ADDENDUM NO. 1 April 5, 2024
New Castle County Vocational Technical School District
Hodgson Vo-Tech High School
Bid Package D.1 – Building Envelope and Fitout
Page 1

**The Bid Due Date and Bid Opening date has been changed to Wednesday, April 17, 2024 @ 3:00 PM.**
**The last day for questions is Wednesday, April 9, 2024.**

NOTICE: Attach this addendum to the project manual for this project. It modifies and becomes a part of the contract documents. Work or materials not specifically mentioned herein are to be described in the main body of the specifications and as shown in the drawings. Bidders shall acknowledge receipt of this addendum on the space provided on the Bid Form. Failure to do so may subject the bidder to disqualification.

Whenever this Addendum modifies a portion of the Project Manual added information is shown as **Bold** and deleted information is shown as ~~strikethrough~~.

The contract documents for the above referenced project, Project Manual dated March 11, 2024, are amended as follows:

**GENERAL CLARIFICATIONS:**

1. Bid Documents may be viewed and downloaded at EDiS' FTP site. To obtain access to the FTP site, please submit your request via email to Jackie McKee at jmckee@ediscompany.com.

2. Physical copies of bids will be received at the office of New Castle County Vo-Tech School District, 1417 Newport Road, Wilmington, DE 19804 until **3:00 PM local time on Wednesday, April 17, 2024.** The outer envelope should clearly indicate: "NEW CASTLE COUNTY VOCATIONAL TECHNICAL SCHOOL DISTRICT - HODGSON VO-TECH BUILDING ENVELOPE AND FITOUT BP-D.1 _____ SEALED BID – DO NOT OPEN." Bids may be hand delivered or mailed/shipped. Electronic bids will not be accepted. Bidder assumes full responsibility for timely delivery at location designated for receipt of bids. Any bids received after the stated time will be returned unopened.

3. Pre-bid meeting agenda and sign in sheet attached for your use.

**QUESTIONS AND ANSWERS:**

1. In the 'scope of work' for BPD.1-38 in the project manual, item 9 states to "coordinate and provide a complete grounding system. Can you clarify this? I haven't seen any grounding specific to this ductbank.
   Answer: Grounding is only required if specifically identified in the drawings and specifications. Scope item was a general note.

**MODIFICATIONS TO SPECIFICATIONS:**

1. SECTION 004100 - BID FORM AND ATTACHMENTS - DELETE the following bid forms in their entirety and INSERT revised bid forms, annotated Addendum No. 1 and dated April 5, 2024.

    - CONTRACT D.1-02 MISCELLANEOUS METALS, STAIRS, AND RAILS
    - CONTRACT D.1-05 EXTERIOR METAL PANELS
    - CONTRACT D.1-38 ELECTRICAL SERVICE PRIMARY DUCTBANK

2. SECTION 007343 WAGE RATE REQUIREMENTS - ADD attached Department of Labor 2024 wage rates to this section, annotated Addendum No. 1, and dated April 5, 2024.

3. SECTION 011100 – SUMMARY OF WORK – DELETE this section in its entirety and INSERT revised section, annotated Addendum No 1 and dated April 5, 2024.

4. SECTION 013216 – CONSTRUCTION SCHEDULE - ADD attached schedule to this section, annotated Addendum No. 1, and dated April 5, 2024.

**LIST OF ATTACHMENTS:**

Pre-Bid Meeting Agenda dated 2Apr24
Pre-Bid Meeting Sign-In Sheet
011100 - Summary of Work
Drawings: Electrical and Theater FS
BP-D.1 Hodgson Attachment A rev1 Add 1
BP-D.1 Hodgson Attachment C Add 1

**End of Addendum No. 1**

CONTRACT NO: D.1-02 MISCELLANEOUS METALS, STAIRS, AND RAILS

BID FORM

For Bids Due: _____

To: NCCVT School District
1417 Newport Road
Wilmington, DE 19804

Name of Bidder:_____

Bidder Address:_____

_____

Contact Name: _____E-Mail Address: _____

Delaware Business License No.:_____ Taxpayer ID No.: _____

(Other License Nos.): _____
**(A copy of Bidder's Licenses must be attached to this form.)**

Phone No.: (_____ ) _____ - _____ Fax No.: (_____ ) _____ - _____

The undersigned, representing that he has read and understands the Bidding Documents and that this bid is made in accordance therewith, that he has visited the site and has familiarized himself with the local conditions under which the Work is to be performed, and that his bid is based upon the materials, systems and equipment described in the Bidding Documents without exception, hereby proposes and agrees to provide all labor, materials, plant, equipment, supplies, transport and other facilities required to execute the work described by the aforesaid documents for the lump sum itemized below:

$_____ ($_____ )

ALLOWANCES
We/I confirm that an Allowances in the amount of $20,000.00 have been included in the Base Bid price listed above. This allowance is to be used at the Owner and Construction Manager's discretion. All remaining allowance shall be returned to the Owner at completion.

ALTERNATES
Alternate prices conform to applicable project specification section. Refer to specifications for a complete description of the following Alternates. An "ADD" or "DEDUCT" amount is indicated by the crossed-out part that does not apply.

Alternate No. 3: Provide exterior shell of future tech and shop expansion.

Add/Deduct _____($_____)

Alternate No. 7: Provide monument stair #5 complete.

Add/Deduct _____($_____)

Alternate No. 8: Provide vertically retractable partition between room MP1 & MP2.

Add/Deduct _____($_____)

I/We acknowledge Addendums numbered _____ and the price(s) submitted include any cost/schedule impact they may have.

This bid shall remain valid and cannot be withdrawn for sixty (60) days from the date of opening of bids, and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid (if required).

The Owner shall have the right to reject any or all bids, and to waive any informality or irregularity in any bid received.

This bid is based upon work being accomplished by the Sub-Contractors named on the list attached to this bid.

Should I/We be awarded this contract, I/We pledge to achieve substantial completion of all the work within the durations included in the BP-D bid schedule provided and Section 013216 Const. Schedule.

The undersigned represents and warrants that he has complied and shall comply with all requirements of local, state, and national laws; that no legal requirement has been or shall be violated in making or accepting this bid, in awarding the contract to him or in the prosecution of the work required; that the bid is legal and firm; that he has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding.

Upon receipt of written notice of the acceptance of this Bid, the Bidder shall, within twenty (20) calendar days, execute the agreement in the required form and deliver the Contract Bonds, and Insurance Certificates, required by the Contract Documents.

I am/We are an Individual/a Partnership/a Corporation

By _____ Trading as _____
(Individual's / General Partner's / Corporate Name)

_____
(State of Corporation)

Business Address: _____
_____
_____
_____

Witness: _____ By: _____
(Authorized Signature)

(SEAL)

_____
(Title)

Date: _____

ATTACHMENTS
Sub-Contractor List
Non-Collusion Statement
Bid Bond
Consent of Surety
Affidavit of Employee Drug Testing Program
Affidavit of Contractor Qualifications
DBE Subcontractor List
New Castle County Contractor License
(Others as Required by Project Manuals)

**SUBCONTRACTOR LIST**

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b of the Delaware Code, the following subcontractor listing must accompany any bid submittal. The bidder must list **in each category** the full name and address (City & State) of the sub-contractor that the bidder will be using to perform the work and provide material for that subcontractor category. Should the bidder's listed subcontractor intend to provide any of their subcontractor category of work through a third-tier contractor, the bidder shall list that third-tier contractor's full name and address (City & State). **If the bidder intends to perform any category of work itself, it must list its full name and address.** For clarification, if the bidder intends to perform the work themselves, the bidder **may not** insert "not applicable", "N/A", "self" or anything other than its own full name and address (City & State). To do so shall cause the bid to be rejected. In addition, the failure to produce a completed subcontractor list with the bid submittal shall cause the bid to be rejected. If you have more than three (3) third-tier contractors to report in any subcontractor category, print out additional page(s) containing the appropriate category, complete the rest of your list of third-tier contractors for that category, notate the addition in parentheses as (CONTINUATION) next to the subcontractor category and an asterisk (*) next to any additional third-tier contractors, and submit it with your bid.

| | **Subcontractor Category** | **Subcontractor** | **Address (City & State)** | **Subcontractors tax-payer ID # or Delaware Business license #** |
|---|---|---|---|---|
| 1. | Miscellaneous Metals | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | NO ADDITIONAL ENTRIES REQUIRED | | | |

## NON-COLLUSION STATEMENT

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date _____.

All the terms and conditions of Contract: _____ have been thoroughly examined and are understood.

NAME OF BIDDER: _____

AUTHORIZED REPRESENTATIVE (TYPED): _____

AUTHORIZED REPRESENTATIVE (SIGNATURE): _____

TITLE: _____

ADDRESS OF BIDDER: _____

_____

_____

E-MAIL: _____

PHONE NUMBER: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

CONSENT OF SURETY

DATE_____

To: NCC Vocational Technical School District
1417 Newport Road
Wilmington, DE 19804

Gentlemen:

We, the _____

_____
(Surety Company's Address)

_____

a Surety Company authorized to do business in the State of Delaware hereby agrees that if

_____
(Contractor)

_____
(Address)

_____

is awarded the Contract No. _____

We will write the required Performance and/or Labor and Material Bond required by Paragraph 9 of the Instructions to Bidders.

_____
(Surety Company)

By _____
(Attorney-in-Fact)

**AFFIDAVIT**
**OF**
**EMPLOYEE DRUG TESTING PROGRAM**

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds.

We hereby certify that we have in place or will implement during the entire term of the contract a Mandatory Drug Testing Program for our employees on the jobsite, including subcontractors, that complies with this regulation:

**Contractor/Subcontractor Name:** _____

**Contractor/Subcontractor Address:** _____

_____

_____

**Authorized Representative (typed or printed):** _____

**Authorized Representative (signature):** _____

**Title**: _____

Sworn to and Subscribed before me this _____day of_____ 20_____.

My Commission expires _____. NOTARY PUBLIC _____.

**THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.**

**AFFIDAVIT**
**OF**
**CONTRACTOR QUALIFICATIONS**

We hereby certify that we will abide by the contractor's qualifications outlined in the construction bid specifications for the duration of the contract term.

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b.3 of the Delaware Code, after a contract has been awarded the successful bidder shall not substitute another subcontractor whose name was submitted on the Subcontractor Form except for the reasons in the statute and not without written consent from the awarding agency. Failure to utilize the subcontractors on the list will subject the successful bidder to penalties as outlined in the General Requirements Section 5.2 of the contract.

**Contractor Name:** _____

**Contractor Address:** _____

_____

_____

**Authorized Representative (typed or printed):** _____

**Authorized Representative (signature):** _____

**Title:** _____

Sworn to and Subscribed before me this _____day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

**THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.**

DBE SUBCONTRACTOR LIST

| DBE Name | DBE Address | DBE Phone Number | DBE Email address | DelDOT or OSD Registration Number | DBE % of Contract | Description of Work |
|---|---|---|---|---|---|---|
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Total DBEs on project: _____

END OF SECTION

CONTRACT NO: D.1-05 EXTERIOR METAL PANELS

BID FORM

For Bids Due: _____

To: NCCVT School District
1417 Newport Road
Wilmington, DE 19804

Name of Bidder:_____

Bidder Address:_____

_____

Contact Name: _____E-Mail Address: _____

Delaware Business License No.:_____ Taxpayer ID No.: _____

(Other License Nos.): _____
**(A copy of Bidder's Licenses must be attached to this form.)**

Phone No.: (_____ ) _____ - _____ Fax No.: (_____ ) _____ - _____

The undersigned, representing that he has read and understands the Bidding Documents and that this bid is made in accordance therewith, that he has visited the site and has familiarized himself with the local conditions under which the Work is to be performed, and that his bid is based upon the materials, systems and equipment described in the Bidding Documents without exception, hereby proposes and agrees to provide all labor, materials, plant, equipment, supplies, transport and other facilities required to execute the work described by the aforesaid documents for the lump sum itemized below:

$_____ ($_____ )

ALLOWANCES

We/I confirm that an Allowances in the amount of $30,000.00 have been included in the Base Bid price listed above. This allowance is to be used at the Owner and Construction Manager's discretion. All remaining allowance shall be returned to the Owner at completion.

ALTERNATES

Alternate prices conform to applicable project specification section. Refer to specifications for a complete description of the following Alternates. An "ADD" or "DEDUCT" amount is indicated by the crossed-out part that does not apply.

Alternate No. 3: Provide exterior shell of future tech and shop expansion.

Add/Deduct _____($_____)

Alternate No. 15A: Provide custom color for window brows.

Add/Deduct _____($_____)

Alternate No. 15B: Provide custom color for main canopies.

Add/Deduct _____($_____)

Alternate No. 15C: Provide custom color for accent wall/exterior column wraps.

Add/Deduct _____($_____)

I/We acknowledge Addendums numbered _____ and the price(s) submitted include any cost/schedule impact they may have.

This bid shall remain valid and cannot be withdrawn for sixty (60) days from the date of opening of bids, and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid (if required).

The Owner shall have the right to reject any or all bids, and to waive any informality or irregularity in any bid received.

This bid is based upon work being accomplished by the Sub-Contractors named on the list attached to this bid.

Should I/We be awarded this contract, I/We pledge to achieve substantial completion of all the work within the durations included in the BP-D bid schedule provided and Section 013216 Const. Schedule.

The undersigned represents and warrants that he has complied and shall comply with all requirements of local, state, and national laws; that no legal requirement has been or shall be violated in making or accepting this bid, in awarding the contract to him or in the prosecution of the work required; that the bid is legal and firm; that he has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding.

Upon receipt of written notice of the acceptance of this Bid, the Bidder shall, within twenty (20) calendar days, execute the agreement in the required form and deliver the Contract Bonds, and Insurance Certificates, required by the Contract Documents.

I am/We are an Individual/a Partnership/a Corporation

By _____ Trading as _____
(Individual's / General Partner's / Corporate Name)

_____
(State of Corporation)

Business Address: _____

_____

Witness: _____ By: _____
(Authorized Signature)

(SEAL)

_____
(Title)

Date: _____

ATTACHMENTS
Sub-Contractor List
Non-Collusion Statement
Bid Bond
Consent of Surety
Affidavit of Employee Drug Testing Program
Affidavit of Contractor Qualifications
DBE Subcontractor List
New Castle County Contractor License
(Others as Required by Project Manuals)

**SUBCONTRACTOR LIST**

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b of the Delaware Code, the following subcontractor listing must accompany any bid submittal. The bidder must list **in each category** the full name and address (City & State) of the sub-contractor that the bidder will be using to perform the work and provide material for that subcontractor category. Should the bidder's listed subcontractor intend to provide any of their subcontractor category of work through a third-tier contractor, the bidder shall list that third-tier contractor's full name and address (City & State). **If the bidder intends to perform any category of work itself, it must list its full name and address.** For clarification, if the bidder intends to perform the work themselves, the bidder **may not** insert "not applicable", "N/A", "self" or anything other than its own full name and address (City & State). To do so shall cause the bid to be rejected. In addition, the failure to produce a completed subcontractor list with the bid submittal shall cause the bid to be rejected. If you have more than three (3) third-tier contractors to report in any subcontractor category, print out additional page(s) containing the appropriate category, complete the rest of your list of third-tier contractors for that category, notate the addition in parentheses as (CONTINUATION) next to the subcontractor category and an asterisk (*) next to any additional third-tier contractors, and submit it with your bid.

| **Subcontractor Category** | **Subcontractor** | **Address (City & State)** | **Subcontractors tax-payer ID # or Delaware Business license #** |
|---|---|---|---|
| 1. Metal Panels | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. NO ADDITIONAL ENTRIES REQUIRED | | | |

NON-COLLUSION STATEMENT

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date _____.

All the terms and conditions of Contract: _____ have been thoroughly examined and are understood.

NAME OF BIDDER: _____

AUTHORIZED REPRESENTATIVE (TYPED): _____

AUTHORIZED REPRESENTATIVE (SIGNATURE): _____

TITLE: _____

ADDRESS OF BIDDER: _____

_____

_____

E-MAIL: _____

PHONE NUMBER: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

CONSENT OF SURETY

DATE_____

To: NCC Vocational Technical School District
1417 Newport Road
Wilmington, DE 19804

Gentlemen:

We, the _____

_____
(Surety Company's Address)

_____

a Surety Company authorized to do business in the State of Delaware hereby agrees that if

_____
(Contractor)

_____
(Address)

_____

is awarded the Contract No. _____

We will write the required Performance and/or Labor and Material Bond required by Paragraph 9 of the Instructions to Bidders.

_____
(Surety Company)

By _____
(Attorney-in-Fact)

**AFFIDAVIT**
**OF**
**EMPLOYEE DRUG TESTING PROGRAM**

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds.

We hereby certify that we have in place or will implement during the entire term of the contract a Mandatory Drug Testing Program for our employees on the jobsite, including subcontractors, that complies with this regulation:

**Contractor/Subcontractor Name:** _____

**Contractor/Subcontractor Address:** _____

_____

_____

**Authorized Representative (typed or printed):** _____

**Authorized Representative (signature):** _____

**Title**: _____

Sworn to and Subscribed before me this _____day of_____ 20_____.

My Commission expires _____. NOTARY PUBLIC _____.

**THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.**

**AFFIDAVIT**
**OF**
**CONTRACTOR QUALIFICATIONS**

We hereby certify that we will abide by the contractor's qualifications outlined in the construction bid specifications for the duration of the contract term.

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b.3 of the Delaware Code, after a contract has been awarded the successful bidder shall not substitute another subcontractor whose name was submitted on the Subcontractor Form except for the reasons in the statute and not without written consent from the awarding agency. Failure to utilize the subcontractors on the list will subject the successful bidder to penalties as outlined in the General Requirements Section 5.2 of the contract.

**Contractor Name:** _____

**Contractor Address:** _____

_____

_____

**Authorized Representative (typed or printed):** _____

**Authorized Representative (signature):** _____

**Title:** _____

Sworn to and Subscribed before me this _____day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

**THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.**

# DBE SUBCONTRACTOR LIST

| DBE Name | DBE Address | DBE Phone Number | DBE Email address | DelDOT or OSD Registration Number | DBE % of Contract | Description of Work |
|---|---|---|---|---|---|---|
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Total DBEs on project: _____

END OF SECTION

CONTRACT NO: D.1-38 ELECTRICAL SERVICE PRIMARY DUCTBANK

BID FORM

For Bids Due: _____

To: NCCVT School District
1417 Newport Road
Wilmington, DE 19804

Name of Bidder:_____

Bidder Address:_____

_____

Contact Name: _____E-Mail Address: _____

Delaware Business License No.:_____ Taxpayer ID No.: _____

(Other License Nos.): _____
**(A copy of Bidder's Licenses must be attached to this form.)**

Phone No.: (_____ ) _____ - _____ Fax No.: (_____ ) _____ - _____

The undersigned, representing that he has read and understands the Bidding Documents and that this bid is made in accordance therewith, that he has visited the site and has familiarized himself with the local conditions under which the Work is to be performed, and that his bid is based upon the materials, systems and equipment described in the Bidding Documents without exception, hereby proposes and agrees to provide all labor, materials, plant, equipment, supplies, transport and other facilities required to execute the work described by the aforesaid documents for the lump sum itemized below:

$_____ ($_____ )

ALLOWANCES
We/I confirm that an Allowances in the amount of $10,000.00 have been included in the Base Bid price listed above. This allowance is to be used at the Owner and Construction Manager's discretion. All remaining allowance shall be returned to the Owner at completion.

I/We acknowledge Addendums numbered _____ and the price(s) submitted include any cost/schedule impact they may have.

This bid shall remain valid and cannot be withdrawn for sixty (60) days from the date of opening of bids, and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid (if required).

The Owner shall have the right to reject any or all bids, and to waive any informality or irregularity in any bid received.

This bid is based upon work being accomplished by the Sub-Contractors named on the list attached to this bid.

Should I/We be awarded this contract, I/We pledge to achieve substantial completion of all the work within the durations included in the BP-D bid schedule provided and Section 013216 Const. Schedule.

The undersigned represents and warrants that he has complied and shall comply with all requirements of local, state, and national laws; that no legal requirement has been or shall be violated in making or accepting this bid, in awarding the contract to him or in the prosecution of the work required; that the bid is legal and firm; that he has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding.

Upon receipt of written notice of the acceptance of this Bid, the Bidder shall, within twenty (20) calendar days, execute the agreement in the required form and deliver the Contract Bonds, and Insurance Certificates, required by the Contract Documents.

I am/We are an Individual/a Partnership/a Corporation

By _____ Trading as _____
(Individual's / General Partner's / Corporate Name)

_____
(State of Corporation)

Business Address: _____
_____
_____
_____

Witness: _____ By: _____
(Authorized Signature)

(SEAL)

_____
(Title)

Date: _____

ATTACHMENTS
Sub-Contractor List
Non-Collusion Statement
Bid Bond
Consent of Surety
Affidavit of Employee Drug Testing Program
Affidavit of Contractor Qualifications
DBE Subcontractor List
New Castle County Contractor License(Others as Required by Project Manuals)

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In accordance with Title 29, Chapter 69, Section 6962(d)(10)b of the Delaware Code, the following subcontractor listing must accompany any bid submittal. The bidder must list **in each category** the full name and address (City & State) of the sub-contractor that the bidder will be using to perform the work and provide material for that subcontractor category. Should the bidder's listed subcontractor intend to provide any of their subcontractor category of work through a third-tier contractor, the bidder shall list that third-tier contractor's full name and address (City & State). **If the bidder intends to perform any category of work itself, it must list its full name and address.** For clarification, if the bidder intends to perform the work themselves, the bidder **may not** insert "not applicable", "N/A", "self" or anything other than its own full name and address (City & State). To do so shall cause the bid to be rejected. In addition, the failure to produce a completed subcontractor list with the bid submittal shall cause the bid to be rejected. If you have more than three (3) third-tier contractors to report in any subcontractor category, print out additional page(s) containing the appropriate category, complete the rest of your list of third-tier contractors for that category, notate the addition in parentheses as (CONTINUATION) next to the subcontractor category and an asterisk (*) next to any additional third-tier contractors, and submit it with your bid.

| **Subcontractor Category** | **Subcontractor** | **Address (City & State)** | **Subcontractors tax-payer ID # or Delaware Business license #** |
|---|---|---|---|
| 1. Electrical | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. NO ADDITIONAL ENTRIES REQUIRED | | | |

## NON-COLLUSION STATEMENT

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date _____.

All the terms and conditions of Contract: _____ have been thoroughly examined and are understood.

NAME OF BIDDER: _____

AUTHORIZED REPRESENTATIVE (TYPED): _____

AUTHORIZED REPRESENTATIVE (SIGNATURE): _____

TITLE: _____

ADDRESS OF BIDDER: _____

_____

_____

E-MAIL: _____

PHONE NUMBER: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

CONSENT OF SURETY

DATE_____

To: NCC Vocational Technical School District
1417 Newport Road
Wilmington, DE 19804

Gentlemen:

We, the _____

_____
(Surety Company's Address)

_____

a Surety Company authorized to do business in the State of Delaware hereby agrees that if

_____
(Contractor)

_____
(Address)

_____

is awarded the Contract No. _____

We will write the required Performance and/or Labor and Material Bond required by Paragraph 9 of the Instructions to Bidders.

_____
(Surety Company)

By _____
(Attorney-in-Fact)

**AFFIDAVIT**
**OF**
**EMPLOYEE DRUG TESTING PROGRAM**

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds.

We hereby certify that we have in place or will implement during the entire term of the contract a Mandatory Drug Testing Program for our employees on the jobsite, including subcontractors, that complies with this regulation:

**Contractor/Subcontractor Name:** _____

**Contractor/Subcontractor Address:** _____

_____

_____

**Authorized Representative (typed or printed):** _____

**Authorized Representative (signature):** _____

**Title**: _____

Sworn to and Subscribed before me this _____day of_____ 20_____.

My Commission expires _____. NOTARY PUBLIC _____.

**THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.**

**AFFIDAVIT**
**OF**
**CONTRACTOR QUALIFICATIONS**

We hereby certify that we will abide by the contractor's qualifications outlined in the construction bid specifications for the duration of the contract term.

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b.3 of the Delaware Code, after a contract has been awarded the successful bidder shall not substitute another subcontractor whose name was submitted on the Subcontractor Form except for the reasons in the statute and not without written consent from the awarding agency. Failure to utilize the subcontractors on the list will subject the successful bidder to penalties as outlined in the General Requirements Section 5.2 of the contract.

**Contractor Name:** _____

**Contractor Address:** _____

_____

_____

**Authorized Representative (typed or printed):** _____

**Authorized Representative (signature):** _____

**Title:** _____

Sworn to and Subscribed before me this _____day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

**THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.**

# DBE SUBCONTRACTOR LIST

| DBE Name | DBE Address | DBE Phone Number | DBE Email address | DelDOT or OSD Registration Number | DBE % of Contract | Description of Work |
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Total DBEs on project: _____

END OF SECTION

STATE OF DELAWARE
DEPARTMENT OF LABOR
DIVISION OF INDUSTRIAL AFFAIRS
OFFICE OF CONSTRUCTION ENFORCEMENT
CHAPMAN BLDG., STE. 210
252 CHAPMAN RD.
NEWARK, DE. 19702

**Via Electronic and Regular Mail**

March 21, 2024

Mr. Kevin Lucas
EDIS Company
110 South Poplar St
Wilmington, DE 19801

Re: NCCVT Hodgson Vo-Tech Bid Package D.1, New Castle County, DE

Dear Mr. Lucas:

I am responding to your request for a category determination for the NCCVT Hodgson Vo-Tech Bid Package D.1, which is a state funded construction project located in New Castle County, DE. The work consists of a previous request BP-C and D (this is a rebid). This package will provide and install all the miscellaneous metals, stairs, and rails for the new building. It also includes the metal wall panels on the exterior of the building and the new primary electrical duct bank as required by Delmarva Power. You estimate the total cost of construction for this project to be $5,000,000.00.

Based upon the information you provided the Department of Labor has determined that this project is a Building Construction project.

Delaware's Prevailing Wage Regulations provide that the rates applicable to a project are the rates in effect on the date of publication of the specifications for that project. I have enclosed a certified copy of the March 15, 2024, prevailing wage rates for Building Construction to be included in your bid specification. However, please be advised that, in the event that a contract for a project is not executed within one hundred and twenty (120) days from the earliest date the specifications were published, the rates in effect at the time of the execution of the contract shall be the applicable rates for the project.

This determination is directed solely to the parties identified herein. It is based on the unique facts relevant to this matter. It does not constitute precedent and should not be cited as such by future parties.

Pursuant to 19 Del. Chapter 36, all contractors must obtain their Contractor Registration Certificate prior to performing construction services or maintenance work throughout Delaware. Contractors can submit an application by visiting the Delaware One Stop https://onestop.delaware.gov/Operate_Contractors.

Mr. Lucas
March 21, 2024
Page 2

**Additionally, effective July 26, 2023, SSI for SB102 amends Delaware's Prevailing Law 29 Del.C.6960(b) now requires these applicable prevailing wage rates to be paid to all workers who perform custom fabrication work regardless of where the work is performed. For futher information regarding custom fabrication see 29 Del.C.6902(8).**

Lastly, please see the enclosed debarment list. Entities/individuals listed shall not be permitted to bid on, be awarded or work on Delaware State funded construction projects, in the timeframe specified, as provided for under 29 Del.C.6960 or other applicable State statutes.

If you have any questions or I can provide any additional assistance, please do not hesitate to contact me at 302-318-2769.

Sincerely,

Salina Crossland

Salina Crossland, Supervisor
Office of Construction Industry Enforcement
Salina.Crossland@delaware.gov

Enclosures

STATE OF DELAWARE
DEPARTMENT OF LABOR
DIVISION OF INDUSTRIAL AFFAIRS
OFFICE OF LABOR LAW ENFORCEMENT
PHONE: (302) 318-2769

Mailing Address:
252 Chapman Road
Suite 210
Newark, DE 19702

Located at:
252 Chapman Road
Suite 210
Newark, DE 19702

PREVAILING WAGES FOR **BUILDING CONSTRUCTION** EFFECTIVE MARCH 15, 2024

| CLASSIFICATION | NEW CASTLE | KENT | SUSSEX |
|---|---|---|---|
| ASBESTOS WORKERS | 29.03 | 35.74 | 52.03 |
| BOILERMAKERS | 86.90 | 44.09 | 64.81 |
| BRICKLAYERS | 65.24 | 65.24 | 65.24 |
| CARPENTERS | 61.06 | 61.06 | 49.30 |
| CEMENT FINISHERS | 91.66 | 65.19 | 50.55 |
| ELECTRICAL LINE WORKERS | 57.72 | 49.50 | 37.74 |
| ELECTRICIANS | 81.62 | 81.62 | 81.62 |
| ELEVATOR CONSTRUCTORS | 113.66 | 81.88 | 103.45 |
| GLAZIERS | 83.30 | 83.30 | 71.92 |
| INSULATORS | 67.20 | 67.20 | 67.20 |
| IRON WORKERS | 75.32 | 75.32 | 75.32 |
| LABORERS | 55.65 | 55.65 | 55.65 |
| MILLWRIGHTS | 85.36 | 85.36 | 68.57 |
| PAINTERS | 57.60 | 57.60 | 57.60 |
| PILEDRIVERS | 88.62 | 49.97 | 40.41 |
| PLASTERERS | 37.89 | 37.89 | 28.08 |
| PLUMBERS/PIPEFITTERS/STEAMFITTERS | 77.30 | 80.57 | 71.11 |
| POWER EQUIPMENT OPERATORS | 81.29 | 81.29 | 81.29 |
| ROOFERS-COMPOSITION | 29.45 | 29.41 | 31.82 |
| ROOFERS-SHINGLE/SLATE/TILE | 23.34 | 27.77 | 21.83 |
| SHEET METAL WORKERS | 84.53 | 84.53 | 84.53 |
| SOFT FLOOR LAYERS | 60.12 | 60.12 | 60.12 |
| SPRINKLER FITTERS | 70.52 | 70.52 | 70.52 |
| TERRAZZO/MARBLE/TILE FNRS | 71.53 | 71.53 | 79.54 |
| TERRAZZO/MARBLE/TILE STRS | 68.47 | 68.47 | 88.22 |
| TRUCK DRIVERS | 55.25 | 34.83 | 27.11 |

CERTIFIED: 3-21-2024

BY: Salina Crossland / for Francis Chudzik
ADMINISTRATOR, OFFICE OF LABOR LAW ENFORCEMENT

**NOTE:** THESE RATES ARE PROMULGATED AND ENFORCED PURSUANT TO THE PREVAILING WAGE REGULATIONS ADOPTED BY THE DEPARTMENT OF LABOR ON APRIL 3, 1992.

CLASSIFICATIONS OF WORKERS ARE DETERMINED BY THE DEPARTMENT OF LABOR. FOR ASSISTANCE IN CLASSIFYING WORKERS, OR FOR A COPY OF THE REGULATIONS OR CLASSIFICATIONS, PHONE (302) 318-2769.

NON-REGISTERED APPRENTICES MUST BE PAID THE MECHANIC'S RATE.

**PROJECT: NCCVT Hodgson Vo-Tech Bid Package D.1, New Castle County**

# PREVAILING WAGE DEBARMENT LIST

The following contractors have been debarred for violations of the prevailing wage law 29Del.C. §6960 or other applicable State statutes.

Therefore, no public construction contract in this State shall be bid on, awarded to, or received by contractors and individuals on this list for a period of (3) three years from the date of the judgment or as deemed by a court of competent jurisdiction.

| Contractor | Address | Date of Debarment |
|---|---|---|
| Mullen Brothers, Inc. and Daniel Mullen, individually | 3375 Garnett Road, Boothwyn, PA 19060 | Indefinite/ Civil Contempt |
| State Contractors Corporation, and Jose Oscar Rivera, individually | 13004 Hathaway Drive Silver Spring, MD 20906 | Indefinite/ 19 Del.C. 2374(f) |
| Green Granite and Jason Green, individually | 604 Heatherbrooke Court Avondale, PA 19311 | Indefinite/ Civil Contempt |
| Pro Image Landscaping, Inc. and Owner(s) individually | 23 Commerce Street Wilmington, DE 19801 and/or 2 Cameo Road Claymont, DE 19703 | Indefinite/19 Del.C. §108 & 10 Del.C. 542(c) |
| Liberty Mechanical, LLC and Owner(s), individually | 2032 Duncan Road Wilmington, DE 19801 | Indefinite/ 19 Del.C. 2374(f) |
| Integrated Mechanical and Fire Systems Inc. and Allison Sheldon, individually | 4601 Governor Printz Boulevard Wilmington, DE 19809 | Indefinite/19 Del.C. §108 & 10 Del.C. 542(c) |
| ACH 1, INC. | 873 Salem Church Road Newark, DE 19702 | Indefinite/19 Del.C.6960 |

Updated: July 6, 2022

SECTION 011100 - SUMMARY OF WORK

1. RELATED DOCUMENTS

   A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Sections, apply to work of this Section.

2. CONTRACTS

   A. The work will be performed under separate prime contracts managed by the Construction Manager.

3. ALTERATIONS & COORDINATION

   A. Contractor shall be responsible to coordinate their work with the work of others, including, but not limited to, the preparation of general coordination drawings, diagrams and schedules, and control of site utilization, from the beginning of activity, through project close-out and warranty periods.

4. KNOWLEDGE OF CONTRACT REQUIREMENTS

   A. The Contractor and his Subcontractors, Sub-subcontractors and material men shall consult in detail the Contract Documents for instructions and requirements pertaining to the Work, and at his and their cost, shall provide all labor, materials, equipment and services necessary to furnish, install and complete the work in strict conformance with all provisions thereof.

   B. The Contractor will be held to have examined the site of the Work prior to submitting his proposal and informed himself, his Subcontractors, Sub-subcontractors and material men of all existing conditions affecting the execution of the Work.

   C. The Contractor will be held to have examined the Contract Documents and modifications thereto, as they may affect subdivisions of the Work and informed himself, his Subcontractors, Sub-subcontractors and material men of all conditions thereof affecting the execution of the Work.

   D. The Scope of Work for the Contract is not necessarily limited to the description of each section of the Specifications and the illustrations shown on the Drawings. Include all minor items not expressly indicated in the Contract Documents, or as might be found necessary as a result of field conditions, in order to complete the Work as it is intended, without any gaps between the various subdivisions of work.

   E. The Contractor will be held to be thoroughly familiar with all conditions affecting labor in the area of the Project including, but not limited to, Unions, incentive pay, procurements, living, parking and commuting conditions and to have informed his Subcontractors and Sub-subcontractors thereof.

5. CONTRACT DOCUMENTS INFORMATION

   A. The Contract Documents are prepared in accordance with available information as to existing conditions and locations. If, during construction, conditions are revealed at variance with the

Contract Documents, notify the Construction Manager immediately, but no more than three (3) days from the day the variance is first known. Failure to give timely notice shall operate to waive any claim Contractor might otherwise have for an adjustment to Contract Time or Sum as a consequence of such variance.

B. The Specifications determine the kinds and methods of installation of the various materials, the Drawings establish the quantities, dimensions and details of materials, the schedules on the Drawings give the location, type and extent of the materials.

C. Dimensions given on the Drawings govern scale measurements and large scale drawings govern small scale drawings, except as to anything omitted unless such omission is expressly noted on the large scale drawings.

D. The techniques or methods of specifying to record requirements varies throughout text, and may include "prescriptive", "open generic/descriptive", "compliance with standards", "performance", "proprietary", or a combination of these. The methods used for specifying one unit of work has no bearing on requirements for another unit of work.

E. Whenever a material, article or piece of equipment is referred to in the singular number in the Contract Documents, it shall be the same as referring to it in the plural. As many such materials, articles or pieces of equipment shall be provided as are required to complete the Work.

F. Whenever a material, article or piece of equipment is specified by reference to a governmental, trade association of similar standard, it shall comply with the requirements of the latest publication thereof and amendments thereto in effect on the bid date.

G. In addition to the requirements of the Contract Documents, Contractor's work shall also comply with applicable standards of the construction industry and those industry standards are made a part of Contract Documents by reference, as if copied directly into Contract Documents, or as if published copies were bound herein.

H. Where compliance with two (2) or more industry standards, contract requirements, or sets of requirements is specified, and overlapping of those different standards or requirements establishes different or conflicting minimums or levels of quality, then the most stringent requirements, which are generally recognized to be also the most costly, is intended and will be enforced, unless specifically detailed language written into the Contract Documents clearly indicates that a less stringent requirement is to be fulfilled. Refer apparently equal but different requirements, and uncertainties as to which level of quality is more stringent, to Architect for decision before proceeding.

I. Reference standards referenced directly in Contract Documents or by governing regulations have precedence over non-reference standards which are recognized in industry for applicability of work.

J. Contractor's bid is based on the complete set of Contract Documents including documents not specifically issued as part of the bid pack but referenced in same.

6. SCOPE OF WORK/GENERAL INFORMATION

A. A Scope of Work for each contract to be awarded on the project follows in this section. When a Contract has been awarded to a Contractor, the successful Contractor will be listed after the title of the Contract. When no Contract has yet been awarded, no Contractor's name will be listed. Previous Scopes of Work include addendum changes.

B. Contractor is responsible for performing the work listed in the Summary of Work for his contract. Contractor is also responsible for knowing the work that has been assigned to preceding contracts. No additional compensation or extension of time will be allowed a Contractor due to his ignorance of the work assigned to his Contract or to other contracts which may affect his work. The Contractor is responsible, however, for all items which are covered in the Specifications and Drawings relating to their Contract if not specifically mentioned in the Summary of Work.

C. The Construction Manager will provide on-site a source for temporary electric, temporary water and portable sanitation facilities only. It is each Contractor's responsibility to make the necessary connections, including all material for temporary electric and water. Please note that utility charges for office trailers will be the responsibility of the individual Contractors.

D. A dumpster will be provided on site for free use by Contractors to dispose of non-hazardous, common, work-related refuse. Clean-up is the responsibility of each Contractor. Clean up shall be performed on a daily basis. Contractors not complying will be advised in writing and back charged for all costs associated with the cleanup of their work.

E. Contractors are reminded that there are limited storage areas available on site. Off-site storage will be the responsibility of each individual Contractor.

F. Office trailer permits off site will be the responsibility of each individual Contractor. On site Contractor’s field offices, one (1) per Contractor, if required, will be located as directed by the Construction Manager.

G. Contractor will be prepared to discuss and submit a detailed project schedule seven (7) days after receipt of Notice to Proceed and to begin its submittal process. The Project Schedule is an integral part of this contract. Certain construction sequences and priorities must take place in order to meet the target dates. Concentrated work periods will occur and each Contractor is responsible to staff the project as required by the current Construction Schedule or as directed by the Construction Manager. Contractor will cooperate with the Construction Manager in planning and meeting the required sequences of work and Project Schedule as periodically updated by the Construction Manager.

H. All bids must include insurance limits in accordance with Article 11 of the Section 007300 SUPPLEMENTARY CONDITIONS.

I. Hoisting, scaffolding and material handling is the responsibility of each Contractor, unless otherwise noted.

J. Contractor will be responsible for layout of its own work. The Construction Manager will provide benchmark and layout of the building line.

K. Contractor will be responsible to keep clean public roadways soiled by construction traffic on a daily basis. If cleaning is not done, the Construction Manager may perform the cleaning on an

overtime basis and backcharge the Contractor responsible.

L. Contractor Scopes of Work and Schedule are interrelated. Familiarity with each is required.

M. The Construction Manager will provide testing services for soil, concrete and steel. Other testing as required by the Contract Documents will be in accordance with the technical specifications and/or the individual scope of work. Refer to Specification Section 004500 - QUALITY CONTROL.

N. Safety is the responsibility of each individual Contractor. The project will be governed under the guidelines of OSHA.

O. Inter-Contractor shop drawing distribution will be performed by the Construction Manager. Contractor is individually responsible for either coordinating his work with these distributed drawings or notifying the Construction Manager, in writing, of any discrepancies.

P. Coordination with other trades will be required. The Contractor will be required to attend periodic coordination meetings with other trades where requirements, conflicts and coordination issues will be discussed and resolved. Attendance when requested will be mandatory. If inter-Contractor coordination is not satisfactorily performed, the conflicting Contractors shall mutually share the cost to relocate and/or reinstall their work.

Q. Contractor shall submit a schedule of values to the Construction Manager prior to the submission of their first invoice for approval through Building Blok.

R. Contractor is expected to review and coordinate its Work with the complete set of Contract Documents, including all items noted as by his trade whether or not shown on that particular set of drawings. Documents are available at the site for review.

S. Contractor is responsible for obtaining all necessary permits required for his work, including street permits. Unless otherwise noted, building permit shall be secured by the Construction Manager. Any subcontractor who will be restricting access to street, right of way or adjacent property must notify the Construction Manager 48 hours in advance.

T. Contractor's License: Submit a copy of all business licenses required by local and state agencies.

U. Contractor shall absorb, without additional compensation, any and all costs of working beyond normal hours to maintain job progress in accordance with the current construction schedule.

V. No asbestos or PCB's in or on any material or equipment will be accepted or allowed on this project. All hazardous materials will be treated in accordance with all State and Federal regulations.

W. Daily cleanup of the work is the responsibility of each individual Contractor which includes broom cleaning of their debris as required. Contractor will be individually back charged by the Construction Manager for cleanup not satisfactorily performed by the Contractor.

X. In the event asbestos is uncovered, the Contractor shall notify the Construction Manager of the areas requiring removal of asbestos. The Construction Manager shall then coordinate the removal

with the Owner.

Y. This project is to be constructed adjacent to existing buildings. Contractor shall exercise all due precautions to minimize noise, air pollution and any other construction hazards which in any way would cause discomfort or danger to the occupants of the existing building in the area.

Z. The Safety Cable System shall not be altered or removed without a written request submitted to the Project Manager with a copy to the Field Manager. It shall be the responsibility of each and every Contractor that is removing or altering the Safety Cable System to maintain the fall protection safety provided by the safety cable and not leave the area unprotected. Each and every Contractor shall be responsible to re-install the Safety Cable System immediately after work is completed. Each and every Contractor shall be responsible to re-install the Safety Cable System in accordance to OSHA standards.

AA. Normal work hours for this project are from 7:00 a.m. to 3:30 p.m. Any work to be performed outside of these hours must receive prior approval from the Construction Manager. Requests to work beyond normal work hours shall be submitted at least 48 hours prior.

AB. Contractor is responsible for having a competent project superintendent/foreman on-site during all work performed under its contract.

AC. In the event the Contractor has non-English speaking employees or subcontractors on the project, they shall have a superintendent or foreman on site, at all times, who speaks English and can communicate with Contractor's employees. Should the Contractor fail to meet this requirement, at any time, Construction Manager may direct all Work to stop until the proper supervision is on site. The Contractor will be responsible for maintaining the project work schedule and make up at its own expense, any delay to the Schedule resulting from the work stoppage.

AD. Punch List Procedures: Contractor shall be given a copy of the punch list with his appropriate work identified. Contractor shall have nine (9) calendar work days to complete its punch list work. On the 10th day or as determined by the Construction Manager, the Construction Manager shall employ other contractors, as required, to complete any incomplete punch list work and retain from the appropriate Contractors retainage all costs incurred.

AE. Contractor shall provide the necessary safety barricades and railings required to complete their work and comply with all OSHA, local code and contract specifications.

AF. **Prohibition of Using Photographs on EDiS Projects**: The Contractor and all associated subcontractors agrees to not issue any news release or advertising pertaining to the Work or the Project, including references to the Project on the Contractor's/subcontractor website or other social media outlets, without obtaining EDiS' prior written approval, in each instance. The Contractor, for itself, its employees, vendors and subcontractors, agrees to not use the name of the Owner, the Project, EDiS or any photographs, videos, or other images of the Project in connection with any of Contractor's business promotion activities, advertising, website, social media outlets, or operations, without EDiS' prior written approval in each instance.

AG. This is not a secure site. All contractors are responsible for concealing, locking and /or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

AH. Provide all BIM services as specified in Section 013700 BIM Execution Plan. As part of the coordination process all contractors are responsible for obtaining a Revizto license. The cost of this license is $1,200 and shall be included in your base bid proposal.

AI. All contractors must provide a silica exposure plan that meets or exceeds the new 2017silica OSHA requirements before any work can commence. At a minimum, it must be implemented into the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

AJ. All contractors shall be responsible to protect all non-metallic piping within the building envelope from overspray of the Applied Fireproofing, intumescent coatings, fire caulking and fire safing as it pertains to the scope of your course of work. The contractor shall be familiar with and comply with the NFPA regulations, including but not limited to the following 6.3.7.5 Firestopping materials intended for use on nonmetallic piping penetrations shall be investigated for compatibility with the nonmetallic pipe materials. 6.3.7.5 Protection plan shall be submitted and reviewed with the CM prior to implementation.

AK. For all contracts which include allocations for COOP hours with NCCVT students, any unutilized COOP hours shall be returned to the district at the rates published in the documents, as a credit change order.

CONTRACT NO. D.1-02 - MISCELLANEOUS METALS, STAIRS, AND RAILS

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 055000 | Metal Fabrications |
| Section 055100 | Metal Stairs |
| Section 055133 | Metal Ladders |
| Section 055213 | Pipe and Tube Railings |
| Section 057300 | Decorative Metal Railing |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide stairs, loose lintels, misc. metal angles, plates, handrails, railings, metal ladders and accessories.

2. Furnish loose steel lintels, angles, plates and embedded items to the Concrete and Masonry contractors.

3. This contract shall provide to Contract D37 Misc. Concrete the Mechanical yard pipe rack anchors bolts and leveling plates referenced on drawing M315 (typical.)

4. Review Alternates as per the Bid Form and Alternate section for work related to Stair #5.

5. Review Alternates as per the Bid Form and Alternate section for work related Alternate No.3 CTE expansion. This contract shall provide all Misc. Metals items related to this work. The structural steel, joists and decking is provided by Contract C-03

6. This contractor will be required to coordinate work of this contract with the Structural Steel, Joist and Deck contract which is part of BP-C. Review and understand the BP-C contract as it relates to your work.

7. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

8. Provide all BIM services as specified in Section 013700 BIM Execution Plan. As part of the coordination process all contractors are responsible for obtaining a Revizto license. The cost of this license is $1,200 and shall be included in your base bid proposal.

9. Provide miscellaneous rough hardware, iron shapes, framing and support angles.

10. **This contractor shall provide all H&B partition top supports at the masonry walls as shown on drawing S004**. ADDM #1

11. Provide powder coated downspout boots per section 055000-10.

12. Provide stair nosing's.

13. Provide gratings.

14. Overhead door frames, furnished and installed.

15. Elevator hoist beams, provide and coordinate installation with BP-C masonry contractor.

16. Elevator sill angles, provide and coordinate anchoring systems, bolts etc. and installation with other trades.

17. Toilet partition supports, if not part of the manufactured toilet partition frame shall be supplied by this contractor.

18. Provide ships ladder, access ladders and related fastening devices and accessories.

19. Galvanizing and other special coatings as required.

20. Anchoring devices, fasteners, inserts and other related items associated with the installation of the above items.

21. Field touch-up paint.

22. No electrical power for welders will be provided.

23. Verify all field dimensions prior to fabrication.

24. No electrical power for this contractor's equipment or welders will be provided. Electrical power to be provided as needed by this contractor.

25. This contractor must provide a silica exposure plan that meets or exceeds the new 2017silica OSHA requirements before any work can commence. At a minimum, it must be implemented into the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

26. Include within this contracts base bid an allocation of $20,000 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner.

CONTRACT NO. D.1-05 - EXTERIOR METAL PANELS

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 054000 | Cold-Formed Metal Framing |
| Section 055000 | Metal Fabrications |
| Section 074213.13 | Metal Wall and Roof Panels |
| Section 074213.23 | Metal Composite Material Wall Panels |
| Section 076200 | Sheet Metal Flashing and Trim |
| Section 079100 | Preformed Joint Sealants |
| Section 079200 | Joint Sealants |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide all metal panels, framing, sub girts, Z furring, insulation and all other components to provide a complete metal panel system.

2. Provide Flashing and complete "engineered and sealed" (Delegated Design) as shown in detail D1/A612. Include all flashing, closures, jamb reveal detail, self-adhered flashing tape etc. to provide a complete system at all locations. This contractor must work with and in conjunction with the spray foam system installation and sealing.

3. This contractor shall provide the MCM metal column enclosures color 2 as indicated on A-202, A-203 and A-207. Provide a complete and sealed systems.

4. The spray installation system will be provided by the Masonry contractor, however this contractor is responsible to coordination. Specifically for installation durations and the completeness of the installation of the Z furring system this contract is providing. Timely installation to not impact the spray foam installation is required by this scope of work.

5. Provide all composite metal panel return systems as identified in detail A1/A612, A7/A612 and similar details as indicated. Jamb return needs to be coordinated with the window installation.

6. Provide all fascia's, soffits, overhangs etc. as required for a complete system.

7. Flashing of panels integral with the panel system.

8. Coordinating, cutting and fitting around the work of other trades is required by this contract and should be part of your base bid work.

9. Caulking of panels as required to provide a complete system. Vertical joints where metal panels meet adjacent materials shall be caulked by the Caulking and Salant contractor.

10. Miscellaneous metal items necessary to support panels other than required structural steel.

11. Furnish anchorage items for embedding into other construction for support of panels.

12. Touch up of all welding.

13. No electrical power for this contractor's equipment or welders will be provided. Electrical power to be provided as needed by this contractor.

14. Galvanized, epoxy or stainless steel, etc. anchors as specified.

15. Metal fascias and copings related to the panel system.

16. This Contractor shall coordinate his shop drawings with the Window Contractor's shop drawings and the overall construction schedule.

17. Coordinate all work of this contract with the Carpentry contractor for the installation, flashing and complete installation of the louvers into the metal panel system. Close coordination of shop drawings is required by these two contracts.

18. All material handling, lifts, cranes etc. are the responsibility of this contractor.

19. Verification of field dimensions is the responsibility of this Contractor. Coordination and review window openings, door openings and others during the shop drawing process is required so materials can be ordered to accommodate schedule. Material may be required to be ordered in advance of the ability to field measure. This coordination is the responsibility of this contractor.

20. Provide all flashing as identified with the metal panel installation. Provide all hat channels and sub-girts for the panel installation. Coordinate with the work of other contractors related to the spry foam installation.

21. Provide all BIM services as specified in Section 013700 BIM Execution Plan. As part of the coordination process all contractors are responsible for obtaining a Revizto license. The cost of this license is $1,200 and shall be included in your base bid proposal.

22. This is not a secure site. All contractors are responsible for concealing, locking and /or removing any materials on a daily basis. NCCVT and EDiS will not be responsible for any lost tools, materials or equipment.

23. This contractor must provide a silica exposure plan that meets or exceeds the new 2017silica OSHA requirements before any work can commence. At a minimum, it must be implemented into the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

24. Include within this contracts base bid an allocation of $30,000 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner.

CONTRACT NO. D.1-38 – ELECTRICAL SERVICE PRIMARY DUCTBANK

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Division 26 | Electrical |
| Section 033000 | Cast in Place Concrete |
| Section 260543 | Underground Ductbanks |
| Section 261120 | Utility Incoming Service Provisions |
| Section 312300 | Excavation and Backfill for Pipelines and Structures |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. This contractor shall provide the work associated with the incoming electrical service from the Delmarva switch at Glasgow Avenue to the main transformer in the service yard at the building. This course of work shall include but not be limited to the layout, excavation, installation of conduits within the ductbank, concrete encasement where indicated, all electric power cables, pull strings, racks and backfilling of trench and restoration of areas disturbed back to original condition.

2. The power cabling shall be pulled to the transformer pad area and left coiled up for use by others once the transformers are set.

3. Excavation and backfill for underground electrical work as required below is the responsibility of this Contractor. Soil types shall be in accordance with project specifications and the Geo-Tech report. Geo-Tech reports included for review and acceptance.

4. Backfilling is the responsibility of this Contractor. Soil types shall be in accordance with project documents. It is the intent to use on-site material and not imported fill. The use of this on-site material shall conform to the compaction requirements identified in Section 312300. Excavated materials shall be covered immediately and protected from moisture mitigation. If Materials become unusable, this contractor shall own purchasing acceptable off-site materials.

5. Include requirements of New Castle County, State, and local codes for concrete encasement.

6. The onsite testing and inspection agency provided the owner will monitor the excavation and backfilling operation.

7. All guarantees and warranties to begin at the substantial completion of the entire project.

8. Hoisting, rigging, and material handling required to perform your scope of work shall be provided by this contractor.

9. Coordinate and provide a complete grounding system as it relates to the incoming Primary incoming electrical service, wiring and ductbank**. Only required if specifically identified in the drawings or specifications. ADDM #1**

10. As-built drawings in both hard copy and electronic format including As-Built drawings.

11. Perform certification testing for all wiring and systems supplied by this contract scope.

12. Coordinate all work with the requirements of Delmarva Power and their standards and requirements. A pre-Con meeting with this contractor and Delmarva Power shall be scheduled and held before any work starts on the electrical service to the transformer.

13. This is not a secure site. All contractors are responsible for concealing, locking and /or removing any materials on a daily basis. NCCVT and EDiS will not be responsible for any lost tools, materials or equipment.

14. No electrical power for this contractor's equipment or welders will be provided. Electrical power to be provided as needed by this contractor.

15. This contractor must provide a silica exposure plan that meets or exceeds the new 2017silica OSHA requirements before any work can commence. At a minimum, it must be implemented into the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

16. Include within this contract's base bid an allocation of $10,000 for work to be determined by the owner and construction manager. Unused allocation funds to be returned to the owner.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-01 - UNIT MASONRY

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

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|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 033000 | Concrete (coordination) |
| Section 042000 | Unit Masonry |
| Section 044316 | Stone Fabrications |
| Section 047200 | Cast Stone Masonry |
| Section 321413.13 | Interlocking Concrete Unit Paving |
| Section 070553 | Fire and Smoke Assembly Identification |
| Section 072100 | Insulation |
| Section 072640 | Sprayed Polyurethane Foam Insulating Air Barrier |
| Section 072500 | Weather Barriers |
| Section 076200 | Sheet Metal Flashing and Trim |
| Section 078400 | Firestopping |
| Section 079100 | Preformed Joint Sealers |
| Section 007900 | Joint Sealers |

This contract provides and includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide masonry units, cast stone, reinforcing, accessories and related work. This contract includes all masonry work except the work provided by BP-C Foundation Masonry contract. This contractor owns coordination with the BP-C contractor and must review and understand the BP-C scope of work.

2. Provide all concrete interlocking pavers, grading, subbase, concrete substrate, grouting and cleaning as required to provide a complete brick pavers system.

3. This contractor to provide Detail F2 sheet A106 complete for all areas. Including concrete subbase and 8" thick concrete slab section.

4. This contractor to provide the colored concrete medallion in the courtyard complete.

5. Provide work specified in Section 044316 Stone Fabrications.

6. Provide all special shape, cast stone masonry and custom masonry units as defined in the construction documents.

7. This contract shall provide all Sprayed Polyurethane Foam Insulating Air Barrier with intumescent coatings, special paint layer per NFPA 285, and all "Self-Adhering Flashing Tape" at all locations (vertical and horizontal) behind vertical brick, block, metal panels, canopies and overhangs. The Flashing tape shall be applied to seal all exterior openings, including but not limited to doors, louvers,

windows, curtain walls, storefronts etc. This includes all exterior sheathed areas, and block back up areas, whether behind masonry or not. Include spray insulation termination angles as needed for the spray foam insulation installation Coordination of work with other trades shall be required and final installation work to be coordinated with project schedule and CM. Provide a "complete system" in its entirety for this project.

8. This contractor shall include multiple mobilizations within their base bid amount to accommodate the exposure time recommendation for the sprayed insulation, special coatings and self-adhering flashing tape in all areas per the construction schedule and project phasing.

9. This contractor shall provide installation and coordination of sleeves required to go through any masonry walls above finished floor elev. 0.00. Coordinate with the MEP contractors for sleeves (to be provided by MEP contractor) and coordinated/installed by the Masonry contractor.

10. Provide Fire and Smoke Identify markings on all masonry walls that require marking per governing jurisdictions. Coordinate marking walls with pant.\/stencils with the CM on site.

11. Masonry to dissimilar materials provided by Caulking contractor. Masonry to Masonry Caulking to be provided by Caulking Contractor D-10.

12. Integral masonry flashings, expansion joints, insulation and other related items as required.

13. Mock up as required. Provide a complete mockup of all masonry items within a sample wall to be coordinated by the CM. This contractor to provide and install the concrete footing required for the mock up. Include demolition, removal and clean up of the mock up area.

14. This contractor shall include within their bid the incorporation of **2000 hours of COOP participation** by a NCCVT student. Contractor to comply with project documents and requirements set forth in 19 del. C.ch.5.

15. Grouting of door frames at all masonry openings. Include grouting of HM vision panels in CMU and grouting of after-set frames in stair towers built by BP-C masonry contractor.

16. Weather protection and temporary heat as required to perform the work and maintain the project schedule. This would include tenting, tarping, heating (providing fuel and equipment), installation, maintenance and removal. Kerosene is not an acceptable fuel for work within the interior spaces.

17. Layout of the work including responsibility for all elevations and dimensions as they affect other Contractor's work.

18. Lintels either required by this Contract or install loose lintels furnished by others. Include bolting or welding of lintels as per details.

19. Provide mixing stations as required to perform your work. The station locations shall be coordinated with the CM (include 5 separate locations and the remobilization of the station 5 times) The mixing area shall be protect as required by DNREC and it shall be this contractors responsibility to maintain the station area at all times. Remove all components and restore area when work of this contract complete.

20. Concrete fill/grout at all masonry units as identified.

21. Purchasing and installing reinforcing steel in block walls.

22. Provide all fire safing/fire stopping, and continuous fire sealant at top and bottom of masonry walls as shown on the contract documents. Also include these sealants at all steel penetrations through the provided masonry.

23. Silicone waterproofing/sealant if specified.

24. This contractor shall provide the required firewall/smoke wall assembly identification for work of this contract. (labelling of the walls with fire rating)

25. Interior exposed masonry walls shall be cleaned and scraped thoroughly; a second pass of scraping and refining the cleaning shall be included in the base bid. CM to review and coordinate second pass with the masonry foreman in the field.

26. Temporary protection for final wash down/cleaning of masonry. This includes covering and protecting the curtain wall, storefronts, Kalwall and all door window openings.

27. This contractor shall supply and install straw at the base of wall when work of this contract has been completed to stop splashing of mud and water on completed walls.

28. Flashing at locations indicated on drawings for your work.

    a) Thru wall and cavity flashing below the roof line shall be by the Masonry Contractor.
    b) Thru wall and cavity flashing above the roof line shall be by the Roofing Contractor.
    c) Flashings at rising wall conditions shall be provided by this contractor.

29. Cutting, fitting and building into masonry work, embedments provided by others. Coordinate all work with other trades as required.

30. Provide all firesafing and fire caulking as required for your course of work.

31. Provide masonry veneer anchors as required for your course of work.

32. Bond beams including supplying and installing reinforcing and fill.

33. Elevator shaft masonry block in BP-C contractors scope. All veneer and finish masonry shall be provided by this contractor. Include the final infill toothing of the block around the elevator door frames at each level in this contract. Include sealing and fire safing as required at top of shaft wall.

34. Furnish and install all masonry veneer anchors where required. Welding of anchors that are not shown to be fabricated with the structural steel shall be welded in place as needed by this contractor.

35. Masonry contractor shall supply and manage dumpsters for use in removal of masonry debris. The project dumpsters may not be used for masonry debris.

36. Mock up as required. Provide your portion of a complete mock-up of the exterior wall assembly for areas of masonry, metal panel, translucent panels and others as detailed. within a sample wall to be coordinated by the CM.

37. Provide generators and services as required to provide temp power, water etc. as needed for your course of work.

38. This is not a secure site. All contractors are responsible for concealing, locking and /or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

39. Provide all BIM services as specified in Section 013700 BIM Execution Plan. As part of the coordination process all contractors are responsible for obtaining a Revizto license. The cost of this license is $1,200 and shall be included in your base bid proposal.

40. This contract includes all Division 0 and Division 1 General Requirements. All commissioning requirements are identified in Division 1 and are a requirement of this contract.

41. This contractor must provide a silica exposure plan that meets or exceeds the new 2017silica OSHA requirements before any work can commence. At a minimum, it must be implemented into the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

42. Include within this contracts base bid an allocation of $40,000 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-03 - EXTERIOR STRUCTURAL STUD ASSEMBLY

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

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|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 054000 | Cold-Formed Metal Framing |
| Section 070553 | Fire and Smoke Assembly Identification |
| Section 072100 | Thermal Insulation |
| Section 072129 | Sprayed Acoustical Insulation (coordination) |
| Section 072640 | Spray Polyurethane Foam Insulating Air barrier (coordination) |
| Section 072500 | Weather Barriers (coordination with mason contractor) |
| Section 079100 | Preformed Joint Sealants |
| Section 079200 | Joint Sealants |
| Section 078400 | Firestopping |
| Section 092116 | Gypsum Board Assemblies |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide structural stud assembly for the exterior skin of the building. Including but not limited to Metal Studs, gyp sheathing, Fire safing and delegated design on the exterior wall assembly.

2. Provide rock wool thermal insulation at area where exterior walls create parapets and at edge of floor slab connections.

3. This contractor shall be responsible to coordinate with the masonry contractor as related to the exterior wall assembly and the installation of the spray foam insulation system.

4. Steel stud construction as related to the roof parapet construction.

5. Steel stud construction related to framing out for openings in exterior walls.

6. Provide secondary support framing as required.

7. Clips, anchors, supports and other accessories that interface between steel framing and steel studding and steel studding with masonry interaction.

8. Expansion systems as required for performance of your course of work.

9. Scaffolding, lifts, and all necessary equipment required for your contract's course of work.

10. Provide engineered drawings (delegated design requirements.)

11. This contractor shall be responsible for coordinating with other trades for exterior openings and layout of design features.

12. Comebacks and out-of-sequence work may be required and as such should be included in your base bid proposal.

13. No power for welding equipment will be provided. This contractor shall provide portable generators, fuel, etc.to power equipment required for their scope of work.

14. Coordinate Self Sealing Flashing installation at base of wall assemblies and flashed areas. with Masonry contractor who is providing. This contract (D-30 Ext Wall ) to provide any required metal flashings for your course of work.

15. This contractor shall supply and install any access panels in the exterior wall assembly that are required by the contract documents. In addition the contractor shall install (40) 2'X2' Access panels provided by other. (exterior walls only)

16. Provide fire resistant joint sealants, fire safing, fire stopping, as it relates the work of your contract.

17. Bidders are advised to pay particular attention to top of wall conditions, fire and smoke safing of slabs and acoustical sealants.

18. This is not a secure site. All contractors are responsible for concealing, locking and /or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

19. This contractor must provide a silica exposure plan that meets or exceeds the new 2017silica OSHA requirements before any work can commence. At a minimum, it must be implemented into the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

20. Layout of the work including responsibility for all elevations and dimensions as they affect other Contractor's work.

21. Mock up as required. Provide your portion of a complete mock-up of the exterior wall assembly for areas of masonry, metal panel, translucent panels and others as detailed. within a sample wall to be coordinated by the CM.

22. This contractor shall include within their bid the incorporation of **750 hours of COOP participation** by a NCCVT student. Contractor to comply with project documents and requirements set forth in 19 del. C.ch.5.

23. This contract shall include in their bid the necessary crews to complete the work as per the project schedule. Provide additional crews as required to maintain schedule at no additional cost to the project.

24. Provide all BIM services as specified in Section 013700 BIM Execution Plan. As part of the coordination process all contractors are responsible for obtaining a Revizto license. The cost of this license is $1,200 and shall be included in your base bid proposal.

25. This is not a secure site. All contractors are responsible for concealing, locking and /or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

26. Include within this contracts base bid an allocation of $40,000 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-04 - CARPENTRY AND GENERAL WORK

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

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|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 055800 | Architectural Metal Column Covers |
| Section 06100 | Rough Carpentry |
| Section 06200 | Finish Carpentry |
| Section 079200 | Joint Sealants |
| Section 081113 | Hollow Metal Doors and Frames (coordination, handing, installation) |
| Section 081416 | Flush Wood Doors (coordination, handing, installation) |
| Section 081613 | Integrated Door Opening Assemblies (coordination, handling, installation) |
| Section 083100 | Access Doors and Panels |
| Section 087100 | Door Hardware (coordination, handing, installation) |
| Section 080671 | Door Hardware Schedule (coordination, handing, installation) |
| Section 089100 | Louvers |
| Section 101101 | Visual Display Boards and Display Cases (coordinate blocking and supports) |
| Section 102113 | Plastic Toilet Compartments (coordinate blocking and supports) |
| Section 102123 | Cubicle Curtains and Track (coordinate blocking and supports) |
| Section 102601 | Door and Wall Protection (coordinate blocking and supports) |
| Section 102800 | Toilet Accessories (coordinate blocking and supports) |
| Section 104400 | Fire Protection Specialties (coordinate blocking and supports) |
| Section 129300 | Site Furnishings |
| Section 116625 | Gymnasium Equipment |
| Section 116653 | Gymnasium Dividers |
| Section 323119 | Decorative Metal Fences and Gates |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide labor and materials to perform the work related to all carpentry and general work.

2. All rough carpentry related to the exterior skin of the building and roof areas, including wood nailers and blocking, roof blocking, curb blocking, MEP blocking coordinated with MEP trade, fire shutter blocking etc. as required. Include blocking for roller shades.

3. All rough carpentry related to the interior of the building including blocking, wood nailers, etc. for the installation of fire extinguishers, doors, windows, toilet accessories, cabinets, toilet partitions, casework, millwork, AED's, gas and air cabinets, rollup doors, coiling doors, kitchen equipment and accessory blocking, etc. including fire treating as required.

4. Provide interior architectural metal column covers as required. (Note the MCM exterior column enclosures are provided by the Metal Panel contractor)

5. Provide all decorative metal fencing and gates as per contract documents. Include complete installation and coordination with electrical and special systems contractor for the locking interface and card access.

6. Provide and install plywood back boards on all wall areas, floor to ceiling in all electric, MDF and IDF rooms. Backboards to be ¾ inch plywood, painted one side with white Fire Proof paint and fire caulked to the walls tightly.

7. This contract shall provide all bollards complete as indicated on the contract documents,. This includes the bollards that are shown and detailed on the MEP documents as well as the architectural other documents.

8. This contractor shall include the installation of the key box system and all required blocking and anchoring systems.

9. Provide blocking and anchoring for all roof ladders, TV and monitor mounts, Smart Board displays, Visual display boards, chalk, tack and white board assemblies. Coordinate with other trades for locations and installation direction.

10. Provide blocking for door hold opens, wall mounted closers, and wall door stops. Hold open hardware is to be provided by Contract D-11 HM, Doors and Hardware and installation provided by this contract.

11. This contractor shall install the interactive displays as furnished by the owner. Work shall be coordinated with Contract D-35 Special Systems.

12. Provide all Gymnasium equipment and Gymnasium dividers as part of this contract.

13. This contract shall provide all Mseal expansion joints required on the interior wall systems of the building. This includes but is not limited to Masonry to masonry, Masonry to drywall etc. ) For chase walls and enclosure walls this contract shall supply the Mseal Expansions as well. Detail A6/A512A identifies Expansion Joint Covers, This contract to provide the covers in this detail and all other interior details identifying these types of expansion cover. (typical)

14. Install metal and wood doors and frames, including receipt of doors and frames at the curb side. Contractor shall receive the doors, frames and hardware and inventory immediately. This contractor responsible for safe keeping of all materials and shall provide written documentation that all materials were received. All hardware shall be secured in a fully locked and protected area. By this contractor.

15. Install finish hardware related to all doors (hollow metal, wood and coordinate keying with aluminum hardware) including receipt of hardware at the curb side. This contractor is responsible for coordinating door hardware with their work to ensure each opening is properly prepped for hardware being supplied by others. All low voltage wiring within the doors and frames to be installed by this contractor. Conduits and raceways will be provided by the electrical contractor, as well as installation of the electrical supply power and the final power connections to equipment. Final connections of low voltage wiring to hardware to be provided by the Special Systems contractor. This contractor to work with the electrical contractor and Special Systems contractor to provide a complete installation.

16. This contractor shall advise the hardware supply contractor of any deficiencies or missing item immediately after initial inventory (in writing) as installation takes place. Reporting and tracking is the

responsibility of this contractor.

17. All field trimming required to adjust to the existing in place conditions shall be part of this contractors scope of work. Field measuring and verification is to be included.

18. Anchoring devices, fasteners, inserts and other related items associated with the installation of the above items.

19. Provide all architectural louvers, including insulated panels etc. All louvers are to be included within this contract, they are shown on the architectural drawings and specs and referenced by MEP documents. Provide 'custom" color costs in the base bid. Coordinate the louvers provided within the Kalwall System for custom color, sizing, design or other integrated features. This contractor shall coordinate with other trades for integration of the louvers into their course of work. All material handling and on site protection of the louvers is this contractors responsibility.

20. Provide blocking and support for the Visual Display Boards and Display Cases.

21. Provide all blocking as required for Toilet Partitions, Cubicle Curtains, Door and Wall Protection, Toilet Accessories and Fire Protection Specialties. Coordinate with the BP-D contract for "Specialties" on all required blocking. Volleyball sleeves and installation shall be coordinated and installed by this contractor,

22. This contractor shall provide and install all Gymnasium Equipment a per contract documents, to include blocking, supports, material handling etc. 100% protection of the gym floor while performing your work is required by this contract. Floor protection shall be as provided by the wood floor manufacturers recommendations.

23. This contractor shall provide al Gymnasium scoreboards as indicated on A-111 (3 scoreboards in total)

24. This contractor shall provide and install all Site Furnishings as detailed in the contract documents. Include all work related to this course of work, concrete pads, anchoring, touch up paint etc.

25. This contractor to coordinate all card reader blocking requirements with Special Systems contractor.

26. Provide protection at Elevator door openings at each floor. Include the required mesh protection fabric and the necessary wooden framing that allow easy access by other trades. Include maintenance for a period of 30 months from initial installation. Once elevator is installed, provide ¾" blue board foam insulation on all surfaces taped and secured so as not to damage finishes of elevator. Provide maintenance of this protection until substantial completion of project.

27. Provide and maintain temporary wood railings and handrails at stairs. Provide wood infill of stair pans and landing pans. Each tread to have abrasive edge tape applied immediately after installation of infill.

28. This Contractor shall include in the base bid 600 hours of Journeyman carpenter time and 250 hours of common labor time for work to be directed by the Construction Manager.

29. This Subcontractor shall at a minimum provided, maintained, and inspect for the length of the project, one temporary fire extinguisher for each 3,000 sq. ft of the protected building area. Travel distance from any point of the protected area to the nearest fire extinguisher shall not exceed 100 feet. In

multistory buildings, at least one fire extinguisher shall be located adjacent to stairway. Fire extinguishers shall be at least 10lb, Multi-Purpose (ABC) dry chemical, UL labeled, with a rating of 3a:40bc. Maintain for the duration of the project until substantial completion to insure coverage and compliance.

30. Coordinate electrical requirements with any automatic door operations. This contractor owns all controls, switches and wiring as required for a complete system. Power to be supplied by Electrical contractor.

31. Gate hardware provided and installed by this contractor , Contract D-04 Carpentry.

32. Provide three Knox Boxes coordinated with the local fire company for installation at locations identified by the owner/CM.

33. Coordinate and install hold open closers with fire alarm interface. Power wiring by Electrical Contractor. Fire alarm ties in by Electrical Contractor.

34. This contractor will work with the Special Systems contract to allow the installation of harnesses, whips and connections while installing frames, doors, hardware and access controls.

35. Provide (2) separate scaffold stairways, each must be erected to accommodate access to the roof area from the exterior of the building. The scaffold must provide a landing with stairs at the roof area. Each scaffold leg should have adjustable base plates to accommodate the installation of roofing material without the disassembly of the unit. An 8 foot plywood "wall" must surround the bottom of the stairway with a hinged plywood door installed with a hasp to accept a lock. The scaffold must be installed per OSHA regulations, inspected and tagged for use. Include for a period of 18 months.

36. Provide and maintain perimeter netting at each floor level including all floor openings. Perimeter rail or cable to be provided by the steel contractor. This work shall include toe boards at all location. Netting to be included as detailed on the "Perimeter Safety Netting at Leading Edge Conditions" sketch included as part of this scope of work.

37. This is not a secure site. All contractors are responsible for concealing, locking and /or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

38. This contractor must provide a silica exposure plan that meets or exceeds the new 2017silica OSHA requirements before any work can commence. At a minimum, it must be implemented into the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

39. Layout of the work including responsibility for all elevations and dimensions as they affect other Contractor's work.

40. Provide all work related to the building mock up, blocking, installation of door frame, doors, hardware, flashings, fasteners etc. as it relates to mocking up of the systems included in the Carpentry Scope. Contract D-04 shall install the doors and hardware for the project mock up. Contract D-11 shall provide the door, frame and hardware for the mock up.

41. This contractor shall include within their bid the incorporation of **2000 hours of COOP participation** by a NCCVT student. Contractor to comply with project documents and requirements set forth in 19 del. C.ch.5.

42. Provide and maintain temporary handrails per OSHA standards at all stair assemblies. The below section is a guideline and doesn't replace the OSHA regulations Stairs having two or more risers or rising more than 30 inches (76 cm), whichever is less, shall be equipped with: At least one handrail; and one stairrail system along each unprotected side or edge. The height of stairrails shall be not less than 36 inches from the upper surface of the stairrail system to the surface of the tread, in line with the face of the riser at the forward edge of the tread. Handrails shall provide an adequate handhold for employees grasping them to avoid falling. Handrails that will not be a permanent part of the structure being built shall have a minimum clearance of 3 inches (8 cm) between the handrail and walls, stairrail systems, and other objects. Midrails, and intermediate vertical members, or equivalent intermediate structural members, shall be provided between the top rail of the stairrail system and the stairway steps. Midrails, when used, shall be located at a height midway between the top edge of the stairrail system and the stairway steps. When intermediate vertical members, such as balusters, are used between posts, they shall not be more than 19 inches (48 cm) apart.

43. This contractor shall provide temporary rails at all exterior opening on the building until permanent window/doors/curtainwall etc. installed.

44. This contractor shall include protective wooden covers and marking for any floor openings, holes, shafts etc. Include labelling of the covers with clear ad readable markings or stickers.

45. Provide temporary protective handrails at stage front, steps, stairs and ramp locations.

46. Provide all BIM services as specified in Section 013700 BIM Execution Plan. As part of the coordination process all contractors are responsible for obtaining a Revizto license. The cost of this license is $1,200 and shall be included in your base bid proposal.

47. Provide **fall** protection at Elevator door openings at each floor. Include the required mesh protection fabric and the necessary wooden framing that allow easy access by other trades. Include maintenance for a period of 30 months from initial installation. Meeting the minimum requirements provided by the elevator vendor.

48. This contractor shall provide within the base bid, (8) sets of exterior steps to be constructed to create safe and easy access to the building first floor from the exterior grade. The step assemblies shall be figured to manage a 24" rise from grade to the first floor elevation, be 40" wide and shall have no-slip tread tape applied to each tread.

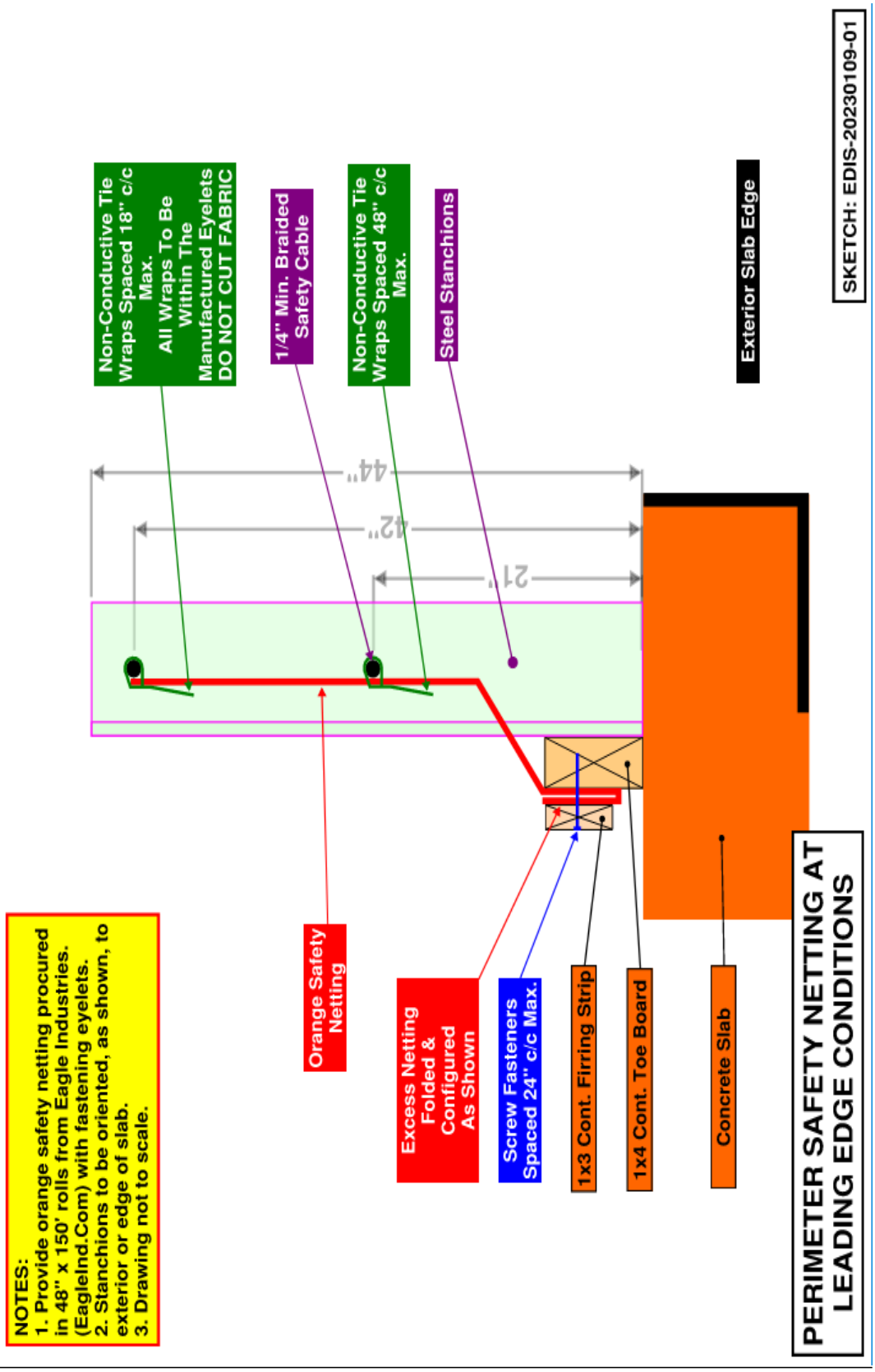
49. Provide, maintain and remove a prefabricated manufactured trash chute from the second floor to the dumpster below for a period of 24 months. This chute shall be maintained and all safety barriers, restraints etc. managed until substantial completion of the project.

50. This contractor shall provide and include all costs associated with installing temporary doors at the exterior of the building (all openings) and a cattle chute on the 2nd floor for accepting deliveries to the second floor. Safety equipment, gates, railings and tie-offs as required by OSHA safety standards shall be included.

51. This contractor shall include within their base bid an allowance of $100,000 for work relate to temporary enclosures at window, storefront and curtainwall areas as directed by the Owner and CM.

52. Provide wood safety barricades to extend top of roof parapets to OSHA required height during construction. Coordinate removal and replacement of wood safety barricades with metal wall cap installation.

53. Provide within this contracts base bid an allocation of $40,000 for work to be directed by the owner and CM. Unused portions of the allocation shall be returned to the owner.


SKETCH: EDIS-20230109-01
Non-Conductive Tie Wraps Spaced 18" c/c Max. All Wraps To Be Within The Manufactured Eyelets DO NOT CUT FABRIC
1/4" Min. Braided Safety Cable
Non-Conductive Tie Wraps Spaced 48" c/c Max.
Steel Stanchions
Exterior Slab Edge
44"
42"
21"
Orange Safety Netting
Excess Netting Folded & Configured As Shown
Screw Fasteners Spaced 24" c/c Max.
1x3 Cont. Firring Strip
1x4 Cont. Toe Board
Concrete Slab
NOTES:
1. Provide orange safety netting procured in 48" x 150' rolls from Eagle Industries. (EagleInd.Com) with fastening eyelets.
2. Stanchions to be oriented, as shown, to exterior or edge of slab.
3. Drawing not to scale.
PERIMETER SAFETY NETTING AT LEADING EDGE CONDITIONS

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-06 – DRYWALL AND INTERIOR METAL FRAMING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 051200 | Structural Steel (related work) |
| Section 055000 | Metal Fabrications (related work) |
| Section 054000 | Cold-Formed Metal Framing |
| Section 061000 | Rough Carpentry |
| Section 070553 | Fire and Smoke Assembly |
| Section 072100 | Thermal Insulation |
| Section 078400 | Firestopping |
| Section 079200 | Joint Sealers |
| Section 092116 | Gypsum Board Assemblies |
| Division 15 | Mechanical (coordination) |
| Division 16 | Electrical (coordination) |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide metal studs, framing, insulation, gypsum wallboard, taping, spackling and specified wall finishes. (Level 5 where identified) Include all trims and finish pieces for a complete installation.

2. This contract shall provide Ceiling Type Acoustical Gyp Board (Gyp-2) as defined by the contract documents.

3. This contract shall provide all insulation in the exterior walls of the building system. Coordinate all insulation work and interior drywall work with the exterior Metal Framing contractor.

4. Provide secondary support framing and fastening devices as required. If Misc. metals are required by your installation and not identified in the documents this contractor shall provide and install.

5. Provide Fireproofing at the exterior wall and the edge of slab as shown in the typical wall sections. (A1/A312 example and all related details) Sealants required to complete this system shall be provided by this contractor.

6. Provide all interior metal framing at required for back up of other materials.

7. Provide batt insulation, both thermal and acoustical and related work.

8. Acoustical sealants, fire safing and fire caulking as required for penetrations and top of wall conditions.

9. Removal of spray fireproofing to expose points of attachment to structural steel is to be performed in a

workmanlike manner. Removal of spray fireproofing in excess of 3" greater than the attached item will require repatching which will be back charged to this Contractor.

10. This contractor shall coordinate with the other trades for all box outs, penetrations, framed openings etc. as required.

11. This contractor shall provide cleaning of the floor areas of all drywall spackle, mud, finishes etc. that are used by this contractor. Review and acceptance by the CM will be required.

12. Access panel installation (assume 100 total). Assume panels to be 30"x 30" for framing purposes.

13. Coordinate work of this contract with the Carpentry contract for wood blocking and support installation.

14. Coordination of door and interior framed openings with the Carpentry contractor who will install the door and lite frames.

15. Coordinate interior louver extensions and incorporation of louver installation with Carpentry contractor as necessary.

16. Include fire taping and sealing at perimeter edge and as shown or indicated in the contract documents.

17. Provide architectural expansion joint systems, including joint covers materials at concrete slab, drywall and masonry construction (interior only).

18. Scaffolding, lifts and material handling equipment for the course of your work.

19. Comebacks and out-of-sequence work may be required and as such should be included. Include (4) additional mobilization/return trips for touch up and repairs. Each trip shall include 16 hours of carpenter/finisher time as well as materials required for general patching. Comebacks and out-of-sequence work may be required by this contract and as such should be included. This shall include but not be limited to, mobilization for topping out of the drywall partitions including utilizing "paperless drywall" to accommodate environmental conditions and ratings to allow the mechanical systems to be roughed in. Additionally sequencing of the exterior drywall system with the temporary opening protection and the final blocking, door/window returns and the window system installation shall be considered and additional mobilizations included as needed.

20. Include all necessary field measurements.

21. Include three (3) passes per floor to "touch-up" mechanical penetrations to ensure ratings required. The first pass will be required prior to ceiling grid installation and the second pass will be required prior to final inspection for Certificate of Occupancy.

22. Bidders are advised to pay particular attention to top of wall conditions, fire and smoke safing of slabs and acoustical sealants. This work is include within the scope of this contract.

23. This contractor to provide caulking at the base and top of drywall partitions, furred walls and all drywall conditions.

24. This contractor shall work with other trades to install openings that are in wall assemblies being constructed.

25. Provide metal furring as required.

26. Provide all backing board (cement board) for tile areas and as directed by the contract documents. Coordinate with the Tiling contractor for requirements of this work.

27. Engineered shop and installation drawings. (delegated design)

28. This Contractor shall include a $175,000 allocation in his contract to supply, install, inspect and maintain a complete scaffold system to accommodate the construction of the Auditorium framing, ceiling systems, clouds, MEP installation etc. This contractor shall be the responsible contractor for this scaffolding system throughout construction until all work is completed and the CM authorized the removal of the system. All contractors shall provide signed waiver forms to the controlling contractor (this contractor) before they may access the scaffold system.

29. This contractor shall include within their bid the incorporation of **1000 hours of COOP participation** by an NCCVT student. Contractor to comply with project documents and requirements set forth in 19 del. C.ch.5

30. Provide all BIM services as specified in Section 013700 BIM Execution Plan. As part of the coordination process all contractors are responsible for obtaining a Revizto license. The cost of this license is $1,200 and shall be included in your base bid proposal.

31. This contractor must provide a silica exposure plan that meets or exceeds the new 2017silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

32. Provide trash and debris removal daily. This means everything leaves the building and goes to the dumpsters. No piling of trash inside building will be permitted.

33. This is not a secure site. All contractors are responsible for concealing, locking and /or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

34. Include within this contracts base bid an allocation of $30,000 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner by means of a credit change order.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-07 – GENERAL LABOR AND CLEAN-UP

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

| | |
|---|---|
| Division 0 | Procurement and Contract Requirements |
| Division 1 | General Requirements |

This contract also includes, but is not necessarily limited to, all labor, materials, and equipment for the following:

1. This contractor shall provide General labor to the project the direction of the owner and project manager.

2. Include within the Base Bid for this contract $7,500 worth of material handling tools. To include but not limited to, wheeled bins for trash removal, shovels, brooms, trash bags etc. purchased materials shall be tracked with receipts and verified. Any funds left unspent will be returned to the owner via credit change order. (all tools purchased under this allocation shall be organized and turned over to the owner at completion of the work)

3. The contract shall include a total of 6,000 manhours of general labor to be scheduled by the Construction Manager. The work will start Feb 15 2024 and the duration of the coverage could extend to 15 May 2026. This work may be scheduled anytime within the scheduled date range without penalty or additional costs to NCCVT or the CM.

4. A unit price will be provided by this contractor that will pertain to any hours that may be deducted or added to this contract.

5. Pay Applications each month will be backed up with daily tickets and a complete accounting of the monthly hours utilized. Field Superintendent or hid designated representative shall sign all daily tickets.

6. The owner and CM have the right to request replacement of any personnel provide to service this contract, without out obligation or explanation.

7. Include within this contracts base bid an allocation of $7,500 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner by means of a credit change order.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-08 - ROOFING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 072100 | Thermal Insulation |
| Section 075300 | Elastomeric Membrane Roofing |
| Section 076200 | Sheet Metal Flashing and Trim |
| Section 077100 | Roof Specialties |
| Section 077123 | Manufactured Gutters and Downspouts |
| Section 077200 | Roof Accessories |
| Section 079100 | Preformed Joint Sealants |
| Section 07900 | Joint Sealants |
| Division 23 | HVAC (controls coordination) |
| Division 26 | Electrical (power, fire alarm, lightning protection) |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide single ply flexible roofing system, including rigid and tapered insulation and all related accessories.

2. This contractor shall carefully review the edge of roof details to determine if the roof can be placed before the exterior wall assembly is complete. This contractor shall include all costs associated with returning to the jobsite to complete the roof perimeter after wall assembly is complete.

3. Provide caulking and joint assemblies related to roofing, flashing and roof accessories.

4. Roof drains and associated plumbing shall be provided by the Mechanical Contractor. Flashing of the roof drains shall be by the Roofing Contractor. Openings for the roof drains in the roofing materials shall be cut by the Roofing Contractor. Openings in the metal deck shall be cut by others. This contractor shall be responsible to coordinate the roof drain locations as needed by the steel contractor and plumbing contractor so reinforcing of the decking and roof support frames may be installed in accordance with the sequence of work.

5. Metal parapet coping, receiver system and all components required for a complete coping assembly. Caulking and sealing of all copings is the responsibility of this contractor.

6. Provide boot for piping and conduits that penetrate the roofing assembly. Coordinate with other trades.

7. Coordinate the roofing installation and flashing required for line sets, piping, electric and control penetrations. Coordinate with MEP contractors.

8. Roof hatches, smoke vents, smoke hatches, access covers etc. are to be provided by this contractor. Coordination of this work with other trades and the MEP vendors are required by this contract. Rail systems and curbs to be provided by this contract. The smoke hatches are not accessible shall be provided with remote controllers to test and re-set.

9. Walk pads and walk pad layout shop drawings are required by this contract.

10. Metal drip edges, complete including all caulking and sealants.

11. Gravel stops, complete including all caulking and sealants.

12. Roof curbs to be installed by this contractor, provided by the MEP trades as identified in the contract documents. Coordination with the Carpentry contractor on the roof blocking thickness is required by this contractor. Provide detail shop drawings identifying the insulation thickness so blocking can be installed accordingly.

13. This contactor shall coordinate with the carpentry contractor on location of wood blocking, curbing, etc. to facilitate the installation of the tapered insulation, crickets etc.

14. Provide expansion joints that are integral to the roof. Including but not limited to edge of wall Details E3/A590 and B1/A590.

15. Gutters, downspouts, splash pans, splash blocks. This contractor shall be responsible to coordinate with the plumbing contractor for the connection to the RW system. Provide membrane flashing, metal flashings, sealants, drip edge, gutters , drain covers etc. as related the gutter systems for this course of work.

16. Metal scuppers, over flows, drains etc. as required by the contract documents are this contractors responsibility.

17. Provide a means to lift materials to the roof for materials not stored on the roof at initial time of delivery. All costs shall be the responsibility of the roofing contractor.

18. This contractor shall manage, handle, lift and install the insulation materials supplied by the steel contractor for the areas of acoustical decking. Lifting of these materials to the roof when needed is the responsibility of the roofing contractor. At areas of Acoustical Decking below, fasteners for the first layer of roof insulation shall be installed so they “do not “penetrate the bottom surface of the decking. All layers of insulation above are to be imbedded into full bed od adhesive in accordance with roofing and insulation manufacturer’s instructions.

19. This contractor shall provide waterproof seals around lightning protection system as required by roof manufacturer requirements. If location of lightning protection conduits are not clearly shown on the roof plan, include within your base bid an additional; cost to seal one penetration for every 1000 sf of roof area.

20. This contractor shall review the schedule for the roofing scope of work and include within the base bid considerations (costs) for cold weather roofing installations. This shall include but is not limited to providing a warming hut/enclosure to keep material warm and allow the roof installation to continue in cold temperatures. All costs related to cold weather roof installation shall be the responsibility of this

contractor.

21. The owner may at any time select to have a third party roof inspector review and inspect the roofing installation and finished roof system. This contractor shall work with and allow access to this third party inspector as needed.

22. All trash shall be removed from this contractors work area daily to the dumpsters. No trash may be stored on the roof area.

23. Flashing and sheet metal systems related to the scope of this contract work.

24. Provide all BIM services as specified in Section 013700 BIM Execution Plan. As part of the coordination process all contractors are responsible for obtaining a Revizto license. The cost of this license is $1,200 and shall be included in your base bid proposal.

25. This is not a secure site. All contractors are responsible for concealing, locking and /or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

26. This contractor shall include within the base bid proposal (2) additional roofing inspections of the entire roofing assembly to facilitate any damage or overuse repairs that may be required. These inspections will be schedule by the CM within the duration of the construction schedule. These inspections do not in any way take the place of the final warranty inspections as required by the contract documents.

21. Flashing Summary:
    a. Thru wall and cavity flashing below the roof line shall be by the Masonry Contractor.
    b. Thru wall and cavity flashing above the roof line shall be by the Roofing Contractor.

22. Include within this contracts base bid an allocation of $35,000 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner by means of credit change order.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-09 - FIREPROOFING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 072129 | Sprayed Acoustical Insulation |
| Section 078100 | Applied Fireproofing |
| Section 078400 | Firestopping |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide all fireproofing, both exposed and concealed as required by the contract documents.

2. Provide all intumescent and special coatings required by the code documents, identified in contract drawings, plans and details.

3. Provide Sprayed Acoustical Insulation as required by the contract documents. The Alternates apply to this area of work.

4. Clean up on a daily basis, all over spray materials. Remove all excessive water from spraying operation.

5. This contractor shall be responsible to protect all non-metallic piping within the building envelope from over spray of the Applied Fireproofing, intumescent coatings, fire caulking and fire safing as it pertains to the scope of your course of work. The contractor shall be familiar with and comply with the NFPA regulations, including but not limited to the following
   6.3.7.5 Firestopping materials intended for use on nonmetallic piping penetrations shall be investigated for compatibility with the nonmetallic pipe materials.
   6.3.7.5
   Protection plan shall be submitted and reviewed with the CM prior to implementation.

6. Inspection of the fireproofing for compliance will be provided by a third party inspector provided by the owner.

7. Protect fireproofing according to advice of fireproofing manufacturer and installer from damage resulting from construction operations or other causes so that fireproofing will be without damage or deterioration at time of Substantial Completion.

8. Coordinate installation of fireproofing with other work in order to minimize the need for other trades to cut or remove fireproofing. As other trades successively complete installation of their work, maintain protection of structure afforded by fireproofing by patching any areas which have been removed or damaged prior to concealment of fireproofing by other work.

9. This contractor to include and submit as a shop drawing for review a detailed mshop drawing of all areas of fireproofing and the required coatings on floor plans and elevations, to clearly illustrate where the fireproofing materials and special coatings will be applied.

10. This shop drawing will be shared with the Steel contractor for review and incorporation into their steel and joist preparation plan. (no primer, coatings, primers etc.)

11. Repair or replace work which has not been successfully protected.

12. Prepare all surfaces including priming of substrate if required.

13. Provide all required steel frame fireproofing whether clearly shown or not on the drawings. Do not include concrete fire proofing.

14. This is not a secure site. All contractors are responsible for concealing, locking and /or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

15. Provide Alternate pricing as required by the contract documents. (k-12 Sprayed Insulation at Shop Areas)

16. Include within you base bid 80 hours of labor and $20,000 of materials required to touch up fireproofing systems as required by the governing agencies (FM) or the construction manager.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-10 – JOINT SEALANTS AND PREFORMED JOINT ASSEMBLIES

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials, and equipment for:

Technical Specification sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 078400 | Firestopping |
| Section 079100 | Preformed Joint sealants |
| Section 079200 | Joint Sealants |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide required caulking at control and construction joints.
2. Provide all preformed joint sealant products including but not limited to Emseal expansion joint as required. This contract shall provide all Mseal expansion joints as it relates to the exterior of the building.
3. Provide caulking of masonry to masonry.
4. Provide within your Base Bid proposal (240) man hours and $7,500 in materials to be utilized for Misc. fire safing and Fire sealants that may be required due to agency walk throughs and inspections. This work shall only be authorized by NCCVT or EDiS. Any remaining funds shall be returned to the owner via credit change order.
5. Provide caulking of vertical joints on exterior metal panels to adjacent materials ( Metal Panel contractor to provide sealants and caulking between panels and as required to seal their assembly, including where metal panels sit on masonry.)
6. Provide caulking related to interior glazing. Caulking of interior perimeter of new aluminum windows, storefront and curtainwall to finished surfaces to be provided by this contract.
7. Provide caulking of exterior perimeter of hollow metal door frames. (including overhead doors)
8. Provide caulking of interior perimeter of hollow metal door frames to masonry. (HM frames to drywall shall be provided by the Painting contractor)
9. Provide caulking of all hollow metal frames to the floor. Coordinate caulking with flooring materials.
10. Provide caulking of all interior exposed drywall to masonry and metal wall panels.

11. Provide caulking at the tops and bottoms of all exterior and interior column covers.

12. Provide caulking of all interior exposed concrete slab control joints, expansion joints and perimeter slab to walls.

13. Provide caulking for interior perimeter of sinks, urinals, toilets, bath accessories, toilet partitions, fire extinguisher cabinets, hose reel cabinets, gas cabinets and any other accessories identified on the contract documents. (work as indicated on contract documents)

14. Provide caulking of joints in ceramic tile areas, including and ceilings.

15. Provide caulking of the top and sides of all finished stair stringers to adjacent materials. Include caulking of all stair stringers and bottom riser to floor.

16. Examine areas and conditions where joint sealers are to be installed and correct any conditions detrimental to the proper and timely completion of this scope of work. Do not proceed with work until unsatisfactory conditions are corrected to permit proper installation.

17. Provide mock ups of all products and adhesion tests for exterior caulking.

18. Provide custom colors or all caulks and sealants.

19. Protection and cleaning of adjacent surfaces to be the responsibility of this contractor.

20. This contractor shall include the Pollution Insurance coverage as specified in the contract documents.

21. This is not a secure site, the contractor is responsible for the safe storage of all of their materials. NCCVT and EDiS will not be responsible for lost or stolen materials

22. All subbase preparation, priming etc. to be performed before caulking is applied.

23. Include within this contracts base bid an allocation of $15,000 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner by means of a credit change order.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-11 - HOLLOW METAL, WOOD DOORS, AND FINISH HARDWARE

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 081113 | Hollow Metal Doors and Frames |
| Section 081416 | Flush Wood Doors |
| Section 081700 | Integrated Door Opening Assemblies |
| Section 087100 | Door Hardware |
| Section 080671 | Door Hardware Schedule |
| Section 088000 | Glass and Glazing (coordinate with glazing contractor) |
| Section 084313 | Aluminum Framed Storefronts (coordination of keying) |
| Section 089100 | Louvers (as related to doors) |
| Division 26 | Electrical (coordination) |
| Division 27 | Communications (coordination) |
| Division 28 | Electronic Safety and Security (Coordination) |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Furnish only hollow metal doors, frames, vision panels, wood doors and finish hardware.

2. This contract shall furnish and deliver the Integrated Door Opening Assemblies Section 081613.

3. Furnish all work related to the building mock up of doors frames, hardware for each type of door on the project. Contract D-04 shall install the doors and hardware for the project mock up. Contract D-11 shall provide the door, frame and hardware for the mock up.

4. Keying for Aluminum Entrance doors to be coordinated and provided by this contract.

5. Keying. All lock sets. Provide Owner with a complete schedule of all keying and pin schedules as required.

6. Provide hex keys or flat keys for hardware not keyed to building hardware.

7. Provide cylinders and keying for elevator, light switches, panic bar dogging and door openers.

8. Construction door cylinders shall be provided by this contractor to the Carpentry contractor for use during construction. Plan and include the cost of providing (3) three separate levels of cylinders (green, red, blue) to allow areas to be secured separately as required by the CM. Provide (25) keys per color system.

9. All exterior Hollow Metal frames shall include a box and raceway built into the door frame for locations

at the latch and hinge as required. Provide a box and raceway at the head of the frames for door contact access and installation.

10. This contractor shall pay close attention to the Alternate section of the specifications as they relate to the scope of this contracts scope of work. (Access Control System- Salto Alternate)

11. This contractor shall coordinate the hardware and door materials with the Carpentry contractor prior to ordering materials. Including but not limited to all coordination meetings with the Owner, CM Carpentry contractor and Special Systems contractor as required to properly coordinate all doors, frames, hardware and connections, prior to ordering of materials.

12. This contractor shall deliver all materials as coordinated with the installer to the project site in an orderly organized manner. Deliveries will not be received unless the Carpentry contractor is notified and the delivery is coordinated. The Owner and EDiS will receive any materials. Additionally provide 48 hour notice prior to delivery. All deliveries are to be between 7:00 AM and 3:30 PM (allow time for check in of all hardware when scheduling)

13. Provide field assistance to Electrical and Carpentry Contractor as required to facilitate the installation of the materials supplied by your course of work.

14. This contractor to coordinate with the Special Systems contractor and Electrical contractor to ensure that all cut outs, plates, receiver etc. that are required to be built into your doors and frames are fully coordinated. In person attendance at review and coordination meetings for the doors, hardware, special systems, raceway and electrical connections shall be the responsibility of this contractor.

15. As changes are made to the hardware schedule, whether due to issued ASI's, RFI's, architectural changes etc., this contractor shall make updates to the hardware schedule and re-issue so the schedule is always updated and submitted to EDiS.

16. Coordinate electrical requirements with any automatic door operations.

17. Provide harness lengths to reach above accessible ceilings. Coordination of this work and the lengths required is the responsibility of this contractor. Provide any harness adapters and connectors required allow hardware to have a splice free system.

18. This contractor shall provide all magnetic hold open hardware, including extensions as required.

19. Provide a key box system to hold up to 25% over the amount of keys being supplied.

20. Provide all BIM services as specified in Section 013700 BIM Execution Plan. As part of the coordination process all contractors are responsible for obtaining a Revizto license. The cost of this license is $1,200 and shall be included in your base bid proposal.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-12: OVERHEAD COILING DOORS

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials, and equipment for:

Technical Specification sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 055000 | Metal Fabrications |
| Section 083313 | Overhead Counter Doors |
| Section 083323 | Overhead Coiling Doors |
| Division 26 | Electrical (coordination) |
| Division 28 | Electronic Safety and Security (coordination) |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide all overhead coiling doors as required by the contract documents. To include but not limited to exterior and interior coiling doors systems. Hardware, openers, buttons and controllers required for a complete system shall be provided by this contractor.

2. Provide all overhead coiling grilles.

3. Provide all overhead counter doors.

4. Include all wall framed openings and openings including trims, flashings, and sealants as required to perform your course of work.

5. Provide additional supports for overhead coiling doors. Structural members identified on the structural drawings are not part of this contract scope. Provide ancillary steel, connectors, all thread and other misc. items as required. Coordinate all electrical and special systems requirements for work of this contract with the appropriate contractors. Provide keyed switches for both electric and low voltage to match building keying.

6. Keying coordination for all lock sets. (coordinate with same hardware system as Dor Hardware supply contract..

7. Coordinate electrical requirements with any automatic overhead door operations.

8. Provide low-voltage wiring required for overhead doors automatic door operations. Include all raceways, boxes and switches required for a complete installation.

9. Ensure that all garage doors fully open the entire height of the door opening and close with the bottom edge touching the ground. Garage doors will fit square in the openings with no gaps along the top, bottom or sides when the door is closed.

10. This is not a secure site. All contractors are responsible for concealing, locking and /or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

11. Provide all sensing and safety devices as specified for each assembly to provide a complete assembly.

12. Exterior overhead doors and grilles shall have the appropriate specified seals, and weatherstripping at all edges. Top, sides and bottom. Seals shall maintain water tightness when installed.

13. Provide all BIM services as specified in Section 013700 BIM Execution Plan. As part of the coordination process all contractors are responsible for obtaining a Revizto license. The cost of this license is $1,200 and shall be included in your base bid proposal.

14. Include within this contracts base bid an allocation of $10,000 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-13 - CURTAIN WALL/GLAZING/STOREFRONTS

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 054000 | Cold Formed Metal Framing (coordination) |
| Section 055000 | Metal Fabrication (as required for work) |
| Section 072500 | Weather Barriers |
| Section 079100 | Preformed Joint Sealants |
| Section 079200 | Joint Sealers |
| Section 089100 | Louvers |
| Section 084313 | Aluminum Framed Storefronts |
| Section 084333 | Folding Glass Storefronts |
| Section 084413 | Glazed Aluminum Curtain Walls |
| Section 084523 | Translucent Wall Assemblies |
| Section 008710 | Door Hardware |
| Section 088000 | Glazing |
| Section 088723 | Safety and Security Films |
| Division 26 | Electrical (coordination) |
| Division 28 | Electronic Safety and Security (coordination) |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide curtain wall, storefront, glass and glazing systems, Fiberglass Sandwich Panel Systems, complete.

2. Provide all Safety and Security Films required by Section 088723 and the contract documents.

3. Provide aluminum door systems and handling.

4. Provide automatic aluminum door systems, including hardware, low voltage wiring, coordination of power and all hardware. Coordinate with Division 26 and Division 28 for access of their work in to your framing system.

5. All work of this contract shall be coordinated thoroughly with Division 26 Electrical and Division 28 Electronic Safety and Security.

6. Curtain wall systems complete, including all Delegated Design requirements required to provide a complete system. Coordinate your work with the envelope systems and contractors to insure sealing of the units for a tight seal. (pressure caps and Blueskin seals)

7. Furnish hardware for aluminum doors only. (all other finish hardware by Door and Hardware contract.

(coordinate the keying and keying systems, including card reader systems)

8. All glass and glazing at exterior of building.

9. Caulking related to storefront doors and curtain wall systems.

10. Mock-ups as required by the Drawings and Specifications.

11. Custom breakmetal trim and infill.

12. Hoisting/scaffolding/cranes and all other material handling or access equipment. This contractor owns all material and manpower handling.

13. Coordinate edge of slab tolerances and field verify all rough openings. Field verification of edge of slab details is required by this contractor.

14. Provide all caulking and sealants, including any Preformed Sealants, required for your systems. All exterior caulking of your system and caulking to adjacent exterior surfaces by this contractor. The caulking and Sealant contractor shall caulk interior surfaces to your Alum frames.

15. Provide interior glass and glazing systems. Coordinate with the door and frame contractor and carpentry contractor.

16. Interior door, partition, vision panel and window glass.

17. Caulking and sealants related to interior glazing.

18. Do not provide interior hollow metal or hardware. These items will be provided by the Door and Hardware contractor.

19. Any openings that are missing glass ( due to this contractors issues) during construction shall have plywood installed to secure and weatherproof the building by this contractor.

20. Clean up of all trash and debris related to this contract shall performed daily and removed to the dumpsters. All material shall always be stored neatly and orderly.

21. Coordinate glass types with partition and door fire ratings. Contact Construction Manager with any discrepancies. Shop drawings, samples and product data must be submitted within 3 weeks after award of contract.

22. This contract shall coordinate and work with the Special Systems contractor to allow the installation of harnesses, whips and connections while installing frames and hardware.

23. Provide all BIM services as specified in Section 013700 BIM Execution Plan. As part of the coordination process all contractors are responsible for obtaining a Revizto license. The cost of this license is $1,200 and shall be included in your base bid proposal.

24. Include within this contracts base bid an allocation of $35,000 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner by means of a credit change order.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-14 – TILING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 090561 | Common Work Results for Flooring Preparation |
| Section 093000 | Tiling |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide ceramic tile, marble tile, quarry tile, base material and thresholds as required by the contract documents, complete.

2. Provide all mortar bed installations as directed by the specifications and drawings.

3. Grout, including Epoxy grout and custom colors as specified.

4. Cutting and fitting around work installed by others.

5. Provide waterproofing and crack-isolation systems as required by contract documents.

6. Precast mop receptors as per contract documents.

7. Patching and leveling of "new" concrete system to be included in this contracts base bid. Contractor to review concrete floor installations and report any deficiencies in tolerance prior to mobilizing for any tile installation. Float inconsistent defects as needed to bridge tile for wall assemblies receiving wall tile.

8. Provide protection of finished products until acceptance by Construction Manager. This contract shall include the material and labor to cover all ceramic tile areas with Ramboard panels (not roll material or corrugated plastic panels. Seams to be taped and sealed for effective protection.

9. Attic stock, delivered and unloaded into owner storage room.

10. Provide crack suppression membrane for this set tile installation.

11. This contractor to coordinate work of this contract with contractor installing cement backer boards to receive your tile.

12. Provide metal strips and Schluter strips installed as part of the tile installation.

13. This contractor must provide a silica exposure plan that meets or exceeds the new 2017silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the

company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

14. This is not a secure site. All contractors are responsible for concealing, locking and /or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

15. Include within this contracts base bid an allocation of $15,000 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-15 - ACOUSTICAL CEILINGS AND SPECIALTY CEILINGS

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 072100 | Thermal Insulation |
| Section 079200 | Joint Sealants |
| Section 095100 | Acoustical Ceilings |
| Section 095420 | Specialty Ceiling Systems |
| Section 098400 | Acoustical Room Components |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide complete acoustical ceiling systems to include suspension system, hangers and all required components for a complete system.

2. Provide specialty ceiling systems complete, including framing, supports and necessary components.

3. Provide acoustical wall treatments and acoustical room components complete.

4. This contract includes all Sound Reflecting Tiles, Sound Diffusing tiles, Suspension grids, struts, metal panel ceiling systems and architectural metal wall panel systems. Provide cutting, fitting and coordination with MEP trades for outlets, grilles, cable access etc.

5. This contract to provide Decorative Metal panels shown on A441, A442, and A443.

6. Acoustical lay in insulation blankets and rigid panels above ceilings and behind wall grid systems as identified in the contract documents.

7. Supplemental suspension hangers at large ducts above ceilings and at openings for lighting fixtures shall be provided and coordinated to minimize exposed clips, anchors, and wires.

8. Continuous acoustical sealant on back of vertical leg before installing moldings as indicated.

9. Furnish and install hold down clips where required by governing regulations for fire resistant ratings.

10. Provide all material handling, scaffolds, lifts, Spyder cranes, access to work etc. as required for the scope of this contracts work.

11. Expansion joints for all acoustical ceilings, specialty ceilings and acoustical systems.

12. Provide ceiling grid layout on floor for cassette and duct placement in ceiling grid system.

13. This contractor shall review all documents, shop drawings, plans, and drawing model for ceiling height issues. All issues shall be reported to the EDiS prior to installing wall angles.

14. Reflected ceiling layout plans and shop drawings for approval and installation must be provided for all ceiling systems, clouds, acoustical panels, metal wall systems, etc.

15. This Contractor shall cut openings in ceilings for sprinkler heads, lights, mechanical diffusers and grilles, etc. Coordinate work with other trades.

16. Coordinate with other trades for layout and install of their materials into the grid system provided by this contract.

17. Attic stock as per the contract documents, delivered, inventoried, and moved to a storage area within the building at the owner's direction.

18. Provide all BIM services as specified in Section 013700 BIM Execution Plan. As part of the coordination process all contractors are responsible for obtaining a Revizto license. The cost of this license is $1,200 and shall be included in your base bid proposal.

19. Include within this contracts base bid an allocation of $20,000 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner via credit change order.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-16 - FLOORING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 090561 | Common Work Results for Flooring Preparation |
| Section 096500 | Resilient Flooring |
| Section 096813 | Tile Carpeting |
| Section 096816 | Sheet Carpeting |
| Section 096933 | Low-Profile Fixed Height Access Flooring |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide flooring in accordance with the contract documents.

2. Prepare subfloor for finished flooring including leveling and patching. Base bid shall include all flashing patching and surface preparation required to perform the work of this Contractor.

3. Provide all Resilient flooring, LVT, Sheet vinyl, rubber tile, rubber treads, rubber base, resilient base, carpeting, carpet tile complete.

4. Provide Low-Profile fixed height access flooring system, complete.

5. Provide all moldings, transitions and edge strips as required.

6. Provide recessed flooring systems at specified areas, to include a shop drawings for approval, recessed floor system, carpet inset and required attic stock materials.

7. Resilient transition and reducer strips at edges of resilient flooring and at edges of carpeting.

8. Cleaning and protection of floors after installation shall be required by the cope of this contract.

9. Seaming diagrams are required to be submitted for approval.

10. Provide mock up's as defined by the contract documents.

11. Attic stock to be delivered to the site, inventoried and then moved to a storge are within the building at the direction of the owner.

12. This contractor shall own all material handling and means to unload, move and lift materials to second floor locations.

13. Provide entrance mat systems complete.

14. Provide finish floor material in elevator cab as specified.

15. Provide cutting and fitting around work of others.

16. This contractor shall protect the adjacent work of other trades while performing the scope of this contract.

17. Include within this contracts base bid an allocation of **$25,000** for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner by means of a credit change order.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-17: RESILIENT ATHLETIC FLOORING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials, and equipment for:

Technical Specification sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 090561 | Common Work Results for Flooring Preparation |
| Section 096566 | Resilient Athletic Flooring |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide flooring in accordance with the finish schedule and specifications.

2. Provide resilient athletic flooring, base, and associated striping, logos, sealants etc.

3. Provide moisture level testing and reporting as part of this contract scope.

4. This contract includes removal of curing and sealing coatings that may be incompatible with the flooring adhesives of your product. Shot blasting, grinding or any required floor preparation is the responsibility of this contractor.

**5.** Prepare subfloor for finished flooring including leveling and patching. Base bid shall include all flashing patching and surface preparation required to perform the work of this Contractor. This shall include within the base bid the cost required to prepare and provide 10,000 sf of the Remedial Floor Coating Material specified in Section 090561 Part 2 Products, item 2.01 Remedial Floor Coating Materials.

