Bid Invitation

for

Omaha Bryan High School
Boiler Tube Replacement
Bid No. 25-007

TO BE CONSIDERED, BIDS MUST BE RECEIVED PRIOR TO THE BID SUBMISSION DEADLINE

LATE BIDS WILL NOT BE ACCEPTED

The Board of Education
for
Douglas County School District 0001 (Omaha Public Schools)
Invites Bids on: **Omaha Bryan High School Boiler Tube Replacement**

SUBMIT COMPLETED BID IN HARD COPY TO:

Omaha Public Schools
District Operational Services
3215 Cuming Street
Omaha Nebraska 68131

Important Bid Submission Information and Deadlines:

Bid Title and Bid Number:	Omaha Bryan High School Boiler Tube Replacement 25-007
Date of Issuance of Bid:	June 5, 2025
Mandatory Pre-Bid Meeting time and location:	June 17, 2025 10
Deadline for Submission of Questions:	June 24, 2025
Deadline for Submission of Bid Proposals and Original Bid Security:	July 7, 2025
Estimated Timeline for Evaluation of Bids:	2 days, EOB July 9, 2025
Estimated Timeline for Bid Award and Board of Education Approval:	August 4, 2025

Question Submission Box Email Address:	Questions_Clarifications_1@ops.org
Microsoft Teams Meeting Phone Number for Bid Opening.	+1 402-509-3892, 109868082#
Microsoft Team Conference ID for Bid Opening:	Meeting ID: 240 926 193 085 5 Passcode: Ga9VX3gP
Address for Attending In-Person Bid Opening:	3215 Cuming St. Omaha NE 68131

Bid 25-007
Omaha Bryan High School Boiler Tube Replacement

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1.0 BID INVITATION

Douglas County School District 0001 ("Omaha Public Schools") ("OPS") invites qualified bidders to submit bids to furnish OPS with all labor, materials, tools, equipment, utility and transportation services and related work necessary to install 222 new tubes within a Kewanee L3S400 steam boiler (NE31216) at Bryan High School, 4700 Giles Road, Omaha, NE 68157 (referred to herein as the "Work"). A more detailed summary of the Work to be performed is in Section 2.0 "Product Specifications" below. Bids must be completed and submitted on the Bid Form provided and in accordance with the requirements stated in these Bid Documents. For purposes of this Bid, the term "Bid Documents" include the following documents: Bid Invitation, the Contract Specifications, the Bid Submission Instructions and Requirements, the General Terms and Conditions, the Bid Form, and Exhibit A. The Bid Documents are not complete unless all of these documents are included. Bidders should review all the Bid Documents carefully before submitting a bid proposal since these Bid Documents, along with other documents that are referred to in the Bid Documents, will be incorporated into and will become a part of any Purchase Order or Contract (as hereinafter defined) between OPS and a successful bidder for the Work.

[ ] OPS reserves the right to make multiple awards to bidders for some of the Work specified.

[X] OPS intends award the bid to one bidder for all Work.

Please note the mandatory pre-bid meeting requirement for all potential bidders. See Section 3.5 below.

2.0 CONTRACT SPECIFICATIONS

2.1 SPECIFICATIONS AND SCOPE OF WORK

The Work called for in these Bid Documents includes the retubing of 222 tubes within a Kewanee L3S400 steam boiler (NE31216) at Bryan High School, located at 4700 Giles Road, Omaha, NE 68157. Each bidder must review the requirements of the Bid Documents and provide as an attachment to its bid a detailed explanation of how, if awarded the bid, it intends to disconnect the existing boiler connections to physically remove all existing tubes, rigging and reorientation of boiler within the existing boiler room (if needed) to complete retubing, and the final placement, reconnection, and testing of unit and integration with the building system. Original design drawings (dated 1969, see Exhibit A) include tube removal space, however that space has been infringed upon since original construction with electrical gear. Contractor will be responsible for the following:

- Remove and properly dispose of all tubes on hot and cold pass (regardless whether corroded).
- Clean boiler and all surfaces of loose scale and debris.
- Confirm/replace boiler in original position, complete and verify all system connections.
- Hydrostatically test system to ensure no leaks and proper function.
- Confirm system meets all state and local legal requirements, all trade standards, and operates in accordance with manufacturers specifications.
- Arrange for and attend all interim and final boiler inspections required by applicable laws, ordinances, regulations and codes.
- Broom clean work space, and account for/remove all job materials, Contractor equipment and all remaining construction trash and debris.

The Contractor will furnish all labor, materials, equipment, tools and services necessary to provide a completed Project as outlined in the Contract Documents (the term "Contract Documents", as used throughout the Bid Documents, is defined in Section 4.1 hereof).

In general, all materials and equipment to be furnished by Contractor must be of good quality, new

and unused, free from defects, and shall be constructed and installed as required in the Contract Documents and of the types of equipment and materials as specified. It is the Contractor's responsibility to protect existing construction. In addition, daily removal of debris and repair of any damage due to work under this Contract is considered within the scope of work and is the responsibility of the Contractor.

Contractor shall be responsible for the furnishing and performance of all of the Work for the Project. Unless specifically prohibited by the Contract Documents, Contractor may retain qualified and responsible subcontractors for the performance of parts of the Work. Such subcontractors must be reasonably acceptable to the District. Contractor shall be fully responsible to District for all acts and omissions of the Contractor's subcontractors, suppliers, and other individuals or entities performing or furnishing any of the work provided by or under the control of the Contractor, just as Contractor is responsible for Contractor's own acts and omissions. No acceptance by District of any such subcontractor, supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of the right of District to the completion of the work in accordance with this Contract Documents. Contractor shall be solely responsible for scheduling and coordinating the work of subcontractors, suppliers, and all other individuals or entities performing or furnishing any of the Work, which are under the control of Contractor.

All Work must be done in accordance with best trade practices using qualified workmen. All work shall be performed in a manner that does not void any manufacturer's warranty.

All engineering work and plan preparations for shop drawings and other Contractor submittals shall be the responsibility of the Contractor, who shall utilize qualified and licensed engineers for such work.

2.2. MATERIAL REQUIREMENTS

The tubes installed by the Contractor must equal or exceed the following requirements:

- Flared and rolled SA171A tubes, 2.5" OD x 0.105 in. minimum wall, 134 in. in length; estimated quantity 121
- Flared and rolled SA171A tubes, 2.5" OD x 0.105 in. minimum wall, 160 in. in length; estimated quantity 100

SA178 A / ASTM A178 Grade A
Tubing Specifications

SA178 A / ASTM A178 Gr A Chemical Composition	
Carbon: 0.06% - 0.18%	Silicon: N/A
Manganese: 0.27% - 0.63%	Nickle: N/A
Phosphorus Max: 0.035%	Chromium: N/A
Sulfur Max: 0.035%	Molybdenum: N/A

SA178 A / ASTM A178 Gr A Mechanical Properties	
Tensile Strength:	ksi: 47 MPa: 325
Yield:	ksi: 26 MPa: 180
Maximum Hardness:	72 Max. Rockwell B (HRB)

In general, all materials and equipment to be furnished by Contractor must be of good quality, new and unused, free from defects, and shall be furnished and installed as required in the Contract Documents and of the types of equipment and materials as specified. It is the Contractor's responsibility to protect existing

construction. In addition, daily removal of debris and repair of any damage due to work under this Contract is considered within the scope of work and is the responsibility of the Contractor.

2.3 CONTRACTOR EXPERIENCE AND PROJECT STAFFING

All steamfitting and pipefitting shall be performed by journeymen steamfitters/pipefitters and such work shall be overseen by a master steam fitter/pipefitter. The journeymen steamfitters and pipefitters and the master steam fitter/pipefitter must be properly licensed by the jurisdiction responsible for such licensing in the jurisdiction where the Project is located. Contractor and its personnel shall also have all other licenses necessary to perform the Work required by the Contract with the District.

The District requires that the Contractor for this Project have a minimum of three (3) years' experience installing boiler units and making boiler repairs and a minimum of five (5) years' experience with boiler work.

All work must be done in accordance with best trade practices using qualified workers. Qualified workers shall mean at least one (1) experienced journeyman for every two (2) workers on the job site. There shall be a minimum of three (3) workers from start of Project to completion. At all times, at least one of the Contractor's work crew must be fluent in English and able to communicate in the language of the remaining crew members.

All work shall be inspected by Nebraska State Fire Marshall's office, and the selected contractor will be responsible for contacting the Fire Marshall's office to arrange final inspection scheduling. . See Nebraska Administrative Code Title 229 - Boiler Safety Code: Chapter 4 - General Requirements for Boilers and Pressure Vessels

2.4 PROJECT COMMENCEMENT AND COMPLETION DATES AND LIQUIDATED DAMAGES

The performance of the work shall commence upon receipt by Contractor of written notice to proceed from District. A notice to proceed will not be issued prior to August 5, 2025. Moreover, the District will also not issue a notice to proceed until Contractor and the District have executed the Contract for the Project and the Contractor has furnished District with an insurance certificate and a performance, labor, and material bond complying with the requirements of the Contract Documents.

Substantial Completion of the work shall be achieved not later than October 1, 2025. Achieving Substantial Completion means that the OPS boiler being repaired passed all required governmental inspections and has been issued all licenses and permits necessary to fully operate and that it does in fact fully operate substantially in accordance with original boiler specifications. **Final Completion shall be achieved not later than thirty (30) days after Substantial Completion** is achieved.

If Contractor does not achieve Substantial Completion by the date set forth in this Section, as may have been extended by Change Order, Contractor shall pay to District as liquidated damages the sum of $500.00 per day for each calendar day after the day set for Substantial Completion that Substantial Completion has not been achieved. The amount of liquidated damages that be determined and charged to the Contractor is set forth in Section 4.24 of the General Conditions of the Contract that are a part of the Bid Documents.

2.5 ASBESTOS

There may be asbestos-containing material located within the building where the Project is located. It is the Contractor's responsibility to review and study the information that may relate to asbestos-bearing material with which the Contractor or Subcontractor may come into contact. A document describing the general location and characteristics of this material is available in the building office

or through the Asbestos Program Coordinator's office at 4041 North 72nd Street, Omaha, Nebraska 68134 for your review. If a suspected material is found, contact this office at 531-299-0180.

2.6 ASBESTOS DAILY AWARENESS

Contractor shall be responsible for coordinating a central sign-in location at the facility where the Project is located for enforcement of the District's requirements of the asbestos material awareness program. Each employee, subcontractor employee and other individuals under contract with the Contractor shall be advised of locations of any hazardous material at the facility. This sign-in certificate must be submitted weekly and prior to final closeout on the Project.

2.7 ASBESTOS REMOVAL, NOTIFICATION -

All known and accessible asbestos-containing material has been or will be removed from the Project area by the District's Environmental Division. In the event Contractor encounters suspect asbestos-containing or other hazardous materials at the Project site, Contractor shall stop work immediately in the suspected contaminated area and contact the District's Environmental Division at 531-299-0180.

2.8 EQUIPMENT AND INSTALLATION REQUIREMENTS

Contractor will be required to perform all work and supply any and all equipment tools and accessories described in the Contract Documents or that are necessary for completion of the Project. This includes supplying accessories such as valves, pipe fittings and other necessary piping material, piping insulation, wiring and electrical connections and labeling as required by the Contract Documents, or reasonably inferable therefrom, so that the boiler and related equipment being repaired by Contractor will be fully operational in this facility.

Installation of sheet metal accessories shall comply with the manufacturer's specification OR installation standards prescribed by Sheet Metal and Air Conditioning Contractors' National Association (SMACNA), "whichever has the stricter requirements."

Work at the Project site shall start within forty-eight (48) hours of delivery of materials, provided notice to proceed has previously been given by the District.

2.9 WARRANTIES

Contractor's one (1) year warranty set forth in the General Terms and Conditions that are a part of the Contract Documents shall run for a period of one (1) year from Substantial Completion. Contractor shall also furnish a manufacturer's limited warranty on the components of the equipment furnished by Contractor as set forth in the Contract Documents and in Contractor's bid proposal. Material and/or equipment provided by the District must in installed in a manner that does not void or limit any manufacturer's warranty for such material and/or equipment.

3.0 BID SUBMISSION INSTRUCTIONS AND REQUIREMENTS

3.1 GENERAL

Bids must be prepared on the attached bid form that is a part of these bid documents with all required information provided and submitted in a sealed opaque envelope or container with the Bid Security. The bid name, bid number and the date and time of the deadline for submitting bids must be noted on the exterior of the envelope or container. The bid must also include the original Bid Security as required by Section 3.2 hereof and all attachments required by the Bid Documents. Bids submitted in any other form, including telephone, hard copy and facsimile bids, along with bids submitted to an address other than the one indicated in these Bid Documents will NOT be considered. Any incomplete bid or bid not complying with the Bid Documents may be rejected by

the District. Any bid received after the deadline for submission of bids will not be considered and will be rejected and returned to the bidder unopened. The risk of delivery rests solely on the bidder. The time stamp on the District's clock at District Operational Services' offices will be the official clock utilized to determine the time for the close of submission of bids. The District is not responsible for ANY late bids due to failure or delay in e-mail delivery. Any incomplete bid or bid not complying with the bidding documents may be rejected by the District. Late bids will be rejected. OPS will not accept links to shared files in any proposal.

3.2 BID BOND

An original certified check or cashier's check payable to the Board of Education or a satisfactory original Bid Bond executed by the bidder and acceptable sureties in an amount equal to five percent (5%) of the amount of the bid shall be submitted for each bid (the certified or cashier's check or bid bond may be referred to in these Bid Documents as the "Bid Security"). The Bid Security must be delivered by each bidder submitting a bid to the District in hard copy and having original "wet ink" signatures. The Bid Security shall be submitted in the sealed opaque envelope with the Bidder's bid proposal Failure to deliver the original Bid Security with the bid will result in the rejection of the bidder's bid. Photocopied or scanned Bid Security will not be accepted. The Bid Security will be retained as liquidated damages in case the bidder awarded the Contract fails to furnish the required performance and payment bonds, insurance certificate, or sign the Contract within ten (10) days after notification of award. If original Bid Security as required by this Section is not received by the District with bidder's bid proposal by the deadline for submission of bids, is submitted in any other manner, or is submitted to an address other than the one indicated in these Bid Documents, the bid by bidder failing to properly submit the Bid Security will NOT be considered, even if the bid was otherwise properly submitted. The bidder shall have all risk of failed or late delivery of the Bid Security.

3.3 DISTRICT'S RIGHTS

The District reserves the right to accept or reject any or all bids or any part thereof and to waive any and all technicalities and irregularities and award the contract based on its determination of the best interests of the District.

3.4 BIDDER'S REPRESENTATION

In submitting a bid, the bidder represents that it has read the Bid Documents, that its bid is submitted in accordance therewith, that the bidder is familiar with the local conditions that may affect the bid and the performance of the Work by the successful bidder, and that the bidder and its employees have all required governmental licenses, certifications and permits required to perform the type of work required.

3.5 MANDATORY PRE-BID MEETING

OPS will conduct a mandatory pre-bid meeting for interested bidders at Bryan High School, 4700 Giles Rd, Omaha, NE 68157 on June 17, 2025, at 10:00AM CST. All attendees are required to sign-in at that time, and only those who attend the pre-bid meeting will be allowed to submit a bid. Proposals received from bidders not attending the pre-bid meeting will be returned unopened.

Questions may be asked at the pre-bid meeting. However, such questions and the answers given will not be transcribed or transmitted to the other potential bidders.

Contractors in attendance at the pre-bid meeting should be prepared to conduct all field measurements at that time needed to develop a thorough and accurate bid.

3.6 PLANS AND SPECIFICATIONS

No Plans and Specifications have been prepared for this Project. Original construction plans for the boiler room where Work is to take place, and the boiler operation manual are included in the bid documents as Exhibit A for the information of potential bidders, and are available for inspection by potential bidders at the Omaha Public Schools Service Center, 4041 N. 72nd St, Omaha, NE, 68134. All potential bidders will be responsible to verify any variance in the existing construction from the original plans and verify all measurements shown on the original plans. All potential bidders must be prepared to inspect the work area, complete their own measurements within the Boiler Room and verify any differences between the original Plans and the current boiler room configuration at the time of the Mandatory Pre-Bid meeting.

3.7 BID QUESTIONS

Any questions or requests for interpretation of these Bid Documents should be emailed to the e-mail box listed on the Cover Page. The **subject line of the email must include the following language: "OPS Bid No. 25-007 Bryan High Boiler Retubing Questions."**

Questions regarding the Bid Documents and the bid procedures and requirements must be submitted by email on or before the deadline for submission of questions listed on the Cover Page, at 5:00 p.m. CST. Responses to written questions so submitted will be provided to all identified potential respondents, without indicating who submitted the question. These communications requirements have been established by the District to ensure a fair and equitable process for all potential bidders. The email address listed above for questions is the only authorized location and representative of the District who can respond to questions regarding this Bid. Questions submitted in any other form, including by hard copy, facsimile and telephone, and questions submitted to an email address other than the one indicated for questions in these Bid Documents will NOT be answered. Any attempt to communicate or contact any Board Member, employee, or consultant of the District on any manner having to do with any aspect of this Bid may result in the disqualification of the bidder as a potential contractor.

3.8 BID SUBMISSION

Bids must be prepared and submitted on the Bid Proposal Form attached to these Bid Documents and delivered to the District address shown on the Cover Page of these Bid Documents. All required information requested in the Bid Proposal Form must be furnished, together with the original Bid Security timely delivered to the District with original signatures. Bids must be signed by an authorized signatory for bidder and initialed and dated where indicated. Bids and Bid Security must be submitted in hard copy to the address specified in the Bid Documents by the time and date indicated in the Bid Documents. All submitted bids must comply with the following requirements:

3.8.1 The bid must be submitted in a pdf format.

3.8.2 The bid must be attached to and submitted in hard copy with the bid title and bid number written on the exterior of the envelope or container containing the bid.

3.8.3 All Product description and specification documents, warranty documents, safety data sheets and any other documents to be submitted with the bid proposal as may be required in Sections 1.0 and 2.0 of these Bid Documents must be submitted in pdf format

and included with the bid proposal as attachments to the bid proposal. A list of required attachments is included in the Bid Form.

3.8.4 Bidder must include all required signatures of authorized representatives of the bidder, including on any certificates included as bid attachments.

Bids submitted in any other form, including telephone, email and facsimile bids, along with bids submitted to an address other than the one indicated in these Bid Documents will NOT be considered. OPS will not accept links to shared files in any proposal. The time stamp on the OPS's time clock maintained by the District's Operational Services Department will be the official clock utilized to determine the time for the close of bid submissions. Bids must be submitted to the District not later than 2:00 p.m. Central Time, on the due date specified in the Bid Documents for submission of bids.

3.9 BID ATTACHMENTS

Bidders shall include with their bid responses the following attachments: (i) summary of the manufacturer's warranty terms for the equipment the bidder is proposing to furnish; and (ii) the specifications for the Contractor furnished equipment specified in Contract Specifications in the Bid Documents that the bidder is proposing to furnish. The original Bid Bond must also be submitted with the bid response.

3.10 BID SUBMISSION DEADLINE

Bids are due at 2:00 p.m. Central time on the due date specified in the Bid Documents. Bids received after 2:00 p.m. Central time on the due date are considered late and will be deleted unopened from the OPS' e-mail bid box. OPS is not responsible for ANY late bids due to failure or delay in e-mail delivery. The bid must be received by the time and date indicated on the Bid Documents. Please allow enough time for delivery. The risk of delivery rests solely on the bidder. Late bids will not be accepted or considered.

3.11 BID WITHDRAWALS AND RESUBMISSIONS

Withdrawal of a bid may be made by a bidder any time prior to 2:00 p.m. Central time on the bid due date. A withdrawal may only be done by the bidder's written notification delivered to the same address where the bid was originally submitted, with the following notation on the exterior of the envelope containing the withdrawal: "Withdrawal of Bid" including the Bid number and the Bid title. The withdrawal notification must be received by the OPS Purchasing Division prior to the date and time of the bid submission deadline. An attempted withdrawal in any other form, including email, facsimile, telephone or oral withdrawal request will not be honored. An addendum or bid modification in lieu of a withdrawal is NOT acceptable and will be rejected. If properly withdrawn, a bid may be resubmitted in accordance with the Bid Documents so long as it is re-submitted prior to the deadline for submission of bids. All bids submitted and not withdrawn as specified in the Bid Documents shall remain open and be subject to acceptance for one hundred twenty (120) days after the bid due date and may not be withdrawn prior to the expiration of such 120-day period.

3.12 BID OPENING

Bids will be opened in public at the Teacher Administrative Center, 3215 Cuming Street, Omaha, Nebraska 68131 immediately following the bid submission deadline stated on the Bid Document cover page. Those submitting bids can attend in person or remotely join the opening by accessing Microsoft Teams meeting at 1 402-509-3892 within the United States. The Phone Conference ID is listed on the RFP cover page. If attending in person, please arrive at the security desk at least 10 minutes prior to the 2:00 PM Central deadline.

3.13 BID TABULATION

Notes may be taken at the public reading of the bids at the specified time and date of the opening, or a personal inspection may be made of the bids after award has been made and documents are placed in central files in the Purchasing Division offices. In lieu of a visit, copies of the bid tabulations are available. The cost for a bid tabulation copy is $5.00 for any tabulation up to 20 pages in length. There is an additional charge of $.25 for each page in excess of 20 pages. Make checks payable to Douglas County School District 0001. Bidders may include a request for a bid tabulation copy with its bid response or may contact the OPS buyer to make a request. The buyer will notify the bidder regarding the cost of the bid tabulation once it is known.

3.14 POST-BID EVALUATIONS

Prior to recommendation of bid award, District will review the apparent low bidder's qualifications and credible experience in similar installation projects to assure that the bidder meets the experience required by the District in the Specifications that are a part of the Bid Documents. The District reserves the right to ask any bidder to provide references of companies that contracted with the bidder for similar projects, including the following information: Company Name(s), Contact Name, Phone Number, and Email Address.

3.15 BID AWARD AND CONTRACT

Following Board of Education approval of the bid award, the successful bidder shall be notified by the District via email regarding the award. The award will be made to one bidder. The successful bidder will be required to execute a Contract with the District after the bid award. The Contract will be executed within ten (10) days from the date it is presented to the successful bidder for signature. The Contract will incorporate the terms and conditions of the Contract Documents (as defined in Section 4.1 below). When the Agreement with the District is approved by the Board of Education, the successful bidder shall provide the District with an Insurance certificate, as specified in these Bid Documents, and the original signed Performance, Labor and Materials Payment Bond using the form appended to the bid documents.

3.16 COLLUSIVE ACTIONS

The bidder's signature on the bid is the bidder's representation and guarantee to OPS that the prices quoted and the contents thereof have been arrived at without collusion with any other actual and potential eligible bidders and without an attempt to preclude OPS from obtaining the lowest possible competitive price, influencing the prices quoted by any other eligible bidder or discouraging other potential bidders from bidding.

4.0 GENERAL TERMS AND CONDITIONS

The following terms and conditions, along with the remainder of the Bid Documents, will become a part of the Agreement or Purchase Order between the successful bidder and OPS. The term "Contractor" as used in the Contract Documents, means the successful bidder that contracts with OPS to perform the Work being bid.

4.1 CONTRACT DOCUMENTS

The term "Contract Documents" as used herein, means those documents that together form the Contract or Agreement between OPS and that consist of the following: the Agreement between OPS and the Contractor, all of the Bid Documents (the Information to Bidders (1.0), the Contract Specifications (Sections 2.0 to 2.9, inclusive), the Bid Submission Instructions and Requirements (Sections 3.0 to 3.16, inclusive) ,the General Conditions (Sections 4.0 to 4.36, inclusive),the Bid Form, the form of the Performance, Labor, and Material Bond, Exhibit A, any Addenda issued by

OPS, Contractor's completed Bid Form including all attachments, and any subsequent modifications. The Contract Documents are incorporated by reference into the Contract between OPS and Contractor and are a part of that Agreement. In the event of any conflict between the Contractor's completed Bid Form and the other Contract Document, the other Contract Documents shall control.

4.2 GENERAL CONDITIONS

All work to be performed by Contractor shall be performed in a good and workmanlike manner and in conformance with the requirements of the Contract Documents.

The Contract Specifications that are incorporated into the Contract Documents provide the minimum requirements for materials, workmanship, construction, and finish. In general, all materials and equipment to be furnished must be of good quality, new and unused, and shall be constructed and installed as specified and of types of equipment and material as specified. Materials of equal or better quality by another manufacturer may be acceptable but only if submitted to the District in advance as a permitted alternate and approved by the District.

4.3 CONTRACTOR'S RESPONSIBILITY

Prior to commencing work, Contractor shall furnish to the District the Performance Bond and the insurance certificates required by the Contract Documents. It shall be the responsibility of the Contractor to review and understand the original construction plans attached to the Bid Documents as Exhibit A, to check those plans carefully to ensure with existing site conditions and uses and to field verify all on-job dimensions.

Contractor and District personnel will also meet for a pre-construction meeting and survey. The survey shall document the existing condition of interior finishes and existing spaces adjacent to areas of work, etc. as well as, acceptable dumpster locations, construction parking, and Contractor-furnished watering stations and locations for temporary sanitary facilities for use by construction personnel.

Projects involving asbestos containing materials require Contractor to meet with the District's Environmental Division at (531-299-0180) prior to starting work to ensure compliance with State of Nebraska Asbestos Control Program Regulations.

Contractor shall have all assigned workers of Contractor and of any subcontractors be approved through OneSource and provide documentation of such to the District. All assigned Contractor and subcontractor employees shall wear proper identification badges as provided by OneSource.

Contractor shall protect all existing construction. Repair of any damage to the work or to any other property of the District caused by the Contractor or any subcontractor or any of their respective employees or other persons for whose acts they are responsible, is the responsibility of the Contractor, and repairs must be completed promptly by Contractor.

Contractor and each subcontractor shall always enforce strict discipline and good order among employees and shall not employ on the work site any unfit person or anyone not skilled in the work assigned. Clothing shall not depict profane or vulgar images, words or phrases unsuitable for students or staff. The District strictly prohibits the illegal use of drugs, alcohol possession or consumption, and the possession of permitted and/or non-permitted firearms within the boundaries of District property.

Contractor will provide at its expense temporary sanitary facilities for use by construction personnel. District restrooms shall not be used by construction personnel.

4.4 CHANGES IN THE WORK

No change in the work required by the Contract Documents shall be made unless pursuant to a written change order that is approved by the District. No claim for an increase in the amount to be paid to Contractor or any extension of time to complete the work shall be valid unless allowed by such approved change order.

4.5 LABOR PRACTICES

It shall be the Contractor's responsibility to prevent any labor disputes due to Contractor's actions at the job site. In this regard, Contractor shall adhere to the following minimal guidelines to avoid labor disputes.

4.5.1 Become familiar with labor practices in existence at the job site as established by the existing contractors and ensure that these practices are in place and enforced at all times during the performance of the work specified in these General Conditions.

4.5.2 Use experienced, established laborers and contractors for any work pertinent to the transportation, loading, unloading, distribution, uncrating and installation of all equipment, accessories and materials necessary

4.6 USE OF TOBACCO PRODUCTS

There shall be no smoking or use of any tobacco or vaping products on/or within the property limits of District property. This regulation shall be enforced by the Contractor.

4.7 WORKER VERIFICATION

The Contractor contracting with the District shall be required to register with and utilize an electronic verification system or program, whether the work authorization program of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, 8 U.S.C. 1324a, now known as the "E-Verify Program" or an equivalent federal program designated by the Department of Homeland Security or other federal agency authorized to verify the work eligibility status of a newly hired employee pursuant to the Immigration Reform and Control Act of 1986. The Contractor shall contractually require all subcontractor(s) performing work under such Contract to also register and utilize such electronic verification system. The Contractor awarded the Contract and all of such Contractor's subcontractor(s) shall use such electronic verification system to determine the work eligibility status of each new employee physically performing any services within the State of Nebraska under the Contract. Any person whom the electronic verification system determines is ineligible or not authorized to work in the United States shall not be permitted by the Contractor or any subcontractor to perform services in Nebraska under such Contract. The Contractor shall provide such reasonable documentation as District may request from time to time during the performance of the Contract and for five (5) years thereafter documenting compliance with the provisions of this Section. Failure to comply with the provisions of this Section shall constitute a default under the Contract with the District.

4.8 DISTRICT FURNISHED INFORMATION

Construction Drawings of facility areas are approximate and subject to on-site verification by the Contractors. Drawings are for clarification only and may not be to scale.

4.9 SHOP DRAWINGS

If required by the Contract Documents, the Contractor shall furnish one (1) copy of shop drawings to the District for approval before fabrication. The District will not be responsible for or accept any equipment or material that is not constructed or manufactured in conformity with the approved shop drawings, or the Contract Specifications. The District will review shop drawings as soon as

reasonably practical after they are submitted.

