldered Joints"
- 6. American Society of Mechanical Engineers (ASME)
 - a. ASME B1.20.1, "Pipe Threads, General Purpose"
 - b. ASME B16.1, "Gray Iron Pipe Flanges and Flanged Fittings: Classes 25, 125, and 250"
 - c. ASME B16.3, "Malleable Iron Threaded Fittings"
 - d. ASME B16.4, "Gray Iron Threaded Fittings"
 - e. ASME B16.5, "Pipe Flanges and Flanged Fittings: NPS 1/2 through 24"
 - f. ASME B16.9, "Factory-Made Wrought Butt Welding Fittings"
 - g. ASME B16.21, "Nonmetallic Flat Gaskets for Pipe Flanges"
 - h. ASME B18.2.1, "Square and Hex Bolts and Screws, Inch Series"
- 7. American Welding Society (AWS)
 - a. A5.8, "Specification for Filler Metals for Brazing and Braze Welding"
 - b. D10.12/D10.12M, "Guide for Welding Mild Steel Pipe"
- 8. Federal Specifications
 - a. TT-P-636
- 9. International Code Council (ICC)
 - a. International Building Code (IBC)
- C. Guarantee: The Contractor shall guarantee labor, materials, and equipment provided under this contract against defects for a period of one year after the date of final acceptance of this work by St. Johns County. Final acceptance includes, but is not limited to, the receipt of as-built drawings and operation and

maintenance manuals. Contractor shall be able to provide qualified personnel to site within a 2-hour timeframe and be available 24 hours a day, 7 days a week.

- D. Conflicts: The system shall be installed in accordance with the specifications, and referenced publications. Any conflicts between these documents shall be brought to the attention of St. Johns County.

1.6 SUBMITTALS

- A. Sprinkler Impairment Plan: Although the facility will not be open to the public, the contractor must advise the St. Johns County Fire Marshal that the system will be out of service. When Sprinkler Interruption is necessary, a written plan (indicating the expected time it will be out of service to the time it is expected to be restored as well as the method for putting the system back in service) shall be submitted to the St. Johns County Fire Marshal. Design and Installation shall be in accordance with NFPA 13 and NFPA 241.
- B. Product Data: Submit one electronic set of submittals to the engineer and St. Johns County and the St. Johns County Fire Marshal for each type of product indicated. Include rated capacities, operating characteristics, electrical characteristics, and furnished specialties and accessories. Partial submittals will not be acceptable and will be returned without review. Before any work is commenced, the submittal must be approved by the engineer, St. Johns County and the St. Johns County Fire Marshal. Manufacturer's data shall be provided for all products listed in Part 2 of this section and annotated to show the specific model, type, and size of each item. Submit manufacturer's technical product data for sprinkler heads, drain valve, hangers, sprinkler cabinet, pipe, fittings, mechanical couplings, escutcheons and all other essential equipment.
- C. Shop Drawings: Submit detailed working drawings in accordance with NFPA 13 for approval prior to fabrication of piping. Provide a layout and details sufficient to indicate the coordination of the location of sprinkler heads and piping with the ceiling configuration and with the relocation of luminaries and interchangeability of ceiling components. Submit a statement from the sprinkler subcontractor certifying that the design meets the original hydraulic design parameters. The drawings shall be on uniform size sheets no smaller than the Contract Drawings. Shop drawings shall be signed and sealed by a professional engineer registered in the State of Florida and regularly engaged in fire protection engineering. Partial submittals will not be acceptable and will be returned without review. Before any work is commenced, the submittal must be approved by the engineer, St. Johns County and the St. Johns County Fire Marshal. Include plans, elevations, sections, details, isometric diagram of sprinkler system riser piping showing all control valve locations, and attachments to other work.
 - 1. Layout indicating details, plan view, elevations and sections of the system piping. Indicate the location of sprinklers and piping in relation to the ceiling layout, showing pipe lengths and sizes.

2. Detailed riser diagram including isometric diagrams showing schematic of systems supply, supply connection, devices, valves, pipe, and fittings.
- D. Hydraulic Calculations: Submit hydraulic calculations as part of the shop drawings.. Hydraulic calculations shall be signed and sealed by a professional engineer registered in the State of Florida and regularly engaged in fire protection engineering. Before proceeding with installation, also receive approval of authority having jurisdiction. Prepare hydraulic calculations in accordance with NFPA 13 and its recommended occupancies and the following:
1. Minimum operating of any sprinkler shall be according to NFPA 13 and UL listing/FM approval.
 2. Pipe friction losses may be calculated by using the nearest foot for all piping over three feet in length. Horizontal lengths less than three feet may be neglected. Vertical length less than three feet shall be included for elevation purposes only.
 3. Flows shall be calculated to the nearest whole gallon.
 4. Velocity pressures may be neglected.
 5. Total sprinkler system flow shall not exceed 110 percent of the required flow.
 6. Existing pressure readings for this facility were not available. Determine the pressures (residual and static pressure), as well as flow rates, prior to bid.
- E. As-Built Drawings: Prepare and submit electronic as-built drawings.
1. The drawings shall include all information as required by NFPA 13.
 2. The drawings shall also show the system as installed including all deviations from the approved shop drawings.
 3. The drawings shall be on uniform size sheets of 24" x 36".
 4. Submit these drawings within two weeks after the final acceptance test of the system.
 5. Provide CAD based electronic as-built drawings to St. Johns County; Set shall include DWG and DWF file formats including all associated externally referenced electronic files (Xrefs). These files shall contain externally referenced files that have been inserted (do not bind the Xrefs). Provide both DWG and DWF file formats on three separate recordable CD-Rs (do not use CD-RWs or DVD-R/RWs). In addition, provide in each set a read only PDF copy of each as-built drawing for archiving purposes. PDF files shall be created using the PDF Creator utility. These three CD-Rs shall be formatted, written to, and the recording session closed in such a manner as to prevent additional electronic file transfers to the recordable CD-Rs.
- F. Field Test Reports and Certificates: Submit test certification to St. Johns County for all pipe and fittings. Indicate and interpret test results for compliance with performance requirements and as described in NFPA 13. Include "Contractor's Material and Test Certificate for Aboveground Piping".

- G. Operation and Maintenance Data: Not less than 14 calendar days prior to the final acceptance testing of the entire system and for use during the instruction period hereinafter specified, provide six bound copies of an Operation and Maintenance Manual to the Engineer of Record. The manual shall include an index, copies of all approved shop drawings and submittal materials (updated to as-built), and a complete parts list of all components. The manual shall also include for each item, the manufacturer's name, the serial number of the part, an ordering number, if appropriate, and a physical description of the part. The manual shall include all data relative to alarm valves, water flow switches, and tamper switches. These O&M Manuals shall be tabbed by floor.

1.7 PROJECT CONDITIONS

- A. Interruption of Existing Sprinkler Service: Do not interrupt sprinkler service to facilities without prior approval of St. Johns County and Fire Marshal and the facility's Senior Property Manager.
- B. Although the facility will not be open to the public, the contractor must advise the St. Johns County Fire Marshal that the system will be out of service. When Sprinkler Interruption is necessary, a written plan (indicating the expected time it will be out of service to the time it is expected to be restored as well as the method for putting the system back in service) shall be submitted to the St. Johns County Fire Marshal. Design and Installation shall be in accordance with NFPA 13 and NFPA 241. Also, contractor shall provide St. Johns County with any fire watch requirements so they can adequately monitor the facility.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Handle wet-pipe sprinkler components carefully to prevent damage, denting and scoring. Do not install damaged components; replace with new.
- B. Storage: Store wet-pipe sprinkler components in clean, dry place. Protect from weather, dirt, water, construction debris, and physical damage.

1.9 COORDINATION

- A. Coordinate layout and installation of sprinklers with other elements that penetrates ceilings, including light fixtures, HVAC equipment, and partition assemblies.
- B. Sprinklers shall be located in the existing locations as much as possible provided they still meet the coverage requirements.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Pipe:
 - 1. Schedule 80, CPVC: ASTM F442 in NPS 3" and smaller. This is the preferred pipe and should be used where possible.

2. Schedule 80 CPVC Fittings: ASTM F437, ASTM F439 or ASTM F1970.
3. Schedule 40, Black Steel Pipe: ASTM A795, in NPS 2 inches (DN 50) and smaller. Pipe ends may be factory or field formed to match joining method.
4. Schedule 10, Black Steel Pipe: ASTM A795, Schedule 10 in pipe greater than NPS 2 inches (DN 50). Pipe ends may be factory or field formed to match joining method. Not permitted unless alternate is provided.
5. Black Steel Pipe Nipples: ASTM A733, made of ASTM A795, Schedule 40 steel pipe with threaded ends.
6. Steel Couplings: ASTM A865, threaded.
7. Gray-Iron Threaded Fittings: ASME B16.4, Class 125, standard pattern.
8. Malleable- or Ductile-Iron Unions: UL-listed.
9. Cast-Iron Flanges: ASME 16.1, Class 125.
10. Steel Flanges and Flanged Fittings: ASME B16.5, Class 150.
11. Steel Welding Fittings: ASTM A234/A234M and ASME B16.9.
12. Malleable Iron Fittings: ASTM B16.3, Class 150.
13. Grooved-Joint, Steel Pipe Appurtenances:
 - a. Pressure Rating: 175 pounds per square inch gauge (1200 kPa) minimum.
 - b. Grooved-End Fittings for Steel Piping: ASTM A47/47M, malleable-iron casting or ASTM A536, ductile-iron casting; with dimensions matching steel pipe.
14. Not permitted:
 - a. Steel piping having a corrosion-resistant ratio less than 1.
 - b. Plain end fittings

B. Valves:

1. O.S. & Y: "Kennedy" iron body bronze mounted, double disc with parallel seats.
2. Butterfly: "Grinnell" IWU-LUG ductile iron body, stainless steel stem, aluminum bronze disc, phenolic ring and Buna N seat. Valves shall be FM/UL listed and approved for fire protection service.
3. Check: "Kennedy" figure 125 for piping 2-1/2" through 3" screwed ends, or figure 126 for piping 2-1/2" thru 8" flanged ends, cast iron body bronze mounted with bronze disc.

C. Sprinklers:

1. Pressure Rating for Automatic Sprinklers: 175 pounds per square inch gauge minimum.
2. Sprinklers with O-rings are not permitted.
3. Quick Response Sprinklers (QRS) shall be used.
4. Pendant and Upright, Extended Coverage: Reliable Model G4 XLO-QREC EC sprinklers, with 3/4" orifice.
5. Pendant and Upright, Standard Coverage: Reliable Model F1FR56-300 sprinklers, with 1/2" orifice.
6. Sidewall: Reliable Model F1FR56-300 sprinklers, with 1/2" orifice.

7. Automatic sprinkler heads shall be suitable for use intended including proper temperature rating as required by NFPA Standards for Installations of Sprinkler Systems Pamphlet #13:
 8. Heads in finished areas to be concealed, unless otherwise directed, and heads in unfinished areas to be rough brass.
 9. Cover plate finish shall be painted white.
 10. Furnish 12 spare heads of each type with same ratings and wrench in cabinet.
- D. Pipe Hangers: Shall conform to N.F.P.A. and U.L. standards for spacing, number, size, and type. Pipe to be generally supported by restraining clips, clamps and rods secured to overhead construction. Existing supports may be revised if stable. Additional supports may be required.
- E. Escutcheon Plates, Cover Caps, and Sleeves:
1. Escutcheon Plates: Provide chrome plated escutcheon plates wherever pipes pass through finished walls, floors, or ceiling. Provide prime coat painted escutcheon plates wherever pipes pass through the walls, floors, or ceilings in unfinished exposed areas.
 2. Cover Caps for Sprinkler Heads: Finished sprinkler head shall be fully recessed and hidden by cover cap. Cap to be painted to blend in with adjacent surface.
 3. Sleeves: Unless otherwise detailed or required by code, provide 20 gauge galvanized sleeves around all pipes passing through walls and floors. Gaps between sleeves and piping shall be filled with fire stopping.
- F. Signage: Provide signs for each valve and to identify hydraulic design. Signs shall have white lettering on a red background with holes for easy attachment. Enter pertinent data for each system on the hydraulic placard. Signs shall also be provided to locate any concealed valves. These signs shall be approved by the facility manager prior to procurement.

2.2 Nitrogen Generating System: Provide the following:

- A. N₂-Blast System by Viking, or approved equal, of appropriate size for the gallons of total sprinkler pipe capacity.
- B. UL508A listed control panel.
- C. Leak detection system signaling to existing fire alarm.
- D. Air bypass tamper alarm signaling to existing fire alarm.
- E. Air compressor package with five year warranty for compressor. Air dryer to be included with air compressor package.
- F. Nitrogen receiver tank.
- G. Portable Nitrogen Purity Sensor.

- H. Auto Purge system for each zone.
- I. Sampling port for each zone.
- H. Commissioning and Training by an authorized representative of the manufacturer - includes project manager on-site for one (1) day, and training for contractors and/or owner during system commissioning.
- F. Furnish one spare filter replacement kit for the N₂-Blast System.

PART 3 – EXECUTION

3.1 INSTALLATION

- A. Sprinkler piping shall be concealed above ceiling where possible and all sprinkler heads in ceilings shall be white finish, unless noted otherwise. Sprinkler heads located in rooms where there is no ceiling may be standard bronze upright or pendent, or sidewall as required. Sprinkler heads located in areas with T-bar ceilings shall be centered in lay-in 2x2 tile or centered in one half of the 2x4 tile.
- B. Exposed piping shall be painted to match ceiling behind it. Color to be approved by County.