6. Provide required flashing and transitions to adjacent materials. This include ramping of existing concrete floor if required for the fit and completeness of the Resilient Athletic Flooring system.

7. Provide cleaning, sealing and protection. Protection will be with Ramboard Pro panels with taped seams or Masonite with taped seams. Cover floor immediately after installation.

8. Seeming diagrams, and shop drawings for approval/installation.

9. Include within this contracts base bid an allocation of $15,000 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner via credit change order.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-18 - RESINOUS MATRIX TERRAZZO FLOORING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials, and equipment for:

Technical Specification sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 090561 | Common Work Results for Flooring Preparation |
| Section 096623 | Resinous Matrix Terrazzo Flooring |
| Section 096616 | Precast Cement Terrazzo Treads and Landings |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide vapor retarding sealer prior to terrazzo application' include required cost in this contracts base bid.

2. Provide all thresholds, reducers etc. as required to perform the work of this contract.

3. Provide all Precast Cement Terrazzo Treads and landings as defined by the contract documents.

4. Prepare subfloor for finished flooring including leveling and patching. Include in the base bid, leveling and patching as per the manufacturer's recommendations for the resinous terrazzo flooring. Include shot blasting, grinding, and moisture barriers as required for a complete installation.

5. Provide moisture vapor treatment on all slabs on grade.

6. Provide crack suppression membrane as required. Crack suppression, control joints and expansion joints shall be clearly identified in a shop drawing of all Terrazzo areas for design team approval.

7. Provide standard and custom samples for approval. Include three (3) in-field mock ups for final selection and approval.

8. Prep all floors for terrazzo application per manufacture and industry standard.

9. Cutting and fitting around work installed by others.

10. Provide protection of finished products until acceptance by Construction Manager. Protection shall RamBoard pro Sheets with Ram tape.

11. Attic stock, delivered, unloaded and moved to owners storage area within building.

12. Protection of surrounding surfaces and work of others.

13. Provide joint sealants required for Terrazzo installation.

14. Protect materials from damage and contamination in storage or delivery, including moisture, heat, cold, direct sunlight, etc.

15. Maintain temperature of storage area between 60 and 80 degrees F (15 and 26 degrees C).

16. Keep containers sealed until ready for use.

17. Provide sound concrete surfaces free of laitance, glaze, efflorescence, curing compounds, form-release agents, dust, dirt, grease, oil, and other contaminants incompatible with Resinous Terrazzo materials. Include all bead blasting required to perform the work of this contract.

18. Close spaces to traffic during Terrazzo application. Coordinate traffic on unpolished Terrazzo with CM and construction schedule.

19. Maintain proper ventilation of the area during application and curing time period.

20. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.

21. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. NCCVT and EDiS will not be responsible for any lost tools, materials or equipment.

22. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

23. Contractor must provide additional crews as needed to maintain the project schedule.

24. Provide pricing for all alternates as described in Section 012300-Alternates.

25. Include within this contracts base bid an allocation of $10,000 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-19 - FLUID-APPLIED FLOORING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials, and equipment for:

Technical Specification sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 079200 | Joint Sealants |
| Section 090561 | Common Work Results for Flooring Preparation |
| Section 096700 | Fluid Applied Flooring |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide fluid-applied flooring and integral base.

2. Provide mock-ups as required by plans and specifications.

3. Provide standard and custom color samples for review and approval.

4. Provide vapor retarding sealer prior to resinous application, as required by specifications or manufacturer's installation instructions.

5. Provide protection of work of others as well as cutting and fitting around work installed by others.

6. Patching and leveling of areas to receive resinous flooring to be included in the base bid of this contract.

7. Provide cleaning, finishes and protection. Protection shall be RamBoard Pro sheets with Ram tape. Provide protection of finished products until acceptance by Construction Manager.

8. Provide crack suppression membrane required for the work of this contract. The submitted shop drawing for the Resinous Flooring areas shall reflect all control joints, expansion joints and crack suppression locations for review and approval.

9. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.

10. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. NCCVT and EDiS will not be responsible for any lost tools, materials or equipment.

11. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or

equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

12. Contractor must provide additional crews as needed to maintain the project schedule.

13. Provide multiple out of sequence installations. Each area shall be considered a separate mobilization and all costs shall be included in the base bid.

14. Provide pricing for all alternates as described in Section 012300-Alternates.

15. Include within this contracts base bid an allocation of $10,000 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-20 - PAINT AND VWC

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 079200 | Joint Sealants |
| Section 099113 | Exterior Painting |
| Section 099123 | Interior Painting |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide all painting and vinyl or fabric wall covering (all walls and ceilings indicated on the finish schedule) include all preparation of surfaces, trims and finish wood locations.

2. Provide sealing of all interior joints between dissimilar materials that require sealants before painting.

3. This contractor shall provide "all" interior and exterior painting complete.

4. Paint all exposed block work and concrete work as shown on the room finish schedule and contract documents. Include painting of the elevator shaft from F.F. down to the bottom of pit (white)

5. Prime, stain or seal, all wood trim and doors as required by the contract documents.

6. Paint exposed piping (sprinkler, plumbing, gas piping, electrical) and ductwork in accordance with the contract documents. Include preparation work for all items specified. Review and coordinate any color requirements specified in the contract documents or as required by code. Pay close attention to MEP documents for specific locations of piping colors.

7. Provide supplementary ventilation as required in enclosed spaces.

8. Paint and caulk all hollow metal frames and doors as shown on the door schedule.

9. Paint metal stairs and railings.

10. Prefinished items will not be painted by this Contractor.

11. Paint all semi-exposed wood blocking as indicated on the drawing.

12. Include "preparation" of all surfaces and items required to be covered by the scope of this contract.

13. This contractor shall allow a touch up pass from drywall contractor/mason contractor between prime coat and first coat of finish.

14. Protection of adjacent surfaces required by this contractor.

15. Minor patching prior to application of finishes shall be included in the base bid.

16. This contractor shall provide sealing/hardener of concrete floors, including scraping, brushing, removal of markings, grease, foreign materials and thoroughly cleaning all the floors prior to installation of the sealer/hardener materials. Coordination with other finishes will require multiple mobilizations for the sealer/hardener preparation and installation. Include within your base bid a (6) additional mobilizations for this work.

17. Installation of rated wall identification to be provided by this contractor. Access, lifts, ladders etc. to be provided by this contractor.

18. Provide painting of all exterior bollards and gates that are not prefinished.

19. Paint gas lines at both the interior and exterior of the building.

20. All lintels shall be painted by this contractor.

21. Paint all railings and handrails that are not prefinished.

22. Provide cleanup of your work areas and storage areas on a daily basis. Removal of spent paint cans and buckets is the responsibility of this contractor.

23. This contractor shall protect all areas, materials and work of others from over-spray from the work of this contract.

24. This Contractor to allow 240 man hours and all required paint materials for these man hours to be used as directed by the Construction Manager.

25. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.

26. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. NCCVT and EDiS will not be responsible for any lost tools, materials or equipment.

27. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

28. Contractor must provide additional crews as needed to maintain the project schedule.

29. Provide pricing for all alternates as described in Section 012300-Alternates

30. Include within this contracts base bid an allocation of $20,000 for work to be determined by owner and

construction manager. Unused allocation funds to be returned to the owner by means of a credit change order.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-21 - WOOD STRIP FLOORING - GYM FLOORING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials, and equipment for:

Technical Specification sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 062000 | Finish Carpentry (coordination of work) |
| Section 079200 | Joint Sealants |
| Section 090561 | Common Work Results for Flooring Preparation |
| Section 096429 | Wood Strip Flooring |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide complete gymnasium floor system including sleepers, base, plywood, finishes, transitions, and striping (including logos). Flooring installation shall be coordinated and installed so the integrity of the concrete floor is not impacted. Include within your base bid a penetrating water/vapor sealer application prior to starting the Gym floor assembly.

2. Provide underfloor ventilation fan as required by the specification or manufacturer's requirements. Power connection provided by the electrical contractor, all interconnection wiring or low voltage work to complete work shall be provided by this contractor.

3. Provide wood strip flooring, hardboard floors in, and accessories at all areas indicated by the contract documents. This contract to provide all stage flooring and the required painting.

4. Provide wall base and trims associated with wood strip flooring.

5. Coordination with the bleacher contractor and other trades with the installation of the wood floor.

6. This contractor shall include patching and leveling of low areas identified after the slab floor analysis. The high areas will be reviewed and the concrete contractor will be responsible to adjust.

7. Sealants and caulking associated with your course of work shall be provided by this contractor.

8. Provide thresholds as required to finish your course of work. Threshold locations and types shall be submitted for Owner/Design Team approval.

9. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.

10. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. NCCVT and EDiS will not be responsible for any lost tools, materials or equipment.

11. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

12. Moisture and humidity readings are the responsibility of this contractor, monitoring and reporting results will be required. Results shall be provided each day in your daily reports, with photos of measuring device and reading. In addition provide the CM with a separate set of humidity sensors and a testing device for concrete floor moisture content.

13. All work to be coordinated with the carpentry contractor installing the gym equipment. Sequencing and timing shall be discussed and agreed to by this contractor.

14. Contractor must provide additional crews as needed to maintain the project schedule.

15. Provide all BIM services as specified in Section 013700 BIM Execution Plan. As part of the coordination process all contractors are responsible for obtaining a Revizto license. The cost of this license is $1,200 and shall be included in your base bid proposal.

16. Provide pricing for all alternates as described in Section 012300-Alternates.

17. Include within this contracts base bid an allocation of $10,000 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-22 - SPECIALTIES

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 061000 | Rough Carpentry |
| Section 062000 | Finish Carpentry |
| Section 079200 | Joint Sealers |
| Section 101101 | Visual Display Boards and Display Cases |
| Section 102113.19 | Plastic Toilet Compartments |
| Section 102123 | Cubicle Curtains and Track |
| Section 102600 | Wall Protection |
| Section 102800 | Toilet Accessories |
| Section 104400 | Fire Protection Specialties |
| Section 105100 | Metal Lockers |
| Section 107316.13 | Metal Canopies |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following: (provide ad install)

1. Provide an install all specialties listed within this contract specification sections and scope.

2. Provide White boards, Markerboards (including glass markerboards), Chalk boards, tack boards, and tack strips.

3. Provide display boards and display cases.

4. This contractor shall own providing, engineering and installation of the Metal Canopies Section 107316.13. Coordinate all work with other trades.

5. Provide Projection screens if identified on documents. Electric service is the responsibility of the Electrical Contractor. All other control wiring, raceways and special boxes as specified will be the responsibility of this Contractor.

6. Provide Lockers including lockers bases that are not identified as "concrete bases"(concrete locker bases provided by the Misc. Concrete and Grouting contract.)

7. Provide Toilet partitions. Coordinate any structural requirements with the structural steel and blocking requirements with the Carpentry contractor.

8. Provide toilet and bath accessories, complete. This contract shall include installing all owner supplied toilet accessories and specialties.

9. Provide all accessories as indicated on the contract documents.
10. Provide Fire extinguishers, cabinets and accessories. Include labeling of extinguishers and cabinets. Coordinate with other trades for opening size and placement.

11. Provide wall and corner protection. Including FRP Paneling.

12. Provide Mirrors (both framed and frameless.)

13. Verification of field dimensions is the responsibility of this Contractor.

14. Anchoring devices, fasteners, inserts and other related items associated with the installation of the above items.

15. All blocking and bracing requirements for all work of this contract shall be coordinated with the Carpentry contractor for correct installation of blocking etc. Include any blocking not specified to be provided by the carpentry contractor.

16. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.

17. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. NCCVT and EDiS will not be responsible for any lost tools, materials or equipment.

18. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

19. Provide hand dryers and installation, electrical power connection by electrical contractor.

20. Contractor must provide additional crews as needed to maintain the project schedule.

21. This contractor shall include within their bid the incorporation of **500 hours of COOP participation** by a NCCVT student. Contractor to comply with project documents and requirements set forth in 19 del. C.ch.5

22. Provide pricing for all alternates as described in contract documents.

23. This contractor must provide a silica exposure plan that meets or exceeds the new 2017silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

24. This is not a secure site. All contractors are responsible for concealing, locking and /or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

25. This contract includes all Division 0 and Division 1 General Requirements. All commissioning requirements are identified in Division 1 and are a requirement of this contract.

26. This contractor shall be on site to coordinate when walls are being installed for penetrations and sleeve installations. If penetrations and sleeves are missed, this will be the responsibility of this contractor to cover associated costs of fixing.

27. Provide $20,000 allowance to be used as directed by the owner and CM. All funds not expended will be returned to the owner via a credit change order by means of a credit change order.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-23 - FOOD SERVICE EQUIPMENT

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 11400 | Food Service Equipment |
| Division 22 | Plumbing |
| Division 24 | HVAC |
| Division 26 | Electrical |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide food service equipment, hoods, connective ductwork and accessories All final connections shall be made by the Electrical and Mechanical Contractors.

2. Any discrepancies between the Drawings, Specifications and site conditions or ambiguities in the documents shall immediately be reported to the Construction Manager in writing. Inconsistencies shall be corrected in writing or by reissuing the drawings. If the Contract Documents disagree with the quality or quantity of work required, the better quality or greater quantity shall be supplied unless otherwise instructed in writing by the Construction Manager. Any work performed by the Contractor at locations in question after his discovery of discrepancies, inconsistencies, ambiguities, or errors, without securing resolution, shall be at the Contractor's risk.

3. This Contractor shall verify all measurements at the site and assume full responsibility for their correctness before proceeding with his work. No extra compensation will be allowed because of differences between site conditions and those indicated on the drawings.

4. Manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer and shall be protected from damage until acceptance. Prefinished products which are damaged before or after installation shall be replaced with new and perfect materials. Materials finished after installation which are damaged shall be refinished or replaced as the Construction Manager may direct. No additional charge will be honored by the Construction Manager for repair or replacement of finished materials.

5. Should this Contractor feel that the Contract Documents call for work which he cannot guarantee, he shall so state, in writing, prior to bidding. Proceeding with any operation shall be construed as acceptance of all guarantee conditions.

6. Secure certificates of inspection and occupancy required by authorities having jurisdiction. Deliver copies of certificates to the Construction Manager prior to filing application for final payment.

7. Supply and install any pedestals, curbs or doghouses required for equipment on the roof in this contract.

This should be a finished product so the roofer can flash to the system complete.

8. Any penetrations for work of this contract are the responsibility of this contractor whether through walls, floors or roof areas. Sealing of all penetrations (sealant, fire sealant or otherwise) and coordination with others is part of this contract.

9. This contractor shall include any blocking requirements required on a drawing that shall be coordinate with the carpentry contractor for blocking installation.

10. This contractor is responsible to make field visits to review rough in of underground utilities/piping/electric conduit, for placement in relationship to equipment locations.

11. This contractor to provide complete hood assemblies, including the hood fire protection assembly (Ansul) complete.

12. Provide licensed electrician to make all interconnections within equipment furnished by this contract. This includes, but is not limited to power and control wiring interconnecting the kitchen hoods and make up air units provided by the mechanical contractor.

13. This contractor shall coordinate and provide assistance to the electrical, fire alarm and controls contractor for interconnection into your hood assemblies and attached equipment.

14. Provide technicians on site to test all systems, hoods, equipment in advance of any required inspections.

15. This contractor is to accept delivery of their equipment and supplies, CM will not receive and unload equipment. Provide any and all material handling and unloading equipment and man power.

16. It is this Contractor's responsibility to make certain statutes, building codes, and regulations including those of the appropriate health agencies having jurisdiction over this type of facility are met.

17. Any items furnished as part of this Scope of Work that require mechanical or electrical rough ins or services that are different from those shown on the Contract Drawings shall be so noted at the time of bid. Failure to do so shall make this Contractor liable for costs of any changes required by same.

18. Provide all caulking and sealants for proper installation and in accordance with public health regulations. This contractor provides caulking and sealants for your own course of work.

19. Start, test and demonstrate all equipment installed under this category of work. Provide proposed schedule, including names and telephone numbers of attending representatives (3) three weeks in advance of demonstration.

20. Obtain approvals and permits and coordinate inspections and testing with governing local and state agencies.

21. This contractor shall provide factory start up of all equipment and the reports to document the start up's. CM to receive reports following start up.

22. (2) preliminary inspection or walk through of the project with the Health Department is to be include within this contracts scope.

23. This contractor to provide and install all low voltage capacitors, contactors etc. and requited connections to allow the kitchen hood system to communicate and interface with the fire alarm system and exhaust systems. Electrical contractor to provide power connection to units.

24. This Contractor shall verify all measurements at the site and assume full responsibility for their correctness before proceeding with his work. No extra compensation will be allowed because of differences between site conditions and those indicated on the drawings.

25. Provide protection of all equipment during and after installation has been completed.

26. Provide coordinated shop drawings that indicate all MEP requirements and accurately reflect the actual conditions and spacing of the area.

27. All foodservice components consist of those items identified in Section 114000 and the "K" Series drawings that identify the Food Service items. All items are to be included in the base bid of this contract to completely provide all systems in their entirety. This contractor shall pay particular attention to the "Standard Details" section of typical drawings within Specification section 114000.

28. Any items furnished as part of this Scope of Work that require mechanical or electrical rough ins or services that are different from those shown on the Contract Drawings shall be so noted at the time of bid. Failure to do so shall make this Contractor liable for costs of any changes required by same.

29. Provide licensed electrician to make all interconnections within equipment furnished by this contractor. This includes, but is not limited to, power and control wiring interconnecting the kitchen hoods and make-up air units provided by the mechanical contractors.

30. Provide all BIM services as specified in Section 013700 BIM Execution Plan. As part of the coordination process all contractors are responsible for obtaining a Revizto license. The cost of this license is $1,200 and shall be included in your base bid proposal.

31. This contract includes all Division 0 and Division 1 General Requirements. All commissioning requirements are identified in Division 1 and are a requirement of this contract.

32. CONTRACT PROVISIONS FOR THE DISTRICT CONTRACTS UNDER CNP AWARDS

1.0 Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387)

Clean Air Act

(1) The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.

(2) The contractor agrees to report each violation to the (name of the applicant entering into the contract) and understands and agrees that the (name of the applicant entering into the contract) will, in turn, report each violation as required to assure notification to the appropriate Environmental Protection Agency Regional Office, the Federal awarding agency, or the USDA.

(3) The contractor agrees to include these requirements in each subcontract exceeding $150,000.

Federal Water Pollution Control Act

(1) The contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.

(2) The contractor agrees to report each violation to the (name of the applicant entering into the contract) and understands and agrees that the (name of the applicant entering into the contract) will, in turn, report each violation as required to assure notification to the appropriate Environmental Protection Agency Regional Office, the Federal awarding agency, or the USDA.

(3) The contractor agrees to include these requirements in each subcontract exceeding $150,000.

2.0 Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708)

(1) *Overtime requirements.* No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) *Violation; liability for unpaid wages; liquidated damages.* In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of $27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

(3) *Withholding for unpaid wages and liquidated damages.* The (write in the name of the Federal agency or the loan/grant recipient) shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) *Subcontracts.* The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

3.0 Rights to Inventions Made Under a Contract or Agreement, applicable if the DISTRICT will be using the funding agreement for development, research, or experimental work. 37 CFR 401.14 – Standard patent rights clauses

4.0 Equal Employment Opportunity:

During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

(4) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(5) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(6) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in

whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States. The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: Provided, That if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract. The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance. The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

5.0 Debarment and Suspension

(1) This contract is a covered transaction for purposes of 2 CFR pt. 180 and 2 CFR pt. 3000. As such, the contractor is required to verify that none of the contractor's principals (defined at 2 CFR § 180.995) or its affiliates (defined at 2 CFR § 180.905) are excluded (defined at 2 CFR § 180.940) or disqualified (defined at 2 CFR § 180.935).

(2) The contractor must comply with 2 CFR pt. 180, subpart C and 2 CFR pt. 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.

(3) This certification is a material representation of fact relied upon by (insert name of recipient/subrecipient/applicant). If it is later determined that the contractor did not comply with 2 CFR pt. 180, subpart C and 2 CFR pt. 3000, subpart C, in addition to remedies available to (insert name of recipient/subrecipient/applicant), the federal Government may pursue available remedies, including but not limited to suspension and/or debarment.

(4) The bidder or proposer agrees to comply with the requirements of 2 CFR pt. 180, subpart C and 2 CFR pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion, Exhibit F, which is attached herein and incorporated by reference and made a part of this Contract. (2 CFR 180) or the DISTRICT includes documentation that Vendor is not listed on governmentwide exclusions in System for Award Management (SAM), which contains the names of parties debarred, suspended, or otherwise excluded by agencies, or declared ineligible under statutory or regulatory authority other than Executive Order 12549.

6.0 Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)

Contractors who apply or bid for an award of $100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not used federally-appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-federal funds that takes place in connection with obtaining any federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the awarding agency. If applicable, the contractor must sign and submit to the non-federal entity, a certification regarding lobbying activities. The certification is attached herein and is incorporated and made a part of this Contract. If applicable, Vendor completed and submitted Standard Form-LLL, Disclosure Form to Report Lobbying, Exhibit G.

7.0 2 CFR 200.322 Domestic preference for procurements

The DISTRICT(s) participate(s) in the National School Lunch Program and School Breakfast Program and is required to use the nonprofit food service funds, to the maximum extent practical, to provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products) for the production of Program meals. For purposes of this contract, "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States. "Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

8.0 2 CFR 200.323 Procurement of recovered materials

In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired:

1. Competitively within a timeframe providing for compliance with the contract performance schedule;

2. Meeting contract performance requirements; or

3. At a reasonable price.

Information about this requirement, along with the list of EPA-designated items, is available at EPA's Comprehensive Procurement Guidelines web site, https://www.epa.gov/smm/comprehensiveprocurement-guideline-cpg-program. The Contractor also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act.

Vendor has signed the Anti-Collusion Affidavit, Exhibit H, which is attached herein and is incorporated by reference and made a part of this Contract.

9.0 Buy American Provision

As required by the Buy American provision, all products must be of domestic origin as required by 7 CFR Part 210.21(d).

The District(s) participates in the National School Lunch Program and School Breakfast Program and is required to use the nonprofit food service funds, to the maximum extent practical, to buy domestic commodities or products for Program meals. A "domestic commodity or product" is defined as one that is either produced in the U.S. or is processed in the U.S. substantially using agricultural commodities that are produced in the U.S. as provided in 7 CFR Part 210.21(d). Substantially means that at least 51 percent of the final processed product consists of agricultural commodities that were grown domestically.

Exceptions to the Buy American provision should be used as a last resort; however, an alternative or exception may be approved upon request. To be considered for the alternative or exception, the request must be submitted in writing to a designated official, a minimum of __120_day (s) in advance of delivery. The request must include the:

(a) Alternative substitute(s) that are domestic and meet the required specifications:
(i) Price of the domestic food alternative substitute(s); and
(ii) Availability of the domestic alternative substitute(s) in relation to the quantity ordered
(b) Reason for exception: limited/lack of availability or price (include price):
(i) Price of the domestic food product documenting a significant price difference; and
(ii) Price of the non-domestic product that meets the required specification of the domestic product.

10.0 Civil Rights:

The Vendor and DISTRICT agree to adhere to the provisions set forth in the following regulations, as amended:

i) FNS Instruction 113-1, Civil Rights Compliance and Enforcement – Nutrition Programs and Activities
ii) Title VI of the Education Amendments of 1972;
iii) Section 504 of the Rehabilitation Act of 1973;
iv) The Age Discrimination Act of 1975;
v) The Americans with Disabilities Act; and
vi) Title 7 CFR Parts 15, 15a, and 15b

33. Include within this contracts base bid an allocation of $15,000 for work to be determined by owner and

construction manager. Unused allocation funds to be returned to the owner by means of credit change order.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-24 - WINDOW SHADES AND ROLLER SHADES

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials, and equipment for:

Technical Specification sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 061000 | Rough Carpentry |
| Section 062000 | Finish Carpentry |
| Section 122400 | Window Shades |
| Section 122413 | Window Treatment – Roller Shades |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide window shades and rollers shades complete.

2. Do not fabricate shades until field dimensions for each opening have been taken.

3. Do not install shades until final surface finishes and painting are complete.

4. Provide manual window shades as indicated on the contract documents.

5. Do not install roller shades until construction and finish work in spaces, including painting, is complete and dry and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

6. Field Measurements: Where roller shades are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication and indicate measurements on Shop Drawings. Allow clearances for operating hardware of operable glazed units through entire operating range. Notify Architect of installation conditions that vary from Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

7. Do not install shades until construction and finish work in spaces, including painting, is complete and dry and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

8. This contractor shall include any blocking not identified or specified in the Carpentry contractors scope.

9. Provide all material handling and access equipment required for your work. Including scaffolds and lifts as necessary. CM will not receive or unload an of this contracts materials.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-25 - LAMINATE CLAD CASEWORK, COUNTERTOPS, AND SILLS

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 062000 | Finish Carpentry |
| Section 079200 | Joint Sealants |
| Section 123400 | Manufactured Plastic Laminate Casework |
| Section 123600 | Countertops, Backsplashes and Window Stools |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide labor and materials to perform the work related to all casework, millwork, counter tops, back splashes and window sills. Coordinate rubber base after installation with flooring contractor.

2. This contractor shall provide all plastic laminate and millwork required in the Auditorium. This shall include panels, sills, casework etc. as detailed in the contract documents.

3. Provide all SS Tops, trims and accessories as required by the contract documents.

4. Provide all field trimming required to adjust to conditions on site.

5. Coordinate power and data requirements and locations with the electrical contractor for locations and sizes of holes needed. Grommets provided by this contractor.

6. Include all venting of cabinets and casework as indicated in the contract documents.

7. Provide solid surface window stools, wood trim, aprons, wood veneer paneling, and plastic laminate veneer paneling.

8. Provide solid surface base.

9. Provide countertops and backsplashes

10. Coordinate cutting holes in casework with other trades, and provide grommets at all openings.

11. Coordinate blocking requirements with Carpentry contract.

12. Provide joint sealants integral to casework/millwork and to dissimilar materials.

13. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.

14. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. NCCVT and EDiS will not be responsible for any lost tools, materials or equipment.

15. This contractor shall include within their bid the incorporation of **1000 hours of COOP participation** by a NCCVT student. Contractor to comply with project documents and requirements set forth in 19 del. C.ch.5

16. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

17. Contractor must provide additional crews as needed to maintain the project schedule.

18. Provide all BIM services as specified in Section 013700 BIM Execution Plan. As part of the coordination process all contractors are responsible for obtaining a Revizto license. The cost of this license is $1,200 and shall be included in your base bid proposal.

19. Provide pricing for all alternates as described in Section 012300-Alternates.

20. Include within this contracts base bid an allocation of $15,000 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner by means of a credit change order.

21. This contractor shall coordinate the installation of the Fume hood assembly with the HVAC contractor who is providing this work.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-26 - STAGE RIGGING, LIGHTING, AND ACCESSORIES

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials, and equipment for:

Technical Specification sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 116133 | Rigging Systems and Draperies |
| Section 111663 | Loose Performance Lighting Fixtures |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide a complete theatrical rigging system as specified in Section 116133. Provide layout drawings and coordinate with electrical contractor for requirements of stage lighting and electric. This contract is responsible for any supplemental and miscellaneous steel/support required beyond the structural steel shown in the structural drawings to provide a complete and operational rigging system.

2. Provide theatrical draperies, operating systems, control wiring, motors etc. required to provide a complete system.

3. Provide Loose Lighting Fixtures and all low voltage wiring, motors, and controls to make system operational.

4. Provide (4) sets of any keys required to operate systems installed.

5. Provide specified warranties, attic stock, and as-builts. All attic stock to be delivered, inventoried, and delivered to a storage area on site directed by the owner.

6. Provide stage lighting systems including fixtures, controls, wiring, light grids, supports and attachments. Provide any Unistrut, support rods or other required anchoring devices for lighting support in theater. Coordinate work with electrical contractor for power connections.

7. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.

8. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. NCCVT and EDiS will not be responsible for any lost tools, materials or equipment.

9. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

10. Provide BIM services as detailed in spec section 013700 BIM Execution Plan. As part of the coordination process all contractors are responsible for obtaining a Revizto license. The cost of this license is $1,200 and shall be included in your base bid proposal.

11. Contractor must provide additional crews as needed to maintain the project schedule.

12. Provide pricing for all alternates as described in Section 012300-Alternates.

13. Include within this contracts base bid an allocation of $10,000 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner by means of a credit change order.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-27 - FIXED AUDITORIUM SEATING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials, and equipment for:

Technical Specification sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 126113 | Fixed Audience Seating |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide seating layout, numbering, shop drawings, product data, samples, etc.

2. Provide Fixed, Removable, and loose audience seating as detailed in the drawings and section 126113. Coordinate finishes, coverings, colors, mounting, etc. between the fixed and loose audience seating.

3. This contractor responsible for their own layout and drilling of anchors for fixed seating. After installation, each day the area shall be cleaned of concrete dust, debris, boxes, packing materials etc. All materials must go to dumpster each day. Provide dimensioned layout drawings for lighting box layout for chairs.

4. Provide specified warranty, attic stock, and as-builts. Attic stock shall be delivered, inventoried and move to a storge location on site as directed by the owner.

5. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.

6. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. NCCVT and EDiS will not be responsible for any lost tools, materials or equipment.

7. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

8. Provide BIM services as detailed in spec section 013700 BIM Execution Plan. As part of the coordination process all contractors are responsible for obtaining a Revizto license. The cost of this license is $1,200 and shall be included in your base bid proposal.

9. Contractor must provide additional crews as needed to maintain the project schedule.

10. Provide pricing for all alternates as described in Section 012300-Alternates.

11. Provide a final clean, vacuuming and wipe down of all seating and support brackets by this contractor. Coordinate scheduling of this work with CM.

12. Include within this contracts base bid an allocation of $10,000 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner by means of a credit change order.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-28 - TELESCOPING BLEACHERS AND PLATFORMS

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 061000 | Rough Carpentry |
| Section 079200 | Joint Sealers |
| Section 126613 | Telescoping Bleachers |
| Section 126623 | Telescoping Chair Platforms |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide all Telescoping Bleachers and Telescoping Chair Platforms as required by the contract documents.

2. Provide bleacher seating systems. Coordinate electrical requirements with electrical contractor. Low voltage wiring, motors and controls are to be provided and installed by this contractor. Power supply will be supplied by electrical contractor.

3. This contractor shall coordinate all work of this contract with the carpentry contractor and wood flooring installer.

4. Protection of the work of others including but not limited to protection of all finished flooring installed before your scope of work can be installed. Protection of the flooring shall be reviewed with the CM before installation.

5. Verification of field dimensions is the responsibility of this Contractor.

6. Anchoring devices, fasteners, inserts and other related items associated with the installation of the above items. Provide all material handling and access equipment required for the scope of your contract.

7. All material handling. Loading, moving, lifting of the materials of this contract shall be the responsibility of this contractor. The CM will not receive or unload your materials.

8. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.

9. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. NCCVT and EDiS will not be responsible for any lost tools, materials or equipment.

10. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

11. Provide BIM services as detailed in spec section 013700 BIM Execution Plan. As part of the coordination process all contractors are responsible for obtaining a Revizto license. The cost of this license is $1,200 and shall be included in your base bid proposal.

12. Provide pricing for all alternates as described in Section 012300-Alternates

13. Include within this contracts base bid an allocation of $10,000 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner by means of a credit change order.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-29 - HYDRAULIC HOLELESS PASSENGER ELEVATOR

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 142013 | Hydraulic Holeless Passenger Elevator |
| Division 26 | Electrical (power and communications) |
| Section 284621 | Addressable Fire Alarm Systems (coordination) |
| Section 281100 | Access Control Systems (coordinate elevator access controls) |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide hydraulic elevator system complete. Including all shaft anchoring, framing and Misc. steel required to install the elevator.

2. Grouting of all elevator sill angles will be the responsibility of the Misc. Concrete contractor Contract D-43.

3. Spyders for elevator shaft installation shall be delivered to the site when required by the BP-C Masonry contractor.

4. Coordinate and work directly with the fire alarm contractor to meet all local, state, fire marshal and elevator inspector requirements.

5. Before the owner accepts the elevator for substantial completion, the elevator contractor shall train the owners maintenance personnel on operation of the elevator and review the contact operation and protocol for elevator service, warranty claims, etc. The training shall be professionally videotaped as part of the warranty package.

6. Provide control wiring and telephone signal wiring to top of elevator shaft as required.

7. Provide (2) sets of elevator protection padding, in addition to all other attic stock specified by contract documents. Provide CM one of these sets for use during construction.

8. This Contractor to furnish and install all rough wiring, low voltage wiring and devices (phones) necessary for the installation of emergency telephones.

9. Electric service and disconnect switch for the elevator are the responsibility of the Electrical Contractor. (This contractor shall work with electrical to coordinate type of disconnect with Fire Marshal and Elevator Inspector before installation) All other control wiring as required will be the responsibility of this Contractor.

10. This Contractor to submit for approval the layout and detailed dimensions of the elevator pit area, sump pump area, etc.

11. Provide BIM services as detailed in spec section 013700 BIM Execution Plan. As part of the coordination process all contractors are responsible for obtaining a Revizto license. The cost of this license is $1,200 and shall be included in your base bid proposal.

12. Provide and include warranty extensions to include 9 months of temporary construction use. This contractor to include within the base bid 600 hours of temporary elevator operator to be utilized at the discretion of the owner and CM.

13. Include the costs associated with the inspections required for "construction" use in your base bid.

14. This contractor will work with other trades to insure access is given as needed to complete all work for a complete installation. This includes lifting contractors to the top of the shaft to complete work required. This includes but is not limited to fire sealing, sprinkler heads, lighting, smoke detectors, disconnects etc. Include within the base bid 4 separate mobilizations and 8 hours of operator time to allow contractors to access the shaft for work that requires installation.

15. This contractor shall own fire sealing of all penetrations for work of this contract.

16. This contractor to owns coordinating the final keying to the owners keyed system.

17. Provide all temporary signage required for machine room or elevator I order to facilitate inspections, until completion and final signage is installed.

18. Provide (2) complete sets of tools and keys to the owner. Provide and install key cabinet in the machine room, keyed to the building system for use by the owner to store the elevator keys.

19. Provide full and complete coordination with other trades for installations within the elevator shaft and machine room.

20. This contract includes all Division 0 and Division 1 General Requirements. All commissioning requirements are identified in Division 1 and are a requirement of this contract.

21. Include within this contractor's base bid an allocation of $10,000 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner by means of a credit change order.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-30 - FIRE PROTECTION

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Division 22 | Plumbing |
| Division 26 | Electrical |
| Division 32 | Site Improvements |
| Section 312300 | Excavation and Backfill for pipelines and Structures |
| Section 03310 | Cast in Place Concrete |
| Section 210500 | Common Work Results for Fire protection |
| Section 210505 | Fire Suppression System Piping, Fittings and Valves |
| Section 211000 | Water Based Fire Suppression System- Fire Pump |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide piping, fittings, couplings, valves and sprinkler heads to provide a complete Fire Protection system.

2. The fire pump, and all related work shall be part if this contract.

3. Excavation and backfill related to fire protection work as detailed below is the responsibility of this Contractor. (Geo-Tech reports included for this contractors review)

4. Backfilling is the responsibility of this Contractor. Soil types shall be in accordance with project documents. Backfill materials shall be covered after excavation and protected. If materials become wet and unusable this contractor shall remove the material from site and provide stone dust (#10 stone dust) to backfill all piping trenches and remove unsuitable material off site.

5. Provide As-built drawings in both hard copy and BIM format.

6. Provide concrete equipment pads, curbs and thrust blocks related to the Fire Protection work (sprinkler system) and Fire Pump system.

7. Permits, testing, inspections required for the Fire Protection work are to be provided by this contractor.

8. Providing of sleeve assemblies for work of this contract that penetrates the foundation wall, interior footings or any concrete footings shall be provided to the masonry and concrete contractor for installation. This contractor shall coordinate and assist with the sleeving install. Sleeves are to be sealed per contract documents.

9. Firesafing of all penetration is a requirement of this contract.

10. Design of the system, submissions to the Fire Marshall, review with Fire Marshall and expediting the permit for the Fire Suppression system is a priority of this contract scope.

11. Flow and tamper switches to be supplied by this Contractor and wired by the Electrical Contractor. It is this Contractors responsibility to provide flow and tamper switches to meet applicable state and local codes as well coordinate with the MEP contract documents.

12. Fire pump, controller and related work. Wiring of pump and controller to be by the Electrical Contractor.

13. If a water meter is required when the review process and permitting is completed, this contractor shall purchase, pay for, install and coordinate all work with the required authorities.

14. This Contractor to coordinate the need for and compatibility of his system to the emergency generator, supplied by other.

15. Pipe identification and labelling is a requirement of this contract. Valve labels, etc. are required as per the contract documents.

16. Provide fire main from +/- 5 feet outside building including connection in the building. Final connection of your fire line and the line provided by the site contractor shall be the Fire Protection contractors responsibility. Provide a registered plumbing contractor licensed to perform the tie in as part of you base bid.

17. This contractor will flush the UG system with the assistance of the site contractor and provide written documentation to the CM.

18. All cored walls require sleeves and are required to be sealed per contract documents. Any mess from the coring operation shall be immediately cleaned up by this contractor and shall not affect any installed finishes. If this work is not performed efficiently, the work will be performed by the owner and back charged to this contractor.

19. This contractor shall be onsite while walls are being constructed for layout and installation of valve cabinets, concealed, piping, etc.

20. The work of this contract will require out of sequence installations. This should be considered and included in your base bid.

21. This contractor shall provide all access panels required for the work of this contract. They should be lockable, fire rated where required. Panels shall meet the requirements of the contract documents.

22. This contractor shall include within their bid the incorporation of **750 hours of COOP participation** by a NCCVT student. Contractor to comply with project documents and requirements set forth in 19 del. C.ch.5.

23. Provide all BIM services as specified in Section 013700 BIM Execution Plan. As part of the coordination process all contractors are responsible for obtaining a Revizto license. The cost of this license is $1,200 and shall be included in your base bid proposal.

24. This contractor must provide a silica exposure plan that meets or exceeds the new 2017silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

25. This is not a secure site. All contractors are responsible for concealing, locking and /or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

26. Provide the necessary coordination with trades to avoid interferences with other work and make corrections at no extra charge.

27. Include within this contracts base bid an allocation of $20,000 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner by means of a credit change order.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-31 – PLUMBING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Division 21 | Fire Protection (coordination) |
| Division 22 | Plumbing |
| Division 23 | HVAC (coordination) |
| Division 26 | Electrical (coordination) |
| Division 32 | Site Improvements |
| Section 312300 | Excavation and Backfill for pipelines and Structures |
| Section 03310 | Cast in Place Concrete |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide a complete plumbing and piping system as indicated by the contract documents. All plumbing work/systems are to be fully coordinated with all other MEP trades as well as the other trades involved with the project.

2. This contractor shall provide all pipe insulation, insulation coverings, valve insulation, labelling, and identification of plumbing lines.

3. This contractor shall provide the pre-fabricated trench drain as indicated on P302 and subsequent plumbing drawings (typical. The plumbing contractor will be responsible to coordinate the drain installation with the concrete contractor for the SOG pours.

4. This contract includes all Division 0 and Division 1 General Requirements. All commissioning requirements are identified in Division 1 and are a requirement of this contract.

5. Division 26 of the specifications should be reviewed as it relates to the power wiring to trap primers and controls within this contracts scope of work. Coordinate this work with the electrical contractor.

6. Permits, testing, inspections required for the Plumbing system work are to be provided by this contractor. This contractor shall pay all permit and inspection fees for the work of their contract.

7. This Contractor shall be responsible to designate an individual within his organization, intimately familiar with this project and assigned on site, to act as the System Start-up Coordinator. This individual must be pre-approved by the Construction Manager. This individual's responsibilities shall include, but not be limited to, coordinating the start-up of all mechanical equipment, including the coordination between the Electrical Contractor, the Controls Contractor, and all testing, adjusting and balancing work. This individual shall report on a weekly basis, in written form, to the Construction Manager. These reports shall include a summary of current conditions including manufacturers' start-ups, systems' deficiencies noted to date and the remediation of same, coordination issues between trades,

system interfacing and forecasting, as necessary to project the completion of each individual system within the building.

8. Excavation and backfill for underground plumbing work as detailed below is the responsibility of this Contractor. Soil types shall be in accordance with the contract documents Refer Section 312300 for requirements on soils. (Geo-Tech reports included for reference and use)

9. Backfilling is the responsibility of this Contractor. Soil types shall be in accordance with project documents. It is the intent to use on site material and not imported fill. The use of this on site material shall conform with the compaction requirements identified in Section 312300. Excavated materials shall be covered immediately and protected from moisture mitigation. If Materials become unusable, this contractor shall own purchasing #10 stone dust to utilize as backfill in all trench or structure locations. Excess unsuitable materials from plumbing excavations shall be removed from the site by this contractor. (includes water meter pit installation) it is not acceptable for anu UG piping to e in the stone layer installed by the concrete contractor, all UG piping must be installed in the subbase with adequate soil coverage.

10. The Concrete Contractor shall furnish, install and maintain stone fill under slab. The Sitework Contractor shall leave the building pad site at subgrade to the required tolerance in the contract documents to receive stone fill. The Plumbing, Mechanical and Electrical contractors shall complete their work under the slab on grade and shall be responsible to return the pad to the subgrade elevation left by the Sitework Contractor. The Concrete Contractor shall then adjust the select material to final subgrade, fine grade the slab and place the vapor barrier and stone fill. Note: while working on the building pad area this contractor shall utilize track drive equipment only. No rubber tire equipment will be allowed. Preservation of the building pad shall be the responsibility of this contractor. The onsite testing and inspection agency provided the owner will monitor the excavation, travel and backfilling operation.

11. The plumbing and concrete contractor and CM will me to review the building pad for turnover to the next trade. If not accepted correction will need to be made to correct concerns and sign off.

12. Equipment bases and housekeeping pads identified on the structural drawings are to be provided by the BP-C concrete contractor. Any required bads or bases for the scope of this contract not identified on the documents will be provided by this contractor.

13. Permits, testing, inspections required for the Plumbing system work is to be provided by this contractor.

14. Providing of sleeve assemblies for work of this contract that penetrates the foundation wall, interior footings or any concrete footings shall be provided to the masonry and concrete contractor for installation. This contractor shall coordinate and assist with the sleeving install. All sleeves must be provided with the appropriate seals, this contract owns sealing the sleeves related to this contracts work.

15. Pipe insulation, insulation coverings, valve insulation, labelling and identification of plumbing lines shall be provided by this contractor.

16. Valve tags, charts, and labelling shall be part of this contractor's responsibility.

17. Provide Mop sinks and Receptors as indicated on the contract documents.

18. Penetrations through wall, floors, etc. including cutting, patching and fire safing.

19. Testing and balancing shall be provide by a separate contract however the Plumbing contractor shall coordinate and communicate with the testing and balancing contractor for all testing required on the plumbing system.

20. Clean up shall be provided daily, all trash, debris, crates, boxes etc. shall be moved out of the building to the dumpsters each day. No storage of trash will be allowed inside the building or courtyards.

21. All guarantees and warranties to begin at the substantial completion of the entire project. Maintain equipment prior to substantial completion.

22. This contractor shall provide all necessary material handling equipment, cranes, scaffolds, hoisting and rigging equipment and supplies for work associated with this contracts.

23. Coordination with the ATC contractor is required by this contractor.

24. Roof drains, pans, sumps and all related anchoring, support and adjustment elements that are required per the contract documents.

25. This contractor is responsible for providing, setting, bracing, anchoring, and aligning all floor drains, floor basins etc. required by the contract documents. The plumbing contractor shall have a plumber on site 100% of the time when the concrete contractor is pouring S.O.G. floors or elevated slabs. Drains that are misaligned will be demolished, removed, and replaced by this contractor. Including but not limited to replacing and re-engineering floor reinforcement and paying the concrete contractor to re-pour the slab areas.

26. Piping work associated with the emergency generator (including fuel piping, exhaust piping, regulators etc.). Include initial fill up of fuel tanks if Diesel and provide and coordinate the gas piping system is natural gas fueled. The DNREC permit submission will be provided by the Electrical contractor however this contractor must supply any required documentation for the permitting as well as coordinate all work with electrical contractor and other trades.

27. Fuel detection/monitoring system in accordance with local codes.

28. Gas piping, meter and pressure regulator valve. (proper sizing of the regulators is the responsibility of this contractor.) Include anchoring this equipment to the concrete pad provided by the concrete contractor ad anchoring the piping and stand to the exterior wall.

29. Trap priming system, including detailed submittals of the system and then provide as-builts of the location of the rack installations. Photos marked with locations to be provided by this contractor.

30. All utilities will be brought to within +/- 5 feet of the building line by others. The Plumbing Contractor is responsible for connecting the utilities from +/- 5 feet outside the building line and completing the system within the building. This contractor shall own the underground line with the assistance of the site contractor, including any chemical treatment required by NCCo, Artesian or any other regulatory agency. Reports shall be submitted to CM.

31. This contractor will flush the underground with the assistance of site contractor and

provide documentation to CM.

32. Provide complete water sterilization, testing and reporting. Include within your proposal (4) additional testing mobilization for potential Phase utilization.

33. Install Owner pre-purchased equipment, if identified within the contract documents.

34. Provide access panels to the drywall contractor for framing information and final installation.

35. This contractor shall be on site to coordinate when walls are being installed for penetrations and sleeve installations. If penetrations and sleeves are missed, this will be the responsibility of this contractor to cover associated costs of fixing.

36. Final connection of kitchen equipment and appliances is the responsibility of this contractor.

37. As-built drawings is both hard copy and BIM submission as part of the project closeout.

38. This contractor shall include within their bid the incorporation of **2500 hours of COOP participation** by a NCCVT student. Contractor to comply with project documents and requirements set forth in 19 del. C.ch.5

39. Provide all BIM services as specified in Section 013700 BIM Execution Plan. As part of the coordination process all contractors are responsible for obtaining a Revizto license. The cost of this license is $1,200 and shall be included in your base bid proposal.

40. This contractor must provide a silica exposure plan that meets or exceeds the new 2017silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

41. This is not a secure site. All contractors are responsible for concealing, locking and /or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

42. Provide the necessary coordination with trades to avoid interferences with other work and make corrections at no extra charge.

43. Include within this contracts base bid an allocation of $75,000 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner by means of a credit change order.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-32 – MECHANICAL PIPING - HVAC

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 089100 | Louvers |
| Division 21 | Fire Protection (coordination) |
| Division 22 | Plumbing |
| Division 23 | HVAC |
| Section 230900 | Instrumentation and Controls of HVAC system |
| Division 26 | Electrical (coordination) |
| Division 28 | Electronic Safety and Security (coordination of work) |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide a complete mechanical system as indicated on the Drawings and in the Specifications. Coordinate all work with associated trades, Plumbing, Fire Protection, Electrical and Electronic Safety and Security

2. This contract includes all Division 0 and Division 1 General Requirements. All commissioning requirements are identified in Division 1 and are a requirement of this contract.

3. This contractor shall include all piping, fittings, and connections required for the installation of the complete HVAC system.

4. This contract shall provide all Mechanical yard pipe rack steel supports as reference on drawing M315 (typical) the Concrete contract will install the foundation and grout the leveling plates.

5. Provide all insulation, wraps, covers etc. for work of this contract. Include all labelling and identification markers as directed by the contract documents.

6. Provide all condensate piping and condensate pumps and installations. Backcheck valves shall be included as part of this contract.

7. Division 16 of the specifications should be reviewed as it relates to the power wiring and other requirements for HVAC equipment including the coordination of furnishing and installing motor starters as provided in the specifications.

8. This Contractor shall be responsible to designate an individual within his organization, intimately familiar with this project and assigned on site, to act as the System Start-up Coordinator. This individual must be pre-approved by the Construction Manager. This individual's responsibilities shall include, but not be limited to, coordinating the start-up of all mechanical equipment, including the coordination

between the Electrical Contractor, the Controls Contractor, and all testing, adjusting and balancing work. This individual shall report on a weekly basis, in written form, to the Construction Manager. These reports shall include a summary of current conditions including manufacturers' start-ups, systems' deficiencies noted to date and the remediation of same, coordination issues between trades, system interfacing and forecasting, as necessary to project the completion of each individual system within the building.

9. The Concrete Contractor shall furnish, install and maintain stone fill under slab. The Sitework Contractor shall leave the building pad site at subgrade as identified per the contract documents in preparation to receive stone fill. The Plumbing, Mechanical and Electrical contractors shall complete their work under the slab on grade and shall be responsible to return the pad to the subgrade elevation left by the Sitework Contractor. The Concrete Contractor shall then adjust the select material to final subgrade, fine grade the slab and place the vapor barrier and stone fill. Note: while working on the building pad area this contractor shall utilize track drive equipment only. No rubber tire equipment will be allowed. Preservation of the building pad shall be the responsibility of this contractor. The onsite testing and inspection agency provided the owner will monitor the excavation, travel and backfilling operation.

10. The HVAC, and concrete contractor and CM will me to review the building pad for turnover to the next trade. If not accepted correction will need to be made to correct concerns and sign off.

11. Equipment bases and housekeeping pads that are not included in BP-C and identified on the structural documents will be provided by the Misc. Concrete contract. This contract shall provide detailed shop drawings and field layout of the pads/bases for installation by the concrete contractor. Failure to properly coordinate this work will result in the Mechanical contractor installing the pads at no cost to the owner or any other contractor. Any bases or pads related to the scope of this contract, not identified on the drawings will be provided by this contractor (complete installation)

12. Permits, testing, inspections required for the mechanical piping and HVAC work are to be provided by this contractor.

13. Providing of sleeve assemblies for work of this contract that penetrates the foundation wall, interior footings or any concrete footings shall be provided to the masonry and concrete contractor for installation. Provide sealing of all sleeves as required. This contractor shall coordinate and assist with the sleeving install.

14. Pipe insulation, insulation coverings, valve insulation, labelling and identification of mechanical piping, ductwork, shafts, connections to systems etc. shall be provided by this contractor. (all insulation and sealing as it relates to the work of this contract)

15. Valve tags, charts, and labelling shall be part of this contractors responsibility.

16. Penetrations through wall, floors, etc. including cutting, patching and fire safing.

17. Testing and balancing shall be provided by this contract, Coordination of work with other trades is required.

18. Clean up shall be provided daily; all trash, debris, crates, boxes etc. shall be moved out of the building to the dumpsters each day. No storage of trash will be allowed inside the building or courtyards.

19. All guarantees and warranties begin at the substantial completion of the entire project. Maintain equipment prior to substantial completion.

20. This contractor shall provide all necessary material handling equipment, cranes, scaffolds, hoisting and rigging equipment and supplies for work associated with this contracts.

21. Provide pipe and duct insulation, coverings, wraps, supports and bridging for penetrations through wall, floors, etc. including cutting, patching and fire safing and fire caulking as required.

22. This contractor is responsible to coordinate the work of this contract with the Testing and balancing contractor. Coordination and assistance when the balancing is TAB is being performed is a requirement of this contract.

23. This contract should include man hours for season testing from heating to cooling or vice versa to work with the testing and balancing contractor.

24. Ductwork, flex duct, grilles, diffusers, including detailed layout for the drywall and ceiling contractor shall be provided by this contractor.

25. This contractor shall fully coordinate and verify all louver sizes, mounting details, flashing details, colors with the Carpentry and General Trades contract which will supply and install all louvers.

26. Coordinate damper size, location and type of damper with contract documents, pay special attention to architectural drawings and finish surfaces. Fire dampers are to be included as part of this contractors scope.

27. This contractor shall be on site to coordinate when walls are being installed for penetrations and sleeve installations. If penetrations and sleeves are missed, this will be the responsibility of this contractor to cover associated costs of fixing.

28. Temporary heat and ventilation installation, maintenance and removal. Refer to Division 1, Specification Section 015123 - TEMPORARY HEAT AND VENTILATION, for specific scope. This contractor shall include within the base bid an allocation of $200,000 for the fuel to power the temporary heating equipment if no other owner supplied source is available.

29. Electric baseboard heat shall furnished and installed by this contractor. Electrical connection by EC.

30. Roof curbs, rails, etc. to be provided and loaded to the roof by this contractor. Layout and installation by this contractor, coordinate with the carpentry contractor for blocking and the roofing contractor for flashing and roofing details. Include any doghouses or raceways for service lines, including coordination of flashing.

31. Provide access panels to the drywall contractor for framing information and final installation.

32. Final connection of kitchen equipment and appliances related to the mechanical piping and HVAC system provided by this contractor. Coordination with other trades (Special Systems, Electrical, Fire Alarm etc.) for final interconnections of these systems shall be provided by this contractor.

33. This contractor shall provide all required fire dampers, connections and remote controllers for the HVAC system.

34. Provide all VFD's complete for electrical contractor to install.

35. Provide (2) sets of filters for construction use. Include changing out the filters during the construction phase. Additionally include a complete change out of all filters prior to turn over to the owner (these filters shall be separate from the attic stock filters required) Providing a complete filter listing as part of the closeout documents is required.

36. As-built drawings. As-built drawings is both hard copy and BIM submission as part of the project closeout.

37. This contractor shall include within their bid the incorporation of **2000 hours of COOP participation** by a NCCVT student. Contractor to comply with project documents and requirements set forth in 19 del. C.ch.5

38. Provide all BIM services as specified in Section 013700 BIM Execution Plan. As part of the coordination process all contractors are responsible for obtaining a Revizto license. The cost of this license is $1,200 and shall be included in your base bid proposal.

39. This contractor must provide a silica exposure plan that meets or exceeds the new 2017silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

40. This is not a secure site. All contractors are responsible for concealing, locking and /or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

41. Provide the necessary coordination with trades to avoid interferences with other work and make corrections at no extra charge.

42. Include within this contracts base bid an allocation of $75,000 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner by means of a credit change order.

43. This contractor shall provide the work of Section 230900 Instrumentation and Controls of HVAC system in its entirety. Coordinate with all other trades as required. Provide all instrumentation, controls, coordination of work, testing as required to provide a complete ATC system for this project. This work shall include but not be limited to instrumentation and controls for: Provide all instrumentation, controls, coordination of work, testing as required to provide a complete ATC system for this project.

44. This contract includes all Division 0 and Division 1 General Requirements. All commissioning requirements are identified in Division 1 and are a requirement of this contract.

45. Environmental controls.

46. Ventilation controls.

47. Kitchen Ventilation Controls

48. Carbon Monoxide System Controls

49. Air Flow Monitoring Controls

50. Cooling controls.

51. Humidification controls.

52. Refrigeration controls.

53. Motorized dampers when not specified as part of the factory packaged equipment supplied to job site for distribution and installation by others.

54. Controls air compressor complete with accessories and insulation.

55. Remote reading gauges, transmitters and recorders for automatic temperature controls.

56. Building centralization controls including centralized temperature, humidity, pressure and flow indication and recorders, centralization of air conditioning, heating, ventilation, humidification and refrigeration equipment operation.

57. Smoke hatches and relief vents that are not accessible shall have remote controllers to test and reset units.

58. This contract shall supply control valves per contract documents and drawings.

59. This contractor shall coordinate closely with the Kitchen Equipment contractor for controls to equipment.

60. Coordinate and provide controls required for the emergency generator.

61. Building life safety control and equipment safety control including: operators and controls for motorized smoke dampers, operators and controls for motorized fire dampers, firestats, freeze protection thermostats, shut down safety devices forming part of automatic temperature control.

62. Provide all permits required for the work of this contract, pay all fee's.

63. Inspections as required under this contract scope.

64. Electrical thermostats intended for automatic temperature controls complete with subbases or adapter plates to mount on standard electrical box.

65. Supply only of access doors when specifically required for access to automatic temperature control.

66. Control wiring and/or air piping required for all automatic temperature controls supplied under this contract scope.

67. Wiring for remote thermostats and remote prewired auxiliary control panels for packaged equipment.

68. Boiler feed water control wiring.

69. The magnetic starter coil and relay coils supplied under the electrical contract and intended for automatic temperature controls, including interlocking between starters and/or relays when controlled automatically.

70. Access panels directly associated with this work if not included by other division.

71. Exclude direct reading temperature and pressure gauges connected directly to non-potable water systems.

72. Exclude motorized dampers when specified as integral part of packaged equipment.

73. Exclude automatic temperature controls when specified as integral part of packaged equipment.

74. Exclude flow measuring and control devices.

75. Exclude direct reading temperature and pressure gauges connected directly to refrigeration systems.

76. Exclude filter gauges directly connected to duct systems.

77. Electrical wiring for thermostats and controls which directly switch the power line to the equipment (directly shall mean not through magnetic coil) is by Division 26.

78. Power wiring is by Division 26**.**

79. Control power supply outlets are by Division 26.

80. This contractor shall provide all raceways, conduits, pull strings and boxes required for the complete ATC system.

81. Review Alternate section and provide Alternate #10 to utilize Modern Controls for the work of the scope.

82. Coordinate and work alongside the commissioning team until project is fully accepted. Include multiple trips to the site with testing equipment, ten (10.)

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-33 - TESTING, ADJUSTING, AND BALANCING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials, and equipment for:

Technical Specification sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Division 21 | Fire Protection |
| Division 22 | Plumbing |
| Division 23 | HVAC |
| Section 220500 | Common Work Results for Plumbing |
| Section 230900 | Instrumentation and Controls |
| Section 230950 | Testing & Balancing of Mechanical Systems |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide water and air testing and balancing.

2. Contractor shall prepare, at a minimum, a preliminary balance report for the New Castle County Final Inspection.

3. This contract includes all Division 0 and Division 1 General Requirements. All commissioning requirements are identified in Division 1 and are a requirement of this contract.

4. Provide pricing for all alternates as described in Section 012300-Alternates.

5. Submissions will be reviewed once, and any resubmittals will be reviewed once. Any other submittals will be billed to the contractor at the Engineers standard rates. Please thoroughly review all submissions prior to forwarding to avoid these costs.

6. Provide complete signed and sealed testing report prior to substantial completion and final inspection as required by New Castle County.

7. This contractor has been allotted 30 days to complete all work and provide final, sealed balancing report by the Construction Manager. This contractor will need to work closely with the Construction Manager and all MEP trades to sequence work so that the completion of the balancing is completed in a manner that does not delay acceptance from New Castle County or owner.

8. Provide a pencil copy for submission to NCCo and have final official report within 30 days of the pencil copy.

9. Provide confirmation of duct testing completed by Mechanical Contractor.

10. This contractor must provide all lifts or scaffold means to access all elements.

11. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.

12. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. NCCVT and EDiS will not be responsible for any lost tools, materials or equipment.

13. Provide circulating water system test.

14. Include balancing and testing of all plumbing and heating lines installed to the future field house.

15. This contract should include seasonal testing from heating to cooling, until system has been fully commissioned and accepted.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-34 - ELECTRICAL, LIGHTING, AND FIRE ALARM SYSTEMS

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

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|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Division 22 | Plumbing (coordination of work) |
| Division 21 | Fire Protection (coordination of work) |
| Division 23 | HVAC (coordination of work) |
| Division 26 | Electrical |
| Section 111663 | Loose Performance Lighting Fixtures (coordinate) |
| Division 27 | Communications |
| Division 28 | Electronic Safety and Security raceways and coordination) |
| Section 284621 | Addressable Fire Alarm Systems (complete) |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide a complete electrical system, lighting, addressable fire alarm system and infrastructure for all Division 21, Division 27 and Division 28 as indicated on the contract documents.

2. Provide Transformer and Generator system complete. Include all infrastructure, raceways, duct banks (including all excavation, backfill, identification systems, trace wiring, etc.) This contractor shall be fully responsible for preparing, submitting, paying all fees and coordinating the DNREC required permitting for the Generator. Coordinate with NCCVT as required.

3. Lightning protection shall be provided by this contract and coordinated with the Carpentry contractor and Roofing Installer.

4. This contractor to supply power to all areas of work of other trades requiring electrical power.

5. Provide complete infrastructure system for all Division 27 and Division 28 systems. Including all interior and exterior duct banks, raceways and sleeves for special systems.

6. This contractor shall include in the base bid temporary exterior lighting installed and to provide lighting adequate for safety and security purposes for the exterior of the building for the purpose of site security. The lights must be installed to meet the requirements for exterior use and illuminated during low light hours. These lights will be utilized until permanent exterior lighting has been installed and powered. Supplying the temp power for this lighting is part of this contract. Include providing temporary power and lighting as needed for the entire duration of the project. This include the necessary power outlets required for all contractor use. Power must be available within a reasonable distance at all times.

7. Division 23 of the specifications should be reviewed as it relates to the power wiring and other requirements for HVAC equipment including the coordination of furnishing and installing motor

starters and controllers as detailed in the Specifications and on the Drawings.

8. This contractor shall provide all conduits, raceways and boxes required for thermostat and sensor installation.

9. The HVAC contractor will supply all VFD's to the electrical contractor for installation and powering.

10. Provide all smoke damper, power and remote controllers as required by the contract documents.

11. Excavation and backfill for underground electrical work as required below is the responsibility of this Contractor. Soil types shall be in accordance with project specifications and the Geo-Tech report. Geo-Tech reports included for review and acceptance.

12. Backfilling is the responsibility of this Contractor. Soil types shall be in accordance with project documents. It is the intent to use on site material and not imported fill. The use of this on site material shall conform to the compaction requirements identified in Section 312300. Excavated materials shall be covered immediately and protected from moisture mitigation. If Materials become unusable, this contractor shall own purchasing acceptable off site materials.

13. Provide all excavation, layout, concrete, reinforcing for duct banks, light standards, above ground conduit encasement, equipment bases and any other concrete work specifically related to the electrical work. This shall include services from the roadways and all communication duct banks as required. Include requirements of New Castle County, State and local codes for concrete encasement.

14. All runs in exposed ceilings are to be in conduit.

15. All exterior underground raceways and infrastructure are to be installed by this contractor as required by the contract documents. (Cameras, security, electric etc.)

16. Temporary electric installation, maintenance and removal. Refer to Division 1, Specification Section 015113 - TEMPORARY ELECTRIC, for additional information.

17. This contractor shall provide temporary transformers as required to provide electrical power generation until permanent service is installed by Delmarva power. Include all permits, cabling, switch gear, breakers etc.to provide a complete temporary power system capable of supplying the electrical loads required for the project. This contractor to coordinate and arrange for temporary power from the source, Delmarva Power.

18. Provide temporary power including ten (10) individual electric meters with disconnects for contractors trailers. Coordinate all work with Delmara Power.

19. Power Centers for miscellaneous tools and equipment used in the construction work shall be provided with a minimum of four 20-amp, 120 volt grounding type outlets. Each outlet shall be provided with ground fault detecting circuit breaker protection. The distance between each receptacle location shall <u>not exceed 50 feet.</u>

20. Construction areas, ramps, runways, corridors, offices, shops, and storage areas shall be lighted to not less than the minimum illumination intensities at five (5) foot candles and any additional OSHA Temporary lighting and receptacles exposed to wet or damp locations must be weatherproof. Adequate

lighting for safe working conditions and the exterior of the structure shall be provided and maintained on a 24 hour per day basis throughout the building. Voltage of each lighting component must be able to accommodate lighting requirements.

21. Rough in and final connection and related work for equipment provided under other contracts (i.e. kitchen, elevators, HVAC, sprinkler, motorized doors, vertical walls, etc.)

22. Provide all permits and inspections. Pay all fees associated with the permits and inspection.

23. Penetrations through walls, floors, etc. including cutting, patching and fire safing.

24. Testing of all systems, as related to the scope of work for this contract shall be provided. Reporting and verification documentation shall be supplied to NCCVT and EDiS.

25. This contractor shall provide all supplemental hangers and fasteners for lighting installation to the building structure.

26. All runs in exposed ceilings shall be installed in conduit.

27. Clean up on a daily basis shall be provided by this contractor. All work areas shall be organized and cleaned up to the dumpsters each day.

28. The Concrete Contractor shall furnish, install and maintain stone fill under slab. The Sitework Contractor shall leave the building pad site at subgrade required by the contract documents in preparation to receive stone fill. The Mechanical and Electrical Contractors shall complete their work under the slab on grade and shall be responsible to return the pad to the subgrade elevation left by the Sitework Contractor. The Concrete Contractor shall then adjust the select material to final subgrade, fine grade the slab and place the vapor barrier and stone fill. Note: while working on the building pad area this contractor shall utilize track drive equipment only. No rubber tire equipment will be allowed. Preservation of the building pad shall be the responsibility of this contractor. The onsite testing and inspection agency provided the owner will monitor the excavation, travel and backfilling operation.

29. The electrical, and concrete contractor and CM will me to review the building pad for turnover to the next trade. If not accepted correction will need to be made to correct concerns and sign off.

30. Note: all raceways are to be installed into the subgrade soils and shall have adequate cover for protection from traffic above. No raceways will be installed in the stone base provided by the concrete contractor.

31. All guarantees and warranties to begin at the substantial completion of the entire project. Maintain equipment prior to substantial completion.

32. Hoisting, rigging and scaffolding required to perform you scope of work shall be provided by this contractor.

33. This contract shall provide coordination with Delmarva power for the Primary electrical service which the owner will apply for and pay the associated Delmarva fees. Delmarva will run the power from the pole to the transformer and this contractor shall be responsible for the work from the transformer to the building and throughout.

34. Provide a complete fire alarm system. Water flow devices are supplied and installed by the Sprinkler Contractor and wired by this Contractor. Include tie-in to fire sprinkler flow and tamper switch. (fire dampers, smoke detectors, remote testing switches are all part of this contract)

35. Provide all heat tracing and insulation systems as required.

36. Coordinate closely with the work of the Special Systems contractor. This contract (electrical) provides all infrastructure, conduit and raceways required for the Special Systems work. Provide pull strings and boxes for all systems. (voice, data, communication, fire alarm, AV systems, Audio systems, and public address system, clock system etc.) Include all required sleeving, sealing and fire sealing for raceways and conduits through walls, floors, ceilings etc. for this work.

37. This contract shall provide and install wire mesh cable tray for low voltage distribution as shown on documents and specified. Cable tray shall be installed 3" above drop ceilings and have 3" clear above the top rim for access.

38. This contractor shall provide and install 4' conduits as shown for low voltage distribution.

39. This contractor shall provide and install 2' conduits into each space above the ceiling for low voltage distribution.

40. Coordinate, review and fully understand and integrate all cable tray, raceways and infrastructure interior or exterior that may be indicated on all contract documents including the T series drawings.

41. Lightning protection with master UL certification. Coordinate with the Carpentry and Roofing contractors.

42. Coordinate and provide a complete grounding system for the entire project. This includes but is not limited to the building columns, interior spaces, exterior wall assemblies, Electrical rooms, IDF and IDF rooms) and provide any testing and reports required.

43. As-built drawings in both hard copy, electronic and final BIM modelling per contract documents.

44. Provide rough-in and final connection and related work for equipment provided under other contracts (i.e. kitchen, elevators, HVAC, sprinkler, motorized doors, etc.). Provide power to automatic hardware. Low voltage wiring from the controller to hardware shall be provided by the Doors, Frames and Hardware Contractor. Include power panels and power supplies supplied by other trades.

45. Provide complete infrastructure for audio and audiovisual systems.

46. Provide rough-in and final connection of kitchen equipment and appliances. Refer to Specification Section 11400 Food Service Equipment for specifics. Coordinate power/plug requirements with rough in for equipment with the Kitchen Equipment Contractor.

47. Section 116163 Loose Performance Lighting shall be provided by the Stage Rigging contractor as follows; stage lighting systems including fixtures, controls, light grids, supports and attachments shall be provided. This contract (electrical) shall provide all power and power connections to the Loose Performance lighting. All other lighting in the Auditorium shall be supplied and installed by the

electrical contractor. Coordination of work between trades is tis contractors responsibility.

48. This contractor shall include within their bid the incorporation of **2500 hours of COOP participation** by a NCCVT student. Contractor to comply with project documents and requirements set forth in 19 del. C.ch.5

49. Perform certification testing for all wiring and systems supplied by this contract scope.

50. Provide all BIM services as specified in Section 013700 BIM Execution Plan. As part of the coordination process all contractors are responsible for obtaining a Revizto license. The cost of this license is $1,200 and shall be included in your base bid proposal.

51. Provide access doors and frames for all access to Structured Cable components or equipment that require routine or periodic maintenance. Installation of access doors and frames provided by the Metal Stud & Drywall Contractor. (provide (75) 2′x2′ access panels within your base proposal)

52. Include within this contracts base bid an allocation of $75,000 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-35 - SPECIAL SYSTEMS

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

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|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Division 26 | Electrical (coordination of work) |
| Section 078400 | Firestopping |
| Section 079200 | Joint Sealants |
| Section 270500 | Telecommunications Pathways and Spaces |
| Section 271000 | Structured Cabling |
| Section 272000 | Network Equipment |
| Section 274000 | Classroom and Conference Room AV Equipment |
| Section 274100 | Specialized AV Systems |
| Section 274117 | Audio Video Systems |
| Section 275000 | Public Address and Clock |
| Section 280501 | Security Pathways and Spaces |
| Section 281000 | Intrusion Detection System |
| Section 281100 | Access Control System |
| Section 282000 | Video Surveillance System |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide a complete Special System package as to include but not limited to, structured cabling, network equipment, AV systems, public address and clock system, intrusion detection, access controls, video surveillance and this section 283112 is removed from Contract D-35.

2. Provide wireless clock system including all equipment, cable, and accessories.

3. Telephone and voicemail system including telephone handsets and patch cables from device to jack will be provided by owner.

4. Provide intercom/public address system. Structured Cable Contractor will provide all network cabling including wiring, devices, and terminations at the source (MDF/IDF patch panel) and at the communication port (jack).

5. Provide complete cafeteria and Auditorium sound reinforcement audio/visual system. Projectors and mounts provided by the owner and installed by the Electrical Contractor.

6. The electrical contractor shall provide and install the fire alarm system, this contractor (Special Systems) will wire fire alarm terminations, and programming of electrified hold open hardware. Low voltage power to electrified hold open hardware provided by this contract. Hold open hardware provided by Carpentry and General Work Contractor.

7. Provide complete intrusion system.

8. Provide access control and security management system complete. Provide coordination with door and frame installation for a complete system. The contractor responsible for supplying the doors, frames, and hardware shall provide all wiring and accessories from the power supply (or junction box) to the door hardware. The contractor responsible for installation of doors and hardware shall provide terminations from door hardware to door whip, from door whip to power transfer, and from frame whip to power transfer. Frame whip shall be secured and protected by the door, frame, and hardware contractor(s) for the direct access of the Special Systems Contractor. Termination of the frame whip to the power supply (or junction box) shall be provided by the Special Systems Contractor. Power supply shall be furnished by the door, frame, and hardware contractor(s) and installed by the Special Systems Contractor. The Special Systems Contractor shall provide low-voltage wire from the card reader to the access controller, from the status switch (door contact) to the access controller, from access controller to the power supply(or junction box), and from power supply (or junction box) to power supply (or junction box) as necessary. The Electrical Contractor is responsible for providing 120v circuits to all power supplies and/or transformers as indicated in the documents. The Electrical Contractor shall provide conduits, device boxes, raceways, and pull strings for low-voltage wiring at doors receiving electronic, security, or access control hardware. Electrical contractor shall provide a junction box above each door scheduled to receive a card reader and a pathway & pull string. A mock-up shall be field installed and coordinated by all related Contractors for review prior to commencing work.

9. Provide a complete CCTV - Network Digital Video Management System. Owner shall provide server.

10. Provide all patch cords from communication port (jack) to each device included in this Contractor's scope. Patch cords at source (MDF/IDF) from patch panel to network switch provided by owner.

11. Provide all patch cords for switches.

12. Supply and install any fiber lines need for a complete installation including terminations.

13. Provide all testing of all installations.

14. Provide and install the racks, switches, uninterrupted power supplies etc. for a complete installation.

15. Coordinate all WAP's as per the specifications if supplied by the owner, install if not supplied provide and install under this contract.

16. This contractor shall own all notes as per the T series drawings unless note otherwise in the scope of this contract or the electrical contract. This includes but is not limited to the following series of notes. Note 6- Audio and Videa Systems, Note 7- Classroom/Conference Room AV Systems, Note 8-Demo Camera System and Note 9- Data Drop Allowance. These systems shall be provide as complete without any qualifications.

17. Provide coordination of the work of this contract with the Electrical including final equipment locations. This contractor must coordinate with Electrical Contractor as indicated on the drawings and as specified. The Electrical Contractor shall provide all device boxes, conduit and pull strings to circuits for special systems as indicated and also to provide 120 Volt circuits for all Special Systems. This

Contractor will be responsible for providing independent support systems, as indicated in the specifications, for all cable and wiring installed by this Contractor in locations where pathways and raceways are not required by the documents. All runs of cable/low voltage in open areas shall be installed in conduit. If raceways are required for the scope of this contract and they are not identified, this contractor shall provide.

18. This contract includes all Division 0 and Division 1 General Requirements. All commissioning requirements are identified in Division 1 and are a requirement of this contract.

19. This contractor shall be on site to coordinate when walls are being installed for penetrations and sleeve installations. If penetrations and sleeves are missed, this will be the responsibility of this contractor to cover associated costs of fixing.

20. Interactive screens/displays and mounting brackets will be supplied by Owner and mounted by the Carpentry & General Works Contractor. The Carpentry and General Works Contractor will coordinate blocking with mounting hardware and install all necessary clips and blocking to the wall for hanging. Audio/visual interface and/or controls by Special Systems Contractor.

21. Hardware for permanent exterior gates will be provided by the other trades. Access control hardware/software and fire alarm integrations of gate hardware, including terminations, cabling, etc. will be provided by this contractor. The Electrical Contractors shall provide all pathways & electrical requirements to support installation.

22. Provide access doors and frames for all access to Special Systems components or equipment that require routine or periodic maintenance. Installation of access doors and frames provided by the Metal Stud & Drywall Contractor.

23. Provide all network cabling including wiring, devices, and terminations to communication devices identified in plans and referenced on "Communications Outlet Configuration" chart on Drawing E-501. Two (2) terminations should be provided (1) at the source (MDF/IDF patch panel) and (1) at the communication port (jack) in all instances.

24. This contract shall provide communication wiring from the (3) access control panels to the source (MDF/IDF patch panel) including terminations on both ends. Location of access control panels to be coordinated with the documents and the Construction Manager prior to installation.

25. This contractor shall provide communication wiring from the intrusion control headend to the source (MDF/IDF patch panel) including terminations on both ends. This communication wiring shall include (1) dedicated POTS line from the MDF room to the intrusion control dialer. Location of intrusion control headend to be coordinated with the documents and Construction Manager prior to installation.

26. This contractor shall provide communication wiring from the Fire Alarm Control Panel (FACP) to the source (MDF/IDF patch panel) including terminations on both ends. This communication wiring shall include (2) dedicated POTS line from the MDF room to the FACP dialer(s). Location of FACP to be coordinated with the documents and the Construction Manager prior to installation.

27. This contractor shall supply communication wiring from the intercom/public address amplifiers to the source (MDF/IDF patch panel) including terminations on both ends. Location of amplifiers to be coordinated with the documents and the Construction Manager prior to installation. Contractor should

assume (3) amplifiers, one located in each MDF/IDF.

28. This contractor shall provide communication wiring from the Building Management System headend to the source (MDF/IDF patch panel). Location of Building Management System headend to be coordinated with the documents, the Mechanical Contractor, and the Construction Manager prior to installation.

29. This contractor will install all network cable within the kitchen and kitchen hood identified on the Kitchen Equipment Drawings. Final location of network drops to be coordinated with the documents, the Kitchen Equipment Contractor, and the Construction Manager prior to installation.

30. This contractor will install communication wiring from the food management systems to the POS devices, menu display boards, and temperature monitoring systems, including terminations on both ends. Final location of the food management systems to be coordinated with the documents and the Construction Manager prior to installation.

31. Provide installation for all wireless access points furnished by owner. Patch cords from device to communication port (jack) provided by this Contractor.
32. Provide penetrations through walls, floors, etc., including cutting, patching and fire safing.

33. Provide all design and coordination necessary to provide complete systems.

34. Provide and coordinate for inspections and testing.

35. Provide fire resistive sealants for the work of this contract.

36. Provide pricing for all alternates as described in Section 012300-Alternates.

37. Provide video documentation of training on systems.

38. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.

39. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. NCCVT and EDiS will not be responsible for any lost tools, materials or equipment.

40. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be incorporated into the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

41. Contractor must provide additional crews as needed to maintain the project schedule.

42. This contractor shall include within their bid the incorporation of **1200 hours of COOP participation** by a NCCVT student. Contractor to comply with project documents and requirements set forth in 19 del. C.ch.5

43. Provide all BIM services as specified in Section 013700 BIM Execution Plan. As part of the coordination

process all contractors are responsible for obtaining a Revizto license. The cost of this license is $1,200 and shall be included in your base bid proposal.

44. This contractor must provide a silica exposure plan that meets or exceeds the new 2017silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

45. Include within this contracts base bid an allocation of $20,000 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-36 - VERTICAL RETRACTABLE WALLS

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification sections:

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|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Section 055000 | Metal Fabrications |
| Section 079200 | Joint Sealants |
| Section 102239 | Vertically Retractable Walls |
| Division 26 | Electrical |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide labor and materials to perform all work associated with the Vertically Retractable Walls System to provide a complete operating wall system.

2. Provide Vertically Retractable Walls coordinate any structural requirements with the structural steel and carpentry contractors. Provide all supplementary steel as needed to hang partitions from structural support steel, provided by the Structural Steel Contractor. It is assumed, no additional steel will be required below structural support steel. If so, it will be provided by this contractor.

3. Provide coordinated shop drawings that reflect all structural requirements with the structural steel, metal studs, ceilings, electrical power, lighting and communication systems, etc.

4. This contract includes all Division 0 and Division 1 General Requirements. All commissioning requirements are identified in Division 1 and are a requirement of this contract.

5. Provide all trim components, hardware, hinges, and operators for electrical units, appropriate finishes, sensors, key switches and pocket doors for concealing doors when not in use.

6. Coordinate any structural requirements with the structural steel and carpentry contractors. Provide all supplementary steel as needed to hang partitions from structural support steel, provided by the Structural Steel Contractor. It is assumed, no additional steel will be required below structural support steel. If so, it will be provided by this contractor.

7. Electrical connections will be provided by Electrical Contractor. This contractor shall provide assistance to Electrical Contractor for coordination and installation of necessary connections. Low voltage wiring for devices, controls, raceways, boxes etc. to be provide by this contractor (not electrical contract)

8. Provide any required signage for safe operations.

9. Provide attic stock, warranty and demonstrations for all materials and types of panels.

10. Provide specified testing, adjusting, warranty and training demonstrations on the operation.

11. Provide (3) additional sets of keys for switch operating controls over and above the number of sets required by specifications.

12. Provide data and submittal information related to the Scope of this Contract signed and sealed by a Professional Engineer as required by the Contract Documents, including but not limited to delegated design requirements.

13. Provide all low voltage wiring, motors motor transformers and final connections to allow for a complete operating system. Electrical contractor shall supply the line voltage power connection. Include all raceways and boxes for your work.

14. Provide all BIM services as specified in Section 013700 BIM Execution Plan. As part of the coordination process all contractors are responsible for obtaining a Revizto license. The cost of this license is $1,200 and shall be included in your base bid proposal.

15. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

**"FOR REFERENCE ONLY"**

CONTRACT NO. D-37 - MISCELLANEOUS CONCRETE AND GROUTING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification Sections:

| | |
|---|---|
| Division 0 | Bidding and Contract Requirements |
| Division 1 | General Requirements |
| Division 03 | Concrete |
| Section 033000 | Concrete |
| Division 07 | Thermal and Moisture Protection |
| Section 072100 | Thermal Insulation |
| Section 072600 | Under-Slab Vapor Barrier |
| Section 312300 | Excavation and Backfill for pipeline and structures |
| Section 321313 | Concrete Paving |

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide Misc. concrete items and grouting as described in the Scope of Work and defined on the contract documents. Include all preparations and excavation, backfill, stone subbase, forms, and reinforcing required.
   - Provide footings and concrete piers as show on drawings A560-A565, include footings for dumpster pad.
   - Provide concrete locker bases as indicated in the contract documents.
   - Provide the electrical, mechanical and plumbing concrete pads as indicated on the contract documents. (Structural foundations and pads shown on Struct. Drawings excluded)
   - Provide all concrete slab on grade at the interior courtyard areas
   - Provide all poured foundations for block walls, poured concrete walls at all areas outside of the main building foot print.
   - Provide all concrete excavation, footings and backfill as required for the masonry walls at the child care and playground areas.
   - MEP Housekeeping Pads throughout, drawings M301, M308, P301, P315, P316 for typical pads
   - MEP Exterior equipment pads reference drawing M310 detail 4 (typical)
   - Mechanical yard pipe rack supports foundations referenced on drawing M315 (typical)
   - Anchor bolts and leveling plates will be supplied by the Misc. Metals contractor.
   - Fire Protection pump and equipment housekeeping pads as shown on Drawing F301
   - Water treatment/expansion tank pad in mechanical room E110 – D-32
   - CA-02 Pad in Mechanical equipment room D212 – D31
   - Dental air and vac pad Mechanical equipment room C 201B – D31
   - Two fuel storage tanks w/Dikes exterior pad – D31

2. This Contractor will be responsible for laying out all concrete work for this contract course of work.

3. This Contractor to furnish and install reinforcing steel, admixtures, curing compound, sealers, accessories, bolsters, ties and braces as required in the Contract Documents and for the performance of

the work of this contract.

4. All work of this contract shall be considered "out of sequence" as such the contractor shall price each element of work as a mobilization and if required "short load" concrete delivery.

5. This contractor is responsible to provide material handling equipment, concrete pumps, etc. for work of this contract. NCCVT and EDiS will not be responsible for any additional material handling costs above the base bid proposal.

6. Provide sealants/caulking as required at grouted freezer and cooler box floors. Caulk all edges where grout seals to box floor panels.

7. This contractor shall provide installation of sleeves required for MEP lines, under footings, below frost walls, under thickened slabs as related to this contractors course of work. This includes all excavation and backfill required for these installations. (sleeves will be supplied by the contractor installing the services, future BP-D) Coordinate with Arch and MEP documents for extent of this work.

8. Provide grouting of floor expansion joints once they are set and adjusted by installing contractors.

9. Grouting of all elevator sill angles will be the responsibility of this contractor.

10. Grouting of all base plates for Mechanical pipe support racks will be the responsibility of this contractor.

11. Provide all door stoops, pads, entrance/exit concrete complete as provided for on the Architectural and MEP drawings. (if the concrete is shown on the structural drawings it shall be part of Contract C-01 Concrete and Reinforcing unless identified elsewhere in the SOW, pre-Bid RFI log or Clarifications by Addendum.) This will be out of sequence work, contractor to include (5) re-mobilization to perform work out of sequence, this shall include premium costs for short load concrete pours as well.

12. Underslab vapor barrier, insulation, reglets, waterstops, control and construction joints. (Caulking by Joint and Sealants Contractor)

13. Provide foundation wall insulation and insulation under slabs. Include backfill of all foundation walls as detailed. Stone under slab to be provided by this contractor. Include re-dressing the stone after the MEP contractors have installed their UG work. As related to the work detailed for this contract.

14. Placement of related items furnished under other Specification Sections.

15. Anchor bolt assemblies to be placed with templates only.

16. All blockouts and embedment's required by plans and specifications.

17. This Contractor is responsible for grouting all structural steel base or leveling plates and elevator sill angles. As defined by the scope of this contract.

18. Include all weather, frost protection, and water pumping as required. This Contractor is also responsible for the premiums required for hot water, heated aggregate and admixtures for cold weather concrete.

19. Provide dewatering as it relates to the work of this contract.

20. All concrete testing will be completed by the Construction Manager, however, it will be the responsibility of this Contractor to furnish all samples.

21. This contractor shall include an allowance amount of $15,000 within the base bid for work to be identified by NCCVT and the CM. All unused portions of this allocation to be returned to the owner by means of a credit change order.

22. Provide all grout infill inside the walk-in freezers and refrigerators after freezers and refrigerators have been set in place. Also grout the space between the freezers and refrigerator and the surrounding concrete. Coordinate requirements with the architectural drawings for BP-D and technical specifications.

23. This contractor owns coordinating all slab depressions identified on the documents with the products, flooring, insulation etc. shop drawings and layout drawings for each material that will be installed in the recess. A pre-install meeting will be held to review this information before each depressed pour.

24. Provide all means of transporting concrete including, but not limited to: pump trucks, cranes, ramps, chutes, buggies.

25. Provide at least 48 hours' notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.

26. Provide and maintain a DNREC approved concrete dumpster for washout required by the scope of this contracts work.

27. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. NCCVT and EDiS will not be responsible for any lost tools, materials or equipment.

28. This contractor must provide a silica exposure plan that meets or exceeds the silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

29. Provide daily fine cleanup of the work is the responsibility of each individual Contractor which includes broom cleaning of their debris as required. Daily Fine clean up, on a daily basis, shall be defined as those means/methods utilized to perform the daily cleaning tasks without producing dust, noise and stacking of stored materials. Furnish fine clean up on a daily basis. All debris must be removed from the work area at the end of each work day to the appropriate dumpster. Cleaning of roadways shall be included and performed daily while this contractor is on site performing work of this contract.

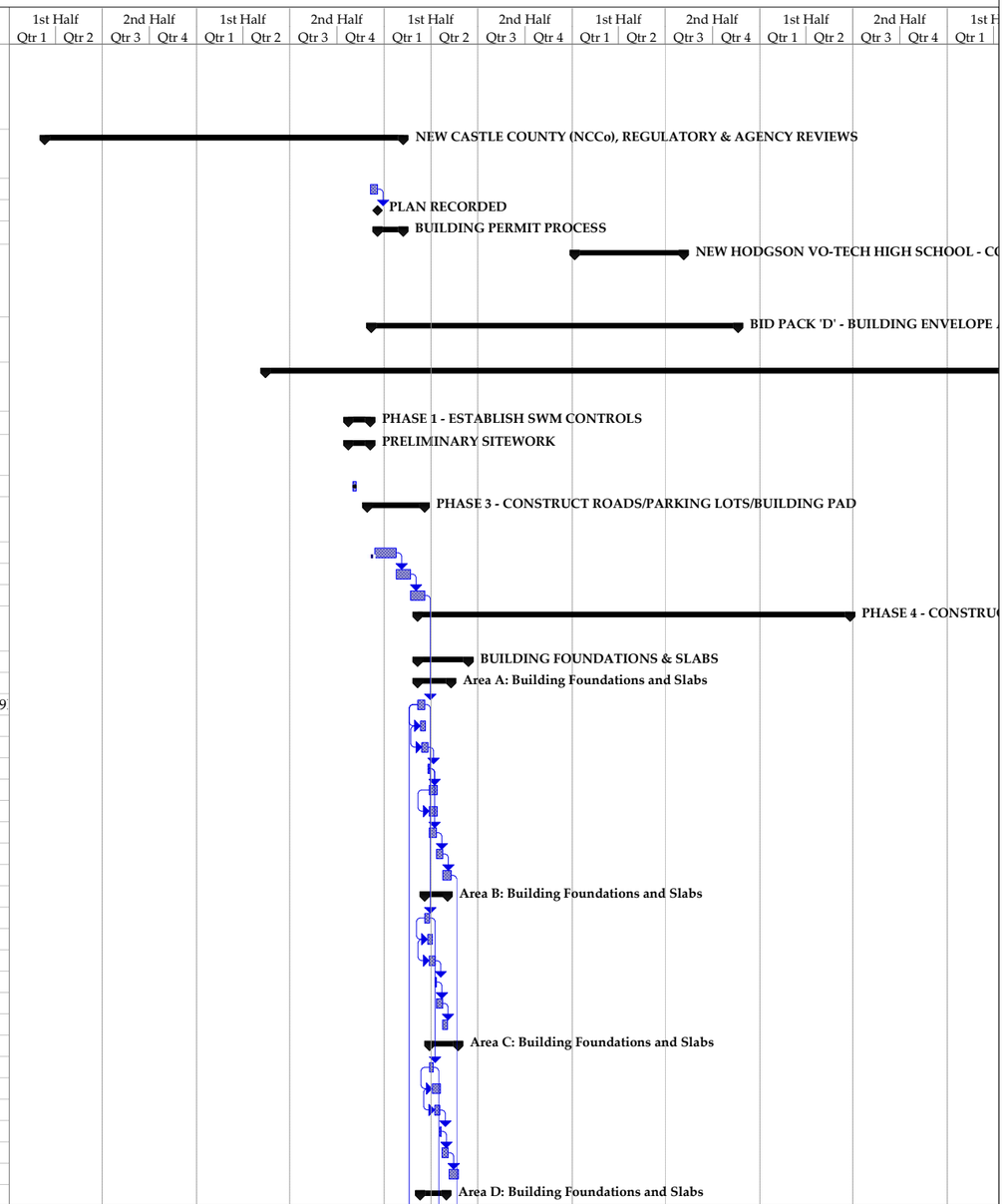
30. All materials excavated for installation of footings and foundations shall immediately be protected with appropriate moisture protection.

31. BIM coordination is "not" part of this contract scope.

END OF SECTION

# NEW CASTLE COUNTY VO-TECH SCHOOL DISTRICT
# NEW HODGSON VO-TECH HIGH SCHOOL
# BP-D.1 BID SCHEDULE

| ID | Task Name | Duration | Start | Finish | Actual Start | Actual Finish | Predecessors |
|---|---|---|---|---|---|---|---|
| 1 | **NEW CASTLE COUNTY VO-TECH SCHOOL DISTRICT (NCCVT) - NEW HODGSON VO-TECH HIGH SCHOOL** | **1477 days** | **Wed 1/19/22** | **Thu 9/16/27** | **Wed 1/19/22** | **NA** | |
| 12 | **NEW CASTLE COUNTY (NCCo), REGULATORY & AGENCY REVIEWS** | **498 days** | **Fri 3/11/22** | **Tue 2/6/24** | **Fri 3/11/22** | **NA** | |
| 79 | NCCo Records Project and Issues Recorded Plans | 10 days | Mon 12/4/23 | Mon 12/18/23 | Mon 12/4/23 | NA | 78 |
| 80 | | | | | | | |
| 81 | **BUILDING PERMIT PROCESS** | **36 days** | **Tue 12/19/23** | **Tue 2/6/24** | **NA** | **NA** | |
| 178 | **NEW HODGSON VO-TECH HIGH SCHOOL - CONSTRUCTION DOCUMENT PHASE 100% (BID PACKAGE 'E' Demolition and Fields)** | **152 days** | **Mon 1/6/25** | **Tue 8/5/25** | **NA** | **NA** | |
| 242 | **BID PACK 'D' - BUILDING ENVELOPE AND FITOUT (PHASE 4)** | **510 days** | **Thu 12/7/23** | **Wed 11/19/25** | **Thu 12/7/23** | **NA** | |
| 277 | **NEW HODGSON VO-TECH HIGH SCHOOL - CONSTRUCTION ACTIVITIES** | **1134 days** | **Mon 5/15/23** | **Thu 9/16/27** | **Mon 5/15/23** | **NA** | |
| 288 | **PHASE 1 - ESTABLISH SWM CONTROLS** | **31 days** | **Mon 10/23/23** | **Mon 12/4/23** | **Mon 10/23/23** | **Mon 12/4/23** | |
| 289 | **PRELIMINARY SITEWORK** | **31 days** | **Mon 10/23/23** | **Mon 12/4/23** | **Mon 10/23/23** | **Mon 12/4/23** | |
| 292 | Install Construction Entrance | 4 days | Wed 11/1/23 | Mon 11/6/23 | Wed 11/1/23 | Mon 11/6/23 | 291 |
| 296 | **PHASE 3 - CONSTRUCT ROADS/PARKING LOTS/BUILDING PAD** | **80 days** | **Wed 11/29/23** | **Tue 3/19/24** | **Wed 11/29/23** | **NA** | |
| 297 | Install Site Utilities | 30 days | Wed 11/29/23 | Tue 1/23/24 | Wed 11/29/23 | NA | 295,293 |
| 298 | Prepare Building Pad | 20 days | Wed 1/24/24 | Tue 2/20/24 | NA | NA | 295,297 |
| 299 | Construct Access Roads, Parking Lots, and Laydown Areas | 20 days | Wed 2/21/24 | Tue 3/19/24 | NA | NA | 298 |
| 300 | **PHASE 4 - CONSTRUCT BUILDING** | **602 days** | **Wed 3/6/24** | **Thu 6/25/26** | **NA** | **NA** | |
| 301 | **BUILDING FOUNDATIONS & SLABS** | **71 days** | **Wed 3/6/24** | **Wed 6/12/24** | **NA** | **NA** | |
| 302 | **Area A: Building Foundations and Slabs** | **47 days** | **Wed 3/6/24** | **Thu 5/9/24** | **NA** | **NA** | |
| 303 | Install Footers & Piers | 10 days | Wed 3/6/24 | Tue 3/19/24 | NA | NA | 299FS-10 days,239 |
| 304 | Install CMU Foundations | 8 days | Mon 3/11/24 | Wed 3/20/24 | NA | NA | 303SS+3 days |
| 305 | Install Waterproofing | 8 days | Thu 3/14/24 | Mon 3/25/24 | NA | NA | 304SS+3 days |
| 306 | Install Backfill | 2 days | Tue 3/26/24 | Wed 3/27/24 | NA | NA | 305 |
| 307 | Construct Elevator Shaft | 12 days | Thu 3/28/24 | Fri 4/12/24 | NA | NA | 306 |
| 308 | Construct Stair 3 | 12 days | Thu 3/28/24 | Fri 4/12/24 | NA | NA | 307SS |
| 309 | Install Underslab Utilities | 10 days | Thu 3/28/24 | Wed 4/10/24 | NA | NA | 306 |
| 310 | Install Stone & Slab-on-Grade | 9 days | Thu 4/11/24 | Tue 4/23/24 | NA | NA | 309 |
| 311 | Construct Stair 4 | 12 days | Wed 4/24/24 | Thu 5/9/24 | NA | NA | 310 |
| 312 | **Area B: Building Foundations and Slabs** | **32 days** | **Wed 3/20/24** | **Thu 5/2/24** | **NA** | **NA** | |
| 313 | Install Footers & Piers | 7 days | Wed 3/20/24 | Thu 3/28/24 | NA | NA | 303 |
| 314 | Install CMU Foundations | 7 days | Mon 3/25/24 | Tue 4/2/24 | NA | NA | 313SS+3 days |
| 315 | Install Waterproofing | 8 days | Thu 3/28/24 | Mon 4/8/24 | NA | NA | 314SS+3 days |
| 316 | Install Backfill | 2 days | Tue 4/9/24 | Wed 4/10/24 | NA | NA | 315 |
| 317 | Install Underslab Utilities | 8 days | Thu 4/11/24 | Mon 4/22/24 | NA | NA | 316 |
| 318 | Install Stone & Slab-on-Grade | 8 days | Tue 4/23/24 | Thu 5/2/24 | NA | NA | 317 |
| 319 | **Area C: Building Foundations and Slabs** | **40 days** | **Fri 3/29/24** | **Thu 5/23/24** | **NA** | **NA** | |
| 320 | Install Footers & Piers | 5 days | Fri 3/29/24 | Thu 4/4/24 | NA | NA | 313 |
| 321 | Install CMU Foundations | 12 days | Wed 4/3/24 | Thu 4/18/24 | NA | NA | 320SS+3 days |
| 322 | Install Waterproofing | 8 days | Mon 4/8/24 | Wed 4/17/24 | NA | NA | 321SS+3 days |
| 323 | Install Backfill | 2 days | Thu 4/18/24 | Fri 4/19/24 | NA | NA | 322 |
| 324 | Install Underslab Utilities | 10 days | Mon 4/22/24 | Fri 5/3/24 | NA | NA | 323 |
| 325 | Install Stone & Slab-on-Grade | 14 days | Mon 5/6/24 | Thu 5/23/24 | NA | NA | 324 |
| 326 | **Area D: Building Foundations and Slabs** | **37 days** | **Mon 3/11/24** | **Tue 4/30/24** | **NA** | **NA** | |

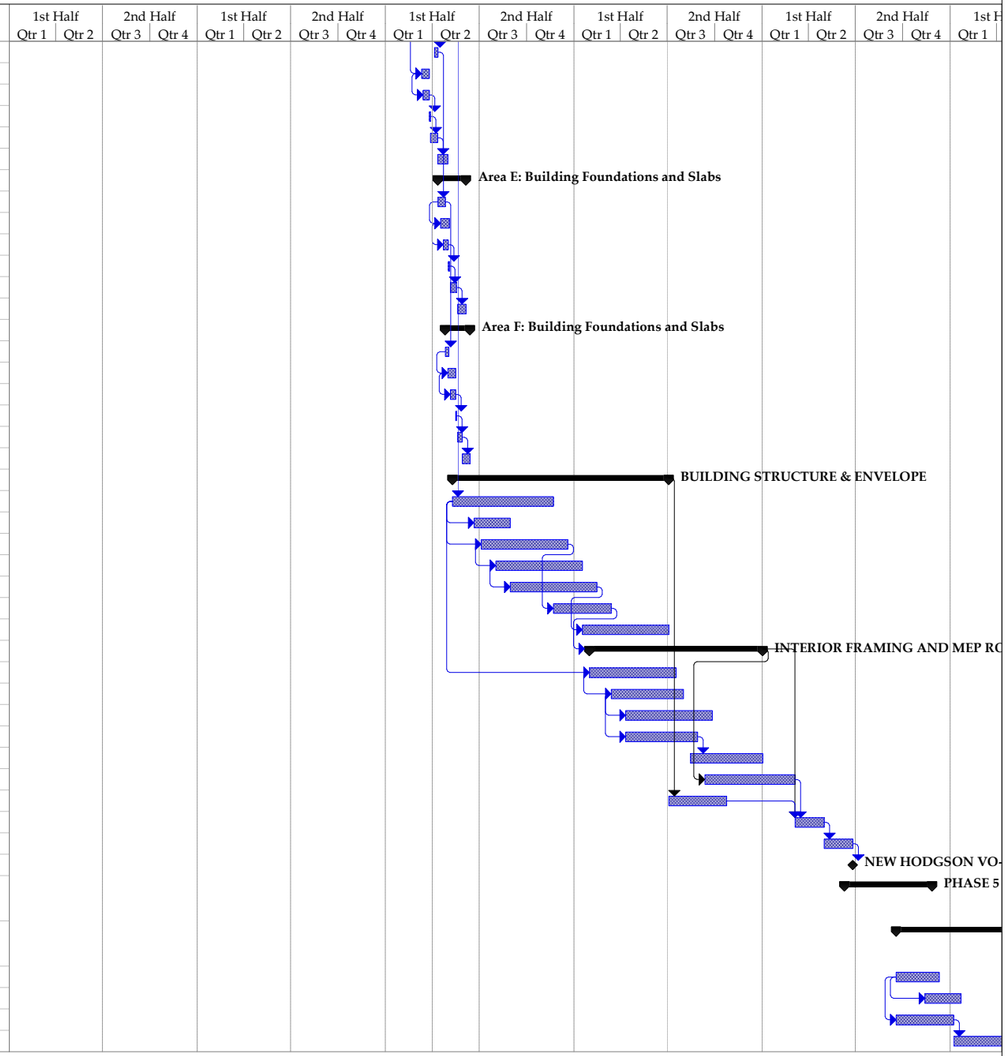



New Hodgson High School
Bid Schedule BP-D.1 Addendum #1
Date: Updated 1Apr24 2024

Task | Split | Milestone | Summary | Project Summary | Manual Summary | Start-only | Finish-only | Progress | Deadline

# NEW CASTLE COUNTY VO-TECH SCHOOL DISTRICT
# NEW HODGSON VO-TECH HIGH SCHOOL
# BP-D.1 BID SCHEDULE

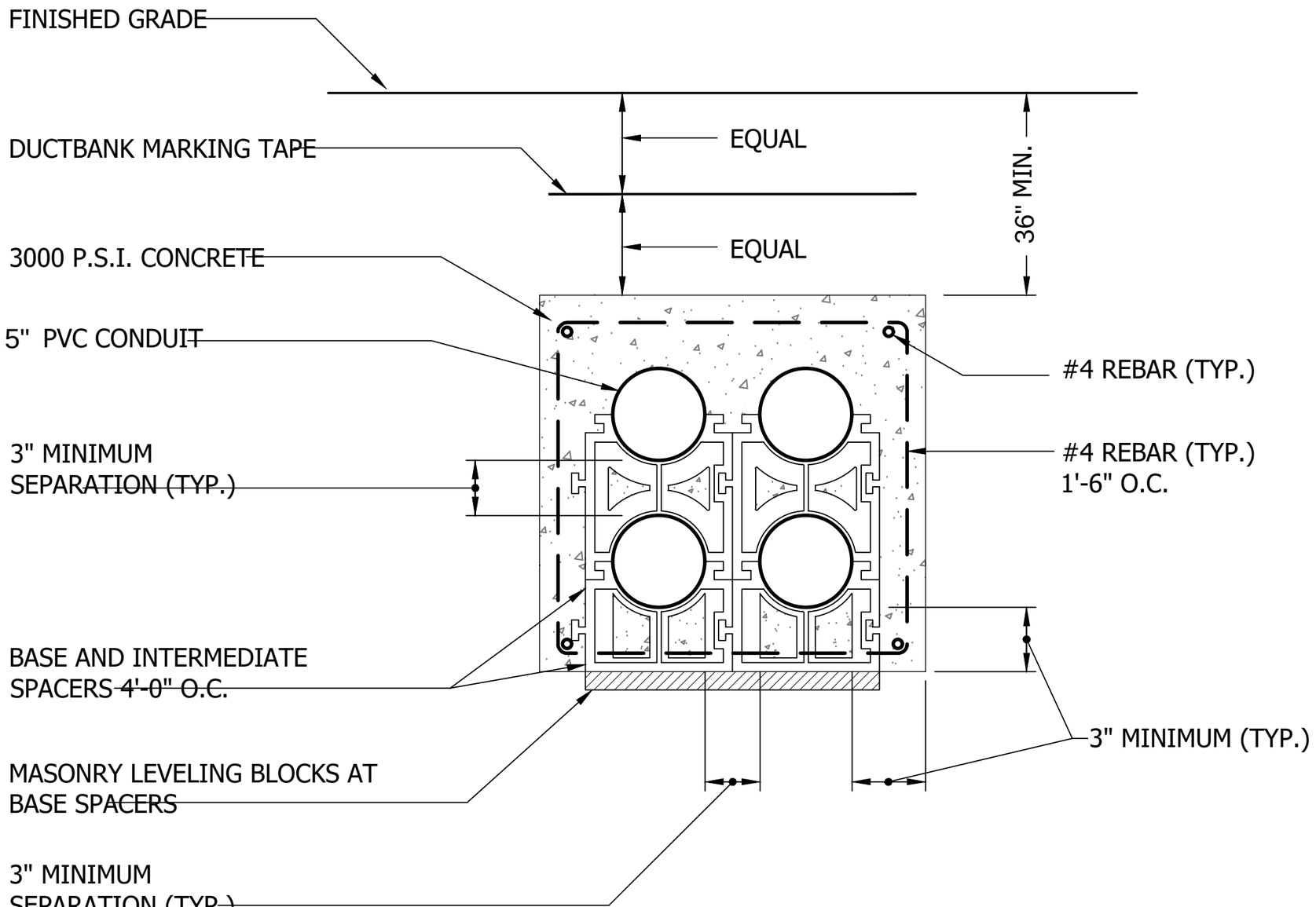
| ID | Task Name | Duration | Start | Finish | Actual Start | Actual Finish | Predecessors |
|---|---|---|---|---|---|---|---|
| 327 | Install Footers & Piers | 5 days | Fri 4/5/24 | Thu 4/11/24 | NA | NA | 320 |
| 328 | Install CMU Foundations | 11 days | Mon 3/11/24 | Mon 3/25/24 | NA | NA | 303SS+3 days |
| 329 | Install Waterproofing | 8 days | Thu 3/14/24 | Mon 3/25/24 | NA | NA | 328SS+3 days |
| 330 | Install Backfill | 2 days | Tue 3/26/24 | Wed 3/27/24 | NA | NA | 329 |
| 331 | Install Underslab Utilities | 10 days | Thu 3/28/24 | Wed 4/10/24 | NA | NA | 330 |
| 332 | Install Stone & Slab-on-Grade | 14 days | Thu 4/11/24 | Tue 4/30/24 | NA | NA | 331 |
| 333 | **Area E: Building Foundations and Slabs** | **38 days** | **Fri 4/12/24** | **Tue 6/4/24** | **NA** | **NA** | |
| 334 | Install Footers & Piers | 10 days | Fri 4/12/24 | Thu 4/25/24 | NA | NA | 327 |
| 335 | Install CMU Foundations | 13 days | Wed 4/17/24 | Fri 5/3/24 | NA | NA | 334SS+3 days |
| 336 | Install Waterproofing | 8 days | Mon 4/22/24 | Wed 5/1/24 | NA | NA | 335SS+3 days |
| 337 | Install Backfill | 2 days | Thu 5/2/24 | Fri 5/3/24 | NA | NA | 336 |
| 338 | Install Underslab Utilities | 10 days | Mon 5/6/24 | Fri 5/17/24 | NA | NA | 337 |
| 339 | Install Stone & Slab-on-Grade | 12 days | Mon 5/20/24 | Tue 6/4/24 | NA | NA | 338 |
| 340 | **Area F: Building Foundations and Slabs** | **34 days** | **Fri 4/26/24** | **Wed 6/12/24** | **NA** | **NA** | |
| 341 | Install Footers & Piers | 5 days | Fri 4/26/24 | Thu 5/2/24 | NA | NA | 334 |
| 342 | Install CMU Foundations | 11 days | Wed 5/1/24 | Wed 5/15/24 | NA | NA | 341SS+3 days |
| 343 | Install Waterproofing | 8 days | Mon 5/6/24 | Wed 5/15/24 | NA | NA | 342SS+3 days |
| 344 | Install Backfill | 2 days | Thu 5/16/24 | Fri 5/17/24 | NA | NA | 343 |
| 345 | Install Underslab Utilities | 7 days | Mon 5/20/24 | Tue 5/28/24 | NA | NA | 344 |
| 346 | Install Stone & Slab-on-Grade | 11 days | Wed 5/29/24 | Wed 6/12/24 | NA | NA | 345 |
| 347 | BUILDING STRUCTURE & ENVELOPE | 300 days | Fri 5/10/24 | Thu 7/3/25 | NA | NA | |
| 348 | Erect Structural Steel | 140 days | Fri 5/10/24 | Thu 11/21/24 | NA | NA | 311 |
| 349 | Pour Slab on Deck | 50 days | Fri 6/21/24 | Thu 8/29/24 | NA | NA | 348SS+30 days |
| 350 | Exterior Framing, Sheathing | 120 days | Fri 7/5/24 | Thu 12/19/24 | NA | NA | 348SS+40 days |
| 351 | Exterior Masonry Veneer | 120 days | Fri 8/2/24 | Thu 1/16/25 | NA | NA | 350SS+20 days |
| 352 | Exterior Metal Panels | 120 days | Fri 8/30/24 | Thu 2/13/25 | NA | NA | 351SS+20 days |
| 353 | Install Roofing | 80 days | Fri 11/22/24 | Thu 3/13/25 | NA | NA | 350FS-20 days |
| 354 | Install Windows, Storefront & Curtainwall | 120 days | Fri 1/17/25 | Thu 7/3/25 | NA | NA | 352FS-20 days |
| 355 | INTERIOR FRAMING AND MEP ROUGHINS | 240 days | Fri 1/31/25 | Thu 1/1/26 | NA | NA | 353FS-30 days |
| 356 | Install Interior CMU | 120 days | Fri 1/31/25 | Thu 7/17/25 | NA | NA | 348SS+40 days |
| 357 | Install Metal Stud Framing | 100 days | Fri 3/14/25 | Thu 7/31/25 | NA | NA | 356SS+30 days |
| 358 | Above Ceiling MEP Roughins | 120 days | Fri 4/11/25 | Thu 9/25/25 | NA | NA | 357SS+20 days |
| 359 | In-wall MEP Roughins | 100 days | Fri 4/11/25 | Thu 8/28/25 | NA | NA | 357SS+20 days |
| 360 | Hang & Finish Drywall | 100 days | Fri 8/15/25 | Thu 1/1/26 | NA | NA | 359FS-10 days |
| 361 | INTERIOR FINISHES | 125 days | Fri 9/12/25 | Thu 3/5/26 | NA | NA | 355FS-80 days |
| 362 | FINISH SITEWORK & LANDSCAPING | 80 days | Fri 7/4/25 | Thu 10/23/25 | NA | NA | 347 |
| 363 | COMMISSIONING & PUNCHLIST | 40 days | Fri 3/6/26 | Thu 4/30/26 | NA | NA | 362,361,355 |
| 364 | OWNER MOVE-IN AND SETUP OF FF&E | 40 days | Fri 5/1/26 | Thu 6/25/26 | NA | NA | 363 |
| 365 | NEW HODGSON VO-TECH RIBBON CUTTING | 0 days | Thu 6/25/26 | Thu 6/25/26 | NA | NA | 364 |
| 366 | **PHASE 5 - EXISTING BUILDING ABATEMENT & DEMOLITION** | **122 days** | **Wed 6/10/26** | **Thu 11/26/26** | **NA** | **NA** | |
| 371 | **PHASE 6 - CONSTRUCT ATHLETIC FIELDS** | **260 days** | **Fri 9/18/26** | **Thu 9/16/27** | **NA** | **NA** | |
| 372 | Construct Field House | 60 days | Fri 9/18/26 | Thu 12/10/26 | NA | NA | 370SS+10 days |
| 373 | Construct Stadium Field & Track | 50 days | Fri 11/13/26 | Thu 1/21/27 | NA | NA | 372SS+40 days |
| 374 | Construct Practice Fields | 80 days | Fri 9/18/26 | Thu 1/7/27 | NA | NA | 372SS |
| 375 | Allow Fields to be Fully Established | 180 days | Fri 1/8/27 | Thu 9/16/27 | NA | NA | 374 |




New Hodgson High School
Bid Schedule BP-D.1 Addendum #1
Date: Updated 1Apr24 2024

Task | Split | Milestone | Summary | Project Summary | Manual Summary | Start-only | Finish-only | Progress | Deadline

**BPD.1 Attachment A REV 1**



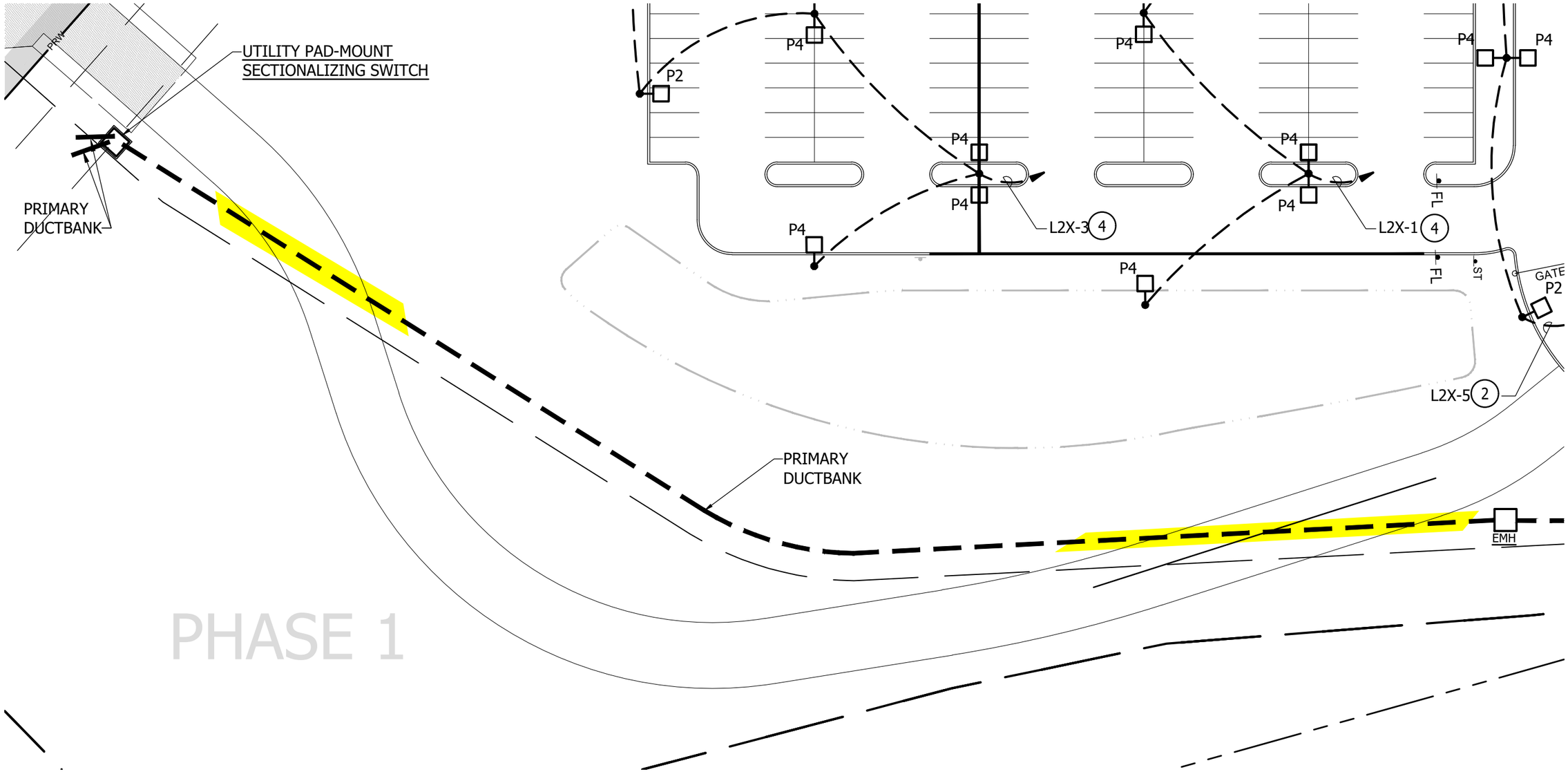

**(ADDENDUM 1 REVISION)** NOTE : PROVIDE CONCRETE ENCASEMENT UNDER PAVED AREAS, AND UNDER TEMPORARY ACCESS ROAD (REFER TO BPD.1 HODGSON ATTACHMENT C)

# Base Bid - Primary Duct Bank

**Refer to E004 Electrical Site Plan & E-501 Schematic Power Riser Diagram for Routing**

New Castle County Vocational Technical School District
Hodgson Votech High School Building Envelope and Fit Out
March 11, 2024

# BPD.1 Attachment C




## Concrete Encased Ductbank Under Temporary Access Road (Extend Past Edge of Road by 6 +/- ft.)

REFER TO BPD.1
ATTACHMENT A REV 1

## ABBREVIATIONS

| | |
|---|---|
| A | AMPERE, AMPERES |
| AFF | ABOVE FINISHED FLOOR |
| AFG | ABOVE FINISHED GRADE |
| AHU | AIR HANDLING UNIT |
| AIC | AMPERE INTERRUPTING CAPACITY |
| ATS | AUTOMATIC TRANSFER SWITCH |
| AWG | AMERICAN WIRE GAUGE |
| C | CONDUIT |
| CB | CIRCUIT BREAKER |
| CKT | CIRCUIT |
| CT | CURRENT TRANSFORMER |
| DIA | DIAMETER |
| DWG | DRAWING |
| EC | ELECTRICAL CONTRACTOR |
| ECB | ENCLOSED CIRCUIT BREAKER |
| EF | EXHAUST FAN |
| EMH | ELECTRIC MANHOLE |
| EPO | EMERGENCY POWER OFF |
| ETR | EXISTING TO REMAIN |
| EWC | ELECTRIC WATER COOLER |
| EX | EXISTING |
| FAAP | FIRE ALARM ANNUNCIATOR PANEL |
| FACP | FIRE ALARM CONTROL PANEL |
| FLA | FULL LOAD AMPERES |
| FSS | FUSED SAFETY SWITCH |
| GFEP | GROUND FAULT EQUIPMENT PROTECTION |
| GFI | GROUND FAULT INTERRUPTING |
| G | GROUND |
| GW | GROUND WIRE |
| H | HIGH |
| HOA | HAND-OFF-AUTOMATIC |
| HP | HORSEPOWER |
| IDF | INTERMEDIATE DISTRIBUTION FRAME |
| IG | ISOLATED GROUND |
| IMC | INTERMEDIATE METAL CONDUIT |
| KCMIL | THOUSAND CIRCULAR MILS |
| KVA | KILOVOLT-AMPERES |
| KW | KILOWATT |
| L | LOW |
| LRA | LOCKED ROTOR AMPERES |
| MCA | MINIMUM CIRCUIT AMPERES |
| MCB | MAIN CIRCUIT BREAKER |
| MCC | MOTOR CONTROL CENTER |
| MDF | MAIN DISTRIBUTION FRAME |
| MLO | MAIN LUGS ONLY |
| MPOP | MAIN POINT OF PRESENCE |
| MTD | MOUNTED |
| MH | MOUNTING HEIGHT/MANHOLE |
| NEC | NATIONAL ELECTRICAL CODE |
| NEMA | NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION |
| NFSS | NONFUSED SAFETY SWITCH |
| NIC | NOT IN CONTRACT |
| NO | NUMBER |
| OC | ON CENTERS |
| P | POLE, POLES |
| φ,PH | PHASE |
| PNL | PANEL |
| PVC | POLYVINYL CHLORIDE |
| RAF | RETURN AIR FAN |
| RGS | RIGID GALVANIZED STEEL |
| RL | RELOCATED |
| RR | REMOVE AND RELOCATE |
| RX | REMOVE EXISTING |
| SWBD | SWITCHBOARD |
| SWGR | SWITCHGEAR |
| TTB | TELEPHONE TERMINAL BOARD |
| TYP | TYPICAL |
| UH | UNIT HEATER |
| V | VOLT, VOLTS |
| UON | UNLESS OTHERWISE NOTED |
| UTP | UNSHIELDED TWISTED PAIR |
| UV | UNIT VENTILATOR |
| VFD | VARIABLE FREQUENCY DRIVE |
| VSD | VARIABLE SPEED DRIVE |
| VR | VANDALL RESISTANT |
| W | WATTS, WIRE, WIRES |
| WP | WEATHERPROOF |
| XFMR | TRANSFORMER |

## GENERAL NOTES

1. GENERAL NOTES ON THIS DRAWING SHALL APPLY TO ALL ELECTRICAL DRAWINGS ON THIS PROJECT. CAREFULLY READ ALL GENERAL NOTES PRIOR TO COMMENCEMENT OF WORK.
2. THE ELECTRICAL CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE DRAWINGS OF ALL OTHER TRADES ON THE PROJECT. ELECTRICAL OR SYSTEMS CONNECTIONS INDICATED ON ARCHITECTURAL, MECHANICAL, CIVIL, STRUCTURAL, KITCHEN AND ALL OTHER DRAWINGS WHICH ARE PART OF THIS PROJECT, SHALL BE CONSIDERED A PART OF THIS CONTRACT AND SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR AT NO EXTRA COST TO THE OWNER.
3. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC IN NATURE AND AS SUCH SHALL NOT BE SCALED. REFER TO THE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF DEVICES AND EQUIPMENT AND DIMENSIONAL INFORMATION PRIOR TO ROUGH-IN. COORDINATE LOCATIONS OF MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN OF SERVICE EQUIPMENT AND WIRING.
4. PROVIDE PROPER WORKING CLEARANCE AT ALL ELECTRICAL EQUIPMENT IN ACCORDANCE WITH 2017 NATIONAL ELECTRICAL CODE ARTICLE 110-26 SPACES ABOUT ELECTRICAL EQUIPMENT. ALL SPACES SHALL BE CONSIDERED AS CONDITION 2 OR 3. MINIMUM WORKING SPACE WIDTH SHALL BE 30 INCHES OR MATCH THE WIDTH OF THE EQUIPMENT WHICH EVER IS GREATER. IN ALL CASES WORK SPACE SHALL PERMIT AT LEAST 90 DEGREE OPENING OF EQUIPMENT DOORS OR HINGED PANELS.
5. COORDINATE MOUNTING HEIGHTS OF ALL DEVICES WITH ARCHITECTURAL PLANS, SECTIONS, ELEVATIONS AND CASEWORK DRAWINGS PRIOR TO ROUGH-IN.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT ROUTING OF WIRING AND CONDUITS AND SHALL BE RESPONSIBLE FOR SIZING ALL BRANCH CIRCUIT WIRING TO LIMIT VOLTAGE DROP TO 3%. CONTRACTOR SHALL SIZE CONDUIT TO ACCOMMODATE WIRING PER NEC. 20 AMPERE CIRCUITS SHALL BE SIZED AS FOLLOWS:

20 AMPERE CIRCUITS

| 120 VOLT | | 277 VOLT | | MINIMUM CONDUIT SIZE |
|---|---|---|---|---|
| WIRING LENGTH | WIRE SIZE | WIRING LENGTH | WIRE SIZE | |
| 0' - 60' | #12 | 0' - 130' | #12 | 3/4" |
| 60' - 100' | #10 | 130' - 210' | #10 | 3/4" |
| 100' - 150' | #8 | 210' - 340' | #8 | 3/4" |
| 150' - 240' | #6 | 340' - 540' | #6 | 3/4" |
| OVER 240' | #4 | OVER 540' | #4 | 1" |

NOTES:
BRANCH CIRCUITS IN PANELBOARDS WITH 200% RATED NEUTRAL BUS, ALL DIMMED LIGHTING CIRCUITS, AND ALL CIRCUITS WITH ECM MOTORS SHALL HAVE DEDICATED NEUTRAL CONDUCTORS.

