

MAIL BIDS TO:	STAMFORD PUBLIC SCHOOLS PURCHASING DEPARTMENT P.O. BOX 9310 STAMFORD, CT 06901			
BID NUMBER:	B-4034			
REQUESTING DEPT:	PURCHASING			
TITLE OF BID:	DOMESTIC HOT-WATER HEATING INSTALLATION WITH OFCI DOMESTIC HOT WATER HEATERS FOR STAMFORD PUBLIC SCHOOLS			
BID OPENING:	DATE:	WEDNESDAY MAY 19, 2021		
	TIME:	<u>2:30 P.M.</u>		
	PLACE:	PURCHASING, 3 <sup>rd</sup> FLOOR 888 Washington Boulevard Stamford, CT 06901		
BID DEPOSIT:	NO			
PERFORMANCE BOND:	NO			
MAINTENANCE BOND:	NO			
PRE-BID/WALK THRU MANDATORY:	DATE:	WEDNESDAY MAY 5, 2021		
	TIME:	<u>11:00 A.M.</u>		
	PLACE:	<u>STILLMEADOW ELEMENTARY SCHOOL</u> 800 STILLWATER ROAD STAMFORD, CT 06902		

#### ALL ATTENDANCE MUST WEAR A FACEMASK

#### **4** COPIES OF RESPONSE REQUIRED

This Bid Specification was prepared to solicit sealed bids on behalf of the Stamford Public School Facilities Department from qualified responsible contractors for domestic hot-water heating systems at Northeast School, Springdale School, and Stillmeadow School. Contractor services shall include installation/replacement of hot-water heating systems and associated plumbing, electrical, and architectural items as more particularly described in the specifications appended hereto. The scope of work is delineated in the attached specifications provided for this project (Exhibit A).

Scope of work is delineated in the attached specifications provided for this project (Exhibit A). All terms and conditions, specifications and bid forms are attached hereto. The lowest responsible bidder may be required to attend a meeting with District officials prior to the awarding of the bid contract.

#### **B-4034**

#### DOMESTIC HOT-WATER HEATING INSTALLATION

#### Invitation to Bid/Overview of Services

- Stamford Public Schools (SPS) is soliciting sealed bids from qualified vendors to provide the installation of OFCI domestic hot water heaters with supporting infrastructure as shown on Exhibit "A." Examples of these specific services are outlined in more detail in "Scope of Services" section C and in "Exhibit A."
- Requests for proposals will be available at the purchasing department section of the Stamford Public Schools (SPS) website: <u>https://www.stamfordpublicschools.org/district/finance-purchasing/pages/rfps-and-bids</u> starting Wednesday April 28, 2021.
- Contracts shall be awarded to the individual, consultants, or organization whose proposal best meets all criteria listed in the bid.
- Proposals must be sealed and received by Wednesday May 19, 2021 at 2:30 P.M.
- Upon successful selection of a vendor, an award notification will be posted online at: <u>https://www.stamfordpublicschools.org/district/finance-purchasing/pages/rfp-contract-award-notification</u>
- **Insurance Requirements:** The selected proposer, upon the signing of the formal contract, will be required to deliver an insurance certificate in amounts, companies, and terms acceptable to the Risk Manager of the City of Stamford. Also, the District reserves the right to modify the insurance coverage amounts as well as policy types prior to the development of a contract. (*See section A.5 for further info*)

#### • Rejection of Proposals

Stamford Public Schools reserves the right to reject for any reason deemed to be in the District's best interest any and/or all proposals submitted under this Bid.

#### • Negotiated Changes

In the event negotiated changes occur after the awarding of the contract, the same pricing policies called for in the original contract will remain in effect.

#### • Selection Committee

For requests for proposals for services anticipated to exceed \$100,000, a selection committee shall be formed to review all proposals. The selection committee shall, if possible, interview the most qualified proposers. Bids over \$100,000 will require SPS Board of Education approval.

#### SAMPLE SCORING SHEET

Proposal Selection Criteria	Points
Understanding of Engagement	15
Qualifications and Experience of Proposer	25
Professional References	10
Proposed Fee Arrangements	50
Total (maximum 100 pts)	100

#### A. <u>GENERAL CONTRACT INFORMATION</u>

#### 1. Awarding the Contract (s)

The contract/s shall be awarded to the proposer whose proposal is deemed by the department head and/or selection committee to best provide the services desired, taking into account the requirements, terms and conditions contained in the request for proposals and the criteria for evaluating proposals. The SPS reserves the right to award this contract to one or multiple vendors provided that one vendor is financially beneficial to the district.

#### 2. Contract Agreement

The successful bidder will be required to enter into an Agreement with Stamford Public Schools for the completion of the contract. If so, a sample copy of the Agreement is available at the following website:

https://www.stamfordpublicschools.org/sites/g/files/vyhlif3841/f/uploads/sample\_agreement\_for\_boe\_rfp\_packages\_1.pdf The specifications of the proposal and the purchase order issued to the proposer shall serve as a contract where no formal written contract is required.

#### 3. Terms of Agreement

The Agreement and pricing shall remain in effect for the period beginning on June 1<sup>st</sup> 2021 and ending on August 14<sup>th</sup> 2021, with option to renew for one (1) additional year, at the sole discretion of the SPS. Thereafter, the Agreement shall remain in effect until such time that either party gives sixty (60) business days prior written notice of its intent to either extend or terminate the Agreement.

#### 4. Cancellation of the Contract

The Stamford Public Schools (SPS) reserves the right to cancel this contract, at any time, with sixty (60) days prior written notice to the consultant or organization, should any of the following conditions exist:

• Funds are not appropriated by the City of Stamford or the Stamford the Board of Education (SBOE) for the continuation of this contract. In the event that funds are not

available, any contract resulting from this Bid will become void and of no force or effect.

- The Stamford Public Schools (SPS), through changes in its requirements, method of operation, or program operation no longer has a need for the commodity or service.
- If the Contractor fails to fulfill its obligations under this contract properly and on time, or otherwise violates any provision of the contract, Stamford Public Schools may terminate the contract by written notice to the Contractor.
- As indicated in "sample contract on page 3" the SPS reserves the right to cancel for either cause or convenience.

#### 5. Provision for Required Insurance

The Vendor shall maintain insurance, which complies with the insurance requirements contained in this Contract between the Stamford Public Schools, Stamford, Connecticut and the vendor. Such insurance required to be maintained by the vendor shall include:

- 1. General liability, which contains limits of liability of \$1,000,000/\$2,000,000 combined single limit per occurrence and aggregate for property damage and bodily injury. Such insurance shall contain operations liability, contractual liability, which covers any indemnities contained in this Contract, personal injury and advertising liability and completed operations and products liability.
- 2. If working with children, sexual abuse and molestation coverage, which may be included in the general liability policy or be a standalone policy, with a minimum limit of liability of \$1,000,000.
- 3. Workers' compensation and employers liability, which covers the employees of the Vendor, if applicable. Employer's liability insurance, which contains limits of liability of not less than \$100,000 each accident, \$100,000 disease policy limit and \$100,000 disease each employee.
- 4. Professional liability, which covers the professional services of the Vendor.

The Stamford Public Schools, the City of Stamford and their employees, agents and officers shall be designated as additional insureds under the general liability policy. All insurance maintained by the Vendor shall be primary insurance, not excess or concurrent, with any insurance maintained by or on behalf of the Stamford Public Schools or City of Stamford. The Vendor agrees to hold the Stamford Public Schools, the City of Stamford, and their employees, agents, and officers, safe and harmless from liability during the performance of this contract, and provide a waiver of subrogation in favor of the Stamford Public Schools, the City of Stamford, and their employees, agents and officers. The Vendor shall provide the Stamford Public Schools with evidence of insurance, which complies with the insurance requirements hereunder.

#### 6.1 Non-Discrimination

(a) The contractor agrees and warrants that in the performance of the contract, it will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, sexual orientation, mental retardation or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the state of Connecticut. If the contract is for a public works project, the contractor agrees and warrants that it will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such project. The contractor further agrees to take affirmative action to ensure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, sexual orientation, mental retardation, or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved;

(b)The contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the contractor, to state that it is an "Affirmative Action-Equal Opportunity Employer" in accordance with regulations adopted by the Connecticut Commission on Human Rights and Opportunities ("CCHRO");

(c) The contractor agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such contractor has a contract or understanding, a copy of these provisions, advising the labor union or worker's representative of the contractor's commitments under these provisions and to post copies of the notice in conspicuous places available to employees and applicants for employment;

(d)The contractor agrees to comply with each provision of this section and Conn. Gen. Stat. Sections 4a-62, 32-9e, 46a-56 and 46a-68b to 46a-68k, inclusive, and with each regulation or relevant order issued by said CCHRO;

(e) The contractor agrees to provide the SPS with such information requested by the SPS, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor.

#### 6.2 Prime Contractor Responsibility

Vendors submitting proposals to this Bid may utilize the services of subcontractors. If subcontractors are planned to be used, this should be clearly explained in the proposal. The prime Proposer will be responsible for the entire contract performance whether or not a subcontractor is to perform.

All corporate information in this Bid must be included for each proposed subcontractor. The Proposal must also include copies of any agreements to be executed between the prime Proposer and any subcontractors in the event of contract award. Under this Bid, the Stamford Public Schools retains the right to approve all subcontractors.

#### 6.3 <u>Subcontractors</u>

The contractor shall include the provisions of subsection (6 and 6.1) in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the SPS and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by regulations or orders of the CCHRO. The contractor shall take such action with respect to any such subcontract or purchase order as the SPS may direct as a means of enforcing such provisions.

The contractor agrees to comply with the CCHRO's requirements as they exist on the date of this contract and as they may be adopted or amended from time to time during the term of this contract and any amendments thereto.

#### 6.4 Ambiguity in the Bid Specification

Prior to submitting the proposal, the contractor is responsible to bring to the SPS' attention any ambiguity in this Bid. Failure to do so shall result in the contractor forfeiting any claim for adjustment based on such ambiguity as should have been noted by a prudent contractor.

In the event of any ambiguity between the SPS' Bid and the proposer's proposal, then whatever shall be more favorable to the Stamford Public Schools as determined in the sole discretion of the SPS shall prevail and take precedence.

#### 6.5 <u>Ownership Information</u>

The Stamford Public Schools shall have unlimited rights to use, disclose, or duplicate, for any purpose whatsoever, all information developed, derived, documented or furnished by the contractor under any contract resulting from this Bid.

In the event of contract award, all data collected and other documentation procured as part of the contract will become the exclusive property of the Stamford Public Schools and may not be copied or removed by any employee of the contractor without written permission of the Stamford Public Schools.

#### 6.6 **<u>Proprietary Information</u>**

The Stamford Public Schools will not disclose any portion of the proposals except to members of the proposal evaluation team prior to contract award. The Stamford Public Schools retains the right to disclose the name of the successful proposer, the amount of contract, and any other information in the proposal that is pertinent to the selection of the contractor.

#### 6.7 Independent Project Cost Determination and Gratuities

By submission of an offer, the proposer certifies, that in connection with this proposal:

- The costs in this offer have been arrived at independently, without consultation, communication or agreement, for the purposes of restricting competition, as to any matter relating to such prices with any other proposer or competitor.
- The prices quoted in this offer will not change for a period of one hundred and twenty (120) days after the receipt date at the Stamford Public Schools of this offer.
- Unless otherwise required by law, the costs which have been quoted in this offer have not been knowingly disclosed by proposer and will not knowingly be disclosed by the proposer prior to award, directly or indirectly to any other proposer or to any competitor.
- No attempt has been made or will be made by the proposer to induce any other person or firm to submit or not to submit an offer for the purpose of restrictive competition.
- No elected official or appointed official or employee of the Stamford Public Schools or the City of Stamford shall benefit financially or materially from any contract awarded pursuant to this Bid.

#### 6.8 <u>Gifts</u>

During the term of this contract, including any extensions, the Contractor shall refrain from making gifts of money, goods, real or personal property or services to any appointed or elected official or employee of the City of Stamford or the Stamford Board of Education ("BOE") or any appointed or elected official or employee of their Boards, Commissions, Departments, Agencies or Authorities. All references to the Contractor shall include its officers, directors, employees, and owners of more than 5% equity in the contractor. Violation of this provision shall constitute a material breach of this Agreement, for which this Agreement may be summarily terminated.

#### 6.9 <u>Incurring Cost</u>

The Stamford Public Schools will not be held responsible for any costs incurred by the proposer for work performed in preparation and production of a proposal or for any work performed prior to the issuance of a contract.

#### 6.10 <u>Student Data Privacy</u>

To effect the transfer of data subject to FERPA, the Contractor agrees and acknowledges as follows:

**A.** The Contractor shall ensure compliance in all respects with the provisions of the Family Educational Rights and Privacy Act of 1974, 20 U.S.C. 1232g, ("FERPA") including any amendments or other relevant provisions of federal law, as well as all requirements of Chapter 99 of Title 34 of the Code of Federal Regulations. Nothing in this Agreement may be construed to allow either party to maintain, use, disclose or share student information in a manner not allowed by federal or state law or regulation.

**B.** Student information, student records and student-generated content, as those terms are defined pursuant to Connecticut General Statutes §10-234aa (collectively "student data"), are not the property or under the control of the Contractor;

**C.** The Board shall have access to and may request the deletion of student data in the possession of the Contractor except when such data is (A) otherwise prohibited from deletion or required to be retained under state or federal law, or (B) stored as a copy as part of a disaster recovery storage system and that is (i) inaccessible to the public, and (ii) unable to be used in the normal course of business by the Contractor, provided the Board may request the deletion of any such student data if such copy has been used by the operator to repopulate accessible data following a disaster recovery; at any time by notifying Contractor, in writing, of such request and identifying the information to be deleted;

**D.** The Contractor shall not use student data for any purposes other than those authorized pursuant to this Agreement with the Board;

**E.** The procedures by which a student, parent or legal guardian of a student may review personally identifiable information contained in student data and correct erroneous information, if any, in such student record is set forth in Board Policy, with specific reference to Policy 5115 (as may be amended from time to time) and its associated Regulation(s), a copy of which may be found at

http://www.stamfordpublicschools.org/district/board-education/pages/policy-handbook.

**F.** The Contractor shall take actions designed to ensure the security and confidentiality of student data;

**G.** The Contractor shall adhere to the following procedures to notify the Board in the event that there has been an unauthorized release, disclosure or acquisition of student data:

a. Upon the discovery of a breach of security that results in the unauthorized release, disclosure or acquisition of student information, excluding any directory information contained in such student information, the Contractor shall notify, without unreasonable delay, but not more than thirty days after such discovery, the Board in writing through the Superintendent of Schools of such breach of security. During such thirty-day period, the Contractor may (A) conduct an investigation to determine the nature and scope of such unauthorized release, disclosure or acquisition, and the identity of the students whose student information is involved in such unauthorized release, disclosure or acquisition, or (B) restore the reasonable integrity of the Contractor's data system.

b. Upon the discovery of a breach of security that results in the unauthorized release, disclosure or acquisition of directory information, student records or student-generated content, the Contractor shall notify, without unreasonable delay, but not more than sixty days after such discovery, the Board of such breach of security. During such sixty-day period, the Contractor may (A) conduct an investigation to determine the nature and scope of such unauthorized release, disclosure or acquisition, and the identity of the students whose directory information, student records or student-

generated content is involved in such unauthorized release, disclosure or acquisition, or (B) restore the reasonable integrity of the Contractor's data system.

**H.** Student data shall not be retained or available to the Contractor upon expiration of the Agreement between the Contractor and the Board, except a student, parent or legal guardian of a student may choose to independently establish or maintain an electronic account with the Contractor after the expiration of such Agreement for the purpose of storing student-generated content.

**I.** All student-generated content shall be the property of the student or the parent or legal guardian of the student.

**J.** The Contractor shall implement and maintain security procedures and practices designed to protect student information, student records and student-generated content from unauthorized access, destruction, use, modification or disclosure that, based on the sensitivity of the data and the risk from unauthorized access, (1) use technologies and methodologies that are consistent with the guidance issued pursuant to section 13402(h)(2) of Public Law 111-5, as amended from time to time, (2) maintain technical safeguards as it relates to the possession of student records in a manner consistent with the provisions of 45 CFR 164. 312, as amended from time to time and (3) otherwise meet or exceed industry standards.

**K.** The Contractor shall not use (1) student data for any purposes other than those authorized pursuant to this Agreement, or (2) personally identifiable information contained in student data to engage in targeted advertising.