3.2 PIPING:

- A. Threaded: Cut all pipe accurately to measurements established at the building. Work into place without springing or forcing. Proper provision shall be made for expansion and contraction of piping. Pipe and fittings are to be free from burrs and fins. All pipe is to be reamed and screw joints made. Apply lubricant to male threads only. Full cut thread and no more than three threads shall remain exposed on the pipe.
- B. Protection: All materials, fittings, and fixtures shall be properly and effectively protected. All pipe openings shall be closed so as to prevent obstructions and damage.
- C. Drainage: System drainage shall be provided from alarm valve through line controlled by globe valve and run to exterior of building. Wherever piping is trapped, an auxiliary draw-off shall be provided.
- D. Welding: On-site welding of sprinkler piping shall NOT be permitted.
- E. Groove Joining: Pipe joined with mechanical grooved couplings shall be joined by a listed combination of couplings, gaskets and grooves. When grooves are cut or rolled on the pipe they shall be dimensionally compatible with the coupling.
- F. "Sock-it" and "Press-Fit" fittings are not approved.
- G. Freeze Protection: All wet sprinkler system piping, equipment, valves, etc. shall be located inside of the building insulation systems so that the building heating system will prevent the piping from freezing. Heads located in the exterior soffits shall be protected by an anti-freeze system fed from the main riser.

- H. In general, sprinkler piping shall be installed at maximum height throughout the building. Offset piping as required to clear mechanical ductwork, piping, building structure, etc.
- I. The mechanical systems installation (equipment, ductwork, piping, etc.) shall have priority over space within the building.
- J. Sprinkler heads located 7'-0" above finished floor or less or installed in a location subject to damage (i.e., near a shelf in a storage room, in a mechanical equipment room, etc.) shall be provided with approved guards.
- K. Earthquake Protection: Furnish and install earthquake protection for sprinkler system in strict accordance with NFPA Pamphlet #13.
- L. Escutcheons: Provide escutcheons for pipes passing through walls, partitions, or suspended type ceilings.
 - 1. Escutcheons shall be provided where pendant sprinkler heads penetrate ceilings.
 - 2. Escutcheons shall be steel, primed and finish painted to match adjacent wall finish.

3.3 FIRESTOPPING AND FIREPROOFING

- A. Firestop all holes for piping, or other penetrations which pass through floor slabs, fire-rated walls, partitions with fire-rated doors, vertical service shafts, or any fire-rated assemblies. Existing holes through which new piping for this project passes shall be totally firestopped in a manner that restores the fire protection rating of the penetrated wall, floor, ceiling, or other structure.

3.4 ACCESSORIES:

- A. Provide all test and drain lines as required by NFPA 13.
- B. Provide pressure gauges, signs and other such standard appurtenances as required for a complete installation in accordance with NFPA 13.
- C. Provide a nameplate data sign at the main controlling valve identifying the system as a hydraulically designed system indicating the location and basis for design in accordance with NFPA 13.
- D. In addition, provide signs at inspector's test valve, drain valve, alarm test valve and alarm bypass valve.
- E. Provide automatic air release valve with supervised ball valve at all high points.
- F. Drain: Extend all drain piping to nearest drain.
 - 1. All sprinkler piping shall be so installed that it can be thoroughly drained, and where practicable shall be arranged to drain at the main drain valve.
 - 2. The main drain valve shall be capable of a full discharge test without allowing water to flow onto the floor.
 - 3. All drips and drains shall conform to NFPA 13.

4. All drain outlets discharging to the outside including the water motor gong shall be located no higher than one foot above grade level.
- G. Field Changes: Do not make field changes in the piping layout or pipe sizes without prior approval.
- H. Inspector's Test Valve: Provide inspector's test valve in accordance with NFPA 13, supplied from the highest and most remote part of the system in relation to the riser assembly, and discharged to the outside of the building or to a building drain. Install test valves conveniently accessible within six feet of floor.

3.5 NITROGEN GENERATION SYSTEM

- A. System shall be installed in accordance with manufacturer's requirements. Tie the leak detection system and air bypass tamper alarm to the existing fire alarm panel.
- B. Provide services of the nitrogen generation system manufacturer for start-up, commissioning and training of county personnel on how the system works and when and how determine the need for maintenance by the sprinkler contractors.

3.6 FIELD QUALITY CONTROL

- A. Tests and Inspections:
 1. Pressure test the dry pipe sprinkler system as required by NFPA 13, in the presence of St. Johns County representative and Fire Marshal. The Contractor and an authorized representative from each supplier of equipment shall be in attendance at the preliminary test. Test dry pipe system valve, water flow alarms, tamper switches, and all other devices for smooth and correct operation. Test the water flow alarms by flowing water through the inspector's test connection. When tests are completed and corrections made, submit signed and dated "Contractor's Material and Testing Certificates" in accordance with NFPA 13, with a request for final inspection and tests.
 2. Test and adjust controls. Replace damaged and malfunctioning controls and equipment.
 3. Flush, test, and inspect sprinkler systems according to NFPA 13.
 4. Energize circuits to electrical equipment and devices.
 5. Coordinate with fire alarm tests. Operate as required.
- B. Final Inspection and Testing: Advise St. Johns County when pressure and alarm tests have been completed and all necessary corrections made, so as to permit final inspection and testing. Submit request for testing at least 15 calendar days prior to test date. A final acceptance test WILL NOT BE SCHEDULED until operation and maintenance manuals have been received by the Engineer of Record or designated representative.

1. At the final test, a material and test certificate must be provided in accordance with NFPA 13.
2. Submit up-to-date shop drawings to St. Johns County or designated representative at the final test. These drawings shall be undamaged sets of prints of the shop drawings, with changes from the original drawings. Up-to-date drawings shall be maintained on site throughout construction.
3. The final test shall be witnessed by Fire Marshal and St. Johns County representative. The Contractor and an authorized representative from each supplier of equipment shall be in attendance at the final test.
4. Final testing shall include, but is not limited to, full flow testing through both the main drain and the inspector's test connection as well as testing of all waterflow and tamper switches.
5. Provide all equipment, services and labor to properly perform all required tests.

END OF SECTION 215560

SECTION 260519 - LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Copper building wire rated 600 V or less.
2. Connectors, splices, and terminations rated 600 V and less.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Product Schedule: Indicate type, use, location, and termination locations.

1.3 INFORMATIONAL SUBMITTALS

- A. Field quality-control reports.

PART 2 - PRODUCTS

2.1 COPPER BUILDING WIRE

- A. Description: Flexible, insulated and uninsulated, drawn copper current-carrying conductor with an overall insulation layer or jacket, or both, rated 600 V or less.
- B. Standards:
 1. Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and use.
 2. RoHS compliant.
 3. Conductor and Cable Marking: Comply with wire and cable marking according to UL's "Wire and Cable Marking and Application Guide."
- C. Conductors: Copper, complying with ASTM B 3 for bare annealed copper and with ASTM B 8 for stranded conductors.
- D. Conductor Insulation:
 1. Type THW and Type THW-2: Comply with NEMA WC-70/ICEA S-95-658 and UL 83.

2.2 CONNECTORS AND SPLICES

- A. Description: Factory-fabricated connectors, splices, and lugs of size, ampacity rating, material, type, and class for application and service indicated; listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and use.
- B. Lugs: One piece, seamless, designed to terminate conductors specified in this Section.
 - 1. Material: Copper.
 - 2. Type: One hole with standard barrels.
 - 3. Termination: Compression.

PART 3 - EXECUTION

3.1 CONDUCTOR MATERIAL APPLICATIONS

- A. Feeders: Copper; solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.
- B. Feeders: Copper. Conductors shall be solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.
- C. Branch Circuits: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.
- D. Branch Circuits: Copper. Solid for No. 12 AWG and smaller; stranded for No. 10 AWG and larger.
- E. Power-Limited Fire Alarm and Control: Solid for No. 12 AWG and smaller.

3.2 CONDUCTOR INSULATION AND MULTICONDUCTOR CABLE APPLICATIONS AND WIRING METHODS

- A. Type THHN/THWN-2, single conductors in raceway.
- B. Type THHN/THWN-2, single conductors in raceway.

3.3 INSTALLATION OF CONDUCTORS AND CABLES

- A. Conceal cables in finished walls, ceilings, and floors unless otherwise indicated.
- B. Complete raceway installation between conductor and cable termination points according to Section 260533 "Raceways and Boxes for Electrical Systems" prior to pulling conductors and cables.
- C. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.

- D. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips, that will not damage cables or raceway.
- E. Install exposed cables parallel and perpendicular to surfaces of exposed structural members, and follow surface contours where possible.
- F. Support cables according to Section 260529 "Hangers and Supports for Electrical Systems."

3.4 CONNECTIONS

- A. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A-486B.
- B. Make splices, terminations, and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.
 - 1. Use oxide inhibitor in each splice, termination, and tap for aluminum conductors.
- C. Wiring at Outlets: Install conductor at each outlet, with at least 6 inches (150 mm) (300 mm) of slack.

3.5 IDENTIFICATION

- A. Identify and color-code conductors and cables according to Section 260553 "Identification for Electrical Systems."
- B. Identify each spare conductor at each end with identity number and location of other end of conductor, and identify as spare conductor.

3.6 SLEEVE AND SLEEVE-SEAL INSTALLATION FOR ELECTRICAL PENETRATIONS

- A. Install sleeves and sleeve seals at penetrations of exterior floor and wall assemblies. Comply with requirements in Section 260544 "Sleeves and Sleeve Seals for Electrical Raceways and Cabling."

3.7 FIRESTOPPING

- A. Apply firestopping to electrical penetrations of fire-rated floor and wall assemblies to restore original fire-resistance rating of assembly according to Section 078413 "Penetration Firestopping."

END OF SECTION 260519

SECTION 260526 - GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes grounding and bonding systems and equipment.
- B. Section includes grounding and bonding systems and equipment, plus the following special applications:
 - 1. Underground distribution grounding.
 - 2. Ground bonding common with lightning protection system.
 - 3. Foundation steel electrodes.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.

1.3 INFORMATIONAL SUBMITTALS

- A. Coordination Drawings: Plans showing dimensioned as-built locations of grounding features specified in "Field Quality Control" Article.
- B. Qualification Data: For testing agency and testing agency's field supervisor.
- C. Field quality-control reports.

1.4 CLOSEOUT SUBMITTALS

- A. Operation and maintenance data.
 - 1. Plans showing as-built, dimensioned locations of grounding features specified in "Field Quality Control" Article, including the following:
 - a. Ground rods.
 - b. Grounding arrangements and connections for separately derived systems.
 - 2. Instructions for periodic testing and inspection of grounding features at grounding connections for separately derived systems based on NETA MTS or NFPA 70B.
 - a. Tests shall determine if ground-resistance or impedance values remain within specified maximums, and instructions shall recommend corrective action if values do not.
 - b. Include recommended testing intervals.

PART 2 - PRODUCTS

2.1 SYSTEM DESCRIPTION

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Comply with UL 467 for grounding and bonding materials and equipment.

2.2 CONDUCTORS

- A. Insulated Conductors: Copper wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.
- B. Bare Copper Conductors:
 - 1. Solid Conductors: ASTM B 3.
 - 2. Stranded Conductors: ASTM B 8.
 - 3. Tinned Conductors: ASTM B 33.
 - 4. Bonding Cable: 28 kcmil, 14 strands of No. 17 AWG conductor, 1/4 inch (6 mm) in diameter.
 - 5. Bonding Conductor: No. 4 or No. 6 AWG, stranded conductor.
 - 6. Bonding Jumper: Copper tape, braided conductors terminated with copper ferrules; 1-5/8 inches (41 mm) wide and 1/16 inch (1.6 mm) thick.
 - 7. Tinned Bonding Jumper: Tinned-copper tape, braided conductors terminated with copper ferrules; 1-5/8 inches (41 mm) wide and 1/16 inch (1.6 mm) thick.
- C. Grounding Bus: Predrilled rectangular bars of annealed copper, 1/4 by 4 inches (6.3 by 100 mm) in cross section, with 9/32-inch (7.14-mm) holes spaced 1-1/8 inches (28 mm) apart. Stand-off insulators for mounting shall comply with UL 891 for use in switchboards, 600 V and shall be Lexan or PVC, impulse tested at 5000 V.

2.3 CONNECTORS

- A. Listed and labeled by an NRTL acceptable to authorities having jurisdiction for applications in which used and for specific types, sizes, and combinations of conductors and other items connected.
- B. Welded Connectors: Exothermic-welding kits of types recommended by kit manufacturer for materials being joined and installation conditions.
- C. Bus-Bar Connectors: Mechanical type, cast silicon bronze, solderless compression-type wire terminals, and long-barrel, two-bolt connection to ground bus bar.
- D. Beam Clamps: Mechanical type, terminal, ground wire access from four directions, with dual, tin-plated or silicon bronze bolts.
- E. Cable-to-Cable Connectors: Compression type, copper or copper alloy.

- F. Cable Tray Ground Clamp: Mechanical type, zinc-plated malleable iron.
- G. Conduit Hubs: Mechanical type, terminal with threaded hub.
- H. Ground Rod Clamps: Mechanical type, copper or copper alloy, terminal with hex head bolt.
- I. Service Post Connectors: Mechanical type, bronze alloy terminal, in short- and long-stud lengths, capable of single and double conductor connections.
- J. Signal Reference Grid Clamp: Mechanical type, stamped-steel terminal with hex head screw.
- K. Straps: Solid copper, copper lugs. Rated for 600 A.
- L. Tower Ground Clamps: Mechanical type, copper or copper alloy, terminal [one] [two]-piece clamp.
- M. U-Bolt Clamps: Mechanical type, copper or copper alloy, terminal listed for direct burial.
- N. Water Pipe Clamps:
 - 1. Mechanical type, two pieces with zinc-plated bolts.
 - a. Material: Die-cast zinc alloy.
 - b. Listed for direct burial.
 - 2. U-bolt type with malleable-iron clamp and copper ground connector.

2.4 GROUNDING ELECTRODES

- A. Ground Rods: Copper-clad steel, sectional type; 3/4 inch by 10 feet (19 mm by 3 m).