8. WIRING AND CONDUIT SIZES INDICATED IN PANEL SCHEDULES ARE MINIMUM ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT WIRING AND CONDUIT SIZES. CONTRACTOR SHALL PROVIDE SPLICE BLOCKS AND REDUCING PINS AS REQUIRED TO TERMINATE WIRING AND MAKE FINAL CONNECTIONS.
9. FEEDERS, BRANCH CIRCUITS AND TELECOMMUNICATIONS WIRING WHICH MUST BE RUN ACROSS FINISHED OPEN AREAS SHALL BE ROUTED AS DIRECTED BY THE ARCHITECT.
10. ELECTRICAL BOXES IN FIRE RATED PARTITIONS SHALL NOT EXCEED 16 SQUARE INCHES IN AREA (IF 4"x4"), SHALL BE MADE OF STEEL, AND SHALL BE SUCH THAT THE CUMULATIVE AREA OF BOX "CUTOUTS" IN THE FIREWALL DOES NOT EXCEED 100 SQUARE INCHES PER 100 SQUARE FEET OF WALL AREA. ELECTRICAL BOXES ON OPPOSITE SIDES OF THE SAME FIREWALL SHALL BE SEPARATED BY A HORIZONTAL AND VERTICAL DISTANCE OF NOT LESS THAN 24 INCHES. THE ELECTRICAL CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS, AS NECESSARY, TO ELECTRICAL BOX LOCATIONS TO ENSURE COMPLIANCE WITH THIS REQUIREMENT SINCE BOX LOCATIONS ARE TYPICALLY NOT DIMENSIONED ON THE DRAWINGS. CONSULT ARCHITECT IF CLARIFICATION IS REQUIRED.
11. PROVIDE ALL WIRING ABOVE MESH AND PERFORATED CEILINGS IN RACEWAY.
12. PROVIDE CONDUIT AND BOXES FOR DOOR HARDWARE AND ACCESS CONTROL AS INDICATED ON DOOR SECURITY ELEVATIONS DRAWINGS A605 THROUGH A609, INTRUSION DETECTION SYSTEM TYS00, ACCESS CONTROL SYSTEM TYS01.

## LIGHTING LEGEND

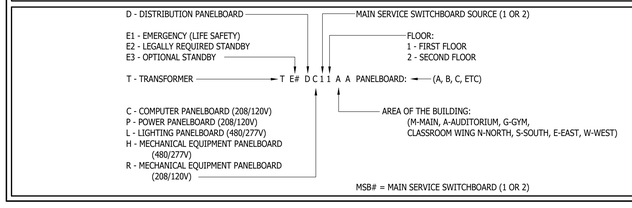
| SYMBOL | DESCRIPTION |
|---|---|
| | |
| A IN a | LIGHTING FIXTURE - UPPER-CASE LETTER INDICATES FIXTURE TYPE, LOWER-CASE SUBSCRIPT INDICATES SWITCH DESIGNATION (WHERE INDICATED), UPPER-CASE SUBSCRIPT INDICATES DAYLIGHT HARVESTING CONTROL ZONE |
| | LIGHTING FIXTURE - 2'X4' UPPER-CASE LETTER INDICATES FIXTURE TYPE, LOWER-CASE SUBSCRIPT INDICATES SWITCH DESIGNATION (WHERE INDICATED), UPPER-CASE SUBSCRIPT INDICATES DAYLIGHT HARVESTING CONTROL ZONE |
| | LIGHTING FIXTURE - 2'X2' UPPER-CASE LETTER INDICATES FIXTURE TYPE, LOWER-CASE SUBSCRIPT INDICATES SWITCH DESIGNATION (WHERE INDICATED), UPPER-CASE SUBSCRIPT INDICATES DAYLIGHT HARVESTING CONTROL ZONE |
| | STRIP LIGHTING FIXTURE - UPPER-CASE LETTER INDICATES FIXTURE TYPE, LOWER-CASE LETTER INDICATES SWITCH DESIGNATION (WHERE INDICATED) |
| | WALL SCONCE LIGHTING FIXTURE - UPPERCASE LETTER INDICATES FIXTURE TYPE, LOWER-CASE LETTER INDICATES SWITCH LEG (WHERE INDICATED) |
| | DOWNLIGHT LIGHTING FIXTURE - UPPER-CASE LETTER INDICATES FIXTURE TYPE, LOWER-CASE LETTER INDICATES SWITCH LEG (WHERE INDICATED) |
| | INDICATES LIGHTING FIXTURE ON EMERGENCY CIRCUIT |
| | TRACK LIGHTING FIXTURE - UPPER-CASE LETTER INDICATES FIXTURE TYPE |
| TA | THEATRICAL LIGHTING FIXTURE - UPPER-CASE LETTER INDICATES FIXTURE TYPE |
| | SITE LIGHTING FIXTURE - POLE-MOUNTED - LETTER INDICATES FIXTURE TYPE; PROVIDE NUMBER OF HEADS REQUIRED FOR CONFIGURATION INDICATED |
| | WALKWAY LIGHTING FIXTURE - POST-TOP MOUNTED, LETTER INDICATES FIXTURE TYPE |
| | CANOPY FIXTURE - LETTER INDICATES FIXTURE TYPE, DIRECTIONAL ARROW INDICATES AIMING |
| | STADIUM LIGHTING/POLE |
| | EMERGENCY LIGHTING UNIT - INTEGRAL BATTERY; REMOTE HEAD - M.H. 8'-0"AFF U.O.N. |
| | EXIT SIGN - CEILING-MOUNTED, WALL-MOUNTED, M.H. 8'-0" AFF OR 6" ABOVE DOOR FRAME UON; SHADING INDICATES ILLUMINATED FACE, DIRECTIONAL ARROWS AS INDICATED/REQUIRED - EXIT SIGNS SHALL GENERALLY BE CENTERED OVER THE DOOR OPENING |
| | EXIT SIGN - CEILING-MOUNTED, WALL-MOUNTED, M.H. 8'-0" AFF OR 6" ABOVE DOOR FRAME UON; WITH INTEGRAL EMERGENCY LIGHTING HEADS |
| | AREA OF REFUGE SIGN - CEILING-MOUNTED, WALL-MOUNTED; SHADING INDICATES ILLUMINATED FACE, DIRECTIONAL ARROWS AS INDICATED/REQUIRED |
| $ $a $b | LINE VOLTAGE TOGGLE SWITCH - SINGLE POLE, 3-WAY, 4-WAY; SUBSCRIPT INDICATES FIXTURES/OUTLETS CONTROLLED - M.H. 48" TO TOP |
| $P | LINE VOLTAGE PILOT LIGHT TOGGLE SWITCH, LIT WHEN ON; M.H. 48" AFF TO TOP |
| $EXP | LINE VOLTAGE EXPLOSION PROOF PILOT LIGHT TOGGLE SWITCH, LIT WHEN ON; M.H. 48" AFF TO TOP |
| $T | LINE VOLTAGE LIGHTED TIME SWITCH; PUSHBUTTON STYLE; M.H. 48" AFF TO TOP |
| $K | LINE VOLTAGE KEY SWITCH; M.H. 48" AFF TO TOP |
| S Sa Sb | LOW VOLTAGE SWITCH; SUBSCRIPT INDICATES FIXTURES/OUTLETS CONTROLLED. PROVIDE NUMBER OF SWITCHES TO MATCH SUBSCRIPT. M.H. 48" AFF TO TOP |
| $D | LOW VOLTAGE DIMMER SWITCH; SUBSCRIPT INDICATES FIXTURES/OUTLETS CONTROLLED. PROVIDE NUMBER OF SWITCHES TO MATCH SUBSCRIPT. M.H. 48" AFF TO TOP |
| $K | LOW VOLTAGE MAINTAINED KEY SWITCH; M.H. 48" AFF TO TOP |
| OS a OS F | OCCUPANCY SENSOR, LOW VOLTAGE DIGITAL W/ CONTROLLER, DUAL TECHNOLOGY, CEILING, WALL MOUNT 10'-0" AFF UON; SUBSCRIPT F- CORNER COVERAGE. LOWER-CASE SUBSCRIPT INDICATES FIXTURES CONTROLLED |
| OS a H OS H | OCCUPANCY SENSOR, HALLWAY COVERAGE, LOW VOLTAGE DIGITAL W/ CONTROLLER, PASSIVE INFRARED, CEILING, WALL MOUNT 10'-0" AFF UON. LOWER-CASE SUBSCRIPT INDICATES FIXTURES CONTROLLED |
| VS a VS F | VACANCY SENSOR, LOW VOLTAGE DIGITAL W/ CONTROLLER, DUAL TECHNOLOGY, CEILING, WALL MOUNT 10'-0" AFF UON; SUBSCRIPT F-CORNER COVERAGE. LOWER-CASE SUBSCRIPT INDICATES FIXTURES CONTROLLED |
| OS R | OCCUPANCY SENSOR, LOW VOLTAGE DIGITAL W/ CONTROLLER, ULTRASONIC, CEILING MOUNTED |
| OS L | OCCUPANCY SENSOR, LOW VOLTAGE DIGITAL W/ CONTROLLER, ULTRASONIC, CEILING MOUNT, HIGH HUMIDITY TYPE |
| OS G OS G | OCCUPANCY SENSOR, LOW VOLTAGE DIGITAL W/ CONTROLLER, PASSIVE INFRARED, WIDE VIEW, LONG RANGE, HIGH BAY TYPE, CEILING, WALL MOUNT AT 10'-0" AFF UON |
| OS A | OCCUPANCY SENSOR, LOW VOLTAGE DIGITAL, DUAL TECHNOLOGY - SINGLE LOAD, WALL SWITCH TYPE; M.H. 48" AFF TO TOP |
| OS B | OCCUPANCY SENSOR, LOW VOLTAGE DIGITAL, DUAL TECHNOLOGY - SINGLE LOAD, 3-WAY, WALL SWITCH TYPE; M.H. 48" AFF TO TOP |
| VS A | VACANCY SENSOR, LOW VOLTAGE DIGITAL, DUAL TECHNOLOGY - SINGLE LOAD, WALL SWITCH TYPE; M.H. 48" AFF TO TOP |
| VS B | VACANCY SENSOR, LOW VOLTAGE DIGITAL, DUAL TECHNOLOGY - SINGLE LOAD, 3-WAY, WALL SWITCH TYPE; M.H. 48" AFF TO TOP |
| VS D | VACANCY SENSOR, LOW VOLTAGE DIGITAL, DUAL TECHNOLOGY - SINGLE LOAD, DIMMING, WALL SWITCH TYPE; M.H. 48" AFF TO TOP |
| ER | EMERGENCY TRANSFER RELAY; MOUNT ABOVE CEILING IN NEMA 1 ENCLOSURE |
| LS LS | PHOTOELECTRIC DAYLIGHT HARVESTING DIMMING CONTROL SENSOR; CEILING, WALL MOUNT M.H. 11'-0" TO TOP UON. SUBSCRIPT INDICATES FIXTURES CONTROLLED |
| PC | EXTERIOR PHOTOELECTRIC SWITCH; ROOF, WALL MOUNTED 12'-0" AFG UON |
| LC# | LIGHTING CONTACTOR - SEE LIGHTING CONTACTOR SCHEDULE |
| T/C | TIME CLOCK - SEE TIME CLOCK SCHEDULE |
| | |

*NOTE:
1. NOT ALL ITEMS WITHIN LEGEND(S) MAY BE UTILIZED ON THIS PROJECT.

## POWER LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| | SINGLE RECEPTACLE - M.H. 18" AFF U.O.N. |
| IG | DUPLEX, DOUBLE DUPLEX RECEPTACLE - M.H. 18" AFF U.O.N., IG INDICATES ISOLATED GROUND TYPE |
| | DUPLEX, DOUBLE DUPLEX RECEPTACLE - M.H. 6" ABOVE COUNTER OR 42" AFF U.O.N., 48" AFF MAX. |
| GFI | DUPLEX, DOUBLE DUPLEX RECEPTACLE - GFCI TYPE - M.H. 18" AFF U.O.N. |
| WP | DUPLEX, DOUBLE DUPLEX RECEPTACLE - WEATHER-RESISTANT GFCI TYPE WITH WEATHERPROOF WHILE-IN-USE COVER - M.H. 18" AFF U.O.N. |
| | DUPLEX RECEPTACLE - FULLY CONTROLLED TYPE , DOUBLE DUPLEX CONTROLLED RECEPTACLE (REFER TO DETAIL FOR CONFIGURATION) |
| | DUPLEX, DOUBLE DUPLEX RECEPTACLE IN FS BOX ON CONDUIT STUB |
| | LOW DUPLEX RECEPTACLE & HIGH DOUBLE DUPLEX RECEPTACLE, M.H. 18" AFF FOR LOW; M.H. 4'-8" FOR HIGH, U.O.N. |
| | DUPLEX RECEPTACLE - MOUNTED IN FLUSH-MOUNTED SINGLE DEVICE FLOOR BOX, NUMBER INDICATES TYPE |
| | DUPLEX, DOUBLE DUPLEX RECEPTACLE - MOUNTED IN FLUSH-MOUNTED MULTIPLE SERVICE FLOOR BOX, TOP NUMBER INDICATES NUMBER OF COMPARTMENTS, BOTTOM NUMBER INDICATES CIRCUIT DESIGNATION |
| | DUPLEX, DOUBLE DUPLEX RECEPTACLE - MOUNTED IN FLUSH-MOUNTED MULTIPLE SERVICE POKE THRU BOX, TOP NUMBER INDICATES NUMBER OF COMPARTMENTS, BOTTOM NUMBER INDICATES CIRCUIT DESIGNATION |
| | SPECIAL PURPOSE RECEPTACLE OUTLET - NEMA CONFIGURATION AS NOTED - M.H. 18" AFF U.O.N. |
| | DISTRIBUTION PANELBOARD - SURFACE-MOUNTED, TOP 6-6" AFF |
| | PANELBOARD - SURFACE-MOUNTED, FLUSH-MOUNTED, TOP 5-6" AFF |
| T# | TRANSFORMER - REFER TO DRY TYPE TRANSFORMER SCHEDULE |
| T# | TRANSFORMER - PAD-MOUNTED |
| | ENCLOSURE OR CABINET AS NOTED |
| FUSE | SPARE FUSE CABINET - TOP 5'-6" AFF |
| | SPARE KEY CABINET - TOP 5'-6" AFF |
| | ENCLOSED CIRCUIT BREAKER IN NEMA 1 ENCLOSURE U.O.N.; MOUNT 5'-6" AFF, SIZE AS NOTED |
| | SAFETY DISCONNECT SWITCH - FUSED, NON-FUSED IN NEMA 1 ENCLOSURE U.O.N. - MOUNT TOP 48" AFF U.O.N.; RATING AND FUSING AS NOTED |
| | MAGNETIC MOTOR CONTROLLER; FVNR WITH CONTROL XFMR, RED AND GREEN INDICATING LIGHTS, HOA SELECTOR SWITCH IN NEMA 1 ENCLOSURE U.O.N.; MOUNT 5'-6" AFF TO TOP U.O.N. |
| | COMBINATION MAGNETIC MOTOR CONTROLLER; FVNR WITH CONTROL XFMR, RED AND GREEN INDICATING LIGHTS, HOA SELECTOR SWITCH AND DISCONNECT SWITCH IN NEMA 1 ENCLOSURE U.O.N.; MOUNT 5'-6" AFF TO TOP U.O.N. |
| $L1 $L2 | TOGGLE SWITCH - SINGLE POLE, TWO POLE - HORSEPOWER RATED, WITH LOCKABLE HANDLE GUARD COVERPLATE - M.H. 42" AFF TO BOTTOM, 48" AFF TO TOP UON |
| $M | MANUAL MOTOR CONTROLLER - SINGLE POLE, WITH H.O.A. SWITCH AND LOCKABLE HANDLE GUARD COVERPLATE IN NEMA 1 ENCLOSURE U.O.N. - M.H. 48" AFF TO TOP UON |
| $J2 $J3 | MANUAL MOTOR SWITCH - TWO POLE, THREE POLE - 30A, 600VAC, WITH LOCKABLE HANDLE GUARD COVERPLATE - M.H. 48" AFF TO TOP UON |
| $MD | MOTOR DISCONNECT SWITCH - 60A, 3P, 600V WITH LOCKABLE HANDLE, M.H. 48" AFF TO TOP UON |
| $FS | FAN SPEED CONTROL SWITCH - M.H. 48" AFF TO TOP - FURNISHED UNDER DIVISION 23, INSTALLED UNDER DIVISION 26 |
| | TO GROUND |
| | EPO PUSH-BUTTON - M.H. 48" AFF TO TOP |
| | ELECTRIC HEAT TRACE TAPE |
| T | ELECTRIC HEAT TRACE THERMOSTAT |
| SOV | SOLENOID VALVE |
| VFD | VARIABLE FREQUENCY DRIVE - FURNISEHD UNDER DIVISION 23, INSTALLED UNDER DIVISION 26 |
| ATC | AUTOMATIC TEMPERATURE CONTROL PANEL |
| SPD | SURGE PROTECTION DEVICE |
| | ELECTRICAL GROUNDING BUS BAR |
| | RETRACTABLE CORD REEL - REFER TO DETAILS FOR ADDITIONAL INFORMATION |
| | SURFACE RACEWAY - HORIZONTAL RUN - M.H. 18" AFF UON |
| | SURFACE RACEWAY - VERTICAL DROP |
| | SURFACE RACEWAY - HORIZONTAL RUN WITH VERTICAL DROP - M.H. 18" AFF UON |
| | SURFACE RACEWAY WITH WIRING DEVICES - M.H. 18" A.F.F. U.O.N. |
| | MOTOR; AS NOTED |
| | PUSHBUTTON - M.H. 48" AFF TO TOP UON |
| J | EXTERIOR IN-GRADE JUNCTION BOX |
| H | HANDHOLE |
| E | MANHOLE |
| PD | POWER ASSIST DOOR - PROVIDED UNDER DIVISION 08 |
| MS | MOTORIZED BLINDS/SHADES - PROVIDED UNDER DIVISION 12 |
| $MS | RAISE/LOWER SWITCH FOR MOTORIZED SHADES - FURNISHED UNDER DIVISION 12, INSTALLED UNDER DIVISION 26 |
| C# | CONTACTOR - # INDICATES NUMBER OF POLES |

## ELECTRICAL EQUIPMENT DESIGNATIONS




## GENERAL ELECTRICAL LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| | |
| | BRANCH CIRCUIT CONDUIT AND WIRING CONCEALED IN CEILING OR WALL SPACE, OR SURFACE MOUNTED WHERE NO CEILING OR WALL SPACE EXISTS; REFER TO PANEL SCHEDULES FOR MINIMUM WIRE AND CONDUIT SIZES |
| | BRANCH CIRCUIT CONDUIT AND WIRING IN SLAB, UNDER FLOOR OR UNDERGROUND; REFER TO PANEL SCHEDULES FOR MINIMUM WIRE AND CONDUIT SIZES |
| | 4" CONDUIT SLEEVE THROUGH WALL, LOCATED ABOVE CEILING. PROVIDE FIRE STOP AS REQUIRED. |
| L1A1-1 | HOMERUN TO PANELBOARD - REFER TO PANEL SCHEDULES FOR MINIMUM WIRE AND CONDUIT SIZES. (NOTE: CONDUCTOR SIZE DEPENDENT ON HOMERUN LENGTH) |
| | EQUIPMENT CONNECTION |
| | CONDUIT UP |
| | CONDUIT DOWN |
| | JUNCTION BOX; CEILING, WALL MOUNTED |
| | ENCLOSURE OR CABINET AS NOTED |
| # | DRAWING NOTE - NEW WORK |
| # | EQUIPMENT DESIGNATION |
| #/E### | DETAIL REFERENCE: DETAIL NUMBER/DRAWING NUMBER |
| | ITEMS SHOWN DASHED/HEAVY ARE TO BE REMOVED |
| | ITEMS SHOWN SOLID/HEAVY ARE NEW WORK |
| | ITEMS SHOWN SOLID/LIGHT ARE EXISTING TO REMAIN |
| RL | ITEMS SHOWN DASHED/HEAVY WITH RL SUBSCRIPT ARE TO BE REMOVED AND RELOCATED. EXTEND ASSOCIATED CONDUIT AND WIRING TO NEW LOCATION AS REQUIRED. |
| # # | CIRCUIT NUMBERS INDICATED ADJACENT TO WIRING DEVICES AND FIXTURES INDICATE CIRCUIT DESIGNATIONS. EXTEND HOMERUNS TO DEVICES WITH SAME CIRCUIT DESIGNATIONS. |
| X DRAWING NO. X.XX | PART PLAN DESIGNATION |
| VIEW DIRECTION SECTION NO. DRAWING NO. | SECTION DESIGNATION |

## FIRE ALARM LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| | |
| FACP FACP | FIRE ALARM SYSTEM - CONTROL PANEL - SURFACE-MOUNTED, FLUSH-MOUNTED - TOP 5'-6" AFF |
| FAAP FAAP | FIRE ALARM SYSTEM - ANNUNCIATOR PANEL - SURFACE-MOUNTED, FLUSH-MOUNTED - TOP 5'-6" AFF |
| NAC NAC | FIRE ALARM SYSTEM - NAC PANEL - SURFACE-MOUNTED, FLUSH-MOUNTED - TOP 5'-6" AFF |
| | FIRE ALARM - MANUAL PULL STATION - M.H. 42" TO BOTTOM, 48" TO TOP |
| 15 cd 15 cd | FIRE ALARM SYSTEM - COMBINATION SPEAKER/FLASHING STROBE LIGHT - WALL-MOUNTED 7'-6" AFF OR 6" FROM CEILING, WHICHEVER IS LOWER, CEILING MOUNTED, NUMBER INDICATES CANDELLA RATING. IF NO CANDELA RATING IS INDICATED PROVIDE 110CD |
| 15 cd 15 cd | FIRE ALARM SYSTEM - FLASHING STROBE LIGHT - WALL-MOUNTED 7'-6" AFF OR 6" FROM CEILING, WHICHEVER IS LOWER, CEILING MOUNTED, NUMBER INDICATES CANDELLA RATING. IF NO CANDELA RATING IS INDICATED PROVIDE 110CD |
| | CARBON MONOXIDE BLUE STROBE LIGHT; WALL MOUNTED 7'-6" AFF OR 6" FROM CEILING, WHICHEVER IS LOWER |
| SD | FIRE ALARM SYSTEM - SMOKE DETECTOR - CEILING MOUNTED, WALL MOUNTED 7'-6" AFF U.O.N. |
| SD E | FIRE ALARM SYSTEM - SMOKE DETECTOR FOR ELEVATOR RECALL - CEILING MOUNTED |
| HD | FIRE ALARM SYSTEM - HEAT DETECTOR - CEILING MOUNTED, WALL MOUNTED 7'-6" AFF U.O.N. |
| CO | FIRE ALARM SYSTEM - CARBON MONOXIDE DETECTOR - CEILING MOUNTED, WALL MOUNTED 18" AFF U.O.N. |
| FS | FIRE ALARM SYSTEM - FLOW SWITCH |
| TS | FIRE ALARM SYSTEM - TAMPER SWITCH |
| DD DD WP | FIRE ALARM SYSTEM - DUCT DETECTOR - STANDARD, WEATHERPROOF |
| RT | FIRE ALARM SYSTEM - DUCT DETECTOR REMOTE TEST STATION - M.H. 42" AFF TO BOTTOM, 48" AFF TO TOP |
| MM | FIRE ALARM SYSTEM - ADDRESSIBLE MONITOR MODULE |
| CM | FIRE ALARM SYSTEM - ADDRESSIBLE CONTROL MODULE |
| SMD | SMOKE DAMPER OR COMBINATION FIRE SMOKE DAMPER; PROVIDE MONITOR MODULE FOR SMOKE DETECTOR PROVIDED WITH DAMPER AND 120V-24V CONTROL POWER TRANSFORMER WITH PRIMARY AND SECONDARY FUSING AS REQUIRED |
| DL | FIRE ALARM SYSTEM - MAGNETIC DOOR LOCK - PROVIDED UNDER DIVISION 08, CONNECTED UNDER DIVISION 28 - INTERLOCK WITH FACP TO RELEASE LOCKS DURING FIRE ALARM - FIELD COORDINATE MOUNTING HEIGHT WITH DOORS |
| DE | FIRE ALARM SYSTEM - DELAYED EXIT DEVICE - PROVIDED UNDER DIVISION 08, CONNECTED UNDER DIVISION 28 - INTERLOCK WITH FACP TO DISARM EXIT DEVICE DURING FIRE ALARM - FIELD COORDINATE MOUNTING HEIGHT WITH DOORS |
| WW LW | SPRINKLER TANK ALARM - HIGH WATER, LOW WATER - PROVIDED UNDER DIVISION 21, INTERLOCKED WITH FIRE ALARM SYSTEM UNDER DIVISION 28 - PROVIDE ADDRESSABLE INTERFACE MODULE TO INTERLOCK WITH FACP |
| LT | SPRINKLER TANK ALARM - LOW TEMPERATURE - PROVIDED UNDER DIVISION 21, INTERLOCKED WITH FIRE ALARM SYSTEM UNDER DIVISION 28 - PROVIDE ADDRESSABLE INTERFACE MODULE TO INTERLOCK WITH FACP |
| ECS ECS | EMERGENCY COMMUNICATIONS SYSTEM - CONTROL PANEL - SURFACE-MOUNTED, FLUSH-MOUNTED - TOP 6'-6" AFF |
| | EMERGENCY COMMUNICATIONS SYSTEM - REMOTE MICROPHONE - M.H. 42" AFF TO BOTTOM, 48" AFF TO TOP |
| P | FIRE ALARM - MAGNETIC DOOR HOLDER; SUBSCRIPT "P" INDICATES PANIC BUTTON HOLD OPEN INTERCONNECTED TO SECURITY SYSTEM |
| PS | FIRE ALARM SYSTEM - PRESSURE SWITCH |

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN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The professional services of ABHA/BSA+A, LLC. are undertaken for and performed in the interest of the NCCVT School District. No contractual obligation is assumed by ABHA/BSA+A, LLC. for the benefit of any other person involved in the project.

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JOB NO - 22.011

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SHEET TITLE

**ELECTRICAL LEGEND, SCHEDULES & ABBREVIATIONS**

SHEET NO.

**E001**

# LIGHTING FIXTURE SCHEDULE

| TYPE | DESCRIPTION | MANUFACTURER | CATALOG NO. | VOLTS | INPUT WATTS | LAMP | MOUNTING | REMARKS |
|---|---|---|---|---|---|---|---|---|
| A1 | 2'X2' LED TROFFER WITH 22-GA. CRS HOUSING, WHITE POWDERCOAT FINISH, DIFFUSE RIBBED ACRYLIC ROUND LENS, 0-10V 1% ELECTRONIC DIMMING DRIVER | H.E.WILLIAMS<br>COLUMBIA<br>LITHONIA<br>COOPER<br>ELITE | PT-22-L43/840-RA-DIM1-UNV | 277 | 34.7 | LED 4000K, 80 CRI, 4429 LUMENS | RECESSED/CEILING | |
| A2 | SAME AS TYPE A1, EXCEPT LOWER LUMEN PACKAGE | H.E.WILLIAMS<br>COLUMBIA<br>LITHONIA<br>COOPER<br>ELITE | PT-22-L26/840-RA-DIM1-UNV | 277 | 21.3 | LED 4000K, 80 CRI, 2678 LUMENS | RECESSED/CEILING | |
| A3 | SAME AS TYPE A1, EXCEPT HIGHER LUMEN PACKAGE | H.E.WILLIAMS<br>COLUMBIA<br>LITHONIA<br>COOPER<br>ELITE | PT-22-L52/840-RA-DIM1-UNV | 277 | 43.3 | LED 4000K, 80 CRI, 5363 LUMENS | RECESSED/CEILING | |
| A4 | SAME AS TYPE A1, EXCEPT 120V AND WITH EMERGENCY BATTERY BACKUP | H.E.WILLIAMS<br>COLUMBIA<br>LITHONIA<br>COOPER<br>ELITE | PT-22-L43/840-RA-DIM1-UNV | 120 | 34.7 | LED 4000K, 80 CRI, 4429 LUMENS | RECESSED/CEILING | |
| B1 | 2'X4' LED MEDICAL PATIENT AMBIENT/EXAM LIGHT WITH GASKETED DOORFRAME, CRS HOUSING, WHITE POWDERCOAT FINISH, AMBIENT AND EXAM ILLUMINATION MODES, AND 0-10V ELECTRONIC DIMMING DRIVER. | VISCOR<br>ACUITY HEALTHCARE | MD1UI2X4-LED840K125LUNV-C84(G)-C97(2)-V40(D) | 277 | 113 | LED 4000K, 80 CRI, 12500 LUMENS | RECESSED/CEILING | |
| | PATIENT AMBIENT/EXAM LIGHT LOW VOLTAGE DIMMING CONTROLLER | VISCOR<br>ACUITY HEALTHCARE | V40(D) | | | | RECESSED/WALL 48" TO TOP ABOVE FINISHED FLOOR | MAKE ALL CONNECTIONS TO PATIENT AMBIENT/EXAM LIGHT AS REQUIRED |
| C1 | 4"WIDE X 4"DEEP LINEAR DIRECT LED RECESSED FIXTURE W/FLAT DIFFUSE LINEAR EXTRUSION ACRYLIC LENS, CONTINUOUS END-TO-END ILLUMINATION, ELECTRONIC 0-10V DIMMING DRIVER | H.E.WILLIAMS<br>COLUMBIA<br>LITHONIA<br>COOPER | MX4RG-LENGTH-L8/840-F-(L4)-DIM-UNV | 277 | 7.3/FT | LED 4000K, 80 CRI, 437 LUMENS/FT | RECESSED/CEILING | |
| C2 | SAME AS TYPE C1, EXCEPT HIGHER LUMEN PACKAGE | H.E.WILLIAMS<br>COLUMBIA<br>LITHONIA<br>COOPER | MX4RG-LENGTH-L8/840-F-(L6)-DIM-UNV | 277 | 7.3/FT | LED 4000K, 80 CRI, 655 LUMENS/FT | RECESSED/CEILING | |
| D1 | 6" DIA. ROUND LED DOWNLIGHT WITH FLUSH DIFFUSE ACRYLIC LENS, DIE CAST TRIM, MEDIUM DISTRIBUTION, GALVANIZED STEEL MOUNTING FRAME, 0-10V 1% ELECTRONIC DIMMING DRIVER | H.E.WILLIAMS<br>GOTHAM<br>PRESCOLITE<br>PORTFOLIO | 6DRTL-L10/840-DIM1UNV-LM-OF-WH-AD-N-F1 | 277 | 8.7 | LED 4000K, 80 CRI, 982 LUMENS | RECESSED/CEILING | |
| D2 | SAME AS D1 EXCEPT WIDE DISTRIBUTION | H.E.WILLIAMS<br>GOTHAM<br>PRESCOLITE<br>PORTFOLIO | 6DRTL-L10/840-DIM1UNV-LW-OF-WH-AD-N-F1 | 277 | 8.7 | LED 4000K, 80 CRI, 1014 LUMENS | RECESSED/CEILING | |
| D3 | 6" DIA. X 4.5" DEEP SHALLOW PLENUM ROUND LED DOWNLIGHT WITH NON-CONDUCTIVE FLUSH LENS, DIE CAST TRIM, GALVANIZED STEEL MOUNTING FRAME, 0-10V 1% ELECTRONIC DIMMING DRIVER, WET LOCATION | H.E.WILLIAMS<br>GOTHAM<br>PORTFOLIO<br>PRESCOLITE<br>ELITE | 6PRTL-L10/840-DIM1UNV-SW-OF-WH-WET/CC-N-F1 | 277 | 10.7 | LED 4000K, 80 CRI, 1122 LUMENS | RECESSED/CEILING | |
| F1 | 4' LONG ROUND LENS LED STRIPLIGHT WITH DIE FORMED CRS HOUSING, WHITE POWDERCOAT FINISH, LINEAR RIBBED DIFFUSE ACRYLIC LENS, ELECTRONIC DRIVER | H.E.WILLIAMS<br>LITHONIA<br>CURRENT<br>COOPER<br>ELITE | 76R-4-L52/840-DRV-UNV | 277 | 35.8 | LED 4000K, 80 CRI, 5261 LUMENS | SUSPENDED 9'-0" AFF, UON | |
| F2 | SAME AS F1 EXCEPT HIGHER LUMEN OUTPUT AND BLACK FINISH | H.E.WILLIAMS<br>LITHONIA<br>CURRENT<br>ELITE | 76R-4-L72/840-DRV-UNV-BLACK | 120 | 50.2 | LED 4000K, 80 CRI, 7212 LUMENS | SUSPENDED 30'-0" ABOVE STAGE | |
| G1 | 18" X 24" LED HIGH BAY WITH DIE FORMED STEEL HOUSING, WHITE POWDERCOAT FINISH, FROSTED ACRYLIC LENSES, WIRE GUARD, RIGID STEM, SAFETY CABLES, 0-10V 10% ELECTRONIC DIMMING DRIVER, 10% UPLIGHT | H.E.WILLIAMS<br>LITHONIA<br>CURRENT<br>COOPER | GH-2-L180/840-FA-UP-WG11-HUBMT-DIM-UNV | 277 | 125.9 | LED 4000K, 18009 LUMENS | SUSPENDED 18'-0" AFF, UON | PROVIDE SAFETY CABLES ATTACHED TO STRUCTURE |
| G2 | AS G1 EXCEPT HIGHER LUMEN PACKAGE | H.E.WILLIAMS<br>LITHONIA<br>CURRENT<br>COOPER | GH-2-L240/840-FA-UP-WG11-HUBMT-DIM-UNV | 277 | 176.8 | LED 4000K, 23470 LUMENS | SUSPENDED 18'-0" AFF, UON | PROVIDE SAFETY CABLES ATTACHED TO STRUCTURE |
| H1 | 16" DIAMETER HIGH BAY WITH MARINE GRADE FORGED ALUMINUM HOUSING, CLEAR PRISMATIC UV-STABILIZED POLYCARBONATE REFRACTOR, INJECTION MOLDED POLYCARBONATE DIFFUSER SEALED TO HOUSING WIHT CONTINUOUS SIICONE GASKET, MATTE WHITE POWDERCOAT FINISH, WIRE GUARD, RIGID STEM, SAFETY CABLES, 0-10V 10% ELECTRONIC DIMMING DRIVER | KENALL<br>CREE LIGHTING | EPLB-16-O-PM-CA-MW-192L-40K8-DCC-DV-PM*-WG | 277 | 210 | LED 4000K, 19073 LUMENS | SUSPENDED 24'-0" AFF, UON | |
| H2 | SAME AS H1 EXCEPT LOWER OUTPUT | KENALL<br>CREE LIGHTING | EPLB-16-O-PM-CA-MW-47L-40K8-DCC-DV-PM*-WG | 277 | 55 | LED 4000K, 5601 LUMENS | SUSPENDED 24'-0" AFF, UON | |
| J1 | 4' LONG X 4" DEEP LINEAR INDUSTRIAL VAPORTIGHT LED WITH FIBERGLASS AND STEEL HOUSING, ACRYLIC LENS, ELECTRONIC DRIVER, WET LOCATION, IP65 RATED | GE<br>ACUITY<br>CURRENT<br>ILP | ALR2-0-4N-04-T-48-1D-S-Q-Q-Q-ST-K-Q-W | 120 | 27 | LED 4000K, 80 CRI, 4100 LUMENS | SURFACE/WALL 3'-0" ABOVE ELEVATOR PIT FLOOR, UON | |
| K1 | 2'X2' LED SEALED TROFFER WITH 20 GAUGE CRS HOUSING, PRISMATIC ACRYLIC .125" THICK LENS, SILICONE GASKETED INSET DOORFRAME, POWDERCOAT FINISH, ELECTRONIC 0-10V 10% DRIVER, WET LOCATION | NEW STAR<br>FAILSAFE<br>CURRENT<br>KENALL | SCR22-HCIC-L2-40-1C-A-UN | 277 | 50 | LED 4000K, 80 CRI, 6250 LUMENS | RECESSED/CEILING | |
| L1 | 12"WIDE BY 48" LONG VANDAL RESISTANT SURFACE MOUNTED FIXTURE SUITABLE FOR LOW TEMPERATURE ENVIRONMENTS, WITH ALUMINUM HOUSING, POLYCARBONATE LENS, WET LOCATION IP 64 RATED. | KENALL<br>NEW STAR<br>FAILSAFE<br>CURRENT | MLHA12-48-F-MW-PP-45L40K-DCC-1-DV | 277 | 49 | LED 4000K, 80 CRI, 5014 LUMENS | SURFACE/CEILING | |
| L2 | 2'X2' LED TROFFER WITH 24-GA. CRS HOUSING, OVERLAPPING DOOR, SILICONE GASKETED, SUITABLE FOR LOW TEMPERATURE ENVIRONMENTS, 0-10V 10% ELECTRONIC DIMMING DRIVER | KENALL<br>NEW STAR<br>FAILSAFE | CSERO-22-42L-40K8-DIM1-DV-5F-4H-SYMV-FN | 277 | 47 | LED 4000K, 80 CRI, 6262 LUMENS | RECESSED/CEILING | |
| M1 | SURFACE MOUNT LOW PROFILE LENSED ALUMINUM EXTRUSION WITH LED TAPE, AND DMX DRIVER. CONCEALED WITHIN ARCHITECTURAL FEATURE. | TIVOLI<br>ALUZ | INF-F-CHAN-8 AND<br>TPLD-SB-I-40-24 TAPE.<br>DMX POWER SUPPLY-ADUL-120-1-4-24-DIN | 120 | 3W/FT | LED 4000K, 80 CRI, 233 LUMENS/FT | SURFACE/ ARCHITECTURAL FEATURE | |
| N1 | 4' LED ADA STAIRLIGHTER WITH INSIDE PRISM, .160" POLYCARBONATE LENS, 18 GAUGE CRS HOUSING, WHITE POWDERCOAT FINISH, INTEGRAL DRIVER, INTEGRAL OCCUPANCY SENSOR FOR 35%/ 100% OUTPUT | LUMINAIRE<br>H.E.WILLIAMS<br>FAILSAFE<br>KENALL | TSL946IN-50W-40K-MVOLT-OP-WHT-FAM7 | 277 | 50 | LED 4000K, 5966 LUMENS | SURFACE/WALL 7'-0" AFF, UON | MOUNTING HEIGHT TAKEN FROM PLAN FLOOR LEVEL LANDING, OR STAIR TREAD IMMEDIATELY BELOW CENTER OF FIXTURE |
| P1 | 28" DIAMETER X 24" HEIGHT LED PEDESTRIAN POLE WITH ALUMINUM HOUSING AND GREY FINISH, DIE CAST POST TOP TENON, SEALED OPTICS, IES TYPE V SYMMETRICAL DISTRIBUTION, IP66 RATING | US ARCHITECTURAL<br>LITHONIA<br>CURRENT<br>COOPER | UR20-28L-30-3K7-5W-HDL-PT-LGS | 277 | 30 | LED 3000K, 2917 LUMENS, B1-U0-G1 | 10 FT POLE | |
| | 4" ROUND STRAIGHT STEEL POLE, 11 GAUGE (.120") WALL, THICKNESS, FINISH TO MATCH FIXTURE | US ARCHITECTURAL | RNTS-104-11 | | | | | |
| P2/P2S | 11.5" WIDE X 22" LONG X 5.25" HEIGHT LED POLE MOUNTED AREA LIGHT WITH DIE CAST ALUMINUM HOUSING AND GREY FINISH, SEALED OPTICS, ELECTRONIC DRIVER, IES TYPE II FORWARD THROW DISTRIBUTION, IP66 RATING, STEP DIM MOTION SENSOR | US ARCHITECTURAL<br>LITHONIA<br>CURRENT<br>COOPER | RZRM-PLED-II-FR-24LED-700MA-30K-277-MS-RAL-7004-T-MS-F311-[HS-PLED WHERE INDICATED] | 277 | 53 | LED 3000K, 70CRIMIN., 6567 LUMENS, B2-U0-G1 | 15 FT POLE | PROVIDE HOUSE SIDE SHIELD ON FIXTURES WITH "S" DESIGNATION |
| | 4" SQUARE STRAIGHT STEEL POLE, 11 GAUGE (.120") WALL, THICKNESS, FINISH TO MATCH FIXTURE | US ARCHITECTURAL | SNTS-154-11 | | | | | PROVIDE NUMBER OF HEADS IN CONFIGURATIONS AS INDICATED ON SITE PLAN |
| P3/P3S | SAME AS P2 EXCEPT IES TYPE III WIDE DISTRIBUTION | US ARCHITECTURAL<br>LITHONIA<br>CURRENT<br>COOPER | RZRM-PLED-III-W-24LED-700MA-30K-277-MS-RAL-7004-T-MS-F311-[HS-PLED WHERE INDICATED] | 277 | 53 | LED 3000K, 70CRIMIN., 6567 LUMENS, B2-U0-G1 | 15 FT POLE | PROVIDE HOUSE SIDE SHIELD ON FIXTURES WITH "S" DESIGNATION |
| | 4" SQUARE STRAIGHT STEEL POLE, 11 GAUGE (.120") WALL, THICKNESS, FINISH TO MATCH FIXTURE | US ARCHITECTURAL | SNTS-154-11 | | | | | PROVIDE NUMBER OF HEADS IN CONFIGURATIONS AS INDICATED ON SITE PLAN |
| P3M/P3MS | SAME AS P2 EXCEPT IES TYPE III MEDIUM DISTRIBUTION | US ARCHITECTURAL<br>LITHONIA<br>CURRENT<br>COOPER | RZRM-PLED-III-M-24LED-700MA-30K-277-MS-RAL-7004-T-MS-F311-[HS-PLED WHERE INDICATED] | 277 | 53 | LED 3000K, 70CRIMIN., 6567 LUMENS, B2-U0-G1 | 15 FT POLE | PROVIDE HOUSE SIDE SHIELD ON FIXTURES WITH "S" DESIGNATION |
| | 4" SQUARE STRAIGHT STEEL POLE, 11 GAUGE (.120") WALL, THICKNESS, FINISH TO MATCH FIXTURE | US ARCHITECTURAL | SNTS-154-11 | | | | | PROVIDE NUMBER OF HEADS IN CONFIGURATIONS AS INDICATED ON SITE PLAN |

# LIGHTING FIXTURE SCHEDULE

| TYPE | DESCRIPTION | MANUFACTURER | CATALOG NO. | VOLTS | INPUT WATTS | LAMP | MOUNTING | REMARKS |
|---|---|---|---|---|---|---|---|---|
| P4/P4S | SAME AS P2 EXCEPT IES TYPE IV DISTRIBUTION | US ARCHITECTURAL<br>LITHONIA<br>CURRENT<br>COOPER | RZRM-PLED-IV-24LED-700MA-30K-277-MS-RAL-7004-T-MS-F311-[HS-PLED WHERE INDICATED] | 277 | 53 | LED 3000K, 70CRIMIN., 6567 LUMENS, B2-U0-G1 | 15 FT POLE | PROVIDE HOUSE SIDE SHIELD ON FIXTURES WITH "S" DESIGNATION |
| | 4" SQUARE STRAIGHT STEEL POLE, 11 GAUGE (.120") WALL, THICKNESS, FINISH TO MATCH FIXTURE | US ARCHITECTURAL | SNTS-154-11 | | | | | PROVIDE NUMBER OF HEADS IN CONFIGURATIONS AS INDICATED ON SITE PLAN |
| P5 | SAME AS P2 EXCEPT IES TYPE V MEDIUM DISTRIBUTION | US ARCHITECTURAL<br>LITHONIA<br>CURRENT<br>COOPER | RZRM-PLED-VSQ-M-24LED-700MA-30K-277-MS-RAL-7004-T-MS-F311 | 277 | 53 | LED 3000K, 70CRIMIN., 6567 LUMENS, B2-U0-G1 | 15 FT POLE | |
| | 4" SQUARE STRAIGHT STEEL POLE, 11 GAUGE (.120") WALL, THICKNESS, FINISH TO MATCH FIXTURE | US ARCHITECTURAL | SNTS-154-11 | | | | | PROVIDE NUMBER OF HEADS IN CONFIGURATIONS AS INDICATED ON SITE PLAN |
| Q1 | 3-FOOT LINEAR LED DISPLAY CASE LIGHTING WITH LOW PROFILE CHANNEL, WHITE DIFFUSING LENS, REMOTE POWER SUPPLY, WITH ALL ACCESSORIES (END CAPS, JOINERS, CONNECTORS)AS REQUIRED FOR A COMPLETE INSTALLATION PER MANUFATURER | PURE EDGE LIGHTING | LCS.3-2W-60-D-40K-SA<br>POWER SUPPLY: PSB-__W-UNI-24VCD | 277 | 2.5W/FT | LED 4000K, 185 LUMENS PER FOOT | SURFACE | MOUNT POWER SUPPLY ABOVE ACCESSIBLE CEILING |
| Q2 | SAME AS TYPE T1 EXCEPT 6-FOOT LENGTH | PURE EDGE LIGHTING | LCS.3-2W-60-D-40K-SA<br>POWER SUPPLY: PSB-__W-UNI-24VCD | 277 | 2.5W/FT | LED 4000K, 185 LUMENS PER FOOT | SURFACE | MOUNT POWER SUPPLY ABOVE ACCESSIBLE CEILING |
| Q3 | SAME AS TYPE T1 EXCEPT 4-FOOT LENGTH | PURE EDGE LIGHTING | LCS.3-2W-60-D-40K-SA<br>POWER SUPPLY: PSB-__W-UNI-24VCD | 277 | 2.5W/FT | LED 4000K, 185 LUMENS PER FOOT | SURFACE | MOUNT POWER SUPPLY ABOVE ACCESSIBLE CEILING |
| R1 | 11" WIDE X 9" HEIGHT X 7" DEEP ARCHITECTURAL LED WALL SCONCE WITH DIE CAST ALUMINUM HOUSING AND FINISH, COMFORT REFRACTIVE OPTIC, WIDE DISTRIBUTION, ELECTRONIC DRIVER, WET LOCATION | LITHONIA<br>WILLIAMS<br>CURRENT<br>COOPER | WDGE2-P2-30K-80CRI-VW-MVOLT-DNAXD | 277 | 18 | LED 3000K, 1997 LUMENS, B1-U0-G0 | SURFACE/WALL 10'-0" AFF, UON | MOUNTING HEIGHT TAKEN FROM PLAN FLOOR LEVEL, REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT LOCATION |
| R2 | 11" WIDE X 9" HEIGHT X 7" DEEP ARCHITECTURAL LED WALL SCONCE WITH DIE CAST ALUMINUM HOUSING AND FINISH, PRECISION REFRACTIVE OPTIC, FORWARD THROW DISTRIBUTION, ELECTRONIC DRIVER, WET LOCATION | LITHONIA<br>WILLIAMS<br>CURRENT<br>COOPER | WDGE2-P2-30K-80CRI-TFTM-MVOLT-DNAXD | 277 | 19 | LED 3000K, 1934 LUMENS, B1-U0-G1 | SURFACE/WALL 10'-0" AFF, UON | MOUNTING HEIGHT TAKEN FROM PLAN FLOOR LEVEL, REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT LOCATION |
| R3 | SAME AS TYPE R2 EXCEPT TYPE IV DISTRIBUTION | LITHONIA<br>WILLIAMS<br>CURRENT<br>COOPER | WDGE2-P2-30K-80CRI-T4M-MVOLT-DNAXD | 277 | 19 | LED 3000K, 1922 LUMENS, B1-U0-G1 | SURFACE/WALL 10'-0" AFF, UON | MOUNTING HEIGHT TAKEN FROM PLAN FLOOR LEVEL, REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT LOCATION |
| R4 | SAME AS TYPE R2 EXCEPT TYPE II DISTRIBUTION | LITHONIA<br>WILLIAMS<br>CURRENT<br>COOPER | WDGE2-P2-30K-80CRI-T2M-MVOLT-DNAXD | 277 | 19 | LED 3000K, 1963 LUMENS, B1-U0-G1 | SURFACE/WALL 10'-0" AFF, UON | MOUNTING HEIGHT TAKEN FROM PLAN FLOOR LEVEL, REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT LOCATION |
| T1 | 6" SQUARE LED DOWNLIGHT WITH FLUSH DIFFUSE ACRYLIC LENS, DIE CAST TRIM, MEDIUM DISTRIBUTION, GALVANIZED STEEL MOUNTING FRAME, 0-10V 1% ELECTRONIC DIMMING DRIVER | H.E.WILLIAMS<br>GOTHAM<br>PRESCOLITE<br>PORTFOLIO | 6DS-L10/840-DIM1-UNV-L-M-OF-WH-AD-N-F1 | 277 | 8.7 | LED 4000K, 80 CRI, 982 LUMENS | RECESSED/CEILING | |
| T2 | AS T1 EXCEPT 0.1% ELECTRONIC DIMMING DRIVER AND 120V CIRCUITING | H.E.WILLIAMS<br>GOTHAM<br>PRESCOLITE<br>PORTFOLIO | 6DS-L10/840-DIM1-UNV-L-M-OF-WH-AD-N-F1 | 120 | 8.7 | LED 4000K, 80 CRI, 982 LUMENS | RECESSED/CEILING | |
| T3 | AS T2 EXCEPT HIGHER OUTPUT AND WIDE DISTRIBUTION | H.E.WILLIAMS<br>GOTHAM<br>PRESCOLITE<br>PORTFOLIO | 6DS-L30/840-DIM1-UNV-L-W-OF-WH-AD-N-F1 | 120 | 31 | LED 4000K, 80 CRI, 2823 LUMENS | RECESSED/CEILING | |
| U | 24-INCH UNDERCABINET LED TASK LIGHTING WITH LOW PROFILE VACANCY SENSOR, ALUMINUM HOUSING, GASKETING, WHITE POWDERCOAT FINISH, HIGH IMPACT FROSTED ACRYLIC LENS, INTEGRAL ELECTRONIC DRIVER | AIREY-THOMPSON | 13L-N-40K-24-2-3-VS | 120 | 8.8 | LED 4000K, 80 CRI, 1000 LUMENS | SURFACE/ UNDERCABINET | |
| V1 | 2" WIDTH RECESSED LINEAR LIGHT FIXTURE WITH 90 DEGREE WALL TO CEILING TRANSITION CAPABILITY, STEEL HOUSING, ACRYLIC LENS, AND 0-10 VOLT 1% DIMMING. | CURRENT LUMENWERX | 2L-PT-WDC-X-X- 04-SOF-C1-40K-D030-D01-1C-UNV | 277 | 2.9 W/FT | LED 4000K, 80 CRI, 300 LUMENS/FT | RECESSED/CEILING OR WALL | LENGTH AS INDICATED ON FLOOR PLANS |
| V2 | AS V1 EXCEPT HIGHER LUMEN OUTPUT AND 0.1% DIMMING BY DMX. | CURRENT LUMENWERX | 2L-PT-WDC-X-X- 04-SOF-C1-40K-D050-DM01-1C-UNV | 120 | 5.2 W/FT | LED 4000K, 80 CRI, 500 LUMENS/FT | RECESSED/CEILING OR WALL | LENGTH AS INDICATED ON FLOOR PLANS |
| V3 | AS V1 EXCEPT HIGHER LUMEN OUTPUT AND 0.1% DIMMING BY DMX. | CURRENT LUMENWERX | 2L-PT-WDC-X-X- 04-SOF-C1-40K-D075-DM01-1C-UNV | 120 | 7.6 W/FT | LED 4000K, 80 CRI, 750 LUMENS/FT | RECESSED/CEILING OR WALL | LENGTH AS INDICATED ON FLOOR PLANS |
| V4 | AS V1 EXCEPT 0.1% DIMMING BY DMX. | CURRENT LUMENWERX | 2L-PT-WDC-X-X- 04-SOF-C1-40K-D030-DM01-1C-UNV | 120 | 2.9 W/FT | LED 4000K, 80 CRI, 300 LUMENS/FT | RECESSED/CEILING OR WALL | LENGTH AS INDICATED ON FLOOR PLANS |
| V5 | AS V1 EXCEPT HIGHER LUMEN OUTPUT, PENDANT MOUNT AND 0.1% DIMMING BY DMX. | CURRENT LUMENWERX | 2L-P-D-X-04-SOF-C1-40K-D075-DM01-1C-UNV | 120 | 7.6 W/FT | LED 4000K, 80 CRI, 750 LUMENS/FT | SUSPENDED 19" ABOVE FINISHED FIRST FLOOR LEVEL/STAGE LEVEL, UON | LENGTH AS INDICATED ON FLOOR PLANS |
| V6 | AS V1 EXCEPT SUITABLE FOR GRID CEILING | CURRENT LUMENWERX | 2L-LG-D-X-X- 04-SOF-C1-40K-D030-D01-1C-UNV | 277 | 2.9 W/FT | LED 4000K, 80 CRI, 300 LUMENS/FT | RECESSED/CEILING | LENGTH AS INDICATED ON FLOOR PLANS |
| V7 | AS V1 EXCEPT HIGHER OUTPUT | CURRENT LUMENWERX | 2L-PT-WDC-X-X- 04-SOF-C1-40K-D050-D01-1C-UNV | 277 | 5.2 W/FT | LED 4000K, 80 CRI, 500 LUMENS/FT | RECESSED/CEILING | LENGTH AS INDICATED ON FLOOR PLANS |
| W1 | 11.5" WIDE X 22" LONG X 5.25" HEIGHT LED POLE MOUNTED AREA LIGHT WITH DIE CAST ALUMINUM HOUSING AND FINISH, SEALED OPTICS, ELECTRONIC DRIVER, IES TYPE IV FORWARD THROW DISTRIBUTION, IP66 RATING | US ARCHITECTURAL<br>LITHONIA<br>CURRENT<br>COOPER | RZR-WM1-PLED-IV-FT-20LED-700MA-WW-RAL-8019-T | 277 | 44 | LED 3000K, 70CRIMIN., 5000 LUMENS, B2-U0-G1 | SURFACE/WALL 16'-0" AFF, UON | MOUNTING HEIGHT TAKEN FROM PLAN FLOOR LEVEL, REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT LOCATION |
| Y | 2' FLOOD ARCHITECTURAL LINEAR FLOODLIGHT WITH STAINLESS STEEL EXTERNAL FASTENERS AND SILICONE GASKET FOR DRIVER COMPARTMENT, IP66 WET LOCATION, THREADED KNUCKLE, STANCHION MOUNT WITH WIDE FLOOD BEAN SPREAD AND DIFFUSED LENS. CONTROL BOX PRESET LIGHT LEVELS, LIGHT GRAY MATTE TEXTURED FINISH | KIM LIGHTING<br>ACUITY HYDREL | INT-2-24L-30-3K8-WF-UNV-K-NCR-*-LGT-DL | 277 | 30 | LED 3000K, 80 CRI, 2803 LUMENS | GROUND | PROVIDE INPUT WIRING OPTION AS REQURIED |
| Z1 | 25" ANGLED LINEAR LAY-IN COVE FIXTURE WITH ACRYLIC LENS AND 1% DIMMING | HE WILLIAMS | CX-C-L4-8-40-25-DIM1-UNV | 277 | 3.4/FT | LED 4000K, 80CRI, 405 LUMENS/FT | COVE | ORIENT FIXTURE SO LIGHT IS AIMED TOWARDS THE COVE WALL |
| AA1 | 1 3/4" WIDE LINEAR FIXTURE, WITH 1/2" DROP LENS, EXTRUDED ALUMINUM HOUSING, AND 1% DIMMING | AXIS LUMENWERX | SCD-300-80-40-05M-W-UNV-DP-1 | 277 | 3.25/FT | LED 4000K, 80 CRI, 300 LUMENS/FT | SUSPENDED 4 1/2" BELOW CEILING UON. | LENGTH AS INDICATED ON FLOOR PLANS |
| AA2 | AS AA1, EXCEPT 500 LUMENS/FT | AXIS LUMENWERX | SCD-500-80-40-05M-W-UNV-DP-1 | 277 | 5.55/FT | LED 4000K, 80 CRI, 500 LUMENS/FT | SUSPENDED 4 1/2" BELOW CEILING UON. | LENGTH AS INDICATED ON FLOOR PLANS |
| AA3 | AS AA1, EXCEPT 600 LUMENS/FT | AXIS LUMENWERX | SCD-600-80-40-05M-W-UNV-DP-1 | 277 | 6.66/FT | LED 4000K, 80 CRI, 600 LUMENS/FT | SUSPENDED 18'-0" AFF UON. | LENGTH AS INDICATED ON FLOOR PLANS |
| AB1 | 4" SQUARE SUSPENDED DOWNLIGHT WITH BLACK HOUSING, WIDE DISTRIBUTION, FLUSH LENS, DMX DRIVER WITH 0.1% DIMMING. | HE WILLIAMS SPECTRUM LTG | 4CS-L20-8-40-BLK-DMX-UNV-L-W-CS | 120 | 23.4 | LED 4000K, 80 CRI, 2000 LUMENS | SUSPENDED 20' ABOVE FINISHED FIRST FLOOR LEVEL/STAGE LEVEL UON. | |
| AB2 | AS AB1, EXCEPT 277V, 0-10V 1% DIMMING. | HE WILLIAMS SPECTRUM LTG | 4CS-L20-8-40-BLK-DMX-UNV-L-W-CS | 277 | 23.4 | LED 4000K, 80 CRI, 2000 LUMENS | SUSPENDED 21'-6" AFF UON. | |

## GENERAL NOTES:

1. REFER TO E003 FOR LIGHTING FIXTURE SCHEDULE NOTES

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE NEWARK, DE 19702**

SHEET TITLE

**LIGHTING FIXTURE SCHEDULE**

SHEET NO.

**E002**

# LIGHTING FIXTURE SCHEDULE

| TYPE | DESCRIPTION | MANUFACTURER | CATALOG NO. | VOLTS | INPUT WATTS | LAMP | MOUNTING | REMARKS |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| AB3 | AS AB2, EXCEPT LOWER OUTPUT | HE WILLIAMS<br>SPECTRUM LTG | 4CS-L12-8-40-BLK-DMX-UNV-L-W-CS | 277 | 14 | LED 4000K, 80 CRI, 1200 LUMENS | SUSPENDED 21'-6" AFF UON. | |
| AC1 | 19" SQUARE CANOPY FIXTURE WITH ALUMINUM HOUSING, WET LOCATION, TYPE IV DISTRIBUTION, GREY FINISH, AND MINIMUM OPERATING TEMPERATURE -40°F. | US ARCHITECTURAL | VRS-CMS LED-IV-48LED-525MA-WW-277-RAL-8019-T | 277 | 77 | LED 3000K, 7409 LUMENS | SURFACE/CANOPY | |
| AC2 | AS AC1 EXCEPT TYPE V DISTRIBUTION | US ARCHITECTURAL | VRS-CMS LED-V-SQ-48LED-525MA-WW-277-RAL-8019-T | 277 | 77 | LED 3000K, 7409 LUMENS | SURFACE/CANOPY | |
| AD | 15-1/16" DIA. ROUND LED HIGH BAY WITH DIE CAST ALUMINUM HOUSING; INTEGRAL DIE-CAST ALUMINUM HEAT SINK; TEMPERED GLASS LENS; BLACK POLYESTER POWDER COAT FINISH; LEDS RATED L70>50,000 HOURS; IP65 RATED | METALUX<br>LITHONIA<br>H.E.WILLIAMS | UHB-12-UNV-L840-CD | UNV | 99 | LED 4000K, 12000 LUMENS | SUSPEND BOTTOM OF FIXTURE FLUSH WITH STRUCTURE | REFER TO DETAIL |
| | ELECTRONICALLY CONTROLLED, MOTORIZED LOWERING SYSTEM WITH SELF-SUSTAINING WORM GEAR DRIVE, A CONTROL SUSPENSION UNIT AND ELECTRONIC CONTROL MODULE | LIGHTING AND LOWERING SYSTEMS OR APPROVED EQUAL | CELS-300-45REM-4C | | | | | |
| AF | SQUARE DIRECT/INDIRECT WALL SCONCE, WITH BLACK FINISH AND 0.1% DIMMING | AMERLUX | RK350WS-DI-11/11-MB-1-CWM-120-277-MB-WF-40-0-10 | 120 | 28 | LED 4000K, 7409 LUMENS | SURFACE/WALL 5'-8" AFF UON | |
| EMER | LED DUAL HEAD ADJUSTABLE EMERGENCY LIGHTING FIXTURE, UV STABILIZED THERMOPLASTIC HOUSING, LITHIUM-ION BATTERY, DIAGNOSTICS | LIGHTALARMS<br>LITHONIA<br>DUAL-LITE<br>SURELITES<br>EVENLITE | LCA-2RHL-ID | 120 | 10.8 | (2) 550 LUMEN MR16 LED | SURFACE/WALL 8'-6" AFF UON | PROVIDE BLACK FINISH IN AUDITORIUM AND MULTIPURPOSE ROOMS. |
| EXIT | LED EDGE LIT EXIT SIGN WITH EXTRUDED ALUMINUM HOUSING, RED STENCIL LETTERS, BRUSHED ALUMINUM FINISH,WITH DIRECTIONAL CHEVRON KNOCKOUTS, SINGLE OR TWIN FACE AND UNIVERSAL MOUNTING AS INDICATED | LIGHTALARMS<br>LITHONIA<br>DUAL-LITE<br>SURELITES<br>EVENLITE | 6UEARM | 277 | 2.8 | LED ARRAY | UNIVERSAL | PROVIDE UNLESS OTHERWISE NOTED |
| EXIT 2 | LED EMERGENCY EXIT SIGN WITH DIE CAST ALUMINUM HOUSING, RED STENCIL LETTERS AND DIRECTIONAL CHEVRON KNOCKOUTS, BRUSHED ALUMINUM FINISH, SINGLE OR TWIN FACE AND UNIVERSAL MOUNTING AS INDICATED, VANDAL SHIELD, NI-CAD BATTERY | LIGHTALARMS<br>LITHONIA<br>DUAL-LITE<br>SURELITES<br>EVENLITE | 1/2-XDNDARW-LVR | 277 | 2.8 | LED ARRAY | UNIVERSAL | PROVIDE IN SHOPS AND GYM, PROVIDE WIRE GUARDS FOR ALL EXIT SIGNS IN GYM |
| EXIT WP | LED EXIT SIGN WITH PVC ENCLOSURE, POLYCARBONATE FACEPLATE, RED STENCIL LETTERS, CHEVRON KNOCKOUTS, ALUMINUM FINISH, FULLY GASKETED, SINGLE OR TWIN FACE AND UNIVERSAL MOUNTING AS INDICATED, NEMA 4X RATED | LIGHTALARMS<br>LITHONIA<br>DUAL-LITE<br>SURELITES<br>EVENLITE | GA-XV-1/2-R-4X | 277 | 3.7 | LED ARRAY | UNIVERSAL | PROVIDE IN COURTYARD |

# LIGHTING CONTROL MATRIX

| | AUTO ON | MANUAL ON | AUTO OFF | DELAY TIME | DIMMING | TIME SCHEDULE ON | TIME SCHEDULE OFF | SPECIAL COMMENTS |
|---|---|---|---|---|---|---|---|---|
| MEDIA CENTER | | Y | Y | 20 | Y | | | DIMMING PER ZONE |
| GYMS | Y | | Y | 20 | Y<br>AUTO-ON TO 50% | | | DIMMING PER ZONE |
| CAFETERIA | Y | | Y | 20 | Y<br>AUTO-ON TO 50% | | | DIMMING PER ZONE |
| CLASSROOMS | | Y | Y | 20 | Y | | | DIMMING AND SCENE CONTROL. REFER TO DETAIL. TEACHER'S DESKS SHALL HAVE 100% MINOR MOTION COVERAGE |
| SHOPS | Y | | Y | 20 | Y<br>AUTO-ON TO 50% | | | DIMMING PER ZONE |
| SCIENCE LAB CLASSROOMS | Y | | Y | 20 | Y<br>AUTO-ON TO 50% | | | DIMMING AND SCENE CONTROL. REFER TO DETAIL. TEACHER'S DESKS SHALL HAVE 100% MINOR MOTION COVERAGE |
| LOBBIES | Y | | Y | 20 | N | | | ACTIVATION OF FIRE ALARM SYSTEM SHALL TURN ON LIGHTING TO 100% |
| CORRIDORS/RECEPTION AREAS | Y | | Y | 20 | N | | | ACTIVATION OF FIRE ALARM SYSTEM SHALL TURN ON LIGHTING TO 100% |
| STAIRWELLS | Y | | Y | 20 | Y | 5:30 AM | 6:00 PM | 50% UNOCCUPIED - 100% OCCUPIED UNTIL SCHEDULED OFF TIME. ONCE OFF TIME HAS FUNCTIONED THEN AUTO ON/AUTO OFF IS ACTIVATED. ACTIVATION OF FIRE ALARM SYSTEM SHALL TURN ON LIGHTING TO 100% |
| STORAGE ROOMS | | Y | Y | 10 | N | | | |
| MECHANICAL/ ELECTRICAL/ TELECOM RMS | | Y | | | N | | | LIGHTED TOGGLE SWITCHES |
| OFFICES | | Y | Y | 15 | Y | | | DIMMING PER ZONE. DESKS SHALL HAVE 100% MINOR MOTION COVERAGE |
| RESTROOMS (SINGLE) | | Y | Y | 15 | N | | | |
| RESTROOMS (GANG) | Y | | Y | 15 | N | | | |
| SHOWER STALLS | | Y | | | N | | | |
| EXTERIOR BUILDING MOUNTED LIGHTS | | | | | N | DUSK | MIDNIGHT-6AM | PHOTOCELL ON AND BUILDING MANAGEMENT SYSTEM OFF W/MANUAL OVERRIDE IN MAIN ELECTRICAL ROOM |
| EXTERIOR POLE MOUNTED LIGHTS | | | | | N | DUSK | MIDNIGHT-6AM | PHOTOCELL ON AND BUILDING MANAGEMENT SYSTEM OFF W/MANUAL OVERRIDE IN MAIN ELECTRICAL ROOM |
| EXTERIOR LIGHTS ON EMERGENCY CIRCUIT | | | | | N | DUSK | DAWN | PHOTOCELL ON/OFF W/MANUAL OVERRIDE IN MAIN ELECTRICAL ROOM |
| INTERIOR LIGHTS ON EMERGENCY CIRCUIT W/ INTEGRAL TRANSFER RELAY | CONTROLLED WITH NORMAL LIGHTS - REFER TO DETAILS | | | | WHERE INDICATED | | | ACTIVATION OF FIRE ALARM SYSTEM SHALL TURN ALL INTERIOR EMERGENCY LIGHTING 'ON' TO 100% |
| INTERIOR LIGHTS ON EMERGENCY CIRCUIT | Y | | Y | 20 | N | | | ACTIVATION OF FIRE ALARM SYSTEM SHALL TURN ALL INTERIOR EMERGENCY LIGHTING 'ON' TO 100% |

LIGHTING FIXTURE SCHEDULE NOTES

1. COORDINATE LIGHTING FIXTURES INDICATED ON DRAWINGS WITH ARCHITECTURAL REFLECTED CEILING PLANS AND ELEVATIONS FOR EXACT LOCATIONS. VERIFY CEILING CONSTRUCTION IN ALL AREAS V PROVIDE ALL MOUNTING FRAMES AND HARDWARE AS REQUIRED FOR A COMPLETE INSTALLATION, SUITABLE FOR THE CEILING TYPE AND CONFIGURATION.
2. REFER TO LIGHTING SPECIFICATIONS FOR ADDITIONAL FIXTURE AND DRIVER INFORMATION. PROVIDE DRIVERS FOR VOLTAGE AS INDICATED.
3. FIRST NAMED PRODUCT IS BASIS OF DESIGN. PROVIDE PRODUCTS WHICH INCLUDE ALL FEATURES AND ACCESSORIES AS INDICATED IN THE DESCRIPTION AND MODEL NUMBER OF THE BASIS OF DESIGN
4. ALTERNATE MANUFACTURERS INCLUDE, BUT ARE NOT LIMITED TO, THOSE LISTED BELOW. BEING LISTED DOES NOT GUARANTEE APPROVAL OF SUBMITTED FIXTURES; FIXTURE MUST COMPLY WITH PROJE BASIS OF DESIGN FIXTURE PERFORMANCE.
5. FIXTURES WITH "D" SUFFIX SHALL BE CONTROLLED BY LIGHT LEVEL SENSOR FOR DAYLIGHT HARVESTING.
6. ALL FINISH SELECTIONS SHALL BE AS APPROVED BY THE ARCHITECT. COLOR TO BE SELECTED FROM THE MANUFACTURER'S FULL RANGE, INCLUDING CUSTOM COLOR AS NOTED.
7. MOUNTING HEIGHTS ARE TO THE BOTTOM OF THE FIXTURE UNLESS OTHERWISE NOTED.
8. FIXTURES WITH "E" SUFFIX SHALL BE PROVIDED WITH INTEGRAL TRANSFER RELAY

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**LIGHTING FIXTURE SCHEDULE**

SHEET NO.

**E003**

## DRAWING NOTES:

1. VIA LIGHTING CONTACTOR LC-3
2. VIA LIGHTING CONTACTOR LC-4
3. VIA LIGHTING CONTACTOR LC-5
4. VIA LIGHTING CONTACTOR LC-6
5. DO NOT PROVIDE UNDER ALTERNATE #2.
6. PROVIDE HANDHOLE WITHIN 4' OF FLAGPOLE. MAKE CONNECTION TO INTEGRAL POST TOP LIGHT AS REQUIRED BY MANUFACTURER.
7. VIA LIGHTING CONTACTOR LC-7
8. VIA LIGHTING CONTACTOR LC-8
9. VIA LIGHTING CONTACTOR LC-10
10. REFER TO TECHNOLOGY DRAWING T100 FOR LOCATION OF SECURITY CAMERA AND CONDUIT REQUIREMENTS. POLE BASE SHALL BE DRILLED ON SIDE INDICATED FOR MOUNTING OF SECURITY CAMERA.
11. PROVIDE 1.5KVA, 480V-120V CONTROL POWER TRANSFORMER WITH PRIMARY AND SECONDARY FUSING IN NEMA 1 ENCLOSURE.
12. MAKE ALL CONNECTIONS TO CARD READER POWER SUPPLY. REFER TO TECHNOLOGY DRAWINGS FOR ADDITIONAL INFORMATION.

## GENERAL NOTES:

1. REFER TO CIVIL DRAWINGS FOR PHASING OF SITE WORK. REFER TO CONSTRUCTION PHASING SCHEDULE FOR COORDINATION OF ACTIVITIES WITHIN PHASE 1.
2. COORDINATE WORK INDICATED WITH SITE PHASING UNLESS OTHERWISE NOTED. PERFORM ALL WORK ROUTED IN THE PHASE 1 AREA REQUIRED FOR PHASE 2 WORK DURING PHASE 1.
3. DO NOT ROUTE CONDUITS BENEATH FUTURE PROPOSED BUILDING AREAS UNLESS SPECIFICALLY INDICATED.
4. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES ON SITE BEFORE PROCEEDING WITH SITEWORK. FOR LOCATION OF UTILITIES CALL "MISS UTILITY", 24 HOURS A DAY, 1-800-257-7777. CALL 48 HOURS IN ADVANCE. ALL COSTS ASSOCIATED WITH FIELD VERIFICATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
5. CONCRETE ENCASE CONDUITS UNDER PARKING/ROADWAYS.
6. TEST PIT EXISTING UTILITIES AS REQUIRED TO VERIFY DEPTHS IN THE WAY OF PROPOSED WORK. ADJUST CONDUIT DEPTH TO AVOID EXISTING UTILITIES.
7. PROVIDE 1" PVC DIRECT BURIED CONDUITS FOR SITE LIGHTING CIRCUITS, UON.
8. COORDINATE ALTERNATES SCOPE OF WORK WITH CIVIL DRAWINGS.
9. INSTALL ALL INFRASTRUCTURE BETWEEN MAIN BUILDING AND FIELDHOUSE TO WITHIN 15'-0" AND CAP FOR FUTURE EXTENSION. INSTALL BRANCH CIRCUITS, INCLUDING WIRING, FROM FIELDHOUSE TO WITHIN 15'-0" AND TERMINATE IN JUNCTION BOX(ES) AS REQUIRED FOR FUTURE EXTENSION.

MATCHLINE - SEE SHEET E005 FOR CONTINUATION

MATCHLINE - SEE SHEET E006 FOR CONTINUATION

UTILITY PAD-MOUNT SECTIONALIZING SWITCH

PRIMARY DUCTBANK

PRIMARY DUCTBANK

PRIMARY DUCTBANK

PEDESTAL WITH ACCESS CONTROL

FLAG POLE (6) (TYP. OF 3)

WALL MOUNT 10'-0" AFF INSIDE BLDG (11)

MOTORIZED SLIDING GATE PEDESTAL WITH ACCESS CONTROL

DO NOT PROVIDE UNDER ALTERNATE #1

PROVIDE PROTECTIVE BOLLARD PER UTILITY REQUIREMENTS (TYPICAL OF 9)

FIRE PUMP GENERATOR DUCT BANK

FIRE PUMP SECONDARY DUCTBANK

GENERATOR

CHILLER-1

CHILLER-2

MTS/DOCKING STATION

REFER TO PART PLAN ON DRAWING E401 FOR ADDITIONAL INFORMATION

SECONDARY DUCTBANK MOTORIZED SLIDING GATE

PHASE 1

ELECTRICAL SITE PLAN
SCALE: 1" = 40'-0"

SCALE: 1" = 40'-0"
40 0 40 80

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NEW CASTLE COUNTY DELAWARE


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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**ELECTRICAL SITE PLAN**

SHEET NO.

**E004**

## DRAWING NOTES:

1. VIA LIGHTING CONTACTOR LC-3
2. VIA LIGHTING CONTACTOR LC-4
3. VIA LIGHTING CONTACTOR LC-5
4. VIA LIGHTING CONTACTOR LC-6
5. DO NOT PROVIDE UNDER ALTERNATE #2.
6. PROVIDE HANDHOLE WITHIN 4' OF FLAGPOLE. MAKE CONNECTION TO INTEGRAL POST TOP LIGHT AS REQUIRED BY MANUFACTURER.
7. VIA LIGHTING CONTACTOR LC-7
8. VIA LIGHTING CONTACTOR LC-8
9. VIA LIGHTING CONTACTOR LC-10
10. REFER TO TECHNOLOGY DRAWING T100 FOR LOCATION OF SECURITY CAMERA AND CONDUIT REQUIREMENTS. POLE BASE SHALL BE DRILLED ON SIDE INDICATED FOR MOUNTING OF SECURITY CAMERA.

## GENERAL NOTES:

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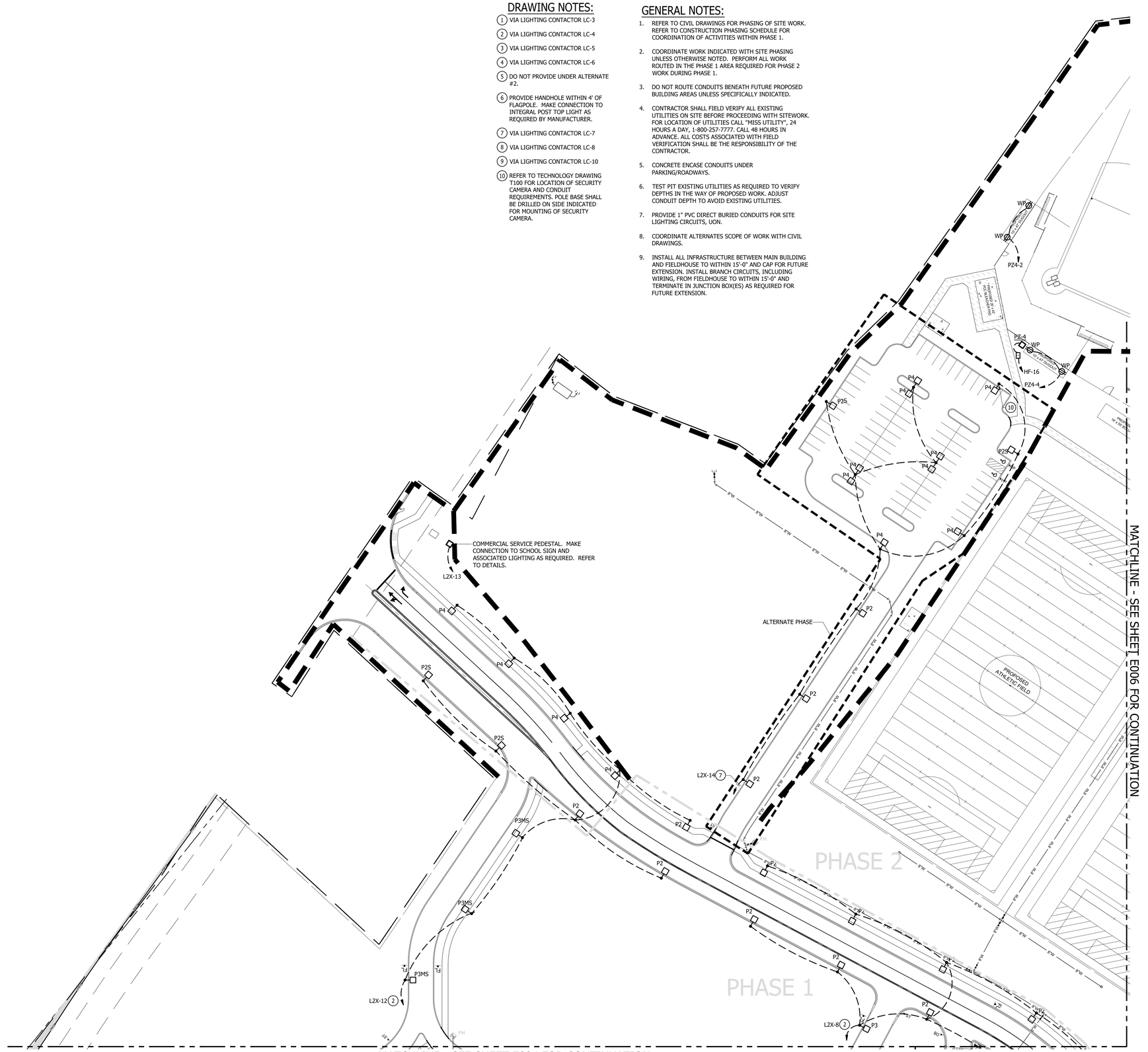
7. PROVIDE 1" PVC DIRECT BURIED CONDUITS FOR SITE LIGHTING CIRCUITS, UON.
8. COORDINATE ALTERNATES SCOPE OF WORK WITH CIVIL DRAWINGS.
9. INSTALL ALL INFRASTRUCTURE BETWEEN MAIN BUILDING AND FIELDHOUSE TO WITHIN 15'-0" AND CAP FOR FUTURE EXTENSION. INSTALL BRANCH CIRCUITS, INCLUDING WIRING, FROM FIELDHOUSE TO WITHIN 15'-0" AND TERMINATE IN JUNCTION BOX(ES) AS REQUIRED FOR FUTURE EXTENSION.




ELECTRICAL SITE PLAN
SCALE: 1" = 40'-0"

SCALE: 1" = 40'-0"
40 0 40 80

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

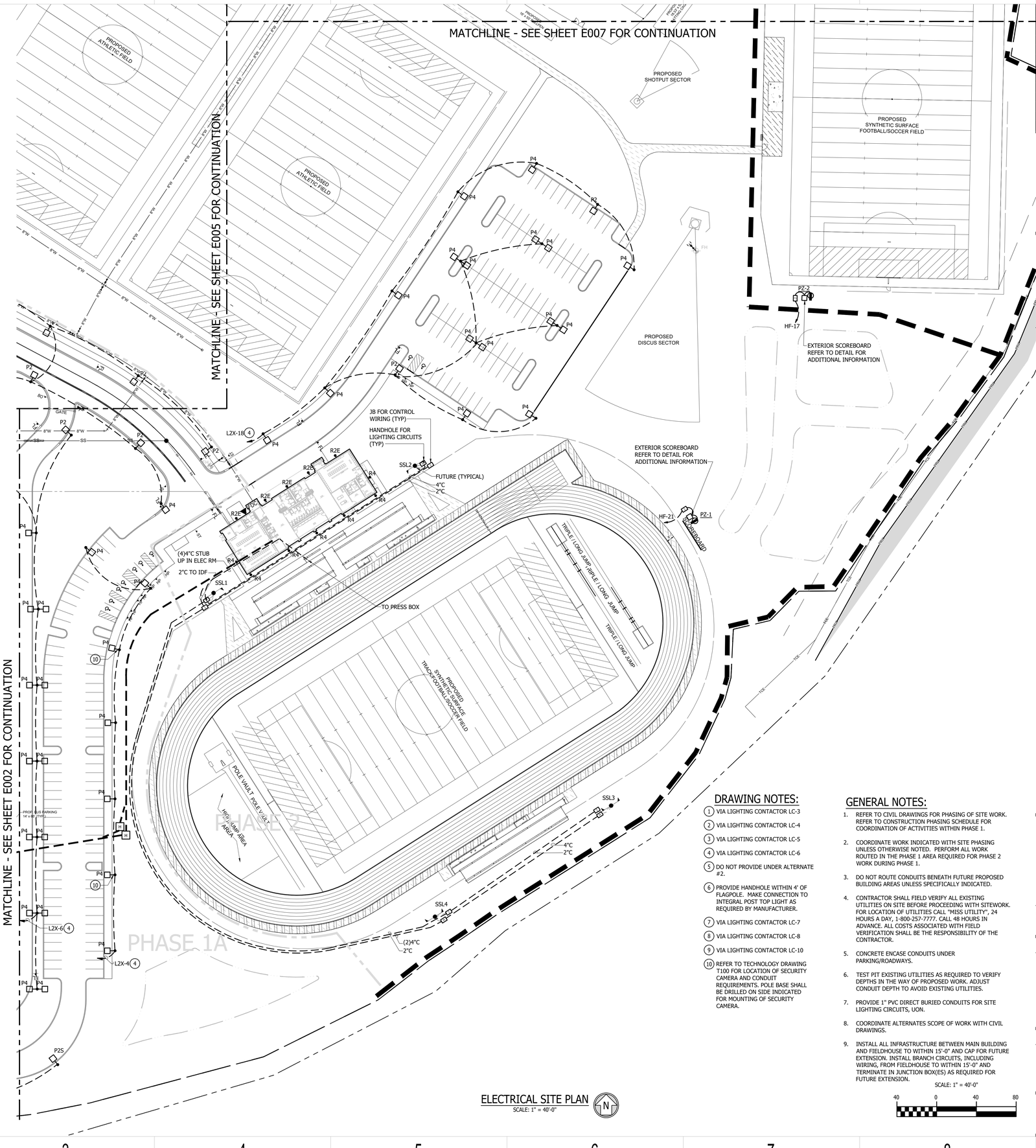
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**ELECTRICAL SITE PLAN**

SHEET NO.

**E005**




ELECTRICAL SITE PLAN
SCALE: 1" = 40'-0"

## DRAWING NOTES:

1. VIA LIGHTING CONTACTOR LC-3
2. VIA LIGHTING CONTACTOR LC-4
3. VIA LIGHTING CONTACTOR LC-5
4. VIA LIGHTING CONTACTOR LC-6
5. DO NOT PROVIDE UNDER ALTERNATE #2.
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## GENERAL NOTES:

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7. PROVIDE 1" PVC DIRECT BURIED CONDUITS FOR SITE LIGHTING CIRCUITS, UON.
8. COORDINATE ALTERNATES SCOPE OF WORK WITH CIVIL DRAWINGS.
9. INSTALL ALL INFRASTRUCTURE BETWEEN MAIN BUILDING AND FIELDHOUSE TO WITHIN 15'-0" AND CAP FOR FUTURE EXTENSION. INSTALL BRANCH CIRCUITS, INCLUDING WIRING, FROM FIELDHOUSE TO WITHIN 15'-0" AND TERMINATE IN JUNCTION BOX(ES) AS REQUIRED FOR FUTURE EXTENSION.

SCALE: 1" = 40'-0"

40 0 40 80

| No. | Description | Date |
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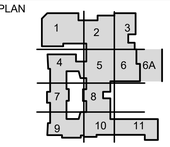
KEYPLAN





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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**ELECTRICAL SITE PLAN**

SHEET NO.

**E006**

ELECTRICAL SITE PLAN
SCALE: 1" = 40'-0"

## GENERAL NOTES:

1. REFER TO CIVIL DRAWINGS FOR PHASING OF SITE WORK. REFER TO CONSTRUCTION PHASING SCHEDULE FOR COORDINATION OF ACTIVITIES WITHIN PHASE 1.
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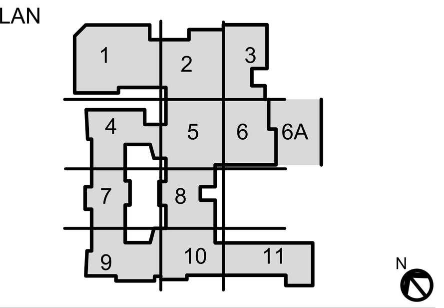
KEYPLAN

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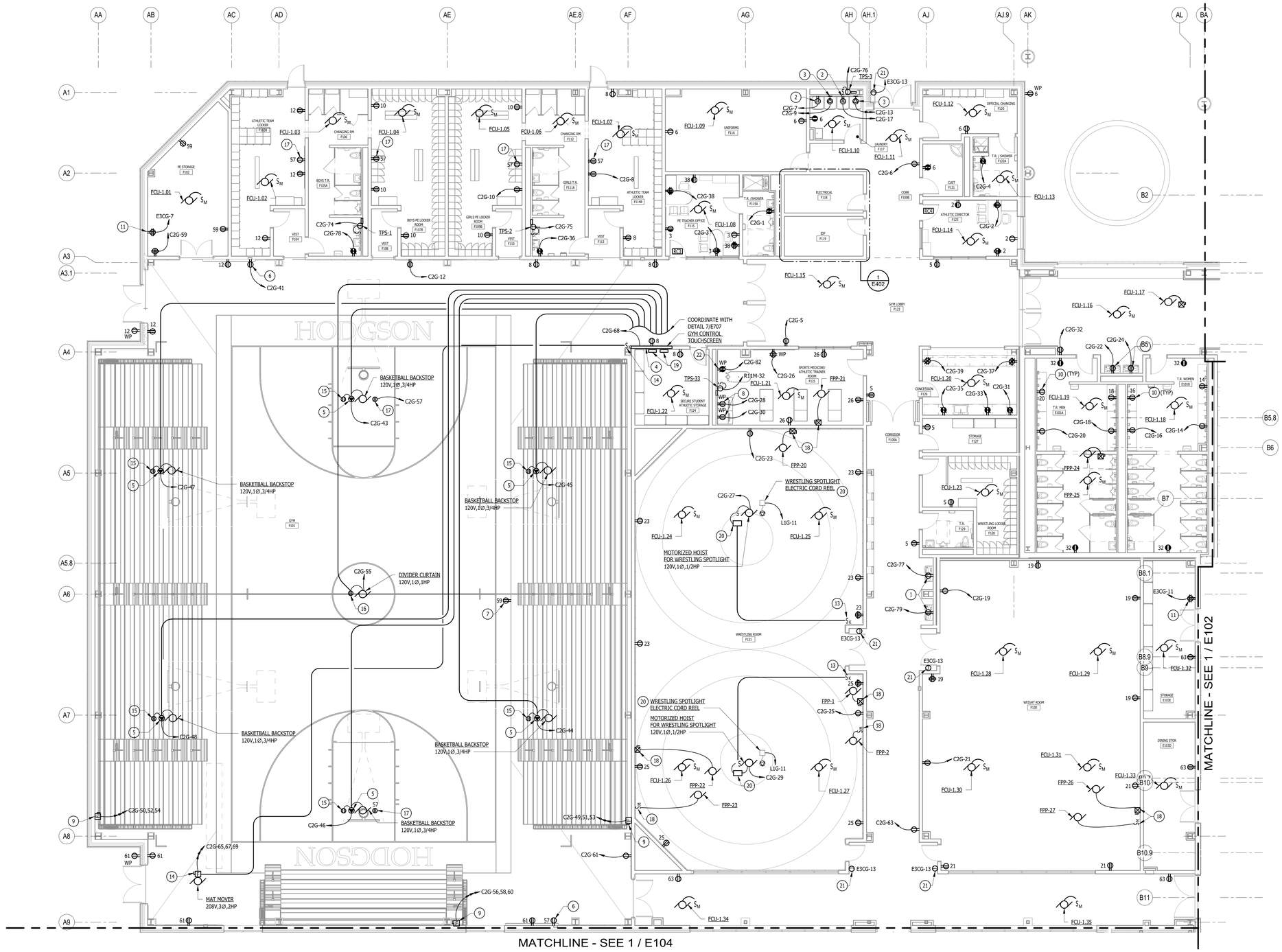
JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

2575 GLASGOW AVENUE
NEWARK, DE 19702

SHEET TITLE
**ELECTRICAL SITE PLAN**

SHEET NO.
**E007**




1 FIRST FLOOR - KEYPLAN 1 - POWER
1/8" = 1'-0"

0 4' 8' 16'

## GENERAL NOTES:

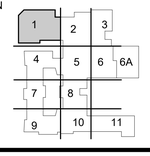
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.
2. COORDINATE LOCATION AND MOUNTING HEIGHT OF OUTLETS WITH ARCHITECTURAL AND TECHNOLOGY DRAWINGS AND DETAILS.

## DRAWING NOTES:

1. MOUNT TO SUIT EWC. (APPROX 42" AFF)
2. MOUNT TO SUIT WASHER. (APPROX 42" AFF)
3. NEMA 14-30R. MOUNT TO SUIT DRYER.
4. COORDINATE SIZE OF RECESSED BACKBOX FOR GYM GROUP CONTROLLER WITH SYSTEM MANUFACTURER. MAKE ALL POWER AND LOW VOLTAGE CABLING CONNECTIONS TO GYM EQUIPMENT VIA GYM EQUIPMENT CONTROL PANELS AS REQUIRED PER SYSTEM MANUFACTURERS REQUIREMENTS. LOW VOLTAGE CABLING SHALL BE INSTALLED IN THEIR DEDICATED CONDUITS. REFER TO DETAIL 7/E707 FOR ADDITIONAL INFORMATION.
5. MOUNT NEMA L14-20R RECEPTACLE FURNISHED WITH UNIT TO SUIT BASKETBALL BACKSTOP. MAKE ALL CONNECTIONS TO BACKSTOP MOTOR AND RAISE/LOWER CONTROLS AS REQUIRED.
6. MOUNT TO SUIT SCOREBOARD. MAKE ALL CONNECTIONS TO GYM EQUIPMENT CONTROL PANEL(S) AS REQUIRED.
7. MOUNT FLUSH IN FACE OF BLEACHERS ON BOTTOM RISER FOR SCORERS TABLE. PROVIDE SUPPORTS TO BLEACHERS AS REQUIRED FOR ALL CABLING AND ENOUGH SLACK IN CABLING FOR EXTENSION AND RETRACTION OF BLEACHERS.
8. MOUNT TO SUIT ICE MAKER.
9. MOTORIZED BLEACHERS - 208V, 3 Ø, 1/2HP. PROVIDE 3P, 30A FSS IN NEMA 1 ENCLOUSRE FUSED PER MANUFACTURERS NAMEPLATE DATA. MOUNT AT UNIT AND MAKE ALL CONNECTIONS.
10. MOUNT TO SUIT LAVATORY - 120V, 5A, PER MANUFACTURERS INSTALLATION INSTRUCTIONS.
11. MOUNT TO SUIT SOUND SYSTEM CABINET.
12. PROVIDE MOTOR RATED SWITCH. MOUNT AT UNIT AND MAKE ALL CONNECTIONS AS REQUIRED.
13. MAKE ALL CONNECTIONS TO RAISE LOWER SWITCH FURNISHED WITH WRESTLING SPOTLIGHT HOIST/CORD REEL.
14. 3P, 30A FSS IN NEMA 1 ENCLOSURE FUSED PER MANUFACTURERS NAMEPLATE DATA. MOUNT TO SUIT MAT MOVER AND MAKE ALL CONNECTIONS TO CONTROL PANEL AND KEY SWITCH FURNISHED WITH UNIT.
15. PROVIDE NEMA 5-20R RECEPTACLE AND MATCHING PLUG FOR BACKBOARD HEIGHT ADJUSTER. MAKE ALL CONNECTIONS AS REQUIRED TO HEIGHT ADJUSTER AND GYM GROUP CONTROL PANELS AS REQUIRED.
16. MAKE ALL CONNECTIONS TO RECEPTACLE FURNISHED WITH UNIT AND GYM CONTROLLER RELAY CABINET AS REQUIRED.
17. MOUNT TO SUIT SHOT CLOCK (REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION). MAKE ALL CONNECTIONS AS REQUIRED TO SCOREBOARD AND GYMNASIUM EQUIPMENT CONTROL PANEL(S) PER MANUFACTURERES INSTALLATION INSTRUCTIONS.
18. MOUNT ABOVE ACCESSIBLE CEILING.
19. GYMNASIUM EQUIPMENT CONTROL PANEL(S). MOUNT ABOVE ACCESSIBLE CEILING. REFER TO DETAIL 7/E707 FOR ADDITIONAL INFORMATION.
20. MOTORIZED HOIST CONTROL BOX AND ELECTRIC CORD REEL. REFER TO DETAIL 8/E706 FOR ADDITIONAL INFORMATION.
21. MAKE ALL CONNECTIONS TO CARD READER POWER SUPPLY. REFER TO TECHONLOGY DRAWINGS FOR ADDITIONAL INFORMATION.
22. MOUNT TO SUIT WHIRLPOOL TUB. (APPROX 42" AFF)

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

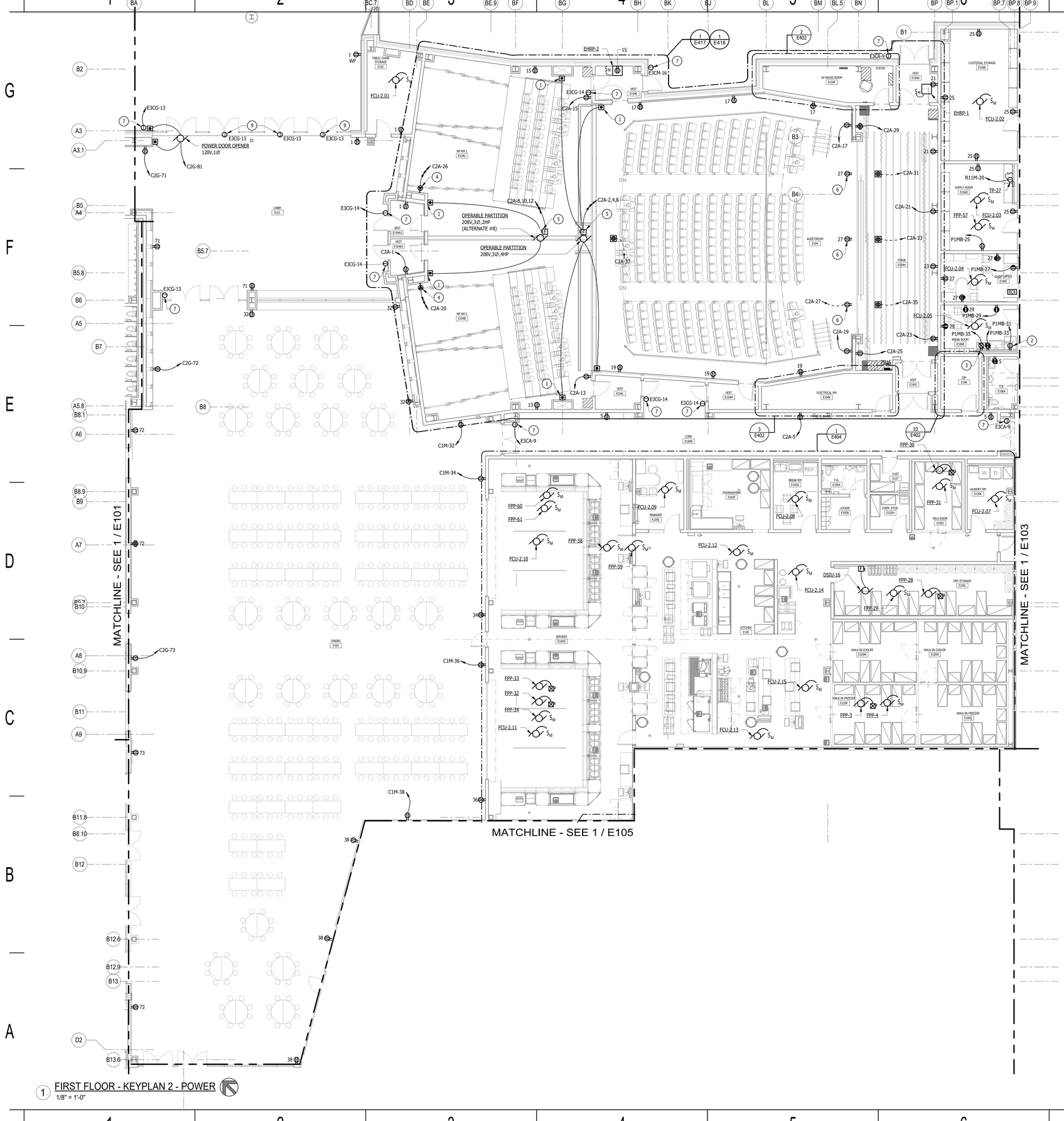
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR - KEYPLAN 1 - POWER**

SHEET NO.

**E101**




1 FIRST FLOOR - KEYPLAN 2 - POWER
1/8" = 1'-0"

## GENERAL NOTES:

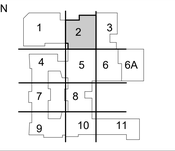
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.
2. COORDINATE LOCATION AND MOUNTING HEIGHT OF OUTLETS WITH ARCHITECTURAL AND TECHNOLOGY DRAWINGS AND DETAILS.
3. PROVIDE ADDITIONAL WORK AS INDICATED ON THEATER DRAWINGS UNDER DIVISION 26.

## DRAWING NOTES:

1. MAKE ALL CONNECTIONS TO SWITCH(ES) FURNISHED WITH OPERABLE PARTITION. FIELD COORDINATE EXACT LOCATION WITH ARCHITECT.
2. MOUNT TO SUIT REFRIGERATOR.
3. MOUNT TO SUIT MICROWAVE ON SHELF.
4. NEMA L21-30P RECEPTACLE. MOUNT TO SUIT TELESCOPING SEATING.
5. 3P, 30A FSS IN NEMA 1 ENCLOSURE, MOUNT AT UNIT AND MAKE ALL CONNECTIONS TO CONTROL PANEL FURNISHED WITH OPERABLE PARTITION AS REQUIRED.
6. MOUNT IN FACE OF STAGE. COORDINATE WITH ARCHITECTURAL DRAWINGS.
7. MAKE ALL CONNECTIONS TO CARD READER POWER SUPPLY. REFER TO TECHONLOGY DRAWINGS FOR ADDITIONAL INFORMATION.
8. MAKE ALL CONNECTIONS TO ADA DOOR OPERATOR AS REQUIRED PER MANUFACTURERS INSTALLATION INSTRUCTIONS. COORDINATE LOCATION OF PUSHBUTTONS FURNISHED WITH UNIT WITH ARCHITECT PRIOR TO INSTALLATION. MAKE ALL INTERLOCK CONNECTIONS TO CARD READER AS REQUIRED.
9. MAKE ALL CONNECTIONS TO SECURITY SYSTEM POWER SUPPLY. REFER TO TECHNOLOGY DRAWINGS FOR ADDITIONAL INFORMATION.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

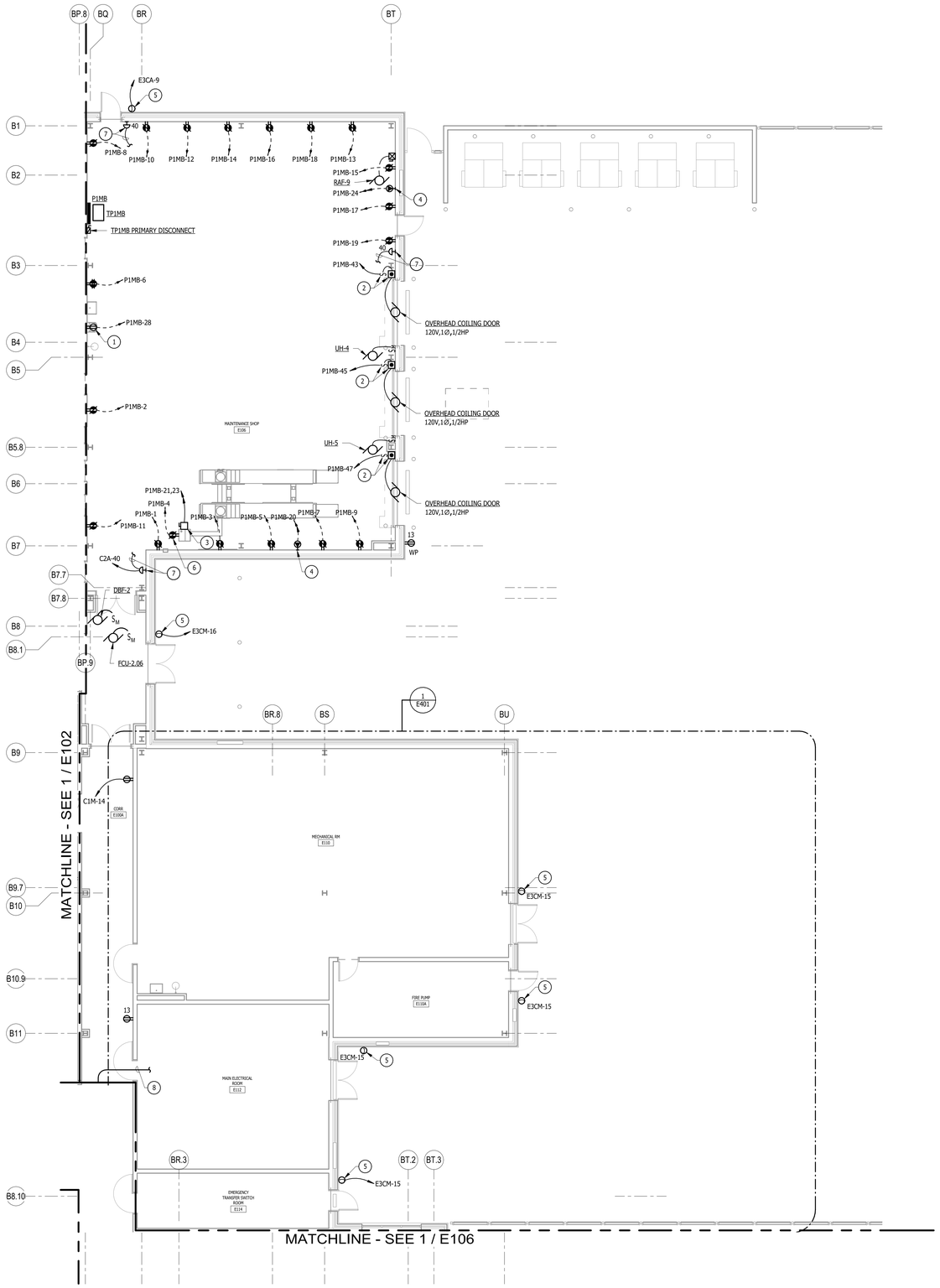
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR - KEYPLAN 2 - POWER**

SHEET NO.

**E102**




## GENERAL NOTES:

1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.
2. COORDINATE LOCATION AND MOUNTING HEIGHT OF OUTLETS WITH ARCHITECTURAL AND TECHNOLOGY DRAWINGS AND DETAILS.