**L.** The parties agree that this Agreement controls over any inconsistent terms of conditions contained within any other agreement entered into by the parties concerning student data.

**M.** If a court of competent jurisdiction finds that any provision of this Agreement is invalid, illegal or unenforceable, in any respect, then such invalidity, illegality or unenforceability shall not affect or impair any other remaining provisions of this Agreement, which shall remain in full force and effect. Moreover, if a court of competent jurisdiction finds that any provision of this Agreement is excessively broad, then such provision shall be construed by limiting it so as to be enforceable to the extent compatible with applicable law.

**N.** If a court of competent jurisdiction finds that any provision of this Agreement is invalid, illegal or unenforceable, in any respect, then such invalidity, illegality or unenforceability shall not affect or impair any other remaining provisions of this Agreement, which shall remain in full force and effect. Moreover, if a court of competent jurisdiction finds that any provision of this Agreement is excessively broad, then such provision shall be construed by limiting it so as to be enforceable to the extent compatible with applicable law.

#### 6.11 Code of Ethics

Vendor shall comply with the Stamford Municipal Code of Ethics as codified in Chapter 19 of the City of Stamford Code of Ordinances and shall be considered an "employee", as

defined in that Chapter, strictly for the purpose of compliance thereto. Vendor is prohibited from using its status as a vendor to derive any interest(s) or benefit(s) from other individuals or organizations.

#### 6.12 Off Contract Purchase

The District reserves the right to purchase items and/or products covered by this agreement from alternate sources, should, during the term of this agreement, the District obtain more favorable pricing from those alternate sources or determine that it is in its best interest to purchase an item from an alternate source. This Contract is not an exclusive Contract.

#### 6.13 Information on Bidders' Background

In addition to the specific information required to be submitted in direct response to this procurement, the Stamford Public Schools reserves the right to request certain additional information from any/all bidders, such as Dunn & Bradstreet reports, certified financial statements, lists and details on equipment and other important and necessary information and documents that will serve the best interest of the City, in the opinion of Superintendent of Schools and/or of the Purchasing Agent, in determining the capabilities of a contractor.

#### 6.14 Independent Contractor Status

It is the intent of this proposal that the successful bidder is an independent contractor, and not an employee or agent. Nothing in this proposal or the contract to be signed shall be interpreted or construed as creating or establishing the relationship of employer and employee between the Stamford Public Schools and the Agency, or any employee or agent of the Agency, or between the Agency and any agent or employee of the Board. Both parties acknowledge that the Agency will not be an employee for federal or state tax purposes.

#### B. <u>BACKGROUND</u>

SPS serves some 17,000 students in 21 schools, grades Pre K – 12. The district, which encompasses 2,850,000 square feet of space, contains 13 elementary schools. Of the existing 13 elementary schools, 11 include grades K-5, the new school is K-3 and one includes grades K-8; five middle schools with grades 6-8, and three high schools. Included in this mix are five magnet elementary schools, one magnet middle school, two large comprehensive high schools, a magnet technology and engineering high school, and two alternative high school programs.

#### C. <u>SCOPE OF SERVICES</u>

To install OFCI domestic hot-water heaters as shown on Exhibit "A" in accordance with the plans and specifications and to comply with all local laws and codes for AHJ. This is to include, but not be limited to: piping distribution, fittings, pipe-insulation, all supporting electrical wiring, required rigging and other work as required. Contractor to provide SPS B-4034 DHW Heating Systems Page 10 with a schedule showing the total time required for the complete installation of this work as shown on Exhibit "A" and referenced in this scope of work. Contractor is responsible for securing all required permits and inspections for a completed project. This project must be completed, with all required final inspections and invoicing not later than August 14, 2021.

#### D. <u>PLACE OF WORK</u>

Northeast Elementary School, 82 Scofieldtown Rd., Stamford, CT 06903

Stillmeadow Elementary School, 800 Stillwater Rd., Stamford, CT 06902

Springdale Elementary School, 1127 Hope St. Stamford, CT 06907

#### E. <u>SUBMISSION OF QUESTIONS</u>

Questions relating to this request for proposal must be submitted in writing (E-MAIL ONLY) to the following address <u>no later</u> than Tuesday May 11, 2021:

Stamford Public Schools David E. Patnaude Director of Facilities—Capital Projects <u>dpatnaude@stamfordct.gov</u>

#### F. <u>PROPOSAL SUBMISSION</u>

Four (4) complete sets of the proposal along with one (1) electronic copy (USB Drive) are to be submitted in a sealed envelope and received by the Purchasing Department, 3<sup>rd</sup> Floor, by Wednesday May 19, 2021 at 2:30 pm, and listing the following information on the outside of the envelope: B-4034 | Bidder's name and address | Proposal Due date. No telephone, electronic, or facsimile proposals will be considered. No proposals will be accepted after this time.

• Send your proposal to the attention of:

Stamford Public SchoolsAttn: 3rd Floor, Purchasing | B-4034 Domestic Hot Water Heating888 Washington Blvd.Stamford, CT 06901

Due Date: Bids must be received by 2:30 pm on Wednesday May 19, 2021.

The proposal should include:

1. Tax Exempt

The Stamford Public Schools is exempt from the payment of taxes imposed by the Federal Government and/or State of Connecticut. Such taxes must not be included in the bid price.

- 2. The "Official Response Form/Bid Form" attached must be completed.
- 3. The "Non-Collusion Affidavit" attached must be completed.
- 4. The "Contractor's Statement" attached must be completed.
- 5. The "Contractor's Verification" attached must be completed.
- 6. The "Notice To Bidders"
- 7. All material submitted in response to this bid will become public record and will be subject to inspection after Intent to Award notice is issued. Any material requested to be treated as proprietary or confidential must be clearly identified and easily separable from the rest of the proposal.
- 8. A proposal submitted in response to the bid shall constitute a binding offer. The autographic signature of the proposer shall indicate acknowledgement of this condition, or an officer legally authorized to execute contractual obligations. A submission in response to the bid acknowledges acceptance by the Proposer of all terms and conditions including compensation, as set forth herein. An Offeror shall identify clearly and thoroughly any variations between its proposal and the SPS's bid. Failure to do so shall be deemed a waiver of any rights to subsequently modify the terms of performance, except as outlined in the bid.

#### \*Failure to comply with all submission requirements may result in reduction of 5-10 points off the "Matrix of Qualifications" score. *For instance, not submitting an electronic copy (USB Drive).*

#### **B-4034 | DOMESTIC HOT-WATER HEATING INSTALLATION**

#### G. OFFICIAL RESPONSE FORM/BID FORM

Name of Consultant/Vendor	
Name/Title of Primary contact person	
Address of Vendor	
Phone Number of Vendor	
Contact Person e-mail for follow-up	
Number of Years' providing similar wor	·k:years

List of School/City based references for contracts of a similar nature, including contact names, school district and phone numbers (Contract size can be either # students served or annual dollar amount)

Reference District	Contact Name	Phone Number	<u>E-mail</u>	Contract Size
a)				
b)				
c)				
PRICING:	Northeast School	S <u>tillmeadow Scho</u>	<u>ol Sprin</u>	gdale School
	\$	\$	\$	
Additional Notes:				

#### Piggybacking

Stamford Public Schools would like to make the same pricing structures available to other departments or schools within the district, and other towns or municipalities. Bidders shall indicate whether they shall extend pricing. Inclusion is not mandatory and will have no bearing on the contract awarded.

a. Agree to extend to other City's Dept or Municipalities

b. Do not agree to extend to other City's Dept or Municipalities \_\_\_\_\_

#### H. NON-COLLUSION AFFIDAVIT

The undersigned, having been duly sworn, affirms and says that to the best of his/her knowledge and belief:

- 1. The prices in this Proposal have been arrived at independently without collusion, consultation, communication, or agreement with any other Proposer or with any competitor for the purpose of restricting competition.
- 2. Unless otherwise required by law, the prices, which have been quoted in this Proposal, have not been knowingly disclosed by the Proposer and will not knowingly be disclosed by the Proposer prior to opening, directly or indirectly, to any other Proposer or to any competitor.
- 3. No attempt has been made or will be made by the Proposer to induce any other person, partnership or corporation to submit or not to submit a Proposal for the purpose of restricting competition.

Name of Proposer:	
By:	
Print Name:	
Title:	

#### STATE OF CONNECTICUT Contractor Verification (in accordance with Public Act 16-67)

**Directions to Contractor:** Connecticut law requires that any contractor applying or bidding for a contract (including individuals who are independent contractors) with a local or regional board of education, a governing council of a state or local charter school, or inter-district magnet school operator require any employee with the contractor who would be in a position involving direct student contact to supply the contractor with the information provided in this form. Information may be collected either through a written communication or telephonically.

In addition, pursuant to Connecticut General Statutes (C.G.S.) § 10-222c, the contractor is required to contact – either telephonically or through written communication – any current or former employer of an employee if such employer was a local or regional board of education, a governing council of a state or local charter school, or inter-district magnet school operator or if the employment caused the employee to have contact with children, to request any information concerning whether there was a finding of abuse or neglect or sexual misconduct against the employee. If the contractor receives any information indicating such a finding, or otherwise has knowledge of such a condition, the contractor must immediately forward such information to any local or regional board of education with which the contractor is under contract.

**Directions to Employee of Contractor:** Pursuant to Connecticut state law, employees of a contractor who would be in a position involving direct student contact must supply all of the information provided in Section 2 of this form.

#### Section 1 – To be completed by Contractor

Name	
Street address	
City, State, Zip Code	
Contact person	
Telephone number/email address	

#### Section 2 – To be completed by Employee of Contractor

<u>Part A.</u> On a separate sheet of paper, please list the name, address and telephone number of each current or former employer, if such current or former employer was a local or regional board of education, a governing council of a state or local charter school, or inter-district magnet school operator, or if such employment otherwise caused you to have contact with children.

Part B. Please complete the questions below in their entirety.

Have you ever:



Been the subject of an abuse or neglect or sexual misconduct investigation by any employer, state agency or municipal police department (answer "no" if the investigation resulted in a finding that all allegations were unsubstantiated)?



Been disciplined or asked to resign from employment or resigned from or otherwise separated from any employment while an allegation of abuse or neglect was pending or under investigation by the Department of Children and Families (the "department"), or an

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allegation of sexual misconduct was pending or under investigation or due to an allegation substantiated pursuant to section 17a-101g of abuse or neglect, or of sexual misconduct or a conviction for abuse or neglect or sexual misconduct?

Had a professional or occupational license or certificate suspended or revoked or ever surrendered such a license or certificate while an allegation of abuse or neglect was pending or under investigation by the department or an investigation of sexual misconduct was pending or under investigation, or due to an allegation substantiated by the department of abuse or neglect or of sexual misconduct or a conviction for abuse or neglect or sexual misconduct?

**Part C – Written Consent and Disclosure Authorization.** I hereby authorize the entities I have listed in Section 2 of this form to release to the entity listed in Section 1 of this form the information required to be released by my previous employer pursuant to (C.G.S.) § 10-222c along with any related records. I hereby consent to and authorize disclosure by the State Department of Education of the information requested pursuant to C.G.S. § 10-222c, as amended by Public Act 16-67, and I hereby authorize the release by the State Department of Education of any related records. I further hereby release the above-named employer(s) and the State Department of Education from any and all liability of any kind that may arise from the disclosure or release of records requested pursuant to C.G.S. § 10-222c, as amended by Public Act 16-67.

Signature of Applicant

Date

#### NOTES:

The terms provided below are currently defined in state law as follows. Please note that statutes may be amended from time to time.

Sexual Misconduct means – "any verbal, nonverbal, written or electronic communication, or any other act directed toward or with a student that is designed to establish a sexual relationship with the student, including a sexual invitation, dating or soliciting a date, engaging in sexual dialog, making sexually suggestive comments, self-disclosure or physical exposure of a sexual or erotic nature and any other sexual, indecent or erotic contact with a student." Connecticut General Statutes § 10-222c(k).

Abuse or neglect means – "abuse or neglect as described in Section 46b-120, and includes any violation of Sections 53a-70, 53a-70a, 53a-71, 53a-72a, 53a-72b or 53a-73a." Connecticut General Statutes § 10-222c(k).

The Connecticut State Department of Education is an affirmative action/equal opportunity employer and does not discriminate on the basis of race, color, religion, sex, gender identity or expression, sexual orientation, marital status, national origin, ancestry, age, criminal record, political beliefs, genetic information, intellectual disability, past or present history of mental disability, learning disability, or physical disability, including, but not limited to, blindness or any other basis prohibited by Connecticut state and/or federal nondiscrimination laws.

#### **CONTRACTOR'S STATEMENT**

Pursuant to Section 103 .1 of the Stamford Code of Ordinances, I hereby provide the following:

If a joint venture, trustee, partnership, Limited Liability Company or partnership, the names and addresses of all joint venturers, beneficiaries, partners or members:

If a corporation, the names and addresses of all officers and the names and addresses of all parties owning over 10% of its common stock or over 10% of its preferred stock. If any of said stockholders is a holding corporation, the names and addresses of all persons owning a beneficial interest in over 10% of the common or preferred stock of said holding company.

The names and positions of all persons listed hereinabove who are elected or appointed officers or employees of the City of Stamford.

Name of
Bidder/Proposer:
Signature of Bidder/Proposer:
Title:
Company Name:
Address:

#### **NOTICE TO BIDDERS**

1. All bids will be opened promptly at the advertised time of opening. There can and will be no delays or postponements which are not publicly advertised. Any bid received after the advertised time of opening cannot be accepted.

#### 2. Obligation of bidders:

At the time of opening bids, each bidder shall be presumed to have inspected the sites, and to have read and made himself thoroughly familiar with the plans and contract documents including all addenda. The failure or omission of any bidder to receive or examine any form, instrument or document shall in no way relieve any bidder from any obligation in respect to his bid.

Each bidder must fully inform himself of the construction and labor conditions relating to the work which is now or will be performed. Failure to do so will not relieve the successful bidder of his obligation to furnish all labor and materials necessary to carry out the provision of the contract documents and to complete the contemplated work. Inasmuch as possible, the contractor must, in carrying out his work, employ such methods or means as will not cause any interruptions or interference with the work of any other contractor.

#### 3. Time is of the essence:

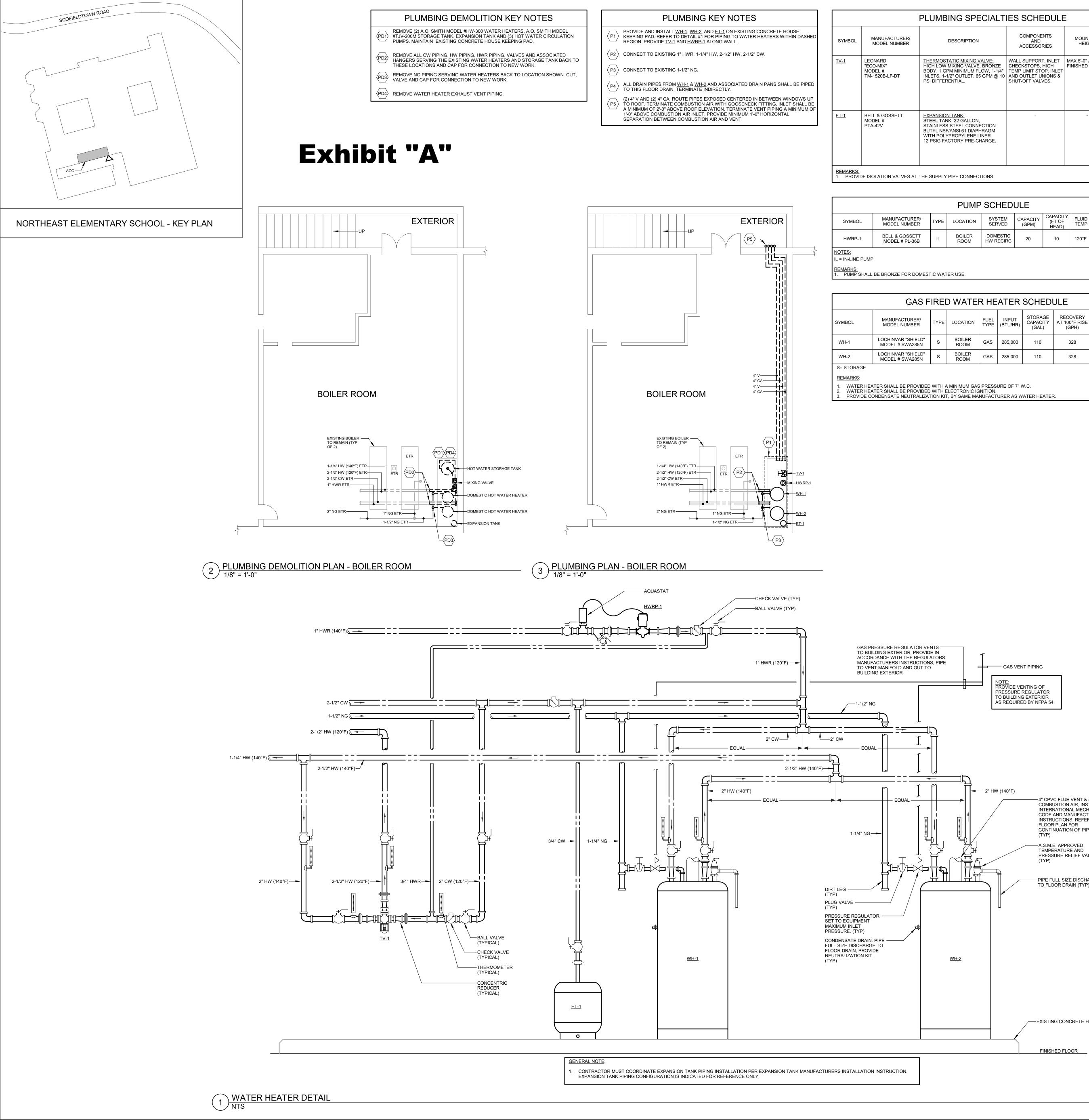
If the project is not completed by the date specified as the substantial completion date in the contract entered into by Stamford Public Schools and the Contractor, the Contractor shall pay all direct damages suffered by Stamford Public Schools and consequential and/or liquidated damages in the daily amount of 1/10 of 1% of the total contract value.