4.10 CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

All contracts awarded by the District for this Project in excess of $100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

4.11 PERFORMANCE, LABOR AND MATERIAL BOND

If the amount of the Contractor's Contract exceeds $10,000, the Contractor shall furnish within ten (10) days of the award of the Contract a Contractor's Performance, Labor and Material Payment Bond for the full and faithful completion of the work required by the Contract Documents in a sum equal to the full amount of the Contract price executed by a corporate bonding company licensed to transact such business in the State of Nebraska and acceptable to the District. The expense of such bond shall be borne by the Contractor. If at any time, in the judgement of the District, a surety on such a bond becomes unable to perform its commitments under such bond, or is otherwise unacceptable to the District, the Contractor shall furnish a substitute bond, with acceptable surety, within ten (10) calendar days after receipt of written notice to do so. There shall not be a lapse in any bond furnished by Contractor. The bond must be provided on the bond form attached to these Bid Documents.

4.12 FEDERAL TAXES

Where Federal Statutes exempt the District from the payment of excise or manufacturer's taxes on materials or equipment, the Contractor shall exclude the amount of any applicable Federal Excise or manufacturer's taxes from his bid. The District will furnish the Contractor, on request by the Contractor, the necessary exemption certificates to aid the Contractor in the recovery of any such Federal taxes paid by the Contractor for materials and equipment built into structures of the Project or support the Contractor's failure to pay such taxes, as the case may be.

4.13 NEBRASKA STATE AND CITY SALES AND USE TAXES

The District, a tax-exempt political subdivision, will appoint the Contractor to be its Purchasing Agent for the purpose of obtaining materials to be incorporated into the Work contemplated by these Bid Documents without the payment of sales or use taxes. Materials to be incorporated into the Project shall be purchased exempt from Nebraska sales and use taxes in the name of the District; and the bidder shall exclude from his bid all State of Nebraska and Local Option Sales and Use Tax for materials. The bidder shall include State of Nebraska and Local Option Sales and Use Tax for materials which are used or consumed in performing the Work but which are not incorporated into the completed Project.

4.14 ASBESTOS, PCBs, OR HAZARDOUS WASTE

All known and accessible asbestos-containing material, polychlorinated biphenyls (PCBs) and hazardous waste has been or will be removed from the Project area by the District's Environmental Division. In the event Contractor encounters suspect asbestos-containing, PCB contaminated or

other hazardous materials at the Project site, Contractor shall stop work immediately in the suspected contaminated area and contact the OPS Environmental Division at 531-299-0180. No asbestos containing products shall be used or installed in any District facility.

4.15 SOILS

If any soil is brought onto District property, it must be tested for environmental contaminates. Borrow soils used for the purposes other than for structural fill, such as finish grade, topsoil or surcharge, are required to be tested in the same manner for environmental contaminates. Contractor will inform District of the location of borrow soil no less than two weeks prior to its use on District property. Testing will include the collection of not less than three samples per borrow site. The District and/ or their designated representative will perform soil sample collection.

Lead content of soil will be determined by analysis using either flame or furnace atomic absorption spectroscopy. Laboratories performing analysis for lead in soil will be certified by the National Lead Laboratories Accreditation Program (NLLAP) by mandatory participation in the Environmental Lead Proficiency Analytical Testing (ELPAT) program. Lead content will be reported as parts per million (ppm). Should any of the soil samples report a lead concentration greater than 200 ppm, the soil will not be allowed for use on District properties.

4.16 COMPLIANCE WITH THE LAW

Contractor shall comply with all applicable federal, state and local laws, ordinances, regulations and codes in the performance of the Contract. Contractor shall have the necessary rights, licenses and approvals required to perform the Work. All steamfitter and pipefitters will have all required governmental licenses and permits to perform the work required by the Contract Documents. Contractor represents that it is not listed on the non-procurement portion of the General Services Administration's "List of Parties Excluded from Federal Procurement or Nonprocurement Programs" in accordance with Executive Orders 12549 and 12689, "Debarment and Suspension" (See 45 CFR part 76.) as the same may be amended from time to time.

4.17 PROJECT CLOSEOUT, CLOSEOUT DOCUMENTS AND FINAL PAYMENT

Final payment shall not become due until the Contractor has provided the following documents to the District:

4.17.1 A satisfactorily completed punch list of deficiencies required to satisfy warranty requirements or work that has been judged incomplete by District personnel.

4.17.2 A complete unconditional waiver and release of all lien and bond claims arising out of the work required by the Contract Documents, including Contractor and all subcontractors and all principal material suppliers or receipts showing payment in full in lieu thereof.

4.17.3 An affidavit of Contractor stating that the release of liens and payment receipts provided to the District by Contractor for labor and/or material supplied to the Project includes all subcontractors and principal suppliers.

4.17.4 Contractor may, if any subcontractor refuses to furnish a lien waiver or acknowledge payment in full, furnish a bond satisfactory to the District, to indemnify said Contractor against any lien.

4.17.5 Original Consent of Surety to Final Payment.

4.17.6 Material Safety Data Sheets (MSDS) for all materials to be used in the completion of work.

4.17.7 Original Contractor's one (1) year Labor & Workmanship Warranty.

4.17.8 All original Manufacturer's Material and Equipment Warranties with Contractor's assignment to the District if required by District or if furnished by the manufacturer without additional charge to the District.

If any claim or lien remains unsatisfied after all payments are made, the Contractor shall refund to the District all monies the latter may be compelled to pay in discharging such a lien, including all costs, interest, and reasonable attorney's fee.

4.18 DEFECTIVE WORK AND WARRANTIES

The District, or its designated representative, prior to final completion shall have the right to reject any work, materials or equipment that are defective, which Contractor shall promptly correct. In addition, for a period of one (1) year from the date of Substantial Completion of the Contractor's work, the Contractor will, upon demand by the District, promptly make all repairs and replacements to the Work at Contractor's cost due to any defects in the equipment, material or workmanship furnished and performed under the Contract Documents. This warranty is in addition to all other warranties provided in the Plans and Specifications. In addition to the Labor and Material Warranty, all manufacturers' warranties provided by the equipment or material manufacturers must be assigned to the District.

4.19 PERMITS

The Contractor shall be responsible for securing and providing direct payment to governing bodies for the necessary permits required to perform the work. This will include a City of Bellevue Mechanical Permit Application and Notice of Installation to the Nebraska State Fire Marshall per Nebraska Administrative Code Title 229: Chapter 3 – Notice of Installation of Boilers and Pressure Vessels.

4.20 THE DISTRICT'S RIGHT TO DO WORK

If the Contractor should neglect to prosecute the work properly or fail to perform any provision of the Contract Documents after seven (7) calendar days' written notice to the Contractor, the District may, without prejudice to any other remedy it may have, correct such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor.

4.21 CIVIL RIGHTS

Contractor will comply with Title VI of the Civil Rights Act of 1964 (P.L. 88-352), as amended by the Equal Opportunity Act of 1972, all requirements imposed by or pursuant to the Regulations of the Department of Education (34 C.F.R. Part 100) issued pursuant to that title, the Pregnancy Discrimination Act of 1978, Federal Executive Order 11246, the Federal Rehabilitation Act of 1973, as amended, the Vietnam Era Veteran's Readjustment Assistance Act of 1974, Title IX of the Education amendments of 1972, the Age Act of 1972, the Americans With Disabilities Act of 1990, the Genetic Information Nondiscrimination Act of 2008, and the Nebraska Fair Employment Practice Act, Neb. Rev. Stat. §48-1122. Contractor agrees no person in the United States shall on the grounds of race, color or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which OPS receives federal financial assistance from the Department; and hereby gives assurance that the Institution will immediately take any measures necessary to effectuate this Agreement. Contractor further agrees to comply with all applicable requirements of state and local laws, ordinances, and regulations regarding nondiscrimination in employment. Contractor agrees not to discriminate in its employment practices and will render services under this Agreement without regard to race, color, national origin, religion, sex (including pregnancy), marital status, sexual orientation, disability, age,

genetic information, gender identity, gender expression, citizenship status, veteran status, political affiliation or economic status. Any act of discrimination committed by Contractor or failure to comply with these statutory obligations when applicable shall be a default under the Contract with the Contractor.

4.22 NO ASSIGNMENT

Contractor awarded the Contract or issued the Purchase Order shall not assign the same in whole or in part to any other person or entity without the prior written consent of OPS, which shall not be unreasonably withheld. No interest of Contractor in the Contract shall be transferred by operation of law.

4.23 SUBCONTRACTING

If Contractor intends to utilize subcontractors for the performance of any services under the Contract, OPS shall have the right to review any subcontractors that the Contractor intends to use for this Contract. Any approved subcontractor shall meet all requirements of the Contract. Subcontractors selected by the Contractor will be the direct responsibility of such Contractor and not OPS. The responsibility for coordinating and managing the activities of a subcontractor lies with the Contractor and not OPS.

4.24 PERFORMANCE OF WORK AND LIQUIDATED DAMAGES

It is hereby understood and mutually agreed, by and between the Contractor and the District, that the date of beginning, rate of progress, and the time for completion of the work to be done hereunder are ESSENTIAL CONDITIONS of this Contract; and it is further mutually understood and agreed that the work embraced in this Contract shall be commenced on a date to be specified in the Specifications.

The Contractor agrees that the Project shall be prosecuted regularly, diligently and uninterruptedly at such rate of progress as will ensure full completion thereof within the time specified. It is expressly understood and agreed by and between the Contractor and the District, that the time for the completion of the Project described herein is a reasonable time for the completion of the same, taking into consideration the average climatic range and usual industrial prevailing in this locality.

IF THE CONTRACTOR SHALL NEGLECT, FAIL OR REFUSE TO COMPLETE THE PROJECT WITHIN THE TIME SPECIFIED IN THE CONTRACT DOCUMENTS , then the Contractor does hereby agree, as a part consideration for the awarding of this Contract, to pay to the District the amount specified in the Contract, not as a penalty, but as liquidated damages for such breach of Contract as hereinafter set forth, for each and every calendar day that the Contractor shall be in default after the time stipulated in the Contract for Substantial Completion of the work.

The liquidated damages amount is fixed and agreed upon by and between the Contractor and the District because of the impracticability and difficulty of fixing and ascertaining the actual damages the District would in such event sustain, and said amount is agreed to be the amount of damages which the District would sustain and said amounts shall be retained from time to time by the District from current periodical estimates. It is further agreed that time is of the essence of each and every portion of this Contract and of the specifications wherein a definite and certain length of time is fixed for the performance of any act whatsoever and where under the Contract an additional time is allowed for the completion of any work, the new time limit fixed by such extension shall be of the essence of this Contract.

Contractor shall not be charged with liquidated damages for those days of delay that are solely due to the occurrence of any of the following that actually delay the performance of the Work:

(1) any material shortage caused by preference, priority or allocation order duly issued by the Government,
(2) any unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God, or of the public enemy, fires, floods, epidemics, quarantine, restrictions, strikes which preclude the Contractor from working on the site or from obtaining materials necessary to the progress of the work and material shortages due to freight or trade embargoes.

Provided that each case, the Contractor must, within seven (7) calendar days from the beginning of such delay from such cause, request an extension of time by change order, which must be approved by the District. The liquidated damages provision regarding delays does not in any way impact the District's right to recover its actual damages for defective performance of the contracted-for scope of work.

4.25 DISTRICT'S RIGHT TO TERMINATE CONTRACT

The Contractor shall be in default, and the Contract with Contractor may be terminated by the District, should any one or more of the following conditions occur:

(1) The Contractor should be adjudged as bankrupt.

(2) The Contractor makes a general assignment for the benefit of creditors.

(3) A receiver is appointed to take over the Contractor's affairs.

(4) The Contractor fails to prosecute the work with due diligence, fails to carry the work forward in accordance with the Project schedule and time limits set forth in the Contract Documents, fails to perform the work as required by the Contract Documents or otherwise fails to perform the Work in a good and workmanlike manner and free of defects .

(5) The Contractor fails to promptly pay any subcontractor or suppliers without justification.

(6) The Contractor fails to perform one or more of the provisions of the Contract Documents.

In such cases, the District may serve written notice on the Contractor and the Surety on Contractor's performance bond stating its intention to exercise one or more of the remedies set forth in Section 4.26 and the grounds upon which the District bases its right to exercise such remedy.

4.26 DISTRICT REMEDIES FOR DEFAULT

In event the District serves written notice referred to in 4.25 on Contractor, District may, without prejudice to any other right or remedy, exercise one or more of the following remedies at once.

(1) The District may terminate the employment of the Contractor, effective immediately. Should the Contractor's Surety fail to commerce completion of the Contract within the ten (10) calendar days after notice of termination, the District may:

(a) Take over the work, taking possession of and use all materials, tools, equipment, and appliances on the premises and

(b) Prosecute the work to completion by such means as it shall deem best.

In the event of such termination of employment, the Contractor shall not be entitled to any further payment under the Contract until the work is completed and accepted. If the unpaid balance of the Contract price, including compensation for any damages or expenses

incurred by the District through the default of the Contractor at that time, exceeds the cost of completing the work, then such excess shall be paid to the Contractor upon completion and acceptance by the District. Should such damages or expenses incurred by the District through the default of the Contractor at that time exceed unpaid balances of the Contract price, the Contractor and his Surety shall pay the difference to the District.

(2) The District may take control of the work and either:

(a) Correct the deficiencies of the Contractor itself or

(b) Direct the activities of the Contractor and in doing so, employing such additional help as the District deems advisable.

In such event, the District shall be entitled to collect the cost thereof from the Contractor and its Surety, or deduct from any payment then or thereafter due the Contractor the cost incurred by the District to have such deficiencies corrected or expenses incurred through the default of the Contractor.

(3) The District may require the Surety on the Contractor's bond to take control of the work at once and see to it that all the deficiencies of the Contractor are corrected, with due diligence. As between the District and Contractor, the cost of correcting such deficiencies shall all be borne by the Surety.

(4) If the Surety takes over the Project, either upon termination of employment of the Contractor or upon instructions from the District to do so, the provisions of the Contract Documents shall govern in respect to work done by the Surety, the Surety being substituted for the Contractor as to such provisions including provisions as to payment for the work and as to the right of the District to do the work itself, or take control of the work.

4.27 TERMINATION FOR CONVENIENCE

At any time during the term of the Contract, the District may terminate the Contract for its convenience and without cause by written notice to Contractor given at any time during the term if the Contract, which notice shall specify the effective date of termination. In the event that the District elects to terminate this Contract without cause, the District will remain obligated to take possession of and pay the Contract price for all Work that have been completed and accepted by the District at the time the notice of such termination is given. The parties shall be released of further obligation under the Contract except for those obligations that are to survive termination and the obligations of the parties.

4.28 INSURANCE

The Contractor shall maintain such insurance as will protect themselves, any subcontractor, and the District, from claims arising from property damage liability, and from claims for damages because of bodily injury, including death, which may arise from and during the operations under and during the life of this Contract, whether such operations be by the Contractor or by any subcontractor or anyone directly or indirectly employed by either of them. This insurance shall be written in accordance with the limits of liability specified in the Contract Documents as outlined as follows and shall be written on an occurrence basis only. This insurance shall be written in accordance with the limits of liability specified in the following paragraphs. District shall be an additional insured on all insurance policies provided by Contractor. Contractor must at all times maintain the following insurance coverages:

Employer's Liability
$500,000 per accident
$500,000 disease, policy limit

$500,000 disease, each employee

Commercial General Liability
Bodily injury and property damage liability
$1,000,000 per occurrence
$2,000,000 general aggregate
$2,000,000 completed operations aggregate
$1,000,000 personal and advertising injury

Commercial General Liability Coverage must include the following:

(1) General Aggregate to apply on a per project basis.

(2) District shall be named as Additional Insured on a primary and non-contributory basis including completed operations.

(3) Contractor agrees to waive its rights of recovery against District. Waiver of Subrogation in favor of (District) shall be added to the policy.

(4) Contractual liability coverage shall be on a broad form basis and shall not be amended by any limiting provisions or endorsements.

(5) Products and completed operations shall be maintained for duration of work and shall be further maintained for a minimum period of two (2) years after final acceptance and payment.

Automobile liability coverage insuring both bodily injury and property damage with limits of liability per occurrence of at least $1,000,000 combined single limit. This insurance shall cover owned, non-owned and hired vehicles. Automobile liability insurance must also include insurance covering liability for transportation of asbestos containing materials.

Umbrella/Excess policy with limits of at least $4,000,000. Policy shall provide liability coverage in excess of the specified Workers Compensation/Employers Liability, Commercial General Liability and Auto Liability. Waiver of Subrogation in favor of the District shall be added to the policy. Policy limits shall apply on a per project basis.

All insurance required must be written by a company or companies licensed to transact such business either on an admitted or non-admitted basis in the State of Nebraska which are acceptable to the District. District shall be named as an additional insured on all such policies on a primary and non-contributory basis. All required policies of insurance and the certificates must provide for at least thirty (30) days written notice to District of any change in or cancellation of or termination of the coverage or coverages. All liability insurance to be furnished by Contractor shall provide "occurrence" coverage for any liability arising out of the Contract. Contractor shall maintain such liability insurance, including products and completed operations coverage, for a period of two (2) years after final acceptance of the work and shall provide District with certificates evidencing such coverage.

All projects where price quotes were solicited by bid or proposal must submit an individual insurance certificate noting all required coverages in place for that particular project prior to commencing any work on the project. Contractors or vendors who respond to small projects that are initiated by verbal request such as emergencies may submit an insurance certificate for general coverage in the amounts listed in this Section in force for a period of one-year.

4.29 WORKERS COMPENSATION INSURANCE

Each Contractor shall maintain at its own expense until completion of this Project and acceptance thereof by the District, Workers' Compensation Insurance coverage, covering the obligations of the Contractor in accordance with the provisions of the laws of the State of Nebraska. In case any work is subcontracted, the Contractor shall require subcontractors similarly to provide such insurance covering the subcontractor's obligations to its employees. Each Contractor shall furnish the District with a certificate on or before the date the Agreement is signed, that such Contractor is

covered by Worker's Compensation insurance for protection of their employees as required by law.

4.30 BUILDERS' RISK/INSTALLATION FLOATER INSURANCE

Contractor will purchase and maintain Builder's Risk/Installation Floater Insurance equal to the amount of the contract covering the entire work at the Project site including all materials and equipment destined to become a part of the work only if the contractor is involved with construction activities related to the structural integrity of the building or any mechanical system of the building. The District and subcontractors will be an additional insured under this policy. The Contractor will be responsible for the deductible portion of any covered loss due to loss caused by or contributed by the negligent act of the Contractor or subcontractor. This deductible shall not exceed $10,000. There will be a waiver of subrogation in favor of the District on all Builders' Risk/Installation Floater coverage. The District shall be named as an additional named insured on any Builders' Risk/ Installation Floater policy, and will be named as an additional insured and loss payee on any installation floater policy.

Minimum limits of at least:
($TBD) Jobsite
($TDB) Off-site at a Temporary Location
($TBD) In Transit
Riggers Limit: ($TBD)

Contractor agrees to waive all rights of recovery against District and its agents, officers, directors and employees for any loss insured under such policy. Contractor's insurer shall endorse the policy to waive subrogation against the District and its agents, officers, directors and employees.

4.31 RIGGERS COVERAGE (if applicable)

If the Contractor will be using a crane or other equipment to rig or lift equipment or materials as part of this Project, the Contractor will maintain Riggers Coverage equal to the most expensive item rigged and lifted as part of the installation.

4.32 PAYMENT

Applications for payment may be submitted up to twice monthly. All such applications must be approved by the District's Board of Education at a regular meeting, usually held the first and third Monday of the month. Contractor should allow at least eight (8) business days prior to a Board meeting when submitting payment applications. Contractor shall submit applications for progress payments via email to the Project Manager (PM). Such application for payment shall be accompanied by such other documents as are required by the Contract Documents or that may be reasonably required by the District. Such application for payment shall be reasonably detailed and shall include the value of any work performed and materials incorporated into the work, based on the Contractor's approved schedule of values, less any applicable retainage and less the aggregate of all previous payments. Retainage in the amount of 10% of the amount of each application for payment shall be retained from each payment until the work is 50% completed at which time retainage shall be reduced to 5% of each subsequent application for payment. District may reinstate 10% retainage at any time as permitted by law. Based on the PM's observations and an evaluation of the Contractor's applications for payment as submitted to the PM, the PM will determine the amounts owing to the Contractor and will forward the Contractor's Certificates for Payment to District for review and action in such amounts and with such recommendations as PM deems appropriate. Final approval of any application for payment shall be made by the District. At Substantial Completion of the work, retainage will be paid to Contractor, less 125% of the amount estimated by District to complete incomplete work and the amount of unsettled claims against Contractor. Final payment of all remaining unpaid amounts will be paid as provided in Section 4.17 hereof.

4.33 EMPLOYEE CLASSIFICATION

The Contractor agrees to abide by the provisions of Neb. Rev. Stat. 48-2901 to 48-2912, also known as the Employee Classification Act. In compliance with the Act, the Contractor shall to submit to District upon execution of the contract and upon request an affidavit attesting that (1) each individual performing services for the Contractor is properly classified under the Employee Classification Act, (2) the Contractor has completed a Federal I-9 immigration form and has such form on file for each employee performing services, (3) the Contractor has complied with Neb. Rev. Stat. § 4-114, (4) the Contractor has no reasonable basis to believe that any individual performing services for such Contractor is an undocumented worker, and (5) as of the time of this contract, the Contractor is not barred from contracting with the state or any political subdivision pursuant to Section 48-2912. The Contractor acknowledges that a violation of the Act is grounds for rescission of this contract by District. The Contractor further acknowledges that providing a false affidavit under Section 48-2911 to District may subject the Contractor to the penalties of perjury and upon a second or subsequent violation the Contractor shall be barred from contracting with the state or any political subdivision for a period of three years after the date of discovery of the falsehood. The Contractor shall require any and all subcontractors who perform work pursuant to the Contract to provide a similar affidavit, which shall be made available to the District upon request.

4.34 PUBLIC BENEFIT

For purposes of complying with Neb. Rev. Stat. §§ 4-108 through 4-114, if the Contractor is a sole proprietorship or a general partnership, the Contractor represents to OPS that the sole proprietor or each general partner, as applicable, are citizens of the United States or that are qualified aliens under the federal Immigration and Nationality Act. Any qualified alien must provide to OPS that person's immigration status, alien number and a copy of their USCIS documentation upon request by OPS.

4.35 GOVERNING LAW, JURISDICTION, AND FORUM SELECTION

The laws of the State of Nebraska shall govern the interpretation and performance of the Contract or Purchase Order between OPS and Contractor and of the Contract Documents without regard to its conflicts of laws principles. The Contractor who enters into the Contract with OPS or accept a Purchase Order from OPS shall irrevocably consent and submit to the personal jurisdiction of the state and federal courts of Nebraska. Any action brought to enforce or interpret any provision of the Contract Documents shall be brought in the state or federal courts located in Douglas County, Nebraska. The Contractor hereby acknowledges and agrees that the state and federal courts located in Douglas County, Nebraska, are proper and convenient forums in which to litigate any matter pertaining to the Bid Documents and the Contract Documents.

4.36 PUBLIC RECORDS

As a Nebraska political subdivision, OPS is subject to the requirements of the Nebraska public records laws (Neb. Rev. Stat. §§ 84-712 to 84-712.09), which allows members of the public to have access to any information or records, regardless of physical form, of or belonging to a Nebraska political subdivision, such as OPS. As defined by Nebraska law, examples of public records subject to disclosure during a bid procedure will include the Bid Documents, the bidder's bid and any other document submitted by a bidder to OPS, bidder questions and OPS responses, any agreement between OPS and the successful bidder, any purchase order issued to the successful bidder by OPS, or any other public record in the possession of OPS regarding this bidding and contracting process, whether created before or after the Bid Documents were issued by OPS and whether created by OPS, the bidders or any other third party. These public records will be open to public inspection and copying unless exempted from disclosure in accordance with the OPS's interpretation and application of applicable law. Documents exempt from disclosure under the Nebraska public records laws are enumerated at Neb. Rev. Stat. §712.05. It shall be the sole

responsibility of Bidder (a) to notify OPS, as soon as possible, of any requested redactions to any such information or records provided by the bidder to OPS that may otherwise be required to be open to public inspection and copying and (b) to indicate the legal basis for such requested redactions. In addition, Bidder agrees to defend OPS in any legal challenge to such requested redactions at Bidder's own expense. The failure of a Bidder to request redactions to any information or records released by OPS shall constitute a complete waiver of any and all claims for damages caused by any such release. Any attempt by a Bidder to request a redaction or otherwise claim confidentiality as to any public record in the possession of OPS will be ineffective and not, by itself, binding upon OPS unless OPS has independently determined that the bidder's request that a document, or portion thereof, is entitled to be withheld from public inspection and copying or if OPS is ordered by a court of appropriate jurisdiction to allow public inspection and copying of the document.

BID FORM
BID NO.: # 25-007

Omaha Bryan High Boiler Tube Replacement

Proposal of _____, a [___] corporation organized and existing under the laws of the State of _____; a [___] limited liability company organized and existing under the laws of the State of _____; a [___] partnership, organized and existing under the laws of the State of_____; or an [___] individual (check appropriate box).

TO: Omaha Public Schools Purchasing Division
3215 Cuming Street
Omaha, Nebraska 68131-2024

The undersigned, having familiarized himself with local conditions affecting the cost of the work at the place where the work is to be done and with the drawings and specifications and other Contract Documents hereby proposes and agrees to perform everything required to be performed by the Contract Documents, and to provide and furnish all labor, materials, equipment, tools, expendable equipment and all utility and transportation services necessary to perform and complete in a workmanlike manner all of the work required by the Contract Documents for the Work, all in strict accordance with the Contract Documents as furnished by the Douglas County School District 0001 ("District") for the consideration hereinafter set forth.

In submitting this bid the Bidder certifies to the District that the bidder is complying with, and will continue to comply with, all applicable Fair Labor Standards set forth in Chapter 73 of the Nebraska Revised Statutes.

The undersigned agrees that this bid cannot be withdrawn and can be accepted by the District for a period of one hundred twenty (120) days subsequent to the opening of bids without the consent of the Board of Education. The undersigned further acknowledges that District reserves the right to accept or reject any or all bids and any part thereof and to waive any and all technicalities and irregularities.

The undersigned proposes to furnish all labor and materials (required to be furnished by the Contractor) and complete all Work as required by the Contract Documents for this Project for the following amount.

Bryan High Boiler Tube Replacement

_____Dollars ($_____)
(amount in words) (amount in numerals)

(Initial: _____)
(Date: _____)

Attachments:

1. Required product information for Contractor supplied equipment.
2. Detailed proposal for logistical removal of existing tubes, rigging and reorientation of boiler within the existing boiler room (if needed) to complete retubing, and final placement, reconnection, and testing of unit and integration with the building system.
2. Warranty Information for Contractor supplied equipment.
3. Safety Data Sheets.

[Signature page follows]

SIGNATURE PAGE

BID NO: # XX-XXX

COMPANY NAME: _____

ADDRESS: _____

CITY/STATE/ZIP: _____

TELEPHONE: _____ FAX: _____

E-MAIL: _____

SIGNATURE: _____

Bids must be signed to be valid.

PRINTED NAME: _____

TITLE: _____

DATE: _____

Please note below which contact the pricing above is based upon.

Acknowledge Receipt of Bid Addendum:

Addendum No._____ Date_____
Addendum No._____ Date_____
Addendum No._____ Date_____

BID NO: # 24-007 Omaha Bryan High Boiler Tube Replacement

and delivered in hard copy to:

Omaha Public Schools
District Operational Services
3215 Cuming Street
Omaha Nebraska 68131

BIDS ARE DUE BY 2:00 PM (CT) on July 7, 2025

PERFORMANCE, LABOR AND MATERIALS BOND

KNOW ALL MEN BY THESE PRESENTS That we _____ as principal and _____ as Surety are held and firmly bound to the Board of Education of the Douglas County School District 0001, a political subdivision of the State of Nebraska, in the penal sum of $ _____ to be paid to said Board of Education of the Douglas County School District 0001 for which payment to be well and truly made, we bind ourselves and each of us, our and each of our heirs, executors, administrators, successors and assigns, jointly and severally firmly by these presents.

Dated this _____ day _____ A.D., 20_____.

The condition of this obligation is that:

Whereas, by even date herewith the said principal has entered into a contract with the said Board of Education of the Douglas County School District 0001 to perform the labor and furnish the material for _____ a copy of which said contract is attached hereto and made a part hereof.

NOW THEREFORE, the conditions of this obligation are such that if the said principal shall duly perform and observe all the stipulations and agreements in said contract on his part to be performed and observed, then and in that event this obligation shall be void and of no effect, but otherwise shall be and remain in full force and effect. It is expressly agreed that any alterations which may be made therein by agreement between the said principal and the said Board of Education of the Douglas County School District 0001, in the terms of said contract, or the nature of the work to be done there under, or the giving of any extensions of time for performing the said contract, or of any of the stipulations therein contained, and on the part of said principal to be performed, or any other forbearance shall not in any way release the said Surety from this liability under the above written bond. It is further expressly agreed and understood that this Bond shall stand as Surety for the payment of all laborers and mechanics for labor that shall be performed and for the payment for material and equipment rental which is actually used or rented in performing said contract.

