



Addendum No.: 4

Date Of Addendum: 3/1/19

CT DAS ● Construction Services ● Office of Legal Affairs, Policy, and Procurement

York Correctional Institution Central Plant and Piping Distribution

201 West Main Street, Niantic, CT

BI – JA – 465

Original Bid Due Date / Time:

3/07/19

2:00 PM EST

Previous Addendums: Addenda 1, 2, & 3

TO: Prospective Bid Proposers:

This Addendum forms part of the "Contract Documents" and modifies or clarifies the original "Contract Documents" for this Project dated 12/21/18. Prospective Bid Proposers **shall** acknowledge receipt of the total number the Addenda issued for this Project on the space provided on Section 00 41 00 Bid Proposal Form.

Failure to acknowledge receipt of the total number the Addenda issued for this Project on the space provided on Section 00 41 00 Bid Proposal Form shall subject Bid Proposers to disqualification.

The following clarifications are applicable to drawings and specifications for the project referenced above.

Item 1:

See attached Pre-bid Conference / Walk-Through Sign-in Sheets for Packages 23A and 31A.

Item 2:

See attached Pre-bid Conference / Walk-Through General Instructions – All Bidders

Item 3:

See attached 6990 Notice Form - Biznet.

Item 4:

Section 00 41 00 Bid Proposal Form

REPLACE the entire section with the attached.

Item 5:

Section 00 45 17 Named Subcontractor Bidder's Qualification Statement

REPLACE the entire section with the attached.

Item 6:

Section 01 21 00 Allowances

REPLACE the entire section with the attached.

Item 7:

ACCEPTED SUBSTITUTIONS: The following products have been evaluated and accepted as substitutions for named manufacturers in the project specifications. These products are subject to compliance with all requirements of the construction documents.

- Nelson Heat Trace Systems
- Alerton Control Systems

SUBSTITUTIONS NOT ACCEPTED: The following products have not been accepted as substitutions for the named manufacturers in the project specifications.

- Burnham Fire Tube Boilers
- Distech Controls



Addendum No.: 4

Date Of Addendum: 3/1/19

Item 8:

See attached for responses to pre-bid questions Q39 thru Q258.

Item 9:

See attached Building 9C logistics plan related to pre-bid question Q86 response.

Item 10:

Section 00 50 00 Project Specific Available Information

ADD the attached drawings as Subsection "50 80 00.6 Excerpted Drawings from BI-JA-217C, dated 10/28/91"

Item 11:

Section 00 30 00 General Statements for Available Information

ADD 00 30 80 General Statement for Additional Information, Item B.6 as follows:

- "6. **Subsection 50 80.00.6:** Excerpted Drawings from BI-JA-217C, dated 10/28/91 is provided as reference information showing existing HVAC unit locations and piping for each of the buildings throughout the facility."

Item 12:

Section 00 01 10 Table of Contents (for all three (3) Project Manual volumes)

UPDATE the page count in the Addendum 2 Table of Contents for the following Specification section item:

"00 41 00 Bid Proposal Form" from "12" to "13"

ADD new entry under Division 50, Section 50 80 00 Additional Info:

"50 80 00.6 Excerpted Drawings from BI-JA-217C, dated 10/28/91" with a page count of "28"

DRAWINGS

Item 13:

Drawing M757 Building 7 Equipment Layout and Controls

REPLACE the entire drawing with the attached.

SUMMARY OF CHANGES

UPDATED drawing to show location of makeup air unit in response to pre-bid question Q127

Item 14:

Drawing M764 Building 10A Equipment Layout and Controls

REPLACE the entire drawing with the attached.

SUMMARY OF CHANGES

UPDATED drawing to show location of makeup air unit in response to pre-bid question Q126

Item 15:

Drawing M766 Building 12 Equipment Layout and Controls

REPLACE the entire drawing with the attached.

SUMMARY OF CHANGES

UPDATED drawing to show location of makeup air unit in response to pre-bid question Q127



Addendum No.: 4

Date Of Addendum: 3/1/19

Item 16:

Drawing M804 Equipment Schedules - 4

REPLACE the entire drawing with the attached.

SUMMARY OF CHANGES

UPDATED automatic fuel oil filtration set flow and design basis model in Fuel Oil Pump Skid Schedule.

Item 17:

Drawing M903 Details - 4

REPLACE the entire drawing with the attached.

SUMMARY OF CHANGES

UPDATED detail 5 in response to pre-bid questions Q84, Q85, and Q92.

End of Addendum 4



PRE-BID CONFERENCE / WALK-THROUGH GENERAL INSTRUCTIONS

ALL BIDDERS

1. Receive e-mail notification from DOC in advance confirming that you have clearance to enter the facility.
2. Enter through the Front Gate off Main Street 15 minutes in advance of the meeting time.
3. Park in the future laydown area parking lot as directed by DOC staff.
4. Someone in the parking lot area will give further directions. Leave all cell phones, tablets, cameras, pocketknives, tools, etc. locked inside your car. All tool boxes on vehicles on site must be 100% lockable with no loose tools or materials in the bed or rack.
5. Proceed as directed to Warehouse Building 10. There is an access door on the southwest corner of the back of Building 10 that can be seen from the parking area.
6. We are going to use this inner warehouse area to sign-in, introduce the Project team, briefly talk about the bid packages, and provide further instructions. All Pre-Bid questions regarding scope of work will be answered by Addendum. The last day for Pre-Bid questions is March 14, 2019 at 5:00 PM. Do not send more than 10 questions at a time and do not send them last minute.
7. Monday, March 11, 8:30 AM – **Bid Package 31B Sitework** walk-through requires a complete walk around the facility to show the entire pipe installation route. (We may want to see the proposed material stockpile and proposed WSA areas as well). We need to walk inside and outside the fenced area.
8. Monday, March 11, 1:00 PM – **Bid Package 21A Fire Suppression** and **Bid Package 26A Electrical** will visit the MERs in Buildings 13, 12, 10, 5 & 1 and Building 9 atrium.

9. Tuesday, March 12, 8:30 AM – **Bid Package 3A Concrete** and **Bid Package 4A Masonry** walk-through requires a complete walk around the facility to show the entire pipe installation route. We need to walk inside and outside the fenced area.
10. Tuesday, March 12, 1:00 PM – **Bid Package 5A Structural Steel & Miscellaneous Metals** will visit Building 9 atrium, Building 8 canopy area, Building 9C boiler area, and site gate install area.
11. Wednesday, March 13, 8:30 AM – **Bid Package 9A General Trades & Carpentry** will visit areas outside the MERs requiring temporary partitions in Buildings 3, 5, 6, 7, 9A, 9C, 9D, & 12.
12. Wednesday, March 13, 1:00 PM – **Bid Package 7A Roofing & Waterproofing** will visit the Building 8 canopy area.
13. Thursday, March 14, 8:30 AM – **Bid Package 1A Moving & Cleaning** and **Bid Package 9B Painting & Caulking** will visit areas outside the MERs requiring temporary partitions in Buildings 3, 5, 6, 7, 9A, 9C, 9D, & 12.
14. Thursday, March 14, 1:00 PM – **Bid Package 9C Ceilings** will visit areas outside the MERs requiring temporary partitions in Buildings 3, 5, 6, 7, 9A, 9C, 9D, & 12.

Department of Administrative Services
Construction Services

**Office of Legal Affairs,
Policy, and Procurement**

450 Columbus Boulevard
Hartford, CT 06103

Instructions to Contractors
and Subcontractors for
Entering Payments in
BizNet

Josh Geballe
Commissioner





Overview:

The Department of Administrative Services, Construction Services (DAS/CS) requires every Contractor (and its Subcontractors) who has been awarded a DAS/CS construction contract to enter expenditure amounts to Subcontractors and payment receipts from the state (and from one another) in the State of Connecticut web-based platform, Biznet. The payment receipts shall be entered on a monthly basis for work performed (and purchases made).

Procedure:

The state will pay the Contractor on a monthly basis for work performed (and purchases made) by it and its Subcontractors. The Contractor will input the payment date and amount they receive from the state on a monthly basis. The Contractor's first-level Subcontractor (Tier 1 Subcontractor) will input the payment they receive from the Contractor. The second-level Subcontractor (Tier 2 Subcontractor) will input the payment they receive from the Tier 1 Subcontractor. And so on.

The following instructions guide you through the process of entering payments in BizNet. More detailed instructions (with graphics) begin on page 2:

Step 1: Create a BizNet Account for Doing Business with the State:

All Contractors and Subcontractors are required to have a BizNet account in order to enter expenditures and payments on BizNet.

For instructions on creating a BizNet account and entering required company information, go to:

<https://portal.ct.gov/DAS/Procurement/Contracting/DAS-Procurement-BizNet-Accounts>.

To create a new BizNet Account, go to <https://biznet.ct.gov/AccountMaint/Login.aspx>.

Step 2: Log in to BizNet:

<https://biznet.ct.gov/AccountMaint/Login.aspx>.

Step 3: Add an "Authorized Signatory":

Each Contractor and Subcontractor must list one Contact as the "Authorized Signatory" in order to add payments from your contracting entity and, if necessary, add Subcontractors to your contract.

To add a "Authorized Signatory" after logging in to BizNet, go to:

Doing Business With The State > Company Information > [Binoculars] > Company Contacts > Add New Contact [enter contact information] > Contact Type(s) > Signatory Authority > Add > Save and Continue

Step 4: Locate your "Construction Contracts":

By locating your Construction Contracts, you will be able to add Subcontractors to your contract as well as add payments received from your contracting entity.

To locate your "Construction Contracts", after logging in to BizNet, select:

Click Here To Upload Documents > Upload Construction Subcontract Payments > [Binoculars for Applicable Contract]

To return to your list of contracts, select "Construction Contracts".

Step 5: Add Subcontractors to your Contract:

You need to add *all* of your Subcontractors in order for them to enter the payments they receive from you.

Step 6: Add Payments Received:

In this feature, you can add/edit/delete payments received from your contracting entity.



Step 1: Create a BizNet Account

- 1.1 Follow the instructions on the DAS website for creating a BizNet account and entering required company information: <https://portal.ct.gov/DAS/Procurement/Contracting/DAS-Procurement-BizNet-Accounts>.
- 1.2 To create a new account, go to <https://biznet.ct.gov/AccountMaint/Login.aspx> and click **Log In/Out**:

The screenshot shows the BizNet State of Connecticut search interface. At the top, there is a navigation bar with 'Current User', 'Home', 'Biznet Menu', and a red-bordered 'Log In/Out' button. Below this is a search section titled 'State Contracting Portal Search'. It includes a 'Search Contracts/Results' and 'Search Solicitations' section. The search filters include radio buttons for 'Currently Posted' (selected) and 'Under Evaluation', and checkboxes for 'SBE/MBE requirement included in solicitation', 'DBE', and 'CT Recovery'. There are dropdown menus for 'Organization' (set to 'All') and 'Industry' (set to 'All'). Text input fields are provided for 'Project/Solicitation #' and 'Keyword' (with a '100 characters max' limit). A 'Search Solicitations' button is located at the bottom of the search area.

- 1.3 Click **Create New Account** and follow the instructions very carefully, including clicking on the **Activation Link** in your e-mail:

The screenshot shows the BizNet State of Connecticut login page. At the top, there is a navigation bar with 'BIZ NET' and 'STATE OF CONNECTICUT'. Below this is a 'Login' section titled 'Welcome to the DAS Business Network'. A message states: 'The page you requested requires a log-in ID to access the on-line services offered by the Department of Administrative Services. If you do not have a log-in ID, you will need to create one. Please use the button to the right labeled "Create New Account" to proceed.' Below the message is a login form with fields for 'E-Mail Address' and 'Password', and a 'Login' button. To the right of the form are buttons for 'Create New Account' (highlighted with a red box), 'Forgot Password', 'Update Account', and 'Resend Activation Link'. At the bottom, there is a footer with the text: 'The Department of Administrative Services - Business Network. Review our Privacy Policy. Need to contact us? Send e-mail to DAS Web Design. All State disclaimers and permissions apply. He Commw 4.173.571'.



Step 2: Log in to BizNet

2.1 If you are not already logged in to BizNet, go to <https://biznet.ct.gov/AccountMaint/Login.aspx> to log in:

Current User Home Biznet Menu **Log In/Out**

SCP Search
State Contracting Portal Search

> Search Contracts/Results
> Search Solicitations

Currently Posted Under Evaluation SBE/MBE requirement included in solicitation DBE CT Recovery

Organization: All [Contracting Organization List](#)
Project/Solicitation #:
Keyword: **100 characters max**
Industry: All

Solicitations Posted in the last 24hrs

Search Solicitations

2.2 Enter your E-Mail Address and Password, and click **Login**.

Log In

Welcome to the DAS Business Network

The page you requested requires a log-in ID to access the on-line services offered by the Department of Administrative Services.

If you do not have a log-in ID, you will need to create one. Please use the button to the right labeled "Create New Account" to proceed.

E-Mail Address
Password

Login

Create New Account
Forgot Password
Update Account
Resend Activation Link

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Hit Counter 4,173,831



Step 3: Add an "Authorized Signatory"

3.1 After logging in to your account, click **Biznet Menu**:




3.2 Click **Doing Business With the State**:





3.3 Click **Company Information**:



3.4 Locate your company and click on the **binocular icon**  for your company.

3.5 **Company Information** displays as **Enter your Company Information**:



3.6 Click **Company Contacts**:

BIZ NET STATE OF CONNECTICUT

Current User: rebecca.cutler@ct.gov | Elected Menu | Log In/Out

Company Information
 Enter your Company Information

Company List
 Company Information
 Company Accounts
 Company Address
Company Contacts
 Industry
 Insurance
 Active Contracts
 Click Here To Upload Documents

Legal Business Name: Becky's Construction Company

Are You Conducting Business Under Another Name? Yes No

Taxpayer ID Type: FEIN SSN
 Taxpayer ID: 886556565

Business Structure: Limited Liability Company

Registered with Secretary of the State: Yes No [Secretary Of The State](#)

Web Address: _____

Are you currently licensed or applying for license with any of these agencies?
 Department of Children and Families
 Department of Public Health
 Department of Developmental Services



Yes No

3.7 Locate and click on the **binocular icon**  for the **Contact Name** for your company.

BIZ NET STATE OF CONNECTICUT

Current User: beaxjm11@gmail.com | Elected Menu | Log In/Out

Company Contacts
 Add or Edit Company Contact Information

To enter a new contact, click **Add**. To update information of an existing contact, click on the  next to the contact name. To delete a contact click on the  next to the contact name.

The Enchanted Moonbeam

Industry	Contact Name
	Becky Cutler

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6002 Instructions to Contractors and Subcontractors For Entering Payments in BizNet

3.8 Under **Contact Type(s)**, select **“Authorized Signatory”** and then click **Add**. Click **Save and Continue**.

BIZ NET STATE OF CONNECTICUT
Current User: rebecca.cutler@ct.gov BizNet Menu Log In/Cut

Add/Edit Company Contact
Add or Edit Company Contact Information
You may have as many Contacts and Contact Types as you wish.

Becky's Construction Company

Business Name	Becky's Construction Company	
Name	Becky Cutler	
Address 1	450 Columbus Blvd	
Address 2		
City	Hartford	
State, ZIP	Connecticut	06103
Phone	860-555-5762	Ext
FAX		
E-Mail Address	rebecca.cutler@ct.gov	
Non-Published	<input type="checkbox"/>	

Contact Type(s)
Authorized Signatory ▼
Add Delete
Authorized Signatory

Add Another Contact **Save and Continue** Cancel



Step 4: Locate your "Construction Contracts":

4.1 Choose [Click Here to Upload Documents](#):

BIZ NET STATE OF CONNECTICUT

Current User: rebecca.cutter@ct.gov | Biznet Menu | Log In/Out

Company Information
 Enter your Company Information

Company List
 Company Information
 Company Accounts
 Company Address
 Company Contacts
 Industry
 Insurance
 Active Contracts
Click Here To Upload Documents

Legal Business Name:

Are You Conducting Business Under Another Name? Yes No

Taxpayer ID Type: FEIN SSN
 Taxpayer ID:

Business Structure:

Registered with Secretary of the State: Yes No [Secretary Of The State](#)

Web Address:

Are you currently licensed or applying for license with any of these agencies?
 Department of Children and Families
 Department of Public Health
 Department of Developmental Services

Yes No

4.2 Click [Upload Construction Subcontract Payments](#):

BIZ NET STATE OF CONNECTICUT

Current User: rebecca.cutter@ct.gov | Biznet Menu | Log In/Out

Document Upload
 Upload Forms and Documents

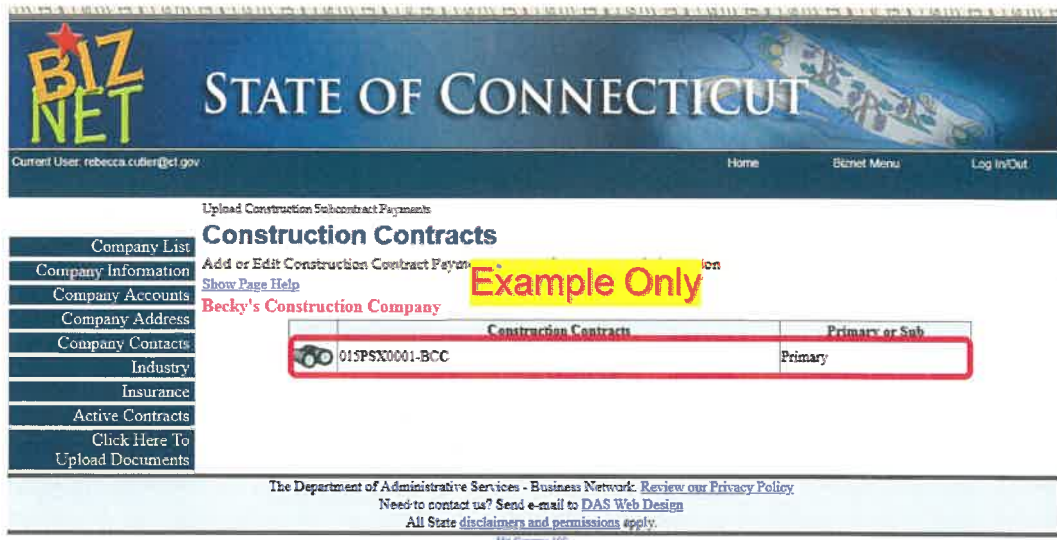
Choose the appropriate button for the forms or documents you wish to upload.
[Show Page Help](#)

Company List
 Company Information
 Company Accounts
 Company Address
 Company Contacts
 Industry
 Insurance
 Active Contracts

Becky's Construction Company



4.3 Click on the **binocular icon**  for the applicable **Construction Contract**:



BIZ NET STATE OF CONNECTICUT

Current User: rebecca.culler@ct.gov Home Biznet Menu Log In/Out


Upload Construction Subcontract Payments

Construction Contracts

Add or Edit Construction Contract Payment **Example Only** icon

[Show Page Help](#)

Becky's Construction Company

	Construction Contracts	Primary or Sub
	01SPSX0001-BCC	Primary

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Step 5: Add Subcontractors to your Contract:

5.1 Click **Subcontractors** to add Subcontractors to your Contract.:

BIZ NET STATE OF CONNECTICUT

Current User: rebecca.cutter@ct.gov Home Biznet Menu Log In/Out

Upload Construction Subcontract Payments

Construction Contract Detail
 Add or Edit Construction Contract Payments and/or Subcontractor Information
[Show Page Help](#)

Company: Becky's Construction Company
 Contract With: State of CT
 Contract #: 015PSX0001-BCC
 Description: Bid for greenhouse construction

Construction Contracts

> Payments Received

> Subcontractors

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5.2 Click **Add New Subcontractor** to add new Subcontractors to your Contract:

BIZ NET STATE OF CONNECTICUT

Current User: rebecca.cutter@ct.gov Home Biznet Menu Log In/Out

Upload Construction Subcontract Payments

Construction Contract Detail
 Add or Edit Construction Contract Payments and/or Subcontractor Information
[Show Page Help](#)

Company: Becky's Construction Company
 Contract With: State of CT
 Contract #: 015PSX0001-BCC
 Description: Bid for greenhouse construction

Construction Contracts

> Payments Received

> Subcontractors

[Show Page Help](#)

No Subcontractors Found

Add New Subcontractor

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5.3 Select your Subcontractor by either (1) entering the Subcontractor's name, then clicking **Select Subcontractor**; or (2) searching by clicking on **Select Subcontractor**:

BIZ NET STATE OF CONNECTICUT

Current User: rebecca.cutter@ct.gov Home Biznet Menu Log In/Out

Subcontractor Information

Add or Edit Subcontractor Information

[Show Page Help](#)

Company: Becky's Construction Company

Contract #: 016PSX0001-BCC

Description: Bid for greenhouse construction

Subcontractor

Subcontract Original Amount:

Value After Changes:

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5.4 Locate and click on the desired Subcontractor's Name:

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Current User: rebecca.cutter@ct.gov Home Biznet Menu Log In/Out

Subcontractor Information

Add or Edit Subcontractor Information

To add a new Subcontractor, locate and double-click on the desired Subcontractor's name.

- # 1 Clean Environment LLC ADDR: 1292 n high st east haven CORE ID:
- 0369 Contractors LLC ADDR: CORE ID:
- 1 Stop Electronics Center, Inc. ADDR: 1870 Bath Avenue Brooklyn CORE ID:
- 1 Tech 4 Hire LLC ADDR: 282 Main Street Torrington CORE ID:
- 1-Stop Design Shop, Inc. ADDR: CORE ID:
- 1-Stop Translation USA, LLC ADDR: 3700 Wiltshire Blvd. Ste 630 Los Angeles CORE ID:0000166368
- 10 C GLASS LLC ADDR: 18 Pautipaug hill rd. balte. CORE ID:
- 10 Hard Street LLC ADDR: 1155 Main Street Branford, CORE ID:
- 101-111 Pearl Street Properties, LLC ADDR: CORE ID:
- 1010 Digital LLC ADDR: 28 Perry st Suite 98 Stamford CORE ID:
- 1022403 Ontario Ltd ADDR: 18 Stockdale Road Trenton CORE ID:
- 102d Infantry Regiment Museum, Inc ADDR: 30 Hood Terrace West Haven CORE ID:
- 119 Braintree St Suite 101 Allston, MA 02D134 ADDR: CORE ID:
- 121 Inflight Catering, LLC ADDR: 7 Juliana Drive Oxford CORE ID:
- 1220 Exhibits, Inc ADDR: 3801 Vulcan Drive Nashville CORE ID:
- 123 Floors ADDR: 2516 Berlin Turnpike Newington CORE ID:
- 144-46 Norwich Road Inc. ADDR: 144-46 Norwich Road Plainfield CT CORE ID:
- 146 Supply Center, Inc. ADDR: 97 Worcester Providence Turnpike Milbury CORE ID:
- 151 Northshore Contractors LLC ADDR: 151 Otrobando Ave. Norwich CORE ID:

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6002 Instructions to Contractors and Subcontractors For Entering Payments in BizNet

- 5.5 Enter the **Subcontract Original Amount**. If there have been **Change Orders**, enter the **updated** total subcontract amount in **Value After Changes**. If there have been **no Change Orders**, enter the subcontract **original** amount in **Value After Changes**. Click **Save**.

BIZ NET STATE OF CONNECTICUT

Current User: rebecca.cullen@ct.gov Home Biznet Menu Log In/Out

Subcontractor Information:
Add or Edit Subcontractor Information
[Show Page Help](#)

Company: Becky's Construction Company
Contract #: 015PSX0001-BCC
Description: Bid for greenhouse construction

Subcontractor:

Subcontract Original Amount

Value After Changes

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- 5.6 If you need to add more Subcontractors, return to the beginning of **Step 5**.

- 5.7 To return to your list of construction contracts, click **Construction Contracts**:

BIZ NET STATE OF CONNECTICUT

Current User: rebecca.cullen@ct.gov Home Biznet Menu Log In/Out

Upload Construction Subcontract Payments

Construction Contract Detail
Add or Edit Construction Contract Payments and/or Subcontractor Information
[Show Page Help](#)

Company List
Company Information
Company Accounts
Company Address
Company Contacts
Industry
Insurance
Active Contracts
Click Here To Upload Documents

Company: Becky's Construction Company
Contract With: State of CT
Contract #: 015PSX0001-BCC
Description: Bid for greenhouse construction

Construction Contracts
[> Payments Received](#)
[> Subcontractors](#)

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Step 6: Add Payments Received

6.1 Click Payments Received:

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Current User: rebecca.cutter@ct.gov Home Ecret Menu Log In/Out

Upload Construction Subcontract Payments

Construction Contract Detail
 Add or Edit Construction Contract Payments and/or Subcontractor Information
[Show Page Help](#)

Company: Becky's Construction Company
 Contract With: State of CT
 Contract #: 015PSX0001-BCC
 Description: Bid for greenhouse construction

Construction Contracts

> Payments Received

> Subcontractors

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6.2 Click Add New Payment:

BIZ NET STATE OF CONNECTICUT

Current User: rebecca.cutter@ct.gov Home Biznet Menu Log In/Out

Upload Construction Subcontract Payments

Construction Contract Detail
 Add or Edit Construction Contract Payments and/or Subcontractor Information
[Show Page Help](#)

Company: Becky's Construction Company
 Contract With: State of CT
 Contract #: 015PSX0001-BCC
 Description: Bid for greenhouse construction

Construction Contracts

> Payments Received

[Show Page Help](#)

Date	Amount
10/11/2018	\$100
10/12/2018	\$1000
10/14/2018	\$2000

Add New Payment

> Subcontractors

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6.3 Type in the **Payment Date** and the **Amount** and then click “**Save**”:

BIZ NET STATE OF CONNECTICUT

Current User: rebecca.culler@ct.gov Home Biznet Menu Log In/Out

Add or Edit Construction Contract Payment

[Show Page Help](#)

Company: Becky's Construction Company

Contract With: State of CT

Contract #: 015PSX0001-BCC

Description: Bid for greenhouse construction

Payment Date:

Amount:

Save Cancel

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File Control: 16

6.4 To return to your list of construction contracts, click **Construction Contracts**.

BIZ NET STATE OF CONNECTICUT

Current User: rebecca.culler@ct.gov Home Biznet Menu Log In/Out

Upload Construction Subcontract Payments

Construction Contract Detail

Add or Edit Construction Contract Payments and/or Subcontractor Information

[Show Page Help](#)

Company: Becky's Construction Company

Contract With: State of CT

Contract #: 015PSX0001-BCC

Description: Bid for greenhouse construction

Construction Contracts

> [Payments Received](#)

> [Subcontractors](#)

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File Control: 144



6.5 Once you have completed entering monthly payments, click [Log In/Out](#).

BIZ NET STATE OF CONNECTICUT

Current User: rsebcca.cuttler@ct.gov Home Biznet Menu **Log In/Out**

Upload Construction Subcontract Payments

Construction Contract Detail

Add or Edit Construction Contract Payments and/or Subcontractor Information
[Show Page Help](#)

Company	Becky's Construction Company
Contract With	State of CT
Contract #	015PSX0001-BCC
Description	Bid for greenhouse construction

Construction Contracts

- > [Payments Received](#)
- > [Subcontractors](#)

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6.6 If you have questions about entering subcontractors and/or monthly payments, contact the DAS Construction Services Office of Legal Affairs, Policy, and Procurement at (860) 713-5762.

BID PROPOSAL FORM

PROJECT: YORK CORRECTIONAL CENTRAL PLANT AND DISTRIBUTION SYSTEM
 YOK CORRECTIONAL FACILITY, 201 WEST MAIN STREET, NIANTIC, CT
 PROJECT NO.: BI-JA-465
 EARLY WORK RELEASE – WORK AUTHORIZATION ORDER (WAO) #1

OWNER: STATE OF CONNECTICUT, DEPARTMENT OF ADMINISTRATIVE SERVICES
 DIVISION OF CONSTRUCTION SERVICES

CMR: PDS ENGINEERING & CONSTRUCTION, INC.
 107 OLD WINDSOR ROAD, BLOOMFIELD, CT 06002

BID DATE: MARCH 7, 2019 **TIME:** 2:00 PM

TO: PDS ENGINEERING & CONSTRUCTION, INC.
 ATTENTION: RANDY BECKER, SR. CONSTRUCTION MANAGER
 107 OLD WINDSOR ROAD
 BLOOMFIELD, CT 06002

Pursuant to and in compliance with the "Invitation to Bid", the undersigned,

(Name of Subcontractor)

having visited the site, familiarized itself with the conditions present and carefully examined all Contract Documents (Invitation To Bid, Procurement Requirements, and the complete Drawings and Project Manual together with all Addenda) issued and received prior to closing time for receipt of bids as prepared by WSP USA Inc., their consultants, and PDS Engineering & Construction Inc., the Construction Manager, hereby offers and agrees as follows:

To provide all labor and overtime as needed to maintain schedule, project management, home office support, field supervision, materials, equipment and appurtenances required to diligently perform all Work in connection with the above referenced project to the satisfaction of the Engineer and its consultants, Construction Manager, and the Owner (CT DAS) for the Bid Package(s) listed below **(in bold)**, including the lump sum for the entire project, and *breakout pricing for WAO #1 as applicable, as follows:

*Breakout price is included in the Lump Sum Bid Amount.

BID PACKAGE NUMBER	DESCRIPTION	LUMP SUM PRICE (WRITTEN AND NUMBERS)
1A (M/WBE SET-ASIDE)	MOVING & CLEANING	<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/>

BID PACKAGE NUMBER	DESCRIPTION	LUMP SUM PRICE (WRITTEN AND NUMBERS)
3A	CONCRETE	<hr/> <hr/> <hr/>
4A	MASONRY	<hr/> <hr/> <hr/>
5A	STRUCTURAL STEEL & MISC. METALS	<hr/> <hr/> <hr/>
7A	ROOFING & WATERPROOFING	<hr/> <hr/> <hr/>
9A (M/WBE SET-ASIDE)	GENERAL TRADES & CARPENTRY	<hr/> <hr/> <hr/>
9B	PAINTING & CAULKING	<hr/> <hr/> <hr/>

BID PACKAGE NUMBER	DESCRIPTION	LUMP SUM PRICE (WRITTEN AND NUMBERS)
9C	CEILINGS	<hr/> <hr/> <hr/>
21A	FIRE SUPPRESSION	<hr/> <hr/> <hr/>
23A	MECHANICAL	TOTAL BID AMOUNT _____ WAO #1 BREAKOUT PRICE <u> \$150,000.00 </u> <u> One Hundred Fifty Thousand Dollars </u>
26A	ELECTRICAL	<hr/> <hr/> <hr/>
31A (M/WBE SET-ASIDE)	SITE PREP: CLEARING & GRUBBING / FENCING / LAWNS	TOTAL BID AMOUNT _____ WAO #1 BREAKOUT PRICE _____ <hr/>

31B (SBE SET-ASIDE)	SITework: EXCAVATION & BACKFILL / PAVING	<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/>
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We further agree that this price is all-inclusive and that all Contract Documents have been reviewed and that every question, conflict or issue has been addressed to our satisfaction. Therefore, no change orders will be issued unless unforeseen conditions are encountered or the Owner or Owner's representatives revise the scope of the work. We understand that no time extensions will be granted for any reason. All applicable Allowances are included in the Base Bid price (see Allowances List and specific Bid Packages).

ADDENDA

A. This bid includes the Addenda listed below:

Addendum #	Dated

PAYMENT & PERFORMANCE BONDS

B. This bid includes the 100% Payment & Performance bond cost listed below. (Payment bond is required for bids equal to or greater than \$100,000, and Performance bond is required for bids equal to or greater than \$25,000. In lieu of these bonds, an SBE or M/WBE may provide a letter of credit in an amount equal to ten percent (10%) of the bid amount if it is less than \$100,000, or twenty-five percent (25%) of the bid amount if it is equal to or greater than \$100,000).

P&P Bond Cost

BID SUPPLEMENTS

C. Supplemental pricing is proposed as follows: If not applicable, indicate N/A in the blank spaces below. For Supplements (add Alternates), provide the full add price below. A blank space indicates no additional cost for that Supplement. If the Supplement pricing is challenged, a detailed breakdown will be required at a later date, and the CMR and/or Architect shall either negotiate or provide fair pricing that shall be used for contract adjustments. (Refer to Bid Documents, Bid Packages, and/or Addenda for description of Supplements, if any).

Supplement #	Description	Lump Sum Price (WRITTEN AND NUMBERS)
1	N/A	<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/>

Supplement #	Description	Lump Sum Price (WRITTEN AND NUMBERS)
2	N/A	_____ _____ _____
3	N/A	_____ _____ _____

UNIT PRICES

D. Unit pricing is proposed as follows: Unit Prices shall remain valid for the life of project, including all costs for a complete installation/removal. Each Subcontractor shall provide unit pricing in the spaces provided on the Bid Form, as it relates to its Scope of Work. (All unit prices provided are for adds and/or deducts and are to include all overhead and profit. The deduct unit price will be the unit price less 10%). Refer to Specification Section 01 22 00, Unit Price List, Bid Packages, and/or Addenda for applicable Unit Prices. Attach additional pages, if necessary.

Unit Price #	Description	Price/Unit

Unit Price #	Description	Price/Unit

LABOR RATES

D. Provide applicable labor rates for all trades and labor classifications you will employ on this project in the spaces provided below. (Rates shall be valid for the life of the project, anticipating annual increases, and shall be inclusive of insurance, fringes, taxes & OH&P). A more detailed labor rate breakdown will be required from the awarded Subcontractors, which shall be used, once approved, for all change orders. Labor rates shall not include small tools, safety, travel, vehicle, parking, and bond.

Labor Classification/Trade	Straight Time	Time & one half	Double Time

EQUIPMENT RATES

E. Provide equipment rates for all major equipment you will potentially utilize on this project in the spaces provided below. Rates shall be valid for the life of the project and be inclusive of transportation, insurance, taxes, and fuel. All equipment rates are subject to CMR and Owner approval. Equipment rates are proposed as follows:

Equipment Type	Hourly Rate	Daily Rate	Weekly Rate	Monthly Rate

ALLOWANCES

G. Work under these Allowances shall be performed on a time and material (T&M) basis using labor and equipment rates, or unit prices, included in the Bid Form and as approved by the CMR and Owner. Allowances are to be included in the Base Bid. Include overhead and profit in your Base Bid. Do not mark up the Allowances. Submit change order proposals with copies of signed T&M tickets as backup with the monthly requisition. Any unused amount of an allowance contained in your Bid Package shall be 100% credited back to the Owner prior to financial closeout. In Bid Packages:

1. **BID PACKAGE 23A - Mechanical Subcontract 23A is to carry the following Allowances in the Base Bid:**
 - A) Allow \$100,000 allowance to furnish, install, and later remove temporary domestic water heaters for use in Buildings 0, 1, 2, 3, 4, 7, 9A and 12 during the Hot Water System Shutdown from April 1, 2020 to November 1, 2020. Electric tankless on-demand water heaters may be purchased for this purpose in most of the buildings, sized for the demand of each building. The main kitchen is in Building 9A, which requires a larger, temporary electric boiler to be installed.
 - B) Allow \$250,000 for removal and/or relocation of major unavoidable interferences associated with "ETR" mechanical and plumbing piping, supports, and equipment "as needed" but not shown or indicated on the Drawings, as authorized in advance by the CMR.
2. **BID PACKAGE 31A – Site Preparation Subcontract 31A is to carry the following Allowances in the Base Bid:**
 - A) For WAO #1 – Allow \$30,000 to retain the services of a Licensed Electrical sub-Subcontractor to furnish, install, and later remove temporary power to the CMR's four (4) double-wide trailers.
 - B) Allow \$50,000 for Snow Removal on a Time and Material (T&M) basis as directed by the CMR.

NOTES

- H. **TIME OF COMPLETION:** We (the Bidder) agree that the Work of the Subcontract shall begin within three (3) days after execution of Subcontract Agreement. This includes the commencement of submittals, insurance certificates, schedule of values, detailed labor rate breakdown, CHRO set-aside plan, and other contractual matters. Scheduling, coordination, and completion of the work shall be in conformance with the Master Schedule, Site Logistics Plan, and other Contract Documents. We agree that the general sequence, timing, and duration of activities in the project's Master Schedule and Site Logistics Plan are logical and feasible and that we are capable of meeting the scheduled dates contained therein, and will accelerate or increase manpower as necessary to maintain schedule at no additional cost to the Owner. We understand that it may be necessary for the Construction Manager to make changes to the schedule; however, the end date may not slip. Time being of the essence, we agree to accept liability for and to pay liquidated damages, as stipulated in the Contract Documents, and premiums for overtime for our own trades as well as other Subcontractors' trades impacted by our delays or lateness. Certain parts of the work will overlap construction due to time of year, sequence of construction activities, delivery of long-lead items, etc. Work may not be continuous.
- I. **BID ACCEPTANCE:** We agree that this proposal shall not be withdrawn for a period of ninety (90) calendar days after the bid date. We understand that the Owner and/or Construction Manager reserve the right to accept or reject any or all bids and to waive any informality on the bidding process.
- J. **CONTRACT EXECUTION:** Upon notification of acceptance of this proposal, we shall execute a formal Subcontract Agreement (PDS form) within three (3) days of the receipt of the agreement for signing. We shall furnish a 100% Performance Bond and Labor and Material Payment Bond in the full amount of the Contract on the bond forms provided in the Contract Documents, executed by an acceptable Surety Company registered to do business in the state of Connecticut and having an A.M. Best rating of A or higher.*

* Payment bond is required for bids equal to or greater than \$100,000, and Performance bond is required for bids equal to or greater than \$25,000. In lieu of these bonds, an SBE or M/WBE may provide a letter of credit in an amount equal to ten percent (10%) of the bid amount if it is less than \$100,000, or twenty-five percent (25%) of the bid amount if it is equal to or greater than \$100,000.

Upon approval of Work Authorization Order #1 (WAO #1) for the Early Work Release, a Subcontract shall be awarded to the recommended lowest responsible Bidder for this Bid Package. The dollar amount broken-out for the Early Work Release (WAO #1) is included in the Lump Sum Base Bid on this Bid Proposal Form. This amount shall be considered 100% compensation for all of this

Subcontractor's costs incurred for performing its WAO #1 scope of work. There is no guarantee that the balance of the Lump Sum Bid Amount for this Bid Package will be awarded, or that the CMR's GMP Proposal will be approved by the State. Thus, the Subcontract issued for WAO #1 is independent and stand-alone in all respects, and is not contingent upon award of the rest of the Work in the Bid Package. The Subcontractor shall only invoice and be paid for work completed and approved by the Owner and CMR.

K. NON-COLLUSIVE BIDDING CERTIFICATION: By submission of this bid each Bidder and each person signing on behalf of any Bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of his/her knowledge and belief:

1. The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purposes of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;
2. Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the Bidder prior to the opening, directly or indirectly, to any other Bidder or to any competitor; and
3. No attempt has been made or will be made by the Bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition. The foregoing statement subscribed by the Bidder and affirmed by such Bidder as true under the penalties of perjury and is made pursuant to the applicable section of the General Laws of the State of Connecticut as most recently amended.
4. Submit Document 00 45 19 "Non-Collusion Affidavit" with the bid.

L. OTHER REQUIREMENTS:

It is understood that the CMR reserves the right to accept or reject any and all bids that the CMR deems to be in his best interest. Failure to submit all proper documentation with the bid or bids with exclusions or omissions may or may not be cause for rejection at the discretion of the Construction Manager. Prior to contract award, the CMR must consult with the Owner and obtain its approval of the award of the contract to a Bidder. See 2.1.6.3.4 and .5 of the CMR Agreement.

By submission of this proposal, the undersigned acknowledges that they have reviewed the Procurement Requirements and Master Schedule, and understands that these documents are included in each Bid Package, and agrees to provide sufficient staff and organization and to select subcontractors and suppliers to comply with all requirements.

SBE and M/WBE set-aside contractors may only bid on the Bid Packages that they have been pre-approved for, in accordance with their DAS certificate.

In accordance with Public Act 03-215 (an act concerning State construction contracts) and Public Act 04-141, for any contracts estimated in value to be greater than \$500,000, bidders must be pre-qualified for the classification of work that they are bidding on. Each Bidder shall provide a pre-qualification certificate issued by the State of Connecticut, Department of Administrative Services, which clearly shows their pre-qualification status. Each Bidder shall also complete the Department of Administrative Services Contractor Pre-qualification Update Statement and submit AIA Document A305, 1986 Edition "Contractor's Qualification Statement" provided with the Information Available to Bidders.

IT IS MANDATORY THAT BIDS ARE SUBMITTED ON THIS BID FORM IN TRIPLICATE. Those Bidders who are bidding on more than one Bid Package should submit their bids on separate Bid Forms. Envelopes shall be marked with the BID PACKAGE NUMBER on the front lower left corner. Bid submissions in fax or electronic format will NOT be accepted.

M. TRADE CONTRACTOR EXPERIENCE STATEMENT

1. The undersigned company has been in business under its present name for _____ years.
2. The undersigned company has had _____ Serious OSHA violations in the past five (5) years.

Brief Description of Violation(s): _____

3. List below the three (3) largest concurrent construction projects the undersigned company currently has under contract as of this date:

Contract Sum	Class of Work	% Complete	Name & Address of Owner

4. The undersigned company has had _____ years' experience in construction work similar to size, length of time, scope, cost, quality, and complexity to that described in the bid documents for this project.
5. The undersigned company has had _____ years' experience in construction work inside correctional facilities or other high security facilities.
6. The undersigned company has had _____ years' experience in construction work with seasonal constraints and schedule milestones associated with heating and cooling systems.
7. List below a minimum of three (3) similar projects the undersigned company has performed in the past five (5) years which are representative of this project and would qualify you for this work:

Contract Sum	Class of Work	% Complete	Name & Address of Owner

8. Provide the names of the Project Manager and Field Superintendent/Foreman the Contractor will use on this Project. On a separate sheet briefly summarize their experience.

Project Manager: _____

Field Superintendent/Foreman: _____

9. Number of ASME B31.1 Certified Welders currently employed by your company: _____

Welders' names to be listed on the Bidder's Qualification Statement (Section 00 45 17) ADD. #4.

10. State the name of your insurance carrier and the A.M. Best & Company rating of your insurance carrier.

Insurance Carrier: _____ Rating: _____

11. State the general liability rate of your firm in the interstate and intrastate workers' compensation experience modification rate for your firm for the three (3) years.

General Liability rate: _____

Workers' Compensation Experience Modification Rate: _____

12. Has the undersigned company been involved with any State of Connecticut civil or criminal action, debarment procedures, investigation, or violation, or had any legal claims against an Owner in the past five (5) years?

Yes _____ No _____

Project Name: _____ DAS Project No.: _____

Brief Description of Issue(s): _____

13. SBE or M/WBE Sub-subcontractor and Supplier Information.

A. List your proposed SBE or M/WBE sub-subcontractors:

Company Name & Address _____

Contact: _____

Subcontractor Trade: _____

Scope of Work: _____

DAS Certified: Yes _____ No _____

SBE _____ MBE _____ WBE _____ DBE _____

Value of Work \$ _____

B. List your proposed SBE or M/WBE supplier, if any:

Company Name & Address _____

Contact: _____

Scope of Supply: _____

DAS Certified: Yes _____ No _____

SBE _____ MBE _____ WBE _____ DBE _____

Value of Work \$ _____

14. Are you affiliated with a Union? Yes _____ No _____ Union(s) _____

N. ENCLOSURES:

Included with this completed Bid Form are the following:

1. Bid Proposal Form (Section 00 41 00) from ADDENDUM #4.
2. Certificate of Authority (Section 00 40 14).
3. Department of Administrative Services Pre-qualification Certificate (Section 00 40 15).
4. Department of Administrative Services Update Statement (Section 00 40 15).
5. SBE, MBE, WBE or DisBE Certificate (As Applicable).
6. Standard Bid Bond (Section 00 43 16) or certified bid security check for 10% of the bid amount.
(Obligees are State of Connecticut Department of Administrative Services and PDS Engineering & Construction Inc. Set-aside SBE and M/WBE bidders may submit letters of credit in lieu of bonds).
7. Named Subcontractor Bidder's Qualification Statement (Section 00 45 17) from ADDENDUM #4, with all required lists and attachments.
8. SEEC Form 10.
9. Ethics Affidavit (Regarding State Ethics) – OPM Ethics Form 6 (for contracts with a value of \$500,000 or more).
10. Gift and Campaign Contribution Certification – OPM Ethics Form 1 (for contracts with a value of \$50,000 or more).
11. Consulting Agreement Affidavit – OPM Ethics Form 5 (for contracts with a value of \$50,000 or more).
12. Iran Certification – OPM Ethics Form 7 (for contracts with a value of \$500,000 or more).
13. Non-Discrimination Certification – Form A, B, C, D or E.
14. Non-Collusion Affidavit (Section 00 45 19).
15. Acknowledgement of Surety (Section 00 45 49).
16. Contractors Wage Certification Form (Section 00 73 44).
17. Unit Prices (As Applicable, Section 01 22 00).

The undersigned hereby certifies that he/she is able to furnish all labor, material and equipment necessary to complete the work of the Bid Package(s) as directed and/or described in the Contract Documents and to work in harmony with all other elements of labor employed or to be employed on the work.

Bidder's Company Name

Individual

Business Address

Title

City, State, Zip

Signature

Date

Phone (required)

Fax (required)

Email address (required)

The Bidder is a/an (individual)(partnership)(corporation). Names and titles of other officers or partners are:

(for corporation, give the State of Incorporation and affix the corporate seal)

NAMED SUBCONTRACTOR
BIDDER'S QUALIFICATION STATEMENT
MUST BE SUBMITTED WITH THIS FORM

If a question or request for information does not pertain to your organization in any way, use the symbol "NA" (Not Applicable). Use additional 8 ½" x 11" sheets with your letterhead as necessary.

1. Indicate exactly the name by which this organization is known:

Name: _____

2. How many years has this organization been in business under its present business name?

Years: _____

3. How many years has this organization been in business as a Subcontractor?

Years: _____

4. If this organization has not always been a Subcontractor, list the trade(s) that your firm customarily performed prior to the time that you became a Subcontractor:

4.1 _____

4.2 _____

4.3 _____

5. Indicate all other names by which this organization has been known and the length of time known by each name:

5.1 _____

5.2 _____

5.3 _____

6. This firm is a:

Corporation

Partnership

Sole Proprietorship

Joint Venture

Other _____

7. Attach resumes of all supervisory personnel, such as Principals, Project Managers, and Superintendents, who will be directly involved with the project on which you are now a bidder. Indicate the number of years of construction experience and number of years of which they were in a Supervisory capacity.

8. Attach a list of names of at least ten (10) ASME B31.1 certified Welders currently employed by your firm who will be directly involved with this project on which you are now a bidder. Indicate the number of years of experience for each, several recent (past five years) projects in which they performed ASME B31.1 welds that required radiographic x-ray inspection, and the pass rates for each.

9. Attach a list of names of additional ASME B31.1 certified Welders that your firm plans to hire, as needed, to support and meet the Master Schedule and Site Logistics Plan. Indicate where and how you plan on securing the additional certified Welders.
10. List all sub-trades which your firm customarily performs with own employees - this table must be completed for electrical and mechanical trades for all projects, and also for all named trades for threshold projects.

	Trade	Name of License holder	State of CT D.C.P. License/Registration No. Format: Prefix-Number-Suffix
10.1			
10.2			
10.3			
10.4			

11. **Trade References:** Names, addresses and telephone numbers of several firms with whom your organization has regular business dealings (attach separate sheets as necessary):
12. **All** Construction Projects your organization has in process (attach separate sheets using the following format as necessary):

12.1 Specific Title & Location:		
12.2 Contract Amount:		
12.3 Description of your scope of work performed:		
12.4 Owner:		
12.5 General Contractor/CMR:		
12.6 Designer:		
12.7 Start Date:		
12.8 Finish Date:		
*12.9 Any complaint on Quality or Management:		
12.10 Owners Representative:	(Name)	Telephone Number
12.11 GC/CMR Representative:	(Name)	Telephone Number

*Please attach a separate sheet explaining any negative entry in this row.

13. All Construction Projects your organization has completed in the past five years or the 20 projects most recently completed (attach separate sheets using the following format as necessary):

13.1 Specific Title & Location: _____

13.2 Contract Amount: _____

13.3 Description of your scope of work performed: _____

13.4 Owner: _____

13.5 General Contractor/CMR: _____

13.6 Designer: _____

13.7 Start Date: _____

13.8 Finish Date: _____

*13.9 Any complaint on Quality or Management: _____

13.10 Owners Representative: _____
(Name) Telephone Number

13.11 GC/CMR Representative: _____
(Name) Telephone Number

*Please attach a separate sheet explaining any negative entry in this row.

14. Has your organization ever failed to complete a contract, or has any officer or partner of your organization ever been an officer or partner of another organization that failed to complete a contract? If so, indicate the circumstances leading to the project failure and the name of the company which provided the bonding for the failed contract(s):

15. List all legal actions, investigations or administrative proceedings currently pending or concluded adversely within the last five years which relate to procurement or performance of any public or private construction contracts. (Exclude OSHA violations which are called for elsewhere in this statement).

14.1 Attached

14.2 N/A

16. List all willful or serious violations of any Occupational Safety and Health Act (OSHA) or of any standard, order or regulation promulgated pursuant to such act, during the three year period preceding the bid, provided such violations were cited in accordance with the provisions of any State Occupational Safety and Health Act or Occupational Safety and Health Act of 1970. Indicate whether these were abated within the time fixed by the citation or whether the citation was appealed. If appealed what is the status or disposition.

16.1 _____
16.2 _____
16.3 _____

17. Has your organization had any criminal convictions related to the injury or death of any employee in the three-year period preceding the bid. Please list any such convictions below.

17.1 _____
17.2 _____
17.3 _____

Dated at _____

Signed this _____ day of _____ 20 _____

Name of Organization: _____

Signature _____

(Print Name) _____

Title _____

Notary Statement:

Mr. /Mrs. /Ms. _____ being duly sworn

Deposes and says that he/she is the _____ of
(Position or Title)

_____, and that the answers to the foregoing
(Firm Name)

Questions and all statements therein contained are true and correct.

Subscribed and sworn before me this _____ day of _____, 20_____

Notary Public _____

My Commission Expires _____, 20_____

This form shall be attached to the Bid Form.

END OF SECTION 00 45 17

ALLOWANCES

NOTE TO ALL SUBCONTRACTORS: Work performed against an Allowance is not a Change Order and shall be done at the Construction Manager's written or verbal direction and tracked with daily T&M tickets using labor and equipment rates or unit prices included in the Bid Form as approved by the CMR and Owner. The Base Bid already includes markup for the Subcontractor's overhead and profit, so do not mark-up Allowances. Submit change order proposals with copies of signed T&M tickets as backup with the monthly requisition. Any unused amount of an allowance contained in your Bid Package shall be 100% credited back to the Owner prior to financial closeout.

1. BID PACKAGE 1A – MOVING & CLEANING:

Moving & Cleaning Subcontract 1A is to carry the following Allowances in the Base Bid:

- A) Allow \$20,000 to rent, deliver, and pickup 16-foot PODS storage containers, as needed for each phase and as directed by the CMR, for the purpose of temporary storage of the Owner's furniture and contents that are removed from each room or space in question.

2. BID PACKAGE 9A – GENERAL TRADES & CARPENTRY:

General Trades & Carpentry Subcontract 9A is to carry the following Allowances in the Base Bid:

- A) Allow 400 man hours and \$20,000 in materials to furnish and install railings and other safety requirements as directed by the Construction Manager. Note: This cost is not to be used for Subcontract 9A's normal safety requirements as required by the Contract Documents.
- B) Allow 200 man hours to repair damages by others noted on the punch list.

3. BID PACKAGE 9B – PAINTING & CAULKING:

Painting & Caulking Subcontract 9B is to carry the following Allowance in the Base Bid:

- A) Subcontract 9B to carry an allowance of \$5,000 for touch up painting after the move in of the Owner's FF&E at the end of each phase, as directed by the CMR.

4. BID PACKAGE 9C – CEILINGS

Ceilings Subcontract 9C is to carry the following Allowance in the Base Bid:

- A) Subcontract 9C to carry an allowance of 200 carpenter man hours and \$5,000 in materials to repair/replace ceilings as directed by the Construction Manager.

5. BID PACKAGE 23A – MECHANICAL

Mechanical Subcontract 23A is to carry the following Allowances in the Base Bid:

- A) Allow \$100,000 to furnish, install, and later remove temporary domestic water heaters for use in Buildings 0, 1, 2, 3, 4, 7, 9A and 12 during the Hot Water System Shutdown from April 1, 2020 to November 1, 2020. Electric tankless on-demand water heaters may be purchased for this purpose in most of the buildings, sized for the demand of each building. The main kitchen is in Building 9A, which requires a larger, temporary electric boiler to be installed.
- B) Allow \$250,000 for removal and/or relocation of major unavoidable interferences associated with “ETR” mechanical and plumbing piping, supports, and equipment “as needed” but not shown or indicated on the Drawings, as authorized in advance by the CMR.

6. BID PACKAGE 31A – SITE PREPARATION: Clearing & Grubbing / Fencing / Lawns

Site Preparation Subcontract 31A is to carry the following Allowances in the Base Bid:

- B) For WAO #1 – Allow \$30,000 to retain the services of a Licensed Electrical sub-Contractor to furnish, install, and later remove temporary power to the CMR's four (4) double-wide trailers.
- C) Allow \$50,000 for Snow Removal on a Time and Material (T&M) basis as directed by the CMR.

7. BID PACKAGE 31B – SITEWORK: Excavation & Backfill / Paving

Sitework Subcontract 31B is to carry the following Allowance in the Base Bid:

- A) Allow \$8,000 to purchase, furnish, deliver, handle, install, and later remove and haul away one (1) slightly used **40-ft modified storage container (conex box) for use as a footbridge.**
- B) Allow \$10,000 to handle and move portable guard shacks (furnished by others) and fuel and maintain diesel generators on skids as needed for the duration of the sitework.

END OF SECTION 01 22 00



PRE-BID QUESTIONS AND ANSWERS (CUMULATIVE) – ADDENDUM 4

- ***Q1: (23A/26A) On Addendum #1 Drawing M518, the grade elevation where the image of a person is 38.9' and the bottom of the trench is 35.34', which would make that approximately 3'-7" deep to the bottom of pipe. The 10" pipe with insulation is about 14" diameter, that would be approximately 28" of cover, and on Addendum #1 Drawing C502 Detail #6 indicates 42" min. cover. Do we need to Heat Trace the entire runs of all the HW & CHW S&R lines or do we lower the grade at the bottom of the trench? Please advise.***

A1: The intent is to provide heat tracing for limited lengths of underground piping where 42" cover is not available and not to provide heat tracing for entire runs of underground distribution piping. The segments of underground distribution which have less than 42" cover are generally short sections of piping which are near the new "doghouses" at the buildings and in the Building 9C loading dock area. The existing Fuel Oil piping from the Central Plant wall to the above ground Fuel Oil storage tank also gets heat traced per Drawing M209.

- ***Q2: (23A/26A) Are the Heat Trace Systems owed by Bid Package 23A or Bid Package 26A?***

A2: Electrical Bid Package 26A shall furnish and install specified electric heating cables, accessories, warning labels, warning tape, power wiring, grounding, and control panels for the heat trace systems per Section 23 05 33, after piping has been tested and before insulation is installed, or in prefabricated heat trace tubes as indicated on Addendum #1 Drawings M518 and C502. Mechanical Bid Package 23A shall furnish and install signal and control wiring for the heat trace systems and connect the heat trace systems to the BMS. Heat trace is required for lateral HW and CHW S&R hydronic piping runs piping near and inside the new outdoor pipe enclosure "doghouses" typical as shown on Drawing C502, for the existing Fuel Oil piping to the Fuel Oil storage tank as shown on Drawings M209 and M414, and for the lateral HW and CHW S&R hydronic piping at the Building 9C loading dock area as shown on Addendum #1 Drawing M518.

- ***Q3: (23A/26A) Should the above ground bridge piping on Building 8 be prefabricated with heat trace? In a prefabricated heat trace system, the heat trace cable can be replaced without removing any insulation. This will make easier the maintenance and replacement for the heat trace cable down the road. Also, it's easier to install during construction.***

~~A3: Above ground HW S&R main loop piping will have constant flow in winter months so only the HW and CHW S&R lateral piping to the pipe enclosure “doghouses”, with less than 42” of cover, are vulnerable to freezing if isolated from the main loop.~~

A3: [UPDATED RESPONSE IN ADDENDUM #3] The above-ground outdoor CHW and HW piping at Bldgs 8/9C (pipe bridge area) will be heat traced per the extents as noted on dwg M516, Issue for Bid, 12/21/18. Please note that only underground CHW and HW piping is specified as prefabricated/preinsulated type (per spec 23 21 13.13 Underground Hydronic Piping); above-ground CHW and HW piping shall comply with spec 23 21 13 Hydronic Piping.

- ***Q4: (23A/26A) Detail #3 on Drawing C501 shows a Field Insulated Elbow Kit. All other details are showing factory prefabricated fittings. Section 23 21 13.13 paragraphs 2.1 B & 2.1 G states fittings should be factory pre-fabricated/ pre-engineered and pre-insulated. Are field Insulated Fittings allowed on this project or Detail #3 should be dismissed?***

A4: Factory pre-fabricated/pre-insulated/pre-engineered fittings are required for the underground piping installation. Please disregard Detail 3, dwg C501.

ABOVE QUESTIONS ANSWERED IN ADDENDUM #2

Q5: (23A) Please identify what portion of the work for chemical treatment should be carried with the Mechanical bid and which portion of the chemical treatment is direct to the owner from the existing vendor? Also, please advise who the current chemical treatment vendor is, just in case the Mechanical Contractor does own carrying any pricing from them with the Mechanical Bid?

A5: See detail D3 on drawing M907 for chemical treatment work and chemical treatment vendor contact information.

- ***Q6: (23A) Please define the demo scope for the Mechanical Contractor? Would the mechanical contractor own a cut, cap, make safe effort, while mass demolition and removal would be performed by a demolition and abatement contractor? Also, any and all asbestos removal would be by others, correct?***

A6: Mechanical Subcontract 23A owns all Mechanical, Plumbing and Communications selective demolition required. There is no Demolition Contractor on this project. Each trade will do its own selective demolition. There is no hazardous materials abatement in the project scope.

- ***Q7: (23A, 31B) Please verify that the Site Contractor owns trenching, excavating, and backfilling for the underground mechanical piping? Additionally, please verify if they would also own assisting the mechanical contractor with unloading, distributing, placing pipe onto pipe stands for any field fab, and moving the pipe into place within the trenches (with rigging assistance by the mechanical contractor). This seems to be a more fluid method rather than***

having the mechanical contractor provide a separate site crew, but please verify if this is correct?

A7: Sitework Subcontract 31B owns all excavation and backfill for the site piping. Mechanical Subcontract 23A owns its own deliveries, receiving, handling, storing, transporting, rigging, lifting, setting, and installing the underground hydronic site piping. These two Subcontractors may agree to work things out together for efficiency.

- ***Q8: (23A, 31B) Please verify that all sandbagging, thrust blocks, anchor blocks, dewatering, etc., for UG Piping trenches will be furnished and installed by the site contractor?***

A8: Sitework Subcontract 31B will use 3/8" pea stone under pipe joints rather than sandbags, and is responsible for all dewatering. Concrete Subcontract 3A is responsible for anchor blocks.

- ***Q9: (23A, 9A) Who is responsible for patching holes in existing floors & walls (masonry & sheetrock) when demo is removed (i.e. piping, ductwork, CUHs, etc.)?***

A9: Concrete Subcontract owns patching of concrete due to demolition. Masonry Subcontract 4A owns patching of masonry due to demolition. General Trades Subcontract 9A owns patching sheetrock (gypsum board).

- ***Q10: (23A, 4A, 5A) Who is responsible for opening & closing existing walls for any new piping, ductwork, etc.? We are assuming the masons would own masonry walls, sheetrockers would own sheetrock walls, etc., but please verify?***

A10: Mechanical Subcontract 23A is responsible to layout and coordinate the square/rectangular wall openings and roof openings for louvers, piping, and ductwork, and round wall openings for pipe, conduit, and duct penetrations with Masonry Subcontract 4A and Structural Steel Subcontract 5A. Square or rectangular masonry openings for louvers, piping and ductwork shall be the responsibility of Subcontract 4A. Square or rectangular roof openings through steel decking will be made by Subcontract 5A. The steel pipe sleeves will be provided by Mechanical Subcontract 23A for installation in masonry walls by Subcontract 4A. Subcontract 23A is responsible to core drill their round masonry wall openings and round openings through concrete walls and floors for pipe, conduit and duct penetrations as required for the Mechanical work.

- ***Q11: (23A, 3A) Who is responsible for closing up the concrete slabs when existing piping or ductwork is removed? We are assuming the concrete contractor, but please advise?***

A11: Concrete Subcontract 3A is responsible for concrete floor infills due to mechanical demolition.

- **Q12: (23A, 3A) Who owns cutting up any interior slabs for mechanical piping & ductwork for existing and/or new construction (if necessary)? We are assuming the concrete contractor, but please advise?**

A12: Subcontract 3A is responsible for selective demolition and disposal of all interior concrete as needed and in accordance with Section 02 41 19 Selective Demolition and as indicated on the Drawings to facilitate the new work.

- **Q13: (23A) Are there any associated CAD fees with signing over the release forms from the Architect to start our 3D coordination?**

A13: Release forms shall be signed and submitted for CAD files and laser scan files at no cost to the Subcontractor.

- **Q14: (23A, 26A) Please advise if Nelson would be an approved manufacturer for the heat trace if they can meet the spec?**

A14: Requests for equals or substitutions may be considered only if submitted on DAS Form 7001 with backup at least two (2) weeks prior to the receipt of the Competitive Bid. Otherwise, equals or substitutions will not be considered, unless it is discovered immediately after award of Subcontract 23A in WAO #1 that the basis-of-design manufacturer and model is no longer available, and that the equivalent models by the other listed manufacturers are also no longer available. In that case, Subcontract 23A shall be responsible to submit, provide, and install a product deemed equal by the Owner and Engineer in all aspects (i.e. quality, performance, efficiency, size, capacity, type, functionality, lead time, and warranty) at no additional cost to the Owner. If the submitted and approved substitute manufacturer's equipment requires additional work, installation time, coordination, materials, space, electrical requirements, controls, lead time, expediting fees, production costs, or other constraints, as compared to the basis-of design equipment, Subcontract 23A shall be responsible to pay for all such costs.

- **Q15: (23A) Expansion Fittings and Seismic/Vibration Isolation Specs were not provided, are they not required for this project? If they are, please provide their respective specifications as well as location requirements for expansion fittings?**

A15: Expansion fittings and seismic/vibration isolation is not required for this project.

- **Q16: (23A) If Vibration Isolation & Expansion is deemed a requirement, please advise if Novia Associates (rep'd by Seismic Control Products) will be acceptable for the Vib-Iso & Seismic Control Products? They have a stronger representation in the CT area than most of the other spec'd manufacturer's in the aforementioned spec sections that are usually distributed for public projects, they can meet all specs and provide a PE stamp & calculations where necessary.**

A16: Not required.

- **Q17: (General) Will the personnel mentioned in spec 01 35 26, paragraph 1.6 (Site Safety & Health Officer, etc.,) be provided by the CM, or does the mechanical subcontractor also need to provide an SSHO for the entirety of the project?**

A17: The CMR provides a Safety Officer for review of Subcontractor Site Specific Safety Plans and overall monthly site safety audits. Each PDS Subcontractor shall provide their own qualified safety personnel to be responsible for employee safety, Job Hazard Analyses, daily reports, PPE, toolbox meetings, OSHA compliance, housekeeping, etc.

- **Q18: (General) Is this project tax exempt for both labor & material?**

A18: This project is exempt from Federal Excise Taxes as well as State of Connecticut Sales Tax to the extent allowed by law.

- **Q19: (23A) Are the permit fees going to be waived for the mechanical contractor, or do we need to provide the city mechanical permits as well as the \$0.26/thousand educational fee permit? If permits are by Mechanical Contractor, please provide the square footage of total renovation, so we may apply it to Niantic's fee schedule.**

A19: A Municipal building permit is not required on State projects. The Code Education Fee assessed on Municipal building permits does not apply to a State project. The Building Permit will be issued by the Office of the State Building Inspector at no cost to the CMR or its Subcontractors. The State Building Code requires code inspections on State construction projects under the jurisdiction of the OSBI. Also, new boilers require registration with the State by the Installer.

- **Q20: (General) Will free parking be provided and available to all workers on site?**

A20: Free parking is available in a secured designated parking lot on site. Only persons with DOC clearance will be allowed to enter the premises.

- **Q21: (23A, 9C) Selective Demolition spec states: "Remove and Reinstall: Existing ceiling and suspension grid to facilitate installation of piping system. Refer to Drawings A-100, A-101, A-102, A-103, A-104, A-105, A-105.1, A-106, A-107, A-108 and A-109. Replace damaged and unusable ceiling panels and suspension grid to match existing as required." Please confirm that this will be performed by others and is not part of the MECH Contractors scope of work?**

A21: Ceilings Subcontract 9C is responsible to remove existing ceilings and install new ceilings as shown on the Contract Documents.

- **Q22: (23A) Please confirm that water for flushing and testing mechanical piping will be available on site and if flushing down nearby sewer drain will be acceptable?**

A22: Mechanical Subcontract 23A shall provide its own hydrostatic pressure test water supply (tanker trucks) and disposal in an approved manner (plunge pools, frac tanks, filters, hay bales, etc.) in both hot and cold weather. No water is available on site for pipe flushing and testing.

- **Q23: (23A) Since all underground piping is CHWS&R and HWS&R piping, please advise if B31.9 requirements could be put in place rather than B31.1? We have performed many projects under both B31.1 and B31.9, this seems to fall under B31.9 (Building Services Piping) rather than B31.1 (Power Piping), but please advise?**

A23: Install piping per B31.1 as specified.

- **Q24: (23A, 21A) Is all the work shown on the mechanical drawings regarding Fire Suppression systems to be included with the Mechanical Bid, or is that to be ignored and be bid on at a later date by a separate Fire Suppression company? Not a problem at all to include with our bid, just needed to verify/clarify responsibility for that work?**

A24: Fire Suppression Subcontract 21A is responsible for modifications to the existing wet-pipe fire protection systems as needed to avoid major conflicts with the Mechanical work.

- **Q25: (23A, 4A, 9A) Mech Scope of Work #50 states to subcontract BP #4A for installation of access doors in Masonry Walls and BP #9A for installation in Drywall? Please advise if this can be changed to have the mechanical contractor furnish the doors for BP #4A & BP #9A to install as part of their base bid package? This will keep costs down, rather than us assuming a cost for a contractor that has not yet been assigned.**

A25: Mechanical Subcontract 23A shall furnish and locate all security access doors as required for this scope of work to Subcontract 9A for installation in drywall partitions or ceilings, and to Subcontract 4A for installation in masonry walls. Security access doors shall be furnished as specified in Section 08 31 13.53 Security Access Doors and Frames. Subcontract 23A is not responsible for installation.

- **Q26: (23A, 9A) Please verify that barricades/fencing, temporary enclosures, & temporary shoring and supports are the responsibility of other contractors (not the Mechanical Contractor)?**

A26: General Trades Subcontract 9A is responsible for all Temporary Construction Measures necessary to facilitate all construction activities inside the occupied buildings, including, but not

limited to, furnish, install, move, and remove all staging and scaffolding, zipwalls, barricades, temporary doors and windows, temporary walls and enclosures (metal studs and fire-retardant-treated plywood and lumber), relocation of the temporary "rolling fence" (furnished by Subcontract 31A) inside Building 9, etc., and all other temporary construction measures as needed to segregate construction workers from DOC staff and inmates, in accordance with PDS' Building Logistics Plan. Sitework Subcontract 31A is responsible for fencing. Temporary shoring and supports is the responsibility of each Subcontractor for its own work.

- ***Q27: (23A) Referring back to Pre-Bid Question and Answer #3, if the above ground portion of the main HW and CHW S&R loop shuts down in mid-winter for whatever reason, i.e. power failure, repair underground pipe leak, change a valve, etc., and it's not heat traced, won't this piping be subject to freezing?***

A27: The above-ground outdoor CHW and HW piping at Bldgs 8/9C (pipe bridge area) will be heat traced per the extents as noted on dwg M516. Response (A3) to pre-bid question 3 has been updated.

- ***Q28: (23A) Please advise if Grooved Piping Systems (Victaulic, Anvil, etc.,) would be acceptable for all aboveground hydronic piping 2-1/2" and larger in lieu of welded systems? Additionally, please advise if ProPress Copper Systems (Viiega, Nibco, etc.,) would be acceptable for aboveground hydronic piping systems for piping 2" and smaller in lieu of soldered copper systems?***

A28: Proposed alternate piping is not acceptable. Install piping as specified.

- ***Q29: (23A) According to the HVAC General Duty Valve spec, all butterfly valves for shutoff and throttling service are to be High Performance Butterfly Valves? Can you please verify that this is the intent for this project? If not, please advise if traditional HVAC butterfly valves would be acceptable (Milwaukee, Hammond, Nibco, etc.,)?***

A29: Install high performance butterfly valves as specified.

- ***Q30: (23A) Referring back to Question #5, please verify whether or not the current vendor for chemical treatment will be furnishing and installing any and all glycol required? If all Glycol is by the Mechanical Contractor, would it be possible to provide the additional volume of the existing to remain system, so that we can add it to the volume acquired of the new system after performing the takeoff?***

A30: Volume of existing glycol system to remain is unknown. Coordinate with chemical treatment vendor. For contact information, see detail D3 on drawing M907.

- ***Q31: (23A, 31B) How many linear feet of trench can be left open at any given time during construction?***

A31: Please refer to the Master Schedule and Site Logistics Plan for start and finish stationing for each underground hydronic piping sequence, which vary in length. The intent is to excavate the

full length and width of the “trench” for pipe installation, then backfill over the pipe leaving the field-welded joints exposed until testing and inspection is complete. Once complete, the rest will be backfilled and the crew will move on to the next sequence.

- ***Q32: (23A, 31B) Please confirm that the site contractor will be installing trenches in a trench box-plate-trench box-plate-trench box-plate fashion, in order to allow for installation of 40' lengths of pre-manufactured pipe. Installing in the old-fashioned wood shoring fashion would significantly slow down the install time of the mechanical UG piping and will need to be considered before finalizing our estimate.***

A32: While excavation means and methods are up to Sitework Subcontract 31B, the suggested protective system to be used is “sloping” or cutting back the trench wall at an angle inclined away from the excavation, rather than shoring or shielding. The “trench” shall be opened up wide enough to install the piping and sloped back to prevent cave-ins. Type C requires a 34 degree angle (one and a half feet back for every foot deep). If shoring or shields are used, Sitework Subcontract 31B is required to ensure that the long pre-manufactured pipe lengths can be installed.

- ***Q33: (23A) Due to the high-level quality needed to perform B31.1 welds, the extensive radiographing that will take place to make sure the welds are the highest quality of welds, and the aggressive nature of the schedule, would it be okay for the mechanical contractor to work 10 hour days and to work Saturdays (when deemed necessary) without having any added costs of paying for CM or other trades to work on site as well? After reviewing some of the areas on the logistics plans in conjunction with the schedule, it is clear that 40 hours a week, 5 days a week is not enough time.***

A33: The DOC determines the work hours. The PDS schedule is based on an 8-hour day, with a presumed 6-hour daily productivity due to stringent security check-in and check-out procedures. In the event overtime is required, due to no fault of the CMR or its Subcontractors, as determined by the CMR and approved by the Owner, overtime will be authorized and premium time costs will be covered. However, if the Subcontractor falls behind schedule due to lack of manpower (welders and other workers), inefficiencies, poor quality control, or lack of material readiness, the CMR will request additional manpower, materials, and/or equipment to recover delays to the schedule. In such case, all costs to recover the schedule shall be borne by the Subcontractor(s) responsible for the delay.

- ***Q34: (23A, 3A, 31B) Please verify that the Site Contractor owns the Stem Risers, Isolation Valve Stations & Manholes for the UG Mechanical Piping.***

A34: Sitework Subcontract 31B owns the precast access riser vaults and manholes and lockable covers for the isolation valves. Concrete footings and anchor blocks will be installed by Concrete Subcontract 3A. The details changed in Addendum #2. Sitework Subcontract 31B shall furnish and install the solid concrete spacer blocks on the footings before the precast risers are set. Subcontract 31B also owns furnishing and installing the drilled epoxy polypropylene coated steps in Type 2 access riser vaults.

- **Q35: (23A) I did not see any of the Fuel Oil Supply (FOS) or Fuel Oil Return (FOR) piping on the floor plans, only the flow diagrams. Will they be added to the plans in an upcoming addendum?**

A35: There is no intention to show the FO lines on subsequent addenda. The piping is 2" and smaller and is field run pending piping coordination shop drawing approval.

- **Q36: (23A) Drawing M209 states to insulate & Heat Trace existing to remain FOS & FOR line back to storage tank. Please advise if this is shown on the DWGs and which plan that is located on? If it is not, please add to plans so heat trace and insulation sub-contractors can bid accurately.**

A36: Outdoor/above ground No. 2 fuel oil tank and FO piping taps are shown to scale on drawings M506 & M507. FO piping to remain exits plant in between the two existing combustion air louvers between column lines A & B.

- **Q37: (31A) Please confirm that the Site Work Contractor would own all snow removal (trenches, laydown yards, etc.)**

A37: Site Preparation Subcontract 31A performs snow plowing, snow shoveling, salt and sand mix, and ice removal as needed to clear the front entrance at Route 156, the front parking lot and project trailers area, the two laydown areas and the construction trailers area, and pathways in between, the fenced parking lot, pathways to portable toilets and guard shacks, temporary roads to fenced work zones and access to work along trenches, soil screening area, and haul roads to stockpiles. They are not responsible to remove snow from open trenches, from piping, from stored materials, etc. Mechanical Subcontract 23A is responsible to provide tenting and temporary heating, ventilation, power and lighting to perform welding of site pipe joints.