4. Stamford Public Schools is an Affirmative Action/Equal Opportunity Employer/purchaser. Small, Minority, Women and Disadvantaged Business Enterprises are encouraged to respond.

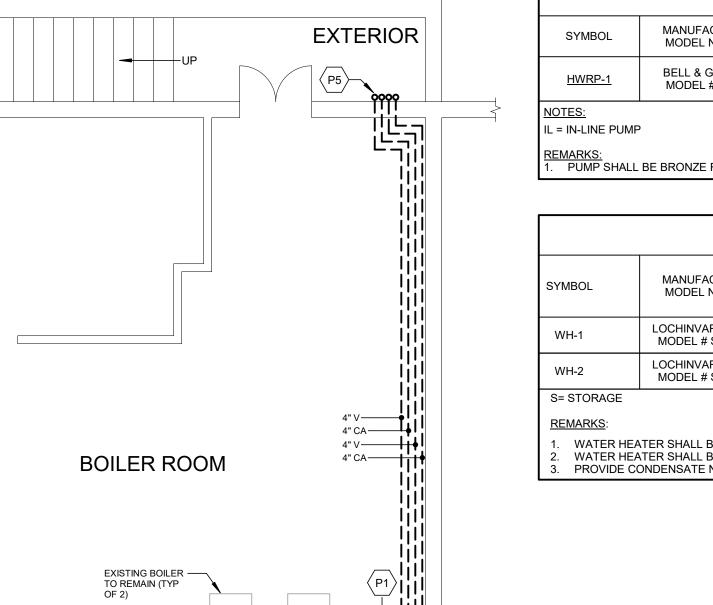
# SAMPLE CORPORATE RESOLUTION NEXT PAGE

(COMPANY LETTER	HEAD WITH LOGO HERE)
CORPORAT	E RESOLUTION
DATE:	
We, the undersigned, being all the Directors of	, organized and
evicting under the lower of	(Name of company)
(State)	, and naving its principal place of business a
(Compan	ıy's Address)
(Compan hereby certify that the following individuals are n	
hereby certify that the following individuals are r	
hereby certify that the following individuals are r	
hereby certify that the following individuals are r	
hereby certify that the following individuals are r	epresentatives of the company who can execute
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# **EXHIBIT A** (Key plans – 6 pages)



	PLUMBING SPECIALTIES SCHEDULE						
SYMBOL	MANUFACTURER/ MODEL NUMBER	DESCRIPTION	COMPONENTS AND ACCESSORIES	Mounting Height	REMARKS		
<u>TV-1</u>	LEONARD "ECO-MIX" MODEL # TM-1520B-LF-DT	THERMOSTATIC MIXING VALVE: HIGH LOW MIXING VALVE, BRONZE BODY. 1 GPM MINIMUM FLOW, 1-1/4" INLETS, 1-1/2" OUTLET. 65 GPM @ 10 PSI DIFFERENTIAL.	WALL SUPPORT, INLET CHECKSTOPS, HIGH TEMP LIMIT STOP. INLET AND OUTLET UNIONS & SHUT-OFF VALVES.	MAX 5'-0" ABOVE FINISHED FLOOR	#1		
ET-1 REMARKS:	BELL & GOSSETT MODEL # PTA-42V	EXPANSION TANK: STEEL TANK, 22 GALLON, STAINLESS STEEL CONNECTION. BUTYL NSF/ANSI 61 DIAPHRAGM WITH POLYPROPYLENE LINER. 12 PSIG FACTORY PRE-CHARGE.	-	-	#1		
1. PROVIE							



PUMP SCHEDULE						
LOCATION	SYSTEM SERVED	CAPACITY (GPM)	CAPACITY (FT OF HEAD)	FLUID TEMP	ELEC. DATA	REMARKS
BOILER ROOM	DOMESTIC HW RECIRC	20	10	120°F	1 PH / 115V / 1/6HP / 3300RPM	ALL

LOCATION	FUEL TYPE	INPUT (BTU/HR)	STORAGE CAPACITY (GAL)	RECOVERY AT 100°F RISE (GPH)	ELEC. DATA	REMARKS
BOILER ROOM	GAS	285,000	110	328	1 PH / 120V / 60 HZ	ALL
BOILER ROOM	GAS	285,000	110	328	1 PH / 120V / 60 HZ	ALL



# PLUMBING GENERAL NOTES

THESE GENERAL NOTES ARE APPLICABLE TO ALL PLUMBING DRAWINGS.

- DRAWINGS ARE DIAGRAMMATIC AND SHOW GENERAL INTENT OF WORK, SEE DETAILS, SCHEDULES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- CONTRACTOR MUST REVIEW DRAWINGS OF THE OTHER TRADES AS PART OF THIS CONTRACT FOR ADDITIONAL WORK REQUIRED AND OR COORDINATION OF HIS WORK FOR OPERATIONS OR CONNECTIONS TO OTHER SYSTEM.

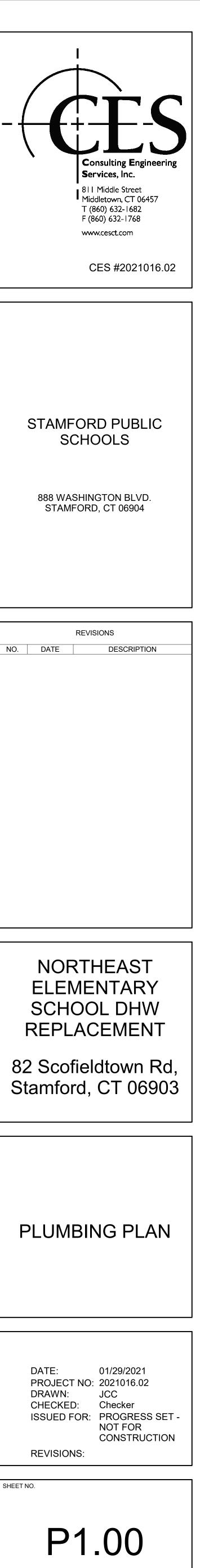
CONTRACTOR IS NOT RESPONSIBLE FOR ROOF PENETRATIONS OR REPAIR OF EXISTING PENETRATIONS. ALL ROOF WORK SHALL BE THE RESPONSIBILITY OF THE OWNER.

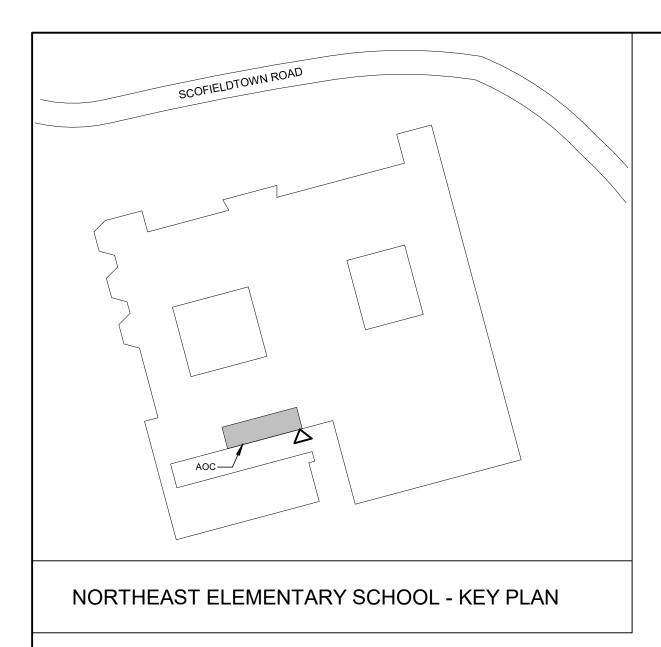
PLUMBING PIPING LEGEND			
SYMBOL	DESCRIPTION		
$\begin{array}{c} \begin{array}{c} \\ \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \\ \\ \end{array} \\ \\ \\ \\ \end{array} \\ \\ \\ \\ \\ \end{array} \\ \\ \\ \\ \\ \\ \end{array} \\$	COLD WATER HOT WATER HOT WATER RECIRCULATION NATURAL GAS FLUE VENT COMBUSTION AIR PIPE RISE PIPE DROP PIPE TEE TOWARDS (UP IN PLAN) PIPE TEE AWAY (DOWN IN PLAN) PIPE TEE AWAY (DOWN IN PLAN) PIPE DROP AND RUN DIRECTION OF FLOW DIRT LEG UNION OR FLANGE BLIND FLANGE END CAP REDUCER		

	GENERAL ABBREVIATIONS
AOC	AREA OF CONSTRUCTION
AD	ACCESS DOOR
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
ALT	ALTERNATE
AHJ	AUTHORITY HAVING JURISDICTION
AP	ACCESS PANEL
BAS	BUILDING AUTOMATION SYSTEM
BTU	BRITISH THERMAL UNIT
BTUH	BTU / HOUR
BOP	BOTTOM OF PIPE
CD	CONDENSATE DRAIN
CFH	CUBIC FEET PER HOUR
CI	CAST IRON
CO	CLEANOUT
CW	COLD WATER
DIA	DIAMETER
DN	DOWN
DSN	DOWN SPOUT NOZZLE
DW	DIRECT WASTE
ELEC	ELECTRICAL
ET	EXPANSION TANK
EWS	EMERGENCY EYEWASH/SHOWER
°F	DEGREES FAHRENHEIT
FCO	
FFE	FINISHED FLOOR ELEVATION
FGCO	FINISHED GRADE CLEANOUT
FLA	FULL LOAD AMPS
FLD	
FS	FLOOR SINK
FT FT WG	FEET FEET HEAD
G	GAS
GAL	GAS
GAL	GALLONS GALLONS PER HOUR
GPM	GALLONS PER HOUR
GSV	GAS SOLENOID VALVE
GW	GREASE WASTE
GV	GAS VENT
HB	HOSE BIB
HW	HOT WATER
HD	HEAD
HP	HORSEPOWER
HZ	HERTZ
HWR	HOT WATER RECIRCULATION
IW	INDIRECT WASTE
KW	KILOWATT
LAV	LAVATORY
MAX	MAXIMUM
MECH	MECHANICAL
MBH	THOUSAND BTU PER HOUR
MCA	MINIMUM CIRCUIT AMPACITY
MIN	MINIMUM
NIC	NOT IN CONTRACT
NG	NATURAL GAS
NTS	NOT TO SCALE
PCD	PUMPED CONDENSATE DRAIN
PLBG	PLUMBING
PSIG	POUNDS PER SQUARE INCH GAUGE
QTY	
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
RTU	
SAN	SANITARY
SQFT / SF	SQUARE FEET
TEMP	TEMPERATURE
TYP	TYPICAL

PLUMBING	SYMBOL LEGEND
SYMBOL	DESCRIPTION
Ā	OS&Y GATE VALVE
K	GATE VALVE
$\overset{\bullet}{\bowtie}$ $\overset{\bullet}{\bowtie}$	CHECK VALVE
5 tī	BALL VALVE
K	BALANCING VALVE
Ā	THERMOSTATIC MIXING VALVE
	GLOBE VALVE
ф.	BUTTERFLY VALVE
ц Ц ISI	PLUG VALVE
[S] [位]	EMERGENCY GAS SHUT-OFF VALVE
<b>F</b> <sup>2</sup> <sup>1</sup> <sup>6</sup>	RELIEF VALVE
μ	STRAINER
Ø	FLOOR DRAIN/FLOOR SINK/AREA DRAIN
$\bigcirc$	PUMP
<u>L-1</u>	FIXTURE TYPE
	THERMOMETER
	PRESSURE GAUGE
¥ X	PRESSURE REGULATOR
ф III	UNION
]	САР
	CONNECT TO EXISTING

-2"	$HVV(140^{\circ}F)$	
1		-4" CPVC FLUE VENT & 4" CPVC COMBUSTION AIR, INSTALL PER INTERNATIONAL MECHANICAL CODE AND MANUFACTURER'S INSTRUCTIONS. REFER TO FLOOR PLAN FOR CONTINUATION OF PIPING. (TYP)
		-A.S.M.E. APPROVED TEMPERATURE AND PRESSURE RELIEF VALVE (TYP)
		-PIPE FULL SIZE DISCHARGE TO FLOOR DRAIN (TYP)
		-EXISTING CONCRETE HOUSE KEEPING PAD





# Exhibit "A"

					MO	TOF	R / E	QUIPMEN	IT CIF	RCUIT S	SCHEDU	LE	
	0000	DANIEL			LOAD			LOCAL DISC.		MOTOR STA	RTER		DEMADIZO
EQUIPMENT	OCPD	PANEL H	HP	MCA	KW	PH	VOLT	SW	SIZE	TYPE	LOCATION	ON WIRING	REMARKS
HWRP-1	ETR	PP1A	1/6	2.1	-	1	115	MAN-1P	-	SPC	AT UNIT	2#12, #12G, 3/4"C (ETR)	#1
WH-1	ETR	PP1A	-	6.2	-	1	120	MAN-1P	-	SPC	AT UNIT	2#12, #12G, 3/4"C (ETR)	#1
WH-2	ETR	PP1A	-	6.2	-	1	120	MAN-1P	-	SPC	AT UNIT	2#12, #12G, 3/4"C (ETR)	#1
REMARKS:													

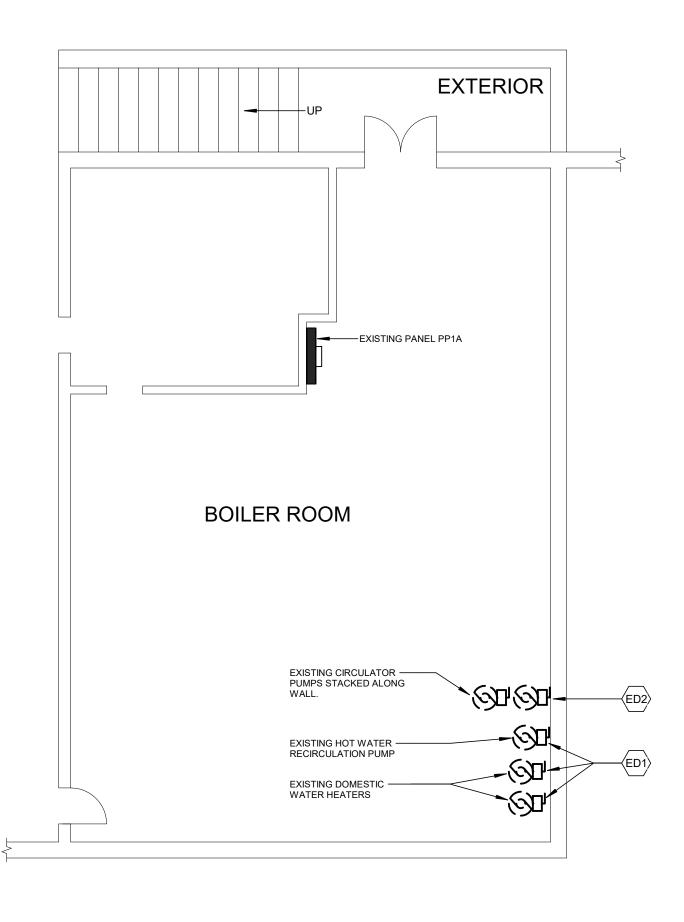
1. EQUIPMENT PROVIDED BY DIV. 22.

