

**St. Johns Public Schools
501 Sickles St.
St. Johns, MI 48879**

**SJHS Boiler Replacement
Matrix Project # 250033.00**

Project Manual

April 3, 2025

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DIVISION

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PROJECT IDENTIFICATION

PROJECT: **ST. JOHNS HS BOILER REPLACEMENT**
501 Sickles St.
St. Johns, MI 48879

OWNER: **ST. JOHNS PUBLIC SCHOOLS**
501 Sickles St.
St. Johns, MI 48879

MEP/CIVIL ENGINEER: **MATRIX CONSULTING ENGINEERS, INC.**
1601 E Cesar E. Chavez Ave
Lansing, MI 48906

END OF SECTION

Invitation to Bid

St. Johns Public Schools SJHS Boiler Replacement St. Johns, MI

Matrix Project #250033.00

- DESCRIPTION:** The project includes the replacement of two conventional boilers located on the discharge side of the main system pumps with a single boiler located on the suction side of the main system pumps. The new boiler will tie to a reworked header on the suction side of the system pumps with two other existing condensing boilers.
- OWNER:** St. Johns Public Schools
501 Sickles St.
St. Johns, MI 48879
Contact: Rob Gleeson
Email: gleesonr@sjredwings.org
- ENGINEER:** Matrix Consulting Engineers, Inc.
1601 E. Cesar E. Chavez Avenue
Lansing, Michigan 48906
Contact: Nick Frechen
Phone: (517) 487-2511
Email: nfrechen@matrixceinc.com
- DOCUMENTS:** Bid documents will be available for access on SIGMA. A copy of the Bid Documents can be sent via email if requested.
- PRE-BID MEETING:** A pre-bid meeting will be held at 3:00 PM on April 8, 2025, at 501 Sickles St, St. Johns, MI 48879.
- BID DUE DATE:** Mailed or hand-delivered paper copies of signed proposals will be received until 10:00 AM, April 28, 2025 at 501 W Sickles St, St. Johns, MI 48879. Bids will be opened publicly at 10:00 am. Bids received after this date and time will not be accepted or considered. Faxed bids will not be accepted.
- BONDS:** 5% Bid Bonds, 100% Performance, 100% Labor and Materials
- POST-BID INTERVIEW:** Post bid interviews will be scheduled as needed as soon as bids have been received and reviewed.

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SECTION 002113 – INSTRUCTIONS TO BIDDERS

PART 1 – GENERAL

1.1 PRE-BID MEETING

- A. It is highly recommended that the prime bidder attend the pre-bid meeting. See Invitation for bids for pre-bid meeting information.
 - 1. The Engineer will present an overview of the project requirements at the pre-bid meeting and discuss procedures for arranging site visits.
 - 2. After the pre-bid meeting, bidders shall make all additional inquiries in writing to the Engineer. If it is necessary upon review of the inquiries, an Addendum will be issued to all bidders.

1.2 EXAMINATION OF SITE

- A. It is the bidder's responsibility to become familiar with the existing conditions and the materials and labor required to complete the project. No additional compensation will be allowed to complete the work due to the bidder's failure to fulfill this requirement.
- B. The contractor may contact the owner, St. John's School District: Rob Gleeson, Director of Operations and Transportation, to arrange a site visit.
- C. Submittal of a bid implies that the bidder is conversant with all of the site conditions under which the work must be performed.

1.3 ADDENDA

- A. The bidder may, during the bidding period, be advised by Addendum of changes to the Specifications and Drawings. Such changes are included in the work and become part of the Contract Documents.
- B. List each Addendum by number in the space provided on the Bid Form.

1.4 BID FORM

- A. Submit the bid on the form provided with all items of the form properly completed.
 - 1. Submitted bids shall be based only on the materials and constructions described in this Project Manual.
 - 2. The bid shall include the premiums and all other related charges for the indicated Performance and Payment Bonds and extra premiums or costs for the insurance coverage required in the Contract.