IN TESTIMONY WHEREOF, the said parties hereto have hereunto set their hands this _____ day of _____, 20_____ and said Surety has caused these presents to be sealed with its corporate seal and duly attested by the signature of its attorney in fact, and their authority is attached hereto and made a part hereof.

_____ _____

_____ _____

(Principal) (Surety)

In the presence of _____

EXHIBIT A

SYMBOLS

PLUMBING

SYMBOL	DESCRIPTION
	SANITARY DRAIN
SS	SUB SOIL DRAIN
S	STORM DRAIN
AW	ACID WASTE
AV	ACID VENT
	VENT
	UNDERGROUND SANITARY LINE
	COLD WATER
DS	DISTILLED WATER
DW	DRINKING WATER
DW	DRINKING WATER CIRCULATING
	HOT WATER
	HOT WATER CIRCULATING
180°	HOT WATER 180°
180°	HOT WATER 180° CIRCULATING
T	TEMPERED WATER
T	TEMPERED WATER CIRCULATING
F	FIRE LINE
SM	SPRINKLER MAIN BRANCH
	SPRINKLER BRANCH HEADS
G	GAS
A	COMPRESSED AIR
PN	PNEUMATIC TUBE
V	VACUUM LINE
OX	OXYGEN LINE
	UNDERFLOOR STORM DRAIN
	UNION
	STRAINER
	BALANCING COCK
	RUNNING TRAP
CO OR CO	CLEAN OUT

SYMBOL	DESCRIPTION
GCO	GRADE CLEAN OUT
	VACUUM BREAKER
	GATE VALVE
	GLOBE VALVE
	CHECK VALVE
	PRESSURE REGULATING VALVE
	PRESSURE RELIEF VALVE
	STOP & WASTE VALVE
	STOP & WASTE VALVE (IN RISE)
	MIXING VALVE
	GAS COCK
	FIRE ALARM VALVE (SPRINKLER)
	COLD WEATHER VALVE (SPRINKLER)
	WATER MOTOR ALARM (SPRINKLER)
HB	HOSE BIBB
WH	WALL HYDRANT
FH	FIRE HYDRANT
MH	MANHOLE
SW	STREET WASHER
DRAINS FD	FLOOR - FD, SHOWER - SHD, FUNNEL - FL, TRENCH - TD, SIGHT - SD, AREA - AD
RD	ROOF DRAIN
DS	DOWN SPOUT

SYMBOL	DESCRIPTION
WC	WATER CLOSET (TANK TYPE)
WC	WATER CLOSET (FLUSH VALVE)
UR	URINAL
LAV	LAVATORY
KS	KITCHEN SINK
SS	SERVICE SINK
CSS	CLINIC SERVICE SINK
CS	CLASSROOM SINK
DF	DRINKING FOUNTAIN
EWC	ELECTRIC WATER COOLER
SH	SHOWER HEAD
BT	BATH TUB
PS	PISCINA
FHC	FIRE HOSE CABINET
F-1	SPECIAL FIXTURE NO
1	COLUMN NUMBER
11	PLUMBING RISER NO
111	ROOM NUMBER

HEATING - VENTILATING - AIR-CONDITIONING

SYMBOL	DESCRIPTION
	STEAM (LOW PRESSURE)
	STEAM (MEDIUM PRESSURE)
	STEAM (HIGH PRESSURE)
	CONDENSATE (LOW PRESSURE)
	CONDENSATE (MEDIUM PRESSURE)
	CONDENSATE (HIGH PRESSURE)
HWS	HOT WATER SUPPLY (HEATING)
HWR	HOT WATER RETURN (HEATING)
EG	ETHYLENE GLYCOL SUPPLY
EGR	ETHYLENE GLYCOL RETURN
CW	CHILLED WATER SUPPLY
CWR	CHILLED WATER RETURN
	CONDENSATE OR VACUUM PUMP DISCHARGE
H	HUMIDIFICATION LINE
FOS	FUEL OIL SUPPLY
FOR	FUEL OIL RETURN
FOV	FUEL OIL VENT
G	GAS
RL	REFRIGERANT LIQUID LINE
RS	REFRIGERANT SUCTION LINE
RD	REFRIGERANT HOT GAS DISCHARGE LINE
C	CONDENSER WATER
CR	CONDENSER WATER RETURN
BBO	BOILER BLOW OFF
ES	EXHAUST STEAM
	CONCENTRIC REDUCER
	ECCENTRIC RUDUCER
	STRAINER
	UNION
	EXPANSION JOINT
	THERMOSTAT
	THERMOMETER
	PRESSURE GAGE

SYMBOL	DESCRIPTION
	AUTOMATIC CONTROL VALVE
	PRESSURE REGULATING VALVE
	SAFETY RELIEF VALVE
	BLOW OFF VALVE
#/HR	F & T TRAP (CAP #/HR)
	THERMOSTATIC TRAP
	FLOW CONTROL VALVE
	AIR BLEEDER VALVE (RADIANT PANEL)
	AIR ELIMINATOR
	BALANCING COCK
	SOLENOID VALVE (REFRIGERANT)
	THERMOSTATIC EXPANSION VALVE (REFRIG.)
	BACK PRESSURE VALVE
	SIGHT GLASS
	PIPE OR ROUND DUCT RISER
UH-1	UNIT HEATER - PROPELLER TYPE
CUH	CABINET UNIT HEATER
FT ROWS EDR MBH	FIN TUBE
W-D-H EDR MBH	CONVECTOR
UV	UNIT VENTILATOR
12/6	RECTANGULAR DUCT FIRST FIGURE IS SIDE SHOWN
SIZE 18H	ROUND DUCT H = HOT C = COLD S = SUPPLY R = RETURN
	CANVAS CONNECTION
ELEV PLAN	VOLUME DAMPER (ELEV & PLAN)
	TURNING VANES
	EXTRACTOR

SYMBOL	DESCRIPTION
	SUPPLY DUCT
	RETURN OR EXHAUST DUCT
ST	SOUND TRAP
CFM SIZE	SUPPLY REGISTER OR GRILLE (R OR G)
CFM SIZE	RETURN REGISTER OR GRILLE (R OR G)
CFM SIZE	FRESH AIR INTAKE
	ROUND CEILING DIFFUSER (SUPPLY)
	ROUND CEILING DIFFUSER (SUPPLY & RETURN)
	SQUARE CEILING DIFFUSER (SUPPLY)
	SQUARE CEILING DIFFUSER (SUPPLY & RETURN)
	SQUARE CEILING DIFFUSER 3 WAY THROW
	SQUARE CEILING DIFFUSER 2 WAY THROW
	AUTOMATIC DAMPER
	GRAVITY DAMPER
	HEATING RISER NO.
	EXHAUST FAN RISER NO

ABBREVIATIONS

A
- ADJ ADJUSTABLE
- AH AIR HANDLING UNIT
- ALUM ALUMINUM
- AP ACCESS PANEL OR DOOR

B
- BTUH BTU PER HOUR

C
- CE COVER ELEVATION
- CFM CUBIC FEET PER MINUTE
- C.I. CAST IRON
- CLG CEILING
- CO CLEANOUT
- CONN CONNECTION
- CU CONDENSING UNIT
- CUH CABINET UNIT HEATER

D
- DB DRY BULB
- D.F. DRINKING FOUNTAIN
- DS DOWNSPOUT
- DW DISHWASHER

E
- EL ELEVATION
- ELEV ELEVATOR
- EWC ELECTRIC WATER COOLER
- EXH EXHAUST
- EXP EXPANSION

F
- FA FRESH AIR
- F.E. FIRE EXTINGUISHER
- F.D. FLOOR DRAIN
- FH FIRE HYDRANT
- FHC FIRE HOSE CABINET

G
- G.I. GALVANIZED IRON

H
- HB HOSE BIBB
- HTG HEATING
- HW HOT WATER

I
- I.E. INVERT ELEVATION

J

K

L

M
- M MOTOR
- MH MANHOLE

N
- NITC NOT IN THIS CONTRACT

O

P
- PRV PRESSURE REGULATING VALVE

Q

R
- RA RETURN AIR

S
- SA SUPPLY AIR
- SP STATIC PRESSURE

T
- T THERMOSTAT

U
- UC UNIT COOLER
- UH UNIT HEATER
- UV UNIT VENTILATOR

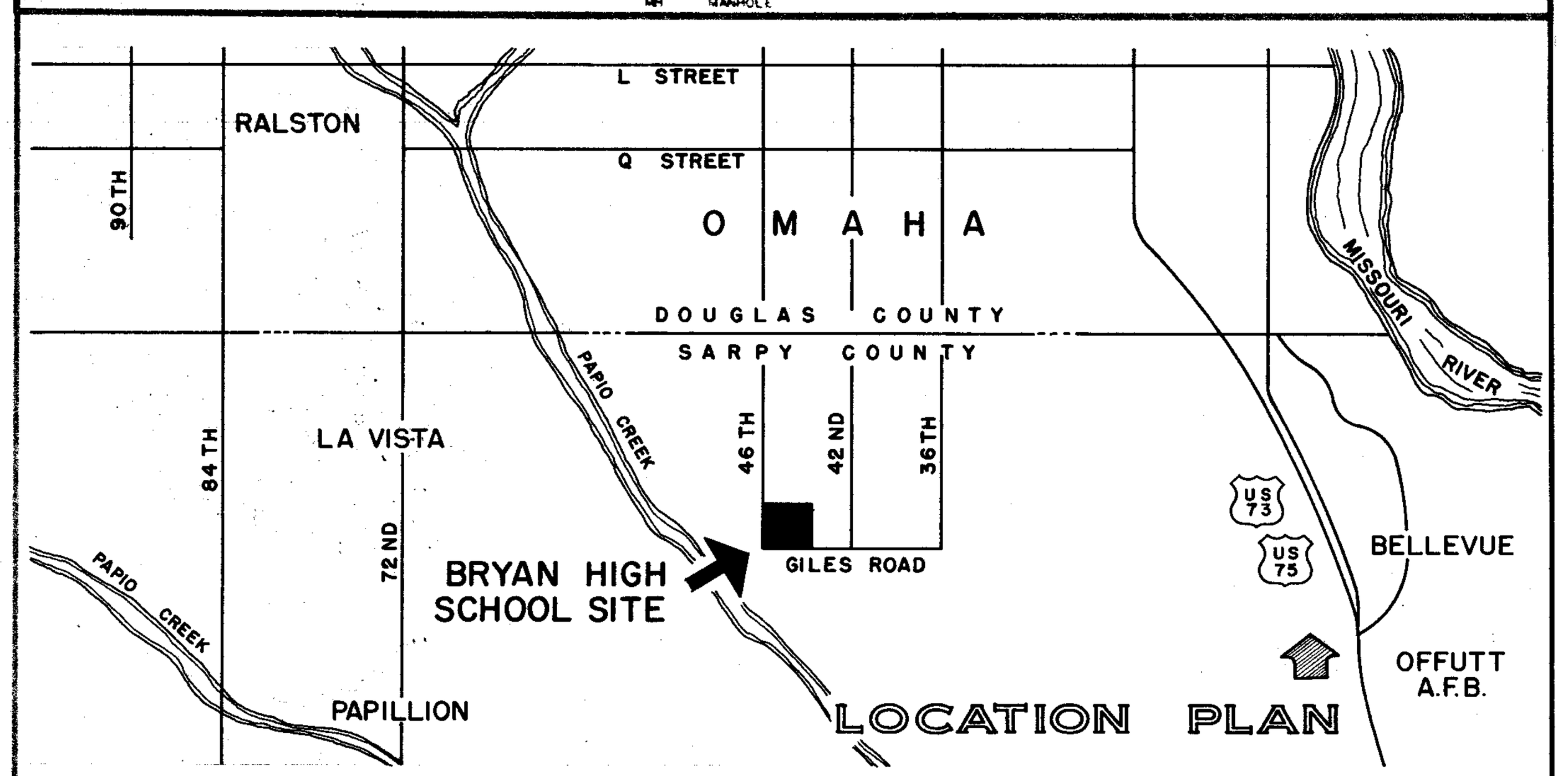
V
- VCP VITRIFIED CLAY PIPE
- VTR VENT THRU ROOF

W
- WB WET BULB
- WH WALL HYDRANT
- WP WATERPROOF

X

Y

Z



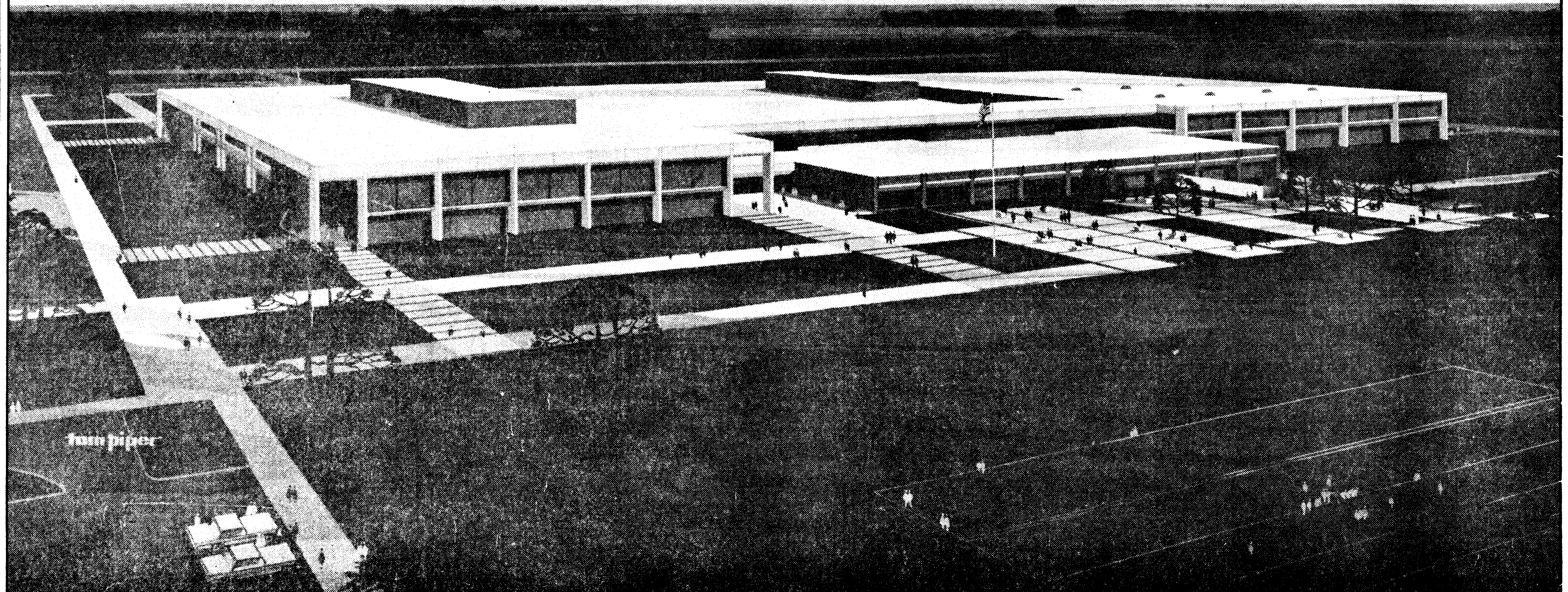
LOCATION PLAN

BOARD OF EDUCATION
OMAHA PUBLIC SCHOOLS
3902 DAVENPORT STREET
OMAHA NEBRASKA 68131

BRYAN HIGH SCHOOL

48TH STREET AND GILES ROAD

SARPY COUNTY NEBRASKA



SCHEDULE OF DRAWINGS

REGISTERED PROFESSIONAL ENGINEER
JAMES P. ROUBAL
A - 1966
STATE OF NEBRASKA

MECHANICAL CONTRACT

DANA LARSON ROUBAL AND ASSOCIATES

DANA LARSON ROUBAL
AND ASSOCIATES
IRVING R DANA AIA
WILLIAM L LARSON AIA
JAMES P ROUBAL PE
ARCHITECTURE
ENGINEERING
AND PLANNING
(402) 341 • 4300
FOUR HUNDRED
EXECUTIVE BUILDING
OMAHA NEBRASKA 68102

110269
10-22-69

M-0

DANA LARSON ROUBAL AND ASSOCIATES
IRVING R DANA AIA
WILLIAM L LARSON AIA
JAMES P ROUBAL PE
ARCHITECTURE ENGINEERING AND PLANNING
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FOUR HUNDRED EXECUTIVE BUILDING
OMAHA NEBRASKA 68102

AS BUILT 8-15-73

BRYAN HIGH SCHOOL

GROUND LEVEL PLAN - AREA 'A' PLBG

110269
10-22-69

M-1

MATCH LINE FOR CONT SEE M-5

FOR PLUMBING LAYOUT SEE M-11

PRV 4" TO DZ. 410 CFH

WATER PRESSURE REGULATORS 10 GPM 45 PSI TO 15 PSI

WATER PRESSURE REGULATORS, 50 GPM, 45 PSI TO 15 PSI

WATER PRESSURE REGULATORS, 12 GPM 45 PSI TO 15 PSI.

3" DRYER VENT FOR PLUMBING LAYOUT SEE M-11

UP TO 2" FD

WATER SHUT OFF TO 2 - REGULATORS ON WEST SIDE OF BUILDING

ROOM # 117

1" DOWN TO OUTSIDE STREET WASHER, SEE 3/18

8" STORM LEADER DOWN FROM UPPER LEVEL

8" STORM LEADER DOWN FROM UPPER LEVEL

SEE SITE GRADING PLAN C-4 FOR CONTINUATION

SEE SITE GRADING PLAN C-4 FOR CONTINUATION.

SCALE: 1/8" = 1'-0"
1ST FLR ELEV 100'-0"
2ND FLR ELEV 114'-8"

NOTE: FOR FIXTURE EQUIPMENT SCHEDULES SEE M-20.

NORTH

JAMES P. ROUBAL A-1966 REGISTERED PROFESSIONAL ENGINEER STATE OF NEBRASKA

NORTH
ML'B'
ML'A'

KEY PLAN
NOT TO SCALE

DANA LARSON ROUBAL AND ASSOCIATES
IRVING R DANA AIA
WILLIAM L LARSON AIA
JAMES P ROUBAL PE
ARCHITECTURE ENGINEERING AND PLANNING
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FOUR HUNDRED EXECUTIVE BUILDING
OMAHA NEBRASKA 68102

1 AS BUILT 3-15-73

BRYAN HIGH SCHOOL

GROUND LEVEL PLAN - AREA 'A' PLBG

110269
10-22-69

M-1

MATCH LINE FOR CONT SEE M-5

FOR PLUMBING LAYOUT SEE M-11

PRV 4" TO DZ. 410 CFH

WATER PRESSURE REGULATORS 10 GPM 45 PSI TO 15 PSI

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JAMES P. ROUBAL A-1966 REGISTERED PROFESSIONAL ENGINEER STATE OF NEBRASKA

NORTH
ML'B'
ML'A'

KEY PLAN
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OMAHA NEBRASKA 68102

1 AS BUILT 3-15-73

BRYAN HIGH SCHOOL

GROUND LEVEL PLAN - AREA 'A' PLBG

110269
10-22-69

M-1

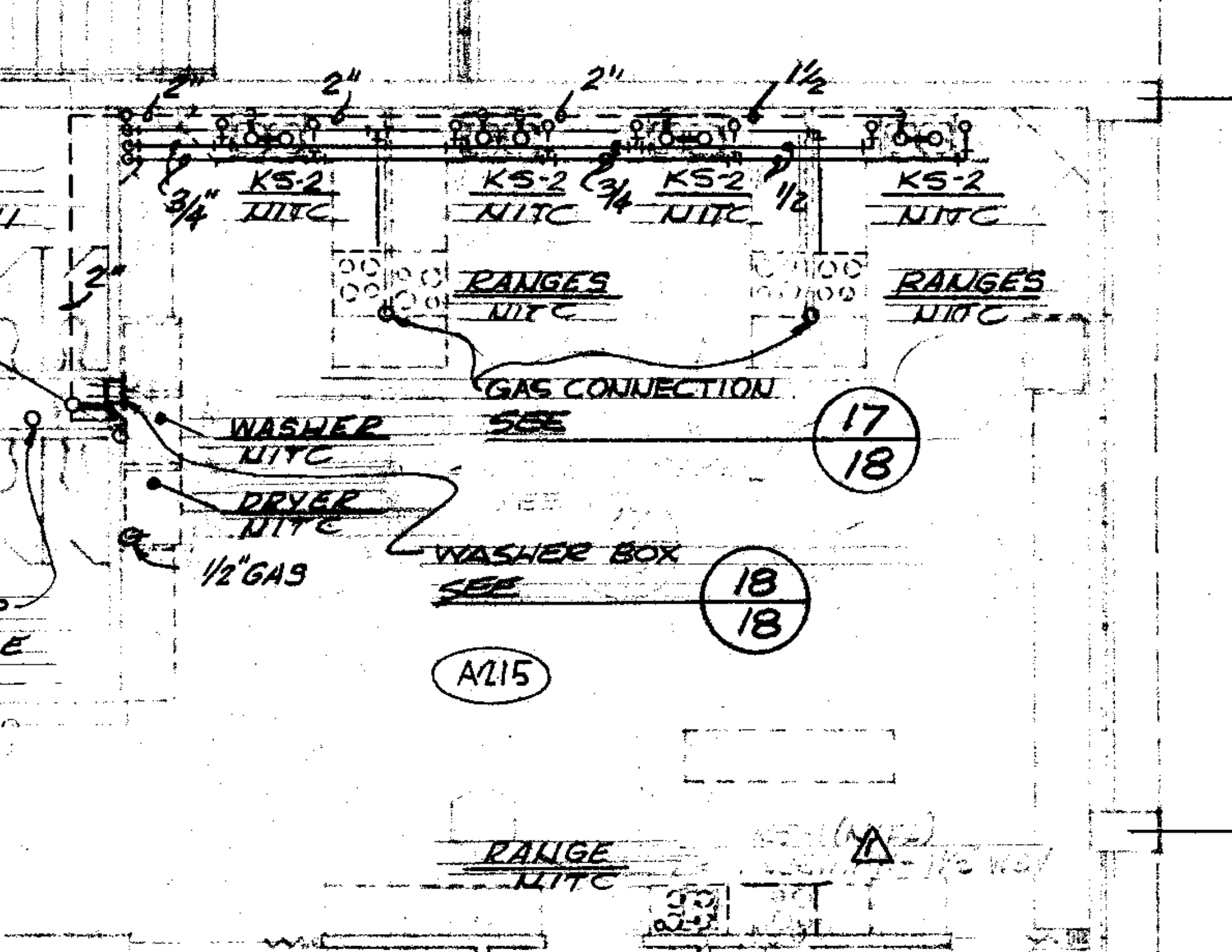
AS BUILT 6-15-73

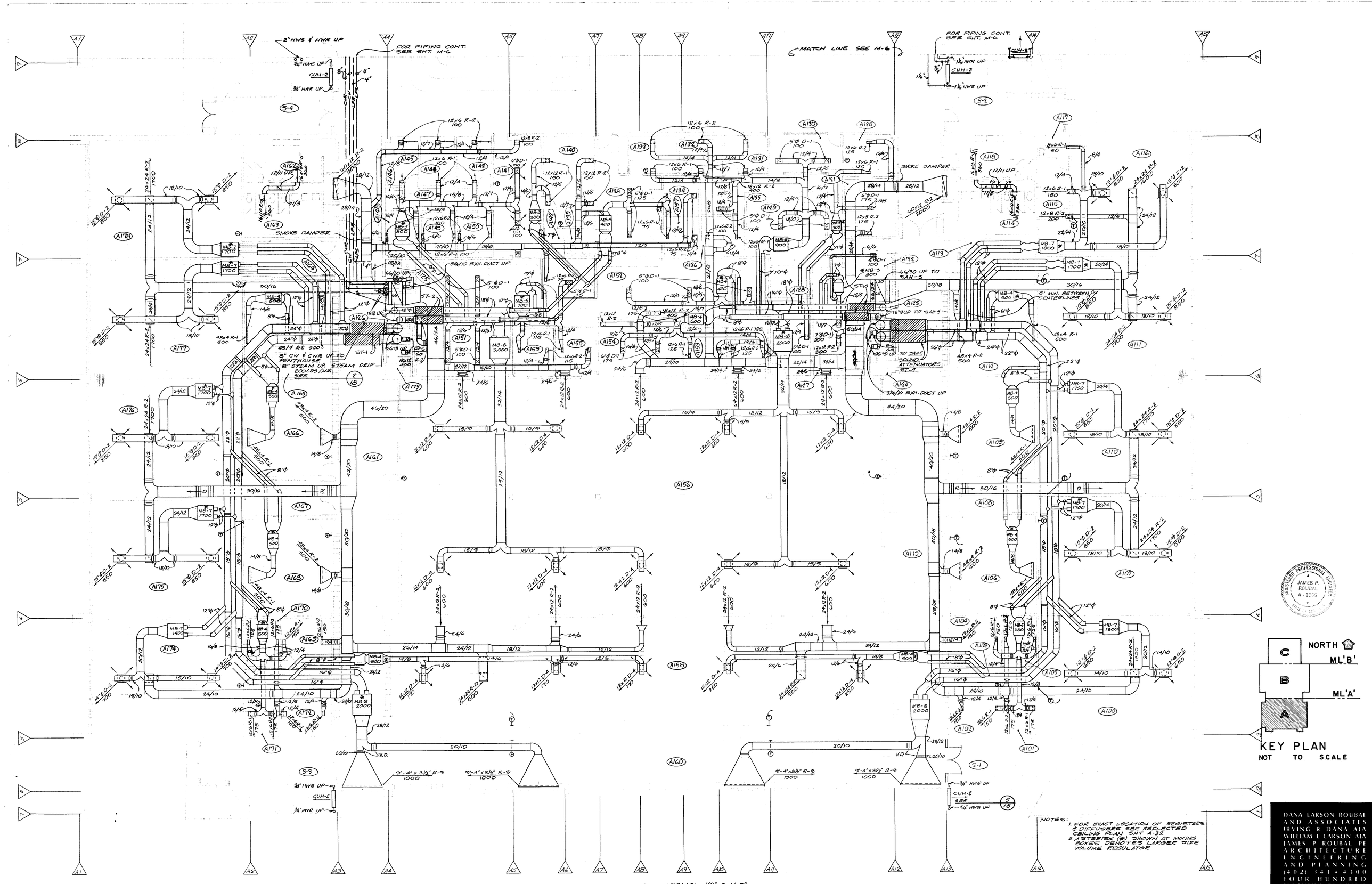
BRYAN HIGH SCHOOL

UPPER LEVEL PLAN-AREA 'A' PLBG

110269
10-22-69

M-2


2"
2"
2"
1½
3/4"
KS-2
NITC
KS-2
NITC
3/4
KS-2
NITC
1/2
KS-2
NITC
2"
RANGES
NITC
RANGES
NITC
GAS CONNECTION
SEE
17
18
WASHER
NITC
DRYER
NITC
1/2"GAS
WASHER BOX
SEE
18
18
A/L15
RANGE
NITC



NOTES:
1. FOR EXACT LOCATION OF REGISTERS & DIFFUSERS SEE REFLECTED CEILING PLAN SHT A-32
2. ASTERISK (*) SHOWN AT MIXING BOXES DENOTES LARGER SIZE VOLUME REGULATOR

DANA LARSON ROUBAL AND ASSOCIATES
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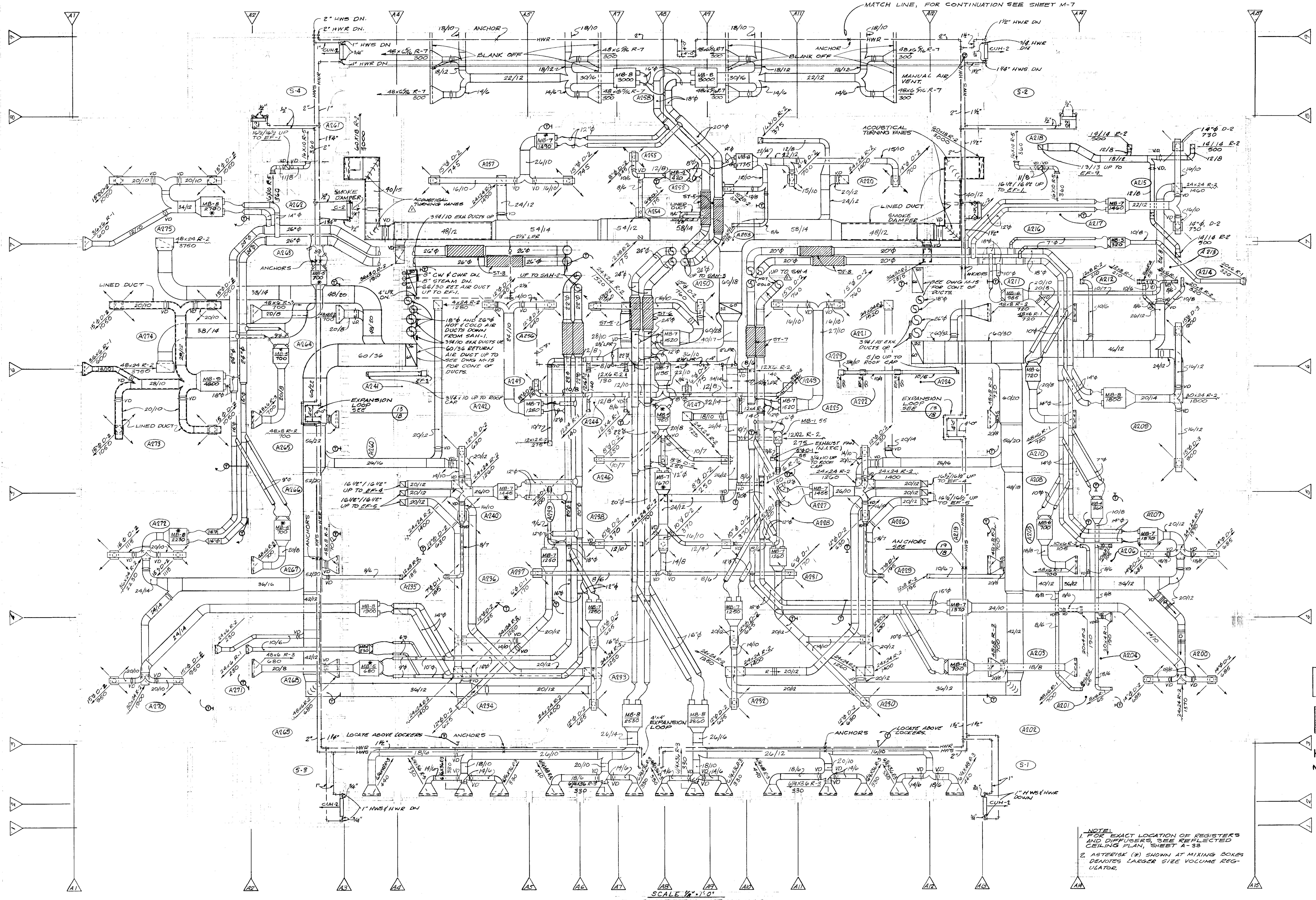
OMAHA NEBRASKA 68102

BRYAN HIGH SCHOOL

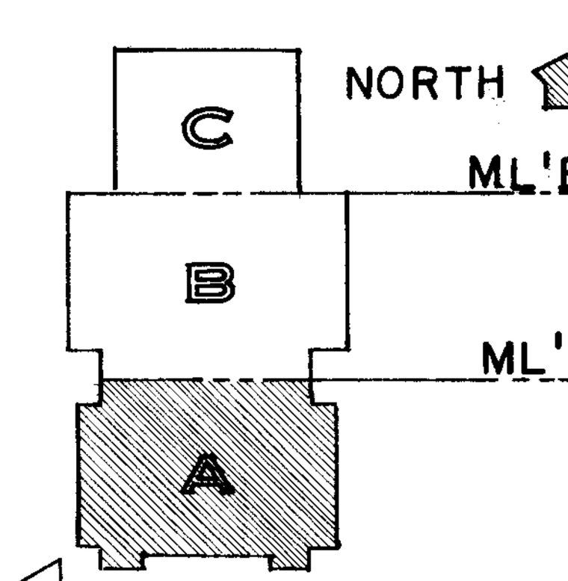
GROUND LEVEL PLAN - AREA 'A' HVAC

110269
10-22-69

M-3



NOTE:
1. FOR EXACT LOCATION OF REGISTERS AND DIFFUSERS, SEE REFLECTED CEILING PLAN, SHEET A-38
2. ASTERISK (*) SHOWN AT MIXING BOXES DENOTES LARGER SIZE VOLUME REGULATOR.