PART 3 - EXECUTION

3.1 APPLICATIONS

- A. Conductors: Install solid conductor for No. 8 AWG and smaller, and stranded conductors for No. 6 AWG and larger unless otherwise indicated.
- B. Underground Grounding Conductors: Install bare copper conductor, No. 2/0 AWG minimum.
 - 1. Bury at least 24 inches (600 mm) below grade.
- C. Grounding Bus: Install in electrical equipment rooms, in rooms housing service equipment, and elsewhere as indicated.
 - 1. Install bus horizontally, on insulated spacers 2 inches (50 mm) minimum from wall, 6 inches (150 mm) above finished floor unless otherwise indicated.
 - 2. Where indicated on both sides of doorways, route bus up to top of door frame, across top of doorway, and down; connect to horizontal bus.

D. Conductor Terminations and Connections:

1. Pipe and Equipment Grounding Conductor Terminations: Bolted connectors.
2. Underground Connections: Welded connectors except at test wells and as otherwise indicated.
3. Connections to Ground Rods at Test Wells: Bolted connectors.
4. Connections to Structural Steel: Welded connectors.

3.2 GROUNDING AT THE SERVICE

- A. Equipment grounding conductors and grounding electrode conductors shall be connected to the ground bus. Install a main bonding jumper between the neutral and ground buses.

3.3 GROUNDING SEPARATELY DERIVED SYSTEMS

- A. Generator: Install grounding electrode(s) at the generator location. The electrode shall be connected to the equipment grounding conductor and to the frame of the generator.

3.4 EQUIPMENT GROUNDING

- A. Install insulated equipment grounding conductors with all feeders and branch circuits.
- B. Install insulated equipment grounding conductors with the following items, in addition to those required by NFPA 70:
1. Feeders and branch circuits.
 2. Lighting circuits.
 3. Receptacle circuits.
 4. Single-phase motor and appliance branch circuits.
 5. Three-phase motor and appliance branch circuits.
 6. Flexible raceway runs.
 7. Armored and metal-clad cable runs.
 8. Busway Supply Circuits: Install insulated equipment grounding conductor from grounding bus in the switchgear, switchboard, or distribution panel to equipment grounding bar terminal on busway.
- C. Air-Duct Equipment Circuits: Install insulated equipment grounding conductor to duct-mounted electrical devices operating at 120 V and more, including air cleaners, heaters, dampers, humidifiers, and other duct electrical equipment. Bond conductor to each unit and to air duct and connected metallic piping.
- D. Water Heater, Heat-Tracing, and Antifrost Heating Cables: Install a separate insulated equipment grounding conductor to each electric water heater and heat-tracing cable. Bond conductor to heater units, piping, connected equipment, and components.
- E. Poles Supporting Outdoor Lighting Fixtures: Install grounding electrode and a separate insulated equipment grounding conductor in addition to grounding conductor installed with branch-circuit conductors.

3.5 FENCE GROUNDING

- A. Fence Grounding: Install at maximum intervals of 750 feet (450 m) except as follows:
 - 1. Gates and Other Fence Openings: Ground fence on each side of opening.
- B. Fences Enclosing Electrical Power Distribution Equipment: Ground as required by IEEE C2 unless otherwise indicated.

3.6 INSTALLATION

- A. Grounding Conductors: Route along shortest and straightest paths possible unless otherwise indicated or required by Code. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.
- B. Ground Bonding Common with Lightning Protection System: Comply with NFPA 780 and UL 96 when interconnecting with lightning protection system. Bond electrical power system ground directly to lightning protection system grounding conductor at closest point to electrical service grounding electrode. Use bonding conductor sized same as system grounding electrode conductor, and install in conduit.
- C. Ground Rods: Drive rods until tops are 2 inches (50 mm) below finished floor or final grade unless otherwise indicated.
 - 1. Interconnect ground rods with grounding electrode conductor below grade and as otherwise indicated. Make connections without exposing steel or damaging coating if any.
- D. Bonding Straps and Jumpers: Install in locations accessible for inspection and maintenance except where routed through short lengths of conduit.
 - 1. Bonding to Structure: Bond straps directly to basic structure, taking care not to penetrate any adjacent parts.
 - 2. Bonding to Equipment Mounted on Vibration Isolation Hangers and Supports: Install bonding so vibration is not transmitted to rigidly mounted equipment.
 - 3. Use exothermic-welded connectors for outdoor locations; if a disconnect-type connection is required, use a bolted clamp.
- E. Grounding and Bonding for Piping:
 - 1. Metal Water Service Pipe: Install insulated copper grounding conductors, in conduit, from building's main service equipment, or grounding bus, to main metal water service entrances to building. Connect grounding conductors to main metal water service pipes; use a bolted clamp connector or bolt a lug-type connector to a pipe flange by using one of the lug bolts of the flange. Where a dielectric main water fitting is installed, connect grounding conductor on street side of fitting. Bond metal grounding conductor conduit or sleeve to conductor at each end.
 - 2. Water Meter Piping: Use braided-type bonding jumpers to electrically bypass water meters. Connect to pipe with a bolted connector.

3. Bond each aboveground portion of gas piping system downstream from equipment shutoff valve.

3.7 FIELD QUALITY CONTROL

- A. Perform tests and inspections.
- B. Tests and Inspections:
 1. After installing grounding system but before permanent electrical circuits have been energized, test for compliance with requirements.
 2. Inspect physical and mechanical condition. Verify tightness of accessible, bolted, electrical connections with a calibrated torque wrench according to manufacturer's written instructions.
 3. Test completed grounding system at each location where a maximum ground-resistance level is specified, at service disconnect enclosure grounding terminal, and at individual ground rods. Make tests at ground rods before any conductors are connected.
 - a. Measure ground resistance no fewer than two full days after last trace of precipitation and without soil being moistened by any means other than natural drainage or seepage and without chemical treatment or other artificial means of reducing natural ground resistance.
 - b. Perform tests by fall-of-potential method according to IEEE 81.
 4. Prepare dimensioned Drawings locating each test well, ground rod and ground-rod assembly, and other grounding electrodes. Identify each by letter in alphabetical order, and key to the record of tests and observations. Include the number of rods driven and their depth at each location, and include observations of weather and other phenomena that may affect test results. Describe measures taken to improve test results.
- C. Grounding system will be considered defective if it does not pass tests and inspections.
- D. Prepare test and inspection reports.
- E. Report measured ground resistances that exceed 5 ohms.
- F. Excessive Ground Resistance: If resistance to ground exceeds specified values, notify Architect promptly and include recommendations to reduce ground resistance.

END OF SECTION 260526

SECTION 260529 - HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Steel slotted support systems.
2. Conduit and cable support devices.
3. Support for conductors in vertical conduit.
4. Structural steel for fabricated supports and restraints.
5. Mounting, anchoring, and attachment components, including powder-actuated fasteners, mechanical expansion anchors, concrete inserts, clamps, through bolts, toggle bolts, and hanger rods.
6. Fabricated metal equipment support assemblies.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: For fabrication and installation details for electrical hangers and support systems.

1. Hangers. Include product data for components.
2. Slotted support systems.
3. Equipment supports.
4. Vibration Isolation Base Details: Detail fabrication including anchorages and attachments to structure and to supported equipment. Include adjustable motor bases, rails, and frames for equipment mounting.

C. Delegated-Design Submittal: For hangers and supports for electrical systems.

1. Include design calculations and details of hangers.
2. Include design calculations for seismic restraints.

1.3 INFORMATIONAL SUBMITTALS

A. Coordination Drawings: Reflected ceiling plan(s) and other details, drawn to scale, and coordinated with each other, using input from installers of the items involved.

B. Welding certificates.

1.4 QUALITY ASSURANCE

A. Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Surface-Burning Characteristics: Comply with ASTM E 84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 - 1. Flame Rating: Class 1.
 - 2. Self-extinguishing according to ASTM D 635.

2.2 SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS

- A. Steel Slotted Support Systems: Preformed steel channels and angles with minimum 13/32-inch- (10-mm-) diameter holes at a maximum of 8 inches (200 mm) o.c. in at least one surface.
 - 1. Standard: Comply with MFMA-4 factory-fabricated components for field assembly.
 - 2. Material for Channel, Fittings, and Accessories: Galvanized steel.
 - 3. Channel Width: Selected for applicable load criteria.
 - 4. Metallic Coatings: Hot-dip galvanized after fabrication and applied according to MFMA-4.
- B. Conduit and Cable Support Devices: Steel hangers, clamps, and associated fittings, designed for types and sizes of raceway or cable to be supported.
- C. Support for Conductors in Vertical Conduit: Factory-fabricated assembly consisting of threaded body and insulating wedging plug or plugs for nonarmored electrical conductors or cables in riser conduits. Plugs shall have number, size, and shape of conductor gripping pieces as required to suit individual conductors or cables supported. Body shall be made of malleable iron.
- D. Structural Steel for Fabricated Supports and Restraints: ASTM A 36/A 36M steel plates, shapes, and bars; black and galvanized.
- E. Mounting, Anchoring, and Attachment Components: Items for fastening electrical items or their supports to building surfaces include the following:
 - 1. Powder-Actuated Fasteners: Threaded-steel stud, for use in hardened portland cement concrete, steel, or wood, with tension, shear, and pullout capacities appropriate for supported loads and building materials where used.
 - 2. Mechanical-Expansion Anchors: Insert-wedge-type, stainless steel, for use in hardened portland cement concrete, with tension, shear, and pullout capacities appropriate for supported loads and building materials where used.
 - 3. Concrete Inserts: Steel or malleable-iron, slotted support system units are similar to MSS Type 18 units and comply with MFMA-4 or MSS SP-58.
 - 4. Clamps for Attachment to Steel Structural Elements: MSS SP-58 units are suitable for attached structural element.
 - 5. Through Bolts: Structural type, hex head, and high strength. Comply with ASTM A 325.
 - 6. Toggle Bolts: Stainless-steel springhead type.

7. Hanger Rods: Threaded steel.

2.3 FABRICATED METAL EQUIPMENT SUPPORT ASSEMBLIES

- A. Description: Welded or bolted structural-steel shapes, shop or field fabricated to fit dimensions of supported equipment.

PART 3 - EXECUTION

3.1 APPLICATION

- A. Comply with the following standards for application and installation requirements of hangers and supports, except where requirements on Drawings or in this Section are stricter:
 1. NECA 1.
 2. NECA 101
 3. NECA 102.
 4. NECA 105.
 5. NECA 111.
- B. Comply with requirements for raceways and boxes specified in Section 260533 "Raceways and Boxes for Electrical Systems."
- C. Maximum Support Spacing and Minimum Hanger Rod Size for Raceways: Space supports for EMT, IMC, and RMC as scheduled in NECA 1, where its Table 1 lists maximum spacings that are less than those stated in NFPA 70. Minimum rod size shall be 1/4 inch (6 mm) in diameter.
- D. Multiple Raceways or Cables: Install trapeze-type supports fabricated with steel slotted [or other]support system, sized so capacity can be increased by at least 25 percent in future without exceeding specified design load limits.
 1. Secure raceways and cables to these supports with two-bolt conduit clamps.
- E. Spring-steel clamps designed for supporting single conduits without bolts may be used for 1-1/2-inch (38-mm) and smaller raceways serving branch circuits and communication systems above suspended ceilings, and for fastening raceways to trapeze supports.

3.2 SUPPORT INSTALLATION

- A. Comply with NECA 1 and NECA 101 for installation requirements except as specified in this article.
- B. Raceway Support Methods: In addition to methods described in NECA 1, EMT may be supported by openings through structure members, according to NFPA 70.
- C. Strength of Support Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static loads within specified loading limits.

Minimum static design load used for strength determination shall be weight of supported components plus 200 lb (90 kg).

- D. Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to building structural elements by the following methods unless otherwise indicated by code:
1. To Wood: Fasten with lag screws or through bolts.
 2. To New Concrete: Bolt to concrete inserts.
 3. To Masonry: Approved toggle-type bolts on hollow masonry units and expansion anchor fasteners on solid masonry units.
 4. To Existing Concrete: Expansion anchor fasteners.
 5. Instead of expansion anchors, powder-actuated driven threaded studs provided with lock washers and nuts may be used in existing standard-weight concrete 4 inches (100 mm) thick or greater. Do not use for anchorage to lightweight-aggregate concrete or for slabs less than 4 inches (100 mm) thick.
 6. To Steel: Beam clamps (MSS SP-58, Type 19, 21, 23, 25, or 27), complying with MSS SP-69.
 7. To Light Steel: Sheet metal screws.
 8. Items Mounted on Hollow Walls and Nonstructural Building Surfaces: Mount cabinets, panelboards, disconnect switches, control enclosures, pull and junction boxes, transformers, and other devices on slotted-channel racks attached to substrate.
- E. Drill holes for expansion anchors in concrete at locations and to depths that avoid the need for reinforcing bars.

3.3 INSTALLATION OF FABRICATED METAL SUPPORTS

- A. Cut, fit, and place miscellaneous metal supports accurately in location, alignment, and elevation to support and anchor electrical materials and equipment.
- B. Field Welding: Comply with AWS D1.1/D1.1M.

END OF SECTION 260529

SECTION 260533 - RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Metal conduits and fittings.
2. Nonmetallic conduits and fittings.
3. Metal wireways and auxiliary gutters.
4. Boxes, enclosures, and cabinets.
5. Handholes and boxes for exterior underground cabling.

B. Related Requirements:

1. Section 260543 "Underground Ducts and Raceways for Electrical Systems" for exterior ductbanks, manholes, and underground utility construction.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: For custom enclosures and cabinets. Include plans, elevations, sections, and attachment details.

1.3 INFORMATIONAL SUBMITTALS

A. Coordination Drawings: Conduit routing plans, drawn to scale, on which the following items are shown and coordinated with each other, using input from installers of items involved:

1. Structural members in paths of conduit groups with common supports.
2. HVAC and plumbing items and architectural features in paths of conduit groups with common supports.