3. The Contractor shall obtain and pay the fees for all permits, licenses, and code inspections that may be required by the work of this Contract.
 4. Erasures or other changes must be initialed by the person signing the Bid Form.
- B. Requirements for signing bids:
1. Bids which are signed for a corporation shall have the correct corporate name thereof and signature of the president or other authorized officer of the corporation.
 2. Bids which are signed for a partnership shall be signed by all partners or by an attorney in fact. If signing attorney in fact, attach a power of attorney to the bid evidencing authority to sign the bid, executed by the partners.
 3. Bids which are not signed by the individual making them should have attached thereto a power of attorney evidencing authority to sign the bid in the name of the person for whom it is signed.

1.5 BID INQUIRIES

- A. All bid inquiries should be, in writing, directed to Matrix Consulting Engineers, Inc., attention Nick Frechen, at nfrechen@matrixceinc.com
- B. Bid inquiries received after April 18, 2025 at 2:00 PM will not be answered, unless the bid opening is postponed by addenda, or the work is rebid following post-bid addenda.

1.6 BID TRANSMITTAL

- A. Submit Bid Form and all required attachments via email as directed in the invitation to bid. Submit the bid before the bid opening date and time indicated in the Invitation for Bid. Bids received after the bid closing date and time will be returned to the Bidder. Delays in bid submittal resulting from electronic complications will not be considered. Bidders may withdraw their bids, by written notice, at any time prior to the indicated date and time scheduled for receipt of bids. However, no bidder may withdraw a bid for a period of 90 calendar days after the bid opening.

1.7 BID OPENING

- A. Bids will be opened and read publicly at 501 W Sickles St, St. Johns, MI at 10:00 AM on April 28, 2024.
- B. Right to Reject: The Owner reserves the right to reject any or all bids, either whole or in part; to award contract to other than the low bidder; to waive any irregularities and/or informalities; and, in general, to make awards in any manner deemed to be in the best interests of the Owner.

1.8 CONTRACT AWARD

- A. The Owner reserves the right to determine which bid is best suited for its use, to accept any or all parts of a bid, and assign all or part of the contract to one or more qualified bidders. In awarding the contract, the Owner will consider the past performance of the Contractor; conformity of the bid to the Bidding Requirements; bid price(s); and availability of funds.
- B. Within three (3) days after receiving the Form of Agreement, sign and submit the Agreement (by hand delivery of overnight mail) to the Architect.
- C. Within seven (7) days after receiving the executed form of Agreement (signed by all parties to the Agreement), submit the following to the Consultant:
 - 1. Performance Bond: A Surety Bond in the full amount of the Contract, with the Owner indicated as “Obligee,” ensuring faithful performance of all provisions of the Contract. The Surety Company shall be authorized to do business in the State of Michigan and shall be approved by the Owner.
 - 2. Payment Bond: A Surety Bond in the full amount of the Contract, with the Owner indicated as “Obligee,” ensuring the payment of all labor and material costs. The Surety Company shall be authorized to do business in the Jurisdiction where the project is located and shall be approved by the Owner.
 - 3. Insurance Certificates. Refer to insurance requirements provided by owner attached after this section.
- D. If the Contractor refuses or fails to submit the bonds and insurance certificates within seven (7) days after receiving the executed Form of Agreement, the Owner may consider the Contract to have abandoned all rights and interests in the Contract award. Consequently, the bid bond may be declared forfeited to the Owner as liquidated damages, and the work may be awarded to another.

END OF INSTRUCTIONS TO BIDDERS

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Bid Proposal Form

St. Johns Public Schools St. Johns High School Boiler Replacement St. Johns, MI

Project #250033.00

HARD-COPY PROPOSALS, mailed or hand-delivered are due no later than 10:00 AM EST, April 28, 2025.

Faxed and emailed bids will not be accepted. Bids will be opened publicly at 10:00 AM at 501 W Sickles St, St. Johns, MI 48879. Bids received after this date and time will not be accepted or considered.

Please mail or drop off your proposal to: St. Johns Public Schools, 501 W Sickles St, St. Johns, MI 48879. All proposals should include two copies in a sealed envelope and clearly marked as St. Johns Public Schools – SJHS Boiler Replacement.