- **Q38: (21A) I don't see any fire protection drawings. Please clarify if they exist or not.**

A38: There are no fire protection drawings. The fire protection scope is limited and only consists of minor relocation of existing sprinkler heads incidental to routing of the new piping through the buildings per Spec 21 13 13, Section 1.2A. No major fire protection relocations are expected as no fire protection conflicts with the new pipe routing were identified during the field survey work during the design phase.

ABOVE QUESTIONS ANSWERED IN ADDENDUM #3

- **Q39: (23A) Who is the present Controls Contractor at York Correctional Institute and which manufacturer is being used?**

A39: The existing control systems at York Correctional include JCI (for the majority of the systems) an older portion of the facility uses a Barber-Colman system. The Dept of Corrections

typically bids out control system work to multiple contractors; there is no single or primary contractor used to service the systems.

- **Q40: (3A) We are unable to identify where Specification Section 03 01 30 Maintenance of Cast-In-Place Concrete pertains to the project. Please advise.**

A40: Specification Section 03 01 30 Maintenance of Cast-in-place Concrete can be deleted from the scope of the project.

- **Q41: (3A) Drawing S008 shows a typical floor slab repair detail. Please provide locations where this work is required.**

A41: Floor slab repair detail is intended to be used to repair floor slab at locations where existing concrete housekeeping pads are removed.

- **Q42: (3A) C502 Detail 3 "Typical Anchor Block Detail" requires no reinforcement, is that correct?**

A42: That is correct. Anchor blocks do not require reinforcement.

- **Q43: (5A, 9A) C510 Detail 12. Please provide a construction detail for the two 4'-0" site wall gates/doors.**

A43: Refer to details 3, 13, 14 & 15/A-510.

- **Q44: (5A, 9A) We are unable to locate the site wall gates/door on the schedule opening chart in Specification 08 71 63 Detention Door Hardware. Please provide.**

A44: The site wall gates/door is opening number 115 (the last entry in the 08 06 00 Schedules for Openings).

- **Q45: (5A, 9A) Please provide the hardware requirements for the site gates/doors.**

A45: Refer to opening number 115 (hardware (DH-2) is identified in the opening schedule and DH-2 is specified in 08 71 63 Detention Door Hardware).

- **Q46: (7A) We are unable to locate where Specification Section 07 13 26 Self-Adhering Sheet Waterproofing applies. Please provide locations and details.**

A46: Specification Section 07 13 26 Self-Adhering Sheet Waterproofing can be deleted from the scope of the project.

- **Q47: (7A) See Section 07 13 26, Part 1.4B.1. We are unable to locate the pedestal-supported concrete pavers. Please provide a location and detail.**

A47: Part 1.4B.1 Pedestal-supported concrete pavers in Specification Section 07 13 26 can be deleted.

- **Q48: (7A) Detail1/A510 calls for synthetic roofing. Please provide a specification.**

A48: Where “synthetic roofing” is noted refer to Specification Section 07 14 16 as it should be labeled “Cold Fluid-Applied Waterproofing (Roofing)”.

- **Q49: (7A) Detail 5/A240-247 calls for liquid applied waterproofing roof. Is this specified in Section 07 14 16 Cold Fluid-Applied Waterproofing (Roofing)? If not, please provide a specification.**

A49: Yes

- **Q50: (7A) A510 calls for synthetic roofing on the doghouses, and A210 requires liquid applied roofing. Please clarify.**

A50: Where “synthetic roofing” is noted refer to Specification Section 07 14 16 as it should be labeled “Cold Fluid-Applied Waterproofing (Roofing)”.

Q51: (31B) Section 02 56 01, Part 2.E describes roll-off storage containers for WSA’s. Are the use of roll-offs permitted as an alternate to construction of the WSA as described in the bid documents?

A51: Use of roll-off storage containers may be used for temporary WSAs.

- **Q52: (31B) Section 02 61 04 Excavation and Handling of Controlled material, Part 1.4, A.3 requires submittals of certificates to handle hazardous waste. We are unable to locate any areas that require the handling of hazardous waste material. Please advise.**

A52: Refer to information provided in project manual division 50 sections as referenced by spec section 00 30 00 General Statements for Available Information.

- **Q53: (9A) Does the allowance in Bid Package 9A for temporary construction measures cover additional safety/security barriers and unforeseen DOC/OSBI/OSFM-directed changes, or just what is shown in the Building Logistics Plan?**

A53: Subcontract 9A is responsible to include all temporary construction measures necessary to facilitate all construction activities inside the occupied buildings and for safety and security as needed to segregate construction workers from DOC staff and inmates, in accordance with PDS’ Building Logistics Plan, in the Base Bid. The allowance of 200 man hours and \$10,000 in materials for additional safety and security requirements is being doubled to 400 man hours and \$20,000 in materials in Addendum #4. This allowance covers only changes and additions to the Building Logistics Plan, as directed by the CMR, per DOC, OSBI and/or OSFM requirements.

- **Q54: (31A) What happens to the removed trees, bushes, branches, and stumps on the project? Can they be disposed of on site?**

A54: During the Early Work Release, Site Preparation Subcontract 31A shall cut and remove all trees within the designated clearing areas, cut off the branches, and transport the trees off site. All tree branches, shrubs and other vegetation shall be cut up or chipped and be transported off site. The Owner does not need wood chips for use on site. The select trees marked to be removed outside the fence may be chipped into the woods. As part of site preparation at the start of each piping sequence, the stumps and roots shall be excavated and removed completely to allow for trench excavation by Sitework Subcontract 31B. No on site disposal is allowed.

- **Q55: (General) Does Addendum 1 need to be identified on bid proposal?**

A55: All Addenda issued before the bid date shall be listed on the Bid Proposal Form.

- **Q56: (23A) Are local East Lyme/Niantic building permit fees to be included in 23A Mechanical?**

A56: No. Not required.

- **Q57: (23A) Are CT State education fees of \$0.26 per \$1,000 to be included in 23A Mechanical?**

A57: No. Not required.

- **Q58: (23A) Can a vibration and seismic control specification be provided for Division 23 HVAC?**

A58: See Addendum #3.

- **Q59: (23A) There are miscellaneous plumbing relocations or modifications referenced on drawings but not really defined, is this work part of the 23A \$250,000 allowance?**

a) Is M501 note 6 to relocate exist plumbing fountain, mop sink, water heater, etc. part of the allowance?

b) Is M511 note 7 new plumbing floor drain and piping part of allowance?

c) Is M717 note 5 to relocate 2-1/2" city water part of allowance?

d) Is A248.1 note to replace roof drains in disrepair part of allowance?

A59: Any plumbing relocations or modifications referenced on Drawings and Notes shall be included in Subcontract 23A's Base Bid. In your examples cited above, only the replacement of roof drains in disrepair would potentially be part of the work against the allowance. The intent is to salvage the three (3) existing roof drains. No one knows the actual condition of these drains.

- **Q60: (23A, 9B) 23A Scope Item 32 indicates exposed uninsulated pipes and supports to be primed and painted by 9B. 9B Scope Item 28 indicates primer is applied by 23A. Please confirm who owns priming of 23A exposed uninsulated pipes and supports.**

A60: Painting Subcontract 9B owns primer and finish coats of all bare, exposed FP/MEP piping and supports. If, for example, Fire Suppression Subcontract 21A or Mechanical Subcontract 23A furnishes and installs primed piping or pipe supports, Painting Subcontract 9B shall prep the primed surfaces as needed to apply finish coats.

- **Q61: (23A) Hydronic high performance butterfly valves spec 23 05 23 2.5 indicates cast steel body. The specified Jamesbury 815L valve body is not available in cast steel. Carbon steel is standard. Is a carbon steel valve body acceptable?**

A61: Carbon steel valve body for high performance butterfly valves is acceptable.

- **Q62: (23A) Please confirm who owns coring thru Building 5 & 7 retaining wall footings referenced on S002?**

A62: Mechanical Subcontract 23A owns all coring required for their work.

- **Q63: (23A) Are there building expansion joint requirements for HW & CHW pipes on pipe bridge between Buildings 8 and 9C?**

A63: Building expansion joints are not required.

- **Q64: (23A) Was the 4" temporary repair HW pipes between Buildings 4 & 9C on M709, and to be removed under this contract, installed in an earlier contract?**

A64: Correct. This 4" temporary repair piping was installed as part of an earlier project after a system failure.

- **Q65: (23A) Ultrasonic flow meters are dual specified in 23 05 19 2.5 & 23 09 23 2.10.G, if there are conflicts, which spec overrides?**

A65: Follow spec 23 09 23.

- **Q66: (23A) Who is the existing facilities chemical water treatment vendor? Can a specification or scope of work be provided for chemical water treatment? Is chemical water treatment scope part of 23A or by Owner?**

A66: See Pre-Bid Q&A #30 in Addendum #3 and Detail #3/M907.

- **Q67: (23A) What is the gas pressure on house side of gas service meter that's provided by Eversource?**

A67: The fuel gas header pressure entering the plant from the meter rig outside is 7 PSIG. Refer to contract drawing M302.

- **Q68: (23A) What size are the (2) gas vents off each boiler routed up thru roof at approx. location indicated on A107?**

A68: Each boiler will have one ¾" vent and one 2" vent. Refer to contract drawing M302.

- **Q69: (23A) What size are the refrigerant safety relief pipes off chillers routed up thru roof at approx. location on A107?**

A69: Refrigerant safety relief pipes off chiller are 3". Refer to contract drawing M511, Note 4.

- **Q70: (23A) Can a detail or sketch be provided for the overflow & drain lines off new and relocated cooling towers?**

A70: Cooling tower overflows and drains are directed to grade near the tower. No sketch will be provided. Refer to contract drawing M907, Detail D1.

- **Q71: (23A) Please confirm if 30% HW radiographic weld testing per 23 21 13 3.8.D is paid for by the Owner or 23A. Please confirm if 15% CHW radiographic weld testing per 23 21 13 3.8.D is paid for by the Owner or 23A. Please confirm if 30% HW & CHW radiographic weld testing per 23 21 13.13 3.5.G is paid for by Owner or 23A.**

A71: The Owner pays for all radiographic testing and inspections of hydronic piping field welds up to the specified minimum percentages. All failed welds shall be documented, repaired, and retested until passing at Subcontract 23A's expense. If more than 10% of the tested welds fail, the Owner may require up to 100% of welds to be radiographically inspected and retested until passing at Subcontract 23A's expense.

- **Q72: (23A) Please confirm if 23 21 13 hydronic steel pipe needs to be seamless, or is ERW pipe acceptable?**

A72: Hydronic steel pipe shall be seamless.

- **Q73: (23A) Please confirm if 23 21 13 hydronic fittings 2-1/2" & larger needs to be butt welded, or are grooved fittings acceptable?**

A73: See Pre-Bid Q&A #28 in Addendum #3.

- **Q74: (23A) Please confirm if hydronic pumps need to be purchased with VFD's per 23 21 13 2.4, or are separately purchased VFD's properly coordinated acceptable?**

A74: Preference is for the pump vendors to provide both the pumps and the VFDs as a package to avoid coordination issues between the pump motors and VFDs.

- **Q75: (23A) Will vertical HW & CHW pipes within doghouse enclosures require aluminum insulation jacket?**

A75: Aluminum insulation jacketing is not required inside the doghouses.

- **Q76: (23A) Is there an M-500 series plan view drawing laying out the fuel oil system routing? if not can one be provided?**

A76: See Pre-Bid Q&A #35 and #36 in Addendum #3.

- **Q77: (23A) Are there any requirements on this project for interior steel double wall containment fuel oil piping as referenced per spec 23 10 00 2.2.A?**

A77: Double wall containment fuel oil piping is not required.

- **Q78: (23A) Are there any requirements on this project for leak-detection and monitoring of fuel oil system per spec 23 10 00 3.8?**

A78: Fuel oil leak detection and/or monitoring is required for the FO pump set and FO filtration system pans per spec section 23 10 00, items 2.7.C.12, 2.6.E.11 and 2.6.F.5.

- **Q79: (23A) Subcontract 23A is responsible to supply a minimum of 6 to 8 experienced certified pipe welders at all times when piping is being installed on this project, working in 4 areas (2 site areas and 2 interiors of building) simultaneously for the duration of this project until welding work is complete. We must also have extra certified welders with DOC security clearance available on short notice to cover absenteeism or when more welders are needed to meet the project's master schedule. We believe this schedule is achievable if we have a minimum of 2 certified pipe welders per site piping sequence area, and each of these welders averages (2) 10" pipe welds per day. It normally takes us 3 to 4 hours per 10" pipe weld completed to ASME B31.1 code standards. With an effective six-hour work day, this may or may not be possible. Once a weld is started, it must be finished the same day. Is overtime an option to complete welds in progress?**

A79: The PDS Master Schedule and Site Logistics Plan requires Subcontract 23A to complete a minimum of two (2) approved B31.1 10" welds per welder per day, in other words, a minimum of four (4) approved B31.1 10" welds per day in each of the two (2) site piping sequence areas. If Subcontract 23A does not maintain this production rate, they will need to supply more certified welders to maintain the schedule. It may be necessary at times, at the discretion of the CMR, to authorize up to two (2) hours of overtime on a case-by-case basis in order to complete welds in progress on any given day. Subcontractors would be paid the premium portion of overtime worked without mark-up. Signed daily T&M tickets are required as backup. Premium for overtime will not be authorized for late start, inefficient work, failed welds, lack of manpower, materials, or equipment, etc. Overtime may or may not be possible on short notice due to DOC requirements and constraints.

- **Q80: (23A, 26A) In Looking at Drawing C502 Detail #6, there is (1) 90 and (1) 45 elbow that need to have the heat trace tube. Will any of the risers require more fittings than shown on this detail? If so, this could cause a problem for the installation of the heat trace cable, and may require a pull port. Please clarify.**

A80: This detail is typical of just about all the piping at the buildings. There should not be any more fittings than already shown in the detail.

- **Q81: (23A, 26A) What size heat trace tube will be required since the heat trace cable is provided by Electrical Subcontract 26A, not the Prefabricated Pipe Manufacturer?**

A81: Heat trace tube is provided by the underground piping manufacturer as a factory assembled piece.

- ***Q82: (23A, 26A) Looking at the run of pipe between Buildings 8 & 9, could prefabricated pipe with a factory heat trace tube be used in this area? This could save time on installation, and replacement of the heat trace in the future could be achieved without removal of the jacket and insulation. Please advise.***

A82: Follow contract drawings. Do not use underground piping for above ground use.

- ***Q83: (23A) There is no air separator indicated on the chilled water system in the Chiller Plant, is one required?***

A83: Not required.

- ***Q84: (23A) Is doghouse piping Detail 5/M903 required on 10" HW & 10" CHW at Building 10 Warehouse on M513?***

A84: No. For Building 10 doghouse the piping only passes through. Detail 5, Dwg M903 has been updated as part of this Addendum.

- ***Q85: (23A) Is doghouse piping Detail 5/M903 required on 10" HW & 10" CHW at Building 8 on M516?***

A85: No. For Building 8 doghouse the piping only passes through. Detail 5, Dwg M903 has been updated as part of this Addendum.

- ***Q86: (9A) In Addendum #2, the Building Logistics Plan for Building 9C states area under review. Has a plan been generated for that area yet?***

A86: Per the attached revised Building 9C Logistics Plan, Rooms 9C-100 will have 1/8" Masonite protection installed at the storefront window wall on the interior of the room. Room 9C-110 will have the same protection installed on both sides of the storefront windows. A temporary hard wall with an access door will be constructed in Room 9C-125. (See attached Building 9C Logistics Plan in Addendum #4).

- ***Q87: (23A) Drawing ES101 states that the Communications work is to be done by the Civil Contractor, and Bid Package #23A, page 20 of 26, item #72 states that the Mechanical Contractor is responsible for the OFC. Please clarify who is responsible for pricing and installing this portion of the work.***

A87: Per Bid Package 23A, the Mechanical Contractor owns the installation of the OFC, as noted in Items #72 and #91 of the bid package. The CMR determines the scope of work assignments in the bid packages regardless of what it says on the Drawings. The scope assignments within the ES Drawings are superseded by the bid package assignments.

- **Q88: (1A, 23A, 26A) Ref Drawing M513**
 - A. Note 1 / Who is responsible for the removal, storage and re installation of the shelving system?**
 - B. Note 3 / Who is responsible for the removal, storage and re installation of the wire mesh partition?**
 - C. Please confirm that electrical work (conduit relocation, lighting relocation) is not part of the HVAC package.**
 - D. Please confirm that work associated with the Fire Alarm system (note 2) is not part of the HVAC package.**

A88: A. Removal, storage and re-installation of shelving is by Subcontract 1A. B. Removal and repair of wire mesh partition around piping is by Mechanical Subcontract 23A. C. Electrical relocation is by Subcontract 26A. D. Fire Alarm System work is by Electrical Subcontract 26A.

- **Q89: (5A, 23A) Ref Drawing M510**
 - A. Demo Note 1 - Please confirm that removal of ladder and other structural steel elements in the pipe pit will be by the Structural Steel Bid Package.**
 - B. Demo Note 6 - Please clarify Subcontract 23A scope required - are we to remove the existing HW distribution piping within the plant and run new piping throughout the plant to feed the existing heating equipment? Or are we required to connect the new HW piping to the existing header (single connection)?**

A89: A. Steel Subcontract 5A is responsible for removal of the existing ladder and handrails from the pipe pit. However, removal of all ladders, handrails, platforms, etc. for the Cooling Towers, and re-installation of new ladders, handrails, platforms, etc. for the Cooling Towers is by Mechanical Subcontract 23A. B. The existing HW distribution piping and heating equipment within the plant is to remain. The existing plant heating piping shall have a single point of connection to the new HW headers. Refer to Contract Dwgs. M205, M206, M510 (Note 6) and M511 (Note 2).

- **Q90: (23A, 26A) Ref Drawing M510. Various notes make reference to relocation of HVAC piping and equipment as well as electrical conduits and equipment, please confirm the following:**
 - A. Any relocations of existing HVAC piping or equipment are covered in the relocation allowance that we are to include in our bid.**
 - B. Any relocation of electrical conduit or equipment is to be performed by the Electrical Contractor.**

A90: A. Most relocations are not covered by the Allowance. This is because all relocations of HVAC piping or equipment associated with any notes or details on Drawings that specifically call for them are included in the Base Bid. Mechanical Subcontract 23A is required to carefully work around the existing, active wet pipe Sprinkler Systems and Fire Alarm Systems in each building. Subcontract 23A is also required to install all of its new work in such a manner so as to avoid interferences with existing MEP piping, ductwork, light fixtures, controls, equipment, panels,

etc. The field routing of new work around interferences is included in the Base Bid. No existing ductwork shall be removed or relocated unless specifically called for in the Drawings. The Allowance is exclusively for removal and/or relocation of major unavoidable interferences associated with Existing-To-Remain mechanical and plumbing piping, supports, controls, equipment, etc. "as needed" (and authorized in advance by the CMR) but not shown or indicated on Drawings. B. Electrical Subcontract 26A is responsible for relocations of all light fixtures, boxes, supports, electrical conduit and wire in accordance with the bid package. This includes up to 50 light fixtures, where relocations are not indicated on the Drawings, in the Base Bid.

- ***Q91: (23A) The Scope of Work for BP 23A states that we are to utilize "Basis of Design" for the Boiler, Chiller and cooling tower. Is it your intent to "Flat Spec" the basis of design suppliers?***

A91: No. Other listed manufacturers or pre-approved substitutions may be submitted and utilized if submittals are approved. (See Items #10 and #11 in the bid package). Subcontract 23A is responsible to first confirm to the Engineer that all basis-of-design performance criteria and efficiencies (i.e. quality, performance, efficiency, noise level, size, capacity, type, functionality, lead time, warranty, etc.) are met at no additional cost to the Owner; otherwise, that manufacturer (or model) will not be approved for use on this project. Furthermore, if the submitted listed manufacturer's equipment requires additional work, installation time, coordination, materials, space, electrical requirements, controls, lead time, expediting fees, production costs, or other constraints, as compared to the basis-of design equipment, Subcontract 23A shall be responsible to pay for all such costs.

- ***Q92: (23A) Ref BP23A / Item 38 - the Scope of Work States that "Bypass piping shall be installed in each MER to allow the systems to be drained down in each building with the distribution piping on-line and circulating." There is no indication on the P&ID that any bypass is required. Please clarify and, if this is required, please provide a sketch showing quantity, size and location of valves as well as the size of the bypass.***

A92: Bypass piping shall be installed in building 0 doghouse only as noted in detail 5, dwg M903 which has been updated as part of this Addendum.

- ***Q93: (23A) Ref Section 00 23 00 / Pg 12 / 49.c / Spec states that "Sub shall provide any trained fire watch that may be required in the performance of their work." Are you requiring a dedicated fire watch during all hot work activities?***

A93: The DOC shall provide fire watch duties with Correctional Officers who are assigned to that specific work area. Subcontractors performing hot work shall apply for and obtain an FM Global Hot Work Permit prior to performing hot work. Subcontractors are responsible to maintain trained personnel in the area, whatever their other duties may be, for the full duration of the fire watch.

- ***Q94: (23A) Ref BP23A / Item 69 – "The existing HW and CHW distribution piping and coils in the buildings shall be flushed, cleaned, and pressure tested by Subcontract 23A...Water in the old HW and CHW piping and coils cannot be co-mingled with water in the new HW and CHW piping and coils." This item of work is vague and unquantifiable. In order for us to properly***

estimate this work, can you provide a list of piping footage and listing of equipment that will have to be flushed?

A94: Refer to information on existing drawings (excerpted drawings from BI-JA-217C, dated 10/28/1991) provided in Section 50 80 00.6 and issued as part of this Addendum.

- ***Q95: (23A) Ref BP23A / Item 70 – “Subcontract 23A is responsible for all grooved hot water piping gasket replacement in Buildings 4 and 8.” This item of work is vague and unquantifiable. In order for us to properly estimate this work, can you provide a list of sizes and quantities of joints that need to be replaced?***

A95: Replace all gaskets for mechanical fittings and couplings with Manufacturer-recommended gaskets for all Hot Water Supply and Return piping as shown on Drawings M769 & M770. Sizes and quantities can be obtained from take-offs using these drawings. Verify piping arrangement, fittings and access in the field. Gaskets for Chilled Water piping to remain.

- ***Q96: (23A, General) Ref Section 01 45 23.13 - Testing for Indoor Air Quality, Baseline IAQ, & Materials - Please indicate how this section applies to this project.***

A96: Since this is not a LEED project, nor a Connecticut High Performance Building project, this Specification Section has limited application. There is no building flushout requirement. However, the buildings are occupied and indoor air quality is a concern during construction activities. At a minimum, low VOC products shall be submitted and used by all Subcontracts, as applicable. Subcontract 23A shall perform the specified indoor air quality sampling and testing in each building where work is being done, in accordance with Part 3.1 of this section, while work activities are in progress. If any test fails the standards, re-testing is required, and all levels must be below the limits prior to acceptance of the building.

- ***Q97: (21A) Ref Section 21 21 13.13 Wet Pipe Sprinkler Systems / 3.4 C / Spec states that we are to circulate water for 24 hours. Is there a minimum velocity required for water circulation?***

A97: Subcontract 21A Fire Suppression is very limited on this project. The specifications cover a standard project with a complete, new sprinkler system. The work on this project includes minor relocations of existing sprinkler piping and sprinkler heads as needed so that the new MEP work above ceilings may be done, including pipes, fittings, specialties, sprinklers, pressure gauges, delegated design, submittals, quality assurance, tests and inspections as required, etc. For individual sprinkler head relocations or additions, Subcontract 21A is responsible to comply with NFPA, State and Local Codes, FM Global, the State Fire Marshal’s review and approval, and other Authority Having Jurisdiction.

- ***Q98: (General) Ref Section 01 91 00 / 3.03 G - Please clarify if mockups are required.***

A98: All Subcontracts who are responsible to furnish and install components for the pipe chase “doghouses” shall build one complete, in-place “doghouse” mock-up at the direction of the CMR for the Architect’s approval.

- **Q99: (23A) Ref Section 23 10 00 / 2.2 A - Specs state that horizontal offsets require that the FO piping be encased in a steel sleeve. Please clarify if all of the horizontal piping in the plant needs to be double wall.**

A99: Fuel oil piping inside the plant does not require secondary containment or double wall piping.

- **Q100: (23A) Please provide location for water frac tanks.**

A100: Subcontract 23A is responsible for all hydrostatic pressure test water disposal in an approved manner in both hot and cold weather, using tanker trucks, frac tanks, (insulated frac tanks in cold weather), temporary pumps and hoses/pipes as required. Driver access into the facility will require clearance. The frac tanks shall be located and moved on site as needed to store and discharge test water. Coordinate location of frac tanks with the CMR and DOC on a case-by-case basis, as there is no one correct answer to cover all conditions. We will try to locate them as close to the work as possible. Discharge of test water may be coordinated with Sitework Subcontract 31B, who will be installing erosion control measures for dewatering of excavations. If not available, or not conveniently located for controlled flow of discharge from frac tanks, Subcontract 23A shall install proper erosion control measures and repair environmental damage as needed.

- **Q101: (23A) Please describe access for water tanker trucks.**

A101: Subcontract 23A is responsible for all hydrostatic pressure test water supply (tanker trucks) in both hot and cold weather, and temporary pumps and hoses/pipes as required. Driver access into the facility will require clearance. Coordinate location of tanker trucks with the CMR and DOC on a case-by-case basis, as there is no one correct answer to cover all conditions. We will try to locate them as close to the work as possible.

- **Q102: (23A) Your schedule shows we are to flush the UG piping by area and section. We will provide a hydro test per code. We planned on flushing the whole Hot Water & Chilled Water Loop and to each building entrance UG as soon as it is all completed.**

The proposed sequence is as follows:

- 1. Fill the system with water w/tanker trucks of water.**
- 2. Flush complete UG piping until it is clear into frac tanks.**
- 3. Introduce cleaning chemical.**
- 4. Dump into frac tanks.**
- 5. Fill the system for the buildings to be tied in later.**

A102: The requirements are to flush and hydrotest each sequence/area/section of underground hydronic piping before it can be backfilled. The pipe joints must be exposed during the hydrotest to confirm where leaks are in the event of a failure. Each sequence shown on the Site Logistics

Plan must be tested and backfilled before moving on to the next sequence. Covering the entire underground piping prior to hydrotesting is not acceptable, and is problematic for quality control.

- **Q103: (23A) Can the drain down and pipe testing water be drained to the existing sanitary sewer?**

A103: No. The sanitary sewers are not designed for that amount of flow. See A100 above for required test water discharge procedures.

- **Q104: (23A, 31A) Can the pre-bid attendance sheets be provided to us?**

A104: The sign-in sheets from the Pre-Bid Conferences/Walk-throughs are attached in Addendum #4.

- **Q105: (23A) Per the scope of work item 70, please provide the quantity of grooved piping gaskets by size that will need to be replaced. We will also need to know what piping is above the suspended and hard ceilings and what the schedule for this work would be. We have no way to determine what is needed to comply with this item without some direction. Due to the lack of information can an allowance be provided to all bidders for this work?**

A105: (See A95). Replace all gaskets for mechanical fittings and couplings with Manufacturer-recommended gaskets for all Hot Water Supply and Return piping as shown on Drawings M769 & M770. The drawings show Acoustical Tile Ceilings in these areas, which will be removed and replaced by Subcontract 9C. See Master Schedule Activities BP-4-112 and BP-8-116 for scheduled dates. Sizes and quantities can be obtained from your take-offs using these drawings. Verify piping arrangement, fittings and access in the field. No allowances will be included for this work. No clarifications, exception, or exclusions will be accepted in bids.

- **Q106: (23A) HVAC Piping Insulation Page 1 Paragraph 1.2 Summary – Item 5. States to insulate “Fuel Oil (FO) piping indoors and outdoors.” Pages 12 and 13 - 3.11 Indoor Piping Insulation Schedule does not list a requirement to insulate indoor Fuel Oil piping. Pages 13 and 14 - 3.12 Outdoor, Above Ground Piping Insulation Schedule does list a requirement for insulating Fuel Oil piping. Please clarify this conflict. Is there a requirement to insulate the indoor Fuel Oil piping, and if so what material and thickness is required?**

A106: Only outdoor fuel oil piping shall be insulated and heat traced. FO piping within the plant does not require pipe insulation. Refer to contract drawing M209 & M414.

- **Q107: (23A) The specifications are silent on whether a TIG root is required. We feel that a TIG root for the Underground Piping is in the best interest to the Owner, which will reduce the amount of weld slag and weld materials getting into the heat exchangers, control valves, and the other existing equipment. Please comment.**

A107: We have no objection to TIG root provided the welds conform to B31.1 as per contract specifications and meet all testing requirements per contract documents.

- **Q108: (23A) Chiller Plant Optimization - From Design Narrative 8 Controls 8.1 Existing Conditions:**
“The chiller plant set points shall be controlled through an algorithm that modifies temperatures, pressures, and flows to minimize energy use. Options for these controls include Optimum Energy, Siemens Demand Flow product, and Tekworx.”
 - *Are one of the above listed chiller plant energy optimization algorithms (Optimum Energy, Siemens Demand Flow product, and Tekworx) to be implemented as part of this project?*

A108: Chiller Plant Optimization is not included in this project.

- **Q109 (23A) Existing control system conduit and wire - Is the existing control system to be demolished in it’s entirety, including and not limited to the following?**
 - *Existing controller enclosures*
 - *Existing conduit and wire to mechanical equipment*
 - *Existing conduit and wire between control system enclosures**If any of the above systems are to remain for re-use, will all conduit sizes and raceway locations be provided as part of the bid documents?*

A109: All existing Enclosures, conduit and wire are to be demolished, removed and replaced entirely.

- **Q110: (23A) Existing mechanical equipment locations - Various pieces of mechanical equipment as detailed below are specified to be controlled by not shown on the project documents. Please provide locations of the existing systems including but not limited to:**
 - *Toilet exhaust fans*
 - *Mezzanine exhaust fans*
 - *Smoke purge fans*
 - *Smoke dampers*
 - *Building 8 fire alarm panel interface to DDC system*
 - *General exhaust fans*
 - *Fan coil units*
 - *Specified sequences for building 5,7,8 (Only shown in building 8)*
 - *Air terminal units*
 - *Specified sequences for buildings 4,6,8,9 (Only shown in buildings 4 & 8)*
 - *Convectors*

A110: Refer to information on existing drawings (excerpted drawings from BI-JA-217C, dated 10/28/1991) provided in Section 50 80 00.6 and issued as part of this Addendum. Where equipment cannot be located, allow for a maximum wire length of 150 ft. Sequences of operations will be provided in Addendum #5.

- **Q111: (23A) The sequence of operation for many of the unit heaters within the facility states they are to be thermostatically controlled without interface to BMS. One would assume that this is how they are already being controlled. Are these unit heaters to be removed from the project scope of work? If not, please detail how they are currently being controlled so necessary changes can be determined.**

A111: Unit heaters controls will be removed from this scope of work.

- **Q112: (23A) The convector sequence of operation calls for an electric thermostat to open the control valve on a call for heat. Are the control valves being replaced with new electric control valves? If yes, provide valve size.**

A112: Convectors will be removed from the contract documents.

- **Q113: (23A) Please detail how the convectors are currently being controlled so necessary changes can be determined.**

A113: See A112.

- **Q114: Please provide convector locations.**

A114: See A112.

- **Q115: Please provide for locations for all smoke dampers in Building 3 and other locations, if any.**

A115: Refer to revised points schedule page 3 for instruction on existing Smoke Purge system. Refer to information on existing drawings (excerpted drawings from BI-JA-217C, dated 10/28/1991) provided in Section 50 80 00.6 and issued as part of this Addendum.

FURNISH AND INSTALL NEW ELECTRONIC DAMPER ACTUATORS.
EXTEND WIRING FROM NEW CONTROLLER TO NEW ACTUATOR AND
COMMISSION AS SPECIFIED IN SECTIONS 230923 AND 230999.
(TYP. SMOKE DAMPER 1 THRU 11).

SMOKE PURGE ZONE 1 - UPPER LEVEL LOUNGE 3U-E03
SMOKE PURGE ZONE 2 - LOWER LEVEL LOUNG 3L-E02
SMOKE PURGE ZONE 3 - INMATE ROOMS "E"

- **Q116: (23A) Which AHUs are part of the smoke purge system? Which dampers are assigned to which AHU? (i.e How many dampers per AHU?)**

A116: Only AHU3-4 does smoke purge as indicated on 230999 page 8 of 31.

- **Q117: (23A) Are these dampers electrically or pneumatically actuated? If pneumatic are they to be replaced with electric actuators? If yes, please specify actuator.**

A117: Dampers are currently pneumatically controlled but are to be upgraded with electronic actuators.

- **Q118: (23A) Section 23 09 23-A Page 5 Shows 11 dampers being controlled but only 8 being monitored for position. Should all 11 dampers be monitored?**

A118: Yes. See revised damper information below from the revised points schedule. Refer to existing drawings for damper location. Use a maximum distance of 150' for control wire in lieu of specific location. All equipment locations will be field verified under this section of work.

- **Q119: (23A) Building 6 Unit Heater Sequence - Sequence appears mislabeled and/or incorrect. It is referencing shut trip breaker control. Please clarify.**

A119: Unit heater controls will be removed from this scope of work.

- **Q120: (23A) Air terminal units - Are these referred to TUBs on project documents?**

A120: The project documents refer to TU for Terminal Unit. Please indicated where in the contract documents this appears.

- **Q121: (23A) Are FCUs valves being replaced? If not, what style actuator (pneumatic, 0-10V, floating) is on the unit now?**

A121: Yes, existing FCU valves are pneumatic and shall be replaced with electronic actuated valves under this section of work. See revised specification for valve specs and the section below from the points schedule. Valve sizing information will provided in Addendum #5.

- **Q122: (23A) Missing sequences - Drawings contain sequences of operation for Central Plant aka Building 10. Specifications provide sequences of operation for Buildings 1 thru 9. Please provide sequence of operation for remaining buildings.**

A122: Sequence of operations will be provided in Addendum #5.

- **Q123: (23A) Points List 23 09 23-A page 1 of 28. EF-6 & EF-7 Quantity, Points list shows a quantity of 5 DO, 5 DI, 5 AO points per fan. The point count is either incorrect or it indicates that there are five (5) EF-6s and five (5) EF-7s. Please provide clarification for fan or point quantity.**

A123: The Points Schedule has been updated. EF Section has been included at the end of this form for reference.

- **Q124: (23A) Buildings 9A,B,D - Points List 23 09 23-A page 14 of 28 - Heat Trace - Points list shows heat trace, Drawings do not. Is heat trace being installed in buildings 9A, 9B, 9D?**

A124: There is no heat tracing in Buildings 9A, 9B and 9D.

- **Q125: (23A) Buildings 9A,B,C,D - Points List 23 09 23-A page 14 of 28. MER hot and chilled water service. Points list shows MER service meters, Drawings are unclear. Are service meters being installed in each MER for buildings 9A, 9B, 9C & 9D?**

A125: Yes. Refer to detail D4 on contract drawing M903.

- **Q126: (23A) Building 10A - Points List 23 09 23-A page 19 of 28. MAU-10A-1 shown on points list but not shown on Drawings. Please show location of MAU-10A-1.**

A126: Refer to contract drawing M764, Addendum 4 for location of MAU-10A-1.

- **Q127: (23A) Building 10A - Points List 23 09 23-A page 21 of 28. MAU-12-1 shown on points list but not shown on Drawings. Please show location of MAU-12-1.**

A127: Refer to contract drawing M766, Addendum 4 for location of MAU-12-1. NOTE; building 7 is similar to building 12. Also, refer to contract drawing M757 for location of MAU-7-1.

- **Q128: (23A) Buildings 22 - Points List 23 09 23-A page 24 of 28 - Heat Trace - Points list shows heat trace, Drawings do not. Is heat trace being installed in building 22?**

A128: All piping to building 22 runs underground and does not require heat tracing.

- **Q129: (23A) Building 23 – No mechanical drawing provided. Please provide mechanical drawing for Building 23 showing: Fiber Optic Conduit run, MER service HW & CHW service entrance and Heat Trace location.**

A129: All piping to building 23 runs underground and does not require heat tracing. Refer to contract drawing M737 for mechanical drawing of building 23 showing fiber, HW & CHW.

- **Q130: (23A) Control wiring of systems is not shown on project documents. Various pieces of mechanical equipment as detailed below are specified to be controlled but not shown on the project documents. Please provide locations of the existing systems including but not limited to:**

- **Toilet exhaust fans**
- **Mezzanine exhaust fans**
- **Smoke purge fans**
- **Smoke dampers**
- **Building 8 fire alarm panel interface to DDC system**
- **General exhaust fans**
- **Fan coil units**
- **Specified sequences for building 5,7,8**
- **Only shown in building 8**
- **Air terminal units**
- **Specified sequences for buildings 4,6,8,9**

- **Only shown in buildings 4 & 8**
- **Convectors**
- A130: Refer to information on existing drawings (excerpted drawings from BI-JA-217C, dated 10/28/1991) provided in Section 50 80 00.6 and issued as part of this Addendum for equipment locations. Where equipment cannot be located, allow for a maximum wire length of 150'. Sequences of operation will be provided in Addendum #5.
- **Q131: (23A) Control wiring of systems is not shown on project documents. If equipment locations are not going to be provided, wiring distance(s) are currently unknown. What wire lengths between mechanical systems are to be included in the project pricing?**

A131: Where equipment cannot be located, allow for a maximum wire length of 150'.

Q132: (23A) Daily access to terminal equipment due to restrictions on building access and escort availability is currently undefined.

- A. How many equipment locations will be made available for modifications daily?**
- B. The spaces between all mechanical systems will also need to be accessed because wiring must be installed between each system. How many pathways between mechanical systems will be made available daily for interconnecting wiring?**

A132: Access to equipment needs to be worked out in the MEP coordination process for each building. Secondly, DOC officers need to escort and observe all work crews inside the buildings. Much depends on the configuration of the building, access above ceilings and to MERs, and DOC officer availability. The schedule has limited time for each activity in each building. Working on a plan in advance is the only way to approach this.

- **Q133: (23A) Existing pneumatic systems -**
 - A. Are pneumatic systems on all specified mechanical systems to be demolished?**
 - B. What systems are currently using pneumatic controls?**
 - C. What systems are using pneumatic actuation with a DDC interface?**

A133: Refer to specification section 230923, page 2 item Q. This contractor shall provide all necessary demolition and removals required to accomplish work as described the contract documents. All pneumatic devices and tubing shall be removed and disposed of in accordance with the owner's requirements. Provide coordination with the owner on the disposition of all removed equipment and accessories. All unused lines shall be removed, cut back and sealed to the farthest extent possible. Advise the Construction manager if any pneumatic equipment is discovered or determined to be required to remain in service.

- **Q134: (23A) The specifications include a section for the requirements on the HVAC Piping Insulation. There are no apparent requirements in that section for the insulation of any equipment. There is no HVAC Equipment Insulation Section. Please clarify any requirements.**

A134: Provide the following:

Chilled Water and Hot Water Pump Insulated Enclosures:

1. Encase pumps in 20 gauge removable aluminum cover lined with 2-inch thick 6 lb/cu ft density rigid glass fiber insulation with a maximum thermal conductivity of 0.30 BTU/hr-sq ft-deg F at a mean temperature of 75 deg F.
2. Fabricate the enclosure with a division coinciding with the pump split case so that part of the enclosure can be removed and the pump serviced and dismantled without destroying the insulation. Provide latching mechanisms at the division to keep the enclosure closed and in place during normal equipment operation.
3. Fill voids in the interior of the insulated enclosure with scraps of fiberglass insulation.
4. Vapor seal closure joints of metal casing.
5. Insulation shall be Owens-Corning type 705, Johns Manville Type 800, or Certainteed Type iB600.

Chilled Water and Hot Water Tanks and Separators Insulation:

1. Provide 1-inch thick fiber glass insulation with factory ASJ with a maximum thermal conductivity of 0.30 BTU/hr-sq ft-deg F at a mean temperature of 75 deg F.
2. Secure insulation in place with metal straps. Use mastic at exposed edges and manufacturer approved insulation tape at joints.
3. Provide removable insulation segments at service access points and at equipment nameplates.

- ***Q135: (23A) Please provide a schedule for the phases referenced on the drawings. These do not seem to be correlated in the job schedule.***

A135: Drawing E002 states that all phasing to follow phasing as indicated in the General Phasing Drawing G003 and the Mechanical Drawings. The “phasing” that the Engineer refers to is not exactly being followed by the CMR on this project. So, in general, you can ignore the Engineer’s references to phases in the Drawings. However, PDS’ Master Schedule and Site Logistics Plan are synchronized and these must be followed by all Subcontractors. The Master Schedule was used to create the Site Logistics Plan. All schedule milestones must be strictly adhered to. There should be no discrepancies between these two documents.

- ***Q136: (23A) Please reference the following sections for replacement control valve work associated with various existing equipment : Spec Section 23 09 23-A, Page 16 lines 609-613 for & Spec Section 23 09 23-A, Page 21 lines 821 & 822, we will need drawings showing locations of these units, a schedule and any associated work that may be needed.***

A136: Locations of TU9C-1 through TU9C-5 are indicated by room number on the Points List. M761 Building 9C Equipment Layout and Controls identifies the Computer Labs. See Architectural Drawings for other room numbers if not indicated on Mechanical Drawings. Building 9C Flow Diagrams M619 and M620 show where these are located schematically. See Flow Diagrams M611 and M612 for typical HW and CHW control valves to FCUs.

- **Q137: (23A) Civil Drawing C503 Site Details notes that T-wrenches are to be supplied to operate isolation valves from the surface. It is understood that Mechanical Subcontract 23A will furnish these T-wrenches, but no quantity is specified. How many T-wrenches shall Subcontract 23A supply to the Owner?**

A137: Provide a minimum of three T-wrenches per TYPE of operator.

- **Q138: (23A, 26A) Electrical Subcontract 26A is required to complete all power wiring, grounding, power circuitry, and power terminations required between a piece of mechanical equipment, controls equipment, electronic safety and security equipment, and install and connect power to VFDs. Are all electrical connections to this equipment assumed to be single-point connections?**

A138: No. For example, Drawing E002 states that all VFDs and soft starters shall be mounted externally from the MCC as indicated in the Drawings. Refer to Drawing E203 for VFD and soft starter locations in Building 10. This applies to Cooling Tower VFDs, Chiller VFDs, pump VFDs, etc. All VFDs are to be furnished by Mechanical Subcontract 23A and installed and power connected by Electrical Subcontract 26A.

- **Q139: (23A) Reference Section 23 09 23 page 26 & 27 paragraph 2.11. A couple of questions on the specifications for Pressure Independent Control Valves -**
 - 2.11 C. indicates valves smaller than 1" would be Belimo PIQCv.**
 - 2.11 D. Indicates valves 1" thru 2" would be Belimo ePIV.**
 - 2.11 E. Indicates 2.5" thru 6" shall be ANSI250 control valves with Coil Optimization which would be Belimo ANSI250 Energy Valve.**
 - 2.11 G. States Valve Action indicating fail safe actuators. Ref. M805 valve schedule for AHU CV (PICCV) Schedule.**

A. PICCV's are no longer available and are replaced with the ePIV per 2.11 D. above. Shall we assume a typo? Please clarify.

B. Is ANSI250 correct per 2.11 E. above as this would normally be the standard ANSI125 series?

C. Basis-of-Design Manufacturer and Model for AHUs shows ANSI125 Energy Valves for all size coils with non-fail safe actuators. We believe the valve choice on the schedule for ANSI125 Energy Valves with non-fail safe actuators is appropriate and will be the most effective in reducing energy costs via reduced pumping costs and coil optimization. If Fail Safe is indeed a requirement, that is fine also. Should all AHU's per the schedule be Energy Valves with non-fail safe actuators or should this schedule conform to section 2.11C-G above?

A139: Provide a current model, or approved equal, with fail safe feature, that complies with the project documents

- **Q140: (23A) We could not locate sequence of operations for Building 0 points list and sequence of operations. Please provide the missing information.**

A140: Sequence of operation will be provided in Addendum #5.

- **Q141: (23A) Buildings 0,1,2,3,4 – We could not locate Supply fan start/stop control signal and associated VFD control signal on control points list. Please provide clarification.**

A141: The points schedule has been revised to show start / stop for the AHUs in the referenced buildings. Units in these buildings do not have VFDs.

- **Q142: (23A) Building CNL control Protocol for Building 2 "Main Building Chilled Water Service" (Typical for several buildings as well as hot water service). Is it BACnet or hard wired control point (AI) to a field controller?**

A142: Provide hardwired control points as indicated on project drawing M252.

- **Q143: (23A) Control Point list items 29, 30, 31 makes reference to EF0-6. However, (5) control points are assigned per point. Please provide clarification.**

A143: One point of each type specified per unit. Points schedule has been corrected.

- **Q144: (23A) AHU control valves (M805) are valves with the capacity to provide flow rate values at the head-end. Drawing M903/DTL 6 calls for Flow Meter per AHU. However, control signal for same control valves in the control points list call for an analog control signal. To read flow value, the protocol point type will need to be changed to read BACnet instead of AO. Please confirm Protocol point type on points list for AHU control valves.**

A144: The flow meter shown in Detail 6, drawing M903 is not intended to indicate installation of a flow meter at each air handler in addition to the PICCV. The flow meter/control valve in the detail is intended to indicate the PICCV itself. AHU flow is not intended to be reported back to the head-end.

- **Q145: (23A) Control Point list items 33, 34, 35 makes reference to EF0-7. However, (5) control points are assigned per point. Please provide clarification.**

A145: One point of each type specified per unit. Points schedule has been corrected.

- **Q146: (23A) Typical multizone AHU control drawings on M253 shows duct mounted discharge air temperature sensor for each zone. Could Not Locate (CNL) zone discharge air temperature sensor on control point list. For multizone units, are duct mounted temperature sensors required per zone?**

A146: Yes, a duct mounted temp sensor is required for each zone.

- **Q147: (23A) General Question: Several controls signals shown on "Control Drawings M253 and M254" are not listed in the controls point list. Is it the design intent that the control point list take precedence over the Control Drawings (M253, M254), or the other way around?**

A147: Where control points, or an element of the BMS, appear on any contract document, they are required for the project. Refer to section 230923 page 2 of 38.

A. When conflicts or disparities occur between any contract documents, the items of greater quantity or higher cost shall be provided.

- **Q148: (23A) Control Drawings (M253, M254) shows freeze stats. CNL freeze stats on control point list. Is it the design intent that the control point listed takes precedence over the Control Drawings regarding freeze stats (M253, M254), or the other way around?**

A148: See A147

- **Q149: (23A) Control Drawings (M253, M254) shows freeze stats without DDC interface. Is the design intent to not interface freeze stat into DDC head-end?**

A149: Refer to drawing M253, note 4, M254, notes 5 and M906, detail 3.

- **Q150: (23A) Specification Section 23 09 23-2.10-C1 calls for RTD sensors. Would 10K-type 2 sensors be acceptable since 10K-type 2 sensors are also industry standards?**

A150: See response to Q65.

- **Q151: (23A) On the control point list, Building 4, AHU3-3 calls for supply air VFD control signal and no VFD control signal on exhaust/return fan VFD although VAV AHU Control Drawing on M253 shows VFD on exhaust/return fan. Shall exhaust fan be furnished with a VFD and associated control signal similar to the supply fan control signal?**

A151: For unit UHU4-3 reference to VFD will be removed.

- **Q152: (23A) Points list make reference to EF0-6 and EF0-7. Could Not Locate (CNL) sequence of operations for EF0-6 and EF0-7. Please provide clarification.**

A152: Sequence of operation for this equipment will be provided with Addendum #5.

- **Q153: (23A) Sequence of operations makes reference to EF1-6 and EF1-7. CNL control points for EF1-6 and EF1-7 on the control point list. Please provide clarification.**

A153: The Points Schedule has been updated. EF Section has been included at the end of this for for reference.

- **Q154: (23A) Sequence of operations makes reference to EF4-5 and EF4-6. CNL control points for EF4-5 and EF4-6 on the control point list. Please provide clarification.**

A154: See A153.

- ***Q155: (23A) Sequence of operations makes reference to EF4-10 and EF4-11. CNL control points for EF4-10 and EF4-11 on the control point list. Please provide clarification.***

A155: Sequences will be provided in Addendum #5.

- ***Q156: (23A) AHU: points list indicates (1) actuator for each hot and cold deck zone. M253 indicates dedicated actuator for each hot deck damper and each cold deck damper. Please provide clarification.***

A156: Provide both as indicated on the points schedule.

- ***Q157: (23A) Control Point list line item 29 makes reference to (1) specific exhaust fan which is EF0-6. However, (5) DI point are noted. Please confirm if control point qty value is correct.***

A157: Points schedule has been corrected to reflect one point type per unit.

- ***Q158: (23A) Building 3: Control points list makes reference to EF3-18. Could Not Locate (CNL) EF3-18 in sequence of operations. Please provide clarification.***

A158: Sequences will be provided in Addendum #5.

- ***Q159: (23A) Building 3: Sequence of operations makes reference to EF3-5. CNL EF3-5 in control point list. Please provide clarification.***

A159: See A153.

- ***Q160: (23A) Building 3: Sequence of operations makes reference to EF3-6 and EF3-7. CNL EF3-6 and EF3-7 in control point list. Please provide clarification.***

A160: See A153.

- ***Q161: (23A) Building 3: Sequence of operations makes reference to EF3-10 and EF3-11. CNL EF3-10 and EF3-11 in control point list. Please provide clarification.***

A161: See A153.

- ***Q162: (23A) Building 3: EF3-4 control signals interface with AHU3-1 per the control point list. EF3-4 control signal interfaces with AHU3-4 per the sequence of operation. Please provide clarification.***

A162: AHU3-1 interfaces with EF3-10D. Revised points schedule section is at the end of this document for reference.

- ***Q163: (23A) Smoke purge control signal on points list is identified with corresponding room names. CNL room names on plan. Please provide smoke purge control signal locations with corresponding mechanical room locations.***

A163: Refer to information on existing drawings (excerpted drawings from BI-JA-217C, dated 10/28/1991) provided in Section 50 80 00.6 and issued as part of this Addendum for equipment and device locations. Use a maximum distance of 150 ft for control wire in lieu of specific location. All equipment locations will be field verified under this section of work.

- **Q164: (23A) Control point list line item 169 through 176 indicates "DO" control signal under points and "DI" control signal under protocol. Please provide clarification.**

A164: Points schedule has been modified as follows:

SMOKE PURGE - AHU3-4 (ONLY)	SMK DAMPER 1 - SMOKE ZONE 3 - UPPER LEVEL LOUNG - 3U-E03	BLDG. 3	1			DO		% OPEN
SMOKE PURGE - AHU3-4 (ONLY)	SMK DAMPER 2 - SMOKE ZONE 3 - INMATE ROOMS E	BLDG. 3	1			DO		% OPEN
SMOKE PURGE - AHU3-4 (ONLY)	SMK DAMPER 3 - SMOKE ZONE 2 - LOWER LOUNGE 3L-E02	BLDG. 3	1			DO		% OPEN
SMOKE PURGE - AHU3-4 (ONLY)	SMK DAMPER 4 - SMOKE ZONE 2 - LOWER LOUNGE 3U-E02	BLDG. 3	1			DO		% OPEN
SMOKE PURGE - AHU3-4 (ONLY)	SMK DAMPER 5 - AHU3-4 - RETURN DUCT FROM INMATE RR0M D AND CORRIDOR - EXHAUST DAMPER LOCATED AT AHU	BLDG. 3	1			DO		% OPEN
SMOKE PURGE - AHU3-4 (ONLY)	SMK DAMPER 6 - AHU3-4 EXHAUST DAMPER LOCATED AT AHU (EF3-10-0)	BLDG. 3	1			DO		% OPEN
SMOKE PURGE - AHU3-4 (ONLY)	SMK DAMPER 7 - SMOKE ZONE 1 - LOUNGE 3U-E02	BLDG. 3	1			DO		% OPEN
SMOKE PURGE - AHU3-4 (ONLY)	SMK DAMPER 8 - SMOKE ZONE 2 - LOWER LOUNGE 3L-E02	BLDG. 3	1			DO		% OPEN
SMOKE PURGE - AHU3-4 (ONLY)	SMK DAMPER 9 - SUPPLY DUCT TO CORRIDOR	BLDG. 3	1			DO		% OPEN
SMOKE PURGE - AHU3-4 (ONLY)	SMK DAMPER 10 - SUPPLY DUCT TO INMATE ROOM D	BLDG. 3	1			DO		% OPEN
SMOKE PURGE - AHU3-4 (ONLY)	SMK DAMPER 11 - AHU3-4 - RETURN DUCT FROM ZONES 1, 2, 3 CORRIDOR, INMATE RMS D	BLDG. 3	1			DO		% OPEN

FURNISH AND INSTALL NEW ELECTRONIC DAMPER ACTUATORS.
EXTEND WIRING FROM NEW CONTROLLER TO NEW ACTUATOR AND
COMMISSION AS SPECIFIED IN SECTIONS 230923 AND 230999.
(TYP. SMOKE DAMPER 1 THRU 11).
SMOKE PURGE ZONE 1 - UPPER LEVEL LOUNGE 3U-E03
SMOKE PURGE ZONE 2 - LOWER LEVEL LOUNG 3L-E02
SMOKE PURGE ZONE 3 - INMATE ROOMS E

- **Q165: (23A) Sequence of operations makes reference to Convectors and Unit Heaters. CNL convectors and unit heaters in control point list. Please provide clarification.**

A165: Convectors and Unit Heaters will not be included in the scope of work for this project.

- **Q166: (23A) Please confirm if there are domestic requirements for project materials and equipment i.e. steel piping or other major items.**

A166: While there is no specific CT DAS requirement, unless otherwise specified, it is preferred that domestic piping, materials and equipment are used on this project to the greatest extent possible.

- **Q167: (23A) A substantial value of this project for Division 23A will be Building Management Controls and Mechanical Equipment i.e.; Direct Buried Pipe, Boilers, Chillers, Pumps, Cooling Tower, Heat Exchangers etc. These items are either sole sourced or basis of design and are not available through an SBE/MBE manufacturer or supplier. Please confirm if those values can be subtracted from the total contract value prior to meeting our CHRO goals.**

A167: CHRO requirement cannot be waived or reduced on this project. If M/WBE suppliers are not available, there are plenty of qualified M/WBE contractors who can perform some of the work to meet the CHRO goals.

- **Q168: (23A) Specification Section 23 21 13.13 paragraph 3.3 G, states that the manufacturer's field service instructor with at least 10 years' experience is expected to be present during critical periods as defined. This would require a factory trained field technician to be there for the complete install of all pipe, 5 days a week, 8 hours a day so as not to hold up the installing contractor. Please confirm if this is the intent or if this requirement can be relaxed.**

A168: Manufacturer's representative shall provide contractor training and be present during first pipe section rigging and bedding, first sectionalizing valve station installation, first 10 field joints and one day every 4 weeks thereafter.

- **Q169: (23A) Drawing G003 Phase 1 1.1 indicates that we are to install the majority of underground distribution system. Please clarify what the majority is. Does this include all branch lines to the buildings?**

A169: Subcontract 23A is responsible to furnish and install all underground hydronic piping in this project.

- **Q170: (23A) Specification Section 23 21 13.13 paragraph 3.4 C states that we are to circulate flushing solution for a minimum of 24 hours. Please confirm if the 24 hours is to be concurrent or three 8 hour regular daily shifts.**

A170: Concurrent.

- **Q171: (23A) Based on the phasing schedule for underground pipe, is the intent to test and flush each section prior to moving onto the next phase or test and flush all piping once the entire loop has been installed? If we are to test and flush each section prior to moving on are we to assume we will be testing the previous section again and so on?**

A171: You can ignore the Engineer's references to phases in General Phasing Drawing G003. Subcontract 23A will flush and test the sections of underground piping between isolations valves one sequence at a time. Then the pipe will be backfilled and you will move to the next two sections in accordance with the PDS Master Schedule and Site Phasing Plan.

- **Q172: (23A) Specification Section 23 21 13.13 3.5 E indicates that Testing shall include; Hydrostatic pressure test and Radiographic testing of welds. 3.5 F states that Contractor may choose to backfill prior to testing of pipe and assumes all liability for re-excavating, repairing and re-testing with no additional cost to the Owner. Are we to assume that this means the piping can be backfilled only after the Owner has performed x-raying of joints?**

A172: Subcontract 31B shall backfill each section or sequence of underground hydronic piping after it has been inspected, x-rayed, flushed, hydrotested, and approved, in accordance with the PDS Master Schedule and Site Phasing Plan.

- **Q173: (23A) Previous RFI question Q31 (A31) states that the intent is to excavate the full length and width of the trench for pipe insulation, then backfill over the pipe leaving the field welded joints exposed until testing and inspection is complete. First it contradicts the previous question #7, Also, on past projects, with different manufacturers, we have experienced pipe failures within the pipe itself and not at the welds. Who will be responsible for re-excavating the pipe should this type of failure occur?**

A173: Subcontract 23A shall be responsible for the cost of re-excavation and backfill due to underground pipe failures.

- **Q174: (23A) How much underground piping can we expect to install before we have to flush and test?**

A174: Refer to the Civil Drawings, PDS Master Schedule and Site Phasing Plan for riser vault to riser vault stationing of pipe sequences and routing of lateral piping to the doghouses.

- **Q175: (23A) Will the site contractor be responsible for over excavating bell holes or shoring at all weld joints to insure welders are in a safe hole while welding?**

A175: Subcontract 31B is responsible for all excavation and shoring, dewatering, and pea stone installed at pipe joints. The excavation will be made safe per OSHA requirements. The

excavation will be opened wide in most areas, with sloped embankments (Class C soil). Trench boxes or hydraulic shoring will be used on a limited basis.

- **Q176: (23A) Will the site contractor be providing trench ladders at all weld joints?**

A176: Each Subcontractor is responsible for their own PPE and safety equipment for its own workers.

- **Q177: (23A) Will the mechanical contractor be fully responsible for all startup, testing and commissioning of new equipment?**

A177: See Bid Package 23A Items #29, #33, #64, #83, #85 & #93.

- **Q178: (23A) Will equipment used for installing piping into the trenches be allowed to stay in the fenced in secured areas at night and on weekends or will they have to come out every day?**

A178: Unless otherwise authorized by DOC, all materials, tools and equipment inside temporary fencing on stanchions on site will need to be brought back to the locked laydown area at the end of each shift.

- **Q179: (23A) Will service trucks be allowed within the fenced in secured areas?**

A179: Service trucks will be allowed inside the fenced areas. Drivers must have clearance. DOC officers will need to escort them in secured areas.

- **Q180: (23A) Will the mechanical contractor be allowed to leave a Conex Jobbox be allowed to stay within the fenced in secured areas overnight?**

A180: Subcontractors may provide their own storage containers in the fenced laydown area. Coordinate with the PDS Superintendent.

- **Q181: (23A) Will all tools and equipment need to be inspected and accounted for when entering and leaving the fenced in secured areas?**

A181: Yes.

- **Q182: (23A) Previous RFI question Q37; (31A) states that the mechanical contractor is responsible for removing snow from open trenches. If the trench has been excavated but no pipe has yet been installed is it still the mechanical contractor's responsibility?**

A182: Yes. Site Prep Subcontract 31A is responsible for snow plowing in the laydown areas and access roads and paths only.

- **Q183: (23A) Will independent weld inspections be performed during off hours so not to disrupt the installing contractor and if not how much time should be allotted for independent weld inspections to be performed?**

A183: Perform weld inspections after hours to minimize disruption to construction activities.

- **Q184: (23A) Will Tig welding be required for all root passes?**

A184: See response to Q107.

- **Q185: (23A) Are there specific requirements for emissions on the boilers and who is responsible for testing?**

A185: Boiler manufacturer is responsible for boiler emissions tuning to meet the State emissions requirements. Subcontract 23A is responsible to meet all Quality Assurance requirements and must submit test data, certifications, including NFPA, ASME, AHRAE/IESNA, UL, US EPA, ABMA, ISA and other documentation to confirm that the boilers are in compliance. This shall be included in the commissioning report as well as the O&M manual. The State may also provide an independent third party for emissions testing.

- **Q186: (23A) During the testing and commissioning of equipment who will be responsible for operating equipment, will existing plant operators be responsible for operating plant during testing and commissioning?**

A186: Contractor is responsible for testing and commissioning of equipment prior to turn over to facility.

- **Q187: (23A) During the startup, testing and commissioning of equipment will fuel and power be provided or will the contractor be responsible for these items?**

A187: It's anticipated that existing utilities will be used for startup, testing and commissioning. Coordinate all startup, testing and commissioning activities with facility.

- **Q188: (23A) Drawing G003 Phase 2 2.4 and Phase 4 4.3 indicates that we are to flush and pressure test HW and CHW piping in building mechanical rooms. Does this require us to test all existing piping or just new and if it is all existing are we required to repair any leaks, how do we quantify?**

A188: Test all new and existing building piping. Isolate equipment during testing. Provide all temporary equipment including temporary flushing strainers. Subcontract 23A shall provide unit cost to repair leaks which may result from testing.

- **Q189: (23A) Please advise if BAC can be an acceptable manufacturer for the cooling tower.**

A189: This question is not the specified procedure to submit a pre-bid substitution request. See Section 01 25 00.

- ***Q190: (23A) In reference to submitting the bid proposal form, one of the documents that must accompany the bid is section 00 45 17 Named Subcontractor Bidder's Qualification Statement. However the bid proposal form does not have a section to list proposed Subcontractors. Please advise if the Subcontractor Bidder's Qualification Statement form can be submitted by the apparent low bidder.***

A190: Please attach the revised Section 00 45 17 Named Subcontractor Bidder's Qualification Statement from Addendum #4 to the bid. Use the revised Bid Proposal Form in Addendum #4 for Bid Packages 23A and 31A. There is a section for proposed M/WBE subcontractors. You may use additional sheets, if desired, for additional subcontractors.

- ***Q191: (23A) Please issue the sign-in sheet from the walk-thru on 2/19 and 2/20.***

A191: Attached in Addendum #4.

- ***Q192: (23A) Please advise if the bid opening for 23A can be postponed an extra week.***

A192: The Bid Date will not be postponed.

- ***Q193: (23A) HX9A Bypass Valve - Building Side. Provide control valve schedule update to include valve model number.***

A193: Building side bypass valve is intended for pump differential pressure bypass. Select building side bypass valve based on circulating pump minimum flow.

- ***Q194: (23A) HX9A Bypass Valve - Loop Side. Provide control valve schedule update to include valve model number.***

A194: Select loop side heat exchanger control valve based on heat exchanger design flow shown in heat exchanger schedule drawing M803.

- ***Q195: (23A) Provide TU Valve Sizes and flow rates.***

A195: Terminal Unit valve replacement will be removed from this scope of work. Reuse of the existing terminal unit valve will be included under this section.

- ***Q196: (23A) According to the City Water Flow Diagram there are two eye washes, one to be relocated and one to remain in place and reconnect with new 1/2" piping. When reviewing the floor plans (M508 & M509), the relocated one is noted, but I couldn't find the existing to remain eye wash? Please advise on the location and the pipe route for that eye wash station?***

A196: M508; Wall mounted on column line 10 to the right of existing HW CHEMICAL TREATMENT.

- ***Q197: (23A) Please confirm that all roof penetrations for mechanical piping will be cut and patched by a roofing contractor in order to withstand any warranties associated with any roofs?***

A197: See Bid Package 23A Items #23, #41 & #82

- ***Q198: (23A) Building 10 Plans show staged work for Phases 1, 2, 3, 4 & 5. Please advise on the durations for all 5 phases? Bid Schedule shows work going on from 2019~2021, but I couldn't locate the breakdown of the durations for phases 1-through-5. Please advise?***

A198: Disregard Engineer's Construction Phasing Guidelines on G003. Follow PDS' Master Schedule, Site Logistics Plan, and Building Logistics Plan.

- ***Q199: (23A) Please confirm that all dropped ceilings in the rooms shown with new piping installation on drawing M516 will be taken down and reinstalled by a separate acoustical ceiling contractor, as well as all other buildings with the similar situation?***

A199: Subcontract 9C is responsible for removing and replacing ACT ceilings where indicated on Drawings. See Bid Package 23A Item #68.

- ***Q200: (23A) Will the dumpsters for all demo'ed mechanical material be supplied by others?***

A200: See Bid Package 23A Items #19 & #41.

- ***Q201: (23A) The updated logistics plan for UG piping from Addendum #2 (page 12 of 188 from the PDF) was updated with colored sections for piping installation. Will an updated version be provided with dates provided at the bottom of the page? Color Legend was provided at the bottom of the page, but bid schedule dates for those sections would be helpful, if possible to provide?***

A201: See Section 00 31 13 Project Master Schedule & Site Logistics Plan

- ***Q202: (23A) Please clarify whether the site work contractor or the concrete contractor owns the 1/2" thick underground foam padding at the penetration, per note #2, and the 1" thick underground foam padding per the note where the piping increases in elevation at a 45° angle, as shown on drawing M518?***

A202: Per Section 23 21 13.13 Underground Hydronic Piping, the Mechanical Contractor shall supply all components and accessories as required to complete installation. This includes 1/2" thick underground foam padding at penetrations and 1" thick underground foam padding shown on M518

- **Q203: (23A) Please advise on the HWS&R & CHWS&R line sizes to AHU9C-2, AHU9C-3, & AHU9C-4. AHU9C-1 is shown on M620, however, nothing currently shown on flow diagram for the other three units?**

A203: 2"HW and 2.5"CHW typical for three units.

- **Q204: (23A) After attending the walkthrough, it sounded like scaffolding will be furnished, installed, and maintained by PDS, can you please confirm that this is correct?**

A204: See Bid Package 23A Item #19.

- **Q205: (23A) Please confirm the sizes of piping shown on M769 & M770 that would need gasket replacements? Typical installation on HVAC installation would use Grooved Piping from sizes 2-1/2" and larger, and copper piping (soldered or ProPress systems) from 2" and smaller. Please identify which sizes on the HWS&R are grooved carbon steel, and which sizes are copper (soldered or ProPress) and do not need gasket replacements?**

A205: See Addendum #1 Drawing M769

- **Q206: (23A) Please confirm that Demolition Note #10, #15 & #16 on drawing M510 are to be performed by the Electrical Contractor, not the mechanical contractor?**

A206: See Bid Package 23A Items #23, #36, #39 & #41 and Section 00 23 00 Item #35.

- **Q207: (23A) Please confirm that Note #1 on drawing M513 is to be performed by others, not the mechanical contractor?**

A207: Subcontract 1A is responsible to remove shelving and return to original condition.

- **Q208: (23A) Please confirm that Note #2 on drawing M513 is to be performed by the Fire Alarm Contractor, not the mechanical contractor?**

A208: Subcontract 26A is responsible to relocate existing fire alarm strobe and return to original location. See Section 00 23 00 Item #35. Subcontract 23A is responsible to relocate existing fire extinguisher and return to original location.

- **Q209: (23A) Please confirm that Note #5 & #9 on drawing M513 are to be performed by the Electrical Contractor, not the mechanical contractor?**

A209: Subcontract 26A is responsible to relocate existing electrical conduits and light fixtures. See Section 00 23 00 Item #35.

- **Q210: (23A) Please confirm that Note #6 on drawing M516 is to be performed by the Electrical Contractor, not the mechanical contractor?**

A210: Subcontract 26A is responsible to relocate existing electrical conduits for security. See Section 00 23 00 Item #35

- ***Q211: (23A) Please confirm that Note #3 on drawing M707 is to be performed by the Electrical Contractor, not the mechanical contractor?***

A211: Subcontract 26A is responsible to relocate existing electrical conduits for security. See Section 00 23 00 Item #35

- ***Q212: (23A) Please confirm that Note #6 on drawing M710 is to be performed by the Electrical Contractor, not the mechanical contractor?***

A212: Subcontract 26A is responsible to relocate existing electrical conduits for security. See Section 00 23 00 Item #35

- ***Q213: (23A) Please confirm that Note #6 on drawing M718 is to be performed by the Electrical Contractor, not the mechanical contractor?***

A213: Subcontract 26A is responsible to relocate existing electrical conduits. See Section 00 23 00 Item #35

- ***Q214: (23A) Please confirm that Note #6 on drawing M722 is to be performed by the Electrical Contractor, not the mechanical contractor?***

A214: Subcontract 26A is responsible to relocate existing light fixtures. See Section 00 23 00 Item #35.

- ***Q215: (23A) Please confirm that Note #6 on drawing M724 is to be performed by the Electrical Contractor, not the mechanical contractor?***

A215: Subcontract 26A is responsible to relocate existing light fixtures. See Section 00 23 00 Item #35.

- ***Q216: (23A) The Chiller Refrigerant Relief Piping is spec'd (23 23 19) and detailed on M902, however, no sizes are shown and it is also not shown on the floor plans? Please provide piping routes and sizes so the piping and pipe insulation can be accounted for accurately with our estimates.***

A216: Refer to contract drawing M511, note 4. Refrigerant relief piping does not require insulation. Relief valve on chiller is by manufacturer. Combine reliefs to common header PER chiller and route 3" to existing/new as described on M511. Do not follow location shown on A107.

- ***Q217: (23A) Detail #6 on M903 shows the control valve being demolished and replaced with PICVs. Will the remainder of the valves and appurtenances also be demolished and replaced,***

or are all other items (valving, etc.) to remain? If other items are to be replaced, can you please provide a detail showing the appurtenances expected for the replacements at the AHUs?

A217: All remaining valves and appurtenances to remain. Replacement PICV valves may have different end-to-end dimension. Furnish and install pipe nipples/unions as required.

- ***Q218: (23A) Please advise on the line sizes for PDT 1 & PDT 2 shown on drawings M202 & M206, respectively?***

A218: 3/4"

- ***Q219: (23A) The Safety Relief Discharge Piping did not make the HVAC Insulation Spec or floor plans? Please confirm that this piping does not need to be insulated? Additionally, please confirm piping is to be 3" Carbon Steel and shoot straight up and penetrate roof, as shown on A107 (penetration locations shown, not sizes)?***

A219: See response to Q216.

- ***Q220: (23A) Please confirm all piping shown on M412 is Existing Fuel Oil Piping, and is for reference purposes only? No new piping installation depicted on this flow diagram, correct?***

A220: Correct. For reference only. Only B10.3 is shown to be installed on this drawing.

- ***Q221: (23A) Drawing M726 shows the HWS&R lines, CHWS&R lines and two 2" Conduits at the same exact location, continuing on M516. When you then reference M516, the HWS&R lines and two 2" conduits are starting at the same location, however the CHWS&R lines are shown much further down the building, a few rooms away? Please advise if the only CHWS&R piping not shown on M516, that would need to be accounted for from M726, is the loop tying them together and the three valves?***

A221: M726 is correct. The CHWS&R piping terminates with the 3 valves in room 9D-132.

- ***Q222: (23A) With the underground piping being tested in sections and then covered, would it be acceptable to Air Test the piping in sections, and then perform a final hydrostatic test on the entire loop at the end? With B31.1 welding requirements and the aggressive nature of the schedule, the time consumed by water testing versus air testing is considerable. Additionally, this would eliminate the chance of standing water inside the piping for 18-22 months and possibly rust? It would take over a week to fill the system with water and setup for a test, with the loops consisting of 10" piping (just as an FYI).***

A222: Corrosion is addressed by laying up the sections of the piping systems as part of construction phasing. See spec 23 21 13.13, Section 3.4.D and spec 23 21 13, Section 3.7.D.

- **Q223: (23A) Please provide a rough size (LxWxH) for exhaust fan being requested to move along with its weight (or a Model number if available so we can research the particulars), so that sheet metal subcontractors have an idea of what to carry for bidding purposes?**

A223: I assume you refer to exhaust fan in building 9C boiler room to be relocated. No particulars known for fan. M517 shows fan in relocated location (above A/C on east wall). This shows the protective cage around the fan and is to scale.

- **Q224: (23A) M903, Detail #6 shows a symbol "FM" near the control valve? Do these signify additional Flow Meters that are required separate from the Flow Meters on the Equipment Schedule? Currently, the scheduled flow meters are shown on other flow diagrams with the symbol "FT", so I just wanted to clarify what is required for these "FM" symbols, so we can make sure the Controls Contractors are accounting for the correct items?**

A224: These are flow meters in addition to those shown on schedule.

- **Q225: (23A) Note #11 on M716 & Note #10 on M732 states: "RELOCATE EXISTING SENSOR MOUNTED ON EXTERIOR OF EXISTING FACADE EITHER ONTO PIPE ENCLOSURE FACADE OR ONTO EXTERIOR WALL CLEARING THE ENCLOSURE." Please verify what kind of sensor this is and whose responsibility this would be (Mechanical Controls Contractor, Fire Alarm Contractor, Electrician, etc.,)?**

A225: Subcontract 26A is responsible to relocate these existing sensors as indicated.

- **Q226: (23A) Please confirm that the piping to UH 7-1 is existing to remain? M715, shows piping ETR and untouched on the Mezzanine drawing, and M716 reflects the same. However, M612 (Flow Diagram) shows new piping feeding UH 7-1 and the old piping demo'ed? Please advise?**

A226: M715 & M716 are correct.

- **Q227: (23A) The Flow Diagram for Building 9C (M620) shows existing 4" HWS&R to remain and to be tied into by the new 4" lines. The floor plan (M724) shows 4" reducing to 3" once it enter the MER Room and connecting to existing untagged size (assuming 4"). Should the floor plan be updated to show a consistent 4" line tying into existing, as shown on the flow diagram, or is the intent correct on M724?**

A227: Update floor plan to show consistent 4".