KEY PLAN
NOT TO SCALE

DANA LARSON ROUBAL
AND ASSOCIATES
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WILLIAM J LARSON AIA
JAMES P ROUBAL PE
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OMAHA NEBRASKA 68102

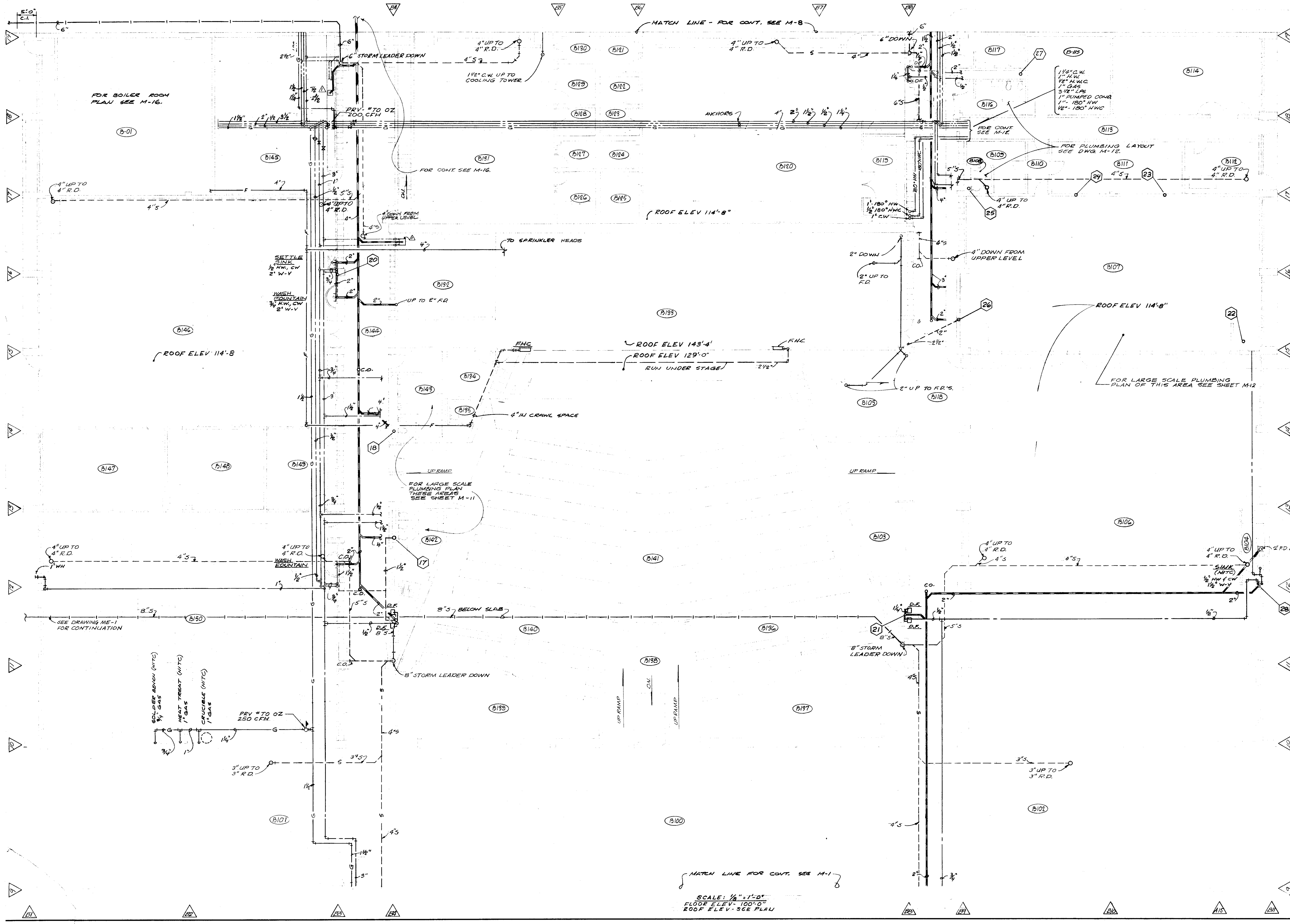
△ AS BUILT 8-15-73

BRYAN HIGH SCHOOL

UPPER LEVEL PLAN- AREA 'A' HVAC

110269
10-22-69

M-4



REGISTERED PROFESSIONAL ENGINEER
JAMES P. ROUBAL
A - 1966
STATE OF NEBRASKA

NORTH

C
ML'B'
B
ML'A'
A

KEY PLAN

DANA LARSON ROUBAL AND ASSOCIATES
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JAMES P ROUBAL PE
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AND PLANNING
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OMAHA NEBRASKA 68102

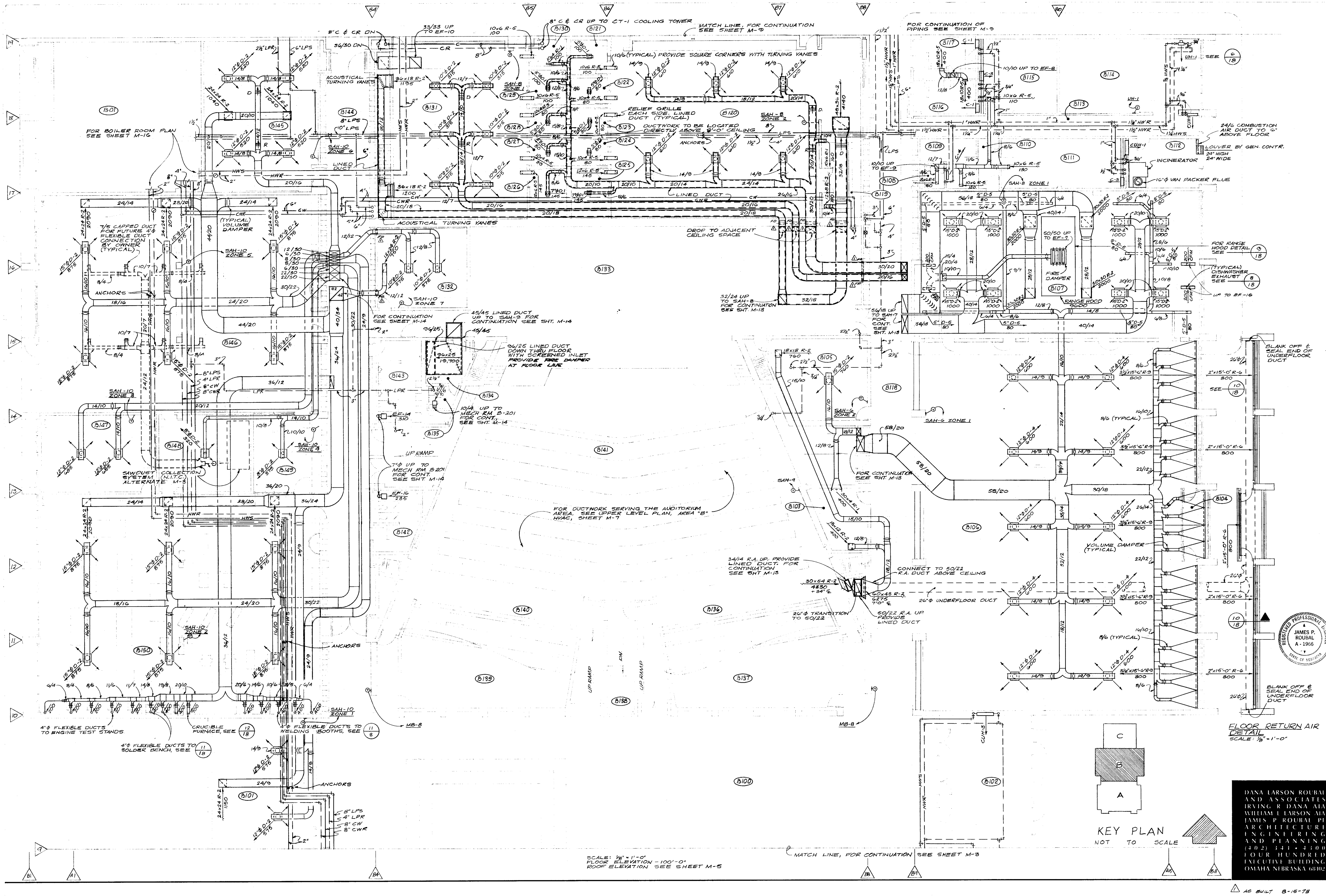
△1 AS BUILT 8-15-73

BRYAN HIGH SCHOOL

GROUND LEVEL PLAN AREA 'B' PLBG

110269
10-22-69

M-5



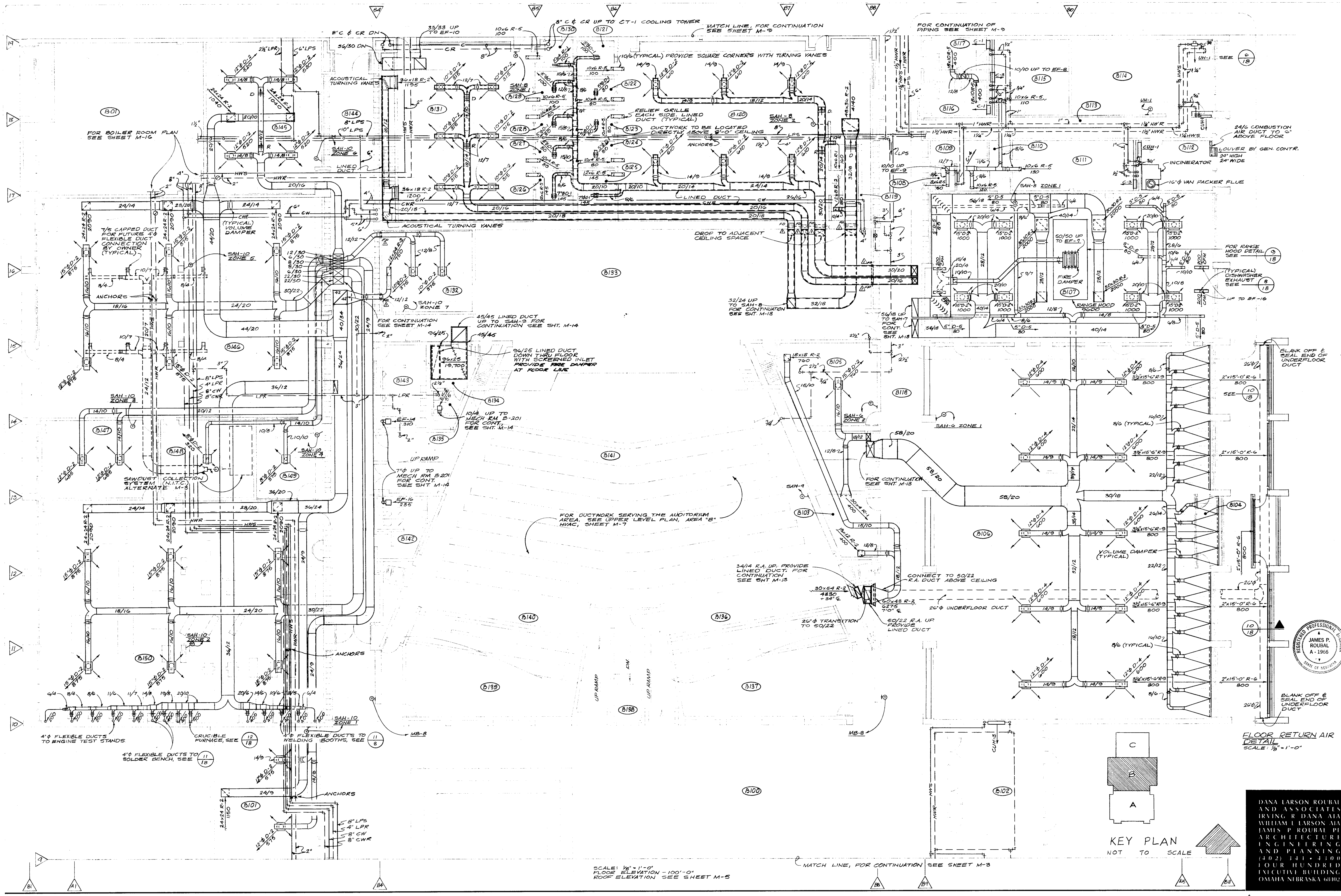
AS BUILT 8-15-73

BRYAN HIGH SCHOOL

GROUND LEVEL PLAN - AREA 'B' HVAC

110269
10-22-69

M-6



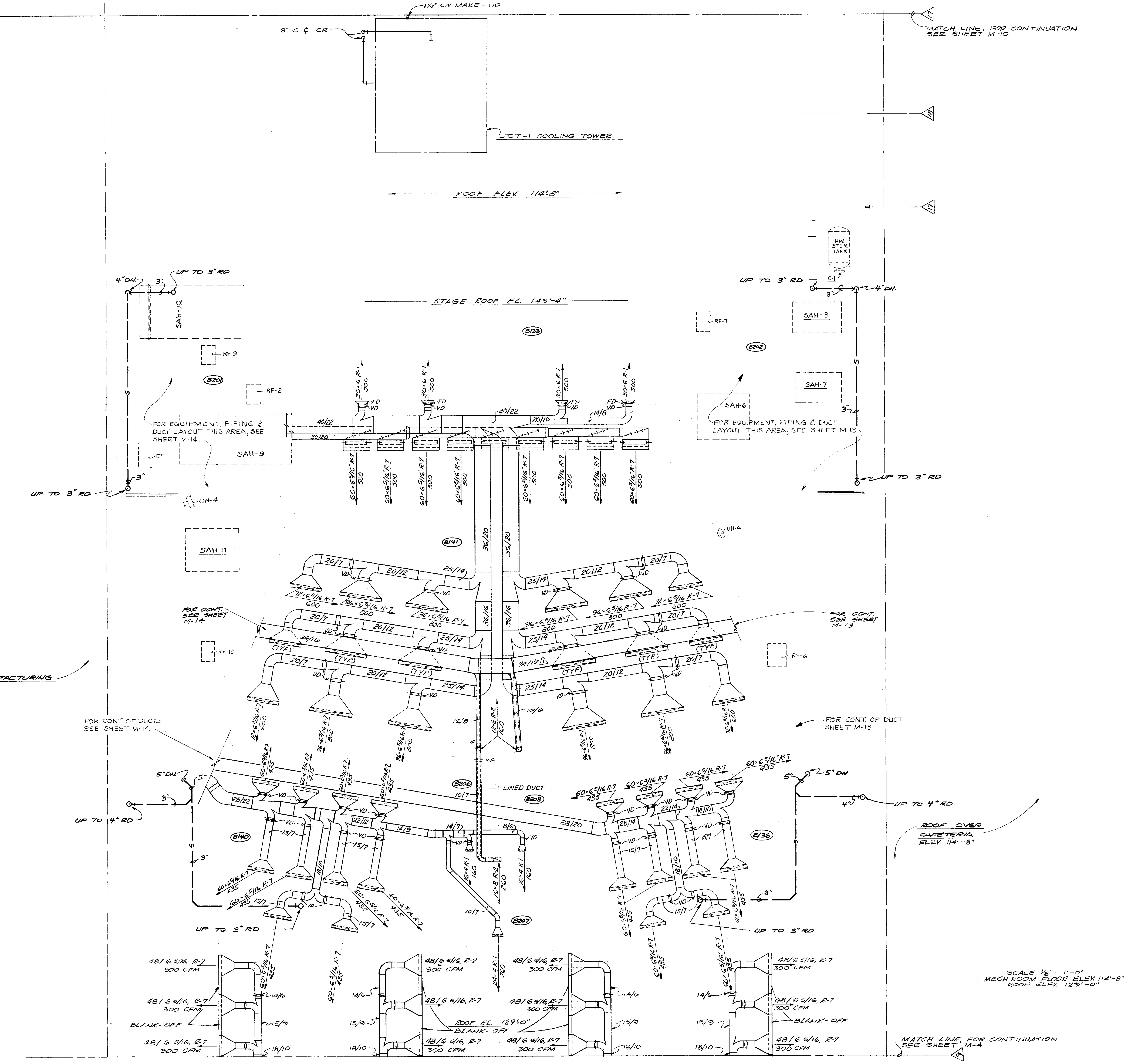
AS BUILT 8-16-73

BRYAN HIGH SCHOOL

GROUND LEVEL PLAN - AREA 'B' HVAC

110269
10-22-69

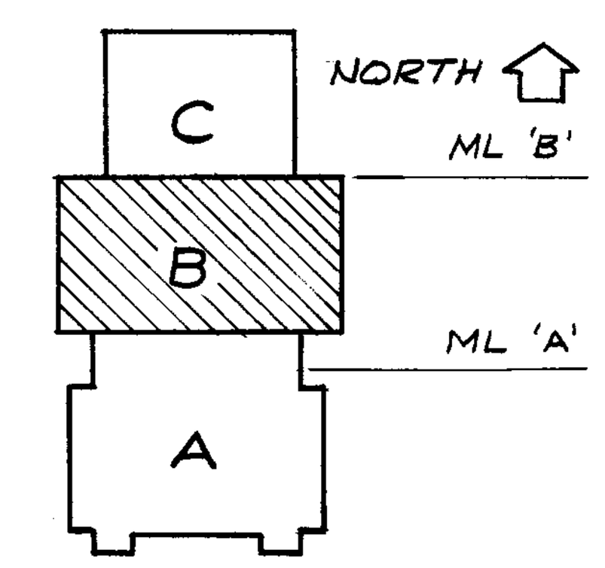
M-6



SCALE 1/8" = 1'-0"
MECH ROOM FLOOR ELEV. 114'-8"
ROOF ELEV. 129'-0"

ROOM NO	ROOM NAME
[illegible]	[illegible]
B100	COMMONS
B101	STUDENT STORE
[illegible]	[illegible]
B103	CONFERENCE
B104	ICE CREAM ROOM
B105	FACULTY DINING
B106	CAFETERIA
B107	KITCHEN
B108	TOILET
B109	LOCKER ROOM
B110	HALL
B111	KITCHEN STORAGE
B112	REFUSE ROOM
B113	HALL
B114	MAINTENANCE SHOP
B115	KITCHEN STORAGE
B116	WOMEN
B117	MEN
B118	CORRIDOR
B119	UNIFORM STORAGE
B120	INSTRUMENTAL MUSIC ROOM
B121	CONFERENCE
B122	PRACTICE ROOM
B123	PRACTICE ROOM
B124	PRACTICE ROOM
B125	PRACTICE ROOM
B126	PRACTICE ROOM
B127	PRACTICE ROOM
B128	PRACTICE ROOM
B129	CONFERENCE
B130	TICKET BOOTH
B131	VOCAL MUSIC ROOM
B132	CLASSROOM
B133	STAGE
B134	STORAGE
B135	TOILET
B136	LECTURE AREA
B137	STORAGE
B138	TICKET BOOTH
B139	STORAGE
B140	LECTURE AREA
B141	AUDITORIUM
B142	WOMEN
B143	MEN
B144	CORRIDOR
B145	CLASSROOM
B146	CONSTRUCTION
B147	CLASSROOM
B148	STORAGE
B149	TEACHER PLANNING CENTER
B150	MANUFACTURING
S-8	STAIR
B200	NOT USED
B201	MECHANICAL EQUIPMENT ROOM
B202	MECHANICAL EQUIPMENT ROOM
B203	HALL
B204	HALL
B205	NOT USED
B206	LIGHT AND PROJECTION ROOM
B207	DIMMER ROOM
B208	SOUND CONTROL ROOM

REGISTERED PROFESSIONAL ENGINEER
JAMES P. ROUBAL
A-1966
STATE OF NEBRASKA



KEY PLAN
NO TO SCALE

DANA LARSON ROUBAL AND ASSOCIATES
IRVING R DANA AIA
WILLIAM L LARSON AIA
JAMES P ROUBAL PE
ARCHITECTURE ENGINEERING AND PLANNING
(402) 341 • 4300
FOUR HUNDRED EXECUTIVE BUILDING
OMAHA NEBRASKA 68102

△ AS BUILT 8-16-73

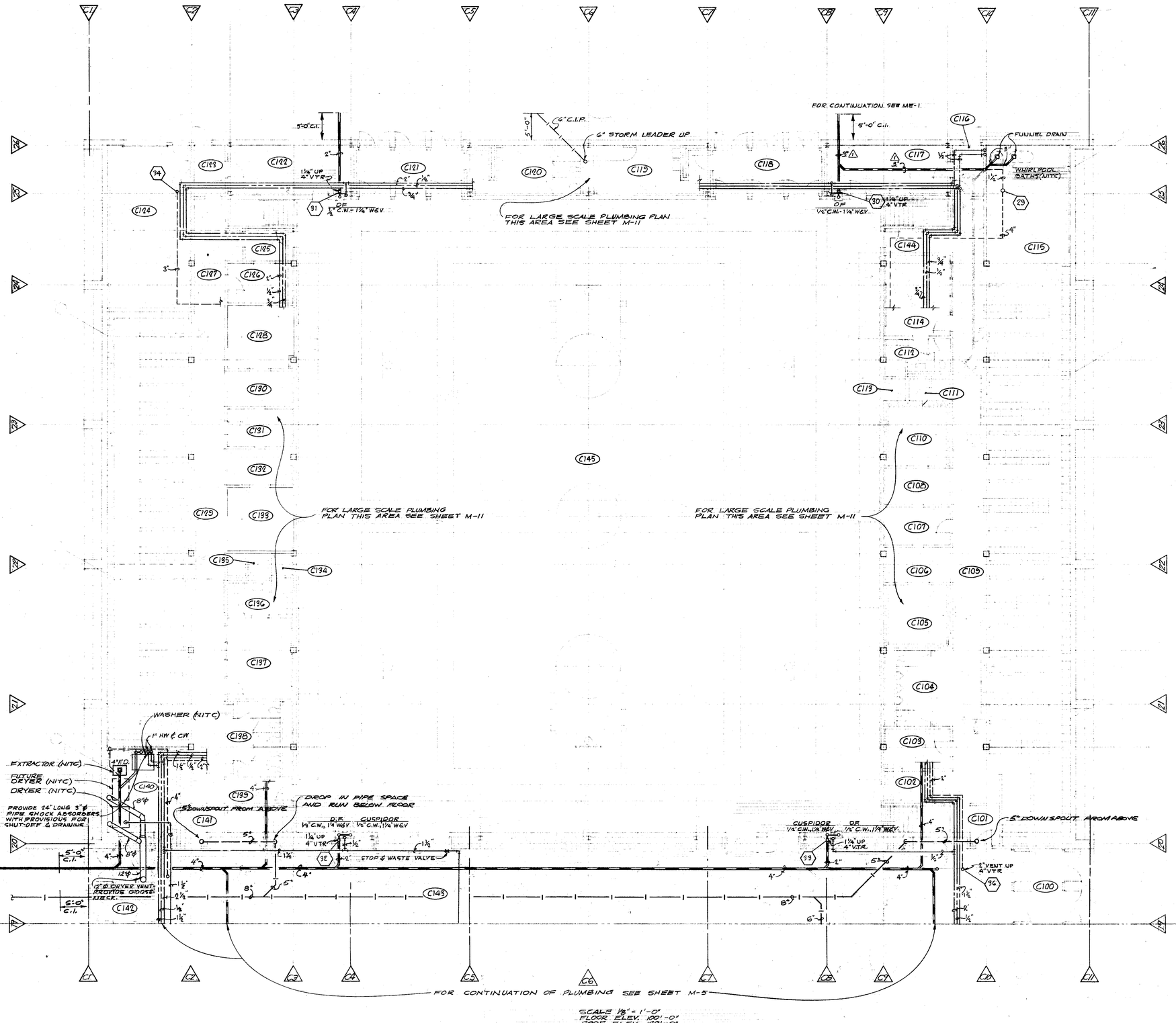
BRYAN HIGH SCHOOL

UPPER LEVEL PLAN - AREA 'B' PHVAC

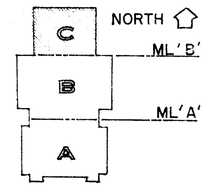
110269

10-22-69

M-7



REGISTERED PROFESSIONAL ENGINEER
JAMES P. ROUBAL
A - 1966
STATE OF NEBRASKA



KEY PLAN
NOT TO SCALE

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FOUR HUNDRED EXECUTIVE BUILDING
OMAHA NEBRASKA 68102

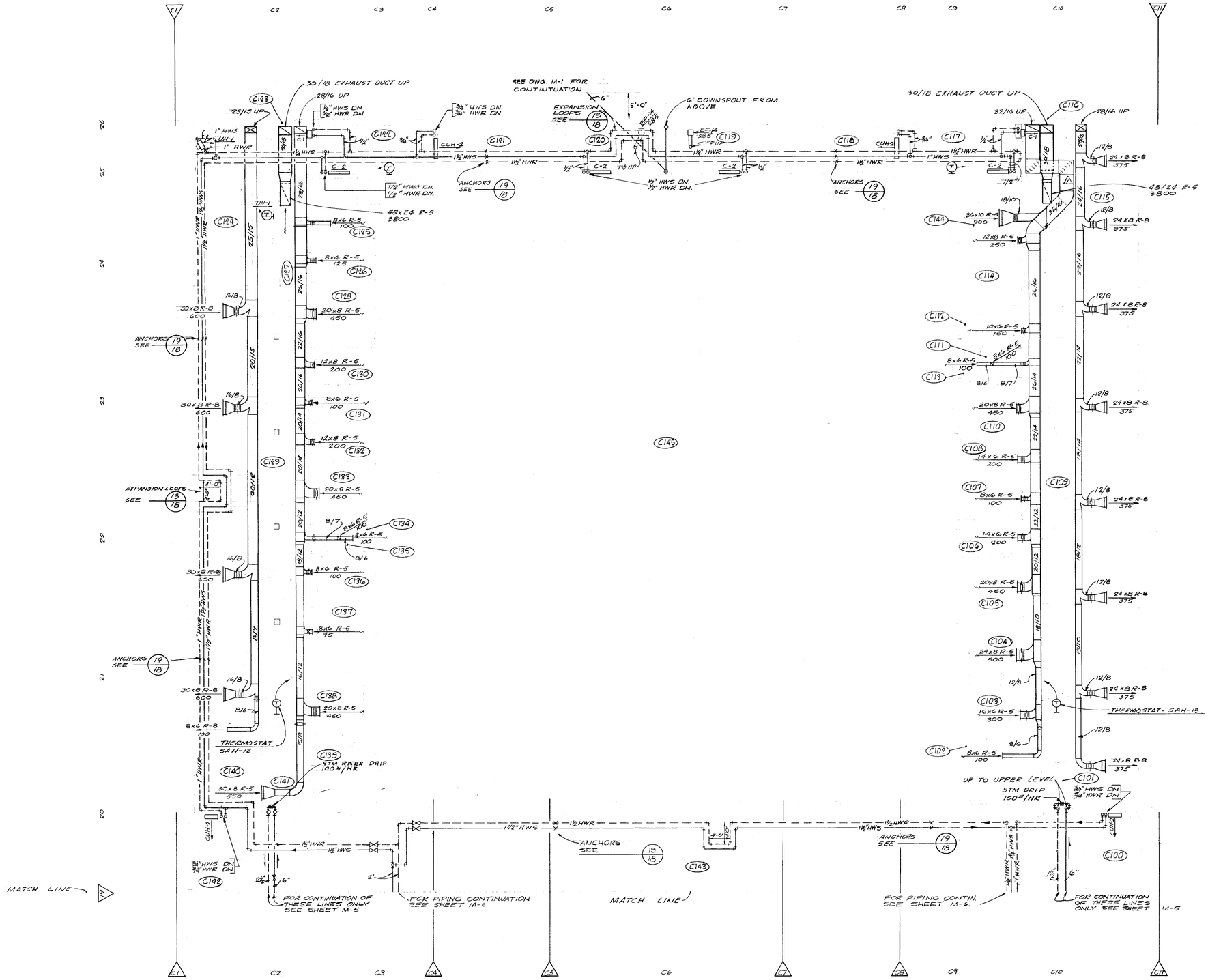
△ AS BUILT 8-15-73

BRYAN HIGH SCHOOL

GROUND LEVEL PLAN - AREA 'C' PLBG

110269
10-22-69

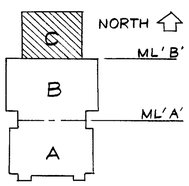
M - 8



C100	VESTIBULE
C101	ENTRY
C102	ISSUE ROOM
C103	STORAGE
C104	TOILET ALCOVE
C105	SHOWER
C106	DRYING ROOM
C107	TOWEL ROOM
C108	DRYING ROOM
C109	BOYS LOCKER ROOM
C110	SHOWER
C111	SHOWER
C112	TOILET ROOM
C113	SHOWER
C114	OFFICE
C115	TRAINING ROOM
C116	VESTIBULE
C117	STORAGE
C118	VESTIBULE
C119	MEN