Name of Bidder: _____

Address: _____

Phone No.: _____

E-mail: _____

Date: _____

BASE PROPOSAL

We the undersigned, propose to furnish all labor, materials, and facilities for the completion of the General Construction Contract (including Site, Architectural, Structural, Mechanical and Electrical Work), for the above named project in accordance with drawings and specifications prepared by Matrix Consulting Engineers Inc., dated **April 3, 2025** and all addenda (if applicable), for the sum of:

_____ dollars

(\$ _____) and hereby agree to enter into a contract for the work if this proposal is accepted in writing.

ADDENDA

We acknowledge the receipt of the following addenda to drawings and specifications:

Addendum No. _____	Initial _____	Date _____
Addendum No. _____	Initial _____	Date _____
Addendum No. _____	Initial _____	Date _____

TIME OF COMPLETION

Work is to commence within ten (10) consecutive calendar days after notice of Award of Contract. The work shall be substantially complete on or before August 1, 2025.

BASE BID COST BREAKDOWN

Provide a cost breakdown for each of the subcontractor proposals being provided in the base bid.

<u>Trade</u>	<u>Contractor Providing Proposal</u>	<u>Cost</u>
Site Work	_____	\$ _____
General Trades	_____	\$ _____
Mechanical	_____	\$ _____
Electrical	_____	\$ _____

FEE FOR HANDLING ADDITIONAL WORK

For handling additional work performed upon instructions of the Owner by subcontractors of the undersigned, add to the subcontractor's prices for the additional work a fee of ____%, which shall include all of the undersigned's charges.

For additional work performed upon instructions of the Owner other than that of subcontractors of the undersigned, add to the actual cost of all labor and materials, including insurance and taxes (less all discounts) a fee of ____%, which shall include all charges for overhead and profit.

VOLUNTARY SUBSTITUTIONS

If awarded a contract for the work bid upon above, on the basis of the amount of our proposal, we agree to furnish materials and equipment specifically mentioned in the specifications.

If any of the following voluntary substitutions for materials or equipment are approved, we further agree to make the corresponding deduction from our proposal.

<u>Name of Manufacturer</u>	<u>Amount of Deduction</u>
_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____

PERSONNEL ASSIGNMENT FOR THIS PROJECT:

Project Superintendent: _____
 Project Engineer: _____

SUBCONTRACTOR ASSIGNMENT FOR THIS PROJECT:

General Trades: _____
 Electrical: _____
 Mechanical: _____
 Site Work _____

SIGNATURES

When the bidder is an individual:

Bidder

Witness

When the bidder is a partnership:

Bidder

Bidder

Bidder

Bidder

Witness

When the bidder is a corporation:

President

Secretary

_____ is a corporation organized and existing under the laws of
_____ and has (has not) been granted a certificate of authority to do business in the
State of _____.

SECTION 004373 – PROPOSED SCHEDULE OF VALUES FORMS

1.1 POST-BID SUPPLEMENT

- A. A completed Proposed Schedule of Values form is required to be provided, upon request from Architect after bid has been submitted.

1.2 PROPOSED SCHEDULE OF VALUES FORM

- A. Proposed Schedule of Values Form: Provide a breakdown of the bid amount, including alternates, in enough detail to facilitate continued evaluation of the bid. Coordinate with the Project Manual table of contents. Provide multiple line items for principal material and subcontract amounts in excess of five percent of the Contract Sum.
- B. Arrange schedule of values consistent with format of AIA Document G703.
 - 1. Copies of AIA standard forms may be obtained from the American Institute of Architects; <http://www.aia.org/contractdocs/purchase/index.htm>; docspurchases@aia.org; (800) 942-7732.

END OF SECTION 004373

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SECTION 006000 - FORMS

1.1 FORM OF AGREEMENT AND GENERAL CONDITIONS

- A. The following form of Owner/Contractor Agreement and form of General Conditions shall be used for the Project:
1. AIA Document A101, "Standard Form of Agreement between Owner and Contractor, Stipulated Sum."
 - a. The General Conditions for the Project are AIA Document A201, "General Conditions of the Contract for Construction."

