

**NOKOMIS
MIDDLE - HIGH SCHOOL**

Newport, Maine

Request for Proposals

for

Broadcast Systems Design and Installation

I. GENERAL

- A. Divisions 00 Procurement and Contracting Requirements and 01 General Requirements apply to the work herein.
- B. These specifications are for Broadcast Systems for the new Nokomis Middle/High School in Newport, ME.
- C. ALL interested parties shall register with John Tabb – John@TabbTech.com to receive any addenda or Q/A documents during the bidding process.
- D. Proposals are due December 6, 2019 at 2:00 PM and shall be in PDF format delivered in the same message to John Tabb, and Licia Goodridge (LGoodridge@RSU19.net).
- E. This RFP, and equipment list are a baseline for the design and construction of the broadcast systems to be provided and should be adhered to for the purpose of pricing the proposal. The selected vendor for these systems will meet with district staff and the broadcasting instructor to review the proposal in relation to the program requirements and may be requested to propose alternates prior to proceeding with a purchase order.
- F. Included in the proposal shall be the cost to provide a detailed design including equipment layout in the broadcast space, wiring schematics, and functional schematics. The design process shall include inspection of the space where systems will be installed, a meeting with the school broadcast staff and representatives from the district to review the program needs. Following submission of the system design a second review meeting shall be conducted with the owner prior to ordering equipment.
- G. Proposals will be evaluated based on the best overall value to the Owner, not necessarily the lowest initial cost. It should be understood that there will be limited opportunities for the upgrade or modification of these systems following the initial installation with robust construction and reliable performance being a higher priority than usual.
- H. All work on site must be performed in compliance with rules and guidelines established by the Owner. The winning bidder will be working directly for the RSU 19 but work may occur while the General Contractor is completing the project.
- I. Compliance with all relevant codes including:
 - 1. Local and state building, plumbing, mechanical, electrical, fire and health department and public safety codes agencies.
 - 2. National Fire Protection Association (NFPA).
 - 3. Occupational Safety and Health Act (OSHA).
 - 4. National Electrical Code (NEC).
 - 5. National Electrical Safety Code (NESC).

6. The ICC National Building Code.
- J. Wherever the drawings and specifications do not agree the more stringent shall apply. Provide an RFI to the Owner for clarification.
- K. PROJECT CONDITIONS
 1. The Nokomis Middle/High School is a new facility currently under construction.
 2. It is expected that many of the systems described herein may be installed while other trades are completing their work, and while school is in session. Careful coordination with other trades will be required to avoid damage to equipment and finished building areas.
 3. The Middle School is in operation presently and the High School is scheduled for completion by November 22, 2019. The Auditorium is scheduled for completion December 11, 2019.
 4. No standing on equipment or furniture is permitted. Vendor will provide all ladders, lifts, staging, etc. necessary to complete the work.
 5. Cleanup will be done daily and removed from site with as much material as possible being recycled. Areas worked in shall be left in a vacuumed condition, for areas completed by the general Contractor, prior to your work being done or completed. In all cases leave the area in better condition than you found it.
 6. Owner training will be required near the time of substantial completion. Schedule for training to be coordinated with the Owner according to the parameters listed in Section III – Execution.
 7. Related systems provided and installed by others:
 - a. Structured cabling system for Voice, Data and CATV.
 - b. Electrical power.
 - c. Conduits, Back Boxes, and Cable Tray.
 - d. Equipment racks (telecommunications only, AV racks are by the AV Contractor) and telecommunications backboards.
- L. PERFORMANCE REQUIREMENTS
 1. Submit proposal with recommendations that maximizes the features described herein.
 2. In addition to the bid form include documentation on major system components with the proposal (e.g. brochures or technical data sheets).
 3. The work shall include everything necessary or incidental to complete the installation EXCLUDING wire raceway, raceway fittings, outlet boxes, pull boxes, 120 volt AC power circuits, and insulated ground cables. Such excluded equipment shall be furnished and installed by the project Electrical Contractor prior to the start of DAS installation work.

4. Include all necessary labor, software, programming and the selection of the proper type and quantities of the system components and accessories to assure a complete and operational system.
5. Include proof of manufacturers authorized dealer status for major system components where this is required for extended warranty service.
6. The AV Contractor must maintain staff and equipment required to support and service the installed systems. The Integrator must be able to respond to service calls within one (1) business day.
7. The AV Contractor shall demonstrate to the satisfaction of the Owner that the AV Contractor has:
 - a. Adequate plant and equipment to pursue the work properly and expeditiously.
 - b. The Contractor's primary business is the provision, fabrication and installation of professional audiovisual and related systems.
 - c. Adequate staff and technical experience.
 - d. Suitable financial status to meet the obligations of the work including requirements in Division 01 00 00.
8. Each vendor must include a list of at least 3 similar projects completed in the last 5 years. Include contacts for references - name, email, telephone number and physical address.

M. WARRANTY

1. Provide for the warranty of each delivered system under the following terms and exclusions:
 - a. Warranty all equipment to be free of faulty workmanship and defects, and from damage due to contamination by construction dust and debris for a minimum period of one (1) year from date of final acceptance.
 - b. Paint and exterior finishes, fuses, lamps, projection lamps, and video picture tubes excluded from above warranties except when damage or failure results from defective materials or workmanship covered by warranty.
2. The terms of individual equipment manufacturers' warranties are not diminished by the minimum warranty provisions specified above.

N. SERVICE CONTRACT

1. Provide a one-year Service Contract to commence after Owner's written acceptance of installation. The cost of the service contract shall be included in the base bid. Service to include two semi-annual visits to the site for routine adjustment and maintenance of all equipment. Provide a preliminary schedule for the semi-annual visits to Owner for approval.

2. Three months before the end of each year's Service Contract, provide the Owner with a proposal for continued service during the next year.