PART 2 - PRODUCTS

2.1 METAL CONDUITS AND FITTINGS

A. Metal Conduit:

1. Listing and Labeling: Metal conduits, tubing, and fittings shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
2. GRC: Comply with ANSI C80.1 and UL 6.
3. IMC: Comply with ANSI C80.6 and UL 1242.

4. EMT: Comply with ANSI C80.3 and UL 797.
 5. FMC: Comply with UL 1; zinc coated steel.
 6. LFMC: Flexible steel conduit with PVC jacket and complying with UL 360.
- B. Metal Fittings: Comply with NEMA FB 1 and UL 514B.
1. Listing and Labeling: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
 2. Fittings, General: Listed and labeled for type of conduit, location, and use.
 3. Conduit Fittings for Hazardous (Classified) Locations: Comply with UL 1203 and NFPA 70.
 4. Fittings for EMT:
 - a. Material: Steel.
 - b. Type: Compression.
 5. Expansion Fittings: PVC or steel to match conduit type, complying with UL 651, rated for environmental conditions where installed, and including flexible external bonding jumper.
 6. Coating for Fittings for PVC-Coated Conduit: Minimum thickness of 0.040 inch (1 mm), with overlapping sleeves protecting threaded joints.
- C. Joint Compound for IMC, GRC: Approved, as defined in NFPA 70, by authorities having jurisdiction for use in conduit assemblies, and compounded for use to lubricate and protect threaded conduit joints from corrosion and to enhance their conductivity.

2.2 NONMETALLIC CONDUITS AND FITTINGS

- A. Listing and Labeling: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
1. RNC: Type EPC-40-PVC, complying with NEMA TC 2 and UL 651 unless otherwise indicated.
 2. LFNC: Comply with UL 1660.
- B. Nonmetallic Fittings:
1. Fittings, General: Listed and labeled for type of conduit, location, and use.
 2. Fittings for RNC: Comply with NEMA TC 3; match to conduit or tubing type and material.
 3. Solvents and Adhesives: As recommended by conduit manufacturer.

2.3 METAL WIREWAYS AND AUXILIARY GUTTERS

- A. Description: Sheet metal, complying with UL 870 and NEMA 250, Type 1 or Type 3R unless otherwise indicated, and sized according to NFPA 70.
1. Metal wireways installed outdoors shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

- B. Fittings and Accessories: Include covers, couplings, offsets, elbows, expansion joints, adapters, hold-down straps, end caps, and other fittings to match and mate with wireways as required for complete system.

2.4 BOXES, ENCLOSURES, AND CABINETS

- A. General Requirements for Boxes, Enclosures, and Cabinets: Boxes, enclosures, and cabinets installed in wet locations shall be listed for use in wet locations.
- B. Sheet Metal Outlet and Device Boxes: Comply with NEMA OS 1 and UL 514A.
- C. Cast-Metal Outlet and Device Boxes: Comply with NEMA FB 1, ferrous alloy, Type FD, with gasketed cover.
- D. Luminaire Outlet Boxes: Nonadjustable, designed for attachment of luminaire weighing 50 lb (23 kg). Outlet boxes designed for attachment of luminaires weighing more than 50 lb (23 kg) shall be listed and marked for the maximum allowable weight.
- E. Small Sheet Metal Pull and Junction Boxes: NEMA OS 1.
- F. Cast-Metal Access, Pull, and Junction Boxes: Comply with NEMA FB 1 and UL 1773, cast aluminum with gasketed cover.
- G. Box extensions used to accommodate new building finishes shall be of same material as recessed box.
- H. Device Box Dimensions: 4 inches square by 2-1/8 inches deep (100 mm square by 60 mm deep).
- I. Gangable boxes are allowed.
- J. Hinged-Cover Enclosures: Comply with UL 50 and NEMA 250, Type 1 or Type 3R with continuous-hinge cover with flush latch unless otherwise indicated.
 - 1. Metal Enclosures: Steel, finished inside and out with manufacturer's standard enamel.
 - 2. Interior Panels: Steel; all sides finished with manufacturer's standard enamel.
- K. Cabinets:
 - 1. NEMA 250, Type 1 or Type 3R galvanized-steel box with removable interior panel and removable front, finished inside and out with manufacturer's standard enamel.
 - 2. Hinged door in front cover with flush latch and concealed hinge.
 - 3. Key latch to match panelboards.
 - 4. Metal barriers to separate wiring of different systems and voltage.
 - 5. Accessory feet where required for freestanding equipment.

2.5 HANDHOLES AND BOXES FOR EXTERIOR UNDERGROUND WIRING

- A. General Requirements for Handholes and Boxes:

1. Boxes and handholes for use in underground systems shall be designed and identified as defined in NFPA 70, for intended location and application.
 2. Boxes installed in wet areas shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Polymer-Concrete Handholes and Boxes with Polymer-Concrete Cover: Molded of sand and aggregate, bound together with polymer resin, and reinforced with steel, fiberglass, or a combination of the two.
1. Standard: Comply with SCTE 77.
 2. Configuration: Designed for flush burial with open bottom unless otherwise indicated.
 3. Cover: Weatherproof, secured by tamper-resistant locking devices and having structural load rating consistent with enclosure and handhole location.
 4. Cover Finish: Nonskid finish shall have a minimum coefficient of friction of 0.50.
 5. Cover Legend: Molded lettering, "ELECTRIC."
 6. Conduit Entrance Provisions: Conduit-terminating fittings shall mate with entering ducts for secure, fixed installation in enclosure wall.

PART 3 - EXECUTION

3.1 RACEWAY APPLICATION

A. Outdoors: Apply raceway products as specified below unless otherwise indicated:

1. Exposed Conduit: GRC, IMC.
2. Concealed Conduit, Aboveground: GRC.
3. Underground Conduit: RNC, Type EPC-40-PVC or Type EPC-80-PVC, direct buried.
4. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): LFMC.
5. Boxes and Enclosures, Aboveground: NEMA 250, Type 3R.

B. Indoors: Apply raceway products as specified below unless otherwise indicated.

1. Exposed, Not Subject to Physical Damage: EMT.
2. Exposed, Not Subject to Severe Physical Damage: EMT.
3. Exposed and Subject to Severe Physical Damage: GRC. Raceway locations include the following:
 - a. Loading dock.
 - b. Corridors used for traffic of mechanized carts, forklifts, and pallet-handling units.
 - c. Mechanical rooms.
4. Concealed in Ceilings and Interior Walls and Partitions: EMT.
5. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): FMC, except use LFMC in damp or wet locations.
6. Damp or Wet Locations: GRC.
7. Boxes and Enclosures: NEMA 250, Type 1, except use NEMA 250, Type 4 stainless steel in institutional and commercial kitchens and damp or wet locations.

- C. Minimum Raceway Size: 1/2-inch (16-mm) trade size.
- D. Raceway Fittings: Compatible with raceways and suitable for use and location.
 - 1. Rigid and Intermediate Steel Conduit: Use threaded rigid steel conduit fittings unless otherwise indicated. Comply with NEMA FB 2.10.
 - 2. EMT: Use compression fittings. Comply with NEMA FB 2.10.
 - 3. Flexible Conduit: Use only fittings listed for use with flexible conduit. Comply with NEMA FB 2.20.
- E. Install surface raceways only where indicated on Drawings.
- F. Do not install nonmetallic conduit where ambient temperature exceeds 120 deg F (49 deg C).

3.2 INSTALLATION

- A. Comply with requirements in Section 260529 "Hangers and Supports for Electrical Systems" for hangers and supports.
- B. Comply with NECA 1 and NECA 101 for installation requirements except where requirements on Drawings or in this article are stricter. Comply with NECA 102 for aluminum conduits. Comply with NFPA 70 limitations for types of raceways allowed in specific occupancies and number of floors.
- C. Do not install raceways or electrical items on any "explosion-relief" walls or rotating equipment.
- D. Do not fasten conduits onto the bottom side of a metal deck roof.
- E. Keep raceways at least 6 inches (150 mm) away from parallel runs of flues and steam or hot-water pipes. Install horizontal raceway runs above water and steam piping.
- F. Comply with requirements in Section 260529 "Hangers and Supports for Electrical Systems" for hangers and supports.
- G. Arrange stub-ups so curved portions of bends are not visible above finished slab.
- H. Install no more than the equivalent of three 90-degree bends in any conduit run except for control wiring conduits, for which fewer bends are allowed. Support within 12 inches (300 mm) of changes in direction.
- I. Make bends in raceway using large-radius preformed ells. Field bending shall be according to NFPA 70 minimum radii requirements. Use only equipment specifically designed for material and size involved.
- J. Conceal conduit and EMT within finished walls, ceilings, and floors unless otherwise indicated. Install conduits parallel or perpendicular to building lines.
- K. Support conduit within 12 inches (300 mm) of enclosures to which attached.
- L. Raceways Embedded in Slabs:

1. Run conduit larger than 1-inch (27-mm) trade size, parallel or at right angles to main reinforcement. Where at right angles to reinforcement, place conduit close to slab support. Secure raceways to reinforcement at maximum 10-foot (3-m) intervals.
 2. Arrange raceways to cross building expansion joints at right angles with expansion fittings.
 3. Arrange raceways to keep a minimum of 2 inches (50 mm) of concrete cover in all directions.
 4. Do not embed threadless fittings in concrete unless specifically approved by Architect for each specific location.
- M. Stub-ups to Above Recessed Ceilings:
1. Use EMT for raceways.
 2. Use a conduit bushing or insulated fitting to terminate stub-ups not terminated in hubs or in an enclosure.
- N. Threaded Conduit Joints, Exposed to Wet, Damp, Corrosive, or Outdoor Conditions: Apply listed compound to threads of raceway and fittings before making up joints. Follow compound manufacturer's written instructions.
- O. Coat field-cut threads on PVC-coated raceway with a corrosion-preventing conductive compound prior to assembly.
- P. Raceway Terminations at Locations Subject to Moisture or Vibration: Use insulating bushings to protect conductors including conductors smaller than No. 4 AWG.
- Q. Terminate threaded conduits into threaded hubs or with locknuts on inside and outside of boxes or cabinets. Install bushings on conduits up to 1-1/4-inch (35-mm) trade size and insulated throat metal bushings on 1-1/2-inch (41-mm) trade size and larger conduits terminated with locknuts. Install insulated throat metal grounding bushings on service conduits.
- R. Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less than 200-lb (90-kg) tensile strength. Leave at least 12 inches (300 mm) of slack at each end of pull wire. Cap underground raceways designated as spare above grade alongside raceways in use.
- S. Surface Raceways:
1. Install surface raceway with a minimum 2-inch (50-mm) radius control at bend points.
 2. Secure surface raceway with screws or other anchor-type devices at intervals not exceeding 48 inches (1200 mm) and with no less than two supports per straight raceway section. Support surface raceway according to manufacturer's written instructions. Tape and glue are not acceptable support methods.
- T. Install raceway sealing fittings at accessible locations according to NFPA 70 and fill them with listed sealing compound. For concealed raceways, install each fitting in a flush steel box with a blank cover plate having a finish similar to that of adjacent plates or surfaces.
- U. Install devices to seal raceway interiors at accessible locations. Locate seals so no fittings or boxes are between the seal and the following changes of environments. Seal the interior of all raceways at the following points:

1. Where conduits pass from warm to cold locations, such as boundaries of refrigerated spaces.
 2. Where an underground service raceway enters a building or structure.
 3. Conduit extending from interior to exterior of building.
 4. Conduit extending into pressurized duct and equipment.
 5. Conduit extending into pressurized zones that are automatically controlled to maintain different pressure set points.
 6. Where otherwise required by NFPA 70.
- V. Expansion-Joint Fittings:
1. Install type and quantity of fittings that accommodate temperature change listed for each of the following locations:
 - a. Outdoor Locations Not Exposed to Direct Sunlight: 125 deg F (70 deg C) temperature change.
 - b. Outdoor Locations Exposed to Direct Sunlight: 155 deg F (86 deg C) temperature change.
 - c. Indoor Spaces Connected with Outdoors without Physical Separation: 125 deg F (70 deg C) temperature change.
 - d. Attics: 135 deg F (75 deg C) temperature change.
 2. Install fitting(s) that provide expansion and contraction for at least 0.00041 inch per foot of length of straight run per degree F (0.06 mm per meter of length of straight run per degree C) of temperature change for PVC conduits.
 3. Install expansion fittings at all locations where conduits cross building or structure expansion joints.
 4. Install each expansion-joint fitting with position, mounting, and piston setting selected according to manufacturer's written instructions for conditions at specific location at time of installation. Install conduit supports to allow for expansion movement.
- W. Flexible Conduit Connections: Comply with NEMA RV 3. Use a maximum of 72 inches (1830 mm) of flexible conduit for equipment subject to vibration, noise transmission, or movement; and for transformers and motors.
1. Use LFMC in damp or wet locations subject to severe physical damage.
 2. Use LFMC in damp or wet locations not subject to severe physical damage.
- X. Mount boxes at heights indicated on Drawings. If mounting heights of boxes are not individually indicated, give priority to ADA requirements. Install boxes with height measured to center of box unless otherwise indicated.
- Y. Recessed Boxes in Masonry Walls: Saw-cut opening for box in center of cell of masonry block, and install box flush with surface of wall. Prepare block surfaces to provide a flat surface for a raintight connection between the box and cover plate or the supported equipment and box.
- Z. Horizontally separate boxes mounted on opposite sides of walls so they are not in the same vertical channel.
- AA. Locate boxes so that cover or plate will not span different building finishes.

- BB. Support boxes of three gangs or more from more than one side by spanning two framing members or mounting on brackets specifically designed for the purpose.
- CC. Fasten junction and pull boxes to or support from building structure. Do not support boxes by conduits.
- DD. Set metal floor boxes level and flush with finished floor surface.