<u>GENERAL NOTES:</u> 1. DISCONNECT SWITCHES SHALL BE HEAVY-DUTY TYPE AND SHALL BE LOCATED AT EQUIPMENT LOCATION UNLESS OTHERWISE NOTED. ABBREVIATIONS:

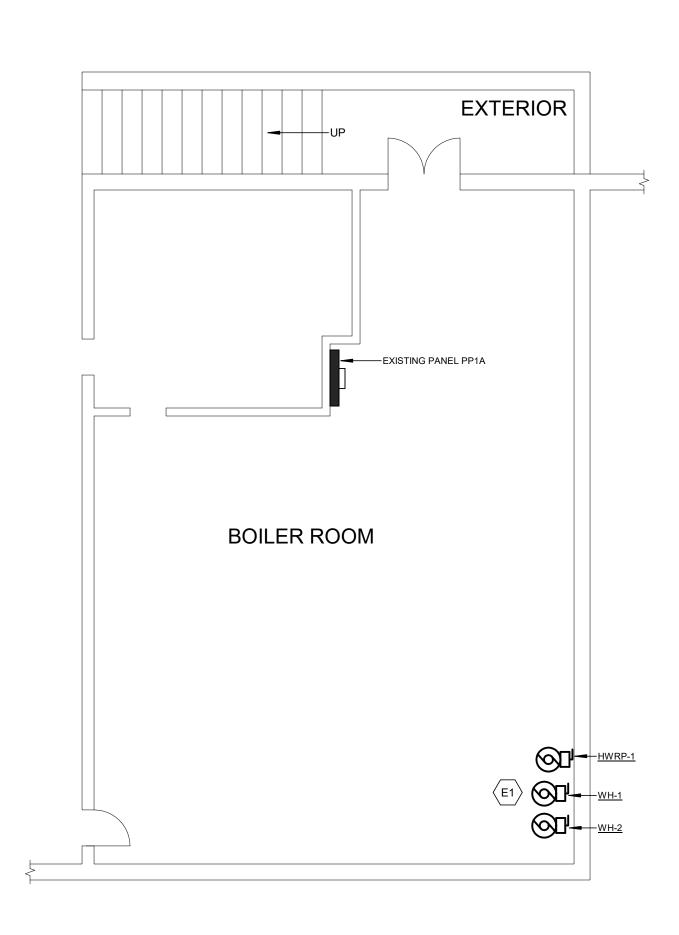
- Addreviations.
   MAN: MANUAL STARTER (TOGGLE SWITCH WITH THERMAL OVERLOADS)
   FVNR: COMBINATION FULL VOLTAGE NON-REVERSING STARTER/ DISCONNECT SWITCH
   VFD: VARIABLE FREQUENCY DRIVE, FURNISHED BY DIV. 23, WIRED BY DIV. 26. PROVIDE POWER WIRING FROM SOURCE PANELBOARD TO VFD AND FROM VFD TO MOTOR(S). COORDINATE EXACT LOCATION IN FIELD WITH DIV.23.
- DIV.21: EQUIPMENT FURNISHED BY DIVISION 21 FIRE PROTECTION CONTRACTOR
   DIV.22: EQUIPMENT FURNISHED BY DIVISION 22 PLUMBING CONTRACTOR
   DIV.23: EQUIPMENT FURNISHED BY DIVISION 23 HVAC CONTRACTOR
- DIV.23: EQUIPMENT FORNISHED BY DIVISION 23 HVAC CONTRACTOR
   SPC: SINGLE POINT CONNECTION (STARTERS INTEGRAL TO EQUIPMENT). COORDINATE EXACT POINT OF CONNECTION IN FIELD.
   OVERCURRENT PROTECTION DEVICES (OCPD) SHALL BE MOLDED CASE CIRCUIT BREAKERS UNLESS NOTED WITH AN "F" FOR FUSE.
   DISCONNECT SWITCHES AND STARTERS SHALL BE NEMA 3R RATED WHEN LOCATED OUTSIDE.
   REFER TO ELECTRICAL AND MECHANICAL PLANS FOR EXACT LOCATIONS OF EQUIPMENT.
   STARTERS SHALL BE SQUARE D CLASS 8536 OR APPROVED EQUAL.

ELECTRICAL DEMOLITION KEY NOTES DISCONNECT CONDUCTORS DISCONNECTION PUMP. CONDUCTORS SHALL BE CAPP RECONNECTION TO NEW EQUIPMENT IN THIS AREA.

ELECTRICAL KEY NOTES CONNECT NEW EQUIPMENT TO EXISTING CIRCUIT THAT WAS SERVING THE UNIT PREVIOUSLY LOCATED AT THIS LOCATION. PROVIDE A LOCAL DISCONNECT ADJACENT TO THE EQUIPMENT, RATED TO MATCH THAT OF THE ASSOCIATED EQUIPMENTS VOLTAGE, POLES AND LOAD.



2 ELECTRICAL DEMOLITION PLAN - BOILER ROOM 1/8" = 1'-0"





# **GENERAL NOTES - ELECTRICAL**

ALL DEVICES SHALL BE LABELED WITH SOURCE PANEL AND CIRCUIT NUMBER(S).

ELECTRICAL ABBREVIATIONS									
A/AMP AC AFCI ACU AFF AFG AHU AIC AL ATS AWG BSMT C CATV C/B CATV C/B CATV C/B CKT COMP CT CU CUH DN DN DWG ETR EF ELEC	AMPERE ALTERNATING CURRENT ARC FAULT CIRCUIT INTERRUPTER AIR CONDITIONING UNIT ABOVE FINISHED FLOOR ABOVE FINISHED GRADE AIR HANDLING UNIT AMPS INTERRUPTING CURRENT ALUMINUM AUTOMATIC TRANSFER SWITCH AMERICAN WIRE GAUGE BASEMENT CONDUIT CABLE TELEVISION CIRCUIT BREAKER CIRCUIT COMPRESSOR CONDENSATE PUMP CURRENT TRANSFORMER CONDENSING UNIT, COPPER CABINET UNIT HEATER DEGREE DIAMETER DOWN DRAWING EXISTING TO REMAIN EXHAUST FAN ELECTRICAL	JB KCMIL KVA KW MAX MAU MCB MCC MCCB MH MIN MLO NA NEC NIC NIC NIC NIC NIC NIC NIC NIC NIC NI	JUNCTION BOX THOUSAND CIRCULAR MILS KILOVOLT AMPERE KILOWATT MAXIMUM MAKE UP AIR UNIT MAIN CIRCUIT BREAKER MOTOR CONTROL CENTER MOLDED CASE CIRCUIT BREAKER METAL HALIDE MINIMUM MAIN LUGS ONLY NOT APPLICABLE NATIONAL ELECTRIC CODE NOT IN CONTRACT NEW LOCATION OF EXISTING RELOCATED NEW TO REPLACE EXISTING NOT TO SCALE POLE PRIMARY ELECTRICAL SERVICE POWER FACTOR PHASE PANEL POLYVINYL CHLORIDE CONDUIT REMOVE EXISTING RIGID GALVANIZED STEEL CONDUIT RELOCATE EXISTING ROOM						
ELEV EMT EUH EWC	ELEVATOR ELECTRIC METALLIC TUBING ELECTRIC UNIT HEATER ELECTRIC WATER COOLER	RR RTU SE	REMOVE AND REPLACE ON NEW SURFACE ROOFTOP UNIT SECONDARY ELECTRICAL SERVICE						
EWC EWH F FA	ELECTRIC WATER COOLER ELECTRIC WATER HEATER FAHRENHEIT FIRE ALARM	SPEC SWBD SPD TELE	SPECIFICATION SWITCHBOARD SURGE PROTECTION DEVICE TELECOMMUNICATIONS/TELEPHONE						
FACP FC	FIRE ALARM CONTROL PANEL	TV T/TX	TELEVISION TRANSFORMER						

FAN COIL UNIT

HORSE POWER

ISOLATED GROUND

HIGH PRESSURE SODIUM

GROUND FAULT CIRCUIT INTERRUPTER

GROUND

HOUR

HERTZ

INCHES

FCU

GFCI

HPS HR HZ IG

HP

S ASSOCIATED WITH (2) DOMESTIC WATER HEATERS AND (1) HOT WATER	
NDUCTORS SHALL BE CAPPED AND MADE SAFE FOR FUTURE	

DISCONNECT CONDUCTORS ASSOCIATED WITH (2) CIRCULATION PUMPS STACKED ALONG WALL. CONDUCTORS AND ASSOCIATED RACEWAY SHALL BE REMOVED BACK TO PANEL OF ORIGIN.

ELECTRICAL SYMBOL LIST						
SYMBOL	DESCRIPTION					
	SURFACE MOUNTED PANELBOARD					
	RECESSED PANELBOARD					
	DISCONNECT SWITCH					
$\Box$	FUSED DISCONNECT SWITCH					
$\boxtimes$	COMBINATION MOTOR STARTER AND DISCONNECT SWITCH					
$\boxtimes$	MOTOR STARTER OR CONTACTOR					
\$ м	MANUAL MOTOR STARTER					
$\odot$	MOTOR (REFER TO MOTOR CIRCUIT SCHEDULE FOR POWER REQUIREMENTS)					

T/TX TYP

UH

VA

VAC W

WG WP

V

VOLT AMPERE VOLTS ALTERNATING CURRENT

UNIT HEATER

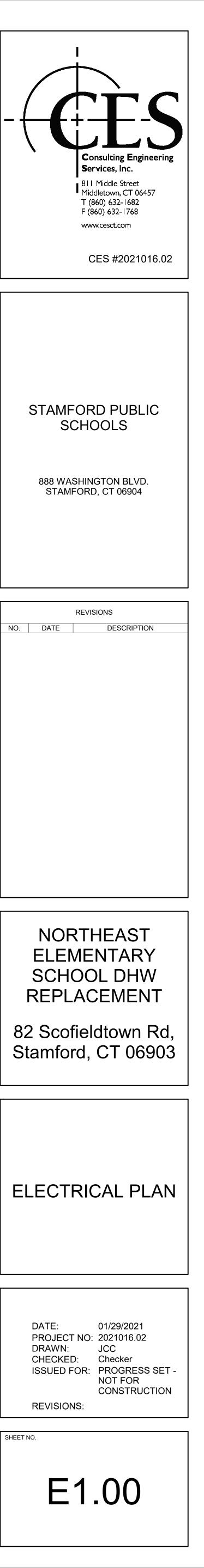
WATT, WIRE

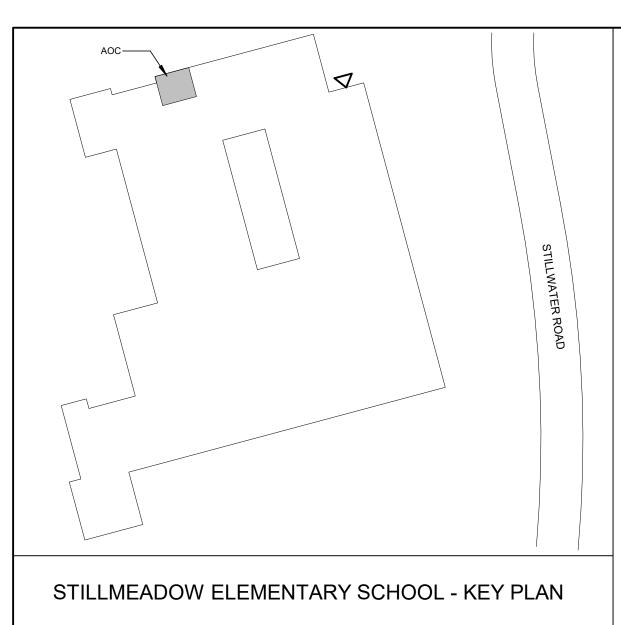
WIRE GUARD

WEATHERPROOF

TYPICAL

VOLTS





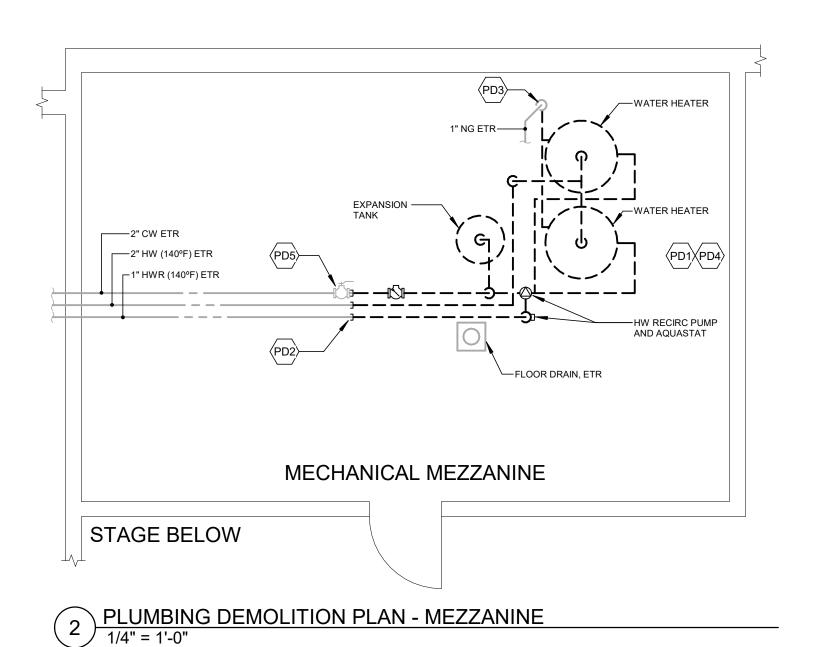
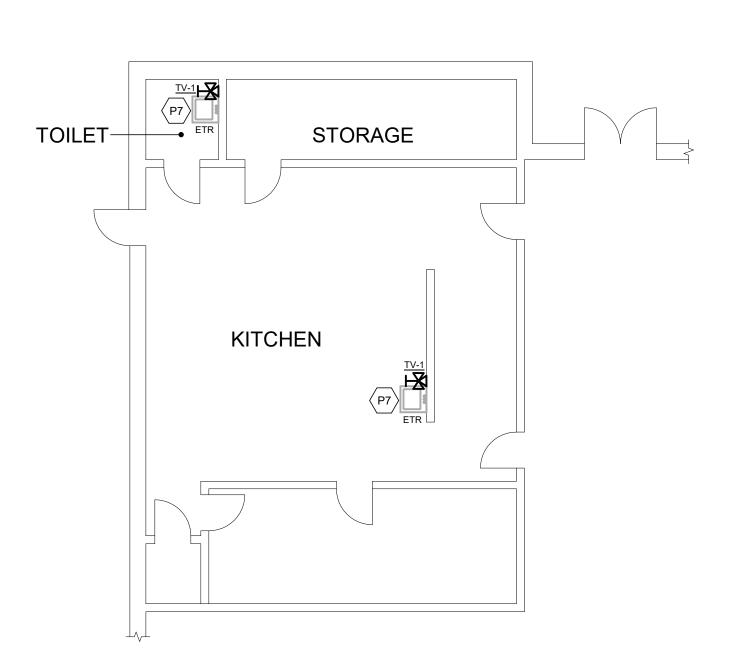


Exhibit "A"