1.2 ADMINISTRATIVE FORMS

- A. Administrative Forms: Additional administrative forms are specified in Division 01 General Requirements.
- B. Copies of AIA standard forms may be obtained from the American Institute of Architects; <http://www.aia.org/contractdocs/purchase/index.htm>; docspurchases@aia.org; (800) 942-7732.
- C. Preconstruction Forms
1. Form of Performance Bond and Labor and Material Bond: AIA Document A312, "Performance Bond and Payment Bond."
 2. Form of Certificate of Insurance: AIA Document G715, "Supplemental Attachment for ACORD Certificate of Insurance 25-S."
- D. Information and Modification Forms:
1. Form of Request for Proposal: AIA Document G709, "Work Changes Proposal Request."
 2. Change Order Form: AIA Document G701, "Change Order."
 3. Form of Architect's Memorandum for Minor Changes in the Work: AIA Document G707, "Architect's Supplemental Instructions."
 4. Form of Change Directive: AIA Document G714, "Construction Change Directive."
- E. Payment Forms:
1. Schedule of Values Form: AIA Document G703, "Continuation Sheet."
 2. Payment Application: AIA Document G702/703, "Application and Certificate for Payment and Continuation Sheet."
 3. Form of Contractor's Affidavit: AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
 4. Form of Affidavit of Release of Liens: AIA Document G706A, "Contractor's Affidavit of Payment of Release of Liens."
 5. Form of Consent of Surety: AIA Document G707, "Consent of Surety to Final Payment."

END OF SECTION 006000

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SECTION 013000 - SUBMITTALS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes: This Section includes, but not necessarily limited to, the submittal of Shop Drawings. Samples and other information as indicated on the Drawings, as specified herein, and as necessary for the proper and complete performance of the Work.
- B. Related Sections:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to:
 - a. General Conditions, Supplementary Conditions and Sections in Division 1 of these Specifications.
 - b. Individual submittals required: Pertinent Sections of these Specifications.

PART 2 - PRODUCTS

2.1 SUBMITTALS REQUIRING ENGINEER'S REVIEW AND RETURN

- A. Drawings:
 - 1. Scale required: Unless otherwise specifically directed by ENGINEER, make all drawings accurately to a scale sufficiently large to indicate all pertinent features of the item and its method of connection to the Work.
 - 2. Type and number of prints required:
 - a. Submit one electronic copy.
- B. Manufacturer's literature and product data:
 - 1. General: Where content of submitted literature from Manufacturers includes data not pertinent to this submittal, clearly indicate which portion of the contents is being submitted for ENGINEER's review.
 - 2. Number of copies required:
 - a. Submit one electronic copy.
- C. Calculations:

1. Performance type design calculations: Shall be prepared and sealed by a Professional Engineer licensed in the state where the project is being constructed.
2. Number of copies required: Submit one electronic copy.

D. Samples:

1. General:
 - a. Samples:
 - 1) Illustrate materials, equipment and workmanship.
 - 2) Establish standards by which completed work is judged.
 2. Accuracy of Sample: Unless otherwise specifically directed by ENGINEER, all Samples shall be of the precise articles proposed to be furnished.
 3. Number of Samples required: Submit all Samples in the quantity which is required to be returned plus 1.

E. Colors and patterns: Unless the precise color and pattern is specifically described in the Contract Documents, whenever a choice of color or pattern is available in a specified Product, submit accurate color charts and pattern charts to ENGINEER for review and selection.

F. Closeout Manuals :

1. General:
 - a. Where manuals are required to be submitted covering items included in this Work, prepare all such manuals in durable plastic binders approximately 8 ½ inches x 11 inches in size and with at least the following:
 - 1) Identification on, or readable through, the front cover stating general nature of the manual.
 - 2) Neatly typewritten index near the front of the manual.
 - 3) Complete instructions regarding operation and maintenance of all equipment involved.
 - 4) Complete nomenclature of all replaceable parts, their part numbers, current costs and name and address of nearest vendor of parts.
 - 5) Copies of all guarantees and warranties issued.
 - 6) Copies of the reviewed drawings.
 - 7) Copies of all data concerning all changes made during construction.
 2. Extraneous Data: Where contents of the manuals include Manufacturer's catalog pages. Clearly indicate the precise items included in this installation and delete or otherwise clearly indicate all Manufacturer's data with which this installation is not concerned.