ROOM NO	ROOM NAME
C120	WOMEN
C121	VESTIBULE
C122	STORAGE
C123	VESTIBULE
C124	STORAGE
C125	ISSUE ROOM
C126	STORAGE
C127	HALL
C128	SHOWER
C129	GIRLS LOCKER ROOM
C130	DRYING ROOM
C131	TOWEL ROOM
C132	DRYING ROOM
C133	SHOWER
C134	SHOWER
C135	SHOWER
C136	TOILET ROOM
C137	OFFICE
C138	TOILET ALCOVE
C139	HALL
C140	LAUNDRY
C141	ENTRY
C142	VESTIBULE
C143	CORRIDOR
C144	HALL
C145	GYMNASIUM
C200	BALCONY
C201	STORAGE
C202	BALCONY

REGISTERED PROFESSIONAL ENGINEER
JAMES P. ROUBAL
A-1966
STATE OF NEBRASKA



KEY PLAN

SCALE: 1/8" = 1'-0"

FLOOR ELEV - 100'-0"
ROOF ELEV - 129'-0"

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OMAHA NEBRASKA 68102

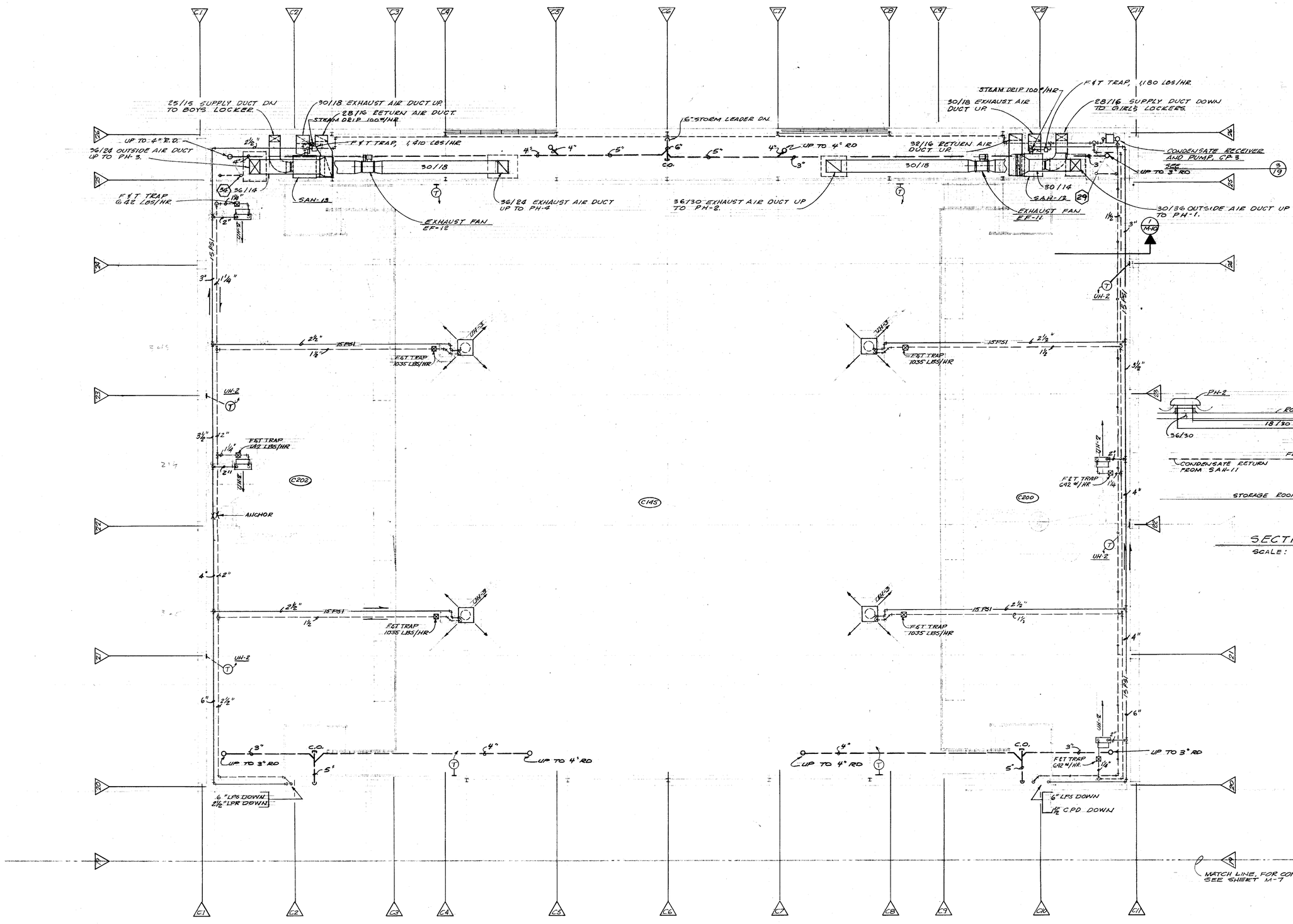
△ AS BUILT 8-15-73

BRYAN HIGH SCHOOL

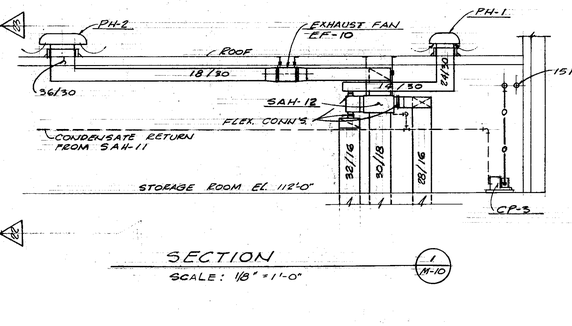
GROUND LEVEL PLAN-AREA 'C' HVAC

110269
10-22-69

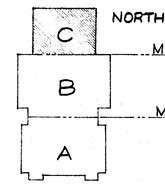
M-9



SCALE: 1/8" = 1'-0"
BALCONY FLOOR ELEV. 112'-0"
ROOF ELEV. 129'-0"



SECTION
SCALE: 1/8" = 1'-0"



KEY PLAN

REGISTERED PROFESSIONAL ENGINEER
JAMES P. ROUBAL
A-1966
STATE OF NEBRASKA

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BRYAN HIGH SCHOOL — UPPER LEVEL PLAN AREA 'C' PHVAC

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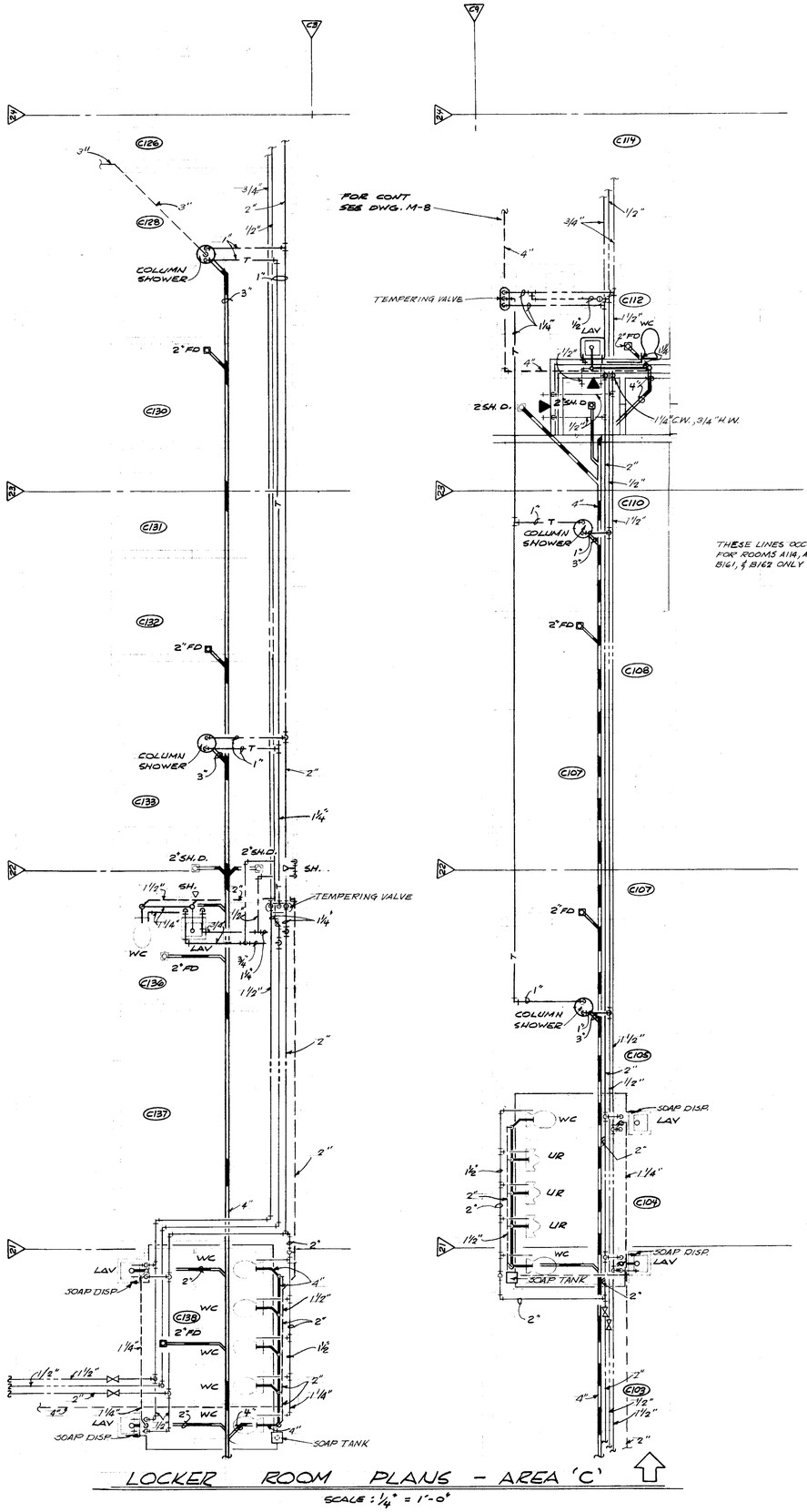
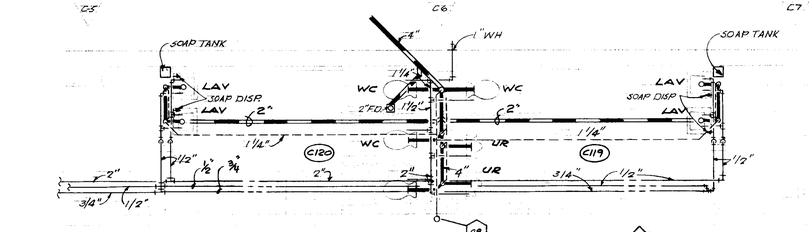
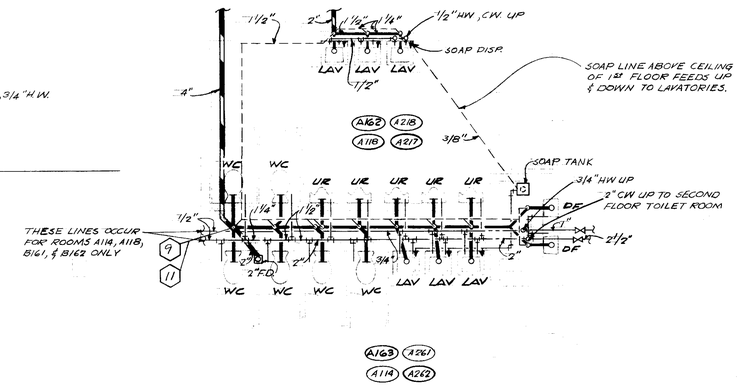




TOILET PLAN - AREA 'C'

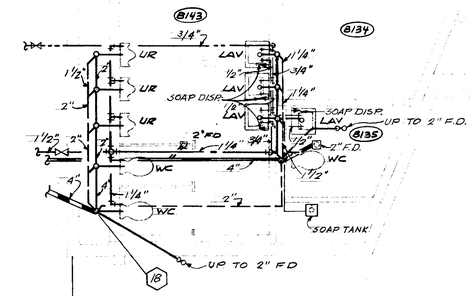
SCALE: ¼" = 1'-0"

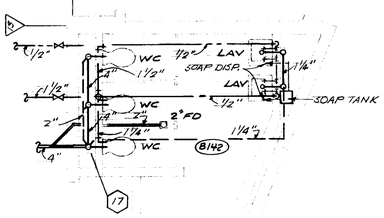


TOILET PLAN - AREA 'A'

SCALE: ¼" = 1'-0"

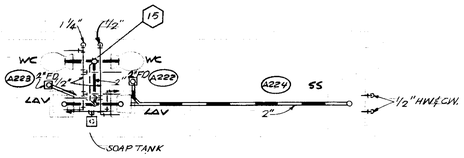
(TOILET ROOMS A-261 & A-262 SIMILAR)
(TOILET ROOMS A-114, A-118, A-217 & A-218 SIMILAR OPPOSITE HAND)





TOILET & STORAGE PLAN AREA - 'B'

SCALE: ¼" = 1'-0"



TOILET & JANITOR PLAN - AREA 'A'

SCALE: ¼" = 1'-0"

LOCKER ROOM PLANS - AREA 'C'

SCALE: ¼" = 1'-0"

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BRYAN HIGH SCHOOL — LARGE SCALE PARTIAL PLANS - PLBG

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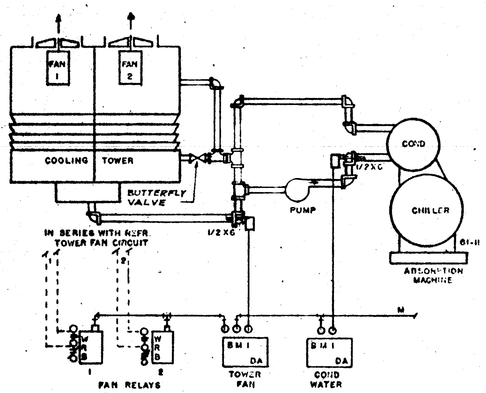
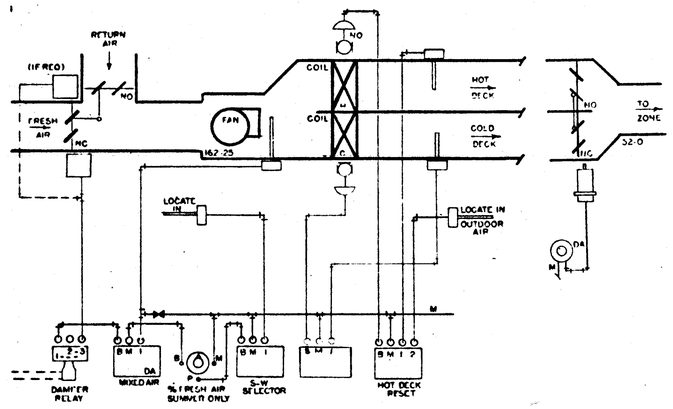
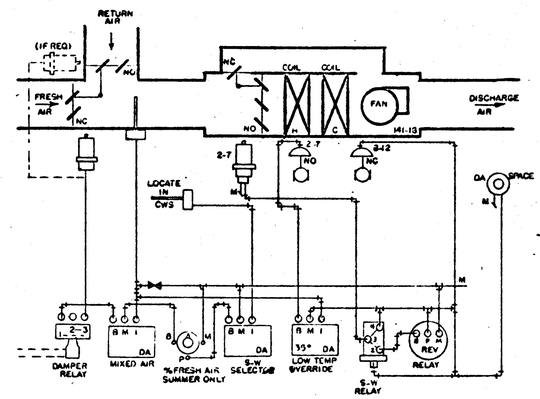


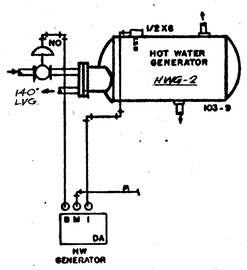
COOLING TOWER & CONDENSER PIPING DIAGRAM 1/22



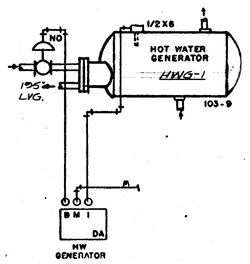
SUPPLY AIR HANDLERS - MULTIZONE SAH-6, SAH-8, SAH-10, & SAH 11 2/22



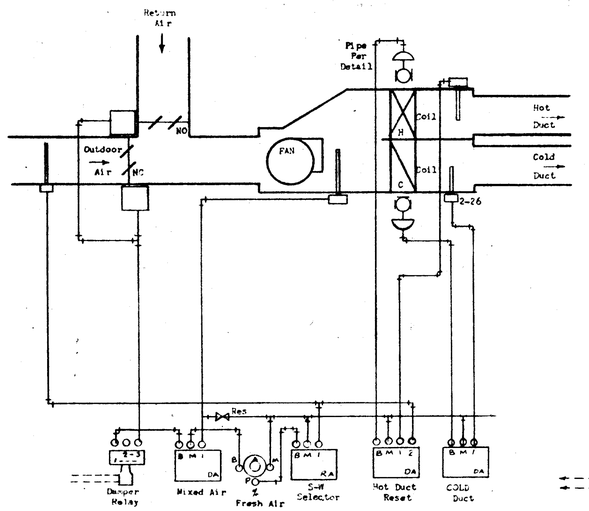
SUPPLY AIR HANDLING UNIT SAH-9 3/22



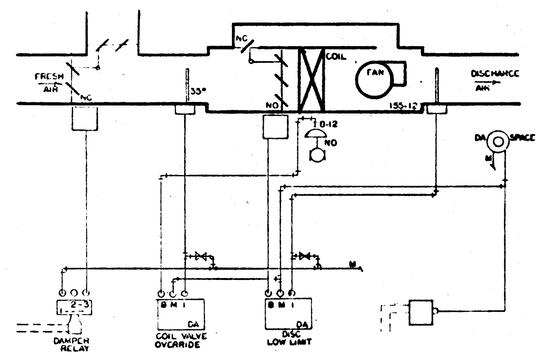
DISHWASHER HOT WATER DIAGRAM 4/22



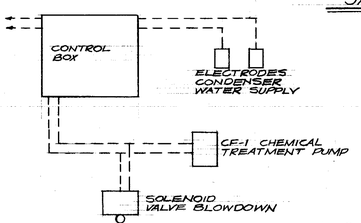
DOMESTIC HOT WATER DIAGRAM 5/22



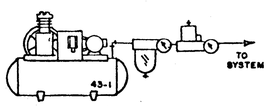
SUPPLY AIR HANDLERS - DUAL DUCT SAH-1 THRU SAH-5 6/22



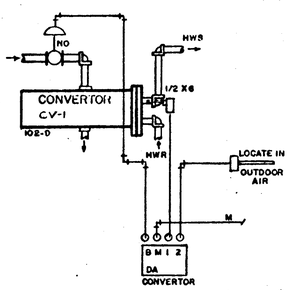
HEATING & VENTILATING UNITS SAH-7, SAH12, & SAH-13 7/22



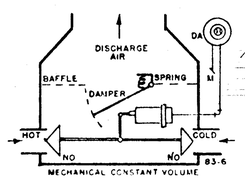
WATER TREATMENT CONTROL COOLING TOWER 13/22



AIR COMPRESSER DIAGRAM 11/22

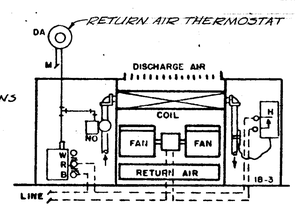


HEATING CONVERTER DIAGRAM 8/22

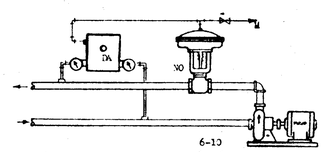


NOTE: ONE (1) OR TWO (2) DAMPER OPERATORS AS REQUIRED. SEE SPECIFICATIONS SECTION 15L.

MIXING BOX DIAGRAM 9/22



CUH-1 CABINET UNIT HEATER 10/22



CHILLED WATER PUMPS P-4 HEAD PRESSURE CONTROLLER 12/22

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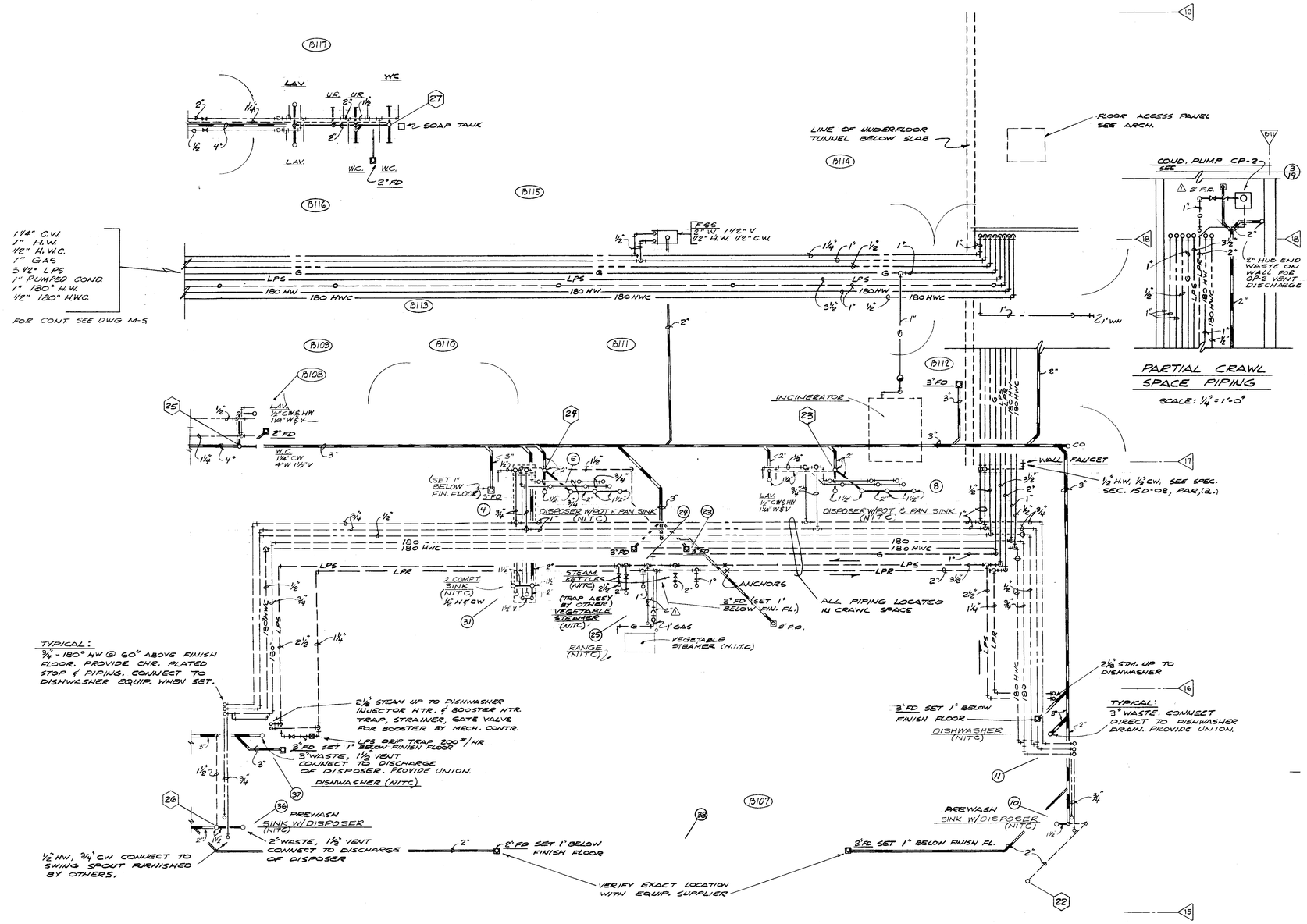
OMAHA NEBRASKA 68102