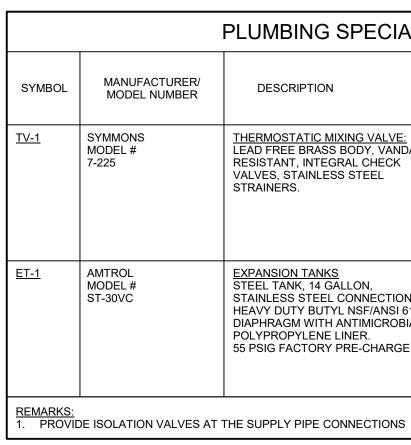


## PLUMBING DEMOLITION KEY NOTES

- REMOVE (2) EXISTING WATER WATERS, DRAIN PANS, EXPANSION TANK, RECIRC (PD1) PUMP AND AQUASTAT. ALL DRAIN PIPING SERVING THE WATER HEATERS AND DRAIN PANS SHALL BE REMOVED.
- REMOVE ALL CW PIPING, HW PIPING, HWR PIPING, VALVES AND ASSOCIATED (PD2) REMOVE ALL OW FIFING, IN FIFING, INTERING, VALVES ALL OW FIFING, THE HANGERS BACK TO THIS LOCATION AND CAP FOR CONNECTION TO NEW WORK.
- PD3>REMOVE NG PIPING SERVING WATER HEATERS BACK TO VERTICAL PIPE RISE. CUT,<br/>VALVE AND CAP NG PIPING ~6'-0" ABOVE FLOOR ELEVATION.
- PD4 REMOVE WATER HEATER EXHAUST VENT PIPING BACK TO ~2'-0" BEFORE ROOF PENETRATION AND CAP.
- (PD5) EXISTING CW SHUT-OFF VALVE TO REMAIN

## PLUMBING KEY NOTES

- $\langle P1 \rangle$  REFER TO DETAIL #1 ON THIS DRAWING FOR PIPING TO WATER HEATERS.
- $\langle P2 \rangle$  CONNECT TO EXISTING 1" NG.
- $\langle P3 \rangle$  CONNECT TO EXISTING 2" CW, 2" HW, 1" HWR.
- P4ALL DRAIN PIPES FROM WH-1 & WH-2 AND ASSOCIATED DRAIN PANS SHALL BE PIPEDTO THIS FLOOR DRAIN, TERMINATE INDIRECTLY.
- 4" V AND 4" CA FROM WH-1, 4" V AND 4" CA FROM WH-2. PENETRATE THROUGHEXTERIOR WALL, CENTERED IN BETWEEN EXISTING LOUVERS.
- (2) 4" V AND (2) 4" CA UP ALONG SIDE OF BUILDING. TERMINATE COMBUSTION AIR WITH GOOSENECK FITTING, INLET SHALL BE A MINIMUM OF 2'-0" ABOVE ROOF ELEVATION. TERMINATE VENT PIPING A MINIMUM OF 1'-0" ABOVE COMBUSTION AIR INLET. PROVIDE MINIMUM 1'-0" HORIZONTAL SEPARATION BETWEEN COMBUSTION AIR AND VENT.
- $\begin{tabular}{|c|c|c|c|c|} \hline PROVIDE $\underline{TV-1}$ ON DOMESTIC WATER SUPPLY PIPING TO HAND SINK. SET $$TEMPERATURE TO 105^{\circ}F. $$ \end{tabular}$

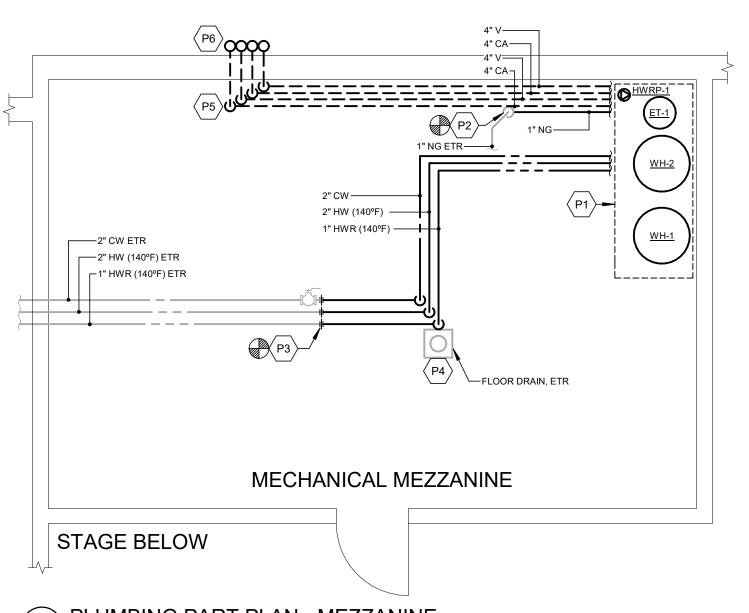


PUMP SCHEDULE									
SYMBOL	MANUFACTURER/ MODEL NUMBER	TYPE	LOCATION	SYSTEM SERVED	CAPACITY (GPM)	CAPACITY (FT OF HEAD)	FLUID TEMP	ELEC. DATA	REMARKS
HWRP-1	BELL & GOSSETT MODEL # PL-30B	IL	MECHANICAL ROOM	DOMESTIC HW RECIRC	20	10	140°F	1 PH / 115V / 1/12HP / 2650RPM	ALL

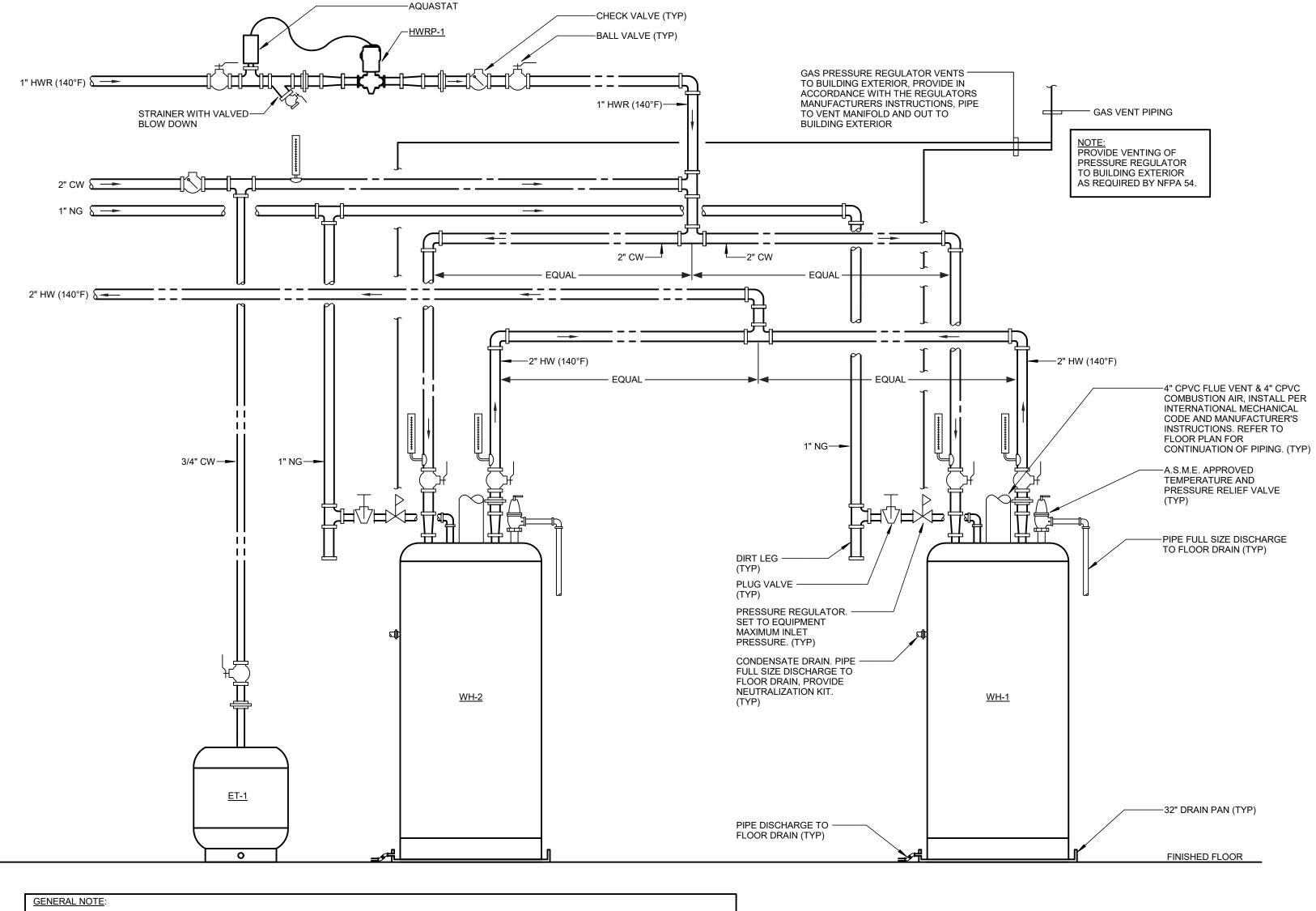
REMARKS: 1. PUMP SHALL BE BRONZE FOR DOMESTIC WATER USE.

GAS FIRED WATER HEATER SCHEDULE									
SYMBOL	MANUFACTURER/ MODEL NUMBER	TYPE	LOCATION	FUEL TYPE	INPUT (BTU/HR)	STORAGE CAPACITY (GAL)	RECOVERY AT 100°F RISE (GPH)	ELEC. DATA	REMARK
WH-1	LOCHINVAR "SHIELD" MODEL # SWA150N	s	MEZZANINE	GAS	150,000	90	175	1 PH / 120V / 60 HZ	ALL
WH-2	LOCHINVAR "SHIELD" MODEL # SWA150N	S	MEZZANINE	GAS	150,000	90	175	1 PH / 120V / 60 HZ	ALL
S= STORAGE									
REMARKS:									

WATER HEATER SHALL BE PROVIDED WITH ELECTRONIC IGNITION.



3 PLUMBING PART PLAN - MEZZANINE 1/4" = 1'-0"



CONTRACTOR MUST COORDINATE EXPANSION TANK PIPING INSTALLATION PER EXPANSION TANK MANUFACTURERS INSTALLATION INSTRUCTION. EXPANSION TANK PIPING CONFIGURATION IS INDICATED FOR REFERENCE ONLY.

# 1 WATER HEATER DETAIL NTS

IG SPECIALTIES SCHEDULE

PTION	COMPONENTS AND ACCESSORIES	Mounting Height	REMARKS				
ATIC MIXING VALVE: BRASS BODY, VANDAL INTEGRAL CHECK AINLESS STEEL	-	MOUNT BELOW FIXTURE.	#1				
TANKS (, 14 GALLON, STEEL CONNECTION. Y BUTYL NSF/ANSI 61 WITH ANTIMICROBIAL (LENE LINER. TORY PRE-CHARGE.	-	-	#1				

# WATER HEATER SHALL BE PROVIDED WITH A MINIMUM GAS PRESSURE OF 7" W.C.

PROVIDE OATEY MODEL #34193 ALUMINUM DRAIN PAN WITH DRAIN HOLE AND FITTING. PROVIDE CONDENSATE NEUTRALIZATION KIT, BY SAME MANUFACTURER AS WATER HEATER.

### PLUMBING GENERAL NOTES

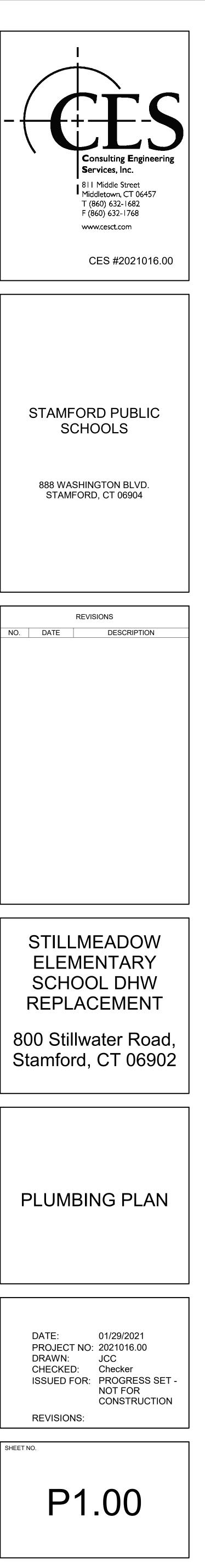
THESE GENERAL NOTES ARE APPLICABLE TO ALL PLUMBING DRAWINGS.

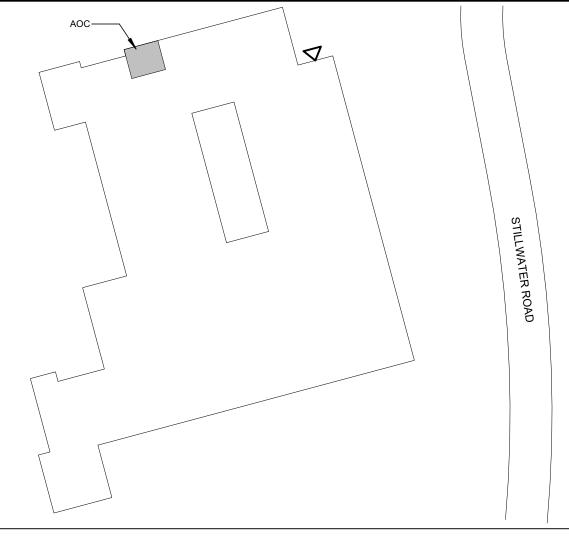
- DRAWINGS ARE DIAGRAMMATIC AND SHOW GENERAL INTENT OF WORK, SEE DETAILS, SCHEDULES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- CONTRACTOR MUST REVIEW DRAWINGS OF THE OTHER TRADES AS PART OF THIS CONTRACT FOR ADDITIONAL WORK REQUIRED AND OR COORDINATION OF HIS WORK FOR OPERATIONS OR CONNECTIONS TO OTHER SYSTEM.
- CONTRACTOR IS NOT RESPONSIBLE FOR ROOF PENETRATIONS OR REPAIR OF EXISTING PENETRATIONS. ALL ROOF WORK SHALL BE THE RESPONSIBILITY OF THE OWNER.

PLUMBING PIPING LEGEND						
SYMBOL	DESCRIPTION					
SYMBOL	COLD WATER HOT WATER HOT WATER RECIRCULATION NATURAL GAS FLUE VENT COMBUSTION AIR PIPE RISE PIPE DROP PIPE TEE TOWARDS (UP IN PLAN) PIPE TEE AWAY (DOWN IN PLAN) PIPE TEE AWAY (DOWN IN PLAN) DIRECTION OF FLOW DIRT LEG UNION OR FLANGE					
·	END CAP REDUCER					

	GENERAL ABBREVIATIONS
AOC	AREA OF CONSTRUCTION
AD	ACCESS DOOR
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
ALT	ALTERNATE
AHJ	AUTHORITY HAVING JURISDICTION
AP	ACCESS PANEL
BAS	BUILDING AUTOMATION SYSTEM
BTU	BRITISH THERMAL UNIT
BTUH	BTU / HOUR
BOP	BOTTOM OF PIPE
CD	CONDENSATE DRAIN CUBIC FEET PER HOUR
CFH CI	COBIC FEET FER HOUR
CO	CLEANOUT
cw	COLD WATER
DIA	DIAMETER
DN	DOWN
DSN	DOWN SPOUT NOZZLE
DW	DIRECT WASTE
ELEC	ELECTRICAL
ET	EXPANSION TANK
EWS	EMERGENCY EYEWASH/SHOWER
°F	
FCO	
FFE	FINISHED FLOOR ELEVATION
FGCO FLA	FINISHED GRADE CLEANOUT FULL LOAD AMPS
FLD	FLOOR DRAIN
FS	FLOOR SINK
FT	FEET
FT WG	FEET HEAD
G	GAS
GAL	GALLONS
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GSV	GAS SOLENOID VALVE
GW GV	GREASE WASTE GAS VENT
HB	HOSE BIB
HW	HOT WATER
HD	HEAD
HP	HORSEPOWER
HZ	HERTZ
HWR	HOT WATER RECIRCULATION
IW	INDIRECT WASTE
KW	KILOWATT
LAV	LAVATORY
MAX	MAXIMUM
MECH	
MBH MCA	THOUSAND BTU PER HOUR MINIMUM CIRCUIT AMPACITY
MIN	MINIMUM
NIC	NOT IN CONTRACT
NG	NATURAL GAS
NTS	NOT TO SCALE
PCD	PUMPED CONDENSATE DRAIN
PLBG	PLUMBING
PSIG	POUNDS PER SQUARE INCH GAUGE
QTY	QUANTITY
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
RTU	ROOFTOP UNIT
SAN	SANITARY
SQFT / SF TEMP	SQUARE FEET TEMPERATURE
TYP	TYPICAL