3. Number of copies required: Unless otherwise specifically directed by ENGINEER or stipulated in the pertinent Section of these Specifications. Submit one electronic copy of the manual to ENGINEER. After review, contractor shall deliver one hard copy binder and one electronic copy of binder to ENGINEER for owner's records.

2.2 SUBMITTALS NOT REQUIRING ENGINEER'S RETURN

A. General:

1. Including, but not necessarily limited to:
 - a. Test Reports.
 - b. Certifications and affidavits.
 - c. Installation instructions.

PART 3 - EXECUTION

3.1 SCHEDULE OF SUBMITTALS

A. Preparation and submittal of a schedule of submittals:

1. Prepare and submit a schedule of submittals as required by Section 00700: General Conditions.
2. The schedule of submittals shall include the following:
 - a. Shop Drawings.
 - b. Manufacturer's literature and product data.
 - c. Samples.
 - d. Colors and patterns.
 - e. Manuals.
 - f. Other submittals required by the Contract Documents.
3. Allow at least 15 full working days for ENGINEER's review following ENGINEER's receipt of the submittal unless ENGINEER has agreed to a shorter period for specific submittals.
4. Schedule submittals, except operation and maintenance manuals, far enough in advance of scheduled dates for installation to provide all required time for reviews for securing necessary approvals for possible revision and resubmittal, and for placing orders and securing delivery.
5. Schedule submittal of operation and maintenance manuals at least 60 days prior to system Substantial Completion unless otherwise specified.

- B. Make all submittals in accordance with the schedule of submittals.
- C. Be responsible for costs of delays caused by tardiness of submittals.

3.2 COORDINATION OF SUBMITTALS

A. General:

- 1. Prior to submittals for ENGINEER's review. Use all means necessary to fully coordinate all material including the following procedures.
 - a. Determine and verify all field dimensions and conditions, catalog numbers and similar data.
 - b. Coordinate as required with all trades and all public involved.
 - c. Secure all necessary approvals from public agencies and others; signify by stamp or other means that all required approvals have been obtained.
 - d. Clearly indicate all deviations from the Contract Documents.

B. Grouping of submittals:

- 1. Unless otherwise specifically permitted by ENGINEER, make all submittals in groups containing all associated items.
- 2. ENGINEER may reject partial submittals as not complying with the provisions of the Contract Documents.

3.3 IDENTIFICATION OF SUBMITTALS

A. General:

- 1. Consecutively number all submittals.
- 2. Accompany each submittal with a letter of transmittal showing the following:
 - a. Project title and number.
 - b. OWNER.
 - c. Subcontractor.
 - d. Date of submittal.
 - e. Specification Section or Drawing number to which the submittal pertains.
 - f. Brief description of the material submitted.
 - g. Submittal identification number.
- 3. Mark each submittal with:

- a. Company name of the originator of the submittal.
- b. Deviations from Contract Documents.
- c. CONTRACTOR's approval of the submittal.
- d. Submittal identification number adjacent to CONTRACTOR's approval.

B. Resubmittal:

1. When material is resubmitted for any reason, transmit under a new letter of transmittal with a suffix added to the original submittal identification number.
2. Indicate that this is a resubmittal and refer to the previous submittal.

C. Submittal Log:

1. Maintain an accurate submittal log for the duration of the construction period showing the status of all submittals of all types.
2. Make the log available to ENGINEER for review upon request.