- **Q228: (23A) The Flow Diagram for Building 22 (M628) shows existing 3" HWS&R to remain and to be tied into by the new 3" lines. The floor plan (M736) shows new 3" HWR line entering the building and then increasing to 4" and connecting to existing 3" HWR lines @ the boiler? Should the floor plan be updated to show a consistent 3" line tying into existing, as shown on the flow diagram, or is the intent correct on M736?**

A228: Update floor plan to show consistent 3".

- **Q229: (23A) Drawing M001, Note #3 states to: "INSULATE ALL PIPING AS SPECIFIED IN SPECIFICATION SECTION 230715 - HVAC INSULATION. REPLACE ALL PIPING INSULATION DAMAGED OR DISTURBED BY INSTALLATION OF THE WORK OF THIS CONTRACT. THE INSULATION SHALL MEET THE REQUIREMENTS OF SPECIFICATION SECTION 230715." Could an allowance be provided for this, or a spot on the unit pricing for different sizes of piping if this is needed, as this could be a small number or a huge number depending on what we find after going through all 18 buildings. No HVAC Insulation subcontractor will price this without knowing exactly what needs to be replaced, so if we can replace this requirement with an allowance or provide unit prices for different sizes on the bid form, that would be appreciated.**

A229: There is no allowance to replace piping insulation damaged or disturbed by installation of the work of this contract. The intent is to avoid or minimize damage to existing piping insulation. The Allowance in Bid Package 23A is exclusively for removal and/or relocation of major unavoidable interferences associated with Existing-To-Remain mechanical and plumbing piping, supports, controls, equipment, etc. "as needed" (and authorized in advance by the CMR) but not shown or indicated on Drawings.

- **Q230: (23A) Please provide the footage of piping and count & type of fittings from the Fuel Oil Tank to the building, so that the Insulation Subs can accurately account for the insulation needed for this existing to remain piping. Also, please advise on the highest point of the piping off the ground (Most likely at the penetration into Building 10), so we can account for a lift as well, if necessary?**

A230: Piping runs the entire length outside at the same elevation as building 10 penetration. Piping runs straight out to above diesel tank, turns north and runs to above No. 2 tank, turns 90 degrees east and drops into top of tank on south end of tank. Total of 3-90 degree elbows per pipe. Refer to M507. Piping exits plant in between combustion air louvers between columns A and B. Tank nozzles shown on south end of tank.

- **Q231: (23A) Please confirm that the only new hydronic piping work in Building 23 are the HWS&R and CHWS&R stub throughs and loops shown on M737? All non-sized piping shown in MER is existing to remain and doesn't tie in to the new piping according to the floor plan. Just wanted to verify this is correct, as there isn't a flow diagram for Building #23 to verify against?**

A231: New HW/CHW piping and fiber optic conduits shall penetrate through the basement wall of Building 23 as shown on M737 and C310 for future addition to the new Central Plant systems

- **Q232: (23A) Please confirm that adding (or enlarging) new housekeeping pads as well as removing any old housekeeping pads will be performed by the concrete contractor?**

A232: See Bid Package 23A Item #76.

- **Q233: (23A) Mechanical Scope of Work #41 states to cut, cap, drain, remove piping, ductwork and controls work in Building 4 & 9C. After reviewing the plans (M709 & M723), piping demo**

is shown but no extent of ductwork demo is shown? Please advise on what ductwork is being requested to be demo'ed (system types, sizes, locations, etc.,) so our sheet metal subs can accurately account for the demolition required?

A233: No ductwork demolition is shown on Drawings. Existing ductwork must remain in place and be worked around.

- ***Q234: (23A) Please confirm that any VFD's required for this project for mechanical equipment will be furnished by the Mechanical Contractor and installed by the electrical contractor (if not integral with the equipment)?***

A234: All VFDs that are not integral to mechanical equipment are to be furnished by Mechanical Subcontract 23A and installed and power connected by Electrical Subcontract 26A. All VFDs that are integral to mechanical equipment are to be furnished by Mechanical Subcontract 23A and single-point power connected by Electrical Subcontract 26A.

- ***Q235: (23A) Please confirm that all electrically related demo and relocations noted on mechanical drawings will be performed by the electrical contractor (Conduits to be relocated, Disconnects shown on drawings to be removed, etc.,).***

A235: See Section 00 23 00 Item #35 and Bid Package 26A Items #6, #16 & #17 found in Addendum #2.

- ***Q236: (23A) Please confirm that all structural steel needed to hang new mechanical piping would be furnished and installed by the structural steel contractor, and that the mechanical contractor is responsible for furnishing and installing the hangers and any supplemental steel? For example, Detail #5 on M901.1 matches the desired hanger point S-1 on Drawing M516 (where the Hot Water enters Building 8 from the doghouse). The structural beam will be by the Structural Contractor and everything above is by the mechanical contractor, correct? (Same for all other hanger support details)?***

A236: See Bid Package 23A Items #57, #58, #59 & #77.

- ***Q237: (23A) M516, Note 8 states to: "RELOCATE EXISTING WALL MOUNTED DX UNIT AS REQUIRED TO CLEAR PIPE SUPPORT." Please advise on make & model (or tonnage) of unit to be relocated and location requested for relocation? Also, please advise on the location of the condenser so new/additional piping needed to tie into the condenser from the new location of the indoor DX unit can be accurately estimated by the mechanical contractors and insulation subcontractors?***

A237: Relocation of wall mounted DX unit should be no more than 10 feet to the left (as you face the wall) to clear path of HW and CHW piping installation entering building from pipe bridge.

- **Q238: (23A) We are currently assuming that the old HWS&R & CHWS&R underground piping systems are going to be abandoned in place? No mention of demo was found for the current UG Piping system, so please confirm that this assumption is correct?**

A238: Existing, old underground hydronic piping systems are to be abandoned in place once the new piping systems are placed in service.

- **Q239: (23A) 23 09 23 Controls Spec (Point List) requests Terminal Units TU-4-1~TU-4-15 control valves to be replaced with new electronic reheat valves. Please advise if only the control valves will be replaced on these units, or if any other valves (circuit setter, isolation valves, etc.) will also need to be replaced, as this is not shown or stated to be replaced on drawing M769? Also, could the Design GPM of the units be provided for sizing purposes?**

A239: Terminal Unit Valve replacement will be removed from this scope of work. Reuse of existing terminal unit valves will be included in this section.

- **Q240: (23A) 23 09 23 Controls Spec (Point List) requests Terminal Units TU-6-1~TU-6-16 control valves to be replaced with new electronic reheat valves. Please advise if only the control valves will be replaced on these units, or if any other valves (circuit setter, isolation valves, etc.) will also need to be replaced, as this is not shown or stated to be replaced on any Building 6 drawings? Also, could the Design GPM of the units be provided for sizing purposes?**

A240: See A239

- **Q241: (23A) 23 09 23 Controls Spec (Point List) requests Terminal Units TU-8-1~TU-8-17 control valves to be replaced with new electronic reheat valves. Please advise if only the control valves will be replaced on these units, or if any other valves (circuit setter, isolation valves, etc.) will also need to be replaced, as this is not shown or stated to be replaced on drawing M770? Also, could the Design GPM of the units be provided for sizing purposes?**

A241: See A239

- **Q242: (23A) 23 09 23 Controls Spec (Point List) requests Terminal Units TU-9B-1~TU-9B-8 control valves to be replaced with new electronic reheat valves. Please advise if only the control valves will be replaced on these units, or if any other valves (circuit setter, isolation valves, etc.) will also need to be replaced, as this is not shown or stated to be replaced on any Building 9B drawings? Also, could the Design GPM of the units be provided for sizing purposes?**

A242: See A239

- **Q243: (23A) 23 09 23 Controls Spec (Point List) requests Terminal Units TU-9C-1~TU-9C-5 control valves to be replaced with new electronic reheat valves. Please advise if only the control valves will be replaced on these units, or if any other valves (circuit setter, isolation valves, etc.) will also need to be replaced, as this is not shown or stated to be replaced on any**

Building 9C drawings? Also, could the Design GPM of the units be provided for sizing purposes?

A243: See A239

- ***Q244: (23A) 23 09 23 Controls Spec (Point List) requests Terminal Units TU-13-1~TU-13-16 control valves to be replaced with new electronic reheat valves. Please advise if only the control valves will be replaced on these units, or if any other valves (circuit setter, isolation valves, etc.,) will also need to be replaced, as this is not shown or stated to be replaced on any Building 13 drawings? Also, could the Design GPM of the units be provided for sizing purposes?***

A244: See A239

- ***Q245: (23A) UH-1 is shown on drawing M769, but does not show up on the Controls Points list in spec 23 09 23? Is this unit not being monitored and left as is, or should this unit be added to the points list and also have its control valve changed out?***

A245: Unit heater controls replacement will be removed from this scope of work.

- ***Q246: (23A) UH-3 is shown on drawing M770, but does not show up on the Controls Points list in spec 23 09 23? Is this unit not being monitored and left as is, or should this unit be added to the points list and also have its control valve changed out?***

A246: Unit heater controls replacement will be removed from this scope of work.

- ***Q247: (23A) During the walkthrough, it was noted that Down-time losses will be handle by adding two hours to the work day / allowing OT to stay on track. That adds approximately 25,000 man hours to the project, in downtime, but with this lost time, we believe Saturdays would be needed to keep on track and on schedule. Will this be allowed by DOC and PDS?***

A247: The DOC determines the work hours. The PDS schedule is based on an 8-hour day, with a presumed 6-hour daily productivity due to stringent security check-in and check-out procedures. In the event overtime is required, due to no fault of the CMR or its Subcontractors, as determined by the CMR and approved by the Owner, overtime will be authorized and premium time costs will be covered. The PDS Master Schedule and Site Logistics Plan requires Subcontract 23A to complete a minimum of two (2) approved B31.1 10" welds per welder per day, in other words, a minimum of four (4) approved B31.1 10" welds per day in each of the two (2) site piping sequence areas. If Subcontract 23A does not maintain this production rate, they will need to supply more certified welders to maintain the schedule. It may be necessary, at the discretion of the CMR, to authorize up to two (2) hours of overtime per day on a case-by-case basis in order to complete welds in progress on any given day (8-hour productivity). This generally applies to site welders and site foremen, not everyone on the job. Subcontractors would be paid the premium portion of overtime worked without mark-up. Signed daily T&M tickets are required as backup. Premium for overtime will not be authorized for late starts, inefficient work,

failed welds, failed hydro testing, lack of manpower, materials, or equipment, etc. Overtime may or may not be possible on short notice due to DOC requirements and constraints.

- **Q248: (23A) Please confirm that Surveying for the UG piping (benchmarks, elevations, pipe layout, trench layout locations, etc.,) will be by others?**

A248: See Bid Package 23A Item #72.

- **Q249: (23A) Does the mechanical contractor have to provide a surveyor and provide As-Builts for all installed piping, or will the site surveyor be providing that separately as part of his bid package?**

A249: See Bid Package 23A Items #17 & #74.

- **Q250: (23A) Invitation to Bid States that "Liquidated Damages: \$6,700.00 Per Calendar Day beyond Substantial Completion. \$4,400.00 Per Calendar Day beyond ninety (90) days after Substantial Completion date that the CMR fails to achieve acceptance of the work." Our bonding company wants to make sure that they understand this correctly, and that after 90 days, the LDs decrease to \$4,400 per day, rather than add an additional \$4,400 per day to the previous \$6,700 per day, becoming \$11,100 per day?**

A250: The liquidated damages are explained in Section 00 11 16, Section 00 52 03 Article 1.1, Section 00 52 73 - 5.2, and Section 00 72 23 Article 8. Liquidated damages may be assessed at two distinct times – prior to Substantial Completion, and after Substantial Completion but prior to Acceptance of the Work. These times cannot overlap, therefore the damages are not additive.

- **Q251: (23A) Please confirm that the electrical contractor will be providing all power needs for construction (temp power for welding machines, power chords, etc.,).**

A251: See Bid Package 23A Item #19 and Section 00 23 00 Item #52a.

- **Q252: (23A) Please advise on the current plan regarding bathrooms and breakrooms. Will there be break areas and bathrooms setup at the different areas around the facility, since multiple areas will be worked on simultaneously, or will there be one location for bathrooms and breakrooms? If only one area, can you please advise where, and what the security requirements would be coming in and out of work areas within the prison to the breakrooms or bathrooms?**

A252: There will be no breakrooms, so workmen must eat in their work areas, or in the construction trailer, or in designated areas in buildings. Conditions will vary. Workmen in the site piping areas must eat outdoors in their fenced work areas. The use of bathrooms inside buildings is prohibited, unless escorted by a DOC officer. Portable toilets will be provided outside all active work areas for the workmen. See Section 00 23 00 Item #52c. See Section 00 73 63 for DOC Security Requirements.

- **Q253: (23A) Please confirm that the structural steel currently in place is strong enough to handle the new loads that the added piping will present? In finished spaces (above dropped and finished ceilings), there will be no way of hanging off the floor, so new structural steel will need to be provided by others, if we can't hang off the existing decks. Please advise?**

A253: Above drop ceilings, see detail "Typical Joist Hanger" on drawing S003. Provide delegated design submittals for pipe supports per spec 23 05 29.

- **Q254: (23A) Points list has us doing work to existing units, some of which are not shown on the drawings. Please confirm that all removal and replacements of ceilings in these areas will be performed by a separate ceiling contractor?**

A254: Subcontract 9C is responsible for removing and replacing ACT ceilings. See Bid Package 23A Item #68.

- **Q255: (23A) For buildings with existing glycol systems, are there isolation valves available for us at points of disconnection / tie-ins, in order to keep the remainder of the building functional, rather than draining the whole building?**

A255: Buildings 7, 12, 10A and 9D will no longer be glycol and will need to be drained anyway. The glycol system for building 9A will remain. There are no valves in building 9A to isolate the glycol to do the work. It will have to be drained.

- **Q256: (23A) Please advise if electrical welders will be required for indoor work, in order to keep machines within each individual building, or if diesel welders will be allowed with leads running into each individual building?**

A256: Electrical welders will be required for indoor work. All tools, materials, and equipment must be brought to the work areas in buildings as needed and as allowed in available storage. Nothing can be left outside unattended or without DOC officer observation.

- **Q257: (23A) Will we be able to drive a work vehicle near work areas and trenches, or are we forced to park remotely and only construction equipment will be allowed near work areas and trenches?**

A257: Parking will be in designated parking lots only. Construction equipment and construction vehicles will be allowed in fenced site piping areas at the discretion of the DOC officer on duty.

- **Q258: (23A) M903, Detail #4 shows total of (Qty.9) Sensors in the detail but the drawing is denoting only 5 of the 9 to be hardwired back to the BMS? Where would the other 4 sensors be tied in?**

A258: The other 4 are local gauges and are not connected to BMS.

ADDITIONAL EXHAUST FAN INFORMATION:

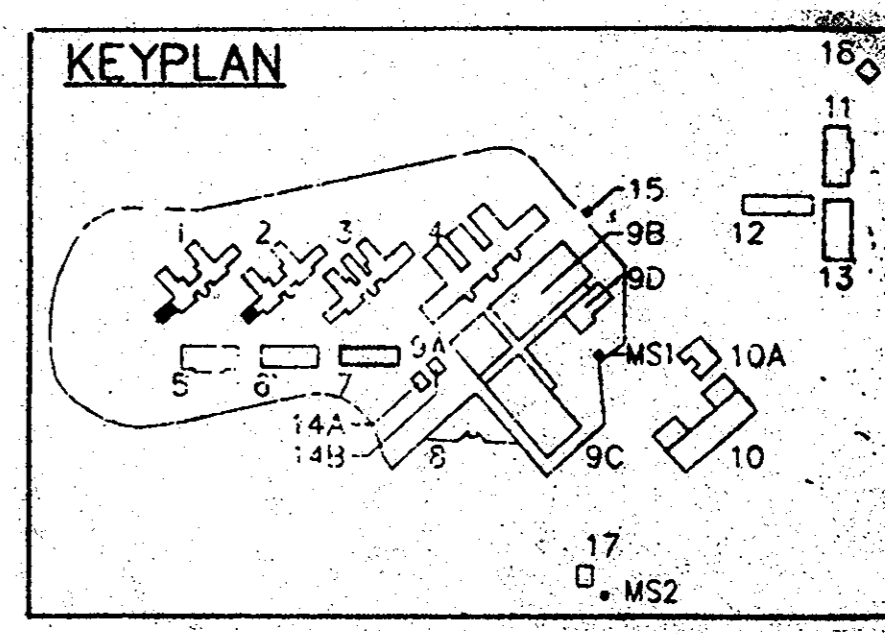
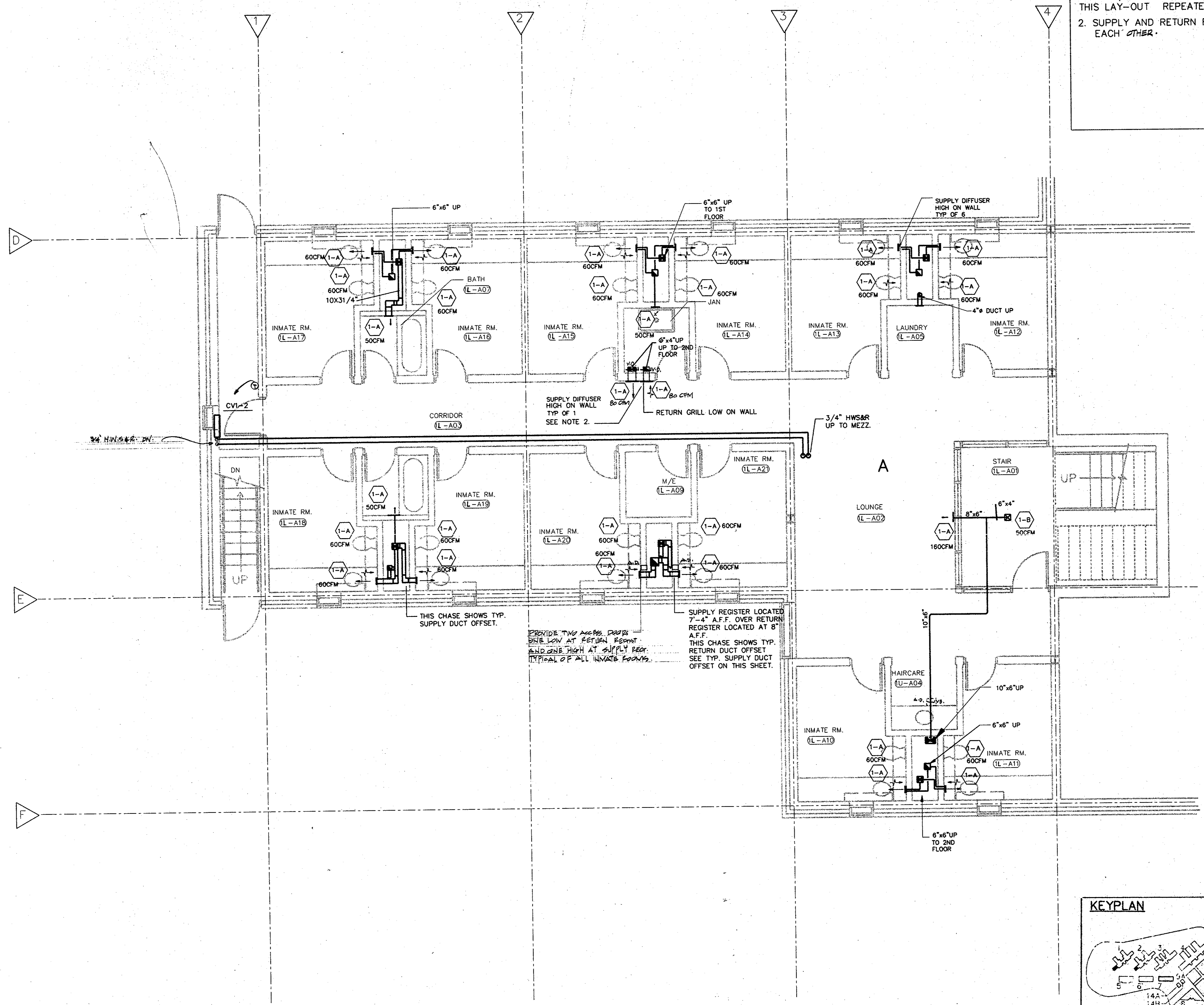
EF1-6, 6A, 7, 9,10A, 10B, 10C, 10D,	EXHAUST FAN - STATUS - DIFFERENTIAL PRESSURE SWITCH (TYP. 8)	AHU1-1 ---- EF-10A (LOC.ATED COLUMN. 1-0.5) AHU1-2 ---- EF1-9 (LOCATED NEAR AHU-2)	8				DI	F/I NEW SWITCH	STATUS - ON/OFF
EF1-6, 6A, 7, 9,10A, 10B, 10C, 10D,	EXHAUST FAN - START / STOP - CT (TYP. 8)	AHU1-3 ---- EF1-10C (LOCATED AT COLUMN 9.5a AHU1-4 ---- EF1-10D (LOCATED AT COLUMN 13-0,5)		8			DO	F/I CURRENT TRANSDUCER - HAWKEYE	CONTROL
EF1-6, 6A, 7, 9,10A, 10B, 10C, 10D,	EXHAUST FAN DAMPER ACTUATOR (TYP. 8)	AHU1-5 ---- EF1-10B (LOCATED T COLUMN 4.5A EF1-6 TOILETS A&B (LOCATED MECH MEZZ - COLUMN 3.5-E - NEAR AHU1-1 EF1-6A TOILETS C&D (LOCATED MECH MEZZ - COLUMN 10.5-E - NEAR AHU1-4 EF1-7 TOILETS				8	AO	F/I NEW ELECTRONIC DAMPER ACTUATOR / EXISTING DAMPER REMAINS	% OPEN
BUILDING 2									
EF2-6, 6A, 7, 9,10A, 10B, 10C, 10D,	EXHAUST FAN - STATUS - DIFFERENTIAL PRESSURE SWITCH (TYP. 8)	AHU2-1 ---- EF2-10A (LOC.ATED COLUMN. 1-0.5) AHU2-2 ---- EF2-9 (LOCATED NEAR AHU)	8				DI	F/I NEW SWITCH	STATUS - ON/OFF
EF2-6, 6A, 7, 9,10A, 10B, 10C, 10D,	EXHAUST FAN - START / STOP - CT (TYP. 8)	AHU2-3 ---- EF2-10C (LOCATED AT COLUMN 8.5a AHU2-4 ---- EF2-10D (LOCATED AT COLUMN 13-0,5)		8			DO	F/I CURRENT TRANSDUCER - HAWKEYE	CONTROL
EF2-6, 6A, 7, 9,10A, 10B, 10C, 10D,	EXHAUST FAN DAMPER ACTUATOR (TYP. 8)	AHU2-5 ---- EF2-10B (LOCATED T COLUMN 4.5A EF2-6 TOILETS A&B (LOCATED MECH MEZZ - COLUMN 3.5-E - NEAR AHU1-1) EF2-6A TOILETS C&D (LOCATED MECH MEZZ - COLUMN 10.5-E - NEAR AHU1-4) EF2-7 TOILETS				8	AO	F/I NEW ELECTRONIC DAMPER ACTUATOR / EXISTING DAMPER REMAINS	% OPEN
BUILDING 3									
EF3-6, 6A, 7, 9,10A, 10B, 10C, 10D,	EXHAUST FAN - STATUS - DIFFERENTIAL PRESSURE SWITCH (TYP. 8)	AHU3-1 ---- EF3-10A (LOC.ATED COLUMN. 1-E5) AHU3-2 ---- EF3-10A (LOCATED COLUMN 4.5-A7)	8				DI	F/I NEW SWITCH	STATUS - ON/OFF
EF3-6, 6A, 7, 9,10A, 10B, 10C, 10D,	EXHAUST FAN - START / STOP - CT (TYP. 8)	AHU3-3 ---- EF3-10C (LOCATED COLUMN 1.3-4.7 AHU3-4 ---- EF3-10D (LOCATED AT AHU3-4 AHU3-5 ---- EF1-11 (LOCATED T COLUMN 8H		8			DO	F/I CURRENT TRANSDUCER - HAWKEYE	CONTROL
EF3-6, 6A, 7, 9,10A, 10B, 10C, 10D,	EXHAUST FAN DAMPER ACTUATOR (TYP. 8)	EF3-6 TOILETS EF3-6A TOILETS EF3-7 TOILETS				8	AO	F/I NEW ELECTRONIC DAMPER ACTUATOR / EXISTING DAMPER REMAINS	% OPEN
BUILDING 4									
EF4-3, 7, 8	EXHAUST FAN - STATUS - DIFFERENTIAL PRESSURE SWITCH (TYP. 8)	AHU4-1 ----EF4-7 (LOC.ATED AT AHU)	3				DI	F/I NEW SWITCH	STATUS - ON/OFF
EF4-3, 7, 8	EXHAUST FAN - START / STOP - CT (TYP. 8)	AHU4-2 ----EF4-8 (LOCATED AT UNIT)		3			DO	F/I CURRENT TRANSDUCER - HAWKEYE	CONTROL
EF4-3, 7, 8	EXHAUST FAN DAMPER ACTUATOR (TYP. 8)	AHU4-3 ---- EF4-3 (LOCATED AT UNIT) NOTE - EF4-3 AND SF OF UNIT SERVED BY				3	AO	F/I NEW ELECTRONIC DAMPER ACTUATOR / EXISTING DAMPER REMAINS	% OPEN
	MANUAL EF FAN CONTROL PANEL LOCATED AT NURSES STATION (TYP. 6)	THIS SYSTEM WILL REMAIN IN PLACE. REPLACE PNEUMATIC OUTPUT FROM THE PANEL RELAY TO THE DAMPER ACTUATOR. REPLACE THE EXISTING PNEUMATIC ACTUATOR WITH AN ELECTRONIC ACTUATOR.							
	EF4-9 MANUAL CONTROL	ROOM 4-901	1	1	1				
	EF4-10 MANUAL CONTROL	ROOM 4-902	1	1	1			REPLACE THE EXISTING PNEUMATIC DAMPER ACTUATOR WITH A NEW ELECTRONIC ACTUATOR.	
	EF4-11 MANUAL CONTROL	ROOM 4-903	1	1	1				
	EF4-12 MANUAL CONTROL	ROOM 4-904	1	1	1			EXTEND WIRING FROM THE EXISTING RELAY TO NEW DAMPER.	
	EF4-13 MANUAL CONTROL	ROOM 4-905	1	1	1				
	EF4-14 MANUAL CONTROL	ROOM 4-906	1	1	1				
BUILDING 5									
EF5-1,2,4	EXHAUST FAN - STATUS - DIFFERENTIAL PRESSURE SWITCH (TYP. 8)	AHU5-1 ----EF5-1 (LOC.ATED AT AHU)	3				DI	F/I NEW SWITCH	STATUS - ON/OFF
EF5-1,2,4	EXHAUST FAN - START / STOP - CT (TYP. 8)	EF5-2 TOILETS		3			DO	F/I CURRENT TRANSDUCER - HAWKEYE	CONTROL
EF5-1,2,4	EXHAUST FAN DAMPER ACTUATOR (TYP. 8)	EF5-4 --- MECH ROOM 5-118 NOTE: AHU5-1 SF SERVED BY EXISTING VFD				3	AO	F/I NEW ELECTRONIC DAMPER ACTUATOR / EXISTING DAMPER REMAINS	% OPEN
BUILDING 6									
EF6-4	EXHAUST FAN - STATUS - DIFFERENTIAL PRESSURE SWITCH (TYP. 8)	AHU6-1 ---- EF6-4 MECH MEZZ	3				DI	F/I NEW SWITCH	STATUS - ON/OFF
	EXHAUST FAN - START / STOP - CT (TYP. 8)	NOTE: AHU6-1 SF AND EF6-4 SERVED BY EXISTING VFD.		3			DO	F/I CURRENT TRANSDUCER - HAWKEYE	CONTROL

Section 50 80 00 Additional Information

Subsection 50 80 00.6 Excerpted Drawings from BI-JA-217C, dated 10/28/91

NOTES:

1. SEE DRAWING M1-1 FOR OVERALL FLOOR PLAN WHERE THIS LAY-OUT REPEATED.
2. SUPPLY AND RETURN REGISTERS ARE LOCATED DIRECTLY ABOVE EACH OTHER.

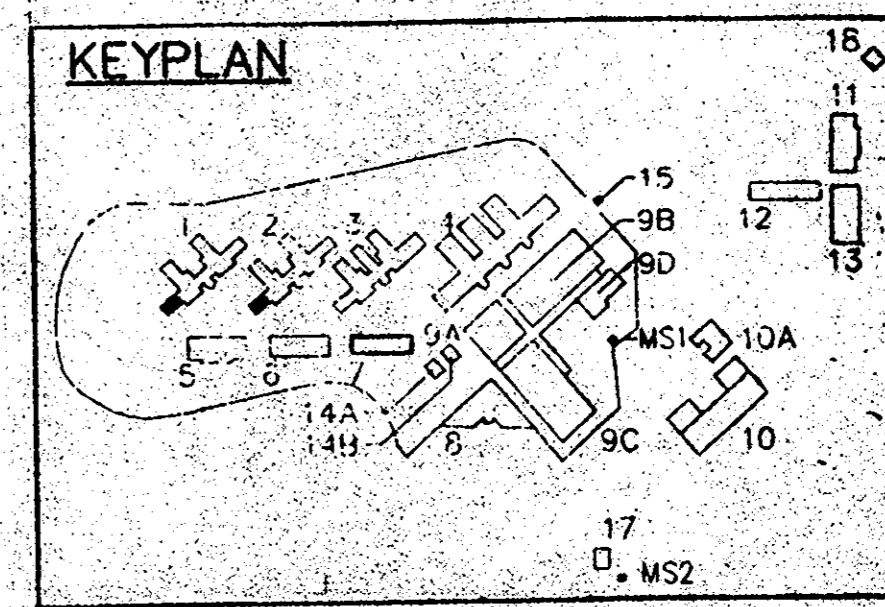
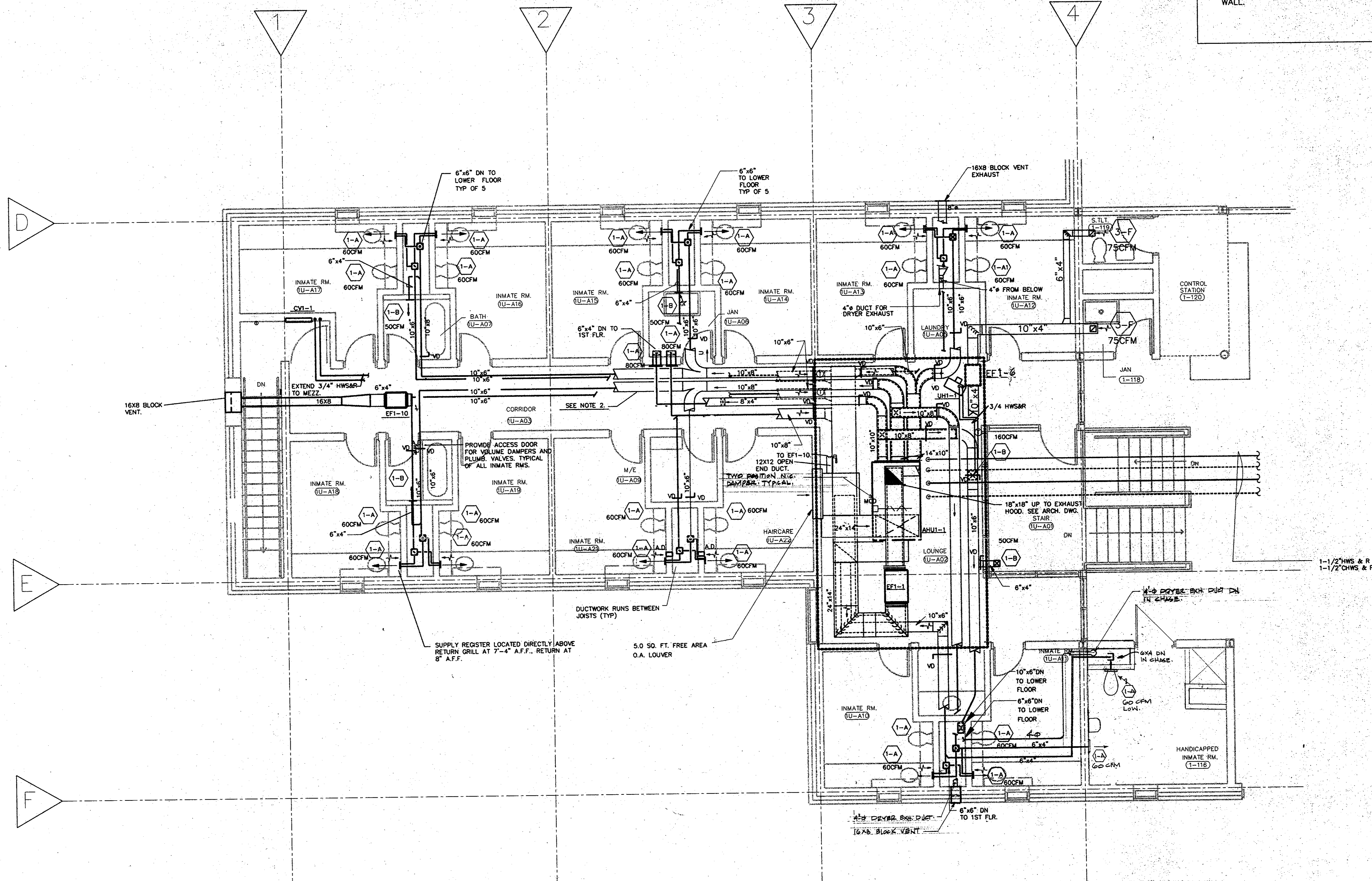


1 GENERAL HOUSING LOWER PARTIAL MECHANICAL FLOOR PLAN

drawing title: BLDG #1 & #2 GENERAL HOUSING LOWER LEVEL PARTIAL FLOOR PLAN		STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS	
REVISIONS			
mark	date	description	DRAWING PREPARED BY: Henningson, Durham & Richardson, Inc. Maguire Group Inc. New Britain, Connecticut
			DATE: SEP. 28, 1957 SCALE: 1/4"=1'-0" DRAWN BY: R.L. APPROVED BY: R.L.M. DRAWING NO.: M1-2A PROJECT NO.: BI-JA-217C

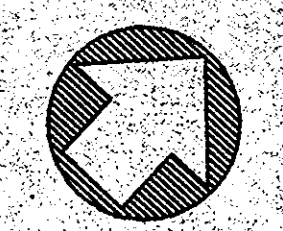
NOTES:

- SEE DRAWING M1-2 FOR OVERALL FLOOR PLAN WHERE THIS LAYOUT IS REPEATED.
- DUCTWORK IN THIS AREA SHALL BE RACKED AGAINST CORRIDOR WALLS, DUCTWORK SHOWN FOR QUANTITY AND SIZE CLARIFICATION. RUN ALL PIPING AGAINST WALL.



1 GENERAL HOUSING UPPER PART MECHANICAL FLOOR PLAN

1/4"=1'-0"

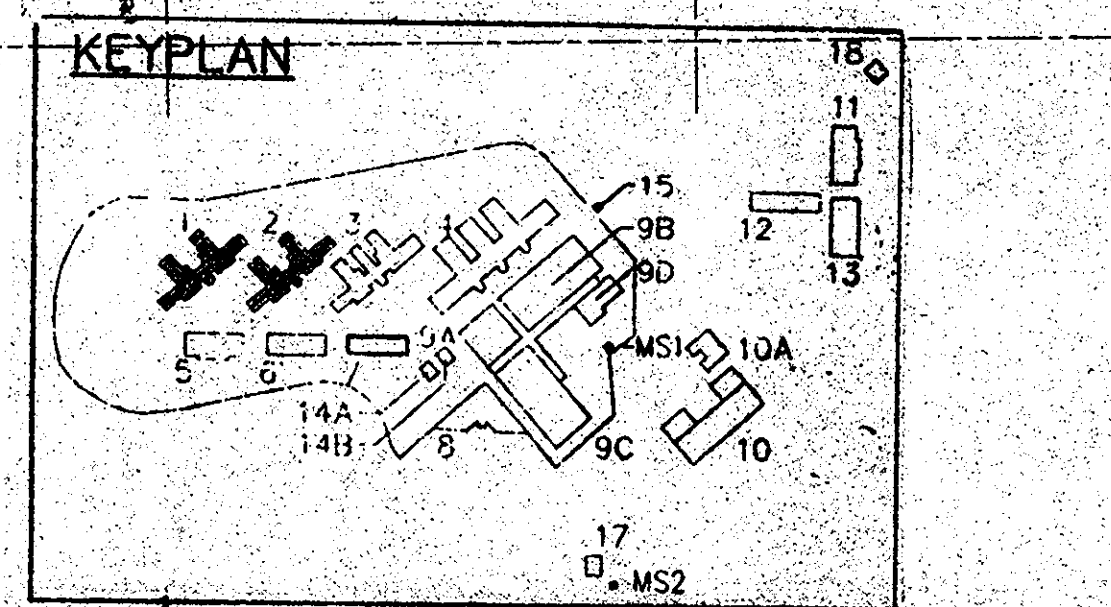
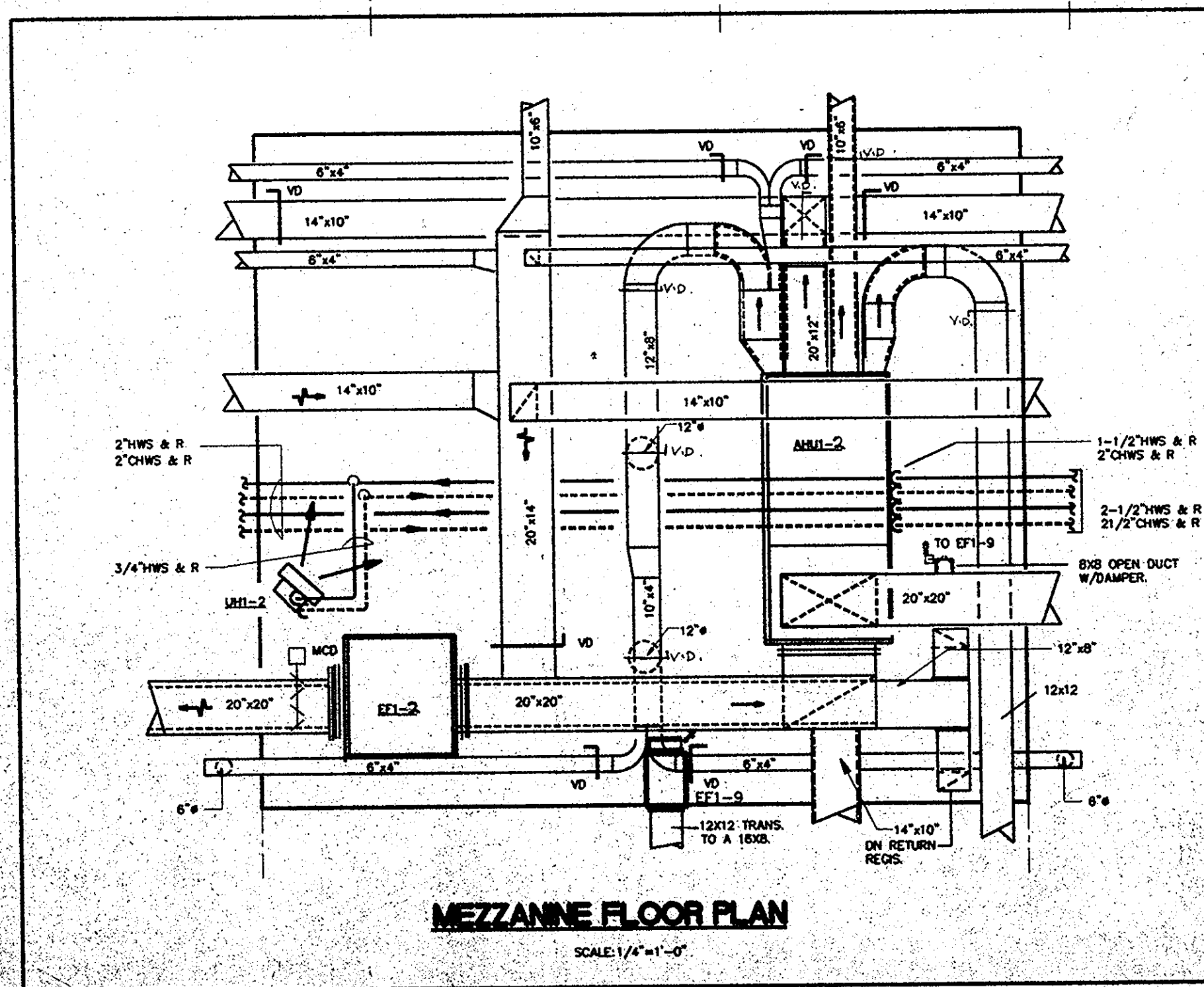
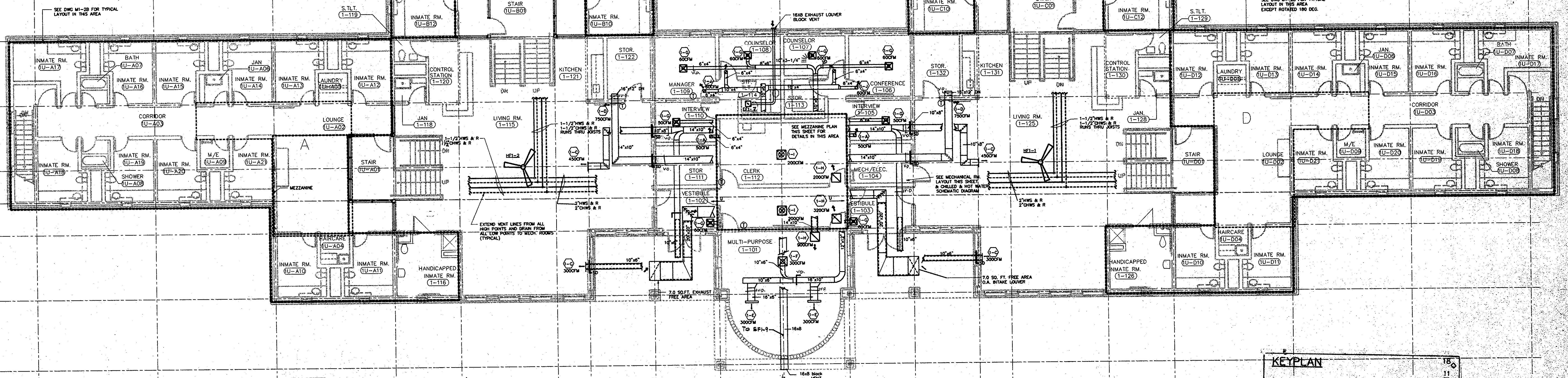
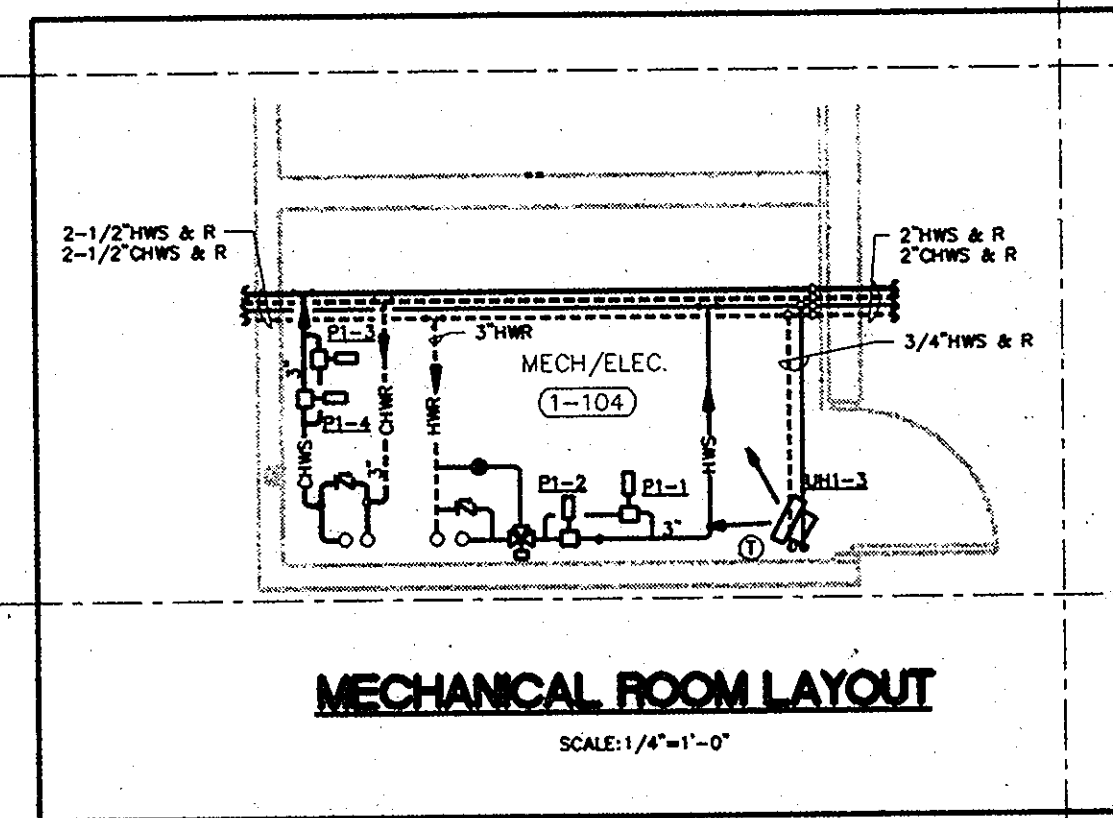
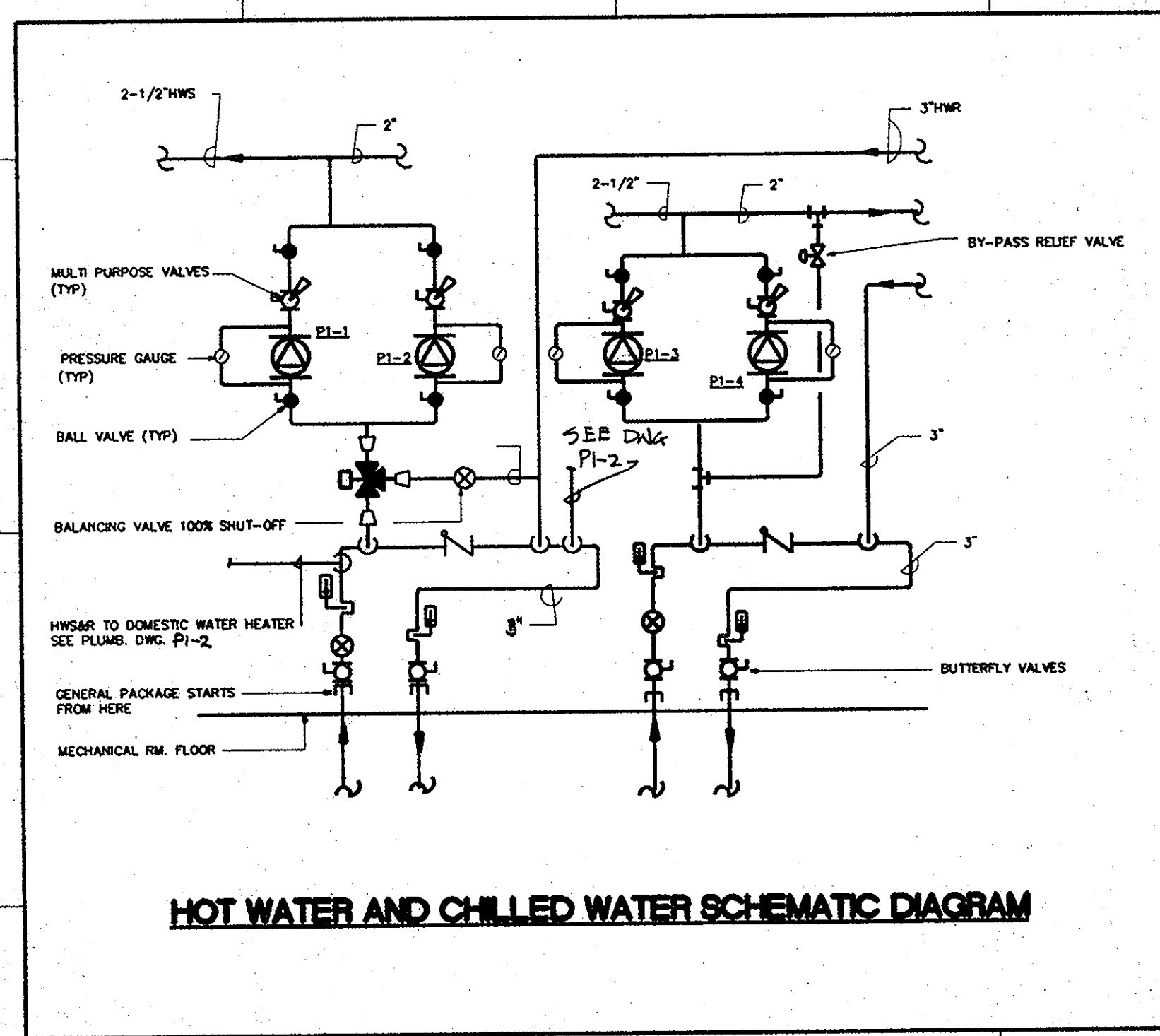


REVISIONS		DESIGNED BY		DATE	
mark	date	description	Herrington, Durham & Richardson, Inc.	DATE	2-28-1958
			Maguire Group, Inc.	SCALE	1/4"=1'-0"
				DRAWN BY	R.L.
				APPROVED BY	A.M.
				CHECKED BY	
				PROJECT NO.	BI-JA-217C



**STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC WORKS**

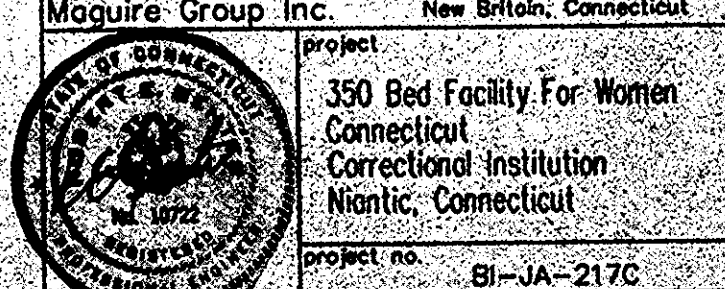
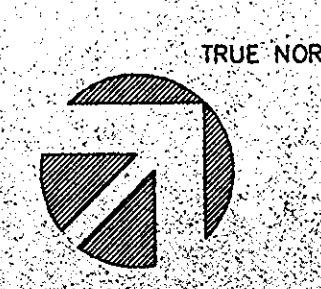
350-Bed Facility For Women
Connecticut
Correctional Institution
Norfolk, Connecticut

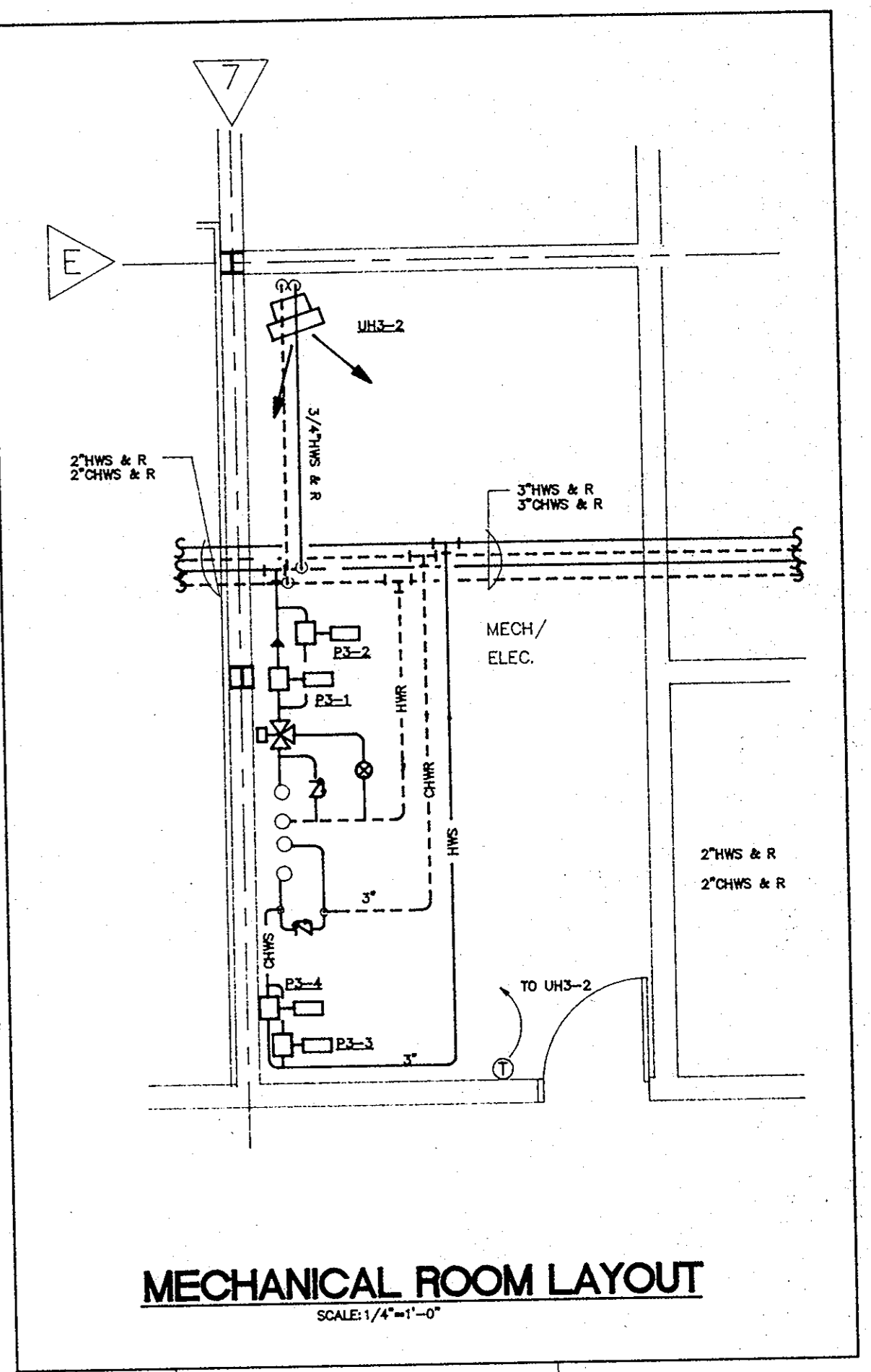
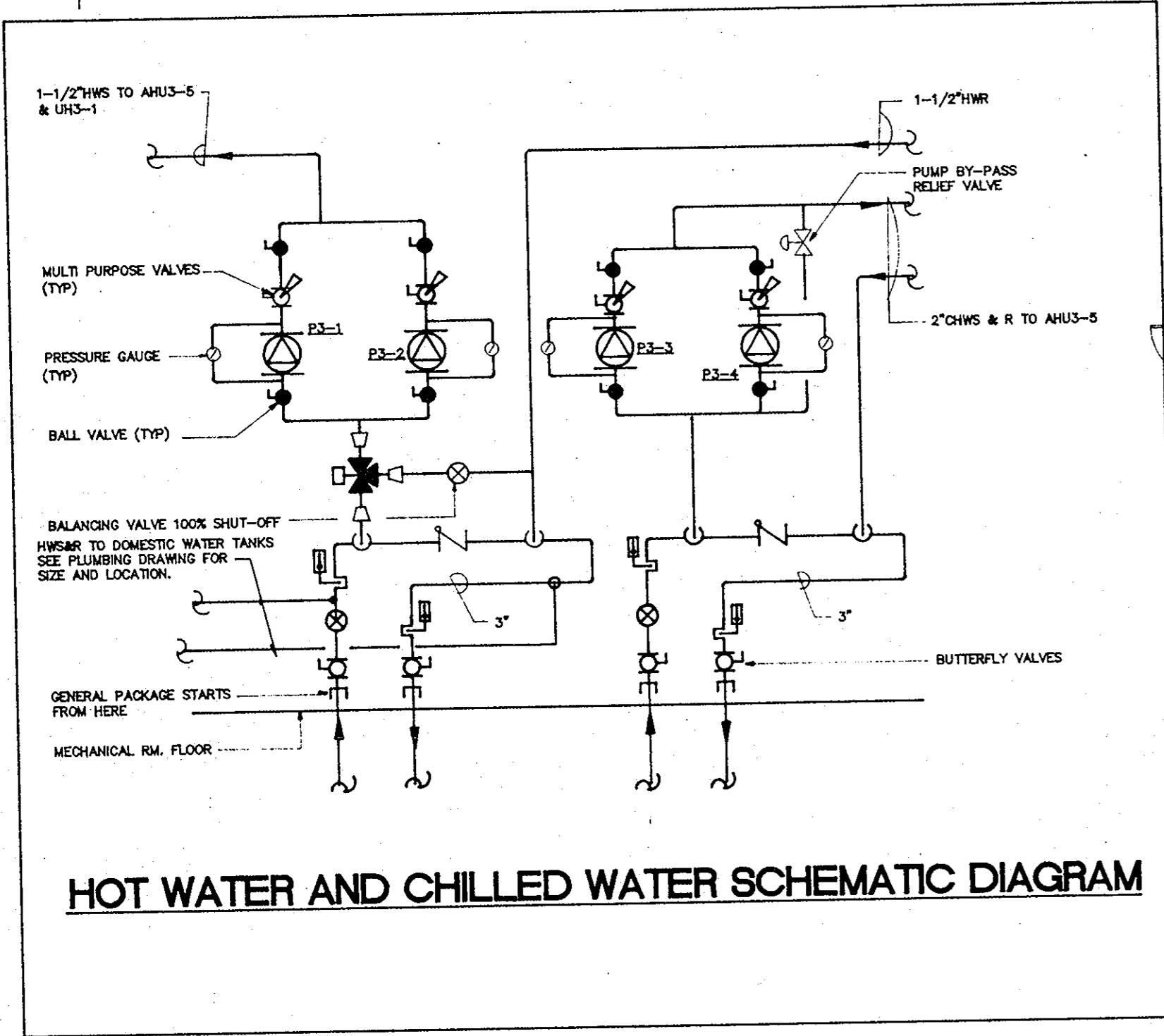
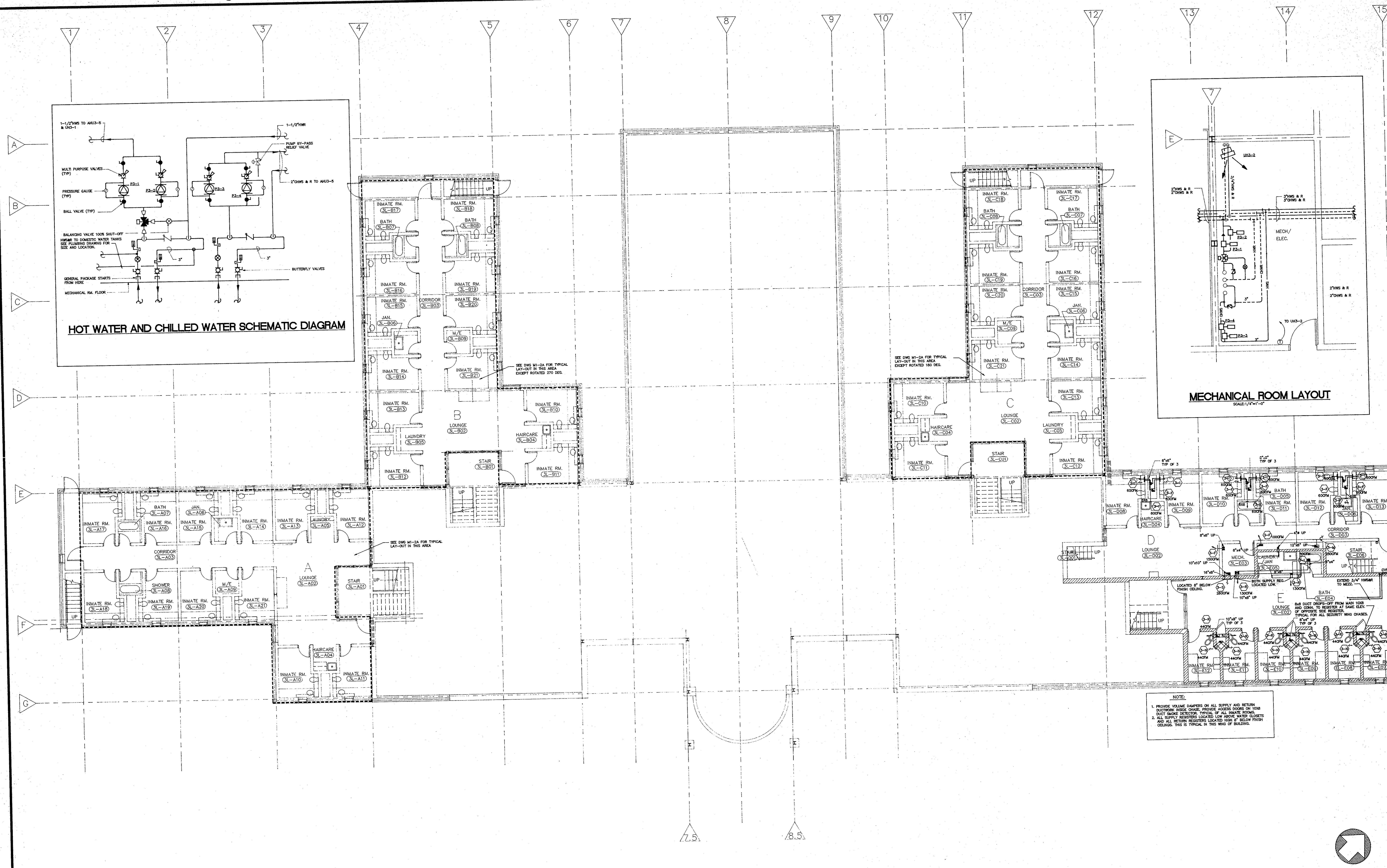


1 GENERAL HOUSING MECHANICAL UPPER LEVEL PLAN (TYPICAL OF BUILDINGS #1 AND #2)

- GENERAL NOTES:**
- AHU-2 SHALL SIT ON A 4" CONC. CURB.
 - ALL INLINE PUMPS SHALL BE MOUNTED ON WALLS.
 - PROVIDE 2" HIGH CONC. CURB AROUND ALL FLOOR PENETRATIONS.
 - ALL DUCTWORK EXPOSED TO OUTDOOR SHALL HAVE 2" INSIDE LINER.