PLUMBING	PLUMBING SYMBOL LEGEND						
SYMBOL	DESCRIPTION						
Ā	OS&Y GATE VALVE						
$\bowtie$	GATE VALVE						
$\stackrel{\bullet}{\bowtie}$	CHECK VALVE						
	BALL VALVE						
$\bowtie$	BALANCING VALVE						
$\overline{\mathbf{A}}$	THERMOSTATIC MIXING VALVE						
$\overline{\mathbf{A}}$	GLOBE VALVE						
ф	BUTTERFLY VALVE						
r <del>(</del> 5 IS1	PLUG VALVE						
[s] 成 2	EMERGENCY GAS SHUT-OFF VALVE						
	RELIEF VALVE						
μ <del>ζι</del>	STRAINER						
O	FLOOR DRAIN/FLOOR SINK/AREA DRAIN						
$\bigcirc$	PUMP						
<u>L-1</u>	FIXTURE TYPE						
	THERMOMETER						
	PRESSURE GAUGE						
Ā Ā	PRESSURE REGULATOR						
()	UNION						
C	САР						
	CONNECT TO EXISTING						





# STILLMEADOW ELEMENTARY SCHOOL - KEY PLAN

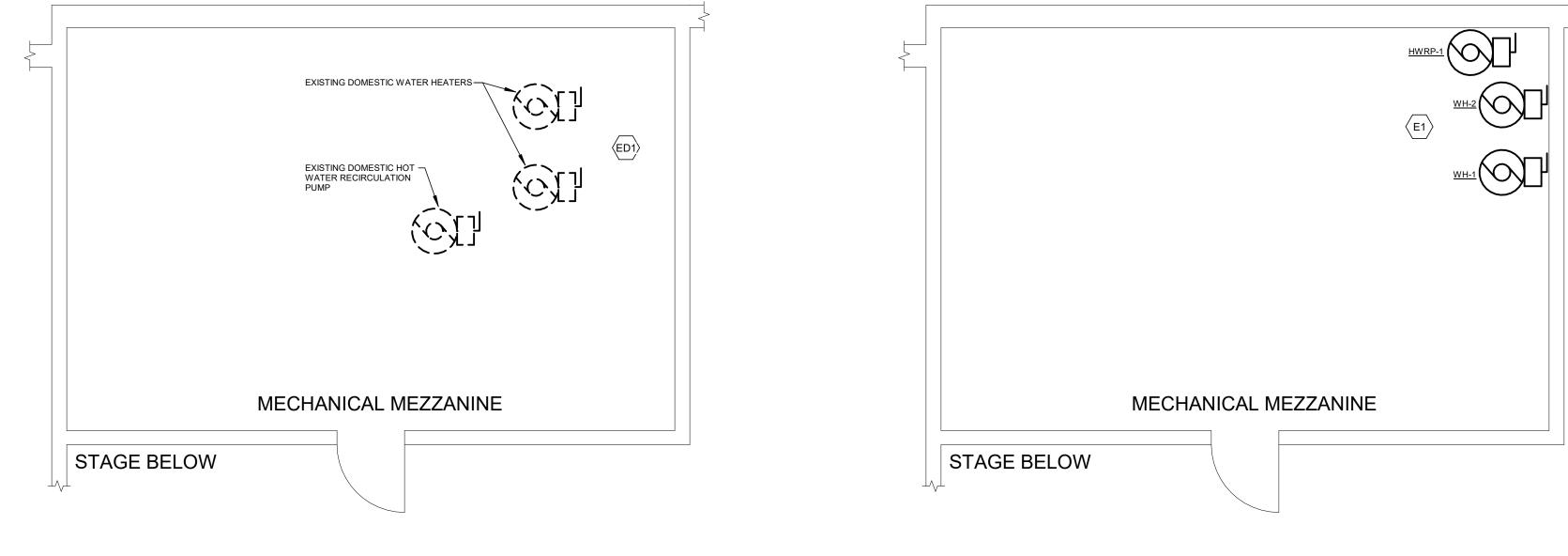


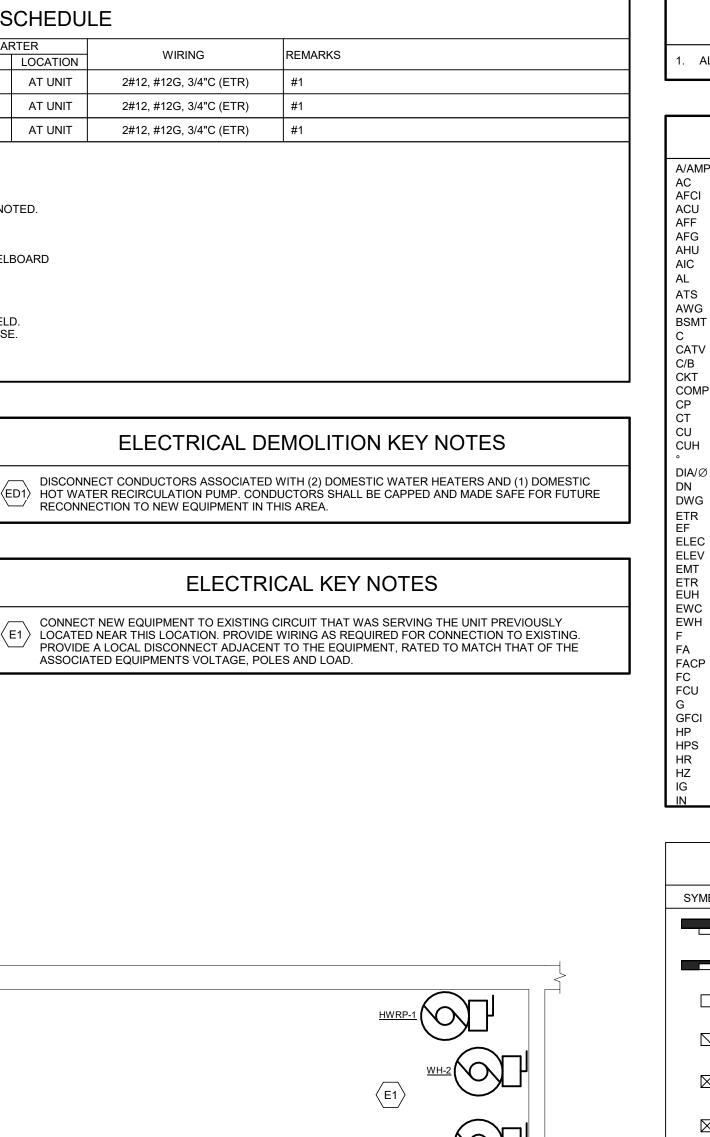
Exhibit "A"

					MO	TOF	R / E	QUIPMEN	T CIF	RCUIT S	SCHEDU	LE	
	0000			_	LOAD			LOCAL DISC.	MOTOR STARTER				
EQUIPMENT	OCPD	PANEL	PANEL	HP	MCA	KW	PH	VOLT	sw	SIZE	TYPE	LOCATION	WIRING
HWRP-1	ETR	PP1A	1/12	1.4	-	1	115	MAN-1P	-	SPC	AT UNIT	2#12, #12G, 3/4	
WH-1	ETR	PP1A	-	2.5	-	1	120	MAN-1P	-	SPC	AT UNIT	2#12, #12G, 3/4	
WH-2	ETR	PP1A	-	2.5	-	1	120	MAN-1P	-	SPC	AT UNIT	2#12, #12G, 3/4	

1. EQUIPMENT PROVIDED BY DIV. 22.

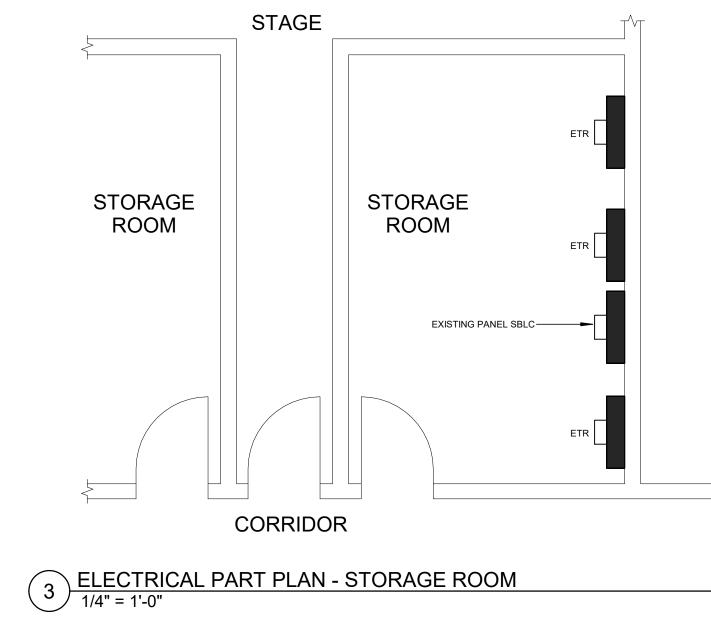
<u>GENERAL NOTES:</u> 1. DISCONNECT SWITCHES SHALL BE HEAVY-DUTY TYPE AND SHALL BE LOCATED AT EQUIPMENT LOCATION UNLESS OTHERWISE NOTED. 2. ABBREVIATIONS:

- Abdreviations.
   MAN: MANUAL STARTER (TOGGLE SWITCH WITH THERMAL OVERLOADS)
   FVNR: COMBINATION FULL VOLTAGE NON-REVERSING STARTER/ DISCONNECT SWITCH
   VFD: VARIABLE FREQUENCY DRIVE, FURNISHED BY DIV. 23, WIRED BY DIV. 26. PROVIDE POWER WIRING FROM SOURCE PANELBOARD TO VFD AND FROM VFD TO MOTOR(S). COORDINATE EXACT LOCATION IN FIELD WITH DIV.23.
- DIV.21: EQUIPMENT FURNISHED BY DIVISION 21 FIRE PROTECTION CONTRACTOR
   DIV.22: EQUIPMENT FURNISHED BY DIVISION 22 PLUMBING CONTRACTOR
   DIV.23: EQUIPMENT FURNISHED BY DIVISION 23 HVAC CONTRACTOR
- DIV.23: EQUIPMENT FORNISHED BY DIVISION 23 INVAC CONTRACTOR
  SPC: SINGLE POINT CONNECTION (STARTERS INTEGRAL TO EQUIPMENT). COORDINATE EXACT POINT OF CONNECTION IN FIELD.
  OVERCURRENT PROTECTION DEVICES (OCPD) SHALL BE MOLDED CASE CIRCUIT BREAKERS UNLESS NOTED WITH AN "F" FOR FUSE.
  DISCONNECT SWITCHES AND STARTERS SHALL BE NEMA 3R RATED WHEN LOCATED OUTSIDE.
  REFER TO ELECTRICAL AND MECHANICAL PLANS FOR EXACT LOCATIONS OF EQUIPMENT.
  STARTERS SHALL BE SQUARE D CLASS 8536 OR APPROVED EQUAL.



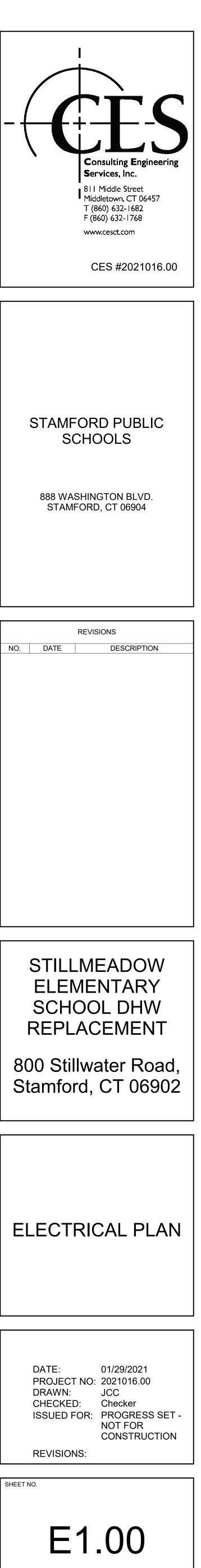
1 ELECTRICAL DEMOLITION PLAN - MEZZANINE 1/4" = 1'-0"