ROOM NO	ROOM NAME	ROOM NO	ROOM NAME	ROOM NO	ROOM NAME
A100	TEACHER PLANNING CENTER	A159	OFFICE	130	CHEMISTRY LAB
A101	WAITING	A160	CORRIDOR	131	ALCOVE
A102	CONFERENCE	A161	CORRIDOR	232	BIOLOGY LAB
A103	HALL	A162	BOYS	233	BIOLOGY LAB
A104	CONFERENCE	A163	GIRLS	234	BIOLOGY LAB
A105	OFFICE	A164	GALLERY	235	DARK ROOM
A106	CLASSROOM	A165	CLASSROOM	236	PREPARATION ROOM
A107	CLASSROOM	A166	CLASSROOM	237	ALCOVE
A108	GALLERY	A167	GALLERY	238	SPECIAL PROJECTS AREA
A109	CLASSROOM	A168	CLASSROOM	239	PREPARATION ROOM
A110	CLASSROOM	A-169	CONFERENCE	240	PHYSICS LAB
A111	CLASSROOM	A 170	OFFICE	241	JANITOR CLOSET
A112	CLASSROOM	A 171	WAITING	242	HALL
A113	GALLERY	A 172	CONFERENCE	243	WAITING
A114	GIRLS	A 173	HALL	244	CONFERENCE
A115	WORKROOM	A 174	TEACHER PLANNING CENTER	245	OFFICE
A116	CLASSROOM	A 175	CLASSROOM	246	TEACHER PLANNING CENTER
A117	DARKROOM	A 176	CLASSROOM	247	ALCOVE
A118	BOYS	A 177	CLASSROOM	248	CONFERENCE
A119	CORRIDOR	A 178	CLASSROOM	249	WAITING
A120	OFFICE	A179	WOMEN	250	TYPING LAB
A121	PRINCIPAL'S OFFICE			251	DISTRIBUTIVE EDUCATION LAB
A122	MAIL ROOM	S-1	STAIR	252	HALL
A123	MEN	S-2	STAIR	253	CONFERENCE
A124	WOMEN	S-3	STAIR	254	STORAGE
A125	JANITOR CLOSET	S-4	STAIR	255	TEACHER PLANNING CENTER
A126	MEN			256	BOOKKEEPING
A127	WORKROOM			257	OFFICE PRACTICE
A128	VAULT	A200	LANGUAGE LAB	258	PROMENADE
A129	GENERAL OFFICE	A201	TAPE ROOM	259	CORRIDOR
A130	WAITING	A202	HALL	260	CORRIDOR
A131	OFFICE	A203	CLASSROOM	261	BOYS
A132	OFFICE	A204	CONTROL BOOTH	262	GIRLS
A133	ATTENDANCE	A205	CLASSROOM	263	GALLERY
A134	COT ROOM	A206	CONFERENCE	264	CLASSROOM
A135	WAITING	A207	LANGUAGE LAB	265	CLASSROOM
A136	OFFICE	A208	GALLERY	266	GALLERY
A137	COT ROOM	A209	CLOTHING AREA	267	CLASSROOM
A138	NURSE'S OFFICE	A210	CLASSROOM	268	CLASSROOM
A139	TOILET ROOM	A211	LIVING AREA	269	HALL
A140	CONFERENCE	A212	CONFERENCE	270	CLASSROOM
A141	WAITING	A213	STORAGE	271	COMPUTER TERMINAL
A142	STORAGE	A214	FITTING ROOM	272	CLASSROOM
A143	OFFICE	A215	FOOD AREA	273	CRAFTS AREA
A144	OFFICE	A216	GALLERY	274	CERAMICS AREA
A145	OFFICE	A217	GIRLS	275	FINE ART AREA
A146	CLOSET	A218	BOYS		
A147	HALL	A219	CORRIDOR		
A148	OFFICE	A220	DISTRIBUTIVE EDUCATION	100	MECHANICAL EQUIPMENT ROOM
A149	OFFICE	A220A	STORAGE		
A150	OFFICE	A221	TYPING LAB		
A151	DISTRIBUTION CENTER	A222	WOMEN	S	STAIR
A152	WORKROOM	A223	MEN		
A153	CONFERENCE	A224	JANITOR CLOSET		
A154	PROFESSIONAL LIBRARY	A225	HALL		
A155	CONFERENCE	A226	CHEMISTRY LAB		
A156	MEDIA CENTER	A227	ANIMAL CARE ROOM		
A157	TAPE ROOM	A228	PREPARATION ROOM		
A158	RESOURCE CENTER	A229	PREPARATION ROOM		



LEGEND

(4) POTATO PEELER
(5) DISPOSER & POT & PAN SINK
(8) DISPOSER & POT & PAN SINK
(10) PREWASH SINK & DISPOSER
(11) DISHWASHER
(23) STEAM KETTLE
(24) STEAM KETTLE
(25) VEGETABLE STEAMER
(26) RANGE
(31) 2-COMPARTMENT SINK
(36) PREWASH SINK & DISPOSER
(37) DISHWASHER

KITCHEN PLAN

SCALE: 1/4" = 1'-0"
FLOOR ELEVATION: 100'-0"
ROOF ELEVATION: 114'-8"

NOTE:
CRAWL SPACE EXTENDS UNDER ENTIRE KITCHEN

REGISTERED PROFESSIONAL ENGINEER — JAMES P. ROUBAL A-1956 — STATE OF NEBRASKA

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JAMES P ROUBAL PE
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BRYAN HIGH SCHOOL — LARGE SCALE PARTIAL PLANS - PLBG

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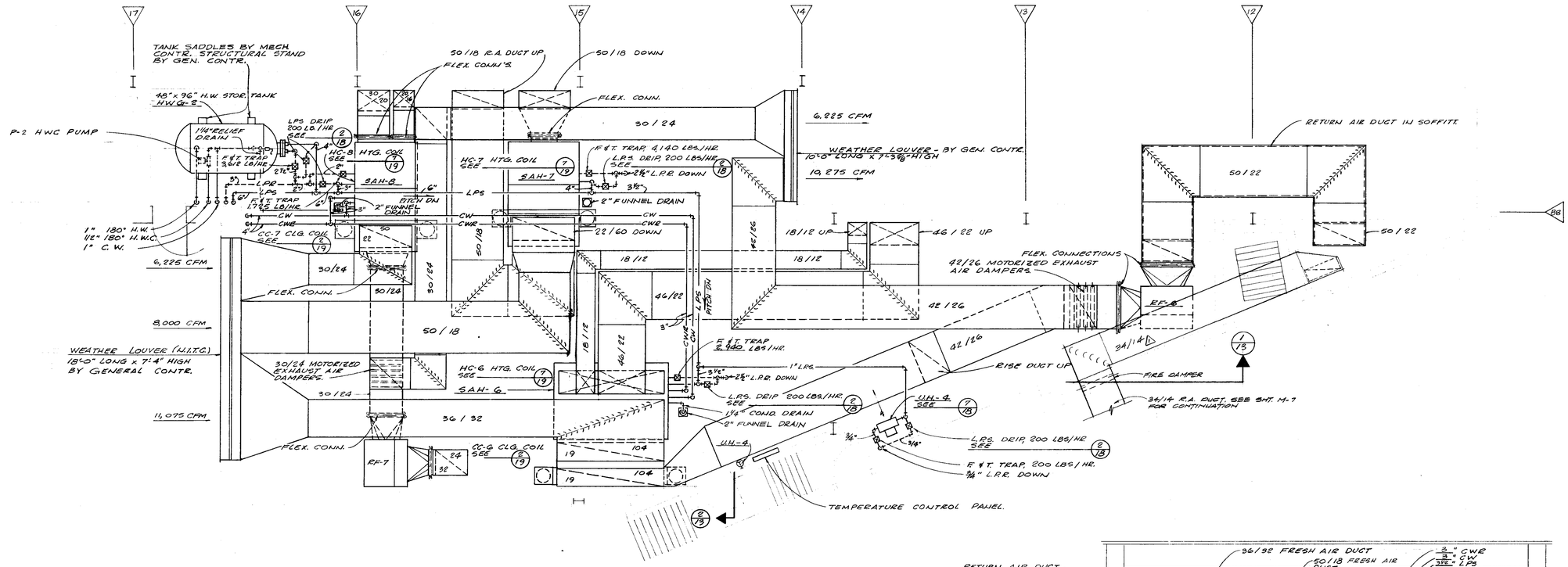
10-22-69

M-12

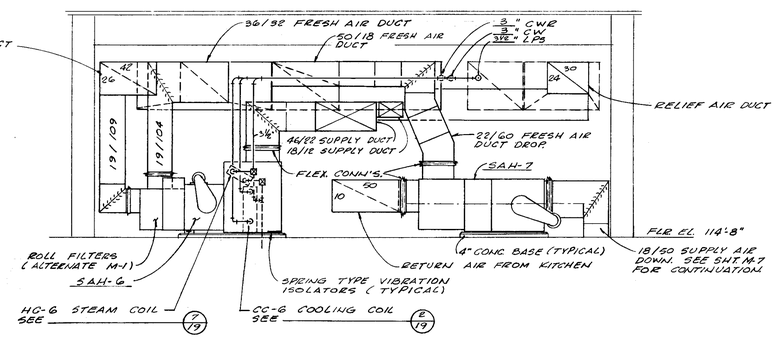


MECHANICAL EQUIPMENT ROOM B-202

FLR. ELEVATION 114'-8"
ROOF ELEVATION 129'-0"

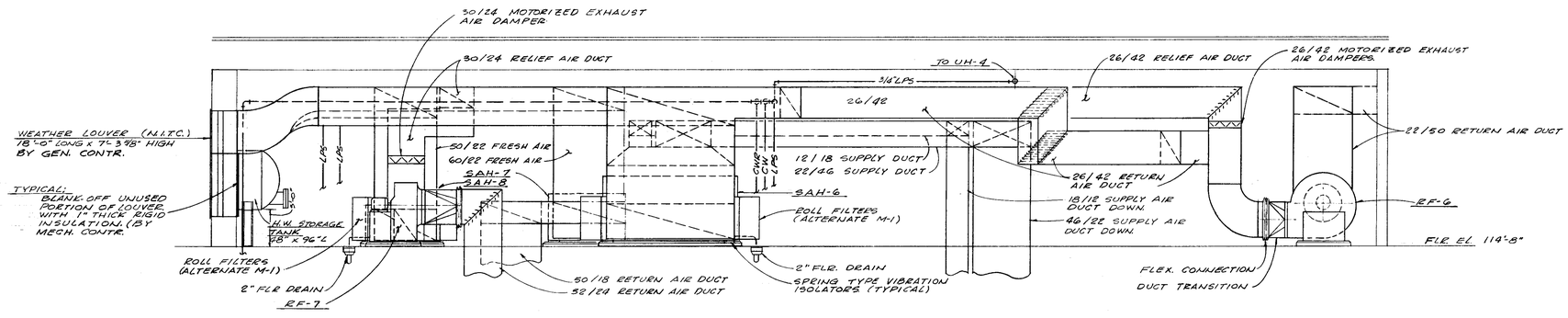
SCALE: 1/4" = 1'-0"

NORTH



SECTION

SCALE: 1/4" = 1'-0"



SECTION

REGISTERED PROFESSIONAL ENGINEER
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A - 1966
STATE OF NEBRASKA

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JAMES P ROUBAL PE
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BRYAN HIGH SCHOOL

MECHANICAL ROOM PLAN PHVAC

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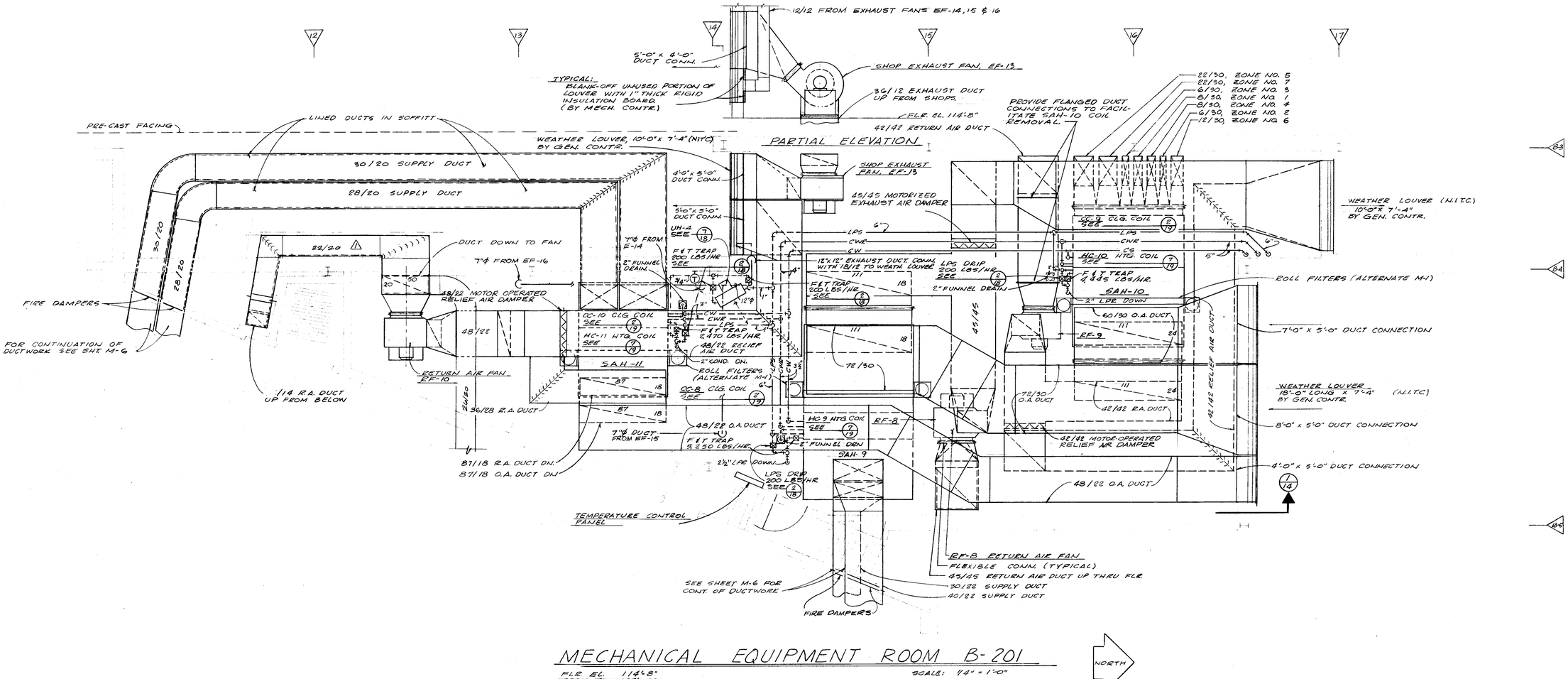
10-22-69

M-13

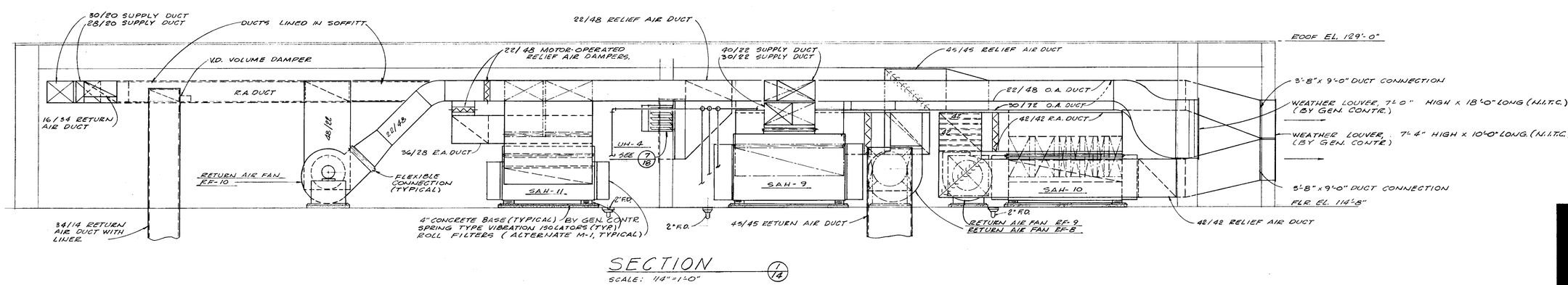


MECHANICAL EQUIPMENT ROOM B-201

FLR. EL. 114'-8"
ROOF EL. 129'-0"

SCALE: 1/4" = 1'-0"

NORTH



SECTION

SCALE: 1/4" = 1'-0"

1/14

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MECHANICAL ROOM PLAN PHVAC

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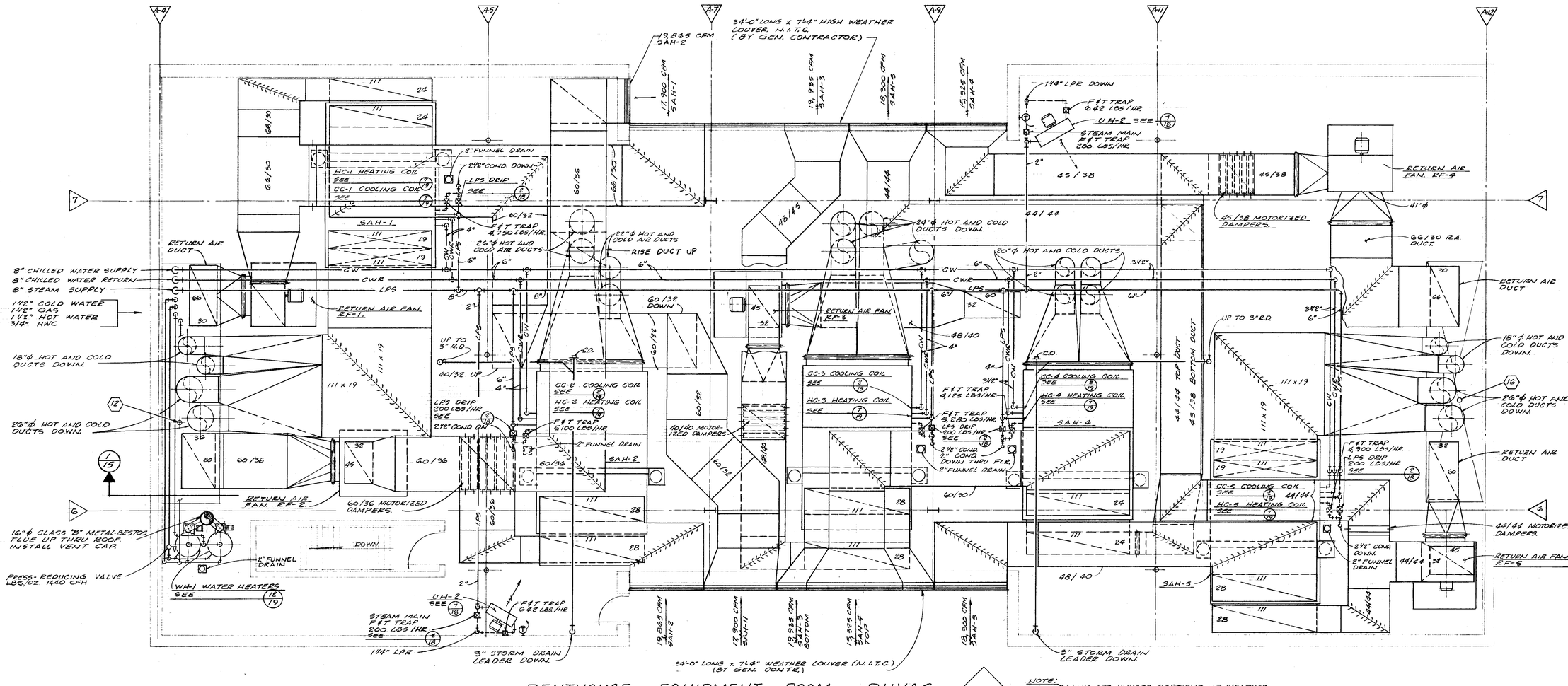

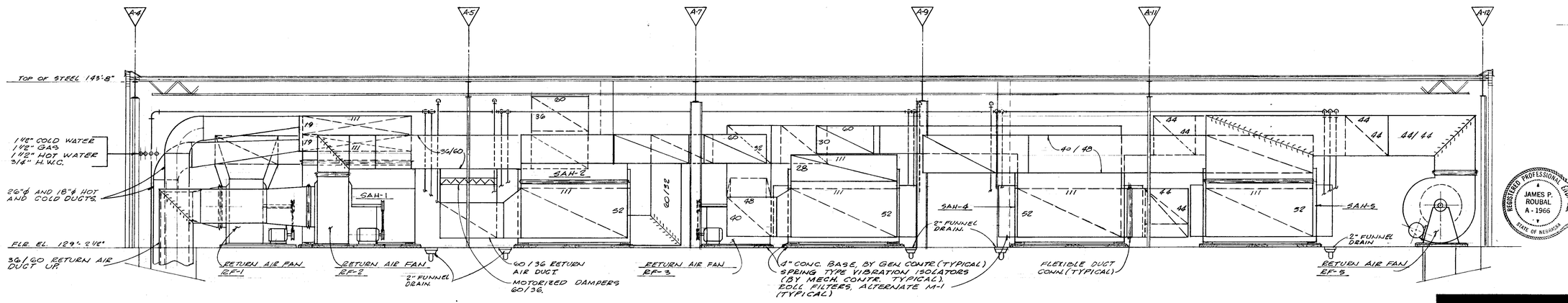

SECTION
SCALE: 1/4" = 1'-0"
FLR EL. 129'-2 1/2"

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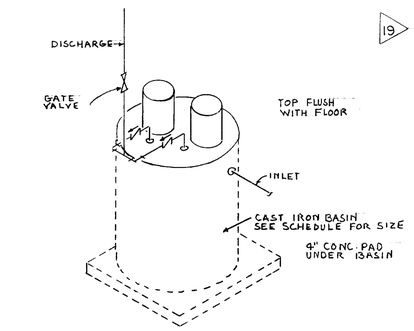
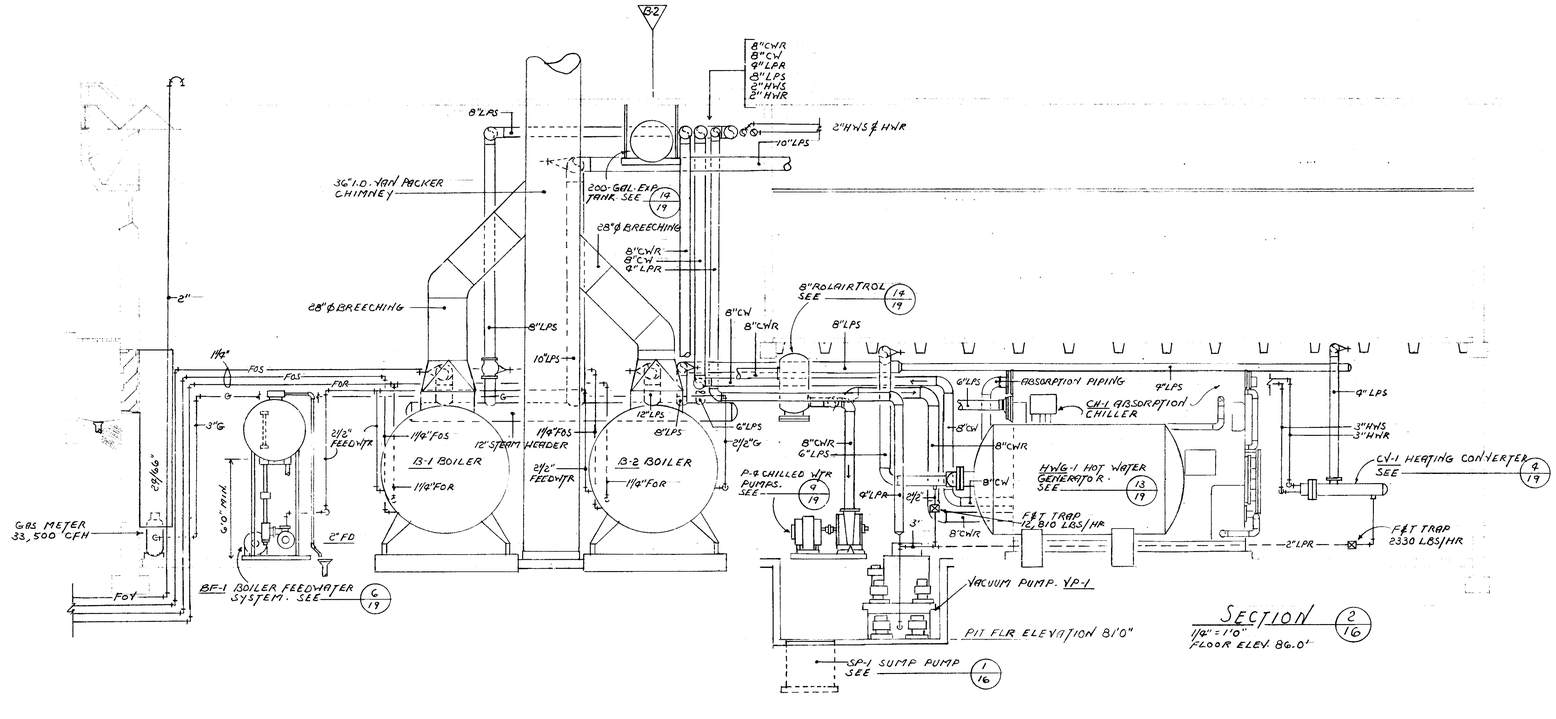


DUPLEX SUMP PUMP DETAIL (1/16)
NOT TO SCALE

BOILER ROOM PLAN
FLOOR ELEVATION 86'0"
ROOF ELEVATION 114'8"
1/4" = 1'0"



SECTION (2/16)
1/4" = 1'0"
FLOOR ELEV. 86.0'

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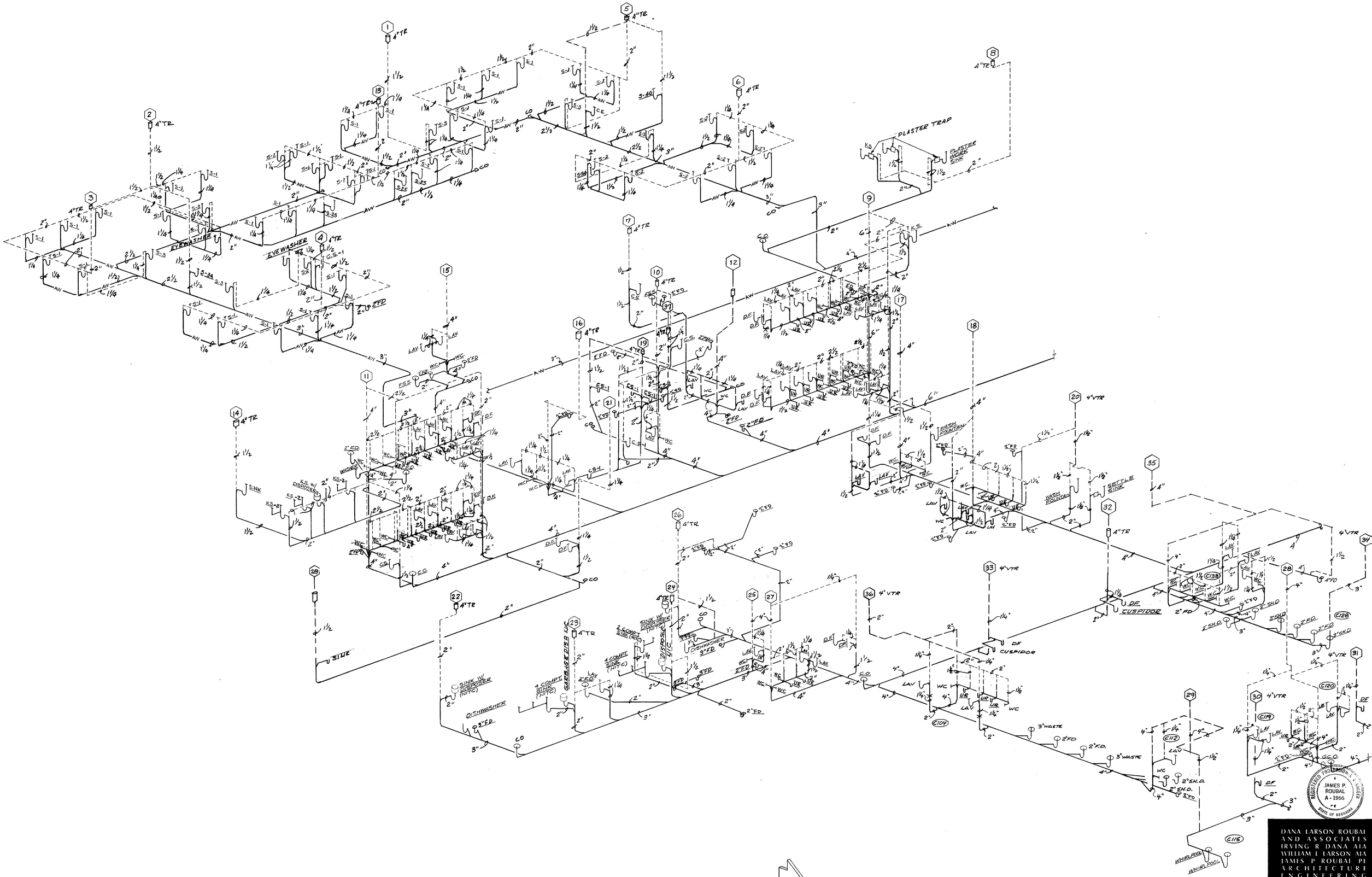
WILLIAM L LARSON AIA
JAMES P ROUBAL PE
ARCHITECTURE ENGINEERING AND PLANNING
(605) 224-8888
207 EAST CAPITOL
PIERRE SO DAKOTA 57501

△ AS BUILT 8-15-78

BRYAN HIGH SCHOOL — BOILER ROOM PLANS PHVAC — 1102 69 — 10-22-69 — M-16



WASTE & VENT RISER DIAGRAM
NOT TO SCALE

DANA LARSON ROUBAL AND ASSOCIATES
IRVING R DANA AIA
WILLIAM L LARSON AIA
JAMES P ROUBAL PE
ARCHITECTURE ENGINEERING AND PLANNING
(402) 341-4300
FOUR HUNDRED EXECUTIVE BUILDING
OMAHA NEBRASKA 68102