DRAWING TITLE		PROJECT		DATE	
BLDG. #1 & #2		350 Bed Facility For Women		2/21/89	
GENERAL HOUSING		Correctional Institution		1/24/89	
UPPER LEVEL MECHANICAL FLOOR PLAN		Niantic, Connecticut		1/24/89	
REVISIONS					
mark	date	description			
DRAWING PREPARED BY: Henningson, Durham & Richardson, Inc.					
PROJECT: 350 Bed Facility For Women Correctional Institution Niantic, Connecticut					
PROJECT NO. 81-JA-2176					

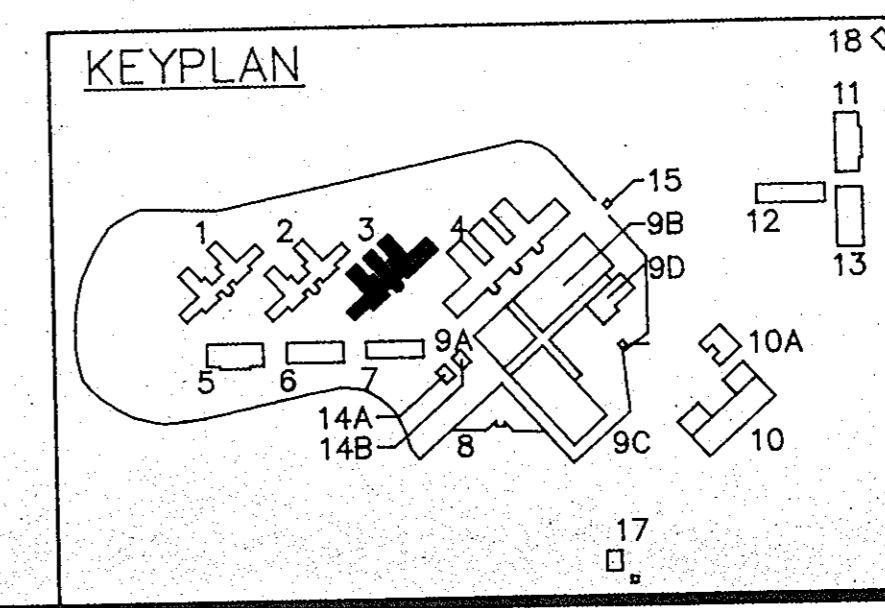




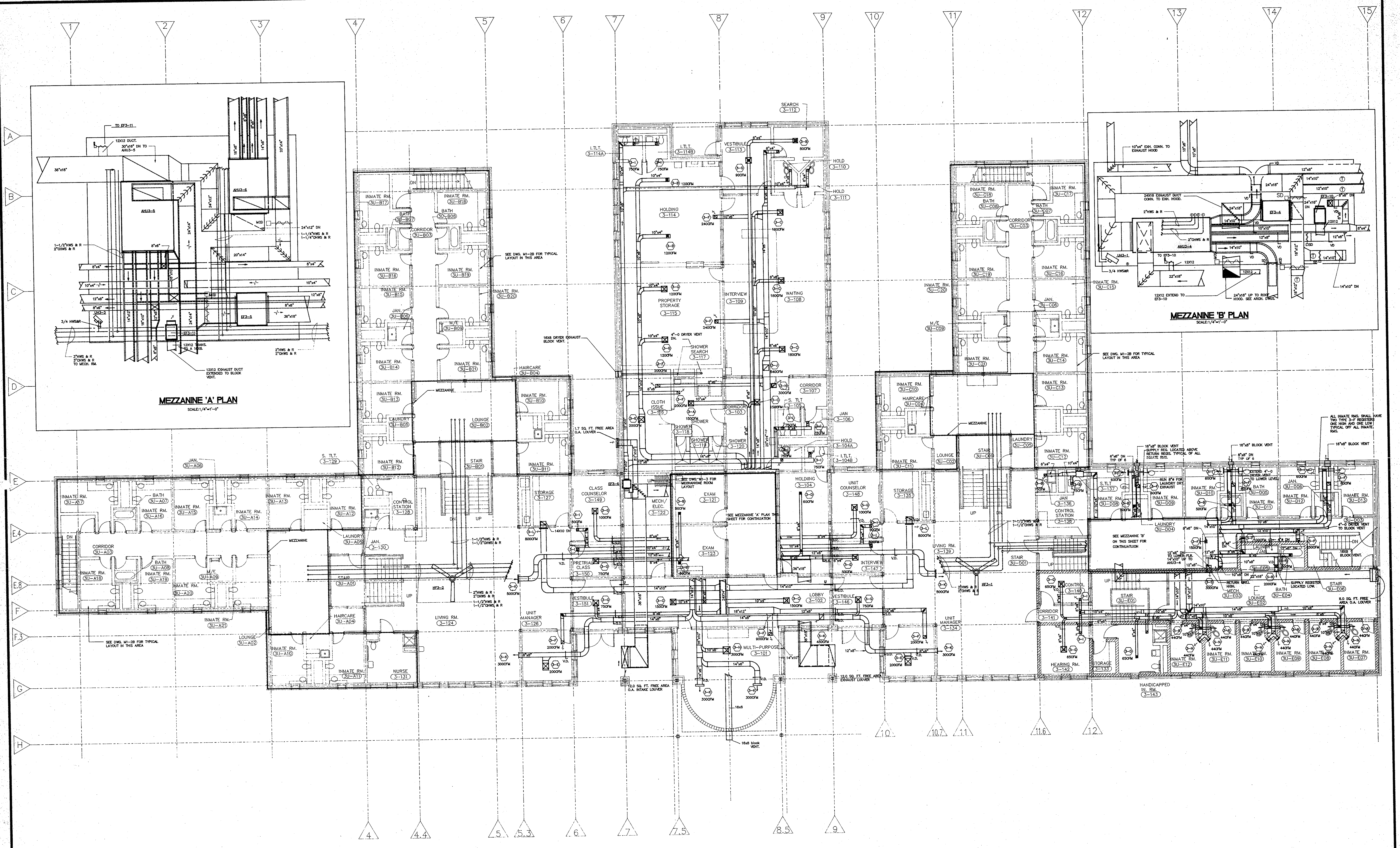
NOTE:
 1. PROVIDE VOLUME DAMPERS ON ALL SUPPLY AND RETURN OUTDOOR INTAKE CHASES. PROVIDE ACCESS DOORS ON 100% DUCTWORK INSIDE CHASES. TYPICAL OF ALL INMATE ROOMS.
 2. ALL SUPPLY REGISTERS LOCATED LOW ABOVE WATER ELEVATIONS AND ALL RETURN REGISTERS LOCATED HIGH 8\"/>

3 SPECIAL HOUSING LOWER LEVEL MECHANICAL FLOOR PLAN

1/8"=1'-0"

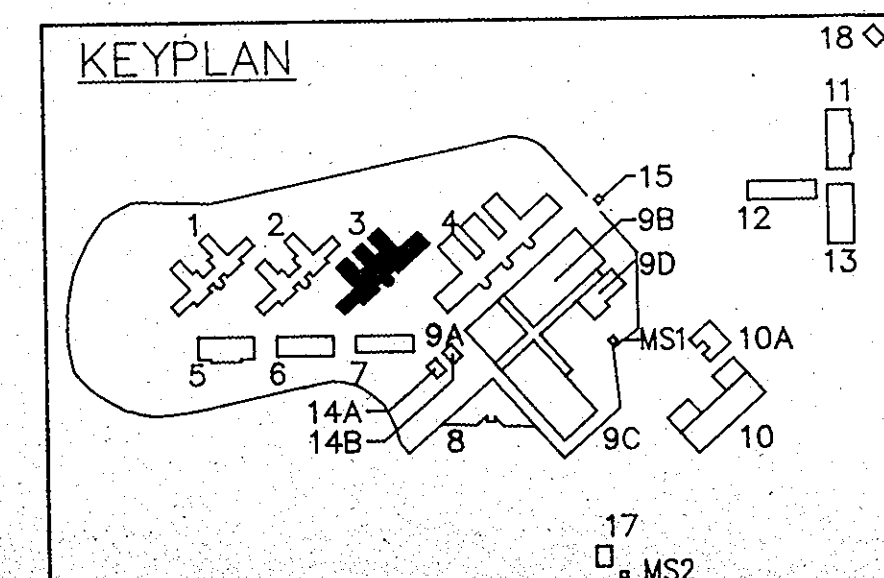
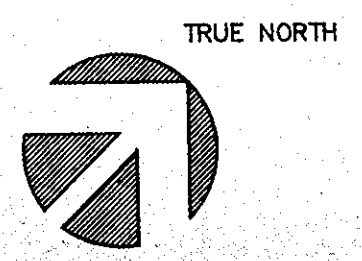


drawing title		BLDG #3 SPECIAL HOUSING LOWER LEVEL MECHANICAL FLOOR PLAN		STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS	
REVISIONS		DRAWINGS PREPARED BY Henningson, Durham, & Richardson, Inc. Maguire Group, Inc.		DATE OCT. 28, 1991	
mark	date	description		PROJECT 350 Bed Facility For Women Correctional Institution Niantic, Connecticut	
				DRAWN BY RL	
				CHECKED BY A.M.	
				APPROVED BY M-1	
				PROJECT NO. BL-JA-217C	



3 SPECIAL HOUSING-UPPER LEVEL MECHANICAL FLOOR PLAN

1/8"=1'-0"



REVISIONS		
mark	date	description

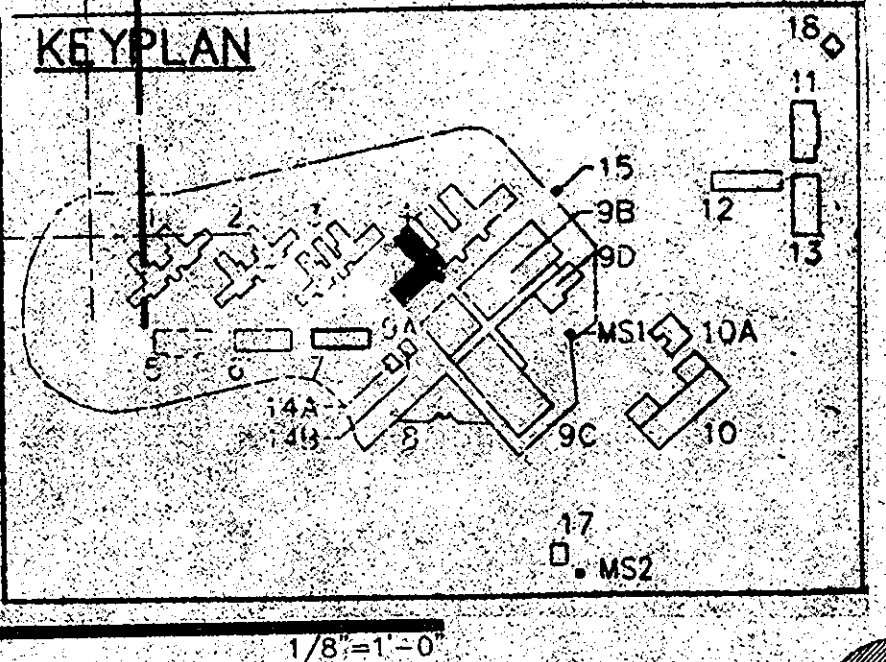
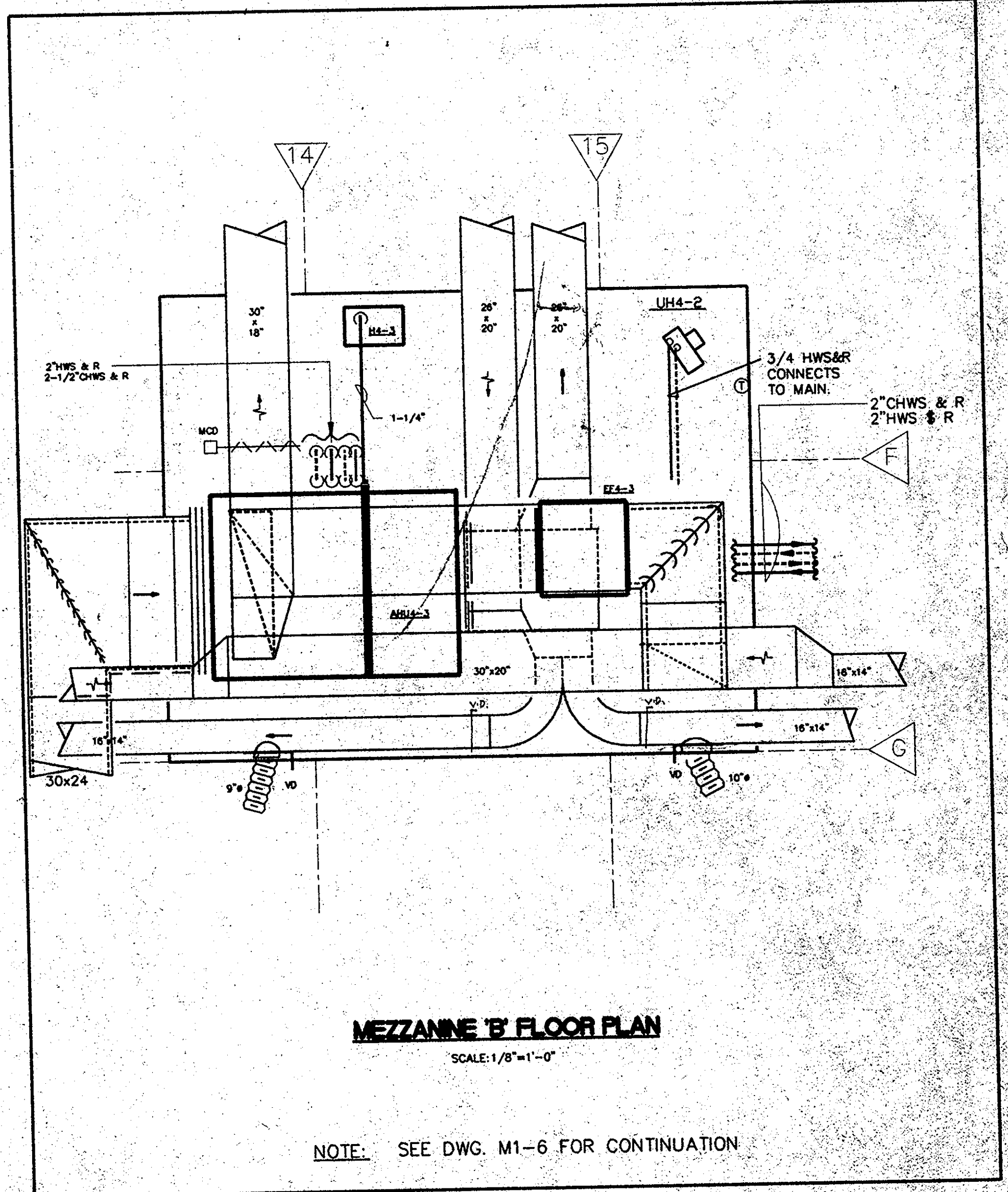
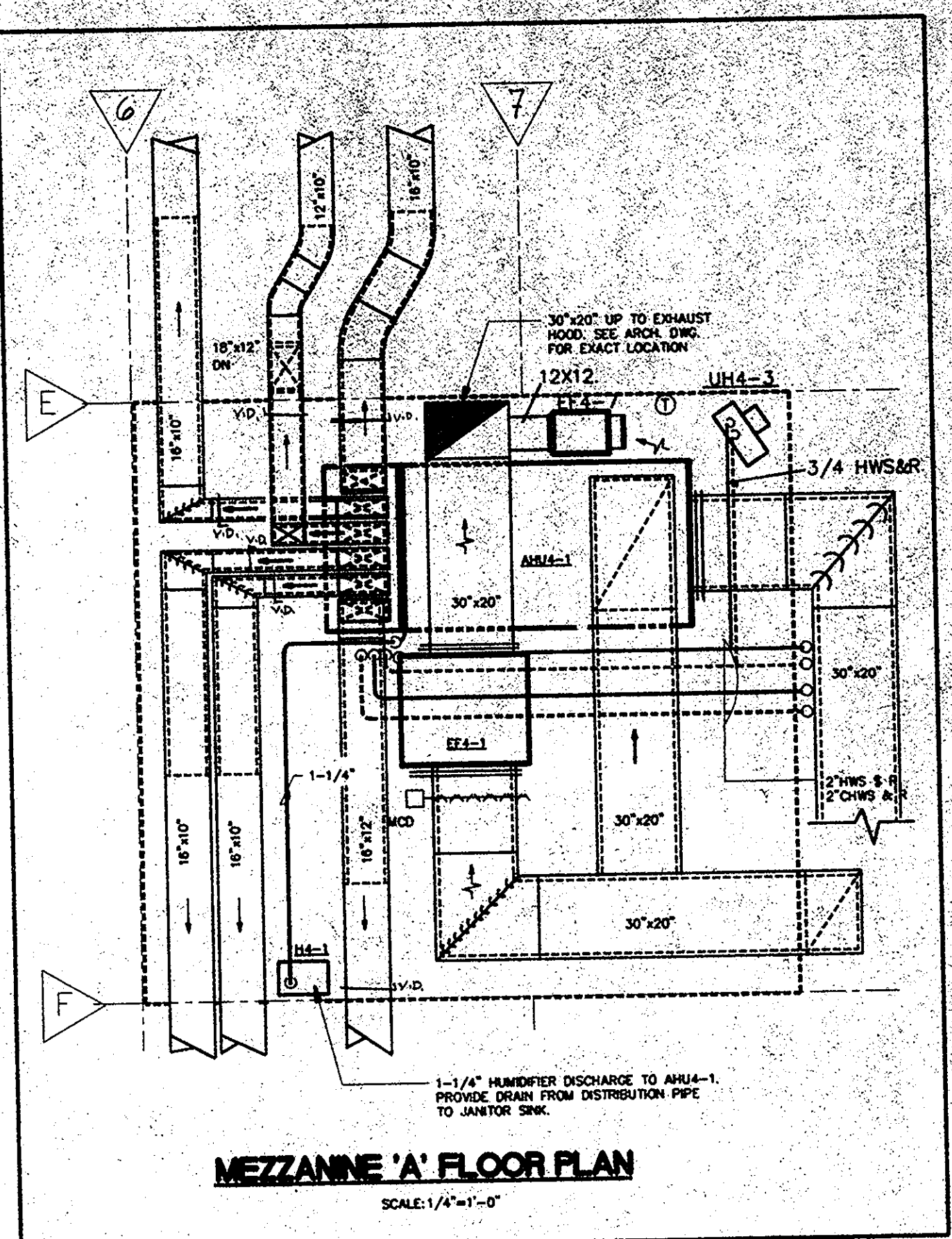
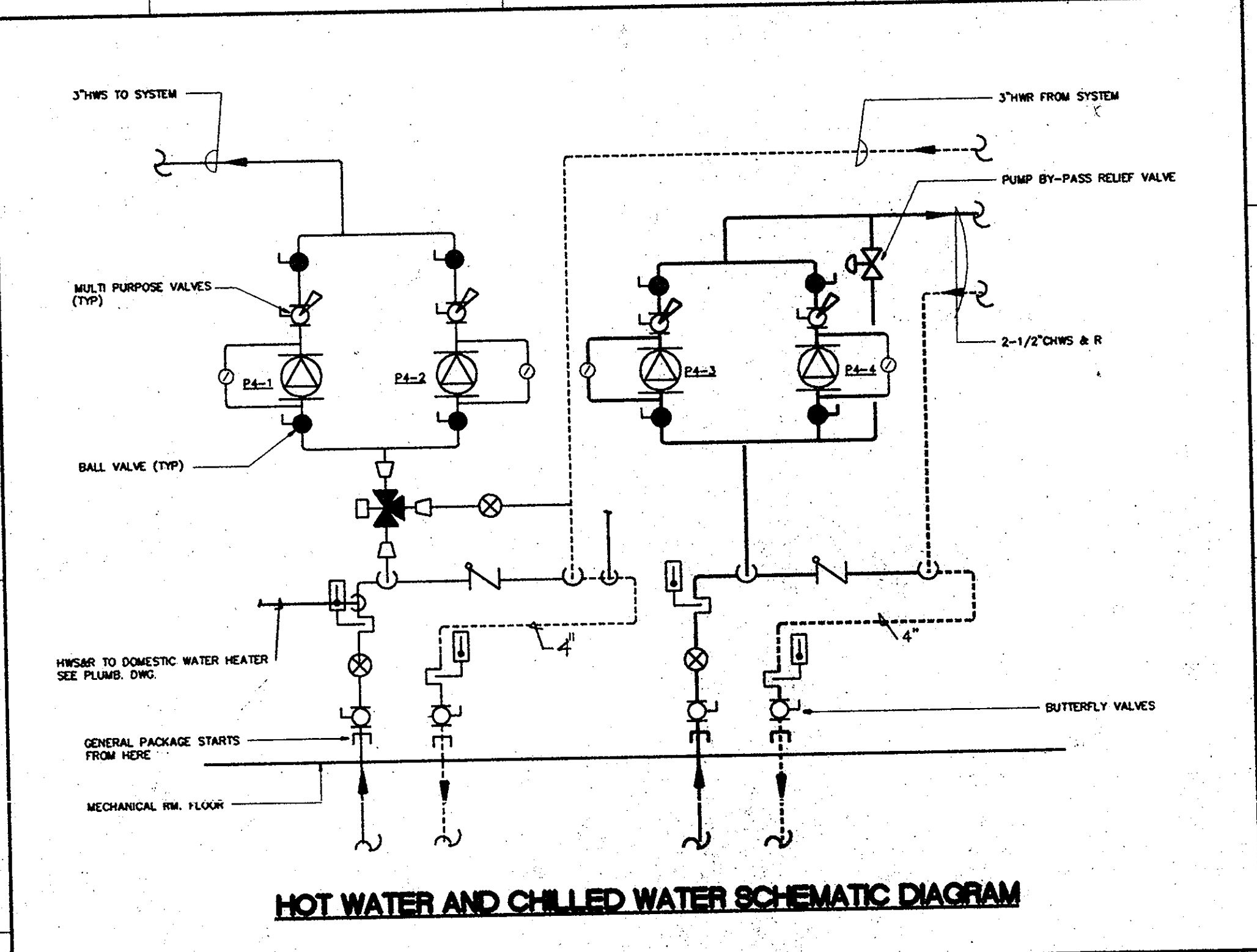
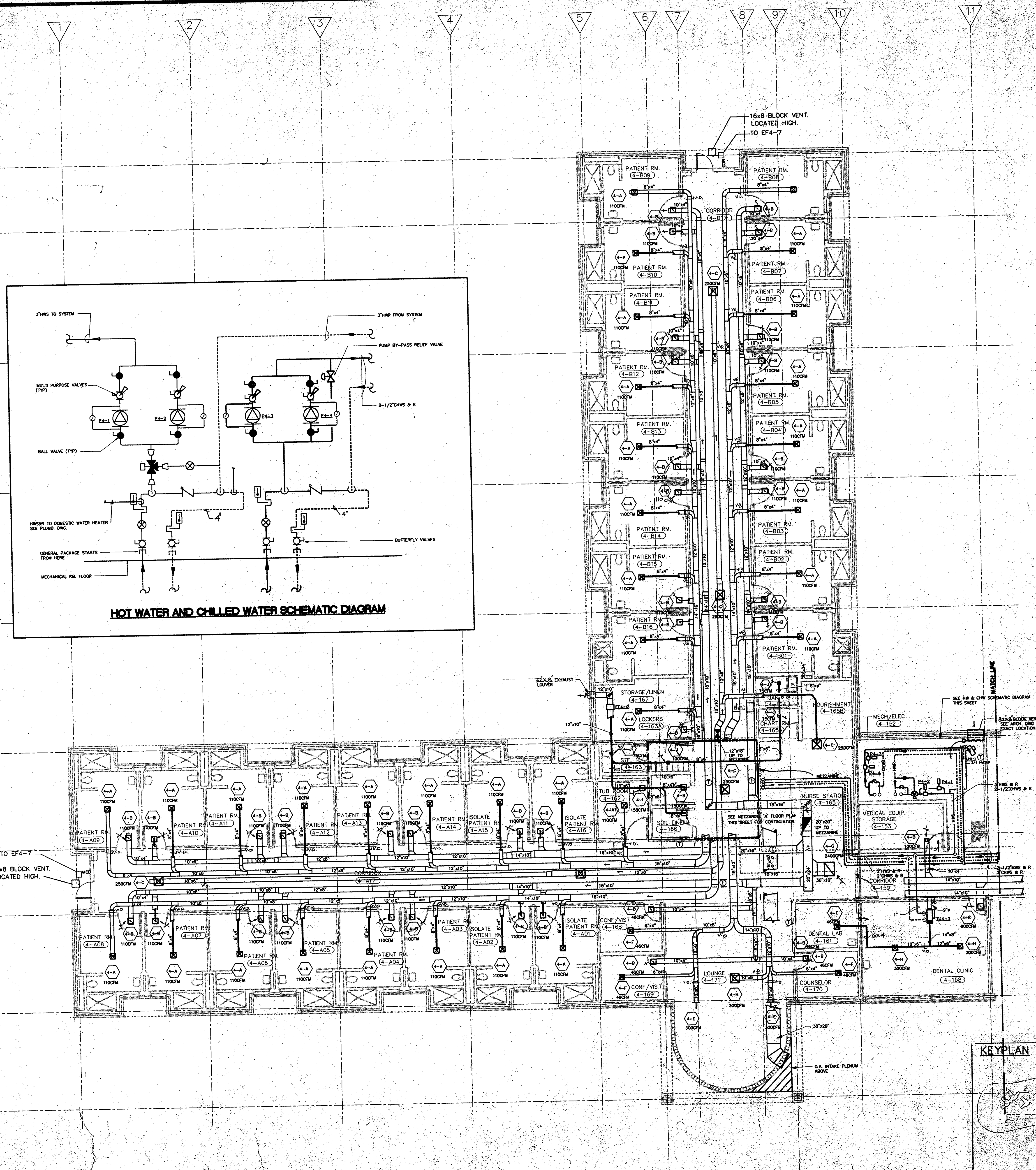
STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC WORKS

DRAWINGS PREPARED BY:
Herrington, Durham & Richardson, Inc.
New Britain, Connecticut

DATE: OCT. 28 1991
SCALE: 1/8"=1'-0"
DRAWN BY: R.L.
APPROVED BY: A.M.
DRAWING NO.: M1-4

PROJECT: 350 Bed Facility For Women
Connecticut Correctional Institution
Niantic, Connecticut

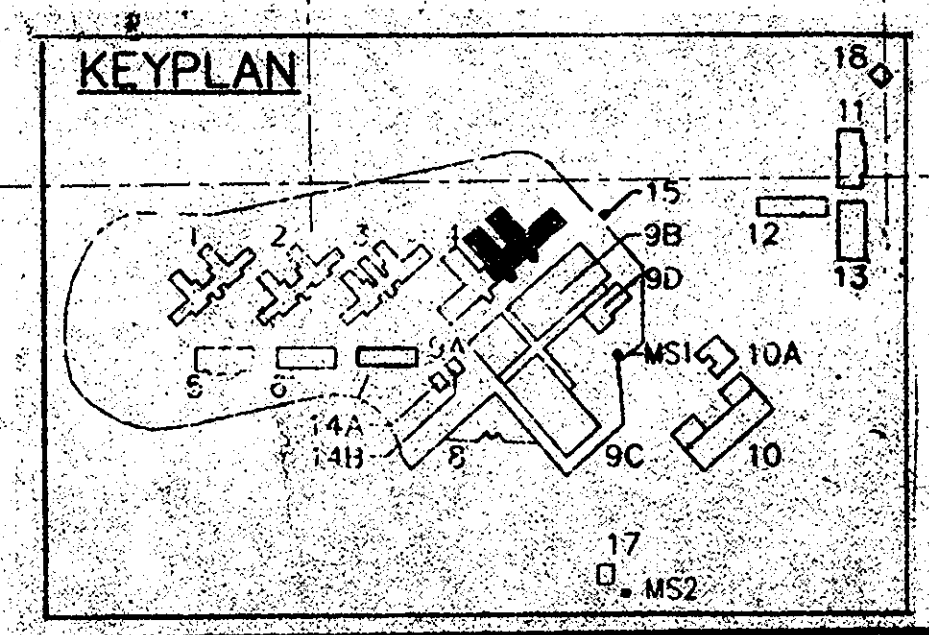
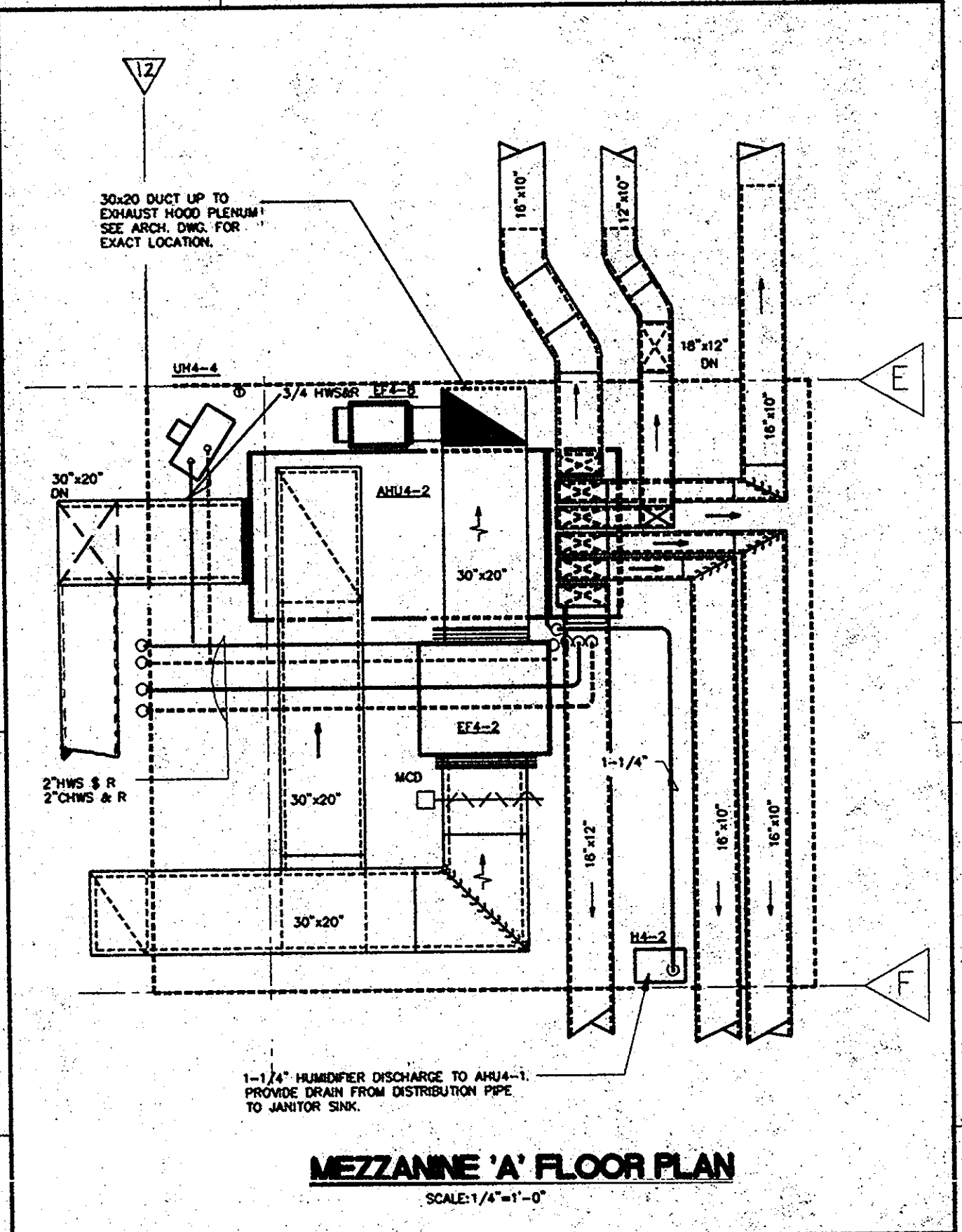
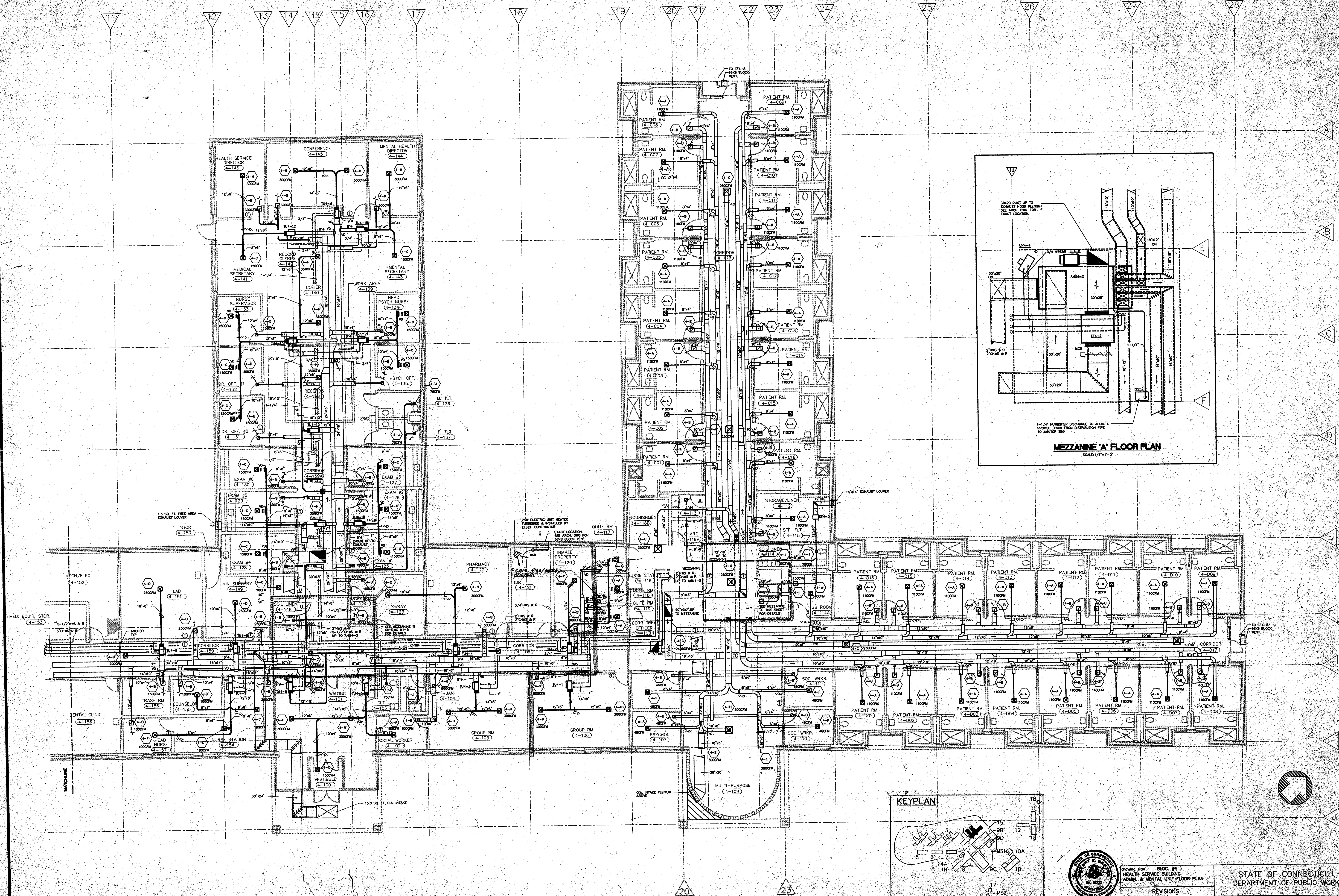
PROJECT NO.: BI-JA-217C



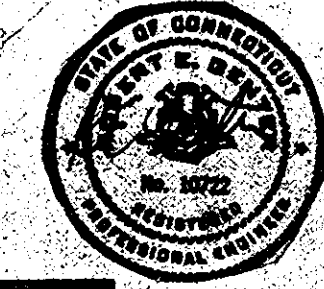
4 HEALTH SERVICES MECHANICAL FLOOR PLAN

REVISIONS			STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS	
mark	date	description	DESIGNED BY	DATE
			Henningson, Durham & Richardson, Inc.	05/28/1999
			Moquire Group Inc.	05/28/1999

DRAWING TITLE: BLDG. #6 HEALTH SERVICE BUILDING MEDICAL UNIT MECHANICAL FLOOR PLAN
 SCALE: 1/8"=1'-0"
 PROJECT: 350 Bed Facility For Women Correctional Institution, Meriden, Connecticut
 DRAWING NO.: M1-6
 SHEET NO.: BI-3A-217C

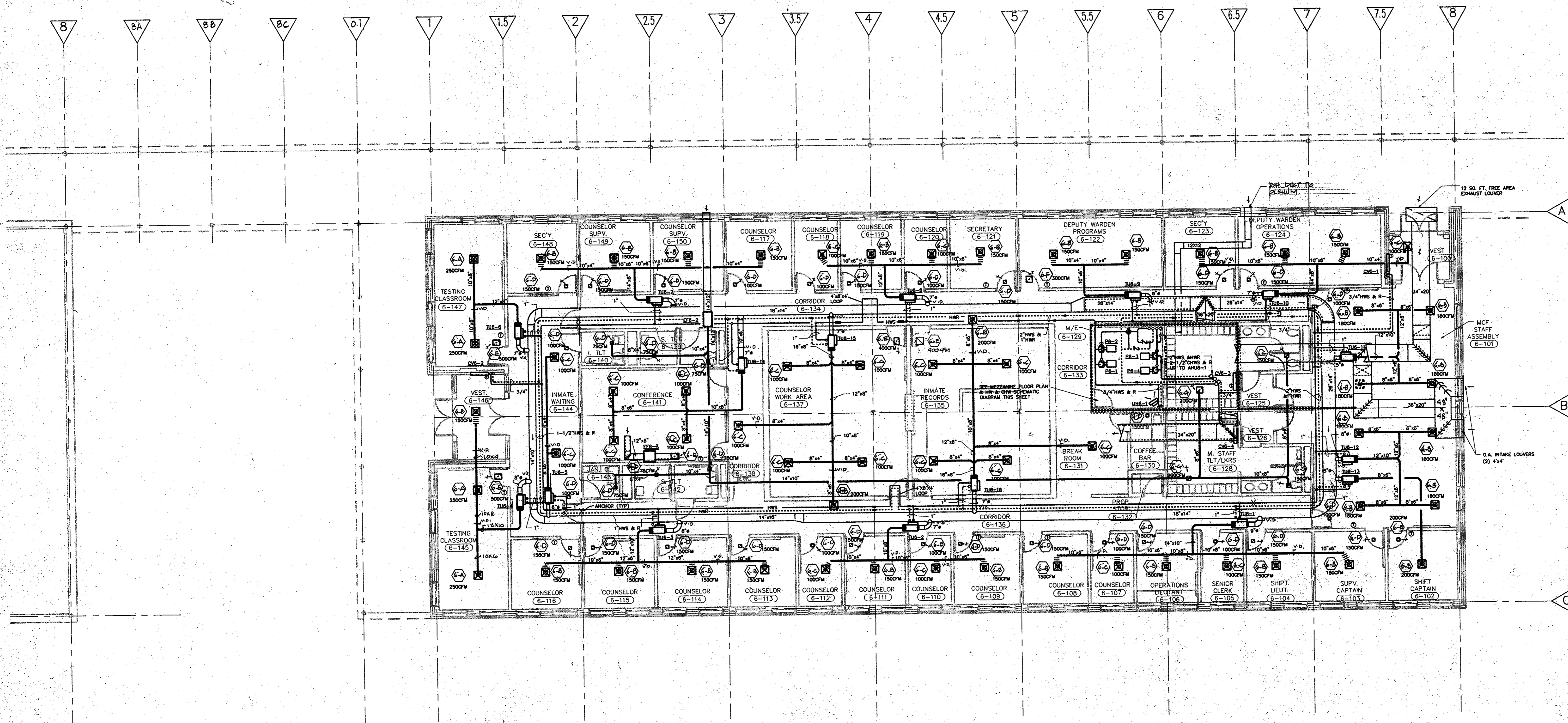


4 HEALTH SERVICE MECHANICAL FLOOR PLAN

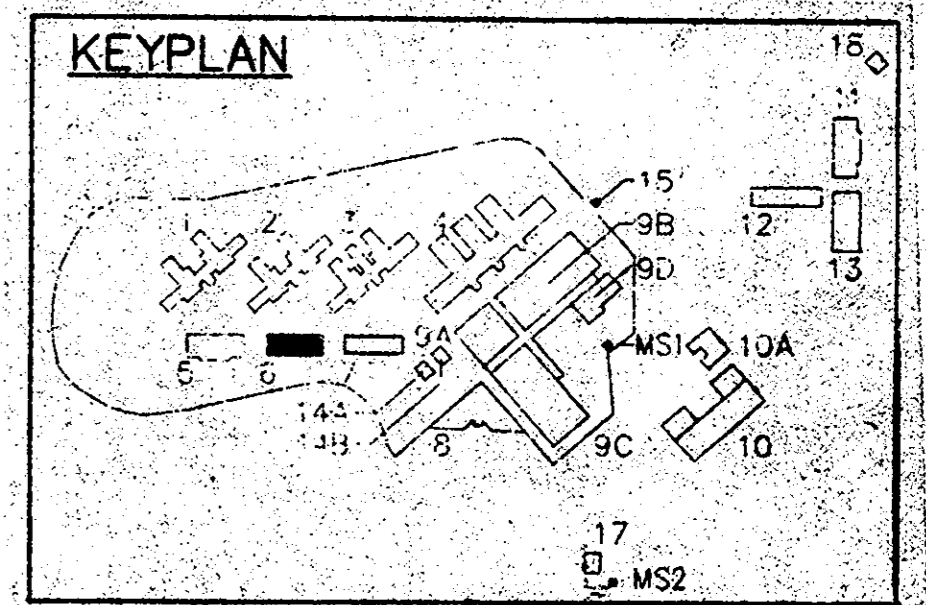
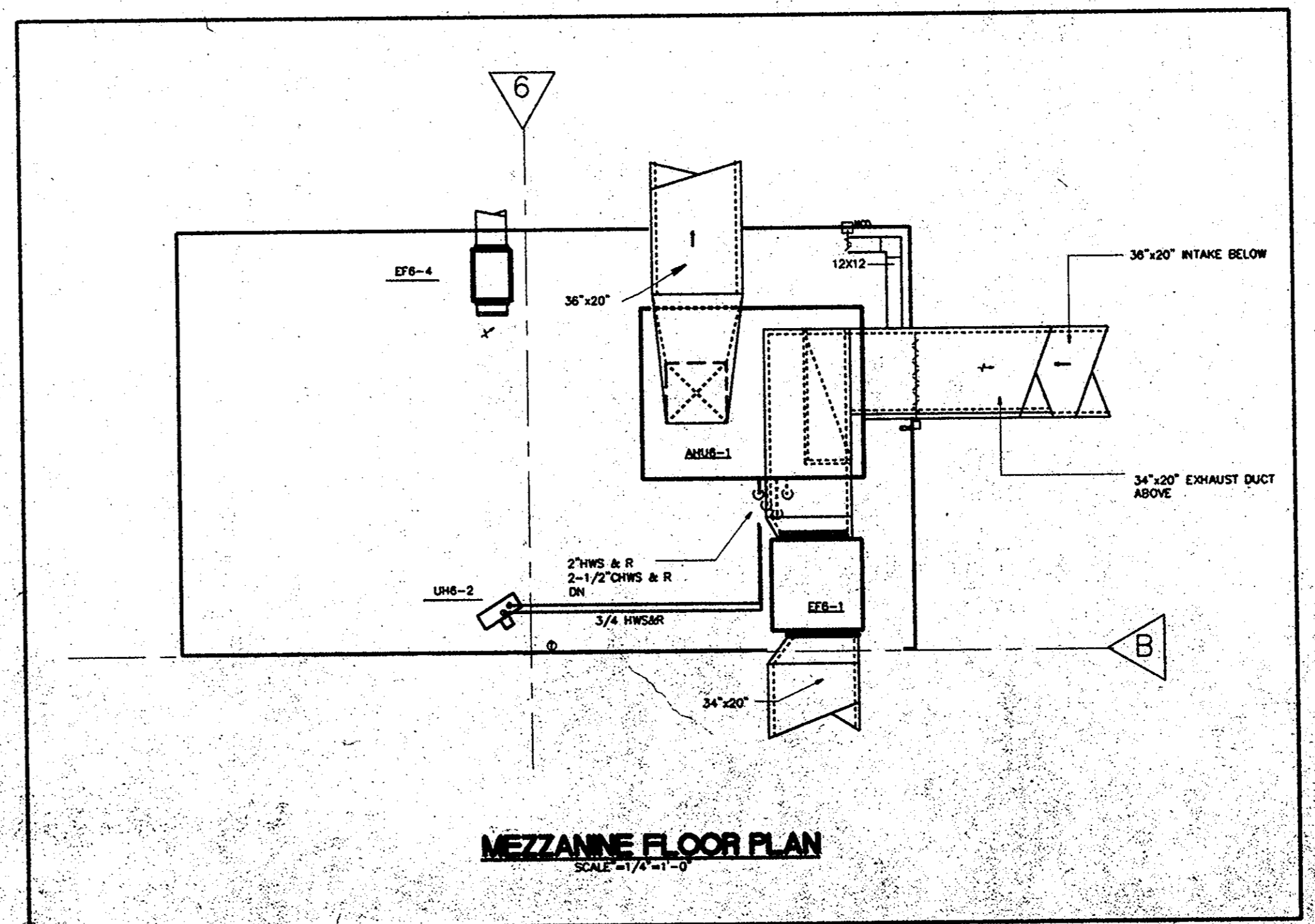
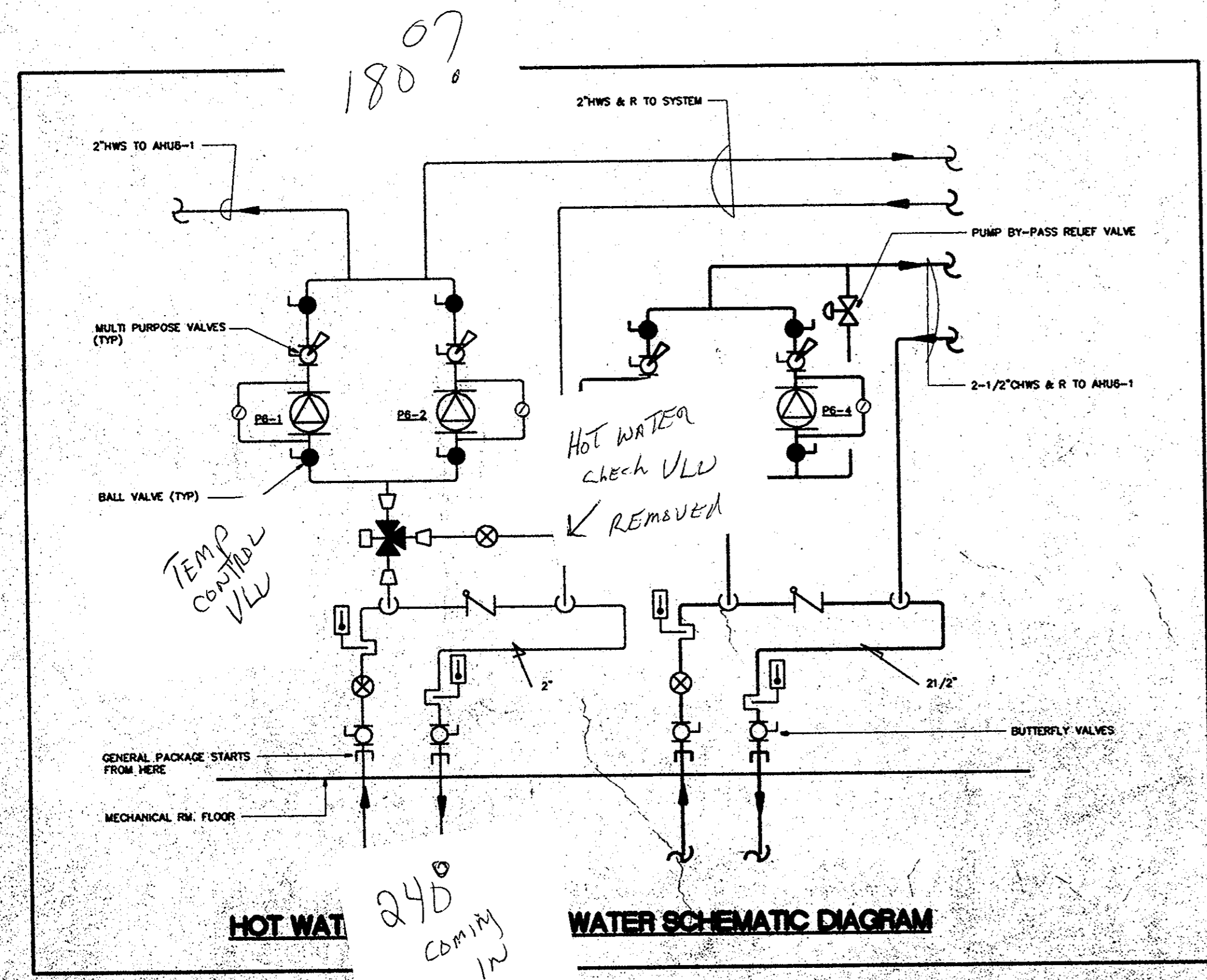


Drawing Title: BLDG. #4 HEALTH SERVICE BUILDING ADMIN. & MENTAL UNIT FLOOR PLAN
 State of Connecticut Department of Public Works
 Drawings prepared by: Harrington, Durham & Richardson, Inc. (Date: 1/8/78)
 Project: 350 Bed Facility For Women, Connecticut Correctional Institution, Naugatuck, Connecticut
 Drawing no.: M1-6
 Project no.: BI-JA-217C

REVISIONS		
Rev.	Date	Description

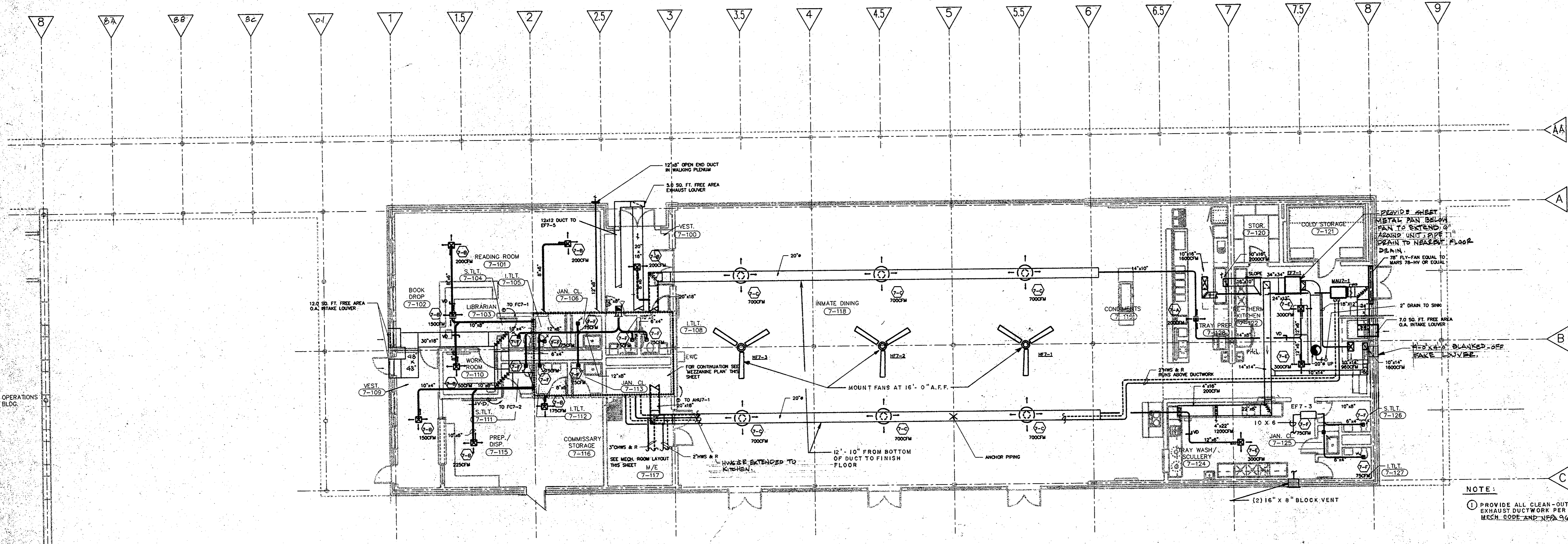


6 MCF OPERATIONS MECHANICAL FLOOR PLAN
SCALE: 1/8" = 1'-0"



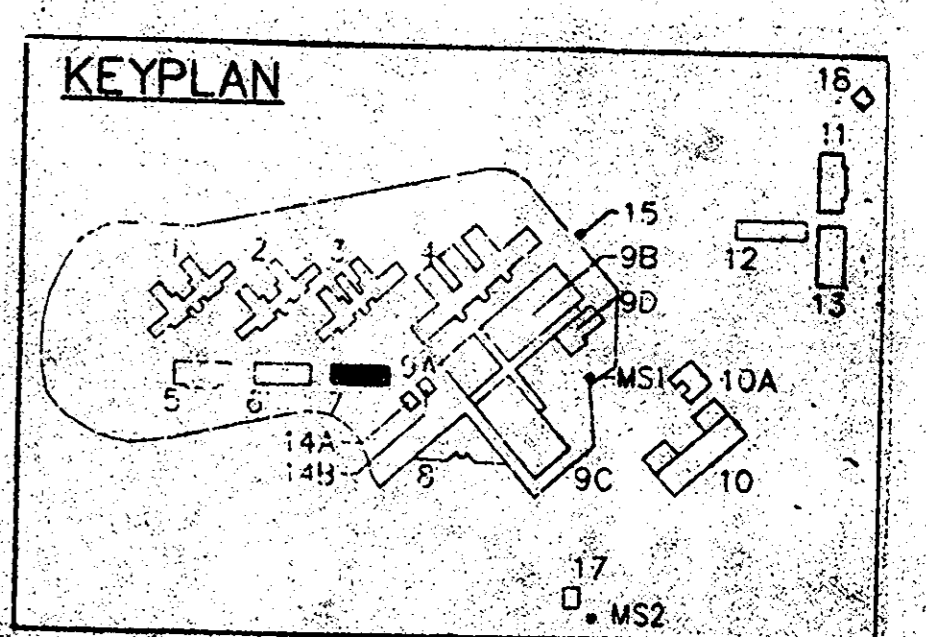
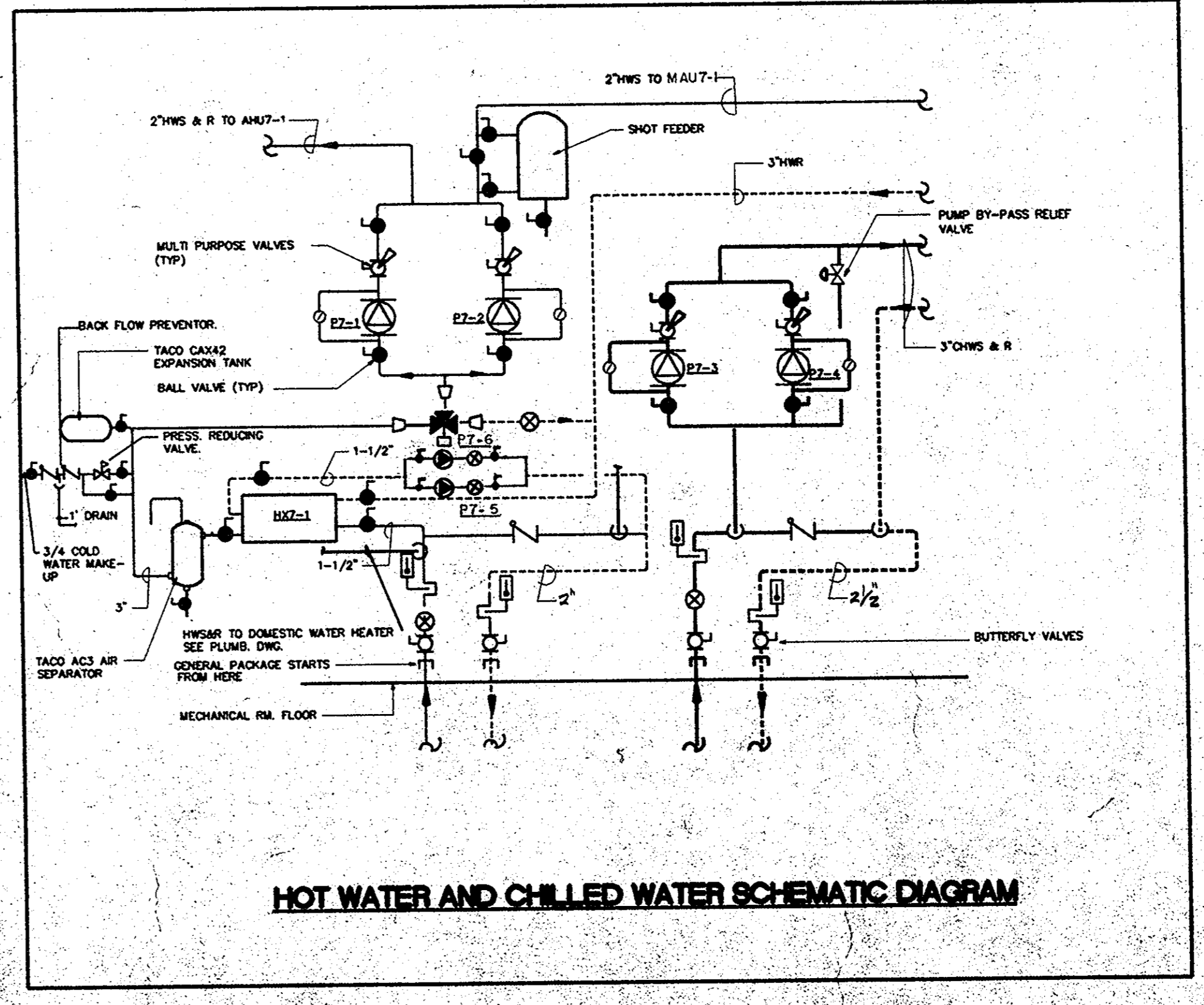
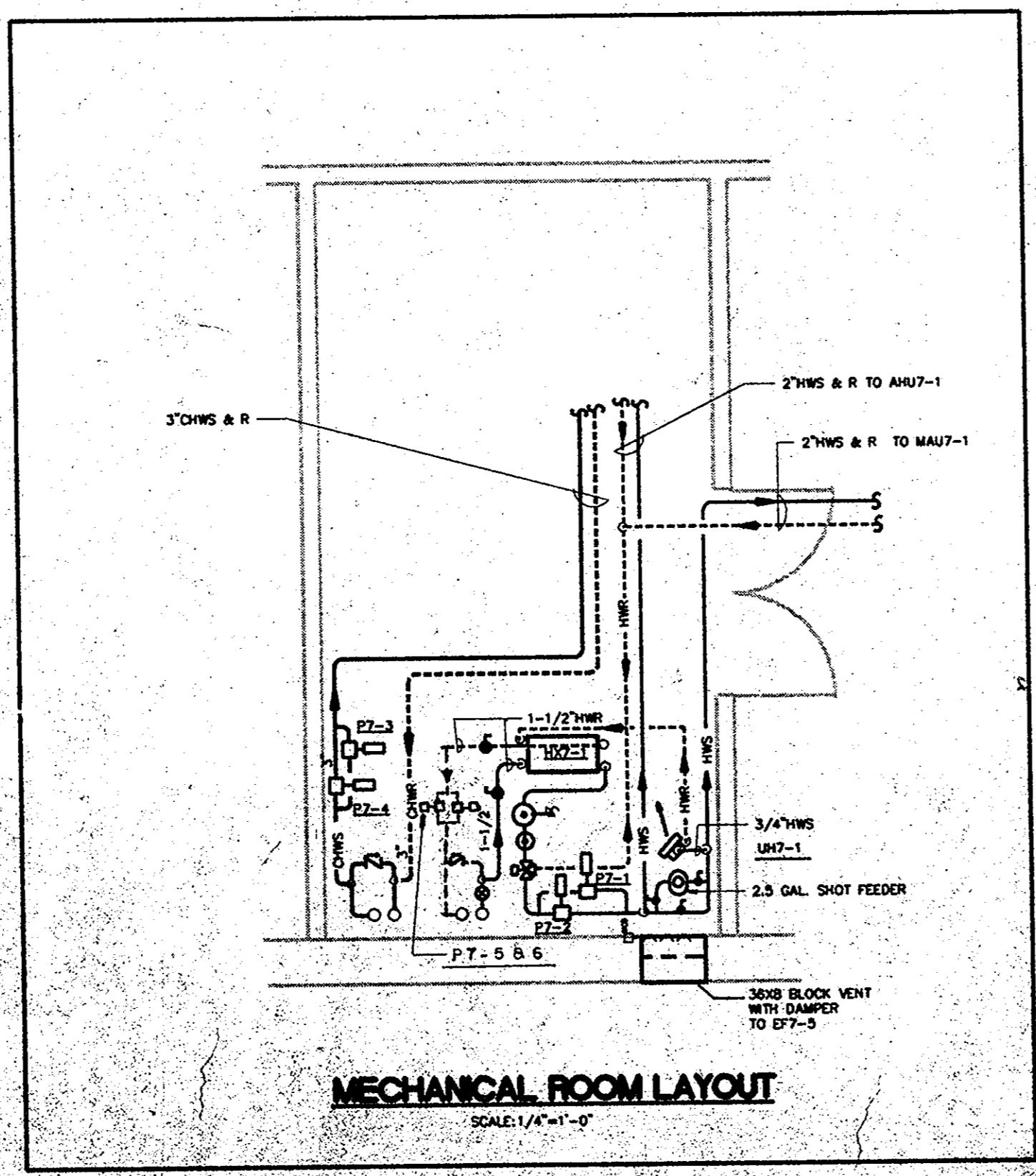
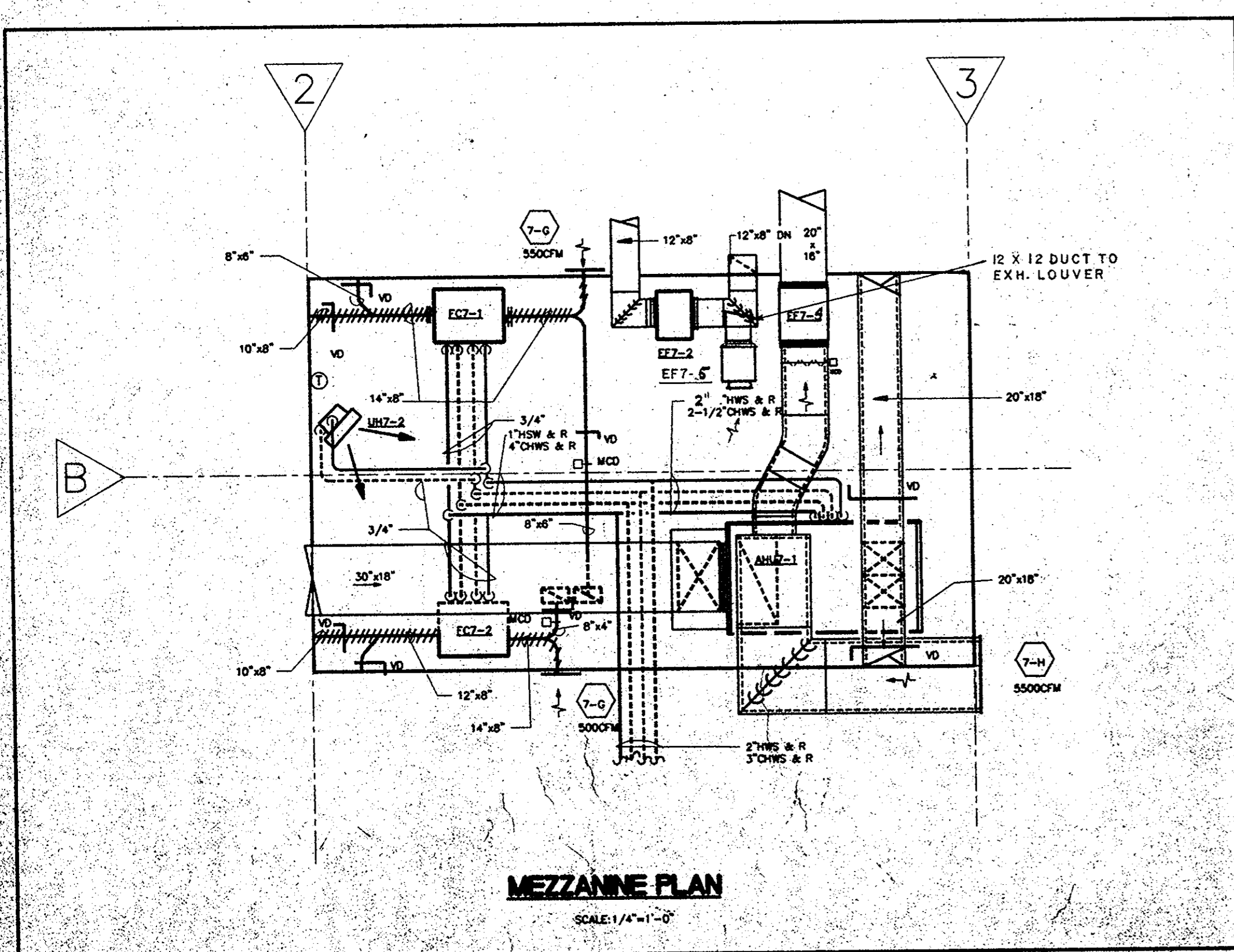
REVISIONS			STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS	
mark	date	description	drawings PREPARED BY Henningson, Durham & Richardson, Inc. Maguire Group Inc.	DATE 06/28/1991

project: 350 Bed Facility For Women
 Connecticut Correctional Institution
 Waterbury, Connecticut
 project no: BI-JA-217C
 scale: 1/8" = 1'-0"
 drawing no: M1-8

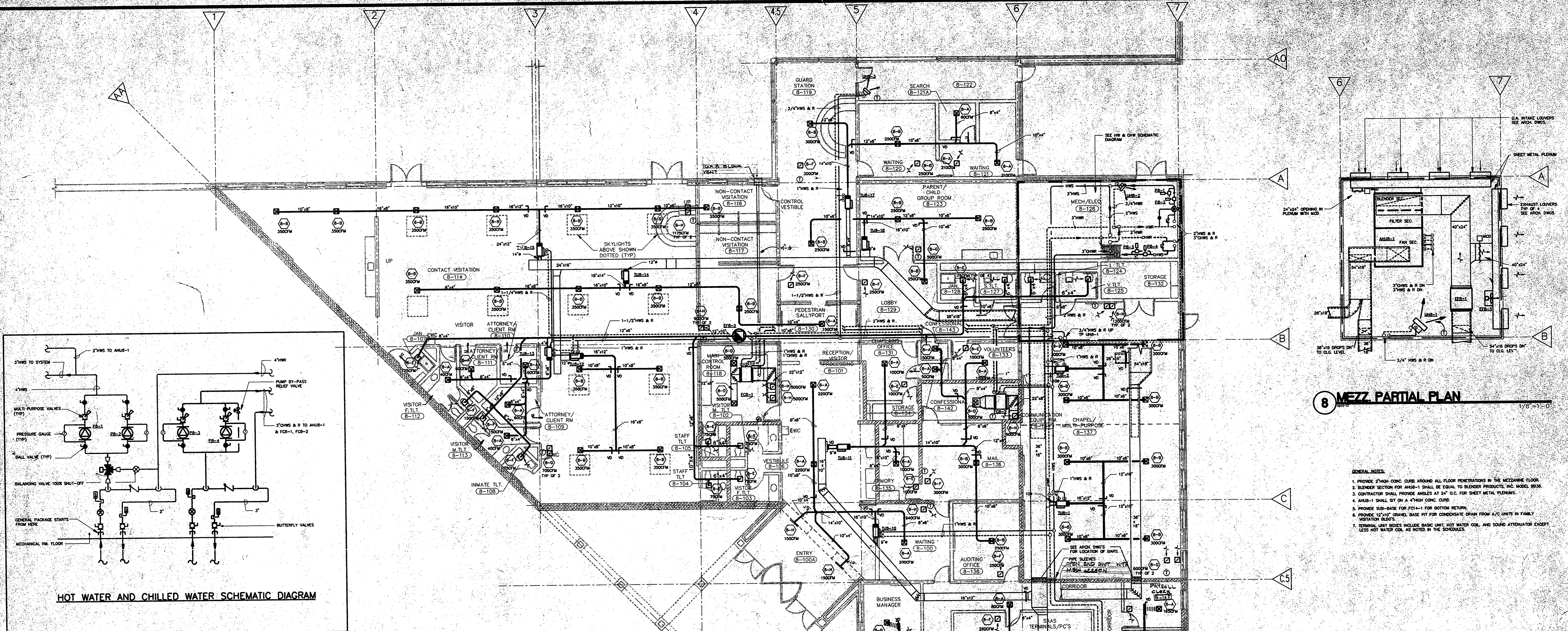


7 MCF DINING MECHANICAL FLOOR PLAN

1/8"=1'-0"

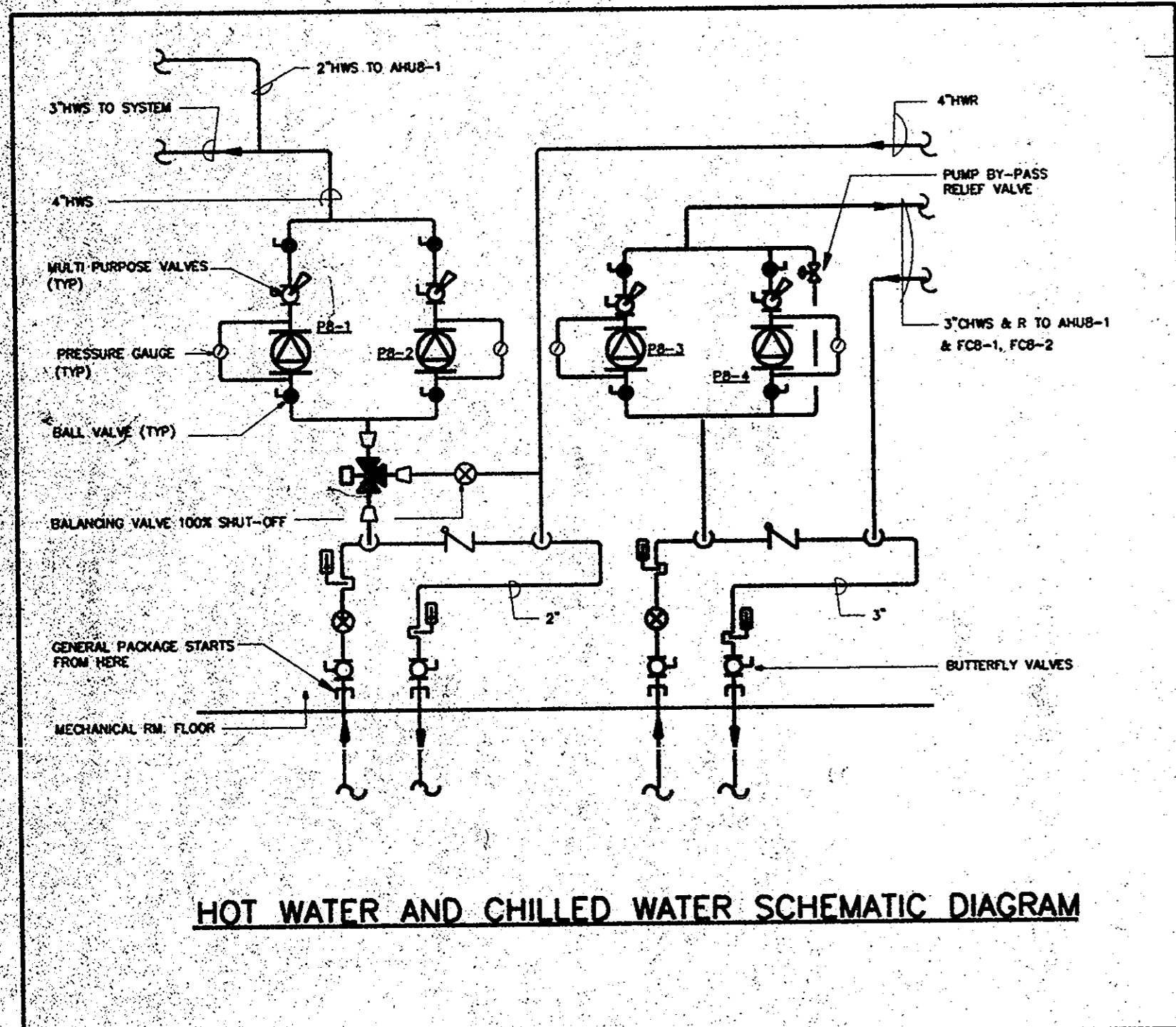


Drawing Title: BLDG. #7 MCF DINING BUILDING MECHANICAL FLOOR PLAN		Date: 02/26/1993	
Project: 350 Bed Facility For Women, Connecticut Correctional Institution, Meriden, Connecticut		Scale: 1/8"=1'-0"	
Drawing No.: BI-JA-217C		Project No.: BI-JA-217C	
REVISIONS			
mark	date	description	approved by
DRAWING PREPARED BY: Pennington, Durham & Richardson, Inc.		Date: 02/26/1993	
PROJECT: 350 Bed Facility For Women, Connecticut Correctional Institution, Meriden, Connecticut		Scale: 1/8"=1'-0"	
DRAWING NO.: BI-JA-217C		Project No.: BI-JA-217C	

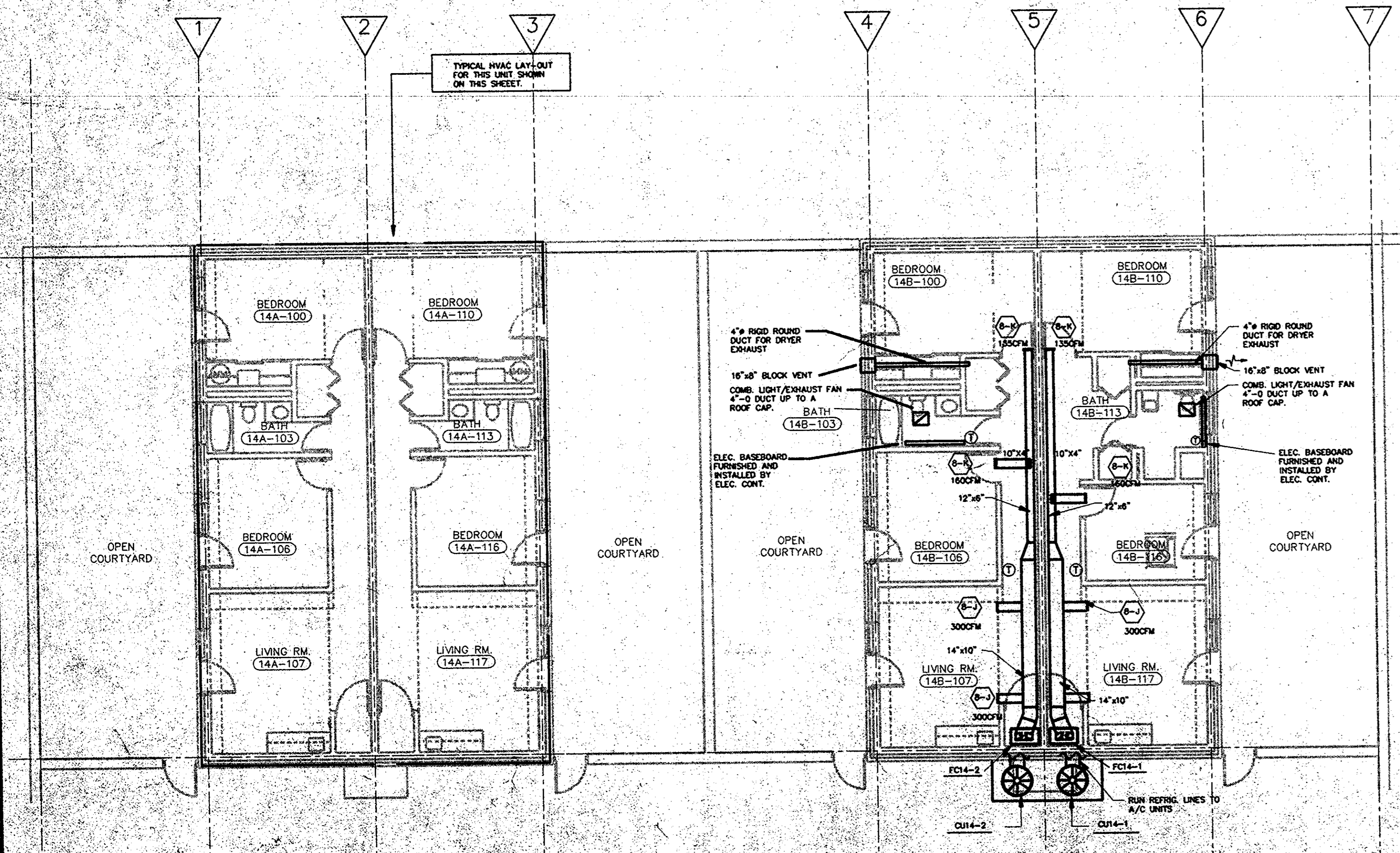


8 MEZZ PARTIAL PLAN
SCALE: 1/8" = 1'-0"

- GENERAL NOTES:**
1. PROVIDE 2" HIGH CONC. CURB AROUND ALL FLOOR PENETRATIONS IN THE MEZZANINE FLOOR.
 2. BLENDER SECTION FOR AHUB-1 SHALL BE EQUAL TO BLENDER PRODUCTS, INC. MODEL BSM.
 3. CONTRACTOR SHALL PROVIDE ANGLES AT 24" O.C. FOR SHEET METAL PLENUMS.
 4. AHUB-1 SHALL BE ON A 4" HIGH CONC. CURB.
 5. PROVIDE SUB-BASE FOR FC14-1 FOR BOTTOM RETURN.
 6. PROVIDE 12" HIGH ORANGE BASE PIT FOR CONDENSATE DRAIN FROM A/C UNITS IN FAMILY VISITATION ABOVE.
 7. TERMINAL UNIT BOXES INCLUDE BASIC UNIT, HOT WATER COIL, AND SOUND ATTENUATOR EXCEPT LESS HOT WATER COIL AS NOTED IN THE SCHEDULES.