O. SUBSTITUTIONS

1. Where manufacturer's names are listed this is to establish a standard for quality and design. Where one manufacturer's name is mentioned, products of other manufacturers will be acceptable if, in the opinion of the Owner, the substitute product is of quality and features equal to or better than that of the product specified.
2. Substitutions are changes, modifications or deviations in those products, materials, equipment, and methods of construction required by the Construction Documents proposed by the Contractor after the receipt of Bids. Substitutions for the convenience of the Contract or subcontractors, or materials suppliers will only be considered if submitted prior to the receipt of Bids, in strict conformance with the Instructions to Sub-bidders. The following shall not be considered substitutions:
 - a. Changes, modifications, or deviations requested by Bidders during the bidding period and accepted prior to the receipt of Bids shall be considered as included in the Contract Documents and are not subject to the requirements of this Section.
 - b. Revisions to Construction Documents requested by the Owner.
 - c. Specified options of products or materials included in the Construction Documents where both a manufacturer and Model/Product # is specified.
 - i. Where specified options include Manufacturer name only but do not specify a specific Model/Product # by said manufacturer the Contractor shall submit a Substitution Request per the procedures included within this Section.
 - d. The Contractor's compliance with governing regulations and orders issued by governing authorities, subject to the Owner's prior written notice and approval.
3. Substitution Requests: Request for substitution will be considered only if, in the opinion of the Owner, such substitution will be of benefit to the Owner. Substitution requests after receipt of bids will not be considered solely related to an "or approved equal" clause in the Construction Documents.
 - a. The Contractor's substitution request will be considered by the Owner when all of the following conditions are satisfied, as determined by the Owner; otherwise requests will be returned without action.
 - i. Extensive revision to the Construction Documents are not required.
 - ii. Proposed changes are in keeping with the general intent of the Construction Documents.
 - iii. The request is timely, fully documented and properly submitted.
 - iv. A benefit to the Owner can be shown long term.
4. Detailed specifications and, if the Owner determines it is necessary, samples of proposed alternate products shall be provided to the Owner for review prior to purchase or installation of proposed alternates.
5. Cost for removal and replacement of any unapproved alternates pertaining to the items

specified in this section is the sole responsibility of the AV Contractor.

6. Where HDBaseT is used to connect to projectors or monitors it is acceptable to use either an integrated HDBaseT port on the display device or an external receiver. If an external receiver is used it shall be from the same manufacturer as the transmitter. Any costs for additional receivers and cables between devices shall be included in the base bid. Where integrated receivers are used the submittal shall include documentation that the transmitter and receiver ends are certified to work seamlessly together. The cost for remediating any HDBaseT issues due to incompatibility between the transmitter and receiver, including integrated receivers, is the sole responsibility of the AV contractor and shall be resolved at no additional cost to the Owner.

P. SUBMITTALS

1. Provide submittals in PDF format following award of contract. Submittals shall be approved in writing prior to commencing work.
2. Submittals shall be provided as a complete set, not product by product. Failure to do so will result in rejection of the submittal.
3. Refer to item code (e.g. MON) in addition to model/part # throughout submittal for easy cross reference.
4. Submittal documentation shall include the following:
 - a. Table of contents.
 - b. AV Contractor Name, Contact Name, Address, Telephone Number, and email address.
 - c. Name, Contact Name, Address, Telephone Number, and email address of any Subcontractors.
 - d. Manufacturers' certificate of warranty for the complete (or each and every of the various subsystems) systems. Clear documentation of effective warranty periods. All warranties shall be filled out in the Owner's name and dated to begin following final acceptance of the installation.
 - e. Elevations for AV control racks where applicable.
 - f. Wiring diagrams for connectivity between equipment for each AV system.
 - g. A complete list, with quantities, of ALL equipment and materials which are to be furnished. Accompanying the list shall be manufacturers' specification or cut sheets for all sound system equipment (e.g. microphones, audio program source equipment, power amplifiers, speakers), audio-visual equipment (e.g. projectors, program source equipment, monitors, video processing equipment), AV control equipment (e.g. Touch Screens, system controllers, interface/control cards), and any other MAJOR items of equipment. All items shall reference the product tag (e.g.

INT, PRJ1) shown in the specifications.

- h. Details of proposed equipment suspension including attachment methods, weights, and suspension locations approved by the AV Contractors' Structural Engineer.
- i. Details showing camera/projector/television/flat panel display mounting.
- j. Maintenance Documentation including the following:
 - i. List of all equipment by manufacturer.
 - ii. Information necessary for the Owner's technical staff to perform routine and/or corrective maintenance.
 - iii. List of all spare parts including replacement lamp part numbers.
 - iv. Original copies of manufacturer's installation and operation instructions arranged alphabetically by manufacturer.

II. PRODUCTS

- A. The work of this Section consists of the provision of all materials, labor and equipment and the like necessary and/or required for the complete execution of all audiovisual system equipment and related work for this project as required by the specifications, schedules, keynotes and drawings, including, but not limited to the following:
 - 1. Supply only new equipment, parts and material, and protect all equipment from construction dust and debris until final acceptance. Operate only as required for testing as part of installation procedure. Provision of all manufactured components, installation, wiring, and testing is the responsibility of a single AV Contractor.
 - 2. The system drawings indicate the general layout of the various items of equipment and their functional relationships. However, layout of equipment, accessories, and conduit systems are diagrammatic unless specifically detailed and do not necessarily indicate every item required for a complete installation. Provide any incidental equipment needed in order to result in a complete and operable system even if not specified or shown on drawings without claim for additional payment.
 - 3. Supply and install miscellaneous steel above finished ceiling for mounting projectors and sound system devices (speakers, etc.).
 - 4. All primary conduit and wireways, AC power, and network data drops shown on the system Contract Drawings are included in the Electrical Contractor's scope of work and are not to be provided in this Contract. Supply and install all additional conduit and wireways to the extent not included in the electrical scope in order to provide a complete and operable system. All conduit shall be rigid and color coded blue to match Electrical Contractor's work.
 - 5. Provide a contact closure to the audio digital signal processor in each local sound

system to recall a setting that mutes all program audio when a signal is received from the fire alarm system or when a paging announcement is made through the building-wide Public Address system. Provide appropriate cabling to complete the contact closure installation and coordinate connection and testing with Fire Alarm and Public Address system.