3.3 INSTALLATION OF UNDERGROUND CONDUIT

A. Direct-Buried Conduit:

1. Excavate trench bottom to provide firm and uniform support for conduit.
2. Install backfill.
3. After installing conduit, backfill and compact. Start at tie-in point, and work toward end of conduit run, leaving conduit at end of run free to move with expansion and contraction as temperature changes during this process. Firmly hand tamp backfill around conduit to provide maximum supporting strength. After placing controlled backfill to within 12 inches (300 mm) of finished grade, make final conduit connection at end of run and complete backfilling with normal compaction.
4. Install manufactured duct elbows for stub-up at poles and equipment and at building entrances through floor unless otherwise indicated. Encase elbows for stub-up ducts throughout length of elbow.
5. Install manufactured rigid steel conduit elbows for stub-ups at poles and equipment and at building entrances through floor.
 - a. Couple steel conduits to ducts with adapters designed for this purpose, and encase coupling with 3 inches (75 mm) of concrete for a minimum of 12 inches (300 mm) on each side of the coupling.
 - b. For stub-ups at equipment mounted on outdoor concrete bases and where conduits penetrate building foundations, extend steel conduit horizontally a minimum of 60 inches (1500 mm) from edge of foundation or equipment base. Install insulated grounding bushings on terminations at equipment.
6. Underground Warning Tape: Comply with requirements in Section 260553 "Identification for Electrical Systems."

3.4 INSTALLATION OF UNDERGROUND HANDHOLES AND BOXES

- A. Install handholes and boxes level and plumb and with orientation and depth coordinated with connecting conduits to minimize bends and deflections required for proper entrances.
- B. Unless otherwise indicated, support units on a level bed of crushed stone or gravel, graded from 1/2-inch (12.5-mm) sieve to No. 4 (4.75-mm) sieve and compacted to same density as adjacent undisturbed earth.
- C. Elevation: In paved areas, set so cover surface will be flush with finished grade. Set covers of other enclosures 1 inch (25 mm) above finished grade.

- D. Field-cut openings for conduits according to enclosure manufacturer's written instructions. Cut wall of enclosure with a tool designed for material to be cut. Size holes for terminating fittings to be used, and seal around penetrations after fittings are installed.

3.5 SLEEVE AND SLEEVE-SEAL INSTALLATION FOR ELECTRICAL PENETRATIONS

- A. Install sleeves and sleeve seals at penetrations of exterior floor and wall assemblies. Comply with requirements in Section 260544 "Sleeves and Sleeve Seals for Electrical Raceways and Cabling."

3.6 FIRESTOPPING

- A. Install firestopping at penetrations of fire-rated floor and wall assemblies.

END OF SECTION 260533

SECTION 260544 - SLEEVES AND SLEEVE SEALS FOR ELECTRICAL RACEWAYS AND CABLING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Sleeves for raceway and cable penetration of non-fire-rated construction walls and floors.
2. Sleeve-seal systems.
3. Sleeve-seal fittings.
4. Grout.
5. Silicone sealants.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

PART 2 - PRODUCTS

2.1 SLEEVES

A. Wall Sleeves:

1. Steel Pipe Sleeves: ASTM A 53/A 53M, Type E, Grade B, Schedule 40, zinc coated, plain ends.
2. Cast-Iron Pipe Sleeves: Cast or fabricated "wall pipe," equivalent to ductile-iron pressure pipe, with plain ends and integral waterstop unless otherwise indicated.

B. Sleeves for Conduits Penetrating Non-Fire-Rated Gypsum Board Assemblies: Galvanized-steel sheet; 0.0239-inch (0.6-mm) minimum thickness; round tube closed with welded longitudinal joint, with tabs for screw-fastening the sleeve to the board.

C. Sleeves for Rectangular Openings:

1. Material: Galvanized sheet steel.
2. Minimum Metal Thickness:
 - a. For sleeve cross-section rectangle perimeter less than 50 inches (1270 mm) and with no side larger than 16 inches (400 mm), thickness shall be 0.052 inch (1.3 mm).
 - b. For sleeve cross-section rectangle perimeter 50 inches (1270 mm) or more and one or more sides larger than 16 inches (400 mm), thickness shall be 0.138 inch (3.5 mm).

2.2 SLEEVE-SEAL SYSTEMS

- A. Description: Modular sealing device, designed for field assembly, to fill annular space between sleeve and raceway or cable.
 - 1. Sealing Elements: EPDM rubber interlocking links shaped to fit surface of pipe. Include type and number required for pipe material and size of pipe.
 - 2. Pressure Plates: Stainless steel.
 - 3. Connecting Bolts and Nuts: Stainless steel of length required to secure pressure plates to sealing elements.

2.3 GROUT

- A. Description: Nonshrink; recommended for interior and exterior sealing openings in non-fire-rated walls or floors.
- B. Standard: ASTM C 1107/C 1107M, Grade B, post-hardening and volume-adjusting, dry, hydraulic-cement grout.
- C. Design Mix: 5000-psi (34.5-MPa), 28-day compressive strength.
- D. Packaging: Premixed and factory packaged.

2.4 SILICONE SEALANTS

- A. Silicone Sealants: Single-component, silicone-based, neutral-curing elastomeric sealants of grade indicated below.
 - 1. Grade: Pourable (self-leveling) formulation for openings in floors and other horizontal surfaces that are not fire rated.
- B. Silicone Foams: Multicomponent, silicone-based liquid elastomers that, when mixed, expand and cure in place to produce a flexible, nonshrinking foam.

PART 3 - EXECUTION

3.1 SLEEVE INSTALLATION FOR NON-FIRE-RATED ELECTRICAL PENETRATIONS

- A. Comply with NECA 1.
- B. Comply with NEMA VE 2 for cable tray and cable penetrations.
- C. Sleeves for Conduits Penetrating Above-Grade Non-Fire-Rated Concrete and Masonry-Unit Floors and Walls:
 - 1. Interior Penetrations of Non-Fire-Rated Walls and Floors:
 - a. Seal annular space between sleeve and raceway using joint sealant appropriate for size, depth, and location of joint.

- b. Seal space outside of sleeves with mortar or grout. Pack sealing material solidly between sleeve and wall so no voids remain. Tool exposed surfaces smooth; protect material while curing.
 - 2. Use pipe sleeves unless penetration arrangement requires rectangular sleeved opening.
 - 3. Size pipe sleeves to provide 1/4-inch (6.4-mm) annular clear space between sleeve and raceway or cable unless sleeve seal is to be installed.
 - 4. Install sleeves for wall penetrations unless core-drilled holes or formed openings are used. Install sleeves during erection of walls. Cut sleeves to length for mounting flush with both surfaces of walls. Deburr after cutting.
 - 5. Install sleeves for floor penetrations. Extend sleeves installed in floors 2 inches (50 mm) above finished floor level. Install sleeves during erection of floors.
- D. Sleeves for Conduits Penetrating Non-Fire-Rated Gypsum Board Assemblies:
- 1. Use circular metal sleeves unless penetration arrangement requires rectangular sleeved opening.
 - 2. Seal space outside of sleeves with approved joint compound for gypsum board assemblies.
- E. Roof-Penetration Sleeves: Seal penetration of individual raceways and cables with flexible boot-type flashing units applied in coordination with roofing work.
- F. Aboveground, Exterior-Wall Penetrations: Seal penetrations using steel pipe sleeves and mechanical sleeve seals. Select sleeve size to allow for 1-inch (25-mm) annular clear space between pipe and sleeve for installing mechanical sleeve seals.
- G. Underground, Exterior-Wall and Floor Penetrations: Install cast-iron pipe sleeves. Size sleeves to allow for 1-inch (25-mm) annular clear space between raceway or cable and sleeve for installing sleeve-seal system.

3.2 SLEEVE-SEAL-SYSTEM INSTALLATION

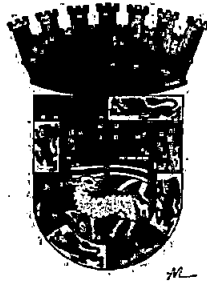
- A. Install sleeve-seal systems in sleeves in exterior concrete walls and slabs-on-grade at raceway entries into building.
- B. Install type and number of sealing elements recommended by manufacturer for raceway or cable material and size. Position raceway or cable in center of sleeve. Assemble mechanical sleeve seals and install in annular space between raceway or cable and sleeve. Tighten bolts against pressure plates that cause sealing elements to expand and make watertight seal.

3.3 SLEEVE-SEAL-FITTING INSTALLATION

- A. Install sleeve-seal fittings in new walls and slabs as they are constructed.
- B. Assemble fitting components of length to be flush with both surfaces of concrete slabs and walls. Position waterstop flange to be centered in concrete slab or wall.
- C. Secure nailing flanges to concrete forms.

- D. Using grout, seal the space around outside of sleeve-seal fittings.

END OF SECTION 260544



**Board of County Commissioners
St. Johns County Florida**

BID NO: 19-28

**BARTRAM TRAIL BRANCH LIBRARY
FIRE SPRINKLER REPLACEMENT**

**BID DOCUMENTS
PROJECT SPECIFICATIONS**

**St. Johns County Purchasing Department
500 San Sebastian View
St. Augustine FL 32084
904.209.0150
www.sjcfl.us/Purchasing/index.aspx**

Final: 12/05/18

Bid No: 19-28; Bartram Trail Branch Library Fire Sprinkler Replacement

TABLE OF CONTENTS

FRONT END BID DOCUMENTS

Notice to Bidders

Instruction to Bidders

Official County Bid Form

Attachments:

“A” – St Johns County Board of County Commissioners Affidavit

“B” – Certificate as to Corporate Principal

“C” – License/Certification List

“D” – List of Proposed Sub-Contractors/Suppliers

“E” – Conflict of Interest Disclosure Form

“F” – Proof of insurance

“G” – Experience of Bidder Form

Bid Bond

Sealed Bid Mailing Label

PROJECT SPECIFICATIONS/DRAWINGS – SEPARATE DOCUMENT

END OF TABLE OF CONTENTS

BID NO: 19-28**NOTICE TO BIDDERS**

Notice is hereby given that sealed bids will be received until 2:00 P.M. on Wednesday, January 9, 2019 by the St. Johns County Purchasing Department, located at 500 San Sebastian View, St. Augustine, Florida 32084 for **Bid No: 19-28; Bartram Trail Branch Library Fire Sprinkler Replacement**. Bids will be opened promptly after the 2:00 P.M. deadline. **Note:** Bids delivered or received in the Purchasing Department after the 2:00 P.M. deadline shall not be given consideration and shall be returned to the sender unopened.

Scope of Work:

The purpose of this bid is to solicit pricing from interested and qualified vendors for providing all labor, materials, equipment, transportation and any other required items to remove all of the above ground fire sprinkler system, including but not limited to piping, fittings, sprinkler heads, compressor, escutcheons, valves, and electrical supervision. The entire fire sprinkler system is to be replaced except for the backflow preventer and the underground piping. The new piping systems are to be constructed of CPVC piping except where prohibited by code. The piping shall be protected from corrosion with a nitrogen generating system and the use of CPVC piping. Ceilings that need to be removed to accomplish this project shall be removed and reinstalled under this contract. Any damaged ceilings are to be repaired/replaced as required to ensure a uniform appearance. All piping that is exposed in the public area shall be painted per the architectural drawings. All valves shall be supervised, i.e., reconnected to the fire alarm system. The nitrogen generating system shall also be supervised by the fire alarm system.

The bid documents include the plans, project specifications and any forthcoming bid addenda.

Minimum Qualifications

Prime bidder must be fully licensed to do business in the State of Florida and be currently licensed as a Certified Fire Protection System Contractor II in the State of Florida with State Fire Marshal, and provide proof of licensure with the submitted Bid Proposal. Bidders must have successfully completed, as a Prime or Sub-contractor, at least three (3) projects, in the past five (5) years, of similar type, size and dollar value of the project described herein.

Pre-Bid Meeting

There will be a **Mandatory Pre-Bid Meeting on Wednesday, December 19, 2018 at 10:00 AM** at the site, St. Johns County Bartram Trail Branch Library, 60 Davis Pond Blvd, Fruit Cove, FL 32259. Attendance at the pre-bid conference is required in order to submit a bid. Bidders must be present and signed in prior to 10:00 AM, when the meeting will promptly start. Any individual who is not signed in as of 10:00AM will not be permitted to sign in and their firm will not be eligible to submit a bid for this project.

Bid Documents, Project Specifications and Drawings

Documents related to this bid may be obtained from Onvia DemandStar, Inc., at the following web address: www.demandstar.com by requesting St. Johns County Bid Document #19-28. For technical assistance with this Website please contact Onvia Supplier Services at 1-800-711-1712. A link to the Onvia DemandStar website is available through the St. Johns County Purchasing Website by clicking on the following link: www.sjcfl.us/Purchasing/OpenBids.aspx. Bid Documents may also be requested, **in writing**, from the St. Johns County Purchasing Designated Point of Contact, as provided below.

Designated Point of Contact

Any and all questions related to this project shall be directed, **in writing**, to the Designated Point of Contact for this project, Leigh A. Daniels, CPPB, Procurement Supervisor, SJC Purchasing Department, via email to ldaniels@sjcfl.us or fax to (904) 209-0155. Questions must be submitted, **in writing**, no later than four o'clock (4:00PM) on **Wednesday, December 26, 2018**, so that any necessary addenda may be issued in a timely manner.

Any questions received after the deadline will not be answered unless previously approved by the SJC Purchasing Manager or other designated County Representative.

Vendors shall not contact, lobby, or otherwise communicate with any SJC employee, including any member of the Board of County Commissioners, other than the above referenced individual from the point of advertisement of the Bid until contract(s) are executed by all parties, per SJC Purchasing Code 304.6.5 "Procedures Concerning Lobbying". According to SJC policy, any such communication shall disqualify the vendor, contractor, or consultant from responding to the subject invitation to bid, request for quote, request for proposal, invitation to negotiate, or request for qualifications. St. Johns County reserves the right to accept or reject any or all bids/proposals, waive minor formalities, and to award the bid/proposal that best serves the interests of St. Johns County. St. Johns County also reserves the right to award the base bid and any alternate bids in any combination that best suits the needs of the County.