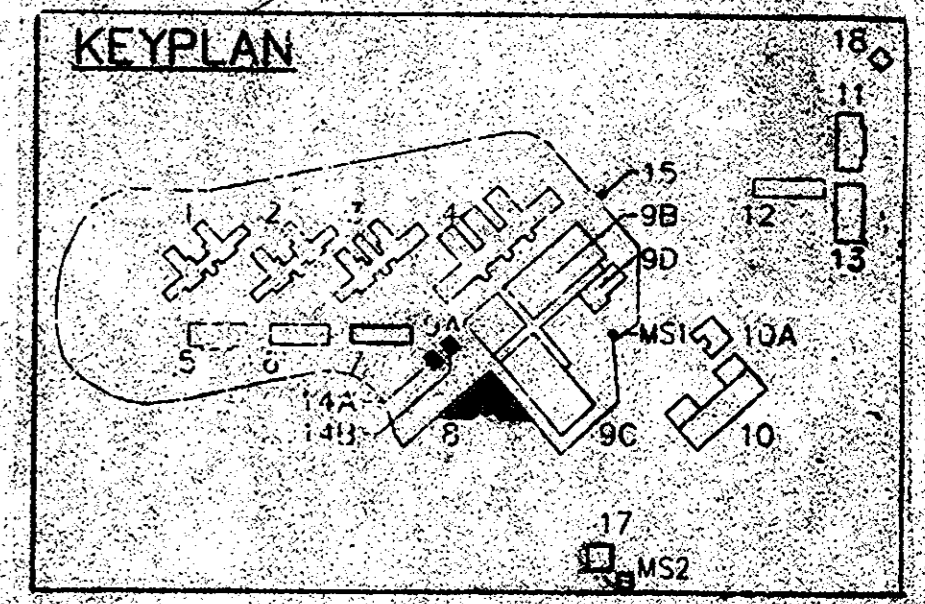


HOT WATER AND CHILLED WATER SCHEMATIC DIAGRAM



8 FAMILY VISITATION MECHANICAL FLOOR PLAN
SCALE: 1/8" = 1'-0"

8 MCF ADMIN. MECHANICAL FLOOR PLAN
SCALE: 1/8" = 1'-0"



KEYPLAN



STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC WORKS

drawing title - BLDG. #3, BLDG. #14A, 14B
MCF ADMIN. BLDG. & FAMILY VISITATION BLDG. FLOOR PLANS

DATE: 2/25/81
SCALE: 1/8" = 1'-0"

DESIGNED BY: HERRINGTON, DURHAM & RICHARDSON, INC.
PROJECT: 350 Bed Facility For Women Connecticut Correctional Institution, Meriden, Connecticut

DATE: 2/25/81
SCALE: 1/8" = 1'-0"

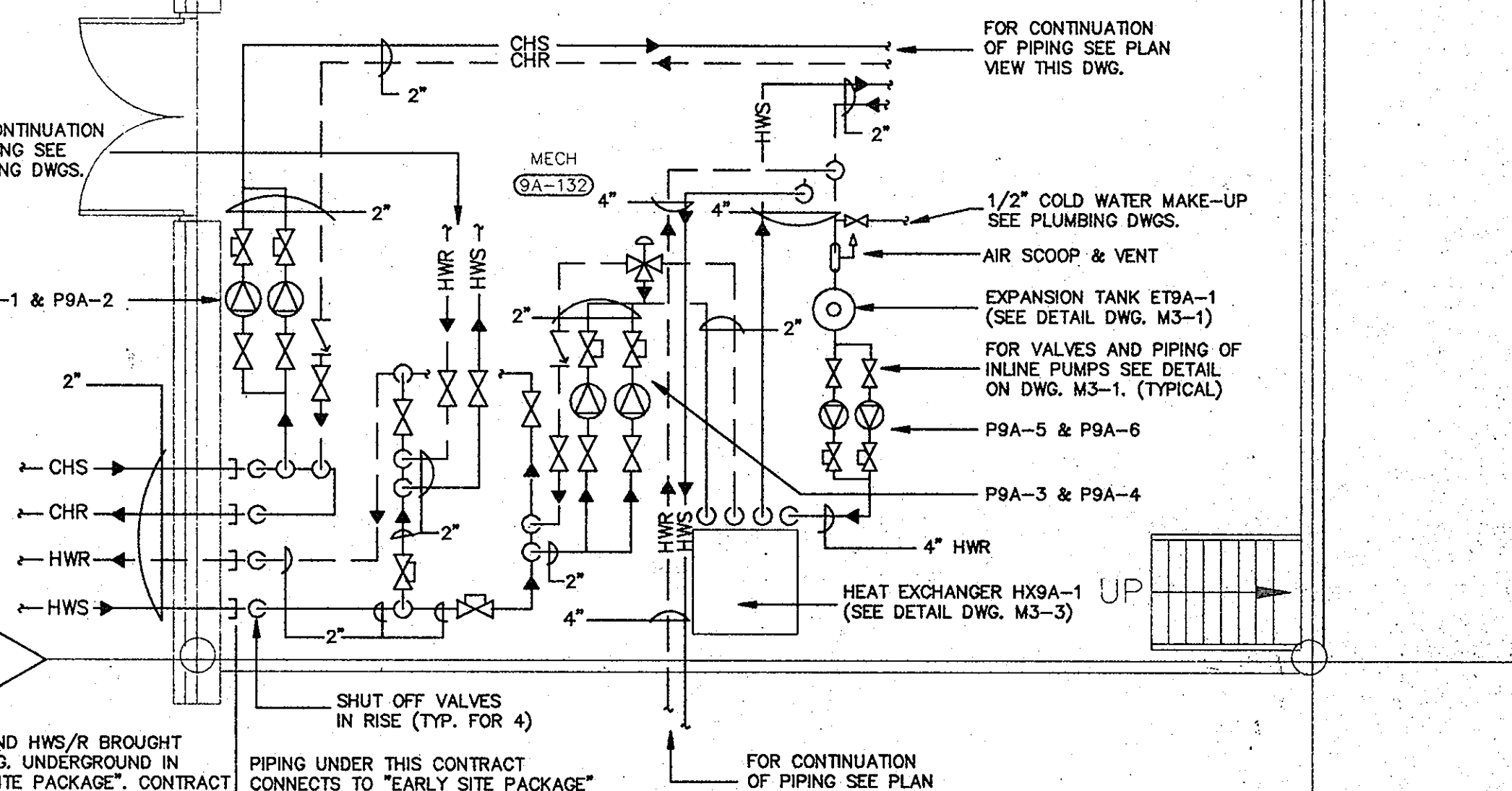
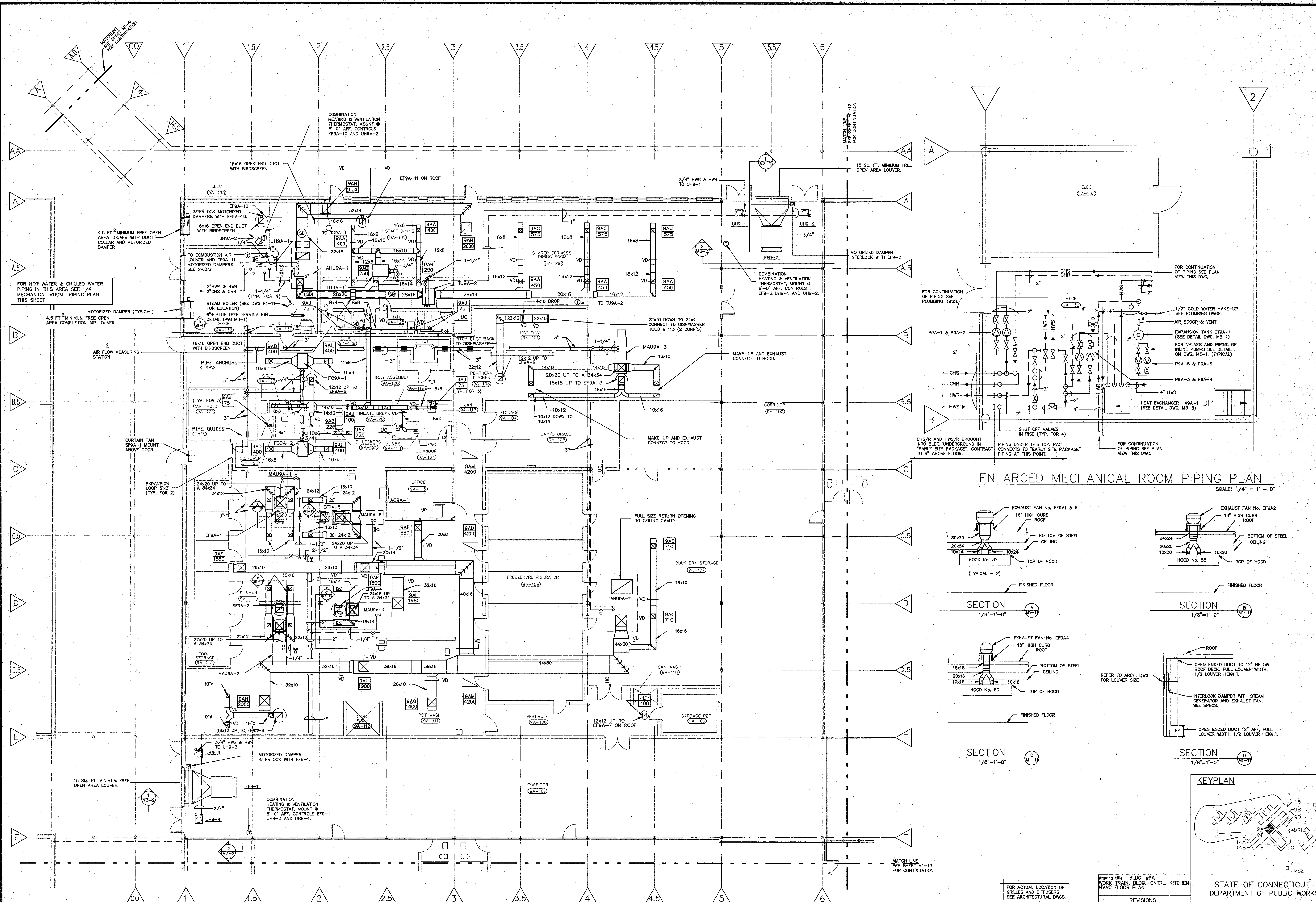
DESIGNED BY: HERRINGTON, DURHAM & RICHARDSON, INC.
PROJECT: 350 Bed Facility For Women Connecticut Correctional Institution, Meriden, Connecticut

DATE: 2/25/81
SCALE: 1/8" = 1'-0"

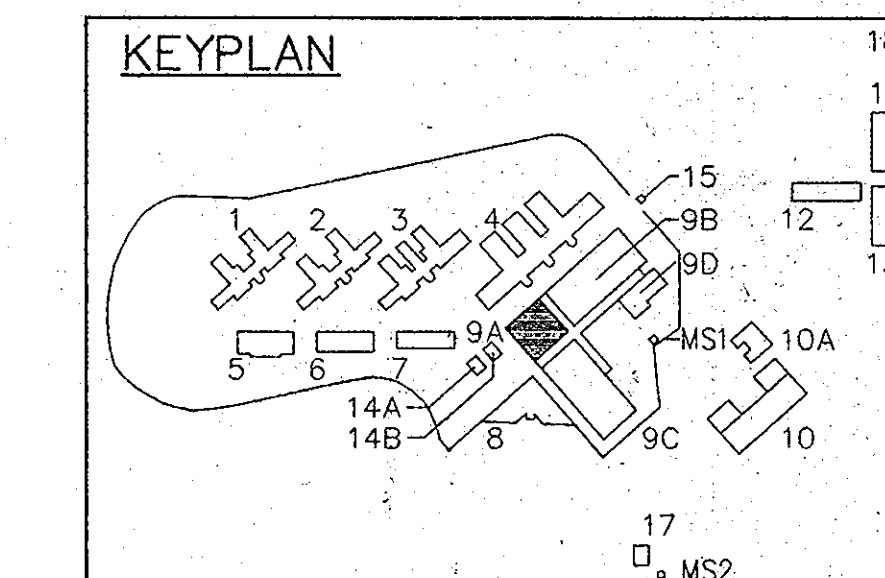
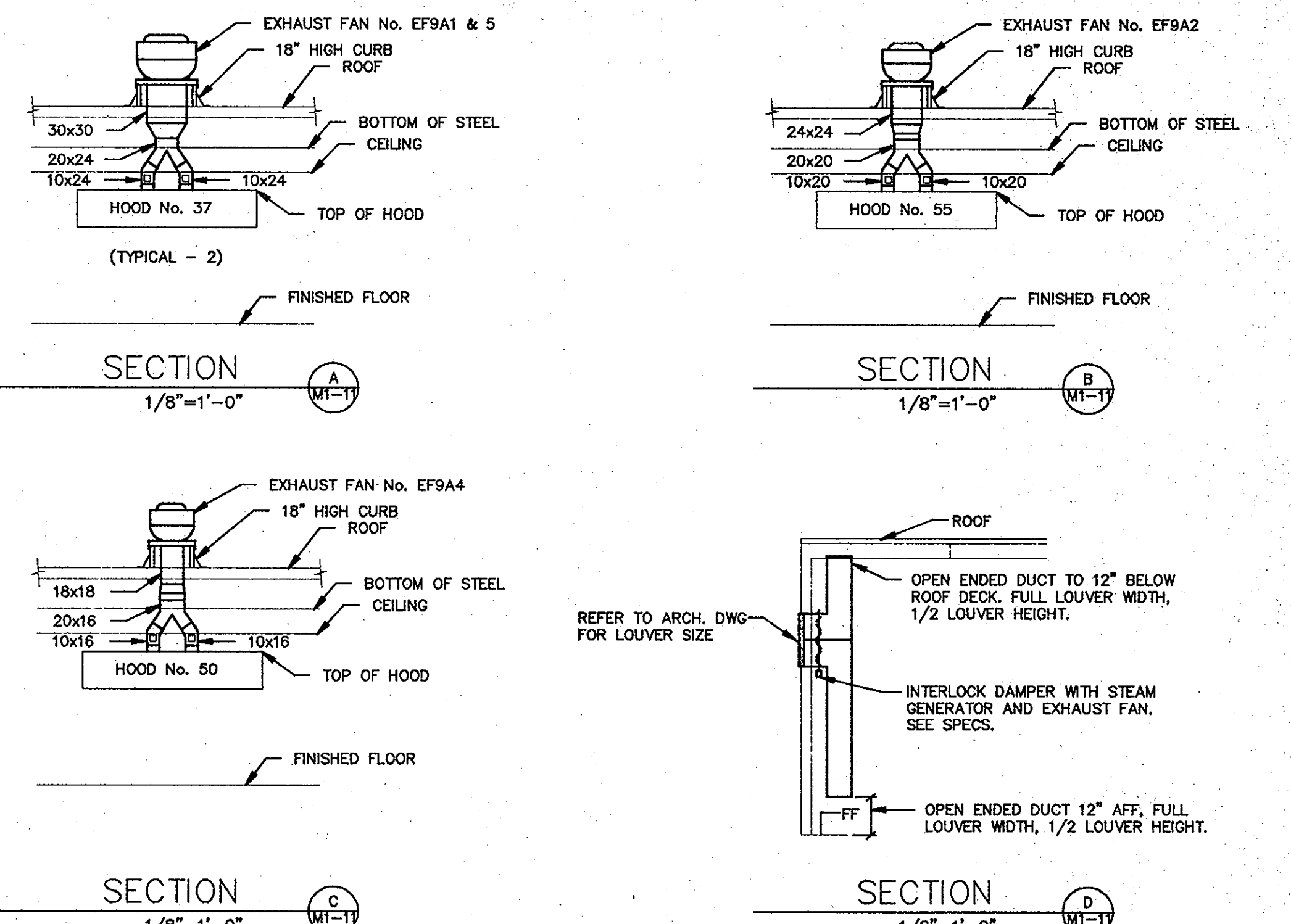
DESIGNED BY: HERRINGTON, DURHAM & RICHARDSON, INC.
PROJECT: 350 Bed Facility For Women Connecticut Correctional Institution, Meriden, Connecticut

DATE: 2/25/81
SCALE: 1/8" = 1'-0"

DESIGNED BY: HERRINGTON, DURHAM & RICHARDSON, INC.
PROJECT: 350 Bed Facility For Women Connecticut Correctional Institution, Meriden, Connecticut

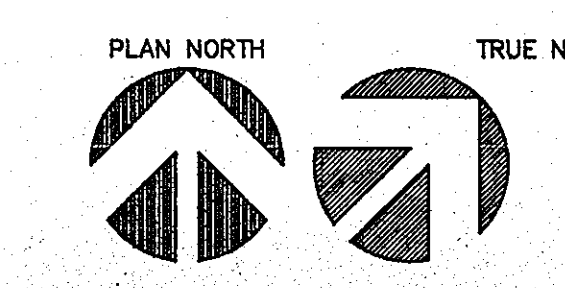


ENLARGED MECHANICAL ROOM PIPING PLAN
SCALE: 1/4" = 1' - 0"

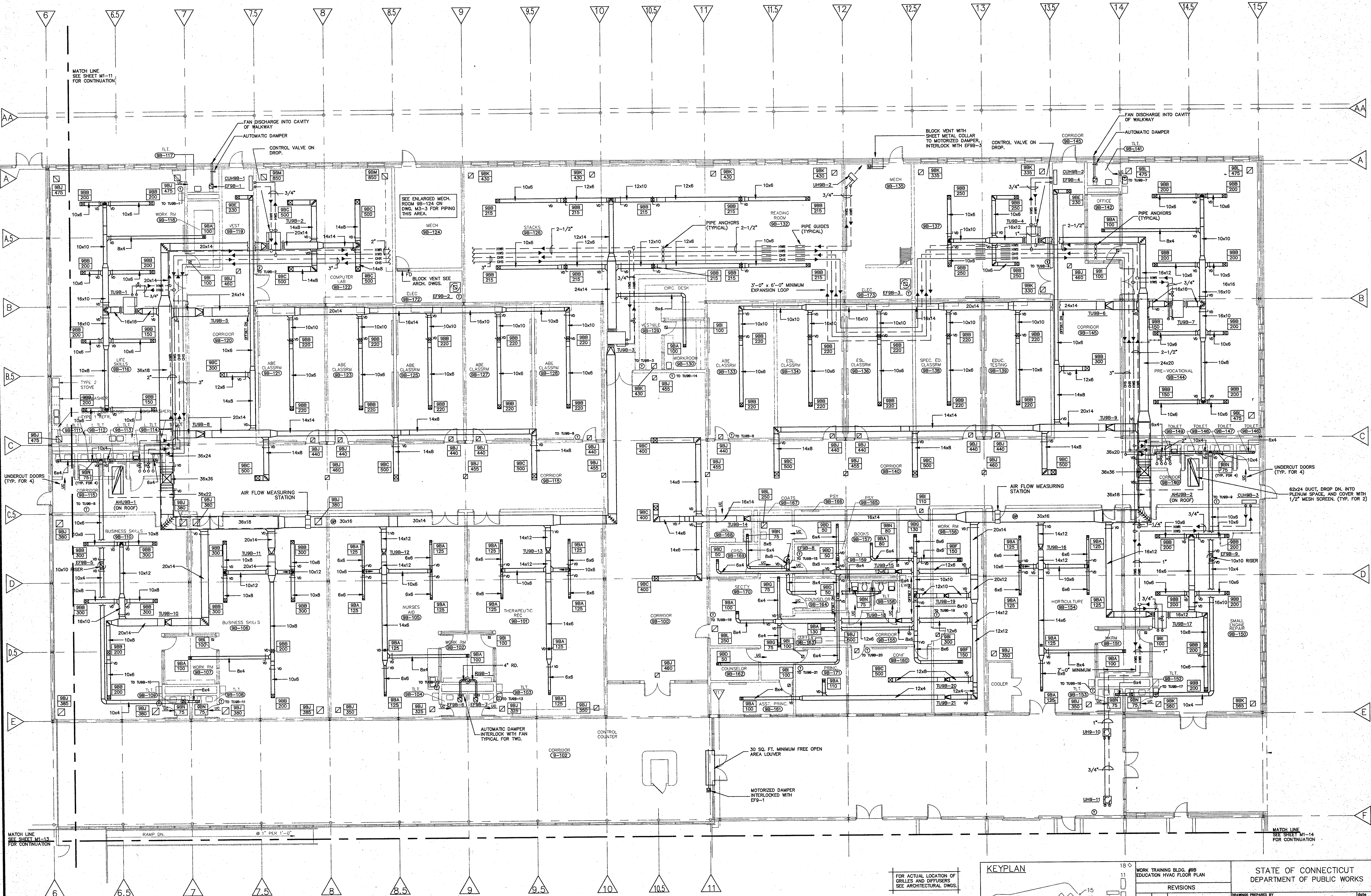


BUILDING 9A KITCHEN - HVAC FLOOR PLAN
SCALE: 1/8" = 1' - 0"

FOR ACTUAL LOCATION OF GRILLES AND DIFFUSERS SEE ARCHITECTURAL DWGS.

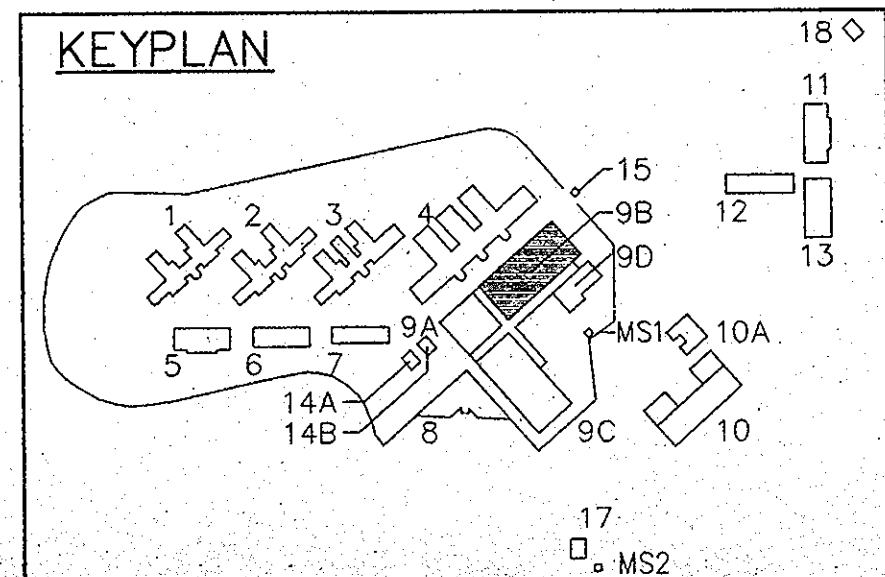


REVISIONS		DRAWING PREPARED BY		DATE
mark	date	description		
		Henningson, Durham & Richardson, Inc.		OCT. 28, 1991
		Mogul Group, Inc.		AS NOTED
		New Britain, Connecticut		Drawn by
		350 Bed Facility for Women		approved by
		Connecticut Correctional Institution		RES
		Niantic, Connecticut		Drawing no.
		Project no. BI-JA-217C		M1-1



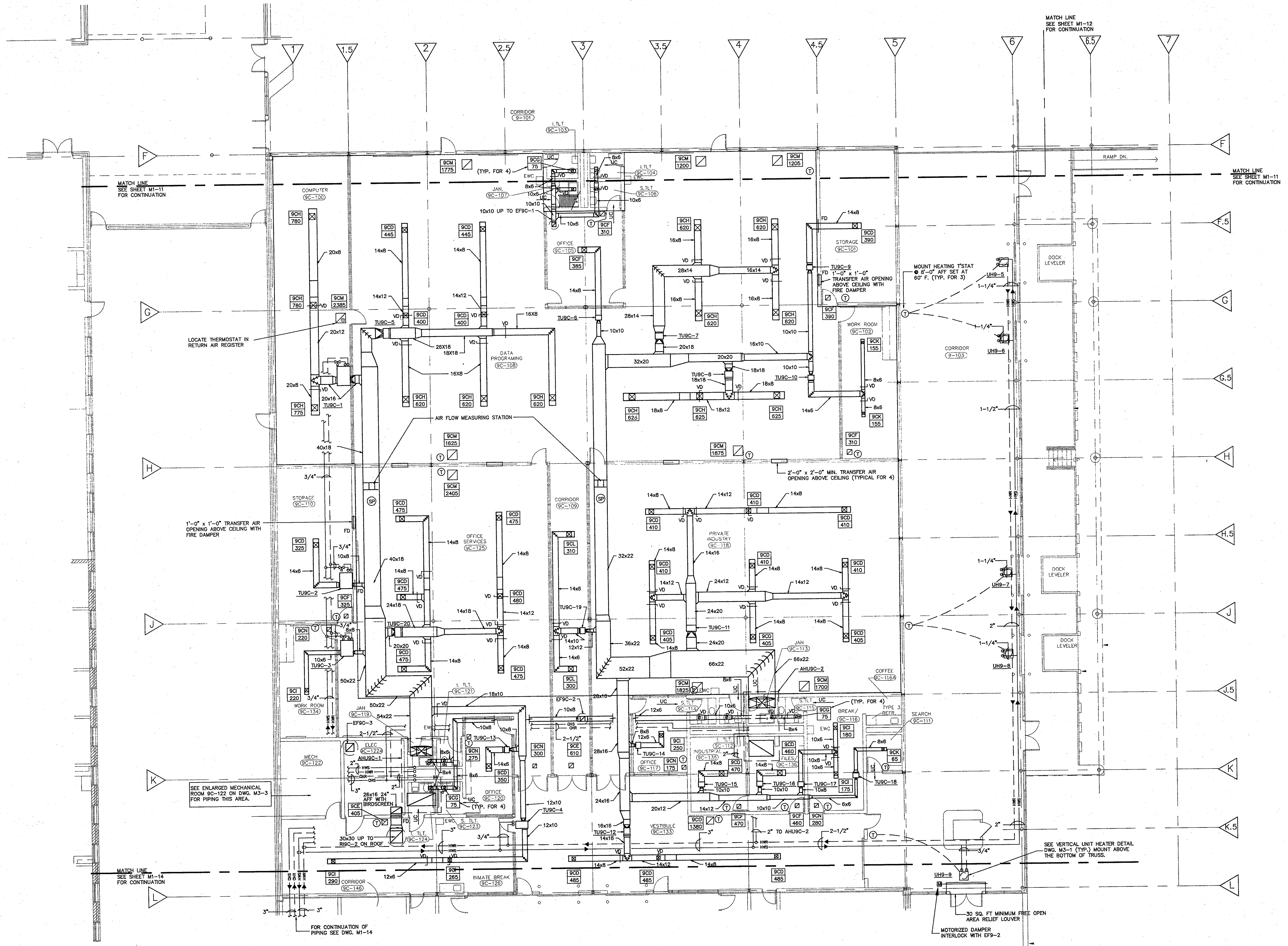
BUILDING 9B EDUCATION - HVAC FLOOR PLAN
SCALE: 1/8" = 1'-0"

FOR ACTUAL LOCATION OF GRILLES AND DIFFUSERS SEE ARCHITECTURAL DWGS.

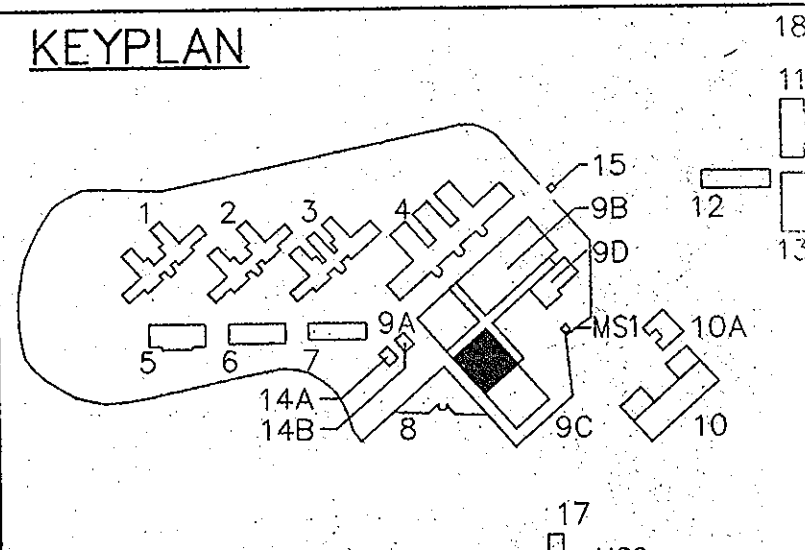


REVISIONS		DRAWINGS PREPARED BY		DATE	
mark	date	description	author	date	description

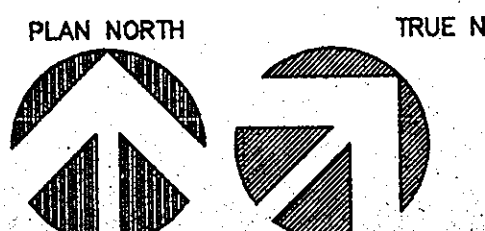
DRAWINGS PREPARED BY Herrington, Durham & Richardson, Inc. Maquila Group, Inc.		DATE OCT. 28, 1981	
PROJECT 350 Bed Facility for Women Connecticut Correctional Institution Niantic, Connecticut		DRAWN BY TAE	
PROJECT NO. BJ-JA-217C		APPROVED BY REG	
		DRAWING NO. M1-12	



NORTH HALF BUILDING 9C INDUSTRIES - HVAC FLOOR PLAN
 SCALE: 1/8" = 1'-0"

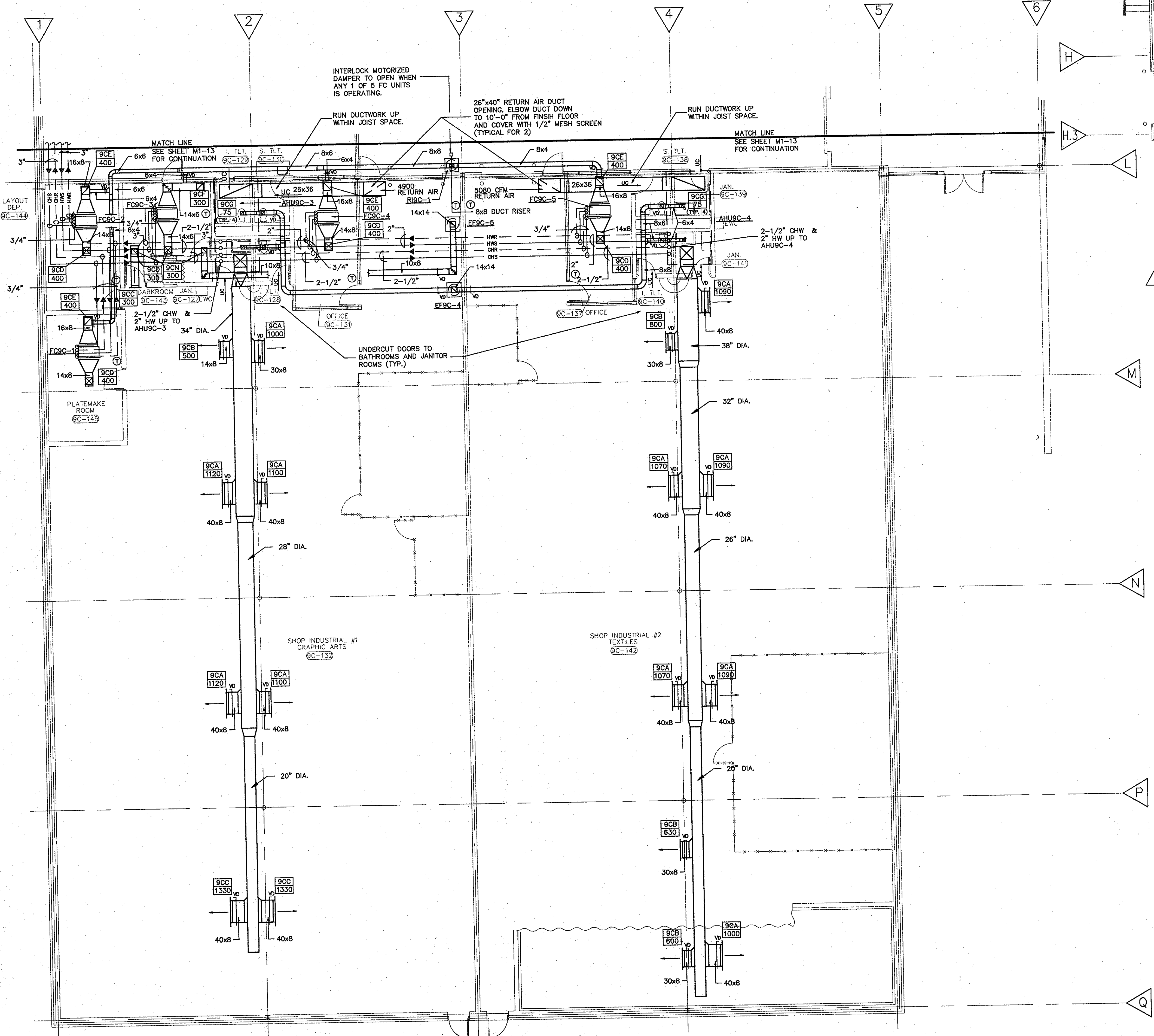


FOR ACTUAL LOCATION OF GRILLES AND DIFFUSERS SEE ARCHITECTURAL DWGS.

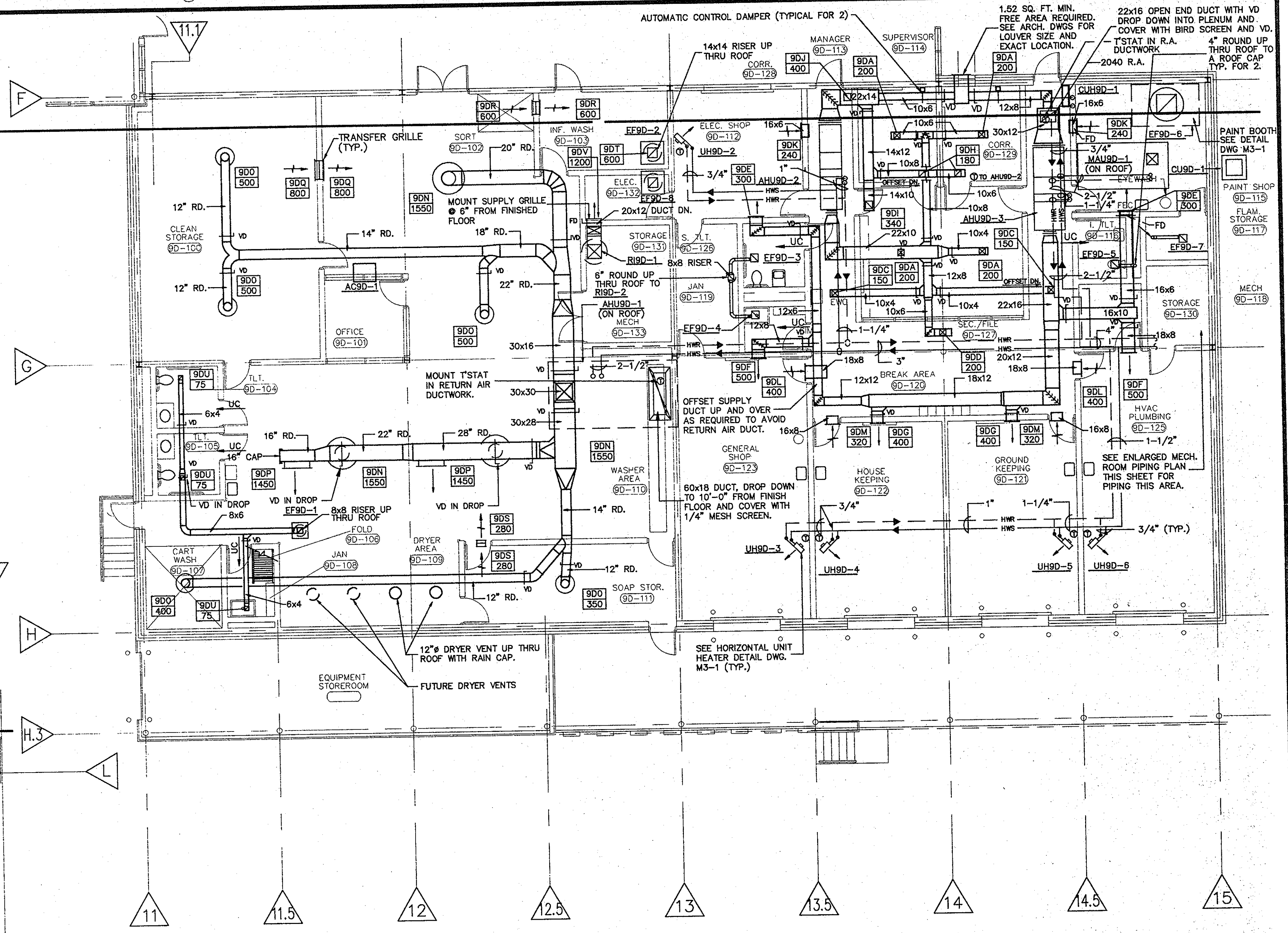


REVISIONS		DRAWINGS PREPARED BY		DATE	
mark	date	description		OCT. 28, 1968	

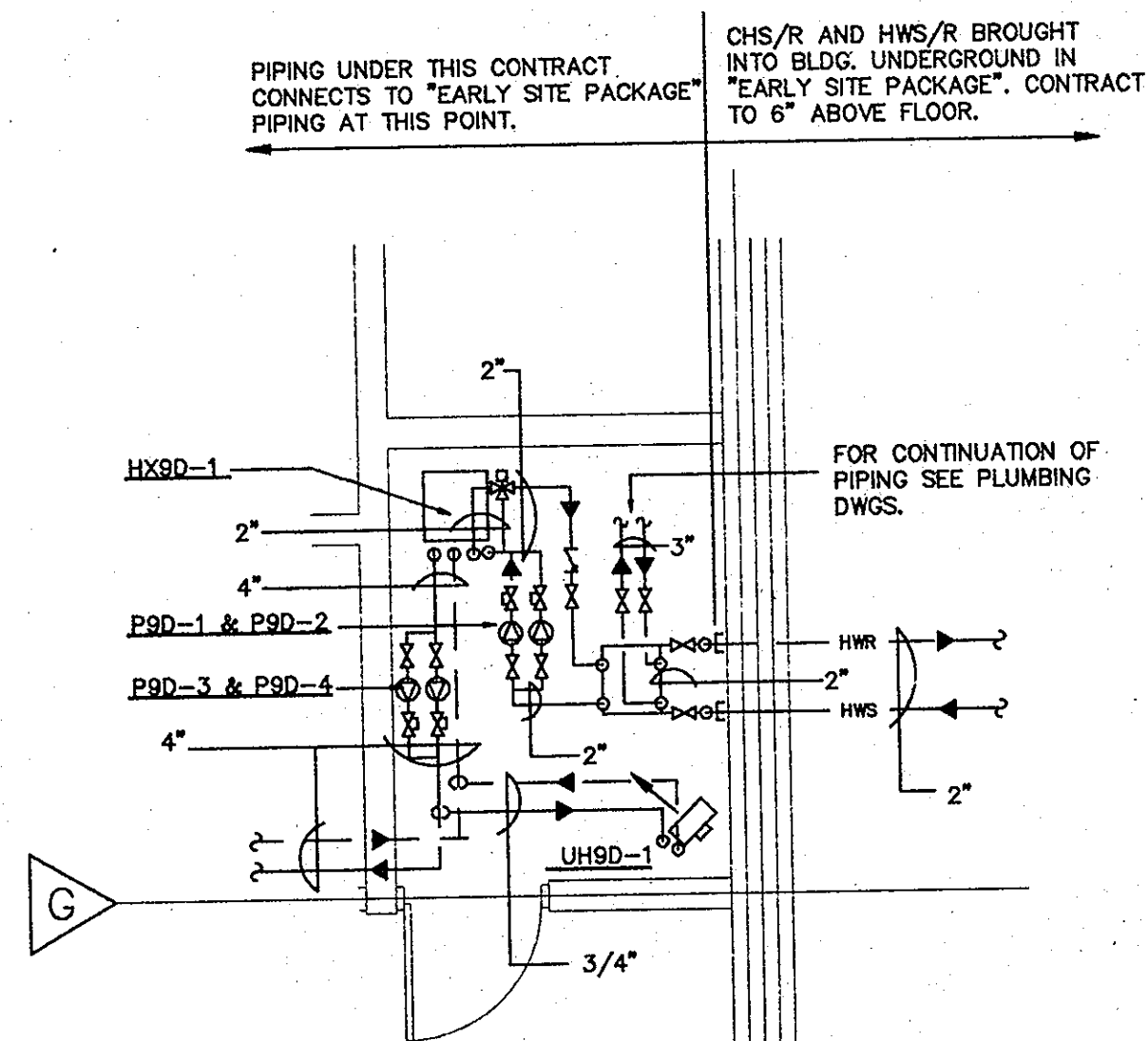
BLDG # 9C WORK TRAINING BLDG. INDUSTRY HVAC FLOOR PLAN		Henningson, Durham & Richardson, Inc. Macquie-Group Inc.		Dallas, Texas New Britain, Connecticut	
STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS		Project 350 Bed Facility For Women Connecticut Correctional Institution Niantic, Connecticut		Drawn by Approved by REG drawing no. M1-1	
Project no. BI-JA-217C		17 MS2			



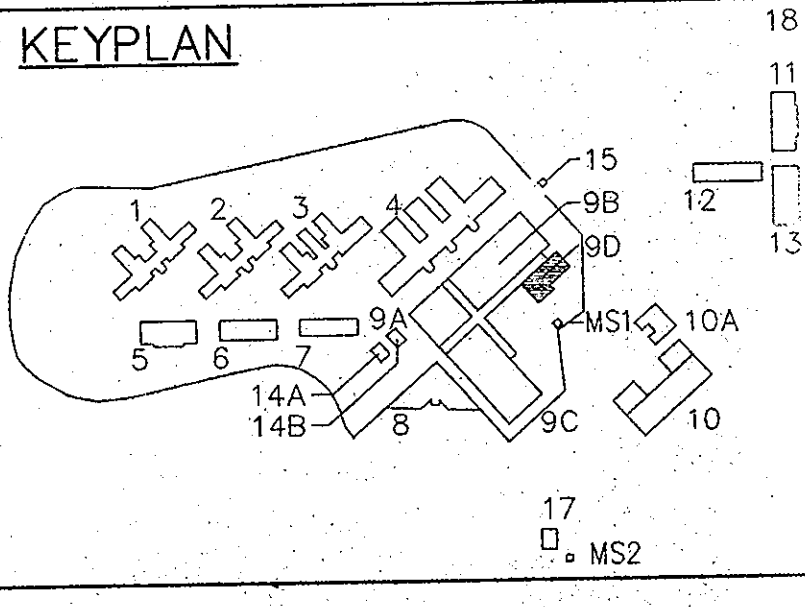
SOUTH HALF BUILDING 9C INDUSTRY - HVAC FLOOR PLAN
SCALE: 1/8" = 1'-0"



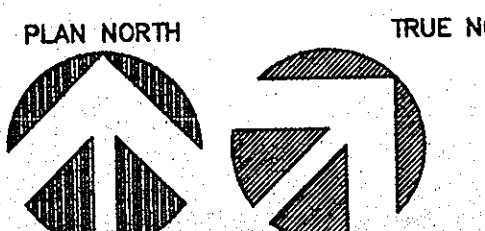
BUILDING 9D LAUNDRY - HVAC FLOOR PLAN
SCALE: 1/8" = 1'-0"



ENLARGED MECHANICAL ROOM PIPING PLAN - BLDG. 9D
SCALE: 1/4" = 1'-0"



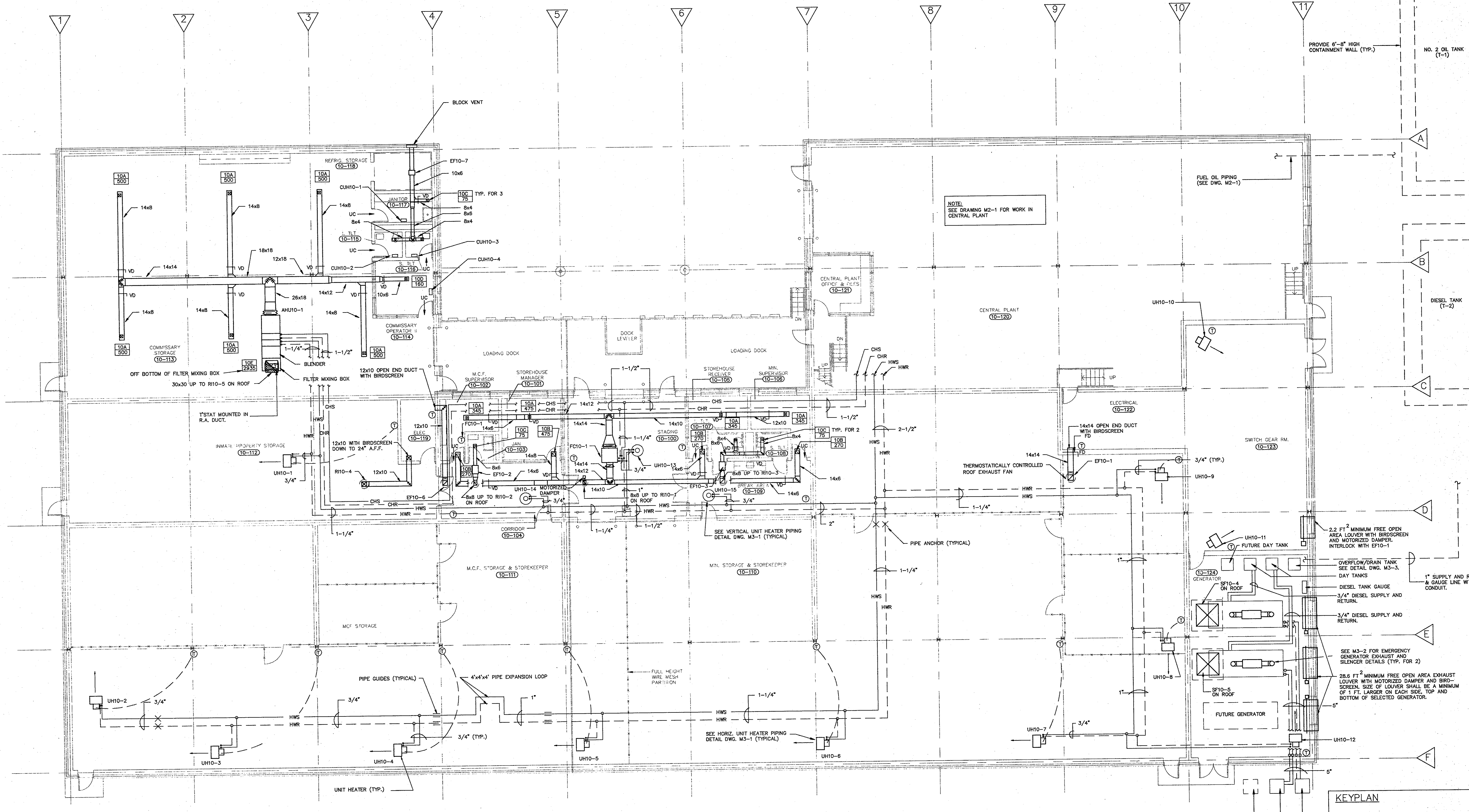
FOR ACTUAL LOCATION OF GRILLES AND DIFFUSERS SEE ARCHITECTURAL DWGS.



REVISIONS		
mark	date	description

DRAWING PREPARED BY: Henningson, Durham & Richardson, Inc.
 PROJECT: 350 Bed Facility For Women
 DRAWING NO.: M1-1
 PROJECT NO.: BJ-JA-217C

STATE OF CONNECTICUT
 DEPARTMENT OF PUBLIC WORKS
 APPROVED BY: [Signature]
 DATE: OCT. 28, 1999

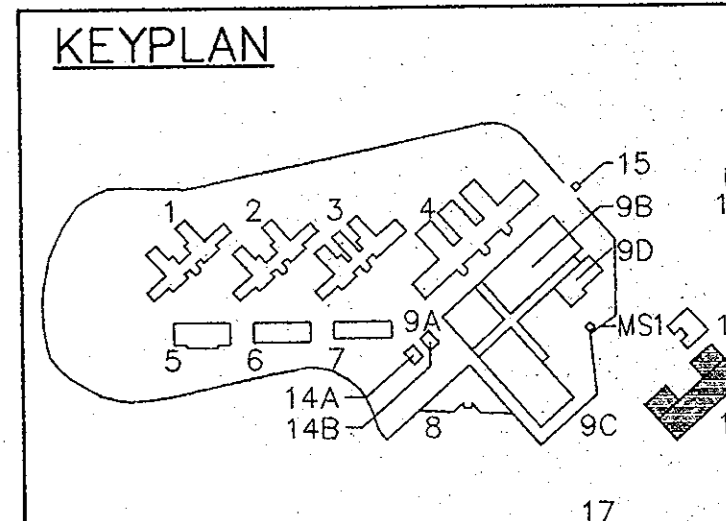


BUILDING 10 (ALTERNATE #1) - HVAC FLOOR PLAN
 SCALE: 1/8" = 1'-0"

PROVIDE 6'-8" HIGH CONTAINMENT WALL (TYP.)
 NO. 2 OIL TANK (1-1)

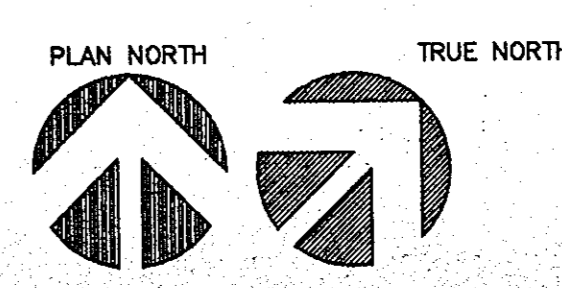
NOTE:
 SEE DRAWING M2-1 FOR WORK IN CENTRAL PLANT

- 2.2 FT² MINIMUM FREE OPEN AREA LOUVER WITH BIRDSCREEN AND MOTORIZED DAMPER. INTERLOCK WITH EF10-1
- OVERFLOW/DRAIN TANK SEE DETAIL DWG. M3-3.
- DAY TANKS
- DIESEL TANK GAUGE
- 3/4" DIESEL SUPPLY AND RETURN.
- 3/4" DIESEL SUPPLY AND RETURN.
- SEE M3-2 FOR EMERGENCY GENERATOR EXHAUST AND SILENCER DETAILS (TYP. FOR 2)
- 28.6 FT² MINIMUM FREE OPEN AREA EXHAUST LOUVER WITH MOTORIZED DAMPER AND BIRDSCREEN. SIZE OF LOUVER SHALL BE A MINIMUM OF 1 FT. LARGER ON EACH SIDE, TOP AND BOTTOM OF SELECTED GENERATOR.



SEE ARCHITECTURAL DWG. FOR ACTUAL LOCATIONS

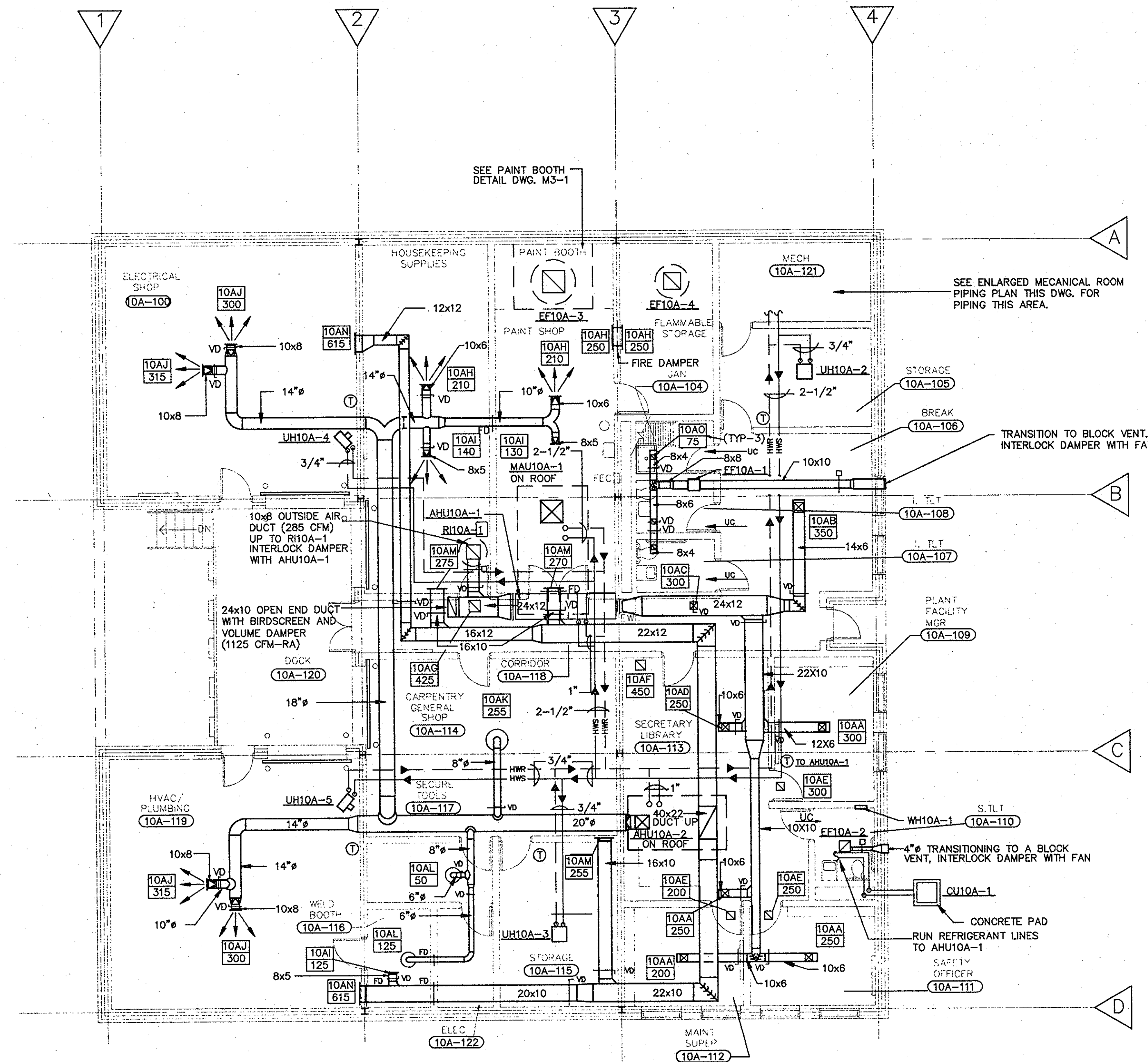
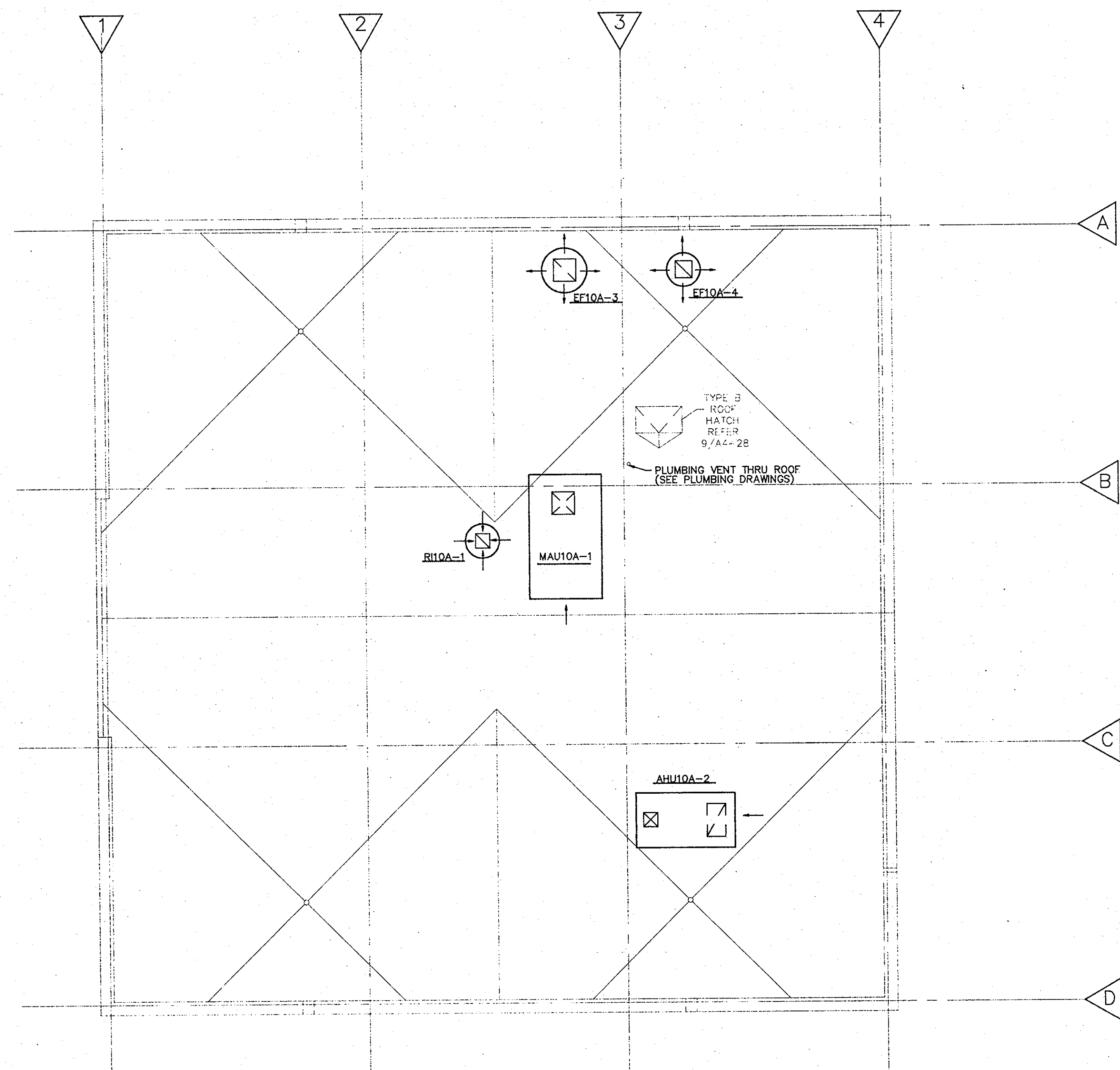
REVISIONS		DRAWINGS PREPARED BY		DATE	
mark	date	description	Henningson, Durham & Richardson, Inc.	Dallas, Texas	OCT. 28, 1991
			Maguire Group, Inc. <td>New Britain, Connecticut <td>AS NOTED</td> </td>	New Britain, Connecticut <td>AS NOTED</td>	AS NOTED



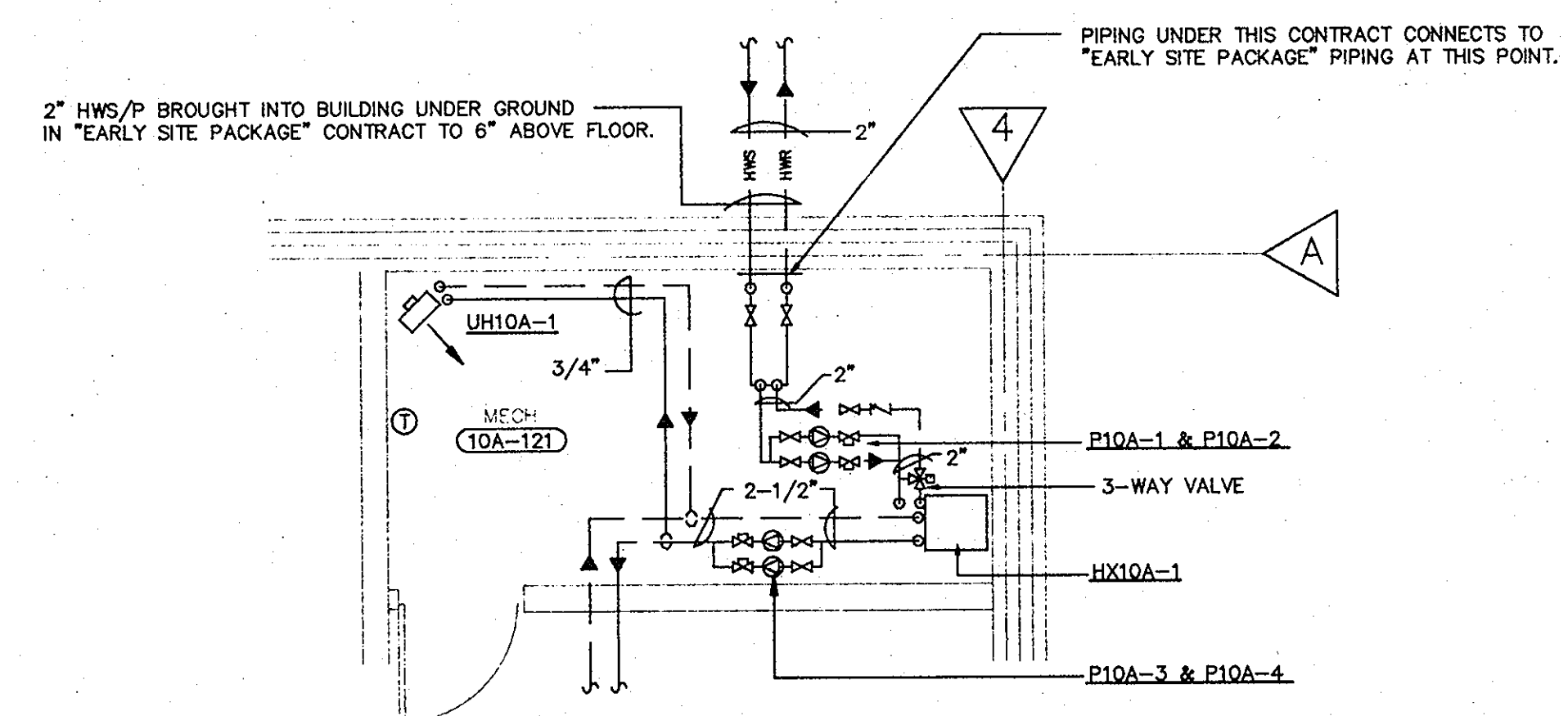
STATE OF CONNECTICUT
 DEPARTMENT OF PUBLIC WORKS

350 Bed Facility For Women
 Connecticut Correctional Institution
 Niantic, Connecticut

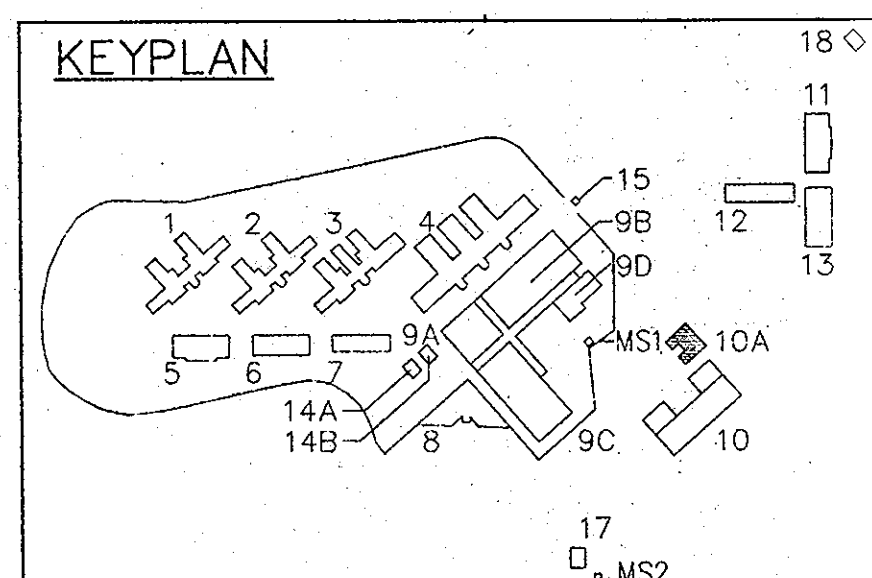
Project no. BI-JA-217C



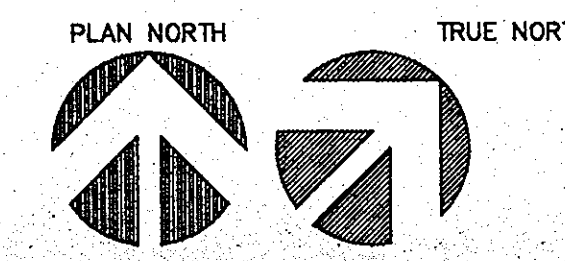
BUILDING 10A (ALTERNATE #2) - HVAC FLOOR PLAN
SCALE: 1/8" = 1'- 0"



ENLARGED MECHANICAL ROOM PIPING PLAN
SCALE: 1/4" = 1'- 0"



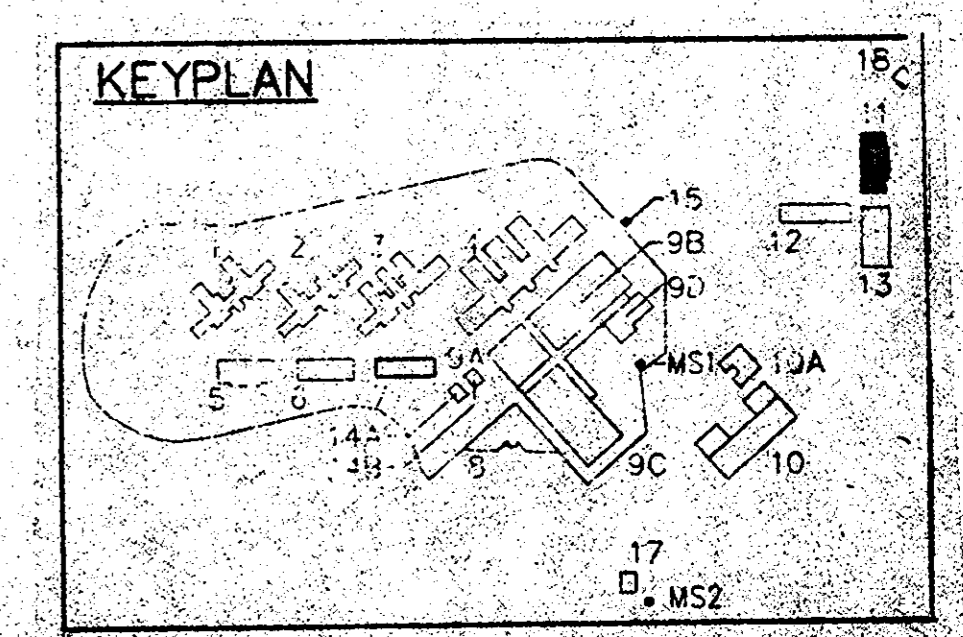
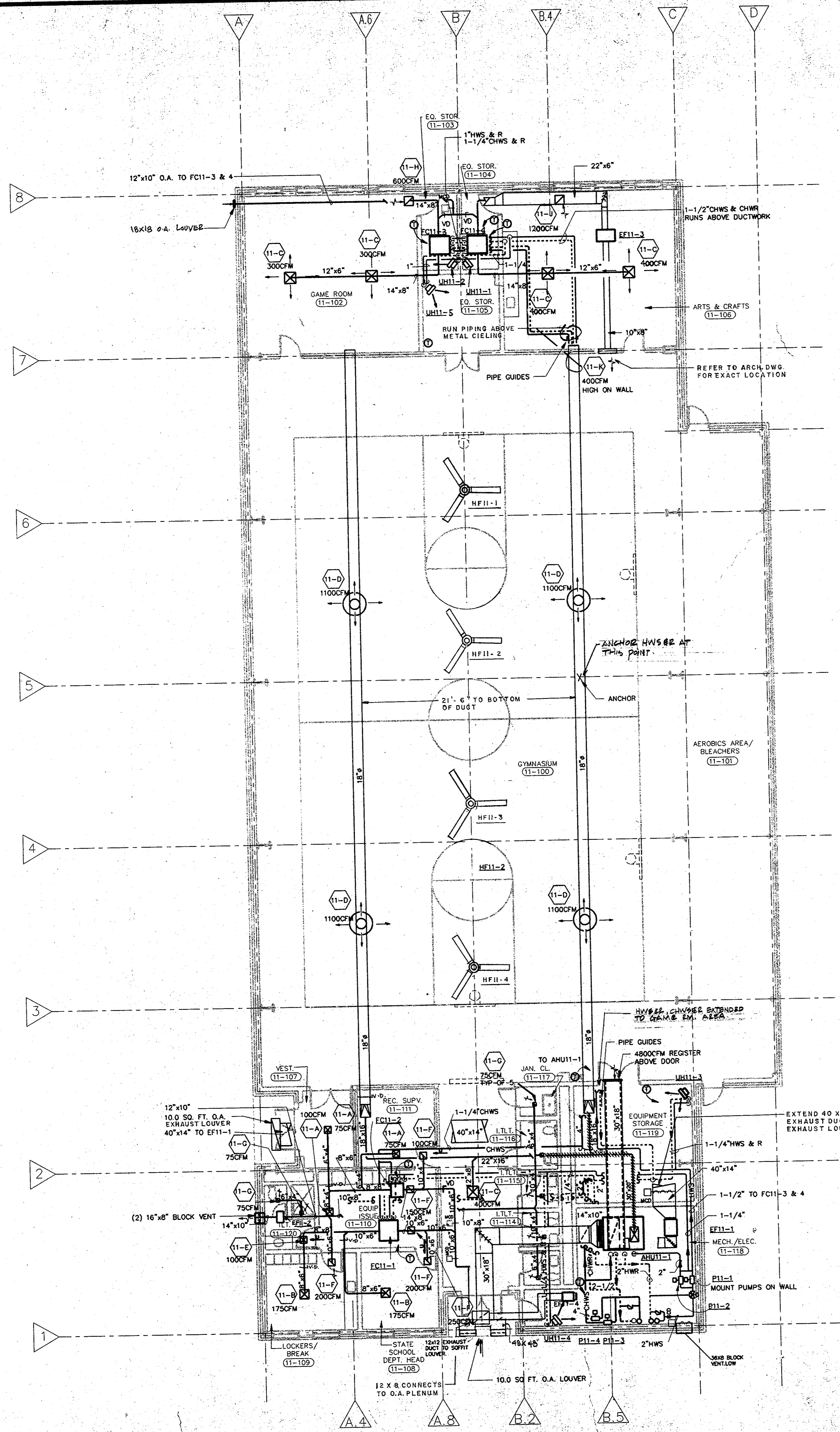
FOR ACTUAL LOCATION OF GRILLES AND DIFFUSERS SEE ARCHITECTURAL DWGS.



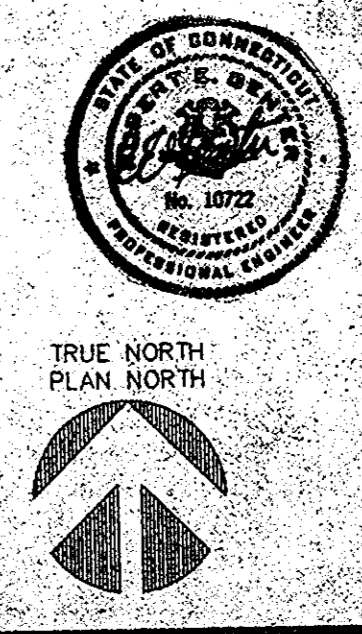
REVISIONS		DRAWINGS PREPARED BY		DATE
mark	date	description		
		Henningson, Durham & Richardson, Inc.		OCT. 28, 1991
		Maguire Group Inc.		AS NOTED
		350 Bed Facility For Women		drawn by BH/TAE
		Connecticut Correctional Institution		approved by RES
		Niantic, Connecticut		drawing no. M1-15B
		project no. BI-JA-217C		

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC WORKS

Drawing title: BLDG #10A ALTERNATE #2
MIN. MAINTENANCE BLDG.
HVAC PLAN



11 MIN. RECREATION MECHANICAL FLOOR PLAN

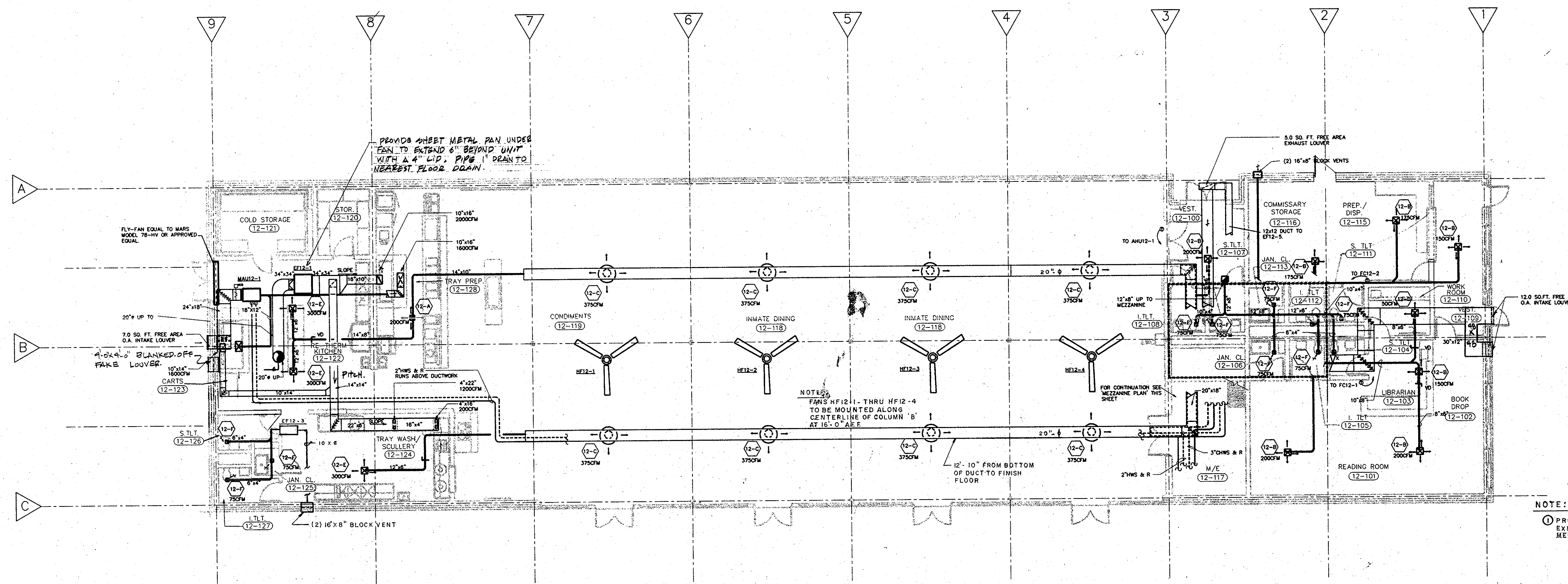


REVISIONS		DRAWING PREPARED BY:		DATE	
mark	date	description	Henningson, Durbin & Richardson, Inc.	2/28/19	2/28/19

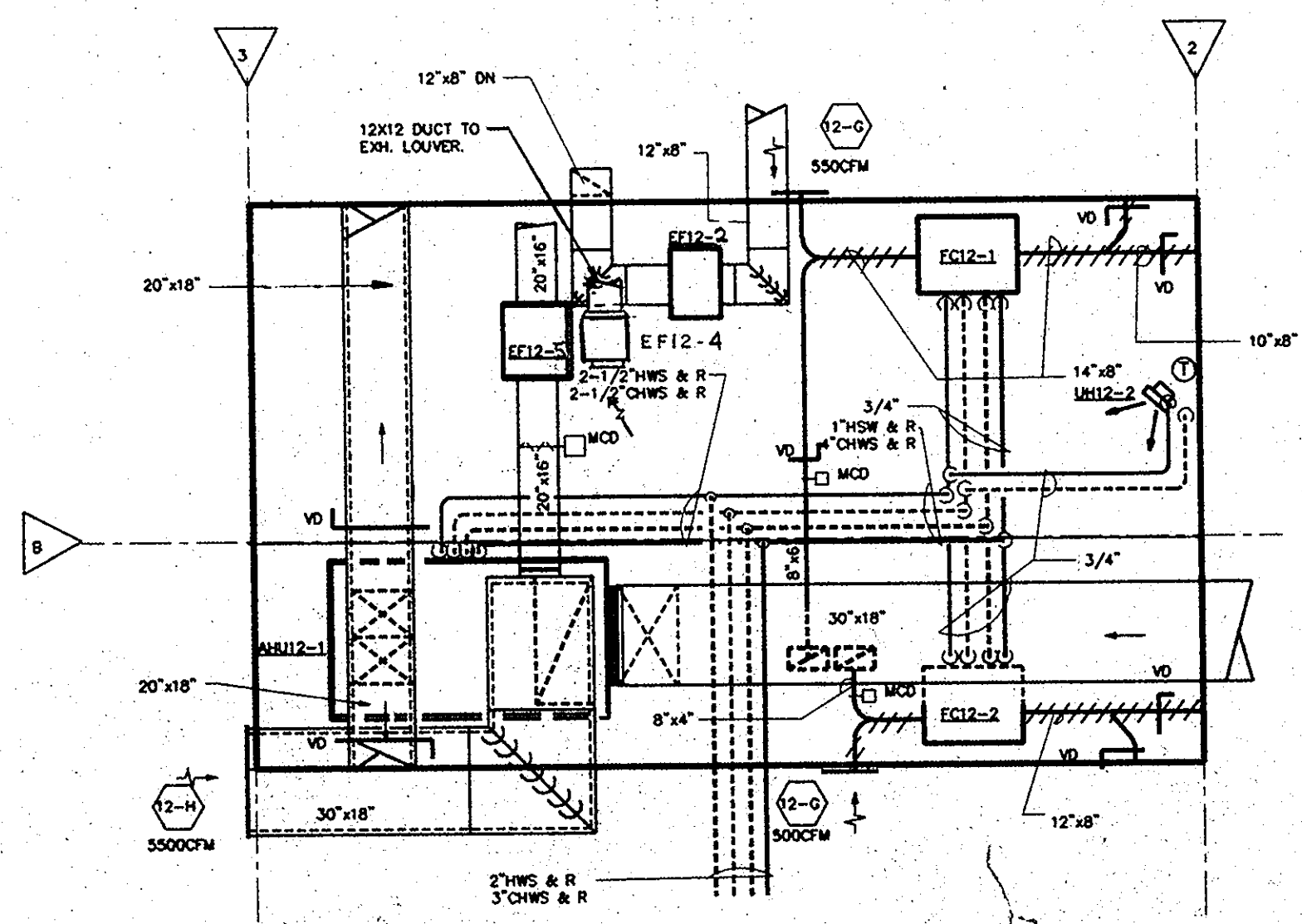
STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS		PROJECT: 350 Bed Facility For Women Correctional Institution Norwalk, Connecticut		DRAWING NO. M1-1
PROJECT NO. BI-JA-217C		DRAWING PREPARED BY: Henningson, Durbin & Richardson, Inc. New Britain, Connecticut		CHECKED BY: A.M.