## DRAWING NOTES:

1. MOUNT TO SUIT EWC. (APPROX 42" AFF)
2. 1P, 20A MOTOR RATED SWITCH MOUNTED ADJACENT TO CONTROL PANEL. MAKE ALL CONNECTIONS TO CONTROL PANEL, MOTOR, ACCESSORIES AND RAISE LOWER SWITCH FURNISHED WITH OVERHEAD COILING DOOR.
3. 2P, 30A FSS IN NEMA 1 ENCLOSURE FUSED PER MANUFACTURERS NAMEPLATE DATA. MAKE ALL CONNECTIONS TO LIFT AS REQUIRED.
4. NEMA 6-20R. MOUNT 42" AFF.
5. MAKE ALL CONNECTIONS TO CARD READER POWER SUPPLY. REFER TO TECHONLOGY DRAWINGS FOR ADDITIONAL INFORMATION.
6. MOUNT TO LIFT POST.
7. MAKE CONNECTION TO P1MB MAIN CIRCUIT BREAKER SHUNT TRIP COIL VIA EPO'S.
8. CONDUITS FOR FUTURE FEEDERS TO AREA 6A. CAP AT END OF CORRIDOR FOR FUTURE EXTENSION. FEEDER ROUTING SHOWN IS DIAGRAMMATIC. FIELD COORDINATE EXACT ROUTING. PROVIDE OFFSET, PULLBOXES, ETC AS REQUIRED PER NEC.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

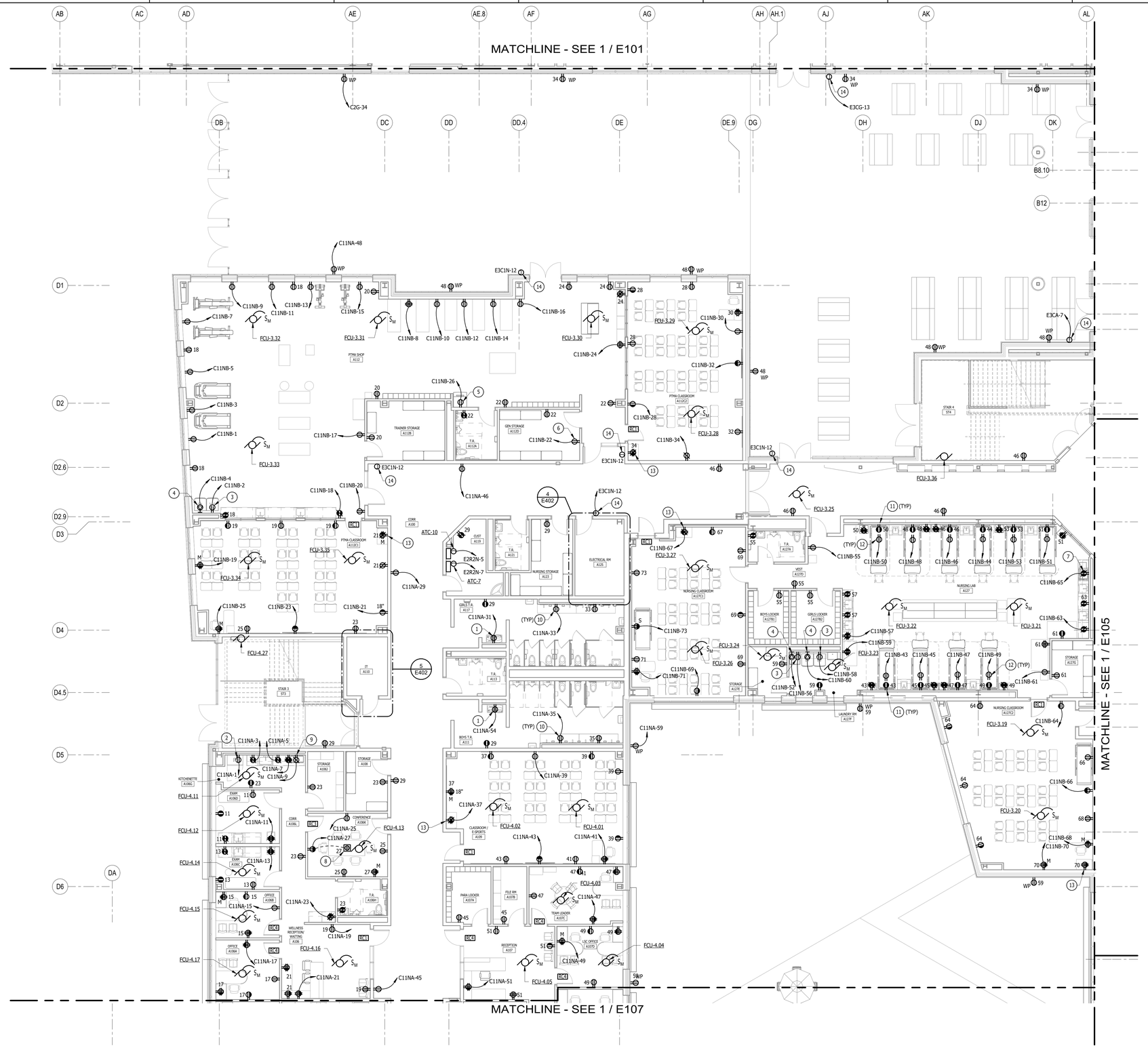
**FIRST FLOOR - KEYPLAN 3 - POWER**

SHEET NO.

**E103**

1 FIRST FLOOR - KEYPLAN 3 - POWER
1/8" = 1'-0"

0 4' 8' 16'




## GENERAL NOTES:

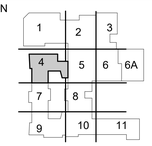
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.
2. COORDINATE LOCATION AND MOUNTING HEIGHT OF OUTLETS WITH ARCHITECTURAL AND TECHNOLOGY DRAWINGS AND DETAILS.

## DRAWING NOTES:

1. MOUNT TO SUIT EWC. (APPROX 42" AFF)
2. MOUNT TO SUIT REFRIGERATOR.
3. MOUNT TO SUIT WASHER 48" AFF.
4. NEMA 14-30R. MOUNT TO SUIT DRYER 48"AFF.
5. MOUNT TO SUIT ICE MAKER.
6. MOUNT TO SUIT SOUND SYSTEM.
7. MOUNT TO SUIT PRINTER.
8. MAKE ALL CONNECTIONS TO FLOOR BOX FURNISHED UNDER TECHNOLOGY DRAWINGS/SPECIFICATIONS.
9. MOUNT TO SUIT MICROWAVE ON SHELF.
10. MOUNT TO SUIT LAVATORY - 120V, 5A, PER MANUFACTURERS INSTALLATION INSTRUCTIONS.
11. MOUNT TO SUIT PATIENT BED.
12. MOUNT 6" BELOW CEILING ON WALL FOR LIFT.
13. MOUNT ADJACENT TO SOUND ENHANCEMENT MIXER/AMP. COORDINATE MOUNTING WITH TECHNOLOGY DRAWINGS AND DETAIL D5/A461 ON ARCHITECTURAL DRAWINGS.
14. MAKE ALL CONNECTIONS TO CARD READER POWER SUPPLY. REFER TO TECHONLOGY DRAWINGS FOR ADDITIONAL INFORMATION.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

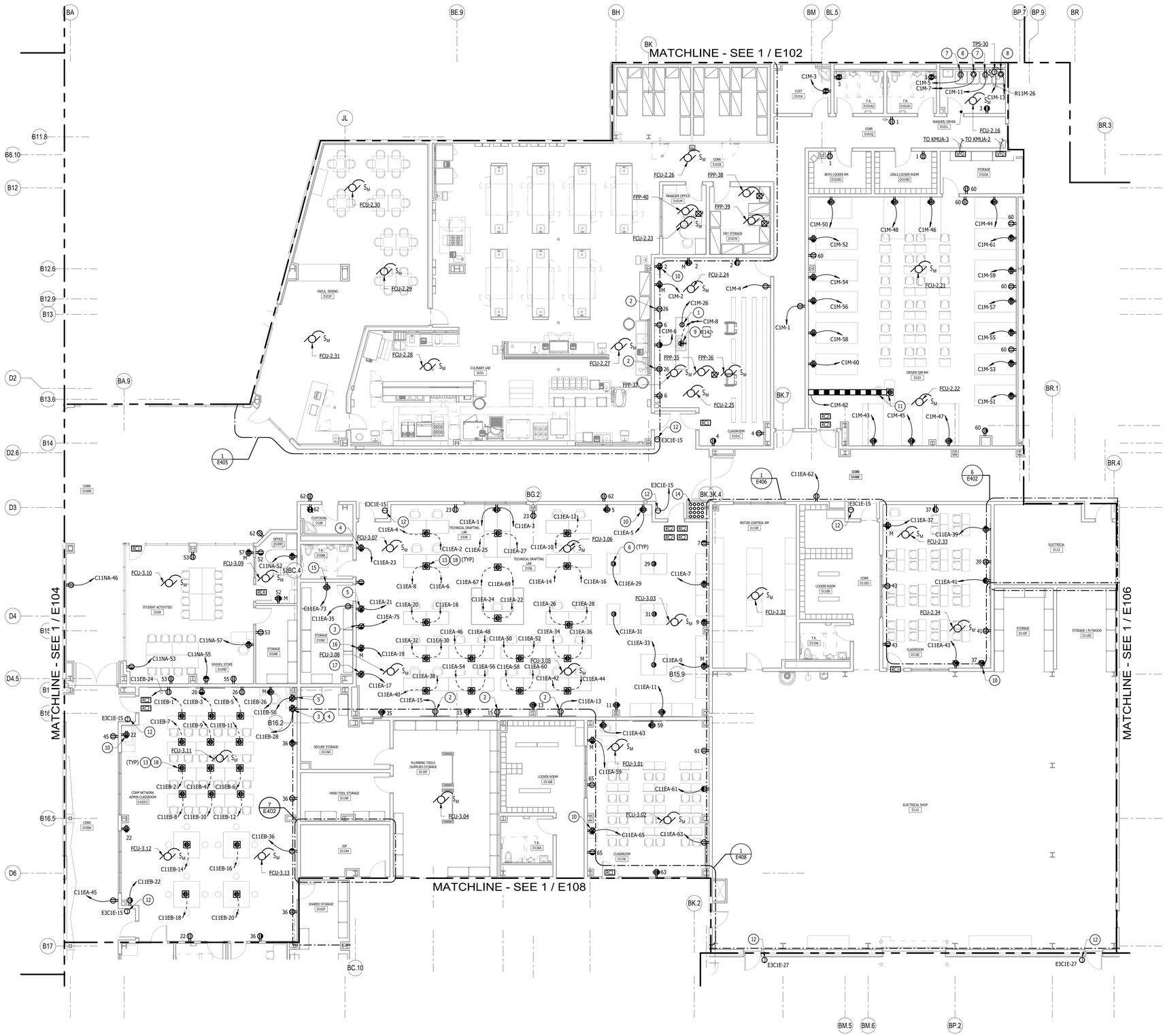
**FIRST FLOOR - KEYPLAN 4 - POWER**

SHEET NO.

**E104**

1 FIRST FLOOR - KEYPLAN 4 - POWER
1/8" = 1'-0"

0 4' 8' 16'




## GENERAL NOTES:

1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.
2. COORDINATE LOCATION AND MOUNTING HEIGHT OF OUTLETS WITH ARCHITECTURAL AND TECHNOLOGY DRAWINGS AND DETAILS.

## DRAWING NOTES:

1. COORDINATE MOUNTING FLUSH IN CEILING WITH TECHNOLOGY DRAWINGS FOR CEILING MOUNTED CAMERA.
2. MOUNT TO SUIT TV.
3. MOUNT TO SUIT REPLICATOR.
4. MOUNT TO SUIT 3D PRINTER.
5. MOUNT TO SUIT LASER PRINTER.
6. CEILING MOUNTED DROP CORD WITH NEMA 5-20R DUPLEX RECEPTACLE SUSPENDED 5'-0" AFF.
7. MOUNT TO SUIT WASHER. (APPROX 42" AFF)
8. NEMA 14-30R. MOUNT TO SUIT DRYER. (APPROX 42" AFF)
9. REFER TO KITCHEN EQUIPMENT SCHEDULE ON DRAWING E626 FOR ADDITIONAL INFORMATION.
10. MOUNT ADJACENT TO SOUND ENHANCEMENT MIXER/AMP. COORDINATE MOUNTING WITH TECHNOLOGY DRAWINGS AND DETAIL D5/A461 ON ARCHITECTURAL DRAWINGS.
11. FLOOR MOUNTED SURFACE RACEWAY (CONNECTRAC EXPRESS 12'-0" SINGLE CIRCUIT MODEL #CT.XPO.1-12-25.1c-SV IN SILVER FINISH, OR APPROVED EQUAL.) COORDINATE LENGTH REQUIRED AND LOCATION OF DESK WITH ARCHITECTURAL CASEWORK DRAWINGS AND WITH TECHNOLOGY DRAWINGS FOR QUANTITY OF TELECOM OUTLETS.
12. MAKE ALL CONNECTIONS TO CARD READER POWER SUPPLY. REFER TO TECHNOLOGY DRAWINGS FOR ADDITIONAL INFORMATION.
13. MAKE ALL CONNECTIONS TO FLOOR BOX RECEPTACLES FURNISHED WITH RAISED FLOOR SYSTEM. REFER TO DETAILS FOR ADDITIONAL INFORMATION.
14. HOMERUNS ROUTED DOWN TO FLOOR BOX CIRCUITS THROUGH CHASE TRANSITION TO MC CABLE FOR ROUTING OF CIRCUITS IN RAISED FLOOR FLOOR SYSTEM AS REQUIRED. MAKE CONNECTIONS TO DOUBLE RECEPTACLES (ONE CIRCUIT PER DUPLEX) WITHING BOXES FURNISHED BY OTHERS AS REQUIRED.
15. MOUNT TO SUIT LARGE FORMAT WIRELESS PLOTTER. COORDINATE LOCATION WITH ARCHITECTURAL CASEWORK DRAWINGS.
16. MOUNT TO SUIT LAMINATOR. COORDINATE LOCATION WITH ARCHITECTURAL CASEWORK DRAWINGS.
17. MOUNT TO SUIT ELECTRIC 3-HOLE PUNCH. COORDINATE LOCATION WITH ARCHITECTURAL CASEWORK DRAWINGS.
18. IN ADDITION TO FLOORBOX RECEPTACLES, MAKE CONNECTION FROM EACH HOT AND SWITCHED RECEPTACLE CIRCUIT TO FLOORBOX TO PREWIRED (4 CIRCUIT) POWERED COMPUTER TABLES AS REQUIRED BY SYSTEM MANUFACTURER. PROVIDE JUNCTION BOX UNDER FLOOR AND EXTEND CIRCUITS TO FLOORBOX RECEPTACLES AND POWERED COMPUTER TABLES AS REQUIRED. COORDINATE JUNCTION BOX SIZE AND CONFIGURATION WITH RAISED FLOOR SYSTEM.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

VOCATIONAL TECHNICAL SCHOOL DISTRICT
NEW CASTLE COUNTY DELAWARE

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

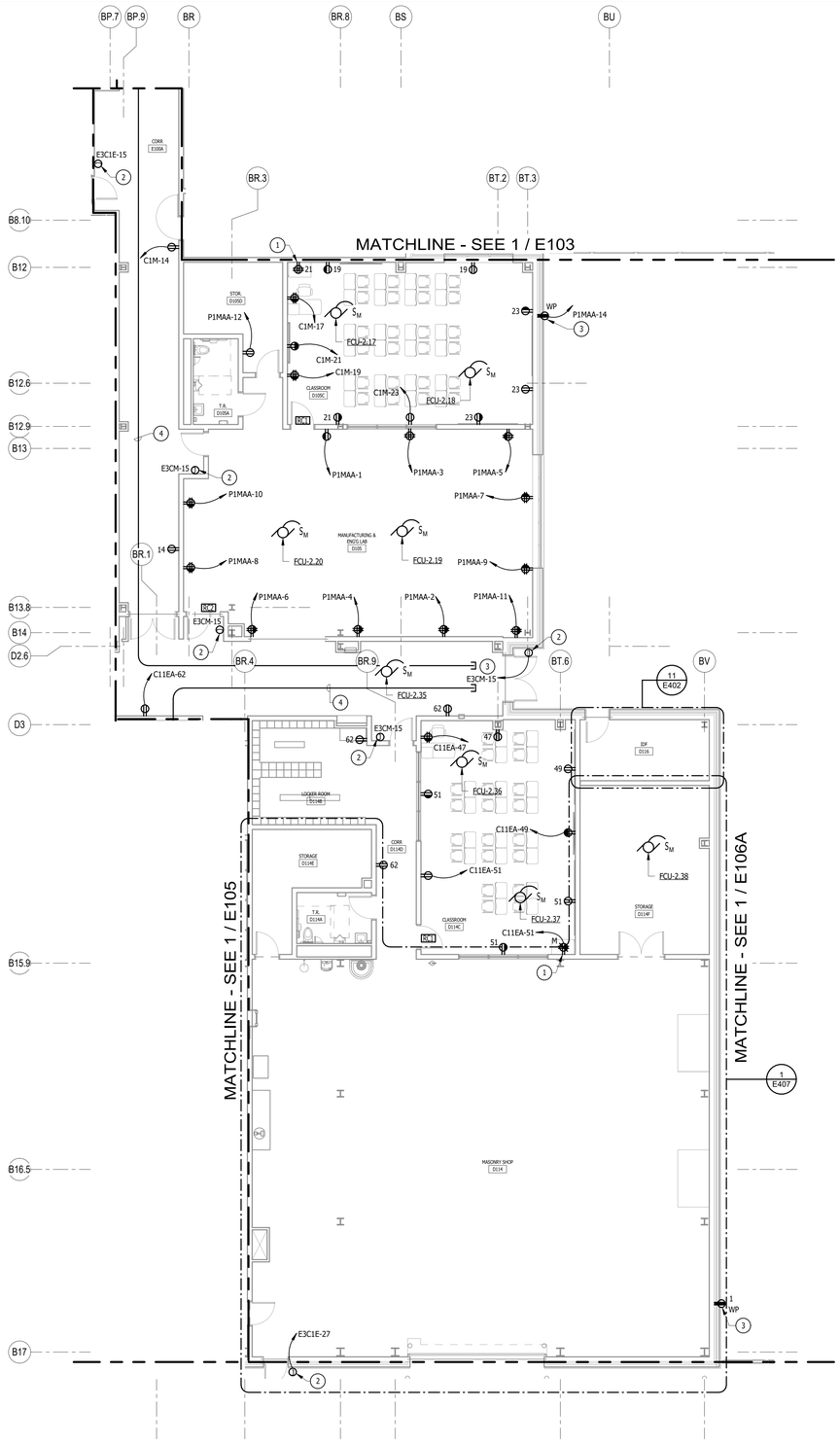
**FIRST FLOOR - KEYPLAN 5 - POWER**

SHEET NO.

**E105**

1 FIRST FLOOR - KEYPLAN 5 - POWER
1/8" = 1'-0"

0 4' 8' 16'




## GENERAL NOTES:

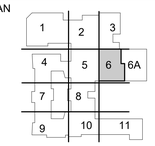
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.
2. COORDINATE LOCATION AND MOUNTING HEIGHT OF OUTLETS WITH ARCHITECTURAL AND TECHNOLOGY DRAWINGS AND DETAILS.

## DRAWING NOTES:

1. MOUNT ADJACENT TO SOUND ENHANCEMENT MIXER/AMP. COORDINATE MOUNTING WITH TECHNOLOGY DRAWINGS AND DETAIL D5/A461 ON ARCHITECTURAL DRAWINGS.
2. MAKE ALL CONNECTIONS TO CARD READER POWER SUPPLY. REFER TO DRAWING E106A AND TECHNOLOGY DRAWINGS FOR ADDITIONAL INFORMATION.
3. DO NOT PROVIDE UNDER ALTERNATE NO. 3.
4. CONDUITS FOR FUTURE FEEDERS TO AREA 6A. CAP AT END OF CORRIDOR FOR FUTURE EXTENSION. FEEDER ROUTING SHOWN IS DIAGRAMMATIC. FIELD COORDINATE EXACT ROUTING. PROVIDE OFFSET, PULLBOXES, ETC AS REQUIRED PER NEC.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN





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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

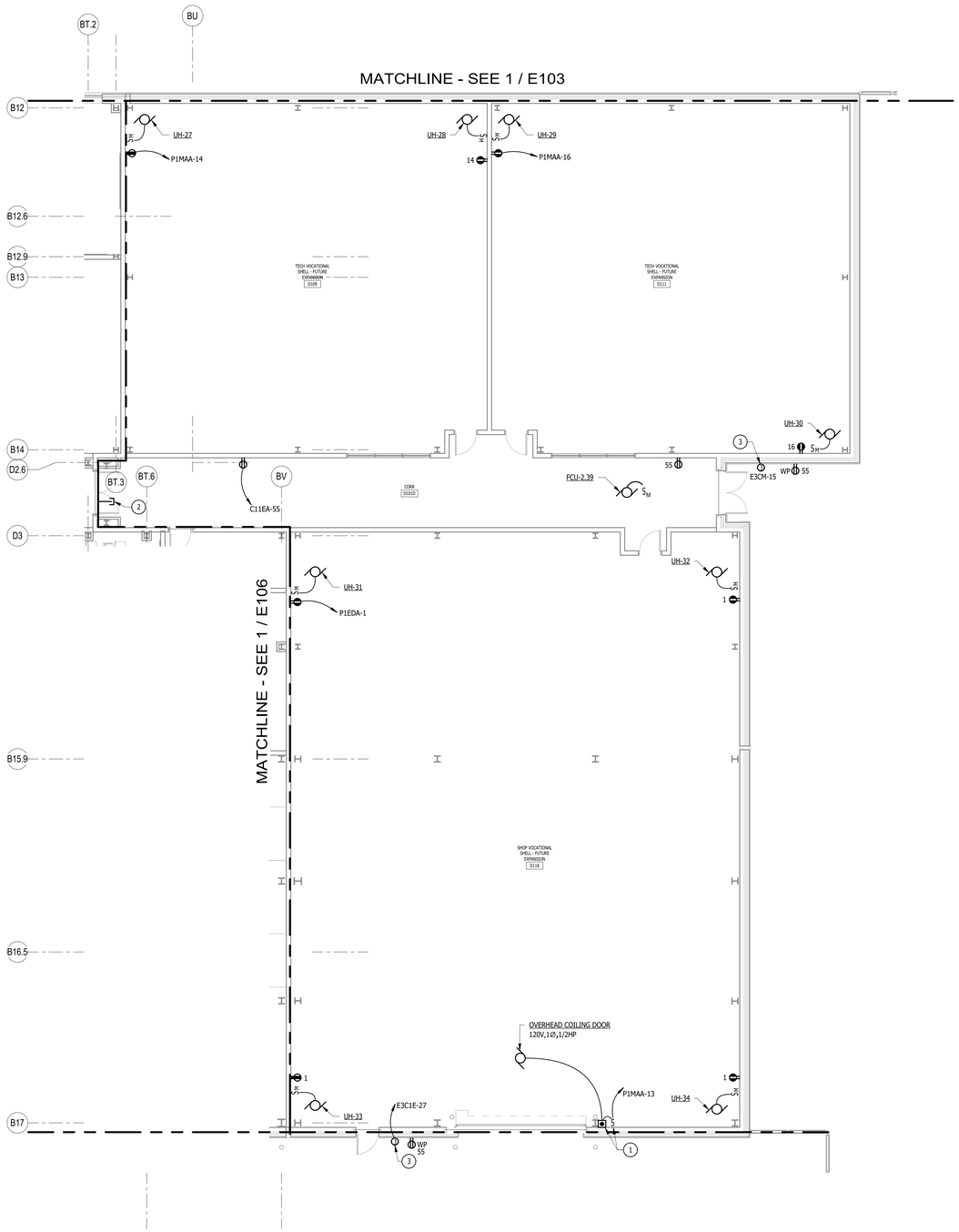
**FIRST FLOOR - KEYPLAN 6 - POWER**

SHEET NO.

**E106**

1 FIRST FLOOR - KEYPLAN 6 - POWER
1/8" = 1'-0"

0 4' 8' 16'




## GENERAL NOTES:

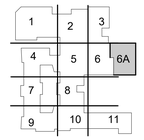
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.
2. COORDINATE LOCATION AND MOUNTING HEIGHT OF OUTLETS WITH ARCHITECTURAL AND TECHONLOGY DRAWINGS AND DETAILS.

## DRAWING NOTES:

1. 1P, 20A MOTOR RATED SWITCH MOUNTED ADJACENT TO CONTROL PANEL. MAKE ALL CONNECTIONS TO CONTROL PANEL, MOTOR, ACCESSORIES AND RAISE LOWER SWITCH FURNISHED WITH OVERHEAD COILING DOOR.
2. CONDUITS FOR FUTURE FEEDERS TO AREA 6A. CAP AT END OF CORRIDOR FOR FUTURE EXTENSION. FEEDER ROUTING SHOWN IS DIAGRAMMATIC. FIELD COORDINATE EXACT ROUTING. PROVIDE OFFSET, PULLBOXES, ETC AS REQUIRED PER NEC.
3. MAKE ALL CONNECTIONS TO CARD READER POWER SUPPLY. REFER TO TECHONLOGY DRAWINGS FOR ADDITIONAL INFORMATION.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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NEW CASTLE COUNTY DELAWARE

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New Castle County Vo-Tech School District

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Wilmington, DE 19804

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PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

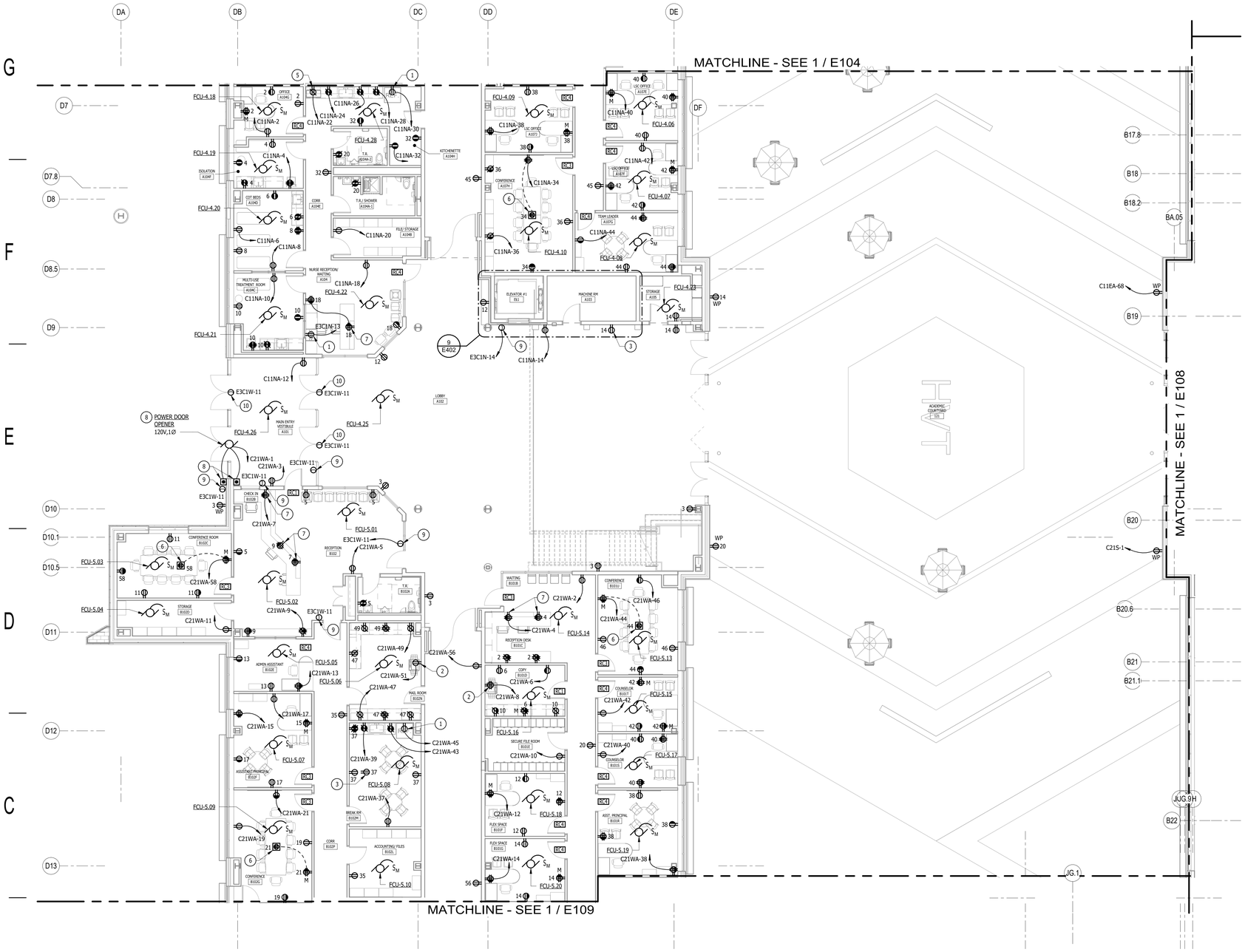
**FIRST FLOOR - KEYPLAN 6A - ALTERNATE #3 - POWER**

SHEET NO.

**E106A**

1 FIRST FLOOR - KEYPLAN 6A - ALTERNATE #3 - POWER
1/8" = 1'-0"

0 4' 8' 16'




1 FIRST FLOOR - KEYPLAN 7 - POWER
1/8" = 1'-0"

0 4' 8' 16'

## GENERAL NOTES:

1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.
2. COORDINATE LOCATION AND MOUNTING HEIGHT OF OUTLETS WITH ARCHITECTURAL AND TECHNOLOGY DRAWINGS AND DETAILS.

## DRAWING NOTES:

1. MOUNT TO SUIT REFRIGERATOR.
2. MOUNT TO SUIT COPIER.
3. MOUNT TO SUIT TELEVISION.
4. MOUNT TO SUIT PRINTER.
5. MOUNT TO SUIT MICROWAVE ON SHELF.
6. MAKE ALL CONNECTIONS TO FLOOR BOX FURNISHED UNDER TECHNOLOGY DRAWINGS/SPECIFICATIONS.
7. COORDINATE MOUNTING WITH ARCHITECTURAL CASEWORK DRAWINGS.
8. MAKE ALL CONNECTIONS TO ADA DOOR OPERATOR AS REQUIRED PER MANUFACTURERS INSTALLATION INSTRUCTIONS. COORDINATE LOCATION OF PUSHBUTTONS FURNISHED WITH UNIT WITH ARCHITECT PRIOR TO INSTALLATION. MAKE ALL INTERLOCK CONNECTIONS TO CARD READER AS REQUIRED.
9. MAKE ALL CONNECTIONS TO CARD READER POWER SUPPLY. REFER TO TECHONLOGY DRAWINGS FOR ADDITIONAL INFORMATION.
10. MAKE ALL CONNECTIONS TO SECURITY SYSTEM POWER SUPPLY. REFER TO TECHNOLOGY DRAWINGS FOR ADDITIONAL INFORMATION.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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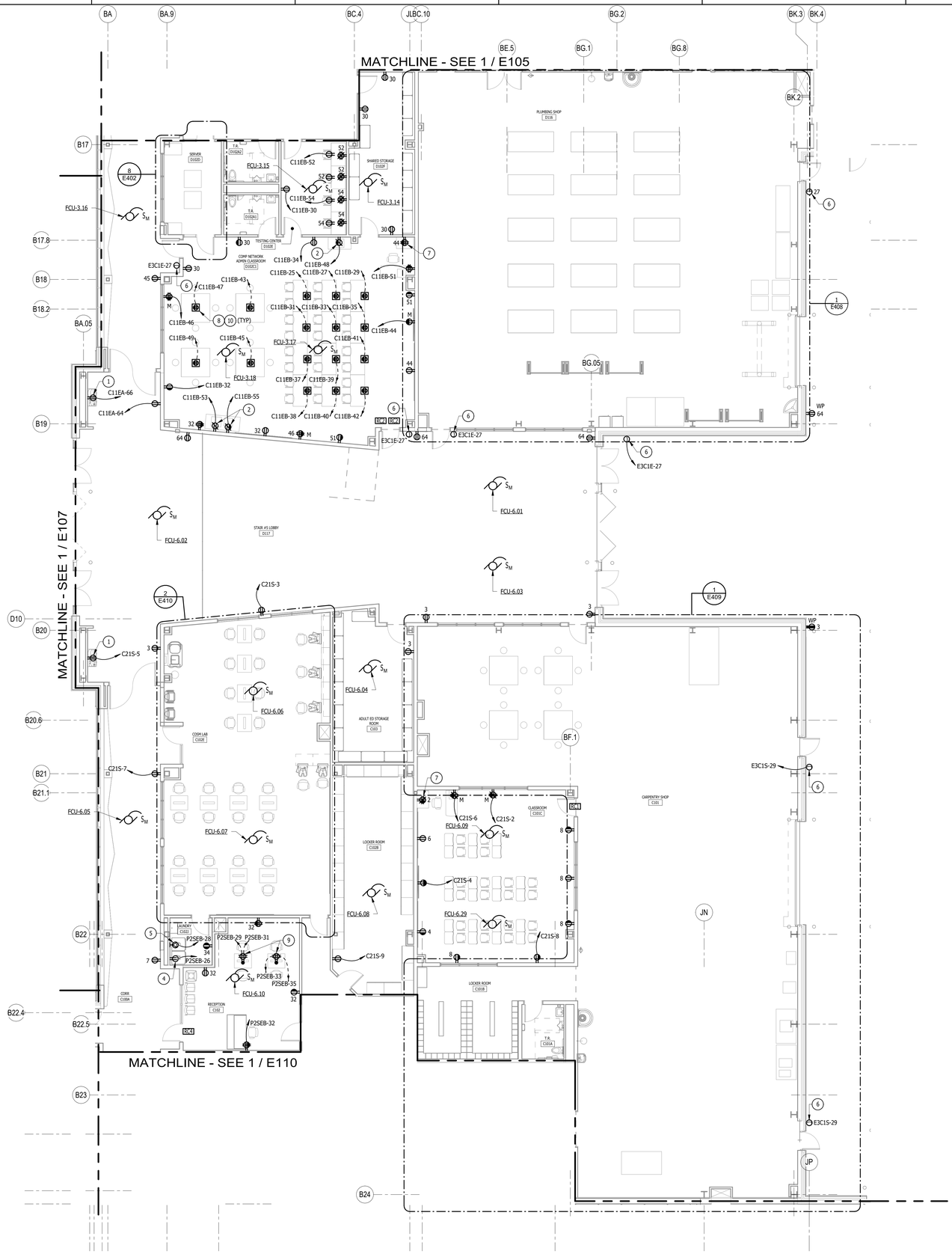
PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE
**FIRST FLOOR - KEYPLAN 7 - POWER**

SHEET NO.
**E107**




1 FIRST FLOOR - KEYPLAN 8 - POWER
1/8" = 1'-0"

0 4' 8' 16'

## GENERAL NOTES:

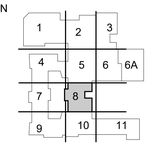
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.
2. COORDINATE LOCATION AND MOUNTING HEIGHT OF OUTLETS WITH ARCHITECTURAL AND TECHNOLOGY DRAWINGS AND DETAILS.

## DRAWING NOTES:

1. MOUNT TO SUIT EWC. (APPROX 42" AFF)
2. MOUNT TO SUIT PRINTER.
3. MOUNT TO SUIT COPIER. 42" AFF.
4. MOUNT TO SUIT WASHER. 42" AFF.
5. NEMA 14-30R. MOUNT TO SUIT DRYER.
6. MAKE ALL CONNECTIONS TO CARD READER POWER SUPPLY. REFER TO TECHONLOGY DRAWINGS FOR ADDITIONAL INFORMATION.
7. MOUNT ADJACENT TO SOUND ENHANCEMENT MIXER/AMP. COORDINATE MOUNTING WITH TECHNOLOGY DRAWINGS AND DETAIL D5/A461 ON ARCHITECTURAL DRAWINGS.
8. MAKE ALL CONNECTIONS TO RECEPTACLES/FLOOR BOXES FURNISHED WITH RAISED FLOOR SYSTEM. REFER TO DETAILS FOR ADDITIONAL INFORMATION.
9. REFER TO STUB-UP RECEPTACLE DETAIL ON DRAWING E410.
10. IN ADDITION TO FLOORBOX RECEPTACLES, MAKE CONNECTION FROM EACH HOT AND SWITCHED RECEPTACLE CIRCUIT TO FLOORBOX TO PREWIRED (4 CIRCUIT) POWERED COMPUTER TABLES AS REQUIRED BY SYSTEM MANUFACTURER. PROVIDE JUNCTION BOX UNDER FLOOR AND EXTEND CIRCUITS TO FLOORBOX RECEPTACLES AND POWERED COMPUTER TABLES AS REQUIRED.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

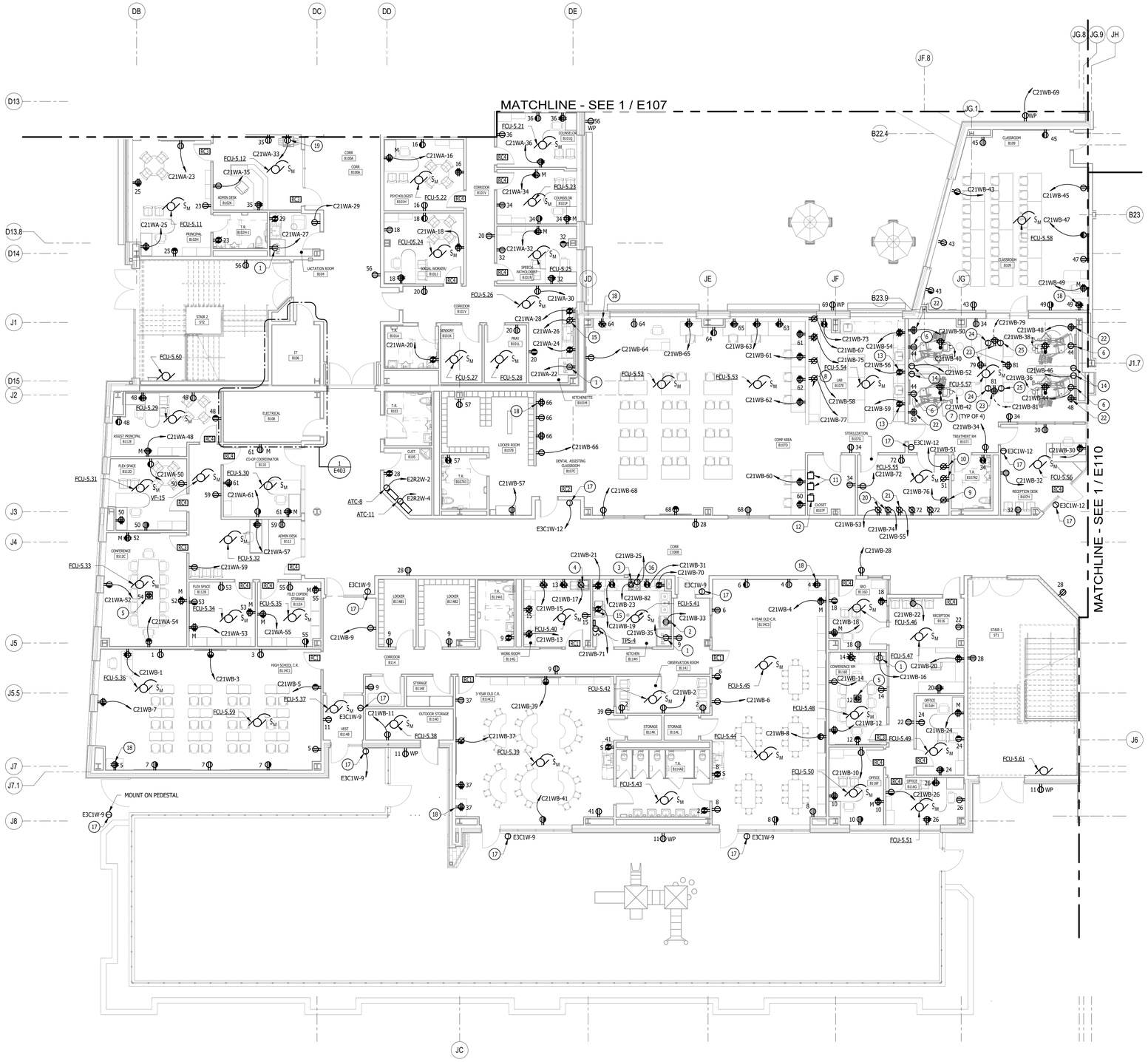
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR - KEYPLAN 8 - POWER**

SHEET NO.

**E108**



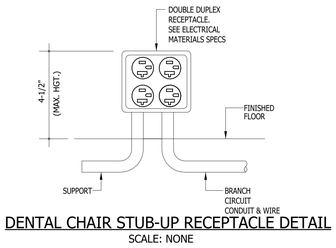

1 FIRST FLOOR - KEYPLAN 9 - POWER
1/8" = 1'-0"

## GENERAL NOTES:

1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.
2. COORDINATE LOCATION AND MOUNTING HEIGHT OF OUTLETS WITH ARCHITECTURAL AND TECHNOLOGY DRAWINGS AND DETAILS.

## DRAWING NOTES:

1. MOUNT TO SUIT REFRIGERATOR.
2. MOUNT TO SUIT DISHWASHER.
3. NEMA 5-20R. MOUNT TO SUIT RANGE.
4. MOUNT TO SUIT PRINTER.
5. MAKE ALL CONNECTIONS TO FLOOR BOX FURNISHED UNDER TECHNOLOGY DRAWINGS/SPECIFICATIONS.
6. MOUNT TO SUIT TV.
7. REFER TO DENTAL CHAIR STUB-UP RECEPTCLE DETAIL THIS DRAWING FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION OF DENTAL CHAIR WITH ARCHITECT PRIOR TO INSTALLATION.
8. MOUNT TO SUIT X-RAY MACHINE.
9. MOUNT TO SUIT STERILIZATION CABINET.
10. MOUNT TO SUIT ULTRASONIC CLEANER.
11. 2P, 30A NFSS IN NEMA 1 ENCLOSURE. MOUNT TO SUIT COMPRESSOR.
12. 2P, 30A NFSS IN NEMA 1 ENCLOSURE. MOUNT TO SUIT VACUUM PUMP.
13. MOUNT TO SUIT MODEL TRIMMER.
14. MOUNT TO SUIT FOR INTRA ORAL X-RAY MACHINE. PROVIDE EMPTY JUNCTION BOX WITH 3/4" CONDUIT AND PULL STRING TO ACCESSIBLE CEILING SPACE. MAKE ALL CONNECTIONS AS REQUIRED PER MANUFACTURERS INSTALLATION INSTRUCTIONS. COORDINATE MOUNTING WITH ARCHITECTURAL CASEWORK DRAWINGS.
15. MOUNT TO SUIT MICROWAVE.
16. MAKE ALL CONNECTIONS TO RANGE HOOD AS REQUIRED.
17. MAKE ALL CONNECTIONS TO CARD READER POWER SUPPLY. REFER TO TECHONLOGY DRAWINGS FOR ADDITIONAL INFORMATION.
18. MOUNT ADJACENT TO SOUND ENHANCEMENT MIXER/AMP. COORDINATE MOUNTING WITH TECHNOLOGY DRAWINGS AND DETAIL DS/A461 ON ARCHITECTURAL DRAWINGS.
19. MOUNT TO SUIT COPIER.
20. MOUNT TO SUIT STERILIZER.
21. MOUNT TO SUIT STATIM.
22. MOUNT IN REAR CABINET. COORDINATE WITH ARCHITECTURAL CASEWORK DRAWINGS.
23. MOUNT IN CENTRAL CABINET. COORDINATE WITH ARCHITECTURAL CASEWORK DRAWINGS.
24. PROVIDE EMPTY JUNCTION BOX WITH (1) 2" CONDUIT AND PULL STRING TO ACCESSIBLE CEILING SPACE.
25. PROVIDE EMPTY JUNCTION BOX WITH (1) 3/4" CONDUIT AND PULL STRING TO ACCESSIBLE CEILING SPACE.




DENTAL CHAIR STUB-UP RECEPTACLE DETAIL
SCALE: NONE

| No. | Description | Date |
|---|---|---|
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KEYPLAN

VOCATIONAL TECHNICAL SCHOOL DISTRICT
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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

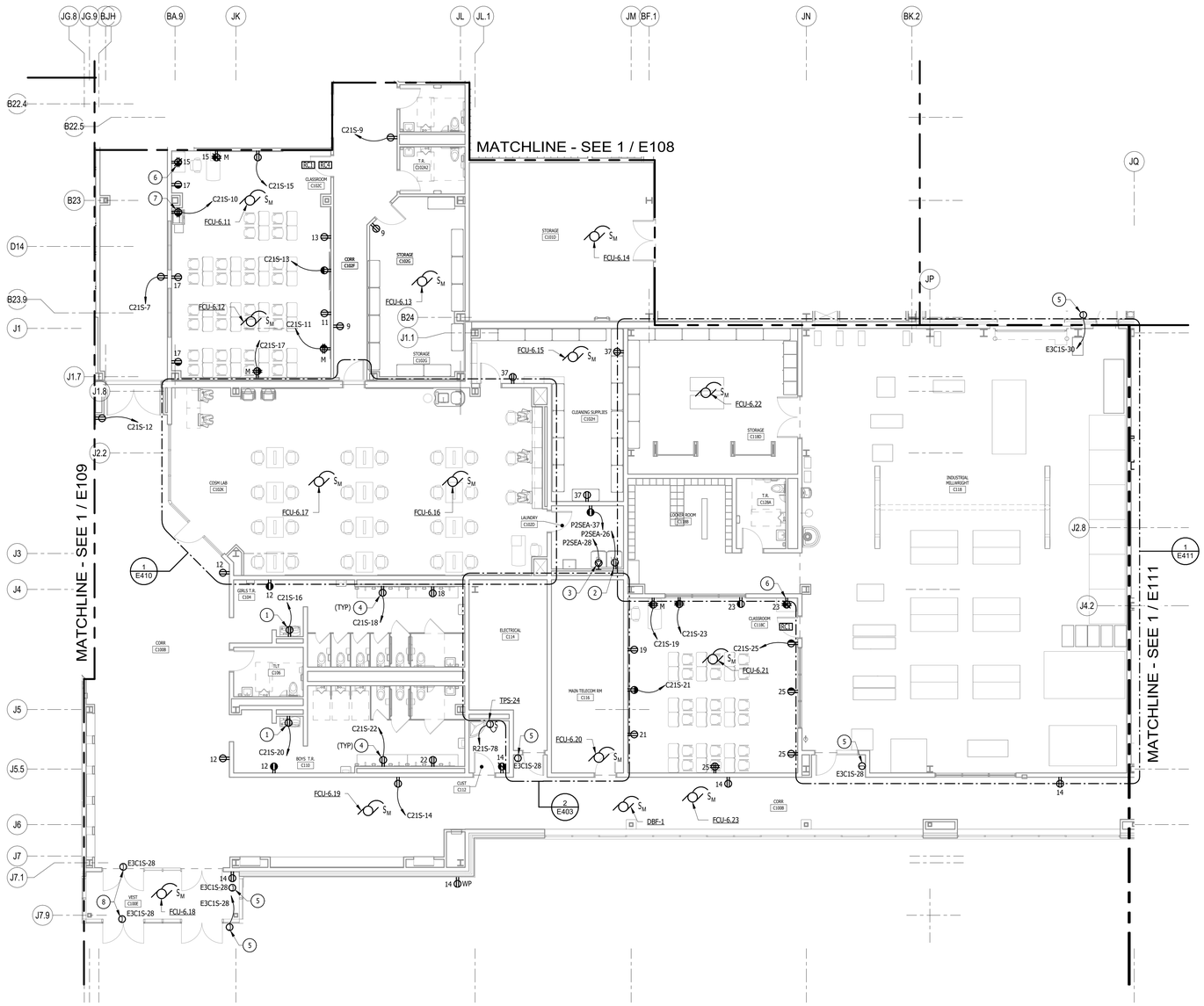
SHEET TITLE

**FIRST FLOOR - KEYPLAN 9 - POWER**

SHEET NO.

**E109**

0 4' 8' 16'




## GENERAL NOTES:

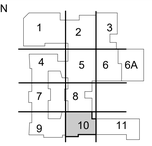
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.
2. COORDINATE LOCATION AND MOUNTING HEIGHT OF OUTLETS WITH ARCHITECTURAL AND TECHNOLOGY DRAWINGS AND DETAILS.

## DRAWING NOTES:

1. MOUNT TO SUIT EWC. (APPROX 42" AFF)
2. MOUNT TO SUIT WASHER. (APPROX 42" AFF.)
3. NEMA 14-30R. MOUNT TO SUIT DRYER. (APPROX 42" AFF.)
4. MOUNT TO SUIT LAVATORY - 120V, 5A, PER MANUFACTURERS INSTALLATION INSTRUCTIONS.
5. MAKE ALL CONNECTIONS TO CARD READER POWER SUPPLY. REFER TO TECHONLOGY DRAWINGS FOR ADDITIONAL INFORMATION.
6. MOUNT ADJACENT TO SOUND ENHANCEMENT MIXER/AMP. COORDINATE MOUNTING WITH TECHNOLOGY DRAWINGS AND DETAIL DS/A461 ON ARCHITECTURAL DRAWINGS.
7. MOUNT TO SUIT DESKTOP COPIER.
8. MAKE ALL CONNECTIONS TO SECURITY SYSTEM POWER SUPPLY. REFER TO TECHNOLOGY DRAWINGS FOR ADDITIONAL INFORMATION.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN





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PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR - KEYPLAN 10 - POWER**

SHEET NO.

**E110**

1 FIRST FLOOR - KEYPLAN 10 - POWER
1/8" = 1'-0"

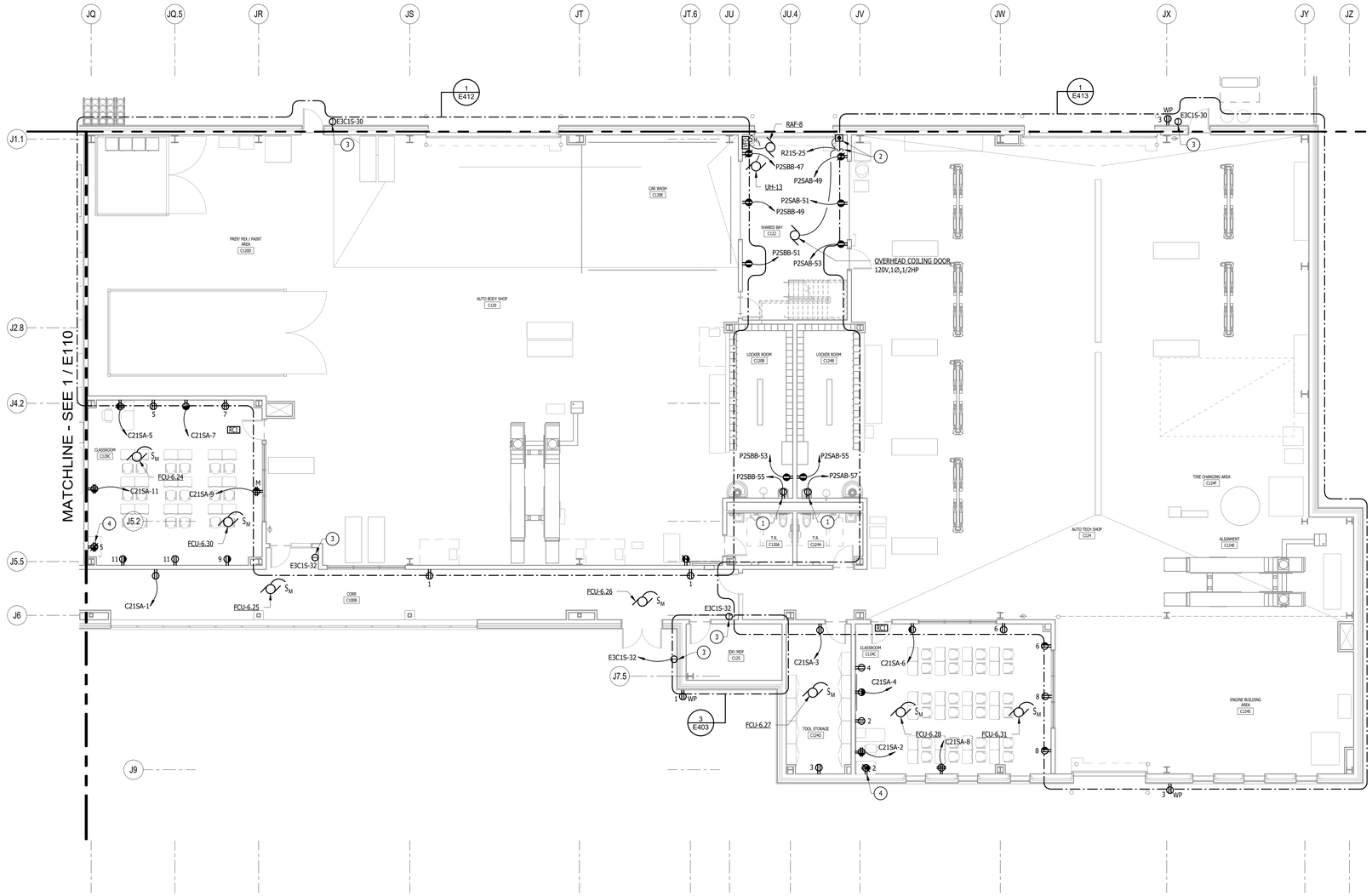
0 4' 8' 16'

## GENERAL NOTES:

1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.
2. COORDINATE LOCATION AND MOUNTING HEIGHT OF OUTLETS WITH ARCHITECTURAL AND TECHNOLOGY DRAWINGS AND DETAILS.

## DRAWING NOTES:

1. MOUNT TO SUIT EWC. (APPROX 42" AFF)
2. 1P, 20A MOTOR RATED SWITCH MOUNTED ADJACENT TO CONTROL PANEL. MAKE ALL CONNECTIONS TO CONTROL PANEL, MOTOR, ACCESSORIES AND RAISE LOWER SWITCH FURNISHED WITH OVERHEAD COILING DOOR.
3. MAKE ALL CONNECTIONS TO CARD READER POWER SUPPLY. REFER TO TECHONLOGY DRAWINGS FOR ADDITIONAL INFORMATION.
4. MOUNT ADJACENT TO SOUND ENHANCEMENT MIXER/AMP. COORDINATE MOUNTING WITH TECHNOLOGY DRAWINGS AND DETAIL D5/A461 ON ARCHITECTURAL DRAWINGS.




1 FIRST FLOOR - KEYPLAN 11 - POWER
1/8" = 1'-0"

0 4' 8' 16'

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

VOCATIONAL TECHNICAL SCHOOL DISTRICT
NEW CASTLE COUNTY DELAWARE

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR - KEYPLAN 11 - POWER**

SHEET NO.

**E111**

## GENERAL NOTES:

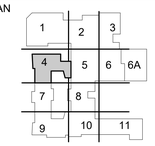
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.
2. COORDINATE LOCATION AND MOUNTING HEIGHT OF OUTLETS WITH ARCHITECTURAL AND TECHNOLOGY DRAWINGS AND DETAILS.

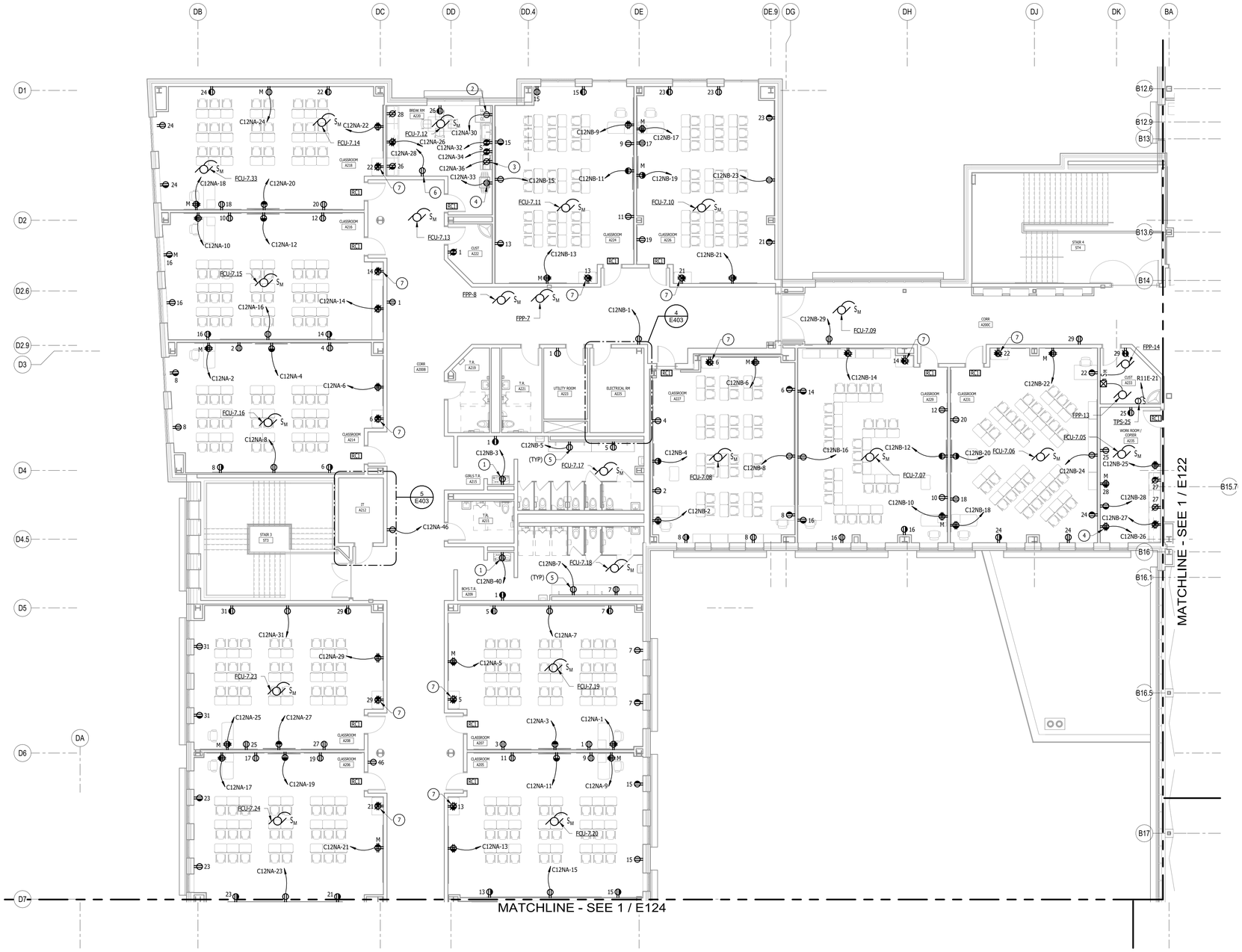
## DRAWING NOTES:

1. MOUNT TO SUIT EWC. (APPROX 42" AFF)
2. MOUNT TO SUIT REFRIGERATOR.
3. MOUNT TO SUIT MICROWAVE.
4. MOUNT TO SUIT COPIER.
5. MOUNT TO SUIT LAVATORY - 120V, 5A, PER MANUFACTURERS INSTALLATION INSTRUCTIONS.
6. MOUNT TO SUIT TELEVISION.
7. MOUNT ADJACENT TO SOUND ENHANCEMENT MIXER/AMP. COORDINATE MOUNTING WITH TECHNOLOGY DRAWINGS AND DETAIL D5/A461 ON ARCHITECTURAL DRAWINGS.
8. MAKE ALL CONNECTIONS TO CARD READER POWER SUPPLY. REFER TO TECHNOLOGY DRAWINGS FOR ADDITIONAL INFORMATION.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN




1 SECOND FLOOR - KEYPLAN 4 - POWER
1/8" = 1'-0"

0 4' 8' 16'


OWNER

New Castle County Vo-Tech School District

1417 Newport Pike
Wilmington, DE 19804

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Fax (302) 658-8431



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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

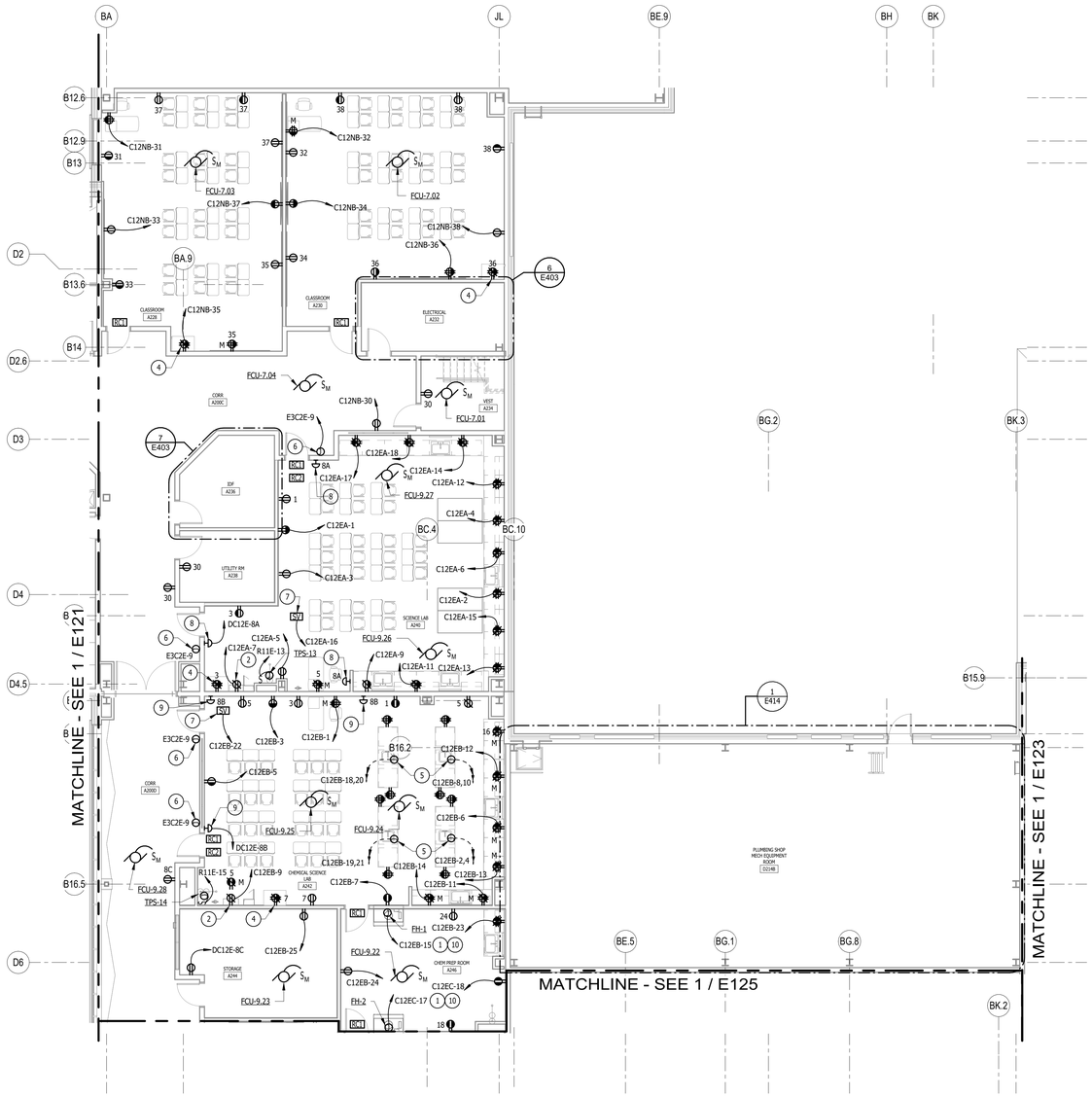
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**SECOND FLOOR - KEYPLAN 4 - POWER**

SHEET NO.

**E121**




1 SECOND FLOOR - KEYPLAN 5 - POWER
1/8" = 1'-0"

## GENERAL NOTES:

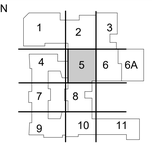
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.
2. COORDINATE LOCATION AND MOUNTING HEIGHT OF OUTLETS WITH ARCHITECTURAL AND TECHNOLOGY DRAWINGS AND DETAILS.

## DRAWING NOTES:

1. MAKE ALL CONNECTIONS TO FUME HOOD LIGHT AND RECEPTACLE AS REQUIRED.
2. MOUNT TO SUIT GOGGLE CABINET.
3. NOT USED.
4. MOUNT ADJACENT TO SOUND ENHANCEMENT MIXER/AMP. COORDINATE MOUNTING WITH TECHNOLOGY DRAWINGS AND DETAIL D5/A461 ON ARCHITECTURAL DRAWINGS.
5. PROVIDE STUB-UP AND MAKE ALL CONNECTIONS TO CONTROLLED AND UNCONTROLLED RECEPTACLES (ONE PER CIRCUIT) IN LAB BENCH AS REQUIRED.
6. MAKE ALL CONNECTIONS TO CARD READER POWER SUPPLY. REFER TO TECHNOLOGY DRAWINGS FOR ADDITIONAL INFORMATION.
7. MAKE ALL CONNECTIONS TO GAS SOLENOID VALVE AND AS REQUIRED.
8. MAKE CONNECTION TO PANEL C12EA MAIN CIRCUIT BREAKER SHUNT TRIP COIL AS REQUIRED.
9. MAKE CONNECTION TO PANEL C12EB MAIN CIRCUIT BREAKER SHUNT TRIP COILD AS REQUIRED.
10. MAKE CONNECTION TO FUME HOOD EXHAUST FAN AS REQUIRED.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN




VOCATIONAL TECHNICAL SCHOOL DISTRICT
NEW CASTLE COUNTY DELAWARE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PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**SECOND FLOOR - KEYPLAN 5 - POWER**

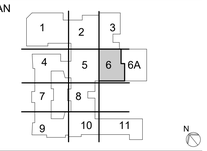
SHEET NO.

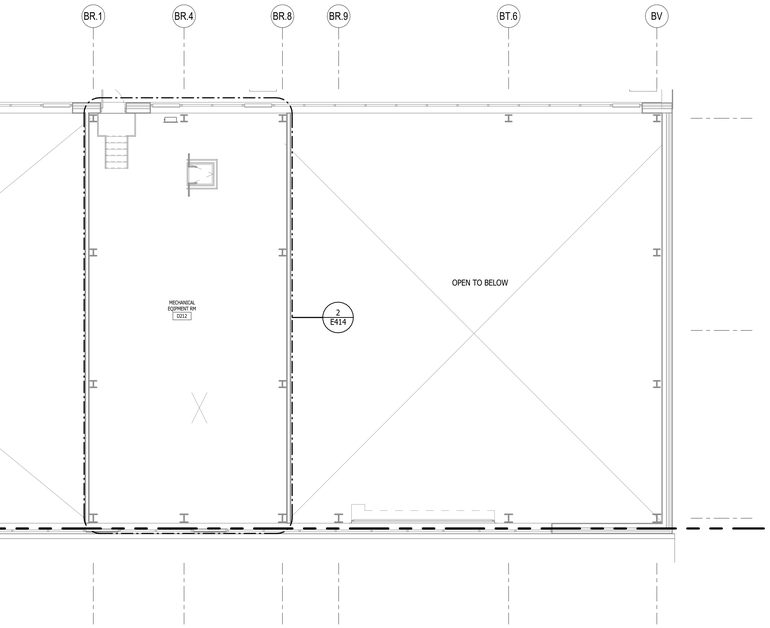
**E122**

0 4' 8' 16'

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN




1 SECOND FLOOR - KEYPLAN 6 - POWER
1/8" = 1'-0"

0 4" 8" 16"

OWNER

New Castle County Vo-Tech School District

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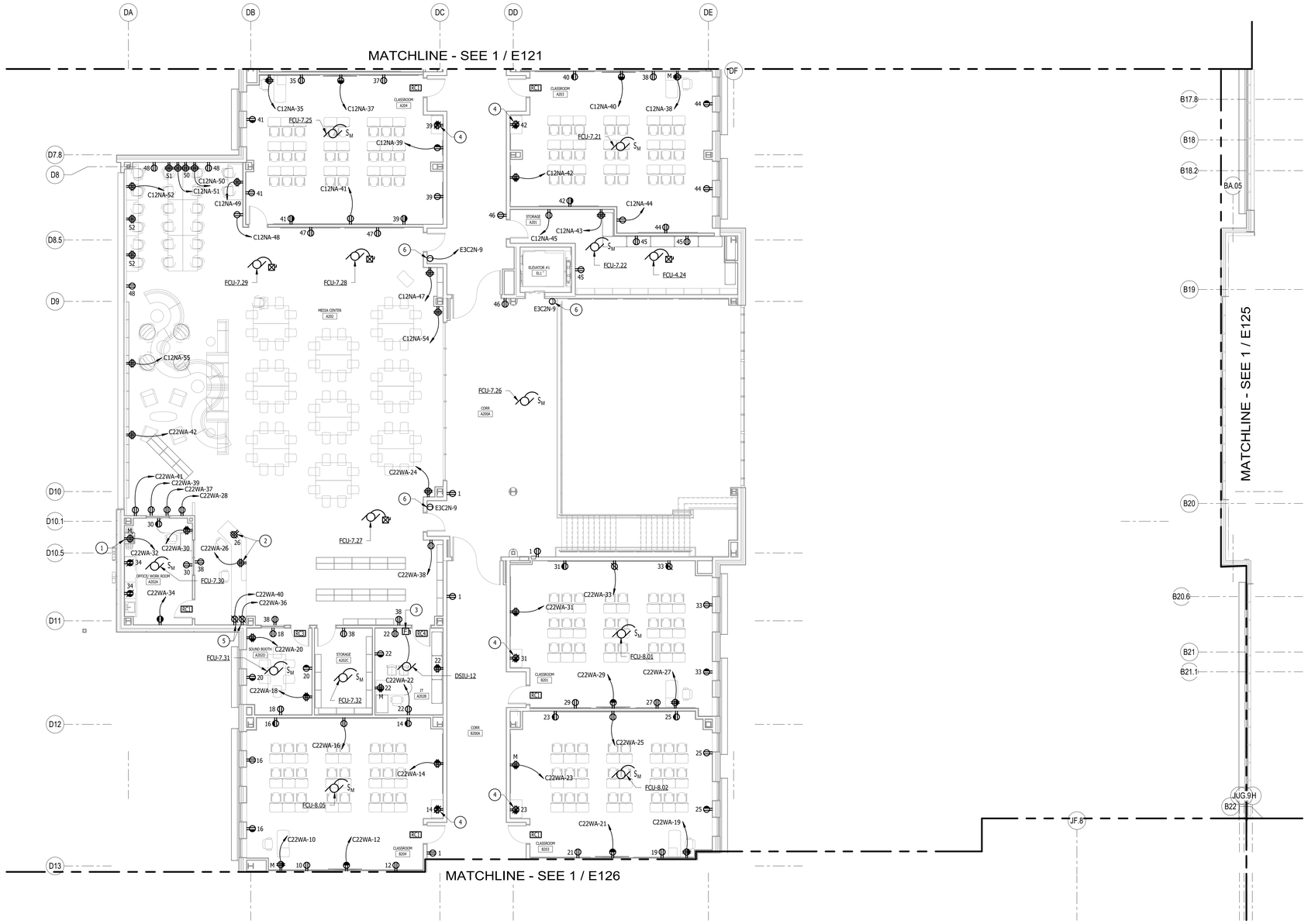
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**SECOND FLOOR - KEYPLAN 6 - POWER**

SHEET NO.

**E123**




1 SECOND FLOOR - KEYPLAN 7 - POWER
1/8" = 1'-0"

0 4' 8' 16'

## GENERAL NOTES:

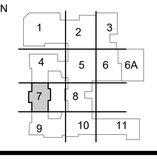
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.
2. COORDINATE LOCATION AND MOUNTING HEIGHT OF OUTLETS WITH ARCHITECTURAL AND TECHNOLOGY DRAWINGS AND DETAILS.

## DRAWING NOTES:

1. MOUNT TO SUIT COPIER.
2. COORDINATE MOUNTING WITH ARCHITECTURAL CASEWORK DRAWINGS.
3. MOUNT ABOVE ACCESSIBLE CEILING.
4. MOUNT ADJACENT TO SOUND ENHANCEMENT MIXER/AMP. COORDINATE MOUNTING WITH TECHNOLOGY DRAWINGS AND DETAIL D5/A461 ON ARCHITECTURAL DRAWINGS.
5. MOUNT TO SUIT PRINTER.
6. MAKE ALL CONNECTIONS TO CARD READER POWER SUPPLY. REFER TO TECHNOLOGY DRAWINGS FOR ADDITIONAL INFORMATION.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

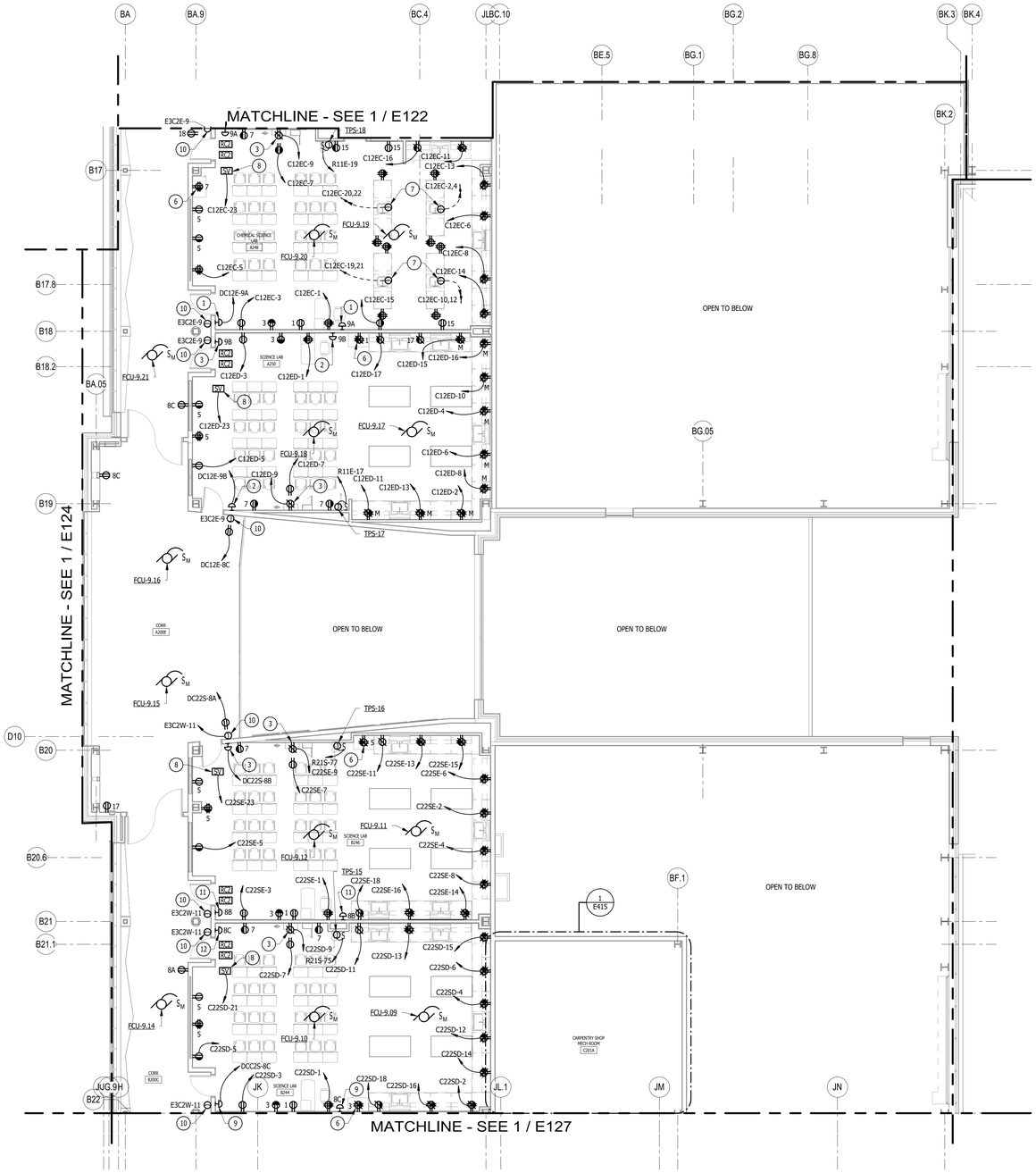
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**SECOND FLOOR - KEYPLAN 7 - POWER**

SHEET NO.

**E124**




1 SECOND FLOOR - KEYPLAN 8 - POWER
1/8" = 1'-0"

## GENERAL NOTES:

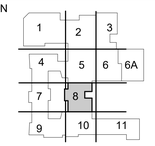
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.
2. COORDINATE LOCATION AND MOUNTING HEIGHT OF OUTLETS WITH ARCHITECTURAL AND TECHNOLOGY DRAWINGS AND DETAILS.

## DRAWING NOTES:

1. MAKE CONNECTION TO PANEL C12EC MAIN CIRCUIT BREAKER SHUNT TRIP COIL AS REQUIRED.
2. MAKE CONNECTION TO PANEL C12ED MAIN CIRCUIT BREAKER SHUNT TRIP COIL AS REQUIRED.
3. MOUNT TO SUIT GOGGLE CABINET.
4. MAKE CONNECTION TO PANEL C22SE MAIN CIRCUIT BREAKER SHUNT TRIP COIL AS REQUIRED.
5. NOT USED.
6. MOUNT ADJACENT TO SOUND ENHANCEMENT MIXER/AMP. COORDINATE MOUNTING WITH TECHNOLOGY DRAWINGS AND DETAIL D5/A461 ON ARCHITECTURAL DRAWINGS.
7. PROVIDE STUB-UP AND MAKE ALL CONNECTIONS TO CONTROLLED AND UNCONTROLLED RECEPTACLES (ONE PER CIRCUIT) IN LAB BENCH AS REQUIRED.
8. MAKE ALL CONNECTIONS TO GAS SOLENOID VALVE AS REQUIRED.
9. MAKE CONNECTION TO PANEL C22SD MAIN CIRCUIT BREAKER SHUNT TRIP COIL AS REQUIRED.
10. MAKE ALL CONNECTIONS TO CARD READER POWER SUPPLY. REFER TO TECHNOLOGY DRAWINGS FOR ADDITIONAL INFORMATION.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

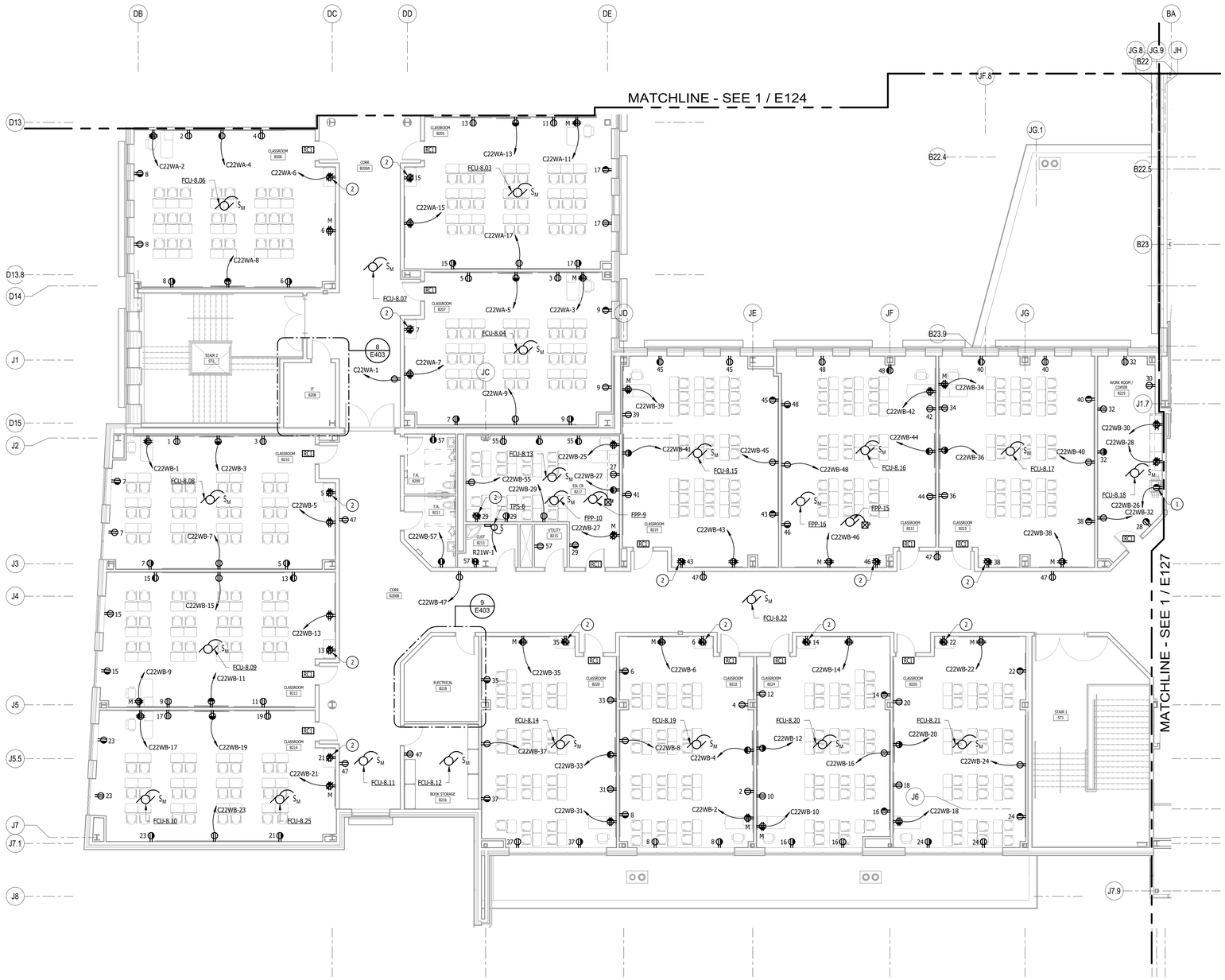
PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE
**SECOND FLOOR - KEYPLAN 8 - POWER**

SHEET NO.
**E125**

0 4' 8' 16'




1 SECOND FLOOR - KEYPLAN 9 - POWER
1/8" = 1'-0"

## GENERAL NOTES:

1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.
2. COORDINATE LOCATION AND MOUNTING HEIGHT OF OUTLETS WITH ARCHITECTURAL AND TECHNOLOGY DRAWINGS AND DETAILS.

## DRAWING NOTES:

1. MOUNT TO SUIT COPIER.
2. MOUNT ADJACENT TO SOUND ENHANCEMENT MIXER/AMP. COORDINATE MOUNTING WITH TECHNOLOGY DRAWINGS AND DETAIL D5/A461 ON ARCHITECTURAL DRAWINGS.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

OWNER

New Castle County Vo-Tech School District

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PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

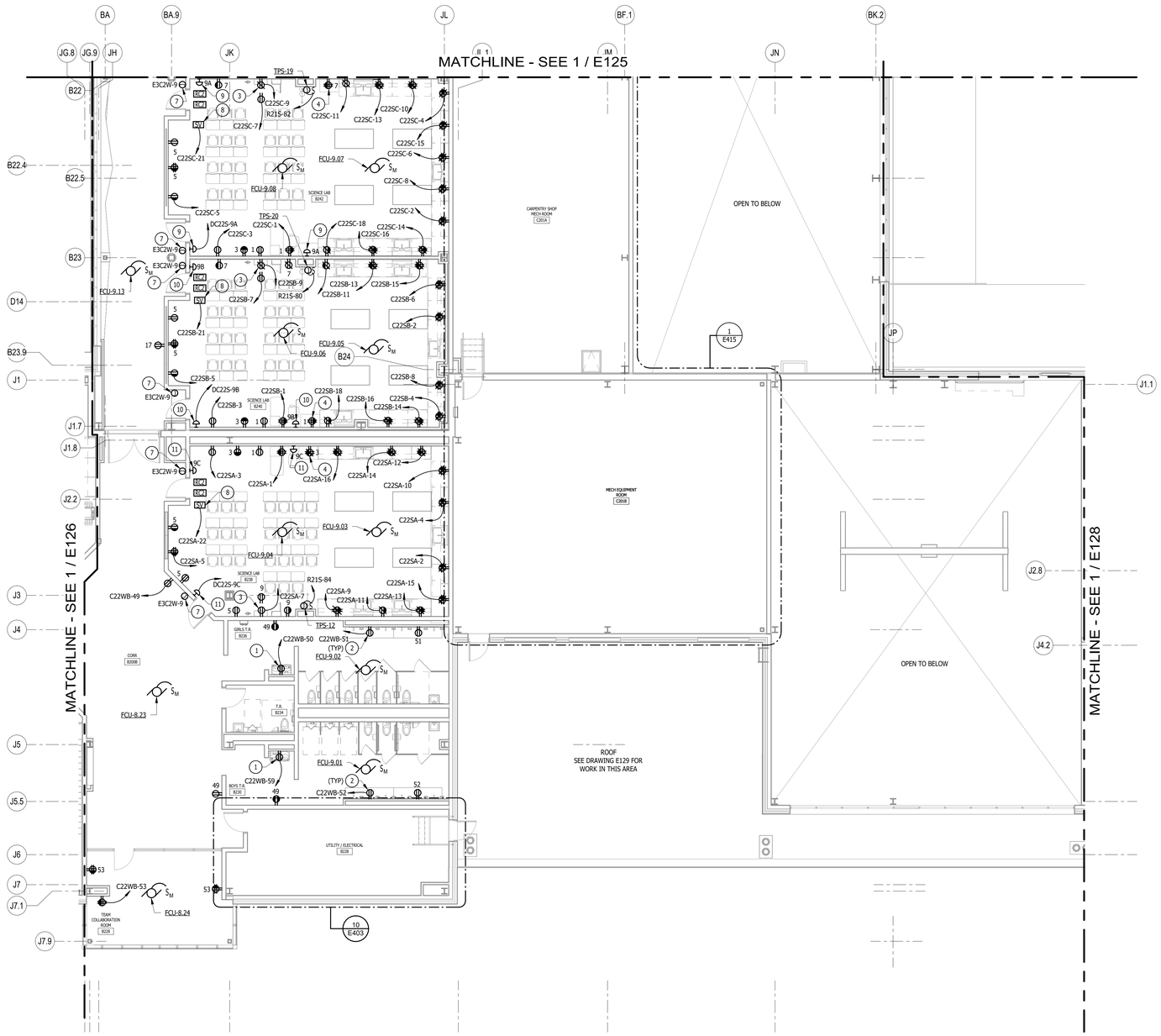
SHEET TITLE

**SECOND FLOOR - KEYPLAN 9 - POWER**

SHEET NO.

**E126**

0 4' 8' 16'




1 SECOND FLOOR - KEYPLAN 10 - POWER
1/8" = 1'-0"

## GENERAL NOTES:

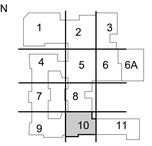
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.
2. COORDINATE LOCATION AND MOUNTING HEIGHT OF OUTLETS WITH ARCHITECTURAL AND TECHNOLOGY DRAWINGS AND DETAILS.

## DRAWING NOTES:

1. MOUNT TO SUIT EWC. (APPROX 42" AFF)
2. MOUNT TO SUIT LAVATORY - 120V, 5A, PER MANUFACTURERS INSTALLATION INSTRUCTIONS.
3. MOUNT TO SUIT GOGGLE CABINET.
4. MOUNT ADJACENT TO SOUND ENHANCEMENT MIXER/AMP. COORDINATE MOUNTING WITH TECHNOLOGY DRAWINGS AND DETAIL DS/A461 ON ARCHITECTURAL DRAWINGS.
5. NOT USED.
6. NOT USED.
7. MAKE ALL CONNECTIONS TO CARD READER POWER SUPPLY. REFER TO TECHNOLOGY DRAWINGS FOR ADDITIONAL INFORMATION.
8. MAKE ALL CONNECTIONS TO GAS SOLENOID VALVE AS REQUIRED.
9. MAKE CONNECTION TO PANEL C22SC MAIN CIRCUIT BREAKER SHUNT TRIP COIL AS REQUIRED.
10. MAKE CONNECTION TO PANEL C22SB MAIN CIRCUIT BREAKER SHUNT TRIP COIL AS REQUIRED.
11. MAKE CONNECTION TO PANEL C22SA MAIN CIRCUIT BREAKER SHUNT TRIP COIL AS REQUIRED.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN




VOCATIONAL TECHNICAL SCHOOL DISTRICT NEW CASTLE COUNTY DELAWARE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PAUL M. HODGSON VO-TECH HIGH SCHOOL

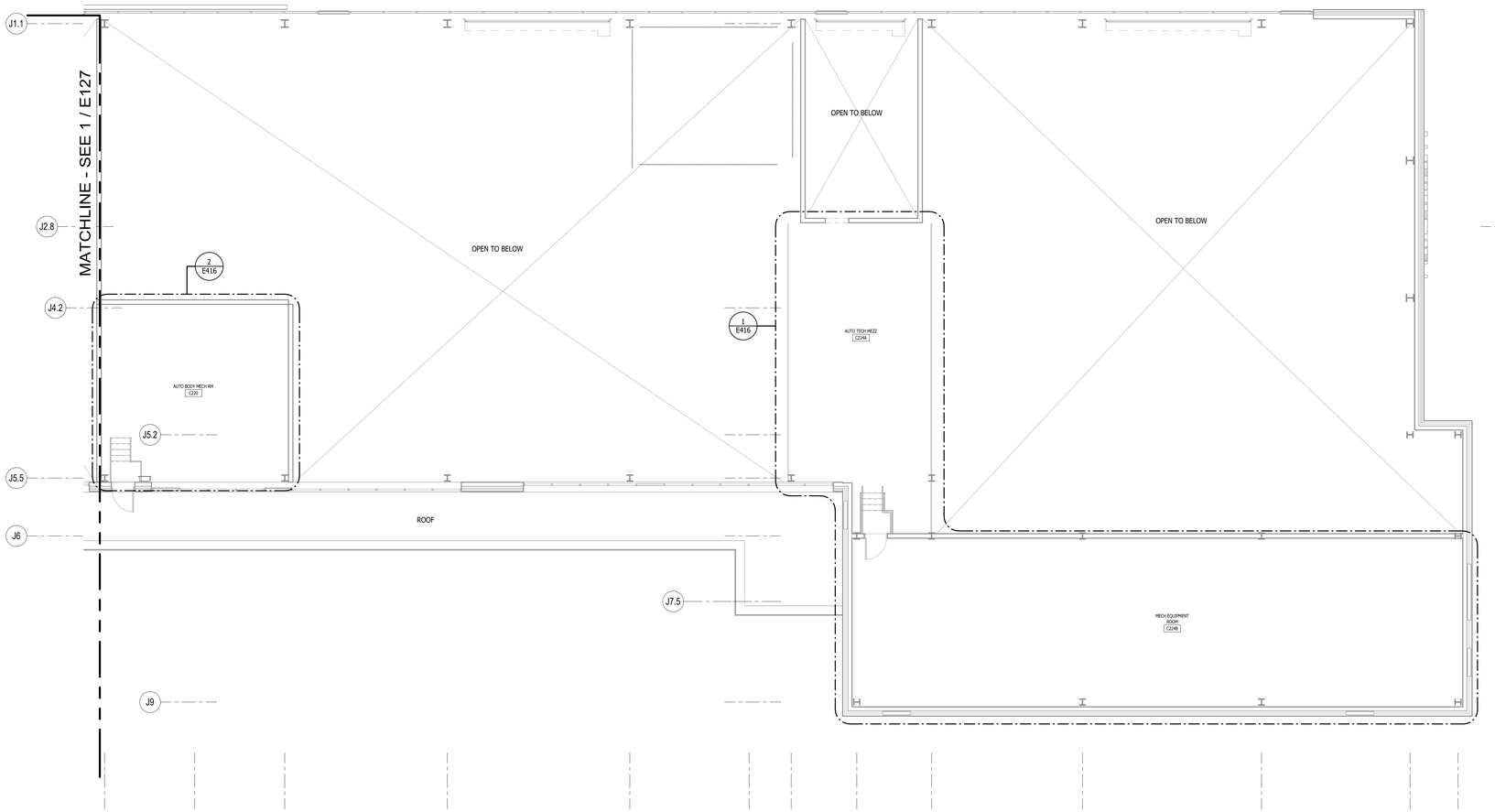
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**SECOND FLOOR - KEYPLAN 10 - POWER**

SHEET NO.

**E127**




1 SECOND FLOOR - KEYPLAN 11 - POWER
1/8" = 1'-0"

0 4' 8' 16'

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

VOCATIONAL TECHNICAL SCHOOL DISTRICT
NEW CASTLE COUNTY DELAWARE

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

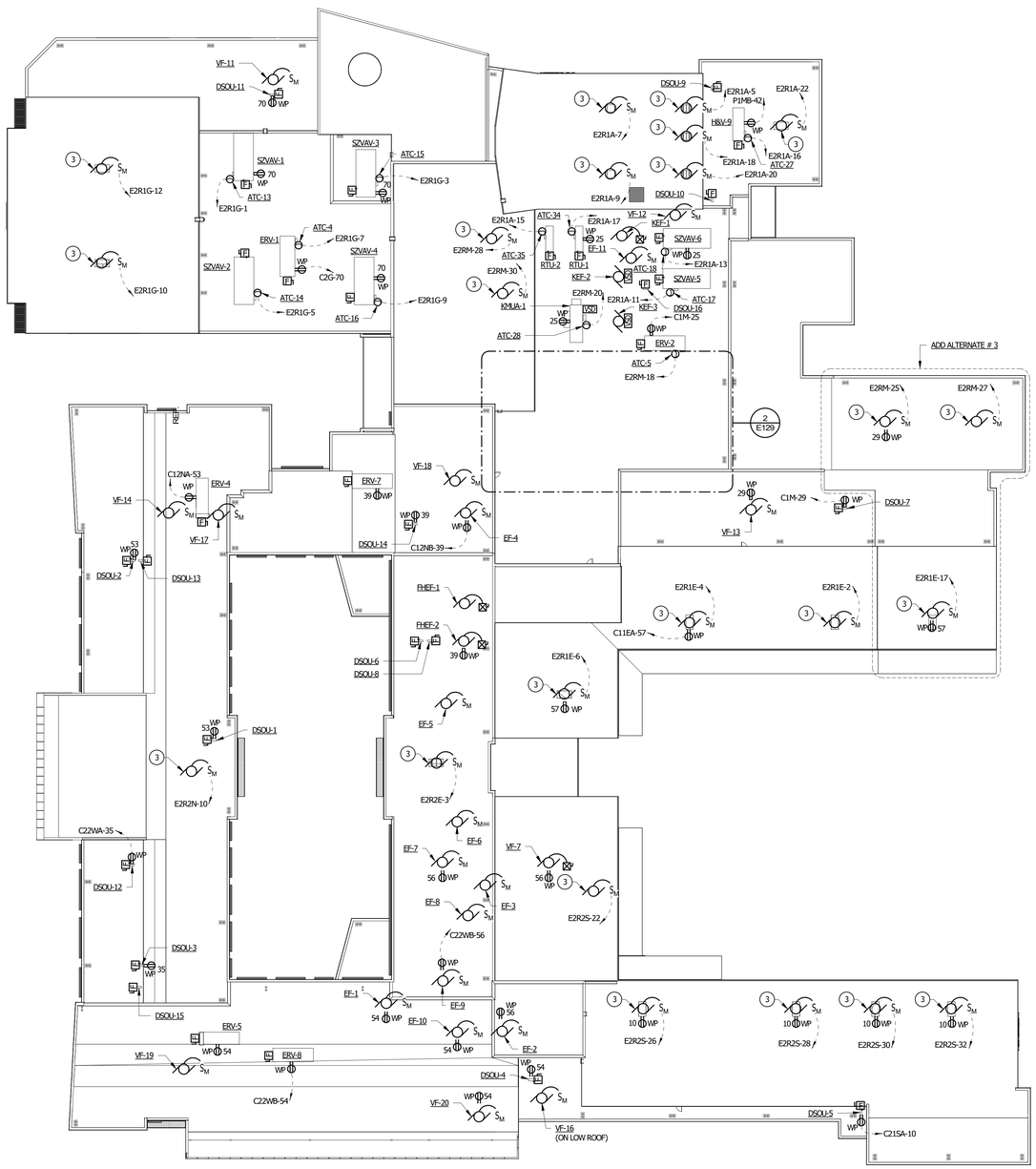
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

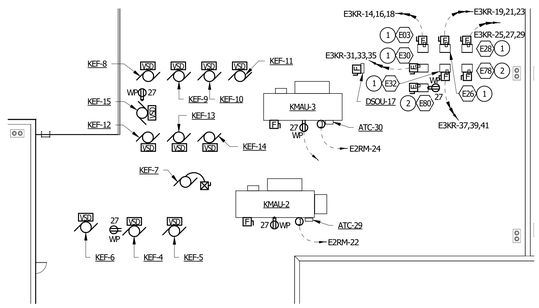
**SECOND FLOOR - KEYPLAN 11 - POWER**

SHEET NO.

**E128**




1 ROOF PLAN - OVERALL - POWER
1/32" = 1'-0"




2 PART PLAN - ROOF
1/16" = 1'-0"

## GENERAL NOTES:

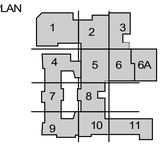
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.
2. FIELD COORDINATE EXACT LOCATION OF DISCONNECTS AND RECEPTACLES WITH HVAC EQUIPMENT PIPING AND DUCTWORK.

## DRAWING NOTES:

1. REFER TO DRAWING E404 AND E626 FOR ADDITIONAL INFORMATION.
2. REFER TO DRAWING E405 AND E626 FOR ADDITIONAL INFORMATION.
3. SMOKE VENT: 120V, 1Ø, 1/2HP. MAKE CONNECTION VIA CONTROLLER FURNISHED WITH UNIT. LOCATE CONTROLLER AS DIRECTED BY AHJ.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**ROOF PLAN - OVERALL - POWER**

SHEET NO.

**E129**

0 8' 16' 32' 0 16' 32' 64'

## GENERAL NOTES:

1. REFER TO SHEET E716 FOR CORRIDOR CONTROL ZONING INFORMATION
2. ALL EMERGENCY LIGHTING IN CORRIDORS AND RESTROOMS OFF CORRIDORS SHALL BE CONNECTED TO CIRCUIT E1LG-1 UNLESS OTHERWISE NOTED.
3. ALL EXIT SIGNS SHALL BE CONNECTED TO CIRCUIT E1LG-3 UNLESS OTHERWISE NOTED.
4. ALL OTHER EMERGENCY LIGHTING IN INDIVIDUAL SPACES SHALL BE CONNECTED TO CIRCUIT E1LG-5 UNLESS OTHERWISE NOTED.
5. MAKE CONNECTION TO EMERGENCY LIGHTING UNITS FROM UNSWITCHED (HOT) PORTION OF THE EMERGENCY LIGHTING CIRCUIT SERVING THE SPACE.

## DRAWING NOTES:

1. MOUNT LIGHTING FIXTURE AND LOW VOLTAGE DIMMER SWITCH WITHIN DISPLAY CASE AND MAKE ALL CONNECTIONS TO DISPLAY CASE LIGHTING VIA ASSOCIATED 24V POWER SUPPLY MOUNTED ABOVE CEILING AND AREA OCCUPANCY SENSORS AS REQUIRED. COORDINATE WITH ARCHITECTURAL CASEWORK DRAWINGS. (TYPICAL FOR ADJACENT DISPLAY CASES)
2. VIA LIGHTING CONTACTOR LC-11
3. VIA LIGHTING CONTACTOR LC-12
4. CONNECT TO CIRCUIT E1LG-7
5. CONNECT TO CIRCUIT E1LG-9

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

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PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

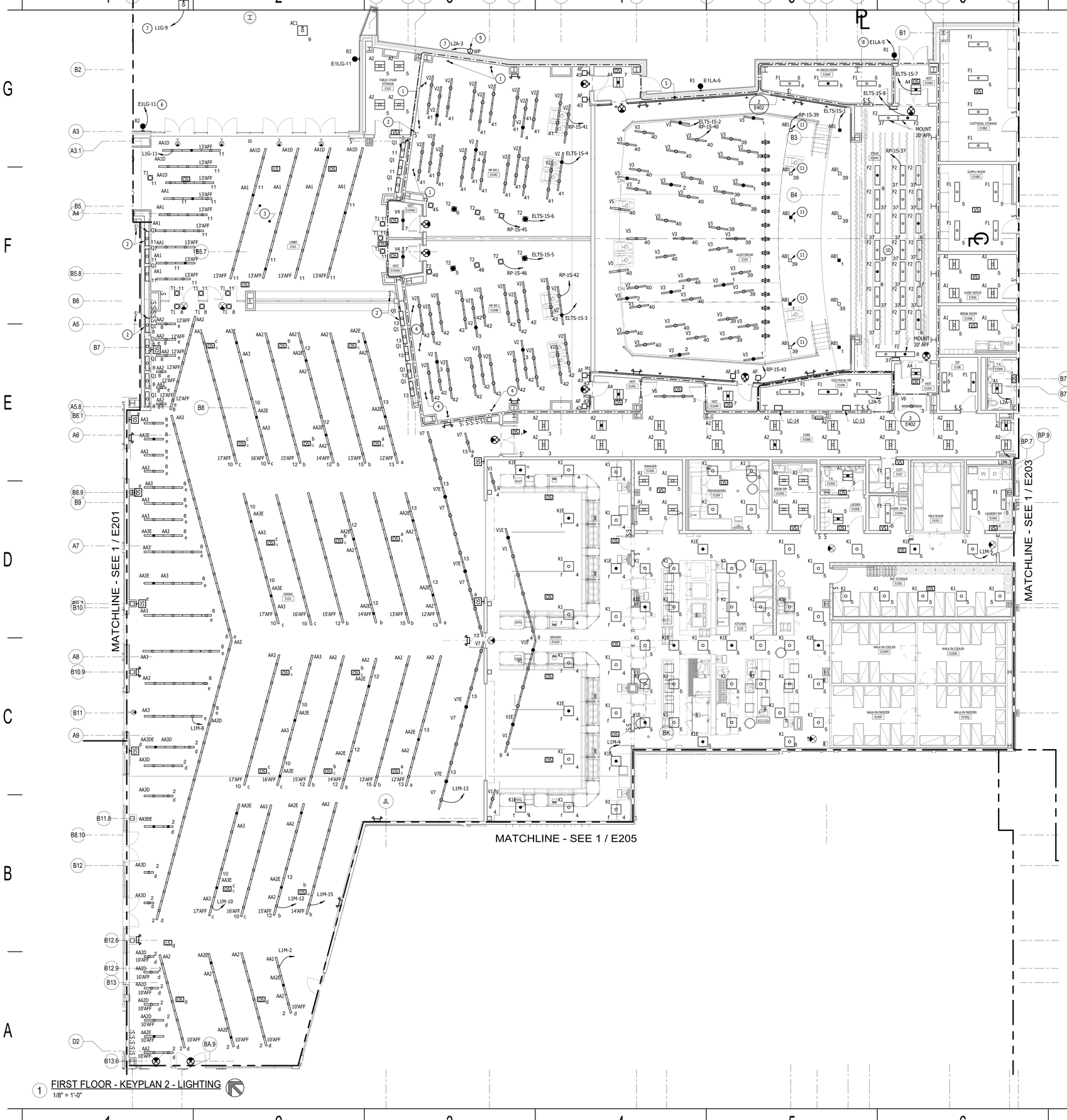
**FIRST FLOOR - KEYPLAN 1 - LIGHTING**

SHEET NO.

**E201**

1 FIRST FLOOR - KEYPLAN 1 - LIGHTING
1/8" = 1'-0"

0 4' 8' 16'




1 FIRST FLOOR - KEYPLAN 2 - LIGHTING
1/8" = 1'-0"

## GENERAL NOTES:

1. REFER TO SHEET E716 FOR CORRIDOR CONTROL ZONING INFORMATION.
2. ALL EMERGENCY LIGHTING IN CORRIDORS AND RESTROOMS OFF CORRIDORS SHALL BE CONNECTED TO CIRCUIT E1LM-1 UNLESS OTHERWISE NOTED.
3. ALL EXIT SIGNS SHALL BE CONNECTED TO CIRCUIT E1LM-3 UNLESS OTHERWISE NOTED.
4. ALL EMERGENCY LIGHTS IN DINING AND SERVERY SHALL BE CONNECTED TO CIRCUIT E1LM-4. EXIT SIGNS IN THESE AREAS SHALL BE CONNECTED TO CIRCUIT E1LM-2 UNLESS OTHERWISE NOTED.
5. ALL OTHER EMERGENCY LIGHTING SHALL BE CONNECTED TO CIRCUIT E1LM-5 UNLESS OTHERWISE NOTED.
6. MAKE CONNECTION TO EMERGENCY LIGHTING UNITS FROM UNSWITCHED (HOT) PORTION OF THE EMERGENCY LIGHTING CIRCUIT SERVING THE SPACE.

## DRAWING NOTES:

1. EXTEND FIXTURE TYPE V4 DOWN WALL FROM 18' ABOVE FINISHED FIRST FLOOR TO 12' ABOVE FINISHED FIRST FLOOR. COORDINATE WITH ARCHITECTURAL ELEVATIONS. FIXTURES SHALL BE CONNECTED TO CIRCUIT RP-1S-41.
2. MOUNT LIGHTING FIXTURE AND LOW VOLTAGE SWITCH WITHIN DISPLAY CASE AND MAKE ALL CONNECTIONS TO DISPLAY CASE LIGHTING VIA ASSOCIATED 24V POWER SUPPLY MOUNTED ABOVE CEILING AND AREA OCCUPANCY SENSORS AS REQUIRED. COORDINATE WITH ARCHITECTURAL CASEWORK DRAWINGS. TYPICAL FOR DISPLAY CASES IN AREA.
3. EMERGENCY LIGHTING IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1LG-1. EXIT SIGNS IN THIS AREA SHALL BE CONNECTED TO E1LG-3.
4. EXTEND FIXTURE TYPE V4 DOWN WALL FROM 18' ABOVE FINISHED FIRST FLOOR TO 12' ABOVE FINISHED FIRST FLOOR. COORDINATE WITH ARCHITECTURAL ELEVATIONS. FIXTURES SHALL BE CONNECTED TO CIRCUIT RP-1S-42.
5. EMERGENCY LIGHTING IN THIS AREA SHALL BE CONNECTED VIA ELTS-1S TO CIRCUIT ELTS-1S-1 VIA RP-1S. EXIT SIGNS IN THIS AREA SHALL BE CONNECTED TO E1LA-1.
6. VIA LIGHTING CONTACTOR LC-11
7. VIA LIGHTING CONTACTOR LC-14
8. VIA LIGHTING CONTACTOR LC-13
9. MOUNT TO SUIT SIGNAGE LIGHTING AND MAKE ALL CONNECTIONS AS REQUIRED. FIELD COORDINATE EXACT LOCATION WITH ARCHITECT.
10. EMERGENCY LIGHTING IN THIS AREA SHALL BE CONNECTED TO CIRCUIT ELTS-1S-2 VIA RP-1S. EXIT SIGNS IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1LA-1.
11. MOUNT 23' ABOVE FINISHED FIRST FLOOR/STAGE LEVEL

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

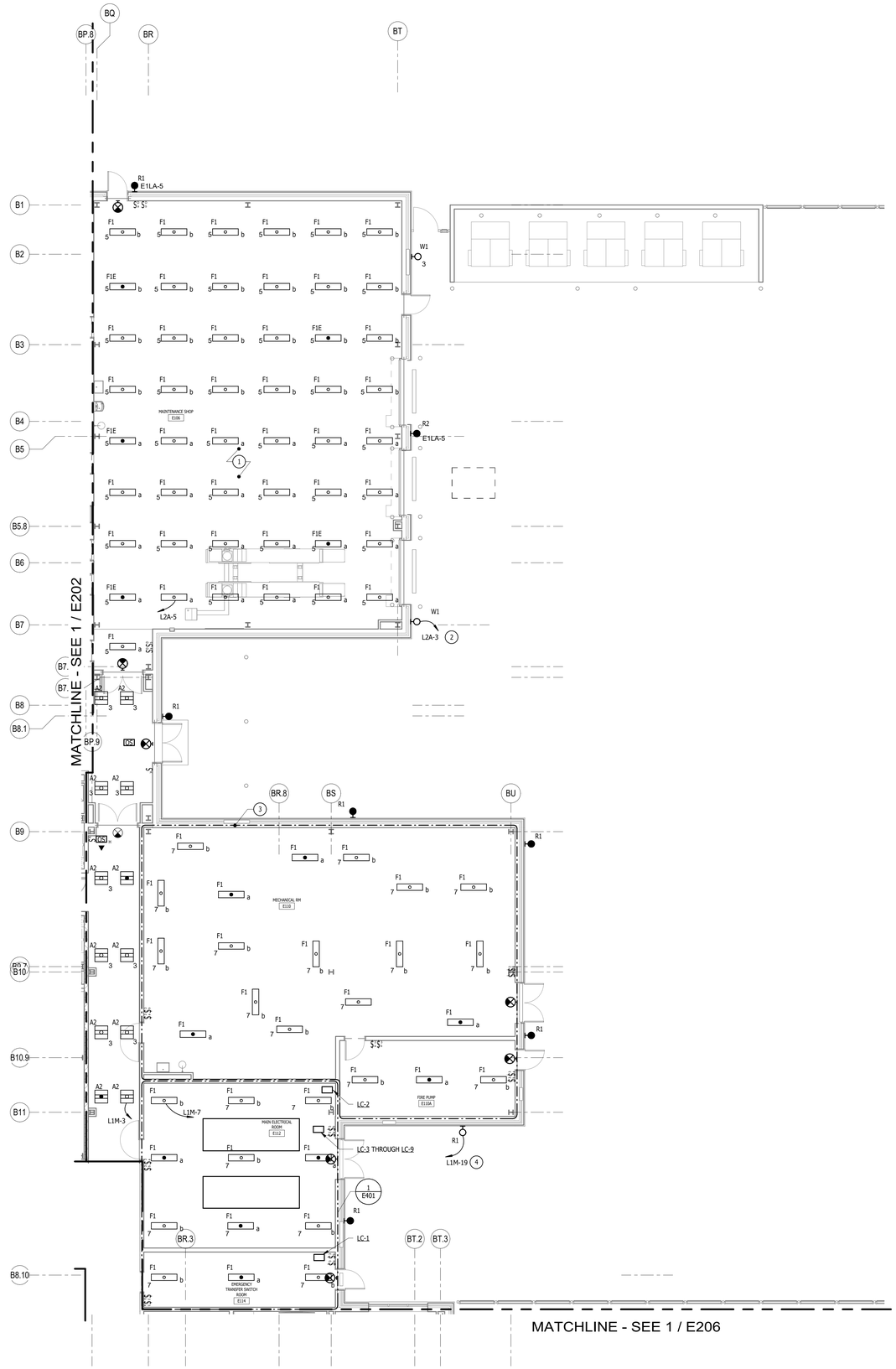
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR - KEYPLAN 2 - LIGHTING**

SHEET NO.

**E202**




## GENERAL NOTES:

1. REFER TO SHEET E716 FOR CORRIDOR CONTROL ZONING INFORMATION.
2. ALL EMERGENCY LIGHTING IN CORRIDORS AND RESTROOMS OFF CORRIDORS SHALL BE CONNECTED TO CIRCUIT E1LM-1 UNLESS OTHERWISE NOTED.
3. ALL EXIT SIGNS SHALL BE CONNECTED TO CIRCUIT E1LM-3 UNLESS OTHERWISE NOTED.
4. ALL OTHER EMERGENCY LIGHTING SHALL BE CONNECTED TO CIRCUIT E1LM-5 UNLESS OTHERWISE NOTED.
5. ALL EXTERIOR EMERGENCY LIGHTING SHALL BE CONNECTED TO CIRCUIT E1LM-6 VIA LIGHTING CONTACTOR LC-1 UNLESS OTHERWISE NOTED.

## DRAWING NOTES:

1. EMERGENCY LIGHTING IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1LA-3. EXIT SIGNS IN THIS AREA SHALL BE CONNECTED TO E1LA-1.
2. VIA LIGHTING CONTACTOR LC-14
3. FIELD COORDINATE EXACT LOCATION OF FIXTURES WITH HVAC EQUIPMENT, PIPING, AND DUCTWORK.
4. VIA LIGHTING CONTACTOR LC-2

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR - KEYPLAN 3 - LIGHTING**

SHEET NO.