6. This AV Contractor shall furnish, install and maintain in safe and adequate condition all mechanical hoisting equipment, operating personnel, rigging, staging, planking, and scaffolding that is necessary for the proper execution of the work of this section.
- B. All AV cabling, connectivity, faceplates, patch panels, etc. shall be the responsibility of the AV Contractor.
1. All HDBaseT cabling shall be Cat6A shielded with shielded jacks, patch panels, and patch cords included and installed to provide a shielded system from end to end.
 2. All AV cabling run in cable trays shall be placed neatly.
 3. All cabling and patch cords between components shall have cable management or be sleeved with expandable braided sleeving to look neat and professional.
 4. HDMI cables shall be certified by the manufacturer for the lengths required including associated patch cords and mated connectors. This information shall be documented in the submittals.
 5. All cabling, equipment, and device endpoints shall be labeled based on the device and location they are connected to. Labels shall be mechanically produced and resistant to smudging and wear and match the font type, size, and color of the IT components.
 6. No cabling or outlets associated with monitors shall be visible once monitor is in place. Where this is not possible due to location of power, data, or AV outlets, cabling shall be neatly dressed and enclosed in a cable loom where more than one cable is run together.
- C. Power, Data, and CATV connectivity is provided by others to the faceplates. It is the responsibility of the AV Contractor to provide patch cables for these links to all associated monitors, projectors, etc. Faceplates for AV systems shall be stainless steel.
- D. AV Cabling between input locations and the display device are the responsibility of the AV installer. This shall be HDMI for runs below 35-feet with the cable tested and verified to perform at full resolution.
- E. All power supplies and associated equipment required for the equipment listed here or on the drawings to function is the responsibility of the AV Contractor.
- F. Any software required for the full operation of equipment (i.e. interactive projectors) shall have licensing included for a minimum of 1-year from final acceptance. Any future licensing expenses beyond the first year shall be clearly identified in the proposal as a separate item.
- G. See Appendix for equipment list.

III. EXECUTION

A. FIELD QUALITY CONTROL

1. Provide single on site job supervisor to coordinate with all trades.
2. There will be a mandatory Pre-Start Meeting to review existing conditions and project schedule with Owner
3. Owner will require a schedule to be submitted prior to commencing along with a Purchase & Delivery Schedule to be updated monthly.
4. Perform operational test with Owner upon completed installation to verify proper operation of all systems.

B. FIELD SERVICES

1. Make final connections to units.
2. Perform field inspection and testing.
3. Demonstrate system operation and provide on site training.
4. Provide the services of an authorized technician of the manufacturer of the equipment to supervise the installation and final connections, plus adjusting, programming and all testing of the system required to assure a complete and fully operating facility and to instruct designated personnel in the operation, adjustment, testing and maintenance of the system.
5. Include testing at substantial completion. Invite the Owner, and Design Consultant to witness each test, provide two weeks advance notice to schedule the witnessing of the tests.

C. SYSTEM TESTS AND ADJUSTMENTS

1. The AV Contractor shall be responsible for preliminary field tests and adjustments of the completed systems prior to the time reserved for system equalization. Such tests shall be made in conformance with the recommendations of the equipment manufacturer.
2. A full report of all tests conducted and their results shall be provided to the Owner prior to substantial completion.
3. System tests and adjustments shall include but not be limited to the following:
 - a. Verification that all speakers are properly installed, tapped, and circuited as indicated on the drawings.
 - b. Measurement of each speaker line impedance to verify that no short/open circuits exist (including shorts to conduit/ground) and proper/expected loads are connected.

- c. Testing of each speaker to ascertain that none of the units "squawk" or "rattle" when energized with one-third octave bands of pink noise at a nominal input power of two watts.
- d. Functional tests of all individual audio, video and control equipment.
- e. Phasing of all microphones, microphone cords and microphone inputs.
- f. Alignment, convergence and source input settings for each video projector and flat panel display.
- g. Functional tests of all audio-visual control system software functions.
- h. Functional tests of the installed systems as required to assure that the systems are ready for operation.
- i. Include photo of each AV rack both front and back with component labels.

D. SYSTEM WARRANTY AND MAINTENANCE

- 1. The AV Contractor shall warranty the broadcast systems against defects in materials and workmanship, including any required parts and labor, during a one year warranty period from date of final acceptance or first beneficial use, whichever occurs first, of the completed audio-visual communication system at no cost to the Owner.
- 2. The AV Contractor shall provide a 1-year service contract from the date of final acceptance at no additional charge.
- 3. The AV Contractor shall make at least two visits to the facility to determine that all equipment is functioning satisfactorily, and to perform any maintenance services that may be required. The first of these visits shall occur approximately six months after the commencement of the warranty period, and the second visit shall occur approximately six months thereafter, but prior to the end of the warranty period.
- 4. Maintenance services requiring additional visits shall also be performed at no charge to the Owner. Maintenance services shall consist of, but not be limited to, operational tests and checks of all equipment.
- 5. Any defective equipment discovered during any maintenance visit shall be repaired or replaced under the terms of the warranty. The AV Contractor shall not be liable for equipment damaged by improper use, negligence, or accidental acts of nature.