3.4 RETURN OF SUBMITTALS

A. Submittals requiring ENGINEER review and return:

1. With status. "Rejected. Resubmit":
 - a. Drawings: ENGINEER will retain 1 copy and return the rejected copies to CONTRACTOR.
 - b. Manufacturer's literature and product data: ENGINEER will retain 1 copy and return remaining copies to CONTRACTOR.
 - c. Other submittals: ENGINEER will notify CONTRACTOR of rejection.
2. With status: "Reviewed. No Exceptions Taken" and "Reviewed w/Corrections Noted":
 - a. Drawings: ENGINEER will retain 4 copies and return the remaining copies to CONTRACTOR.
 - b. Manufacturer's literature and product data: ENGINEER will retain 4 copies and return the remaining copies to CONTRACTOR.
 - c. Samples: ENGINEER will retain 1 Sample and return the remaining Samples to CONTRACTOR.
 - d. Colors: ENGINEER will retain color charts and pattern charts and will indicate color and pattern choices to CONTRACTOR.

B. Submittals not requiring ENGINEER return: No copies will be returned.

3.5 RESUBMISSION REQUIREMENTS

A. Drawings:

1. Revise initial drawings as required and resubmit as specified for initial submittal.
2. Indicate on drawings all changes which have been made other than those requested by ENGINEER.
3. If the same drawings are submitted with additional data and revisions, clearly identify the added data and revisions on the drawings.

B. Other submittals: Submit as required for initial submittal.

3.6 RE-REVIEW COST

- #### A.
- Should ENGINEER be required to review a submittal more than twice because of failure of the submittal to meet the requirements of the Contract Documents, ENGINEER will record ENGINEER's expenses for performing all additional reviews. The OWNER will compensate ENGINEER for these additional services and deduct the amount paid from payments to CONTRACTOR.

END OF SECTION 013000

SECTION 013516 - ALTERATION PROJECT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes special procedures for alteration work.

1.2 DEFINITIONS

- A. Alteration Work: This term includes remodeling, renovation, repair, and maintenance work performed within existing spaces or on existing surfaces as part of the Project.
- B. Consolidate: To strengthen loose or deteriorated materials in place.
- C. Design Reference Sample: A sample that represents the Architect's prebid selection of work to be matched; it may be existing work or work specially produced for the Project.
- D. Dismantle: To remove by disassembling or detaching an item from a surface, using gentle methods and equipment to prevent damage to the item and surfaces; disposing of items unless indicated to be salvaged or reinstalled.
- E. Match: To blend with adjacent construction and manifest no apparent difference in material type, species, cut, form, detail, color, grain, texture, or finish; as approved by Architect.
- F. Refinish: To remove existing finishes to base material and apply new finish to match original, or as otherwise indicated.
- G. Repair: To correct damage and defects, retaining existing materials, features, and finishes. This includes patching, piecing-in, splicing, consolidating, or otherwise reinforcing or upgrading materials.
- H. Replace: To remove, duplicate, and reinstall entire item with new material. The original item is the pattern for creating duplicates unless otherwise indicated.
- I. Replicate: To reproduce in exact detail, materials, and finish unless otherwise indicated.
- J. Reproduce: To fabricate a new item, accurate in detail to the original, and from either the same or a similar material as the original, unless otherwise indicated.
- K. Retain: To keep an element or detail secure and intact.
- L. Strip: To remove existing finish down to base material unless otherwise indicated.

1.3 QUALITY ASSURANCE

- A. Fire-Prevention Plan: Prepare a written plan for preventing fires during the Work, including placement of fire extinguishers, fire blankets, rag buckets, and other fire-control devices during each phase or process. Coordinate plan with Owner's fire-protection equipment and requirements. Include fire-watch personnel's training, duties, and authority to enforce fire safety.
- B. Safety and Health Standard: Comply with ANSI/ASSP A10.6.