Any bidder, proposer or person substantially and adversely affected by an intended decision or by a term, condition, procedure or specification with respect to any bid, invitation, solicitation of proposals or requests for qualifications, shall file with the Purchasing Department for St. Johns County, a written notice of intent to protest no later than 72 hours (excluding Saturdays, Sundays and legal holidays for employees of St. Johns County) after the posting either electronically or by other means of the notice of intended action, notice of intended award, bid tabulation, publication by posting electronically or by other means of a procedure, specification, term or condition which the person intends to protest, or the right to protest such matter shall be waived. The protest procedures may be obtained from the Purchasing Department and are included in the County's Purchasing Manual. All of the terms and conditions of the County Purchasing Manual are incorporated by reference and are fully binding.

St. Johns County reserves the right to accept or reject any or all bids/proposals, waive minor formalities, and to award the bid/proposal that best serves the interests of St. Johns County. St. Johns County also reserves the right to award the base bid and any alternate bids in any combination that best suits the needs of the County.

BOARD OF COUNTY COMMISSIONERS
OF ST. JOHNS COUNTY, FLORIDA
HUNTER S. CONRAD, CLERK

BY: _____
Deputy Clerk

FRONT END BID DOCUMENTS

INSTRUCTION TO BIDDERS

OWNER: The Board of County Commissioners of St. Johns County, Florida ("County") OR ("Owner")

PROJECT: Bid No: 19-28; Bartram Trail Branch Library Fire Sprinkler Replacement

DEFINITIONS

All definitions set forth in the General Conditions of the Contract or in other Contract Documents are applicable to the Bidding Documents.

Addenda are written or graphic instruments issued by the Purchasing Department prior to the time and date for receiving Bids that modify or interpret the Bidding Documents by addition, deletion, clarification, or corrections.

Base Bid is complete and properly signed proposal to do the work, or designated portion thereof, for the sums stipulated therein supported by data called for by the Bidding Documents.

Bid An offer, as a price, whether for payment or acceptance. A quotation, specifically given to a prospective purchaser upon its request, usually in competition with other vendors

Bid (Formal or Sealed) A request for firm prices by Advertised Legal Notice. Prices are submitted in sealed envelopes and in conformance with a prescribed format, all of which are opened in public on an appointed hour and date as advertised.

Bid Bond A good faith monetary commitment which a bidder or surety forfeits to the County of the bidder refuses, or is unable to enter into a contract after submitting a bid, or the bidder cannot furnish the required bonds, usually five percent (5%) of the bid proposal price.

Bidder is a firm or individual who submits a Bid to the Owner for the work described in the proposed Contract Documents.

Bidding Documents include the Advertisement/Notice to Bidders, Front End Bid Documents, Contract Agreement, Specifications and Plans including any Addenda issued prior to receipt of Bids.

Contract A delivered agreement between two or more parties, legally binding and enforceable, to perform a specific act or acts or exchange goods for consideration. A purchase order becomes a contract when accepted by a vendor. A unilateral contract is one in which only one party promises performance. A bilateral contract is one in which both parties promise performance.

Contractor An individual or firm having a contract to provide goods, service or construction for a specified price

County St. Johns County, a political subdivision of the State of Florida (F.S. 217.73)

Responsible Bidder A bidder capable of performing in all respects to fulfill the contract requirements. This includes having the ability to perform, the experience, reliability, capacity, credit, facilities and equipment to meet the contractual obligation.

Responsive Bid, Responsive Proposal, or Responsive Reply A bid, proposal, or reply submitted by a responsive and responsible vendor conforming in all material respects to the solicitation.

Specifications A clear, complete and accurate statement of the physical, functional or technical requirements descriptive of an item and if applicable, the procedure to be followed to determine if the requirements are met.

Subcontractor A party who contracts with a prime contractor to perform all or any part of the prime contractor's obligations.

Unit Price is an amount stated in the Bid as a price per unit of measurement for materials or services as described in the contract documents which shall include all labor, materials, equipment and any other item/s essential to accomplish the scope of work of the Unit Price.

BIDDER'S REPRESENTATION

Each Bidder, by marking his Bid, represents that he has read and understands the Bidding and Contract Documents and his Bid is made in accordance herewith: he has visited the Site and has familiarized himself with the local conditions under which the Work is to be performed; and his Bid is based upon the materials, systems and equipment described in the Bidding Documents without exceptions.

BIDDING DOCUMENTS

Bidding documents may be obtained from www.demandstar.com or SJC Purchasing, as stated in the Notice to Bidders. Complete sets of Bidding Documents shall be used in preparing the Bid Proposal. St. Johns County shall not assume any responsibility for errors or misinterpretations resulting from the use of complete or incomplete sets of Bidding Documents. The Owner, in making copies of the Bidding Documents available on the above terms, do so only for the purpose of obtaining bids on the Work and do not confer a license or grant for any other use.

INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS

Bidders shall promptly notify the Owner of any ambiguity, inconsistency, or error which they may discover upon examination of the Bidding Documents or of the site and local conditions. Bidders requiring clarification of interpretation of the Bidding Documents shall make a written request to the Owner, to reach him at least **fourteen (14) days** prior to the date for receipt of Bids.

An interpretation, correction, or change of the bidding Documents will be made by Addendum. Interpretation, corrections, or changes of the Bidding Documents made in any other manner will not be binding, and Bidders shall not rely upon such interpretation, corrections, and change. No change will be made to the Bidding Documents by the Owner or its Representative **seven (7) days** prior to Bid receiving date, however, the Owner reserves the authority to decrease this time depending on the necessity of such change.

SUBSTITUTIONS

The materials, products and equipment described in the Bidding Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution. No substitution will be considered unless written request for approval has been submitted by the Bidder and has been received by the Owner at least **fourteen (14) days** prior to the date for receipt of Bids. Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute, including drawings, cuts, performance and test data any other information necessary for an evaluation. A statement setting forth any changes in other materials, equipment or work that incorporation of the substitute would require shall be included. The burden of proof of the merit of the proposed substitute is upon the proposer. The project director's approval or disapproval of a proposed substitution shall be final.

If County Staff approves any proposed substitution, such approval will be set forth in an Addendum. Bidders shall **not** rely upon approval made in any other manner.

PRE-BID MEETING

There will be a **Mandatory** Pre-Bid Meeting on **Wednesday, December 19, 2018 at 10:00 AM** at the St. Johns County Bartram Trail Branch Library, 60 Davis Pond Blvd, Fruit Cove, FL 32259. Attendance **is** required at the Pre-Bid Meeting in order to be eligible to submit a bid for this project. Bidders must be present and signed in before 10:00 AM, when the meeting will promptly start. Any individual who is not signed in at 10:00 AM will not be permitted to sign in, and their firm will not be permitted to submit a bid for this project.

DESIGNATED POINT OF CONTACT

The County's Designated Point of Contact for this Bid is Leigh A. Daniels, CPPB, Procurement Supervisor, St. Johns County Purchasing Department. Any and all questions and/or inquiries shall be directed to Ms. Daniels, ***in writing***, via email at ldaniels@sjcfl.us or fax to (904) 209-0155. Bidders shall not contact, lobby, or otherwise communicate with any other County Staff, including members of the Board of County Commissioners, other than the designated representative shown above.

If the Designated Point of Contact provided above is absent or unavailable for three (3) business days, bidders may contact Erin Edwards, Procurement Coordinator at eedwards@sjcfl.us.

Failure to comply with this requirement shall disqualify a bidder from consideration for award, as provided in St. Johns County Purchasing Code 304.6.5 as provided below:

Vendors shall not contact, lobby, or otherwise communicate with any SJC employee, including any member of the Board of County Commissioners, other than the above referenced individual from the point of advertisement of the Bid until contract(s) are executed by all parties, per SJC Purchasing Code 304.6.5 "Procedures Concerning Lobbying". According to SJC policy, any such communication shall disqualify the vendor, contractor, or consultant from responding to the subject invitation to bid, request for quote, request for proposal, invitation to negotiate, or request for qualifications. St. Johns County reserves the right to accept or reject any or all bids/proposals, waive minor formalities,

and to award the bid/proposal that best serves the interests of St. Johns County. St. Johns County also reserves the right to award the base bid and any alternate bids in any combination that best suits the needs of the County.

QUESTIONS

Any and all questions related to this project shall be directed, *in writing*, to the Designated Point of Contact, as provided above, no later than four o'clock (4:00PM) on Wednesday, December 26, 2018, so that any necessary addenda may be issued in a timely manner. Any questions received after the deadline will not be answered unless previously approved by the SJC Purchasing Manager or other designated County Representative.

ADDENDA

Addenda will be distributed to all who are known by the entity responsible for distribution of the complete set of Bidding Documents. Copies of Addenda will be made available for inspection wherever Bidding Documents are on file for that purpose.

Each Bidder shall ascertain prior to submitting a bid, that all issued addenda have been received, and each Bidder **shall** acknowledge receipt, of all issued addenda in the space provided in the Official County Bid Form, and a fully acknowledged copy of each issued addendum must be included in the submitted bid proposal. Failure to provide fully acknowledged copies of each addendum may result in a bid proposal being deemed non-responsive.

BID SUBMITTAL REQUIREMENTS

Bids shall be submitted in **TRIPLICATE** (one (1) original and two (2) copies) on the required forms provided herein by or before Wednesday, January 9, 2019 at 2:00PM EST. All blanks on the Bid Form shall be filled in by typewriter or manually in blue or black ink. Bidders are not required to submit a copy of this Bid Document with their bid proposals. The bidders are required to submit, at a minimum, the Bid Proposal Attachments listed in this Document.

Bid proposals must be placed in an envelope, sealed and placed in a second envelope or container, plainly marked on the outside addressed to St. Johns County Purchasing Department, with the bidder's return address in top left hand corner and recite: "**Bid No: 19-28; Bartram Trail Branch Library Fire Sprinkler Replacement**"

See Example Below:

ABC Company, Inc.
123 Aviles Street
St. Augustine, FL 32084

St. Johns County Purchasing Department
500 San Sebastian View
St. Augustine, FL 32084

BID NO.: XX-XX – SEALED BID FOR SAMPLE PROJECT

At the end of this document, a sealed Bid mailing label is provided for convenience. Bidders shall affix the provided label to the outside of the sealed envelope/container to submit their Bid.

Bidder shall assume full responsibility for timely delivery at location designated for receipts of Bids. Bids shall be deposited at the designated location prior to the time and date for receipt of Bids indicated in the Advertisement/Notice to Bidders, or any time extension thereof made by Addendum. Bids received after the time and date for receipt of Bids will be returned to the sender unopened.

Oral, telephonic, telegraphic or electronic Bids are invalid and will not receive consideration.

Where so indicated by the makeup of the Bid Form, sums shall be expressed in both words and figures, and in the case of discrepancy between the two, the amount expressed in words shall govern.

Any interlineations, alteration or erasure must be initialed by the signer of the Bid; failure to do so may cause the Bidder's proposal to be considered non-responsive.

Bidder shall make no stipulation on the Bid Form nor qualify his Bid in any manner, to do so will classify the Bid as being non-responsive, and may result in the Bidder being removed from consideration for award.

Each submitted copy of the Bid Proposal shall include the full legal company name, address, telephone number and legal name of an authorized representative for the Bidder and a statement as to whether the Bidder is a sole proprietor, partnership, corporation, or any other legal entity. Each copy of the submitted Bid shall be signed by the person or persons legally authorized

to bind the Bidder to a contract. A Bid by a corporation shall further give the state of incorporation and have the corporation seal affixed.

A Bid submitted by an agent shall have a current Power of Attorney attached certifying agent's authority to bind the Bidder.

BID SECURITY

Each submitted Bid shall be accompanied by a Bid Security, submitted on the Bid Bond Form provided herein, or in the form of a certified or cashier's check, in the amount of five percent (5%) of the Total Lump Sum Bid amount submitted on the Official County Bid Form, pledging that the Bidder will enter into a contract with the Owner on the terms stated in the Bid and will, if required, furnish bonds as described hereunder covering the faithful performance of the Contract and the payment of all obligations arising thereunder. Should the Bidder refuse to enter into such Contract or fail to furnish such bonds to the Owner, if required, the amount of the Bid Security shall be forfeited, not as penalty, but as liquidated damages.

A Bid Security in the form of a certified or cashier's check must be made payable to the Board of County Commissioners of St. Johns County. Bidders submitting a certified or cashier's check as the bid security are not required to submit Attachment "B" – Certificate as to Corporate Principal, or the Bid Bond forms provided herein.

A Bid Security in the form of a Bid Bond shall be written on the form provided herein, with an acceptable surety, and the Attorney-in-Fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of his Power of Attorney. Acceptable surety companies are defined herein under "Surety Bond". The Surety Company shall be licensed to do business in the State of Florida and shall be listed by the U.S. Treasury Department. Any Bidder submitting a Bid Security in the form of a Bid Bond must also submit Attachment "B" – Certificate as to Corporate Principal.

The Owner shall have the right to retain the Bid Security of Bidders until either: (a) the Contract is executed and bonds, if required, have been furnished, or (b) the specified time has elapsed so that Bids may be withdrawn, or (c) all Bids have been rejected.

BID BOND INSTRUCTIONS

If a Bidder chooses to submit a Bid Bond on the form provided herein, he must submit the bond as follows:

1. Prepare and submit one (1) original and two (2) copies of the required Bid Bond Forms as shown above
2. Type or print Bidder's and Surety's names in the same language as in the Advertisement, or Invitation to Bid.
3. Affix the Corporate Seal, and type or print the name of the Surety on the line provided and affix its corporate seal.
4. Attach a copy of Surety agent's Power of Attorney, unless the Power of Attorney has been recorded in St. Johns County. If it has been recorded, give the record book and page. If not recorded, the copy of the Power of Attorney must have an original signature of the Secretary or Assistant Secretary of Surety certifying the copy. The Surety's corporate seal must be affixed.