**E203**

1 FIRST FLOOR - KEYPLAN 3 - LIGHTING
1/8" = 1'-0"

0 4' 8' 16'

## GENERAL NOTES:

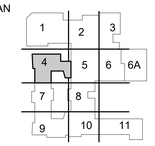
1. REFER TO SHEET E716 FOR CORRIDOR CONTROL ZONING INFORMATION.
2. ALL EMERGENCY LIGHTING IN CORRIDORS AND RESTROOMS OFF CORRIDORS SHALL BE CONNECTED TO CIRCUIT E1L1N-1 UNLESS OTHERWISE NOTED.
3. ALL EXIT SIGNS SHALL BE CONNECTED TO CIRCUIT E1L1N-3 UNLESS OTHERWISE NOTED.
4. ALL OTHER EMERGENCY LIGHTING SHALL BE CONNECTED TO CIRCUIT E1L1N-5 UNLESS OTHERWISE NOTED.
5. ALL EMERGENCY LIGHTING ON BUILDING EXTERIOR SHALL BE CONNECTED TO CIRCUIT E1L1N-6 VIA LIGHTING CONTACTOR LC-15 UNLESS OTHERWISE NOTED.

## DRAWING NOTES:

1. PATIENT AMBIENT/EXAM LIGHT CONTROLLER
2. MOUNT LIGHTING FIXTURE AND LOW VOLTAGE SWITCH WITHIN DISPLAY CASE AND MAKE ALL CONNECTIONS TO DISPLAY CASE LIGHTING VIA ASSOCIATED 24V POWER SUPPLY MOUNTED ABOVE CEILING AND AREA OCCUPANCY SENSORS AS REQUIRED. COORDINATE WITH ARCHITECTURAL CASEWORK DRAWINGS. TYPICAL FOR DISPLAY CASES IN AREA.
3. VIA LIGHTING CONTACTOR LC-11

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN





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PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

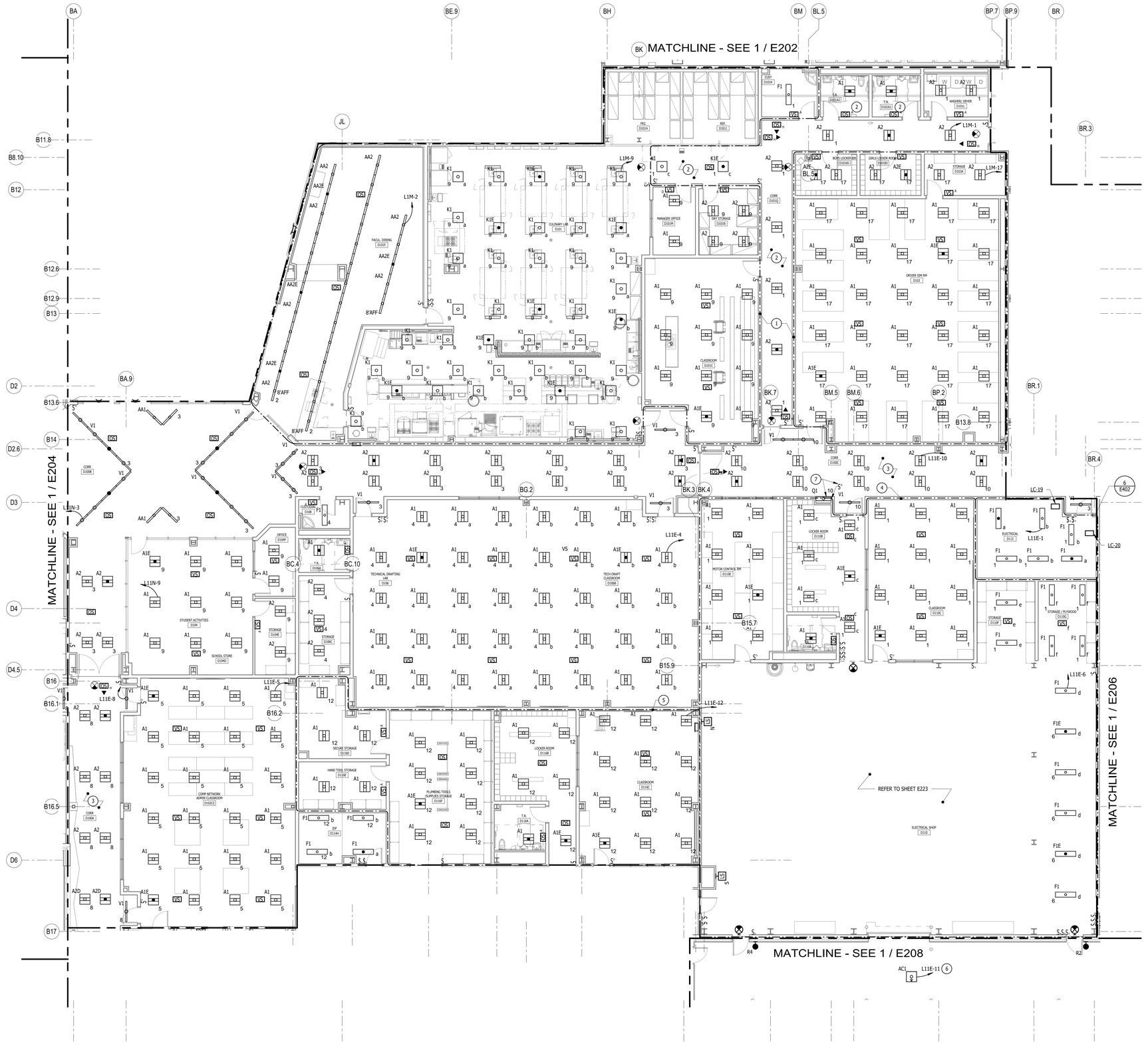
**FIRST FLOOR - KEYPLAN 4 - LIGHTING**

SHEET NO.

**E204**

1 FIRST FLOOR - KEYPLAN 4 - LIGHTING
1/8" = 1'-0"

0 4' 8' 16'




1 FIRST FLOOR - KEYPLAN 5 - LIGHTING
1/8" = 1'-0"

0 4' 8' 16'

## GENERAL NOTES:

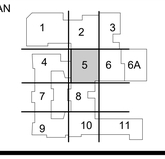
1. REFER TO SHEET E716 FOR CORRIDOR CONTROL ZONING INFORMATION.
2. ALL EMERGENCY LIGHTING IN CORRIDORS AND RESTROOMS OFF CORRIDORS SHALL BE CONNECTED TO CIRCUIT E1L1N-1 UNLESS OTHERWISE NOTED.
3. ALL EXIT SIGNS SHALL BE CONNECTED TO CIRCUIT E1L1N-3 UNLESS OTHERWISE NOTED.
4. ALL OTHER EMERGENCY LIGHTING SHALL BE CONNECTED TO CIRCUIT E1L1E-5 UNLESS OTHERWISE NOTED.
5. ALL EMERGENCY LIGHTING ON BUILDING EXTERIOR SHALL BE CONNECTED TO CIRCUIT E1L1E-9 VIA LIGHTING CONTACTOR LC-19 UNLESS OTHERWISE NOTED.

## DRAWING NOTES:

1. EMERGENCY LIGHTING IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1LM-5. EXIT SIGNS IN THIS AREA SHALL BE CONNECTED TO E1LM-3.
2. EMERGENCY LIGHTING IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1LM-1. EXIT SIGNS IN THIS AREA SHALL BE CONNECTED TO E1LM-3.
3. EMERGENCY LIGHTING IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1E-1. EXIT SIGNS IN THIS AREA SHALL BE CONNECTED TO E1L1E-3.
4. EMERGENCY LIGHTING IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1E-4. EXIT SIGNS IN THIS AREA SHALL BE CONNECTED TO E1L1E-3.
5. EMERGENCY LIGHTING IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1E-13. EXIT SIGNS IN THIS AREA SHALL BE CONNECTED TO E1L1E-3.
6. VIA LIGHTING CONTACTOR LC-20
7. MOUNT LIGHTING FIXTURE AND LOW VOLTAGE SWITCH WITHIN DISPLAY CASE AND MAKE ALL CONNECTIONS TO DISPLAY CASE LIGHTING VIA ASSOCIATED 24V POWER SUPPLY MOUNTED ABOVE CEILING AND AREA OCCUPANCY SENSORS AS REQUIRED. COORDINATE WITH ARCHITECTURAL CASEWORK DRAWINGS.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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PAUL M. HODGSON VO-TECH HIGH SCHOOL

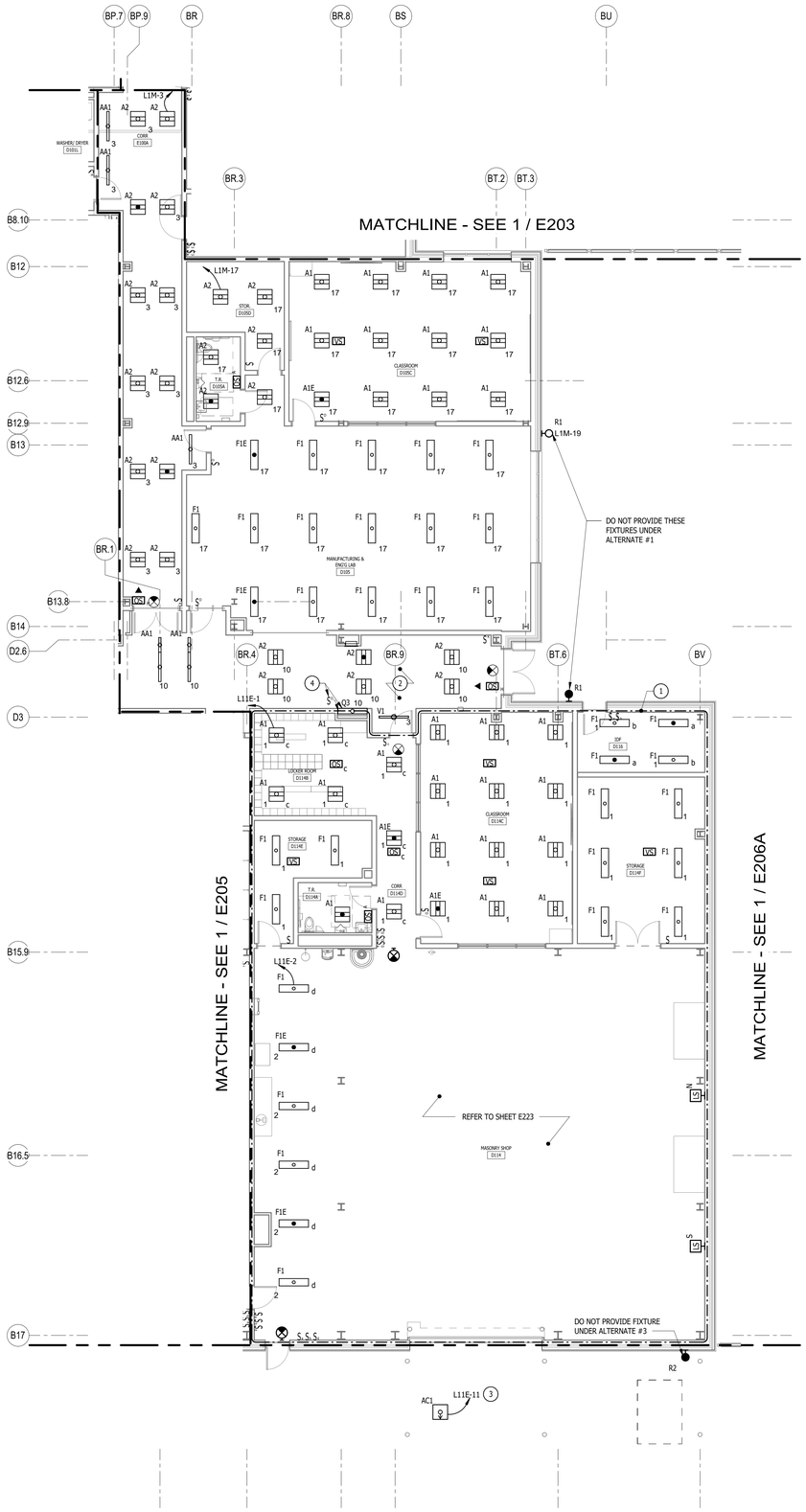
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR - KEYPLAN 5 - LIGHTING**

SHEET NO.

**E205**




1 FIRST FLOOR - KEYPLAN 6 - LIGHTING
1/8" = 1'-0"

## GENERAL NOTES:

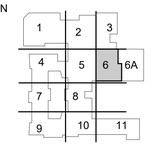
1. REFER TO SHEET E716 FOR CORRIDOR CONTROL ZONING INFORMATION.
2. ALL EMERGENCY LIGHTING IN CORRIDORS AND RESTROOMS OFF CORRIDORS SHALL BE CONNECTED TO CIRCUIT E1LM-1 UNLESS OTHERWISE NOTED.
3. ALL EXIT SIGNS SHALL BE CONNECTED TO E1LM-3 UNLESS OTHERWISE NOTED.
4. ALL OTHER EMERGENCY LIGHTING SHALL BE CONNECTED TO E1LM-5 UNLESS OTHERWISE NOTED.
5. ALL EMERGENCY LIGHTING ON BUILDING EXTERIOR SHALL BE CONNECTED TO E1L1E-9 VIA LIGHTING CONTACTOR LC-19 UNLESS OTHERWISE NOTED.

## DRAWING NOTES:

1. EMERGENCY LIGHTING IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1E-8. EXIT SIGNS IN THIS AREA SHALL BE CONNECTED TO E1L1E-6.
2. EMERGENCY LIGHTING IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1E-1. EXIT SIGNS IN THIS AREA SHALL BE CONNECTED TO E1L1E-3.
3. VIA LIGHTING CONTACTOR LC-20
4. MOUNT LIGHTING FIXTURE AND LOW VOLTAGE SWITCH WITHIN DISPLAY CASE AND MAKE ALL CONNECTIONS TO DISPLAY CASE LIGHTING VIA ASSOCIATED 24V POWER SUPPLY MOUNTED ABOVE CEILING AND AREA OCCUPANCY SENSORS AS REQUIRED. COORDINATE WITH ARCHITECTURAL CASEWORK DRAWINGS.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN




NEW CASTLE COUNTY VOCATIONAL TECHNICAL SCHOOL DISTRICT

OWNER

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

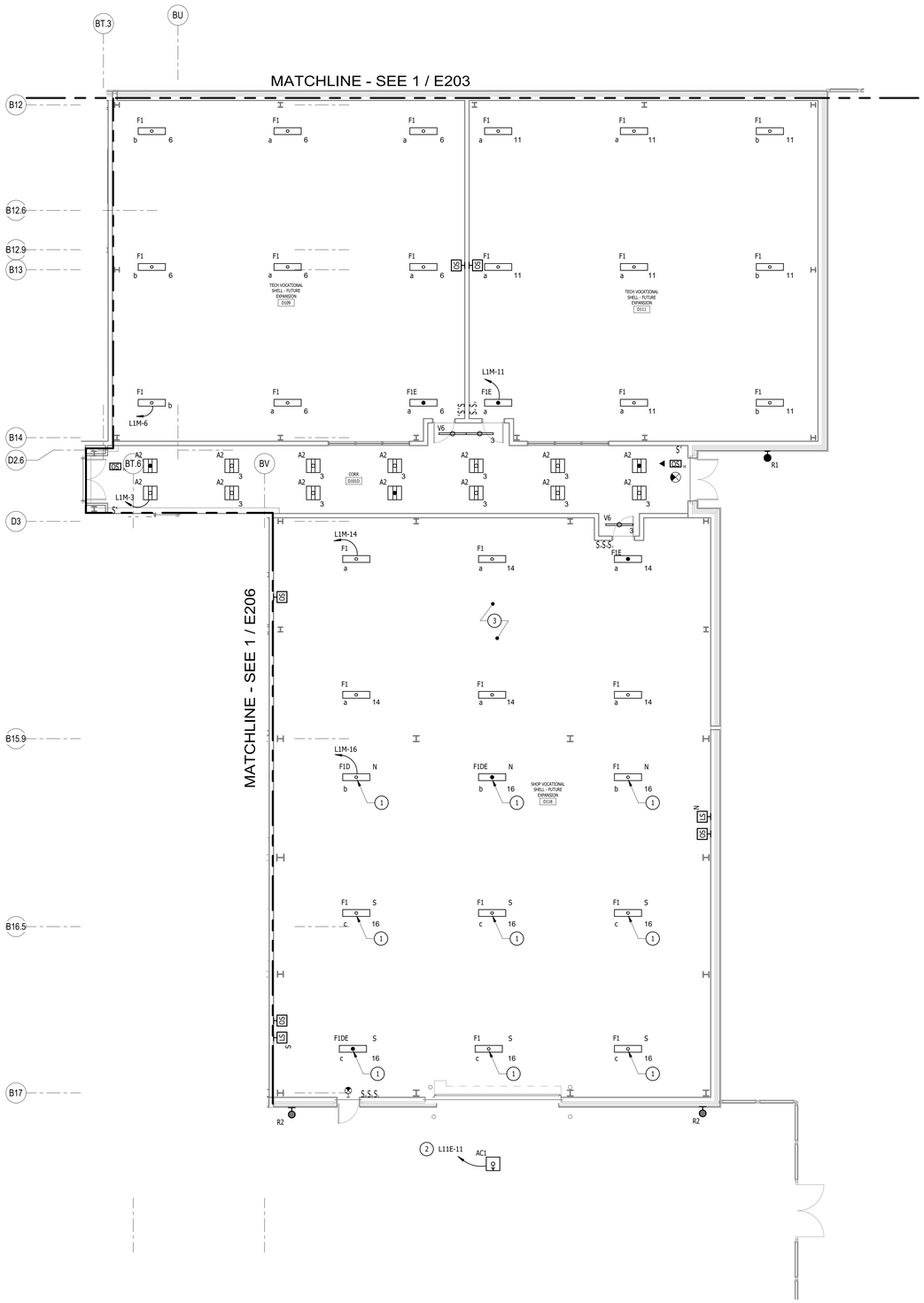
SHEET TITLE

**FIRST FLOOR - KEYPLAN 6 - LIGHTING**

SHEET NO.

**E206**

0 4' 8' 16'




## GENERAL NOTES:

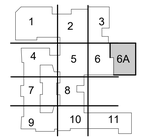
1. REFER TO SHEET E716 FOR CORRIDOR CONTROL ZONING INFORMATION.
2. ALL EMERGENCY LIGHTING IN CORRIDORS AND RESTROOMS OFF CORRIDORS SHALL BE CONNECTED TO CIRCUIT E1LM-1 UNLESS OTHERWISE NOTED.
3. ALL EXIT SIGNS SHALL BE CONNECTED TO CIRCUIT E1LM-3 UNLESS OTHERWISE NOTED.
4. ALL OTHER EMERGENCY LIGHTING SHALL BE CONNECTED TO CIRCUIT E1LM-5 UNLESS OTHERWISE NOTED.
5. ALL EMERGENCY LIGHTING ON BUILDING EXTERIOR SHALL BE CONNECTED TO CIRCUIT E1L1E-9 VIA LIGHTING CONTACTOR LC-19 UNLESS OTHERWISE NOTED.

## DRAWING NOTES:

1. MOUNT 20'-0" AFF
2. VIA LIGHTING CONTACTOR LC-20
3. EMERGENCY LIGHTING IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1LM-7

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN





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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

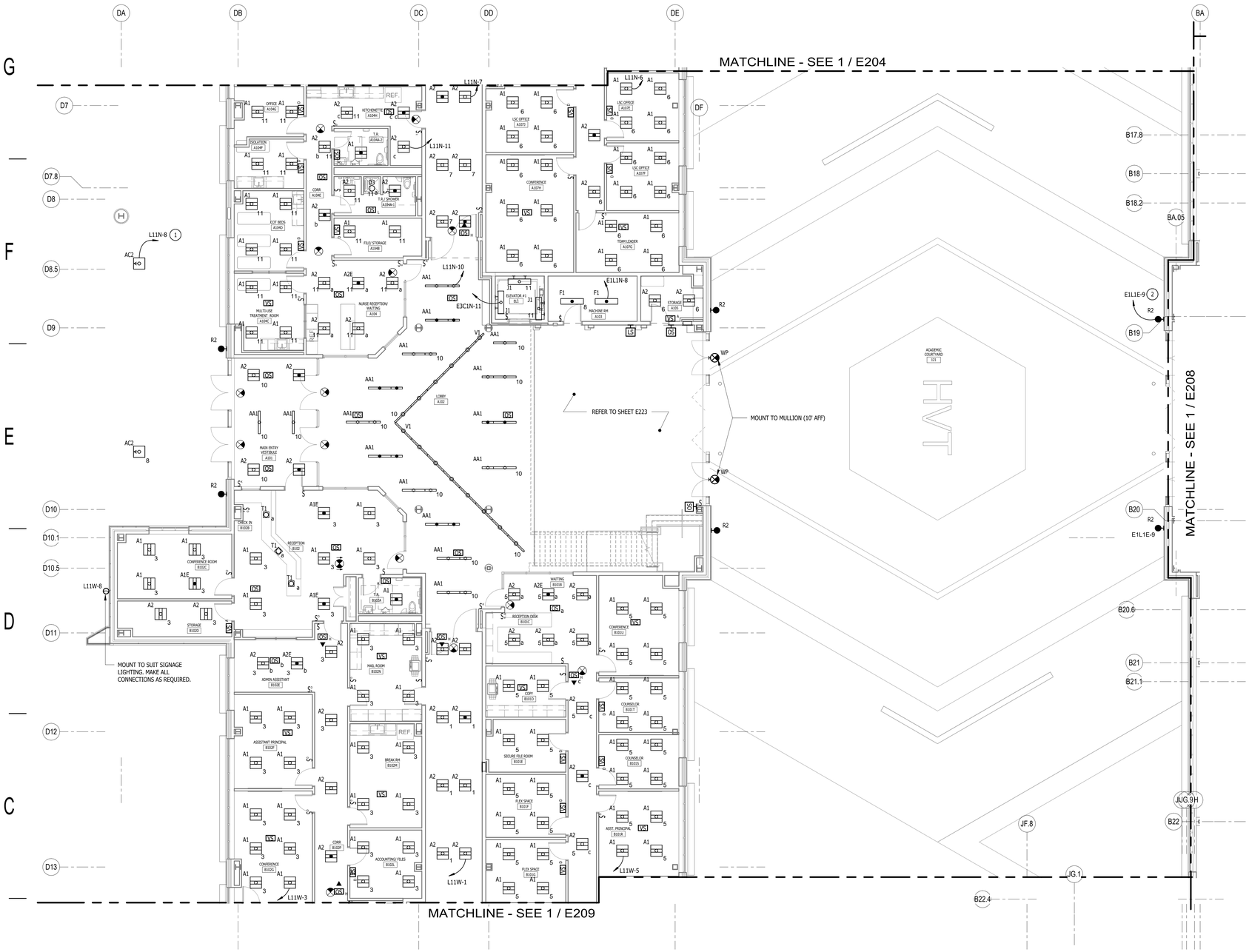
**FIRST FLOOR - KEYPLAN 6A - ALTERNATE #3 - LIGHTING**

SHEET NO.

**E206A**

1 FIRST FLOOR - KEYPLAN 6A - ALTERNATE #3 - LIGHTING
1/8" = 1'-0"

0 4' 8' 16'




## GENERAL NOTES:

1. REFER TO SHEET E716 FOR CORRIDOR CONTROL ZONING INFORMATION.
2. ALL EMERGENCY LIGHTING IN CORRIDORS AND RESTROOMS OFF CORRIDORS NORTH OF MAIN ENTRY AND LOBBY SHALL BE CONNECTED TO CIRCUIT E1L1N-1 UNLESS OTHERWISE NOTED.
3. ALL EXIT SIGNS NORTH OF OR IN MAIN ENTRY AND LOBBY SHALL BE CONNECTED TO CIRCUIT E1L1N-3 UNLESS OTHERWISE NOTED.
4. ALL OTHER EMERGENCY LIGHTING NORTH OF MAIN ENTRY AND LOBBY SHALL BE CONNECTED TO CIRCUIT E1L1N-5 UNLESS OTHERWISE NOTED.
5. ALL EMERGENCY LIGHTING IN CORRIDORS AND RESTROOMS OFF CORRIDORS SOUTH OF MAIN ENTRY AND LOBBY SHALL BE CONNECTED TO CIRCUIT E1L1W-1 UNLESS OTHERWISE NOTED.
6. ALL EXIT SIGNS SOUTH OF MAIN ENTRY AND LOBBY SHALL BE CONNECTED TO CIRCUIT E1L1W-3 UNLESS OTHERWISE NOTED.
7. ALL OTHER EMERGENCY LIGHTING SOUTH OF MAIN ENTRY AND LOBBY SHALL BE CONNECTED TO CIRCUIT E1L1W-5 UNLESS OTHERWISE NOTED.
8. ALL EMERGENCY LIGHTING IN MAIN ENTRY AND LOBBY SHALL BE CONNECTED TO CIRCUIT E1L1N-7 UNLESS OTHERWISE NOTED.
9. ALL EMERGENCY LIGHTING ON BUILDING EXTERIOR SHALL BE CONNECTED TO CIRCUIT E1L1N-9 VIA LIGHTING CONTACTOR LC-15 UNLESS OTHERWISE NOTED.

## DRAWING NOTES:

1. VIA LIGHTING CONTACTOR LC-16
2. VIA LIGHTING CONTACTOR LC-19

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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NEW CASTLE COUNTY DELAWARE

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PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

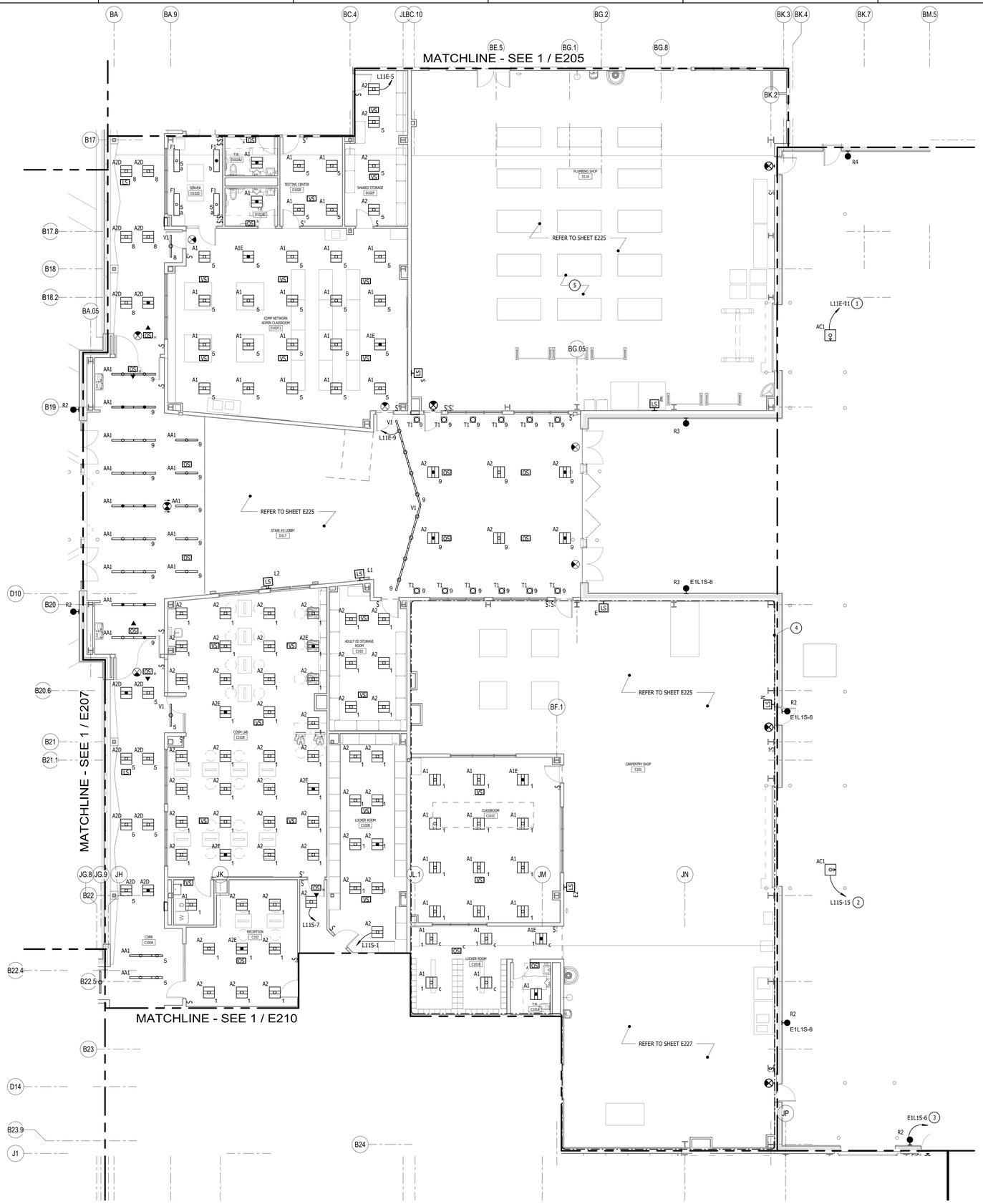
**FIRST FLOOR - KEYPLAN 7 - LIGHTING**

SHEET NO.

**E207**

1 FIRST FLOOR - KEYPLAN 7 - LIGHTING
1/8" = 1'-0"

0 4' 8' 16'




1 FIRST FLOOR - KEYPLAN 8 - LIGHTING
1/8" = 1'-0"

0 4' 8' 16'

## GENERAL NOTES:

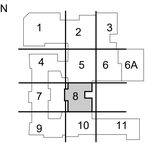
1. REFER TO SHEET E716 FOR CORRIDOR CONTROL ZONING INFORMATION.
2. ALL EMERGENCY LIGHTING IN CORRIDORS AND RESTROOMS OFF CORRIDORS NORTH OF STAIR #5 LOBBY SHALL BE CONNECTED TO CIRCUIT E1L1E-1 UNLESS OTHERWISE NOTED.
3. ALL EXIT SIGNS NORTH OF OR IN STAIR #5 LOBBY SHALL BE CONNECTED TO CIRCUIT E1L1E-3 UNLESS OTHERWISE NOTED.
4. ALL OTHER EMERGENCY LIGHTING NORTH OF STAIR #5 LOBBY SHALL BE CONNECTED TO CIRCUIT E1L1E-5 UNLESS OTHERWISE NOTED.
5. ALL EMERGENCY LIGHTING IN CORRIDORS AND RESTROOMS OFF CORRIDORS SOUTH OF STAIR #5 LOBBY SHALL BE CONNECTED TO CIRCUIT CIRCUIT E1L1S-3 UNLESS OTHERWISE NOTED.
6. ALL EXIT SIGNS SOUTH OF STAIR #5 LOBBY SHALL BE CONNECTED TO CIRCUIT E1L1S-1 UNLESS OTHERWISE NOTED.
7. ALL OTHER EMERGENCY LIGHTING SOUTH OF STAIR #5 LOBBY SHALL BE CONNECTED TO CIRCUIT E1L1S-5 UNLESS OTHERWISE NOTED.
8. ALL EMERGENCY LIGHTING IN STAIR #5 LOBBY SHALL BE CONNECTED TO CIRCUIT E1L1E-7 UNLESS OTHERWISE NOTED.
9. ALL EMERGENCY LIGHTING ON BUILDING EXTERIOR SHALL BE CONNECTED TO CIRCUIT E1L1E-9 VIA LIGHTING CONTACTOR LC-19 UNLESS OTHERWISE NOTED.

## DRAWING NOTES:

1. VIA LIGHTING CONTACTOR LC-19
2. VIA LIGHTING CONTACTOR LC-18
3. VIA LIGHTING CONTACTOR LC-17
4. EMERGENCY LIGHTING IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1S-7. EXIT SIGNS IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1S-9.
5. EMERGENCY LIGHTING IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1E-13. EXIT SIGNS IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1E-6.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

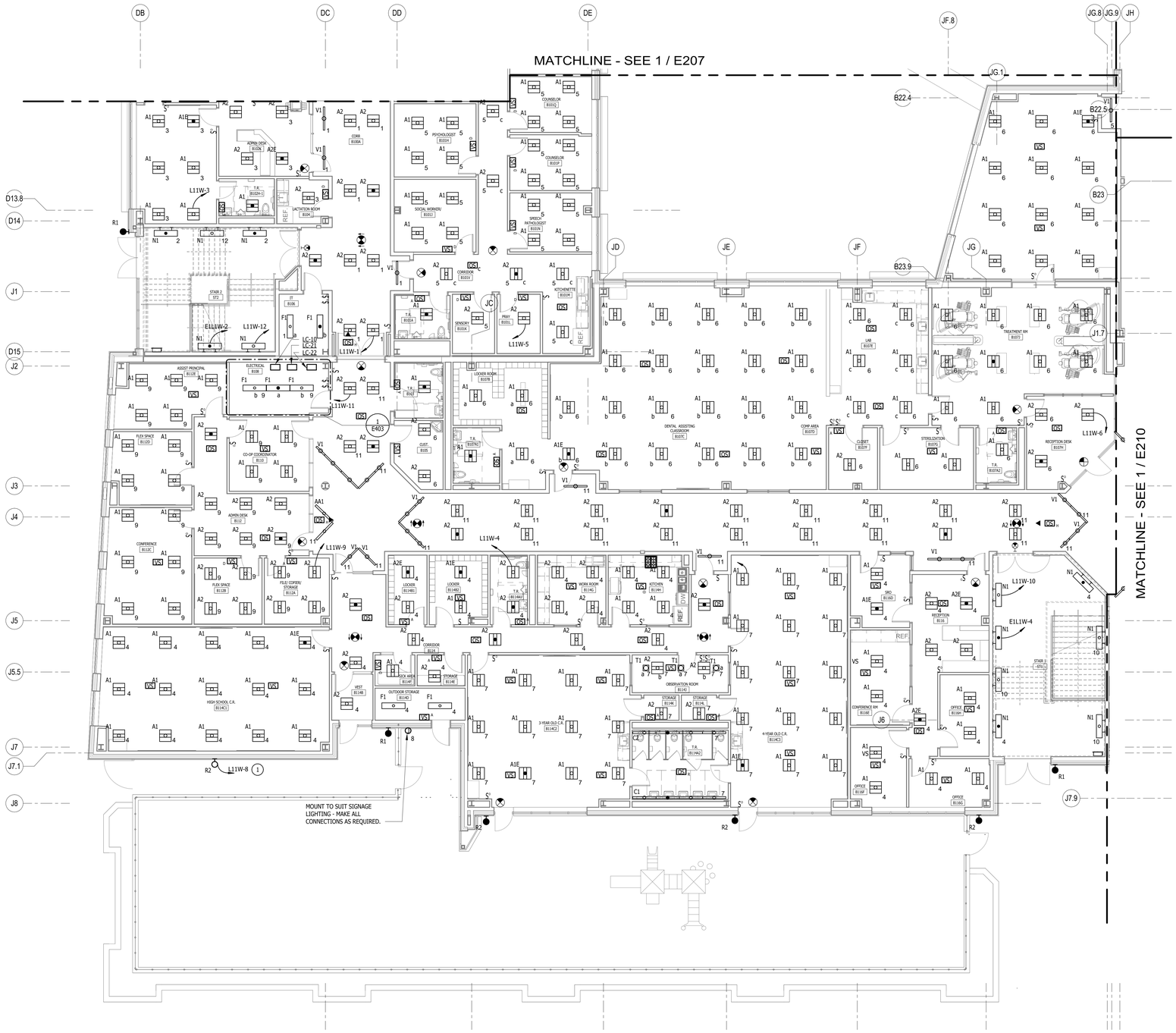
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR - KEYPLAN 8 - LIGHTING**

SHEET NO.

**E208**




1 FIRST FLOOR - KEYPLAN 9 - LIGHTING
1/8" = 1'-0"

## GENERAL NOTES:

1. REFER TO SHEET E716 FOR CORRIDOR CONTROL ZONING INFORMATION.
2. ALL EMERGENCY LIGHTING IN CORRIDORS AND RESTROOMS OFF CORRIDORS SHALL BE CONNECTED TO CIRCUIT E1L1W-1 UNLESS OTHERWISE NOTED.
3. ALL EXIT SIGNS SHALL BE CONNECTED TO CIRCUIT E1L1W-3 UNLESS OTHERWISE NOTED.
4. ALL OTHER EMERGENCY LIGHTING SHALL BE CONNECTED TO CIRCUIT E1L1W-5 UNLESS OTHERWISE NOTED.
5. ALL EMERGENCY LIGHTING ON BUILDING EXTERIOR SHALL BE CONNECTED TO CIRCUIT E1L1W-6 VIA LIGHTING CONTACTOR LC-21 UNLESS OTHERWISE NOTED.

## DRAWING NOTES:

(1) VIA LIGHTING CONTACTOR LC-22

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

VOCATIONAL TECHNICAL SCHOOL DISTRICT
NEW CASTLE COUNTY DELAWARE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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

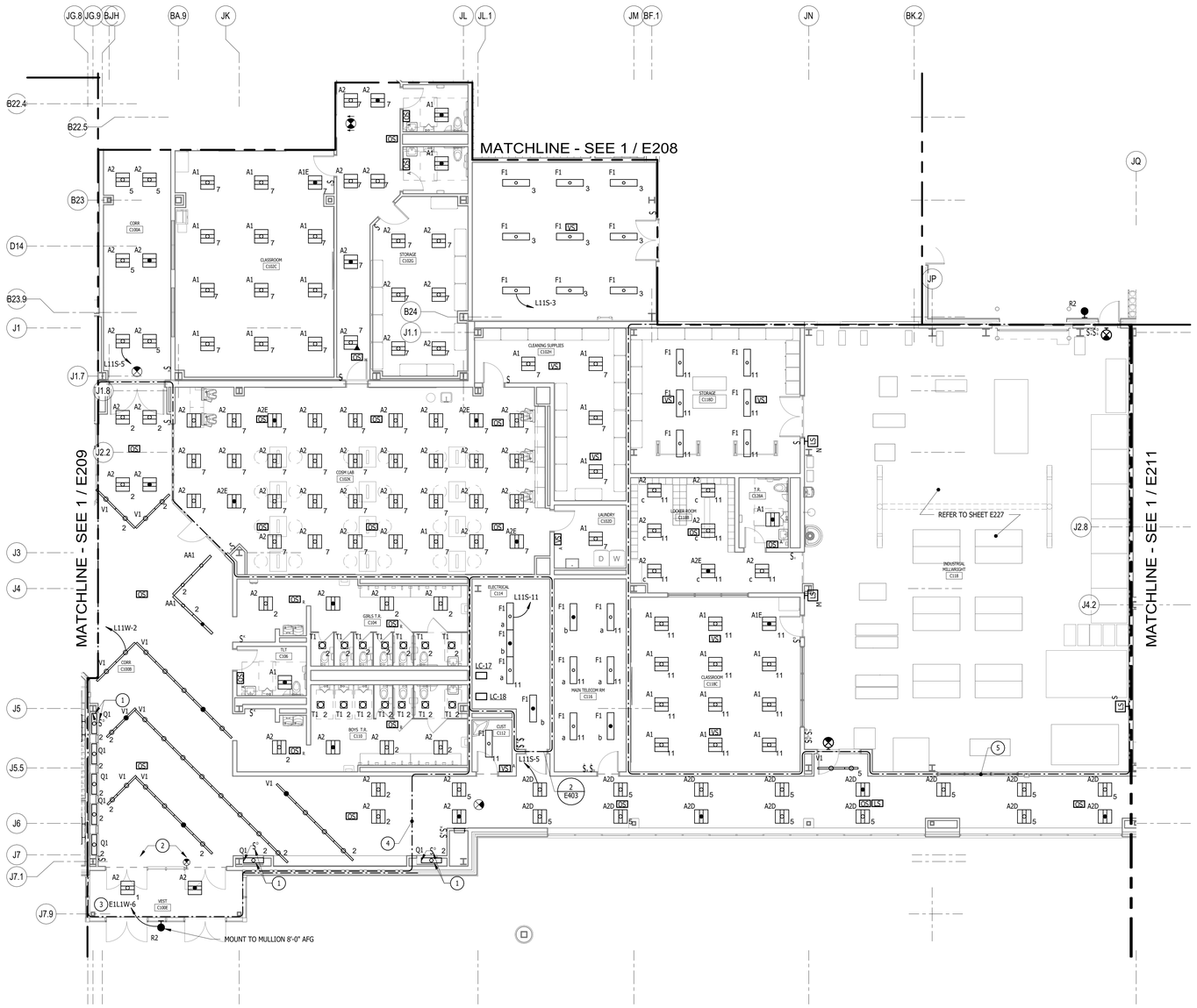
SHEET TITLE

**FIRST FLOOR - KEYPLAN 9 - LIGHTING**

SHEET NO.

**E209**

0 4' 8' 16'




1 FIRST FLOOR - KEYPLAN 10 - LIGHTING
1/8" = 1'-0"

0 4' 8' 16'

## GENERAL NOTES:

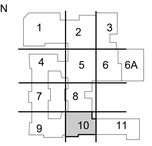
1. REFER TO SHEET E716 FOR CORRIDOR CONTROL ZONING INFORMATION.
2. ALL EMERGENCY LIGHTING IN CORRIDORS AND RESTROOMS OFF CORRIDORS WHERE THE NORMAL POWER CIRCUIT IS L11S-5 SHALL BE CONNECTED TO CIRCUIT E1L1S-3 UNLESS OTHERWISE NOTED. ALL EMERGENCY LIGHTING IN CORRIDORS AND RESTROOMS OFF CORRIDORS WHERE THE NORMAL POWER CIRCUIT IS L11W-2 SHALL BE CONNECTED TO CIRCUIT E1L1W-1 UNLESS OTHERWISE NOTED.
3. ALL EXIT SIGNS SHALL BE CONNECTED TO CIRCUIT E1L1S-1 UNLESS OTHERWISE NOTED.
4. ALL OTHER EMERGENCY LIGHTING SHALL BE CONNECTED TO CIRCUIT E1L1S-5 UNLESS OTHERWISE NOTED.
5. ALL EMERGENCY LIGHTING ON BUILDING EXTERIOR SHALL BE CONNECTED TO CIRCUIT E1L1S-7 VIA LIGHTING CONTACTOR LC-17 UNLESS OTHERWISE NOTED.

## DRAWING NOTES:

1. MOUNT LIGHTING FIXTURE AND LOW VOLTAGE SWITCH WITHIN DISPLAY CASE AND MAKE ALL CONNECTIONS TO DISPLAY CASE LIGHTING VIA ASSOCIATED 24V POWER SUPPLY MOUNTED ABOVE CEILING AND AREA OCCUPANCY SENSORS AS REQUIRED. COORDINATE WITH ARCHITECTURAL CASEWORK DRAWINGS. TYPICAL FOR DISPLAY CASES IN AREA.
2. CONNECT TO E1L1W-3.
3. VIA LIGHTING CONTACTOR LC-21.
4. EMERGENCY LIGHTING IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1W-1 UNLESS OTHERWISE NOTED. EXIT SIGNS IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1W-3 UNLESS OTHERWISE NOTED.
5. EMERGENCY LIGHTING IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1S-11 UNLESS OTHERWISE NOTED.. EXIT SIGNS IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1S-9 UNLESS OTHERWISE NOTED.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

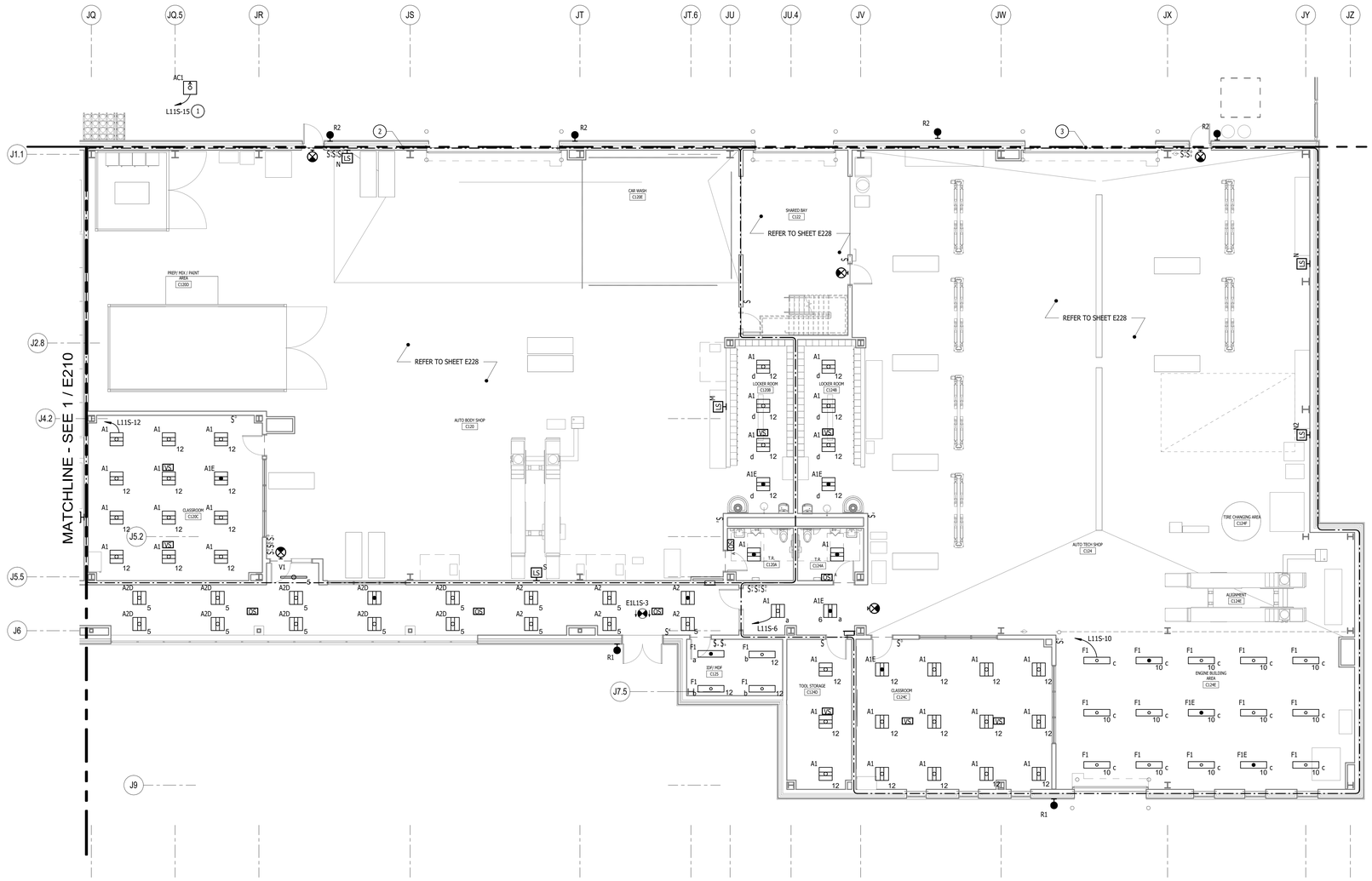
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR - KEYPLAN 10 - LIGHTING**

SHEET NO.

**E210**




1 FIRST FLOOR - KEYPLAN 11 - LIGHTING
1/8" = 1'-0"

0 4' 8' 16'

## GENERAL NOTES:

1. REFER TO SHEET E716 FOR CORRIDOR CONTROL ZONING INFORMATION.
2. ALL EMERGENCY LIGHTING IN CORRIDORS AND RESTROOMS OFF CORRIDORS SHALL BE CONNECTED TO CIRCUIT E1L1S-3 UNLESS OTHERWISE NOTED.
3. ALL EXIT SIGNS SHALL BE CONNECTED TO CIRCUIT E1L1S-17 UNLESS OTHERWISE NOTED.
4. ALL OTHER EMERGENCY LIGHTING SHALL BE CONNECTED TO CIRCUIT E1L1S-5 UNLESS OTHERWISE NOTED.
5. ALL EMERGENCY LIGHTING ON BUILDING EXTERIOR SHALL BE CONNECTED TO CIRCUIT E1L1S-6 VIA LIGHTING CONTACTOR LC-17 UNLESS OTHERWISE NOTED.

## DRAWING NOTES:

1. VIA LIGHTING CONTACTOR LC-18
2. EMERGENCY LIGHTING IN THIS AREA SHALL BE ~~CONNECTED TO~~ CIRCUIT E1L1S-13 UNLESS OTHERWISE NOTED.
3. EMERGENCY LIGHTING IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1S-15 UNLESS OTHERWISE NOTED.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

VOCATIONAL TECHNICAL SCHOOL DISTRICT NEW CASTLE COUNTY DELAWARE

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PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR - KEYPLAN 11 - LIGHTING**

SHEET NO.

**E211**

## GENERAL NOTES:

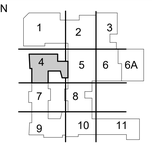
1. REFER TO SHEET E716 FOR CORRIDOR CONTROL ZONING INFORMATION.
2. ALL EMERGENCY LIGHTING IN CORRIDORS AND RESTROOMS OFF CORRIDORS SHALL BE CONNECTED TO CIRCUIT E1L2N-1 UNLESS OTHERWISE NOTED.
3. ALL EXIT SIGNS SHALL BE CONNECTED TO CIRCUIT E1L2N-3 UNLESS OTHERWISE NOTED.
4. ALL OTHER EMERGENCY LIGHTING SHALL BE CONNECTED TO CIRCUIT E1L2N-5 UNLESS OTHERWISE NOTED.
5. ALL EMERGENCY LIGHTING ON BUILDING EXTERIOR SHALL BE CONNECTED TO CIRCUIT E1L1N-6 VIA LIGHTING CONTACTOR LC-15 UNLESS OTHERWISE NOTED.

## DRAWING NOTES:

1. MOUNT LIGHTING FIXTURE AND LOW VOLTAGE SWITCH WITHIN DISPLAY CASE AND MAKE ALL CONNECTIONS TO DISPLAY CASE LIGHTING VIA ASSOCIATED 24V POWER SUPPLY MOUNTED ABOVE CEILING AND AREA OCCUPANCY SENSORS AS REQUIRED. COORDINATE WITH ARCHITECTURAL CASEWORK DRAWINGS. TYPICAL FOR DISPLAY CASES IN AREA.
2. VIA CONTACTOR LC-16

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

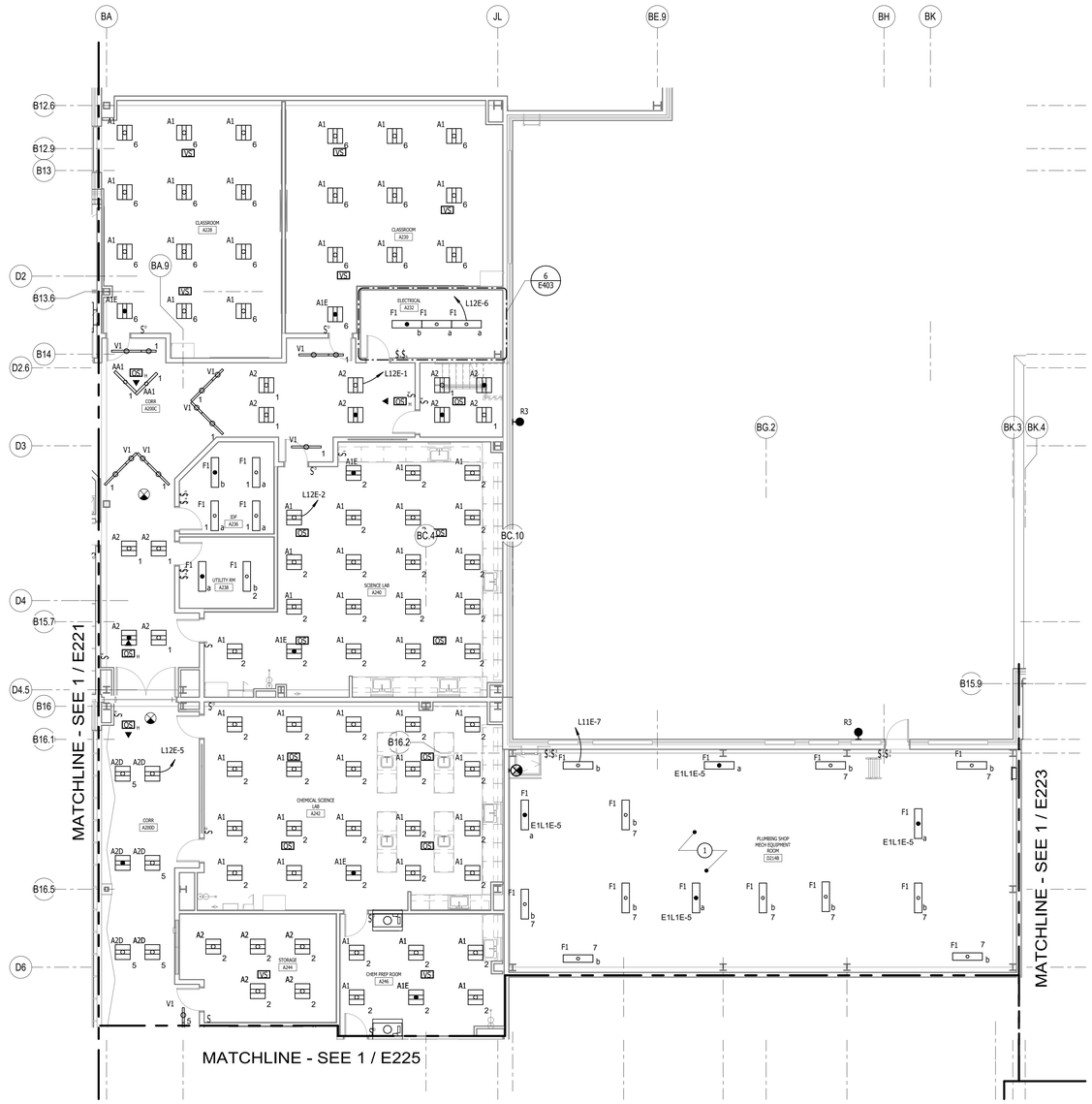
**SECOND FLOOR - KEYPLAN 4 - LIGHTING**

SHEET NO.

**E221**

1 SECOND FLOOR - KEYPLAN 4 - LIGHTING
1/8" = 1'-0"

0 4' 8' 16'




## GENERAL NOTES:

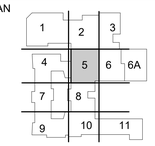
1. REFER TO SHEET E716 FOR CORRIDOR CONTROL ZONING INFORMATION.
2. ALL EMERGENCY LIGHTING IN CORRIDORS AND RESTROOMS OFF CORRIDORS SHALL BE CONNECTED TO CIRCUIT E1L2E-3 UNLESS OTHERWISE NOTED.
3. ALL EXIT SIGNS SHALL BE CONNECTED TO E1L2E-1 UNLESS OTHERWISE NOTED.
4. ALL OTHER EMERGENCY LIGHTING SHALL BE CONNECTED TO E1L2E-5 UNLESS OTHERWISE NOTED.
5. ALL EMERGENCY LIGHTING ON BUILDING EXTERIOR SHALL BE CONNECTED TO CIRCUIT E1L1E-9 VIA LIGHTING CONTACTOR LC-19

## DRAWING NOTES:

(1) FIELD COORDINATE EXACT LOCATION OF LIGHTING FIXTURES WITH EQUIPMENT, DUCTWORK, AND PIPING.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN





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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**SECOND FLOOR - KEYPLAN 5 - LIGHTING**

SHEET NO.

**E222**

(1) SECOND FLOOR - KEYPLAN 5 - LIGHTING
1/8" = 1'-0"

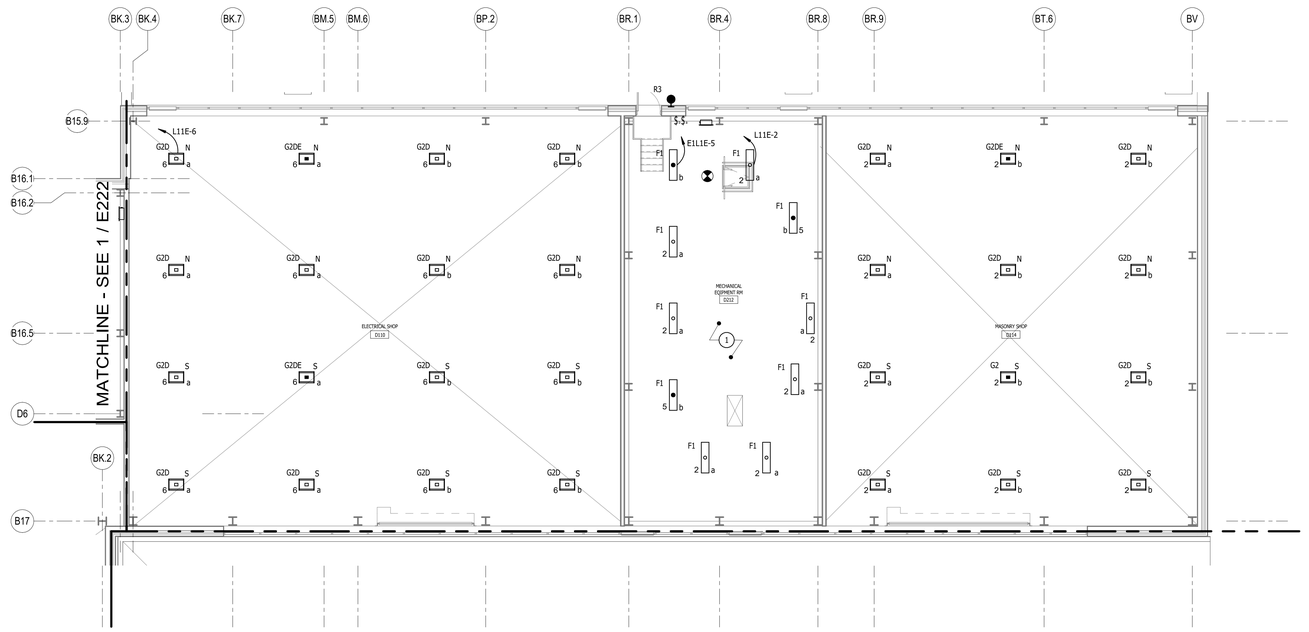
0 4' 8' 16'

## GENERAL NOTES:

1. ALL EMERGENCY LIGHTING IN MEZZANINES SHALL BE CONNECTED TO CIRCUIT E1L1E-5
2. ALL EXIT SIGNS SHALL BE CONNECTED TO E1L1E-6
3. REFER TO SHEETS E205 AND E206 FOR EMERGENCY LIGHTING CIRCUITS NOT INDICATED.
4. ALL EMERGENCY LIGHTING ON BUILDING EXTERIOR SHALL BE CONNECTED TO CIRCUIT E1L1E-9 VIA LIGHTING CONTACTOR LC-19

## DRAWING NOTES:

1. EMERGENCY LIGHTING IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1LM-5. EXIT SIGNS IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1LM-3.
2. EMERGENCY LIGHTING IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1LM-1. EXIT SIGNS IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1LM-3.
3. EMERGENCY LIGHTING IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1E-1. EXIT SIGNS IN THIS AREA SHALLBE CONNECTED TO CIRCUIT E1L1E-3.
4. EMERGENCY LIGHTING IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1E-4 UNLESS OTHERWISE NOTED. EXIT SIGNS IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1E-8.
5. EMERGENCY LIGHTING IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1E-13 UNLESS OTHERWISE NOTED. EXIT SIGNS IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1E-8.

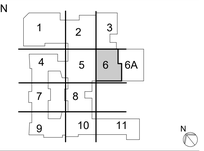



1 SECOND FLOOR - KEYPLAN 6 - LIGHTING
1/8" = 1'-0"

0 4' 8' 16'

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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PAUL M. HODGSON VO-TECH HIGH SCHOOL

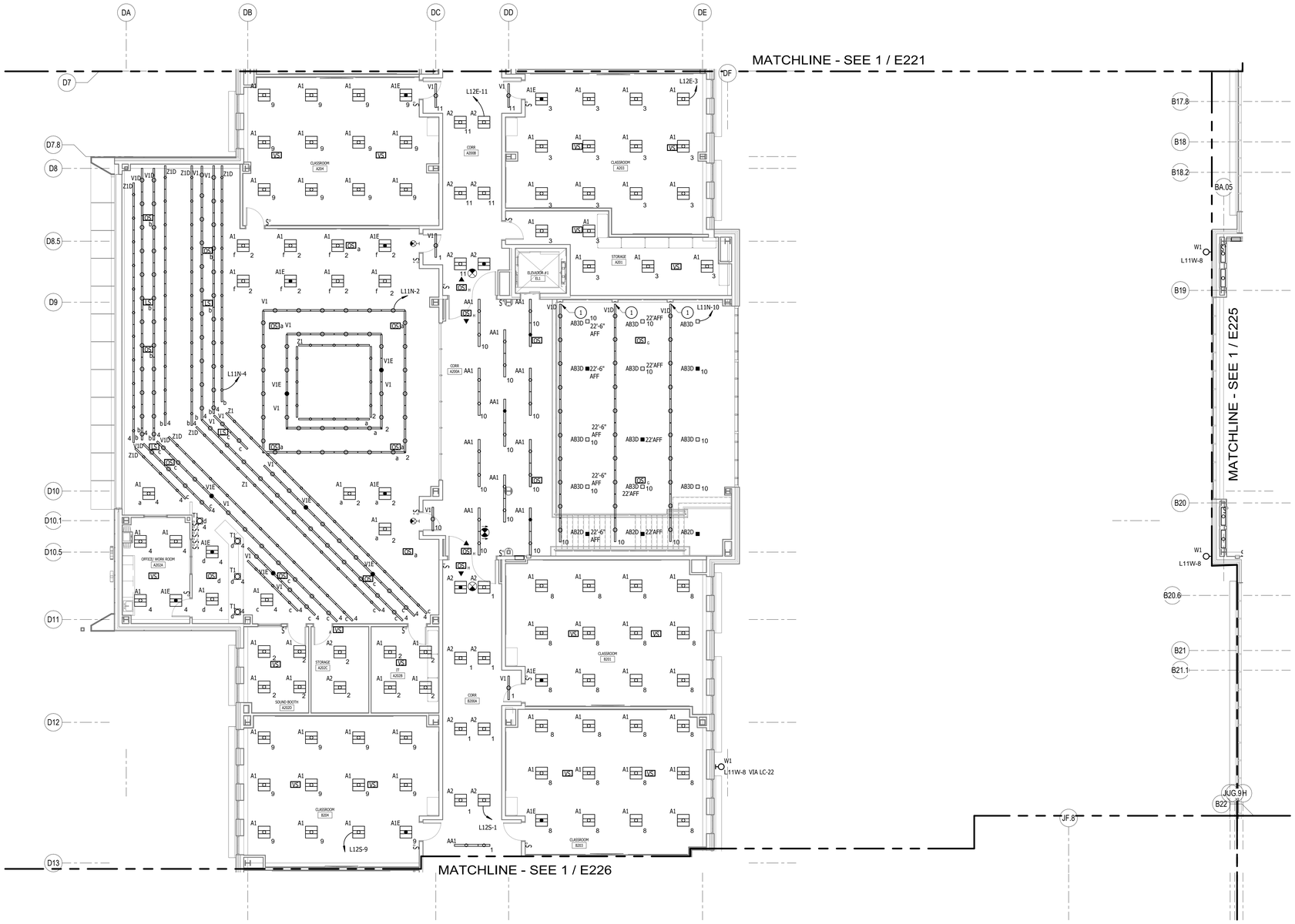
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**SECOND FLOOR - KEYPLAN 6 - LIGHTING**

SHEET NO.

**E223**




## GENERAL NOTES:

1. REFER TO SHEET E716 FOR CORRIDOR CONTROL ZONING INFORMATION.
2. ALL EMERGENCY LIGHTING IN CORRIDORS AND RESTROOMS OFF CORRIDORS NORTH OF MEDIA CENTER AND LOBBY SHALL BE CONNECTED TO CIRCUIT E1L2N-1 UNLESS OTHERWISE NOTED.
3. ALL EXIT SIGNS NORTH OF OR IN MEDIA CENTER AND LOBBY SHALL BE CONNECTED TO CIRCUIT E1L2N-3 UNLESS OTHERWISE NOTED.
4. ALL OTHER EMERGENCY LIGHTING NORTH OF MEDIA CENTER AND LOBBY SHALL BE CONNECTED TO CIRCUIT E1L2N-5 UNLESS OTHERWISE NOTED.
5. ALL EMERGENCY LIGHTING IN CORRIDORS AND RESTROOMS OFF CORRIDORS SOUTH OF MEDIA CENTER AND LOBBY SHALL BE CONNECTED TO CIRCUIT E1L2W-1 UNLESS OTHERWISE NOTED.
6. ALL EXIT SIGNS SOUTH OF MEDIA CENTER AND LOBBY SHALL BE CONNECTED TO CIRCUIT E1L2W-3 UNLESS OTHERWISE NOTED.
7. ALL OTHER EMERGENCY LIGHTING SOUTH OF MEDIA CENTER AND LOBBY SHALL BE CONNECTED TO CIRCUIT E1L2W-5 UNLESS OTHERWISE NOTED.
8. ALL EMERGENCY LIGHTING IN MEDIA CENTER AND LOBBY SHALL BE CONNECTED TO CIRCUIT E1L1N-7 UNLESS OTHERWISE NOTED.

## DRAWING NOTES:

1. EXTEND FIXTURE TYPE V1D DOWN WALL FROM CEILING TO 14' AFF. COORDINATE WITH ARCHITECTURAL ELEVATIONS.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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**NEWARK, DE 19702**

SHEET TITLE

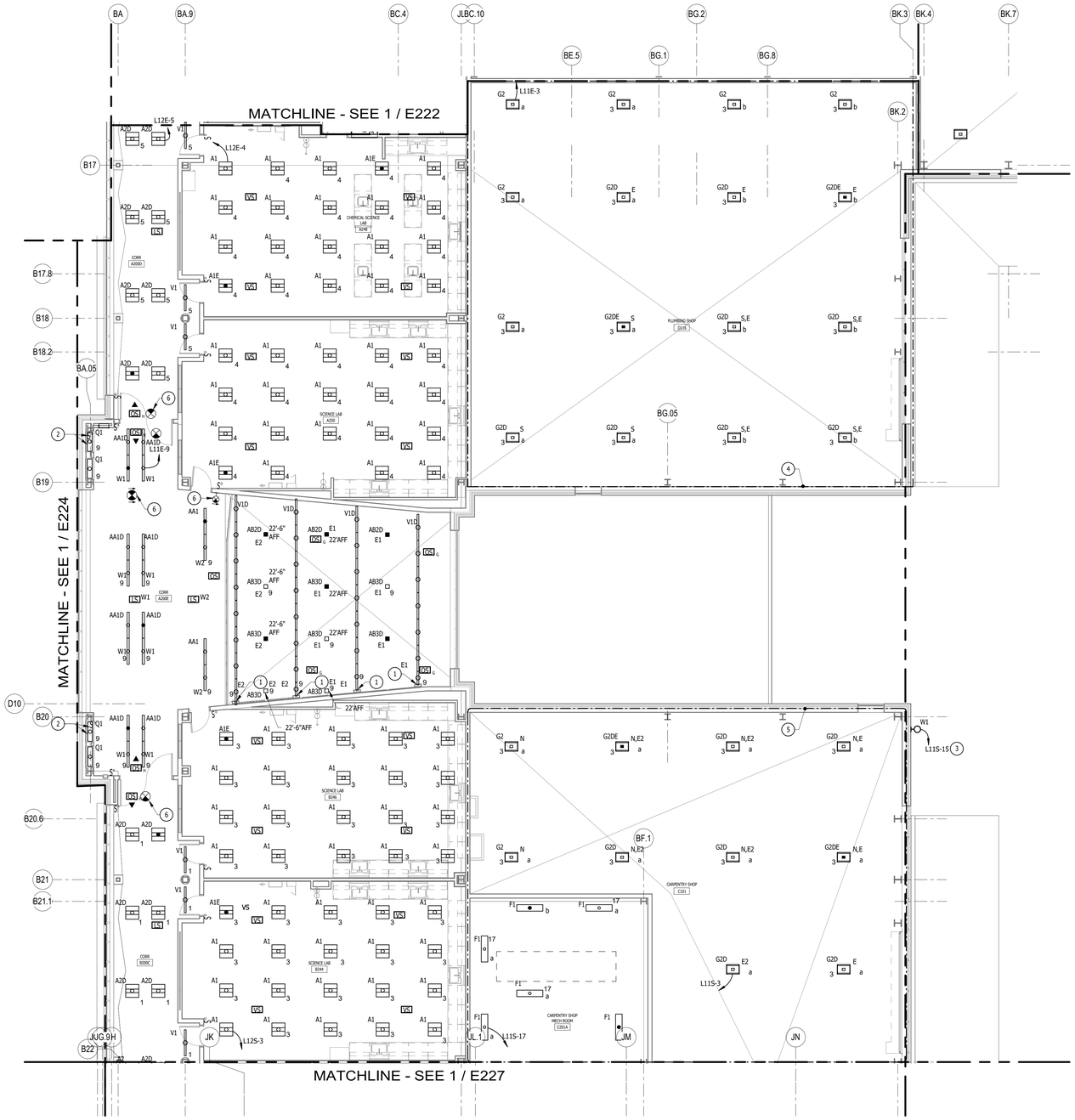
**SECOND FLOOR - KEYPLAN 7 - LIGHTING**

SHEET NO.

**E224**

1 SECOND FLOOR - KEYPLAN 7 - LIGHTING
1/8" = 1'-0"

0 4' 8' 16'




1 SECOND FLOOR - KEYPLAN 8 - LIGHTING
1/8" = 1'-0"

## GENERAL NOTES:

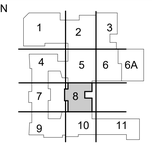
1. REFER TO SHEET E716 FOR CORRIDOR CONTROL ZONING INFORMATION.
2. ALL EMERGENCY LIGHTING IN CORRIDORS AND RESTROOMS OFF CORRIDORS NORTH OF CORRIDOR A200E SHALL BE CONNECTED TO CIRCUIT E1L2E-3 UNLESS OTHERWISE NOTED.
3. ALL EXIT SIGNS NORTH OF OR IN CORRIDOR A200E SHALL BE CONNECTED TO CIRCUIT E1L2E-1 UNLESS OTHERWISE NOTED.
4. ALL EMERGENCY LIGHTING IN ROOMS NORTH OF CORRIDOR A200E SHALL BE CONNECTED TO CIRCUIT E1L2E-5 UNLESS OTHERWISE NOTED.
5. ALL EMERGENCY LIGHTING IN CORRIDORS AND RESTROOMS OFF CORRIDORS SOUTH OF CORRIDOR A200E SHALL BE CONNECTED TO CIRCUIT CIRCUIT E1L2S-1 UNLESS OTHERWISE NOTED.
6. ALL EXIT SIGNS SOUTH OF CORRIDOR A200E SHALL BE CONNECTED TO CIRCUIT E1L2S-3 UNLESS OTHERWISE NOTED.
7. ALL EMERGENCY LIGHTING IN ROOMS SOUTH OF CORRIDOR A200E SHALL BE CONNECTED TO CIRCUIT E1L2S-5 UNLESS OTHERWISE NOTED.
8. ALL EMERGENCY LIGHTING IN CORRIDOR A200E SHALL BE CONNECTED TO CIRCUIT E1L1E-7 UNLESS OTHERWISE NOTED.

## DRAWING NOTES:

1. EXTEND FIXTURE TYPE V1D DOWN WALL FROM CEILING TO 13'-8" AFF. COORDINATE WITH ARCHITECTURAL ELEVATIONS.
2. MOUNT LIGHTING FIXTURE AND LOW VOLTAGE SWITCH WITHIN DISPLAY CASE AND MAKE ALL CONNECTIONS TO DISPLAY CASE LIGHTING VIA ASSOCIATED 24V POWER SUPPLY MOUNTED ABOVE CEILING AND AREA OCCUPANCY SENSORS AS REQUIRED. COORDINATE WITH ARCHITECTURAL CASEWORK DRAWINGS. TYPICAL FOR DISPLAY CASES IN AREA.
3. VIA LIGHTING CONTACTOR LC-18
4. EMERGENCY LIGHTING IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1E-13. EXIT SIGNS IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1E-3.
5. EMERGENCY LIGHTING IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1S-7. EXIT SIGNS IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1S-9.
6. ONLY PROVIDE THIS FIXTURE UNDER ADD ALTERNATE NO. 7 - MONUMENTAL STAIR #5

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**SECOND FLOOR - KEYPLAN 8 - LIGHTING**

SHEET NO.

**E225**

0 4' 8' 16'

## GENERAL NOTES:

1. REFER TO SHEET E716 FOR CORRIDOR CONTROL ZONING INFORMATION.
2. ALL EMERGENCY LIGHTING IN CORRIDORS AND RESTROOMS OFF CORRIDORS SHALL BE CONNECTED TO CIRCUIT E1L2S-1 UNLESS OTHERWISE NOTED.
3. ALL EXIT SIGNS SHALL BE CONNECTED TO CIRCUIT E1L2S-3 UNLESS OTHERWISE NOTED.
4. ALL OTHER EMERGENCY LIGHTING SHALL BE CONNECTED TO CIRCUIT E1L2S-5 UNLESS OTHERWISE NOTED.

## DRAWING NOTES:

1. VIA LIGHTING CONTACTOR LC-22

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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**NEWARK, DE 19702**

SHEET TITLE

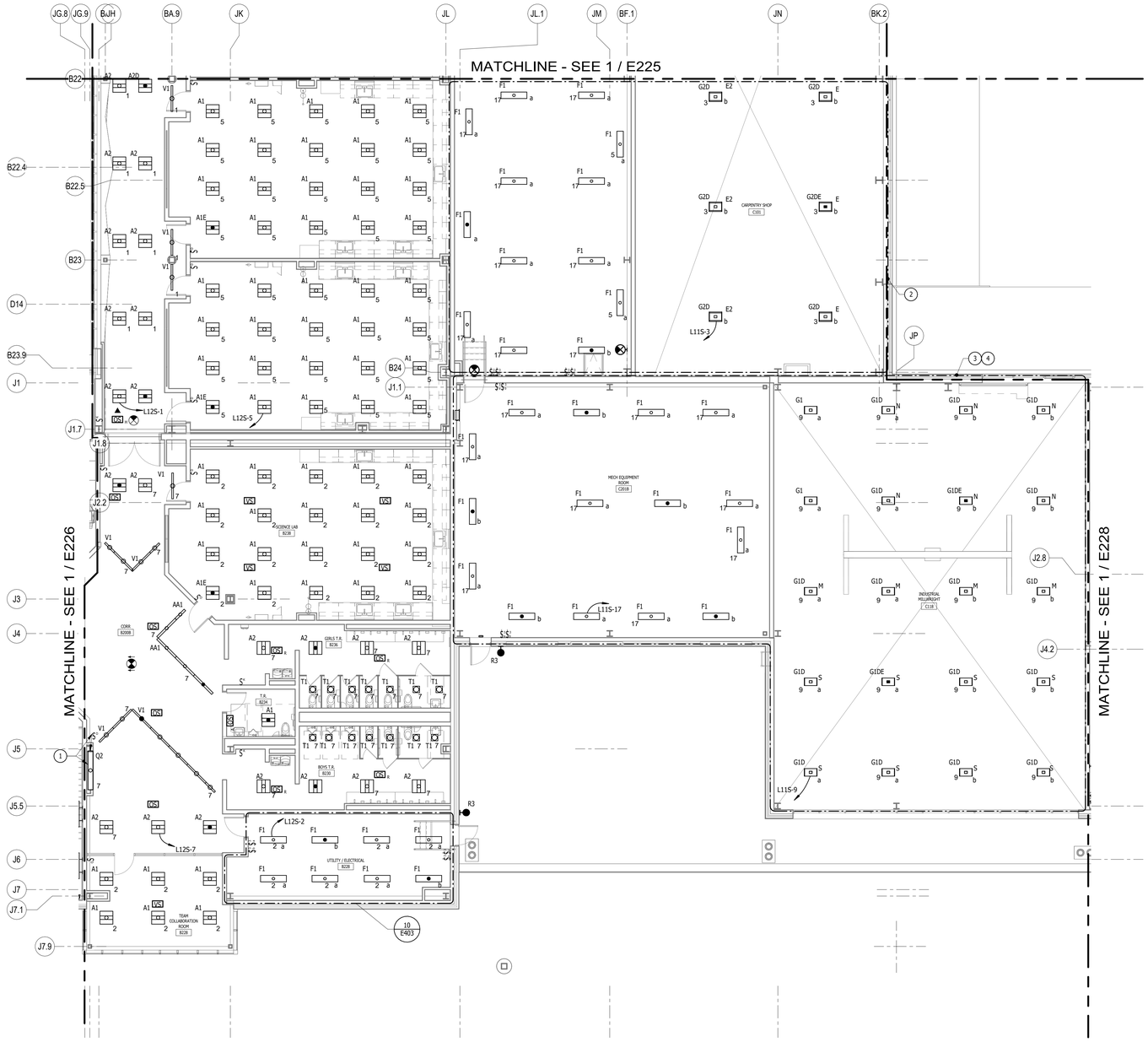
**SECOND FLOOR - KEYPLAN 9 - LIGHTING**

SHEET NO.

**E226**

1 SECOND FLOOR - KEYPLAN 9 - LIGHTING
1/8" = 1'-0"

0 4' 8' 16'




## GENERAL NOTES:

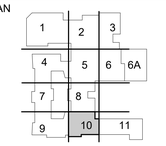
1. REFER TO SHEET E716 FOR CORRIDOR CONTROL ZONING INFORMATION.
2. ALL EMERGENCY LIGHTING IN CORRIDORS AND RESTROOMS OFF CORRIDORS SHALL BE CONNECTED TO CIRCUIT E1L2S-1 UNLESS OTHERWISE NOTED.
3. ALL EXIT SIGNS SHALL BE CONNECTED TO E1L2S-3 UNLESS OTHERWISE NOTED.
4. ALL OTHER EMERGENCY LIGHTING SHALL BE CONNECTED TO E1L2S-5 UNLESS OTHERWISE NOTED.
5. EMERGENCY LIGHTING MOUNTED ON BUILDING SHALL BE CONNECTED TO CIRCUIT E1L1S-6 VIA LC-17

## DRAWING NOTES:

1. MOUNT LIGHTING FIXTURE AND LOW VOLTAGE SWITCH WITHIN DISPLAY CASE AND MAKE ALL CONNECTIONS TO DISPLAY CASE LIGHTING VIA ASSOCIATED 24V POWER SUPPLY MOUNTED ABOVE CEILING AND AREA OCCUPANCY SENSORS AS REQUIRED. COORDINATE WITH ARCHITECTURAL CASEWORK DRAWINGS. TYPICAL FOR DISPLAY CASES IN AREA.
2. EMERGENCY LIGHTING IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1S-7. EXIT SIGNS IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1S-9.
3. EMERGENCY LIGHTING IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1E-11. EXIT SIGNS IN THIS AREA SHALL BE CONNECTED TO CIRCUIT E1L1S-9.
4. MOUNT FIXTURES IN INDUSTRIAL MILLWRIGHT 15' AFF.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN





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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**SECOND FLOOR - KEYPLAN 10 - LIGHTING**

SHEET NO.

**E227**

1 SECOND FLOOR - KEYPLAN 10 - LIGHTING
1/8" = 1'-0"

0 4' 8' 16'

## GENERAL NOTES:

1. ALL EMERGENCY LIGHTING IN AUTO BODY SHALL BE CONNECTED TO CIRCUIT E1L1S-13
2. ALL EXIT SIGNS SHALL BE CONNECTED TO CIRCUIT E1L1S-17
3. ALL EMERGENCY LIGHTING IN AUTO TECH AND SHARED BAY SHALL BE CONNECTED TO CIRCUIT E1L1S-15
4. ALL OTHER EMERGENCY LIGHTING SHALL BE CONNECTED TO CIRCUIT E1L1S-5
5. ALL ELECTRICAL WORK INSIDE OF AND OUTSIDE WITHIN 36" OF PAINT BOOTH AND PAINT MIX ROOM DOOR OPENINGS IN EVERY DIRECTION SHALL BE RATED FOR CLASS 1, DIVISION 1 LOCATIONS.

## DRAWING NOTES:

1. VIA LIGHTING CONTACTOR LC-18
2. FIELD COORDINATE EXACT LOCATION OF LIGHTING FIXTURES WITH EQUIPMENT, DUCTWORK, AND PIPING.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

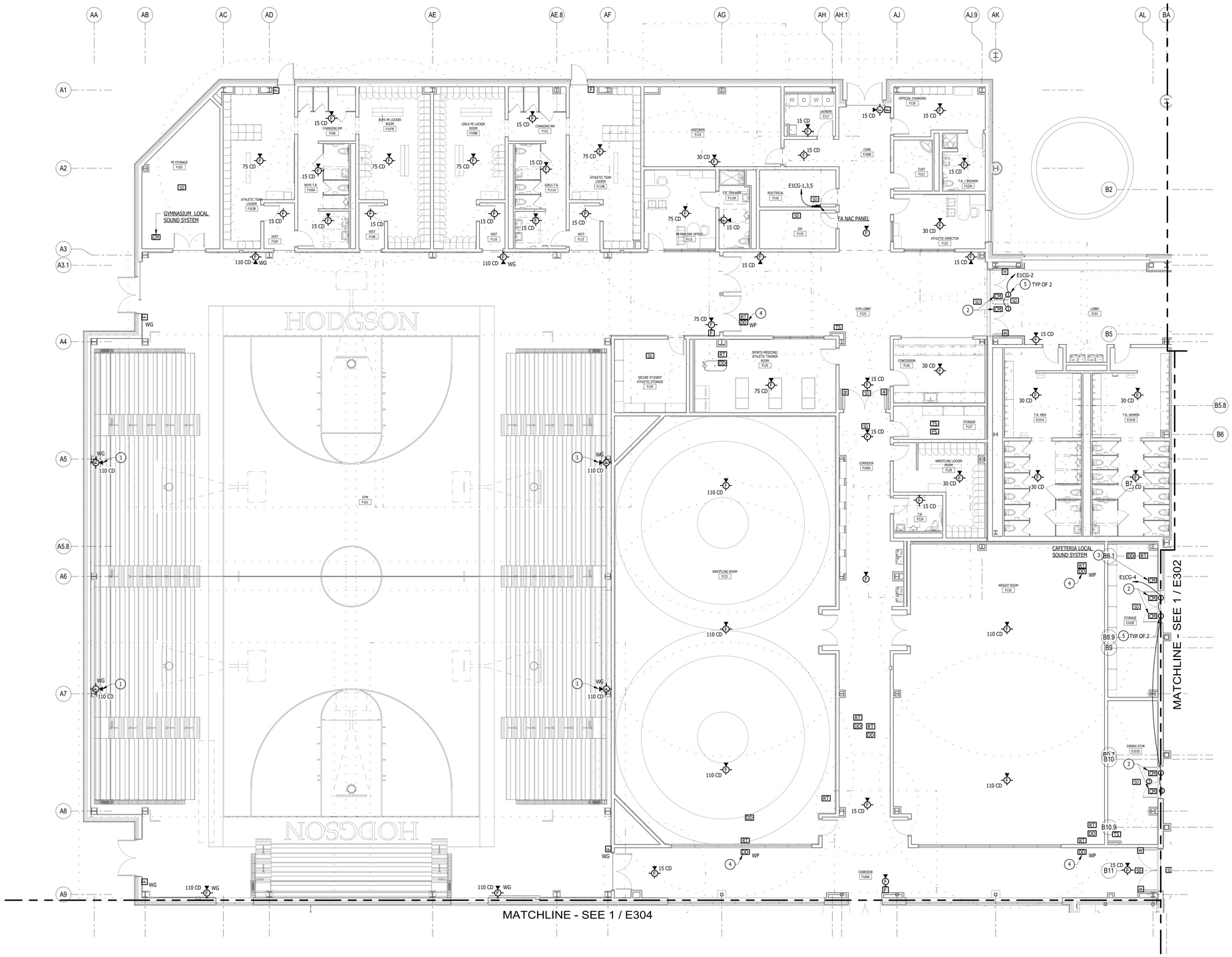
**SECOND FLOOR - KEYPLAN 11 - LIGHTING**

SHEET NO.

**E228**

1 SECOND FLOOR - KEYPLAN 11 - LIGHTING
1/8" = 1'-0"

0 4' 8' 16'




1 FIRST FLOOR - KEYPLAN 1 - FIRE ALARM
1/8" = 1'-0"

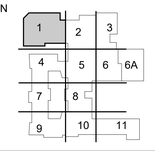
0 4' 8' 16'

## DRAWING NOTES:

1. MOUNT 42" ABOVE TOP OF BLEACHERS.
2. MAKE CONNECTION TO DOOR CLOSER (FURNISHED UNDER ANOTHER DIVISION) AS REQUIRED.
3. MAKE CONNECTION TO LOCAL SOUND SYSTEM AS REQUIRED.
4. LOCATED IN DUCTWORK ABOVE ROOF.
5. MAKE CONNECTION TO MAG LOCK DOOR HOLDERS FURNISHED WITH DOOR HARDWARE AS REQUIRED.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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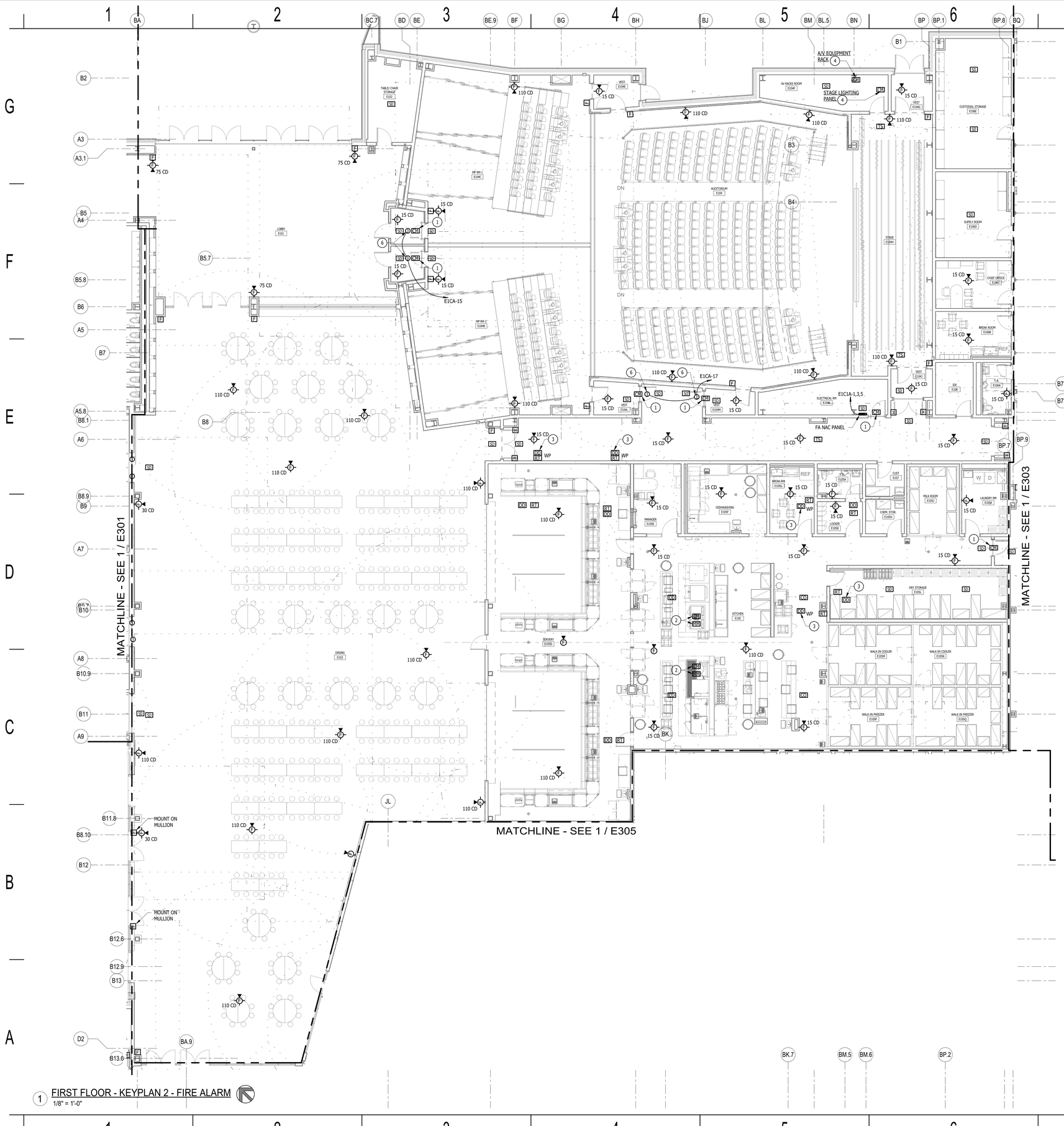
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR - KEYPLAN 1 - FIRE ALARM**

SHEET NO.

**E301**



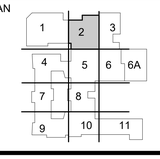

1 FIRST FLOOR - KEYPLAN 2 - FIRE ALARM
1/8" = 1'-0"

## DRAWING NOTES:

1. MAKE CONNECTION TO DOOR CLOSER AS REQUIRED.
2. MAKE ALL CONNECTIONS TO HOOD FIRE SUPPRESSION SYSTEM AS REQUIRED.
3. LOCATE IN DUCTBANK ABOVE ROOF
4. MAKE ALL CONNECTIONS TO LOCAL SOUND SYSTEM AS REQUIRED.
5. MAKE ALL CONNECTIONS TO LOCAL LIGHTING CONTROLS AS REQUIRED.
6. MAKE CONNECTION TO MAG LOCK DOOR HOLDERS FURNISHED WITH DOOR HARDWARE AS REQUIRED.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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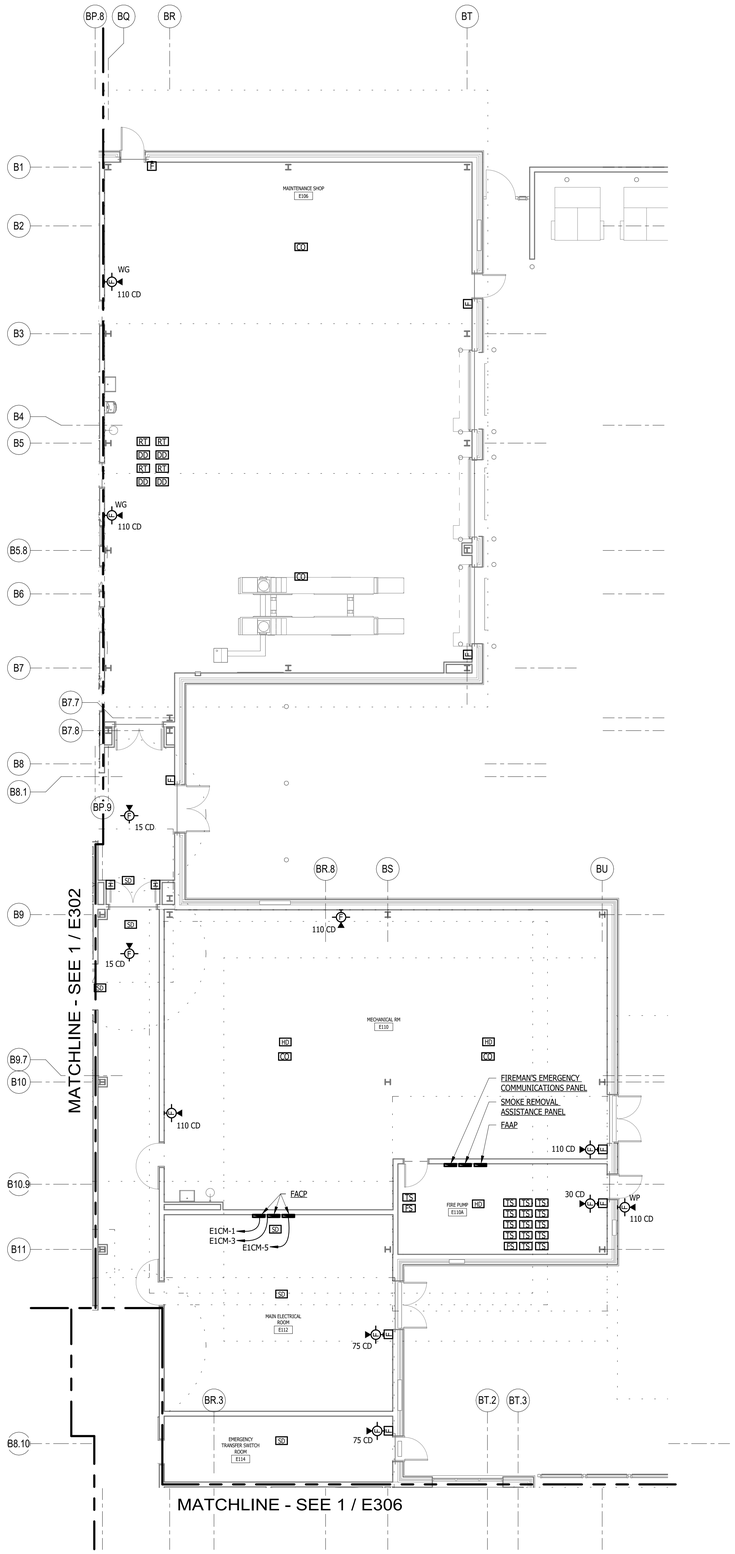
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR - KEYPLAN 2 - FIRE ALARM**

SHEET NO.

**E302**

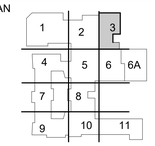



1 FIRST FLOOR - KEYPLAN 3 - FIRE ALARM
1/8" = 1'-0"

0 4' 8' 16'

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR - KEYPLAN 3 - FIRE ALARM**

SHEET NO.

**E303**

MATCHLINE - SEE 1 / E301

MATCHLINE - SEE 1 / E305

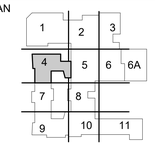
MATCHLINE - SEE 1 / E307

## DRAWING NOTES:

1. MAKE CONNECTION TO DOOR CLOSER AS REQUIRED.
2. MAKE CONNECTION TO LOCAL SOUND SYSTEM AS REQUIRED.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR - KEYPLAN 4 - FIRE ALARM**

SHEET NO.

**E304**

1 FIRST FLOOR - KEYPLAN 4 - FIRE ALARM
1/8" = 1'-0"

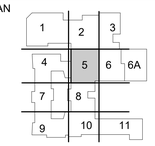
0 4' 8' 16'

## DRAWING NOTES:

1. MAKE CONNECTION TO DOOR CLOSER AS REQUIRED.
2. MAKE CONNECTION TO HOOD SUPPRESSION SYSTEM AS REQUIRED.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN




MATCHLINE - SEE 1 / E302

MATCHLINE - SEE 1 / E304

MATCHLINE - SEE 1 / E306

MATCHLINE - SEE 1 / E308

1 FIRST FLOOR - KEYPLAN 5 - FIRE ALARM
1/8" = 1'-0"

0 4' 8' 16'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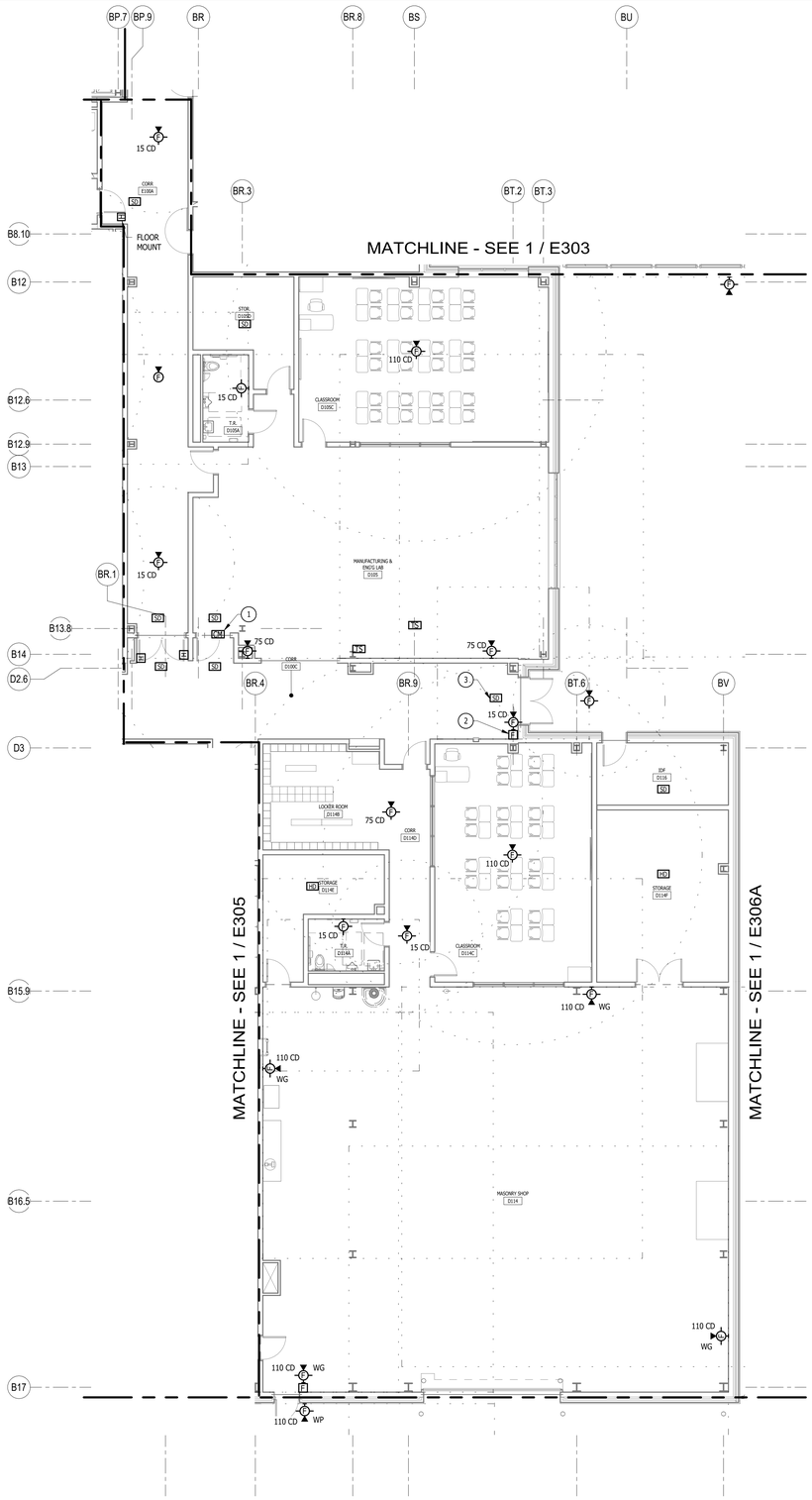
SHEET TITLE

**FIRST FLOOR - KEYPLAN 5 - FIRE ALARM**

SHEET NO.

**E305**




1 FIRST FLOOR - KEYPLAN 6 - FIRE ALARM
1/8" = 1'-0"

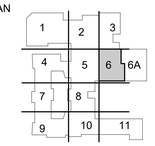
0 4' 8' 16'

## DRAWING NOTES:

1. MAKE CONNECTION TO DOOR CLOSER AS REQUIRED.
2. DO NOT PROVIDE UNDER ALTERNATE #3.
3. PROVIDE UNDER ALTERNATE #3.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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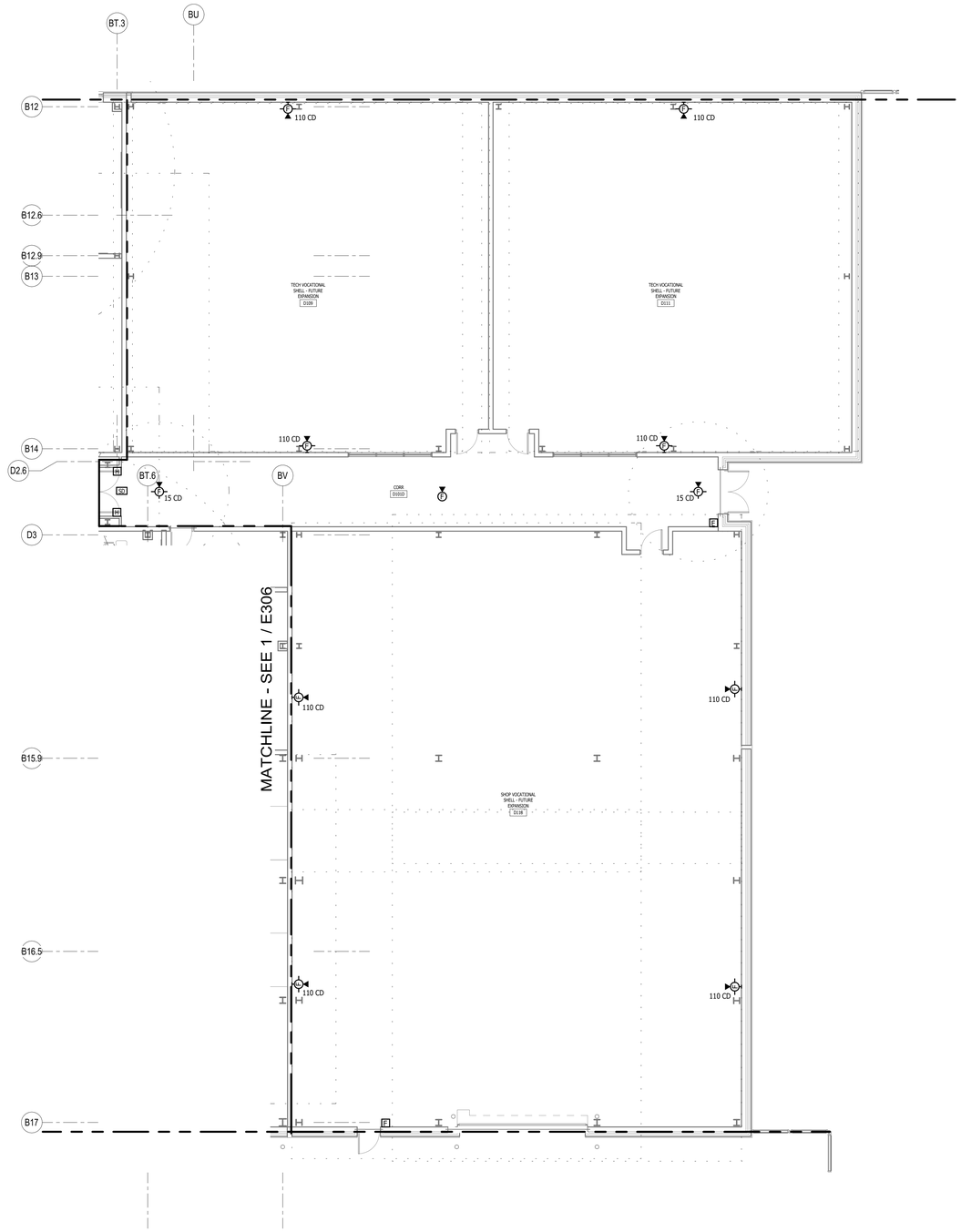
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR - KEYPLAN 6 - FIRE ALARM**

SHEET NO.

**E306**

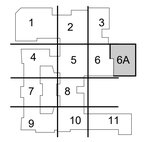



1 FIRST FLOOR - KEYPLAN 6A - ALTERNATE #3 - FIRE ALARM
1/8" = 1'-0"

0 4' 8' 16'

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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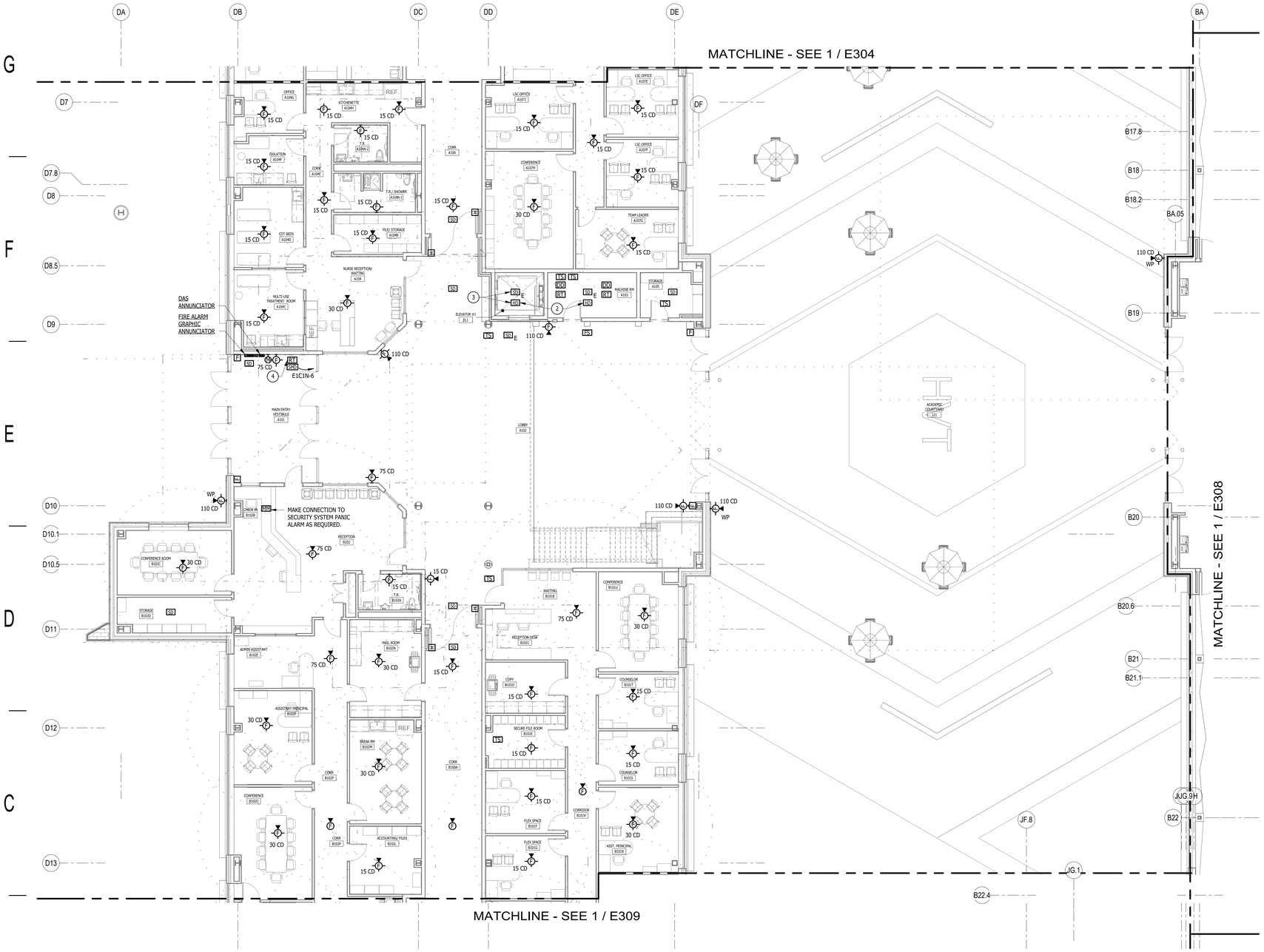
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR - KEYPLAN 6A - ALTERNATE #3 - FIRE ALARM**

SHEET NO.

**E306A**




## DRAWING NOTES:

1. MAKE CONNECTION TO DOOR CLOSER AS REQUIRED.
2. MOUNT WITHIN 24" OF SPRINKLER HEAD. FIELD COORDINATE EXACT LOCATION WITH SPRINKLER CONTRACTOR.
3. MOUNT AT PIT LEVEL.
4. PROVIDE REMOTE TEST SWITCH AND MAKE CONNECTION TO COMBINATION FIRE/SMOKE DAMPER BY OTHERS.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

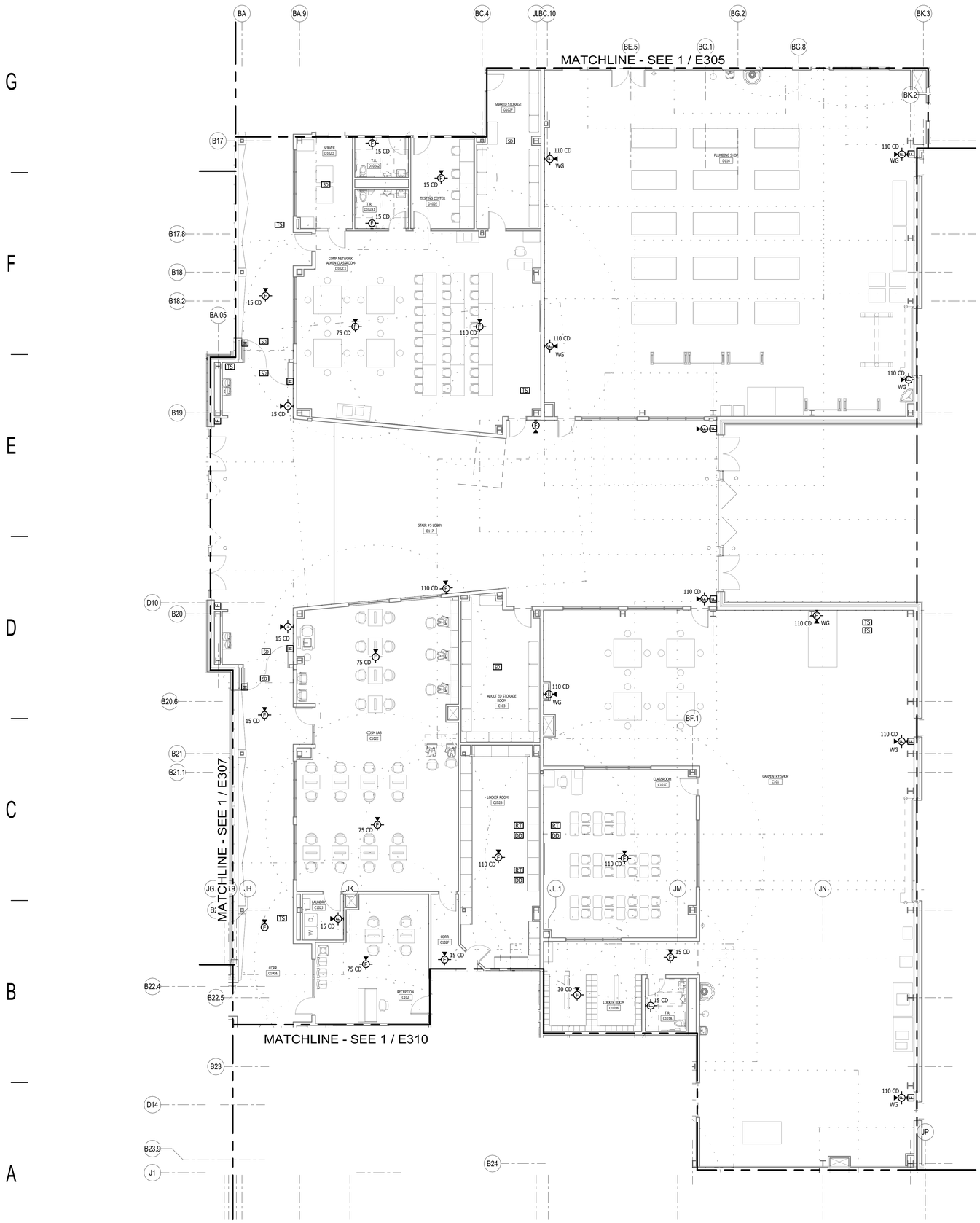
**FIRST FLOOR - KEYPLAN 7 - FIRE ALARM**

SHEET NO.