PART 2 - PRODUCTS - (Not Used)

PART 3 - EXECUTION

3.1 PROTECTION

- A. Temporary Protection of Materials to Remain:
 - 1. Protect existing materials with temporary protections and construction. Do not remove existing materials unless otherwise indicated.
 - 2. Do not attach temporary protection to existing surfaces except as indicated as part of the alteration work program.
- B. Comply with each product manufacturer's written instructions for protections and precautions. Protect against adverse effects of products and procedures on people and adjacent materials, components, and vegetation.
- C. Utility and Communications Services:
 - 1. Notify Owner, Architect, authorities having jurisdiction, and entities owning or controlling wires, conduits, pipes, and other services affected by alteration work before commencing operations.
 - 2. Disconnect and cap pipes and services as required by authorities having jurisdiction, as required for alteration work.
 - 3. Maintain existing services unless otherwise indicated; keep in service, and protect against damage during operations. Provide temporary services during interruptions to existing utilities.

3.2 PROTECTION FROM FIRE

- A. General: Follow fire-prevention plan and the following:
 - 1. Comply with NFPA 241 requirements unless otherwise indicated.
 - 2. Remove and keep area free of combustibles, including rubbish, paper, waste, and chemicals, unless necessary for the immediate work.
 - a. If combustible material cannot be removed, provide fire blankets to cover such materials.

- B. Heat-Generating Equipment and Combustible Materials: Comply with the following procedures while performing work with heat-generating equipment or combustible materials, including welding, torch-cutting, soldering, brazing, removing paint with heat, or other operations where open flames or implements using high heat or combustible solvents and chemicals are anticipated:
1. Obtain Owner's approval for operations involving use of open-flame or welding or other high-heat equipment. Notify Owner at least 72 hours before each occurrence, indicating location of such work.
 2. As far as practicable, restrict heat-generating equipment to shop areas or outside the building.
 3. Do not perform work with heat-generating equipment in or near rooms or in areas where flammable liquids or explosive vapors are present or thought to be present. Use a combustible gas indicator test to ensure that the area is safe.
 4. Use fireproof baffles to prevent flames, sparks, hot gases, or other high-temperature material from reaching surrounding combustible material.
 5. Prevent the spread of sparks and particles of hot metal through open windows, doors, holes, and cracks in floors, walls, ceilings, roofs, and other openings.
 6. Fire Watch: Before working with heat-generating equipment or combustible materials, station personnel to serve as a fire watch at each location where such work is performed. Fire-watch personnel shall have the authority to enforce fire safety. Station fire watch according to NFPA 51B, NFPA 241, and as follows:
 - a. Train each fire watch in the proper operation of fire-control equipment and alarms.
 - b. Prohibit fire-watch personnel from other work that would be a distraction from fire-watch duties.
 - c. Cease work with heat-generating equipment whenever fire-watch personnel are not present.
 - d. Have fire-watch personnel perform final fire-safety inspection each day beginning no sooner than 30 minutes after conclusion of work in each area to detect hidden or smoldering fires and to ensure that proper fire prevention is maintained.
 - e. Maintain fire-watch personnel at each area of Project site until two hours after conclusion of daily work.
- C. Fire-Control Devices: Provide and maintain fire extinguishers, fire blankets, and rag buckets for disposal of rags with combustible liquids. Maintain each as suitable for the type of fire risk in each work area. Ensure that nearby personnel and the fire-watch personnel are trained in fire-extinguisher and blanket use.

3.3 GENERAL ALTERATION WORK

- A. Record existing work before each procedure (preconstruction), and record progress during the work. Use digital preconstruction documentation photographs or video recordings.
- B. Perform surveys of Project site as the Work progresses to detect hazards resulting from alterations.
- C. Notify Architect of visible changes in the integrity of material or components whether from environmental causes including biological attack, UV degradation, freezing, or thawing or from structural defects including cracks, movement, or distortion.

1. Do not proceed with the work in question until directed by Architect.

3.4 CONTINUOUS USE OF HYDRONIC HEAT FOR POOL

- A. The school must maintain continuous operation of the hydronic system with limited shutdown.
- B. The contractor must confirm that the hydronic system continues to operate throughout the construction period.
- C. Any short duration shutdown in the system must be approved by St. Johns Public Schools prior to any shutdown taking place.
- D. A short duration shut-down in this document refers to discontinued hydronic operation of a period of 12 hours or less.

END OF SECTION 013516