1/8" = 1'-0"

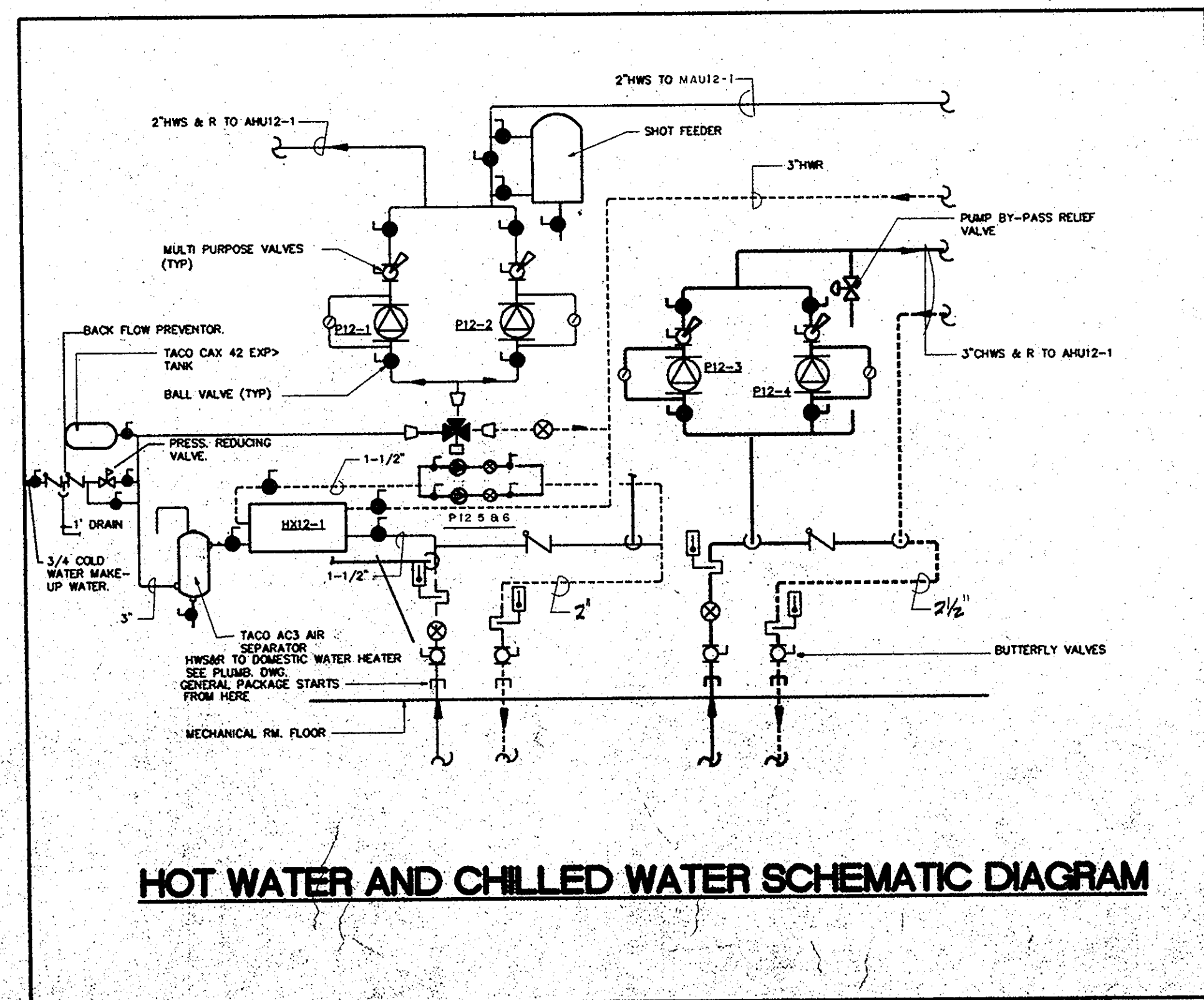




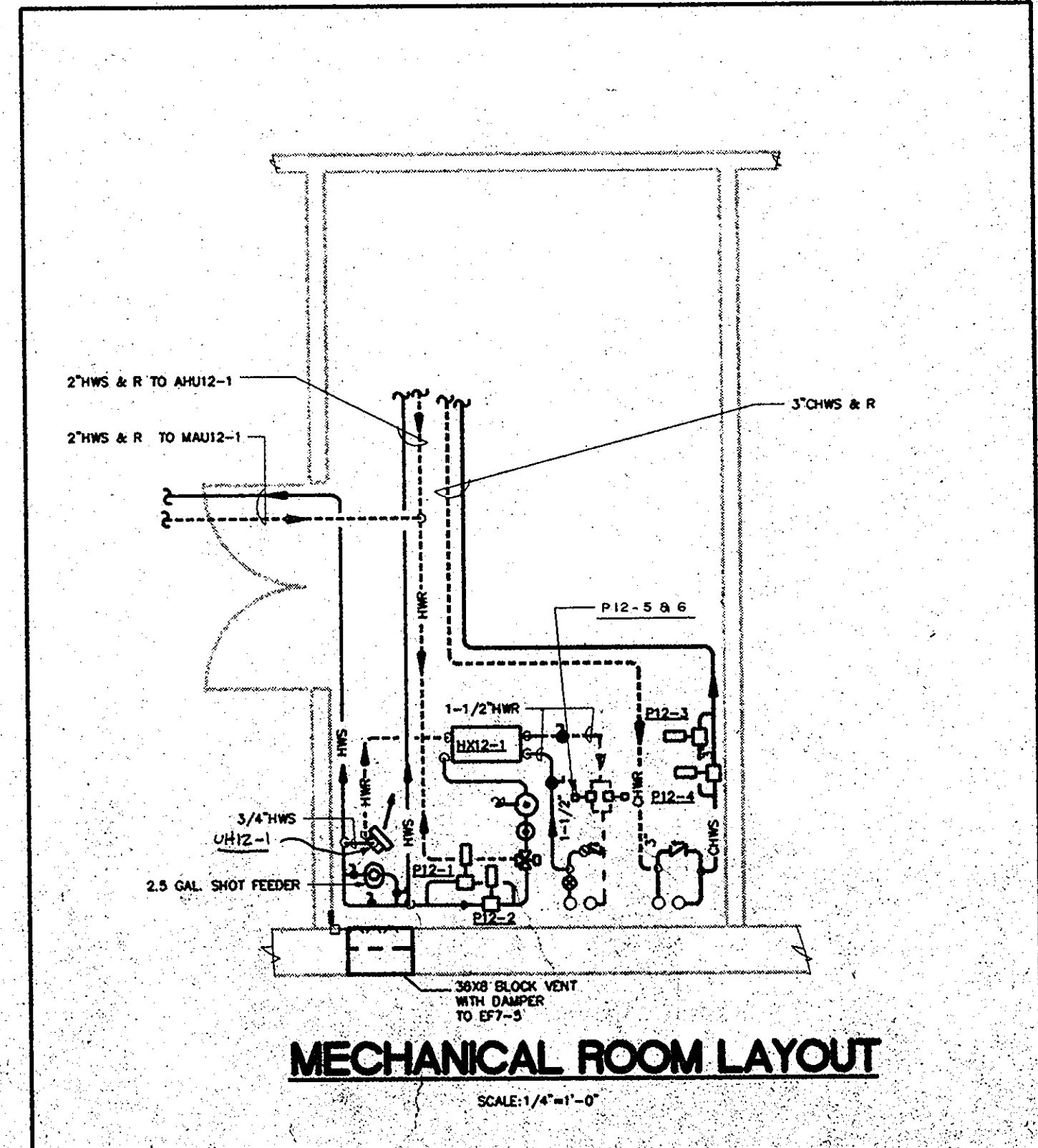
12 MIN. DINING MECHANICAL FLOOR PLAN
SCALE: 1/8"=1'-0"



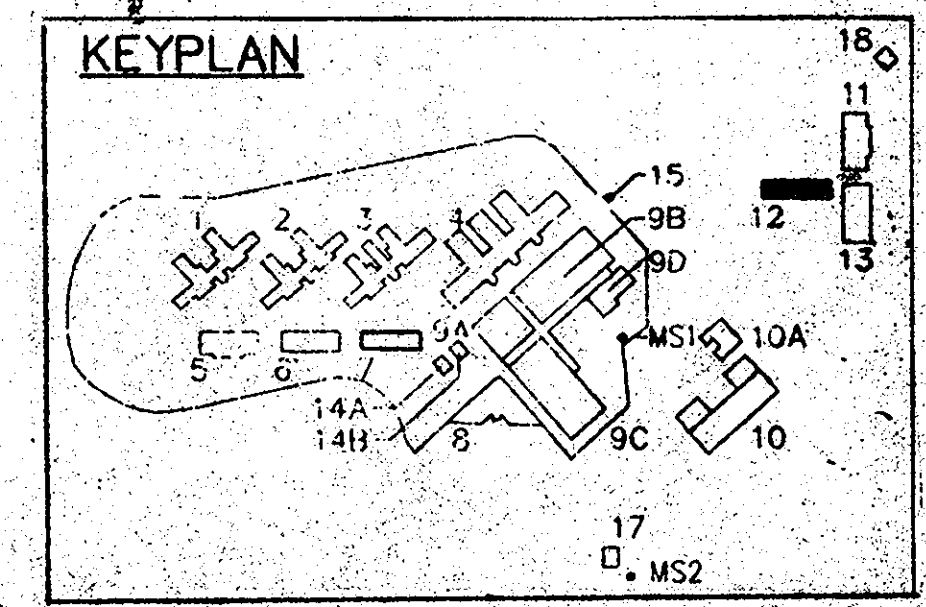
12 MEZZ. PARTIAL MECHANICAL FLOOR PLAN
SCALE: 1/4"=1'-0"



HOT WATER AND CHILLED WATER SCHEMATIC DIAGRAM

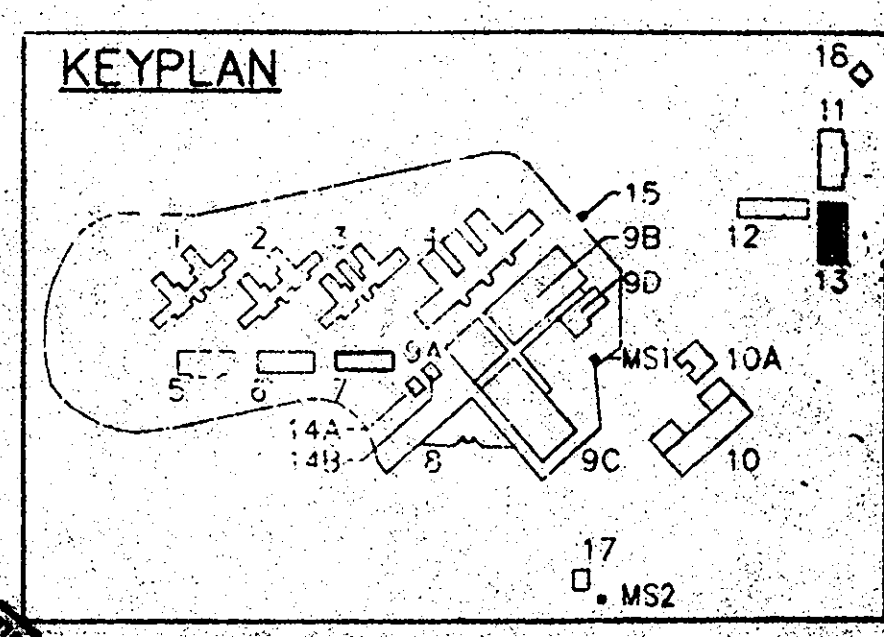
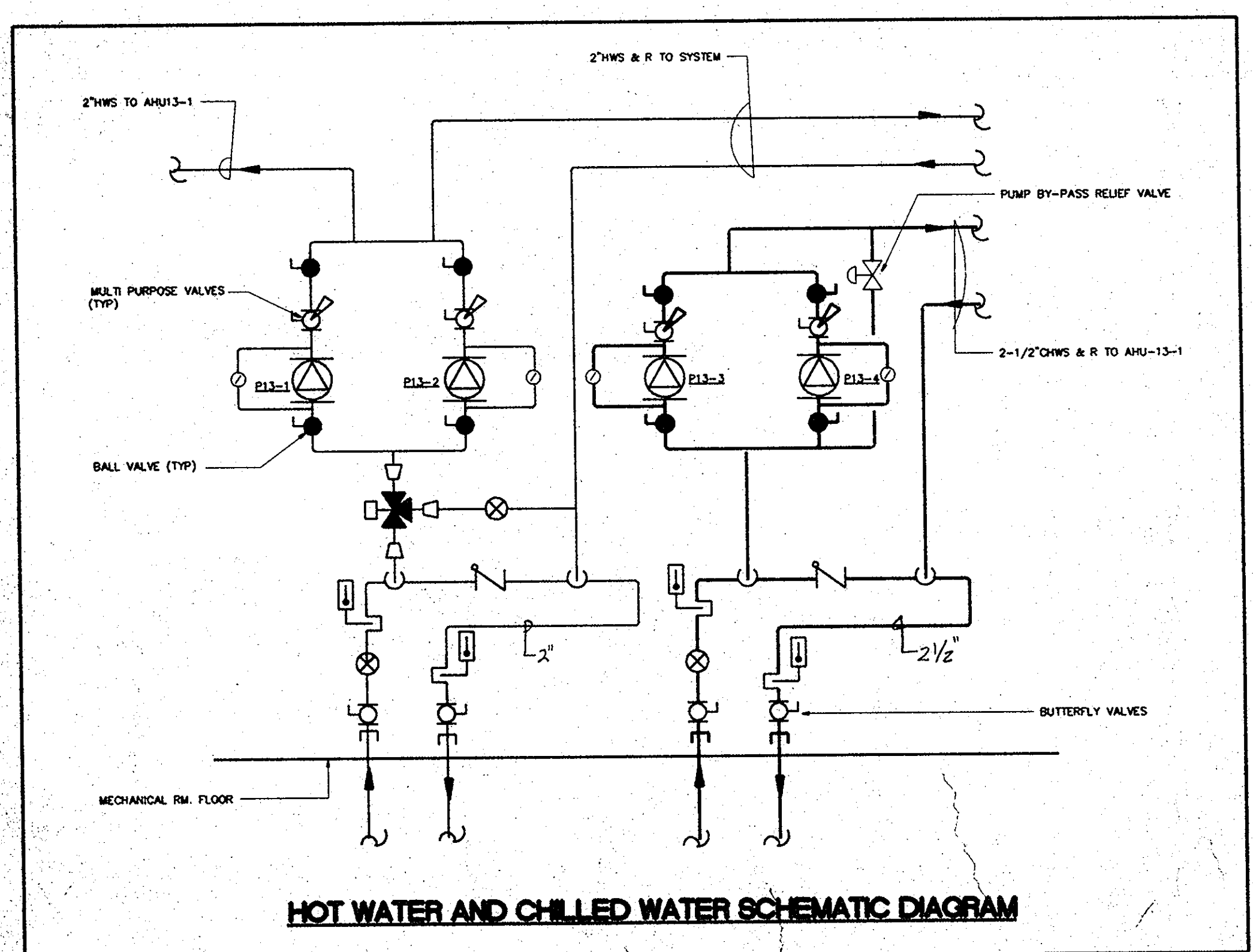
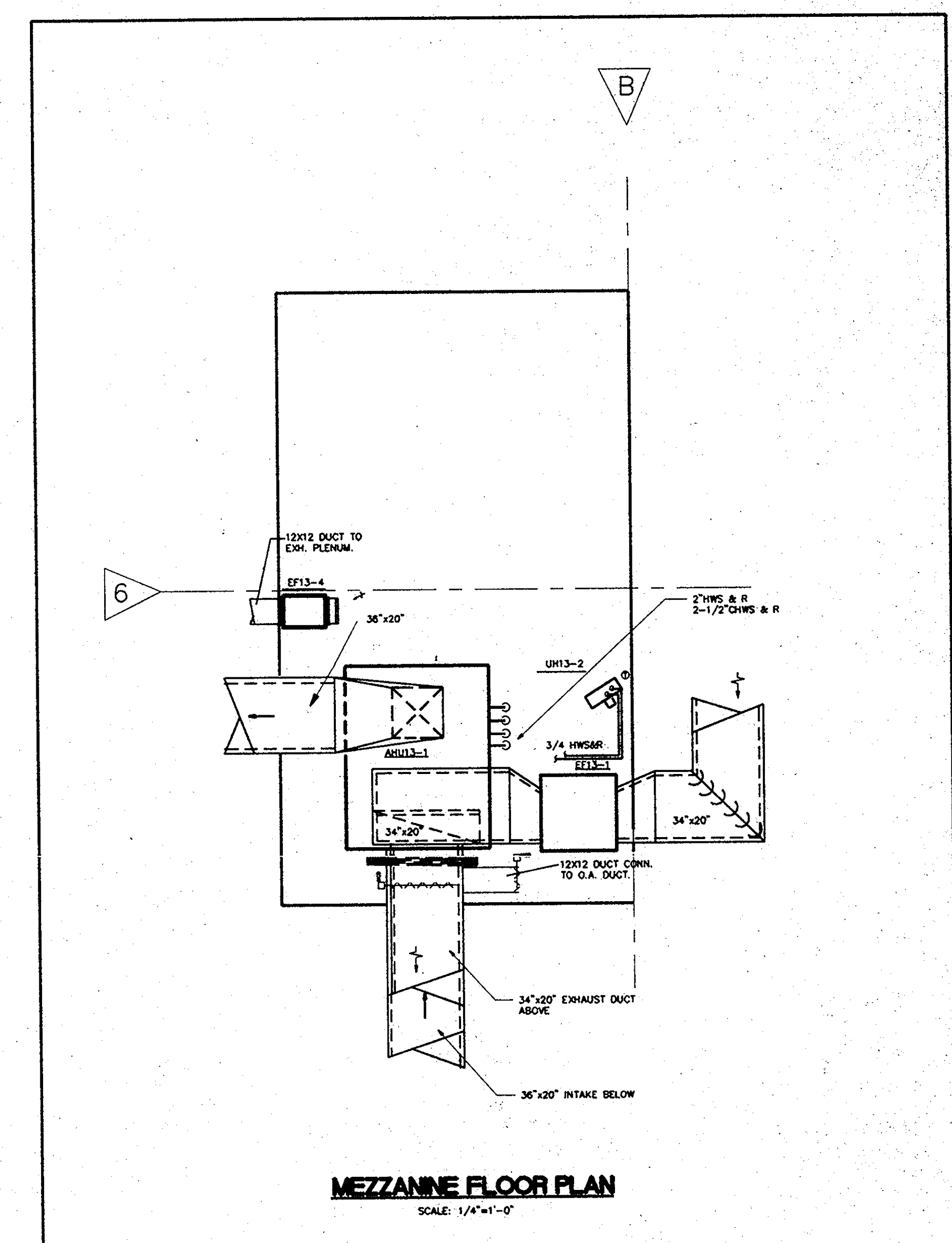
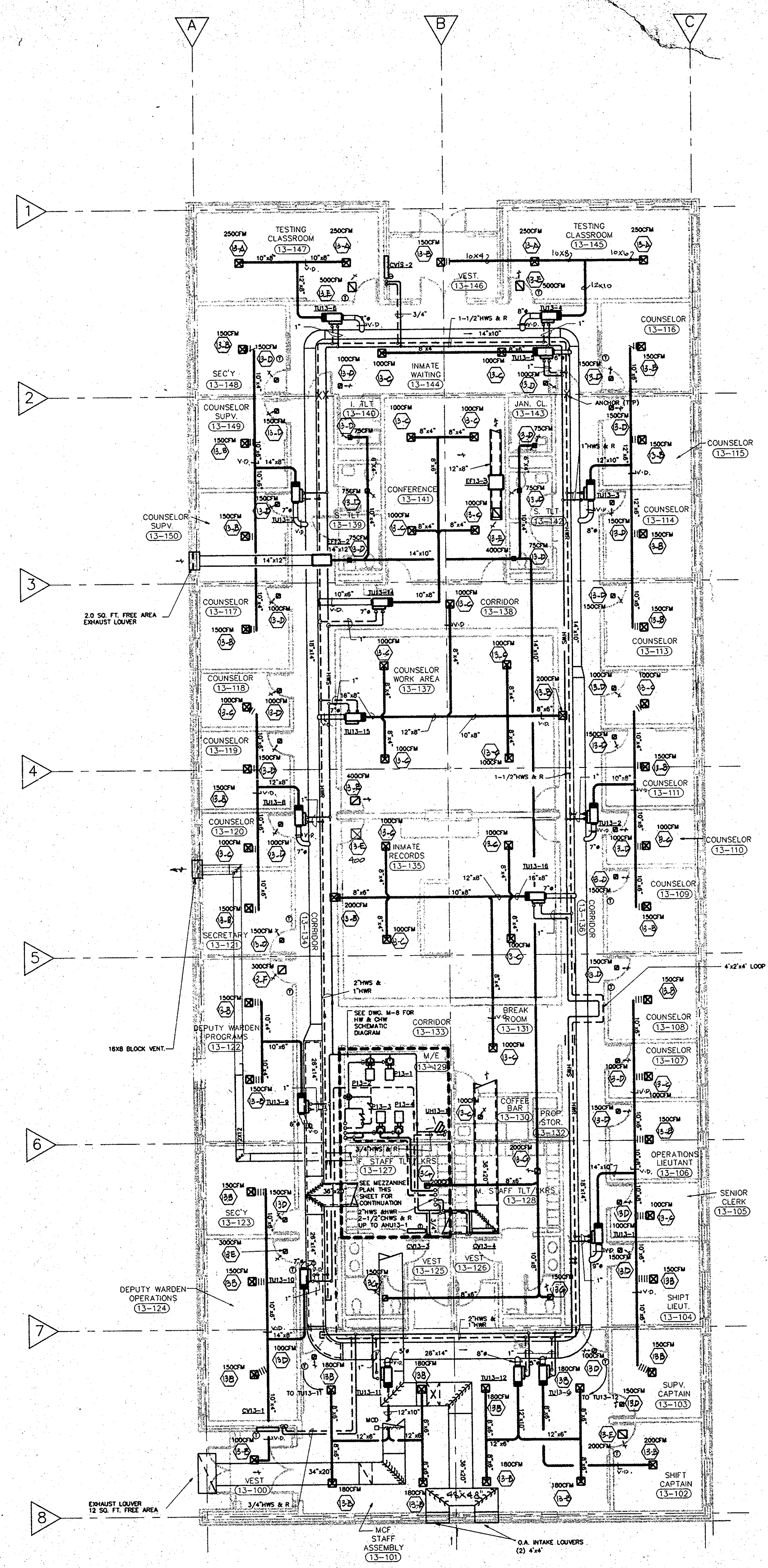


MECHANICAL ROOM LAYOUT
SCALE: 1/4"=1'-0"



REVISIONS		STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS	
mark	date	description	date
			2017.06.19

DRAWING PREPARED BY: Henningson, Durham & Richardson, Inc. & Maguire Group, Inc.
 PROJECT: 350 Bed Facility For Women Correctional Institution, Niantic, Connecticut
 DRAWING NO.: BI-JA-217C
 SCALE: 1/4"=1'-0"

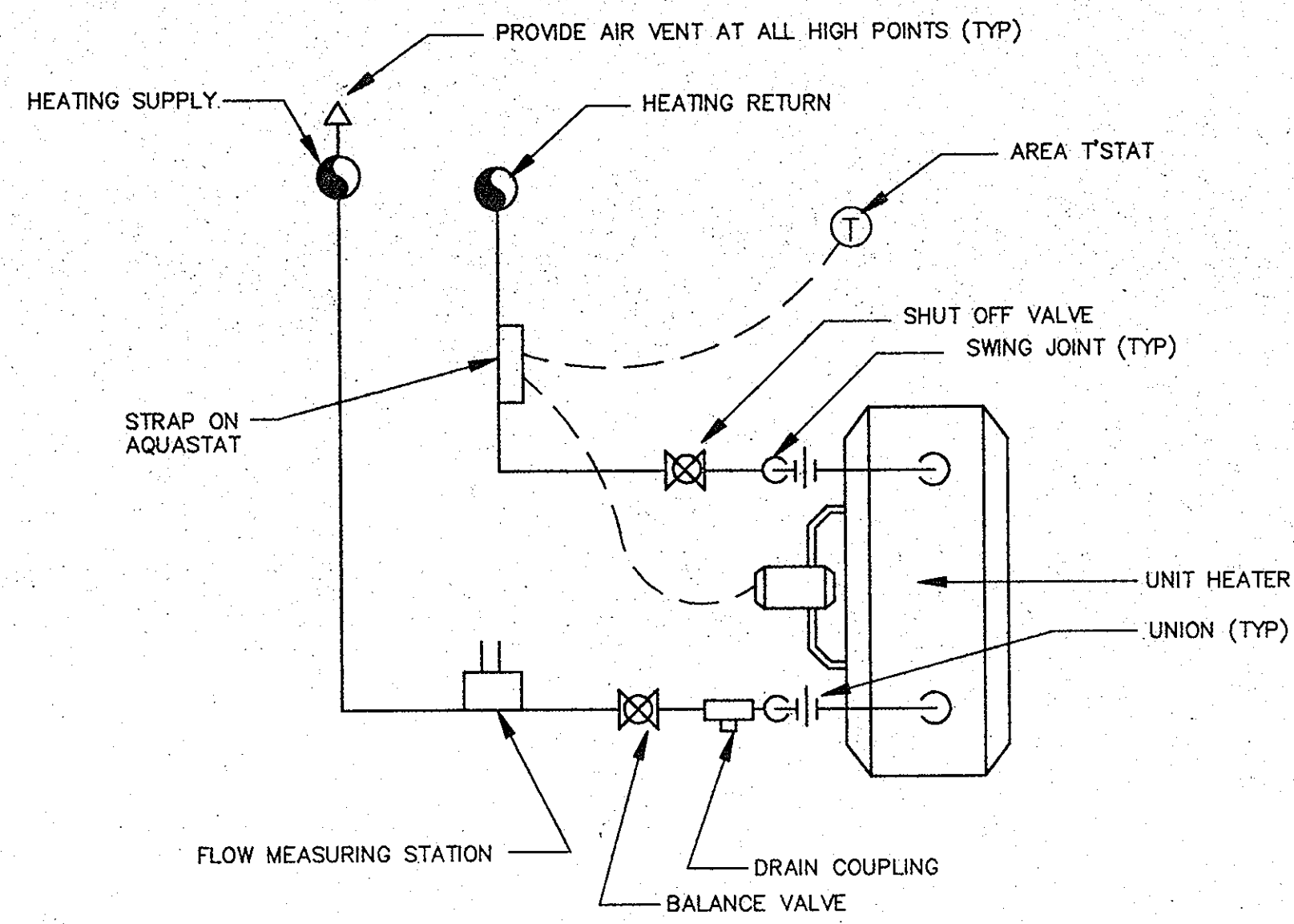


13 MIN. OPERATIONS MECHANICAL FLOOR PLAN
SCALE: 1/8" = 1'-0"



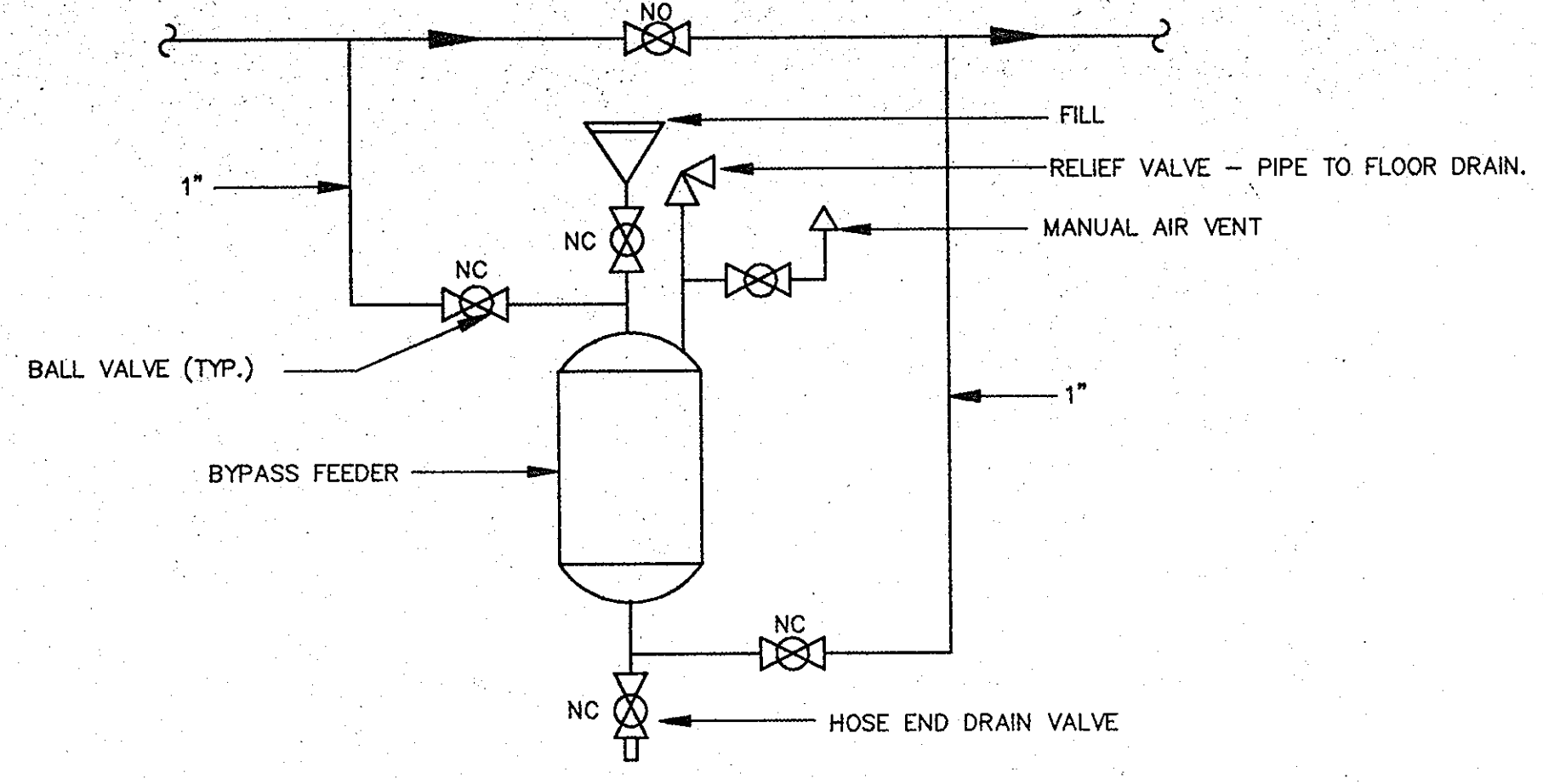
REVISIONS		DATE	
mark	date	description	

drawing title BLDG #13 MIN OPERATIONS BUILDING MECHANICAL FLOOR PLAN	drawing no. BI-JA-217C
drawings prepared by Henningson, Durham & Richardson, Inc. Maguire Group, Inc.	date 02/26/91
project 350 Bed Facility For Women Correctional Institute, Niantic, Connecticut	scale 1/8" = 1'-0"
approved by A.A.	drawing no. M1-18
project no. BI-JA-217C	drawing title STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS



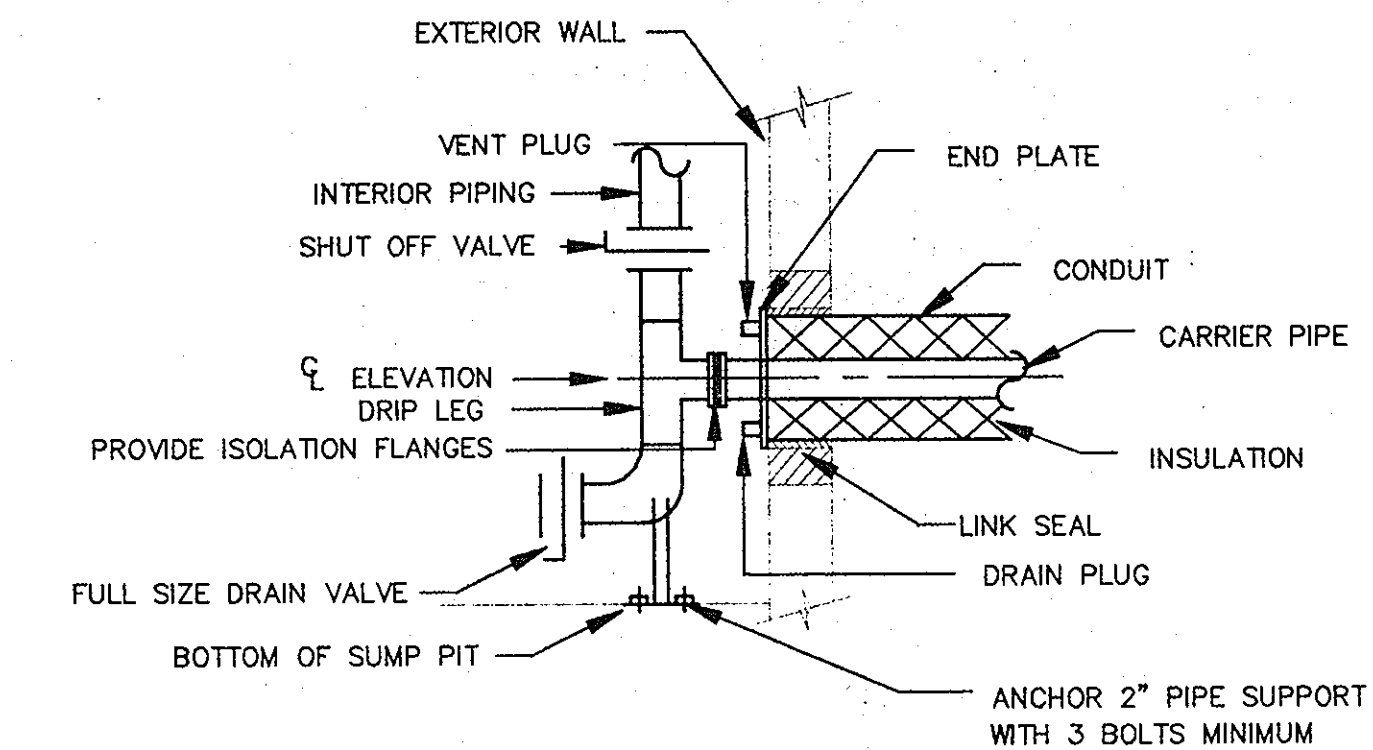
TYPICAL HORIZONTAL UNIT HEATER PIPING DETAIL

NO SCALE



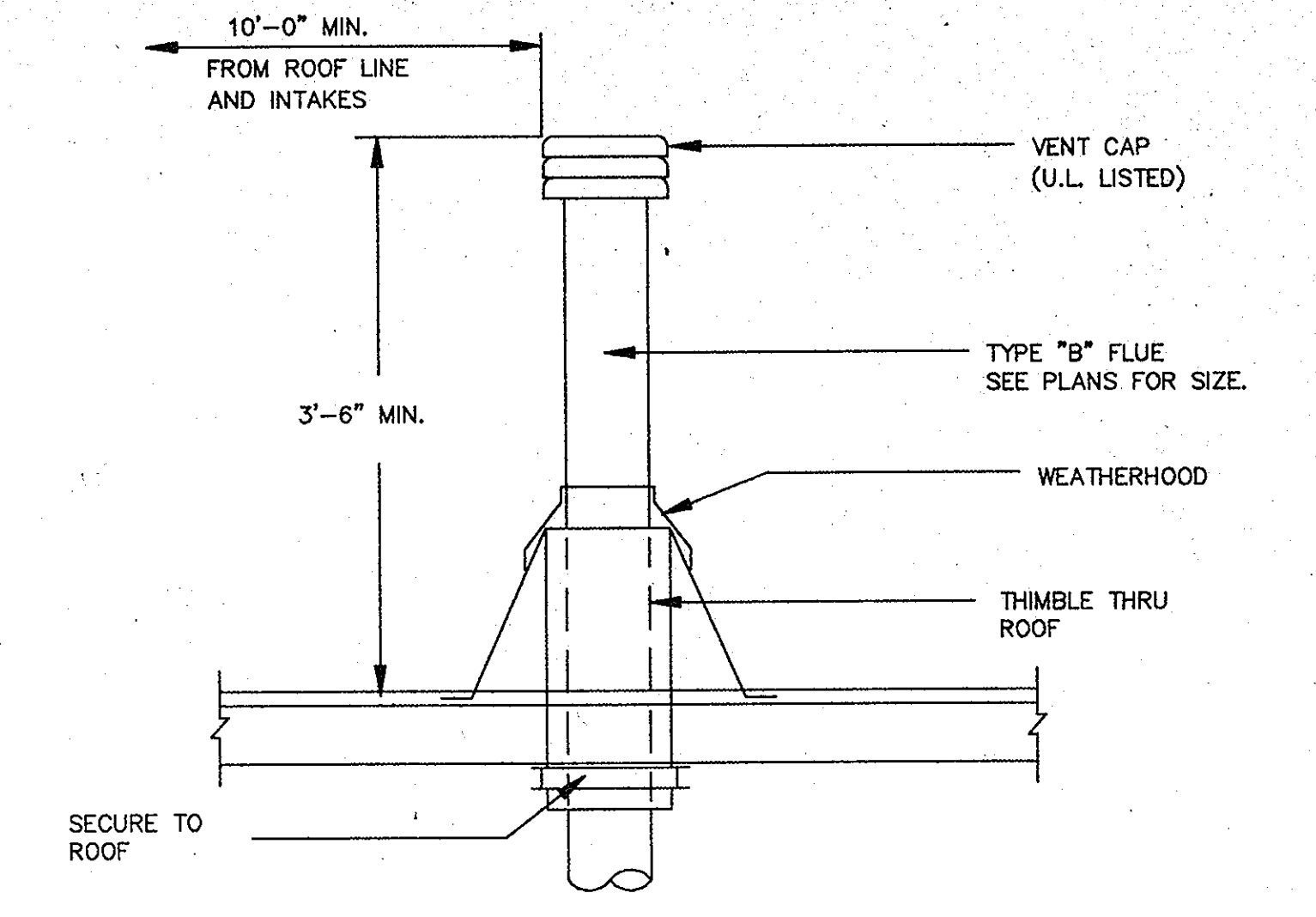
CHEMICAL BYPASS FEEDER PIPING DETAIL

NO SCALE



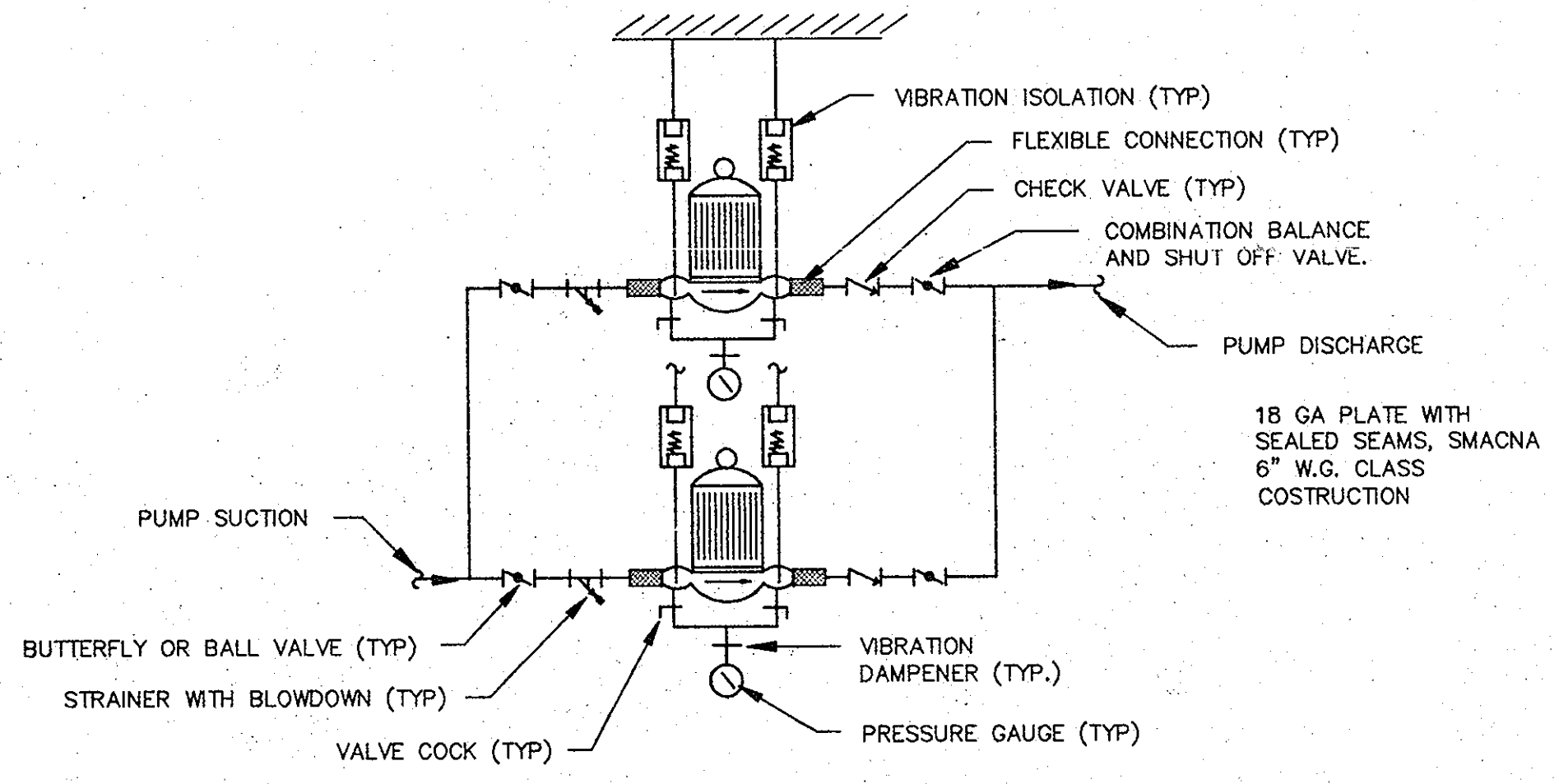
CONDUIT ENTRANCE DETAIL

NO SCALE



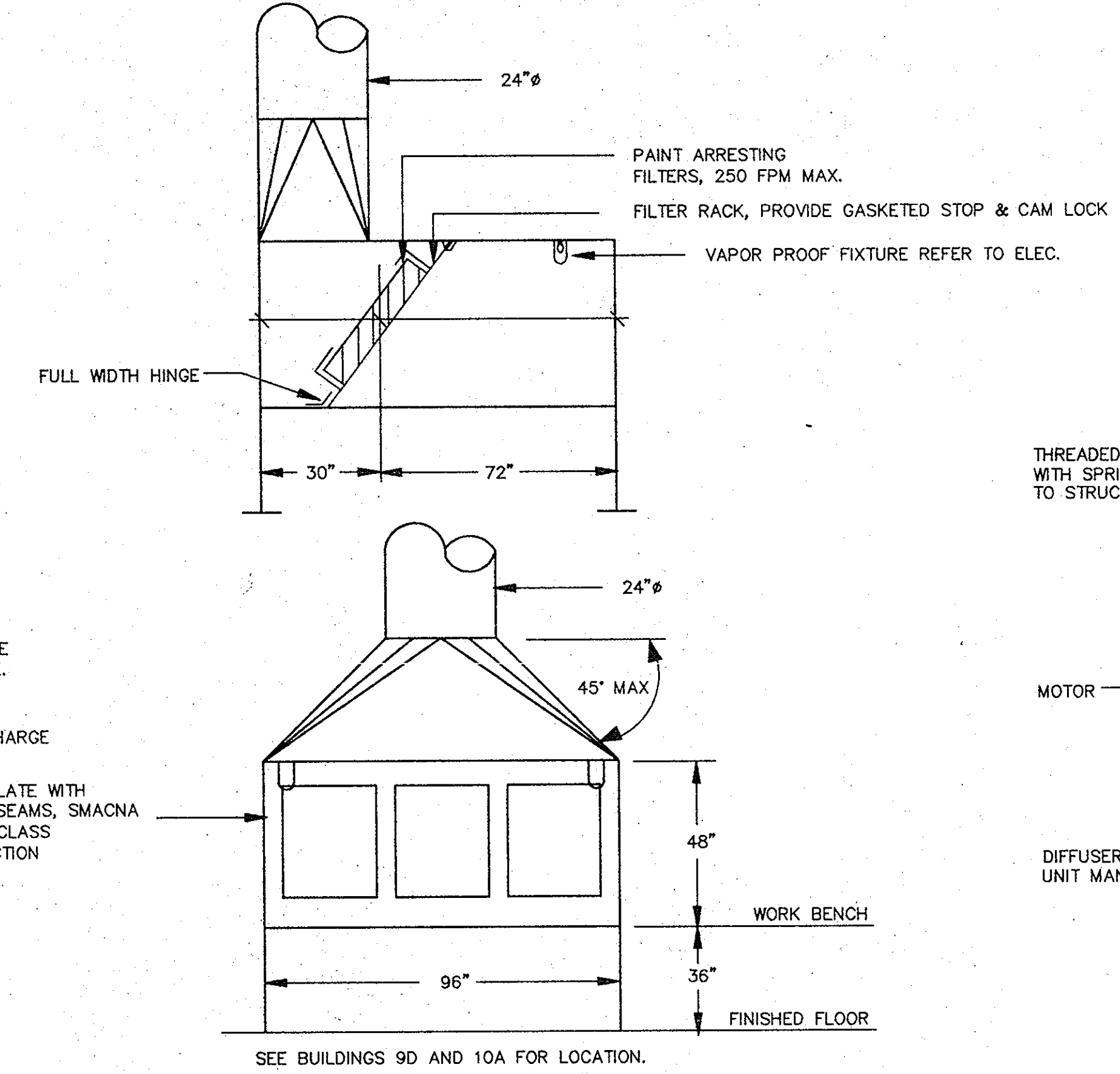
GAS FLUE DETAIL

NO SCALE



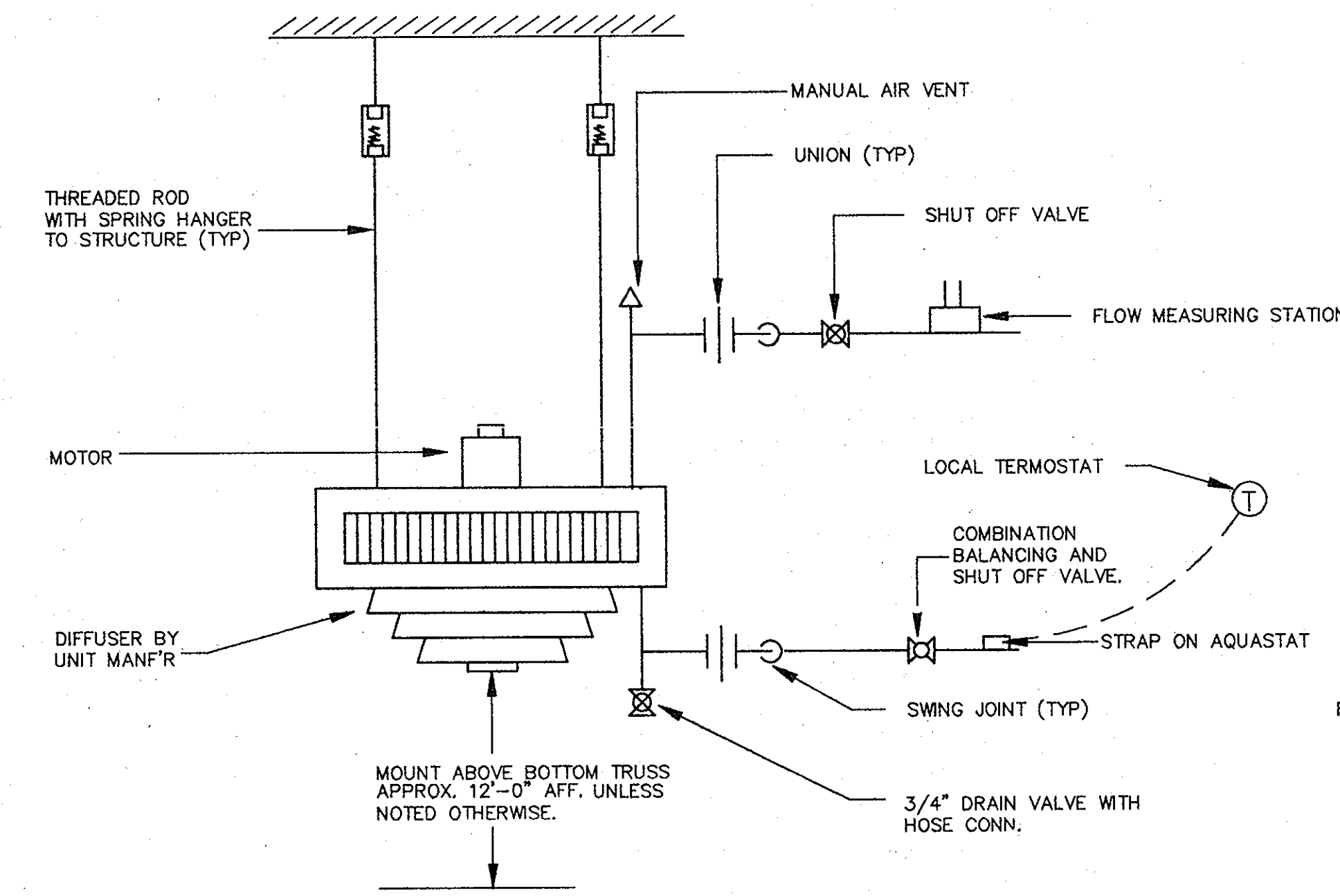
INLINE PUMP DETAIL

NO SCALE



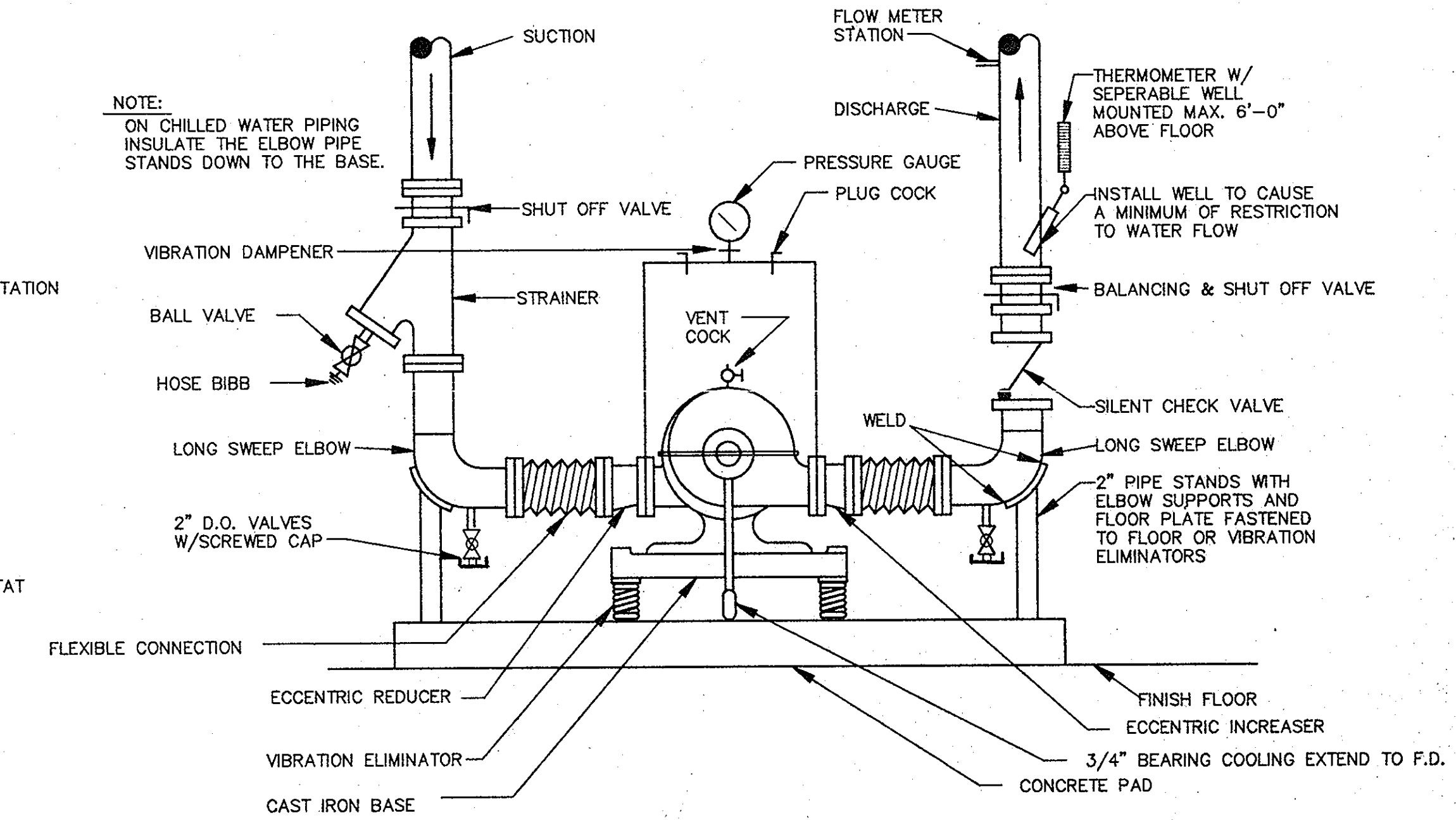
PAINT BOOTH DETAIL

NO SCALE



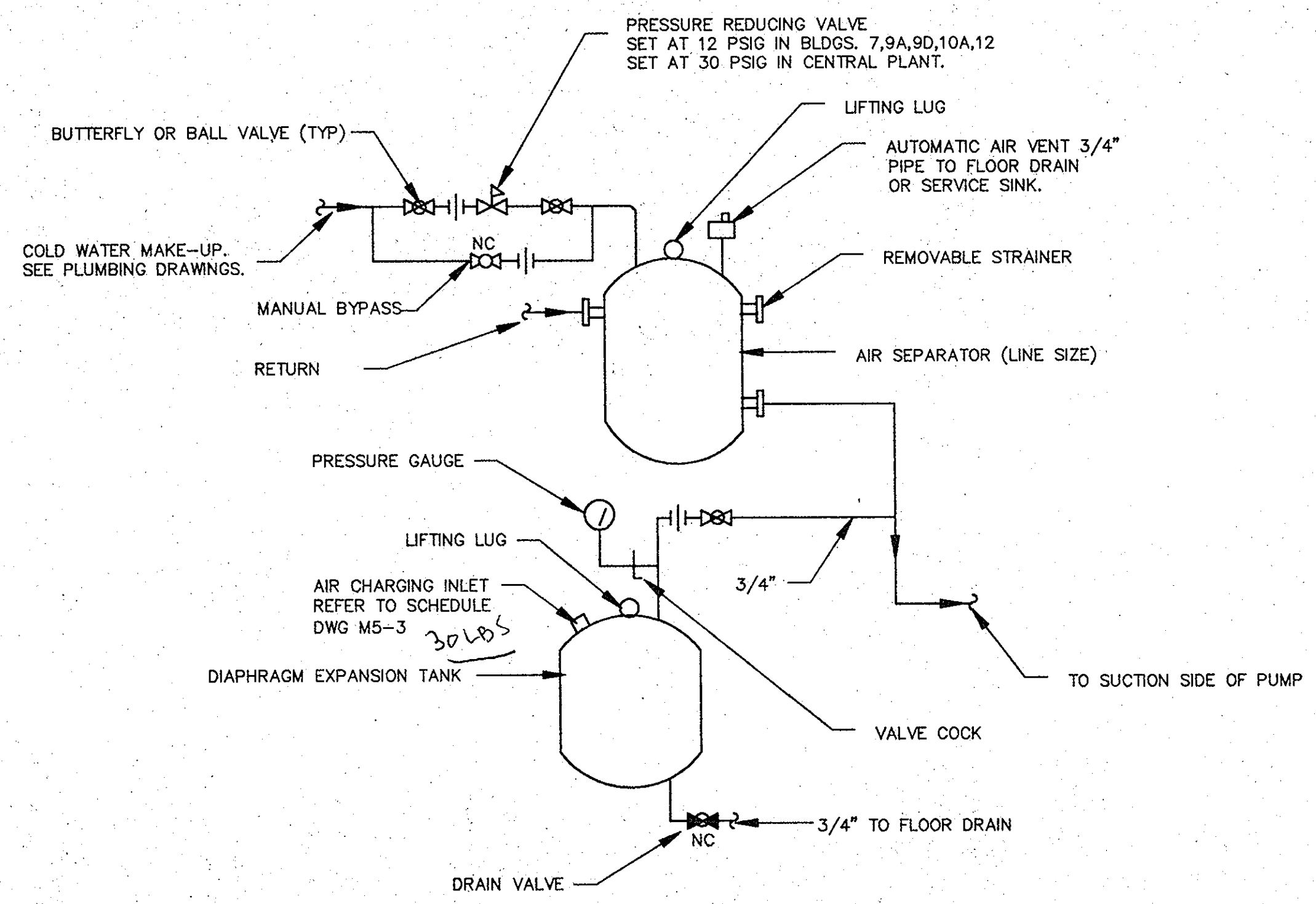
TYPICAL VERTICAL UNIT HEATER PIPING DETAIL

NO SCALE



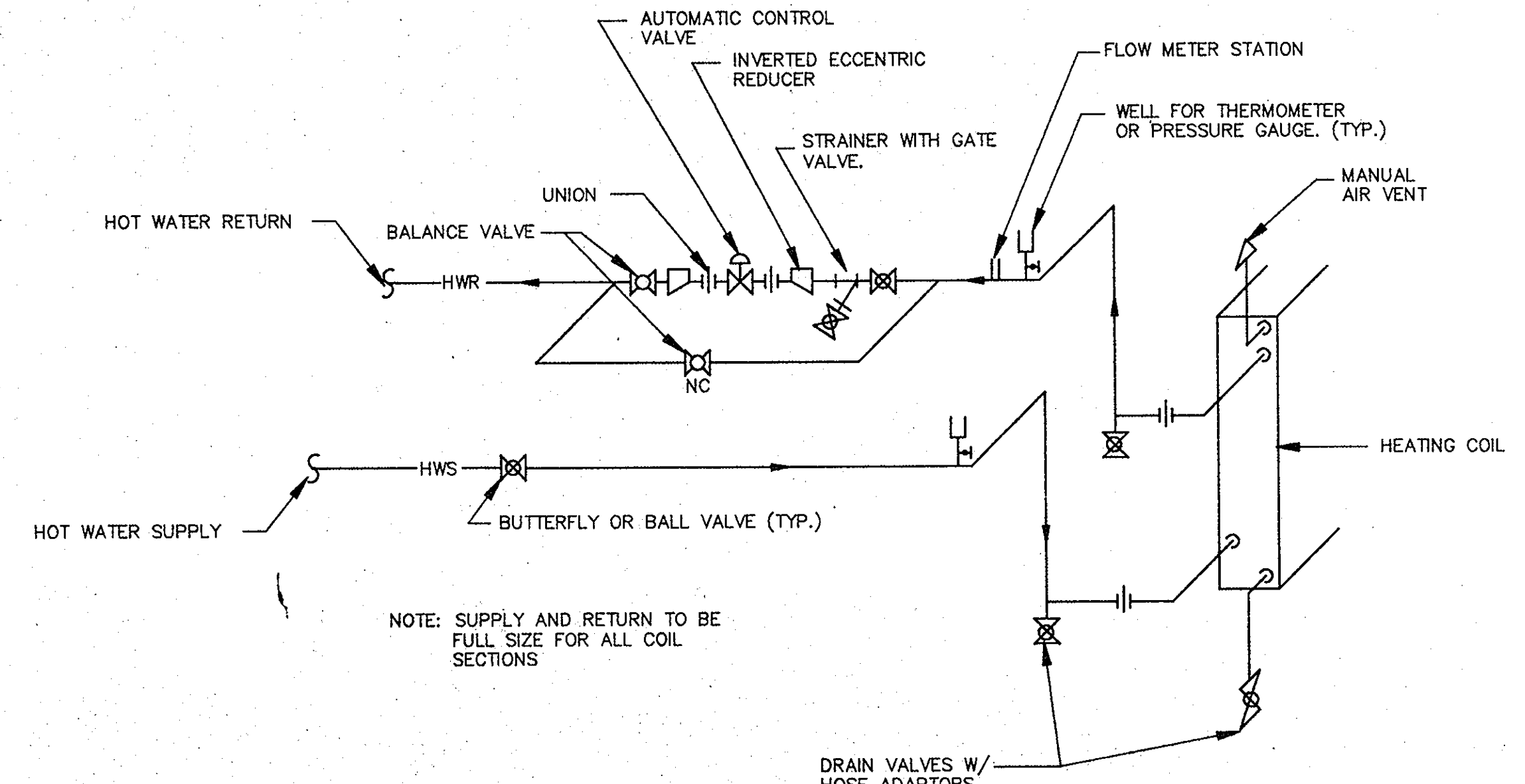
HORIZONTAL SPLIT CASE PUMP PIPING DETAIL

NO SCALE



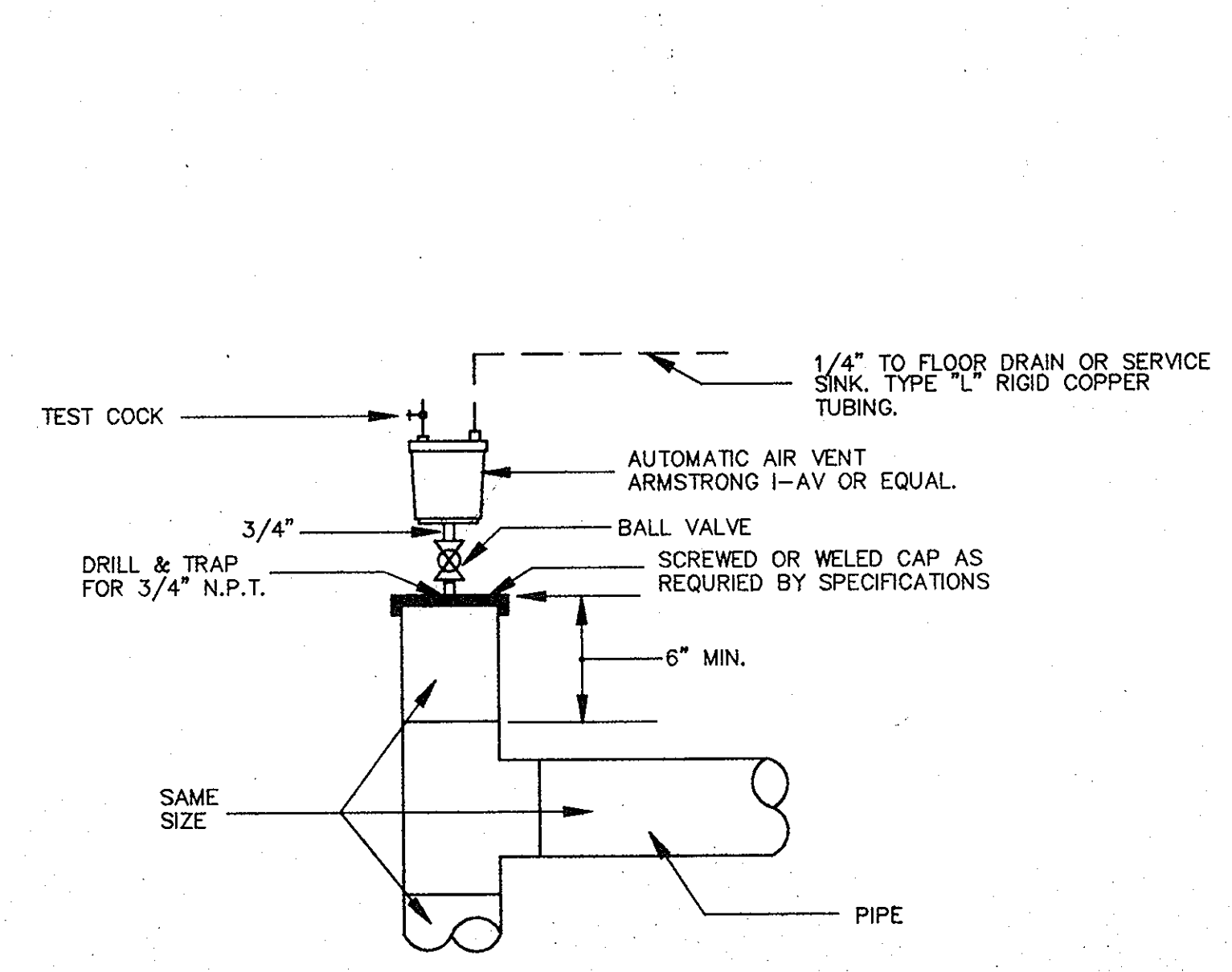
EXPANSION TANK DETAIL

NO SCALE



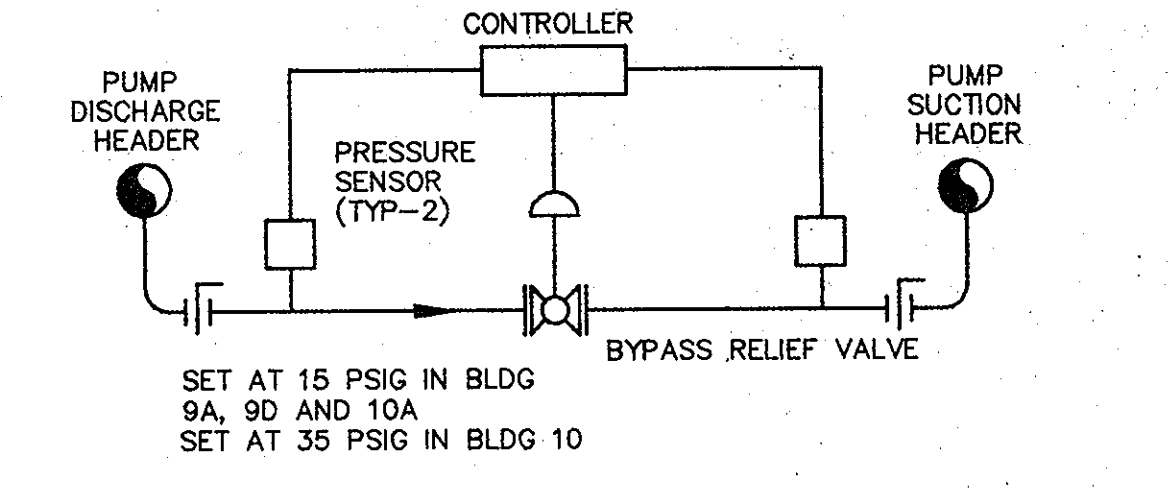
HOT WATER HEATING COIL PIPING DETAIL

NO SCALE



AUTOMATIC AIR VENT DETAIL

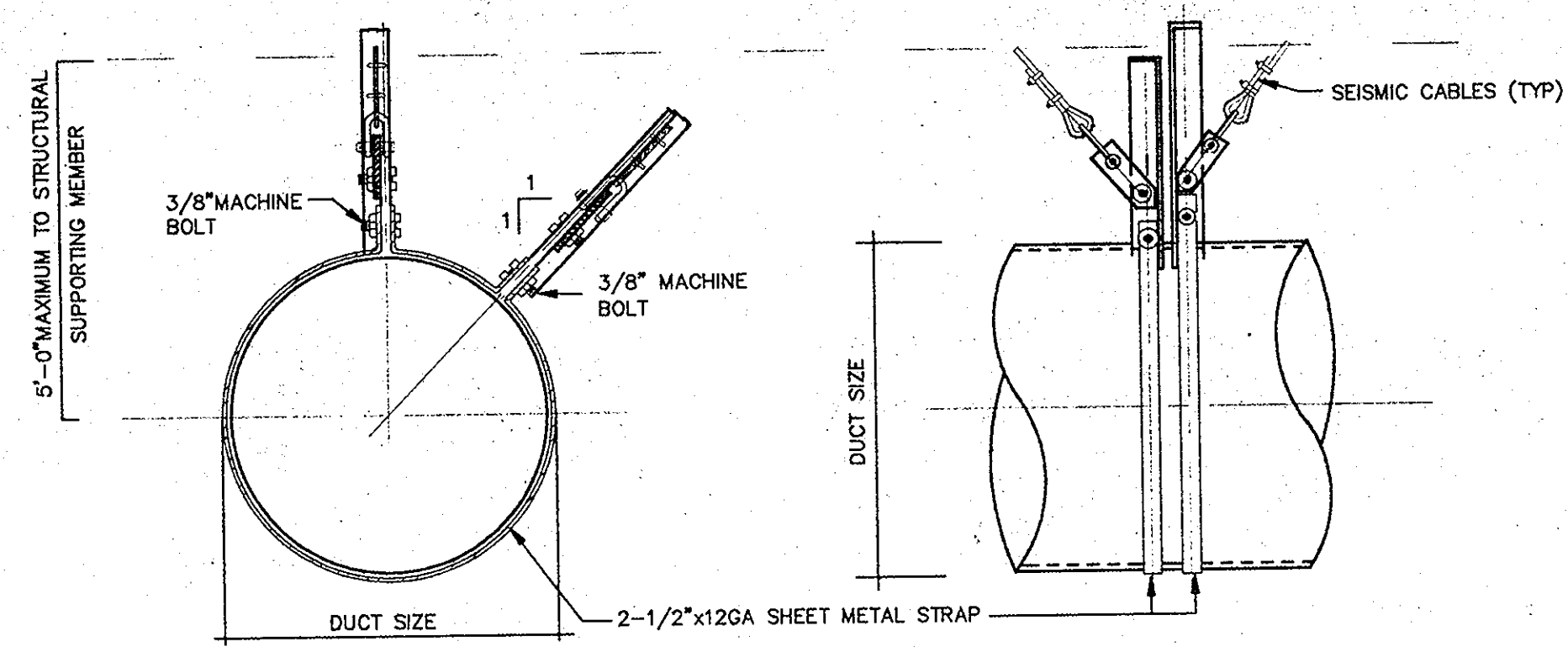
NO SCALE



PUMP BYPASS RELIEF DIAGRAM

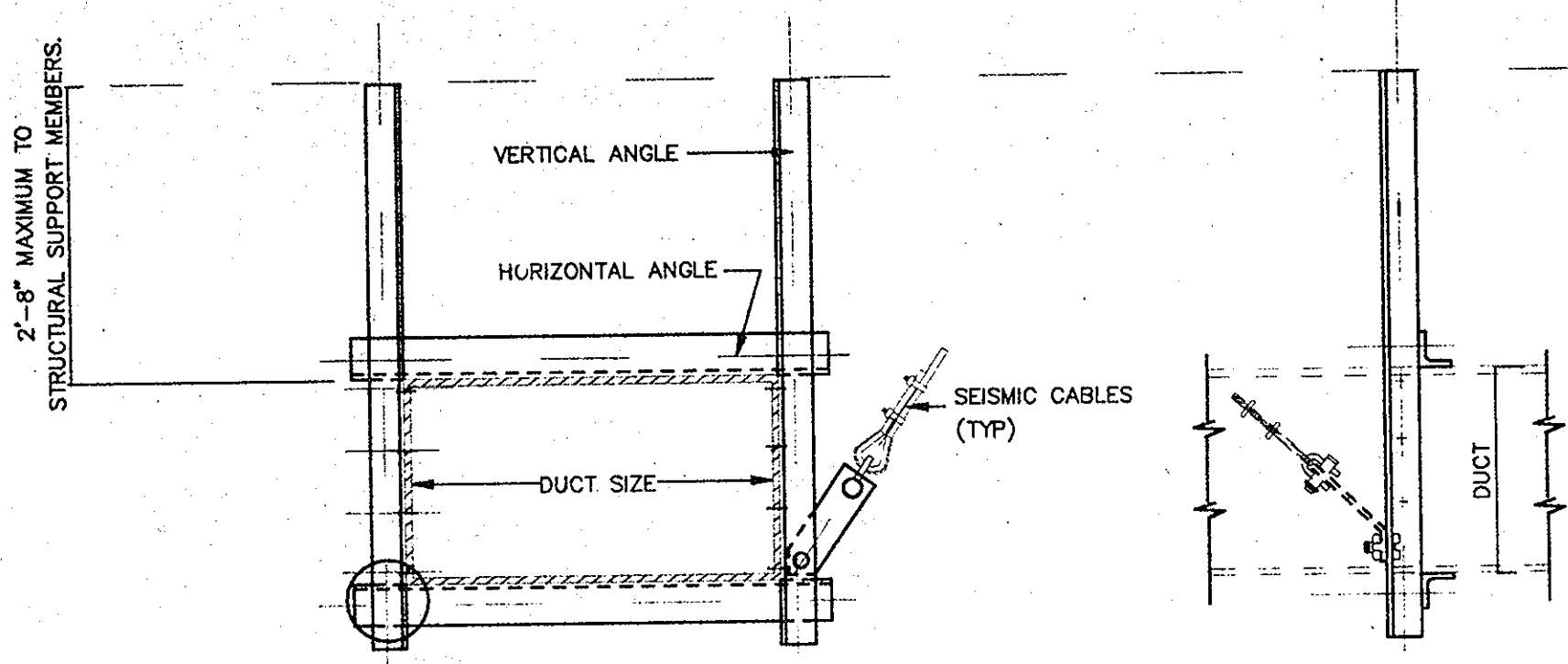
NO SCALE

HVAC DETAILS			STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS	
REVISIONS			DRAWINGS PREPARED BY	
mark	date	description	Henningson, Durham & Richardson, Inc.	
			DATE: OCT. 26, 1968	
			SCALE: AS NOTED	
			DRAWN BY: M.J.T.	
			APPROVED BY: REG.	
			DRAWING NO.: M3-1	
			PROJECT NO.: BI-JA-217C	