**E307**

1 FIRST FLOOR - KEYPLAN 7 - FIRE ALARM
1/8" = 1'-0"

0 4' 8' 16'

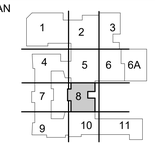



1 FIRST FLOOR - KEYPLAN 8 - FIRE ALARM
1/8" = 1'-0"

0 4' 8' 16'

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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PAUL M. HODGSON VO-TECH HIGH SCHOOL

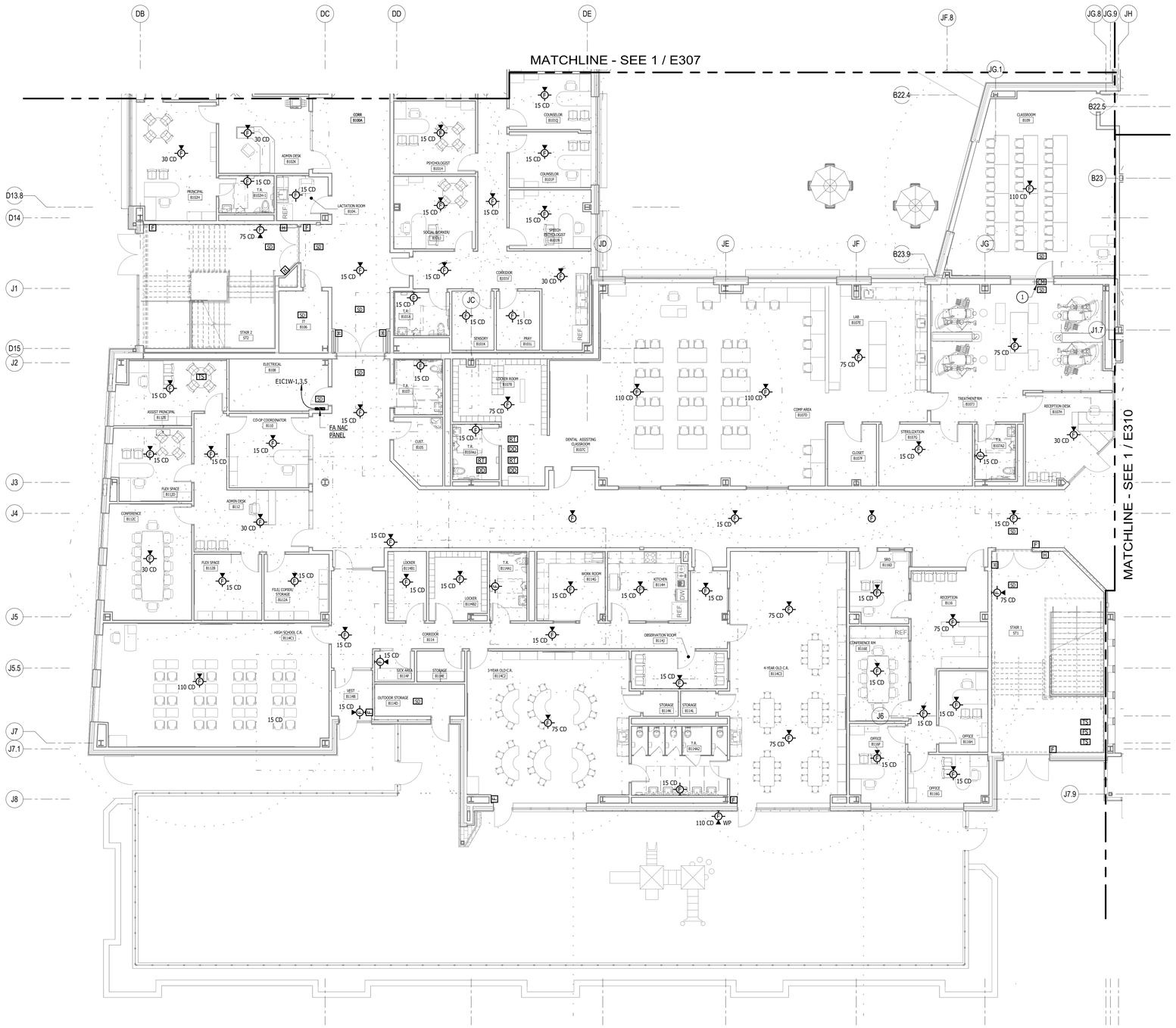
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR - KEYPLAN 8 - FIRE ALARM**

SHEET NO.

**E308**




1 FIRST FLOOR - KEYPLAN 9 - FIRE ALARM
1/8" = 1'-0"

0 4' 8' 16'

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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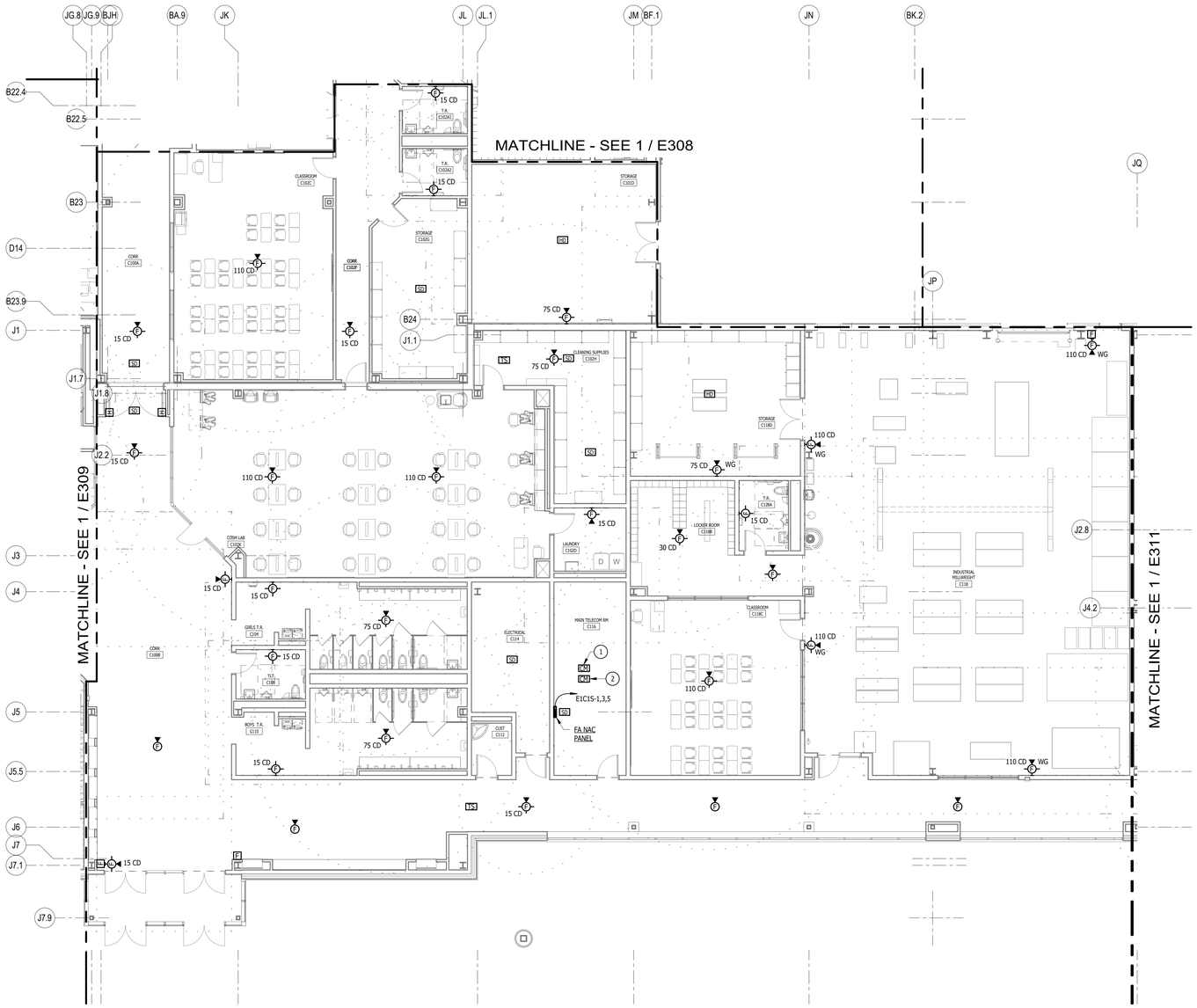
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR - KEYPLAN 9 - FIRE ALARM**

SHEET NO.

**E309**




1 FIRST FLOOR - KEYPLAN 10 - FIRE ALARM
1/8" = 1'-0"

0 4' 8' 16'

## DRAWING NOTES:

1. MAKE CONNECTION TO PA SYSTEM AS REQUIRED.
2. MAKE CONNECTION TO CLASSROOM SOUND ENHANCEMENT AS REQUIRED.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR - KEYPLAN 10 - FIRE ALARM**

SHEET NO.

**E310**

## GENERAL NOTES:

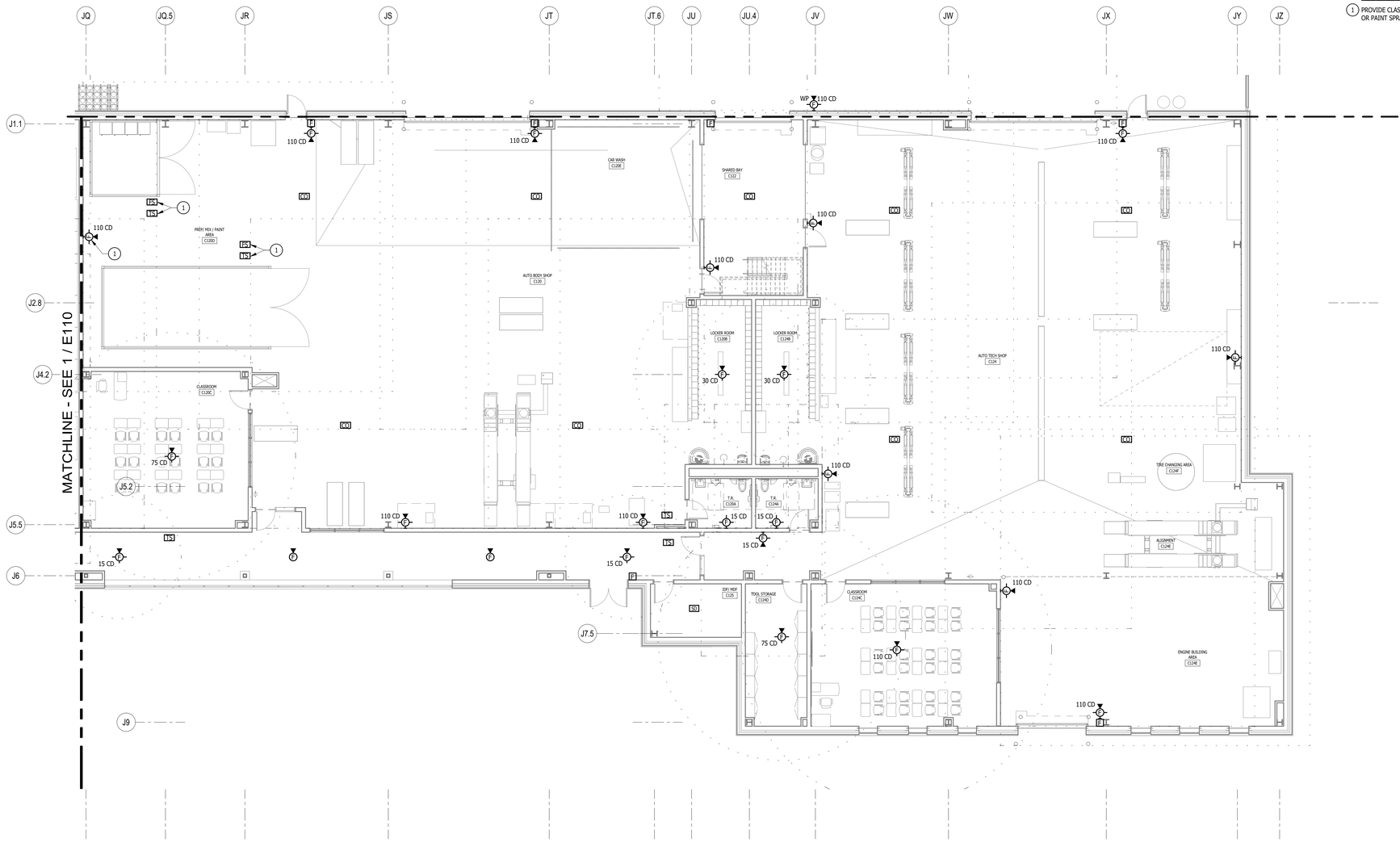
1. ALL ELECTRICAL WORK INSIDE OF AND OUTSIDE WITHIN 36" OF PAINT BOOTH AND PAINT MIX ROOM DOOR OPENINGS IN EVERY DIRECTION SHALL BE RATED FOR CLASS 1, DIVISION 1 LOCATIONS.

## DRAWING NOTES:

(1) PROVIDE CLASS 1 DIVISION 1 CONNECTION IF WITHIN PAINT ROOM BOOTH OR PAINT SPRAY BOOTH CODE DEFINED SPACES.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN




(1) FIRST FLOOR - KEYPLAN 11 - FIRE ALARM
1/8" = 1'-0"

0 4' 8' 16'

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**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR - KEYPLAN 11 - FIRE ALARM**

SHEET NO.

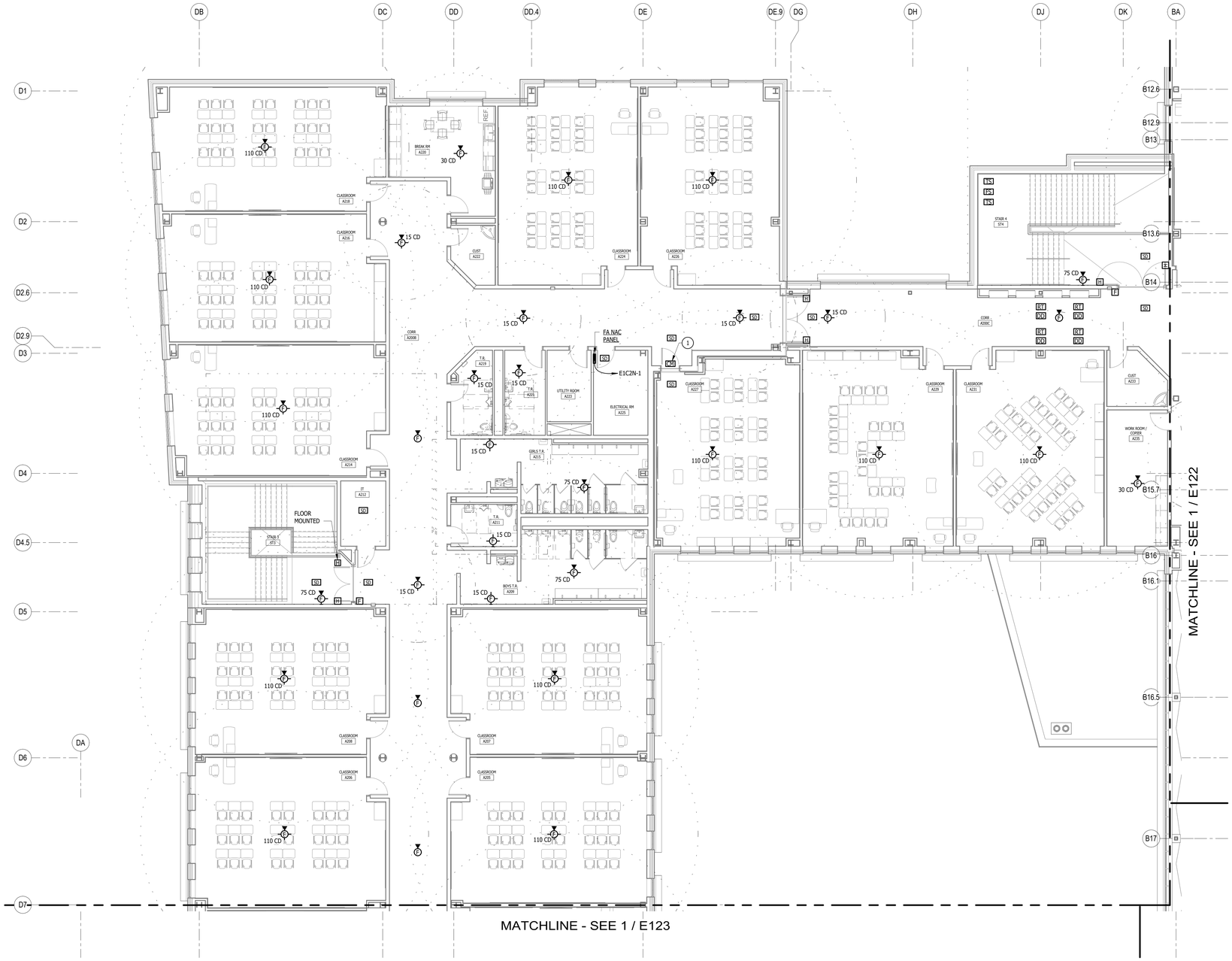
**E311**

## DRAWING NOTES:

1. MAKE CONNECTION TO DOOR CLOSER AS REQUIRED.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN




1 SECOND FLOOR - KEYPLAN 4 - FIRE ALARM
1/8" = 1'-0"

0 4' 8' 16'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PAUL M. HODGSON VO-TECH HIGH SCHOOL

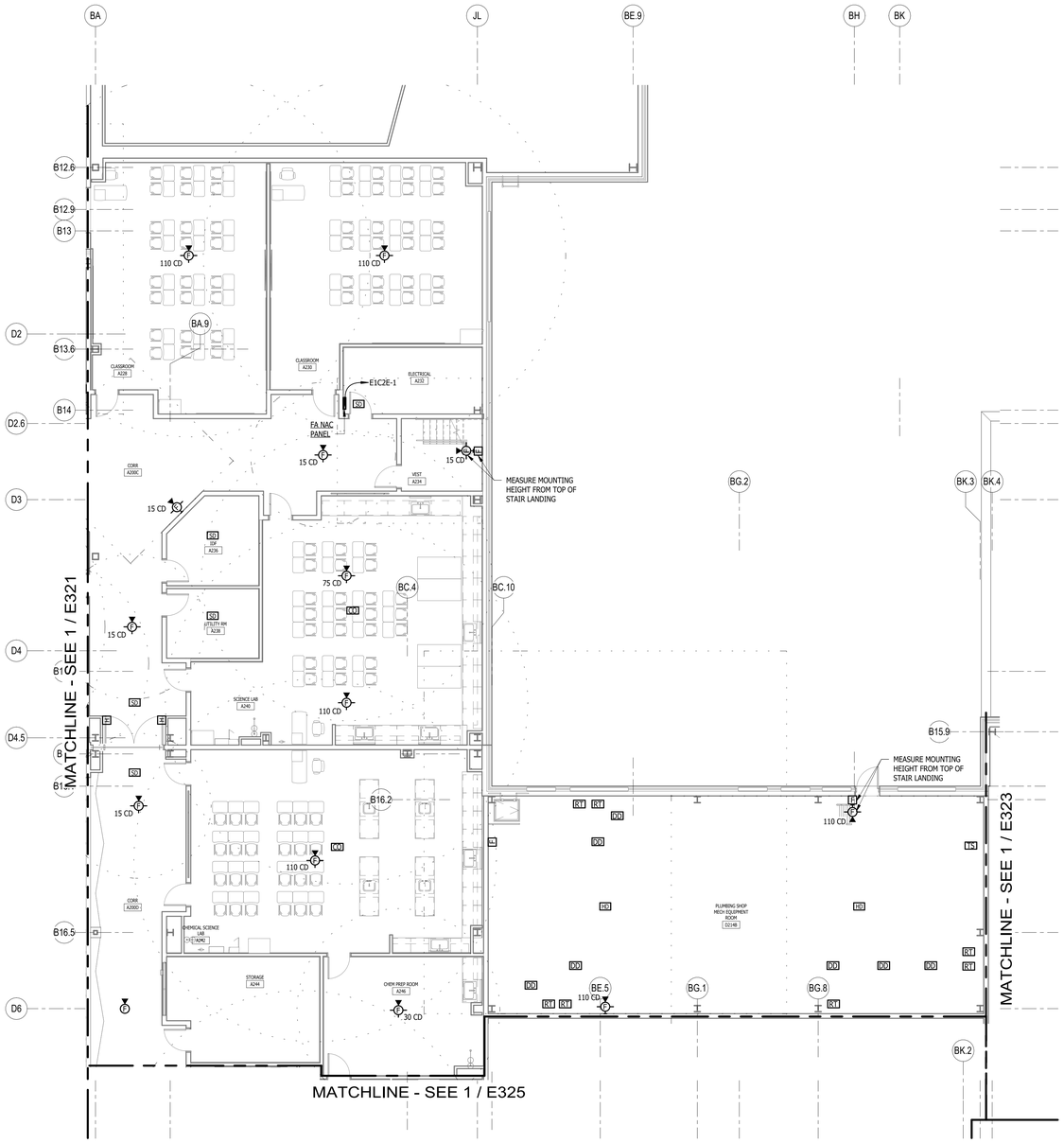
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**SECOND FLOOR - KEYPLAN 4 - FIRE ALARM**

SHEET NO.

**E321**

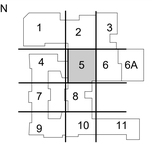



1 SECOND FLOOR - KEYPLAN 5 - FIRE ALARM
1/8" = 1'-0"

0 4' 8' 16'

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN





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**NEWARK, DE 19702**

SHEET TITLE

**SECOND FLOOR - KEYPLAN 5 - FIRE ALARM**

SHEET NO.

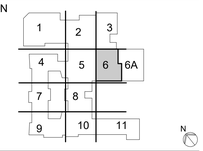
**E322**

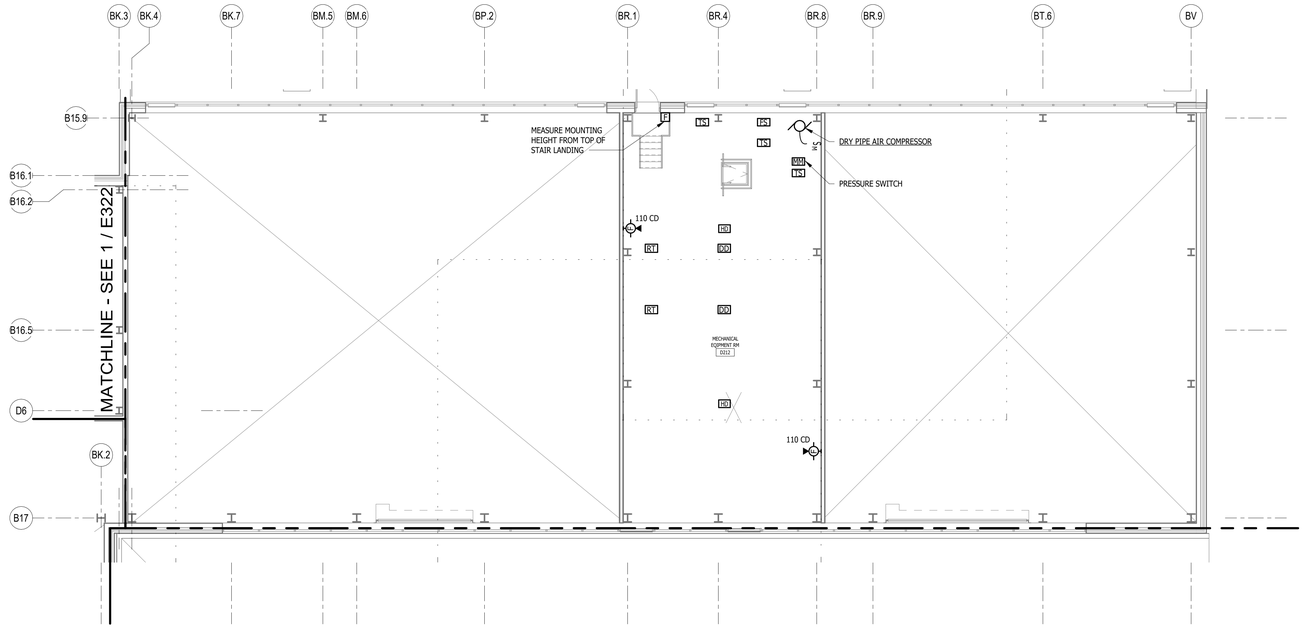
## GENERAL NOTES:

1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN




1 SECOND FLOOR - KEYPLAN 6 - FIRE ALARM
1/8" = 1'-0"

0 4' 8' 16'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PAUL M. HODGSON VO-TECH HIGH SCHOOL

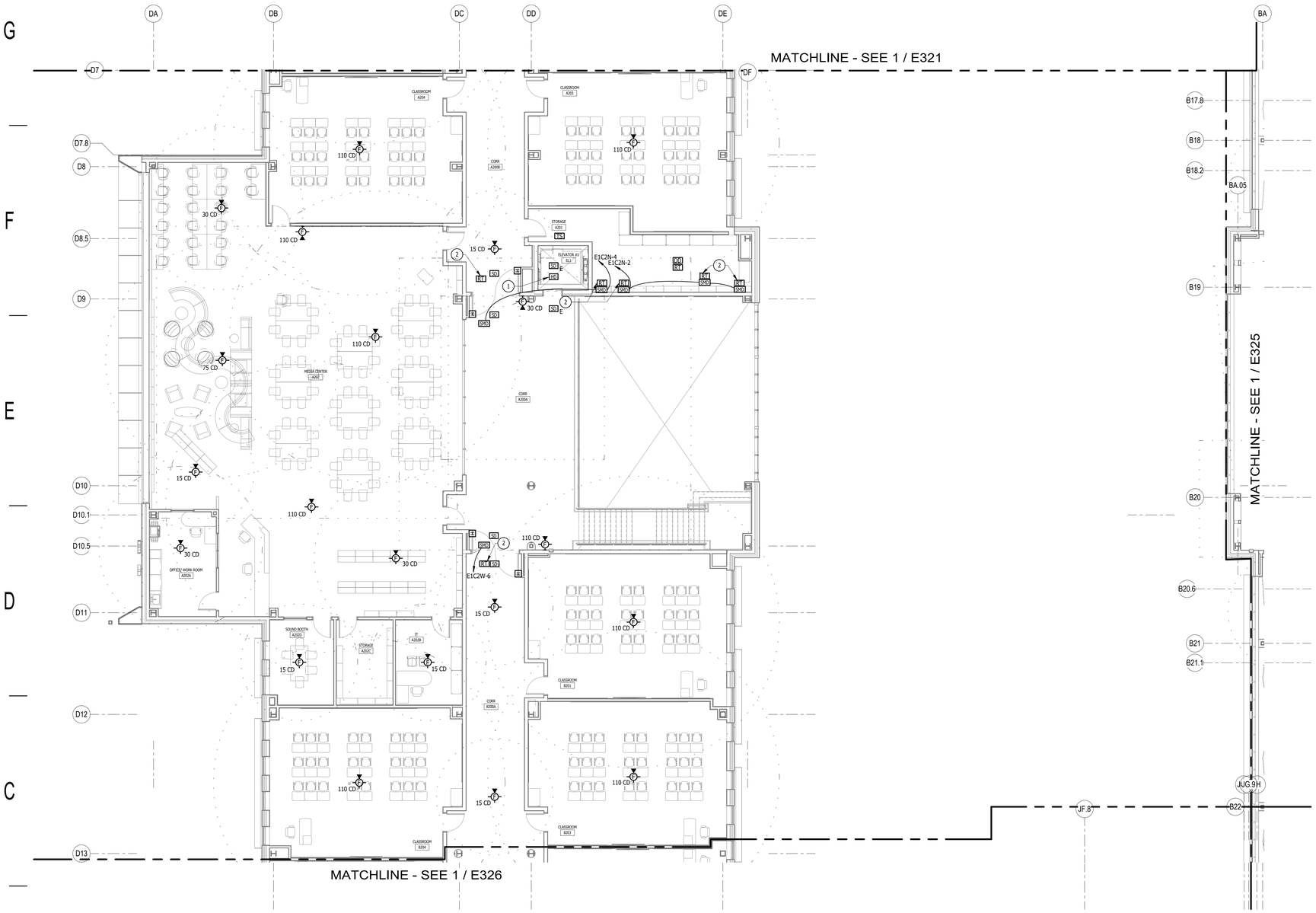
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**SECOND FLOOR - KEYPLAN 6 - FIRE ALARM**

SHEET NO.

**E323**




1 SECOND FLOOR - KEYPLAN 7 - FIRE ALARM
1/8" = 1'-0"

DRAWING NOTES:

1. MOUNT WITHIN 24" OF SPRINKLER HEAD. FIELD COORDINATE EXACT LOCATION WITH SPRINKLER CONTRACTOR.
2. PROVIDE REMOTE TEST SWITCH AND MAKE CONNECTION TO COMBINATION FIRE/SMOKE DAMPER BY OTHERS.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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**NEWARK, DE 19702**

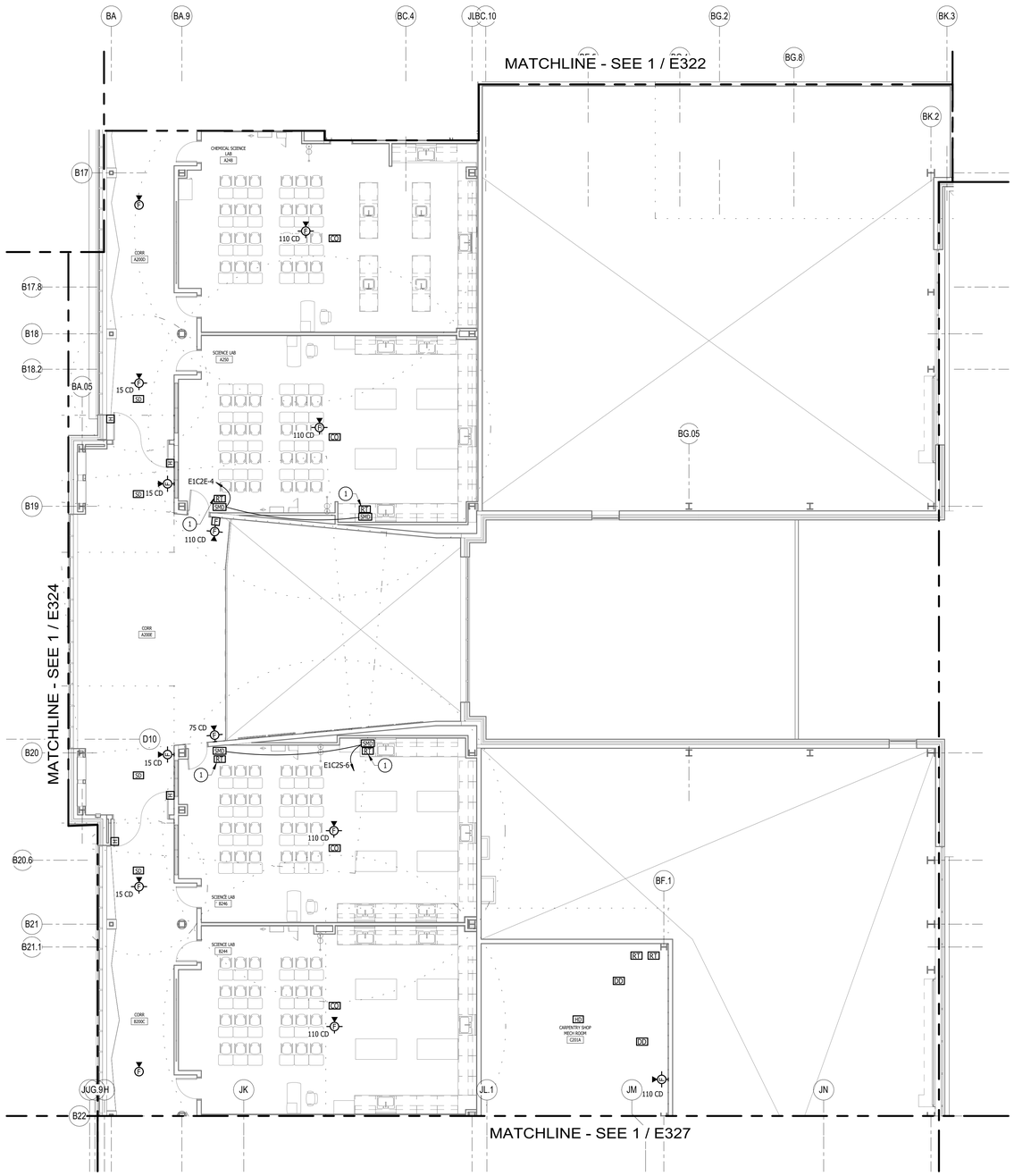
SHEET TITLE

**SECOND FLOOR - KEYPLAN 7 - FIRE ALARM**

SHEET NO.

**E324**

0 4' 8' 16'




1 SECOND FLOOR - KEYPLAN 8 - FIRE ALARM
1/8" = 1'-0"

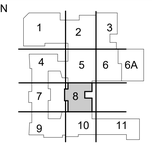
0 4' 8' 16'

## DRAWING NOTES:

1 PROVIDE REMOTE TEST SWITCH AND MAKE CONNECTION TO COMBINATION FIRE/SMOKE DAMPER BY OTHERS.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**SECOND FLOOR - KEYPLAN 8 - FIRE ALARM**

SHEET NO.

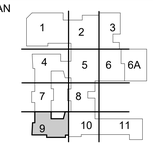
**E325**

1 SECOND FLOOR - KEYPLAN 9 - FIRE ALARM
1/8" = 1'-0"

0 4' 8' 16'

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

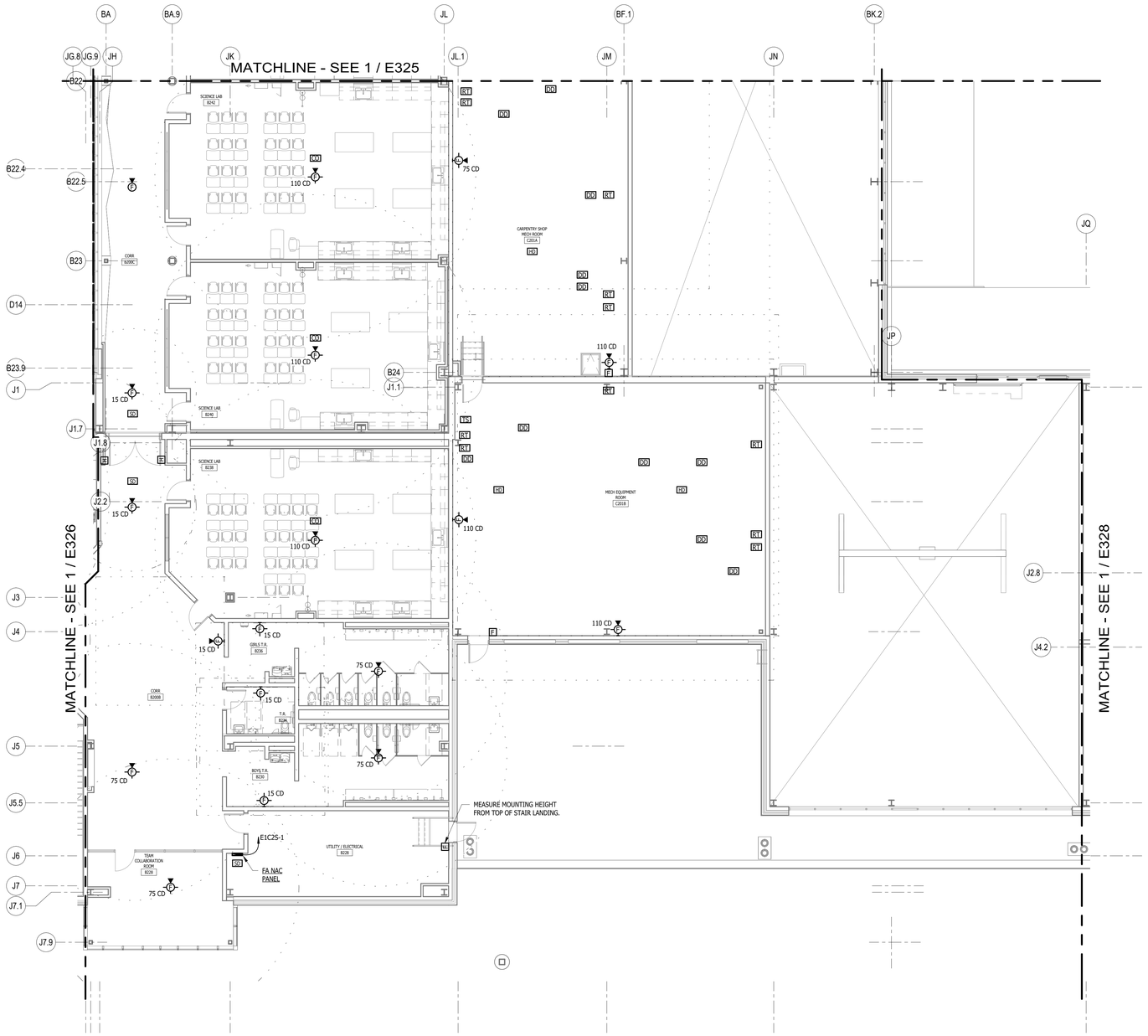
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**SECOND FLOOR - KEYPLAN 9 - FIRE ALARM**

SHEET NO.

**E326**




1 SECOND FLOOR - KEYPLAN 10 - FIRE ALARM
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

OWNER

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PAUL M. HODGSON VO-TECH HIGH SCHOOL

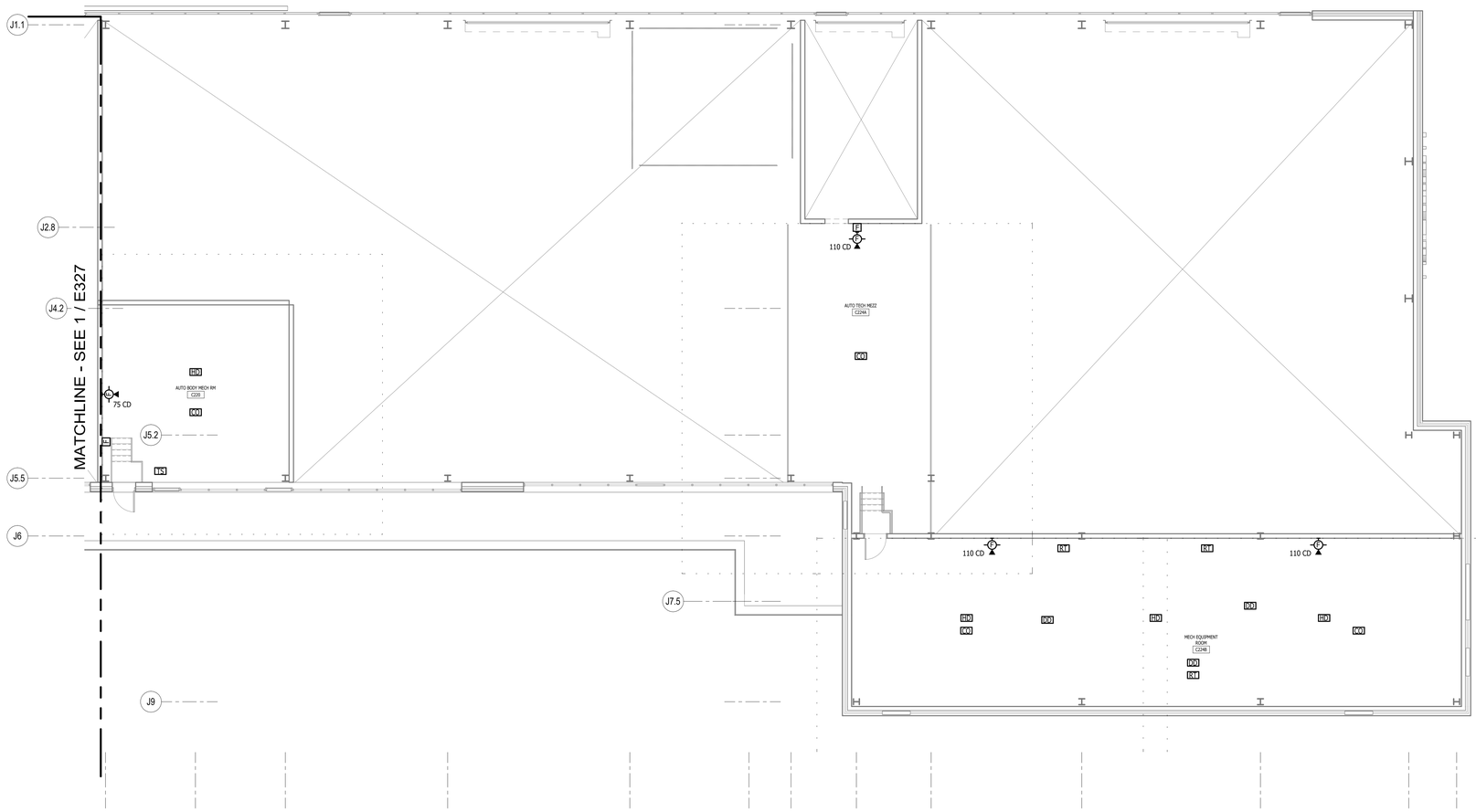
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**SECOND FLOOR - KEYPLAN 10 - FIRE ALARM**

SHEET NO.

**E327**




1 SECOND FLOOR - KEYPLAN 11 - FIRE ALARM
1/8" = 1'-0"

0 4' 8' 16'

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

VOCATIONAL TECHNICAL SCHOOL DISTRICT
NEW CASTLE COUNTY DELAWARE

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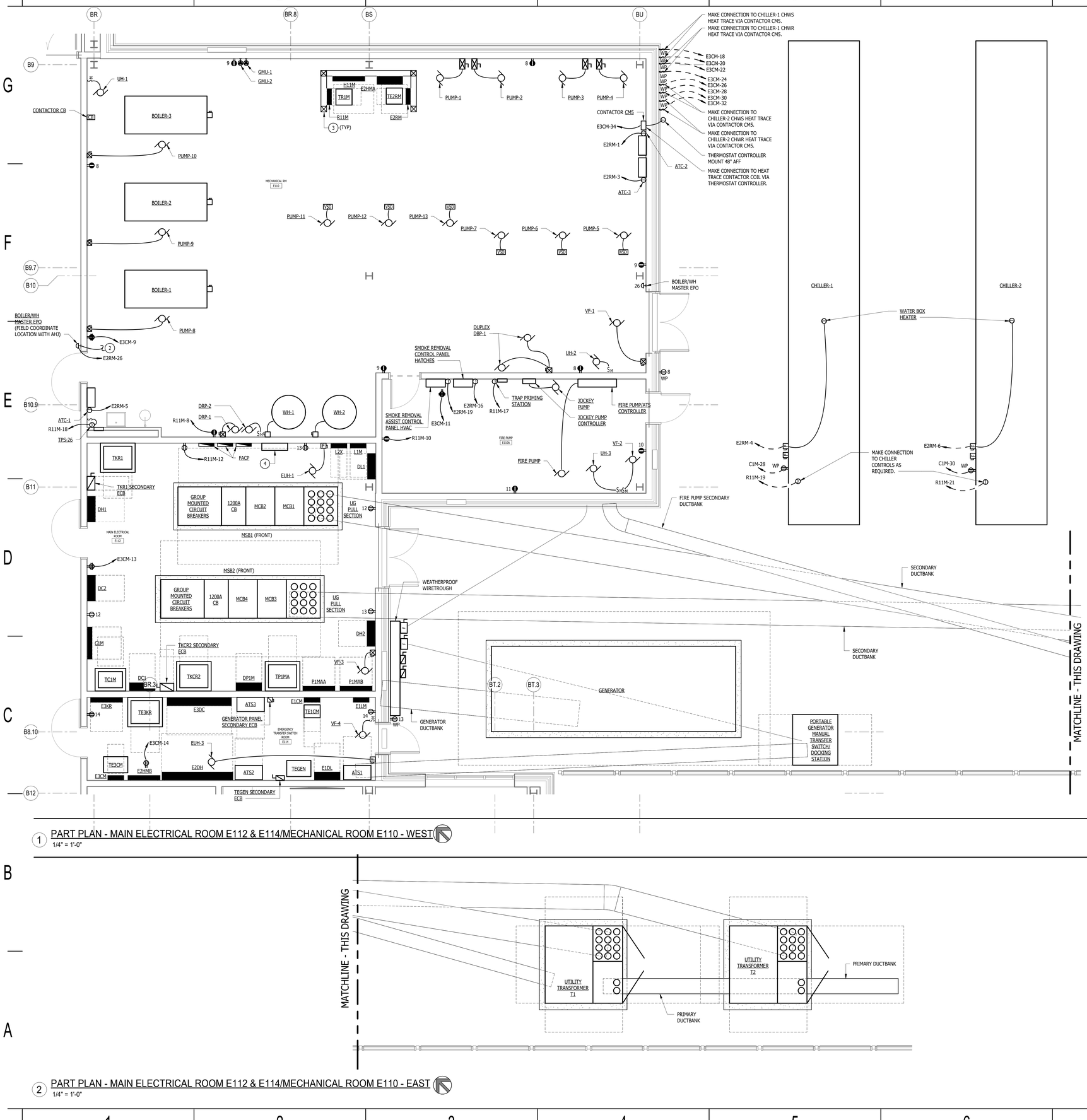
**NEWARK, DE 19702**

SHEET TITLE

**SECOND FLOOR - KEYPLAN 11 - FIRE ALARM**

SHEET NO.

**E328**




1 PART PLAN - MAIN ELECTRICAL ROOM E112 & E114/MECHANICAL ROOM E110 - WEST

1/4" = 1'-0"




2 PART PLAN - MAIN ELECTRICAL ROOM E112 & E114/MECHANICAL ROOM E110 - EAST

1/4" = 1'-0"

## GENERAL NOTES:

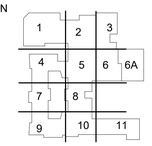
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.

## DRAWING NOTES:

1. NOT USED.
2. MAKE CONNECTION TO CONTACTOR CE COIL AND GAS SOLENOID VALVE AS REQUIRED. COORDINATE EPO LOCATIONS WITH LOCAL AHJ.
3. PROVIDE KINDORF SUPPORTS AS REQUIRED.
4. LIGHTING CONTROLS LC-1 THROUGH LC-9 WITH HOA SWITCHES.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

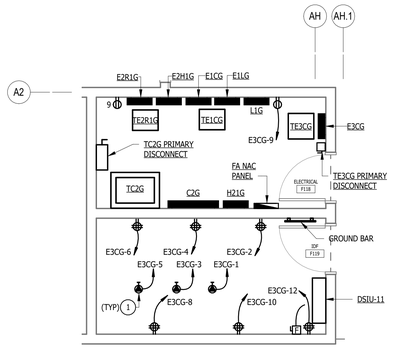
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE **PART PLAN - MAIN ELECTRICAL/MECHANICAL ROOM**

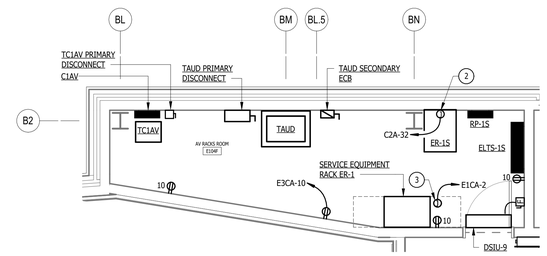
SHEET NO.

**E401**

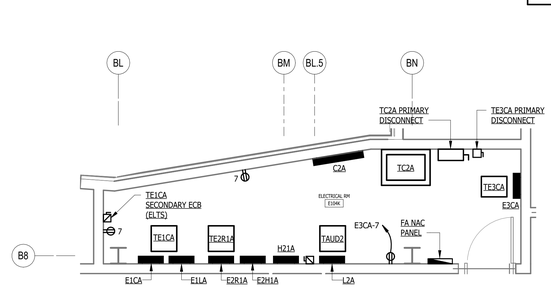
0 2' 4' 8'



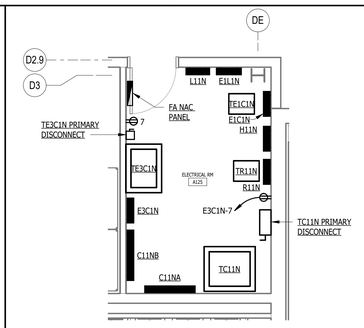

1 PART PLAN - ELECTRICAL F118/IDF F119
1/4" = 1'-0"



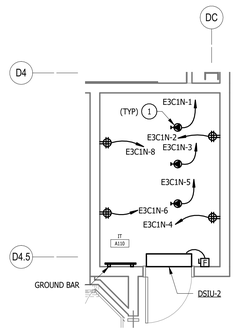

2 PART PLAN - AV RACKS ROOM E104F
1/4" = 1'-0"



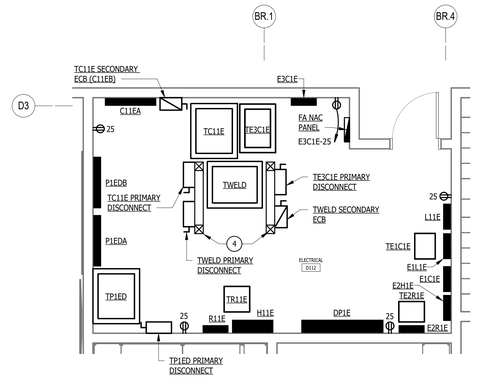

3 PART PLAN - ELECTRICAL RM E104K
1/4" = 1'-0"



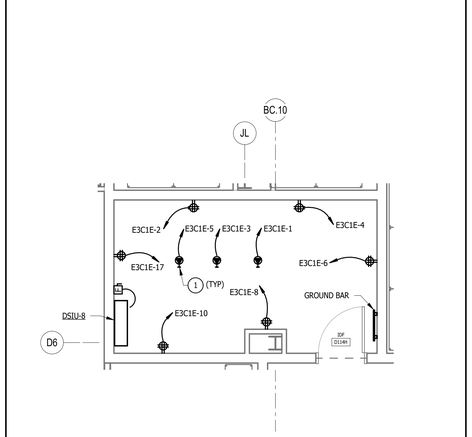

4 PART PLAN - ELECTRICAL RM A125
1/4" = 1'-0"



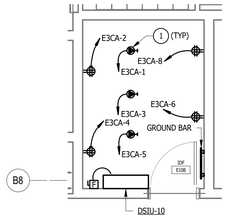

5 PART PLAN - IT A110
1/4" = 1'-0"



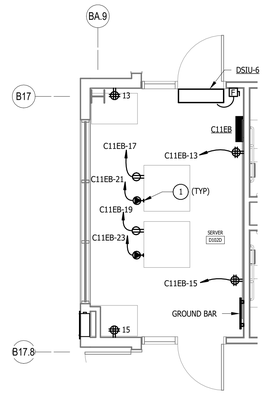

6 PART PLAN - ELECTRICAL D112
1/4" = 1'-0"



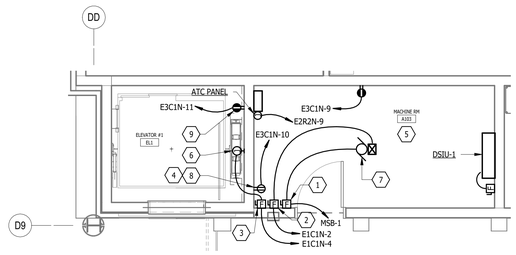

7 PART PLAN - IDF D114H
1/4" = 1'-0"




10 PART PLAN - IDF E108
1/4" = 1'-0"



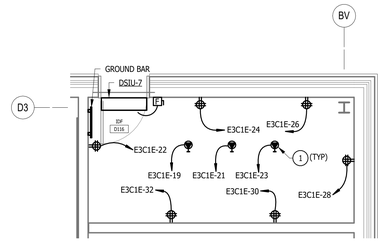

8 PART PLAN - SERVER D102D
1/4" = 1'-0"




9 PART PLAN - ELEVATOR #1-1 - EL1-1/MACHINE RM A103
1/4" = 1'-0"

## ELEVATOR NOTES:

1. 3P, 100A SHUNT TRIP FUSED DISCONNECT SAFETY SWITCH WITH (!) N.O. AND (1) N.C. AUXILIARY CONTACTS FUSED PER MANUFACTURERS NAMEPLATE DATA FOR ELEVATOR MOTOR. SWITCH SHALL BE EQUIPPED WITH LATCHING MECHANISM CAPABLE OF BEING LOCKED IN THE OPEN POSITION.
2. 2P, 30A FUSED SAFETY SWITCH FUSED AT 20A FOR ELEVATOR CONTROLS.
3. 2P, 30A FUSED SAFETY SWITCH FOR ELEVATOR CAB LIGHTS AND FAN.
4. ELEVATOR SUMP PUMP CONTROLLER - 120V, 1Ø, 1/2HP.
5. ALL RECEPTACLES SHALL BE GFI UNLESS OTHERWISE NOTED.
6. JUNCTION BOX AT MIDPOINT OF ELEVATOR SHAFT FOR CAB LIGHTS AND FAN.
7. CONFIRM EXACT ELEVATOR HORSEPOWER REQUIREMENTS WITH MANUFACTURERS APPROVED SHOP DRAWINGS AND PROVIDE BRANCH CIRCUIT REQUIREMENTS TO MATCH HORSEPOWER REQUIREMENTS.
8. PROVIDE 2# 12 AND 1 #12 GROUND IN 3/4" CONDUIT FROM SUMP PUMP LOCATED IN THE ELVATOR PIT TO THE SUMP PUMP CONTROLLER LOCATED IN THE ELEVATOR MACHINE ROOM CLOSET. MAKE ALL FINAL CONNECTIONS.
9. MOUNT RECEPTACLE 2'-0" ABOVE ELEVATOR PIT FLOOR. REFER TO ARCHITECTURAL SECTIONS FOR ADDITIONAL INFORMATION. MOUNT ADJCENT TO LADDER.




11 PART PLAN - IDF D114G
1/4" = 1'-0"

## GENERAL NOTES:

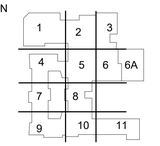
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.

## DRAWING NOTES:

1. NEMA L5-30R. MOUNT TO LADDER RACK TO SUIT DATA RACK. REFER TO TECHNOLOGY DRAWINGS FOR ADDITIONAL INFORMATION.
2. MAKE CONNECTION TO ER-1S AS REQUIRED.
3. MAKE CONNECTION TO DEM-1S (DMX EMERGENCY BYPASS CONTROLLER) AS REQUIRED.
4. PROVIDE KINDORF SUPPORTS AS REQUIRED.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN




VOCATIONAL TECHNICAL SCHOOL DISTRICT NEW CASTLE COUNTY DELAWARE

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

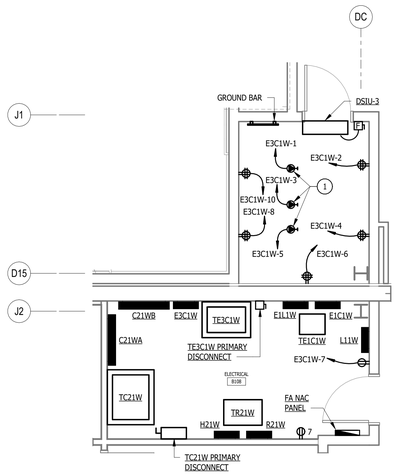
SHEET TITLE

**ELECTRICAL PART PLANS**

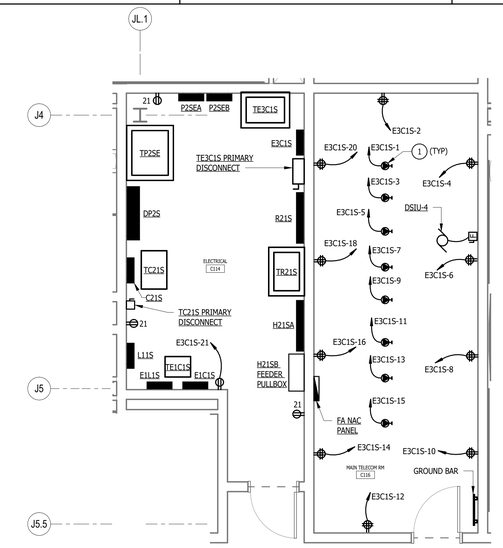
SHEET NO.

**E402**

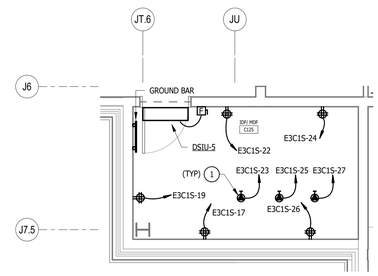
0 2' 4' 8'




1 PART PLAN - ELECTRICAL ROOM B108/IT B106
1/4" = 1'-0"




2 PART PLAN - ELECTRICAL C114/MAIN TELECOM RM C116
1/4" = 1'-0"




3 PART PLAN - IDF/MDF C125
1/4" = 1'-0"




4 PART PLAN - ELECTRICAL RM A225
1/4" = 1'-0"



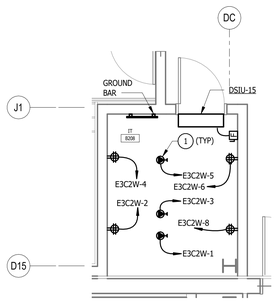

5 PART PLAN - IT A212
1/4" = 1'-0"



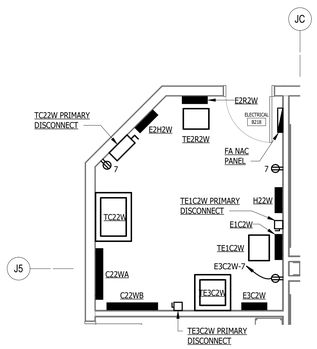

6 PART PLAN - ELECTRICAL A232
1/4" = 1'-0"



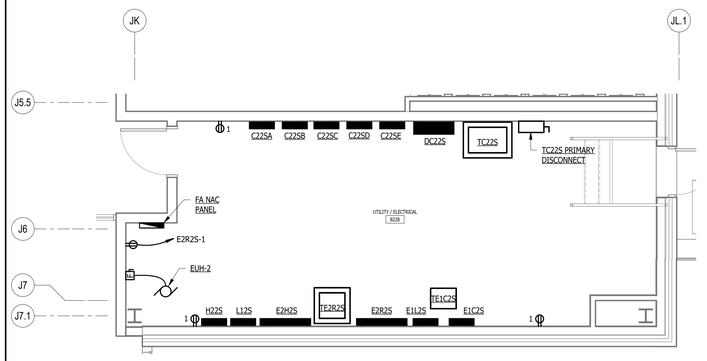

7 PART PLAN - IDF A236
1/4" = 1'-0"




8 PART PLAN - IT B208
1/4" = 1'-0"




9 PART PLAN - ELECTRICAL B218
1/4" = 1'-0"




10 PART PLAN - UTILITY/ELECTRICAL B228
1/4" = 1'-0"

## GENERAL NOTES:

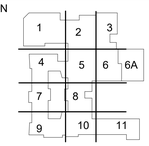
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.

## DRAWING NOTES:

1. NEMA L5-30R. MOUNT TO LADDER RACK TO SUIT DATA RACK. REFER TO TECHNOLOGY DRAWINGS FOR ADDITIONAL INFORMATION.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

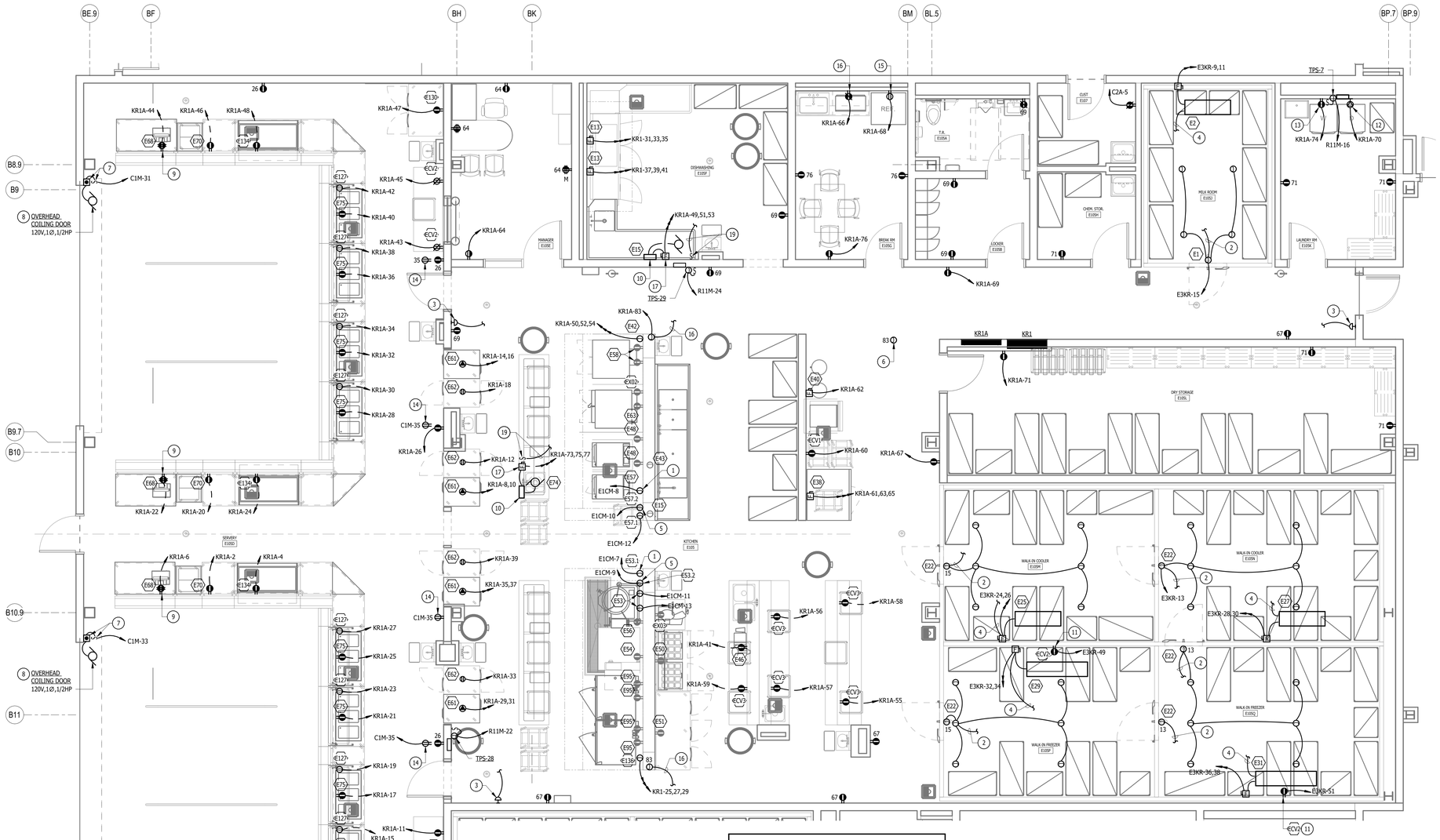
SHEET TITLE

**ELECTRICAL PART PLANS**

SHEET NO.

**E403**

0 2' 4' 8'




## GENERAL NOTES:

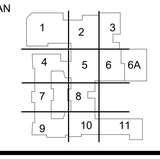
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.
2. REFER TO KITCHEN EQUIPMENT CONNECTION SCHEDULE ON DRAWING E626 FOR ADDITIONAL INFORMATION.
3. COORDINATE LOCATION AND MOUNTING HEIGHT OF OUTLETS WITH TECHNOLOGY DRAWINGS AND DETAILS.
4. REFER TO FOOD SERVICE DRAWINGS FOR ADDITIONAL SCOPE.
5. ALL DISCONNECTS SHALL HAVE NEMA 4X ENCLOSURES.

## DRAWING NOTES:

1. MAKE ALL CONNECTIONS TO FAN CONTROL PACKAGE. REFER TO FOOD SERVICE DRAWINGS FOR ADDITIONAL INFORMATION.
2. INSTALL ALL CONDUITS ABOVE WALK-IN CEILING. SEE WALK-IN LIGHT INSTALLATION DETAIL THIS SHEET.
3. EPO PUSHBUTTON FOR COOKING EQUIPMENT. COORDINATE EXACT LOCATIONWITH AHJ.
4. MAKE ALL CONNECTIONS TO OUTDOOR UNIT.
5. PROVIDE CONNECTION TO FIRE PROTECTION (ANSUL) SYSTEM. MAKE ALL FINAL CONNECTIONS PER MANUFACTURERS INSTUCTIONS.
6. MAKE ALL CONNECTIONS TO GAS SOLENOID VALVE VIA STEP DOWN TRANSFORMER (FURNISHED BY OTHERS) AND UDS SHUNT TRIP AS REQUIRED.
7. 1P, 20A MOTOR RATED SWITCH MOUNTED ADJACENT TO CONTROL PANEL. MAKE ALL CONNECTIONS TO CONTROL PANEL, MOTOR, ACCESSORIES AND RAISE LOWER SWITCH FURNISHED WITH OVERHEAD COILING DOOR.
8. MAKE ALL CONNECTIONS TO OVERHEAD COILING DOOR CONTROL PANEL AND ACCESSORIES FURNISHED WITH UNIT AS REQUIRED.
9. MOUNT IN FLOOR BOX PROVIDED UNDER TECHOLOGY DRAWINGS/SPECIFICATIONS (DIV 27).
10. MAKE CONNECTION TO START/STOP CONTROL PANEL FURNISHED WITH UNIT (ABOVE COUNTER) AS REQUIRED BY MANUFACTURER.
11. MOUNT TO SUIT AND MAKE ALL CONNECTIONS TO HEAT TRACE.
12. NEMA 14-30R. MOUNT TO SUIT DRYER.
13. MOUNT TO SUIT WASHER.
14. MOUNT TO SUIT TELEVISION.
15. MOUNT TO SUIT REFRIGERATOR.
16. MOUNT TO SUIT MICROWAVE.
17. MAKE CONNECTION TO UDC SHUNT TRIP VIA EPO'S AS REQUIRED.
18. MOUNT BELOW COUNTER.
19. MAKE ALL INTERLOCK CONNECTIONS TO EXHAUST FAN AS REQUIRED.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

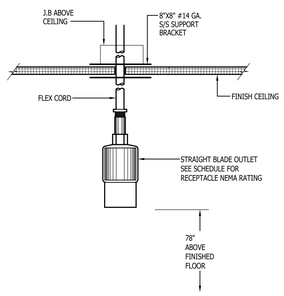
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

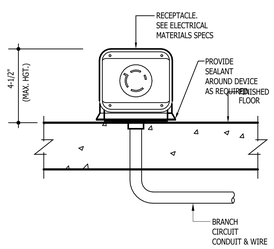
**PART PLAN - KITCHEN E105**

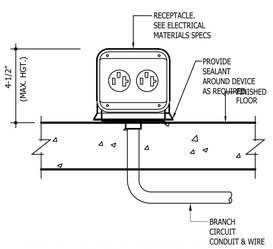
SHEET NO.

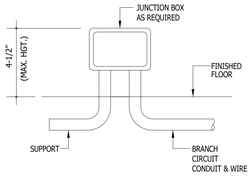
**E404**



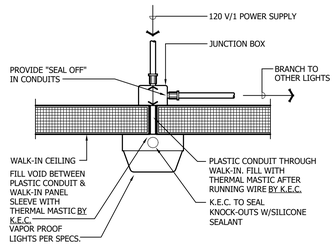

SUSPENDED RECEPTACLE DETAIL
SCALE: NTS.



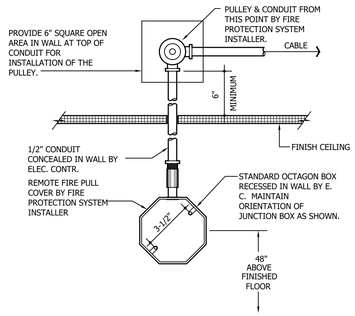




STUB-UP CONNECTION DETAILS
SCALE: NONE




1. ALL CONDUIT TO BE RUN ON EXTERIOR CEILING OF WALK-IN.
2. ALL PENETRATIONS THRU WALK-IN ARE TO BE SEALED WITH THERMAL MASTIC BY K.E.C.
3. LIGHT FIXTURES TO BE SHIPPED LOOSE & INSTALLED BY K.E.C. FINAL CONNECTION BY ELECTRICIAN.
4. NO METAL CONDUIT INSIDE WALK-IN BOX.
5. ALL CONDUIT KNOCK OUTS IN LIGHT FIXTURE TO BE SEALED W/SILICONE SEALANT BY K.E.C.

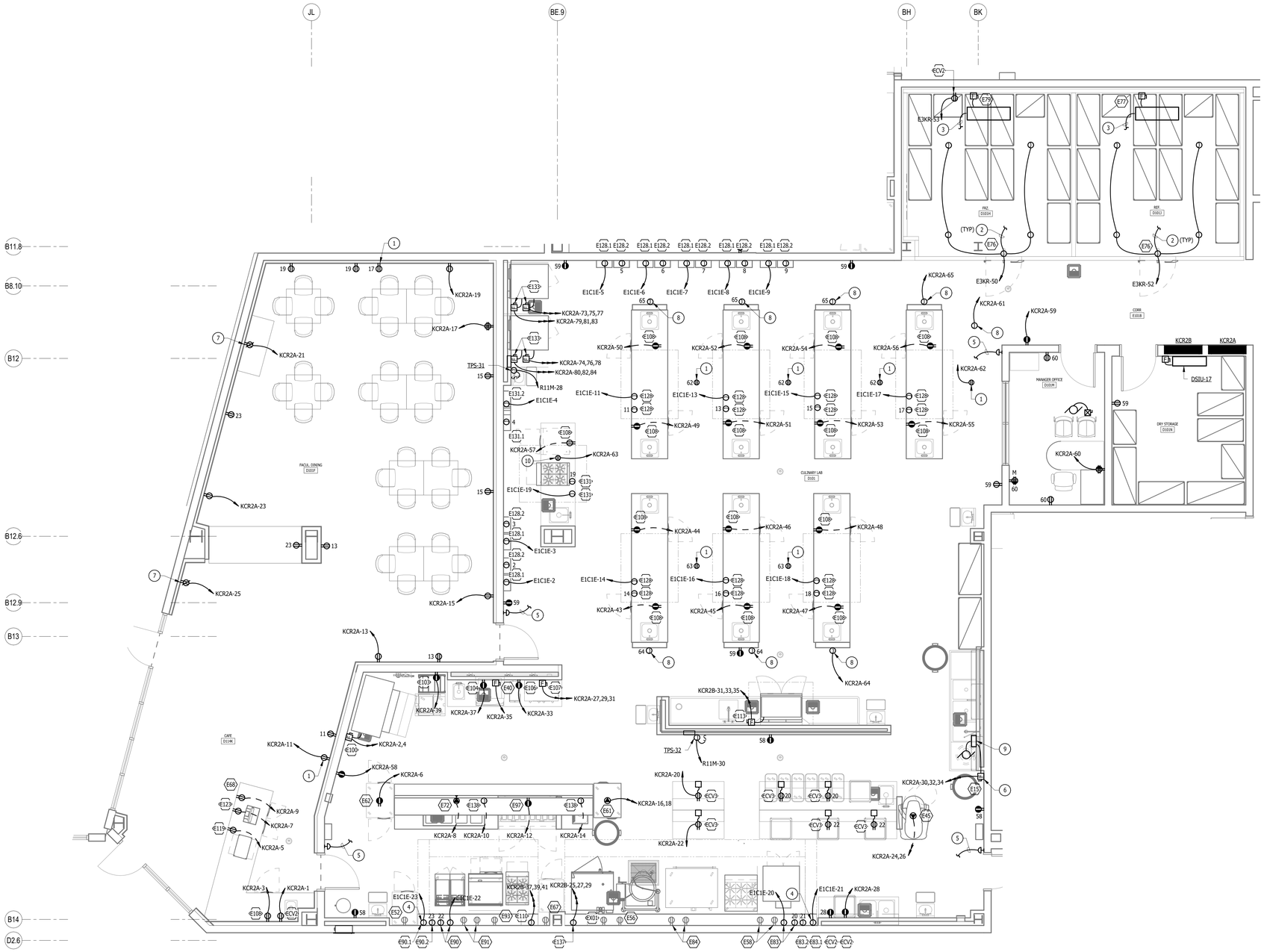
WALK-IN LIGHT INSTALLATION DETAIL
SCALE: NONE




REMOTE FIRE PROTECTION PULL STATION DETAIL
SCALE: NONE

1 PART PLAN - KITCHEN E105
1/4" = 1'-0"

0 2' 4' 8'




ALL RECEPTACLES IN CULINARY LAB SHALL BE GFCI TYPE

1 PART PLAN - CULINARY LAB D101
1/4" = 1'-0"

0 2' 4' 8'

## GENERAL NOTES:

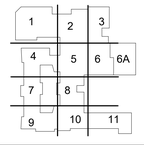
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.
2. REFER TO DETAILS ON DRAWING E404 FOR ADDITIONAL INFORMATION.
3. REFER TO KITCHEN EQUIPMENT CONNECTION SCHEDULE ON DRAWING E626 FOR ADDITIONAL INFORMATION.
4. COORDINATE LOCATION AND MOUNTING HEIGHT OF OUTLETS WITH TECHNOLOGY DRAWINGS AND DETAILS.
5. REFER TO FOOD SERVICE DRAWINGS FOR ADDITIONAL SCOPE.
6. ALL DISCONNECTS SHALL HAVE NEMA 4X ENCLOSURES.

## DRAWING NOTES:

1. MOUNT TO SUIT TV.
2. INSTALL ALL CONDUITS ABOVE WALK-IN CEILING.
3. MAKE ALL CONNECTIONS TO OUTDOOR UNIT. REFER TO ROOF PLAN DRAWING E129 FOR ADDITIONAL INFORMATION.
4. MAKE ALL CONNECTIONS TO FAN CONTROL PACKAGE. REFER TO FOOD SERVICE DRAWINGS FOR ADDITIONAL INFORMATION.
5. EPO PUSHBUTTON FOR COOKING EQUIPMENT. MAKE ALL CONNECTIONS TO PANEL KCR2B SHUNT TRIP AS REQUIRED. COORDINATE EXACT LOCATION WITH AHJ.
6. MAKE ALL CONNECTIONS TO CONTROL PANEL FURNISHED WITH UNIT PER MANUFACTURERS INSTALLATION INSTRUCTIONS.
7. MOUNT TO SUIT COFFEE MAKER.
8. MAKE ALL CONNECTIONS TO GAS SOLENOID VALVE VIA STEP DOWN TRANSFORMER (FURNISHED BY OTHERS) AS REQUIRED.
9. MAKE CONNECTION TO START/STOP CONTROL PANEL FURNISHED WITH UNIT (ABOVE COUNTER) AS REQUIRED BY MANUFACTURER.
10. COORDINATE MOUNTING ON CEILING WITH TECHNOLOGY DRAWINGS FOR CEILING MOUNTED CAMERA.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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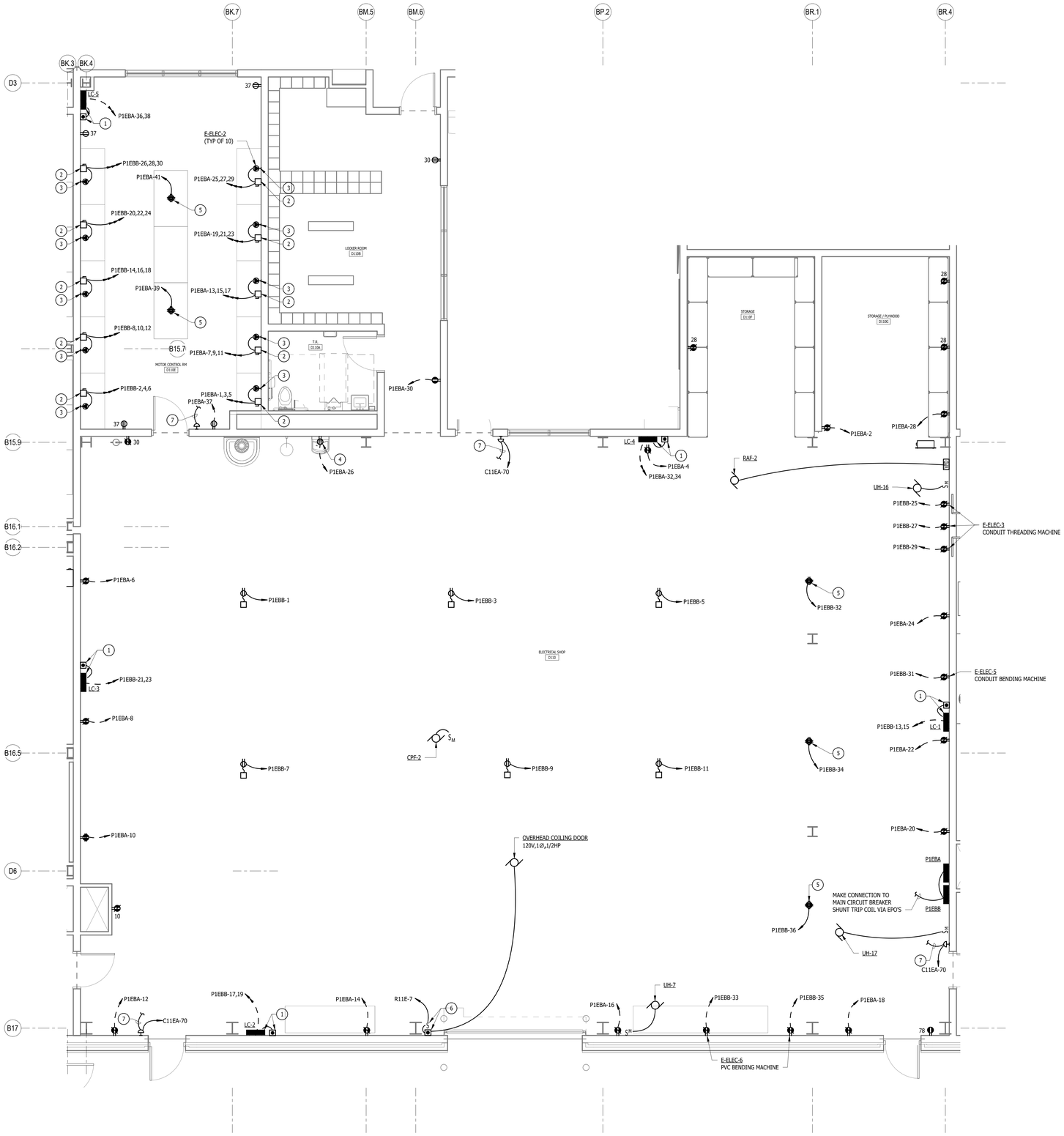
PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE
**PART PLAN - CULINARY LAB D101**

SHEET NO.
**E405**




1 PART PLAN - ELECTRICAL SHOP D110
1/4" = 1'-0"

0 4' 8' 16'

## GENERAL NOTES:

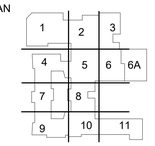
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.
2. DO NOT ROUTE CONDUITS IN FLOOR OF CLERESTORY GLASS WINDOWS.

## DRAWING NOTES:

1. REFER TO LOAD CENTER DETAIL FOR ADDITIONAL INFORMATION.
2. 3P, 30A NFSS IN NEMA 1 ENCLOUSRE. MOUNT BOTTOM ABOVE MOTOR CONTROL TRAINER (APPROX 80" AFF TO BOTTOM).
3. NEMA 15-20R. MOUNT ADJACENT TO DISCONNECT. PROVIDE MATCHING CORD AND PLUG FOR MOTOR CONTROL TRAINER AS REQUIRED.
4. MOUNT TO SUIT EWC.
5. DROP CORD WITH DOUBLE SIDED DUPLEX RECEPTACLE. MOUNT 72" AFF TO BOTTOM.
6. 1P, 20A MOTOR RATED SWITCH MOUNTED ADJACENT TO CONTROL PANEL. MAKE ALL CONNECTIONS TO CONTROL PANEL, MOTOR, ACCESSORIES AND RAISE LOWER SWITCH FURNISHED WITH OVERHEAD COILING DOOR.
7. MAKE CONNECTION TO MAIN CIRCUIT BREAKER SHUNT TRIP COIL VIA EPO'S.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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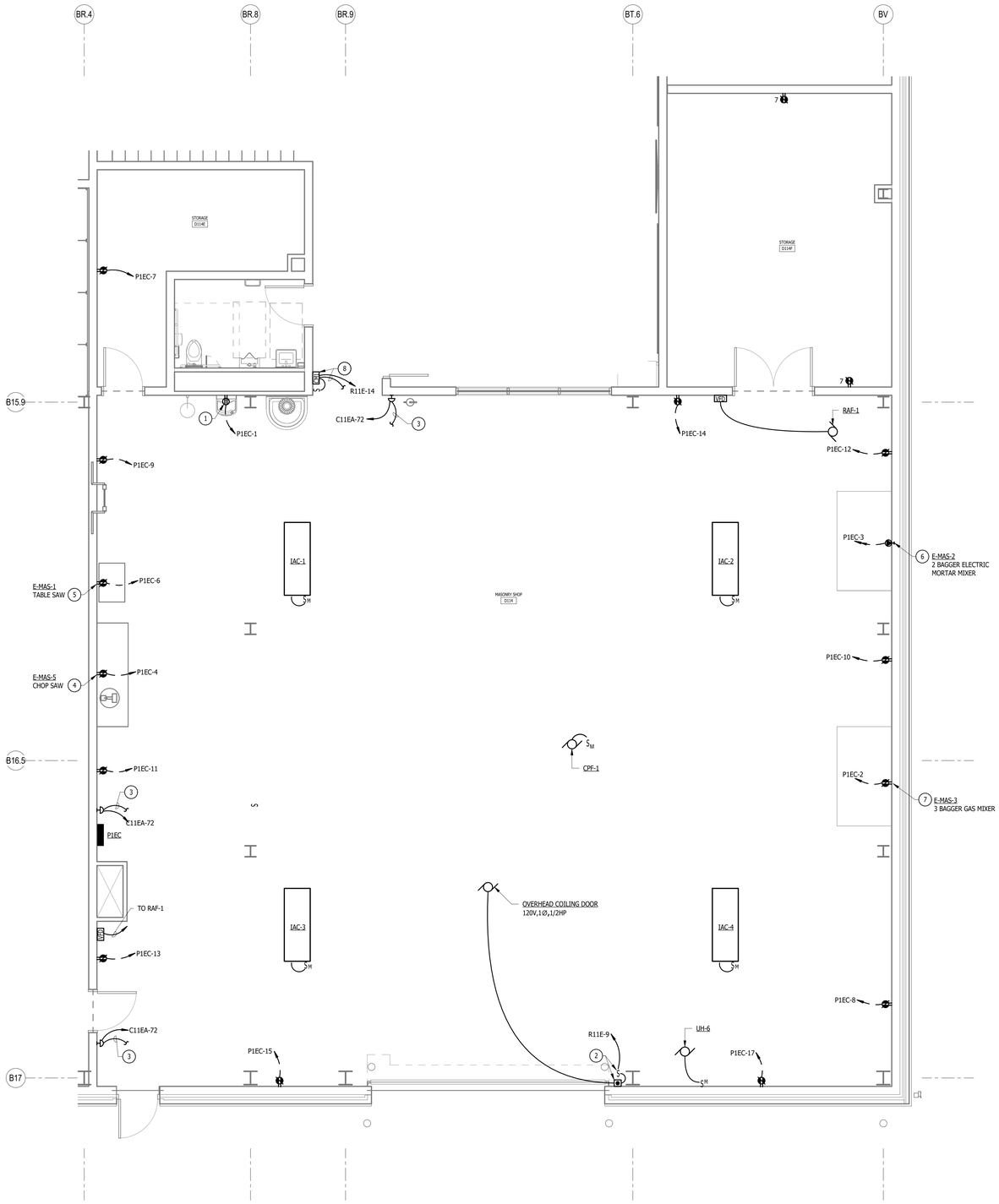
PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE
**PART PLAN - ELECTRICAL SHOP D110**

SHEET NO.
**E406**




1 PART PLAN - MASONRY SHOP D114
1/4" = 1'-0"

0 2' 4' 8'

## GENERAL NOTES:

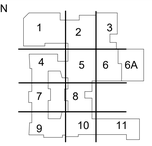
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.
2. RECEPTACLES SHALL BE MOUNTED HORIZONTALLY WITH DAMP LOCATION COVER UON.

## DRAWING NOTES:

1. MOUNT TO SUIT EWC.
2. 1P, 20A MOTOR RATED SWITCH MOUNTED ADJACENT TO CONTROL PANEL. MAKE ALL CONNECTIONS TO CONTROL PANEL, MOTOR, ACCESSORIES AND RAISE LOWER SWITCH FURNISHED WITH OVERHEAD COILING DOOR.
3. MAKE ALL CONNECTIONS TO PANEL P1EC SHUNT TRIP COIL.
4. MOUNT TO SUIT CHOP SAW.
5. MOUNT TO SUIT TABLE SAW.
6. NEMA 6-20R. MOUNT 42" AFF TO TOP TO SUIT MORTAR MIXER.
7. MOUNT 42" AFF TO TOP TO SUIT THREE BAGGER GAS MIXER.
8. MOUNT 10'-0" AFF. MAKE ALL CONNECTIONS TO INDUSTRIAL AIR CLEANERS (IAC) AS REQUIRED.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN





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**2575 GLASGOW AVENUE**
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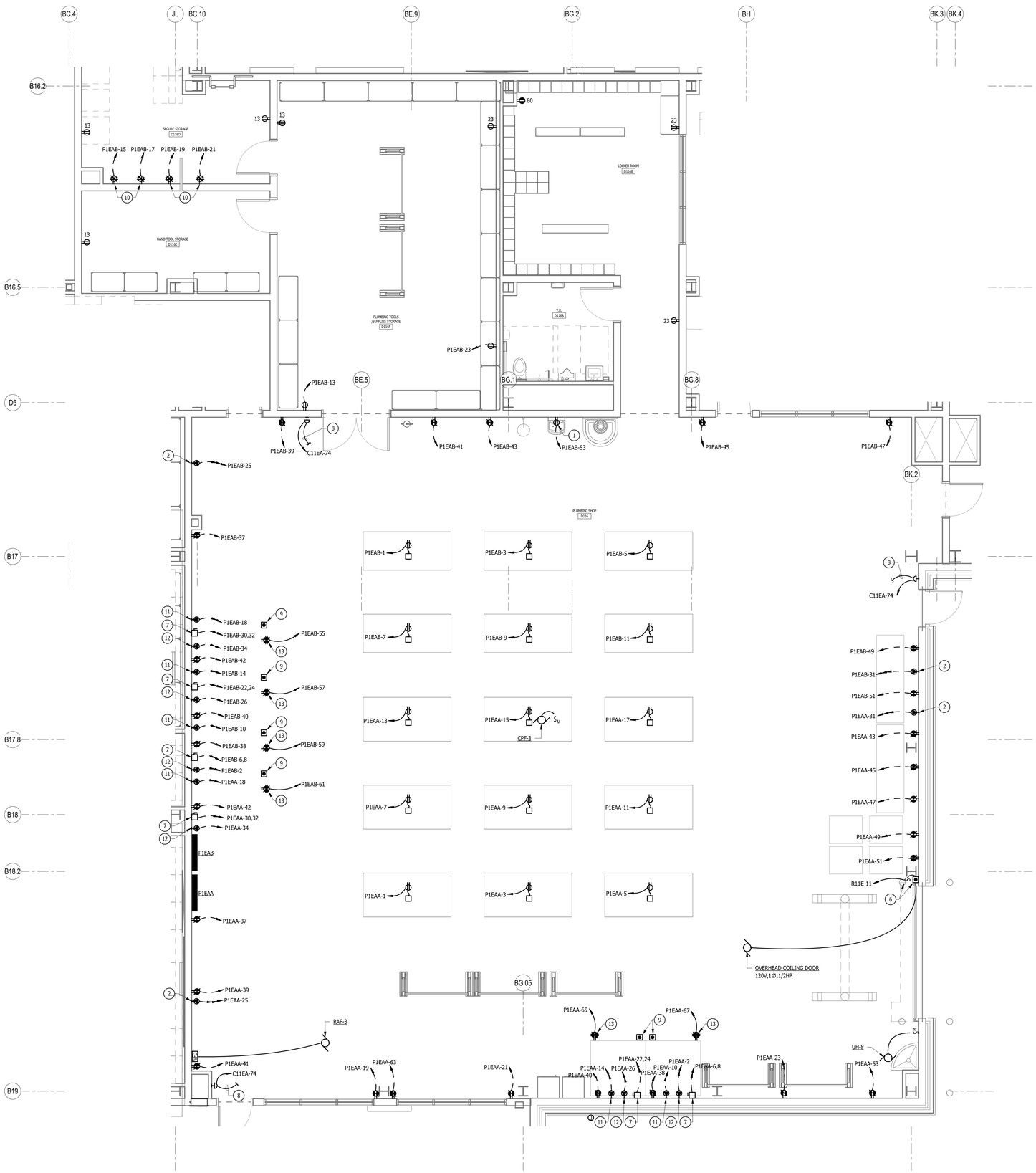
SHEET TITLE

**PART PLAN - MASONRY SHOP D114**

SHEET NO.

**E407**




1 PART PLAN - PLUMBING SHOP D116
1/4" = 1'-0"

## GENERAL NOTES:

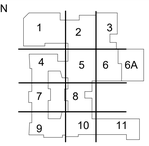
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.

## DRAWING NOTES:

1. MOUNT TO SUIT EWC.
2. NEMA 15-20R.
3. MOUNT TO SUIT MIG WELDER.
4. MOUNT TO SUIT TIG WELDER.
5. MOUNT TO SUIT STICK WELDER.
6. 1P, 20A MOTOR RATED SWITCH MOUNTED ADJACENT TO CONTROL PANEL. MAKE ALL CONNECTIONS TO CONTROL PANEL, MOTOR, ACCESSORIES AND RAISE LOWER SWITCH FURNISHED WITH OVERHEAD COILING DOOR.
7. 3P, 100A NFSS IN NEMA 1 ENCLOSURE.
8. MAKE ALL CONNECTIONS TO PANEL P1EAA AND PANEL P1EAB SHUNT TRIP COIL.
9. EXHAUST FAN START/STOP. MAKE ALL INTERLOCK CONNECTIONS TO EXHAUST FAN AS REQUIRED.
10. MOUNT TO SUIT CHARGING STATIONS FOR POWER TOOLS. FIELD COORDINATE EXACT LOCATION.
11. NEMA 6-30R.
12. NEMA 6-50R.
13. MOUNT TO FRONT FACE OF WELDING BOOTH AS REQUIRED.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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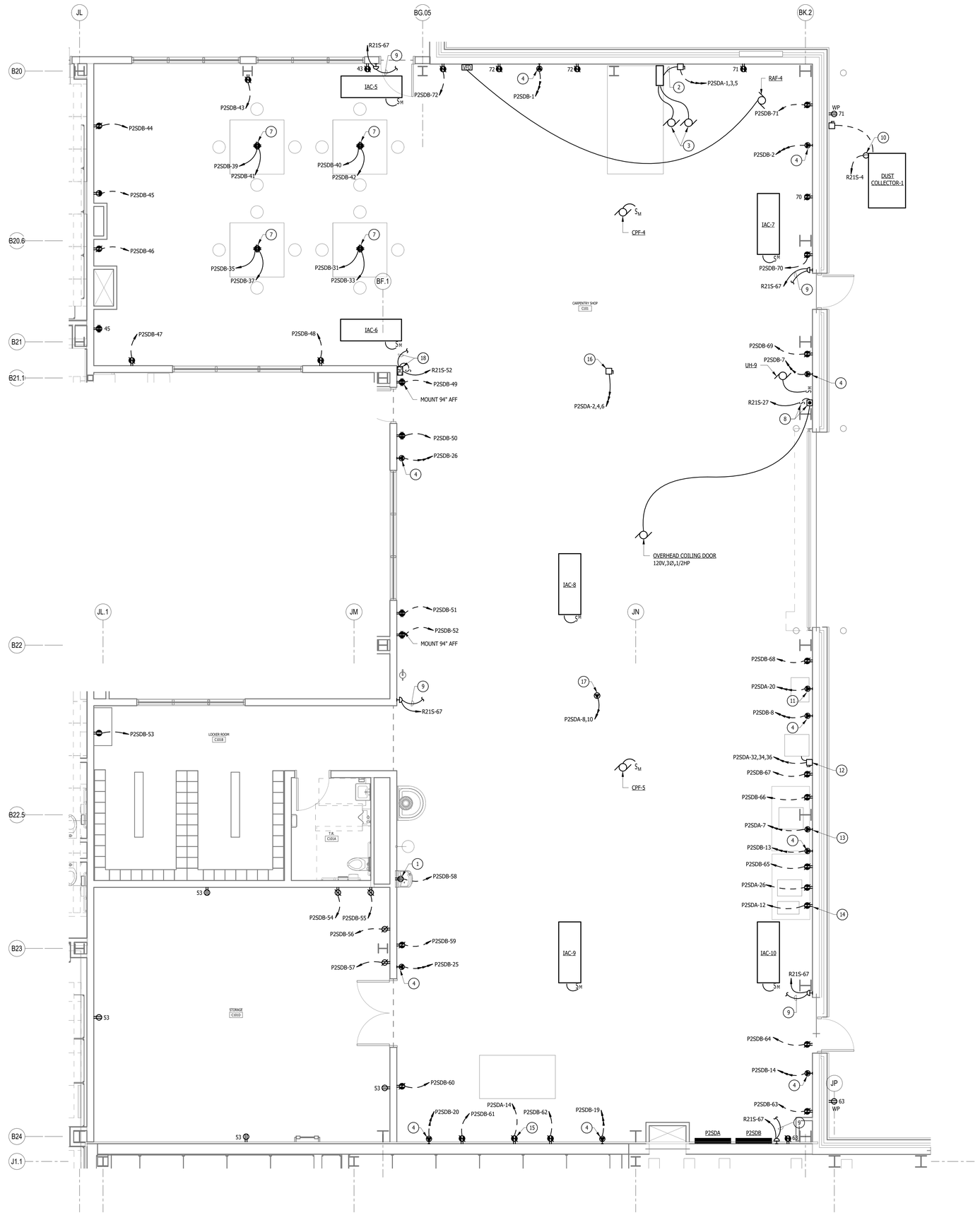
PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE
**PART PLAN - PLUMBING SHOP D116**

SHEET NO.
**E408**

0 2' 4' 8'




1 PART PLAN - CARPENTRY SHOP C101
1/4" = 1'-0"

0 2' 4' 8'

## GENERAL NOTES:

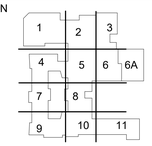
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.

## DRAWING NOTES:

1. MOUNT TO SUIT EWC.
2. MAKE CONNECTION TO CNC WOOD ROUTER CONTROL PANEL AS REQUIRED BY MANUFACTURER.
3. MAKE CONNECTION TO VACUUM PUMPS (2.5HP, 220V, 3 ø) ASSOCIATED WITH CNC ROUTER. PROVIDE CONTROL WIRING TO CONTROL PANEL AS REQUIRED BY MANUFACTURER.
4. NEMA L15-20R. MOUNT AT 42" AFF.
5. 2P, 60A NFSS IN NEMA 12 ENCLOSURE.
6. 3P, 30A NFSS IN NEMA 12 ENCLOSURE.
7. DROP CORD WITH DOUBLE SIDED DUPLEX NEMA 5-20R GFI RECEPTACLES. PROVIDE CORD LENGTH SO BOTTOM OF RECEPTACLE IS 72" AFF.
8. 1P, 20A MOTOR RATED SWITCH MOUNTED ADJACENT TO CONTROL PANEL. MAKE ALL CONNECTIONS TO CONTROL PANEL, MOTOR, ACCESSORIES AND RAISE LOWER SWITCH FURNISHED WITH OVERHEAD COILING DOOR.
9. MAKE ALL CONNECTIONS TO PANEL P2SDA AND PANEL P2SDB SHUNT TRIP COIL.
10. MAKE ALL CONNECTIONS TO DUST COLLECTOR CONTROL PANEL.
11. NEMA L14-30R. MOUNT TO SUIT BAND SAW.
12. 3P, 200A NFSS IN NEMA 12 ENCLOSURE. MOUNT TO SUIT AND MAKE CONNECTION TO SANDER AS REQUIRED.
13. MOUNT TO SUIT RADIAL ARM SAW.
14. NEMA 5-50R. MOUNT TO SUIT DRILL PRESS.
15. NEMA 5-30R. MOUNT TO SUIT TABLE SAW.
16. 3P, 60A NFSS IN NEMA 12 ENCLOSURE. COORDINATE LOCATION AND MOUNT TO SUIT PLANER.
17. NEMA 6-50R. COORDINATE LOCATION AND MOUNT TO SUIT WOOD LATHE.
18. MOUNT 10'-0" AFF. MAKE ALL CONNECTIONS TO INDUSTRIAL AIR CLEANERS (IAC) AS REQUIRED.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**PART PLAN - CARPENTRY SHOP C101**

SHEET NO.

**E409**

## GENERAL NOTES:

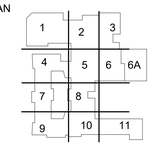
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.

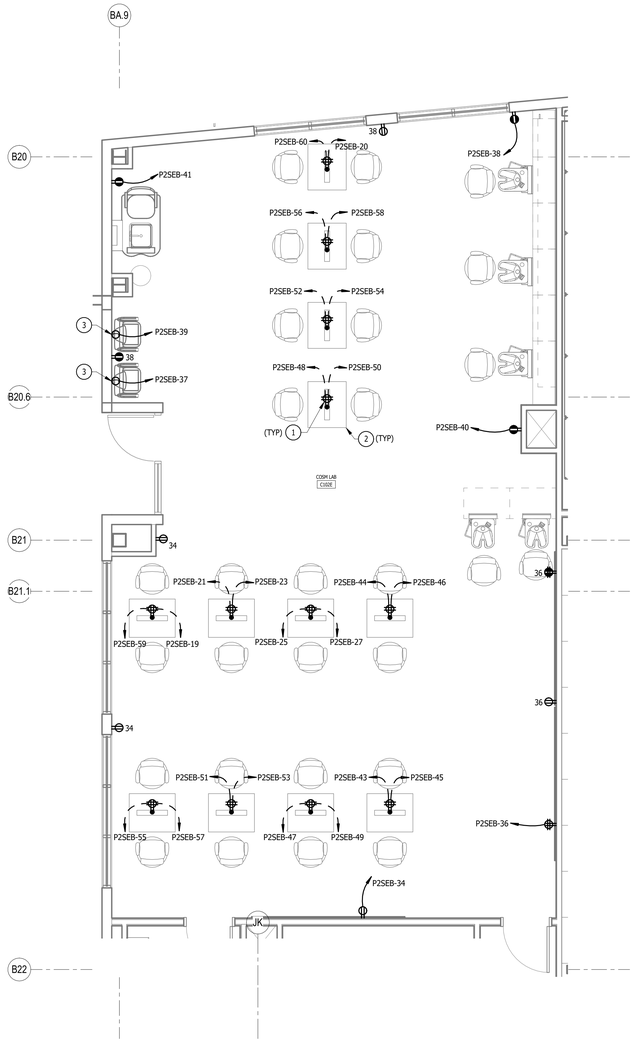
## DRAWING NOTES:

1. REFER TO RECEPTACLE DETAIL THIS DRAWING FOR ADDITIONAL INFORMATION.
2. PROVIDE CORD AND PLUG TO QUAD RECEPTACLE.
3. MAKE CONNECTION TO SALON SIT UNDER HAIR DRYER AS REQUIRED.

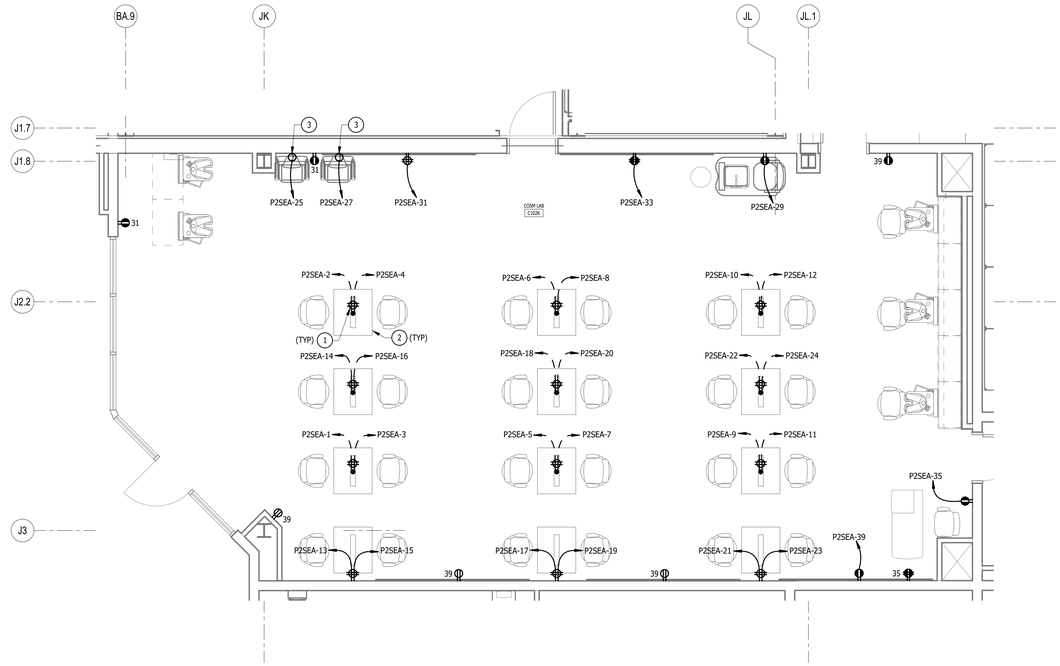
| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

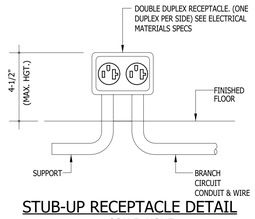



2 PART PLAN - COSMETOLOGY LAB C102E
1/4" = 1'-0"




1 PART PLAN - COSMETOLOGY LAB - C102K
1/4" = 1'-0"




STUB-UP RECEPTACLE DETAIL
SCALE: NONE

0 2' 4' 8'

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

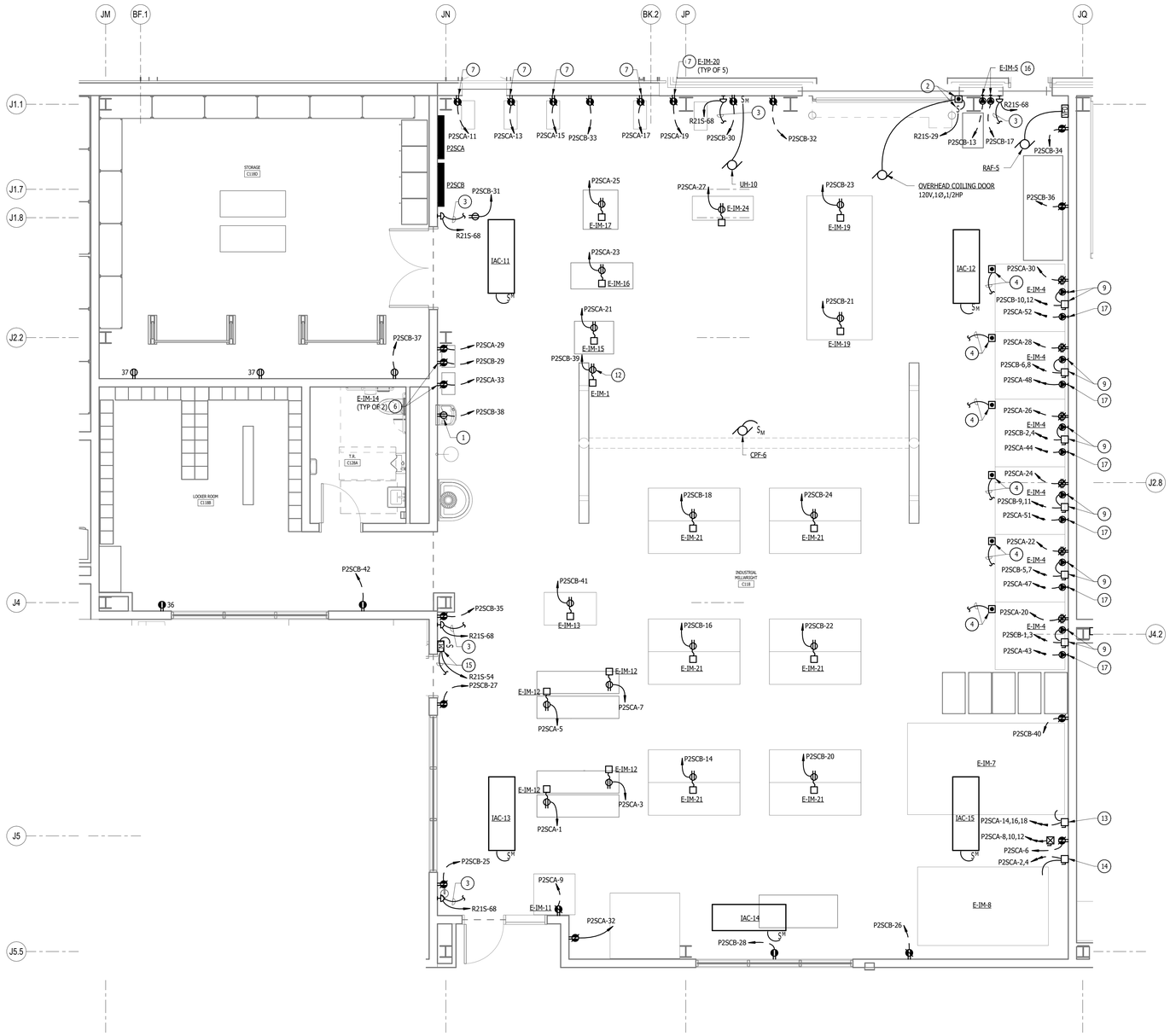
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**PART PLAN - COSMETOLOGY LAB C102B & C102K**

SHEET NO.

**E410**




1 PART PLAN - INDUSTRIAL MILLWRIGHT C118
1/4" = 1'-0"

0 2' 4' 8'

## GENERAL NOTES:

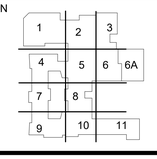
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.

## DRAWING NOTES:

1. MOUNT TO SUIT EWC.
2. 1P, 20A MOTOR RATED SWITCH MOUNTED ADJACENT TO CONTROL PANEL. MAKE ALL CONNECTIONS TO CONTROL PANEL, MOTOR, ACCESSORIES AND RAISE LOWER SWITCH FURNISHED WITH OVERHEAD COILING DOOR.
3. MAKE ALL CONNECTIONS TO PANEL SHUNT TRIP COIL.
4. WELDING EXHAUST FAN START/STOP. MAKE ALL INTERLOCK CONNECTIONS TO EXHAUST FAN AS REQUIRED. MOUNT TO TOP FRONT FACE OF WELDING BOOTH AS REQUIRED.
5. DUPLEX GFI RECEPTACLE WITH STRAIN RELIEF. MOUNT 5'-0" AFF.
6. MOUNT TO SUIT BENCH GRINDER.
7. MOUNT TO SUIT DRILL PRESS.
8. MOUNT TO SUIT LARGE MIG MACHINE.
9. 3P, 60A NFSS IN NEMA 1 ENCLOSURE AND NEMA 6-50R RECEPTACLE.
10. MOUNT TO SUIT CNC TABLE.
11. MOUNT TO SUIT CNA PLASMA PRO II TABLE.
12. MOUNT TO SUIT CHAIN HOIST.
13. 3P, 30A NFSS. MAKE CONNECTION TO COMPRESSOR CONTROLLER FURNISHED WITH UNIT AS REQUIRED.
14. 2P, 60A NFSS. MOUNT TO SUIT PLASMA SOURCE AND MAKE CONNECTION TO UNIT AS REQUIRED.
15. MOUNT 10'-0" AFF. MAKE ALL CONNECTIONS TO INDUSTRIAL AIR CLEANERS (IAC) AS REQUIRED.
16. NEMA 6-50R.
17. NEMA 6-20R.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

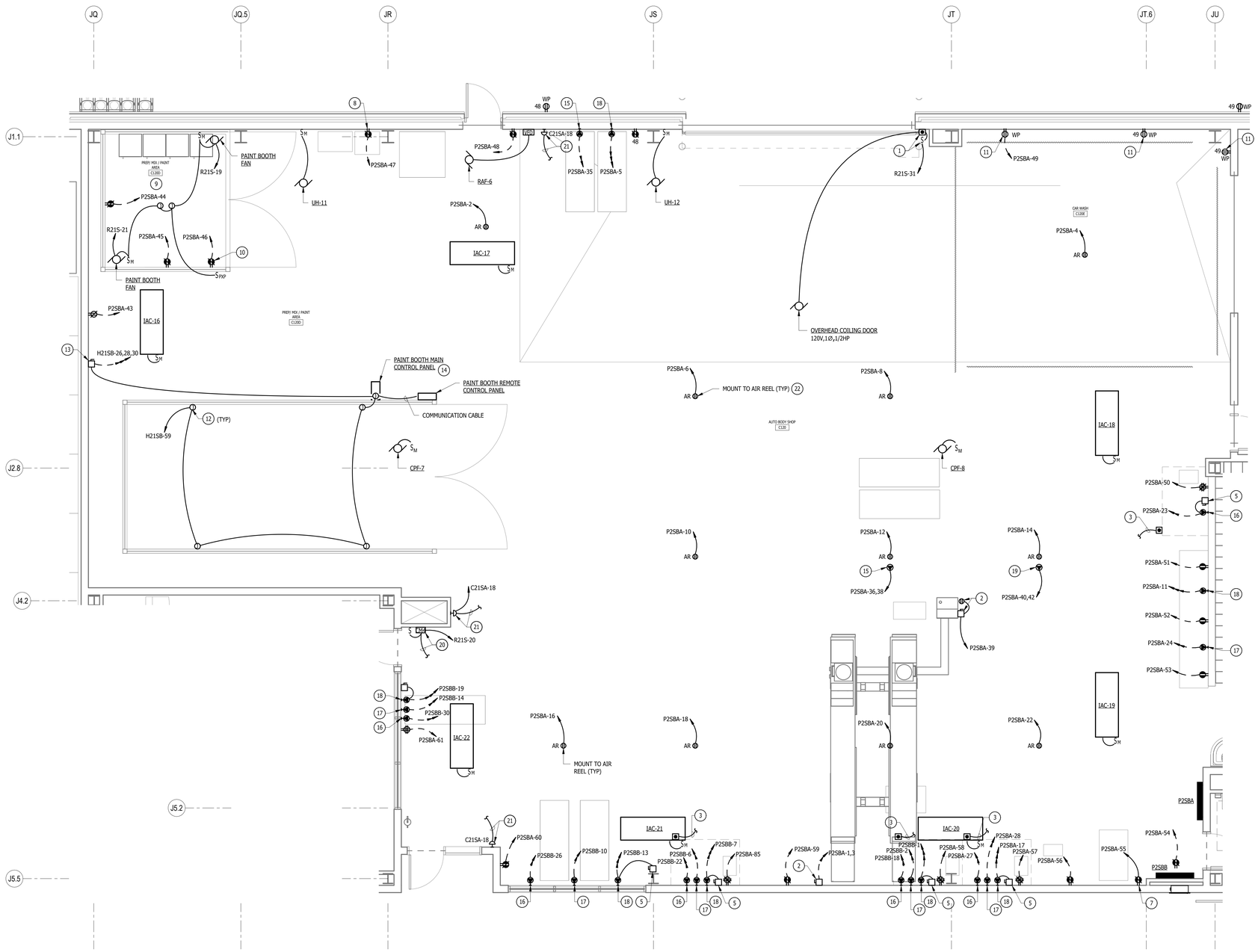
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**PART PLAN - INDUSTRIAL MILLWRIGHT C118**

SHEET NO.

**E411**




1 PART PLAN - AUTO BODY SHOP - C120
1/4" = 1'-0"

0 2' 4' 8'

## GENERAL NOTES:

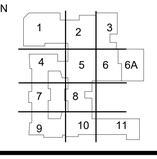
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.
2. ALL ELECTRICAL WORK INSIDE OF AND OUTSIDE WITHIN 36" OF PAINT BOOTH AND PAINT MIX ROOM DOOR OPENINGS IN EVERY DIRECTION SHALL BE RATED FOR CLASS 1, DIVISION 1 LOCATIONS.