BID POSTPONEMENT/CANCELLATION

The County may, at its sole and absolute discretion, reject any bids that are not submitted in accordance with the terms in this Bid Solicitation. The County may re-advertise this Bid; postpone or cancel, at any time, this Bid process; or waive any irregularities in this Bid or in the proposals received as a result of this Bid.

MODIFICATION OR WITHDRAWAL OF BID

A Bid may not be modified, withdrawn or canceled by the Bidder during the stipulated time period following the time and date designated for the receipt of Bids, and Bidder so agrees in submitting his Bid.

Prior to time and date designated for receipt of Bids, a Bid submitted early may be modified or withdrawn only by notice to the party receiving Bids at the place and prior to the time designated for receipt of Bids.

Such notice shall be in writing over the signature of the Bidder. If by telephone, written confirmation over the signature of Bidder must be mailed and postmarked on or before the date and time set for receipt of Bids; it shall be so worded as not to reveal the amount of the original Bid.

Withdrawn Bids may be resubmitted up to the time designated for the receipt of Bids provided that they are then fully in conformance with these Instructions to Bidders. Bid Security shall be in the amount of five percent (5%) of the Bid as modified or resubmitted.

COSTS INCURRED BY BIDDERS

All expenses involved with the preparation and submission of bids to the County, or any work performed in connection therewith, shall be borne by the Bidder(s). No rights of ownership will be conferred until title of the property is transferred to the successful bidder. All fees for copying and reproduction services for items listed herein are nonrefundable.

CONSIDERATION OF BIDS

Opening of Bids: Unless stated otherwise in an Addenda to the Advertisement/Notice to Bidders, the properly identified Bids received on time will be opened publicly as specified in the Advertisement and a tabulation of the bid amounts of the Base Bids and major Alternates, if any, will be made available to Bidders. The Bid Tabulation will be posted on the Purchasing Department bulletin board for seventy two (72) hours.

Any bidder, proposer or person substantially and adversely affected by an intended decision or by an term, condition, procedure or specification with respect to any bid, invitation, solicitation of proposals or requests for qualifications, shall file with the Purchasing Department for St. Johns County, a written notice of intent to protest no later than seventy two (72) hours (excluding Saturdays, Sundays and legal holidays for employees of St. Johns County) after the posting either electronically or by other means of the notice of intended action, not of intended award, bid tabulation, publication by posting electronically or by other means of a procedure, specification, term or condition which the person intends to protest, or the right to protest such matter shall be waived. The protest procedures may be obtained from the Purchasing Department and are included in the Owner's Purchasing Manual. All of the terms and conditions of the Owner Purchasing Manual are incorporated by reference and are fully binding.

Rejection of Bids: The County reserves the right to reject any or all Bids and in particular to reject a Bid not accompanied by any required Bid Security or data required by the Bidding Documents or a Bid in any way incomplete or irregular.

Acceptance of Bid (Award): The County shall have the right to reject any or all Bids or waive any minor formality or irregularity in any Bid received.

The County shall have the right to accept alternates in any order or combination and to determine the low Bidder on the basis of the sum of the Base Bid and/or the Alternates accepted if alternate bids are requested in the Official County Bid Form. The County is under no obligation to award any Bid Alternates, unless it serves the best interest of the County to do so.

It is the intent of the County to award a contract to the lowest responsive, responsible Bidder provided the Bid has been submitted in accordance with the requirements of the Bidding Documents, if judged to reasonable, and does not exceed the funds budgeted for the Project.

If the Contract is awarded, it will be awarded within a minimum of ninety (90) days from the date of the Bid opening, or as designated in the Bid Documents.

MINIMUM QUALIFICATION OF CONTRACTORS

Prime bidder must be fully licensed to do business in the State of Florida and be currently licensed as a Certified Fire Protection System Contractor II in the State of Florida with the State Fire Marshal, and provide proof of licensure with the submitted Bid Proposal. Bidders must have successfully completed, as a Prime or Sub-contractor, at least three (3) projects, in the past five (5) years, of similar type, size and dollar value of the project described herein. Each Bidder must submit Attachment "H" Experience of Bidder Form.

Proof of qualifications shall be provided by completing and submitting Attachment "C" – License/Certification List along with a copy of each license and certificate listed. All licenses, certifications and pre-qualifications must be valid and current on the date bids are submitted.

Bidders to whom award of a contract is under consideration shall submit to the County, upon his request, a properly executed Contractor's Qualification Statement of A1A Document A305, unless such a statement has been previously required and submitted as a prerequisite to the issuance of Bidding Documents.

SUB-CONTRACTORS

Each Bidder shall submit to the County, a list of Subcontractors and major materials suppliers to be used if awarded the contract. A copy of the form, Attachment "D", is provided in the Bidding Documents. If no Subcontractors or major material suppliers are required, so state there on.

Upon request by the County, the successful Bidder shall within seven (7) days thereafter, submit all data required to establish to the satisfaction of the County, the reliability and responsibility of the proposed Subcontractors to furnish and perform the work described in the Sections of the Specifications pertaining to such proposed Subcontractor's respective trades.

Prior to the award of the Contract, the County will notify the Bidder in writing if either the County, after due investigation, has reasonable and substantial objection to any person or organization proposed as a Subcontractor. The Bidder then may, at his option, withdraw his Bid without forfeiture of Bid Security or submit an acceptable substitute at no increase in Bid price. If the Bidder fails to submit an acceptable substitute within seven (7) days of the original notification, the County then may, at his option, disqualify the Bidder, at no cost to the County.

The County reserves the right to disqualify any Contractor, Subcontractor, Vendor, or material supplier due to previously documented project problems, either with performance or quality.

Subcontractors and other persons and organizations proposed by the Bidder and accepted by the County, must be used on the work for which they were proposed and accepted and shall not be changed except with the written approval of the County.

PUBLIC CONSTRUCTION BOND

The Contractor shall be required to obtain and submit a recorded Public Construction Bond covering the faithful performance of the Contract and the payment of all obligations arising thereunder in full amount of the Contract, with such acceptable sureties, secured through the Bidder's usual sources as may be agreeable to the parties. The Contractor shall furnish the required bond, after full execution of the awarded Contract. The Bond shall be released upon satisfactory completion of the project.

SURETY BOND

Acceptable Surety Companies: To be responsible to the Owner as Surety on Bonds, Surety shall comply with the following provisions:

1. Surety must be licensed to do business in the State of Florida;
2. Surety must have been in business and have a record of successful continuous operations for at least three (3) years;
3. Surety shall not have exposed itself to any loss on any one risk in an amount exceeding twenty percent (20%) of its surplus to policyholders;
4. Surety must have fulfilled all of its obligations on all other bonds given to the Owner;
5. Surety must have good underwriting, economic management, adequate reserves for undisclosed liabilities, and net resources for unusual stock and sound investment.

Time of Delivery and Form of Bonds

The Public Construction Bond form will be forwarded to the successful Bidder with his copy of the fully executed contract. **The Public Construction Bond must be recorded after the contract is signed by all parties.** The bidder will have 3 days from receipt of fully executed contract to have the Public Construction Bond recorded. The bidder shall have the Public Construction Bond recorded at the St. Johns County Clerk of Courts office, in St. Augustine, Florida. After the book and page number have been assigned to the bond by the recording person, the Bidder is to obtain from the recording person a certified copy of the recorded bond, and deliver the certified copy to the Owner's Contract Administrator. No work can commence until the required bond and Insurance Certificates have been delivered to the Owner. Upon receipt of the certified copy of the recorded bond, the Owner may issue a Notice to Proceed.

Unless otherwise specified in the Bid Documents, the bonds shall be written on the form provided herein. The Bidder shall require the Attorney-in-Fact who executes the required bonds on behalf of the Surety to affix thereto a certified and current copy of his Power of Attorney authorizing his firm to act as agent for the Surety in issuing the bonds.

FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

Form to be used: Unless otherwise provided in the Bidding Documents, the Agreement for Work will be written on the St. Johns County Standard Agreement between Owner and Contractor where the basis of payment is a Stipulated Sum. In the event of a conflict in specifications or contract requirements the more stringent shall apply.

CONTRACT TIME – LIQUIDATED DAMAGES

The Contractor shall have ten (10) days to return Contract originals from the time the Contractor receives a "Notice of Award". St. Johns County will return a "fully executed" Contract to the Contractor no later than seven (7) days after the return of the executed Contract originals (but no later than seventeen (17) days from the Notice of Award).

The Contractor will furnish a recorded original of the Public Construction Bond three (3) business days after receipt of the fully executed Contract (the Public Construction Bond must be recorded after the Contract is fully executed by all parties including the County Clerk). Upon receipt of the recorded Public Construction Bond, the County will issue a Notice to Proceed. If the Contractor fails to meet any of the dates and timeframes set forth in this section, or fails to execute the Contract, or to provide a Public Construction Bond, the County may elect at its option to consider the Contractor non-responsive and Contract with the next best Bidder.

The work to be performed under this Agreement shall be commenced within **ten (10)** days of the date of the Notice to Proceed, in writing. Construction of the project shall be substantially complete within **One Hundred Sixty Five (165)** consecutive calendar days from the date stipulated on the Notice to Proceed. Final completion shall be attained **Fifteen (15)** consecutive calendar days from the date of substantial completion.

Conditions under which Liquidated Damages are Imposed:

Should the Contractor or, in case of his default, the Surety fail to complete the work within the time stipulated in the contract, or within such extra time as may have been granted by the Owner, the Contractor or, in case of his default, the Surety shall pay to the Owner, not as a penalty but as liquidated damages, the amount so due as determined by the following schedule:

<u>Original Contract Amount</u>	<u>Daily Charge Per Calendar Day</u>
\$50,000 and under.....	\$ 763
Over \$50,000 but less than \$250,000.....	\$ 958
\$250,000 but less than \$500,000.....	\$ 1,099
\$500,000 but less than \$2,500,000.....	\$ 1,584
\$2,500,000 but less than \$5,000,000.....	\$ 2,811
\$5,000,000 but less than \$10,000,000.....	\$ 3,645
\$10,000,000 but less than \$15,000,000.....	\$ 4,217
\$15,000,000 but less than \$20,000,000.....	\$ 4,698
\$20,000,000 and over.....	\$ 6,323 plus 0.00005 of any amount over \$20 million (Round to nearest whole dollar)

INSURANCE

The Contractor shall not commence work under this Contract until he/she has obtained all insurance required under this section and such insurance has been approved by the County. All insurance policies shall be issued by companies authorized to do business under the laws of the State of Florida. The Contractor shall furnish proof of Insurance to the County prior to the commencement of operations. The Certificate(s) shall clearly indicate the Contractor has obtained insurance of the type, amount, and classification as required by contract and that no material change or cancellation of the insurance shall be effective without thirty (30) days prior written notice to the County. Certificates shall specifically include the County as Additional Insured for all lines of coverage except Workers' Compensation and Professional Liability. A copy of the endorsement must accompany the certificate. Compliance with the foregoing requirements shall not relieve the Contractor of its liability and obligations under this Contract.

Certificate Holder Address: St. Johns County, a political subdivision of the State of Florida
500 San Sebastian View
St. Augustine, FL 32084

The Contractor shall maintain throughout the duration of the awarded Contract, Comprehensive General Liability Insurance with minimum limits of \$1,000,000 per occurrence, \$2,000,000 aggregate to protect the Contractor from claims for damages for bodily injury, including wrongful death, as well as from claims of property damages which may arise from any operations under this Contract, whether such operations be by the Contractor or by anyone directly employed by or contracting with the Contractor.

The Contractor shall maintain throughout the duration of the awarded Contract, Comprehensive Automobile Liability Insurance with minimum limits of \$2,000,000 combined single limit for bodily injury and property damage liability to protect the Contractor from claims for damages for bodily injury, including the ownership, use, or maintenance of owned and non-owned automobiles, including rented/hired automobiles whether such operations be by the Contractor or by anyone directly or indirectly employed by a Contractor.

The Contractor shall maintain, throughout the duration of the awarded Contract, Umbrella or Excess Liability Insurance

covering workers compensation, commercial general liability and business auto liability with minimum limits of liability of \$1,000,000.

The Contractor shall maintain throughout the duration of the awarded Contract, adequate Workers' Compensation Insurance in at least such amounts as are required by the law for all of its per Florida Statute 440.02.

The Contractor shall be responsible for the deductible for the required insurance coverage. Such property insurance shall be maintained until final payment has been made. If the policy is terminated for any reason, notice should be provided to the owner within a minimum of thirty (30) consecutive calendar days by the carrier. The Owner, contractors and subcontractors waive their rights of subrogation against one another.

In the event of unusual circumstances, the County Administrator, or his designee, may adjust these insurance requirements.

INDEMNIFICATION

To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, its officials, and employees, from and against liability, claims, damages, losses and expenses including attorney's fees arising out of or resulting from performance of the work, provided that such liability, claims, damages, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself) including loss of use resulting therefrom, but only to the extent caused in whole or in part, by negligent acts or omissions of the Contractor, a Subcontractor, or anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such liability, claim, damage, loss or expense is caused in part by a party indemnified hereunder.

In claims against any person or entity indemnified under this paragraph by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under this shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefits acts or other employee benefits acts.

GOVERNING LAWS & REGULATIONS

The Contractor shall be responsible for being familiar and complying with any and all federal, state, and local laws, ordinances, rules and regulations that, in any manner, affect the work required under this contract. The agreement shall be governed by the laws of the State of Florida and St. Johns County both as to interpretation and performance.

TAXES

Project is subject to Federal Excise and Florida Sales Taxes, which must be included in Bidder's proposal.

FLORIDA TRENCH SAFETY ACT

Bidders shall complete Certificate of Compliance with Florida Trench Safety Act, in accordance with the requirements of Chapter 553, Florida Statutes. If trenching is not required for this project, state so thereon. Contractor shall be responsible for compliance with all trenching shoring safety requirements.