E. OPERATING AND MAINTENANCE INSTRUCTIONS

- 1. The AV Contractor shall assemble operating and maintenance instruction notebooks, as described below, for the audio-visual communication system, and forward accurate field drawings of all wire numbers and control panel and patch panel engraving (for use in record drawing revisions) together with the notebooks.
- 2. Provide a digital O&M manual in pdf format and (2) hard copies in binders.
- 3. Operating Instruction notebook contents shall include a Table of Contents, system

operating instructions, manufacturers' operating instructions, instructions on systems test and adjustments, warrantee information, manufacturers' service manuals having schematic diagrams and parts lists, 11X17 record drawings, and any other information pertaining to the operation and routine maintenance of each major item of electronic equipment.

4. Use section tabs with color coded labels (similar to Avery Big Tabs) to neatly organize all equipment manuals by category and other required sections. Where possible, manufacturers' original documents shall be furnished. Photocopied materials shall be equally legible as the originals.
 - a. Provide condensed operating instruction sheets for all systems on a laminated 8.5 x 11" sheet for each room with AV equipment.
 - b. Provide a paper copy in each notebook and an electronic copy of condensed operating instructions in pdf format.
 - c. Provide a photograph of each rack both front and rear with components labeled.

F. TRAINING

1. Provide training on operation of all control systems to the Owner.
2. Minimum requirement of 2 training sessions per system.
 - a. These training sessions shall include a comprehensive training for personnel and a follow up session after the system has been in use. Coordinate timing with the Owner.
 - b. Each system shall have a quick reference guide, laminated and provided for each room where the system is in use. Additionally, (1) paper copy and a pdf file of these guides shall be provided to the Owner before commissioning and training.
3. A 5% retainer shall be withheld until the final training is completed and Operations and Maintenance manuals have been delivered.

G. ADJUSTING

1. System adjustments shall be done once at substantial completion and again 6 months thereafter.
2. Program each function as directed.
3. Monitors shall be calibrated to ISF standards.

End of Section

APPENDIX 1 EQUIPMENT LIST

Description	Quantity
Ross Video Carbonite Black Solo 1 M/E Live Production Video Switcher	1
Blackmagic Design Smart Videohub 20 x 20 6G-SDI	1
Blackmagic Design HyperDeck Studio Pro 2	1
Leightronix Nexus HD Flex	1
Control Room TV 43" UHD with HDR	2
Classroom TV 70" UHD with HDR	1
Control Room Speakers Yamaha HS5 powered studio monitors	2
Blackmagic HDL-SMTVDU02 dual 8" rackmountable monitors	1
Portable case with integrated rackmounts for dual monitors	1
AJA FiDO-2T Dual Channel 3G-SDI to LC fiber converter.	1
AJA Hi5-12G-R Mini-Converter with Fiber LC Receiver	1
Middle Atlantic BGR-41SA-32LRD	2
Video Patch Bays	2
Canon VIXIA HF R800 Camcorder	10
JVC GY-HM850U ProHD	4
Miller Toggle 75 2-Stage Alloy Tripod	4
Miller DS-10 Fluid Head	4
Eartec HUB5D UltraLITE 5-Person HUB Intercom System	1
Sennheiser HMD 26-600-II-XQ Broadcast Headset	3
Wire & Connectors	1
Fiber Setup (Extension) Singlemode gym to broadcast	1
Studio Setup	1

SECTION 01 00 00
GENERAL REQUIREMENTS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The State of Maine, Standard General Conditions and Contract Work Section 3-A of this Contract shall apply to each and every contract and contractor or other person or persons supplying labor, material, equipment and/or services entering into this Project and/or on the premises directly or indirectly.
- B. Definitions:
 - 1. The word "Contractor" where used throughout this document to describe the General Contractor, shall also mean the "General contractor", both Contractor and General contractor describing the entity holding the prime Contract for Construction.
 - 2. The word "Owner" where used throughout this document shall also mean the "Owner's Project Manager".
 - 3. The word "provide" shall include furnishing and installing a product, materials, systems, and/or equipment, complete in place, fully tested and approved.
 - 4. The word "custom" when referring to a material, color, finish design, pattern, or configuration shall be understood to mean as selected or determined by the Architect, and shall in no way be limited to any of the published offerings of the supplier or manufacturer.
 - 5. "Addenda" &/or "Addendum" are written or graphic instruments, issued by the Architect prior to the execution of the Contract. They modify or interpret the Bidding Documents by additions, deletions, clarifications, or corrections. It shall be the Contractor's responsibility to distribute Addenda to the various Bidders. Addenda will become part of the Contract Documents when the Construction Contract is executed.
 - a. No verbal interpretations and/or clarifications shall be allowed as a substitute for written addenda.
- C. Work Included in This Contract:
 - 1. Providing all labor, materials, equipment, and services, etc., as required to properly complete all Work identified in, implied by or otherwise required by the Construction Documents.
 - 2. Should the Construction Documents disagree in themselves or with each other, the Contractor shall provide the better quality or greater quantity of work and/or materials, unless specifically otherwise directed by written Addendum to the Contract.
 - 3. The Contractor and all subcontractors shall refer to all of the Construction Documents, including those not specifically showing the Work of their specialized trades, and shall perform all work reasonably inferable from them as being necessary to produce the intended results.
- D. Work Excluded from This Contract:
 - 1. Providing equipment noted as "Not in Contract" (N.I.C.) or "By Owner," (B.O.). The Contractor shall, however, provide services and coordination related to items not in the Contract as otherwise required or implied by the Construction Documents.