## DRAWING NOTES:

1. 1P, 20A MOTOR RATED SWITCH MOUNTED ADJACENT TO CONTROL PANEL. MAKE ALL CONNECTIONS TO CONTROL PANEL, MOTOR, ACCESSORIES AND RAISE LOWER SWITCH FURNISHED WITH OVERHEAD COILING DOOR.
2. 2P, 30A NFSS. MOUNT TO SUIT AND MAKE ALL CONNECTIONS TO DRIVE UP VEHICLE LIFT AS REQUIRED.
3. EXHAUST FAN START/STOP. MAKE ALL INTERLOCK CONNECTIONS TO EXHAUST FAN AS REQUIRED.
4. DUPLEX GFI RECEPTACLE WITH STRAIN RELIEF. MOUNT 5'-0" AFF.
5. 3P, 60A NFSS IN NEMA 1 ENCLOSURE.
6. DUPLEX GFI RECEPTACLE WITH STRAIN RELIEF. MOUNT 5'-0" AFF. COORDINATE MOUNTING WITH SANDER/GRINDER LOCATION.
7. MOUNT TO SUIT ROTARY SCREW AIR COMPRESSOR.
8. DUPLEX GFI RECEPTACLE WITH STRAIN RELIEF. MOUNT 5'-0" AFF. COORDINATE MOUNTING WITH PAINT COMPUTER LOCATION.
9. ALL DEVICES IN THIS AREA SHALL BE EXPLOSION PROOF TYPE.
10. MOUNT TO SUIT PAINT MIXER.
11. PROVIDE IN-USE COVER.
12. MAKE ALL CONNECTIONS TO LIGHT FIXTURES AND CONTROL PANEL FURNISHED WITH PAINT BOOTH AS REQUIRED.
13. 3P, 60A DIVISION 1 CLASS 7 FSS FUSED PER MANUFACTURERS RECOMMENDATIONS. MAKE ALL CONNECTIONS TO PAINT BOOTH CONTROL PANEL AND REMOTE CONTROL PANEL AS REQUIRED. COORDINATE MOUNTING AND LOCATIONS WITH EQUIPMENT.
14. MAKE ALL CONNECTIONS TO LIGHTING AND MOTOR POWER AS REQUIRED BY MANUFACTURER.
15. NEMA L6-20R FIXED CORD DROP MOUNTED 72" AFF.
16. NEMA L6-30R.
17. NEMA L6-50R.
18. NEMA L14-50R.
19. NEMA L6-50R FIXED CORD DROP MOUNTED 72" AFF.
20. 120V, 8P CONTACTOR. MAKE ALL CONNECTIONS TO INDUSTRIAL AIR CLEANERS (IAC) AS REQUIRED.
21. MAKE ALL CONNECTIONS TO PANEL SHUNT TRIP COIL.
22. PROVIDE SOJ CORD FOR CONNECTION TO AIR REEL, LENGTH AS REQUIRED.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

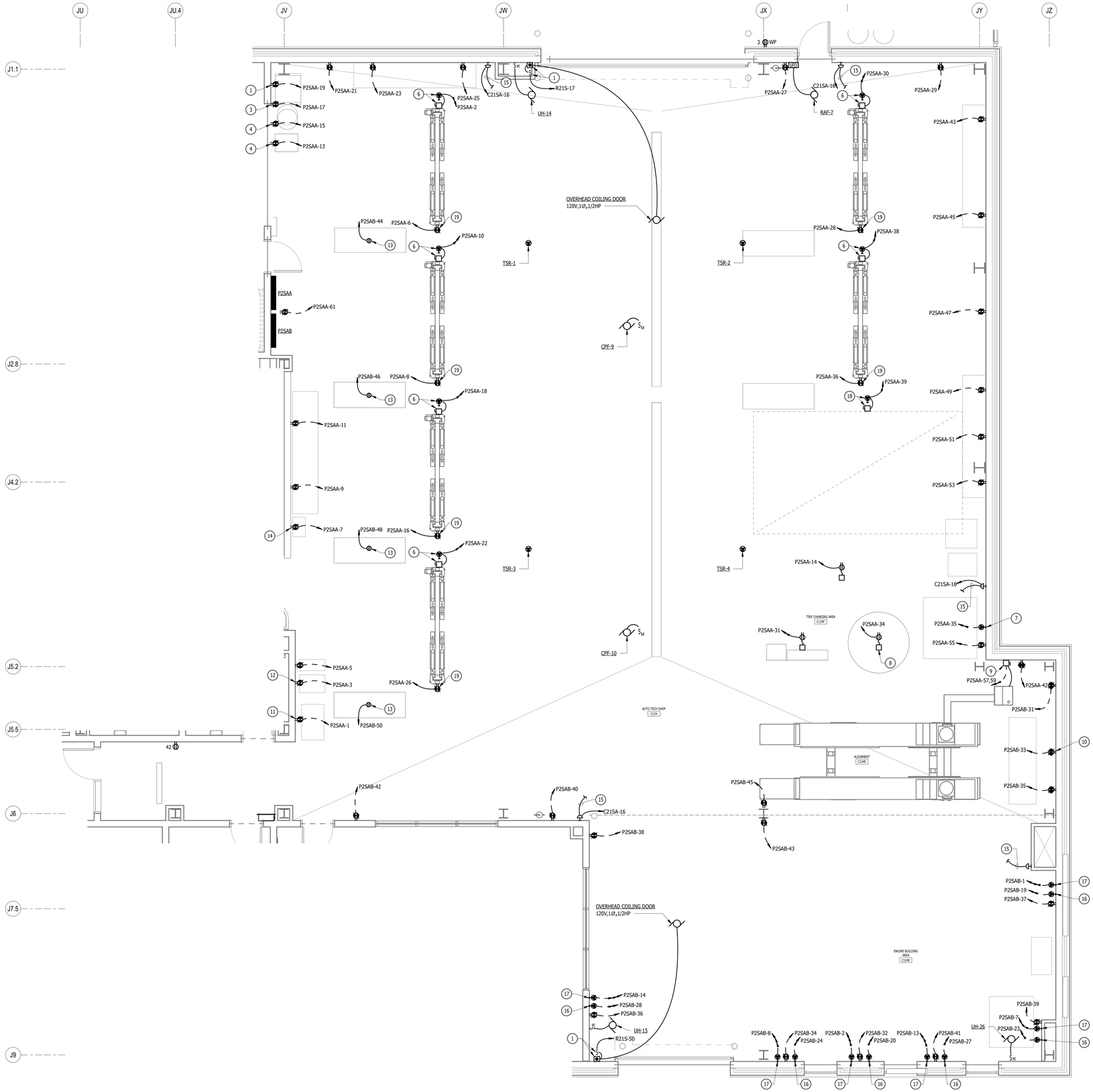
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**PART PLAN - AUTOBODY SHOP C120**

SHEET NO.

**E412**




1 PART PLAN - AUTO TECH SHOP - C124
1/4" = 1'-0"

0 2' 4' 8'

## GENERAL NOTES:

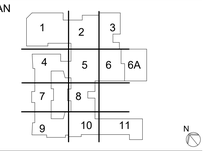
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.

## DRAWING NOTES:

1. 1P, 20A MOTOR RATED SWITCH MOUNTED ADJACENT TO CONTROL PANEL. MAKE ALL CONNECTIONS TO CONTROL PANEL, MOTOR, ACCESSORIES AND RAISE LOWER SWITCH FURNISHED WITH OVERHEAD COILING DOOR.
2. MOUNT TO SUIT SMALL LIFT.
3. MOUNT TO SUIT D-TAC.
4. MOUNT TO SUIT DYNAMO.
5. MOUNT TO SUIT SNAP ON.
6. MOUNT 2P, 30A NFSS IN NEMA 12 ENCLOSURE ON POST LIFT WITH 18" LFMC CONNECTION TO NEMA L14-20R.
7. NEMA L6-20R. MOUNT TO SUIT TIRE BALANCER.
8. COORDINATE LOCATION WITH TIRE CHANGER.
9. MOUNT TO SUIT ALIGNMENT MACHINE.
10. MOUNT TO SUIT CAMERA ALIGNMENT & COMPUTER PODIUM.
11. MOUNT TO SUIT PARTS WASHER.
12. MOUNT TO SUIT ROBIN AIRE.
13. DUPLEX GFI RECEPTACLE WITH STRAIN RELIEF. MOUNT 5'-0" AFF. COORDINATE MOUNTING WITH WORK TABLE LOCATION.
14. MOUNT TO SUIT SANDER/GRINDER.
15. MAKE ALL CONNECTIONS TO PANEL P2SAA AND PANEL P2SAB SHUNT TRIP COIL.
16. NEMA L6-50R.
17. NEMA L14-50R.
18. MOUNT 2P, 60A NFSS IN NEMA 12 ENCLOSURE ON POST LIFT WITH 18" LFMC CONNECTION TO 50A, 125/250A RECEPTACLE.
19. MOUNT TO POST LIFT AS REQUIRED.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

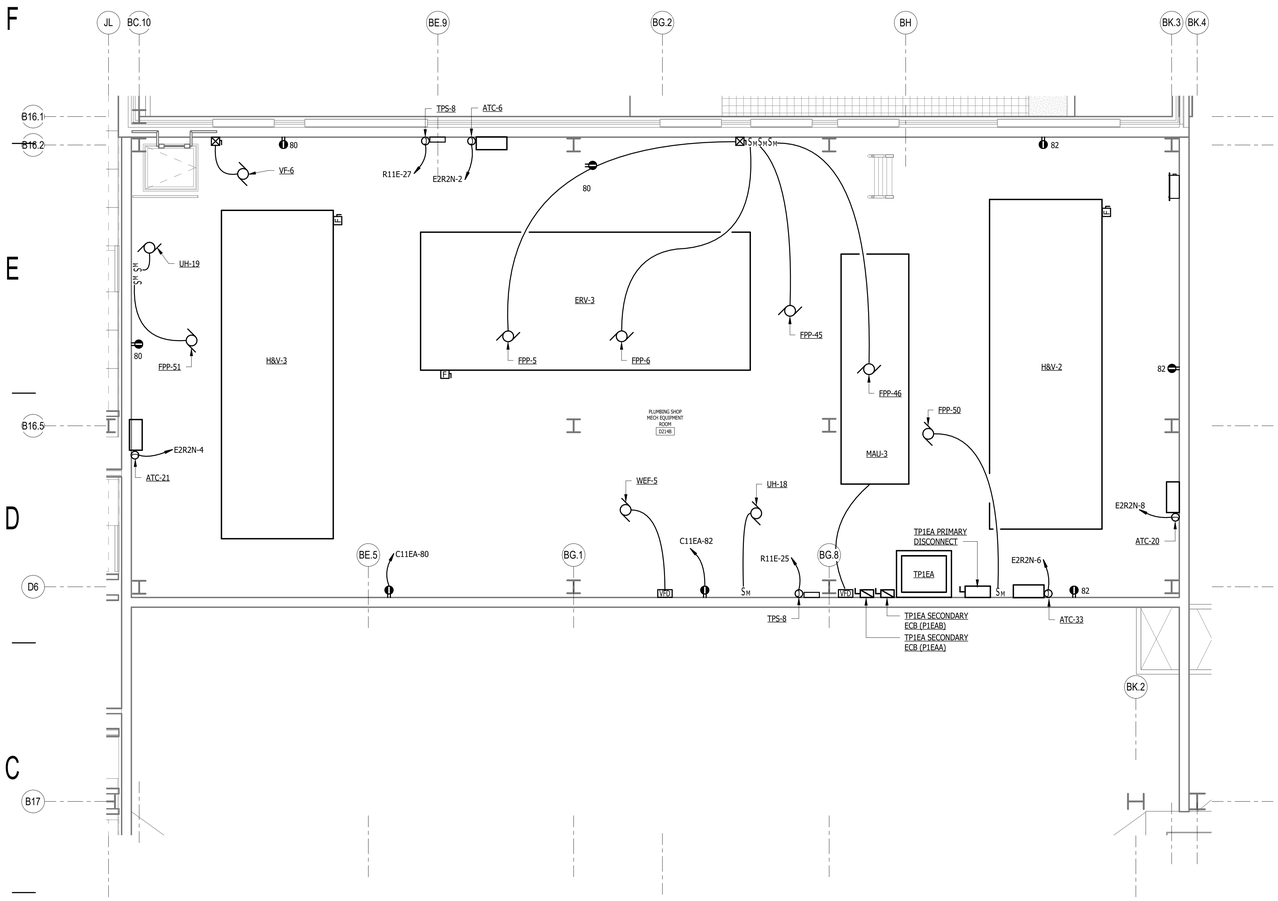
**PART PLAN - AUTO TECH SHOP C124**

SHEET NO.

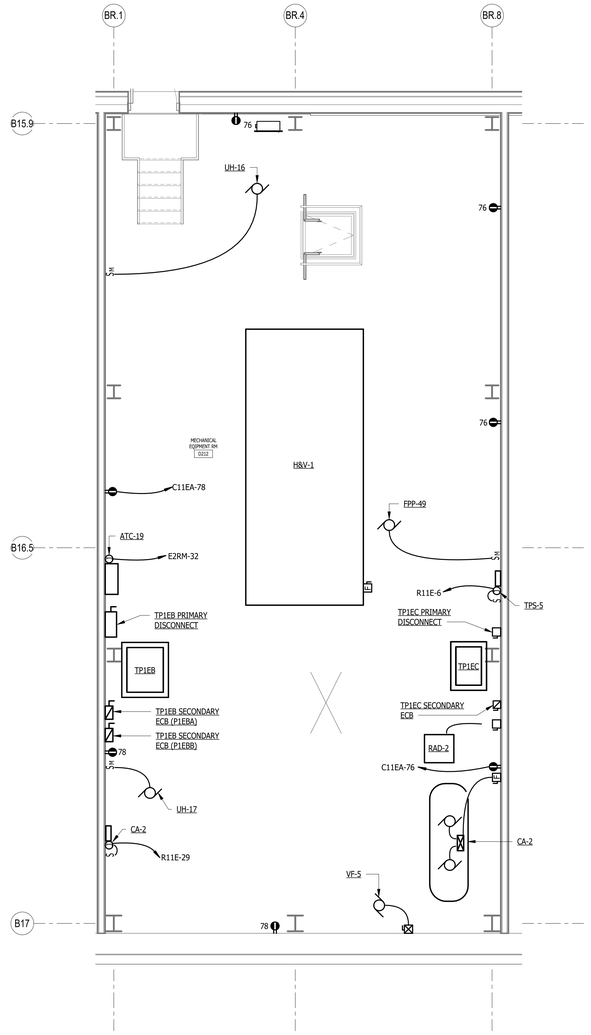
**E413**

## GENERAL NOTES:

1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.




1 PART PLAN - MEZZANINE - PLUMBING SHOP MECH EQUIPMENT ROOM D214B - POWER
1/4" = 1'-0"

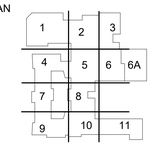



2 PART PLAN - MEZZANINE - MECHANICAL EQUIPMENT D212 - POWER
1/4" = 1'-0"

0 4' 8' 16'

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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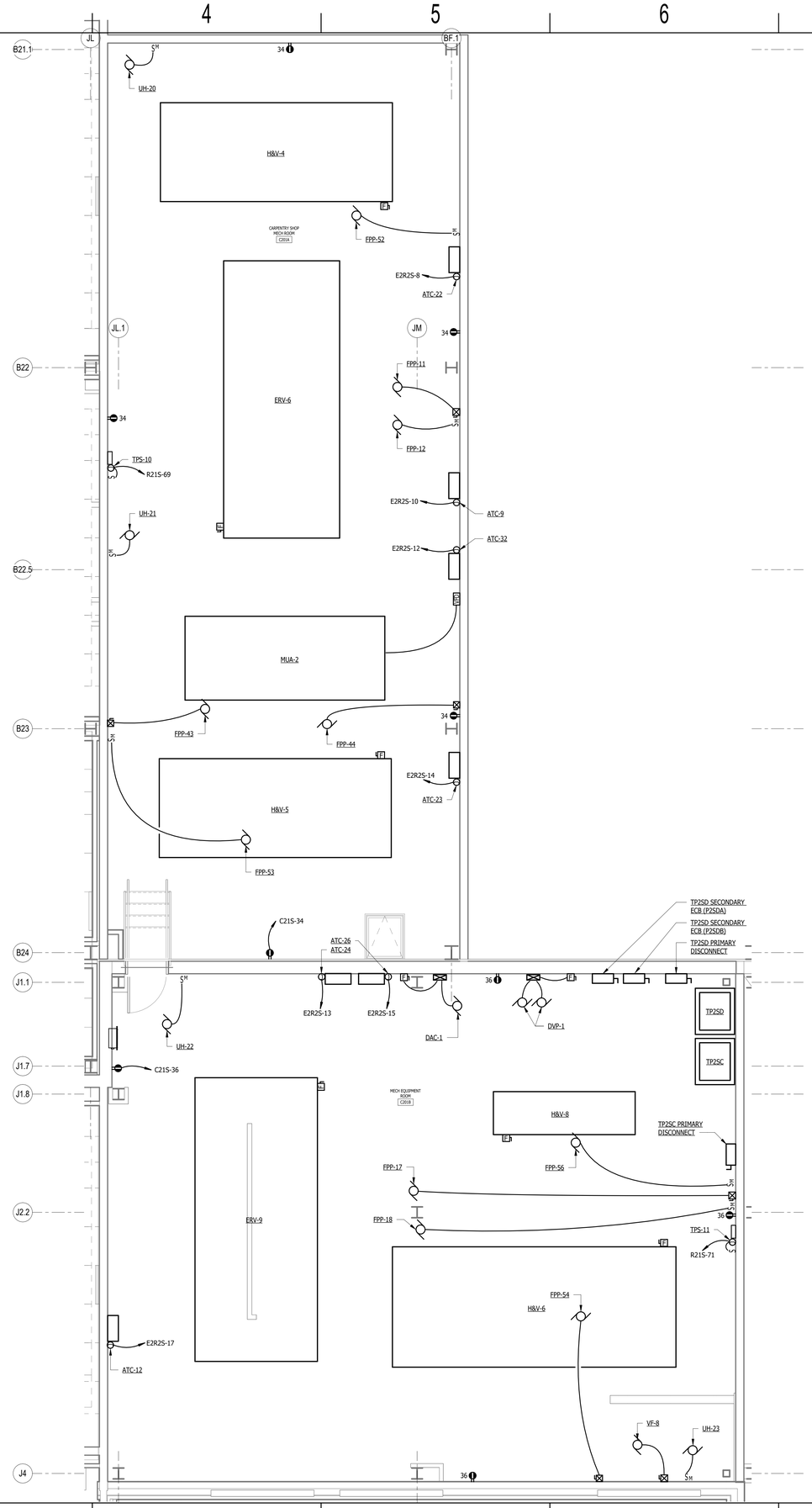
SHEET TITLE

**PART PLANS - MEZZANINE**

SHEET NO.

**E414**



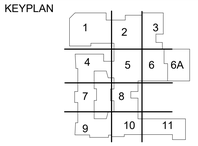

1 PART PLAN - MEZZANINE - CARPENTRY SHOP MECH ROOM C201A- POWER
1/4" = 1'-0"

## GENERAL NOTES:

1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**PART PLANS - MEZZANINE**

SHEET NO.

**E415**

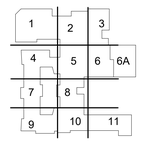
0 2' 4' 8'

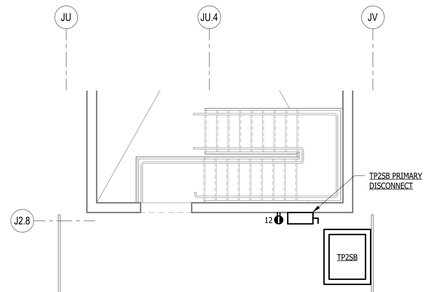
## GENERAL NOTES:

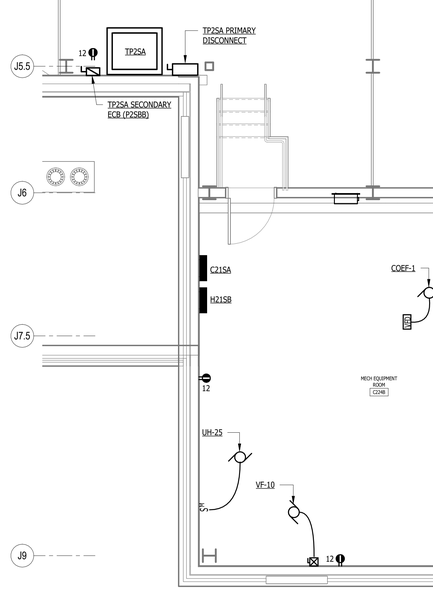
1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON DRAWINGS E620 TO E625 FOR ADDITIONAL INFORMATION.

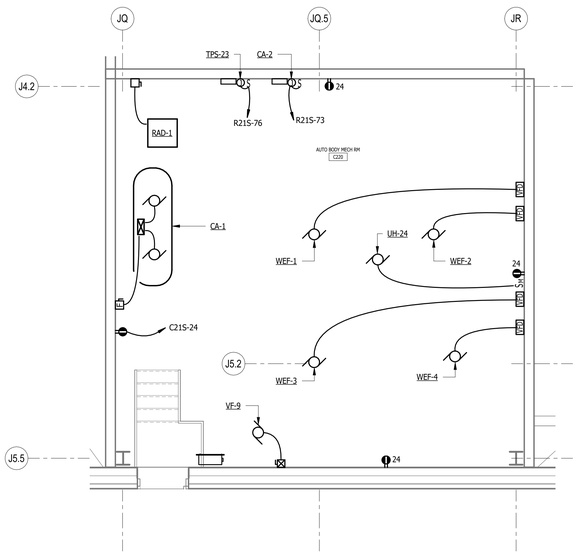
| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN




2 PART PLAN - MEZZANINE - AUTO TECH MECH RM C220 - POWER
1/4" = 1'-0"

1 PART PLAN - MEZZANINE - AUTO TECH C224A - POWER
1/4" = 1'-0"

0 2' 4' 8'

VOCATIONAL TECHNICAL SCHOOL DISTRICT NEW CASTLE COUNTY DELAWARE

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**PART PLANS - MEZZANINE**

SHEET NO.

**E416**

## GENERAL NOTES:

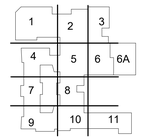
1. REFER TO THEATER AV SYSTEMS DRAWINGS FOR ADDITIONAL INFORMATION AND SCOPE OF WORK.
2. REFER TO THEATER AV DEVICE SCHEDULE ON DRAWING E618 FOR ADDITIONAL INFORMATION.

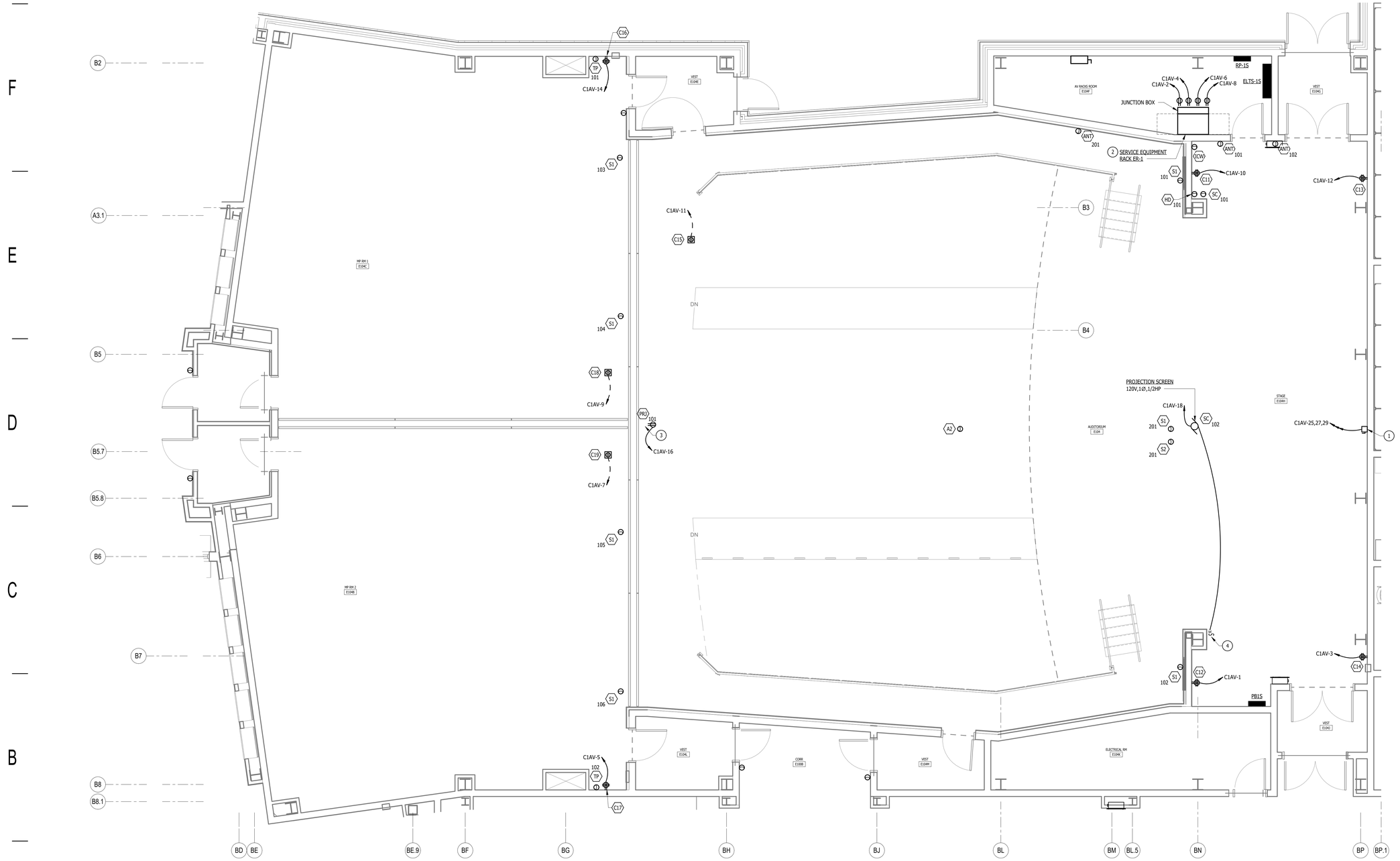
## DRAWING NOTES:

1. 3P, 60A NFSS IN NEMA 1 ENCLOSURE WITH GROUND AND ISOLATED GROUND BUS.
2. PROVIDE #2 IG TO PANEL C1AV.
3. MOUNT TO SUIT CELING MOUNTED PROJECTOR.
4. MAKE ALL CONNECTIONS TO SWITCH FURNISHED WITH PROJECTION SCREEN.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN




1 PART PLAN - AUDITORIUM THEATER EQUIPMENT ROUGH-INS
1/4" = 1'-0"

0 2' 4' 8'

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET NAME

**PART PLAN - AUDITORIUM - THEATER EQUIPMENT ROUGH-INS**

SHEET NO.

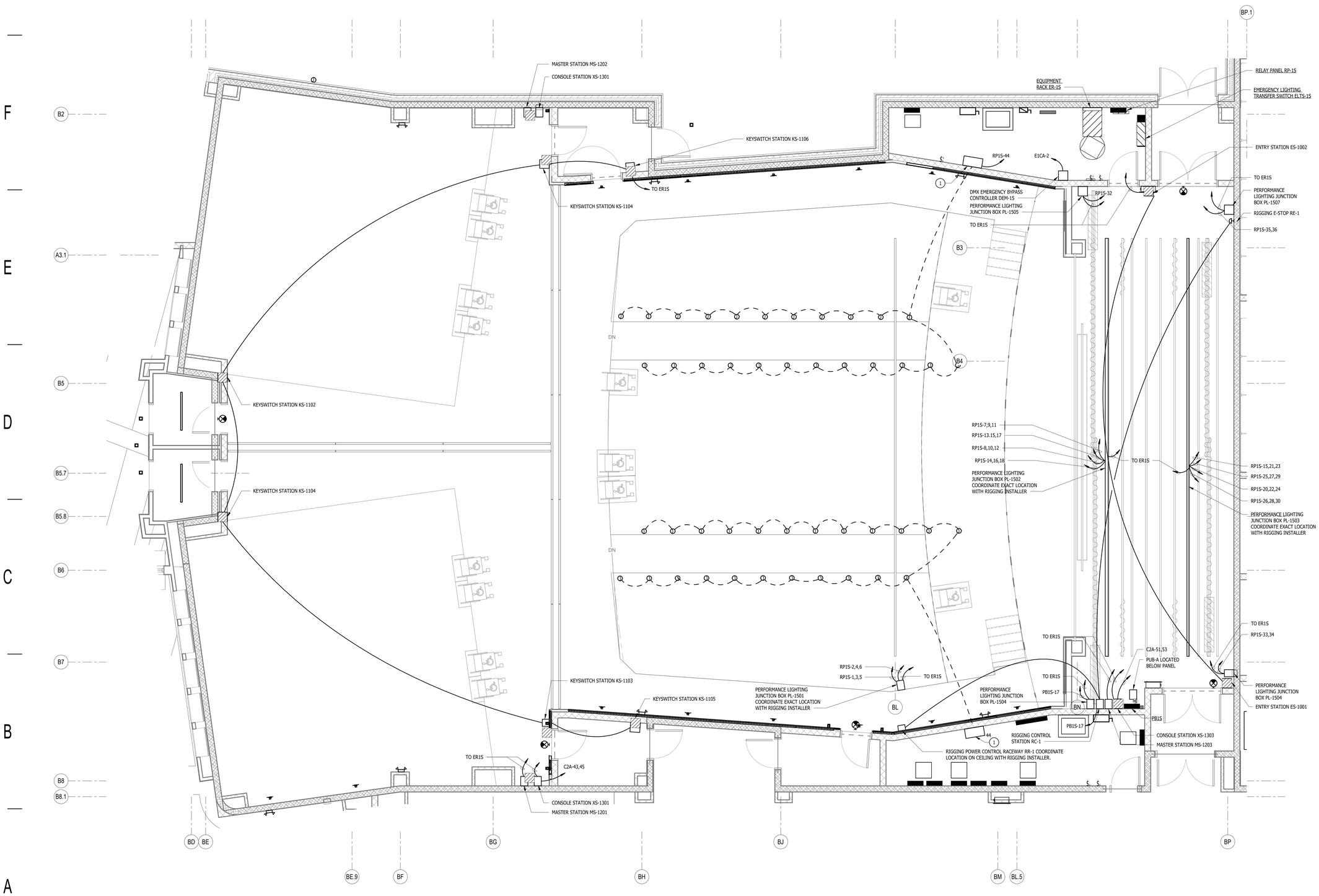
**E417**

## GENERAL NOTES:

1. REFER TO THEATER PERFORMANCE LIGHTING SYSTEM DRAWINGS FOR ADDITIONAL INFORMATION AND SCOPE OF WORK.
2. REFER TO THEATRICAL LIGHTING DEVICE SCHEDULE ON DRAWING E618 FOR ADDITIONAL INFORMATION.
3. PROVIDE 1' CONDUIT UNLESS OTHERWISE NOTED.

## DRAWING NOTES:

(1) 120V-24V DRIVER FOR AISLE LIGHTS (100W) COMPATIBLE WITH AISLE LIGHTING. MOUNT ON WALL 24"AFF. MAKE CONNECTION TO AISLE LIGHTS AS REQUIRED BY SYSTEM MANUFACTURER WITH 2 #10+#10GW IN 3/4" CONDUIT.

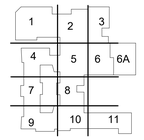



1 PART PLAN - AUDITORIUM THEATER EQUIPMENT LIGHTING ROUGH-INS
1/4" = 1'-0"

0 2' 4' 8'

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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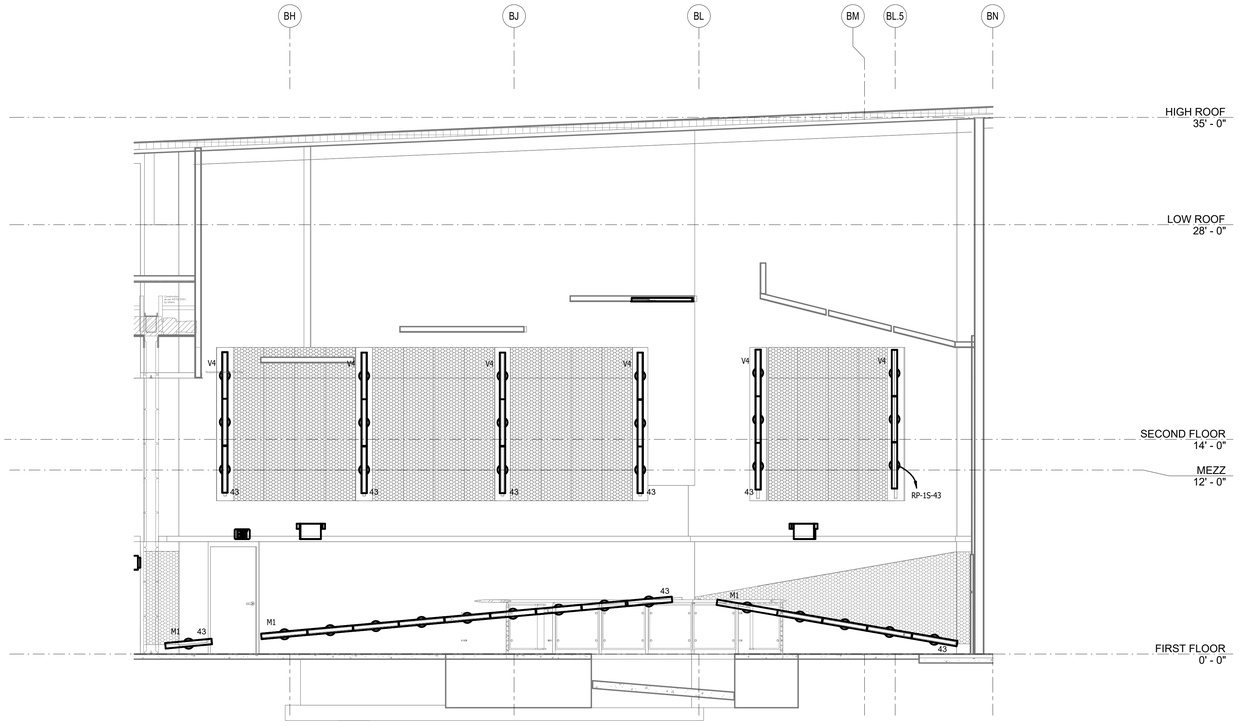
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET NAME

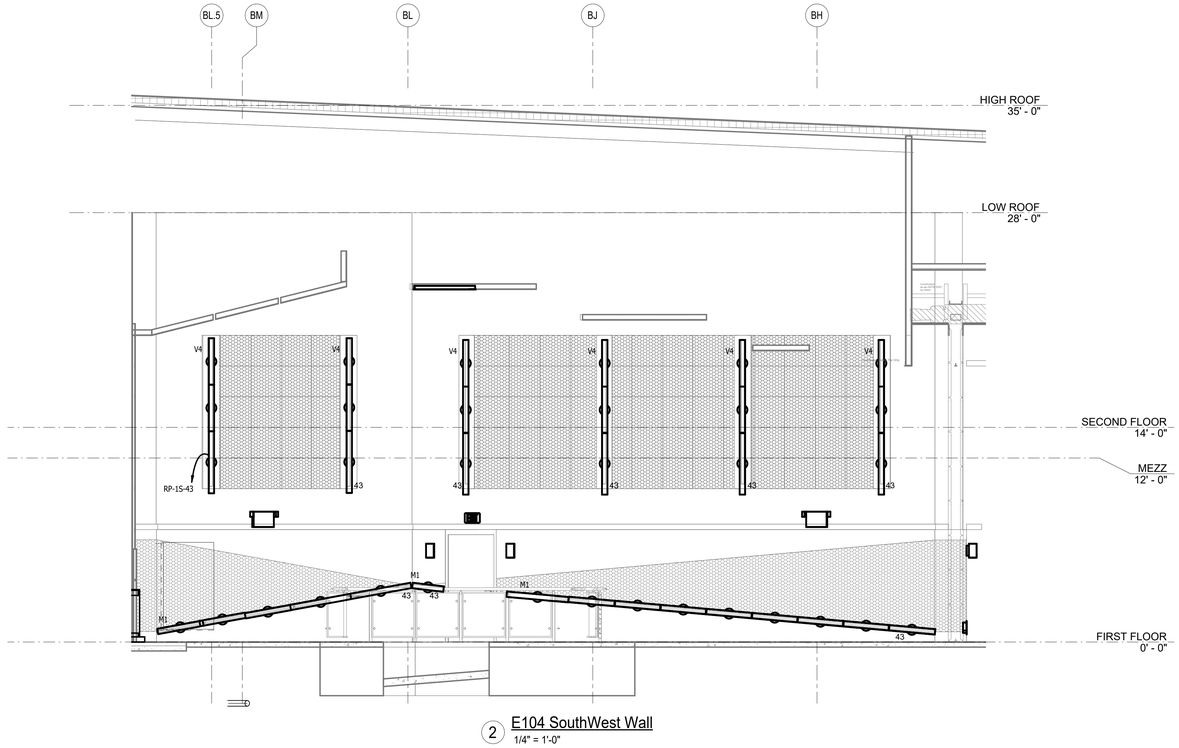
**PART PLAN - AUDITORIUM - THEATER EQUIPMENT LIGHTING ROUGH-INS**

SHEET NO.

**E418**



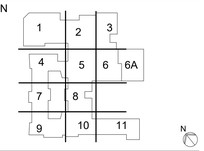

1 E104 NorthEast Wall
1/4" = 1'-0"




2 E104 SouthWest Wall
1/4" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

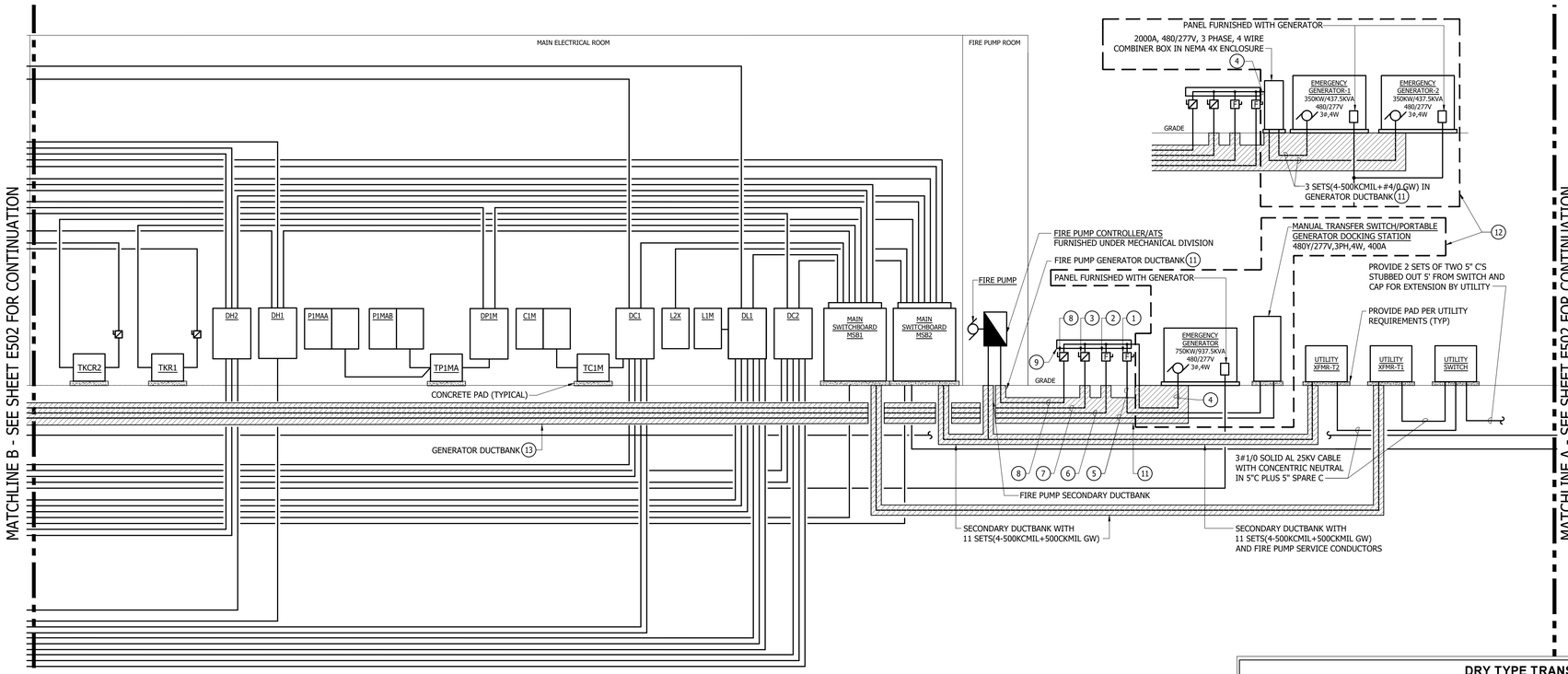
SHEET TITLE

**PART PLAN - AUDITORIUM - THEATER ELEVATIONS**

SHEET NO.

**E419**

0 2' 4' 8'




## GENERAL NOTES:

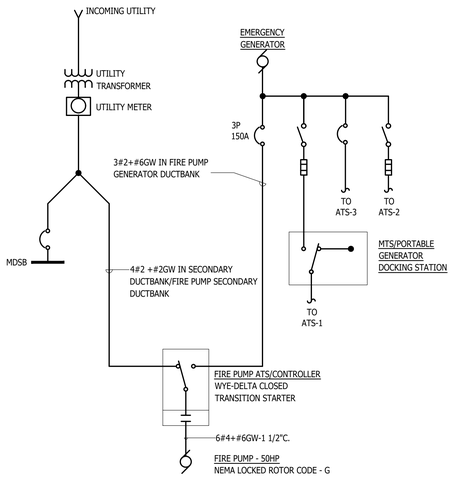
1. REFER TO PANEL SCHEDULES FOR ADDITIONAL INFORMATION.
2. PROVIDE TRANSFORMER PRIMARY DISCONNECTS, WHERE INDICATED, SIZED TO MATCH (OR EXCEED) THE RATING OF THE PRIMARY CB INDICATED ON THE DRY TYPE TRANSFORMER SCHEDULE.
3. CONTRACTOR SHALL REDUCE FEEDER SIZE (IF REQUIRED) WITHIN 5'-0" OF EQUIPMENT TO ACCOMMODATE LUG SIZES.
4. TRANSFORMER PRIMARY ECB'S SHALL BE RATED 42K AIC UON. TRANSFORMER PRIMARY DISCONNECTS SHALL HAVE 42KA WITHSTAND RATING UON.
5. LIFE SAFETY (ANY LOAD SIDE OF ATS-1) FEEDERS ROUTED ABOVE CEILINGS SHALL BE 2-HOUR FIRE RATED.

## DRAWING NOTES:

1. 3P-400A-F/SS (F@400A) IN NEMA 3R ENCLOSURE.
2. 3P-800A-F/SS (F@800A) IN NEMA 3R ENCLOSURE.
3. 3P-600A-ECB IN NEMA 3R ENCLOSURE.
4. 5 SETS (4-500KCMIL+#4/0GW) IN GENERATOR DUCTBANK
5. 4-500KCMIL+#3GW-3"C
6. 3 SETS (4-300KCMIL+#1/0GW-2 1/2"C)
7. 2 SETS (4-350KCMIL+#1GW-3"C)
8. 3P-150A-ECB (42K AIC) IN NEMA 4X ENCLOSURE, LOCKABLE IN THE CLOSED POSITION.
9. WEATHERPROOF WIRETROUGH, SIZE AS REQUIRED. MOUNT WIRETROUGH & DISCONNECTS ON WALL.
10. PROVIDE COPPER WIRING BETWEEN PORTABLE GENERATOR ENCLOSURE AND DISTRIBUTION PANEL PER MANUFACTURERS REQUIREMENTS.
11. RUN GENERATOR BRANCH CIRCUITS AND CONTROL WIRING IN DUCTBANK DIRECTLY FROM BUILDING TO GENERATOR.
12. PROVIDE A SINGLE GENERATOR OR PARALLELED GENERATORS. REFER TO SPECIFICATIONS.

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN




## FIRE PUMP SINGLE LINE DIAGRAM

NOT TO SCALE

**SWITCHBOARD MSB1** — *PROVIDE ENERGY REDUCTION MAINTENANCE SWITCH

| MOUNTING: FLOOR | A.I.C. RATING: 65,000 | LOCATION: MAIN ELECTRIC ROOM |
|---|---|---|
| VOLTAGE: 480/277, 3 PHASE, 4 WIRE | 4000A MAIN BUS | |

DISTRIBUTION SECTION

| FDR NO | SERVES | CIRCUIT BREAKER P | FRAME | TRIP | WIRING SETS | NO | SIZE | GND | C | REMARKS | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MCB1 | PANEL E2DH (VIA ATS-2) | 3 | 800 | 800 | 2 | 4 | 500KCMIL | 1/0 | 3 | DEDICATED ISOLATED SECTION | 541.2 |
| MCB2 | DISTRIBUTION SECTION | 3 | 3000 | 3000*+ | | | BUSSED | | | 100% RATED CB | 2921.4 |
| 1 | PANEL E3DC (VIA ATS3) | 3 | 600 | 600 | 2 | 4 | 350KCMIL | 1 | 3 | | 312.3 |
| 2 | CHILLER-1 | 3 | 1200 | 1200*+ | 3 | 3 | 400KCMIL | 3/0 | 3 | | 725.3 |
| 3 | PANEL DC1 | 3 | 600 | 600 | 2 | 4 | 350KCMIL | 1 | 3 | | 475.3 |
| 4 | PANEL DH1 | 3 | 1200 | 1200*+ | 4 | 4 | 350KCMIL | 3/0 | 3 | | 495.6 |
| 5 | PANEL DL1 | 3 | 400 | 300 | 1 | 4 | 350KCMIL | 4 | 3 | | 147.2 |
| 6 | SPARE | 3 | 800 | 800 | | | | | | | |
| 7 | PANEL DP1E | 3 | 1200 | 1200*+ | 4 | 4 | 350KCMIL | 3/0 | 3 | | 420.9 |
| 8 | PANEL KR1 (VIA XFMR TKR1) | 3 | 400 | 400 | REFER TO XFMR SCHEDULE | | | | | | 283.1 |
| 9 | PANEL DP1M | 3 | 800 | 800 | 2 | 4 | 500KCMIL | 1/0 | 3 | | 61.7 |
| 10 | SPARE | | | | | | | | | | |
| 11 | SPARE | | | | | | | | | | |
| 12 | SPACE | | | | | | | | | | |
| 13 | SPD | | | | | | | | | | |

+PROVIDE GROUND FAULT PROTECTION — TOTAL CONNECTED LOAD 3462.6 KVA

**SWITCHBOARD MSB2** — *PROVIDE ENERGY REDUCTION MAINTENANCE SWITCH

| MOUNTING: FLOOR | A.I.C. RATING: 65,000 | LOCATION: MAIN ELECTRIC ROOM |
|---|---|---|
| VOLTAGE: 480/277, 3 PHASE, 4 WIRE | 4000A MAIN BUS | |

DISTRIBUTION SECTION

| FDR NO | SERVES | CIRCUIT BREAKER P | FRAME | TRIP | WIRING SETS | NO | SIZE | GND | C | REMARKS | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MCB3 | PANEL E1L (VIA ATS1) | 3 | 400 | 400 | 1 | 4 | 500KCMIL | 3 | 3 | DEDICATED ISOLATED SECTION | 189.3 |
| MCB4 | DISTRIBUTION SECTION | 3 | 3000 | 3000*+ | | | BUSSED | | | 100% RATED CB | 2966.0 |
| 1 | ELEVATOR | 3 | 225 | 125 | 1 | 3 | 1/0 | 6 | 1 1/2 | | 43.3 |
| 2 | CHILLER-2 | 3 | 1200 | 1200*+ | 3 | 3 | 400KCMIL | 3/0 | 3 | | 725.3 |
| 3 | SPARE | 3 | 400 | 400 | | | | | | | |
| 4 | PANEL DC2 | 3 | 600 | 600 | 2 | 4 | 350KCMIL | 1 | 3 | | 422.8 |
| 5 | FIELDHOUSE PANEL HF | 3 | 400 | 400 | 2 | 4 | 500KCMIL | 1/0 | 4 | | 54.6 |
| 6 | PANEL L2X | 3 | 60 | 60 | 1 | 4 | 1 | 8 | 1 1/2 | | 16.9 |
| 7 | PANEL L2A | 3 | 400 | 400 | 2 | 4 | 3/0 | 3 | 2 | | 106.7 |
| 8 | PANEL DP2S | 3 | 1200 | 1200*+ | 4 | 4 | 500KCMIL | 3/0 | 3 | | 914.6 |
| 9 | PANEL KCR2 (VIA XFMR TKCR2) | 3 | 400 | 400 | REFER TO XFMR SCHEDULE | | | | | | 202.3 |
| 10 | PANEL DH2 | 3 | 800 | 800 | 3 | 4 | 300KCMIL | 1/0 | 2 1/2 | | 479.5 |
| 11 | SPARE | 3 | 800 | 800 | | | | | | | |
| 12 | SPACE | | | | | | | | | | |
| 13 | SPD | | | | | | | | | | |

+PROVIDE GROUND FAULT PROTECTION — TOTAL CONNECTED LOAD 3155.3 KVA

**TRANSFER SWITCH SCHEDULE**

| NAME | POLES | VOLTAGE | MINIMUM AMPACITY | MINIMUM WITHSTAND | TYPE | SERVES | REMARKS |
|---|---|---|---|---|---|---|---|
| ATS-1 | 4 | 480/277 | 400 | 42KA | AUTOMATIC | LIFE SAFETY LOADS | STEP 1 - TRANSFER WITHIN 10 SECONDS |
| ATS-2 | 4 | 480/277 | 800 | 65KA | AUTOMATIC | LEGALLY REQUIRED STANDBY LOADS | STEP 2 - TRANSFER WITHIN 30 SECONDS |
| ATS-3 | 4 | 480/277 | 600 | 65KA | AUTOMATIC | OPTIONAL STANDBY LOADS | STEP 3 - TRANSFER WITHIN 120 SECONDS |
| FIRE PUMP | 3 | 480 | | | AUTOMATIC | FIRE PUMP | FURNISHED UNDER MECH DIVISION - TRANSFER WITHIN 10 SECONDS |

**FIRE PUMP VOLTAGE DROP CALCULATION**

| | VOLTAGE (V) | CURRENT (A) | LOAD PF | PHASE ANGLE (DEG) | CONDUIT TYPE | CONDUCTOR (AWG) | FEEDER LENGTH (FT) | NUMBER OF SETS | R CORRECTED FOR LENGTH | X CORRECTED FOR LENGTH | % VOLTAGE DROP | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Starting Voltage Drop** | 480 | 363 | 0.4 | 66.422 | PVC | #2 | 115 | 1 | 0.02185 | 0.005175 | 1.764 | SERVICE CONDUCTOR |
| Maximum of 15% per NEC 695.7(A) | 480 | 363 | 0.4 | 66.422 | STEEL | #4 | 25 | 1 | 0.00775 | 0.0015 | 0.585 | CONTROLLER/ATS TO FIRE PUMP |
| 50HP, RLA=363 per NEC Table 430.251(B) | | | | | | | | | | | **2.349** | TOTAL VOLTAGE DROP, LESS THAN 15% |
| **Running Voltage Drop** | 480 | 65 | 0.9 | 25.842 | PVC | #2 | 15 | 1 | 0.02185 | 0.005175 | 0.514 | SERVICE CONDUCTOR |
| Maximum of 5% per NEC 695.7(A) | 480 | 65 | 0.9 | 25.842 | STEEL | #4 | 140 | 1 | 0.00775 | 0.0015 | 0.179 | CONTROLLER/ATS TO FIRE PUMP |
| 50HP, FLA=65 per NEC Table 430.250 | | | | | | | | | | | **0.693** | TOTAL VOLTAGE DROP, LESS THAN 5% |

Calculations are based on the following design criteria:
Fire Pump: 50HP, 480/3/60, NEMA Locked Rotor Code G
Fire Pump Controller: wye-delta closed transition reduced voltage starter, service entrance rated, 65kA withstand rating
Available Fault Current from Utility at Line Side of Fire Pump Controller:

**DRY TYPE TRANSFORMER SCHEDULE**

| XFMR | KVA | PRIMARY ø | PRIMARY VOLTS | WIRING | PRIMARY CB | SECONDARY ø | SECONDARY VOLTS | WIRING | SECONDARY CB | NEUTRAL & CASE GRD | MOUNTING | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TE1CM | 30 | 3 | 480 | 3#4+#10GW-1"C | 60 | 3 | 208/120 | 3#1+#3/0N+#8GW-2"C | 100 | #6 | SUSPENDED | K-FACTOR |
| TGEN | 45 | 3 | 480 | 3#1+#8GW-1 1/4"C | 90 | 3 | 208/120 | 4#1/0+#6GW-2"C | 150 | #6 | SUSPENDED | |
| TE1CA | 30 | 3 | 480 | 3#4+#10GW-1"C | 60 | 3 | 208/120 | 3#1+#3/0N+#8GW-2"C | 60 (E1CA) | #4 | SUSPENDED | K-FACTOR |
| | | | | | | | | 3#1+#3/0N+#8GW-2"C | 40 (ELTS) | | | |
| TE1CG | 15 | 3 | 480 | 3#10+#10GW-3/4"C | 30 | 3 | 208/120 | 3#3+#1/0GW-1 1/4"C | 60 | #8 | SUSPENDED | K-FACTOR |
| TE1C1N | 15 | 3 | 480 | 3#10+#10GW-3/4"C | 30 | 3 | 208/120 | 3#3+#1/0GW-1 1/4"C | 60 | #8 | SUSPENDED | K-FACTOR |
| TE1C1S | 15 | 3 | 480 | 3#10+#10GW-3/4"C | 30 | 3 | 208/120 | 3#3+#1/0GW-1 1/4"C | 60 | #8 | SUSPENDED | K-FACTOR |
| TE1C1E | 30 | 3 | 480 | 3#4+#10GW-1"C | 60 | 3 | 208/120 | 3#1+#3/0N+#8GW-2"C | 100 | #6 | SUSPENDED | K-FACTOR |
| TE1C1W | 15 | 3 | 480 | 3#10+#10GW-3/4"C | 30 | 3 | 208/120 | 3#3+#1/0GW-1 1/4"C | 60 | #8 | SUSPENDED | K-FACTOR |
| TE1C2N | 15 | 3 | 480 | 3#10+#10GW-3/4"C | 30 | 3 | 208/120 | 3#3+#1/0GW-1 1/4"C | 60 | #8 | SUSPENDED | K-FACTOR |
| TE1C2S | 15 | 3 | 480 | 3#10+#10GW-3/4"C | 30 | 3 | 208/120 | 3#3+#1/0GW-1 1/4"C | 60 | #8 | SUSPENDED | K-FACTOR |
| TE1C2E | 15 | 3 | 480 | 3#10+#10GW-3/4"C | 30 | 3 | 208/120 | 3#3+#1/0GW-1 1/4"C | 60 | #8 | SUSPENDED | K-FACTOR |
| TE1C2W | 15 | 3 | 480 | 3#10+#10GW-3/4"C | 30 | 3 | 208/120 | 3#3+#1/0GW-1 1/4"C | 60 | #8 | SUSPENDED | K-FACTOR |
| TE2RM | 45 | 3 | 480 | 3#1+#8GW-1 1/4"C | 90 | 3 | 208/120 | 4#1/0+#6GW-2"C | 150 | #6 | SUSPENDED | |
| TE2R1A | 30 | 3 | 480 | 3#4+#10GW-1"C | 60 | 3 | 208/120 | 4#3+#8GW-1 1/4"C | 100 | #6 | SUSPENDED | |
| TE2R1G | 15 | 3 | 480 | 3#10+#10GW-3/4"C | 30 | 3 | 208/120 | 4#4+#10GW-1 1/4"C | 60 | #8 | SUSPENDED | |
| TE2R1E | 30 | 3 | 480 | 3#4+#10GW-1"C | 60 | 3 | 208/120 | 4#3+#8GW-1 1/4"C | 100 | #6 | SUSPENDED | |
| TE2R2N | 15 | 3 | 480 | 3#10+#10GW-3/4"C | 30 | 3 | 208/120 | 4#4+#10GW-1 1/4"C | 60 | #8 | SUSPENDED | |
| TE2R2S | 45 | 3 | 480 | 3#1+#8GW-1 1/4"C | 90 | 3 | 208/120 | 4#1/0+#6GW-2"C | 150 | #6 | FLOOR | |
| TE2R2E | 15 | 3 | 480 | 3#10+#10GW-3/4"C | 30 | 3 | 208/120 | 4#4+#10GW-1 1/4"C | 60 | #8 | SUSPENDED | |
| TE2R2W | 15 | 3 | 480 | 3#10+#10GW-3/4"C | 30 | 3 | 208/120 | 4#4+#10GW-1 1/4"C | 60 | #8 | SUSPENDED | |
| TE3CM | 30 | 3 | 480 | 3#4+#10GW-1"C | 60 | 3 | 208/120 | 3#1+#3/0N+#8GW-2"C | 100 | #6 | SUSPENDED | K-FACTOR |
| TE3KR | 75 | 3 | 480 | 3#1/0+#6GW- 1 1/2"C | 150 | 3 | 208/120 | 4#4/0+#4GW-2 1/2"C | 225 | #2 | FLOOR | |
| TE3CA | 30 | 3 | 480 | 3#4+#10GW-1"C | 60 | 3 | 208/120 | 3#1+#3/0N+#8GW-2"C | 100 | #6 | FLOOR | K-FACTOR |
| TE3CG | 30 | 3 | 480 | 3#4+#10GW-1"C | 60 | 3 | 208/120 | 3#1+#3/0N+#8GW-2"C | 100 | #6 | SUSPENDED | K-FACTOR |
| TE3C1N | 30 | 3 | 480 | 3#4+#10GW-1"C | 60 | 3 | 208/120 | 3#1+#3/0N+#8GW-2"C | 100 | #6 | FLOOR | K-FACTOR |
| TE3C1S | 75 | 3 | 480 | 3#1/0+#6GW- 1 1/2"C | 150 | 3 | 208/120 | 5-300KCMIL+#4GW-3"C | 225 | #2 | FLOOR | K-FACTOR |
| TE3C1E | 45 | 3 | 480 | 3#1+#8GW-1 1/4"C | 90 | 3 | 208/120 | 5#3/0+#6GW-2 1/2"C | 150 | #4 | FLOOR | K-FACTOR |
| TE3C1W | 30 | 3 | 480 | 3#4+#10GW-1"C | 60 | 3 | 208/120 | 3#1+#3/0N+#8GW-2"C | 100 | #6 | FLOOR | K-FACTOR |
| TE3C2N | 30 | 3 | 480 | 3#4+#10GW-1"C | 60 | 3 | 208/120 | 3#1+#3/0N+#8GW-2"C | 100 | #6 | FLOOR | K-FACTOR |
| TE3C2E | 30 | 3 | 480 | 3#4+#10GW-1"C | 60 | 3 | 208/120 | 3#1+#3/0N+#8GW-2"C | 100 | #6 | SUSPENDED | K-FACTOR |
| TE3C2W | 30 | 3 | 480 | 3#4+#10GW-1"C | 60 | 3 | 208/120 | 3#1+#3/0N+#8GW-2"C | 100 | #6 | FLOOR | K-FACTOR |
| TKR1 | 225 | 3 | 480 | 2 SETS(3#3/0+#3GW-2"C) | 400 | 3 | 208/120 | 3 SETS(4-300KCMIL+#1/0GW-2 1/2"C) | 800 | #2/0 | FLOOR | |
| TKCR2 | 225 | 3 | 480 | 2 SETS(3#3/0+#3GW-2"C) | 400 | 3 | 208/120 | 3 SETS(4-300KCMIL+#1/0GW-2 1/2"C) | 800 | #2/0 | FLOOR | |
| TAUD | 75 | 3 | 480 | 3#1/0+#6GW- 1 1/2"C | 125 | 3 | 208/120 | 5-300KCMIL+#4GW-3"C | 200 | #2 | FLOOR | K-FACTOR |
| TC1M | 75 | 3 | 480 | 3#1/0+#6GW- 1 1/2"C | 150 | 3 | 208/120 | 5-300KCMIL+#4GW-3"C | 225 | #2 | FLOOR | K-FACTOR |
| TC11N | 112.5 | 3 | 480 | 3#4/0+#4GW-2"C | 225 | 3 | 208/120 | 5#3/0+#6GW-2 1/2"C | 200 (A) | #2/0 | FLOOR | K-FACTOR |
| | | | | | | | | 5#3/0+#6GW-2 1/2"C | 200 (B) | | | |
| TC11E | 150 | 3 | 480 | 3-350KCMIL+#4GW-2 1/2"C | 300 | 3 | 208/120 | 5-300KCMIL+#4GW-3"C | 225 (A) | #2/0 | FLOOR | K-FACTOR |
| | | | | | | | | 5-300KCMIL+#4GW-3"C | 225 (B) | | | |
| TC12N | 75 | 3 | 480 | 3#1/0+#6GW- 1 1/2"C | 150 | 3 | 208/120 | 3#1+#250KCMIL N+#4GW-2"C | 125 (A) | #2 | FLOOR | K-FACTOR |
| | | | | | | | | 3#1+#250KCMIL N+#4GW-2"C | 125 (B) | | | |
| TC12E | 112.5 | 3 | 480 | 3#4/0+#4GW-2"C | 225 | 3 | 208/120 | 2 SETS(5-250KCMIL+#3GW-2 1/2"C) | 400 | #2/0 | FLOOR | K-FACTOR |
| TC1AV | 30 | 3 | 480 | 3#4+#10GW-1"C | 60 | 3 | 208/120 | 3#3+#3/0N+#8GW\+#1 IG-2"C | 100 | #6 | SUSPENDED | K-FACTOR |
| TC2G | 75 | 3 | 480 | 3#1/0+#6GW- 1 1/2"C | 150 | 3 | 208/120 | 5-300KCMIL+#4GW-3"C | 225 | #2 | FLOOR | K-FACTOR |
| TC2A | 45 | 3 | 480 | 3#1+#8GW-1 1/4"C | 90 | 3 | 208/120 | 5#3/0+#6GW-2 1/2"C | 150 | #4 | FLOOR | K-FACTOR |
| TC21S | 45 | 3 | 480 | 3#1+#8GW-1 1/4"C | 90 | 3 | 208/120 | 5#3/0+#6GW-2 1/2"C | 150 | #4 | SUSPENDED | K-FACTOR |
| TC21W | 112.5 | 3 | 480 | 3#4/0+#4GW-2"C | 225 | 3 | 208/120 | 5-300KCMIL+#4GW-3"C | 175 (A) | #2/0 | FLOOR | K-FACTOR |
| | | | | | | | | 5-300KCMIL+#4GW-3"C | 225 (B) | | | |
| TC22S | 112.5 | 3 | 480 | 3#4/0+#4GW-2"C | 225 | 3 | 208/120 | 2 SETS(5-250KCMIL+#3GW-2 1/2"C) | 400 | #2/0 | FLOOR | K-FACTOR |
| TC22W | 75 | 3 | 480 | 3#1/0+#6GW- 1 1/2"C | 150 | 3 | 208/120 | 3#1+#250KCMIL N+#4GW-2"C | 125 (A) | #2 | FLOOR | K-FACTOR |
| | | | | | | | | 3#1+#250KCMIL N+#4GW-2"C | 125 (B) | | | |
| TR11M | 30 | 3 | 480 | 3#4+#10GW-1"C | 60 | 3 | 208/120 | 4#3+#8GW-1 1/4"C | 100 | #6 | SUSPENDED | |
| TR11N | 15 | 3 | 480 | 3#10+#10GW-3/4"C | 30 | 3 | 208/120 | 4#4+#10GW-1 1/4"C | 60 | #8 | SUSPENDED | |
| TR11E | 30 | 3 | 480 | 3#4+#10GW-1"C | 60 | 3 | 208/120 | 4#3+#8GW-1 1/4"C | 100 | #6 | SUSPENDED | |
| TR21S | 75 | 3 | 480 | 3#1/0+#6GW- 1 1/2"C | 125 | 3 | 208/120 | 4#4/0+#4GW-2 1/2"C | 225 | #2 | FLOOR | |
| TR21W | 15 | 3 | 480 | 3#10+#10GW-3/4"C | 30 | 3 | 208/120 | 4#4+#10GW-1 1/4"C | 60 | #8 | SUSPENDED | |
| TP1MA | 150 | 3 | 480 | 3-350KCMIL+#4GW-2 1/2"C | 300 | 3 | 208/120 | 5-300KCMIL+#4GW-3"C | 225 (A) | #2/0 | FLOOR | K-FACTOR |
| | | | | | | | | 5-300KCMIL+#4GW-3"C | 225 (B) | | | |
| TP1MB | 45 | 3 | 480 | 3#1+#8GW-1 1/4"C | 90 | 3 | 208/120 | 4#1/0+#6GW-2"C | 150 | #6 | SUSPENDED | |
| TP1EA | 225 | 3 | 480 | 2 SETS(3#3/0+#3GW-2"C) | 400 | 3 | 208/120 | 2 SETS(4#3/0+#3GW-2"C) | 400 (A) | #2/0 | FLOOR | |
| | | | | | | | | 2 SETS(4#3/0+#3GW-2"C) | 400 (A) | | | |
| TP1EB | 112.5 | 3 | 480 | 3#4/0+#4GW-2"C | 225 | 3 | 208/120 | 5#3/0+#6GW-2 1/2"C | 200 (A) | #2/0 | FLOOR | |
| | | | | | | | | 5#3/0+#6GW-2 1/2"C | 200 (B) | | | |
| TP1EC | 30 | 3 | 480 | 3#4+#10GW-1"C | 60 | 3 | 208/120 | 4#3+#8GW-1 1/4"C | 100 | #6 | FLOOR | |
| TP1ED | 150 | 3 | 480 | 3-350KCMIL+#4GW-2 1/2"C | 300 | 3 | 208/120 | 5-300KCMIL+#4GW-3"C | 225 (A) | #2/0 | FLOOR | |
| | | | | | | | | 5-300KCMIL+#4GW-3"C | 225 (B) | | | |
| TP2SA | 225 | 3 | 480 | 2 SETS(3#3/0+#3GW-2"C) | 400 | 3 | 208/120 | 2 SETS(4#3/0+#3GW-2"C) | 400 (A) | #2/0 | FLOOR | |
| | | | | | | | | 2 SETS(4#3/0+#3GW-2"C) | 400 (A) | | | |
| TP2SB | 225 | 3 | 480 | 2 SETS(3#3/0+#3GW-2"C) | 400 | 3 | 208/120 | 2 SETS(4#3/0+#3GW-2"C) | 400 (A) | #2/0 | FLOOR | |
| | | | | | | | | 2 SETS(4#3/0+#3GW-2"C) | 400 (A) | | | |
| TP2SC | 225 | 3 | 480 | 2 SETS(3#3/0+#3GW-2"C) | 400 | 3 | 208/120 | 2 SETS(4#3/0+#3GW-2"C) | 400 (A) | #2/0 | FLOOR | |
| | | | | | | | | 2 SETS(4#3/0+#3GW-2"C) | 400 (A) | | | |
| TP2SD | 150 | 3 | 480 | 3-350KCMIL+#4GW-2 1/2"C | 300 | 3 | 208/120 | 5-300KCMIL+#4GW-3"C | 225 (A) | #2/0 | FLOOR | |
| | | | | | | | | 5-300KCMIL+#4GW-3"C | 225 (B) | | | |
| TP2SE | 150 | 3 | 480 | 3-350KCMIL+#4GW-2 1/2"C | 300 | 3 | 208/120 | 5-300KCMIL+#4GW-3"C | 225 (A) | #2/0 | FLOOR | |
| | | | | | | | | 5-300KCMIL+#4GW-3"C | 225 (B) | | | |
| TRF | 75 | 3 | 480 | 3#1/0+#6GW- 1 1/2"C | 150 | 3 | 208/120 | 4#4/0+#4GW-2 1/2"C | 225 | #2 | SUSPENDED | |
| TE1CF | 15 | 3 | 480 | 3#10+#10GW-3/4"C | 30 | 3 | 208/120 | 3#3+#1/0GW-1 1/4"C | 60 | #8 | SUSPENDED | K-FACTOR |
| TAUD2 | 30 | 3 | 480 | 3#4+#10GW-1"C | 60 | 3 | 208/120 | 3#1+#3/0N+#8GW-2"C | 100 | #6 | SUSPENDED | K-FACTOR |

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

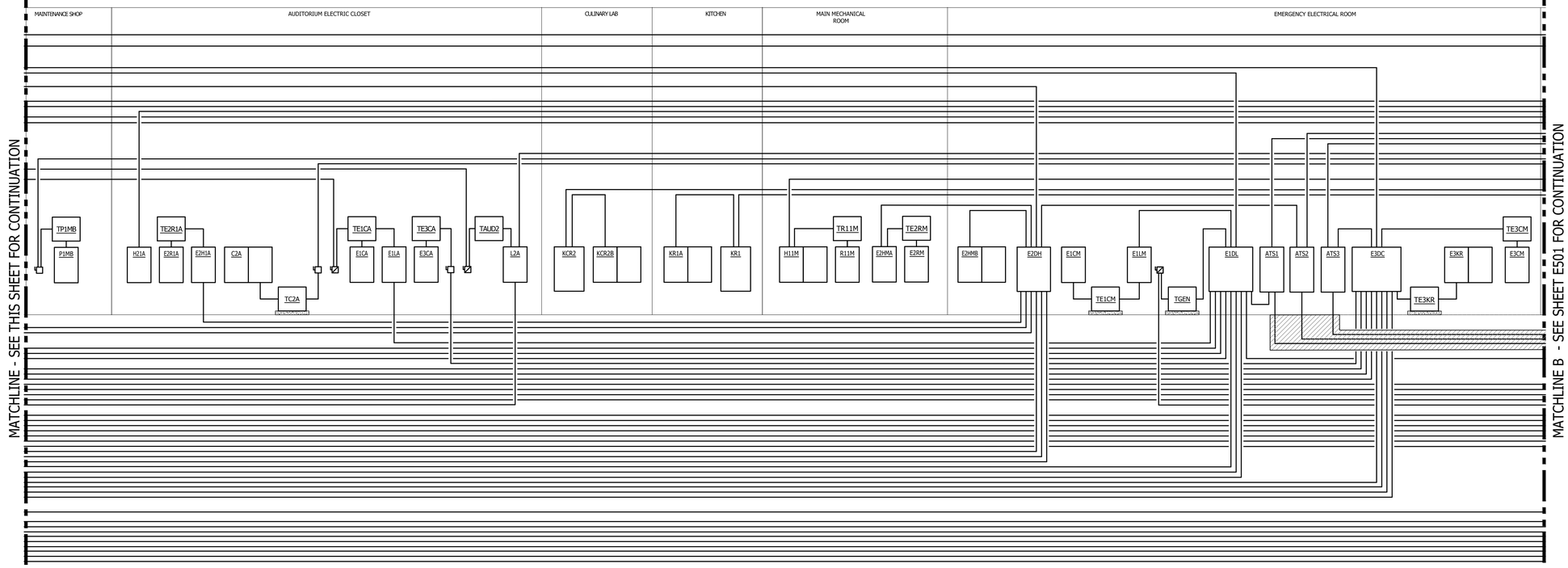
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

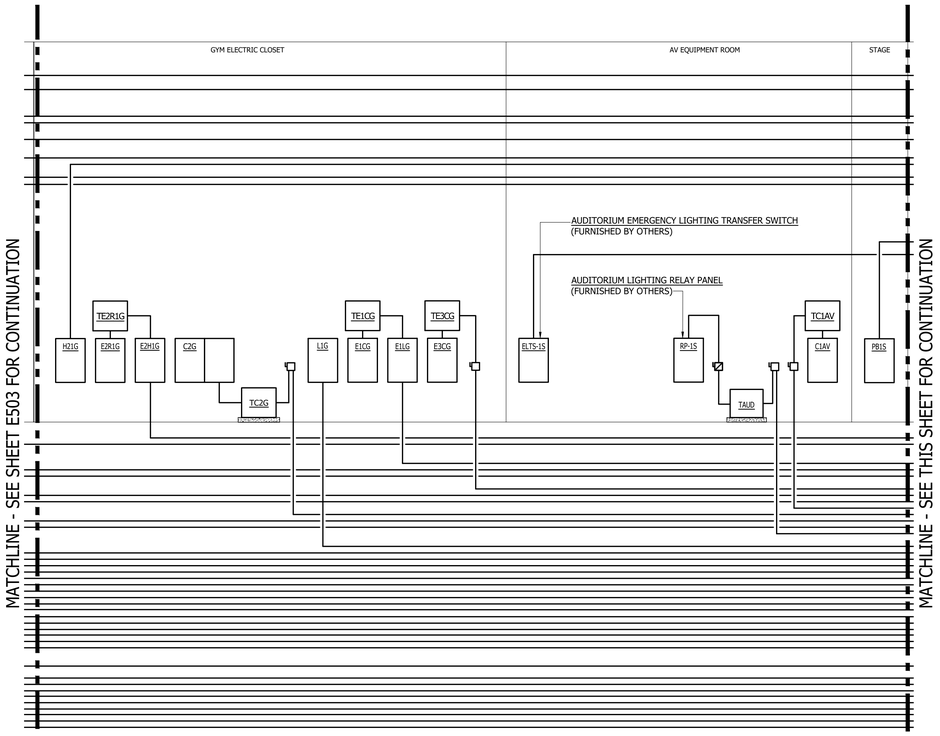
**SCHEMATIC POWER RISER DIAGRAM**

SHEET NO.

**E501**



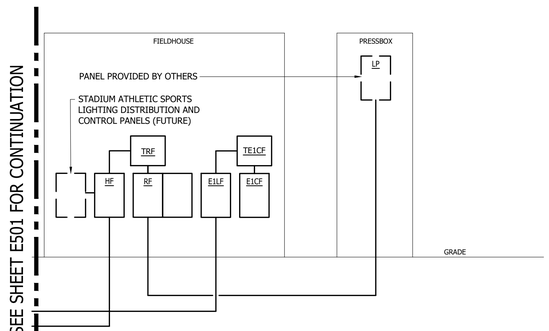

SCHEMATIC POWER RISER DIAGRAM
NOT TO SCALE




SCHEMATIC POWER RISER DIAGRAM
NOT TO SCALE

## GENERAL NOTES:

1. REFER TO PANEL SCHEDULES FOR ADDITIONAL INFORMATION.
2. PROVIDE TRANSFORMER PRIMARY DISCONNECTS, WHERE INDICATED, SIZED TO MATCH (OR EXCEED) THE RATING OF THE PRIMARY CB INDICATED ON THE DRY TYPE TRANSFORMER SCHEDULE.
3. CONTRACTOR SHALL REDUCE FEEDER SIZE (IF REQUIRED) WITHIN 5'-0" OF EQUIPMENT TO ACCOMMODATE LUG SIZES.
4. TRANSFORMER PRIMARY ECB'S SHALL BE RATED 42K AIC UON. TRANSFORMER PRIMARY DISCONNECTS SHALL HAVE 42KA WITHSTAND RATING UON.
5. LIFE SAFETY (ANY LOAD SIDE OF ATS-1) FEEDERS ROUTED ABOVE CEILINGS SHALL BE 2-HOUR FIRE RATED.




SCHEMATIC POWER RISER DIAGRAM
NOT TO SCALE

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**SCHEMATIC POWER RISER DIAGRAM**

SHEET NO.

**E502**

## GENERAL NOTES:

1. REFER TO PANEL SCHEDULES FOR ADDITIONAL INFORMATION.
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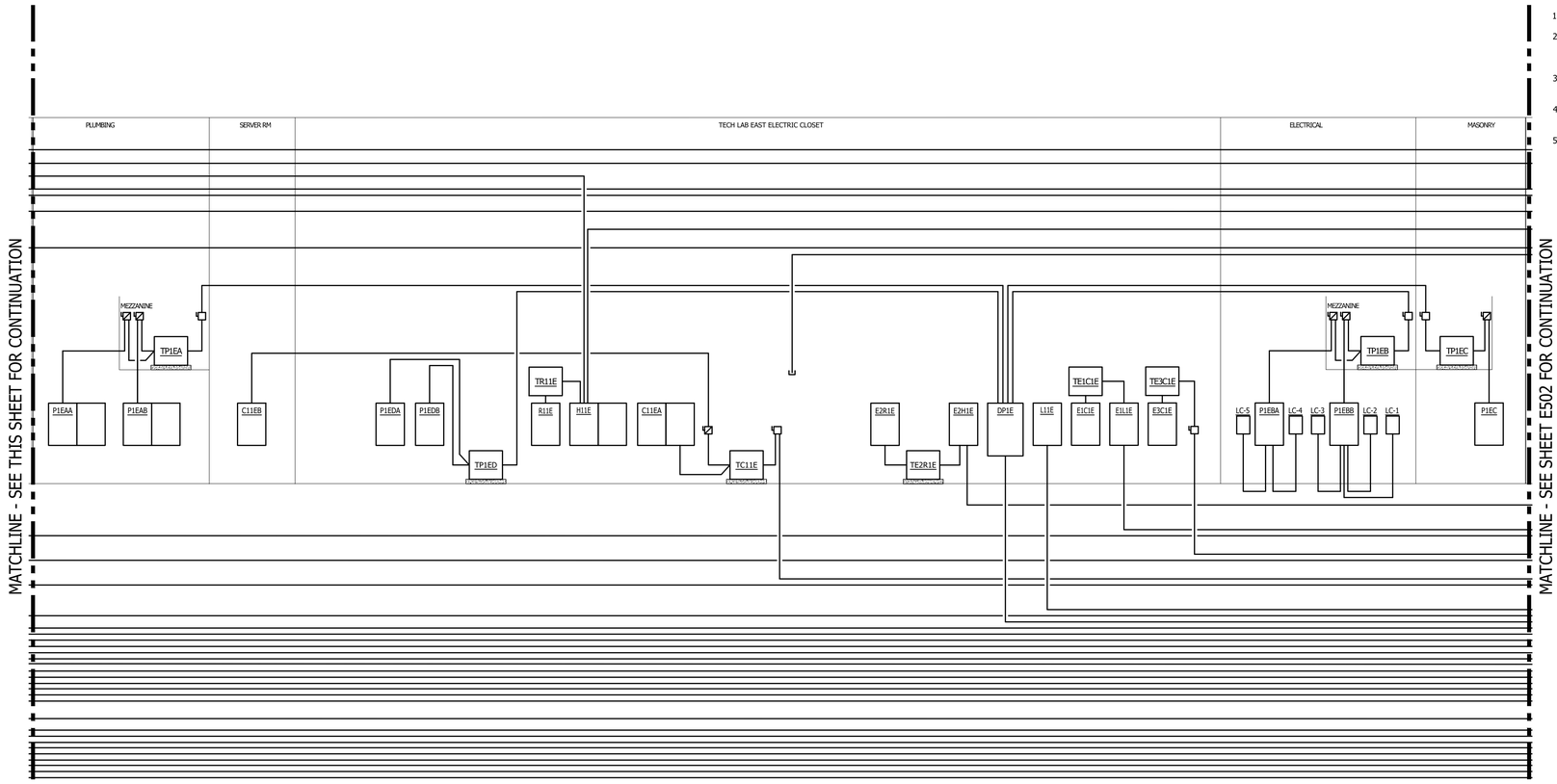
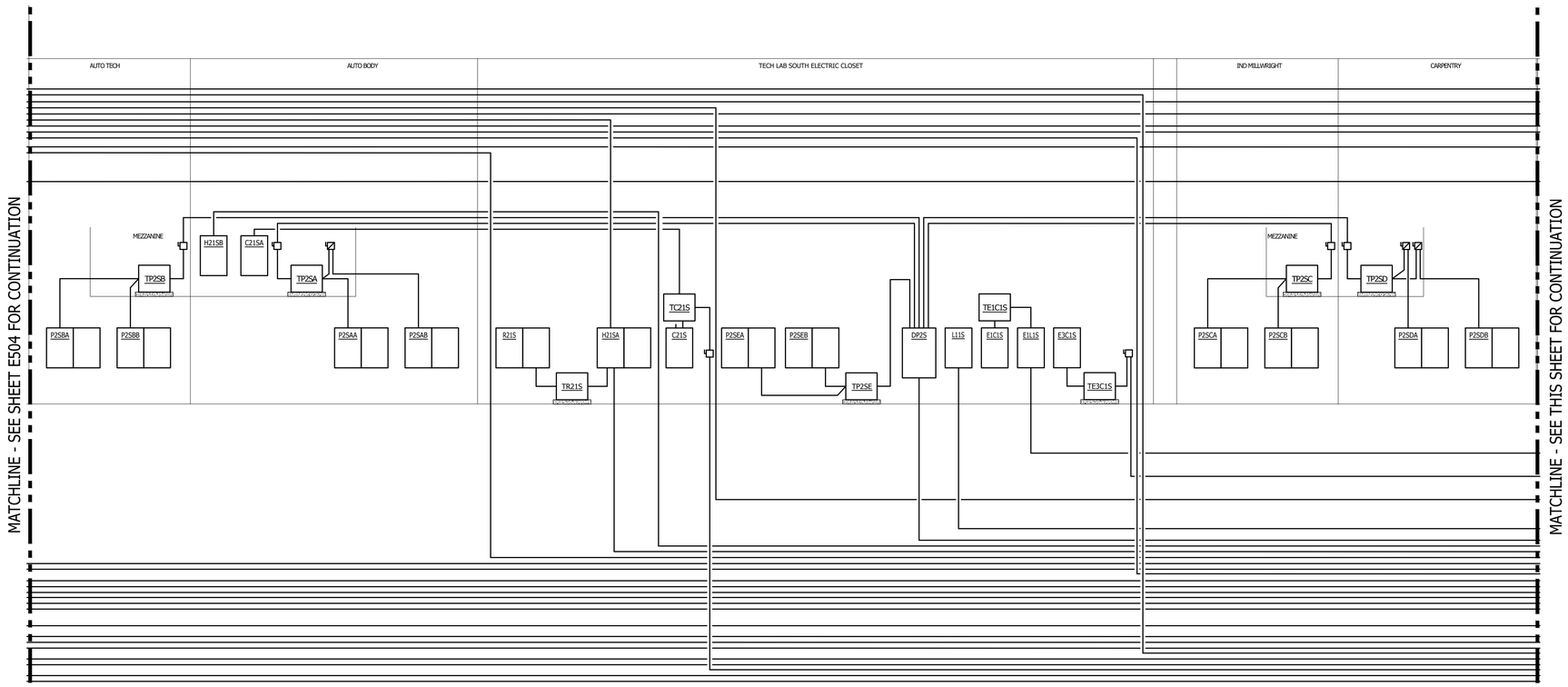



SCHEMATIC POWER RISER DIAGRAM
NOT TO SCALE




SCHEMATIC POWER RISER DIAGRAM
NOT TO SCALE

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**SCHEMATIC POWER RISER DIAGRAM**

SHEET NO.

**E503**

## GENERAL NOTES:

1. REFER TO PANEL SCHEDULES FOR ADDITIONAL INFORMATION.
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| No. | Description | Date |
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| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN

SCHEMATIC POWER RISER DIAGRAM
NOT TO SCALE

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Landmark Science & Engineering

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Phone (302) 323-9377
Fax (302) 323-9461

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Farmingdale, NY 11735
Phone (610) 888-1955

THEATER PLANNING

STAGES CONSULTANTS, LLC

300 Raritan Ave, 2nd Flr
Highland Park, NJ 08904
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Wilmington, Delaware 19806
Phone (302) 658-6426
Fax (302) 658-8431

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

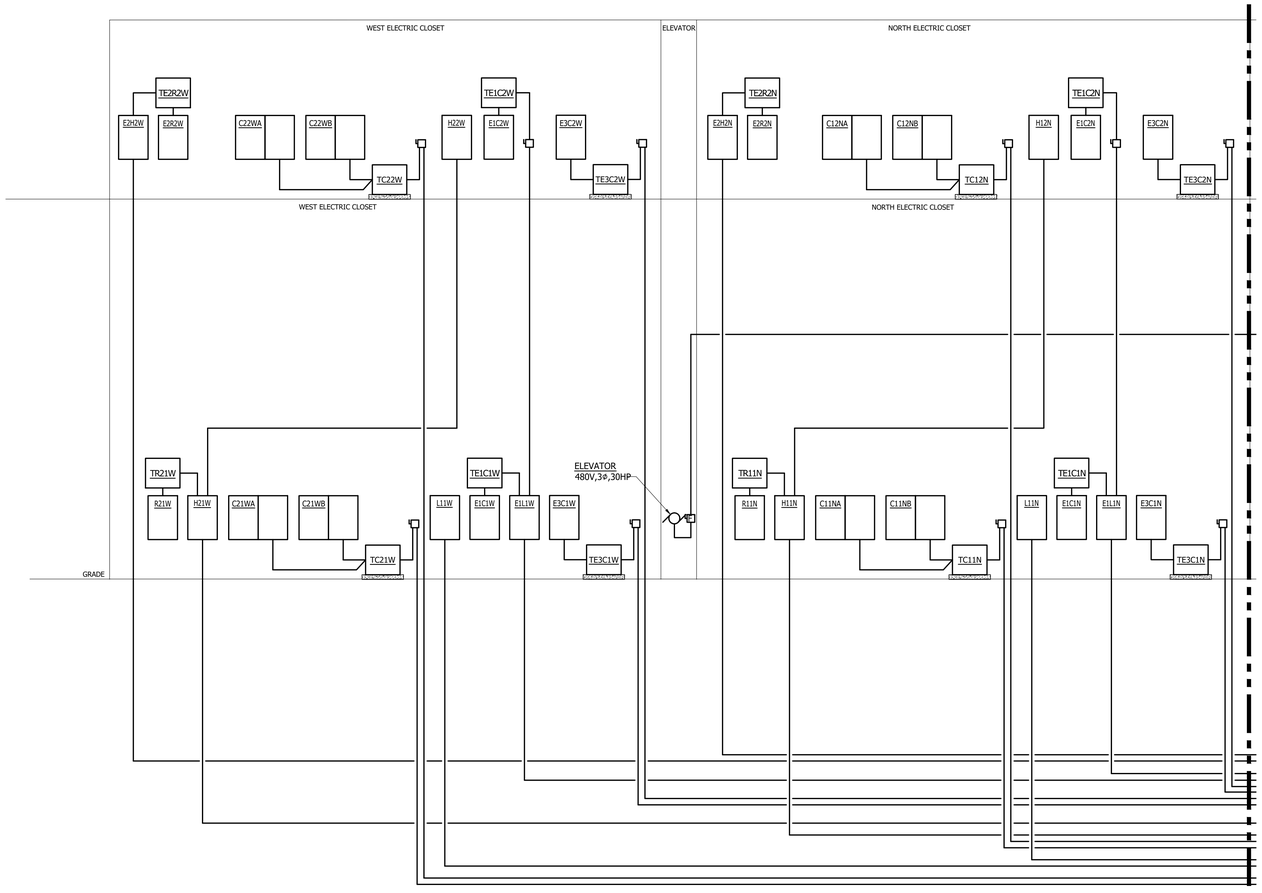
**SCHEMATIC POWER RISER DIAGRAM**

SHEET NO.

**E504**

## GENERAL NOTES:

1. REFER TO PANEL SCHEDULES FOR ADDITIONAL INFORMATION.
2. PROVIDE TRANSFORMER PRIMARY DISCONNECTS, WHERE INDICATED, SIZED TO MATCH (OR EXCEED) THE RATING OF THE PRIMARY CB INDICATED ON THE DRY TYPE TRANSFORMER SCHEDULE.
3. CONTRACTOR SHALL REDUCE FEEDER SIZE (IF REQUIRED) WITHIN 5'-0" OF EQUIPMENT TO ACCOMMODATE LUG SIZES.
4. TRANSFORMER PRIMARY ECB'S SHALL BE RATED 42K AIC UON. TRANSFORMER PRIMARY DISCONNECTS SHALL HAVE 42KA WITHSTAND RATING UON.
5. LIFE SAFETY (ANY LOAD SIDE OF ATS-1) FEEDERS ROUTED ABOVE CEILINGS SHALL BE 2-HOUR FIRE RATED.




SCHEMATIC POWER RISER DIAGRAM
NOT TO SCALE

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN


OWNER

New Castle County Vo-Tech School District

1417 Newport Pike
Wilmington, DE 19804

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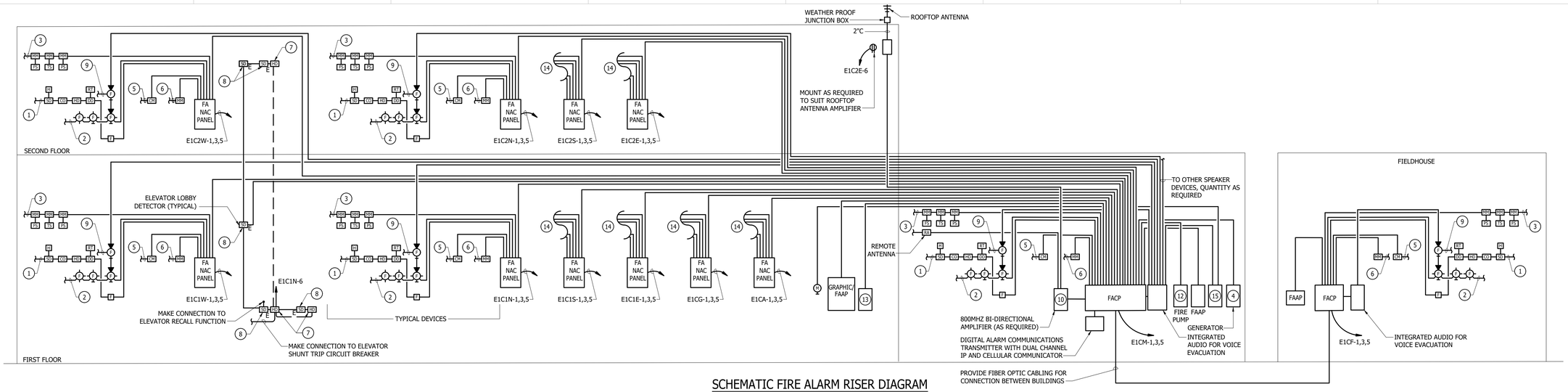
SHEET TITLE

**SCHEMATIC POWER RISER DIAGRAM**

SHEET NO.

**E505**




## SCHEMATIC FIRE ALARM RISER DIAGRAM

NOT TO SCALE

**FIRE ALARM SYSTEM NFPA OPERATIONS MATRIX**

**SYSTEM OUTPUTS**

| SYSTEM INPUTS | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Control Unit Annunciation: AT BUILDING — ACTUATE COMMON VISUAL ALARM SIGNAL | ACTUATE AUDIBLE ALARM SIGNAL | ACTUATE CARBON MONOXIDE ALARM SIGNAL | ACTUATE AUDIBLE CARBON MONOXIDE ALARM SIGNAL | ACTUATE COMMON SUPERVISORY SIGNAL INDICATOR | ACTUATE AUDIBLE SUPERVISORY SIGNAL | ACTUATE COMMON TROUBLE SIGNAL INDICATOR | ACTUATE AUDIBLE COMMON TROUBLE SIGNAL | ACTUATE OVERRIDE FOR MASS NOTIFICATION SYSTEM | Notification: AT BUILDING — ACTIVATE VISUAL SIGNALS AND INTERRUPT PA SYSTEMS | ACTIVATE AUDIBLE SIGNALS AND INTERRUPT PA SYSTEMS | ACTIVATE CARBON MONOXIDE AUDIBLE SIGNALS AND INTERRUPT PA SYSTEMS | ACTIVATE MASS NOTIFICATION VISUAL AND AUDIBLE SIGNALS AND INTERRUPT PA SYSTEMS | DISPLAY CHANGE OF STATUS | DISPLAY VISUAL WARNING ELEVATOR INITIATING DEVICE ACTIVATION | Notification: REMOTE MONITORING — TRANSMIT ALARM SIGNAL TO UL LISTED SUPERVISING CENTRAL STATION VIA AUTO DIALER | TRANSMIT SUPERVISORY SIGNAL TO UL LISTED SUPERVISING CENTRAL STATION VIA AUTO DIALER | TRANSMIT TROUBLE SIGNAL TO UL LISTED SUPERVISING CENTRAL STATION VIA AUTO DIALER | Life Safety Control: AT BUILDING — RECALL ELEVATOR TO DESIGNATED LEVEL | ACTIVATE ELEVATOR SHUNT TRIP | ACTIVATE ELEVATOR MANUAL CONTROLS | RELEASE SECURITY/ACCESS CONTROL DOORS | RELEASE HOLD OPEN DOORS | MUTE PA SYSTEMS | SHUTOFF FUEL SUPPLIES | SHUT DOWN RESPECTIVE HVAC | TURN ON OCCUPANCY SENSOR CONTROLED EGRESS LIGHTING | TURN OFF CEILING PADDLE FANS | RELEASE SMOKE DAMPERS | |
| MANUAL FUNCTION | Manual Pull Stations | A | Alarm Signal | Alarm Signal | | | | | | | | Alarm Signal | Alarm Signal | | | Alarm Signal | | Alarm Signal | | | | | | Activate | | | | | | Activate | Activate | | A |
| SMOKE AUTOMATIC FUNCTION | Smoke Detectors | B | Alarm Signal | Alarm Signal | | | | | | | | Alarm Signal | Alarm Signal | | | Alarm Signal | | Alarm Signal | | | | | | Activate | | | | | | Activate | Activate | | B |
| | Smoke Detectors Elevator Lobby/Machine Room/Shaft | C | Alarm Signal | Alarm Signal | | | | | | | | Alarm Signal | Alarm Signal | | | Alarm Signal | | Alarm Signal | | | Activate | | | | | | | | | Activate | Activate | | C |
| | Smoke Detectors at Partition/Hold Open Doors | D | Alarm Signal | Alarm Signal | | | | | | | | Alarm Signal | Alarm Signal | | | Alarm Signal | | Alarm Signal | | | | | | Activate | | | | | | Activate | Activate | | D |
| | Duct Smoke Detectors Air Handling Units | E | | | | | Superv Signal | Superv Signal | | | | | | | | Superv Signal | | | Superv Signal | | | | | | | | Activate | | | | | E |
| | Duct Smoke Detectors Smoke Dampers | F | | | | | Superv Signal | Superv Signal | | | | | | | | Superv Signal | | | Superv Signal | | | | | | | | | | | | Activate | F |
| HEAT AUTOMATIC FUNCTION | Heat Detectors | G | Alarm Signal | Alarm Signal | | | | | | | | Alarm Signal | Alarm Signal | | | Alarm Signal | | Alarm Signal | | | | | | | | | | | Activate | Activate | | G |
| | Heat Detectors Elevator Machine Room/Shaft | H | Alarm Signal | Alarm Signal | | | | | | | | Alarm Signal | Alarm Signal | | | Alarm Signal | | Alarm Signal | | | Activate | Activate | | | | | | | Activate | Activate | | H |
| SPRINKLER OR HOOD AUTOMATIC FUNCTION | Water Flow | I | Alarm Signal | Alarm Signal | | | | | | | | Alarm Signal | Alarm Signal | | | Alarm Signal | | Alarm Signal | | | | | | Activate | | | Activate | | Activate | Activate | | I |
| | Pressure Switch | J | | | | | Superv Signal | Superv Signal | | | | | | | | Superv Signal | Superv Signal | | Superv Signal | | | | | | | | | | | | J |
| | Elevator Machine Room, Hoistway or Pit Tamper Switch | K | | | | | Superv Signal | Superv Signal | | | | | | | | Superv Signal | Superv Signal | | Superv Signal | | | Activate | | | | | | | | | K |
| | Sprinkler Control Valve | L | | | | | Superv Signal | Superv Signal | | | | | | | | Superv Signal | | | Superv Signal | | | | | | | | | | | | L |
| DRY PIPE SPRINKLER SYSTEM | Pressure Switch | M | | | | | Superv Signal | Superv Signal | | | | | | | | Superv Signal | | | Superv Signal | | | | | | | | | | | | M |
| | Pre-Alarm | N | | | | | Superv Signal | Superv Signal | | | | | | | | Superv Signal | | | Superv Signal | | | | | | | | | | | | N |
| | System Control Panel Trouble Signal | O | | | | | | | Trouble Signal | Trouble Signal | | | | | | Trouble Signal | | | | Trouble Signal | | | | | | | | | | | O |
| | System Activation | P | Alarm Signal | Alarm Signal | | | | | | | | Alarm Signal | Alarm Signal | | | Alarm Signal | | Alarm Signal | | | | | | Activate | | | | | Activate | | | P |
| GENERATOR FUNCTION | Generator Running | Q | | | | | Superv Signal | Superv Signal | | | | Alarm Signal | Alarm Signal | | | Alarm Signal | | | Superv Signal | | | | Activate | | | Activate | | | | | Q |
| | Generator in Non-Auto | R | | | | | Superv Signal | Superv Signal | | | | | | | | Superv Signal | | | Superv Signal | | | | | | | | | | | | R |
| | Generator Fault | S | | | | | Superv Signal | Superv Signal | | | | | | | | Superv Signal | | | Superv Signal | | | | | | | | | | | | S |
| FIRE PUMP FUNCTION | Fire Pump Running | T | | | | | Alarm Signal | Alarm Signal | | | | | | | | | | | Superv Signal | | | | | | | | | | | | T |
| | Fire Pump Phase Reversal | U | | | | | Superv Signal | Superv Signal | | | | | | | | | | | Superv Signal | | | | | | | | | | | | U |
| | Fire Pump Power Failure | V | | | | | Superv Signal | Superv Signal | | | | | | | | | | | Superv Signal | | | | | | | | | | | | V |
| DAS SYSTEM FUNCTION | Amplifier Failure | W | | | | | Superv Signal | Superv Signal | | | | | | | | Superv Signal | | | Superv Signal | | | | | | | | | | | | W |
| | Active RF-Emitting Device Failure | X | | | | | Superv Signal | Superv Signal | | | | | | | | Superv Signal | | | | | | | | | | | | | | | X |
| | Loss of Normal AC Power | Y | | | | | Superv Signal | Superv Signal | | | | | | | | Superv Signal | | | Superv Signal | | | | | | | | | | | | Y |
| | Battery Charger Failure | Z | | | | | Superv Signal | Superv Signal | | | | | | | | Superv Signal | | | Superv Signal | | | | | | | | | | | | Z |
| | Low Battery | AA | | | | | Superv Signal | Superv Signal | | | | | | | | Superv Signal | | | | Trouble Signal | | | | | | | | | | | | AA |
| CARBON MONOXIDE FUNCTION | Carbon Monoxide Detectors | AB | | | Alarm Signal | Alarm Signal | | | | | | Alarm Signal | | Alarm Signal | | Alarm Signal | | | | | | | | | | | | Activate | Activate | | | AB |
| SECURITY SYSTEM* | Panic Alarm | AC | | | | | | | | | Alarm Signal | | | | Alarm Signal | Alarm Signal | | Alarm Signal | | | | | | | Activate | | | | | | | AC |
| FIELDHOUSE | Alarm Signal | AD | | | | | Superv Signal | Superv Signal | | | | | | | | | | Alarm Signal | | | | | | | | | | | | | | AD |
| | Supervisory Signal | AE | | | | | Superv Signal | Superv Signal | | | | | | | | | | | Superv Signal | | | | | | | | | | | | | AE |
| | Trouble Signal | AF | | | | | | | Trouble Signal | Trouble Signal | | | | | | | | | | Trouble Signal | | | | | | | | | | | | AF |
| SYSTEM AUTOMATIC FUNCTION | AC Power Failure | AG | | | | | | | Trouble Signal | Trouble Signal | | | | | | Trouble Signal | | | | Trouble Signal | | | | | | | | | | | | AG |
| | Low Battery | AH | | | | | | | Trouble Signal | Trouble Signal | | | | | | Trouble Signal | | | | Trouble Signal | | | | | | | | | | | | AH |
| | Open Circuit | AI | | | | | | | Trouble Signal | Trouble Signal | | | | | | Trouble Signal | | | | Trouble Signal | | | | | | | | | | | | AI |
| | Ground Fault | AJ | | | | | | | Trouble Signal | Trouble Signal | | | | | | Trouble Signal | | | | Trouble Signal | | | | | | | | | | | | AJ |
| | Notification Appliance Circuit Short | AK | | | | | | | Trouble Signal | Trouble Signal | | | | | | Trouble Signal | | | | Trouble Signal | | | | | | | | | | | | AK |
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | |

Control Unit Annunciation | Notification | Life Safety Control

## GENERAL NOTES:

(APPLY TO THIS DRAWING ONLY)

1. PROVIDE WIRING PER MANUFACTURER'S RECOMMENDATIONS IN CONDUIT.
2. REFER TO FLOOR PLANS FOR EXACT QUANTITY AND LOCATION OF DEVICES.
3. COORDINATE WITH OWNER'S EMERGENCY RESPONSE PLAN FOR INTEGRATION OF MASS NOTIFICATION OVERRIDE OF FIRE ALARM SYSTEM.
4. FIELDHOUSE AND MAIN BUILDING FIRE ALARM SYSTEMS SHALL FUNCTION SIMILARLY BUT INDEPENDENTLY. MAIN BUILDING SHALL MONITOR FIELDHOUSE SYSTEM ALARM, SUPERVISORY AND TROUBLE SIGNALS AND SHALL REPORTING TO UL LISTED CENTRAL STATION.

## DRAWING NOTES:

(APPLY TO THIS DRAWING ONLY)

1. TO OTHER ALARM INITIATING DEVICES IN THIS ZONE.
2. TO OTHER ALARM NOTIFICATION DEVICES IN THIS ZONE.
3. TO OTHER SPRINKLER SYSTEM DEVICES IN THIS ZONE.
4. PROVIDE CODE REQUIRED ALARMS AND STATUS MONITORING FROM GENERATOR TO FIRE ALARM SYSTEM INCLUDING GENERATOR RUNNING, GENERATOR TROUBLE, GENERATOR IN AUTOMATIC MODE, AND SUPERVISORY ALARMS.
5. TO OTHER CONTROL MODULES (INCLUDING DOOR RELEASE AND LIGHTING CONTROLS) IN THIS ZONE.
6. PROVIDE INTERFACE WITH PA SYSTEM, LOCAL SOUND SYSTEMS, INCLUDING BUT NOT LIMITED TO GYM SOUND SYSTEM, CAFETERIA SOUND SYSTEM, ETC. TO CUT OFF PUBLIC ADDRESS UPON ALARM. PUBLIC ADDRESS SYSTEM SHALL REACTIVATE UPON SYSTEM RESET.
7. PROVIDE TWO (2) SETS OF RELAYS IN ELEVATOR HEAT DETECTOR FOR OPERATION OF ELEVATOR SHUNT TRIP CIRCUIT BREAKER (IN ACCORDANCE WITH NFPA). PROVIDE RELAYS, CONDUIT, WIRING AND ALL APPURTENANCES FOR ELEVATOR CONTROLS AS RECOMMENDED BY FIRE ALARM SYSTEM AND ELEVATOR MANUFACTURERS.
8. PROVIDE TWO (2) SETS OF RELAYS IN EACH ELEVATOR SMOKE DETECTOR (BOTH IN SHAFT AND LOBBY). COORDINATE EMERGENCY RECALL/CONTROL SEQUENCE WITH THE ELEVATOR INSPECTOR AND STATE FIRE MARSHAL AND PROVIDE ALL RELAYS, CONDUIT, WIRING AND APPURTENANCES AS REQUIRED.
9. TO OTHER SPEAKER CIRCUITS IN THIS ZONE.
10. PROVIDE MONITORING OF DISTRIBUTED ANTENNA SYSTEM (DAS) AS REQUIRED PER NFPA 1221, INCLUDING BUT NOT LIMITED TO DONOR ANTENNA MALFUNCTION, ACTIVE RF-EMITTING DEVICE FAILURE, LOW BATTERY CAPACITY INDICATION (LESS THAN 70% OF THE 12-HOUR CAPACITY), ACTIVE SYSTEM COMPONENT FAILURE, LOSS OF NORMAL AC POWER, AND FAILURE OF BATTERY CHARGER. PROVIDE MONITORING OF COMMUNICATIONS LINK BETWEEN THE DAS AND FIRE ALARM SYSTEM.
11. MAKE CONNECTION TO SECURITY SYSTEM AS REQUIRED FOR ACTIVATION OF MASS NOTIFICATION SYSTEM OVERRIDE AS DIRECTED BY OWNER.
12. PROVIDE ALL CODE REQUIRED ALARMS AND STATUS MONITORING FROM FIRE PUMP TO FIRE ALARM SYSTEM INCLUDING PHASE REVERSAL, FIRE PUMP RUNNING, ETC.
13. PROVIDE A DEDICATED ANNUNCIATOR FOR DAS SYSTEM. PROVIDE VISUAL AND LABELED INDICATIONS OF THE FOLLOWING FOR EACH SYSTEM COMPONENT AND REF-EMITTING DEVICE: NORMAL AC POWER, LOSS OF NORMAL AC POWER, BATTERY CHARGER FAILURE, LOW-BATTERY CAPACITY, DONOR ANTENNA MALFUNCTION, ACTIVE RF-EMITTING DEVICE MALFUNCTION, AND ACTIVE SYSTEM COMPONENT MALFUNCTION. PROVIDE MONITORING OF COMMUNICATIONS LINK BETWEEN THIS DEVICE AND FIRE ALARM SYSTEM.
14. TO TYPCIAL DEVICES.
15. FIREMAN'S EMERGENCY COMMUNICATION PANEL WITH MICROPHONE.

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN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**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**SCHEMATIC FIRE ALARM RISER DIAGRAM**

SHEET NO.

**E506**

## ANNUNCIATOR NOTES:

1. PROVIDE ADDITIONAL GRAPHICS AND TEXT AS REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION.
2. FIRE ALARM ANNUNCIATOR SHALL BE COLOR CODE WITH 'BLUE' LINE FOR SPRINKLER ZONES. FIRE ALARM CONTRACTOR SHALL COORDINATE WITH SPRINKLER CONTRACTOR AND INDICATE SPRINKLER ZONES ON GRAPHIC ANNUNCIATOR.
3. SPRINKLER SYSTEM RISERS, FIRE DEPARTMENT CONNECTION AND FIRE WALLS SHALL BE CLEARLY SHOWN ON ANNUNCIATOR.
4. COORDINATE BUILDING LAYOUT ON ANNUNCIATOR WITH APPROVED ALTERNATES.

24"

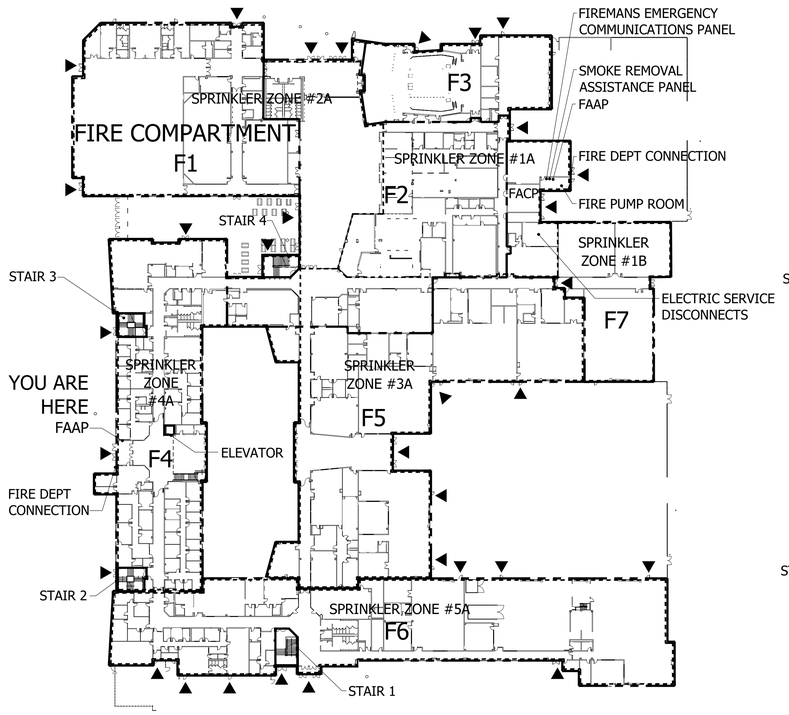
18"

SPRINKLER ZONE SEPARATION

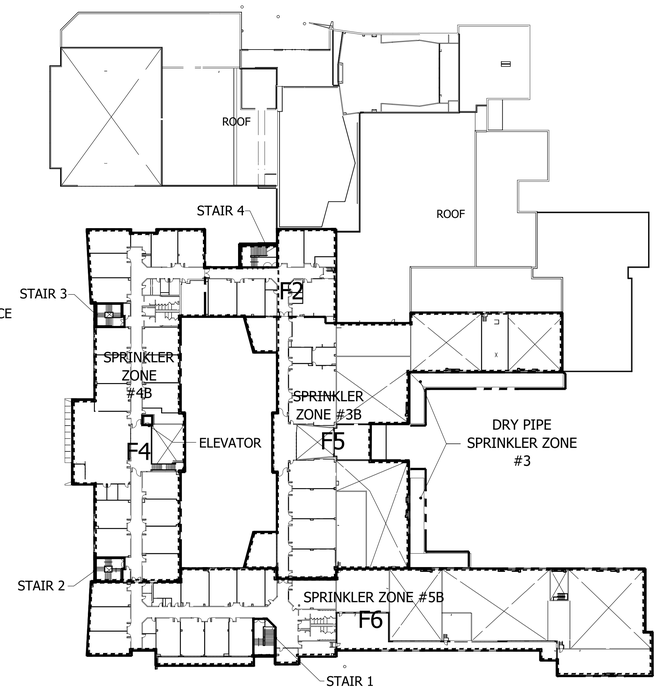
FIRE COMPARTMENT SEPARATION

# PAUL M HODGSON VO-TECH

2575 GLASGOW AVENUE
NEWARK, DE 19702



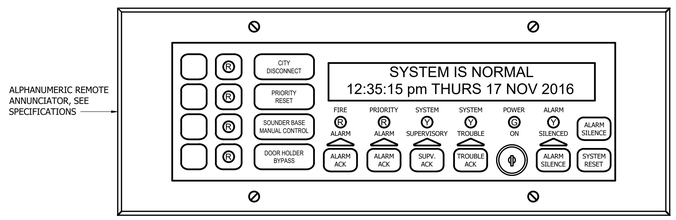

FIRST FLOOR



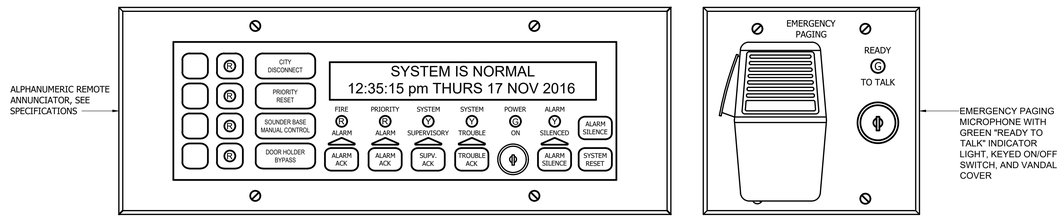

SECOND FLOOR

## FIRE ALARM ANNUNCIATOR STATIC GRAPHIC

FIRE ALARM ANNUNCIATOR GRAPHIC DETAIL - MAIN BUILDING
NOT TO SCALE




FIRE ALARM ANNUNCIATOR PANEL DETAIL - FIELDHOUSE
NOT TO SCALE




FIRE ALARM ANNUNCIATOR PANEL DETAIL - MAIN BUILDING
NOT TO SCALE

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SHEET TITLE

**FIRE ALARM STATIC GRAPHIC ANNUNCIATOR**

SHEET NO.