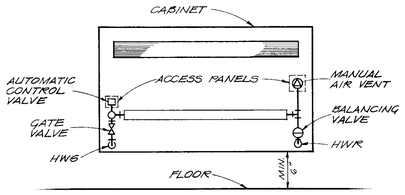
REGISTERED PROFESSIONAL ENGINEER
JAMES P. ROUBAL
A-1956
STATE OF NEBRASKA

BRYAN HIGH SCHOOL

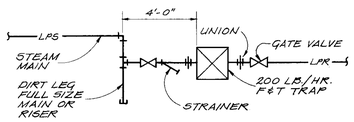
RISER DIAGRAM

110269
10-22-69

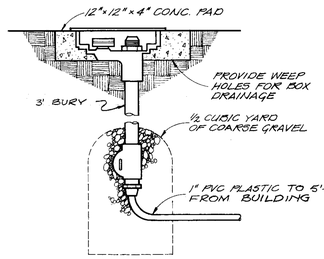
M-17



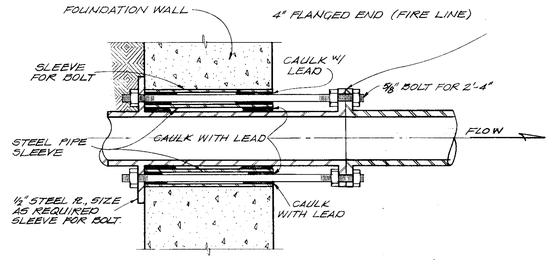
CONVECTOR CONNECTIONS (1/18)
NOT TO SCALE



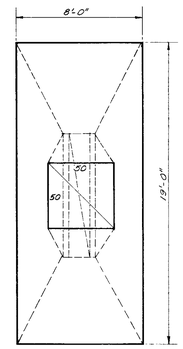
LOW PRESSURE DRIP DETAIL (2/18)
NOT TO SCALE



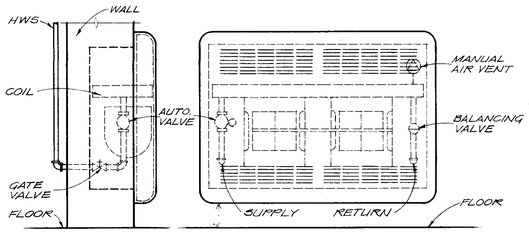
DETAIL OF STREET WASHER HYDRANT (3/18)
NOT TO SCALE



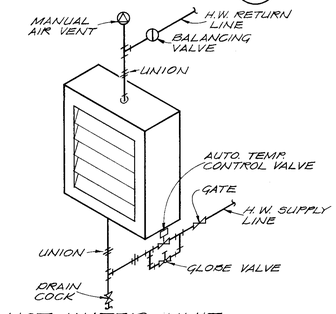
FIRE LINE ENTRY ANCHOR DETAIL (4/18)
NOT TO SCALE



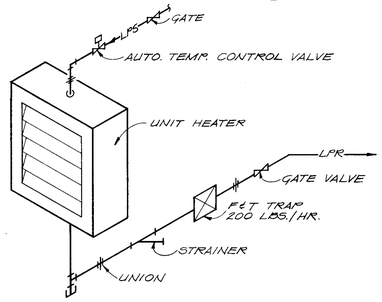
PLAN



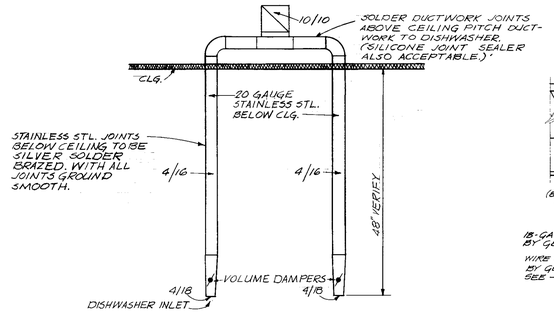
CABINET UNIT HEATER DETAIL (5/18)
NOT TO SCALE



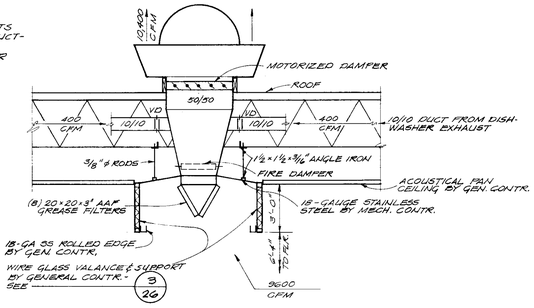
HOT WATER UNIT HEATER DETAIL (6/18)
NOT TO SCALE



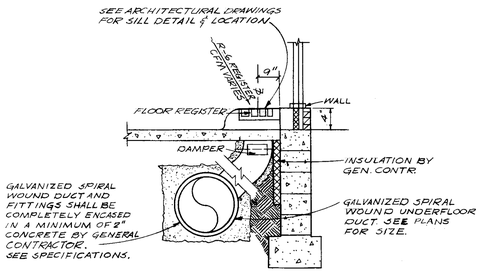
STEAM UNIT HEATER DETAIL (7/18)
NOT TO SCALE



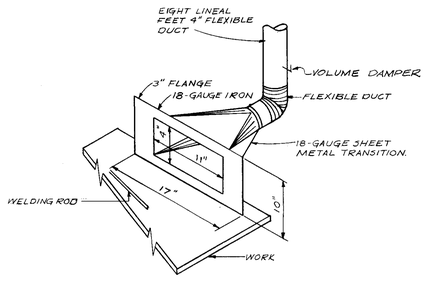
DISHWASHER EXHAUST DETAIL (8/18)
NOT TO SCALE



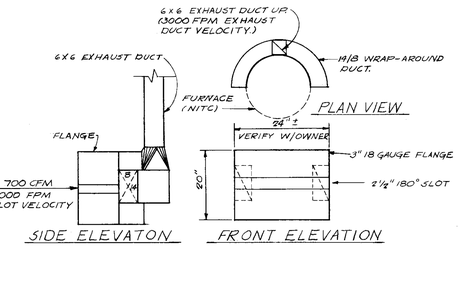
RANGE HOOD DETAIL (9/18)
SCALE: 1¼" = 1'-0"



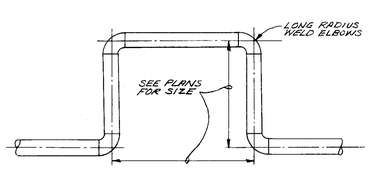
UNDERFLOOR DUCT DETAIL (10/18)
NOT TO SCALE



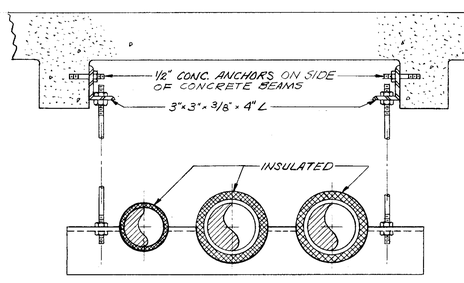
SOLDERING & ARC WELDING FLEXIBLE CONNECTION DETAIL (11/18)
NOT TO SCALE



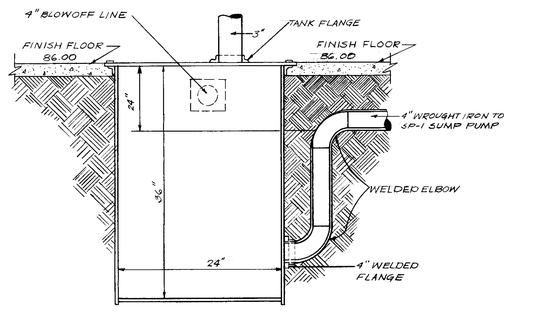
CRUCIBLE MELTING FURNACE EXHAUST DETAIL (12/18)
NOT TO SCALE



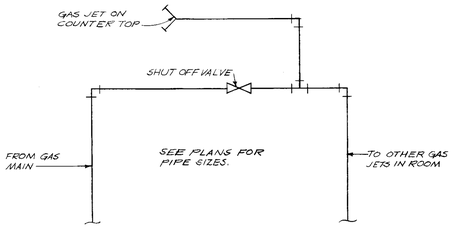
EXPANSION LOOP DETAIL (13/18)
NOT TO SCALE



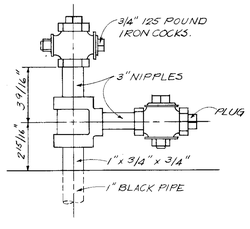
PIPE SUPPORT DETAIL (14/18)
NOT TO SCALE



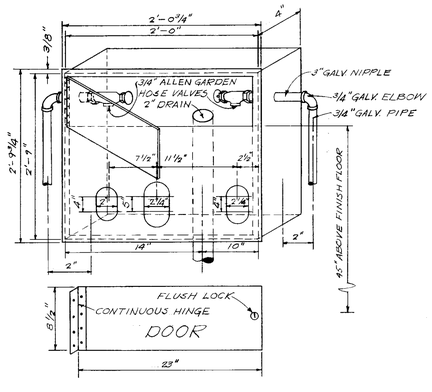
BLOWOFF TANK DETAIL (15/18)
NOT TO SCALE



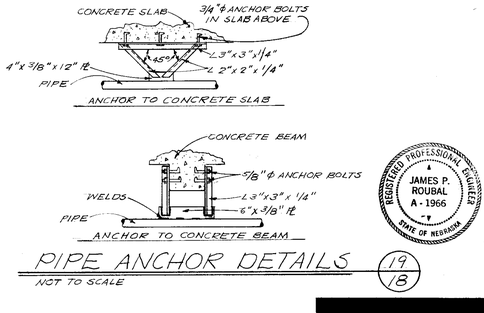
DETAIL OF GAS SHUT-OFF VALVE EQUIPMENT ITEMS S-3 & S-4 (16/18)
NOT TO SCALE



DETAILS OF GAS RANGE OUTLET (17/18)
NOT TO SCALE



WASHER BOX DETAIL (18/18)
NOT TO SCALE



PIPE ANCHOR DETAILS (19/18)
NOT TO SCALE

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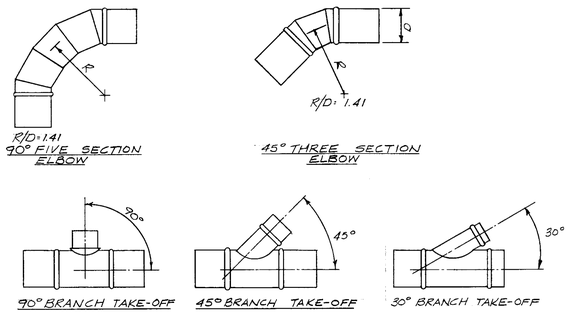
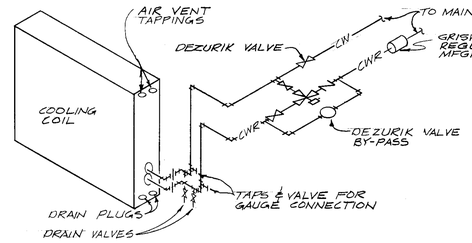


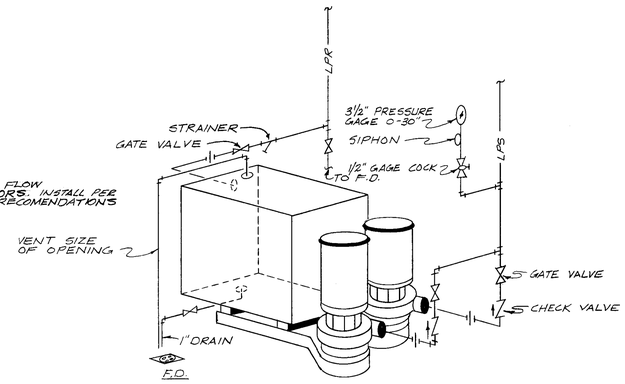
TYPICAL ROUND DUCT FITTINGS — 1/19

NOT TO SCALE



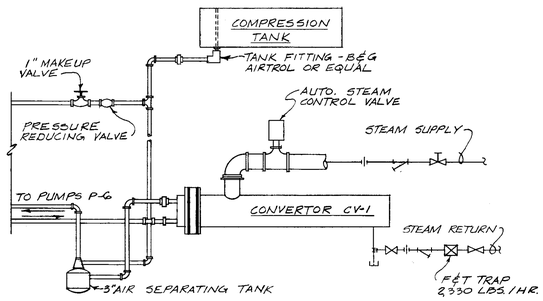
TYPICAL COOLING COIL DETAIL — 2/19

NOT TO SCALE



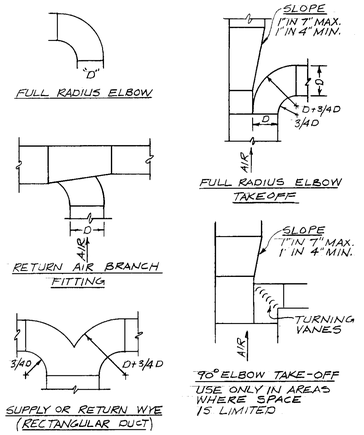
CONDENSATE PUMP PIPING DIAGRAM — 3/19

NOT TO SCALE



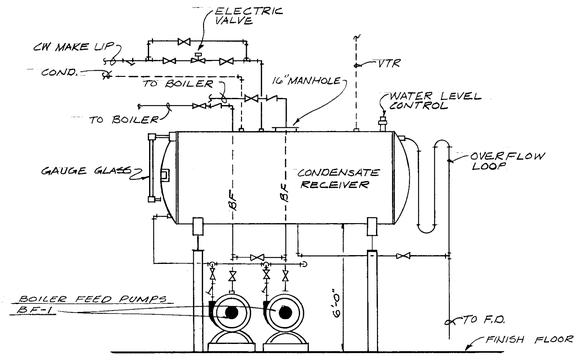
CONVERTOR CONNECTIONS — 4/19

NOT TO SCALE



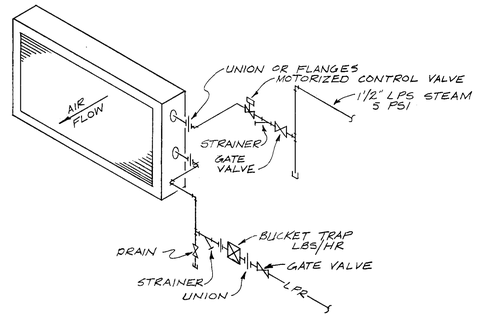
TYPICAL DUCT CONNECTIONS — 5/19

NOT TO SCALE



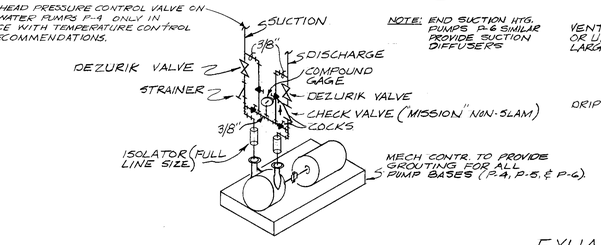
BOILER FEED PUMP AND CONDENSATE RECEIVER DETAIL — 6/19

NOT TO SCALE



TYPICAL STEAM HEATING COIL — 7/19

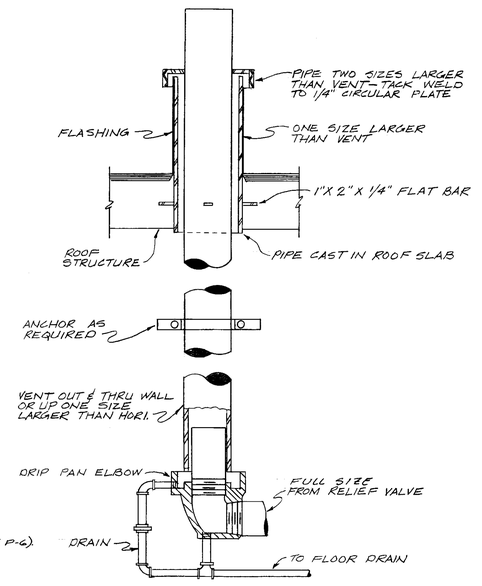
NOT TO SCALE



NOTE: END SUCTION HTG. PUMPS P-6 SIMILAR PROVIDE SUCTION DIFFUSERS

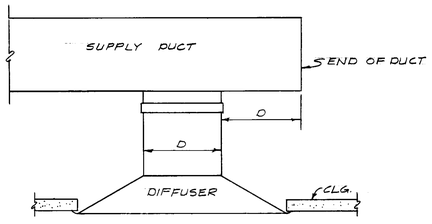
VERTICAL SPLIT CASE PUMP — 9/19

NOT TO SCALE



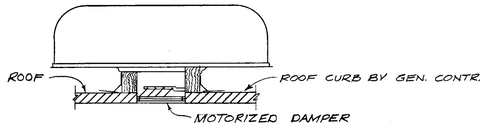
EXHAUST STEAM VENT DETAIL — 10/19

NOT TO SCALE



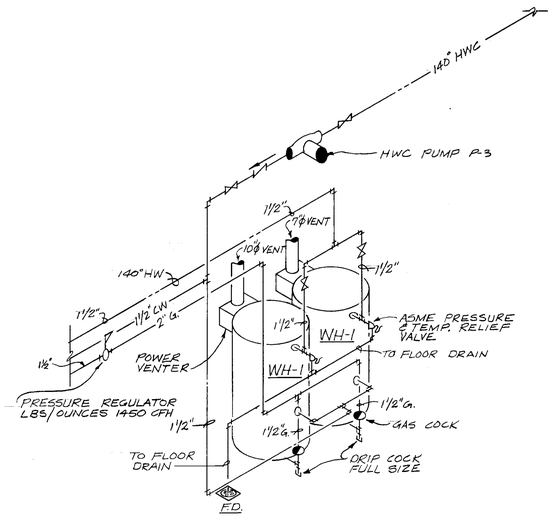
TYPICAL DIFFUSER CONN. — 8/19

NOT TO SCALE



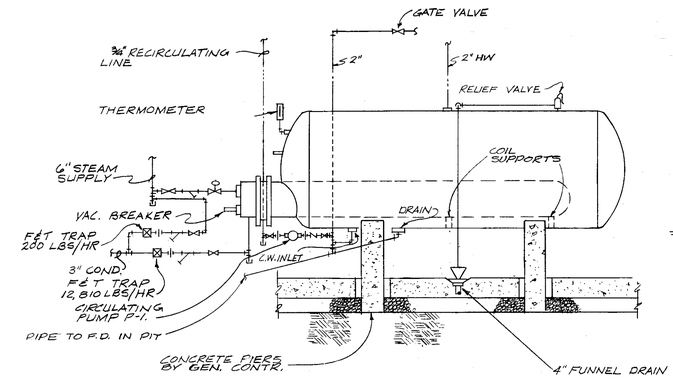
EXHAUST FAN DETAIL — 11/19

NOT TO SCALE



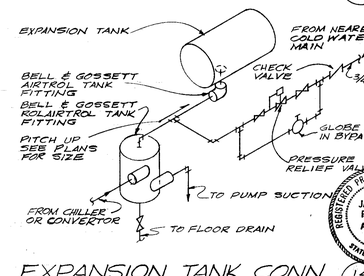
WATER HEATER CONN. DETAIL — 12/19

NOT TO SCALE



HOT WATER STORAGE TANK WITH STEAM CONVERTERS — 13/19

NOT TO SCALE



EXPANSION TANK CONN. — 14/19

NOT TO SCALE

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DETAILS

110269
10-22-69

M-19

BOILER SCHEDULE

MARK	LOCATION	CONTINUOUS STEAM CAP. (LB./HR.)	OPERATING STEAM PRES. (PSI.G.)	TOTAL EFF. HEATING SURF. (SQ.F.T.)	FURNACE VOLUME (CU. FT.)	DRY WEIGHT (LB.)	OIL RATE (G.P.H.)	GAS FIRING RATE (C.F.H.)	OIL PUMP H.P.	FORCED DFT. FAN H.P.	BURNER TYPE	MANUFACTURER	REMARKS
B-1	BOILER RM B-01	13,800	15	2000	119.9	29,000	119.6	16,790	1/2	15	GAS-OIL	KEWANEE LS-900-G02	
B-2	BOILER RM B-01	13,800	15	2000	119.9	29,000	119.6	16,790	1/2	15	GAS-OIL	KEWANEE LS-900-G02	

HOT WATER STORAGE TANK SCHEDULE

MARK	LOCATION	SERVES	RECOVERY GPH	ACTUAL STORAGE GAL.	STEAM PRESSURE P.S.I.G.	WATER TEMP. IN	WATER TEMP. OUT	SHELL SIZE DIA.	SHELL SIZE LENGTH	MANUFACTURER AND MODEL	REMARKS
HWG-1	BOILER RM. B-01	PIPG SYSTEM	5300	3055	5	90°F	190°F	10"	108"	H89194 STOVER HORIZONTAL	TCS-1010B B&G HEATER
HWG-2	MECH. RM. B-202	DISHWASHERS	900	669	5	90°F	195°F	8"	72"	H9896 STOVER HORIZONTAL	TCS-872 B&G HEATER

CONDENSATE PUMP SCHEDULE

MARK	LOCATION	SERVES	CAP EDR	DISC. PRESS. PSIG	GPM	RECEIVER SIZE	MOTOR DATA HP	MOTOR DATA VOLTS	MOTOR DATA PHASE	MOTOR DATA CYCLE	PUMP H.P. AIR	PUMP H.P. WTR.	MANUFACTURER AND MODEL	REMARKS
VP-1	BOILER RM. B-01	HTG. SYSTEM	125,000	30	150	100-GAL.	—	460	3	60	5	5	HOFFMAN 100 VCA	1750 RPM. DUPLEX VACUUM
CP-2	STORAGE C-201	HTG. SYSTEM	2,000	30	3	14-GAL.	—	460	3	60	—	1	HOFFMAN HCD-2-30	1750 RPM. DUPLEX CONDENSATE
CP-3	SEE PLANS	KITCHEN	4,000	30	6	19-GAL.	—	460	3	60	—	1	HOFFMAN HCD-4-30	1750 RPM. DUPLEX CONDENSATE

UNIT HEATER SCHEDULE

MARK	FUNCTION	SERVES	TYPE	BTUH INPUT	CFM	TEMP/ PRESS.	MOTOR DATA HP	MOTOR DATA VOLTS	MOTOR DATA PHASE	MOTOR DATA CYCLE	RPM	MANUFACTURER AND MODEL	REMARKS
UH-1	UNIT HEATER	SEE PLANS	HOT WATER	50,500	1214	190°F	1/12	115	1	60	1550	TRANE NO. 90-3	5.79 GPM, 65' P.D., 20° ΔT
UH-2	UNIT HEATER	GYMNASIUM	STEAM	206,900	4059	5 PSIG	1/3	115	1	60	1100	TRANE NO. 207-3	TYPE I MOTOR MOUNT, 60' THROW
UH-3	UNIT HEATER	GYMNASIUM	STEAM	333,400	5210	5 PSIG	3/4	460	3	60	1120	TRANE NO. 334-P	LOUVER CONE DIFFUSERS
UH-4	UNIT HEATER	SEE PLANS	STEAM	41,600	590	5 PSIG	1/20	115	1	60	1550	TRANE NO. 42-3	TYPE I MOTOR MOUNT.

CABINET UNIT HEATER SCHEDULE

MARK	FUNCTION	SERVES	TYPE	BTUH INPUT	CFM	A.W.T.	MOTOR DATA HP	MOTOR DATA VOLTS	MOTOR DATA PHASE	MOTOR DATA CYCLE	RPM	MANUFACTURER AND MODEL	REMARKS
CUH-1	CABINET HTR.	SEE PLANS	HOT WATER	20,500	300	190°F	1.3 AMPS	115	1	60	1550/1050	TRANE MODEL 03, 'A' COIL	2-SPEED, PERMANENT SPLIT CAPACITOR
CUH-2	CABINET HTR.	SEE PLANS	HOT WATER	28,300	400	190°F	1.8 AMPS	115	1	60	1550/1050	TRANE MODEL 04, 'A' COIL	2-SPEED, PERMANENT SPLIT CAPACITOR
CUH-3	CABINET HTR.	SEE PLANS	HOT WATER	57,300	800	190°F	3.5 AMPS	115	1	60	1100	TRANE MODEL 08, 'B' COIL	

EXHAUST FAN SCHEDULE

MARK	LOCATION	SERVES	CFM	EXT. S.P. (IN W.G.)	MOTOR DATA HP	MOTOR DATA VOLTS	MOTOR DATA PHASE	MOTOR DATA CYCLE	RPM	MANUFACTURER AND MODEL	REMARKS
EF-1	ROOF	SEE PLANS	1440	.500	1/3	115	1	60	835	PENN. LC-18	FIBREGLASS, COLOR BY ARCH.
EF-2	RM. A-227	RM. A-227 B-135	120/55	.250	1/25	115	1	60	1050	PENN Z-80-TD	10FR CAP; LT-30 SPD. CONTROLLER
EF-3	SEE PLANS	RMS. A-222/A-223	50	.250	1/25	115	1	60	1100	PENN Z-60-TD	8FR CAP
EF-4	ROOF	RMS. A-226/A-290	1400	.375	1/4	115	1	60	765	PENN LC-18	FIBREGLASS, COLOR BY ARCH
EF-5	ROOF	SEE PLANS	1900	.500	1/3	115	1	60	830	PENN LC-18	FIBREGLASS, COLOR BY ARCH.
EF-6	SEE PLANS	SEE PLANS	60/100	.375	1/25	115	1	60	1050	PENN Z-80 TD	" " LT-30 SPD. CONTROLLER
EF-7	ROOF	RANGE HOOD	10,900	.750	5	460	3	60	300	PENN RANGE-X, SIZE 55	GALVANIZED HOUSING
EF-8	ROOF	RMS. B-116/B-117	800	.375	1/4	115	1	60	1225	PENN LC-12	FIBREGLASS, COLOR BY ARCH.
EF-9	ROOF	HOMEMAKING	1500	.250	1/3	115	1	60	1185	PENN LC-14	FIBREGLASS, COLOR BY ARCH.
EF-10	ROOF	BOILER ROOM	7,900	.250	1½	460	3	60	490	PENN LC-32	FIBREGLASS, COLOR BY ARCH.
EF-11	STORAGE	BOYS LOCKERS	3,800	.750	1	460	3	60	1763	TRANE SIZE 19, MODEL Q	INLINE W/VIBRATION ISOLATORS
EF-12	STORAGE	GIRLS LOCKERS	3,000	.750	3/4	460	3	60	1473	TRANE SIZE 19 MODEL Q	INLINE W/VIBRATION ISOLATORS
EF-13	RM B-201	B-150 MFG.	3,000	1.00	1	460	3	60	1100	TRANE SW-B1-18	W/VIBRATION ISOLATORS
EF-14	RM B-143	RM B-143	310	.250	1/10	115	1	60	1050	PENN Z-100	
EF-15	ROOF	RM B-108	410	.250	1/10	115	1	60		PENN LC-8	FIBERGLASS, COLOR BY ARCH.
EF-16	RM B-142	RM B-142	235	.250	1/25	115	1	60	1050	PENN Z-80	

CONVECTOR SCHEDULE

MARK	LOCATION	STYLE	A. W. T.	LENGTH	HEIGHT	DEPTH	MBH	P.D.	MANUFACTURER AND MODEL	REMARKS
C-1	SEE PLANS	RECESSED	190°F	26"	32"	8"	5.0	3.12'	TRANE TYPE RK	
C-2	SEE PLANS	WALL HUNG	190°F	38"	20"	8"	8.7	5.60'	TRANE TYPE SW	SLOPING TOP
C-3	SEE PLANS	RECESSED	190°F	38"	20"	8"	8.3	5.60'	TRANE TYPE RK	
C-4	SEE PLANS	WALL HUNG	190°F	26"	16"	6"	4.0	2.85'	TRANE TYPE SW	SLOPING TOP

CONVERTOR SCHEDULE

MARK	LOCATION	SERVES	OPERATING CONDITIONS	CAPACITY	MANUFACTURER AND MODEL	REMARKS
CV-1	BOILER RM. B-01	HEATING SYSTEM	5 PSIG STEAM; 1.8' MAX. P.D.	75 GPM FROM 190°F TO 210°F	BELL & GOSSETT SU-107-2	

SUPPLY FAN SCHEDULE

MARK	LOCATION	SERVES	CFM	EXT. S.P. (IN W.G.)	MOTOR DATA HP	MOTOR DATA VOLTS	MOTOR DATA PHASE	MOTOR DATA CYCLE	RPM	MANUFACTURER AND MODEL	REMARKS
S-1	B-01 BOILER RM	VENTILATING SYS.	7800	0.25"	3/4	460	3	60	1020	1LG PB-305	BELT DRIVE

BOILER FEEDWATER SCHEDULE

MARK	LOCATION	MIN. PUMP GPM AT 210° F.	ACT. PUMP GPM AT 210° F.	OPERATING PRESSURE	RECEIVER CAPACITY GALS	MOTOR DATA H P	MOTOR DATA VOLTS	MOTOR DATA PHASE	MOTOR DATA CYCLE	MANUFACTURER AND MODEL	REMARKS
BF-1	BOILER RM B-01	77.3	93.2	30PSIG	1000	.5	460	3	60	ROTH TN-86-D	MECH. SEAL, INJECTION HTR. BOYD BLR. H.P.: 97,600 LBS/HR. EVAPORATION; DUPLEX.