1.02 GENERAL RESPONSIBILITIES OF THE CONTRACTOR

- A. Regulations: The Contractor shall fully comply with all governing Local, State and Federal Laws, Codes, Rules, Regulations and Ordinances, including but not limited to The Americans with Disabilities Act, Equal Employment Opportunity and Affirmative Action provisions, and Occupational Safety and Health Administration provisions.
- B. Permits: The Contractor shall apply for and obtain all permits required. The Contractor shall arrange for all necessary inspections and approvals from the authorities having jurisdiction. The

Owner shall pay for all permits fees directly. Should any changes be necessary in the Construction Documents to secure such approvals, the Contractor shall promptly notify the Architect.

1. For the Owner's records, submit copies of permits, licenses, inspection reports, certifications, and similar documents, correspondence and records established in conjunction with compliance with standards and regulations bearing on the Work.
- C. Coordination: The Contractor shall be fully responsible for coordinating all construction activities to assure efficient and orderly installation of each part of the Work. In general coordination duties shall include, but not be limited to verifying dimensions and existing field conditions, coordinating construction operations, establishing on-site lines of authority and communication, monitoring schedules and progress, monitoring quality, maintaining records and reports and in general assuring the proper administration of the Work.
1. Since the Construction Documents are complementary, before starting each portion of the Work, the Contractor shall carefully study and compare the various Drawings and other Construction Documents relative to that portion of the Work, as well as the information furnished by the Owner, shall take field measurements of any existing conditions related to that portion of the Work and shall observe and document any conditions at the site affecting it. Before starting the Work, and at frequent intervals during the progress thereof, the Contractor shall carefully study and compare the Construction Documents with each other and with the information furnished by the Owner and shall at once report to the Architect any error, inconsistency or omission the Contractor may discover. If the Contractor proceeds with the Work without such notice to the Architect, having discovered such errors, inconsistencies or omissions, or if by reasonable study of the Construction Documents the Contractor should have discovered such, the Contractor shall bear all costs arising therefrom.
 2. Where installation of one part of the Work is dependent on installation of other components, either before or after its own installation, schedule construction activities in the sequence required to obtain the best results.
 3. Where installation of a component or system involves installation of component parts by multiple subcontractors, the Contractor shall inventory, store, and distribute parts to appropriate installers.
 4. Where structural, electrical, or mechanical components such as columns, ductwork, sprinkler piping, or raceways are installed in finished spaces, the intent is for room finish to enclose such components unless indicated otherwise. Coordinate between the trades and with the Architect.
 5. Where inspections or approval of a substrate or component to be concealed by another is required, coordinate construction activities and notification of Architect or inspecting party. Do not conceal substrate or component until it has been inspected and is satisfactory.
 6. Where availability of space is limited, coordinate installation of different components to assure maximum accessibility for maintenance, service, and repair.
 7. Make adequate provision to accommodate items scheduled for later installation.
 8. Coordinate completion and clean-up of Work in preparation of Substantial Completion.
 9. After Owner occupancy, coordinate access to site for correction of defective or incomplete Work to minimize disruptions to Owner's activities.
 10. The Contractor shall coordinate all work, schedule there-of, site access and other requirements in accordance with the primary contractor: **Nickerson & O'Day, Inc.,**
Contact: Steve Burton 207-989-7400.
 - a. Unless otherwise indicated in writing it is assumed by the Owner that the Contractor has reviewed and accepted any/all provisions, restrictions or other requirements necessary in accordance with Nickerson & O'Day, Inc. for the completion of the work indicated within the time frame provided.

- D. Supervision – Construction Superintendent: The Contractor shall place and maintain a competent, experienced construction Superintendent/Foreman in charge of the Work on the job site at all times while work is in progress, including overtime operations by the Contractor's forces or by subcontractors. No changes in this position shall be made without the Owner's prior approval. The Owner shall have the right to review the qualifications of the proposed Superintendent/Foreman and ask for a replacement if in his opinion the person does not meet the qualifications that the project will demand. The same superintendent who was in charge during the general progress of the Work shall oversee the completion of all punch list items.
1. The Contractor shall be responsible for the strict enforcement of the following requirements:
 - a. All persons working on the Project site shall be required to conduct themselves in a courteous and professional manner. The use of profane language shall be strictly prohibited.
 - b. Smoking and alcoholic beverages shall be strictly prohibited on the Project site.
 - c. The use of radios, etc. shall be strictly regulated if they interfere with the Owner's ongoing building operation.
 - d. Contact with building occupants and visitors shall be minimized to the extent necessary for the safe and proper execution of the Work.
- E. On-Site Documents: The Contractor shall provide in a visible and accessible location in the on-site office:
1. Complete, currently updated set of Specifications and Drawings, Change Orders, reviewed Shop Drawings, and other documents and samples.
 2. Permits and notifications required by laws and regulations.
 3. Standards, manuals, installation instructions, or reports required by individual Specification sections.
 4. Product MSDS Sheets.
 5. List of Owner, Owner's Representative, Architect, Architect's Consultants, Contractor's project manager, superintendent, assistant superintendent, subcontractors, building inspector, police, ambulance and fire departments; include telephone numbers and fax numbers.
- F. Phasing and Work Scheduling
1. In planning his construction schedule within the agreed upon Contract Time, it shall be assumed that the Contractor has anticipated the amount of adverse weather conditions normal to that of Work for the season(s) of the year involved. Only those weather delays attributable to other than normal weather conditions will be considered by the Owner and Architect.
 2. In planning his construction schedule within the agreed upon Contract Time and ongoing construction activities, it shall be assumed that the Contractor has coordinated all such planning to be in coordination with the primary contractors work schedule as established by **Nickerson & O'Day, Inc.**. It shall be assumed that the Contractor has anticipated continuing coordination efforts and schedule adjustments normal to that of the Work indicated.
- G. Safety: The Contractor shall assume full responsibility for all means, methods, procedures, sequences and techniques of construction employed and shall take all measures required to ensure the safety of construction workers, as well as the safety of the general public. The Contractor shall take into full consideration and assure himself that all necessary barricades, fencing, and shoring are provided and that they comply with applicable regulations and standards of good practice. The public shall be guarded from all construction hazards and/or attractive nuisances. Site safety is of the utmost importance. The Contractor shall pay all costs necessary for temporary partitioning, barricading, fencing, shoring, walks, ramps, enclosures, flashing lights, warning signs, security and safety devices required for the maintenance of a clean and safe construction site.