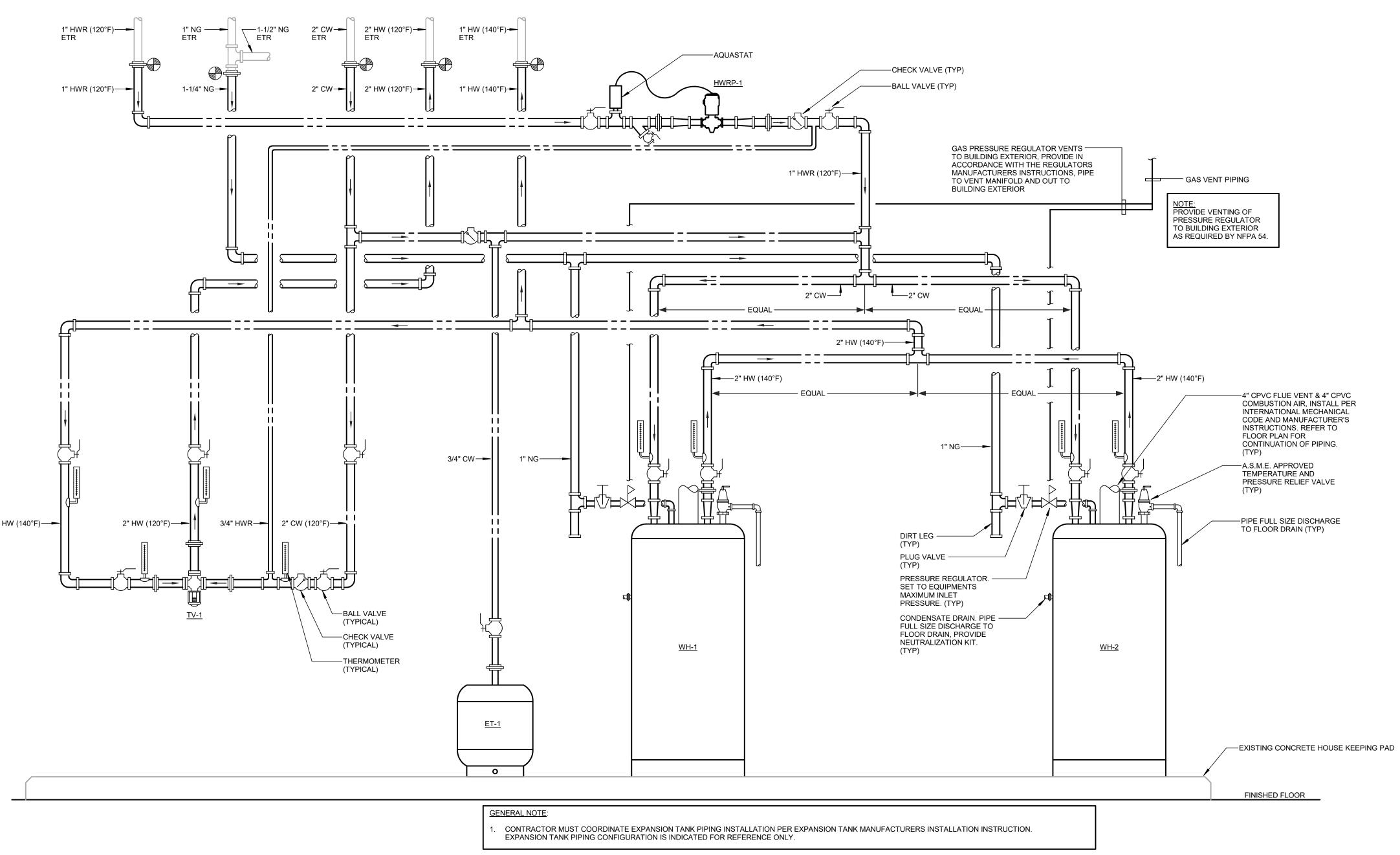


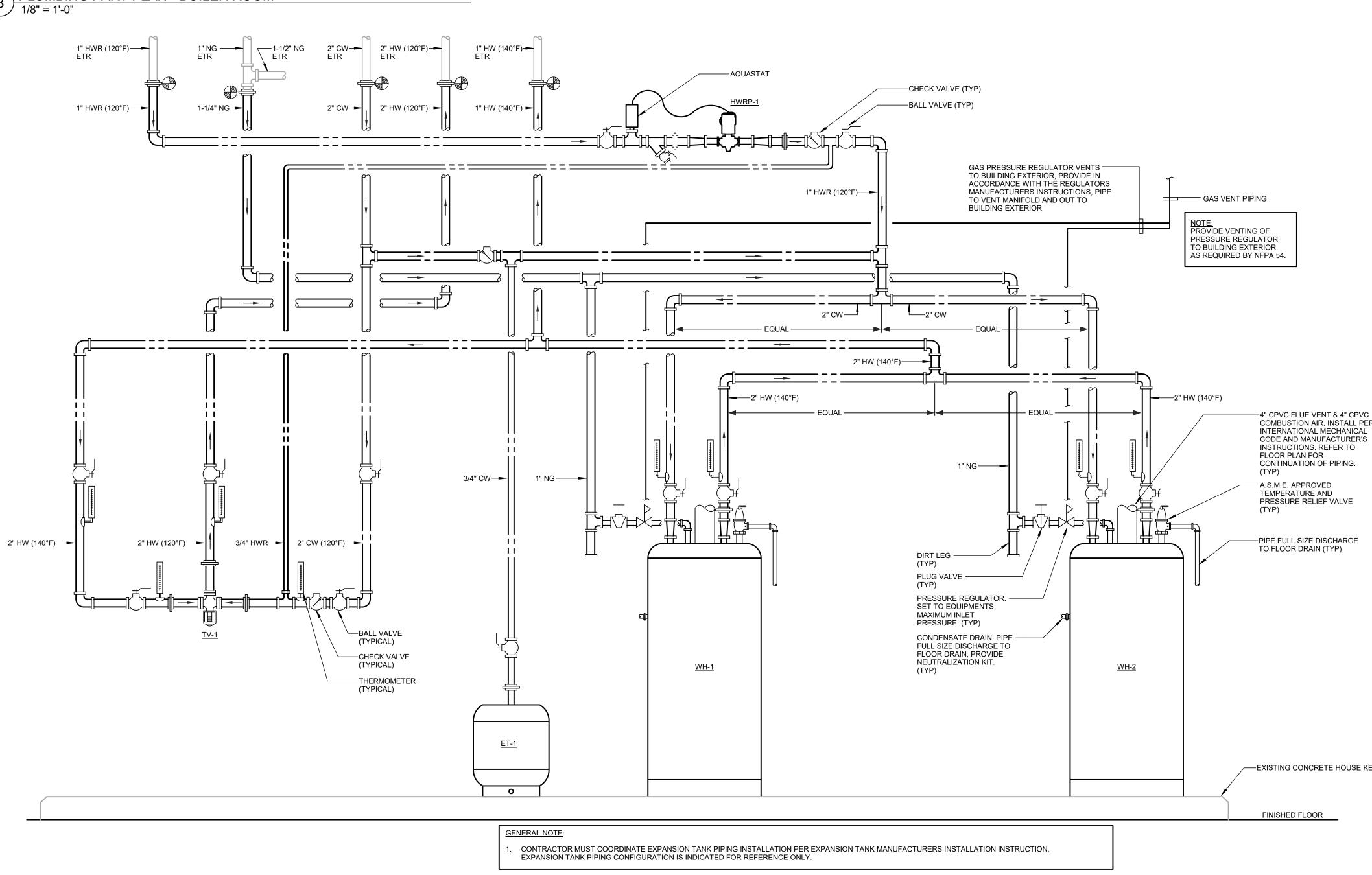
	GENERAL NOTES - ELECTRICAL								
ALL	ALL DEVICES SHALL BE LABELED WITH SOURCE PANEL AND CIRCUIT NUMBER(S).								
	ELECTRICAL ABBREVIATIONS								
AMP CI U F G U S V G T V B T V B I V Ø I V Ø	AMPERE ALTERNATING CURRENT ARC FAULT CIRCUIT INTERRUPTER AIR CONDITIONING UNIT ABOVE FINISHED FLOOR ABOVE FINISHED GRADE AIR HANDLING UNIT AMPS INTERRUPTING CURRENT ALUMINUM AUTOMATIC TRANSFER SWITCH AMERICAN WIRE GAUGE BASEMENT CONDUIT CABLE TELEVISION CIRCUIT BREAKER CIRCUIT COMPRESSOR CONDENSATE PUMP CURRENT TRANSFORMER CONDENSING UNIT, COPPER CABINET UNIT HEATER DEGREE DIAMETER DOWN	JB KCMIL KVA KW MAU MCB MCC MCCB MIN NAC NIC NRS PE FF /Ø PNL PVC	JUNCTION BOX THOUSAND CIRCULAR MILS KILOVOLT AMPERE KILOWATT MAXIMUM MAKE UP AIR UNIT MAIN CIRCUIT BREAKER MOTOR CONTROL CENTER MOLDED CASE CIRCUIT BREAKER METAL HALIDE MINIMUM MAIN LUGS ONLY NOT APPLICABLE NATIONAL ELECTRIC CODE NOT IN CONTRACT NEW LOCATION OF EXISTING RELOCATED NEW TO REPLACE EXISTING RELOCATED NEW TO REPLACE EXISTING NOT TO SCALE POLE PRIMARY ELECTRICAL SERVICE POWER FACTOR PHASE PANEL POLYVINYL CHLORIDE CONDUIT						
VG R EC EV IT R H VC VH CP U CI S	DRAWING EXISTING TO REMAIN EXHAUST FAN ELECTRICAL ELEVATOR ELECTRIC METALLIC TUBING EXISTING TO REMAIN ELECTRIC UNIT HEATER ELECTRIC WATER COOLER ELECTRIC WATER HEATER FAHRENHEIT FIRE ALARM FIRE ALARM CONTROL PANEL FOOT CANDLE FAN COIL UNIT GROUND GROUND FAULT CIRCUIT INTERRUPTER HORSE POWER HIGH PRESSURE SODIUM HOUR HERTZ ISOLATED GROUND INCHES	RE RGS RL RM RTU SE SPEC SWBD TELE TV T/TX TYP UH VA VAC W WP	POLYVINYL CHLORIDE CONDUIT REMOVE EXISTING RIGID GALVANIZED STEEL CONDUIT RELOCATE EXISTING ROOM REMOVE AND REPLACE ON NEW SURFACE ROOFTOP UNIT SECONDARY ELECTRICAL SERVICE SPECIFICATION SWITCHBOARD SURGE PROTECTION DEVICE TELECOMMUNICATIONS/TELEPHONE TELEVISION TRANSFORMER TYPICAL UNIT HEATER VOLTS VOLT AMPERE VOLTS ALTERNATING CURRENT WATT, WIRE WIRE GUARD WEATHERPROOF						

ELECTRICAL SYMBOL LIST							
SYMBOL	DESCRIPTION						
	SURFACE MOUNTED PANELBOARD						
	RECESSED PANELBOARD						
다	DISCONNECT SWITCH						
D	FUSED DISCONNECT SWITCH						
$\boxtimes$	COMBINATION MOTOR STARTER AND DISCONNECT SWITCH						
$\boxtimes$	MOTOR STARTER OR CONTACTOR						
\$ м	MANUAL MOTOR STARTER						
$\bigcirc$	MOTOR (REFER TO MOTOR CIRCUIT SCHEDULE FOR POWER REQUIREMENTS)						

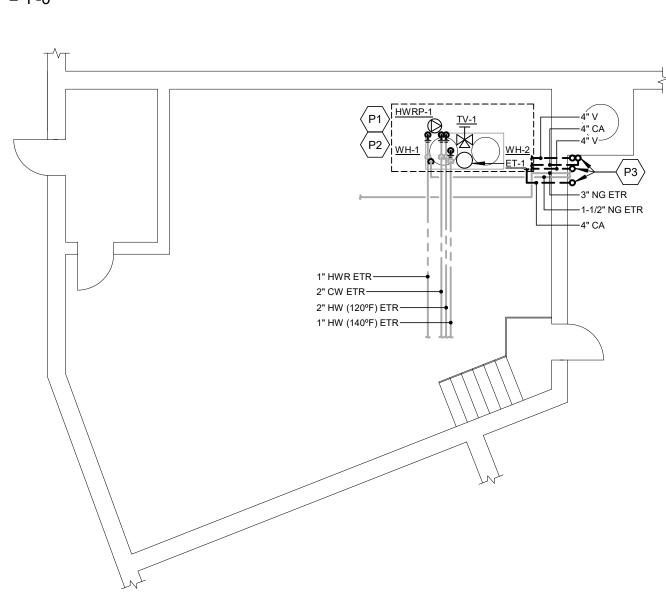




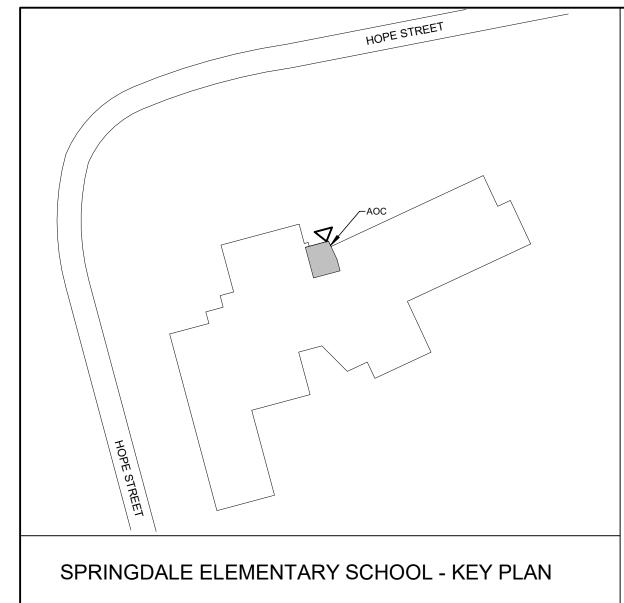


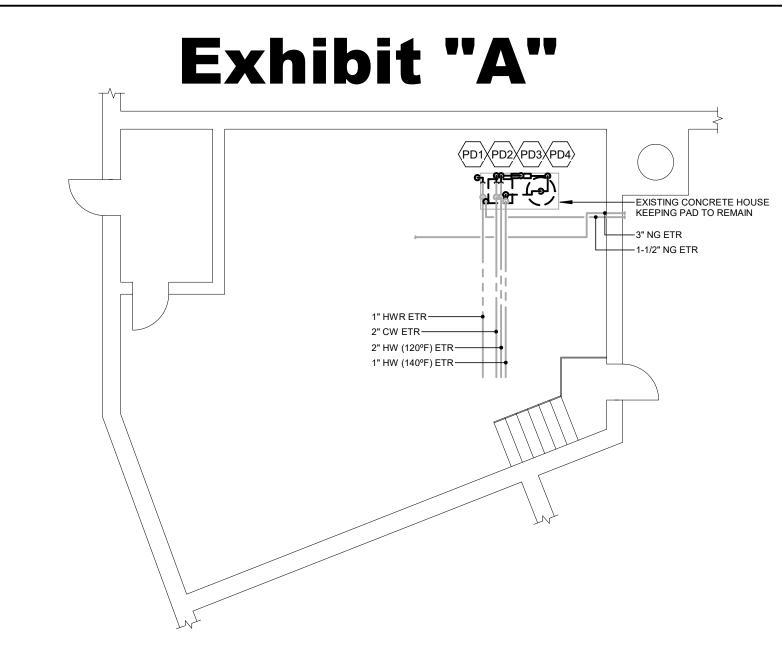


3 PLUMBING PART PLAN - BOILER ROOM 1/8" = 1'-0"



2 PLUMBING DEMOLITION PLAN - BOILER ROOM 1/8" = 1'-0"

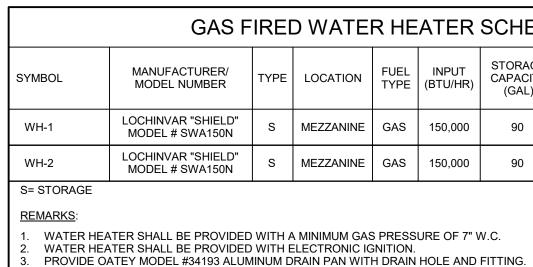




	PLUMBING DEMOLITION KEY NOTES
(PD1)	REMOVE RHEEM MODEL #GBC-0264 WATER HEATER, LOCHINVAR MODEL #RJS120M STORAGE TANK, EXPANSION TANK, MIXING VALVE AND HOT WATER CIRCULATION PUMPS. MAINTAIN EXISTING CONCRETE HOUSE KEEPING PAD.
(PD2)	REMOVE ALL CW PIPING, HW PIPING, HWR PIPING, VALVES AND ASSOCIATED HANGERS SERVING THE EXISTING WATER HEATER AND STORAGE TANK BACK TO APPROXIMATELY 10'-0" ABOVE FINISHED FLOOR ELEVATION, OR BACK TO A SUFFICIENT LOCATION TO ALLOW FOR INSTALLATION OF NEW WORK, AND CAP.
(PD3)	REMOVE NG PIPING BACK TO TEE FITTING OVERHEAD. CUT, VALVE AND CAP FOR CONNECTION TO NEW WORK.
(PD4)	REMOVE WATER HEATER EXHAUST VENT PIPING.

# PLUMBING KEY NOTES

- PROVIDE AND INSTALL <u>WH-1</u>, <u>WH-2</u>, AND <u>ET-1</u> ON EXISTING CONCRETE HOUSE KEEPING PAD. REFER TO DETAIL #1 FOR PIPING TO WATER HEATERS WITHIN DASHED REGION. P2CONNECT TO EXISTING CW, HW, HWR, AND NG PIPING OVERHEAD OF CONCRETE<br/>PAD. REFER TO DETAIL #1, ON THIS DRAWING, FOR CONNECTION SIZES.
- $\langle P3 \rangle$  (2) 4" V AND (2) 4" CA, PENETRATE EXTERIOR WALL ABOVE EXISTING LOUVER. ROUTE PIPES EXPOSED ALONG SIDE OF BUILDING TO HIGHEST ROOF ELEVATION, TERMINATE COMBUSTION AIR WITH GOOSENECK FITTING, INLET SHALL BE A MINIMUM OF 2'-0" ABOVE ROOF ELEVATION. TERMINATE VENT PIPING A MINIMUM OF 1'-0" ABOVE COMBUSTION AIR INLET. PROVIDE MINIMUM 1'-0" HORIZONTAL SEPARATION BETWEEN COMBUSTION AIR AND VENT.



TACO MODEL #

008-SF6

HWRP-1

IL = IN-LINE PUMP

NOTES:

	PLUMBING SPECIALTIES SCHEDULE								
SYMBOL	MANUFACTURER/ MODEL NUMBER	DESCI	RIPTION		COMPONE AND ACCESSOF		Mount Heigf		REMARKS
<u>TV-1</u>	LEONARD "ECO-MIX" MODEL # TM-2020B-LF-DT	THERMOSTATIC MIXING VALVE: HIGH LOW MIXING VALVE, BRONZE BODY. 1 GPM MINIMUM FLOW, 2" INLETS, 2" OUTLET. 113 GPM @ 10 PSI DIFFERENTIAL.			VALL SUPPORT CHECKSTOPS, TEMP LIMIT STO NND OUTLET UI SHUT-OFF VALN	HIGH DP. INLET NIONS &	MAX 5'-0" A FINISHED F		
<u>ET-1</u>	AMTROL MODEL # ST-30VC	EXPANSION TANKS STEEL TANK, 14 GALLON, STAINLESS STEEL CONNECTION. HEAVY DUTY BUTYL NSF/ANSI 61 DIAPHRAGM WITH ANTIMICROBIAL POLYPROPYLENE LINER. 55 PSIG FACTORY PRE-CHARGE.			-		-	#1	
<u>REMARKS:</u> 1. PROVIDE ISOLATION VALVES AT THE SUPPLY PIPE CONNECTIONS									
			PUMP	SCHED	DULE				
SYMBOL	MANUFACTURER MODEL NUMBER		LOCATION	SYSTEM SERVED	CAPACITY (GPM)	CAPACITY (FT OF HEAD)	FLUID TEMP	ELEC. DAT	A REMARKS

R	EMARKS:
1.	PUMP SHALL BE BRONZE WITH STAINLESS STEEL INTERNALS FOR DOMESTIC WATER USE.