TYPICAL BRACING FOR 28"Ø AND 36"Ø DIAMETER DUCT

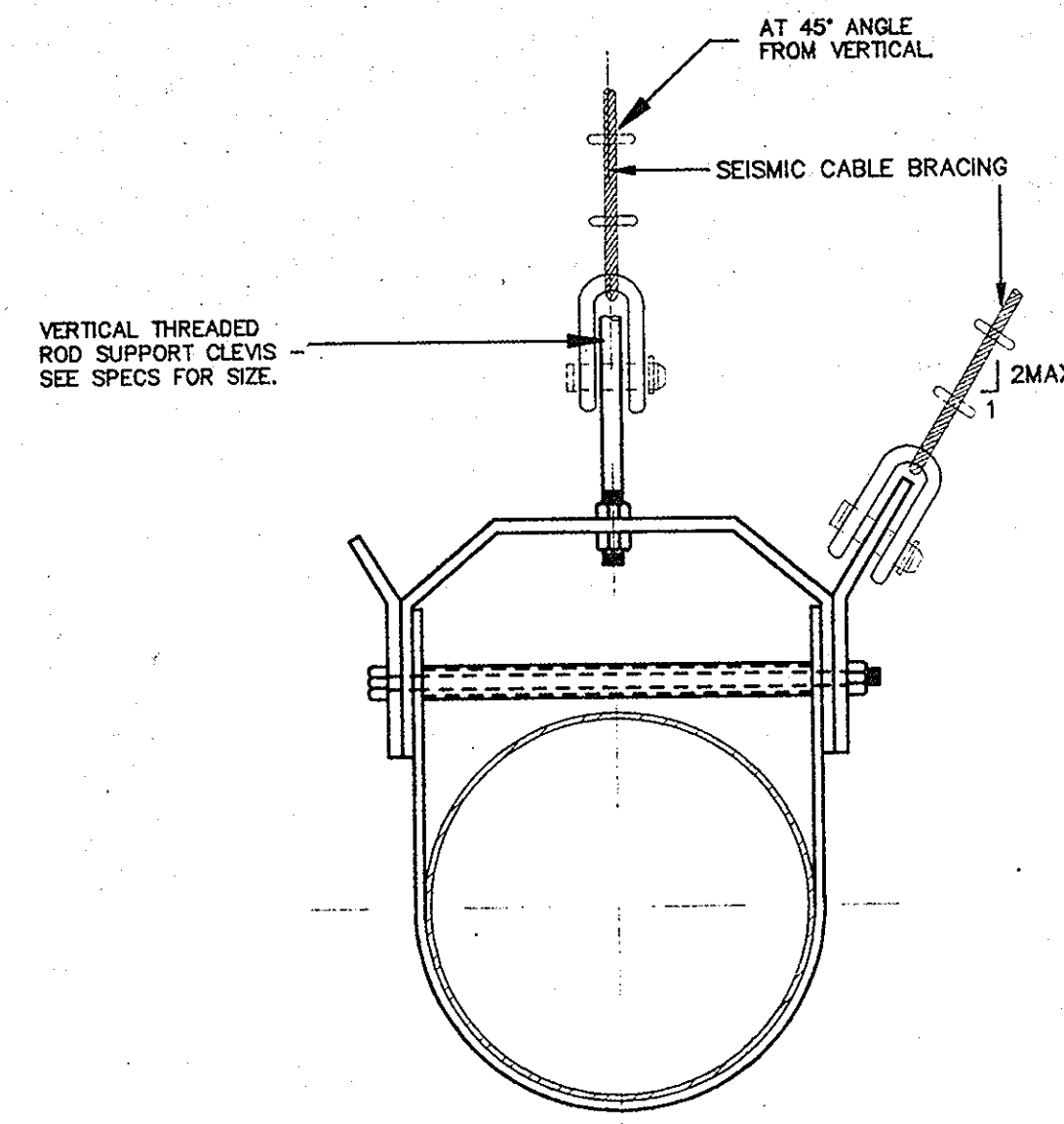
NO SCALE



TYPICAL SIDE BRACING FOR RECTANGULAR DUCTS

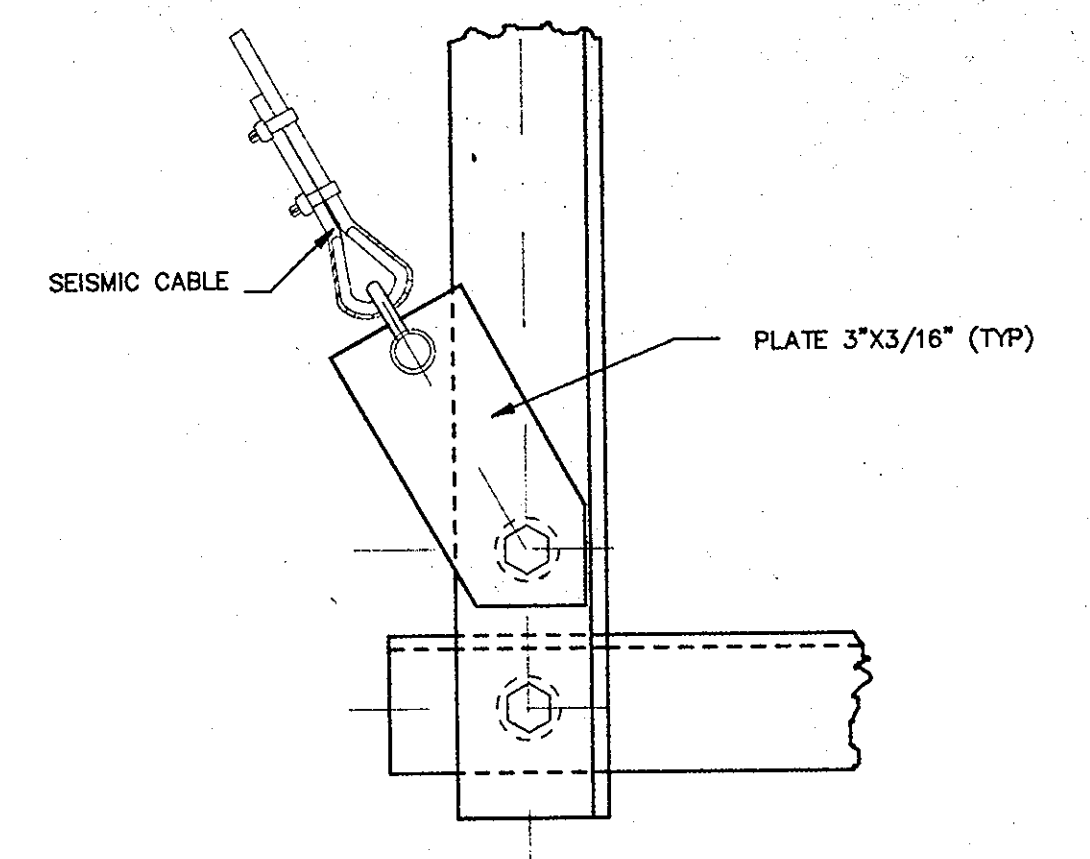
NO SCALE

NOTES:
 1. WHEN COMBINATION OF DUCTS ARE USED IN LIEU OF ONE DUCT AT LEAST 2 SIDES OF EACH DUCT MUST BE CONNECTED TO VERTICAL OR HORIZONTAL ANGLES (ADD HORIZONTAL "L'S" IF REQUIRED).
 2. SIZE OF ALL ANGLES AS PER SMACNA REQUIREMENTS



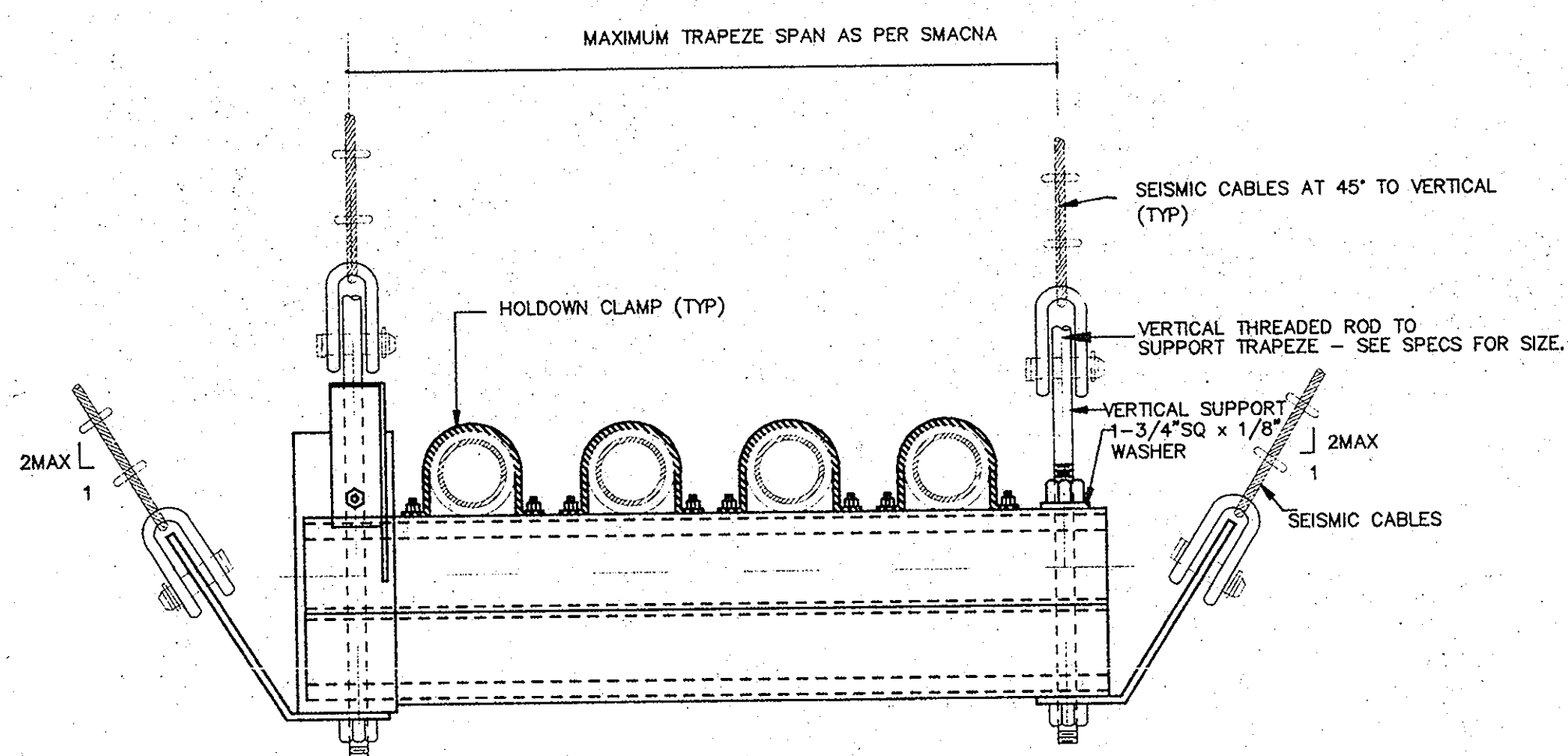
CABLE BRACING

NO SCALE



CABLE BRACING FOR RECTANGULAR DUCTS

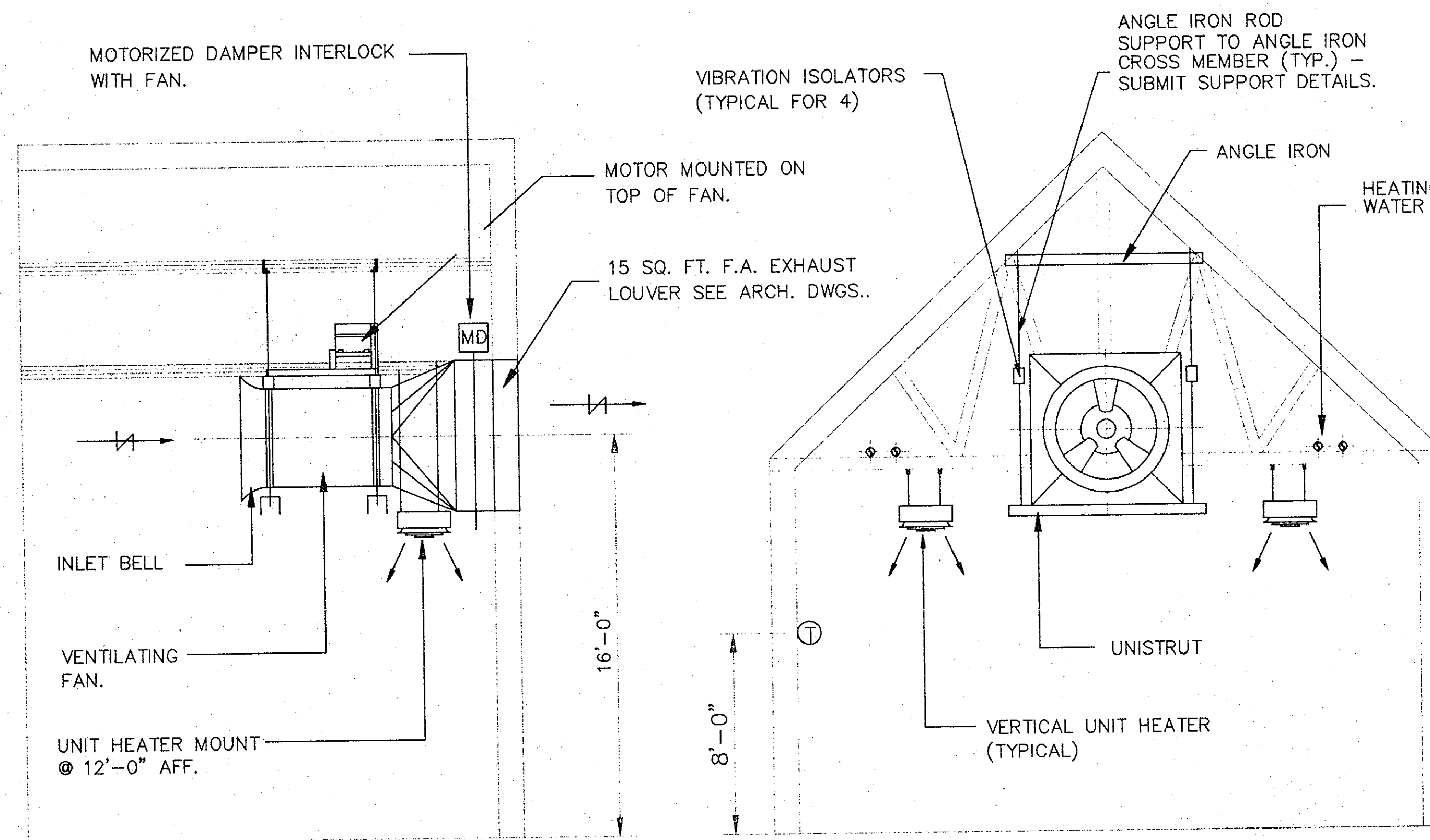
NO SCALE



TYPICAL BRACING OF PIPES ON TRAPEZE

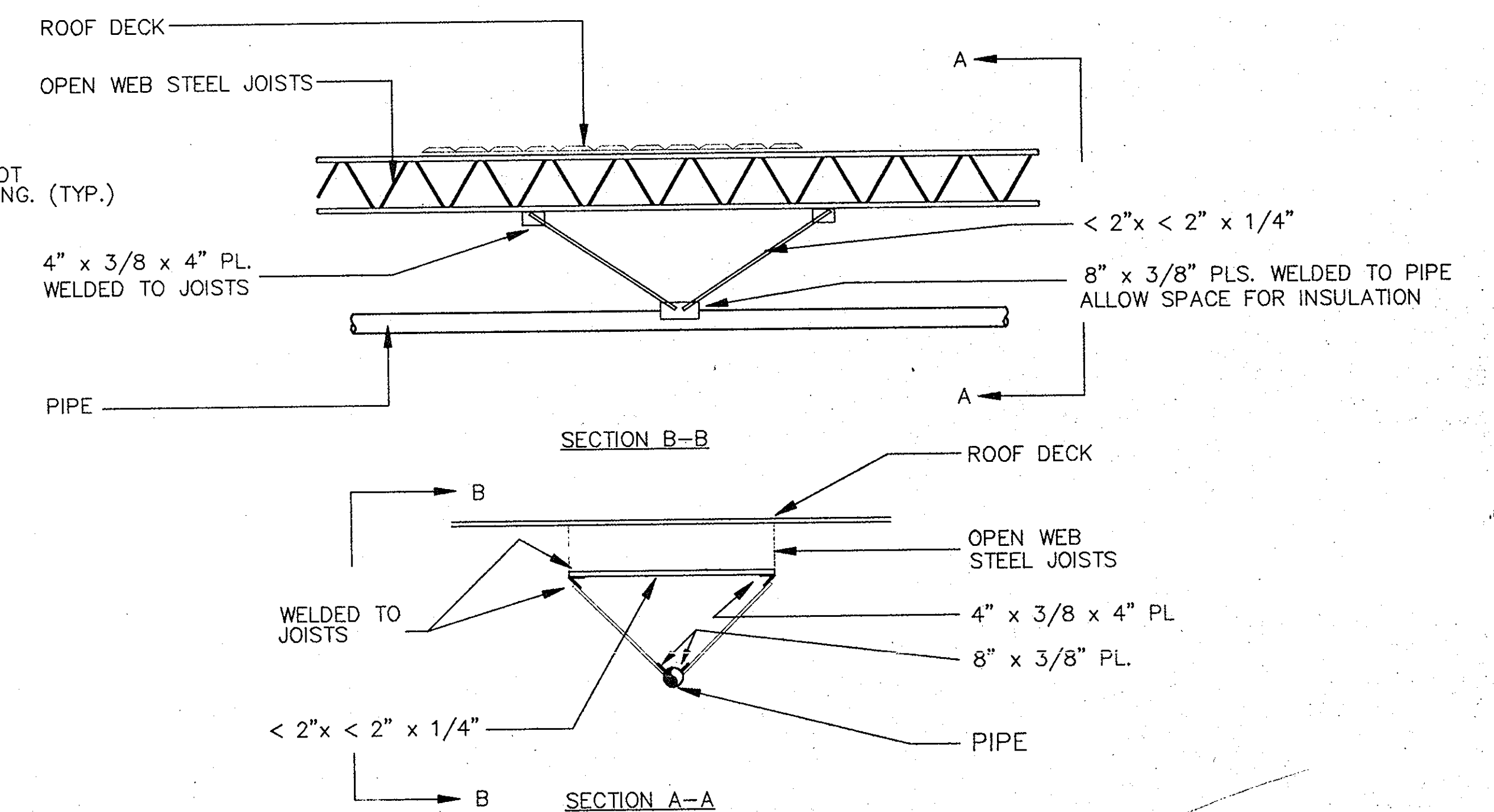
NO SCALE

NOTE:
 1. THIS DETAIL APPLIES ONLY FOR COLD WATER PIPE AND GAS



SECTION 1
 SCALE: 1/4"=1'-0" M3-2

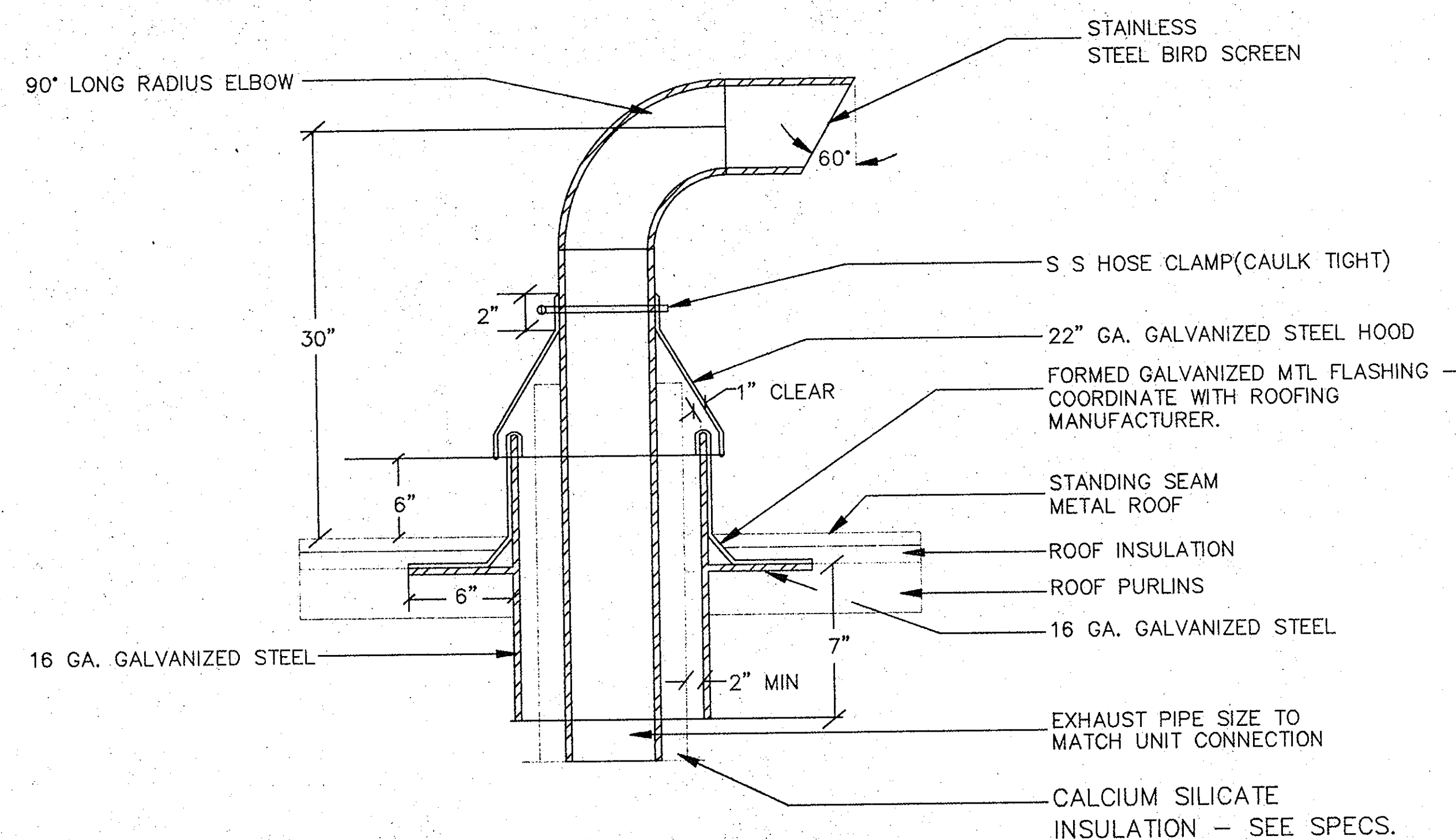
SECTION 2
 SCALE: 1/4"=1'-0" M3-2



NOTE: IF PIPING IS DIRECTLY UNDER JOISTS ONLY TWO STRUTS TO JOIST DIRECTLY ABOVE ARE NEEDED INSTEAD OF FOUR AS SHOWN.

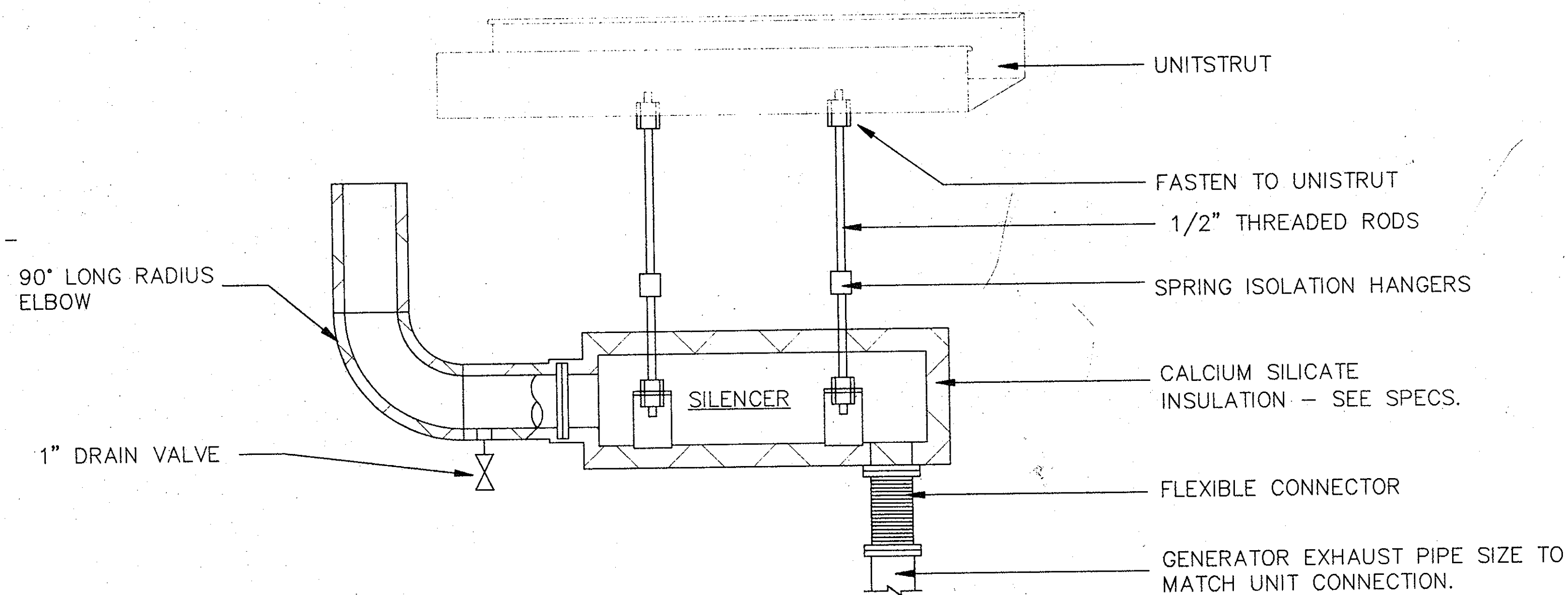
ANCHOR WITH JOISTS PARALLEL TO PIPE RUN

NO SCALE



EMERGENCY GENERATOR EXHAUST UP THRU ROOF DETAIL

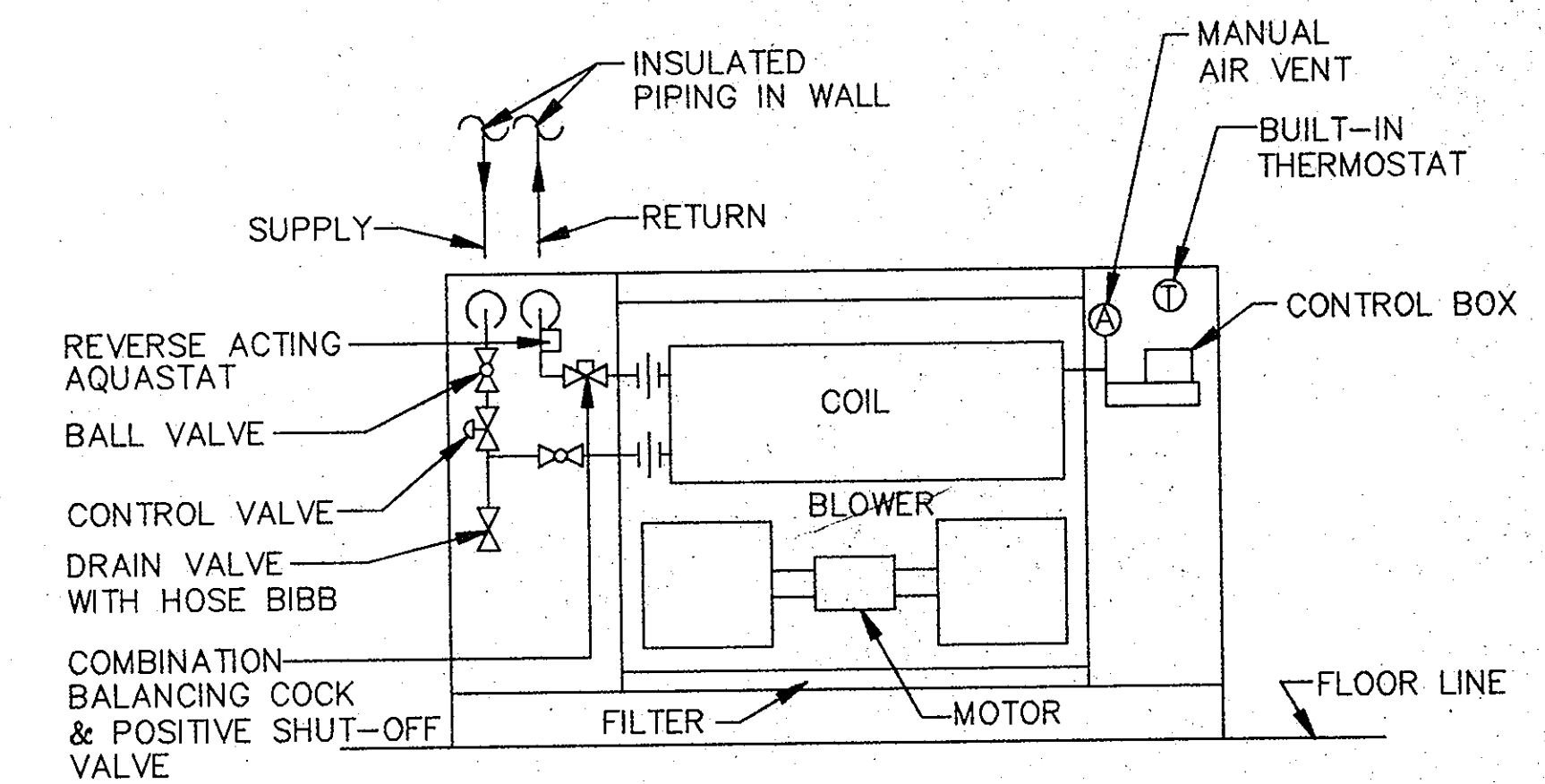
NO SCALE



GENERATOR SILENCER DETAIL

NO SCALE

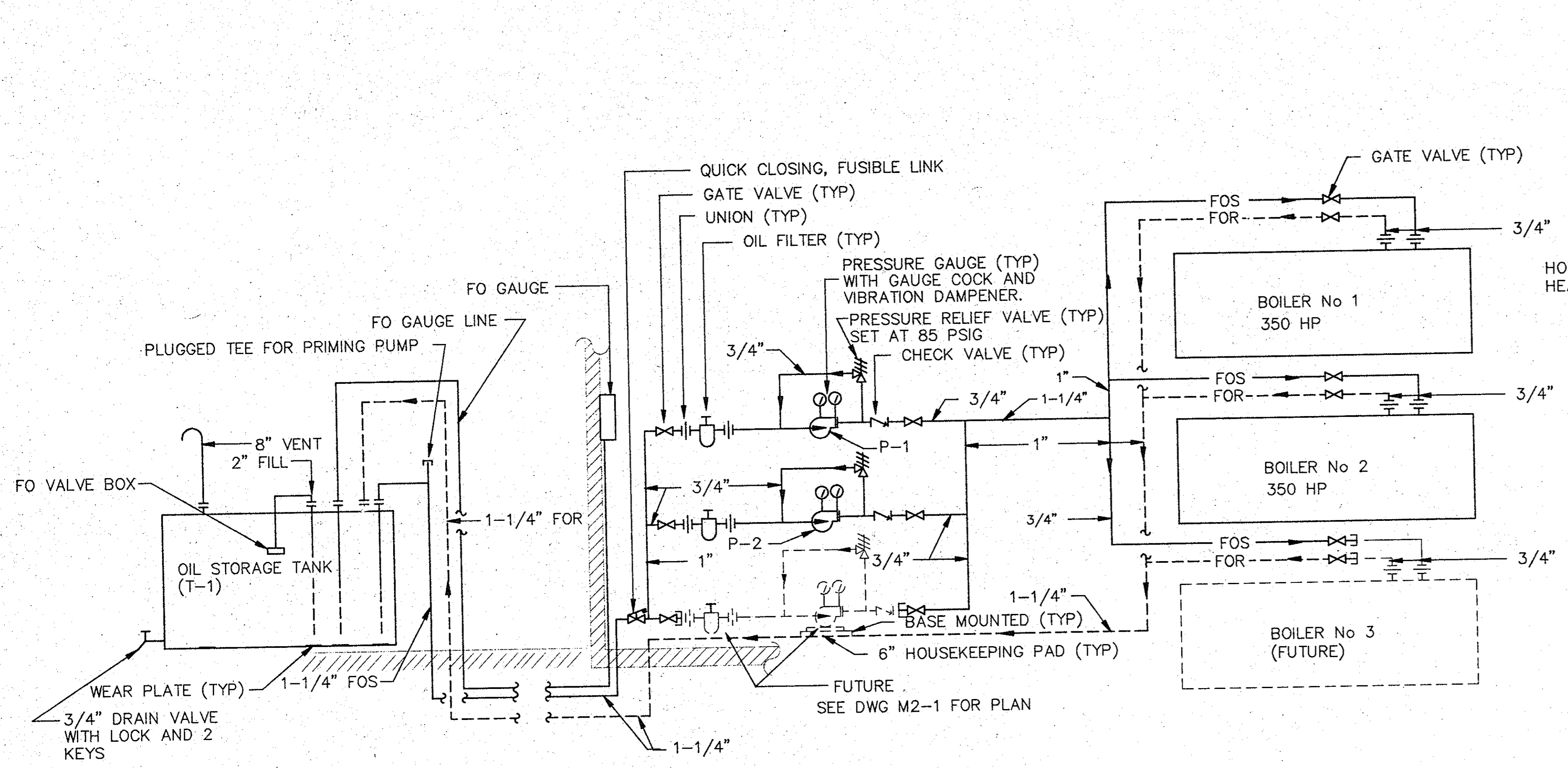
NOTE:
 SEISMIC CABLE BRACING IS IN ADDITION TO SUPPORT HANGERS AND RODS. SUPPORT HANGERS AND RODS ARE NOT SHOWN FOR CLARITY.



CABINET UNIT HEATER DETAIL

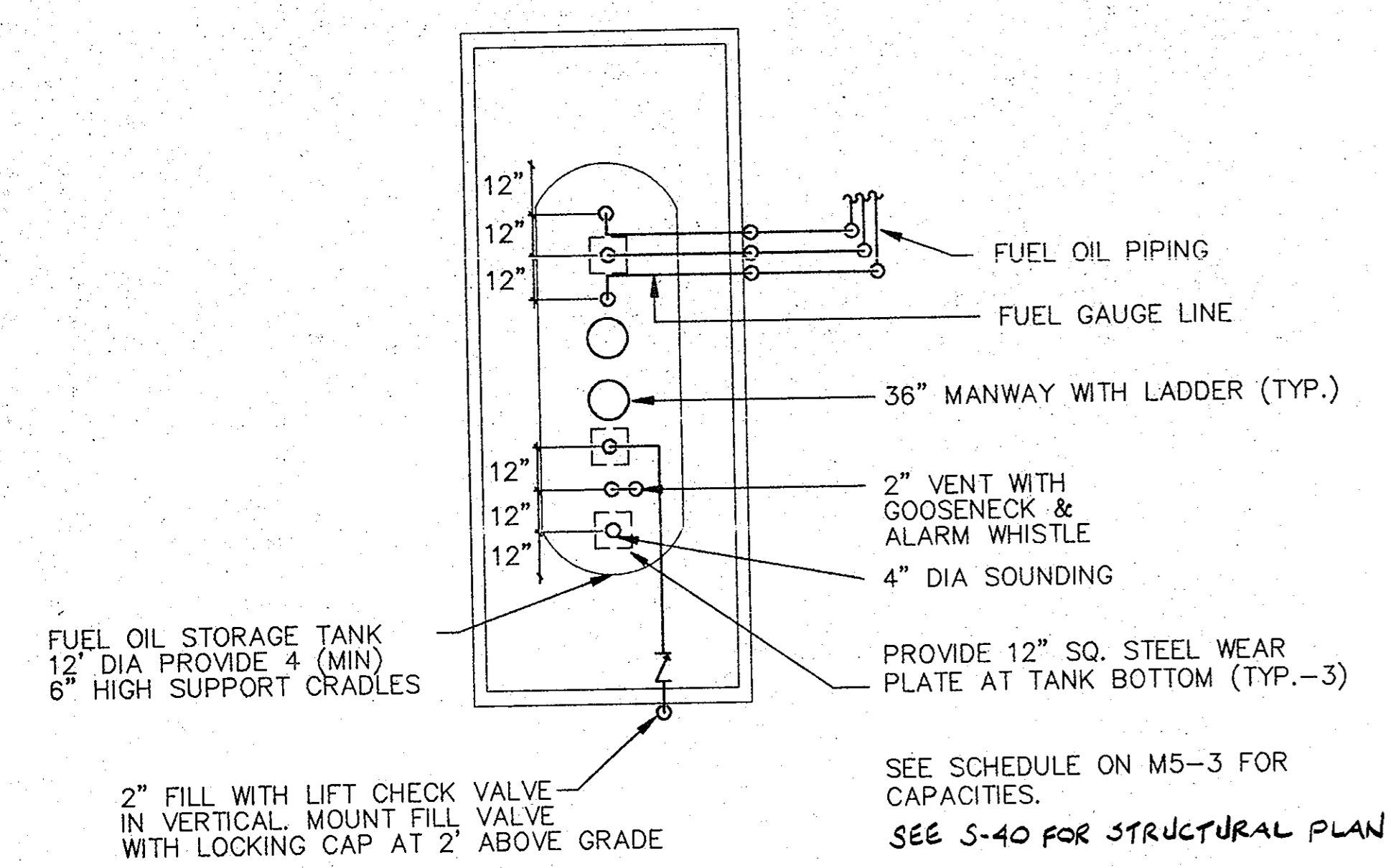
NO SCALE

HVAC DETAILS			STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS	
mark	date	description	date	scale
			OCT. 28, 1991	AS NOTED
REVISIONS			DRAWINGS PREPARED BY Henningson, Durham & Richardson, Inc. Dallas, Texas	
			Project New Britain, Connecticut	
			350 Bed Facility For Women M.J./TAE	
			Correctional Institution approved by	
			Mantic, Connecticut REG	
			drawing no. M3-2	
			project no. BI-JA-217C	



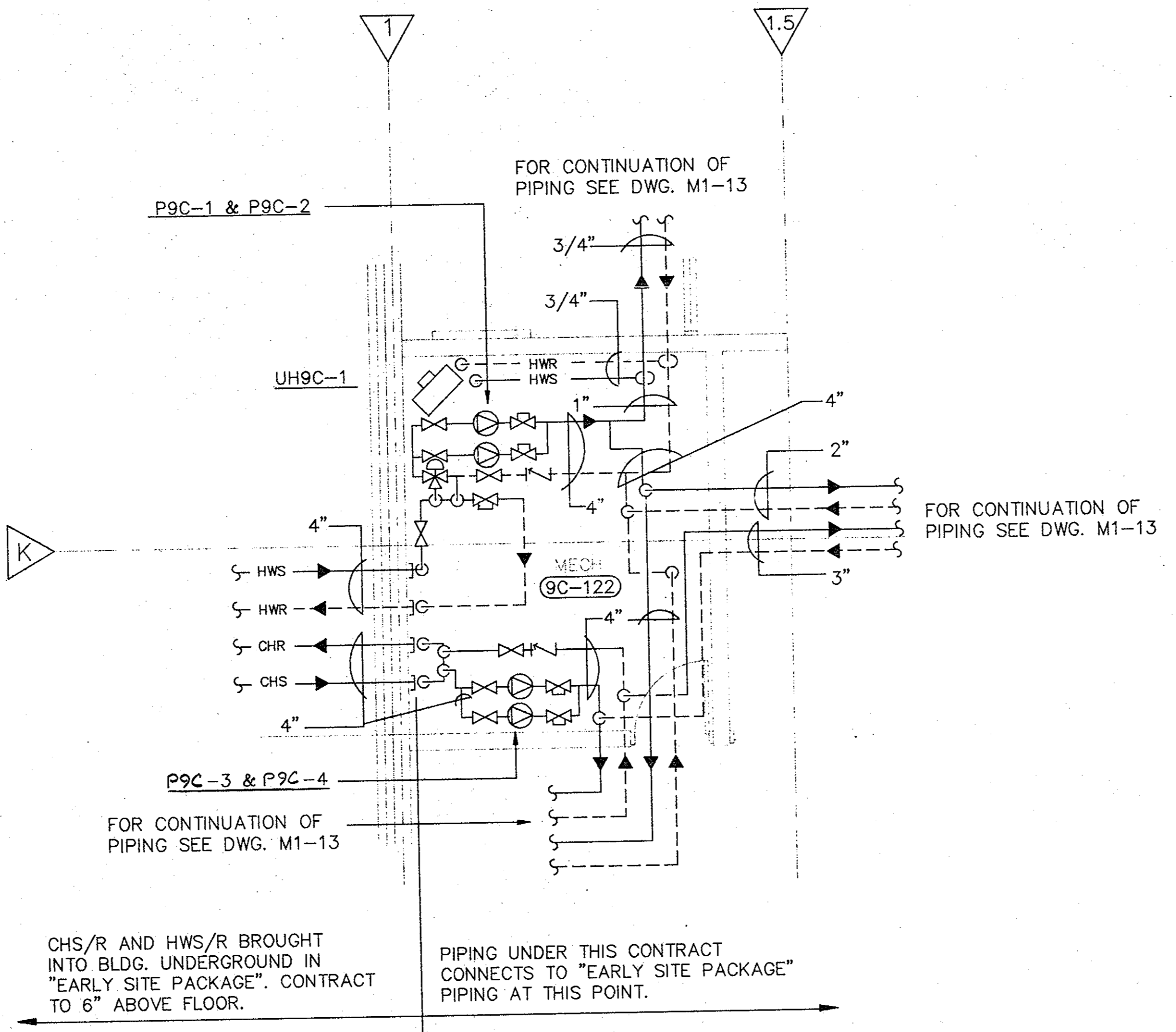
NO.2 FUEL OIL FLOW DIAGRAM

NO SCALE
 NOTES:
 PUMPS ARE 3/4 HP. AND 89.5 GPH EACH.
 (2) PUMPS TO OPERATE
 (1) PUMP FOR FUTURE



PLAN VIEW AT FUEL OIL TANK

NO SCALE

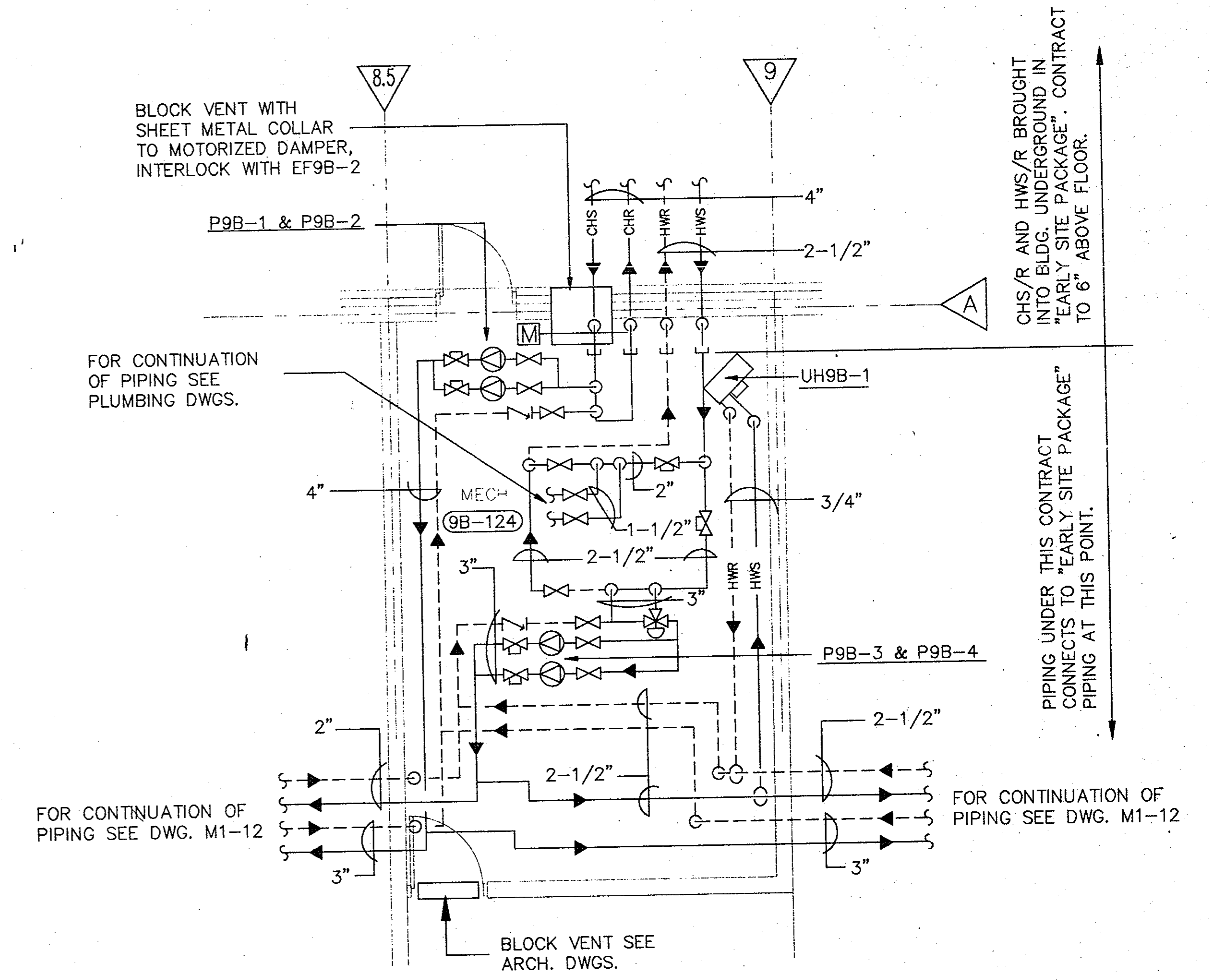


ENLARGED MECHANICAL ROOM 9C-122

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

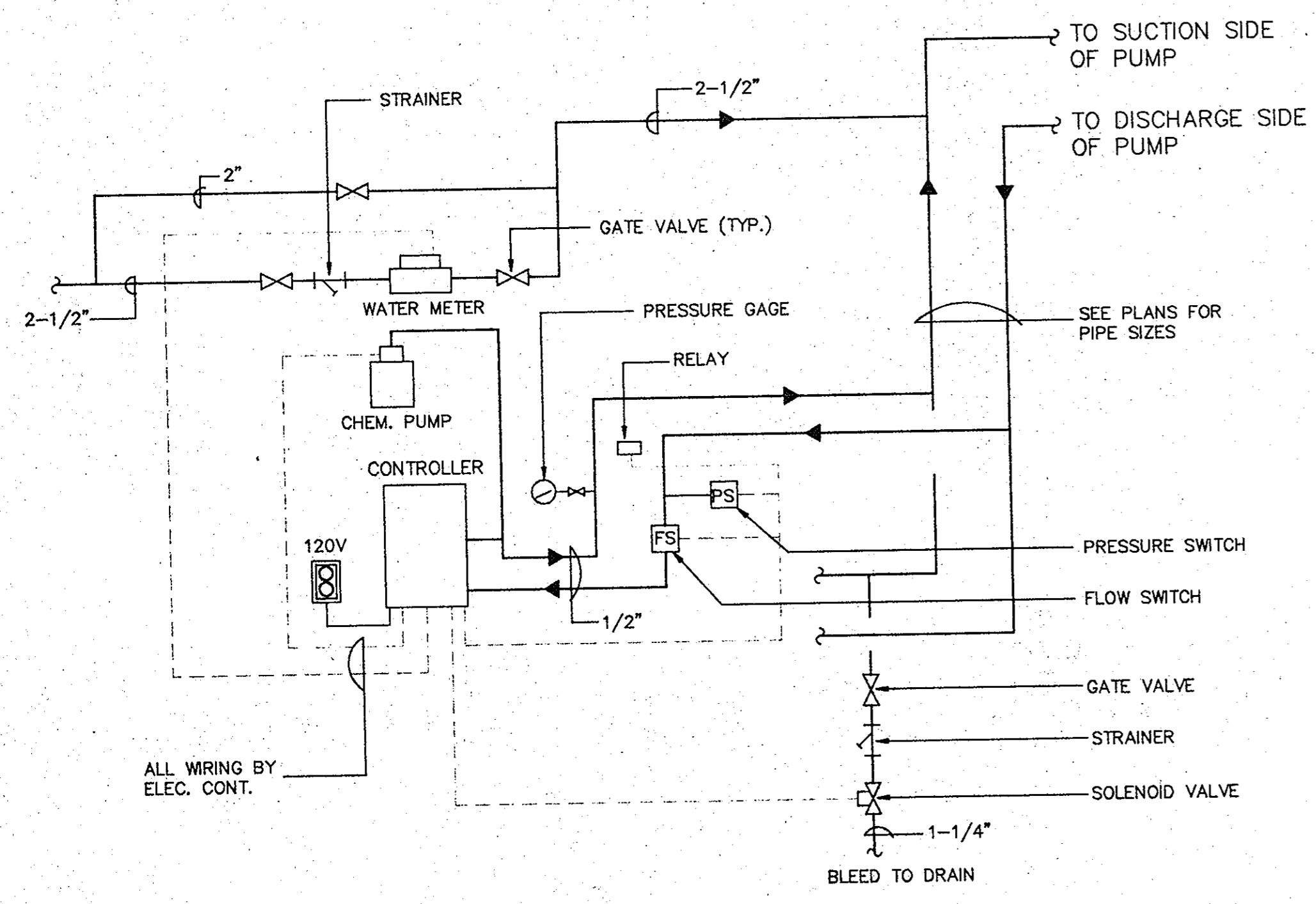
HEAT EXCHANGER AND HOT WATER SECONDARY PIPING SCHEMATIC
 BUILDINGS 7, 9A, 9D, 10A, 12

NO SCALE



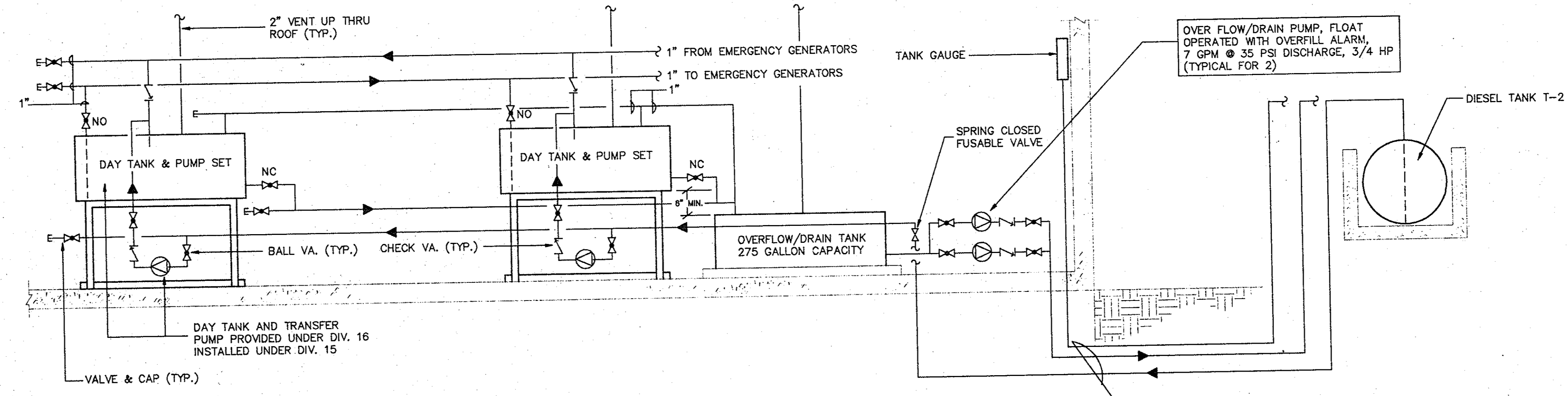
ENLARGED MECHANICAL ROOM 9B-124

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



TYPICAL WATER TREATMENT DETAIL

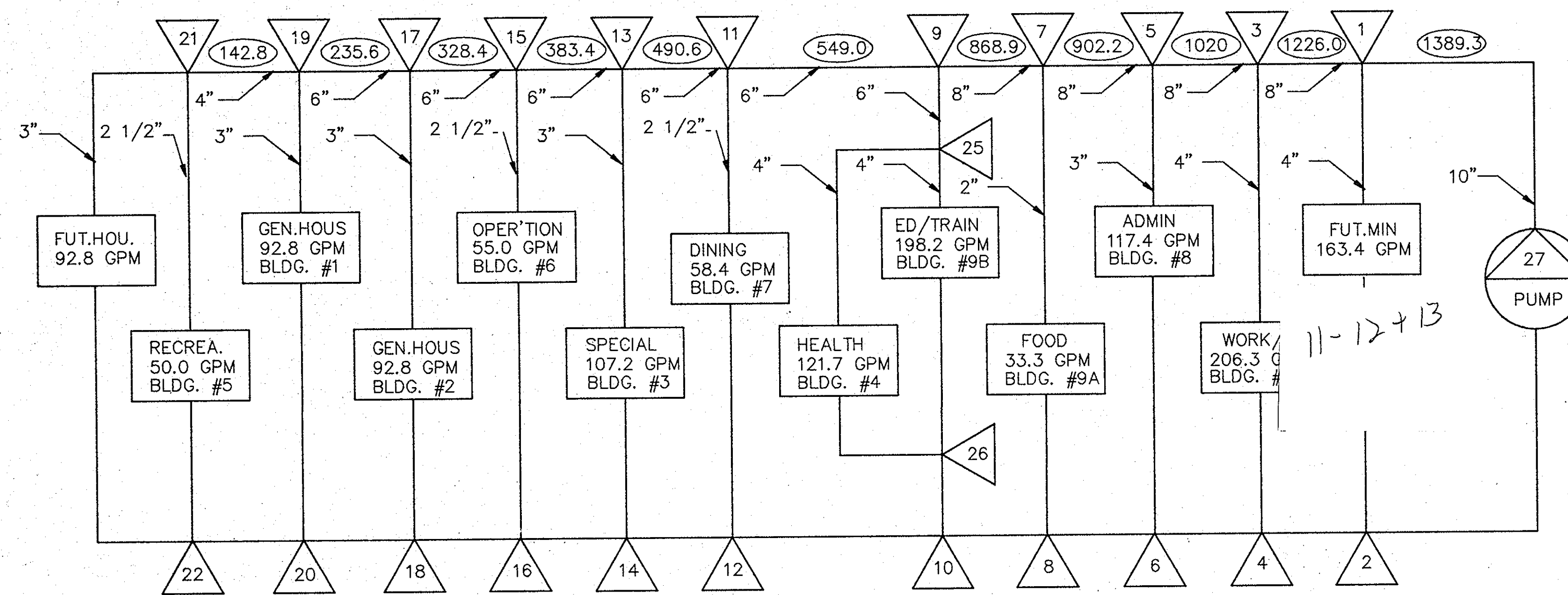
NO SCALE



EMERGENCY GENERATOR FUEL OIL DIAGRAM

NO SCALE

REVISIONS			STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS	
mark	date	description	drawing title	date
			350 Bed Facility For Women Correctional Institution Niantic, Connecticut	OCT. 28, 1981
			project no. BI-JA-217C	AS NOTED
				approved by REG drawing no. M3-3

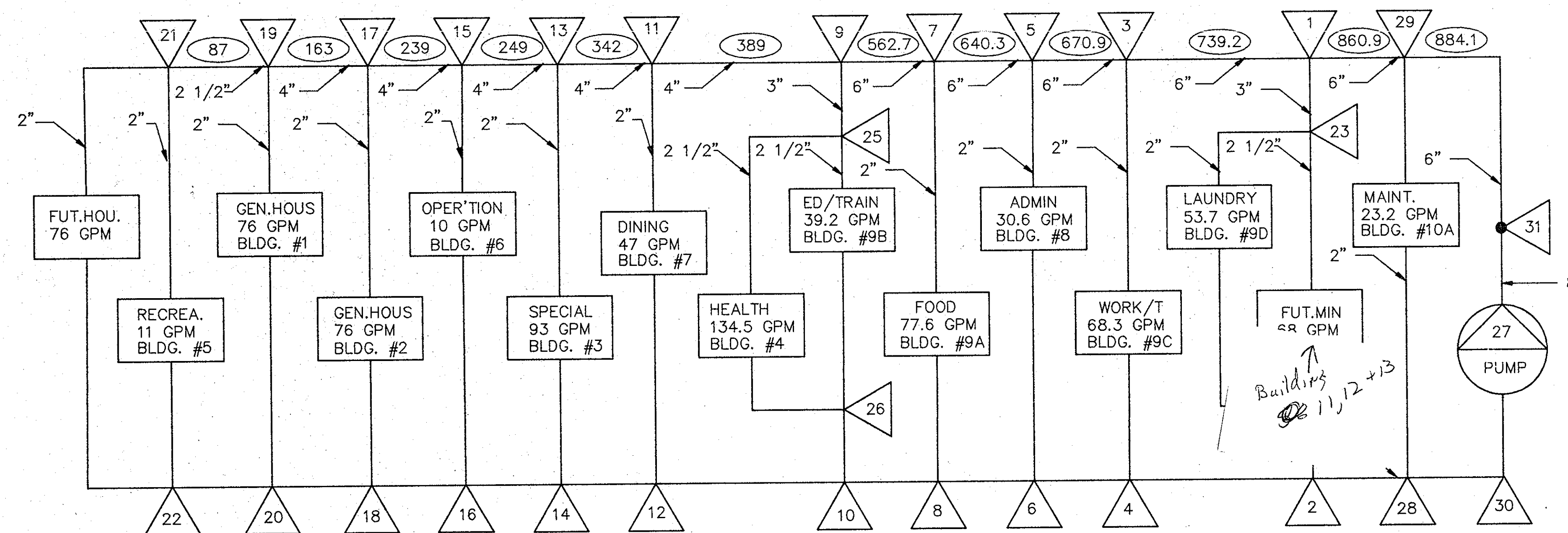


CHILLED WATER PRIMARY-BALANCING DIAGRAM

N.T.S.

(GPM)

△ NODE No.



HOT WATER PRIMARY-BALANCING DIAGRAM

N.T.S.

(GPM)

△ NODE No.

drawing title			STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS		
BALANCING DIAGRAMS			date OCT. 28, 1991		
REVISIONS			scale AS NOTED		
mark	date	description	DRAWINGS PREPARED BY Henningson, Durham & Richardson, Inc. Dallas, Texas		
			DRAWN BY Maguire Group Inc. New Britain, Connecticut		
			project 350 Bed Facility For Women Connecticut Correctional Institution Niantic, Connecticut		
			approved by REG		
			drawing no. M4-1		
			project no. BI-JA-217C		

AIR HANDLING UNIT SCHEDULE

SYM	TYPE	MODEL NO.	SUPPLY FAN		COOLING COIL												HEATING COIL				HUMIDIFIER		REMARKS	NOTES													
			CFM	HP	INLET	OUTLET	INLET	OUTLET	INLET	OUTLET	INLET	OUTLET	INLET	OUTLET	INLET	OUTLET	INLET	OUTLET	INLET	OUTLET	INLET	OUTLET															
AHU1-1	*	SIZE 8	1000	2800	931	1.72	1.4	1.5	73	101	0.5	80	67	54.5	54.4	0.9	17	45	57	1/2	179	45	95	0.07	18	180	160	0.74	1/2	480	-36		BASED ON TRANE	① ⑥			
AHU1-2	*	SIZE 10	1100	3300	847	1.0	1.7	2.0	102	153	0.4	80	67	54	53	3.6	26	45	57	1/2	177	45	95	0.08	18	180	160	1.3	1/2	480	-36		BASED ON TRANE	① ⑥			
AHU1-3	*	SIZE 8	1000	2800	931	1.72	1.4	1.5	73	101	0.5	80	67	54.5	54.4	0.9	17	45	57	1/2	179	45	95	0.07	18	180	160	0.74	1/2	480	-36		BASED ON TRANE	① ⑥			
AHU1-4	*	SIZE 8	1000	2800	931	1.72	1.4	1.5	73	101	0.5	80	67	54.5	54.4	0.9	17	45	57	1/2	179	45	95	0.07	18	180	160	0.74	1/2	480	-36		BASED ON TRANE	① ⑥			
AHU1-5	*	SIZE 8	1000	2800	931	1.72	1.4	1.5	73	101	0.5	80	67	54.5	54.4	0.9	17	45	57	1/2	179	45	95	0.07	18	180	160	0.74	1/2	480	-36		BASED ON TRANE	① ⑥			
AHU3-1	*	SIZE 8	1000	2800	931	1.72	1.4	1.5	73	101	0.5	80	67	54.5	54.4	0.9	17	45	57	1/2	179	45	95	0.07	18	180	160	0.74	1/2	480	-36		BASED ON TRANE	① ⑥			
AHU3-2	*	SIZE 8	1000	2800	931	1.72	1.4	1.5	73	101	0.5	80	67	54.5	54.4	0.9	17	45	57	1/2	179	45	95	0.07	18	180	160	0.74	1/2	480	-36		BASED ON TRANE	① ⑥			
AHU3-3	*	SIZE 8	1000	2800	931	1.72	1.4	1.5	73	101	0.5	80	67	54.5	54.4	0.9	17	45	57	1/2	179	45	95	0.07	18	180	160	0.74	1/2	480	-36		BASED ON TRANE	① ⑥			
AHU3-4	***	SIZE 8	1320	2800	998	1.0	1.8	2.0	79	106	0.36	80	67	55	55	1.5	18	45	57	1/2	179	40	95	0.12	18	180	160	1.3	1/2	480	-36		BASED ON TRANE	① ⑥			
AHU3-5	*	SIZE 12	1200	4000	883	1.0	2.9	3.0	120	174	0.4	80	67	53	52	2.0	29	45	57	1/2	195	50	95	0.07	20	180	160	1.6	1/2	480	-36		BASED ON TRANE	① ⑥			
AHU3-6	*	SIZE 6	400	2000	977	1.0	0.7	0.75	48	60	0.33	80	67	59	57	1.8	10	45	57	1/2	87	55	95	0.07	9	180	160	1.6	1/2	480	-36		BASED ON TRANE	① ⑥			
AHU4-1	*	SIZE 17	1410	6100	809	1.0	4.0	5.0	164	226	0.3	80	67	56	55	1.8	38	45	57	1/2	265	55	95	0.11	27	180	160	1.3	1/2	480	-36		BASED ON TRANE	① ⑥			
AHU4-2	*	SIZE 17	1410	6100	809	1.0	4.0	5.0	164	226	0.3	80	67	56	55	1.8	38	45	57	1/2	265	55	95	0.11	27	180	160	1.3	1/2	480	-36		BASED ON TRANE	① ⑥			
AHU4-3	***	SIZE 17	2000	7700	725	1.0	4.7	5.0	227	307	0.32	80	67	54.5	54.4	0.9	17	45	57	1/2	179	45	95	0.08	36	180	160	8.0	1/2	480	-36	53.28	20.4	480/3	MP-500	BASED ON TRANE	① ⑥
AHU5-1	**	SIZE 10	1500	4800	981	1.0	3.3	3.0	146	207	1.0	81	67	53	52	4.0	35	45	57	1/2	244	48	95	0.16	25	180	160	2.0	1/2	480	-36		BASED ON TRANE	① ⑥			
AHU6-1	*	SIZE 14	2400	7000	762	1.0	4.1	5.0	221	314	0.94	80	67	52.3	52.2	4.0	52	45	57	1/2	370	46	95	0.17	37	180	160	3.0	1/2	480	-36		BASED ON TRANE	① ⑥			
AHU7-1	*	SIZE 12	2700	5500	887	1.0	3.1	3.0	191	273	0.82	80	67	50.4	50.3	6.8	7.0	45	57	1/2	320	36	95	0.19	32	180	160	2.0	1/2	480	-36		BASED ON TRANE	① ⑥			
MAU7-1	***	SIZE 8	2600	2800	661	0.5	1.0	1.0													182	0.0	65	0.2	18	180	160	1.0	1/2	480	-36		BASED ON TRANE	① ⑥			
AHU8-1	**	SIZE 35	6000	17000	593	1.5	11.4	15.0	475	705	7.9	80	67	53	52.9	3.0	118	45	57	1/2	918	45	95	0.12	92	180	160	4.0	1/2	480	-36		BASED ON TRANE	① ⑥			
AHU8A-1	PENTHOUSE	PCC14-15FC	3225	4275	1053	2.0	2.82	3.0	122	200	.61	83.4	70.8	57.0	56.2	3.0	33.3	45	57	1/2	210.0	22.6	68.2	.08	22.9	180	160	7.5	1/2	480	-36		BASED ON TRANE	① ⑥			
AHU8A-2	PENTHOUSE	PCC37-25FC	12600	12600	550	1.25	6.7	7.5													965	9	79	.29	105	180	160	10.44	1/2	480	-36		BASED ON TRANE	① ⑥			
MAU8A-1	MAKE-UP	KSV-112	3600	3600	929	1.0	1.58	2.0													196.7	9	50	.20	21.4	180	160	4.9	1/2	480	-36		BASED ON GREENHECK	① ⑥			
MAU8A-2	MAKE-UP	KSV-112	3000	3000	879	1.0	1.12	1.5													163.9	9	50	.15	17.8	180	160	3.5	1/2	480	-36		BASED ON GREENHECK	① ⑥			
MAU8A-3	MAKE-UP	KSV-112	2560	2560	854	1.0	.86	1.0													139.9	9	50	.10	15.2	180	160	2.0	1/2	480	-36		BASED ON GREENHECK	① ⑥			
MAU8A-4	MAKE-UP	KSV-112	2400	2400	840	1.0	.76	1.0													131.1	9	50	.10	14.2	180	160	2.3	1/2	480	-36		BASED ON GREENHECK	① ⑥			
MAU8A-5	MAKE-UP	KSV-112	3600	3600	929	1.0	1.58	2.0													196.7	9	50	.20	21.4	180	160	4.9	1/2	480	-36		BASED ON GREENHECK	① ⑥			
AHU8B-1	PENTHOUSE	PCC37-20FC	3540	14,300	800	2.0	11.8	15	460	660	.40	82.9	67.3	52.2	52.0	11.1	110	45	57	1/2	400.0	60.8	86.6	.08	40.5	180	160	0.6	1/2	480	-36		BASED ON TRANE	① ⑥			
AHU8B-2	PENTHOUSE	PCC37-18.25FC	3075	10,100	850	2.0	7.9	10	365	530	.5	83.7	68.2	51.0	50.9	8.7	88	45	57	1/2	350.0	60.8	92.8	.07	35.0	180	160	0.7	1/2	480	-36		BASED ON TRANE	① ⑥			
AHU8B-3	PENTHOUSE	PCC37-18.25FC	1760	10,100	755	1.5	5.7	7.5	216	268	.50	80.0	67	60.3	58.8	5.6	45	45	57	1/2	140	53	77.5	.08	26.9	180	160	1.0	1/2	480	-36		BASED ON TRANE	① ⑥			
AHU8B-4	PENTHOUSE	PCC37-20FC	1860	12745	692	1.5	6.9	7.5	259	314	.41	80.0	66	56.9	56.2	1.1	52	3	45	57	1/2	160	53	78.9	.07	35.8	180	160	7.1	1/2	480	-36		BASED ON TRANE	① ⑥		
AHU8B-5	PENTHOUSE	PCC23-18.25FC	3100	8600	716	1.5	3.50	5	288	300	.60	80.0	66.9	56.1	56.7	3.1	50	45	57	1/2	366	60.8	100	.13	36.8	180	160	1.96	1/2	480	-36	82.584	30.6	480/3	MP-600	BASED ON TRANE	① ⑥
AHU8B-6	PENTHOUSE	PCC23-18.25FC	3060	8440	706	1.5	3.69	5	281	300	.59	80.0	66.9	55.8	55.5	3.1	50	45	57	1/2	360	60.8	100	.09	36	180	160	1.90	1/2	480	-36	81.518	30.6	480/3	MP-600	BASED ON TRANE	① ⑥
AHU8B-7	PENTHOUSE	PCC23-18.25FC	9800	9800	753	1.5	5.69	7.5													669.6	9	72	.15	72.8	180	160	1.39	1/2	480	-36		BASED ON TRANE	① ⑥			
AHU8B-8	AIR HAND.	#3 CLIMATE CHANGER	200	1300	1205	1	.39	5	32.5	37.8										70	56.6	105	.05	7.6	180	160	.61	1/2	480	-36		BASED ON TRANE	① ⑥				
AHU8B-9	AIR HAND.	#6 CLIMATE CHANGER	360	2400	904	1	.79	1												105	61.4	101	.04	11.4	180	160	1.42	1/2	480	-36		BASED ON TRANE	① ⑥				
MAU8B-1	PENTHOUSE	PCC14-15FC	6000	6000	807	1.5	2.99	3												463	9	71	.27	49	180	160	4.5	1/2	480	-36		BASED ON TRANE	① ⑥				
AHU10-1	**	SIZE 10	1500	4800	981	1.0	3.3	3.0	146	207	1.0	81	67	53	52	4.0	35	45	57	1/2	244	48	95	0.16	25	180	160	2.0	1/2	480	-36		BASED ON TRANE	① ⑥			
AHU10-2	**	SIZE 12	2700	5500	887	1.0	3.1	3.0	191	273	0.82	80	67	50.4	50.3	6.8	7.0	45	57	1/2	320	36	95	0.19	32	180	160	2.0	1/2	480	-36		BASED ON TRANE	① ⑥			
MAU10-1	***	SIZE 8	2600	2600	661	0.5	1.0	1.0													182	0.0	65	0.2	18	180	160										

CABINET AND UNIT HEATER SCHEDULE

SYM	MANUFACTURER	ΔT	MODEL	AREA OR SYSTEM SERVED	MBH	GPM	CFM	H.P.	VOLTS/PH	E.W.T. °F	L.W.T. °F	WT (LBS.)	REMARKS
UHT-1,2,3	TRANE	.05	42P		5.6	1.0	595	1/25	115/1	180	160	35	① ②
UHS-1,2,3	TRANE	.05	42P		5.6	1.0	595	1/25	115/1	180	160	35	① ②
UHT-1,2,3,4	TRANE	.10	42P		14	1.5	436	1/25	115/1	180	160	30	① ②
UHS-1,2,3,4,5	TRANE	.10	42P		14	1.5	436	1/25	115/1	180	160	30	① ②
UHT-1,2	TRANE	.10	42P		14	1.5	436	1/25	115/1	180	160	30	① ②
UHT-1,2	TRANE	.10	42P		14	1.5	436	1/25	115/1	180	160	30	① ②
UHT-1,2	TRANE	.16	060W		27.4	2.8	815	1/20	115/1	180	160	40	① ②
UHT-3	TRANE	.16	060W		27.4	2.8	815	1/20	115/1	180	160	40	① ②
UHT-1	TRANE	.12	080P	CORRIDOR 9-100	38.6	4.0	1200	1/20	115/1	180	160	40	① ②
UHT-2	TRANE	.12	080P	CORRIDOR 9-100	38.6	4.0	1200	1/20	115/1	180	160	40	① ②
UHT-3	TRANE	.12	080P	CORRIDOR 9-101	38.6	4.0	1200	1/20	115/1	180	160	40	① ②
UHT-4	TRANE	.12	080P	CORRIDOR 9-101	38.6	4.0	1200	1/20	115/1	180	160	40	① ②
UHT-5	TRANE	.78	202P	CORRIDOR 9-103	115.1	11.9	3200	1/4	115/1	180	160	80	① ②
UHT-6	TRANE	.78	202P	CORRIDOR 9-103	115.1	11.9	3200	1/4	115/1	180	160	80	① ②
UHT-7	TRANE	.78	202P	CORRIDOR 9-103	115.1	11.9	3200	1/4	115/1	180	160	80	① ②
UHT-8	TRANE	.12	080P	CORRIDOR 9-103	38.6	4.0	1200	1/20	115/1	180	160	40	① ②
UHT-9	TRANE	.12	080P	CORRIDOR 9-102	38.6	4.0	1200	1/20	115/1	180	160	40	① ②
UHT-10	TRANE	.12	080P	CORRIDOR 9-102	38.6	4.0	1200	1/20	115/1	180	160	40	① ②
UHT-11	TRANE	.12	080P	CORRIDOR 9-102	38.6	4.0	1200	1/20	115/1	180	160	40	① ②
UHTA-1	TRANE	.1	020W	MECH RM. 9A-132	8.0	1.0	315	1/25	115/1	180	160	40	①
UHTA-2	QMARK		MUH-03-4	ELECTRIC RM.	10.2		350		480/3			30	③
UHTB-1	TRANE	.16	060W	MECH RM. 9B-124	27.4	2.8	815	1/20	115/1	180	160	55	①
UHTB-2	TRANE	.16	060W	MECH RM. 9B-135	27.4	2.8	815	1/20	115/1	180	160	55	①
CUH9B-1	TRANE	3.9	B42A004	9B-119	36.7	4.0	420	1/30	115/1	180	160	95	①
CUH9B-2	TRANE	3.9	B42A004	9B-145	36.7	4.0	420	1/30	115/1	180	160	95	①
CUH9B-3	TRANE	3.9	B42A004	9B-140	36.7	4.0	420	1/30	115/1	180	160	95	①
UHTC-1	TRANE	.1	020W	MECH. RM.	4.5	1.0	315	1/25	115/1	180	160	35	①
UHTD-1	TRANE	.1	020W	MECH 9D-118	7.0	1.0	315	1/25	115/1	180	160	40	①
UHTD-2	TRANE	1.5	90-W2	9D-112	45.0	5.0	1160	1/8	115/1	180	160	75	①
UHTD-3	TRANE	1.5	90-W2	9D-123	45.0	5.0	1160	1/8	115/1	180	160	75	①
UHTD-4	TRANE	1.5	90-W2	9D-122	45.0	5.0	1160	1/8	115/1	180	160	75	①
UHTD-5	TRANE	1.5	90-W2	9D-121	45.0	5.0	1160	1/8	115/1	180	160	75	①
UHTD-6	TRANE	1.5	90-W2	9D-125	45.0	5.0	1160	1/8	115/1	180	160	75	①
CUH9D-1	TRANE	.41	F11A002	CORR 9D-129	13.4	1.35	220	1/80	115/1	180	160	55	①
CUHT0-1	QMARK		FWH-2408-1	10-118	4 KW				208/1			20	③
CUHT0-2	QMARK		FWH-2208-1	10-115	2 KW				208/1			20	③
CUHT0-3	QMARK		FWH-2208-1	10-116	2 KW				208/1			20	③
CUHT0-4	QMARK		FWH-2408-1	10-114	4 KW				208/1			40	③
UHT0-1	TRANE	.57	100W	PROPERTY ST.	50.8	5	1535	1/8	115/1	180	160	85	①
UHT0-2	TRANE	.57	100W	PROPERTY ST.	50.8	5	1535	1/8	115/1	180	160	85	①
UHT0-3	TRANE	.57	100W	PROPERTY ST.	50.8	5	1535	1/8	115/1	180	160	85	①
UHT0-4	TRANE	.57	100W	MCF STORAGE	50.8	5	1535	1/8	115/1	180	160	85	①
UHT0-5	TRANE	.57	100W	MCF STORAGE	50.8	5	1535	1/8	115/1	180	160	85	①
UHT0-6	TRANE	.57	100W	MIN. STORAGE	50.8	5	1535	1/8	115/1	180	160	85	①
UHT0-7	TRANE	.57	100W	MIN. STORAGE	50.8	5	1535	1/8	115/1	180	160	85	①
UHT0-8	TRANE	.57	100W	MIN. STORAGE	50.8	5	1535	1/8	115/1	180	160	85	①
UHT0-9	TRANE	.57	100W	MIN. STORAGE	50.8	5	1535	1/8	115/1	180	160	85	①
UHT0-10	QMARK		MUH-07-4	SWITCHGEAR RM.	7.5 KW		650		480/3			38	③
UHT0-11	QMARK		MUH-07-4	SWITCHGEAR RM.	7.5 KW		650		480/3			38	③
UHT0-12	TRANE	.16	060W	GENERATOR RM.	27.4	2.8	815	1/20	115/1	180	160	55	①
UHT0-13	TRANE	0.1	64P	STAGING 10-100	31	3	706	1/20	115/1	180	160	35	①
UHT0-14	TRANE	0.1	42P	CORR. 10-104	14	1.5	436	1/25	115/1	180	160	30	①
UHT0-15	TRANE	0.1	42P	BREAK 10-109	14	1.5	436	1/25	115/1	180	160	30	①
UHT0A-1	TRANE	.16	020W	MECH. RM.	4.5	1.0	315	1/25	115/1	180	160	35	①
UHT0A-2	TRANE	.1	42P	STORAGE-105	12.0	1.0	595	1/25	115/1	180	160	35	①
UHT0A-3	TRANE	.1	42P	STORAGE-115	12.0	1.0	595	1/25	115/1	180	160	35	①
UHT0A-4	TRANE	.12	038W	DOCK-120	17.0	1.8	515	1/20	115/1	180	160	35	①
UHT0A-5	TRANE	.12	038W	DOCK-120	17.0	1.8	515	1/20	115/1	180	160	35	①
UHT0A-1	QMARK		QSM210	10A-110	1 KW				115/1			7	③
UHT1-1,2,3,4,5	TRANE	0.1	42P		14	1.5	436	1/25	115/1	180	160	30	① ②
UHT2-1,2	TRANE	0.1	42P		14	1.5	436	1/25	115/1	180	160	30	① ②
UHT3-1,2	TRANE	0.1	42P		14	1.5	436	1/25	115/1	180	160	30	① ②
UHT1-1,2,3,4,5	TRANE	.1	18S		13	2# STEAM	280	1/25	115/1			30	① ②
UHT7-6,7,8,9	TRANE		38S		35	2# STEAM	543	1/20	115/1			40	① ②
UHT8-1	QMARK		MUH-03-4	VEHICLE MAINT.	3 KW		350		480/3			27	③
UHT8-2	TRANE		GHP-003	VEHICLE MAINT.	30		750	1/30	115/1			85	24.9 MBH OUTPUT ④
UHT8-3	TRANE		GHP-007	VEHICLE MAINT.	75		1000	1/30	115/1			125	60.0 MBH OUTPUT ④
UHT8-4	TRANE		GHP-007	VEHICLE MAINT.	75		1000	1/30	115/1			125	60.0 MBH OUTPUT ④
CUHT8-1	QMARK		FWH-2208-1	VEHICLE MAINT.	2 KW				115/1			20	③

- ① PROVIDE LOUVER CONE DIFFUSER
- ② PROVIDE WITH INTEGRAL LINE DISCONNECT SWITCH
- ③ SURFACE MOUNTED UNIT.
- ④ LP GAS, 2 STAGE, SOUD STATE INTERMITTENT PILOT IGNITION, SUMMER/WINTER SWITCH.