1. MSDS Sheets: The Contractor shall furnish copies of Material Safety Data Sheets to the Owner for all materials classified as hazardous or poisonous. MSDS for all materials shall be maintained with the Contractor in a file on-site.
 2. In addition to the Safety standards indicated directly associated with the Contractor's work force and Scope of Work the Contractor shall review and accept all provisions required under the site safety plan and procedures established by **Nickerson & O'Day, Inc.**. Such provisions that the Contractor shall object to shall be submitted in writing for review and approval by the Owner prior to acceptance of Contract and start of work.
- H. Environmental Regulations: The Contractor shall comply with all applicable environmental laws and regulations. Particular attention shall be paid to proper dust, fume and vapor control throughout the building and site.
- I. Hazardous Substances: The Architect's Scope of Services and responsibilities exclude the investigation, discovery, detection, identification, presence, leakage, release, use, handling, disposal, encapsulation, abatement, treatment, or removal of, or exposure of a person or persons to hazardous materials, pollutants, contaminants, or disease transmitting organisms, pre-existing or otherwise deposited in any form at the project, indoors or outdoors, at any time before, during or after construction, including but not limited to volatile organic compounds, petroleum products, bacteria, molds, fungus, asbestos or asbestos products, lead, radon, electro-magnetic frequency radiation or other radiation. Should any such substances be encountered, the Owner and Architect shall be promptly notified, in writing.
- J. Protection of Adjoining Property: The Contractor shall provide all shoring, fencing, and other work necessary to support, protect and keep unharmed all walls, footings, floors, roofs, walks, and all other parts of any existing buildings, facilities, etc as specifically related to his/her scope of work. Such protection shall be coordinated and approved by Nickerson & O'Day, Inc.. The Contractor shall hold the Owner and Architect harmless from any such damage due to any operations under this Contract. Any existing work or property damaged or disrupted as a result of this Contract shall be replaced or repaired to match original existing conditions at no additional cost to the Owner.
- K. Traffic Regulations and Parking: The Contractor shall properly regulate traffic at times when the Work interferes with the normal flow of traffic both on and off the site. Parking for workers on the project shall be limited to areas designated by the Owner or governing officials and Nickerson & O'Day, Inc.. Roadways and driveways outside the limits of the Contract shall be kept free of debris resulting from construction related traffic.
- L. Roads and Access to the Site: Access to the site for workers and the delivery or removal of construction materials and/or equipment shall be made only from locations approved by governing authorities and acceptable to the Owner and Nickerson & O'Day, Inc.. Existing roads, lanes and other required fire access shall remain accessible to fire vehicles at all times. Hauling permits and route approvals shall be obtained from governing authorities as applicable.
- M. Security: The Contractor shall be responsible for adhering to the security provisions established by Nickerson & O'Day, Inc. in agreement with the Owner.
- N. Vandalism: The Contractor shall take all reasonable precautions necessary to prevent loss or damage caused by vandalism, theft, burglary, pilferage, or unexplained disappearance of property of the Owner, whether or not forming part of the Work, located within those areas of the Project to which the Contractor has access.
- O. Shipping and Storage of Materials: See Section 01 60 00 - Product Requirements.
- P. Owner Furnished Equipment: See Section 01 60 00 - Product Requirements.
- Q. Guarantee: The Contractor shall guarantee the entire Work to be free from defective or improper work or materials, and shall make good any damage due to such work or materials for a term of one year from the date of the satisfactory completion and acceptance of the Work. See Section 01 78 10 - Warranties.

1.03 MEASUREMENT AND PAYMENT

- A. Schedule of Values: Submit a preliminary sample of the Schedule of Values for review and comment regarding format and content to the Architect at the earliest feasible date, but in no case later than fourteen (14) days prior to submittal of the first Application for Payment. The Schedule of Values shall clearly identify the cost of the Work by trade, plus all General Conditions, Allowances, and accepted Alternates.
 - 1. The format and general content of such schedule shall be acceptable to the Owner and Architect.
 - a. Round amount off to the nearest whole dollar; the total shall equal the Contract Sum.
 - b. No later than seven (7) days prior to submittal of the first Application for Payment, the Contractor shall submit to the Architect and Owner, the fully completed Schedule of Values.
- B. Payment Requisition: The Contractor shall submit to the Architect three original copies of "Application for Payment", AIA Forms G702 and G703, an itemized statement showing the original Contract Amount, the value of the Work to date, the amount previously approved, the amount presently requested and the balance remaining. Each copy shall be fully executed and properly signed and sealed.
 - 1. Application for Payment entries shall match the Schedule of Values. Include amounts of Change Orders issued prior to the last day of the construction period covered by the application.
 - 2. Each Application for Payment shall be consistent with previous applications and payments as certified by the Architect and paid for by the Owner.
 - 3. Progress payment dates shall be as established elsewhere in the Agreement. The Contractor shall submit a draft of the Application for Payment to the Architect sufficiently in advance of the due date to the Architect to allow for preliminary review and adjustments.
 - 4. The Contractor shall clearly differentiate between items stored on-site and items stored off-site. For off-site stored materials, provide invoices, list of materials, insurance certificate, right of entry, transfer of title, and other documents as may be required by the Architect and Owner.
 - 5. Provide invoices, vouchers, time sheets, and other documents as may be required by the Architect to verify labor and materials costs.
 - 6. Each Application for Payment shall be accompanied by a transmittal listing all attachments.
 - 7. Initial Application for Payment: The following administrative actions and submittals shall precede or coincide with the submittal of the first Application for Payment:
 - a. List of subcontractors, principal suppliers, and fabricators.
 - b. Schedule of Values.
 - c. Contractor's Construction Schedule (preliminary, if not final).
 - d. Contractor's Submittal Schedule (preliminary, if not final).
 - e. List of Contractor's staff assignments.
 - f. Copies of building permits, authorizations, and licenses from governing authorities.
 - g. Certificates of insurance.
 - h. Data needed to acquire Owner's insurance.
 - i. Initial Progress Report.
 - j. Performance and Payment Bonds, if applicable.
 - 8. Application for Payment at Substantial Completion: Submit an Application for Payment following issuance of the Certificate of Substantial Completion. The application shall reflect any Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work. See State of Maine, Standard General Conditions and Contract Work Section 3-A. The following administrative actions and submittals shall precede or coincide with the submittal of this Application for Payment:
 - a. Occupancy permits, as applicable.