MECHANICAL DOMESTIC

ROOM HW RECIRC

## GAS FIRED WATER HEATER SCHEDULE

YPE	LOCATION	FUEL TYPE	INPUT (BTU/HR)	STORAGE CAPACITY (GAL)	RECOVERY AT 100°F RISE (GPH)	ELEC. DATA	REMARKS
S	MEZZANINE	GAS	150,000	90	175	1 PH / 120V / 60 HZ	ALL
S	MEZZANINE	GAS	150,000	90	175	1 PH / 120V / 60 HZ	ALL

10

1PH / 115V / 1/25HP /

3250RPM

ALL

120°F

8

PROVIDE CONDENSATE NEUTRALIZATION KIT, BY SAME MANUFACTURER AS WATER HEATER.

# PLUMBING GENERAL NOTES

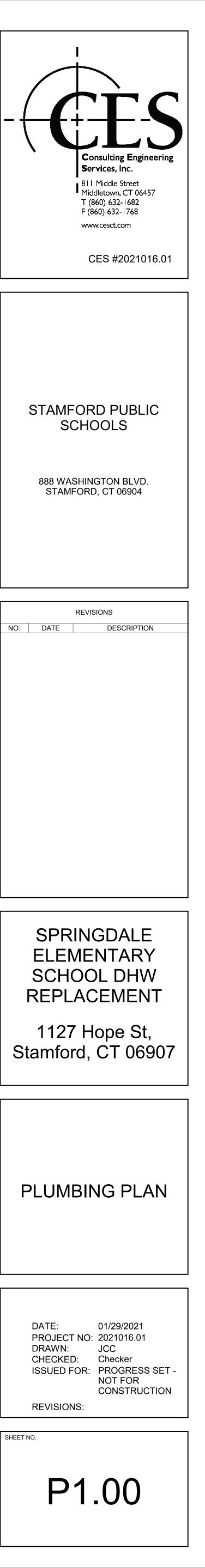
THESE GENERAL NOTES ARE APPLICABLE TO ALL PLUMBING DRAWINGS.

DRAWINGS ARE DIAGRAMMATIC AND SHOW GENERAL INTENT OF WORK, SEE DETAILS, SCHEDULES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.

- CONTRACTOR MUST REVIEW DRAWINGS OF THE OTHER TRADES AS PART OF THIS CONTRACT FOR ADDITIONAL WORK REQUIRED AND OR COORDINATION OF HIS WORK FOR OPERATIONS OR CONNECTIONS TO OTHER SYSTEM.
- CONTRACTOR IS NOT RESPONSIBLE FOR ROOF PENETRATIONS OR REPAIR OF EXISTING PENETRATIONS. ALL ROOF WORK SHALL BE THE RESPONSIBILITY OF THE OWNER.

	GENERAL ABBREVIATIONS
AOC AD ADJ AFF ALTJ AP BAS BTU BOP CD CFH CI OC W DIA DS N DW ELE WS F CO FLA FS FT FG G AL FS FT FT G G SV G V DS SV C EL FS FT FT FT G G SV G V SV FL FS FT FT FT FT FT FT FT FT FT FT FT FT FT	AREA OF CONSTRUCTION ACCESS DOOR ADJUSTABLE BOVE FINISHED FLOOR ALTERNATE AUTHORITY HAVING JURISDICTION ACCESS PANEL BUILDING AUTOMATION SYSTEM BRITISH THERMAL UNIT BTU / HOUR BOTTOM OF PIPE CONDENSATE DRAIN CUBIC FEET PER HOUR CAST IRON CLEANOUT COLD WATER DOWN DOWN SPOUT NOZZLE DIRECT WASTE ELECTRICAL EXPANSION TANK EMERGENCY EYEWASH/SHOWER DEGREES FAHRENHEIT FLOOR CLEANOUT FINISHED FLOOR ELEVATION FINISHED FLOOR ELEVATION FINISHED GRADE CLEANOUT FULL LOAD AMPS FLOOR PRINK FEET FEET HEAD GAS SOLENOID VALVE GALLONS PER HOUR GALLONS PER HOUR GALLONS PER HOUR GALLONS PER HOUR GALLONS PER MINUTE GAS SOLENOID VALVE GRASSE WASTE GAS VENT HOSE BIB HOT WATER HEAD HORSEPOWER HERTZ HOT WASTE KILOWATT LAVATORY MAXIMUM MECHANICAL PUMPING ON PER SOLENOIT FUNITER HEAD HORSEPOWER HERTZ HOT WASTE KILOWATT LAVATORY MAXIMUM MCONTIN CONTRACT NATURAL GAS NOT TO SCALE PUMPER OCNDENSATE DRAIN PUMPER PUMPER OCNDENSATE DRAIN P

PLUMBING SYMBOL LEGEND					
SYMBOL	DESCRIPTION				
Ā	OS&Y GATE VALVE				
Å	GATE VALVE				
$\overrightarrow{N}$	CHECK VALVE				
ь б	BALL VALVE				
$\bowtie$	BALANCING VALVE				
₩.	THERMOSTATIC MIXING VALVE				
	GLOBE VALVE				
ф	BUTTERFLY VALVE				
ري الا	PLUG VALVE				
sī 忆ī	EMERGENCY GAS SHUT-OFF VALVE				
<b>↓</b> <sup>™</sup>	RELIEF VALVE				
μŽ-Ι	STRAINER				
Ø	FLOOR DRAIN/FLOOR SINK/AREA DRAIN				
$\bigcirc$	PUMP				
<u>L-1</u>	FIXTURE TYPE				
	THERMOMETER				
$\mathfrak{P}$	PRESSURE GAUGE				
Ā Ā	PRESSURE REGULATOR				
() I I	UNION				
]	САР				
	CONNECT TO EXISTING				



# HOPE STREET

SPRINGDALE ELEMENTARY SCHOOL - KEY PLAN



#### MOTOR / EQUIPMENT CIRCUIT SCHEDULE MOTOR STARTER LOAD LOCAL DISC. HP MCA KW PH VOLT SW LOAD EQUIPMENT OCPD PANEL WIRIN TYPE LOCATION SIZE ETR PANEL BRM 2.5 - 1 120 MAN-1P SPC AT UNIT HWRP-1 2#12, #12G, 3 ETR PANEL BRM 2.5 - 1 120 MAN-1P SPC AT UNIT 2#12, #12G, 3 WH-1 20A-1P PANEL BRM 2.5 - 1 120 MAN-1P SPC AT UNIT 2#12, #12G WH-2

REMARKS: 1. EQUIPMENT PROVIDED BY DIV. 22.

<u>GENERAL NOTES:</u> 1. DISCONNECT SWITCHES SHALL BE HEAVY-DUTY TYPE AND SHALL BE LOCATED AT EQUIPMENT LOCATION UNLESS OTHERWISE NOTED. 2. ABBREVIATIONS:

- ABBREVIATIONS:

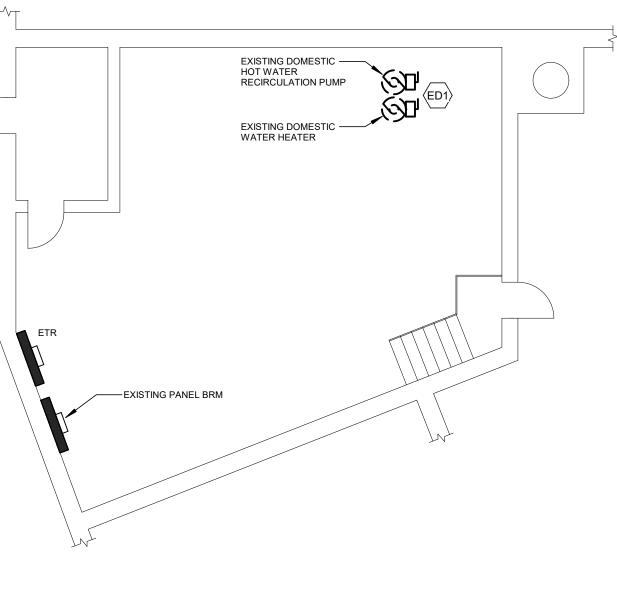
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   FVNR: COMBINATION FULL VOLTAGE NON-REVERSING STARTER/ DISCONNECT SWITCH
   VFD: VARIABLE FREQUENCY DRIVE, FURNISHED BY DIV. 23, WIRED BY DIV. 26. PROVIDE POWER WIRING FROM SOURCE PANELBOARD TO VFD AND FROM VFD TO MOTOR(S). COORDINATE EXACT LOCATION IN FIELD WITH DIV.23.
   DIV.21: EQUIPMENT FURNISHED BY DIVISION 21 FIRE PROTECTION CONTRACTOR
   DIV.22: EQUIPMENT FURNISHED BY DIVISION 22 PLUMBING CONTRACTOR
   DIV.23: EQUIPMENT FURNISHED BY DIVISION 23 HVAC CONTRACTOR
   SINGLE POINT CONNECTION (STARTERS INTEGRAL TO EQUIPMENT). COORDINATE EXACT POINT OF CONNECTION IN FIEL D.

- DIV.23: EQUIPMENT FORNISHED BY DIVISION 23 INVAC CONTRACTOR
  SPC: SINGLE POINT CONNECTION (STARTERS INTEGRAL TO EQUIPMENT). COORDINATE EXACT POINT OF CONNECTION IN FIELD.
  OVERCURRENT PROTECTION DEVICES (OCPD) SHALL BE MOLDED CASE CIRCUIT BREAKERS UNLESS NOTED WITH AN "F" FOR FUSE.
  DISCONNECT SWITCHES AND STARTERS SHALL BE NEMA 3R RATED WHEN LOCATED OUTSIDE.
  REFER TO ELECTRICAL AND MECHANICAL PLANS FOR EXACT LOCATIONS OF EQUIPMENT.
  STARTERS SHALL BE SQUARE D CLASS 8536 OR APPROVED EQUAL.

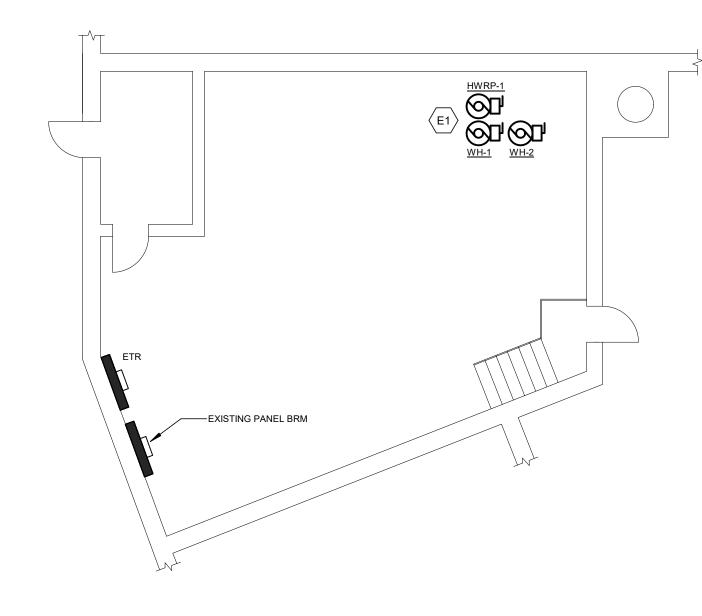
ELECTRICAL DEMOLITION KEY NOTES DISCONNECT CONDUCTORS ASSOCIATED WITH DOMESTIC WATER HEATER AND HOT WATER

DISCONNECTION PUMP. CONDUCTORS SHALL BE CAPPED AND MADE SAFE FOR FUTURE
 RECONNECTION TO NEW EQUIPMENT IN THIS AREA.

ELECTRICAL KEY NOTES CONNECT NEW EQUIPMENT TO EXISTING CIRCUIT THAT WAS SERVING THE UNIT PREVIOUSLY LOCATED AT THIS LOCATION. PROVIDE A LOCAL DISCONNECT ADJACENT TO THE EQUIPMENT, RATED TO MATCH THAT OF THE ASSOCIATED EQUIPMENTS VOLTAGE, POLES AND LOAD.



1 ELECTRICAL DEMOLITION PLAN - BOILER ROOM 1/8" = 1'-0"





ING	REMARKS
3/4"C (ETR)	#1
3/4"C (ETR)	#1
2G, 3/4"C	#1

# **GENERAL NOTES - ELECTRICAL**

ALL DEVICES SHALL BE LABELED WITH SOURCE PANEL AND CIRCUIT NUMBER(S).

ELECTRICAL ABBREVIATIONS				
A/AMP	AMPERE	JB	JUNCTION BOX	
AC	ALTERNATING CURRENT	KCMIL	THOUSAND CIRCULAR MILS	
AFCI	ARC FAULT CIRCUIT INTERRUPTER	KVA	KILOVOLT AMPERE	
ACU	AIR CONDITIONING UNIT	KW	KILOWATT	
AFF	ABOVE FINISHED FLOOR	MAX	MAXIMUM	
AFG	ABOVE FINISHED GRADE	MAU	MAKE UP AIR UNIT	
AHU	AIR HANDLING UNIT	MCB	MAIN CIRCUIT BREAKER	
AIC	AMPS INTERRUPTING CURRENT	-		
AL	ALUMINUM	MCC	MOTOR CONTROL CENTER	
ATS	AUTOMATIC TRANSFER SWITCH	MCCB	MOLDED CASE CIRCUIT BREAKER	
AWG	AMERICAN WIRE GAUGE	MH	METAL HALIDE	
BSMT	BASEMENT	MIN	MINIMUM	
C	CONDUIT	MLO	MAIN LUGS ONLY	
CATV	CABLE TELEVISION	NA	NOT APPLICABLE	
C/B	CIRCUIT BREAKER	NEC	NATIONAL ELECTRIC CODE	
CKT	CIRCUIT	NIC	NOT IN CONTRACT	
COMP	COMPRESSOR	NL	NEW LOCATION OF EXISTING RELOCATE	
CP	CONDENSATE PUMP	NR	NEW TO REPLACE EXISTING	
CT	CURRENT TRANSFORMER	NTS	NOT TO SCALE	
CU	CONDENSING UNIT. COPPER	P	POLE	
CUH	CABINET UNIT HEATER	PE	PRIMARY ELECTRICAL SERVICE	
°	DEGREE	PF	POWER FACTOR	
DIA/Ø	DIAMETER	PH/Ø	PHASE	
DN	DOWN	PNL	PANEL	
DWG	DRAWING	PVC	POLYVINYL CHLORIDE CONDUIT	
ETR		RE	REMOVE EXISTING	
EF	EXISTING TO REMAIN EXHAUST FAN	RGS	RIGID GALVANIZED STEEL CONDUIT	
ELEC	ELECTRICAL	RL	RELOCATE EXISTING	
ELEV	ELEVATOR	RM	ROOM	
EMT	ELECTRIC METALLIC TUBING	RR	REMOVE AND REPLACE ON NEW SURFA	
ETR	EXISTING TO REMAIN	RTU	ROOFTOP UNIT	
EUH	ELECTRIC UNIT HEATER	SE	SECONDARY ELECTRICAL SERVICE	
EWC	ELECTRIC WATER COOLER	SPEC	SPECIFICATION	
EWH	ELECTRIC WATER HEATER	SWBD	SWITCHBOARD	
F	FAHRENHEIT	SPD	SURGE PROTECTION DEVICE	
FA	FIRE ALARM	TELE	TELECOMMUNICATIONS/TELEPHONE	
FACP	FIRE ALARM CONTROL PANEL	TV	TELEVISION	
FC	FOOT CANDLE	T/TX	TRANSFORMER	
FCU	FAN COIL UNIT	TYP	TYPICAL	
G	GROUND	UH	UNIT HEATER	
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	V	VOLTS	
HP	HORSE POWER	VA		
HPS	HIGH PRESSURE SODIUM	VAC	VOLTS ALTERNATING CURRENT	
HR	HOUR	W	WATT, WIRE	
HZ	HERTZ	WG	WIRE GUARD	
IG	ISOLATED GROUND	WP	WEATHERPROOF	
IN	INCHES			

ELECTRICAL SYMBOL LIST			
SYMBOL	DESCRIPTION		
	SURFACE MOUNTED PANELBOARD		
	RECESSED PANELBOARD		
$\Box$	DISCONNECT SWITCH		
${\bf \nabla}_{\!\!\!\!\!}$	FUSED DISCONNECT SWITCH		
$\boxtimes^{\!$	COMBINATION MOTOR STARTER AND DISCONNECT SWITCH		
$\boxtimes$	MOTOR STARTER OR CONTACTOR		
\$ м	MANUAL MOTOR STARTER		
$\odot$	MOTOR (REFER TO MOTOR CIRCUIT SCHEDULE FOR POWER REQUIREMENTS)		