COOLING TOWER SCHEDULE

SYM	AMBIENT WB °F	GPM PER CELL	EWT °F	LWT °F	CELLS	V/PH	HP (EA)	BAC MODEL	REMARKS
CT10-1	75	1145	95	85	2	460/3	20	3644-2	2 SPEED MOTORS

BOILER SCHEDULE

SYM	BOILER HP	OUTPUT MBH	LVG TEMP.	OIL GPH	BLOWER MOTOR HP	ELECTRICAL VOLTS PH HZ	FUEL	REMARKS
B10-1	350	11716	240	104.5	15	460 3 60	NO.2 OIL	BASED ON
B10-2	350	11716	240	104.5	15	460 3 60	NO.2 OIL	CLEVER BROOKS

FAN COIL UNIT SCHEDULE

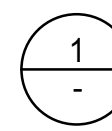
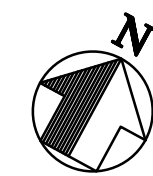
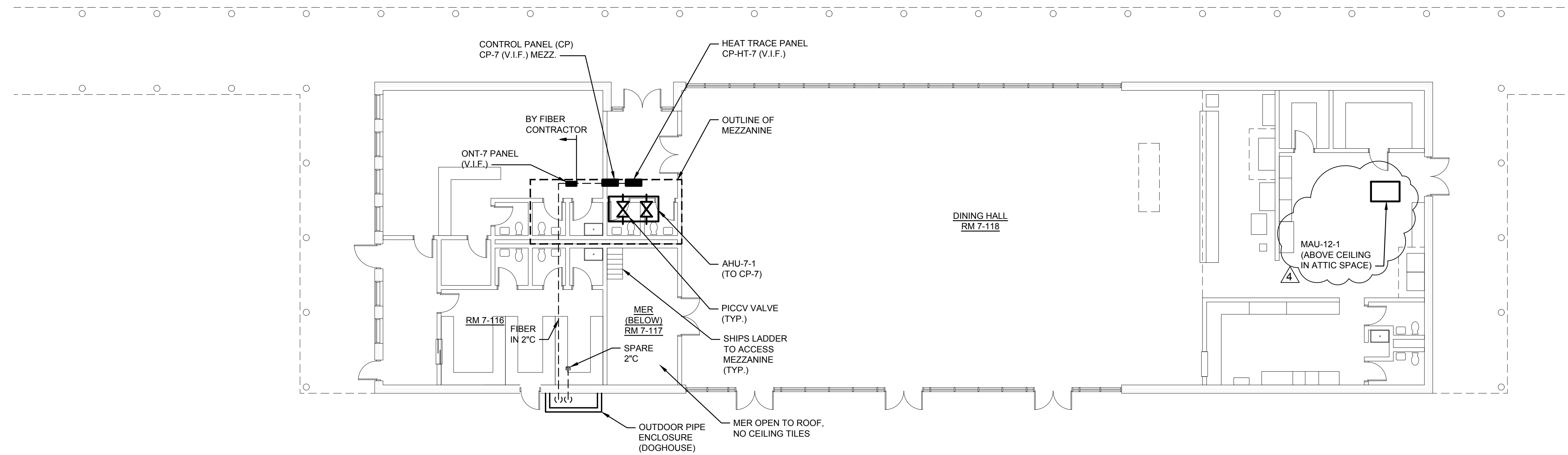
SYM	MODEL NO.	SUPPLY FAN										COOLING COIL										HEATING COIL										VOLTS/PH	REMARKS	NOTES
		G.A. CFM	TOTAL CFM	EFF. %	S.P. IN. WG	MIN. HP	SENS. MBH	TOTAL MBH	ΔT (AIR)	ENT. AIR °F	LEAVE AIR °F	ΔT (H2O)	GPM	ENT. WATER °F	LEAVE WATER °F	ΔT (H2O)	GPM	ENT. WATER °F	LEAVE WATER °F	ΔT (H2O)	GPM	ENT. WATER °F	LEAVE WATER °F	ΔT (H2O)	GPM	ENT. WATER °F	LEAVE WATER °F							
FC5-1	C34-DL-08	120	450	0.5	1/20	8.9	12.6	80	67	5.5	2.2	45	57	19.1	56	95	0.1	1.5	180	160	2.2'	115	1-φ	BASED ON TRANE	①									
FC5-2	C34-DL-03	80	250	0.5	1/30	7.8	14.0	86	73	5.0	2.3	45	57	13.0	48	95	0.1	1.0	180	160	1.3'	115	1-φ	BASED ON TRANE	①									
FC5-3	C34-DL-12	300	800	HIGH	0.5	1/3	22	34	82	68	4.2	5.3	45	57	45	43	95	0.1	3.0	180	160	4.3'	115	1-φ	BASED ON TRANE	①								
FC5-4	C34-DL-08	300	600	HIGH	0.5	1/4	16	27	85	72	2.5	3.5	45	57	41	35	95	0.2	3.5	180	160	5.4'	115	1-φ	BASED ON TRANE	①								
FC7-1	C34-AL-08	400	1500	0.3	1/8	12.0	1.6					1.27	180									115	1-φ	BASED ON TRANE	①									
FC7-2	C34-AL-06	400	1500	0.3	1/8	9.0	0.9					1.0	180									115	1-φ	BASED ON TRANE	①									
FC8-1	C34-DL-10	50	1000	HIGH	0.3	1/2	24	26	76	65	55	54	2.0	45	57																			

CONTROL INPUT-OUTPUT SCHEDULE							
* FAILURE MODE:	ANALOG INDICATION	BINARY INDICATION	COMMAND	LOG	ALARM	* FAILURE MODE:	
C-LAST COMMAND F-OFF (CLOSED) H-HIGH VALUE L-LOW VALUE N-LOCAL LOOP O-ON (OPEN)	TEMPERATURE PRESSURE FLOW RATE CURRENT VOLTAGE POSITION PERCENT REL	ON/OFF START/STOP STOP/START CHANGEOVER	START/STOP REGULATING CHANGEOVER LOAD SHED	REGULAR DEMAND MAINTENANCE	OPERATIONAL MAINTENANCE	C-LAST COMMAND F-OFF (CLOSED) H-HIGH VALUE L-LOW VALUE N-LOCAL LOOP O-ON (OPEN)	F O
AIR HANDLING UNITS (CONSTANT VOLUME)							
AHU1-1, 2, 3, 4, 5							
AHU2-1, 2, 3, 4, 5							
AHU3-1, 2, 3, 4, 5							
AHU4-1, 2, 3, 4, 5							
AHU7-1, 2, 3, 4, 5							
AHU10-1							
AHU11-1, AHU12-1							
SUPPLY FAN		X	X	X	X		F
OA DAMPER	X						
SMOKE DAMPER		X					
RETURN AIR	X						
MIXED AIR	X						
DISCHARGE AIR	X						
ZONE	X (2 ZONES PER AHU)						
FREEZE ALARM							
SMOKE ALARM							
FILTER	X						F
CHW VALVE	X						F
HW VALVE	X						F
VAR. SPEED DRIVE							
REL. HUMIDITY							
AIR HANDLING UNITS (VARIABLE AIR FLOW)							
AHU4-3, AHU6-1							
AHU8-1, AHU9B-1, 2							
AHU9C-1, 2, 3, 4							
AHU13-1							
SUPPLY FAN		X	X	X	X		F
OA DAMPER	X						
SMOKE DAMPER		X					
RETURN AIR	X						
MIXED AIR	X						
DISCHARGE AIR	X						
ZONE	X (2 ZONES PER AHU)						
FREEZE ALARM							
SMOKE ALARM							
FILTER	X						F
SYS. STATIC PRESS.	X						
CHW VALVE	X						F
HW VALVE	X						F
VAR. SPEED DRIVE							
REL. HUMIDITY							
MAKE-UP AIR UNITS							
AHU9A-2							
AHU9A-1, 2, 3, 4, 5							
AHU9D-1, 2, 3							
AHU9D-1							
AHU10A-1, 2							
AHU10A-1							
AHU10A-1, 2							
AHU10A-1							
SUPPLY FAN		X	X	X	X		F
OA DAMPER	X						
SMOKE DAMPER		X					
RETURN AIR	X						
MIXED AIR	X						
DISCHARGE AIR	X						
ZONE	X (1 ZONE PER UNIT)						
FREEZE ALARM							
SMOKE ALARM							
FILTER	X						F
HW VALVE	X						F

CONTROL INPUT-OUTPUT SCHEDULE							
* FAILURE MODE:	ANALOG INDICATION	BINARY INDICATION	COMMAND	LOG	ALARM	* FAILURE MODE:	
C-LAST COMMAND F-OFF (CLOSED) H-HIGH VALUE L-LOW VALUE N-LOCAL LOOP O-ON (OPEN)	TEMPERATURE PRESSURE FLOW RATE CURRENT VOLTAGE POSITION PERCENT REL	ON/OFF START/STOP STOP/START CHANGEOVER	START/STOP REGULATING CHANGEOVER LOAD SHED	REGULAR DEMAND MAINTENANCE	OPERATIONAL MAINTENANCE	C-LAST COMMAND F-OFF (CLOSED) H-HIGH VALUE L-LOW VALUE N-LOCAL LOOP O-ON (OPEN)	F O
FAN COIL UNITS							
SUPPLY FAN		X					F
OA DAMPER		X					
MIXED AIR	X						
DISCHARGE AIR	X						
ZONE	X (1 PER UNIT)						
FREEZE ALARM							
FILTER	X						F
CHW VALVE	X						F
HW VALVE	X						F
FANS							
TOILET EXHAUST (4)		X	X	X	X		
MEZZ. EXHAUST		X	X	X	X		
REL. HUMIDITY	X						
KITCHEN EXHAUST		X	X	X	X		
CAN. WASH EXHAUST		X	X	X	X		
SFA-1, SFD-1		X	X	X	X		
SPACE TEMP.	X						
INF. DIRTY WASH EXH.		X	X	X	X		
PAINT BOOTH (2)		X	X	X	X		
FLAMMABLE STORAGE		X	X	X	X		
MECH. ZELCO EXH.		X	X	X	X		
SPACE TEMP.	X						
(O) TOILET EXHAUST FANS SWITCHED WITH LIGHTS ARE NOT INTERFACED WITH EMS.							
HEAT EXCHANGERS							
SHELL SIDE INLET	X						
SHELL SIDE OUTLET	X						
TUBE SIDE INLET	X						
TUBE SIDE OUTLET	X						
SHELL FLOW	X						
TUBE FLOW		X					
HEAT RECOVERY HW							
DOM. CW IN	X						
DOM. HW OUT	X						
DOM. WATER FLOW	X						
SPACE HEATING 3-WAY VALVES							
PRIMARY HW SUP.	X						
PRIMARY HW RET.	X						
PRIMARY FLOW	X						
SECONDARY HW SUP.	X						
SECONDARY HW RET.	X						
SECONDARY FLOW	X						
PUMPS							
PRIMARY HW	X						
SEC. HW (EA BLDG.)	X						
SUPPLY TEMP.	X						
RETURN TEMP.	X						
BTUH (EA BLDG.)	X						
DOMESTIC HW	X						
SUPPLY TEMP.	X						
RETURN TEMP.	X						
BTUH	X						
PRIMARY CHW (CHILLERS)	X						
SEC. CHW (EA BLDG.)	X						
SUPPLY TEMP.	X						
RETURN TEMP.	X						
BTUH	X						
CONDENSER WATER	X						
SUPPLY TEMP.	X						
RETURN TEMP.	X						
SEC. CHW (LOOP)	X						
SUPPLY TEMP.	X						
RETURN TEMP.	X						

CONTROL INPUT-OUTPUT SCHEDULE							
* FAILURE MODE:	ANALOG INDICATION	BINARY INDICATION	COMMAND	LOG	ALARM	* FAILURE MODE:	
C-LAST COMMAND F-OFF (CLOSED) H-HIGH VALUE L-LOW VALUE N-LOCAL LOOP O-ON (OPEN)	TEMPERATURE PRESSURE FLOW RATE CURRENT VOLTAGE POSITION PERCENT REL	ON/OFF START/STOP STOP/START CHANGEOVER	START/STOP REGULATING CHANGEOVER LOAD SHED	REGULAR DEMAND MAINTENANCE	OPERATIONAL MAINTENANCE	C-LAST COMMAND F-OFF (CLOSED) H-HIGH VALUE L-LOW VALUE N-LOCAL LOOP O-ON (OPEN)	F O
CHILLERS							
CHILLER OPER. (EA. CHILLER)		X					
CHW IN (HEADER)	X						
CHW OUT (HEADER)	X						
CW IN (HEADER)	X						
CW OUT (HEADER)	X						
SAFETY CONTROLS		X					
COOLING TOWER							
FAN OPERATION		X					
BOILER							
BURNER OPERATION		X					
SAFETY CONTROLS		X					
HW MAIN	X						
FUEL	X						
ELECTRIC POWER (EA. BLDG.)							
KW	X						
KWH	X						
EMERGENCY GENERATOR							
DAMPER (O.A.)		X					
ELECTRIC WATER HEATERS (EA. BLDG.)							
OPERATION		X					
ELECTRIC DISTRIBUTION CIRCUITS							
BLDG'S. 1,2,3,4,5,6,7,8,9A,9B		X					
9C,9D,10A,11,12,13,14		X					
OPERATION		X					
NONESSENTIAL KITCHEN EQUIPMENT							
BLDG'S. 7,9A,12		X					
OPERATION		X					
ESSENTIAL KITCHEN EQUIPMENT							
BLDG'S. 7,9A,12		X					
OPERATION		X					
OUTDOOR DISTRIBUTION SECTIONS							
ALL DIST. BREAKERS		X					

drawing title		HVAC SCHEDULES		STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS		date		OCT. 28, 1991	
REVISIONS		description		DRAWINGS PREPARED BY Henningson, Durham & Richardson, Inc.		Dallas, Texas		AS NOTED	
mark	date	description		DRAWING PREPARED BY Maguire, Group Inc.		New Britain, Connecticut		PROJECT 350 Bed Facility For Women Connecticut Correctional Institution Niantic, Connecticut	
				DRAWING APPROVED BY R.E.G.				drawing no. M5-4	
				PROJECT NO. BI-JA-217C					

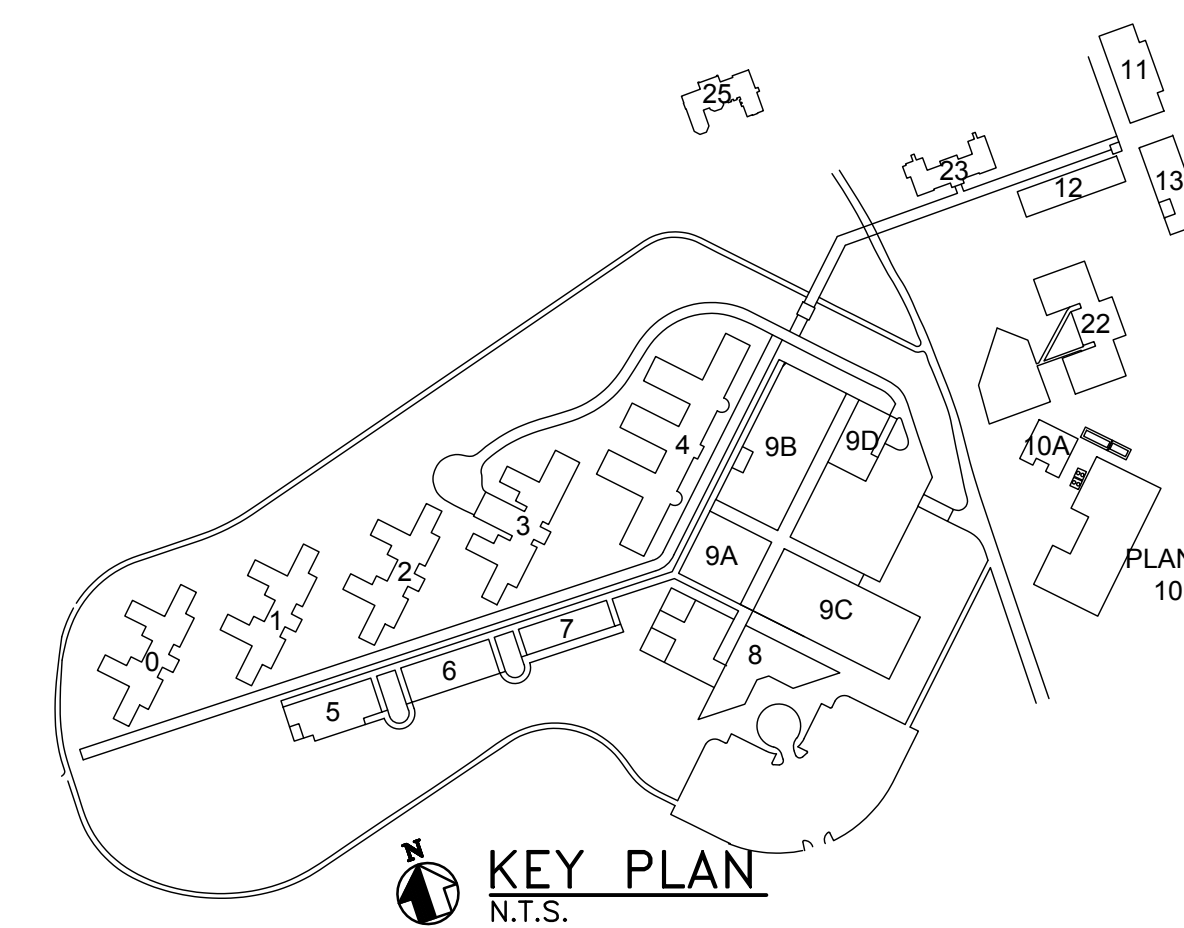


1 BUILDING 7 MEZZANINE INSTALLATION
SCALE: 3/32"=1'-0"

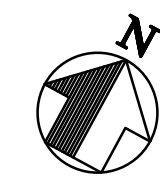
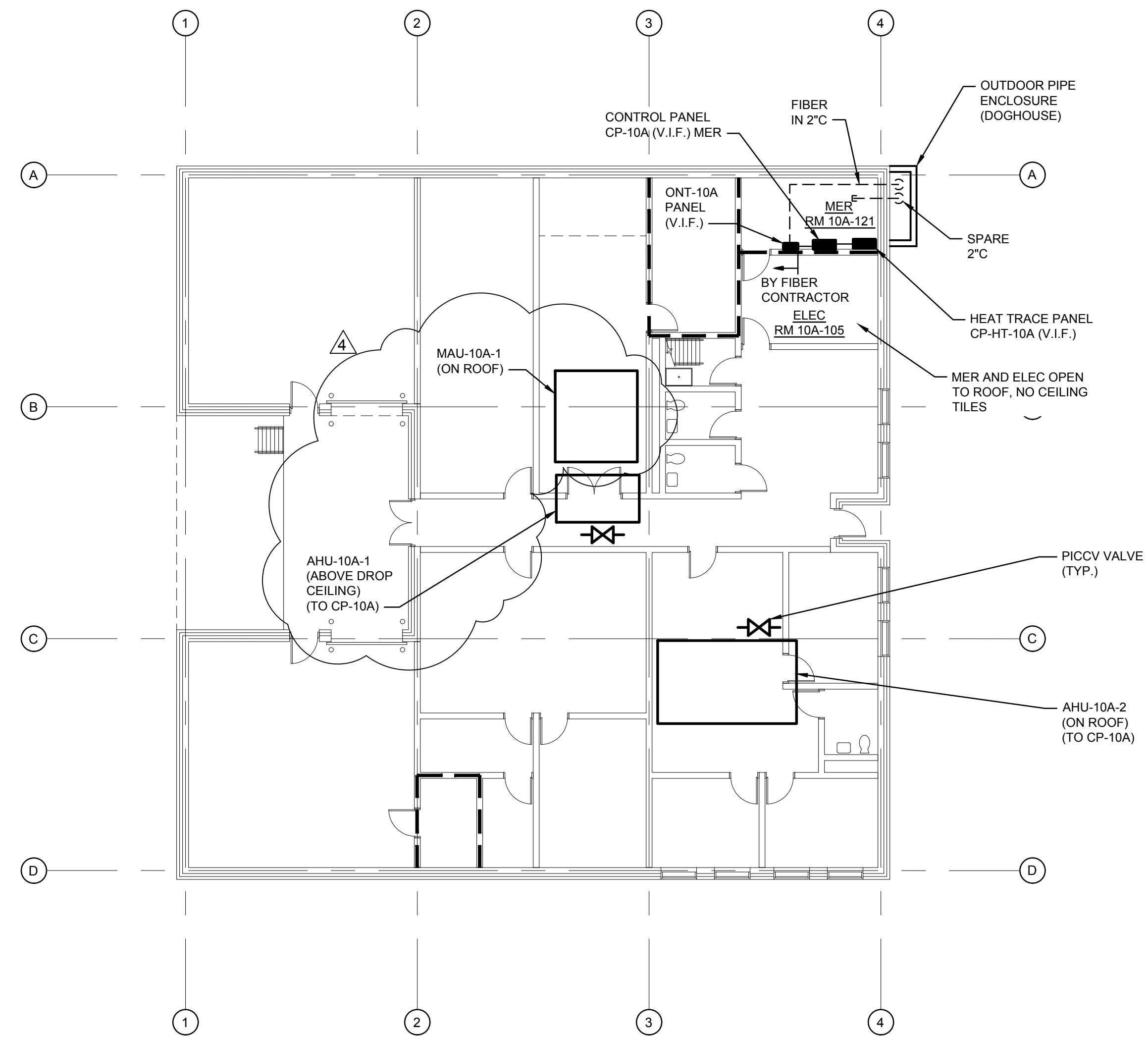
0 12 24
SCALE IN FEET

NOTES:

1. EXTEND COMMUNICATION WIRING TO THE MAIN MER CONTROLLER. REFER TO DRAWING M252 FOR WIRING DETAIL. PICCV VALVE INSTALLED BY MECHANICAL CONTRACTOR. WIRED TO CP BY CONTROLS CONTRACTOR. WIRE TYPE DETERMINED BY CONTROLS CONTRACTOR.
2. CONTROL PANELS IN MAIN MERs SHALL BE THE PRIMARY BUILDING CONTROLLER AND SHALL BE PROVIDED WITH THE ONT FOR CONNECTION TO THE CAMPUS FIBER OPTIC NETWORK. ALL OTHER CONTROLLERS WILL BE CONNECTED TO THE MAIN BUILDING CONTROLLER AS A SUB-NET DEVICE I.E. BACNET MSTP.
3. GROUND FLOOR CEILING IS COMPRISED OF CEILING TILES EXCEPT WHERE NOTED.



drawing title BUILDING 7 EQUIPMENT LAYOUT AND CONTROLS			STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
REVISIONS			drawing prepared by WSP USA ONE PENN PLAZA NEW YORK, NY	
mark	date	description	date 12/21/2018	
▲	12/21/18	ISSUE FOR BID	scale AS NOTED	
	03/01/19	ADDENDUM 4	drawn by EP	
project YORK CORRECTIONAL INSTITUTION CENTRAL PLANT AND DISTRIBUTION NIANTIC, CT			approved by RB	
CAD no. cad file			drawing no. M757	
project no. 189824				

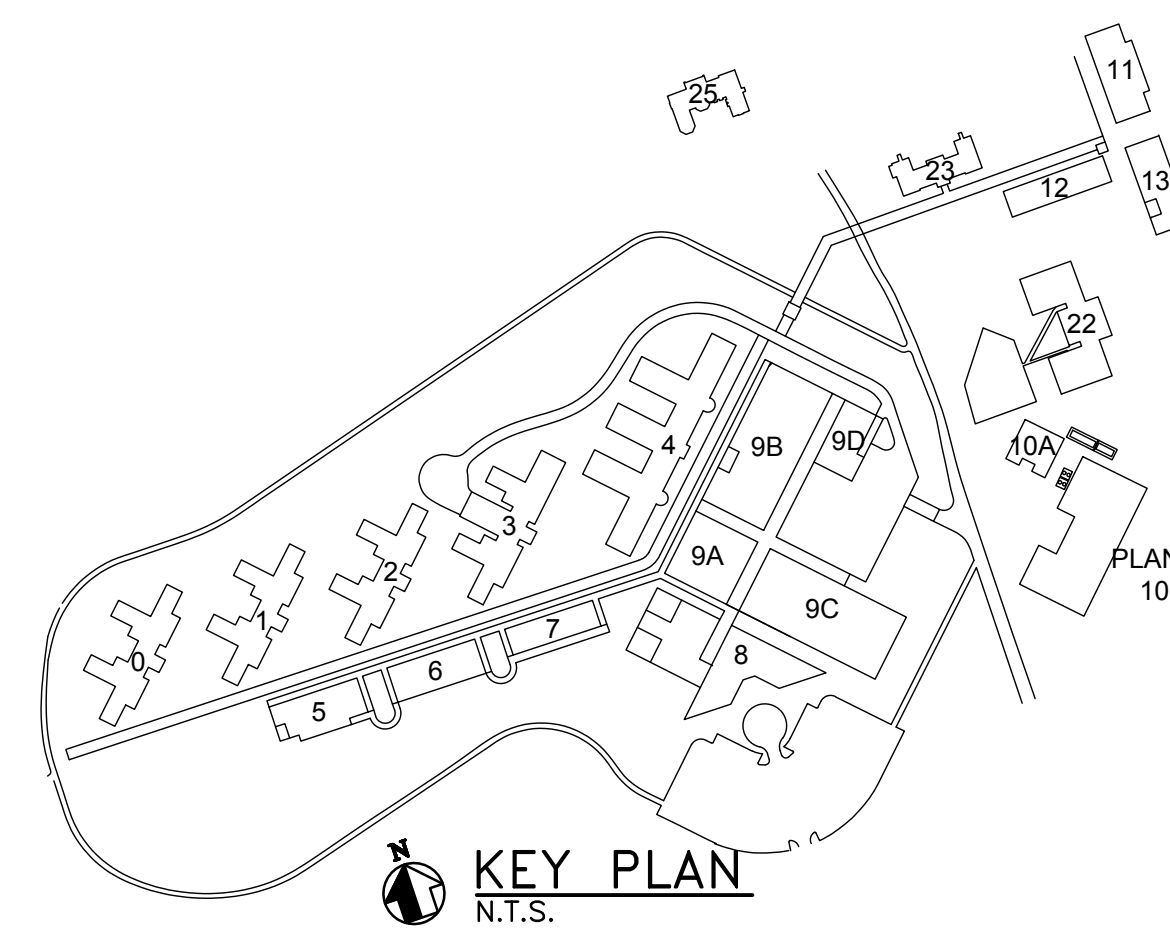


1 BUILDING 10A GROUND FLOOR & ROOF INSTALLATION
SCALE: 3/32"=1'-0"

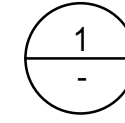
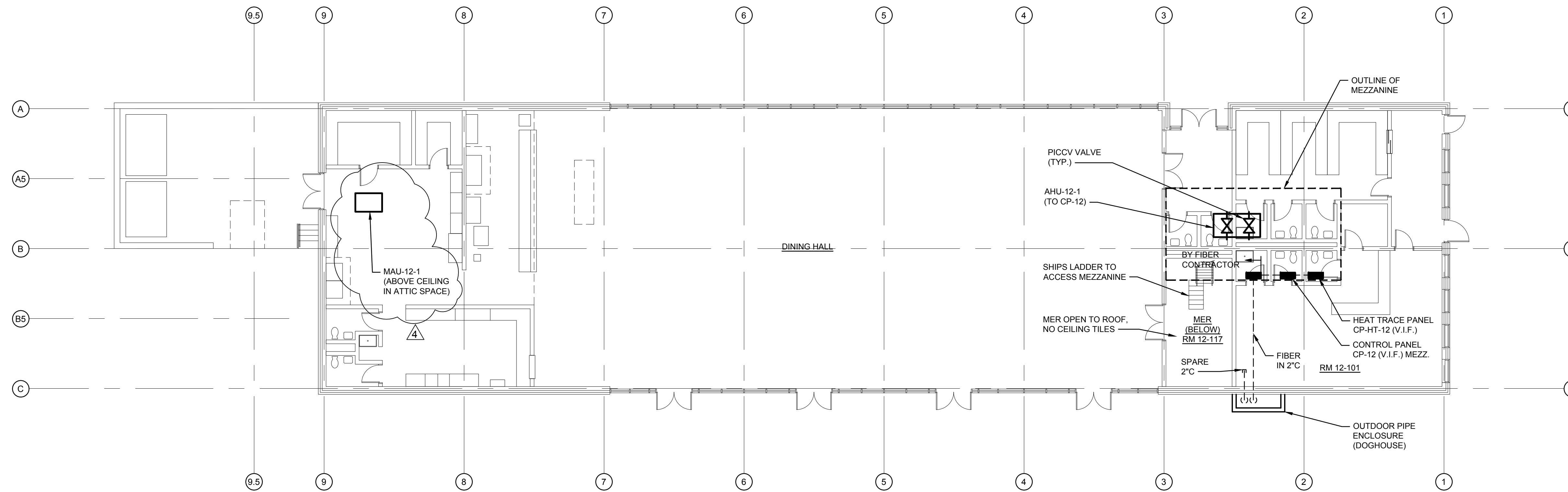


NOTES:

1. EXTEND COMMUNICATION WIRING TO THE MAIN MER CONTROLLER. REFER TO DRAWING M252 FOR WIRING DETAIL. PICCV VALVE INSTALLED BY MECHANICAL CONTRACTOR. WIRED TO CP BY CONTROLS CONTRACTOR. WIRE TYPE DETERMINED BY CONTROLS CONTRACTOR.
2. CONTROL PANELS IN MAIN MERs SHALL BE THE PRIMARY BUILDING CONTROLLER AND SHALL BE PROVIDED WITH THE ONT FOR CONNECTION TO THE CAMPUS FIBER OPTIC NETWORK. ALL OTHER CONTROLLERS WILL BE CONNECTED TO THE MAIN BUILDING CONTROLLER AS A SUB-NET DEVICE I.E. BACNET MSTP.
3. GROUND FLOOR CEILING IS COMPRISED OF CEILING TILES EXCEPT WHERE NOTED.



drawing title BUILDING 10A EQUIPMENT LAYOUT AND CONTROLS			STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
REVISIONS			drawing prepared by WSP USA ONE PENN PLAZA NEW YORK, NY	
mark	date	description	date 12/21/2018	
▲	12/21/18	ISSUE FOR BID	scale AS NOTED	
	03/01/19	ADDENDUM 4	drawn by EP	
project YORK CORRECTIONAL INSTITUTION CENTRAL PLANT AND DISTRIBUTION NIANTIC, CT			approved by RB	
CAD no. cad file			drawing no. M764	
project no. 189824				

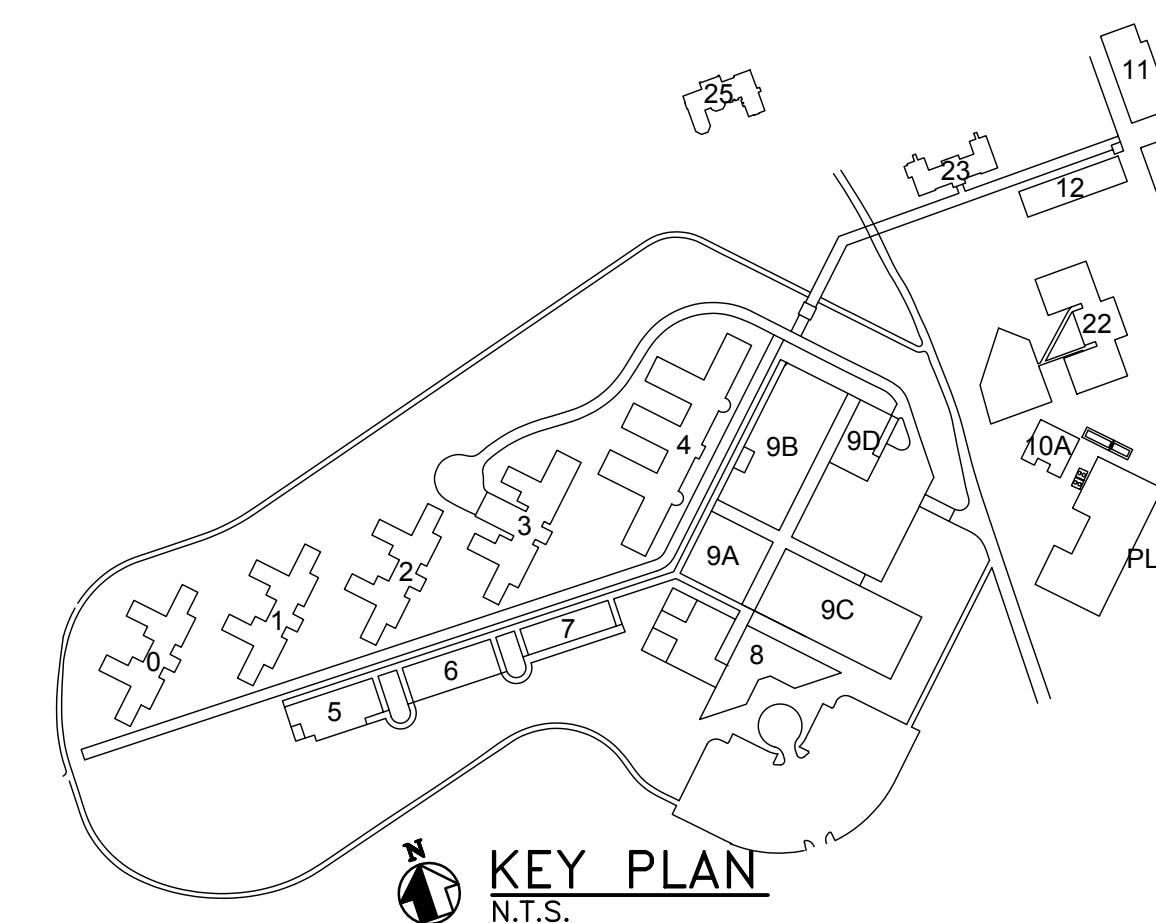


1 BUILDING 12 MEZZANINE INSTALLATION
SCALE: 3/32"=1'-0"

0 12 24
SCALE IN FEET

NOTES:

1. EXTEND COMMUNICATION WIRING TO THE MAIN MER CONTROLLER. REFER TO DRAWING M252 FOR WIRING DETAIL. PICCV VALVE INSTALLED BY MECHANICAL CONTRACTOR. WIRED TO CP BY CONTROLS CONTRACTOR. WIRE TYPE DETERMINED BY CONTROLS CONTRACTOR.
2. CONTROL PANELS IN MAIN MERs SHALL BE THE PRIMARY BUILDING CONTROLLER AND SHALL BE PROVIDED WITH THE ONT FOR CONNECTION TO THE CAMPUS FIBER OPTIC NETWORK. ALL OTHER CONTROLLERS WILL BE CONNECTED TO THE MAIN BUILDING CONTROLLER AS A SUB-NET DEVICE I.E BACNET MSTP.
3. GROUND FLOOR CEILING IS COMPRISED OF CEILING TILES EXCEPT WHERE NOTED.



drawing title BUILDING 12 EQUIPMENT LAYOUT AND CONTROLS			STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
REVISIONS			drawing prepared by WSP USA ONE PENN PLAZA NEW YORK, NY	
mark	date	description	date 12/21/2018	
△	03/01/19	ISSUE FOR BID ADDENDUM 4	scale AS NOTED	
project YORK CORRECTIONAL INSTITUTION CENTRAL PLANT AND DISTRIBUTION NIANTIC, CT			drawing no. M766	
CAD no. cad file			project no. 189824	

EXPANSION TANK SCHEDULE												
TAG	LOCATION	SERVICE	GROSS VOLUME (GAL)	ACCEPTANCE VOLUME (FT³)	LENGTH (IN.)	DIAMETER (IN.)	MIN. CHARGE PRESSURE (PSIG)	SYSTEM OPER. TEMPERATURE (°F)	MOUNTING	TYPE	MAKE/MODEL	REMARKS
ET9A-1	BUILDING 9A	GLYCOL	26	12	-	-	12	-	VERTICAL	BLADDER	-	EXISTING TO REMAIN INSTALL ON EXISTING HOUSEKEEPING PAD
ET9D-1	BUILDING 9D	GLYCOL	16	6	103	30	12	-	VERTICAL	BLADDER	CAX84	DEMOLISH
ET10-1	CENTRAL PLANT	CHILLED WATER	63	-	103	30	30	-	VERTICAL	BLADDER	TACO CA1400-125	DEMOLISHED IN PHASE 4
ET10-2	CENTRAL PLANT	HOT WATER	370	-	103	30	30	-	VERTICAL	BLADDER	TACO CA1400-125	DEMOLISHED IN PHASE 2
ET10-3	CENTRAL PLANT	HOT WATER	370	-	103	30	30	-	VERTICAL	BLADDER	TACO CA1400-125	DEMOLISHED IN PHASE 2
ET10-4	CENTRAL PLANT	HOT WATER	370	-	103	30	30	-	VERTICAL	BLADDER	TACO CA1400-125	DEMOLISHED IN PHASE 2
ET10-5	CENTRAL PLANT	HOT WATER	370	-	103	30	30	-	VERTICAL	BLADDER	TACO CA1400-125	DEMOLISHED IN PHASE 2
ET10-6	CENTRAL PLANT	HOT WATER	370	-	103	30	30	-	VERTICAL	BLADDER	TACO CA1400-125	DEMOLISHED IN PHASE 2
ET10-1	CENTRAL PLANT	CHILLED WATER	238	238	73½	30	23	44-56	VERTICAL	BLADDER	DESIGN BASIS; TACO CA900-125	INSTALL ON NEW HOUSEKEEPING PAD
ET10-2	CENTRAL PLANT	HOT WATER	475	475	83½	40	23	160-185	VERTICAL	BLADDER	DESIGN BASIS; TACO CA1800-125	INSTALL ON EXISTING HOUSEKEEPING PAD
ET10-3	CENTRAL PLANT	HOT WATER	475	475	83½	40	23	160-185	VERTICAL	BLADDER	DESIGN BASIS; TACO CA1800-125	INSTALL ON EXISTING HOUSEKEEPING PAD
ET10-4	CENTRAL PLANT	HOT WATER	475	475	83½	40	23	160-185	VERTICAL	BLADDER	DESIGN BASIS; TACO CA1800-125	INSTALL ON EXISTING HOUSEKEEPING PAD
ET10-5	CENTRAL PLANT	HOT WATER	475	475	83½	40	23	160-185	VERTICAL	BLADDER	DESIGN BASIS; TACO CA1800-125	INSTALL ON EXISTING HOUSEKEEPING PAD
ET10-6	CENTRAL PLANT	HOT WATER	475	475	83½	40	23	160-185	VERTICAL	BLADDER	DESIGN BASIS; TACO CA1800-125	INSTALL ON EXISTING HOUSEKEEPING PAD
ET10A-1	BUILDING 10A	GLYCOL	9	3	-	-	12	-	VERTICAL	BLADDER	-	DEMOLISH
ET12-1	BUILDING 12	GLYCOL	370	-	-	-	30	-	VERTICAL	BLADDER	-	DEMOLISH

EXHAUST FAN SCHEDULE												
TAG	LOCATION	SERVICE	FAN PERFORMANCE DATA				MOTOR DATA			DESIGN BASIS MANUF. AND MODEL	NOTES	
			DESIGN FLOW (CFM)	EXT. STATIC PRESSURE (IN WG)	RPM	BHP	HP	UNIT POWER V/PH/Hz	RPM			
EF10-1	CENTRAL PLANT	REFRIGERANT PURGE	3,750	1.45	925	1.75	2.0	460/3/60	1725	GREENHECK TCB-1-24	-	

FUEL OIL PUMP SKID SCHEDULE															
UNIT NUMBER	LOCATION	DESCRIPTION	PUMP PERFORMANCE					CONSTR. DATA		MOTOR DATA			DESIGN BASIS MANUF. AND MODEL	NOTES	
			NO. OF PUMPS	NO. OF STAGES	FLOW (GPH)	DISCHARGE PRESSURE (PSIG)	BHP	FLUID TEMP. (°F)	PUMP TYPE	DESIGN PRESSURE (PSIG)	MHP	UNIT POWER V/PH/Hz			RPM
FOP10-1 & 2	CENTRAL PLANT	NO. 2 OIL DUPLEX BOILER FEED	2	1	780	50	-	50 TO 100	POSITIVE DISPLACEMENT	50	3/4	460/3/60	1750	TEFC	PREFERRED UTILITIES MODEL: ATPSF-203TPS FLOW SHOWN IS FOR EACH PUMP FURNISH WITH SKID MOUNTED FUEL OIL HEATER
-	CENTRAL PLANT	AUTOMATIC FUEL OIL FILTRATION SET	1	-	1200	-	-	40 TO 80	POSITIVE DISPLACEMENT	-	1	115/1/60	1725	-	PREFERRED MFG. MODEL: PF-505 FILTER TO 5 MICRON

NOTES:

- FURNISH AND INSTALL FO SKID & AUTO FILTRATION SET EACH WITH SINGLE POINT POWER CONNECTION AND DISCONNECT

MOTORIZED VALVE SCHEDULE							
TAG	SERVICE	LOCATION	LINE SIZE (IN)	POWER	COMMENTS	ACTUATION	DWG. REFERENCE
MOV-101	CHILLED WATER CHILLER CH10-1	CENTRAL PLANT	8	120 VAC	FAIL LAST POSITION	OPEN/ CLOSED	M202
MOV-201	CHILLED WATER CHILLER CH10-2	CENTRAL PLANT	8	120 VAC	FAIL LAST POSITION	OPEN/ CLOSED	M202
MOV-301	CHILLED WATER CHILLER CH10-3	CENTRAL PLANT	8	120 VAC	FAIL LAST POSITION	OPEN/ CLOSED	M202
FCV-1	CHILLED WATER CHILLER BYPASS	CENTRAL PLANT	4	120 VAC	FAIL LAST POSITION	MODULATING	M202
FCV-2	HOT WATER SYSTEM BYPASS	CENTRAL PLANT	4	120 VAC	FAIL LAST POSITION	MODULATING	M206
MOV-102	CONDENSER WATER CHILLER CH10-1	CENTRAL PLANT	8	120 VAC	FAIL LAST POSITION	OPEN/ CLOSED	M204
MOV-202	CONDENSER WATER CHILLER CH10-2	CENTRAL PLANT	8	120 VAC	FAIL LAST POSITION	OPEN/ CLOSED	M204
MOV-302	CONDENSER WATER CHILLER CH10-3	CENTRAL PLANT	8	120 VAC	FAIL LAST POSITION	OPEN/ CLOSED	M204
MOV-103	CONDENSER WATER C. TOWER CT10-1	CENTRAL PLANT	8	120 VAC	FAIL LAST POSITION	OPEN/ CLOSED	M907 & M204
MOV-203	CONDENSER WATER C. TOWER CT10-2	CENTRAL PLANT	8	120 VAC	FAIL LAST POSITION	OPEN/ CLOSED	M907 & M204
MOV-303	CONDENSER WATER C. TOWER CT10-3	CENTRAL PLANT	8	120 VAC	FAIL LAST POSITION	OPEN/ CLOSED	M907 & M204
MOV-104	HOT WATER BOILER B10-1	CENTRAL PLANT	8	120 VAC	FAIL LAST POSITION	OPEN/ CLOSED	M206
MOV-204	HOT WATER BOILER B10-2	CENTRAL PLANT	8	120 VAC	FAIL LAST POSITION	OPEN/ CLOSED	M206
MOV-304	HOT WATER BOILER B10-3	CENTRAL PLANT	8	120 VAC	FAIL LAST POSITION	OPEN/ CLOSED	M206
MOV-1	CONDENSER WATER CT BYPASS	CENTRAL PLANT	6	120 VAC	FAIL LAST POSITION	MODULATING	M907
MOV-2	BUILDING 9A HOT WATER	BUILDING 9A	3	120 VAC	FAIL LAST POSITION	MODULATING	M908
MOV-3	BUILDING 9A GLYCOL	BUILDING 9A	2	120 VAC	FAIL LAST POSITION	MODULATING	M908

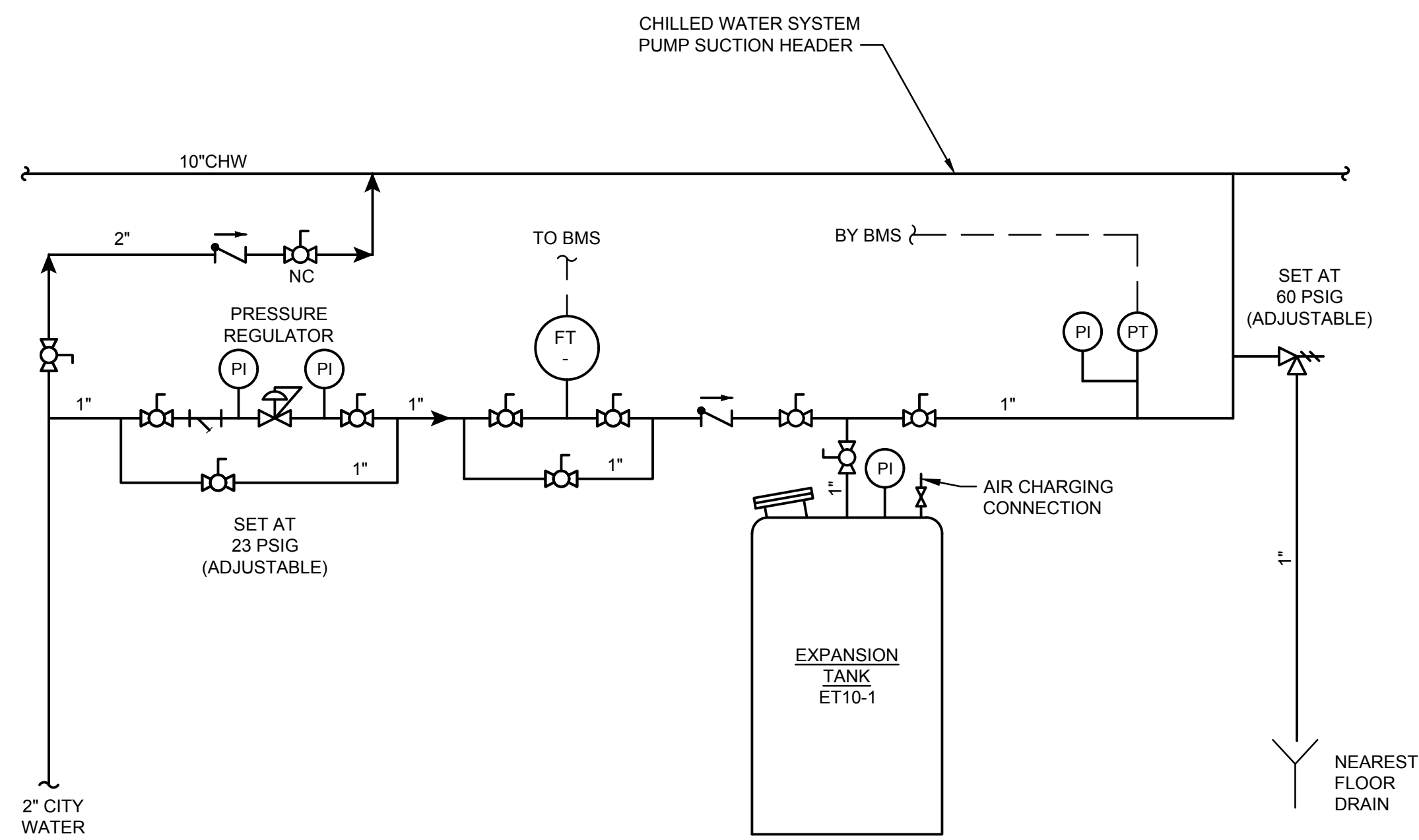
BOILER SCHEDULE																	
TAG	EWT (°F)	LWT (°F)	OPERATING PRESSURE (PSIG)	DESIGN PRESSURE (PSIG)	OPERATING WEIGHT (LBS)	MBH	FLOW RATE (GPM)	FUEL (PRIMARY/ SECONDARY)	GAS INPUT (SCFH)	GAS PRESSURE (PSIG)	OIL INPUT (GPH)	ELECTRICAL		DRAFT FAN (HP)	TYPE	DESIGN BASIS MANUF. & MODEL	REMARKS
												V/PH/Hz	A				
B10-1(E)	-	-	-	-	-	11,716	-	#2 FUEL OIL	-	-	-	460/3/60	-	-	-	-	DEMOLISHED IN PHASE 2
B10-2(E)	-	-	-	-	-	11,716	-	#2 FUEL OIL	-	-	-	460/3/60	-	-	-	-	DEMOLISHED IN PHASE 2
B10-3	163	183	138	150	47,800	11,716	1,172	NATURAL GAS/ #2 FUEL OIL	13,600	5 TO 10	94.2	460/3/60	47.1	20	FIRE TUBE (WETBACK)	JOHNSTON PFTA 350-4	INSTALLED IN PHASE 1
B10-1	163	183	138	150	47,800	11,716	1,172	NATURAL GAS/ #2 FUEL OIL	13,600	5 TO 10	94.2	460/3/60	47.1	20	FIRE TUBE (WETBACK)	JOHNSTON PFTA 350-4	INSTALLED IN PHASE 3
B10-2	163	183	138	150	47,800	11,716	1,172	NATURAL GAS/ #2 FUEL OIL	13,600	5 TO 10	94.2	460/3/60	47.1	20	FIRE TUBE (WETBACK)	JOHNSTON PFTA 350-4	INSTALLED IN PHASE 3

NOTES:

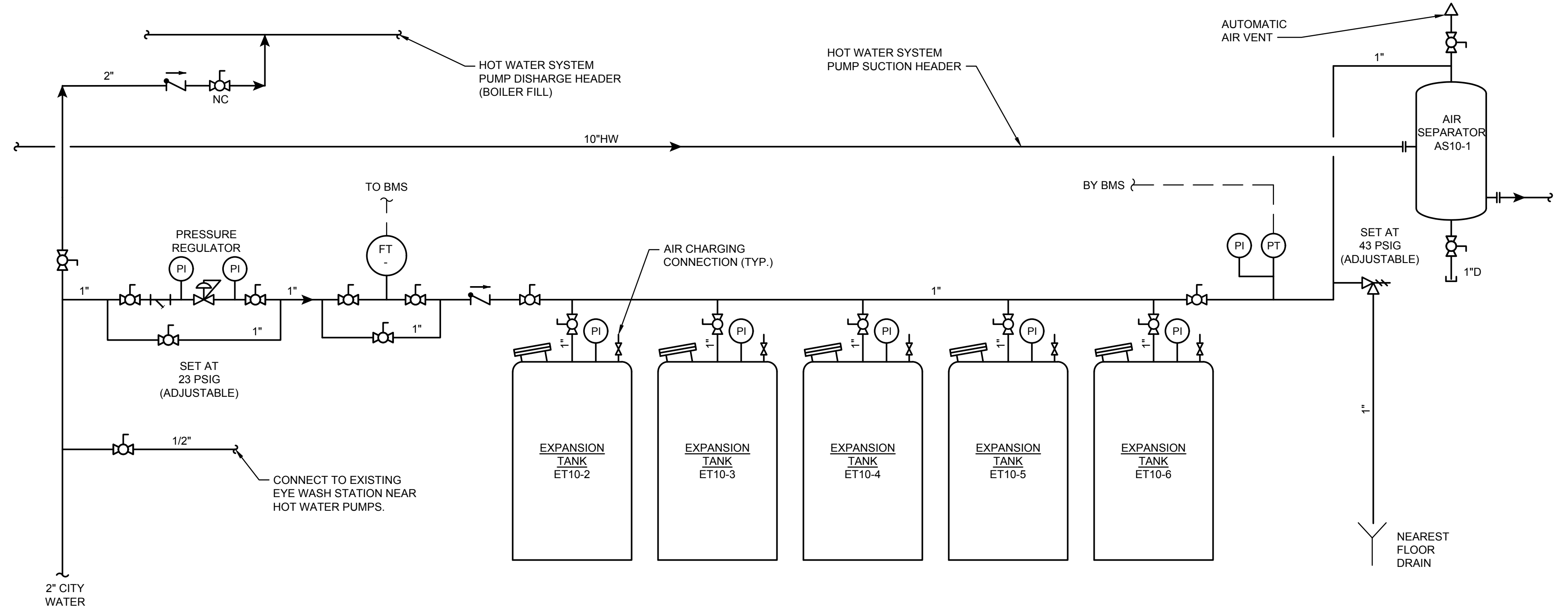
- BOILER CLASSIFICATION: ASME SECTION IV
- FURNISH AND INSTALL MANUFACTURER PROVIDED UL LISTED NATURAL GAS AND #2 FUEL OIL TRAINS.
- FUEL TRAINS SHALL BE DESIGNED TO 30 PPM NOx EMISSIONS REQUIREMENTS.
- FURNISH AND INSTALL MANUFACTURER PROVIDED ONBOARD AIR COMPRESSOR FOR ATOMIZATION.
- FURNISH AND INSTALL MANUFACTURER PROVIDED ONBOARD OIL PUMPS AND RE-CIRCULATION PUMPS, IF REQUIRED.
- INTERLOCK BOILER OPERATION WITH REFRIGERANT LEAK DETECTION.

AIR SEPARATOR SCHEDULE												
TAG	LOCATION	SERVICE	DESIGN FLOW (GPM)	PRESSURE DROP AT DESIGN FLOW (FT)	CONNECTION TYPE	VOLUME (GAL)	DRY WEIGHT (LB)	FLOODED WEIGHT (LB)	INTEGRATED STRAINER (LB)	SUPPORT TYPE	DESIGN BASIS MANUF. AND MODEL	NOTES
AS10-1	BUILDING 10	CHILLED WATER	-	-	-	-	-	-	-	-	-	REMOVED IN PHASE 4
AS10-2	BUILDING 10	HOT WATER	-	-	-	-	-	-	-	-	-	REMOVED IN PHASE 2
AS10-3	BUILDING 10	HOT WATER	2485	2.51	10" FLANGED	150	800	2,052	NO	BRACKETS INCLUDED	BELL & GOSSETT RL-10F	FURNISH & INSTALL SUPPLEMENTARY STEEL AS REQUIRED TO SUPPORT AIR SEPARATOR

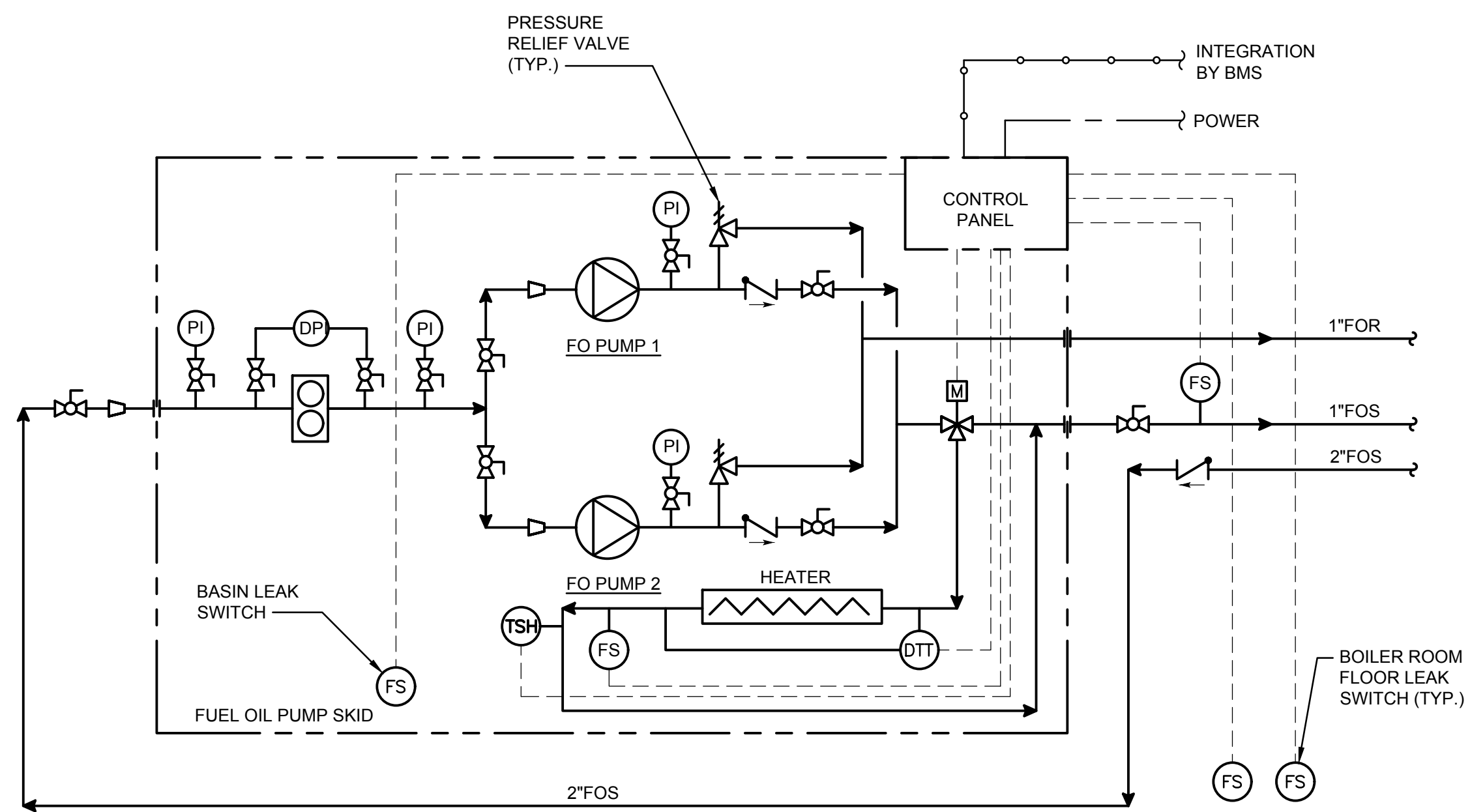
drawing title EQUIPMENT SCHEDULES - 4			STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES		
REVISIONS			drawing prepared by		
mark	date	description	WSP USA ONE PENN PLAZA NEW YORK, NY		
△	12/21/18	ISSUE FOR BID	date 12/21/2018		
	03/01/19	ADDENDUM 4	scale NONE		
project			drawing no.		
YORK CORRECTIONAL INSTITUTION CENTRAL PLANT AND DISTRIBUTION NIANTIC, CT			M804		
CAD no. cad file		project no. 189824			



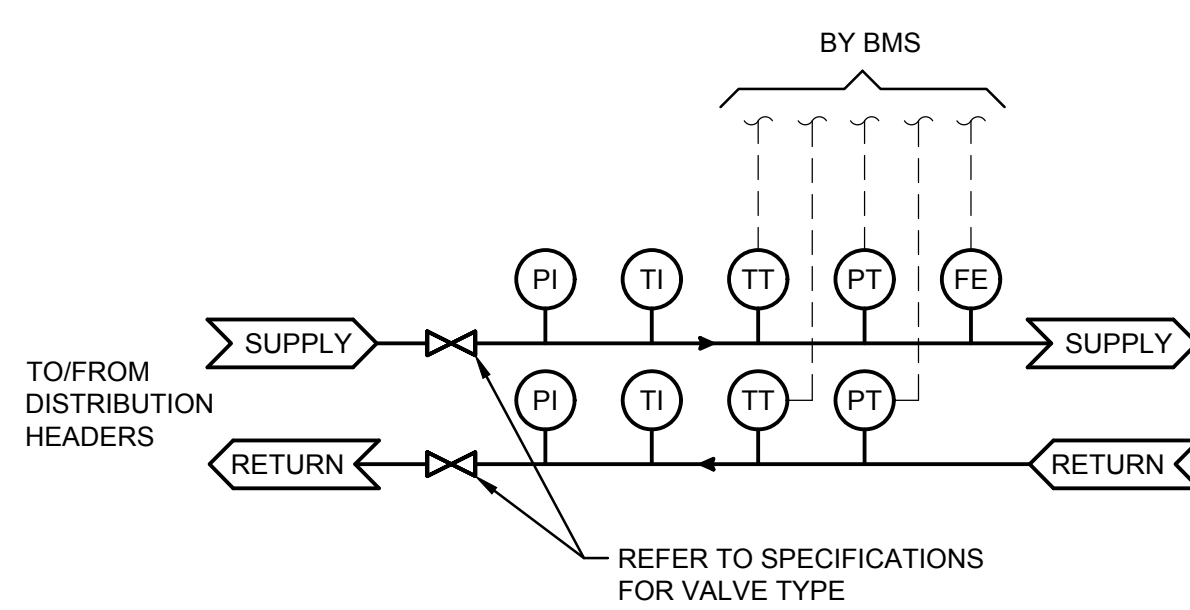
D 1 CHILLED WATER EXPANSION TANK & MAKEUP SYSTEM
NTS



D 2 HOT WATER EXPANSION TANK & MAKEUP SYSTEM
NTS

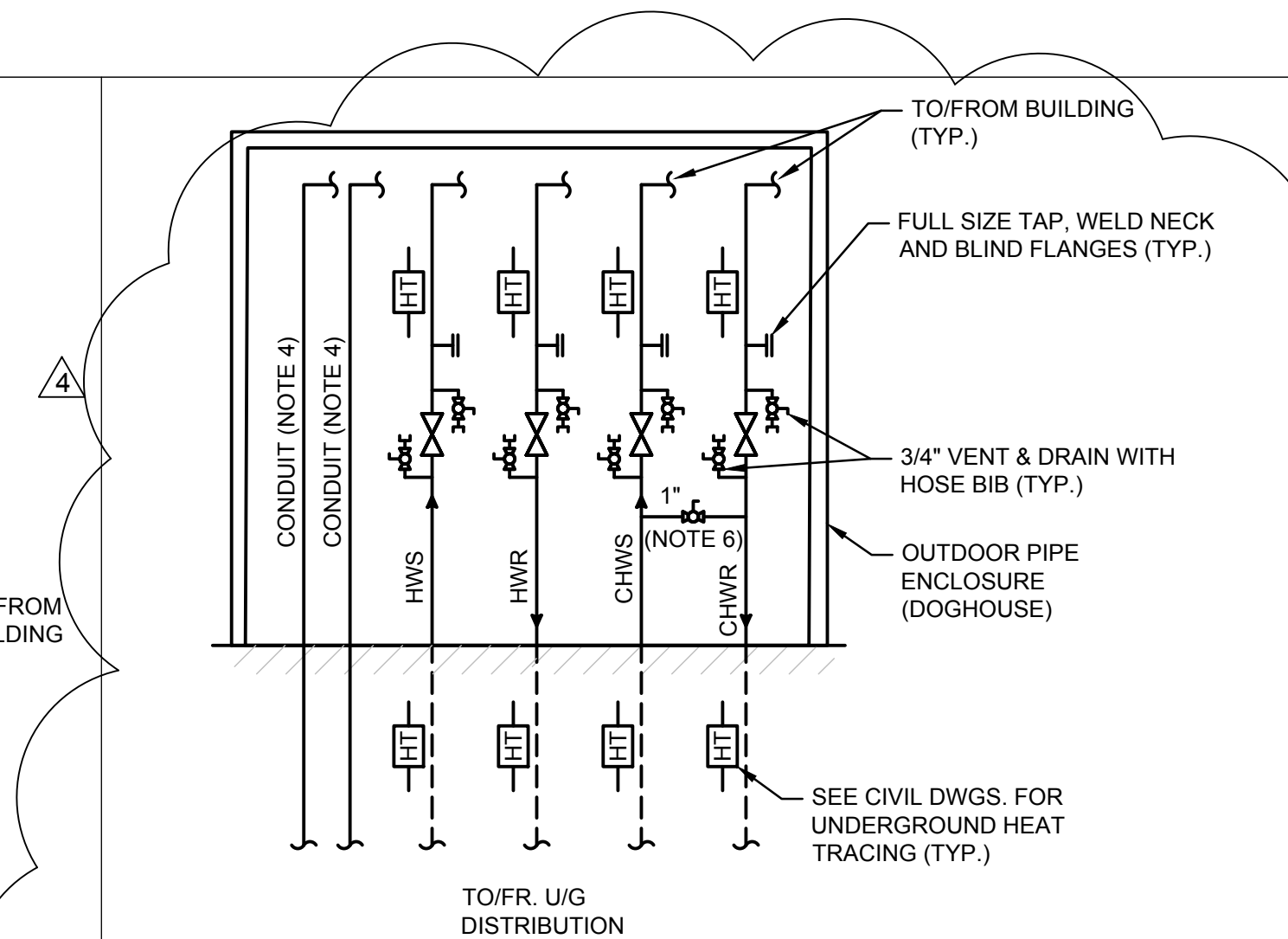


D 3 FUEL OIL PUMP SKID
NTS



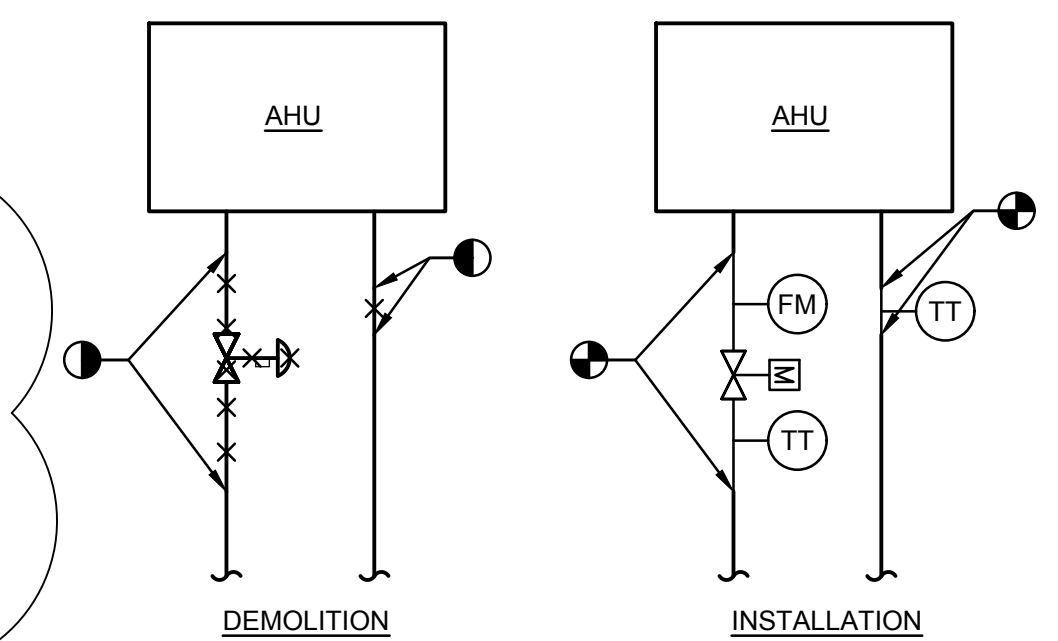
- NOTES:**
1. ARRANGEMENT SHOWN ABOVE FOR A SINGLE SERVICE. FURNISH AND INSTALL SET OF SUPPLY/RETURN PIPING FOR EACH SERVICE SIMILAR TO ABOVE DETAIL.
 2. LOCATION OF THIS DETAIL SHALL BE INSIDE BUILDING, NOT OUTDOOR ENCLOSURE (DOGHOUSE) (TYPICAL ALL).

D 4 PIPE INSTRUMENTATION AT BUILDING ENTRANCE
NTS



- NOTES:**
1. ARRANGEMENT OF PIPING IS SHOWN DIAGRAMMATICALLY. SEE CIVIL AND MECHANICAL DRAWINGS FOR ARRANGEMENT.
 2. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ENCLOSURE DETAILS.
 3. FURNISH AND INSTALL CONDUIT PULL BOX AS REQUIRED.
 4. REFER TO CONTRACT DRAWINGS FOR QUANTITY AND SIZE OF CONDUITS.
 5. PIPING IN DOGHOUSES FOR BUILDINGS 8 & 10 IS PASS THROUGH ONLY. THERE ARE NO VALVES, VENTS, DRAINS OR BLIND FLANGED TAPS IN THESE DOGHOUSES.
 6. FURNISH AND INSTALL CHW BYPASS IN BUILDING 0 DOGHOUSE ONLY.

D 5 OUTDOOR PIPE DETAIL AT BUILDING ENTRANCE
NTS



- NOTES:**
1. REFER TO SPECIFICATIONS
 2. MAINTAIN MANUFACTURERS REQUIRED UPSTREAM AND DOWNSTREAM STRAIGHT PIPE LENGTHS.
 3. REMOVE EXISTING PNEUMATIC LINES BACK TO SOURCE
 4. POWER AND CONTROL LINES NOT SHOWN

D 6 AHU PRESSURE INDEPENDENT CONTROL VALVE
NTS

drawing title			STATE OF CONNECTICUT	
DETAILS - 4			DEPARTMENT OF ADMINISTRATIVE SERVICES	
REVISIONS				
mark	date	description	drawing prepared by	date
Δ	12/21/18	ISSUE FOR BID	WSP USA ONE PENN PLAZA NEW YORK, NY	12/21/2018
	03/01/19	ADDENDUM 4		scale AS NOTED
			project	drawn by
			YORK CORRECTIONAL INSTITUTION CENTRAL PLANT AND DISTRIBUTION NIANTIC, CT	SC
			CAD no.	approved by
			project no. 189824	RB
				drawing no. M903