- b. Warranties and maintenance agreements.
 - c. Testing / adjusting / balancing reports.
 - d. Maintenance instructions.
 - e. Meter readings, as applicable.
 - f. Start-up performance reports.
 - g. Change-over information related to Owner's occupancy, use operation and maintenance.
 - h. Final cleaning.
 - i. Application for reduction of retainage, and consent of surety.
 - j. Advice on shifting insurance coverage.
 - k. List of incomplete Work, recognized as exception to the Architect's Certificate of Substantial Completion, if any.
9. Final Application for Payment: This application shall reflect any Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work. See Article regarding Final Payment of the Agreement and State of Maine, Standard General Conditions and Contract Work Section 3-A. The following administrative actions and submittals shall precede or coincide with the submittal of the final Application for Payment:
- a. All items required by State of Maine, Standard General Conditions and Contract Work Section 3-A.
 - b. Completion of Project close-out requirements.
 - c. Completion of items specified for completion after Substantial Completion.
 - d. Assurance that unsettled claims will be settled.
 - e. Transmittal of required Project construction records, including Record Drawings to the Owner.
 - f. Proof that taxes, fees and similar obligations have been paid.
 - g. Removal of temporary facilities and services.
 - h. Removal of surplus materials, rubbish, and similar elements.
 - i. Return to the Owner all tools and equipment purchased as part of the Cost of the Work.
- C. Waivers of Mechanics Lien: With each Application for Payment, submit waivers of mechanics lien for every entity who is lawfully entitled to file a lien arising out the Contract and related to the Work covered by the Payment. See State of Maine, Standard General Conditions and Contract Work Section 3-A.
- 1. The Contractor shall promptly execute a partial waiver of mechanics lien for the period of construction covered by each application. Executed waivers shall be submitted to the Architect with the submittal of the next Application for Payment by the Contractor. With each Application for Payment, submit partial waiver of mechanics liens from subcontractors, or sub-subcontractors and suppliers for the construction period covered by the previous application.
 - 2. When an application shows completion of an item, submit final or full waivers when retainage is released.
 - 3. The Owner reserves the right to designate which entities involved in the Work must submit waivers.
 - 4. Submit the final Application for Payment with or preceded by final waivers from every entity involved with the performance of the Work covered by the application who could lawfully be entitled to a lien. The total amount of each entity's final waiver of lien shall equal the Contact Sum for that entity including all additions and reductions thereto.
 - 5. Submit waiver of liens on the following forms, and executed in a manner, acceptable to the Owner:
 - a. Partial waiver of liens: Form provided by the Contractor and acceptable to the Architect and Owner.

- b. Final waiver of liens: AIA G706A Contractor's Affidavit of Payment of Release of Liens or another form acceptable to the Architect and Owner.
- D. Schedule Update: Along with each payment requisition, the Contractor shall submit a report on the status of the next month's construction schedule. Each such monthly report shall update the progress of the Work and shall identify:
 - 1. Areas of the building and site expected to be worked on during the next month.
 - 2. Special conditions or circumstances that may affect the safe use of the building or site.

1.04 MODIFICATION PROCEDURES

- A. Minor Changes to the Work: Supplemental Instructions, authorizing minor changes in the Work, not involving an adjustment to the Contract Sum or Contract Time, may be issued by the Architect.
- B. Architect / Owner Initiated Change Order Proposal Requests: The Architect shall issue Proposal Requests that describe proposed changes in the Work that may require adjustment to the Contract Sum and/or Contract Time. The Architect will provide supplemental sketches or revised Drawings and Specifications as necessary.
 - 1. Proposal requests are for information only. Do not consider them an instruction either to stop work in progress, or to execute the proposed change.
 - 2. Unless otherwise indicated in the proposal request, within ten working days of receipt of the proposal request, the Contractor shall submit to the Architect and Owner for review, an estimate of cost necessary to execute the proposed change. Include an itemization of quantities, unit costs, etc. Include all related charges and a statement indicating the effect the proposed change will have on the Contract Time.
- C. Contractor Initiated Change Order Proposal Requests: The Contractor may propose changes when latent or other unforeseen conditions require modifications to the Contract, by submitting a request for a change to the Architect.
 - 1. Provide a complete description of the proposed change. Indicate the reason for the change and the effect of the change on the Work, the Contract Sum and the Contract Time. Include an itemization of quantities, unit costs, etc. and include all related charges. Comply with requirements for "Substitutions".
- D. Construction Change Directive: Construction Change Directives, containing descriptions of changes in the Work and designating methods to be followed to determine changes in the Contract Sum and/or Contract Time may be issued by the Architect.
 - 1. Maintain detailed records of time and materials related to the Work required by the Construction Change Directive. After completion of the change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.
- E. Change Order Procedures: Upon the Owner's approval of a Change Order Proposal Request, the Architect will issue a Change Order for signatures of the Owner and Contractor, (5) copies to be provided (Architect, Contractor, Owner, and DOE).