PLUMBING FIXTURE AND EQUIPMENT CONNECTION SCHEDULE

* ITEMS THUS INDICATED TO BE FURNISHED AND INSTALLED BY OTHERS. MECHANICAL CONTRACTOR SHALL PROVIDE NECESSARY ROUGH-IN CONNECTION. ALL OTHER FIXTURES TO BE FURISHED AND INSTALLED BY MECHANICAL CONTRACTOR.

MARK	FUNCTION	LOCATION	WASTE	VENT	140° HW	180° HW	TEMPER	180° HWC	CW.	GAS	SOAP	REMARKS
WC	WATER CLOSET	SEE PLANS	4"	1½"	—				1¼"			
UR	URINAL	SEE PLANS	2"	1½"	—				1"			
LAV	LAVATORY	SEE PLANS	1½"	1¼"	½"				½"			
—	KITCHEN LAVATORY	SEE PLANS	1½"	1¼"	½"				½"			
—	WASH FOUNTAIN	SEE PLANS	2"	1½"	¾"				¾"			
FSS	FLOOR SERVICE SINK	SEE PLANS	2"	1½"	½"				½"			
* —	WHIRLPOOL BATH	SEE PLANS	3" FD	—	½"				½"			
* S-1	LAB SINK	SEE PLANS	1¼" A.W.	1½" AV	½"				½"			ACID WASTE & VENT
* S-2	LAB SINK	SEE PLANS	1½" AW	1½" AV	½"				½"			ACID WASTE & VENT
* S-3	LAB SINK	SEE PLANS	1½" AW	1½" AV	½"				½"			ACID WASTE & VENT
* S-4	LAB SINK	SEE PLANS	1½" AW	1½" AV	½"				½"			ACID WASTE & VENT
* CS-1	COUNTER SINK	SEE PLANS	1½"	1½"	½"				½"			
* KS-1	ONE-COMPT. KIT. SINK	SEE PLANS	1½"	1½"	½"				½"			
* KS-2	TWO-COMPT. KITCHEN SINK	SEE PLANS	1½"	1½"	½"				½"			
SH	INDIVIDUAL SHOWER	SEE PLANS	2"	1½"	½"				½"			
—	SHOWER MIXING VALVE	SEE PLANS	—	—	1¼"		1¼"		1¼"			
—	COLUMN SHOWER	SEE PLANS	3"	—	—		1"		1"			
—	SOAP TANKS	SEE PLANS	—	—	—				—		½"	
DF	DRINKING FOUNTAIN	SEE PLANS	1½"	1½"	—				½"			
—	CUSPIDOR	GYMNASIUM	1¼"	1¼"	—				½"			
WH-1	WATER HEATER	A-300 PNTHSE	—	—	1½"				1½"	1½"		
* (4)	POTATOE PEELER	B-107 KITCHEN	3"	—	—				½"			
* (5) (8)	DISPOSER	SEE PLANS	1½"	—	½"				—			
* (5) (8)	POT & PAN SINK	SEE PLANS	2"	1½"	3/4" (2)				3/4" (2)			
* (31)	2-COMPARTMENT SINK	SEE PLANS	1½"	1½"	½"				½"			
* 23, 24	STEAM KETTLES	SEE PLANS	—	—	—				—			
* 25	VEGETABLE STEAMER	SEE PLANS	—	—	—				—			
* 26	RANGE	SEE PLANS	—	—	—				—	1"		
* 10, 36	PREWASH SINK W/DISPOSER	SEE PLANS	2"	1½"	½"				¾"			
* 11, 37	DISHWASHER	SEE PLANS	3"	1½"	—	3/4"		1/2"	¾"			
—	LAB TABLES	SEE PLANS	—	—	—				—	1/2"		
WH	WALL HYDRANT	SEE PLANS	—	—	—				1"			
—	STREET WASHER	SEE PLANS	—	—	—				1"			
—	SETTLE SINK	SEE PLANS	1½"	1½"	½"				½"			
—	SAFETY EYE WASH	SEE PLANS	1¼"	1¼"	—				½"			

ROOF PENTHOUSE HOOD SCHEDULE

MARK	CFM	THROAT SIZE	HOOD SIZE	USE	MANUFACTURER	REMARKS
PH-1 & PH-2	3800	36" x 30"	54" x 71"	INTAKE & EXHAUST	PENN AIRETTE FIBREGLASS	
PH-3 & PH-4	3000	36" x 29"	54" x 71"	INTAKE & EXHAUST	PENN AIRETTE FIBREGLASS	

PUMP SCHEDULE

MARK	SERVES	GPM	HEAD (FT.)	MOTOR DATA HP	MOTOR DATA VOLTS	MOTOR DATA PHASE	MOTOR DATA CYCLE	MANUFACTURER AND MODEL	REMARKS
P-1	PLUMBING SYSTEM	10	12	1/6	115	1	60	1" HV. BELL & GOSSETT	BRONZE
P-2	PLUMBING SYSTEM	5	6	1/12	115	1	60	3/4" NO. 75 BELL & GOSSETT	BRONZE
P-3	PLUMBING SYSTEM	7	8	1/12	115	1	60	1" NO. 100 BELL & GOSSETT	BRONZE
P-4	CHILLED WATER SYSTEM	500	95	20	460	3	60	VCS-6-6-12 BELL & GOSSETT	1750 RPM
P-5	CONDENSER WATER SYSTEM	750 △	95 △	25	460	3	60	VCS-6-6-12 BELL & GOSSETT	1750 RPM
P-6	HEATING WATER SYSTEM	75	72	3	460	3	60	1½" BB, SERIES 1510 B & G	PROVIDE SUCTION DIFFUSER
SP-1	PLUMBING SYSTEM	35	25	3/4 (DUPLEX)	460	3	60	CHICAGO LG-2 DUPLEX	FLOAT SW., MECH. ALT., 30"x92" C.I. BASIN W/COVER

GAS FIRED WATER HEATER SCHEDULE

MARK	RECOVERY GPH	STORAGE GAL	RISE	BTUH INPUT	MANUFACTURER AND MODEL	REMARK
WH-1	1200	65	100°F	719,000	DAY & NIGHT GS-600-J118	ASME TANK; DUPLEX MANIFOLD

COOLING COIL SCHEDULE

MARK	SERVES	CFM	TOT MBH	GPM	P.D. FT.	H2O TEMP IN	H2O TEMP OUT	AIR TEMP F° IN (DB. WB)	AIR TEMP F° OUT (DB. WB)	DIMS. LEN	DIMS. WID.	MINIMUM NO. ROWS	AIR P.D.	FACE AREA SQ. FT.	FIN SERIES	FACE VEL F.P.M.	MANUFACTURER AND * MODEL
CC-1	SAH-1	17,900	538.5	146	21.2	46	54	82.0 (68.3)	55.0 (53.2)	105	42	6	1.61	30.6	18	587	TRANE TYPE "D"
CC-2	SAH-2	19,865	582.3	120	11.5	46	54	82.0 (68.3)	56.0 (54.3	105	48	6	1.45	35.0	18	547	TRANE TYPE "D"
CC-3	SAH-3	19,965	935.2	151	17.7	46	56	82.0 (68.3	55.0 (53.4	105	48	6	1.64	35.0	18	570	TRANE TYPE "D"
CC-4	SAH-4	15,325	771.2	98	10.1	46	56	83.0 (69.0	56.0 (54.3	105	42	6	1.26	30.6	18	500	TRANE TYPE "D"
CC-5	SAH-5	18,300	802.9	107	9.4	46	56	82.0 (68.3	56.0 (54.3	105	48	6	1.35	35.0	18	522	TRANE TYPE "D"
CC-6	SAH-6	11,075	518.3	68	9.1	44	54	82.0 (68.3	55.0 (53.2	99	30	6	1.40	20.6	18	536	TRANE TYPE "D"
CC-7	SAH-8	6,525	258.9	59	3.4	44	54	82.0 (68.3	55.0 (53.2	51	33	6	1.49	11.7	18	558	TRANE TYPE "D"
CC-8	SAH-9	19,700	780.1	98	7.9	44	54	82.0 (68.3	56.0 (54.5	105	48	6	1.51	35.0	18	562	TRANE TYPE "D"
CC-9	SAH-10	16,545	714.8	69	4.7	44	54	83.0 (69.0	58.0 (56.5	105	42	6	1.42	30.6	18	540	TRANE TYPE "D"
CC-10	SAH-11	9,290	409.7	57	4.6	44	54	82.0 (68.3	56.0 (54.5	81	30	6	1.46	16.8	18	550	TRANE TYPE "D"

*LESS TURBULATORS

STEAM HEATING COIL SCHEDULE

MARK	SERVES	CFM	MIN. BTUH CAPACITY	FACE VEL F.P.M.	AIR TEMP F° ENT.	AIR TEMP F° L.V.G.	STEAM PRESS.	MINIMUM NO. ROWS	AIR P.D.	FACE AREA SQ. FT.	FIN SERIES	MANUFACT. & MODEL	REMARKS
HC-1	SAH-1	17,990	1,521,228	1155	96	125	5 PSIG	2	1.28	15.5	37	TRANE NS	NON-FREEZE
HC-2	SAH-2	19,865	1,694,866	1135	96	125	5 PSIG	2	1.30	17.5	37	TRANE NS	NON-FREEZE
HC-3	SAH-3	19,965	1,703,398	1140	96	125	5 PSIG	2	1.20	17.5	37	TRANE NS	NON-FREEZE
HC-4	SAH-4	15,325	1,329,080	989	95	125	5 PSIG	2	.96	15.5	37	TRANE NS	NON-FREEZE
HC-5	SAH-5	18,300	1,561,356	1096	96	125	5 PSIG	2	1.06	17.5	37	TRANE NS	NON-FREEZE
HC-6	SAH-6	11,075	944,919	1055	96	125	5 PSIG	2	1.06	10.5	37	TRANE NS	NON-FREEZE
HC-7	SAH-7	8,800	1,330,560	880	-15	125	5 PSIG	2	.84	10.0	37	TRANE NS	NON-FREEZE
HC-8	SAH-8	6,525	554,343	1088	96	125	5 PSIG	2	1.19	6.0	37	TRANE NS	NON-FREEZE
HC-9	SAH-9	19,700	1,686,808	752	96	125	5 PSIG	1	.23	26.2	38	TRANE NS	NON-FREEZE
HC-10	SAH-10	16,545	1,429,440	1067	95	125	5 PSIG	2	1.08	15.5	37	TRANE NS	NON-FREEZE
HC-11	SAH-11	9,290	792,607	1078	96	125	5 PSIG	2	1.09	8.6	37	TRANE NS	NON-FREEZE
HC-12	SAH-12	3,000	453,600	500	-15	125	5 PSIG	2	.30	6.0	37	TRANE NS	NON-FREEZE
HC-13	SAH-13	2,500	378,000	667	-15	125	5 PSIG	2	.96	3.7	37	TRANE NS	NON-FREEZE

REGISTERED PROFESSIONAL ENGINEER
JAMES P. ROUBAL A-1966
STATE OF NEBRASKA

DANA LARSON ROUBAL AND ASSOCIATES
IRVING R DANA AIA
WILLIAM L LARSON AIA
JAMES P ROUBAL PE
ARCHITECTURE ENGINEERING AND PLANNING
(605) 224-8888
207 EAST CAPITOL
PIERRE SO DAKOTA 57501

△ AS BUILT 8-15-73

DIFFUSER AND REGISTER SCHEDULE

MARK	SERVES	TYPE	NECK SIZE	SIZE OR MODULE	MODEL	MANUFACTURER	REMARKS
D-1	SUPPLY	ADJUSTABLE	SEE PLANS	12×12	TMSA	TITUS	
D-2	SUPPLY	ADJUSTABLE	SEE PLANS	24×24	TMSA	TITUS	
D-3	SUPPLY	ADJUSTABLE	SEE PLANS	30×30	TMSA	TITUS	
D-4	SUPPLY	ADJUSTABLE	SEE PLANS	24×24	TCSX	TITUS	FRAME STYLE 4, FOR SPLINE-TYPE CLG.
D-5	SUPPLY	ADJUSTABLE	5"ϕ	SIZE 5	TYPE "D"	THERMOTANK	145 FPM RESIDUAL VEL. @ 0.45" S.P.
R-1	SUPPLY		SEE PLANS	SEE PLANS	L-2015	TITUS	
R-2	RETURN		SEE PLANS	SEE PLANS	RH-100	TITUS	W/OBD
R-3	SUPPLY	LINEAR	SEE PLANS	SEE PLANS	C-2800	TITUS	W/ #680 PLASTER FRAME
R-4	SUPPLY	LINEAR	SEE PLANS	SEE PLANS	CM-1500	TITUS	W/OBD · W/ #273 BORDER
R-5	EXHAUST		SEE PLANS	SEE PLANS	RH-100	TITUS	
R-6	RETURN	LINEAR	SEE PLANS	SEE PLANS	CM-1500	TITUS	W/OBD · W/ #354 BORDER · FLOOR SUPPORT BRACKETS @ 12" C-C
R-7	SUPPLY	ADJUSTABLE	SEE PLANS	4-SLOT	SLAD-F	ANEMOSTAT	BLACK FINISH
R-8	SUPPLY		SEE PLANS	SEE PLANS	CS-270	TITUS	W/AG-45-1
R-9	SUPPLY	LINEAR	SEE PLANS	SEE PLANS	C-2700	TITUS	W/OBD · W/ #354 BORDER
R-10	RETURN		SEE PLANS	24×24	TCR	TITUS	W/OBD

COOLING TOWER SCHEDULE

MARK	LOCATION	AMB. TEMP.		WATER DATA			MOTOR DATA				MANUFACTURER AND MODEL	REMARKS
		DB °F	WB °F	GPM	ENT °F	LVG °F	HP	VOLTS	PHASE	CYCLE		
CH-1	ROOF	95	78	1365	102.6	85	40	460	3	60	MARLEY 376-111	

AIR HANDLING UNIT SCHEDULE

MARK	LOCATION	SERVES	C.F.M.	OUTLET VEL. (F.P.M.)	EXT. S.P. (IN W.G.)	R.P.M.	% OUT AIR	MOTOR DATA H.P.	VOLTS	PHASE	CYCLES	MANUFACTURER	REMARKS
SAH-1	PNTHSE A-300	AREA "A" GROUND	17,900	2183	5.5	1253	25	30	460	3	60	TRANE #31	BLOW-THRU DUAL DUCT
SAH-2	PNTHSE A-300	AREA "A" UPPER	19,865	1774	5.5	1550	25	30	460	3	60	TRANE #35	BLOW-THRU DUAL DUCT
SAH-3	PNTHSE A-300	AREA "A" UPPER	19,935	1782	5.5	1550	25	30	460	3	60	TRANE #35	BLOW-THRU DUAL DUCT
SAH-4	PNTHSE A-300	AREA "A" UPPER	15,325	1869	5.5	1240	25	30	460	3	60	TRANE #31	BLOW-THRU DUAL DUCT
SAH-5	PNTHSE A-300	AREA "A" GROUND	18,300	1634	5.5	1475	25	30	460	3	60	TRANE #35	BLOW-THRU DUAL DUCT
SAH-6	MECH. RM. B-202	CAFETERIA	11,075	1648	2.5	1033	25	10	460	3	60	TRANE #21 L.P.	BLOW-THRU MULTIZONE
SAH-7	MECH. RM. B-202	KITCHEN	8,800	1749	1.5	680	100	5	460	3	60	TRANE #14 L.P.	DRAW-THRU · INTERNAL FACE & BY-PASS
SAH-8	MECH. RM. B-202	BAND & VOCAL	6,525	1583	2.5	934	25	7½ △1	460	3	60	TRANE #12 L.P.	BLOW-THRU MULTIZONE
SAH-9	MECH. RM. B-201	AUDITORIUM	19,700	1758	2.5	1050	25	20 △1	460	3	60	TRANE #35 L.P.	DRAW-THRU EXTERNAL FACE & BY-PASS
SAH-10	MECH. RM. B-201	SHOP AREA	16,545	1696	2.5	854	30	15	460	3	60	TRANE #31 L.P.	BLOW-THRU MULTIZONE.
SAH-11	MECH. RM. B-201	LECTURE RMS.	9,290	1683	2.5	1106	25	10	460	3	60	TRANE #17 L.P.	BLOW-THRU MULTIZONE.
SAH-12	STORAGE C-201	BOY'S LOCKER	3,000	1091	1.5	871	100	2	460	3	60	TRANE #8 M.P.	DRAW-THRU SINGLE ZONE
SAH-13	STORAGE C-201	GIRL'S LOCKER	2,500	1344	1.5	1052	100	1½	460	3	60	TRANE #6 L.P.	DRAW-THRU SINGLE ZONE

ABSORPTION UNIT SCHEDULE

MARK	LOCATION	SERVES	CHILLED WATER GPM	CONDENS. WATER GPM	CONDENSER WATER ENT. °F	CONDENSER WATER LVG. °F	CHILLER WATER ENT. °F	CHILLER WATER LVG. °F	PRESSURE DROP COND.	PRESSURE DROP CHILLER	FOULING FACTOR	MANUFACTURER AND MODEL
CH-1	B-01	CHILLED WTR.	1000	1365	85°	102.6°	54	44	17.6'	12.4'	.0005	CARRIER 16JA047

RETURN FAN SCHEDULE

MARK	LOCATION	SERVES	CFM	EXT. S.P. (IN W.G.)	MOTOR DATA HP	VOLTS	PHASE	CYCLE	RPM	MANUFACTURER AND MODEL	REMARKS
RF-1	PENTHOUSE A-300	SAH-1	16,730	.70	5	460	3	60	735	TRANE SW-36-AF	ARR 9 UBD
RF-2		SAH-2	19,865	.65	5	460	3	60	655	TRANE SW-40-AF	ARR 9 UBD
RF-3		SAH-3	18,525	.65	5	460	3	60	615	TRANE SW-40-AF	ARR 9 UBD
RF-4		SAH-4	15,325	.65	5	460	3	60	688	TRANE SW-36-AF	ARR 9 THD
RF-5		SAH-5	18,200	.70	5	460	3	60	610	TRANE SW-40-AF	ARR 9 UBD
RF-6	MECH RM B202	SAH-6	10,275	.70	5	460	3	60	775	TRANE SW-30-AF	ARR 9 BHD
RF-7	MECH RM B202	SAH-7	6525	.65	1½	460	3	60	845	TRANE SW-24-AF	ARR 9 BHD
RF-8	MECH RM B201	SAH-8	19,700	.65	7½	460	3	60	839	TRANE SW-36-AF	ARR 9 UBD
RF-9		SAH-9	16,545	.70	5	460	3	60	730	TRANE SW-36-AF	ARR 9 UBD
RF-10		SAH-10	9,290	.75	5	460	3	60	730	TRANE SW-30-AF	ARR 9 BAUD

MIXING BOX SCHEDULE

MARK *	LOCATION	SERVES	INLET O.D.	CFM AT 1.0" S.P.	MAX.	LWNS-3RD BAND AT 1" S.P.	D B A	CYCLE	MANUFACTURER AND MODEL	REMARKS
MB-1	SEE PLANS	HVAC SYSTEM	4"	135		49	38		ANEMOSTAT HVE-4	H.V. MECH CONSTANT VOL. VALVE
MB-2			5"	250		53	38		HVE-5	H.V. MECH CONSTANT VOL. VALVE
MB-3			6"	375		53	38		HVE-6	H.V. MECH CONSTANT VOL. VALVE
MB-4			7"	600		57	40		HVE-7	H.V. MECH CONSTANT VOL. VALVE
MB-5			8"	900		59	42		HVE-8	H.V. MECH CONSTANT VOL. VALVE
MB-6			10"	1100		62	44		HVE-10	H.V. MECH CONSTANT VOL. VALVE
MB-7			12"	1900		69	45		HVE-12	H.V. MECH CONSTANT VOL. VALVE
MB-8			14"	3000		75	58		HVE-14	H.V. MECH CONSTANT VOL. VALVE
MB-9			16"	⊛4800		82	59		HVE-16	H.V. MECH CONSTANT VOL. VALVE

* ASTERISK SHOWN ON DRAWINGS DENOTES LARGER SIZE VOLUME REGULATOR ⊛ MAX. 1.5" S.P.

SOUND ATTENUATOR SCHEDULE

MARK	UNIT SERVED	TYPE	CFM	MAX. S.P. LOSS H_2O	ATTENUATION CPS	DB	SIZE DIAM.	LENGTH	MANUFACTURER AND MODEL	REMARKS
ST-1	SAH-1	CIRCULAR	12,700	0.30	[illegible]	[illegible]	32"	96"	AIROCOUSTAT 32 CA 96	[illegible]
ST-2	SAH-1		5,200	0.25		[illegible]	22"	66"	22 CA 66	
ST-3	SAH-2		11,830				32"	96"	32 CA 96	
ST-4	SAH-2		8,035				28"	84"	28 CA 84	
ST-5	SAH-3		9,470				30"	90"	30 CA 90	
ST-6	SAH-3		10,465				30"	90"	30 CA 90	
ST-7	SAH-4		7,610				26"	78"	26 CA 78	
ST-8	SAH-4		7,715				26"	78"	26 CA 78	
ST-9	SAH-5		12,800	0.30			32"	96"	32 CA 96	
ST-10	SAH-5		5,500	0.25			22"	66"	22 CA 66	

MOTOR CONTROL SCHEDULE

NOTE: ALL PRIMARY AND PILOT CONTROL WIRING BY ELECTRICAL CONTRACTOR UNLESS NOTED. SEE TEMP. CONTROL DIAGRAMS.

Columns: MOTOR DATA: APPROXIMATE HORSEPOWER (HP), VOLTAGE (V), PHASE (PH). CONTROL EQUIPMENT, PRIMARY: (1) MANUAL WITH O.L. PROTECTION - BY ELECT.; (2) ACROSS THE LINE MAG. START. - BY ELECT.; (3) REDUCED VOLTAGE STARTER - BY ELECT.; (4) AUXILIARY CONTACT BY ELECT. (SEE REMARKS); (5) LINE VOLTAGE THERMOSTAT - BY MECH.; (6) TWO SPEED MAGNET STARTER - BY MECH. PILOT: (7) HAND-OFF AUTOMATIC BY ELECT.; (8) PUSH BUTTON BY ELECT.; (9) PILOT LIGHT BY ELECT.; (10) TEMP. CONTROL BY MECH.; (11) FLOAT SWITCH BY MECH.; (12) PRESSURE SWITCH BY MECH.; (13) AQUASTAT - BY MECH.; (14) FIRESTAT - BY MECH.; (15) TOGGLE SWITCH. DISCONNECT ELECTRICAL: (S) SAFETY SWITCH; (C) COMBINATION STARTER AND DISCONNECT SWITCH; (T) TOGGLE SWITCH; (T/OL) TOGGLE SWITCH W/ O.L. PROTECTION.

MARK	EQUIPMENT	HP	V	PH	LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	REMARKS	S	C	T	T/OL
CH-1	ABSORPTION WATER CHILLER	10	460	3	B-01		●								●						SEE SPECS 15H-05	●	●		
B-1	BOILER	16	460	3	B-01		●								●						ELEC. CONTR. TO PROVIDE		●		
B-2	BOILER	16	460	3	B-01		●								●						WIRE TO CONTROL PNL.		●		
SAH-1	SUPPLY AIR HANDLER	30	460	3	A-300		●					●			●							●			
* SAH-2							●					●			●							●			
* SAH-3							●					●			●							●			
* SAH-4							●					●			●							●			
* SAH-5							●					●			●							●			
* SAH-6		10			B-202		●					●			●							●			
* SAH-7		5					●					●			●							●			
* SAH-8		7½ △1					●					●			●							●			
* SAH-9		20 △1			B-201		●					●			●							●			
* SAH-10		15					●					●			●							●			
* SAH-11		10					●					●			●							●			
* SAH-12		2			C-201		●					●			●							●			
* SAH-13		1½			C-201		●					●			●							●			
RF-1	RETURN FAN	5	460	3	A-300		●								●						INTERLOCK W/SAH-1	●			
RF-2							●								●						INTERLOCK W/SAH-2	●			
RF-3							●								●						INTERLOCK W/SAH-3	●			
RF-4							●								●						INTERLOCK W/SAH-4	●			
RF-5							●								●						INTERLOCK W/SAH-5	●			
RF-6					B-202		●								●						INTERLOCK W/SAH-6	●			
RF-7		1½			B-202		●								●						INTERLOCK W/SAH-8	●			
RF-8		7½			B-201		●								●						INTERLOCK W/SAH-9	●			
RF-9		5					●								●						INTERLOCK W/SAH-10	●			
RF-10		5					●								●						INTERLOCK W/SAH-11	●			
P-1	HWC PUMP	1/6	115	1	B-01	●								●						●					
P-2	HWC PUMP	1/12			B-202	●								●						●					
P-3	HWC PUMP	1/12			A-300	●								●						●					
* P-4	CHILLED WATER PUMPS	20	460	3	B-01		●					●									(2) REQUIRED				
* P-5	CONDENSER WTR. PUMPS	25					●					●									(2) REQUIRED				
* P-6	HEATING WATER PUMPS	3					●					●									(2) REQUIRED				
SP-1	SUMP PUMP	(2) ¾					●									●					DUPLEX W/MECH. ALT.				
CP-1	CONDENSATE PUMP	(2) 5					●									●									
CP-2	CONDENSATE PUMP	(2) 1			C-201		●									●									
CP-3	CONDENSATE PUMP	(2) 1			CRAWL SP.		●									●									
CUH-1	CABINET UNIT HEATER	1.3 AMPS	115	1	SEE PLANS	●									●										●
CUH-2	CABINET UNIT HEATER	1.8 AMPS				●									●										●
CUH-3	CABINET UNIT HEATER	3.5 AMPS				●									●										●
WH-1	WATER HEATER FAN	1/6			A-300	●																			
UH-1	UNIT HEATER	1/12			SEE PLANS	●									●										
UH-2	UNIT HEATER	1/3				●									●										
UH-3	UNIT HEATER	¾	460	3			●								●										
UH-4	UNIT HEATER	1/20	115	1		●									●										
* EF-1	EXHAUST FAN	1/8			ROOF	●								●										●	
* EF-2		1/25			B135	●								●										●	
* EF-3		1/25			SEE PLANS	●								●										●	
* EF-4		1/4			ROOF	●								●										●	
* EF-5		1/3			ROOF	●								●										●	
* EF-6		1/25			SEE PLANS	●								●										●	
EF-7		5	460	3	ROOF		●														INTERLOCK W/SAH-7		●		
* EF-8		1/4	115	1		●								●										●	
EF-9		1/3	115	1		●								●										●	
* EF-10		1½	460	3			●																●		
EF-11		1			C-201		●														INTERLOCK W/SAH-12		●		
EF-12		¾			C-201		●														INTERLOCK W/SAH-13		●		
EF-13		1			B201		●																		
* EF-14		1/10	115	1	B143, C119, C120	●																			
* EF-15		1/6		1	ROOF	●																			
* EF-16		1/25		1	B142	●																			
S-1	SUPPLY AIR FAN	¾	460	3	B-01		●																●		
BF-1	BOILER FEED PUMPS	2	460	3	B-01		●							●									●		
CF-1	CHEMICAL FEED PUMP	1/4	115	1	B-01	●							●			●									●
CT-1	COOLING TOWER	40	460	3	ROOF		●							●	●							●	●		
AC-1	TEMP. CONTROL AIR COMP.	5	460	3	B-01		●																		
—	INCINERATOR	1/25 / 3	115 / 460	1 / 3	B-112		●														INTERLOCK W/DRAFT FAN				

* EXHAUST FANS FOR TOILET & LOCKER RMS., ALL AIR HANDLING UNITS SHALL BE CONTROLLED FROM THE TEMPERATURE CONTROL PANEL IN BOILER RM.

REGISTERED PROFESSIONAL ENGINEER · JAMES P. ROUBAL · A-1966 · STATE OF NEBRASKA

DANA LARSON ROUBAL AND ASSOCIATES
IRVING R DANA AIA
WILLIAM L LARSON AIA
JAMES P ROUBAL PE
ARCHITECTURE ENGINEERING AND PLANNING
(402) 341-430
FOUR HUNDRED EXECUTIVE BUILDING
OMAHA NEBRASKA

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