PUBLIC RECORDS

In accordance with Chapter 119 of the Florida Statutes (Public Records Law) and except as may be provided by other applicable State and Federal Law, all proposers should be aware that Requests for Bids and the responses thereto are public record. Proposers should identify specifically any information contained in their proposals which they consider confidential and/or proprietary and which they believe to be exempt from disclosure, citing specifically the applicable exempting law. Failure to identify confidential and/or proprietary information prior to submission of the proposal may result in such information being subject to release if requested in a public records request.

END OF SECTION

**OFFICIAL COUNTY BID FORM
WITH ATTACHMENTS**

BID NO: 19-28

OFFICIAL COUNTY BID FORM
ST. JOHNS COUNTY, FLORIDA

PROJECT: BARTRAM TRAIL BRANCH LIBRARY FIRE SPRINKLER REPLACEMENT

TO: THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA

DATE SUBMITTED: _____

BID PROPOSAL OF

Full Legal Company Name

Mailing Address

Telephone Number

Fax Number

Bidders: Having become familiar with requirements of the project, and having carefully examined the Bidding Documents and Specifications entitled for Bid No: 19-28; Bartram Trail Branch Library Fire Sprinkler Replacement in St. Johns County, Florida, the undersigned proposes to furnish all materials, labor and equipment, supervision and all other requirements necessary to comply with the Contract Documents to submit the following Bid Proposal summarized as follows:

LUMP SUM BID PRICE: The Lump Sum Bid for this project shall be for the complete construction of the project, in accordance with the plans and specifications.

\$ _____
Lump Sum Bid Price (Numerical)

_____/100 Dollars
Lump Sum Bid Price (Amount written or typed in words)

Bidders shall input amounts in numerals and in words. Any discrepancy between the amounts provided shall be determined by the amount written in words for each bid item above.

BID NO: 19-28

During the preparation of the Bid, the following addenda, if any, were received:

No.: _____ Date Received:

No.: _____ Date Received:

No.: _____ Date Received:

We, the undersigned, hereby declare that no person or persons, firm or corporation, other than the undersigned are interested, in this proposal, as principals, and that this proposal is made without collusion with any person, firm or corporation, and we have carefully and to our satisfaction examined the Bid Documents and Project Specifications.

We have made a full examination of the location of the proposed work and the sources of supply of materials, and we hereby agree to furnish all necessary labor, equipment and materials, fully understanding that any quantities shown therewith are approximate only, and that we will fully complete all requirements therein as prepared by the Owner, within the same time limit specified in the Bid Documents as indicated above.

If the Undersigned is notified of the acceptance of this Bid Proposal by the Board within ninety (90) calendar days for the time set for the opening of Bids, the Undersigned further agrees, to execute a contract for the above work within ten (10) days after notice that his Bid has been accepted for the above stated compensation in the form of a Contract presented by the Owner.

The Undersigned further agrees that security in the form of a Bid Bond, certified or cashier's check in the amount of not less than five percent (5%) of Total Lump Sum Bid Price, payable to the Owner, accompanies this Bid; that the amount is not to be construed as a penalty, but as liquidated damages which said Owner will sustain by failure of the Undersigned to execute and deliver the Contract and Bond within ten (10) days of the written notification of the Award of the Contract to him; thereupon, the security shall become the property of the Owner, but if this Bid is not accepted within ninety (90) days of the time set for the submission of Bids, or if the Undersigned delivers the executed Contract upon receipt, the Security shall be returned to the Bidder within seven (7) working days.

BID NO: 19-28

CORPORATE/COMPANY

Full Legal Company Name: _____ (Seal)

By: _____
Signature of Authorized Representative (Name & Title typed or printed)

By: _____
Signature of Authorized Representative (Name & Title typed or printed)

Address: _____

Telephone No.: (____) _____ Fax No.: (____) _____

Email Address for Authorized Company Representative: _____

Federal I.D. Tax Number: _____ DUNS #: _____
(If applicable)

INDIVIDUAL

Name: _____
(Signature) (Name typed or printed) (Title)

Address: _____

Telephone No.: (____) _____ Fax No.: _____

Email Address: _____

Federal I.D. Tax Number: _____

Submittal Requirements:

Official County Bid Form
Attachment "A" – St Johns County Board of County Commissioners Affidavit
Attachment "B" – Certificate as to Corporate Principal
Attachment "C" – License / Certification List
Attachment "D" – List of Proposed Sub-Contractors/Suppliers
Attachment "E" – Conflict of Interest Disclosure Form
Attachment "F" – Proof of Insurance
Attachment "G" – Experience of Bidder Form
Bid Bond Form
Fully Acknowledged Addenda Applicable to this bid

Official County Bid Form, Attachments "A", "B", "C", "D", "E", "F", and "G" Bid Bond must be completed, along with a fully acknowledged copy of each Addendum applicable to this Bid and submitted with each copy of the Bid Proposal. One (1) original and two (2) copies of all required forms must be submitted.

ATTACHMENT "A"

ST. JOHNS COUNTY, BOARD OF COUNTY COMMISSIONERS AFFIDAVIT

TO: ST. JOHNS COUNTY, BOARD OF COUNTY COMMISSIONERS,
ST. JOHNS COUNTY, ST. AUGUSTINE, FLORIDA.

At the time the proposal is submitted, the Bidder shall attach to his Bid a sworn statement.

This sworn statement shall be an affidavit in the following form, executed by an officer of the firm, association, or corporation submitting the proposal, and shall be sworn to before a person who is authorized by law to administer oaths.

STATE OF FLORIDA, COUNTY OF ST. JOHNS

Before me, the Undersigned authority, personally appeared _____ who being duly sworn, deposes and says he is _____ (Title) of the firm of _____ Bidder submitting the attached proposal for the services covered by the bid documents for Bid No: 19-28; Bartram Trail Branch Library Fire Sprinkler Replacement, in St. Johns County, Florida.

The affiant further states that no more that one proposal for the above-referenced project will be submitted from the individual, his firm or corporation under the same or different name, and that such Bidder has no financial interest in the firm of another bidder for the same work. That neither he, his firm, association nor corporation has either directly or indirectly entered into any agreement, participated in any collusion, nor otherwise taken any action in restraint of free competitive bidding in connection with this firm's Bid on the above-described project. Furthermore, neither the firm nor any of its officers are barred from participating in public contract lettings in the State of Florida or any other state.

(Bidder)

Sworn and subscribed to me this _____ day
of _____, 20____.

By: _____

Notary Public:

(Title)

Signature

Printed

My commission Expires: _____

BIDDER ON ALL COUNTY PROJECTS MUST EXECUTE AND ATTACH THIS AFFADAVIT TO EACH BID.

BID NO: 19-28

ATTACHMENT "B"
CERTIFICATES AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the Secretary of the Corporation named as Principal in the attached bond; that _____ who signed the said bond on behalf of the Principal, was then _____ of said Corporation; that I know his signature, and his signature hereto is genuine; and that said bond was duly signed, sealed, and attested for and in behalf of said Corporation by authority of it's governing body.

Secretary

Corporate Seal

(STATE OF FLORIDA
COUNTY OF ST. JOHNS)

Before me, a Notary Public duly commissioned, qualified and acting, personally appeared _____ to me well known, who being by me first duly sworn upon oath, says that he is the Attorney-In-Fact, for the _____ and that he has been authorized by _____ to execute the foregoing bond on behalf of the surety named therein in favor of St. Johns County, Florida.

Subscribed and sworn to me this _____ day of _____, 20____, A.D.

NOTARY PUBLIC
State of Florida-at-large

My Commission Expires:

(Attach Power of Attorney to original Bid Bond and Financial Statement of Surety Company)

BID NO: 19-28

ATTACHMENT "C"
LICENSE / CERTIFICATION LIST

In the space below, the Bidder shall list all **current** licenses and certifications held.

The bidder shall attach a copy of each current license or certification listed below to this form.

[illegible]

BID NO: 19-28

ATTACHMENT "D"
LIST OF PROPOSED SUBCONTRACTORS/SUPPLIER LIST

All subcontractors and major materials suppliers are subject to approval of Owner. The following are subcontractors and manufacturers of materials and/or equipment that are proposed to be utilized by the Contractor in the performance of this work:

[illegible]

BID NO: 19-28

ATTACHMENT "E"

**St. Johns County Board of County Commissioners
Conflict of Interest Disclosure Form**

Project Number/Description: Bid No: 19-28; Bartram Trail Branch Library Fire Sprinkler Replacement

The term "conflict of interest" refers to situations in which financial or other considerations may adversely affect, or have the appearance of adversely affecting a consultant's/contractor's professional judgment in completing work for the benefit of St. Johns County ("County"). The bias such conflicts could conceivably impart may inappropriately affect the goals, processes, methods of analysis or outcomes desired by the County.

Consultants/Contractors are expected to safeguard their ability to make objective, fair, and impartial decisions when performing work for the benefit of the County. Consultants/Contractors, therefore must there avoid situations in which financial or other considerations may adversely affect, or have the appearance of adversely affecting the consultant's/contractor's professional judgement when completing work for the benefit of the County.

The mere appearance of a conflict may be as serious and potentially damaging as an actual distortion of goals, processes, methods of analysis or outcomes. Reports of conflicts based upon appearances can undermine public trust in ways that may not be adequately restored even when the mitigating facts of a situation are brought to light. Apparent conflicts, therefore, should be disclosed and evaluated with the same vigor as actual conflicts.

It is expressly understood that failure to disclose conflicts of interest as described herein may result in immediate disqualification from evaluation or immediate termination from work for the County.

Please check the appropriate statement:

☐ I hereby attest that the undersigned Respondent has no actual or potential conflict of interest due to any other clients, contracts, or property interests for completing work on the above referenced project.

☐ The undersigned Respondent, by attachment to this form, submits information which may be a potential conflict of interest due to other clients, contracts or property interests for completing work on the above referenced project.

Legal Name of Respondent: _____

Authorized Representative(s) : _____
Signature Print Name/Title

Signature Print Name/Title

BID NO: 19-28

ATTACHMENT "F"

CERTIFICATE OF INSURANCE

INSERT CERTIFICATE OF INSURANCE HERE

BID NO: 19-28

ATTACHMENT "G"

EXPERIENCE OF BIDDER

Bidder acknowledges that he is fully licensed to perform work in the STATE OF FLORIDA.

The Bidder shall provide the following information regarding experience within the **past five (5) years** of this solicitation. Bidder must demonstrate the successful completion of **three (3) projects** of similar complexity, nature, size, and dollar amount of project.

Any material misrepresentation, as determined by the County, shall result in disqualification.

By: _____
Bidder _____ Date _____
Authorized Signature _____

DATE OF CONTRACT	CLIENT'S NAME, ADDRESS, PHONE AND EMAIL	CONTRACT AMOUNT	PROJECT AND LOCATION

Do you have any similar work in progress at this time? _____ Yes _____ No

Length of time in business: _____ Years

Is your company currently involved in any active litigation? _____ If Yes, explain: _____

Has your company ever been sued? _____ If Yes, explain and/or submit court decision or judgment, as applicable: _____

BID NO: 19-28

BID BOND

STATE OF FLORIDA
COUNTY OF ST. JOHNS

KNOW ALL MEN BY THESE PRESENTS, that _____ as Principal, and _____ as Surety, are held and firmly bound unto St. Johns County, Florida, in the penal sum of _____ Dollars (\$ _____) lawful money of the United States, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATIONS IS SUCH that whereas the Principal has submitted the accompanying Bid, dated _____, 20____.

For

BARTRAM TRAIL BRANCH LIBRARY FIRE SPRINKLER REPLACEMENT

St. Johns County, Florida

NOW THEREFORE,

- (a) If the Principal shall not withdraw said Bid within ninety (90) days after Bid Award date, and shall within ten (10) days after prescribed forms are presented to him for signature, enter into a written Contract with the County in accordance with the Bid as accepted, and give Bond with good and sufficient Surety or Sureties, as may be required, for the faithful performance and proper fulfillment of such Contract, then the above obligations shall be void and of no effect, otherwise to remain in full force and virtue.
- (b) In the event of the withdrawal of said Bid within the period specified, or the failure to enter into such Contract and give such Bond within the time specified, if the Principal shall pay the County the difference between the amount specified, in said Bid and the amount for which the County may procure the required Work and supplies, if the latter amount be in excess of the former, then the above obligations shall be void and of no effect, otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above bounded parties have executed this instrument under their several seals, this _____ day of _____ A.D., 20____, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

BID NO: 19-28

WITNESSES:

(If Sole Ownership or Partnership two (2) Witnesses required).

(If Corporation, Secretary only will attest and affix seal).

WITNESSES:

PRINCIPAL:

NAME OF FIRM:

**SIGNATURE OF AUTHORIZED
OFFICER (AFFIX SEAL)**

TITLE

BUSINESS ADDRESS

CITY STATE

WITNESS:

SURETY:

CORPORATE SURETY

ATTORNEY-IN-FACT (AFFIX SEAL)

BUSINESS ADDRESS

CITY STATE

NAME OF LOCAL INSURANCE AGENCY

SEALED BID MAILING LABEL

**BID NO: 19-28
BARTRAM TRAIL BRANCH LIBRARY FIRE SPRINKLER REPLACEMENT**

**Cut along the outer border and affix this label
to your sealed bid envelope to identify it as a
"Sealed BID"**

SEALED BID • DO NOT OPEN	
SEALED BID NO.:	BID NO: 19-28
BID TITLE:	BARTRAM TRAIL BRANCH LIBRARY FIRE SPRINKLER REPLACEMENT
DUE DATE/TIME:	By 2:00PM – January 9, 2019
SUBMITTED BY:	
	Company Name
	Company Address
	Company Address
DELIVER TO:	St. Johns County Purchasing Dept. ATTN: Leigh A. Daniels, CPPB 500 San Sebastian View St. Augustine FL 32084



END OF DOCUMENT