1.05 SUBSTITUTIONS

- A. Substitutions are changes, modifications or deviations in those products, materials, equipment, and methods of construction required by the Construction Documents proposed by the Contractor after the receipt of Bids. Substitutions for the convenience of the Contract or subcontractors, or materials suppliers will only be considered if submitted prior to the receipt of Bids, in strict conformance with the Instructions to Sub-bidders. The following shall not be considered substitutions:
 - 1. Changes, modifications, or deviations requested by Bidders during the bidding period and accepted prior to the receipt of Bids shall be considered as included in the Contract Documents and are not subject to the requirements of this Section.
 - 2. Revisions to Construction Documents requested by the Owner or Architect.

3. Specified options of products or materials included in the Construction Documents.
 4. The Contractor's compliance with governing regulations and orders issued by governing authorities, subject to the Architect's prior written notice and approval.
- B. Substitution Requests: See Section 01 60 00 - Product Requirements, for substitution request procedures.

1.06 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for requirements regarding submission of:
1. Outline Construction Schedule.
 2. Comprehensive Construction Schedule.
 3. Schedule of Materials.
 4. Schedule of Submittals.
 5. Shop Drawings, Product Data and Samples.
 6. Mock-ups and Sample Field Installations.
 7. Requests for Substitution

1.07 ELECTRONIC MEDIA

- A. Electronic Media: See Section 01 00 30 - Electronic Media, for information regarding obtaining the Construction Documents electronically and their limited use for purposes of project coordination, Contractor's use in the preparation of submittals, and Contractor's use in the preparation of Record Drawings.

1.08 QUALITY CONTROL

- A. General: The Owner may employ an independent testing agency for the purpose of testing and inspecting portions of the Work in progress. The Contractor and his various subcontractors shall be responsible for specific testing and inspections as identified in individual specification sections. See Section 01 40 00 - Quality Requirements

1.09 PROJECT MEETINGS

- A. The Contractor shall schedule the following project meetings including but not limited to:
1. Pre-Construction Meeting.
 2. Pre-Installation Meetings.
 3. Coordination Meetings.
 4. Job Meetings.
 5. Project Close-out Meeting.
 6. Other meetings as necessary.
- B. Pre-Construction Meeting: The Contractor shall conduct an initial organization meeting at the Project site or other convenient location after the Notice to Proceed and prior to commencement of construction activities. The Owner, Architect, Owner's Representative, Contractor, his Superintendent, major subcontractors, **Nickerson & O'Day, Inc.** and other concerned parties shall each be represented at the meeting by persons familiar with and authorized to conclude matters related to the Work. The Contractor shall record the minutes of this meeting. The minutes shall be distributed promptly to all participants.
1. Agenda items shall include, but not be limited to:
 - a. Notice to Proceed
 - b. Designation of personnel representing the parties and their responsibilities.
 - c. Construction Documents: on-site documents, discrepancies or omissions, interpretations and clarifications.
 - d. Subcontractors
 - e. Schedule of Values
 - f. Insurance requirements.
 - g. Application for Payment: progress payments, Substantial Completion, off-site stored materials.
 - h. Project meetings.

- i. Layout.
 - j. Scheduling: Construction schedule, working hours, overtime, holidays.
 - k. Permits and regulations
 - l. Testing and inspections.
 - m. Submittals: schedule, process, shop drawings, samples, record documents.
 - n. Substitutions.
 - o. Changes.
 - p. Job responsibilities: Superintendent, Owner's Representative.
 - q. Temporary facilities: parking, staging areas, site security, water, power, clean-up
 - r. Job safety.
- C. Coordination Meetings: The Contractor shall participate within the Nickerson & O'Day, Inc. Coordination Meetings. The Contractor shall bring any significant issues to the next Job Meeting.
- D. Job Meetings: The Contractor shall attend regular job meetings once every two weeks, or more frequently if required, during the construction period, at such time as has been scheduled by Nickerson & O'Day, Inc.. Nickerson & O'Day, Inc. shall record the minutes of each meeting. The minutes shall be distributed promptly to all participants.
- 1. Agenda items shall include, but not be limited to:
 - a. Review construction progress since the last meeting.
 - b. Review work progress in relation to the Construction Schedule.
 - c. Review "Old Business" and new items significant to the Work.
 - d. Review issues regarding construction activities and Owner's on-going occupancy.
 - e. Review work sequence, deliveries, hazards, quality standards, housekeeping, security, etc.
 - f. Review Change Orders, Proposal Requests, Requests for Information, Supplemental Instructions.
 - g. The Contractor will distribute updated Construction Schedule once per month.
- E. Project Close-out Meeting:

1.11 TIME FOR COMPLETION

- A. Time is of the essence of the Contract, and the Work to be performed under the Contract shall be commenced on or about **December 13, 2019 pending Agreement of Terms and Contract Execution**, and shall be Substantially Complete in early **January, 2020**.
- 1. The Contractor at his/her discretion, without any additional costs or any other means/methods of compensation by the Owner, may choose to substantially complete the scope of work prior to the specified date.
 - 2. "Substantial Completion" shall be represented as the complete installation of the scope of work indicated per the Contract Documents, issuance of Occupancy/Use by authorities as applicable, completed testing/adjustment, Owner training/instruction of equipment and as otherwise indicated per these Contract Documents.
- B. It is expressly understood and agreed, by and between the Contractor and the Owner, that the time for completion of the Work described herein is reasonable for the completion of same, taking into consideration the climatic and industrial conditions prevailing in this locality.

END OF SECTION