**E507**

## DISTRIBUTION PANEL DH1

MOUNTING: SURFACE | A.I.C. RATING: 65,000 | LOCATION: MAIN ELEC ROOM
VOLTAGE: 480/277, 3 PHASE, 4 WIRE | 800A MAIN BUS | 800A MLO

DISTRIBUTION SECTION

| FDR NO | SERVES | CIRCUIT BREAKER P | CIRCUIT BREAKER FRAME | CIRCUIT BREAKER TRIP | WIRING SETS | WIRING NO | WIRING SIZE | WIRING GND | WIRING C | REMARKS | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PANEL H11M | 3 | 400 | 400 | 1 | 4 | 500KCMIL | 3 | 3 | | 200.1 |
| 2 | PANEL H11E | 3 | 400 | 400 | 2 | 4 | 3/0 | 3 | 2 | | 178.7 |
| 3 | PANEL H11N | 3 | 100 | 100 | 1 | 4 | 1 | 8 | 1 1/2 | | 30.2 |
| 4 | PUMP-5 | 3 | 100 | 100 | 1 | 3 | 4 | 6 | 1 | | 43.3 |
| 5 | PUMP-6 | 3 | 100 | 100 | 1 | 3 | 4 | 6 | 1 | | 43.3 |
| 6 | PUMP-7 | 3 | 100 | 100 | 1 | 3 | 4 | 6 | 1 | | 0.0 |
| 7 | SPARE | 3 | 100 | 100 | | | | | | | |
| 8 | SPARE | 3 | 225 | 225 | | | | | | | |
| 9 | SPACE | 3 | 225 | | | | | | | | |
| 10 | SPACE | 3 | 225 | | | | | | | | |
| 11 | SPACE | 3 | 225 | | | | | | | | |
| 12 | SPACE | 3 | 225 | | | | | | | | |
| 13 | SPACE | 3 | 225 | | | | | | | | |
| 14 | SPACE | 3 | 225 | | | | | | | | |

TOTAL CONNECTED LOAD: 495.6 KVA

## PANEL H11N

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W | LOCATION: 1ST FLR NORTH ELEC CLOSET
100 AMPERE BUS | 100 A MCB | 100% RATED NEUTRAL BUS | 14,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.8 | 1 | FCU-3.09,10,25 | 1 | 15 | 2 | 12 | 12 | 3/4 | 2 | FCU-3.30-33 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.4 |
| 1.1 | 3 | FCU-3.21-24 | 1 | 15 | 2 | 12 | 12 | 3/4 | 4 | FCU-3.28,29,34 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.3 | 5 | FCU-3.19,20,26,27 | 1 | 15 | 2 | 12 | 12 | 3/4 | 6 | FCU-4.11-17 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.4 |
| 1.0 | 7 | FCU-4.23,25,26,28 | 1 | 15 | 2 | 12 | 12 | 3/4 | 8 | FCU-4.01-05 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.1 |
| | 9 | SPARE | 1 | 15 | | | | | 10 | FCU-4.06-10 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.1 |
| | 11 | SPARE | 1 | 15 | | | | | 12 | FCU-4.18-22 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.1 |
| 0.8 | 13 | FCU-4.24 | 3 | 15 | 3 | 12 | 12 | 3/4 | 14 | SPARE | 1 | 15 | | | | | |
| 0.8 | 15 | - | - | - | - | - | - | - | 16 | SPARE | 1 | 15 | | | | | |
| 0.8 | 17 | - | - | - | - | - | - | - | 18 | SPARE | 1 | 15 | | | | | |
| | 19 | SPACE | 1 | | | | | | 20 | SPACE | 1 | | | | | | |
| | 21 | SPACE | 1 | | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | SPACE | 1 | | | | | | |
| 0.6 | 25 | PANEL R11N | 3 | 30 | REFER TO XFMR SCHEDULE | | | | 26 | PANEL H12N | 3 | 60 | 4 | 4 | 10 | 1 1/4 | 4.3 |
| 1.0 | 27 | VIA XFMR TR11N | - | - | - | - | - | - | 28 | - | - | - | - | - | - | - | 4.9 |
| 1.0 | 29 | - | - | - | - | - | - | - | 30 | - | - | - | - | - | - | - | 4.6 |

TOTAL CONNECTED LOAD 30.2 KVA | KVA PER PHASE: A 10.0 B 10.1 C 10.2

## PANEL R11N

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W | LOCATION: 1ST FLR NORTH ELEC CLOSET
100 AMPERE BUS | 60 A MCB | 100% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.6 | 1 | ATC PANEL-14 | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | SPARE | 1 | 20 | | | | | |
| 1.0 | 3 | FCU-3.36 | 1 | 15 | 2 | 12 | 12 | 3/4 | 4 | SPARE | 1 | 20 | | | | | |
| 1.0 | 5 | FCU-4.27 | 1 | 15 | 2 | 12 | 12 | 3/4 | 6 | SPARE | 1 | 20 | | | | | |
| | 7 | SPARE | 1 | 20 | | | | | 8 | SPARE | 1 | 20 | | | | | |
| | 9 | SPARE | 1 | 20 | | | | | 10 | SPARE | 1 | 20 | | | | | |
| | 11 | SPACE | 1 | | | | | | 12 | SPACE | 1 | | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | SPACE | 1 | | | | | | |
| | 15 | SPACE | 1 | | | | | | 16 | SPACE | 1 | | | | | | |
| | 17 | SPACE | 1 | | | | | | 18 | SPACE | 1 | | | | | | |

TOTAL CONNECTED LOAD 2.6 KVA | KVA PER PHASE: A 0.6 B 1.0 C 1.0

## PANEL H12N

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W | LOCATION: 2ND FLR NORTH ELEC CLOSET
100 AMPERE BUS | 60 A MCB | 100% RATED NEUTRAL BUS | 14,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.4 | 1 | FCU-7.02,03,06,07 | 1 | 15 | 2 | 12 | 12 | 3/4 | 2 | FCU-7.14-16,33 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.4 |
| 1.2 | 3 | FCU-7.01,04,05,09 | 1 | 15 | 2 | 12 | 12 | 3/4 | 4 | FCU-7.19-22 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.3 |
| 1.3 | 5 | FCU-7.08,10-12 | 1 | 15 | 2 | 12 | 12 | 3/4 | 6 | FCU-7.23-25 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.2 |
| | 7 | SPARE | 1 | 15 | | | | | 8 | FCU-7.28 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.8 |
| 0.9 | 9 | FCU-7.13,17,18,26 | 1 | 15 | 2 | 12 | 12 | 3/4 | 10 | - | - | - | - | - | - | - | 0.8 |
| 0.6 | 11 | FCU-7.30-32 | 1 | 15 | 2 | 12 | 12 | 3/4 | 12 | - | - | - | - | - | - | - | 0.8 |
| | 13 | SPACE | 1 | | | | | | 14 | FCU-7.29 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.8 |
| | 15 | SPACE | 1 | | | | | | 16 | - | - | - | - | - | - | - | 0.8 |
| | 17 | SPACE | 1 | | | | | | 18 | - | - | - | - | - | - | - | 0.8 |
| | 19 | SPACE | 1 | | | | | | 20 | SPACE | 1 | | | | | | |
| | 21 | SPACE | 1 | | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | SPACE | 1 | | | | | | |
| | 25 | SPACE | 1 | | | | | | 26 | SPACE | 1 | | | | | | |
| | 27 | SPACE | 1 | | | | | | 28 | SPACE | 1 | | | | | | |
| | 28 | SPACE | 1 | | | | | | 30 | SPACE | 1 | | | | | | |

TOTAL CONNECTED LOAD 13.8 KVA | KVA PER PHASE: A 4.3 B 4.9 C 4.6

## PANEL H11M (SECTION I)

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W | LOCATION: MAIN MECH RM
400 AMPERE BUS | 400 A MCB | 100% RATED NEUTRAL BUS | 35,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7.2 | 1 | PUMP-1 | 3 | 60 | 3 | 8 | 10 | 3/4 | 2 | PUMP-2 | 3 | 60 | 3 | 8 | 10 | 3/4 | 7.2 |
| 7.2 | 3 | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | 7.2 |
| 7.2 | 5 | - | - | - | - | - | - | - | 6 | - | - | - | - | - | - | - | 7.2 |
| 7.2 | 7 | PUMP-3 | 3 | 60 | 3 | 8 | 10 | 3/4 | 8 | PUMP-4 | 3 | 60 | 3 | 8 | 10 | 3/4 | 0.0 |
| 7.2 | 9 | - | - | - | - | - | - | - | 10 | - | - | - | - | - | - | - | 0.0 |
| 7.2 | 11 | - | - | - | - | - | - | - | 12 | - | - | - | - | - | - | - | 0.0 |
| | 13 | SPARE | 3 | 15 | | | | | 14 | KMAU-1 | 3 | 25ST | 3 | 10 | 10 | 3/4 | 3.6 |
| | 15 | - | - | - | - | - | - | - | 16 | - | - | - | - | - | - | - | 3.6 |
| | 17 | - | - | - | - | - | - | - | 18 | - | - | - | - | - | - | - | 3.6 |
| 3.6 | 19 | KMAU-2 | 3 | 25ST | 3 | 10 | 10 | 3/4 | 20 | KMAU-3 | 3 | 50ST | 3 | 8 | 10 | 3/4 | 6.7 |
| 3.6 | 21 | - | - | - | - | - | - | - | 22 | - | - | - | - | - | - | - | 6.7 |
| 3.6 | 23 | - | - | - | - | - | - | - | 24 | - | - | - | - | - | - | - | 6.7 |
| 8.0 | 25 | SZVAV-3 | 3 | 45 | 3 | 6 | 10 | 3/4 | 26 | DBP-1 | 3 | 40 | 3 | 8 | 10 | 3/4 | 6.1 |
| 8.0 | 27 | - | - | - | - | - | - | - | 28 | - | - | - | - | - | - | - | 6.1 |
| 8.0 | 29 | - | - | - | - | - | - | - | 30 | - | - | - | - | - | - | - | 6.1 |
| 1.1 | 31 | FCU-2.01-05 | 1 | 15 | 2 | 12 | 12 | 3/4 | 32 | FCU-2.26-28 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.1 |
| 1.5 | 33 | FCU-2.10-15 | 1 | 15 | 2 | 12 | 12 | 3/4 | 34 | FCU-2.16,23-25 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.9 |
| 1.7 | 35 | FCU-2.06-09,29-31 | 1 | 15 | 2 | 12 | 12 | 3/4 | 36 | FCU-2.17-20 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.2 |
| 6.2 | 37 | PANEL R11M | 3 | 60 | REFER TO XFMR SCHEDULE | | | | 38 | FCU-2.21-22 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.7 |
| 6.4 | 39 | VIA XFMR TR11M | - | - | - | - | - | - | 40 | SPARE | 1 | 15 | | | | | |
| 6.5 | 41 | - | - | - | - | - | - | - | 42 | SPARE | 1 | 15 | | | | | |

CONNECTED LOAD (SECTION I) 176.1 KVA | KVA PER PHASE: A 58.7 B 58.4 C 59.0

## PANEL H11M (SECTION II)

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W | LOCATION: MAIN MECH RM
400 AMPERE BUS | 400 A MLO | 100% RATED NEUTRAL BUS | 35,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8.0 | 43 | SZVAV-4 | 3 | 45 | 3 | 6 | 10 | 3/4 | 44 | SPARE | 3 | 60 | | | | | |
| 8.0 | 45 | - | - | - | - | - | - | - | 46 | - | - | - | - | - | - | - | |
| 8.0 | 47 | - | - | - | - | - | - | - | 48 | - | - | - | - | - | - | - | |
| | 49 | SPARE | 3 | 15 | | | | | 50 | SPARE | 3 | 40 | | | | | |
| | 51 | - | - | - | - | - | - | - | 52 | - | - | - | - | - | - | - | |
| | 53 | - | - | - | - | - | - | - | 54 | - | - | - | - | - | - | - | |
| | 55 | SPACE | 1 | | | | | | 56 | SPACE | 1 | | | | | | |
| | 57 | SPACE | 1 | | | | | | 58 | SPACE | 1 | | | | | | |
| | 59 | SPACE | 1 | | | | | | 60 | SPACE | 1 | | | | | | |
| | 61 | SPACE | 1 | | | | | | 62 | SPACE | 1 | | | | | | |
| | 63 | SPACE | 1 | | | | | | 64 | SPACE | 1 | | | | | | |
| | 65 | SPACE | 1 | | | | | | 66 | SPACE | 1 | | | | | | |
| | 67 | SPACE | 1 | | | | | | 68 | SPACE | 1 | | | | | | |
| | 69 | SPACE | 1 | | | | | | 70 | SPACE | 1 | | | | | | |
| | 71 | SPACE | 1 | | | | | | 72 | SPACE | 1 | | | | | | |
| | 73 | SPACE | 1 | | | | | | 74 | SPACE | 1 | | | | | | |
| | 75 | SPACE | 1 | | | | | | 76 | SPACE | 1 | | | | | | |
| | 77 | SPACE | 1 | | | | | | 78 | SPACE | 1 | | | | | | |
| | 79 | SPACE | 1 | | | | | | 80 | SPACE | 1 | | | | | | |
| | 81 | SPACE | 1 | | | | | | 82 | SPACE | 1 | | | | | | |
| | 83 | SPACE | 1 | | | | | | 84 | SPACE | 1 | | | | | | |

CONNECTED LOAD (SECTION II) 24 KVA | KVA PER PHASE: A 8 B 8 C 8
**TOTAL CONNECTED LOAD 200.1 KVA** | KVA PER PHASE: A 66.7 B 66.4 C 67

## PANEL R11M

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W | LOCATION: MAIN MECH ROOM
100 AMPERE BUS | 100 A MCB | 100% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.5 | 1 | DRP-1 | 3 | 15 | 3 | 12 | 12 | 3/4 | 2 | GLYCOL MAKEUP UNIT-1 | 1 | 25 | 2 | 10 | 10 | 3/4 | 1.7 |
| 0.5 | 3 | - | - | - | - | - | - | - | 4 | SPARE | 1 | 20 | 2 | 12 | 12 | 3/4 | |
| 0.5 | 5 | - | - | - | - | - | - | - | 6 | SPARE | 1 | 15 | | | | | |
| 0.5 | 7 | DRP-2 | 1 | 15 | 2 | 12 | 12 | 3/4 | 8 | RECEPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.7 | 9 | WH-1 | 1 | 15 | 2 | 12 | 12 | 3/4 | 10 | RECEPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.7 | 11 | WH-2 | 1 | 15 | 2 | 12 | 12 | 3/4 | 12 | RECEPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.4 | 13 | RECEPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | MOTORIZED GATE | 1 | 20 | 2 | 6 | 8 | 1 | 1.2 |
| 0.1 | 15 | DBF-2 | 1 | 15 | 2 | 12 | 12 | 3/4 | 16 | TRAP PRIMER-7 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| 0.5 | 17 | TRAP PRIMER | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | TRAP PRIMER-26 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| 0.5 | 19 | CHILLER-1 CONTROLS | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | TRAP PRIMER-27 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| 0.5 | 21 | CHILLER-2 CONTROLS | 1 | 20 | 2 | 12 | 12 | 3/4 | 22 | TRAP PRIMER-28 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| 1.7 | 23 | DSOU-16 | 2 | 30 | 2 | 10 | 10 | 3/4 | 24 | TRAP PRIMER-29 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| 1.7 | 25 | - | - | - | - | - | - | - | 26 | TRAP PRIMER-30 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| 1.7 | 27 | DSOU-17 | 2 | 30 | 2 | 10 | 10 | 3/4 | 28 | TRAP PRIMER-31 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| 1.7 | 29 | - | - | - | - | - | - | - | 30 | TRAP PRIMER-32 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| | 31 | SPARE | 2 | 30 | | | | | 32 | TRAP PRIMER-33 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| | 33 | - | - | - | - | - | - | - | 34 | SPARE | 1 | 20 | | | | | |
| | 35 | SPARE | 1 | 20 | | | | | 36 | SPARE | 1 | 20 | | | | | |
| | 37 | SPACE | 1 | | | | | | 38 | SPACE | 1 | | | | | | |
| | 39 | SPACE | 1 | | | | | | 40 | SPACE | 1 | | | | | | |
| | 41 | SPACE | 1 | | | | | | 42 | SPACE | 1 | | | | | | |

TOTAL CONNECTED LOAD 21.4 **KVA** | KVA PER PHASE: A 8.8 B 5.4 C 7.2

## PANEL H11E (SECTION I)

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W | LOCATION: 1ST FLR EAST ELEC CLOSET
400 AMPERE BUS | 400 A MCB | 100% RATED NEUTRAL BUS | 35,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9.1 | 1 | H&V-1 | 3 | 50 | 3 | 8 | 10 | 3/4 | 2 | H&V-2 | 3 | 60 | 3 | 6 | 10 | 3/4 | 10.5 |
| 9.1 | 3 | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | 10.5 |
| 9.1 | 5 | - | - | - | - | - | - | - | 6 | - | - | - | - | - | - | - | 10.5 |
| 10.5 | 7 | H&V-3 | 3 | 60 | 3 | 6 | 10 | 3/4 | 8 | MAU-3 | 3 | 15 | 3 | 12 | 12 | 3/4 | 1.3 |
| 10.5 | 9 | - | - | - | - | - | - | - | 10 | - | - | - | - | - | - | - | 1.3 |
| 10.5 | 11 | - | - | - | - | - | - | - | 12 | - | - | - | - | - | - | - | 1.3 |
| 0.7 | 13 | FCU-3.01,02,04 | 1 | 15 | 2 | 12 | 12 | 3/4 | 14 | SPARE | 3 | 15 | | | | | |
| 1.3 | 15 | FCU-3.11-13,15,16 | 1 | 15 | 2 | 12 | 12 | 3/4 | 16 | - | - | - | - | - | - | - | |
| 0.9 | 17 | FCU-3.14,17,18 | 1 | 15 | 2 | 12 | 12 | 3/4 | 18 | - | - | - | - | - | - | - | |
| | 19 | SPARE | 1 | 15 | | | | | 20 | SPARE | 3 | 15 | | | | | |
| | 21 | SPARE | 1 | 15 | | | | | 22 | - | - | - | - | - | - | - | |
| | 23 | SPARE | 1 | 15 | | | | | 24 | - | - | - | - | - | - | - | |
| 0.5 | 25 | RAF-1 | 3 | 15 | 3 | 12 | 12 | 3/4 | 26 | AIR COMPRESSOR | 3 | 50 | 3 | 6 | 10 | 1 | 11.7 |
| 0.5 | 27 | - | - | - | - | - | - | - | 28 | CA-2 | - | - | - | - | - | - | 11.7 |
| 0.5 | 29 | - | - | - | - | - | - | - | 30 | - | - | - | - | - | - | - | 11.7 |
| 0.5 | 31 | RAF-2 | 3 | 15 | 3 | 12 | 12 | 3/4 | 32 | RAF-3 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.5 |
| 0.5 | 33 | - | - | - | - | - | - | - | 34 | - | - | - | - | - | - | - | 0.5 |
| 0.5 | 35 | - | - | - | - | - | - | - | 36 | - | - | - | - | - | - | - | 0.5 |
| 7.1 | 37 | PANEL R11E | 3 | 60 | REFER TO XFMR SCHEDULE | | | | 38 | FCU-3.03,05-08 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.2 |
| 6.9 | 39 | VIA XFMR TR11E | - | - | - | - | - | - | 40 | FCU-2.32-34,36-68 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.6 |
| 7.5 | 41 | - | - | - | - | - | - | - | 42 | FCU-2.35,39 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.5 |

CONNECTED LOAD (SECTION I) 161.5 KVA | KVA PER PHASE: A 53.6 B 54.4 C 53.5

## PANEL H11E (SECTION II)

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W | LOCATION: 1ST FLR EAST ELEC CLOSET
400 AMPERE BUS | 400 A MLO | 100% RATED NEUTRAL BUS | 35,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 43 | SPARE | 3 | 15 | | | | | 44 | SPARE | 3 | 15 | | | | | |
| | 45 | - | - | - | - | - | - | - | 46 | - | - | - | - | - | - | - | |
| | 47 | - | - | - | - | - | - | - | 48 | - | - | - | - | - | - | - | |
| 3.1 | 49 | WEF-5 | 3 | 20 | 3 | 12 | 12 | 3/4 | 50 | FCU-6.01-03 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.1 |
| 3.1 | 51 | - | - | - | - | - | - | - | 52 | SPARE | 1 | 15 | | | | | |
| 3.1 | 53 | - | - | - | - | - | - | - | 54 | SPARE | 1 | 15 | | | | | |
| | 55 | SPARE | 3 | 15 | | | | | 56 | SPARE | 3 | 50 | | | | | |
| | 57 | - | - | - | - | - | - | - | 58 | - | - | - | - | - | - | - | |
| | 59 | - | - | - | - | - | - | - | 60 | - | - | - | - | - | - | - | |
| | 61 | SPARE | 3 | 30 | | | | | 62 | AIR COMPRESSOR | 3 | 70 | 3 | 6 | 8 | 1 | |
| | 63 | - | - | - | - | - | - | - | 64 | CA-2 | - | - | - | - | - | - | |
| | 65 | - | - | - | - | - | - | - | 66 | ALTERNATE 12 | - | - | - | - | - | - | |
| | 67 | SPACE | 1 | | | | | | 68 | SPACE | 1 | | | | | | |
| | 69 | SPACE | 1 | | | | | | 70 | SPACE | 1 | | | | | | |
| | 71 | SPACE | 1 | | | | | | 72 | SPACE | 1 | | | | | | |
| | 73 | SPACE | 1 | | | | | | 74 | SPACE | 1 | | | | | | |
| | 75 | SPACE | 1 | | | | | | 76 | SPACE | 1 | | | | | | |
| | 77 | SPACE | 1 | | | | | | 78 | SPACE | 1 | | | | | | |
| | 79 | SPACE | 1 | | | | | | 80 | PANEL H12E | 3 | 60 | 4 | 4 | 10 | 1 1/4 | 2.4 |
| | 81 | SPACE | 1 | | | | | | 82 | - | - | - | - | - | - | - | 2.0 |
| | 83 | SPACE | 1 | | | | | | 84 | - | - | - | - | - | - | - | 2.4 |

CONNECTED LOAD (SECTION II) 17.2 KVA | KVA PER PHASE: A 6.6 B 5.1 C 5.5
**TOTAL CONNECTED LOAD 178.7 KVA** | KVA PER PHASE: A 60.2 B 59.5 C 59

## PANEL R11E

MOUNTING: SURFACE
VOLTAGE: 208/120V, 3PH, 4W | LOCATION: 1ST FLR EAST ELEC CLOSET
100 AMPERE BUS | 100 MCB | 100% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | FUSE P | FUSE AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | FUSE P | FUSE AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.8 | 1 | CPF-1 | 1 | 15 | 2 | 12 | 12 | 3/4 | 2 | SPARE | 1 | 20 | | | | | |
| 0.8 | 3 | CPF-2 | 1 | 15 | 2 | 12 | 12 | 3/4 | 4 | SPARE | 1 | 20 | | | | | |
| 0.8 | 5 | CPF-3 | 1 | 15 | 2 | 12 | 12 | 3/4 | 6 | TPS-5 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| 1.1 | 7 | OH COILING DOOR | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | EF-2 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.7 |
| 1.1 | 9 | OH COILING DOOR | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | EF-3 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.8 |
| 1.1 | 11 | OH COILING DOOR | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | SPARE | 1 | 15 | | | | | |
| 0.2 | 13 | TPS-13 | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | MASONRY IAC SWITCH | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.2 |
| 0.2 | 15 | TPS-14 | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | UH-6 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.3 |
| 0.2 | 17 | TPS-17 | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | UH-7 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.3 |
| 0.2 | 19 | TPS-18 | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | UH-9 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.3 |
| 0.2 | 21 | TPS-25 | 1 | 20 | 2 | 12 | 12 | 3/4 | 22 | UH-18&19 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.6 |
| | 23 | SPARE | 1 | 20 | | | | | 24 | UH-16&17 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.2 | 25 | TPS-8 | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | IAC-1 | 1 | 25 | 2 | 10 | 10 | 3/4 | 1.7 |
| 0.2 | 27 | TPS-9 | 1 | 20 | 2 | 12 | 12 | 3/4 | 28 | IAC-2 | 1 | 25 | 2 | 10 | 10 | 3/4 | 1.7 |
| 0.2 | 29 | CA-2 | 1 | 20 | 2 | 12 | 12 | 3/4 | 30 | IAC-3 | 1 | 25 | 2 | 10 | 10 | 3/4 | 1.7 |
| | 31 | SPARE | 1 | 20 | | | | | 32 | IAC-4 | 1 | 25 | 2 | 10 | 10 | 3/4 | 1.7 |
| | 33 | SPARE | 1 | 20 | | | | | 34 | UH-31,32,33,34 | 1 | 15 | 2 | 10 | 10 | 3/4 | 1.0 |
| | 35 | SPARE | 1 | 20 | | | | | 36 | AIR DRYER RAD-2 | 1 | 40 | 2 | 8 | 10 | 3/4 | 2.4 |
| | 37 | SPACE | 1 | | | | | | 38 | SPACE | 1 | | | | | | |
| | 39 | SPACE | 1 | | | | | | 40 | SPACE | 1 | | | | | | |
| | 41 | SPACE | 1 | | | | | | 42 | SPACE | 1 | | | | | | |

TOTAL CONNECTED LOAD 21.5 **KVA** | KVA PER PHASE: A 7.1 B 6.9 C 7.5

## PANEL H12E

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W | LOCATION: 2ND FLR EAST ELEC CLOSET
100 AMPERE BUS | 60 A MCB | 100% RATED NEUTRAL BUS | 14,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.5 | 1 | FHEF-1 | 3 | 15 | 3 | 12 | 12 | 3/4 | 2 | FHEF-2 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.5 |
| 0.5 | 3 | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | 0.5 |
| 0.5 | 5 | - | - | - | - | - | - | - | 6 | - | - | - | - | - | - | - | 0.5 |
| 1.4 | 7 | FCU-9.15,16,21,28 | 1 | 15 | 2 | 12 | 12 | 3/4 | 8 | SPARE | 1 | 15 | | | | | |
| 1.0 | 9 | FCU-9.17-20 | 1 | 15 | 2 | 12 | 12 | 3/4 | 10 | SPARE | 1 | 15 | | | | | |
| 1.4 | 11 | FCU-9.22-27 | 1 | 15 | 2 | 12 | 12 | 3/4 | 12 | SPARE | 1 | 15 | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | SPARE | 3 | 15 | | | | | |
| | 15 | SPACE | 1 | | | | | | 16 | - | - | - | - | - | - | - | |
| | 17 | SPACE | 1 | | | | | | 18 | - | - | - | - | - | - | - | |
| | 19 | SPACE | 1 | | | | | | 20 | SPACE | 1 | | | | | | |
| | 21 | SPACE | 1 | | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | SPACE | 1 | | | | | | |
| | 25 | SPACE | 1 | | | | | | 26 | SPACE | 1 | | | | | | |
| | 27 | SPACE | 1 | | | | | | 28 | SPACE | 1 | | | | | | |
| | 28 | SPACE | 1 | | | | | | 30 | SPACE | 1 | | | | | | |

TOTAL CONNECTED LOAD 6.8 **KVA** | KVA PER PHASE: A 2.4 B 2.0 C 2.4

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN


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The professional services of ABHA/BSA+A, LLC. are undertaken for and performed in the interest of the NCCVT School District. No contractual obligation is assumed by ABHA/BSA+A, LLC. for the benefit of any other person involved in the project.

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

2575 GLASGOW AVENUE
NEWARK, DE 19702

DH1 | H11M | H11E
H11N
R11N | R11M | R11E
H12N | H12E

SHEET TITLE
**PANEL SCHEDULES**

SHEET NO.
**E601**

# DISTRIBUTION PANEL DH2

MOUNTING: SURFACE | A.I.C. RATING: 65,000 | LOCATION: MAIN ELEC ROOM
VOLTAGE: 480/277, 3 PHASE, 4 WIRE | 800A MAIN BUS | 800A MLO

DISTRIBUTION SECTION

| FDR | | CIRCUIT BREAKER | | | WIRING | | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|
| NO | SERVES | P | FRAME | TRIP | SETS | NO | SIZE | GND | C | REMARKS | KVA |
| 1 | PANEL H21W | 3 | 100 | 100 | 1 | 4 | 1 | 8 | 1 1/2 | | 26.2 |
| 2 | PANEL H21A | 3 | 225 | 150 | 1 | 4 | 1/0 | 6 | 2 | | 52.3 |
| 3 | PANEL H21G | 3 | 225 | 150 | 1 | 4 | 1/0 | 6 | 2 | | 73.2 |
| 4 | PANEL H21SA | 3 | 400 | 400 | 2 | 4 | 3/0 | 3 | 2 | | 204.2 |
| 5 | PANEL H21SB | 3 | 225 | 225 | 2 | 4 | 3/0 | 3 | 2 | | 123.6 |
| 6 | SPARE | 3 | 225 | 225 | 2 | 4 | 3/0 | 3 | 2 | | |
| 7 | SPARE | 3 | 400 | 400 | | | | | | | |
| 8 | SPARE | 3 | 225 | 150 | | | | | | | |
| 9 | SPACE | 3 | 225 | | | | | | | | |
| 10 | SPACE | 3 | 225 | | | | | | | | |
| 11 | SPACE | 3 | 225 | | | | | | | | |
| 12 | SPACE | 3 | 225 | | | | | | | | |
| 13 | SPACE | 3 | 225 | | | | | | | | |
| 14 | SPACE | 3 | 225 | | | | | | | | |

TOTAL CONNECTED LOAD 479.5 KVA

## PANEL H21W

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W — LOCATION: 1ST FLR WEST ELEC CLOSET
100 AMPERE BUS | 100 A MCB | 100% RATED NEUTRAL BUS | 14,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 1.2 | 1 | FCU-5.01-06 | 1 | 15 | 2 | 12 | 12 | 3/4 | 2 | FCU-5.29-35 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.4 | 3 | FCU-5.07-12 | 1 | 15 | 2 | 12 | 12 | 3/4 | 4 | FCU-5.36-38,40,41,59 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.3 |
| 1.7 | 5 | FCU-5.13-20 | 1 | 15 | 2 | 12 | 12 | 3/4 | 6 | FCU-5.42-45 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.6 | 7 | FCU-5.21-28 | 1 | 15 | 2 | 12 | 12 | 3/4 | 8 | SPARE | 1 | 15 | | | | | |
| 1.2 | 9 | FCU-5.52-55 | 1 | 15 | 2 | 12 | 12 | 3/4 | 10 | SPARE | 1 | 15 | | | | | |
| 0.8 | 11 | FCU-5.56-58 | 1 | 15 | 2 | 12 | 12 | 3/4 | 12 | FCU-5.46-51 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.2 |
| | 13 | SPARE | 1 | 15 | | | | | 14 | SPARE | 1 | 15 | | | | | |
| | 15 | SPARE | 1 | 15 | | | | | 16 | SPARE | 1 | 15 | | | | | |
| | 17 | SPARE | 1 | 15 | | | | | 18 | SPARE | 1 | 15 | | | | | |
| | 19 | SPACE | 1 | | | | | | 20 | SPACE | 1 | | | | | | |
| | 21 | SPACE | 1 | | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | SPACE | 1 | | | | | | |
| 0.5 | 25 | PANEL R21W | 3 | 30 | REFER TO XFMR SCHEDULE | | | | 26 | PANEL H22W | 3 | 60 | 4 | 4 | 10 | 1 1/4 | 3.6 |
| 1.0 | 27 | VIA XFMR TR21W | - | - | - | - | - | - | 28 | - | - | - | - | - | - | - | 3.4 |
| 1.0 | 29 | - | - | - | - | - | - | - | 30 | - | - | - | - | - | - | - | 3.7 |

TOTAL CONNECTED LOAD 26.2 KVA — KVA PER PHASE: A 8.4 B 8.3 C 9.6

## PANEL R21W

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 1ST FLR WEST ELEC CLOSET
100 AMPERE BUS | 60 A MCB | 100% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 0.5 | 1 | TRAP PRIMER-6 | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | SPARE | 1 | 20 | | | | | |
| 1.0 | 3 | FCU-5.60 | 1 | 15 | 2 | 12 | 12 | 3/4 | 4 | SPARE | 1 | 20 | | | | | |
| 1.0 | 5 | FCU-5.61 | 1 | 15 | 2 | 12 | 12 | 3/4 | 6 | SPARE | 1 | 20 | | | | | |
| | 7 | SPARE | 1 | 20 | | | | | 8 | SPARE | 1 | 20 | | | | | |
| | 9 | SPARE | 1 | 20 | | | | | 10 | SPARE | 1 | 20 | | | | | |
| | 11 | SPARE | 1 | 20 | | | | | 12 | SPARE | 1 | 20 | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | SPACE | 1 | | | | | | |
| | 15 | SPACE | 1 | | | | | | 16 | SPACE | 1 | | | | | | |
| | 17 | SPACE | 1 | | | | | | 18 | SPACE | 1 | | | | | | |

TOTAL CONNECTED LOAD 2.5 KVA — KVA PER PHASE: A 0.5 B 1.0 C 1.0

## PANEL H22W

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W — LOCATION: 2ND FLR WEST ELEC CLOSET
100 AMPERE BUS | 60 A MCB | 100% RATED NEUTRAL BUS | 14,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 1.4 | 1 | FCU-8.01-04 | 1 | 15 | 2 | 12 | 12 | 3/4 | 2 | FCU-8.08-10,12,25 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.4 |
| 1.2 | 3 | FCU-7.31,32,8.05,06 | 1 | 15 | 2 | 12 | 12 | 3/4 | 4 | FCU-8.14,19-21 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.4 |
| 1.4 | 5 | FCU-8.07,11,22-24 | 1 | 15 | 2 | 12 | 12 | 3/4 | 6 | FCU-8.13,15-18 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.5 |
| | 7 | SPARE | 1 | 15 | | | | | 8 | FCU-7.27 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.8 |
| | 9 | SPARE | 1 | 15 | | | | | 10 | - | - | - | - | - | - | - | 0.8 |
| | 11 | SPARE | 1 | 15 | | | | | 12 | - | - | - | - | - | - | - | 0.8 |
| | 13 | SPACE | 1 | | | | | | 14 | SPACE | 1 | | | | | | |
| | 15 | SPACE | 1 | | | | | | 16 | SPACE | 1 | | | | | | |
| | 17 | SPACE | 1 | | | | | | 18 | SPACE | 1 | | | | | | |
| | 19 | SPACE | 1 | | | | | | 20 | SPACE | 1 | | | | | | |
| | 21 | SPACE | 1 | | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | SPACE | 1 | | | | | | |
| | 25 | SPACE | 1 | | | | | | 26 | SPACE | 1 | | | | | | |
| | 27 | SPACE | 1 | | | | | | 28 | SPACE | 1 | | | | | | |
| | 28 | SPACE | 1 | | | | | | 30 | SPACE | 1 | | | | | | |

TOTAL CONNECTED LOAD 10.6 KVA — KVA PER PHASE: A 3.6 B 3.4 C 3.7

## PANEL H22S

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W — LOCATION: 2ND FLR SOUTH ELEC CLOSET
100 AMPERE BUS | 60 A MCB | 100% RATED NEUTRAL BUS | 14,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 1.4 | 1 | FCU-9.01-06 | 1 | 15 | 2 | 12 | 12 | 3/4 | 2 | SPARE | 1 | 15 | | | | | |
| 1.2 | 3 | FCU-9.07,08,13,14 | 1 | 15 | 2 | 12 | 12 | 3/4 | 4 | SPARE | 1 | 15 | | | | | |
| 1.0 | 5 | FCU-9.09-12 | 1 | 15 | 2 | 12 | 12 | 3/4 | 6 | SPARE | 1 | 15 | | | | | |
| | 7 | SPARE | 1 | 15 | | | | | 8 | SPARE | 1 | 15 | | | | | |
| | 9 | SPARE | 1 | 15 | | | | | 10 | SPARE | 1 | 15 | | | | | |
| | 11 | SPARE | 1 | 15 | | | | | 12 | SPARE | 1 | 15 | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | SPACE | 1 | | | | | | |
| | 15 | SPACE | 1 | | | | | | 16 | SPACE | 1 | | | | | | |
| | 17 | SPACE | 1 | | | | | | 18 | SPACE | 1 | | | | | | |
| | 19 | SPACE | 1 | | | | | | 20 | SPACE | 1 | | | | | | |
| | 21 | SPACE | 1 | | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | SPACE | 1 | | | | | | |
| | 25 | SPACE | 1 | | | | | | 26 | SPACE | 1 | | | | | | |
| | 27 | SPACE | 1 | | | | | | 28 | SPACE | 1 | | | | | | |
| | 28 | SPACE | 1 | | | | | | 30 | SPACE | 1 | | | | | | |

TOTAL CONNECTED LOAD 3.6 KVA — KVA PER PHASE: A 1.4 B 1.2 C 1.0

## PANEL H21SA (SECTION I)

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W — LOCATION: 1ST FLR SOUTH ELEC CLOSET
400 AMPERE BUS | 400 A MCB | 100% RATED NEUTRAL BUS | 35,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 10.5 | 1 | H&V-4 | 3 | 60 | 3 | 6 | 10 | 3/4 | 2 | H&V-5 | 3 | 50 | 3 | 8 | 10 | 3/4 | 9.1 |
| 10.5 | 3 | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | 9.1 |
| 10.5 | 5 | - | - | - | - | - | - | - | 6 | - | - | - | - | - | - | - | 9.1 |
| 10.5 | 7 | H&V-6 | 3 | 60 | 3 | 6 | 10 | 3/4 | 8 | RAF-5 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.5 |
| 10.5 | 9 | - | - | - | - | - | - | - | 10 | - | - | - | - | - | - | - | 0.5 |
| 10.5 | 11 | - | - | - | - | - | - | - | 12 | - | - | - | - | - | - | - | 0.5 |
| 0.5 | 13 | RAF-4 | 3 | 15 | 3 | 12 | 12 | 3/4 | 14 | MAU-2 | 3 | 30 | 3 | 10 | 10 | 3/4 | 3.9 |
| 0.5 | 15 | - | - | - | - | - | - | - | 16 | - | - | - | - | - | - | - | 3.9 |
| 0.5 | 17 | - | - | - | - | - | - | - | 18 | - | - | - | - | - | - | - | 3.9 |
| 1.3 | 19 | FCU-6.20,23,25,26 | 1 | 15 | 2 | 12 | 12 | 3/4 | 20 | FCU-6.05,18,19 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.1 |
| 0.9 | 21 | FCU-6.27,28,31 | 1 | 15 | 2 | 12 | 12 | 3/4 | 22 | FCU-6.04,06-08,10 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.1 |
| 1.1 | 23 | FCU-6.21,22,24,30 | 1 | 15 | 2 | 12 | 12 | 3/4 | 24 | FCU-6.11-13,15-17 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.4 |
| 6.0 | 25 | DUST COLLECTOR DC-1 | 3 | 40 | 3 | 8 | 10 | 3/4 | 26 | SPARE | 3 | 15 | | | | | |
| 6.0 | 27 | - | - | - | - | - | - | - | 28 | - | - | - | - | - | - | - | |
| 6.0 | 29 | - | - | - | - | - | - | - | 30 | - | - | - | - | - | - | - | |
| 2.7 | 31 | DVP-1 | 3 | 15 | 3 | 12 | 12 | 3/4 | 32 | DAC-1 | 3 | 15 | 3 | 12 | 12 | 3/4 | 2.7 |
| 2.7 | 33 | - | - | - | - | - | - | - | 34 | - | - | - | - | - | - | - | 2.7 |
| 2.7 | 35 | - | - | - | - | - | - | - | 36 | - | - | - | - | - | - | - | 2.7 |
| 17.7 | 37 | PANEL R21S | 3 | 125 | REFER TO XFMR SCHEDULE | | | | 38 | SPARE | 3 | 15 | 3 | 12 | 12 | 3/4 | |
| 17.6 | 39 | VIA XFMR TR21S | - | - | - | - | - | - | 40 | - | - | - | - | - | - | - | |
| 18.6 | 41 | - | - | - | - | - | - | - | 42 | - | - | - | - | - | - | - | |

CONNECTED LOAD (SECTION I) 199.9 KVA — KVA PER PHASE: A 66.43 B 66 C 67.5

## PANEL H21SA (SECTION II)

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W — LOCATION: 1ST FLR SOUTH ELEC CLOSET
400 AMPERE BUS | 400 A MLO | 100% RATED NEUTRAL BUS | 35,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 1.4 | 43 | PANEL H22S | 3 | 60 | 4 | 4 | 10 | 1 1/4 | 44 | FCU-6.09,14,29 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.7 |
| 1.2 | 45 | - | - | - | - | - | - | - | 46 | | | | | | | | |
| 1.0 | 47 | - | - | - | - | - | - | - | 48 | SPARE | 1 | 20 | | | | | |
| | 49 | SPARE | 3 | 15 | | | | | 50 | SPARE | 3 | 50 | | | | | |
| | 51 | - | - | - | - | - | - | - | 52 | - | - | - | - | - | - | - | |
| | 53 | - | - | - | - | - | - | - | 54 | - | - | - | - | - | - | - | |
| | 55 | SPACE | 1 | | | | | | 56 | SPACE | 1 | | | | | | |
| | 57 | SPACE | 1 | | | | | | 58 | SPACE | 1 | | | | | | |
| | 59 | SPACE | 1 | | | | | | 60 | SPACE | 1 | | | | | | |
| | 61 | SPACE | 1 | | | | | | 62 | SPACE | 1 | | | | | | |
| | 63 | SPACE | 1 | | | | | | 64 | SPACE | 1 | | | | | | |
| | 65 | SPACE | 1 | | | | | | 66 | SPACE | 1 | | | | | | |
| | 67 | SPACE | 1 | | | | | | 68 | SPACE | 1 | | | | | | |
| | 69 | SPACE | 1 | | | | | | 70 | SPACE | 1 | | | | | | |
| | 71 | SPACE | 1 | | | | | | 72 | SPACE | 1 | | | | | | |
| | 73 | SPACE | 1 | | | | | | 74 | SPACE | 1 | | | | | | |
| | 75 | SPACE | 1 | | | | | | 76 | SPACE | 1 | | | | | | |
| | 77 | SPACE | 1 | | | | | | 78 | SPACE | 1 | | | | | | |
| | 79 | SPACE | 1 | | | | | | 80 | SPACE | 1 | | | | | | |
| | 81 | SPACE | 1 | | | | | | 82 | SPACE | 1 | | | | | | |
| | 83 | SPACE | 1 | | | | | | 84 | SPACE | 1 | | | | | | |

CONNECTED LOAD (SECTION II) 4.3 KVA — KVA PER PHASE: A 2.1 B 1.2 C 1
TOTAL CONNECTED LOAD 204.2 KVA — KVA PER PHASE: A 68.53 B 67.2 C 68.5

## PANEL R21S (SECTION I)

MOUNTING: SURFACE
VOLTAGE:208/120, 3PH, 4W — LOCATION: 1ST FLR SOUTH ELEC CLOSET
225 AMPERE BUS | 225 A MCB | 100% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 0.8 | 1 | CPF-4 | 1 | 15 | 2 | 12 | 12 | 3/4 | 2 | SPARE | 1 | 25 | | | | | |
| 0.8 | 3 | CPF-5 | 1 | 15 | 2 | 12 | 12 | 3/4 | 4 | DC-1 CONTROLS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| 0.8 | 5 | CPF-6 | 1 | 15 | 2 | 12 | 12 | 3/4 | 6 | AIR DRYER RAD-1 | 1 | 40 | 2 | 8 | 10 | 3/4 | 2.4 |
| 0.8 | 7 | CPF-7 | 1 | 15 | 2 | 10 | 10 | 3/4 | 8 | SPARE | 1 | 15 | | | | | |
| 0.8 | 9 | CPF-8 | 1 | 15 | 2 | 10 | 10 | 3/4 | 10 | SPARE | 1 | 15 | | | | | |
| 0.8 | 11 | CPF-9 | 1 | 15 | 2 | 10 | 10 | 3/4 | 12 | SPARE | 1 | 15 | | | | | |
| 0.8 | 13 | CPF-10 | 1 | 15 | 2 | 10 | 10 | 3/4 | 14 | SPARE | 1 | 15 | | | | | |
| 0.1 | 15 | DBF-1 | 1 | 15 | 2 | 12 | 12 | 3/4 | 16 | SPARE | 1 | 15 | | | | | |
| 1.1 | 17 | OH COILING DOOR | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | SPARE | 1 | 15 | | | | | |
| 1.2 | 19 | PAINT BOOTH 1/2 HP FAN | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | AUTOBODY IAC SWITCH | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.2 |
| 0.7 | 21 | PAINT BOOTH 1/4 HP FAN | 1 | 15 | 2 | 12 | 12 | 3/4 | 22 | IAC-13 | 1 | 25 | 2 | 10 | 10 | 3/4 | 1.7 |
| 0.5 | 23 | TSR-1 | 1 | 20 | 2 | 12 | 12 | 3/4 | 24 | SPARE | 1 | 25 | | | | | |
| 1.1 | 25 | OH COILING DOOR | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | IAC-14 | 1 | 25 | 2 | 10 | 10 | 3/4 | 1.7 |
| 1.1 | 27 | OH COILING DOOR | 1 | 20 | 2 | 12 | 12 | 3/4 | 28 | IAC-15 | 1 | 25 | 2 | 10 | 10 | 3/4 | 1.7 |
| 1.1 | 29 | OH COILING DOOR | 1 | 20 | 2 | 12 | 12 | 3/4 | 30 | IAC-16 | 1 | 25 | 2 | 10 | 10 | 3/4 | 1.7 |
| 1.1 | 31 | OH COILING DOOR | 1 | 20 | 2 | 12 | 12 | 3/4 | 32 | IAC-17 | 1 | 25 | 2 | 10 | 10 | 3/4 | 1.7 |
| 1.7 | 33 | IAC-5 | 1 | 25 | 2 | 10 | 10 | 3/4 | 34 | IAC-18 | 1 | 25 | 2 | 10 | 10 | 3/4 | 1.7 |
| 1.7 | 35 | IAC-6 | 1 | 25 | 2 | 10 | 10 | 3/4 | 36 | IAC-19 | 1 | 25 | 2 | 10 | 10 | 3/4 | 1.7 |
| 1.7 | 37 | IAC-7 | 1 | 25 | 2 | 10 | 10 | 3/4 | 38 | IAC-20 | 1 | 25 | 2 | 10 | 10 | 3/4 | 1.7 |
| 1.7 | 39 | IAC-8 | 1 | 25 | 2 | 10 | 10 | 3/4 | 40 | IAC-21 | 1 | 25 | 2 | 10 | 10 | 3/4 | 1.7 |
| 1.7 | 41 | IAC-9 | 1 | 25 | 2 | 10 | 10 | 3/4 | 42 | IAC-22 | 1 | 25 | 2 | 10 | 10 | 3/4 | 1.7 |

CONNECTED LOAD (SECTION I) 41.9 KVA — KVA PER PHASE: A 12.8 B 13.9 C 15.2

## PANEL R21S (SECTION II)

MOUNTING: SURFACE
VOLTAGE:208/120, 3PH, 4W — LOCATION: 1ST FLR SOUTH ELEC CLOSET
225 AMPERE BUS | 225 A MLO | 100% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 1.7 | 43 | IAC-10 | 1 | 25 | 2 | 10 | 10 | 3/4 | 44 | SPARE | 3 | 15 | | | | | |
| 1.7 | 45 | IAC-11 | 1 | 25 | 2 | 10 | 10 | 3/4 | 46 | - | - | - | - | - | - | - | |
| 1.7 | 47 | IAC-12 | 1 | 25 | 2 | 10 | 10 | 3/4 | 48 | - | - | - | - | - | - | - | |
| 0.5 | 49 | TSR-2 | 1 | 20 | 2 | 12 | 12 | 3/4 | 50 | OH COILING DOOR | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.1 |
| 0.5 | 51 | TSR-3 | 1 | 20 | 2 | 12 | 12 | 3/4 | 52 | CARPENTRY IAC SWITCH | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.2 |
| 0.5 | 53 | TSR-4 | 1 | 20 | 2 | 12 | 12 | 3/4 | 54 | IND MILL IAC SWITCH | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.2 |
| | 55 | SPARE | 3 | 15 | | | | | 56 | SPARE | 3 | 15 | | | | | |
| | 57 | - | - | - | - | - | - | - | 58 | - | - | - | - | - | - | - | |
| | 59 | - | - | - | - | - | - | - | 60 | - | - | - | - | - | - | - | |
| | 61 | SPARE | 3 | 15 | | | | | 62 | SPARE | 3 | 15 | | | | | |
| | 63 | - | - | - | - | - | - | - | 64 | - | - | - | - | - | - | - | |
| | 65 | - | - | - | - | - | - | - | 66 | - | - | - | - | - | - | - | |
| 0.5 | 67 | SHOP EPO'S | 1 | 20 | 2 | 12 | 12 | 3/4 | 68 | SHOP EPO'S | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| 0.2 | 69 | TPS-10 | 1 | 20 | 2 | 12 | 12 | 3/4 | 70 | TPS-5 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| 0.2 | 71 | TPS-11 | 1 | 20 | 2 | 12 | 12 | 3/4 | 72 | TPS-21 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| 0.2 | 73 | CA-1 | 1 | 20 | 2 | 12 | 12 | 3/4 | 74 | TPS-22 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| 0.2 | 75 | TPS-15 | 1 | 20 | 2 | 12 | 12 | 3/4 | 76 | TPS-23 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| 0.2 | 77 | TPS-16 | 1 | 20 | 2 | 12 | 12 | 3/4 | 78 | TPS-24 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| | 79 | SPACE | 1 | | | | | | 80 | TPS-20 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| | 81 | SPACE | 1 | | | | | | 82 | TPS-19 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| | 83 | SPACE | 1 | | | | | | 84 | TPS-12 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |

CONNECTED LOAD (SECTION II) 12 KVA — KVA PER PHASE: A 4.9 B 3.7 C 3.4
TOTAL CONNECTED LOAD 53.9 KVA — KVA PER PHASE: A 17.7 B 17.6 C 18.6

## PANEL H21SB

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W — LOCATION: MEZZANINE
225 AMPERE BUS | 225 A MCB | 100% RATED NEUTRAL BUS | 35,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 0.5 | 1 | RAF-6 | 3 | 15 | 3 | 12 | 12 | 3/4 | 2 | AIR COMPRESSOR | 3 | 50 | 3 | 6 | 10 | 1 | 11.7 |
| 0.5 | 3 | - | - | - | - | - | - | - | 4 | CA-1 | - | - | - | - | - | - | 11.7 |
| 0.5 | 5 | - | - | - | - | - | - | - | 6 | - | - | - | - | - | - | - | 11.7 |
| | 7 | SPARE | 3 | 60 | | | | | 8 | H&V-7 | 3 | 60 | 3 | 6 | 10 | 3/4 | 10.5 |
| | 9 | - | - | - | - | - | - | - | 10 | - | - | - | - | - | - | - | 10.5 |
| | 11 | - | - | - | - | - | - | - | 12 | - | - | - | - | - | - | - | 10.5 |
| 0.8 | 13 | MAU-1 | 3 | 15 | 3 | 12 | 12 | 3/4 | 14 | RAF-7 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.7 |
| 0.8 | 15 | - | - | - | - | - | - | - | 16 | - | - | - | - | - | - | - | 0.7 |
| 0.8 | 17 | - | - | - | - | - | - | - | 18 | - | - | - | - | - | - | - | 0.7 |
| | 19 | SPARE | 1 | 20 | | | | | 20 | SPARE | 3 | 15 | | | | | |
| 0.6 | 21 | MOTORIZED GATE | 2 | 15 | 2 | 12 | 12 | 3/4 | 22 | - | - | - | - | - | - | - | |
| 0.6 | 23 | (VIA CPT) | - | - | - | - | - | - | 24 | - | - | - | - | - | - | - | |
| 1.3 | 25 | WEF-4 | 3 | 15 | 3 | 12 | 12 | 3/4 | 26 | PAINT BOOTH | 3 | 40 | 3 | 6 | 10 | 1 | 7.8 |
| 1.3 | 27 | - | - | - | - | - | - | - | 28 | AUTOBODY | - | - | - | - | - | - | 7.8 |
| 1.3 | 29 | - | - | - | - | - | - | - | 30 | - | - | - | - | - | - | - | 7.8 |
| 3.1 | 31 | WEF-1 | 3 | 20 | 3 | 12 | 12 | 3/4 | 32 | WEF-2 | 3 | 15 | 3 | 12 | 12 | 3/4 | 1.3 |
| 3.1 | 33 | - | - | - | - | - | - | - | 34 | - | - | - | - | - | - | - | 1.3 |
| 3.1 | 35 | - | - | - | - | - | - | - | 36 | - | - | - | - | - | - | - | 1.3 |
| 1.3 | 37 | COEF-1 | 3 | 15 | 3 | 12 | 12 | 3/4 | 38 | WEF-3 | 3 | 15 | 3 | 12 | 12 | 3/4 | 1.3 |
| 1.3 | 39 | - | - | - | - | - | - | - | 40 | - | - | - | - | - | - | - | 1.3 |
| 1.3 | 41 | - | - | - | - | - | - | - | 42 | - | - | - | - | - | - | - | 1.3 |
| | 43 | SPARE | 3 | 15 | | | | | 44 | SPARE | 3 | 40 | | | | | |
| | 45 | - | - | - | - | - | - | - | 46 | - | - | - | - | - | - | - | |
| | 47 | - | - | - | - | - | - | - | 48 | - | - | - | - | - | - | - | |
| | 49 | SPACE | 3 | | | | | | 50 | RAF-8 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.5 |
| | 51 | - | - | - | - | - | - | - | 52 | - | - | - | - | - | - | - | 0.5 |
| | 53 | - | - | - | - | - | - | - | 54 | - | - | - | - | - | - | - | 0.5 |
| | 55 | SPACE | 3 | | | | | | 56 | SPACE | 3 | | | | | | |
| | 57 | - | - | - | - | - | - | - | 58 | - | - | - | - | - | - | - | |
| | 69 | - | - | - | - | - | - | - | 60 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 123.6 KVA — KVA PER PHASE: A 40.8 B 41.4 C 41.4

## PANEL H21A

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W — LOCATION: AUD ELEC CLOSET
225 AMPERE BUS | 150 A MCB | 100% RATED NEUTRAL BUS | 22,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 6.1 | 1 | SZVAV-5 | 3 | 35 | 3 | 8 | 10 | 3/4 | 2 | SZVAV-6 | 3 | 35 | 3 | 8 | 10 | 3/4 | 6.1 |
| 6.1 | 3 | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | 6.1 |
| 6.1 | 5 | - | - | - | - | - | - | - | 6 | - | - | - | - | - | - | - | 6.1 |
| 0.8 | 7 | RTU-1 | 3 | 15 | 3 | 12 | 12 | 3/4 | 8 | RTU-2 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 9 | - | - | - | - | - | - | - | 10 | - | - | - | - | - | - | - | 0.8 |
| 0.8 | 11 | - | - | - | - | - | - | - | 12 | - | - | - | - | - | - | - | 0.8 |
| 2.5 | 13 | H&V-9 | 3 | 15 | 3 | 12 | 12 | 3/4 | 14 | FCU- | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.1 |
| 2.5 | 15 | - | - | - | - | - | - | - | 16 | ERHP-1, ERHP-2 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.8 |
| 2.5 | 17 | - | - | - | - | - | - | - | 18 | SPARE | 1 | 20 | | | | | |
| 0.5 | 19 | RAF-9 | 3 | 15 | 3 | 12 | 12 | 3/4 | 20 | SPARE | 3 | 60 | | | | | |
| 0.5 | 21 | - | - | - | - | - | - | - | 22 | - | - | - | - | - | - | - | |
| 0.5 | 23 | - | - | - | - | - | - | - | 24 | - | - | - | - | - | - | - | |
| | 25 | SPARE | 3 | 15 | | | | | 26 | SPACE | 1 | | | | | | |
| | 27 | - | - | - | - | - | - | - | 28 | SPACE | 1 | | | | | | |
| | 29 | - | - | - | - | - | - | - | 30 | SPACE | 1 | | | | | | |

TOTAL CONNECTED LOAD 52.3 KVA — KVA PER PHASE: A 17.9 B 17.6 C 16.8

## PANEL H21G

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W — LOCATION: GYM ELEC CLOSET
225 AMPERE BUS | 150 A MCB | 100% RATED NEUTRAL BUS | 14,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 10.5 | 1 | SZVAV-1 | 3 | 60 | 3 | 6 | 10 | 3/4 | 2 | SZVAV-2 | 3 | 60 | 3 | 6 | 10 | 3/4 | 10.5 |
| 10.5 | 3 | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | 10.5 |
| 10.5 | 5 | - | - | - | - | - | - | - | 6 | - | - | - | - | - | - | - | 10.5 |
| 1.4 | 7 | FCU-1.21,22,24-27 | 1 | 15 | 2 | 12 | 12 | 3/4 | 8 | FCU-1.16,18,19,32,33 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.3 |
| 1.1 | 9 | FCU-1.11,12,34,35 | 1 | 15 | 2 | 12 | 12 | 3/4 | 10 | FCU-1.09,10,12-14 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.4 | 11 | FCU-1.20,28-31 | 1 | 15 | 2 | 12 | 12 | 3/4 | 12 | FCU-1.01-08 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.6 |
| 0.8 | 13 | FCU-1.17 | 3 | 15 | 3 | 12 | 12 | 3/4 | 14 | SPARE | 1 | 15 | | | | | |
| 0.8 | 15 | - | - | - | - | - | - | - | 16 | SPARE | 1 | 20 | | | | | |
| 0.8 | 17 | - | - | - | - | - | - | - | 18 | SPARE | 1 | 20 | | | | | |
| | 19 | SPARE | 3 | 15 | | | | | 20 | SPARE | 3 | 60 | | | | | |
| | 21 | - | - | - | - | - | - | - | 22 | - | - | - | - | - | - | - | |
| | 23 | - | - | - | - | - | - | - | 24 | - | - | - | - | - | - | - | |
| | 25 | SPACE | 1 | | | | | | 26 | SPACE | 1 | | | | | | |
| | 27 | SPACE | 1 | | | | | | 28 | SPACE | 1 | | | | | | |
| | 29 | SPACE | 1 | | | | | | 30 | SPACE | 1 | | | | | | |

TOTAL CONNECTED LOAD 73.2 KVA — KVA PER PHASE: A 24.5 B 23.9 C 24.8

| DH2 | H21SA | H21SB |
|---|---|---|
| H21W | | |
| R21W | R21S | H21A |
| H22W | | H21G |
| H22S | | |

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN


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The professional services of ABHA/BSA+A, LLC. are undertaken for and performed in the interest of the NCCVT School District. No contractual obligation is assumed by ABHA/BSA+A, LLC. for the benefit of any other person involved in the project.

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

2575 GLASGOW AVENUE
NEWARK, DE 19702

SHEET TITLE
**PANEL SCHEDULES**

SHEET NO.
**E602**

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN

## FUSIBLE DISTRIBUTION PANEL E2DH

MOUNTING: SURFACE | A.I.C. RATING: 100,000 | LOCATION: MAIN EMER ELEC RM
VOLTAGE: 480/277, 3 PHASE, 4 WIRE | 800A MAIN BUS | 800A MLO

**DISTRIBUTION SECTION**

| FDR NO | SERVES | SWITCH P | SWITCH FRAME | SWITCH FUSE | WIRING SETS | WIRING NO | WIRING SIZE | WIRING GND | WIRING C | REMARKS | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PANEL E2HMA | 3 | 200 | 200 | 1 | 4 | 3/0 | 6 | 2 | | 127.8 |
| 2 | PANEL E2HMB | 3 | 200 | 200 | 1 | 4 | 3/0 | 6 | 2 | | 75.9 |
| 3 | PANEL E2H1E | 3 | 200 | 200 | 1 | 4 | 3/0 | 6 | 2 | | 65.8 |
| 4 | PANEL E2H1G | 3 | 200 | 200 | 1 | 4 | 3/0 | 6 | 2 | | 46.4 |
| 5 | PANEL E2H1A | 3 | 100 | 100 | 1 | 4 | 1 | 8 | 1 1/2 | | 21.5 |
| 6 | PANEL E2H2E | 3 | 100 | 100 | 1 | 4 | 1 | 8 | 1 1/2 | | 4.7 |
| 7 | PANEL E2H2S | 3 | 200 | 200 | 1 | 4 | 3/0 | 6 | 2 | | 105.5 |
| 8 | PANEL E2H2N | 3 | 200 | 200 | 1 | 4 | 3/0 | 6 | 2 | | 64.1 |
| 9 | PANEL E2H2W | 3 | 100 | 100 | 1 | 4 | 1 | 8 | 1 1/2 | | 29.5 |
| 10 | SPARE | 3 | 200 | 200 | | | | | | | |
| 11 | SPARE | 3 | 100 | 100 | | | | | | | |
| 12 | SPACE | 3 | 100 | | | | | | | | |
| 13 | SPACE | 3 | 100 | | | | | | | | |
| 14 | SPACE | 3 | 100 | | | | | | | | |

TOTAL CONNECTED LOAD: 541.2 KVA

## FUSIBLE PANEL E2H1E

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W — LOCATION: 1ST FLR EAST ELEC CLOSET
200 AMPERE BUS | 200 A MAIN SWITCH | 100% RATED NEUTRAL BUS | 50,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | FUSE P | FUSE AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | FUSE P | FUSE AMPS | NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8.0 | 1 | ERV-3 | 3 | 45 | 3 | 8 | 10 | 3/4 | 2 | ERV-5 | 3 | 35 | 3 | 6 | 10 | 3/4 | 6.4 |
| 8.0 | 3 | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | 6.4 |
| 8.0 | 5 | - | - | - | - | - | - | - | 6 | - | - | - | - | - | - | - | 6.4 |
| 0.4 | 7 | FPP-5 | 3 | 15 | 3 | 12 | 12 | 3/4 | 8 | FPP-9 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.4 |
| 0.4 | 9 | - | - | - | - | - | - | - | 10 | - | - | - | - | - | - | - | 0.4 |
| 0.4 | 11 | - | - | - | - | - | - | - | 12 | - | - | - | - | - | - | - | 0.4 |
| 0.4 | 13 | VF-5 | 3 | 15 | 3 | 12 | 12 | 3/4 | 14 | VF-6 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.4 |
| 0.4 | 15 | - | - | - | - | - | - | - | 16 | - | - | - | - | - | - | - | 0.4 |
| 0.4 | 17 | - | - | - | - | - | - | - | 18 | - | - | - | - | - | - | - | 0.4 |
| | 19 | SPACE | 1 | | | | | | 20 | SPACE | 1 | | | | | | |
| | 21 | SPACE | 1 | | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | SPACE | 1 | | | | | | |
| 6.1 | 25 | PANEL E2R1E | 3 | 60 | REFER TO XFMR SCHEDULE | | | | 26 | SPACE | 1 | | | | | | |
| 5.0 | 27 | VIA XFMR TE2R1E | - | - | - | - | - | - | 28 | SPACE | 1 | | | | | | |
| 6.7 | 29 | - | - | - | - | - | - | - | 30 | SPACE | 1 | | | | | | |

CONNECTED LOAD (SECTION I): 65.8 KVA — KVA PER PHASE: A 22.1 B 21.0 C 22.7

## FUSIBLE PANEL E2R1E

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 1ST FLR EAST ELEC CLOSET
100 AMPERE BUS | 100 A MAIN FUSE | 100% RATED NEUTRAL BUS | 50,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | FUSE P | FUSE AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | FUSE P | FUSE AMPS | NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.2 | 1 | FPP-6 | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | SMOKE VENT | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.4 | 3 | FPP-10 | 1 | 15 | 2 | 12 | 12 | 3/4 | 4 | SMOKE VENT | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 5 | FPP-45 | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | SMOKE VENT | 1 | 20 | 2 | 10 | 10 | 3/4 | 1.2 |
| 0.4 | 7 | FPP-46 | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | SMOKE VENT | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 9 | FPP-49 | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | SMOKE VENT | 1 | 20 | 2 | 10 | 10 | 3/4 | 1.2 |
| 1.2 | 11 | FPP-50 | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | UH-6 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.3 |
| 1.2 | 13 | FPP-51 | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | UH-7 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.3 |
| 0.7 | 15 | VF-14 | 1 | 15 | 2 | 12 | 12 | 3/4 | 16 | UH-8 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.3 |
| 1.2 | 17 | SMOKE VENT | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | UH-18&19 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.6 |
| | 19 | SPARE | 1 | 15 | | | | | 20 | UH-16&17 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.6 |
| | 21 | SPARE | 1 | 20 | | | | | 22 | SPARE | 1 | 15 | | | | | |
| | 23 | SPARE | 1 | 20 | | | | | 24 | UH-31,32,33,34 | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.0 |
| | 25 | SPARE | 1 | 20 | | | | | 26 | SPACE | 1 | | | | | | |
| | 27 | SPARE | 1 | 20 | | | | | 28 | SPACE | 1 | | | | | | |
| | 29 | SPARE | 1 | 20 | | | | | 30 | SPACE | 1 | | | | | | |

TOTAL CONNECTED LOAD: 17.8 KVA — KVA PER PHASE: A 6.1 B 5.0 C 6.7

## FUSIBLE PANEL E2H2E

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W — LOCATION: 2ND FLR EAST ELEC CLOSET
100 AMPERE BUS | 100 A MAIN SWITCH | 100% RATED NEUTRAL BUS | 50,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | FUSE P | FUSE AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | FUSE P | FUSE AMPS | NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | SPARE | 3 | 30 | | | | | 2 | SPARE | 3 | 30 | | | | | |
| | 3 | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | |
| | 5 | - | - | - | - | - | - | - | 6 | - | - | - | - | - | - | - | |
| | 7 | SPACE | 1 | | | | | | 8 | SPACE | 1 | | | | | | |
| | 9 | SPACE | 1 | | | | | | 10 | SPACE | 1 | | | | | | |
| | 11 | SPACE | 1 | | | | | | 12 | SPACE | 1 | | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | SPACE | 1 | | | | | | |
| | 15 | SPACE | 1 | | | | | | 16 | SPACE | 1 | | | | | | |
| | 17 | SPACE | 1 | | | | | | 18 | SPACE | 1 | | | | | | |
| | 19 | SPACE | 1 | | | | | | 20 | SPACE | 1 | | | | | | |
| | 21 | SPACE | 1 | | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | SPACE | 1 | | | | | | |
| 2.0 | 25 | PANEL E2R2E | 3 | 30 | REFER TO XFMR SCHEDULE | | | | 26 | SPACE | 1 | | | | | | |
| 2.7 | 27 | VIA XFMR TE2R2E | - | - | - | - | - | - | 28 | SPACE | 1 | | | | | | |
| 0.0 | 29 | - | - | - | - | - | - | - | 30 | SPACE | 1 | | | | | | |

TOTAL CONNECTED LOAD: 4.7 KVA — KVA PER PHASE: A 2.0 B 2.7 C 0.0

## FUSIBLE PANEL E2R2E

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 2ND FLR EAST ELEC CLOSET
100 AMPERE BUS | 60 A MAIN FUSE | 100% RATED NEUTRAL BUS | 50,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | FUSE P | FUSE AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | FUSE P | FUSE AMPS | NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.5 | 1 | VF-18 | 1 | 15 | 2 | 12 | 12 | 3/4 | 2 | EUH-4 | 2 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.2 | 3 | SMOKE VENT | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | - | - | - | - | - | - | - | 1.5 |
| | 5 | | | | | | | | 6 | | | | | | | | |
| | 7 | SPACE | 1 | | | | | | 8 | SPACE | 1 | | | | | | |
| | 9 | SPACE | 1 | | | | | | 10 | SPACE | 1 | | | | | | |
| | 11 | SPACE | 1 | | | | | | 12 | SPACE | 1 | | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | SPACE | 1 | | | | | | |
| | 15 | SPACE | 1 | | | | | | 16 | SPACE | 1 | | | | | | |
| | 17 | SPACE | 1 | | | | | | 18 | SPACE | 1 | | | | | | |

TOTAL CONNECTED LOAD: 4.7 KVA — KVA PER PHASE: A 2.0 B 2.7 C 0.0

## FUSIBLE PANEL E2HMA

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W — LOCATION: MAIN MECHANICAL RM
200 AMPERE BUS | 200 A MAIN SWITCH | 100% RATED NEUTRAL BUS | 50,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | FUSE P | FUSE AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | FUSE P | FUSE AMPS | NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3.1 | 1 | PUMP-8 | 3 | 20 | 2 | 12 | 12 | 3/4 | 2 | PUMP-9 | 3 | 20 | 2 | 12 | 12 | 3/4 | 3.1 |
| 3.1 | 3 | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | 3.1 |
| 3.1 | 5 | - | - | - | - | - | - | - | 6 | - | - | - | - | - | - | - | 3.1 |
| 0.0 | 7 | PUMP-10 | 3 | 20 | 3 | 12 | 12 | 3/4 | 8 | PUMP-11 | 3 | 70 | 3 | 6 | 8 | 3/4 | 11.1 |
| 0.0 | 9 | - | - | - | - | - | - | - | 10 | - | - | - | - | - | - | - | 11.1 |
| 0.0 | 11 | - | - | - | - | - | - | - | 12 | - | - | - | - | - | - | - | 11.1 |
| 11.1 | 13 | PUMP-12 | 3 | 70 | 3 | 6 | 8 | 3/4 | 14 | PUMP-13 | 3 | 70 | 3 | 6 | 8 | 3/4 | 0.0 |
| 11.1 | 15 | - | - | - | - | - | - | - | 16 | - | - | - | - | - | - | - | 0.0 |
| 11.1 | 17 | - | - | - | - | - | - | - | 18 | - | - | - | - | - | - | - | 0.0 |
| 1.4 | 19 | BOILER-1 | 3 | 15 | 3 | 12 | 12 | 3/4 | 20 | BOILER-2 | 3 | 15 | 3 | 12 | 12 | 3/4 | 1.4 |
| 1.4 | 21 | - | - | - | - | - | - | - | 22 | - | - | - | - | - | - | - | 1.4 |
| 1.4 | 23 | - | - | - | - | - | - | - | 24 | - | - | - | - | - | - | - | 1.4 |
| 0.0 | 25 | BOILER-3 | 3 | 15 | 3 | 12 | 12 | 3/4 | 26 | VF-1 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.5 |
| 0.0 | 27 | - | - | - | - | - | - | - | 28 | - | - | - | - | - | - | - | 0.5 |
| 0.0 | 29 | - | - | - | - | - | - | - | 30 | - | - | - | - | - | - | - | 0.5 |
| | 31 | SPARE | 3 | 15 | | | | | 32 | SPARE | 3 | 20 | | | | | |
| | 33 | - | - | - | - | - | - | - | 34 | - | - | - | - | - | - | - | |
| | 35 | - | - | - | - | - | - | - | 36 | - | - | - | - | - | - | - | |
| 11.6 | 37 | PANEL E2RM | 3 | 90 | REFER TO XFMR SCHEDULE | | | | 38 | SPARE | 3 | 70 | | | | | |
| 10.2 | 39 | VIA XFMR TE2RM | - | - | - | - | - | - | 40 | - | - | - | - | - | - | - | |
| 10.9 | 41 | - | - | - | - | - | - | - | 42 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD: 127.8 KVA — KVA PER PHASE: A 43.3 B 41.9 C 42.6

## FUSIBLE PANEL E2HMB

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W — LOCATION: EMER ELEC RM
200 AMPERE BUS | 200 A MAIN SWITCH | 100% RATED NEUTRAL BUS | 50,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | FUSE P | FUSE AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | FUSE P | FUSE AMPS | NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10.5 | 1 | ERV-2 | 3 | 60 | 3 | 6 | 10 | 3/4 | 2 | FPP-3 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.6 |
| 10.5 | 3 | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | 0.6 |
| 10.5 | 5 | - | - | - | - | - | - | - | 6 | - | - | - | - | - | - | - | 0.6 |
| 0.4 | 7 | VF-3 | 3 | 15 | 3 | 12 | 12 | 3/4 | 8 | KEF-1 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.5 |
| 0.4 | 9 | - | - | - | - | - | - | - | 10 | - | - | - | - | - | - | - | 0.5 |
| 0.4 | 11 | - | - | - | - | - | - | - | 12 | - | - | - | - | - | - | - | 0.5 |
| 1.3 | 13 | KEF-2 | 3 | 15 | 3 | 12 | 12 | 3/4 | 14 | KEF-3 | 3 | 15 | 3 | 12 | 12 | 3/4 | 1.3 |
| 1.3 | 15 | - | - | - | - | - | - | - | 16 | - | - | - | - | - | - | - | 1.3 |
| 1.3 | 17 | - | - | - | - | - | - | - | 18 | - | - | - | - | - | - | - | 1.3 |
| 0.7 | 19 | KEF-4 | 3 | 15 | 3 | 12 | 12 | 3/4 | 20 | KEF-5 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.9 |
| 0.7 | 21 | - | - | - | - | - | - | - | 22 | - | - | - | - | - | - | - | 0.9 |
| 0.7 | 23 | - | - | - | - | - | - | - | 24 | - | - | - | - | - | - | - | 0.9 |
| 0.7 | 25 | KEF-6 | 3 | 15 | 3 | 12 | 12 | 3/4 | 26 | KEF-7 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.4 |
| 0.7 | 27 | - | - | - | - | - | - | - | 28 | - | - | - | - | - | - | - | 0.4 |
| 0.7 | 29 | - | - | - | - | - | - | - | 30 | - | - | - | - | - | - | - | 0.4 |
| 0.5 | 31 | KEF-8 | 3 | 15 | 3 | 12 | 12 | 3/4 | 32 | KEF-9 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.5 |
| 0.5 | 33 | - | - | - | - | - | - | - | 34 | - | - | - | - | - | - | - | 0.5 |
| 0.5 | 35 | - | - | - | - | - | - | - | 36 | - | - | - | - | - | - | - | 0.5 |
| 0.5 | 37 | FPP-40 | 3 | 15 | 3 | 12 | 12 | 3/4 | 38 | FPP-26 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.4 |
| 0.5 | 39 | - | - | - | - | - | - | - | 40 | - | - | - | - | - | - | - | 0.4 |
| 0.5 | 41 | - | - | - | - | - | - | - | 42 | - | - | - | - | - | - | - | 0.4 |

CONNECTED LOAD (SECTION I): 57.6 KVA — KVA PER PHASE: A 19.2 B 19.2 C 19.2

## FUSIBLE PANEL E2HMB (SECTION II)

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W — LOCATION: EMER ELEC RM
200 AMPERE BUS | 200 A MLO | 100% RATED NEUTRAL BUS | 50,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | FUSE P | FUSE AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | FUSE P | FUSE AMPS | NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.5 | 43 | KEF-10 | 3 | 15 | 3 | 12 | 12 | 3/4 | 44 | KEF-11 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.5 |
| 0.5 | 45 | - | - | - | - | - | - | - | 46 | - | - | - | - | - | - | - | 0.5 |
| 0.5 | 47 | - | - | - | - | - | - | - | 48 | - | - | - | - | - | - | - | 0.5 |
| 0.5 | 49 | KEF-12 | 3 | 15 | 3 | 12 | 12 | 3/4 | 50 | KEF-13 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.5 |
| 0.5 | 51 | - | - | - | - | - | - | - | 52 | - | - | - | - | - | - | - | 0.5 |
| 0.5 | 53 | - | - | - | - | - | - | - | 54 | - | - | - | - | - | - | - | 0.5 |
| 0.5 | 55 | KEF-14 | 3 | 15 | 3 | 12 | 12 | 3/4 | 56 | KEF-15 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.4 |
| 0.5 | 57 | - | - | - | - | - | - | - | 58 | - | - | - | - | - | - | - | 0.4 |
| 0.5 | 59 | - | - | - | - | - | - | - | 60 | - | - | - | - | - | - | - | 0.4 |
| 0.6 | 61 | FPP-35 | 3 | 15 | 3 | 12 | 12 | 3/4 | 62 | FPP-38 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.7 |
| 0.6 | 63 | - | - | - | - | - | - | - | 64 | - | - | - | - | - | - | - | 0.7 |
| 0.6 | 65 | - | - | - | - | - | - | - | 66 | - | - | - | - | - | - | - | 0.7 |
| 0.5 | 67 | FPP-39 | 3 | 15 | 3 | 12 | 12 | 3/4 | 68 | FPP-32 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.6 |
| 0.5 | 69 | - | - | - | - | - | - | - | 70 | - | - | - | - | - | - | - | 0.6 |
| 0.5 | 71 | - | - | - | - | - | - | - | 72 | - | - | - | - | - | - | - | 0.6 |
| 0.4 | 73 | FPP-24 | 3 | 15 | 3 | 12 | 12 | 3/4 | 74 | FPP-33 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.4 |
| 0.4 | 75 | - | - | - | - | - | - | - | 76 | - | - | - | - | - | - | - | 0.4 |
| 0.4 | 77 | - | - | - | - | - | - | - | 78 | - | - | - | - | - | - | - | 0.4 |
| | 79 | SPACE | 1 | | | | | | 80 | SPACE | 1 | | | | | | |
| | 81 | SPACE | 1 | | | | | | 82 | SPACE | 1 | | | | | | |
| | 83 | SPACE | 1 | | | | | | 84 | SPACE | 1 | | | | | | |

CONNECTED LOAD (SECTION II): 18.3 KVA — KVA PER PHASE: A 6.5 B 6.1 C 6.1
TOTAL CONNECTED LOAD: 75.9 KVA — KVA PER PHASE: A 25.7 B 25.3 C 25.3

## FUSIBLE PANEL E2R1G

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: GYM ELEC CLOSET
100 AMPERE BUS | 60 A MAIN FUSE | 100% RATED NEUTRAL BUS | 50,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | FUSE P | FUSE AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | FUSE P | FUSE AMPS | NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.6 | 1 | ATC PANEL-13 | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | FPP-2 | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.6 | 3 | ATC PANEL-15 | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | VF-11 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.5 |
| 0.6 | 5 | ATC PANEL-14 | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | FPP-23 | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.6 | 7 | ATC PANEL-4 | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | SPARE | 1 | 20 | | | | | |
| 0.6 | 9 | ATC PANEL-16 | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | SMOKE VENT | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| | 11 | SPARE | 1 | 20 | | | | | 12 | SMOKE VENT | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| | 13 | SPACE | 1 | | | | | | 14 | SPACE | 1 | | | | | | |
| | 15 | SPACE | 1 | | | | | | 16 | SPACE | 1 | | | | | | |
| | 17 | SPACE | 1 | | | | | | 18 | SPACE | 1 | | | | | | |

TOTAL CONNECTED LOAD: 8.3 KVA — KVA PER PHASE: A 2.4 B 2.9 C 3.0

## FUSIBLE PANEL E2RM

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: MAIN MECHANICAL RM
200 AMPERE BUS | 150 A MAIN FUSE | 100% RATED NEUTRAL BUS | 50,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | FUSE P | FUSE AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | FUSE P | FUSE AMPS | NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.6 | 1 | ATC PANEL-2 | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | GLYCOL MAKUP UNIT-2 | 1 | 25 | 2 | 10 | 10 | 3/4 | 1.7 |
| 0.6 | 3 | ATC PANEL-3 | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | WATERBOX HEATER-1 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.7 |
| 0.6 | 5 | ATC PANEL-1 | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | WATERBOX HEATER-2 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.7 |
| 1.2 | 7 | FPP-34 | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | FPP-4 | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 9 | FPP-36 | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | FPP-25 | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 11 | FPP-37 | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | FPP-27 | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| | 13 | SPARE | 1 | 20 | | | | | 14 | FPP-40 | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| | 15 | SPARE | 1 | 20 | | | | | 16 | SMOKE REMOVAL PNL | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.2 | 17 | FPP-40 | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | ATC PANEL-5 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 19 | SMOKE VENT CTR PNL | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | ATC PANEL-28 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| | 21 | SPARE | 2 | 20 | | | | | 22 | ATC PANEL-29 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| | 23 | - | - | - | - | - | - | - | 24 | ATC PANEL-30 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.2 | 25 | SMOKE VENT | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | BOILER EPO | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.2 | 27 | SMOKE VENT | 1 | 20 | 2 | 10 | 10 | 3/4 | 28 | SMOKE VENT | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.5 | 29 | EUH-3 | 2 | 20 | 2 | 12 | 12 | 3/4 | 30 | SMOKE VENT | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.5 | 31 | - | - | - | - | - | - | - | 32 | ATC PANEL-19 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.5 | 33 | EUH-1 | 2 | 20 | 2 | 12 | 12 | 3/4 | 34 | UH-1&2 | 1 | 15. | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.5 | 35 | - | - | - | - | - | - | - | 36 | UH-27,28 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.6 |
| | 37 | SPACE | 1 | | | | | | 38 | UH-29,30 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.6 |
| | 39 | SPACE | 1 | | | | | | 40 | EF-11 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.8 |
| | 41 | SPACE | 1 | | | | | | 42 | SPARE | 1 | 20 | | | | | |

TOTAL CONNECTED LOAD: 32.7 KVA — KVA PER PHASE: A 11.6 B 10.2 C 10.9

## FUSIBLE PANEL E2H1A

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W — LOCATION: AUD ELEC CLOSET
200 AMPERE BUS | 200 A MAIN SWITCH | 100% RATED NEUTRAL BUS | 50,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | FUSE P | FUSE AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | FUSE P | FUSE AMPS | NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.4 | 1 | FPP-28 | 3 | 15 | 3 | 12 | 12 | 3/4 | 2 | FPP-30 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.4 |
| 0.4 | 3 | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | 0.4 |
| 0.4 | 5 | - | - | - | - | - | - | - | 6 | - | - | - | - | - | - | - | 0.4 |
| | 7 | SPARE | 3 | 15 | | | | | 8 | SPARE | 3 | 15 | | | | | |
| | 9 | - | - | - | - | - | - | - | 10 | - | - | - | - | - | - | - | |
| | 11 | - | - | - | - | - | - | - | 12 | - | - | - | - | - | - | - | |
| | 13 | SPACE | 1 | | | | | | 14 | SPACE | 1 | | | | | | |
| | 15 | SPACE | 1 | | | | | | 16 | SPACE | 1 | | | | | | |
| | 17 | SPACE | 1 | | | | | | 18 | SPACE | 1 | | | | | | |
| | 19 | SPACE | 1 | | | | | | 20 | SPACE | 1 | | | | | | |
| | 21 | SPACE | 1 | | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | SPACE | 1 | | | | | | |
| 6.2 | 25 | PANEL E2R1A | 3 | 60 | REFER TO XFMR SCHEDULE | | | | 26 | SPACE | 1 | | | | | | |
| 6.4 | 27 | VIA XFMR TE2R1A | - | - | - | - | - | - | 28 | SPACE | 1 | | | | | | |
| 6.5 | 29 | - | - | - | - | - | - | - | 30 | SPACE | 1 | | | | | | |

TOTAL CONNECTED LOAD: 21.5 KVA — KVA PER PHASE: A 7.0 B 7.2 C 7.3

## FUSIBLE PANEL E2R1A

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: AUD ELEC CLOSET
100 AMPERE BUS | 100 A MAIN FUSE | 100% RATED NEUTRAL BUS | 50,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | FUSE P | FUSE AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | FUSE P | FUSE AMPS | NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.4 | 1 | FPP-58 | 1 | 15 | 2 | 12 | 12 | 3/4 | 2 | FPP-29 | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 3 | FPP-61 | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | FPP-31 | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 5 | SMOKE VENT | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | FPP-57 | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 7 | SMOKE VENT | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | FPP-59 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.4 |
| 1.2 | 9 | SMOKE VENT | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | SPARE | 1 | 20 | | | | | |
| 0.6 | 11 | ATC PANEL-17 | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | VF-12 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.5 |
| 0.6 | 13 | ATC PANEL-18 | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | SMOKE VENT | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.6 | 15 | ATC PANEL-35 | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | ATC PANEL-27 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 17 | ATC PANEL-34 | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | SMOKE VENT | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| | 19 | SPARE | 1 | 20 | | | | | 20 | SMOKE VENT | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.4 | 21 | UH-4&5 | 1 | 15 | 2 | 12 | 12 | 3/4 | 22 | SMOKE VENT | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 23 | FPP-60 | 1 | 20 | 2 | 12 | 12 | 3/4 | 24 | SPARE | 1 | 20 | | | | | |
| | 25 | SPARE | 1 | 20 | | | | | 26 | SPARE | 1 | 20 | | | | | |
| | 27 | SPARE | 1 | 20 | | | | | 28 | SPARE | 1 | 20 | | | | | |
| | 29 | SPARE | 1 | 20 | | | | | 30 | SPARE | 1 | 20 | | | | | |
| | 31 | SPACE | 1 | | | | | | 32 | SPACE | 1 | | | | | | |
| | 33 | SPACE | 1 | | | | | | 34 | SPACE | 1 | | | | | | |
| | 35 | SPACE | 1 | | | | | | 36 | SPACE | 1 | | | | | | |
| | 37 | SPACE | 1 | | | | | | 38 | SPACE | 1 | | | | | | |
| | 39 | SPACE | 1 | | | | | | 40 | SPACE | 1 | | | | | | |
| | 41 | SPACE | 1 | | | | | | 42 | SPACE | 1 | | | | | | |

TOTAL CONNECTED LOAD: 19.1 KVA — KVA PER PHASE: A 6.2 B 6.4 C 6.5

## FUSIBLE PANEL E2H1G

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W — LOCATION: GYM ELEC CLOSET
200 AMPERE BUS | 200 A MAIN SWITCH | 100% RATED NEUTRAL BUS | 50,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | FUSE P | FUSE AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | FUSE P | FUSE AMPS | NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10.5 | 1 | ERV-1 | 3 | 60 | 3 | 6 | 10 | 3/4 | 2 | FPP-1 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.6 |
| 10.5 | 3 | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | 0.6 |
| 10.5 | 5 | - | - | - | - | - | - | - | 6 | - | - | - | - | - | - | - | 0.6 |
| 0.6 | 7 | FPP-20 | 3 | 15 | 3 | 12 | 12 | 3/4 | 8 | FPP-21 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.4 |
| 0.6 | 9 | - | - | - | - | - | - | - | 10 | - | - | - | - | - | - | - | 0.4 |
| 0.6 | 11 | - | - | - | - | - | - | - | 12 | - | - | - | - | - | - | - | 0.4 |
| 0.6 | 13 | FPP-22 | 3 | 15 | 3 | 12 | 12 | 3/4 | 14 | SPARE | 3 | 15 | | | | | |
| 0.6 | 15 | - | - | - | - | - | - | - | 16 | - | - | - | - | - | - | - | |
| 0.6 | 17 | - | - | - | - | - | - | - | 18 | - | - | - | - | - | - | - | |
| | 19 | SPARE | 3 | 15 | | | | | 20 | SPACE | 1 | | | | | | |
| | 21 | - | - | - | - | - | - | - | 22 | SPACE | 1 | | | | | | |
| | 23 | - | - | - | - | - | - | - | 24 | SPACE | 1 | | | | | | |
| 2.4 | 25 | PANEL E2R1G | 3 | 30 | REFER TO XFMR SCHEDULE | | | | 26 | SPACE | 1 | | | | | | |
| 2.9 | 27 | VIA XFMR E2TR1G | - | - | - | - | - | - | 28 | SPACE | 1 | | | | | | |
| 3.0 | 29 | - | - | - | - | - | - | - | 30 | SPACE | 1 | | | | | | |

TOTAL CONNECTED LOAD: 46.4 KVA — KVA PER PHASE: A 15.1 B 15.6 C 15.7

| | | |
|---|---|---|
| E2DH | E2HMA | E2RM |
| E2H1E | | E2H1A |
| E2R1E | E2HMB | E2R1A |
| E2H2E | | E2H1G |
| E2R2E | E2R1G | |


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The professional services of ABHA/BSA+A, LLC. are undertaken for and performed in the interest of the NCCVT School District. No contractual obligation is assumed by ABHA/BSA+A, LLC. for the benefit of any other person involved in the project.

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

2575 GLASGOW AVENUE
NEWARK, DE 19702

SHEET TITLE
**PANEL SCHEDULES**

SHEET NO.
**E603**

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN

P1MAA | E2R2N | E2H2S
E2H2W
P1MAB | E2R2W | E2R2S
DP1M | E2H2N
P1MB

**PANEL P1MAA** (SECTION I) MOUNTING: SURFACE
VOLTAGE:208/120, 3PH, 4W LOCATION: MAIN ELECTRICAL ROOM
225 AMPERE BUS | 225 A MCB | 100% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.0 | 1 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 3 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 5 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 7 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 9 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 11 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| 1.1 | 13 | OH COILING DOOR | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| | 15 | SPARE | 3 | 15 | | | | | 16 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| | 17 | - | - | - | - | - | - | - | 18 | SPARE | 1 | 20 | | | | | |
| | 19 | - | - | - | - | - | - | - | 20 | SPARE | 1 | 20 | | | | | |
| | 21 | SPARE | 1 | 20 | | | | | 22 | SPARE | 1 | 20 | | | | | |
| | 23 | SPARE | 1 | 20 | | | | | 24 | SPARE | 1 | 20 | | | | | |
| | 25 | SPARE | 1 | 20 | | | | | 26 | SPARE | 1 | 20 | | | | | |
| | 27 | SPARE | 1 | 20 | | | | | 28 | SPARE | 1 | 20 | | | | | |
| | 29 | SPARE | 1 | 20 | | | | | 30 | SPARE | 1 | 20 | | | | | |
| | 31 | SPACE | 1 | | | | | | 32 | SPACE | 1 | | | | | | |
| | 33 | SPACE | 1 | | | | | | 34 | SPACE | 1 | | | | | | |
| | 35 | SPACE | 1 | | | | | | 36 | SPACE | 1 | | | | | | |
| | 37 | SPACE | 1 | | | | | | 38 | SPACE | 1 | | | | | | |
| | 39 | SPACE | 1 | | | | | | 40 | SPACE | 1 | | | | | | |
| | 41 | SPACE | 1 | | | | | | 42 | SPACE | 1 | | | | | | |

CONNECTED LOAD (SECTION I) 13.1 KVA — KVA PER PHASE: A 5.5 B 4.4 C 3.2

**PANEL P1MAA** (SECTION II) MOUNTING: SURFACE
VOLTAGE:208/120, 3PH, 4W LOCATION: MAIN ELECTRICAL ROOM
225 AMPERE BUS | 225 A MLO | 100% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 43 | SPARE | 1 | 20 | | | | | 44 | SPARE | 1 | 20 | | | | | |
| | 45 | SPARE | 1 | 20 | | | | | 46 | SPARE | 1 | 20 | | | | | |
| | 47 | SPARE | 1 | 20 | | | | | 48 | SPARE | 1 | 20 | | | | | |
| | 49 | SPARE | 1 | 20 | | | | | 50 | SPARE | 1 | 20 | | | | | |
| | 51 | SPARE | 1 | 20 | | | | | 52 | SPARE | 1 | 20 | | | | | |
| | 53 | SPARE | 1 | 20 | | | | | 54 | SPARE | 1 | 20 | | | | | |
| | 55 | SPARE | 1 | 20 | | | | | 56 | SPARE | 1 | 20 | | | | | |
| | 57 | SPARE | 1 | 20 | | | | | 58 | SPARE | 1 | 20 | | | | | |
| | 59 | SPARE | 1 | 20 | | | | | 60 | SPARE | 1 | 20 | | | | | |
| | 61 | SPARE | 1 | 20 | | | | | 62 | SPARE | 1 | 20 | | | | | |
| | 63 | SPARE | 1 | 20 | | | | | 64 | SPARE | 1 | 20 | | | | | |
| | 65 | SPARE | 1 | 20 | | | | | 66 | SPARE | 1 | 20 | | | | | |
| | 67 | SPARE | 1 | 20 | | | | | 68 | SPARE | 1 | 20 | | | | | |
| | 69 | SPARE | 1 | 20 | | | | | 70 | SPARE | 1 | 20 | | | | | |
| | 71 | SPARE | 1 | 20 | | | | | 72 | SPARE | 1 | 20 | | | | | |
| | 73 | SPACE | 1 | | | | | | 74 | SPACE | 1 | | | | | | |
| | 75 | SPACE | 1 | | | | | | 76 | SPACE | 1 | | | | | | |
| | 77 | SPACE | 1 | | | | | | 78 | SPACE | 1 | | | | | | |
| | 79 | SPACE | 1 | | | | | | 80 | SPACE | 1 | | | | | | |
| | 81 | SPACE | 1 | | | | | | 82 | SPACE | 1 | | | | | | |
| | 83 | SPACE | 1 | | | | | | 84 | SPACE | 1 | | | | | | |

CONNECTED LOAD (SECTION II) 0 KVA — KVA PER PHASE: A 0 B 0 C 0
TOTAL CONNECTED LOAD 13.1 KVA — KVA PER PHASE: A 5.5 B 4.4 C 3.2

**PANEL P1MAB** (SECTION I) MOUNTING: SURFACE
VOLTAGE:208/120, 3PH, 4W LOCATION: MAIN ELECTRICAL ROOM
225 AMPERE BUS | 225 A MCB | 100% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | SPARE | 1 | 20 | | | | | 2 | SPARE | 1 | 20 | | | | | |
| | 3 | SPARE | 1 | 20 | | | | | 4 | SPARE | 1 | 20 | | | | | |
| | 5 | SPARE | 1 | 20 | | | | | 6 | SPARE | 1 | 20 | | | | | |
| | 7 | SPARE | 1 | 20 | | | | | 8 | SPARE | 1 | 20 | | | | | |
| | 9 | SPARE | 1 | 20 | | | | | 10 | SPARE | 1 | 20 | | | | | |
| | 11 | SPARE | 1 | 20 | | | | | 12 | SPARE | 1 | 20 | | | | | |
| | 13 | SPARE | 1 | 20 | | | | | 14 | SPARE | 1 | 20 | | | | | |
| | 15 | SPARE | 1 | 20 | | | | | 16 | SPARE | 1 | 20 | | | | | |
| | 17 | SPARE | 1 | 20 | | | | | 18 | SPARE | 1 | 20 | | | | | |
| | 19 | SPARE | 1 | 20 | | | | | 20 | SPARE | 1 | 20 | | | | | |
| | 21 | SPARE | 1 | 20 | | | | | 22 | SPARE | 1 | 20 | | | | | |
| | 23 | SPARE | 1 | 20 | | | | | 24 | SPARE | 1 | 20 | | | | | |
| | 25 | SPARE | 1 | 20 | | | | | 26 | SPARE | 1 | 20 | | | | | |
| | 27 | SPARE | 1 | 20 | | | | | 28 | SPARE | 1 | 20 | | | | | |
| | 29 | SPARE | 1 | 20 | | | | | 30 | SPARE | 1 | 20 | | | | | |
| | 31 | SPACE | 1 | | | | | | 32 | SPACE | 1 | | | | | | |
| | 33 | SPACE | 1 | | | | | | 34 | SPACE | 1 | | | | | | |
| | 35 | SPACE | 1 | | | | | | 36 | SPACE | 1 | | | | | | |
| | 37 | SPACE | 1 | | | | | | 38 | SPACE | 1 | | | | | | |
| | 39 | SPACE | 1 | | | | | | 40 | SPACE | 1 | | | | | | |
| | 41 | SPACE | 1 | | | | | | 42 | SPACE | 1 | | | | | | |

CONNECTED LOAD (SECTION I) 0.0 KVA — KVA PER PHASE: A 0 B 0 C 0.0

**PANEL P1MAB** (SECTION II) MOUNTING: SURFACE
VOLTAGE:208/120, 3PH, 4W LOCATION: MAIN ELECTRICAL ROOM
225 AMPERE BUS | 225 A MLO | 100% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 43 | SPARE | 1 | 20 | | | | | 44 | SPARE | 1 | 20 | | | | | |
| | 45 | SPARE | 1 | 20 | | | | | 46 | SPARE | 1 | 20 | | | | | |
| | 47 | SPARE | 1 | 20 | | | | | 48 | SPARE | 1 | 20 | | | | | |
| | 49 | SPARE | 1 | 20 | | | | | 50 | SPARE | 1 | 20 | | | | | |
| | 51 | SPARE | 1 | 20 | | | | | 52 | SPARE | 1 | 20 | | | | | |
| | 53 | SPARE | 1 | 20 | | | | | 54 | SPARE | 1 | 20 | | | | | |
| | 55 | SPARE | 1 | 20 | | | | | 56 | SPARE | 1 | 20 | | | | | |
| | 57 | SPARE | 1 | 20 | | | | | 58 | SPARE | 1 | 20 | | | | | |
| | 59 | SPARE | 1 | 20 | | | | | 60 | SPARE | 1 | 20 | | | | | |
| | 61 | SPARE | 1 | 20 | | | | | 62 | SPARE | 1 | 20 | | | | | |
| | 63 | SPARE | 1 | 20 | | | | | 64 | SPARE | 1 | 20 | | | | | |
| | 65 | SPARE | 1 | 20 | | | | | 66 | SPARE | 1 | 20 | | | | | |
| | 67 | SPARE | 1 | 20 | | | | | 68 | SPARE | 1 | 20 | | | | | |
| | 69 | SPARE | 1 | 20 | | | | | 70 | SPARE | 1 | 20 | | | | | |
| | 71 | SPARE | 1 | 20 | | | | | 72 | SPARE | 1 | 20 | | | | | |
| | 73 | SPACE | 1 | | | | | | 74 | SPACE | 1 | | | | | | |
| | 75 | SPACE | 1 | | | | | | 76 | SPACE | 1 | | | | | | |
| | 77 | SPACE | 1 | | | | | | 78 | SPACE | 1 | | | | | | |
| | 79 | SPACE | 1 | | | | | | 80 | SPACE | 1 | | | | | | |
| | 81 | SPACE | 1 | | | | | | 82 | SPACE | 1 | | | | | | |
| | 83 | SPACE | 1 | | | | | | 84 | SPACE | 1 | | | | | | |

CONNECTED LOAD (SECTION II) 0 KVA — KVA PER PHASE: A 0 B 0 C 0
TOTAL CONNECTED LOAD 0 KVA — KVA PER PHASE: A 0 B 0 C 0

**FUSIBLE PANEL E2R2N** MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W LOCATION: 2ND FLR NORTH ELEC CLOSET
100 AMPERE BUS | 60 A MAIN FUSE | 100% RATED NEUTRAL BUS | 50,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | FUSE P | FUSE AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | FUSE P | FUSE AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.6 | 1 | FPP-8 | 1 | 15 | 2 | 12 | 12 | 3/4 | 2 | ATC PANEL-6 | 1 | 20 | 2 | 10 | 10 | 3/4 | 0.6 |
| 1.2 | 3 | FPP-14 | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | ATC PANEL-21 | 1 | 20 | 2 | 10 | 10 | 3/4 | 0.6 |
| 0.6 | 5 | ATC PANEL-10 | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | ATC PANEL-33 | 1 | 20 | 2 | 10 | 10 | 3/4 | 0.6 |
| 0.6 | 7 | ATC PANEL-7 | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | ATC PANEL-20 | 1 | 20 | 2 | 10 | 10 | 3/4 | 0.6 |
| 0.6 | 9 | ATC PANEL | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | SMOKE VENT | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.6 | 11 | ATC PANEL-19 | 1 | 20 | 2 | 10 | 10 | 3/4 | 12 | FPP-7 | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.5 | 13 | VF-14 | 1 | 15 | 2 | 12 | 12 | 3/4 | 14 | EF-5 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.5 | 15 | VF-17 | 1 | 15 | 2 | 12 | 12 | 3/4 | 16 | SPARE | 1 | 20 | | | | | |
| 0.8 | 17 | EF-4 | 1 | 15 | 2 | 12 | 12 | 3/4 | 18 | SPARE | 1 | 20 | | | | | |

TOTAL CONNECTED LOAD 11.6 KVA — KVA PER PHASE: A 3.7 B 4.1 C 3.8

**FUSIBLE PANEL E2H2W** MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W LOCATION: 2ND FLR WEST ELEC CLOSET
100 AMPERE BUS | 100 A MAIN SWITCH | 100% RATED NEUTRAL BUS | 50,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | FUSE P | FUSE AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | FUSE P | FUSE AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8.0 | 1 | ERV-8 | 3 | 45 | 3 | 8 | 10 | 3/4 | 2 | FPP-15 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.4 |
| 8.0 | 3 | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | 0.4 |
| 8.0 | 5 | - | - | - | - | - | - | - | 6 | - | - | - | - | - | - | - | 0.4 |
| | 7 | SPARE | 3 | 15 | | | | | 8 | SPARE | 3 | 15 | | | | | |
| | 9 | - | - | - | - | - | - | - | 10 | - | - | - | - | - | - | - | |
| | 11 | - | - | - | - | - | - | - | 12 | - | - | - | - | - | - | - | |
| | 13 | SPARE | 3 | 15 | | | | | 14 | SPARE | 3 | 60 | | | | | |
| | 15 | - | - | - | - | - | - | - | 16 | - | - | - | - | - | - | - | |
| | 17 | - | - | - | - | - | - | - | 18 | - | - | - | - | - | - | - | |
| | 19 | SPACE | 1 | | | | | | 20 | SPACE | 1 | | | | | | |
| | 21 | SPACE | 1 | | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | SPACE | 1 | | | | | | |
| 1.1 | 25 | PANEL E2R2W | 3 | 30 | REFER TO XFMR SCHEDULE | | | | 26 | SPACE | 1 | | | | | | |
| 1.3 | 27 | VIA XFMR TE2R2W | - | - | - | - | - | - | 28 | SPACE | 1 | | | | | | |
| 1.9 | 29 | - | - | - | - | - | - | - | 30 | SPACE | 1 | | | | | | |

TOTAL CONNECTED LOAD 29.5 KVA — KVA PER PHASE: A 9.5 B 9.7 C 10.3

**FUSIBLE PANEL E2R2W** MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W LOCATION: 2ND FLR WEST ELEC CLOSET
100 AMPERE BUS | 60 A MAIN FUSE | 100% RATED NEUTRAL BUS | 50,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | FUSE P | FUSE AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | FUSE P | FUSE AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.5 | 1 | VF-19 | 1 | 15 | 2 | 12 | 12 | 3/4 | 2 | ATC PANEL-8 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.7 | 3 | VF-15 | 1 | 15 | 2 | 12 | 12 | 3/4 | 4 | ATC PANEL-11 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.2 | 5 | FPP-16 | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | EF-1 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.7 |
| | 7 | SPARE | 1 | 20 | | | | | 8 | SPARE | 1 | 20 | | | | | |
| | 9 | SPARE | 1 | 20 | | | | | 10 | SPARE | 1 | 20 | | | | | |
| | 11 | SPARE | 1 | 20 | | | | | 12 | SPARE | 1 | 20 | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | SPACE | 1 | | | | | | |
| | 15 | SPACE | 1 | | | | | | 16 | SPACE | 1 | | | | | | |
| | 17 | SPACE | 1 | | | | | | 18 | SPACE | 1 | | | | | | |

TOTAL CONNECTED LOAD 4.3 KVA — KVA PER PHASE: A 1.1 B 1.3 C 1.9

**DISTRIBUTION PANEL DP1M**

MOUNTING: SURFACE | A.I.C. RATING: 65,000 | LOCATION: MAIN ELEC ROOM
VOLTAGE: 480/277, 3 PHASE, 4 WIRE | 800A MAIN BUS | 800A MCB

DISTRIBUTION SECTION

| FDR NO | SERVES | CIRCUIT BREAKER P | FRAME | TRIP | WIRING SETS | NO | SIZE | GND | C | REMARKS | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PANELS P1MAA/P1MAB (VIA XFMR TP1MA) | 3 | 400 | 300 | REFER TO XFMR SCHEDULE | | | | | | 13.1 |
| 2 | PANEL P1MB (VIA XFMR TP1MB) | 3 | 150 | 90 | REFER TO XFMR SCHEDULE | | | | | | 48.6 |
| 3 | SPARE | 3 | 225 | 150 | | | | | | | |
| 4 | SPARE | 3 | 225 | 150 | | | | | | | |
| 5 | SHELL SPACE | 3 | 400 | | 2 | | | | 4 | | |
| 6 | SHELL SPACE | 3 | 400 | | 2 | | | | 4 | | |
| 7 | SPARE | | | | | | | | | | |
| 8 | SPARE | | | | | | | | | | |
| 9 | SPACE | | | | | | | | | | |
| 10 | SPACE | | | | | | | | | | |
| 11 | SPACE | | | | | | | | | | |
| 12 | SPACE | | | | | | | | | | |
| 13 | SPACE | | | | | | | | | | |
| 14 | SPD | 3 | 60 | 60 | | | | | | | |

TOTAL CONNECTED LOAD: 61.7 KVA

**PANEL P1MB** MOUNTING: SURFACE
VOLTAGE: 480/277V, 3 PH, 4W (SINGLE SECTION PANEL) LOCATION: MAINTENANCE SHOP
225 AMPERE BUS | 150 A MCB W/ SHUNT TRIP (120V) COIL | 100% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.5 | 1 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 3 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 5 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 7 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 9 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 11 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 13 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 15 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 17 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 19 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | RECP | 2 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.8 | 21 | LIFT | 2 | 30 | 2 | 10 | 10 | 3/4 | 22 | - | - | - | - | - | - | - | 1.2 |
| 1.8 | 23 | - | - | - | - | - | - | - | 24 | RECP | 2 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.4 | 25 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | - | - | - | - | - | - | - | 1.2 |
| 1.2 | 27 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 28 | EWC | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.6 | 29 | RECPS | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 30 | SPARE | 3 | 15 | | | | | |
| 1.0 | 31 | REFRIGERATOR | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 32 | - | - | - | - | - | - | - | |
| 1.5 | 33 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 34 | - | - | - | - | - | - | - | |
| 1.5 | 35 | MICROWAVE | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 36 | SPARE | 3 | 15 | | | | | |
| | 37 | SPARE | 3 | 15 | | | | | 38 | - | - | - | - | - | - | - | |
| | 39 | - | - | - | - | - | - | - | 40 | - | - | - | - | - | - | - | |
| | 41 | - | - | - | - | - | - | - | 42 | RECP - ROOF | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| 1.1 | 43 | OH COILING DOOR | 1 | 20 | 2 | 12 | 12 | 3/4 | 44 | SPARE | 3 | 15 | | | | | |
| 1.1 | 45 | OH COILING DOOR | 1 | 20 | 2 | 12 | 12 | 3/4 | 46 | - | - | - | - | - | - | - | |
| 1.1 | 47 | OH COILING DOOR | 1 | 20 | 2 | 12 | 12 | 3/4 | 48 | - | - | - | - | - | - | - | |
| | 49 | SPARE | 1 | 20 | | | | | 50 | SPARE | 1 | 20 | | | | | |
| | 51 | SPARE | 1 | 20 | | | | | 52 | SPARE | 1 | 20 | | | | | |
| | 53 | SPARE | 1 | 20 | | | | | 54 | SPARE | 1 | 20 | | | | | |
| | 55 | SPACE | 1 | | | | | | 56 | SPACE | 1 | | | | | | |
| | 57 | SPACE | 1 | | | | | | 58 | SPACE | 1 | | | | | | |
| | 59 | SPACE | 1 | | | | | | 60 | SPACE | 1 | | | | | | |

TOTAL CONNECTED LOAD 48.6 KVA — KVA PER PHASE: A 15.3 B 15.7 C 14.1

**FUSIBLE PANEL E2H2S** MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W LOCATION: 2ND FLR SOUTH ELEC CLOSET
200 AMPERE BUS | 200 A MAIN SWITCH | 100% RATED NEUTRAL BUS | 50,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | FUSE P | FUSE AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | FUSE P | FUSE AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9.1 | 1 | ERV-6 | 3 | 50 | 3 | 8 | 10 | 3/4 | 2 | ERV-9 | 3 | 70 | 3 | 6 | 10 | 3/4 | 11.6 |
| 9.1 | 3 | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | 11.6 |
| 9.1 | 5 | - | - | - | - | - | - | - | 6 | - | - | - | - | - | - | - | 11.6 |
| 0.4 | 7 | FPP-43 | 3 | 15 | 3 | 12 | 12 | 3/4 | 8 | FPP-17 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.6 |
| 0.4 | 9 | - | - | - | - | - | - | - | 10 | - | - | - | - | - | - | - | 0.6 |
| 0.4 | 11 | - | - | - | - | - | - | - | 12 | - | - | - | - | - | - | - | 0.6 |
| 0.4 | 13 | FPP-44 | 3 | 15 | 3 | 12 | 12 | 3/4 | 14 | FPP-47 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.4 |
| 0.4 | 15 | - | - | - | - | - | - | - | 16 | - | - | - | - | - | - | - | 0.4 |
| 0.4 | 17 | - | - | - | - | - | - | - | 18 | - | - | - | - | - | - | - | 0.4 |
| 0.4 | 19 | FPP-54 | 3 | 15 | 3 | 12 | 12 | 3/4 | 20 | FPP-55 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.4 |
| 0.4 | 21 | - | - | - | - | - | - | - | 22 | - | - | - | - | - | - | - | 0.4 |
| 0.4 | 23 | - | - | - | - | - | - | - | 24 | - | - | - | - | - | - | - | 0.4 |
| 0.4 | 25 | FPP-11 | 3 | 15 | 3 | 12 | 12 | 3/4 | 26 | VF-7 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.7 |
| 0.4 | 27 | - | - | - | - | - | - | - | 28 | - | - | - | - | - | - | - | 0.7 |
| 0.4 | 29 | - | - | - | - | - | - | - | 30 | - | - | - | - | - | - | - | 0.7 |
| | 31 | SPARE | 3 | 60 | | | | | 32 | VF-8 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.5 |
| | 33 | - | - | - | - | - | - | - | 34 | - | - | - | - | - | - | - | 0.5 |
| | 35 | - | - | - | - | - | - | - | 36 | - | - | - | - | - | - | - | 0.5 |
| 9.0 | 37 | PANEL E2R2S | 3 | 90 | REFER TO XFMR SCHEDULE | | | | 38 | SPACE | 1 | | | | | | |
| 9.7 | 39 | VIA XFMR TE2R2S | - | - | - | - | - | - | 40 | SPACE | 1 | | | | | | |
| 9.4 | 41 | - | - | - | - | - | - | - | 42 | SPACE | 1 | | | | | | |

CONNECTED LOAD (SECTION I) 102.8 KVA — KVA PER PHASE: A 33.9 B 34.6 C 34.3

**FUSIBLE PANEL E2H2S** (SECTION II) MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W LOCATION: 2ND FLR SOUTH ELEC CLOSET
200 AMPERE BUS | 200 A MLO | 100% RATED NEUTRAL BUS | 50,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.4 | 43 | VF-9 | 3 | 15 | 3 | 12 | 12 | 3/4 | 44 | VF-10 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.5 |
| 0.4 | 45 | - | - | - | - | - | - | - | 46 | - | - | - | - | - | - | - | 0.5 |
| 0.4 | 47 | - | - | - | - | - | - | - | 48 | - | - | - | - | - | - | - | 0.5 |
| | 49 | SPARE | 3 | 15 | | | | | 50 | SPARE | 3 | 15 | | | | | |
| | 51 | - | - | - | - | - | - | - | 52 | - | - | - | - | - | - | - | |
| | 53 | - | - | - | - | - | - | - | 54 | - | - | - | - | - | - | - | |
| | 55 | SPACE | 3 | | | | | | 56 | SPACE | 3 | | | | | | |
| | 57 | - | - | - | - | - | - | - | 58 | - | - | - | - | - | - | - | |
| | 59 | - | - | - | - | - | - | - | 60 | - | - | - | - | - | - | - | |
| | 61 | SPACE | 3 | | | | | | 62 | SPACE | 3 | | | | | | |
| | 63 | - | - | - | - | - | - | - | 64 | - | - | - | - | - | - | - | |
| | 65 | - | - | - | - | - | - | - | 66 | - | - | - | - | - | - | - | |
| | 67 | SPACE | 3 | | | | | | 68 | SPACE | 3 | | | | | | |
| | 69 | - | - | - | - | - | - | - | 70 | - | - | - | - | - | - | - | |
| | 71 | - | - | - | - | - | - | - | 72 | - | - | - | - | - | - | - | |
| | 73 | SPACE | 3 | | | | | | 74 | SPACE | 3 | | | | | | |
| | 75 | - | - | - | - | - | - | - | 76 | - | - | - | - | - | - | - | |
| | 77 | - | - | - | - | - | - | - | 78 | - | - | - | - | - | - | - | |
| | 79 | SPACE | 1 | | | | | | 80 | SPACE | 1 | | | | | | |
| | 81 | SPACE | 1 | | | | | | 82 | SPACE | 1 | | | | | | |
| | 83 | SPACE | 1 | | | | | | 84 | SPACE | 1 | | | | | | |

CONNECTED LOAD (SECTION II) 2.7 KVA — KVA PER PHASE: A 0.9 B 0.9 C 0.9
TOTAL CONNECTED LOAD 105.5 KVA — KVA PER PHASE: A 34.8 B 35.5 C 35.2

**FUSIBLE PANEL E2R2S** MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W LOCATION: 2ND FLR SOUTH ELEC CLOSET
225 AMPERE BUS | 150 A MAIN FUSE | 100% RATED NEUTRAL BUS | 50,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | FUSE P | FUSE AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | FUSE P | FUSE AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.2 | 1 | FPP-12 | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | FPP-52 | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 3 | FPP-18 | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | FPP-53 | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.4 | 5 | FPP-41 | 1 | 15 | 2 | 12 | 12 | 3/4 | 6 | FPP-56 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.4 | 7 | FPP-42 | 1 | 15 | 2 | 12 | 12 | 3/4 | 8 | ATC PANEL-22 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| 0.8 | 9 | EF-6 | 1 | 15 | 2 | 12 | 12 | 3/4 | 10 | ATC PANEL-9 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| 1.2 | 11 | FPP-48 | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | ATC PANEL-32 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| 0.5 | 13 | ATC PANEL-24 | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | ATC PANEL-23 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| 0.5 | 15 | ATC PANEL-26 | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | ATC PANEL-31 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| 0.5 | 17 | ATC PANEL-12 | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | ATC PANEL-25 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| 0.2 | 19 | UH-24 | 1 | 15 | 2 | 12 | 12 | 3/4 | 20 | VF-16 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.5 |
| 0.4 | 21 | UH-22&23 | 1 | 15 | 2 | 12 | 12 | 3/4 | 22 | SMOKE VENT | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.4 | 23 | UH-20&21 | 1 | 15 | 2 | 12 | 12 | 3/4 | 24 | VF-20 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.7 |
| 0.4 | 25 | UH-25&26 | 1 | 15 | 2 | 12 | 12 | 3/4 | 26 | SMOKE VENT | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.4 | 27 | UH-27&28 | 1 | 15 | 2 | 12 | 12 | 3/4 | 28 | SMOKE VENT | 1 | 20 | 2 | 10 | 10 | 3/4 | 1.2 |
| 0.6 | 29 | UH-11,12&13 | 1 | 15 | 2 | 12 | 12 | 3/4 | 30 | SMOKE VENT | 1 | 20 | 2 | 10 | 10 | 3/4 | 1.2 |

CONNECTED LOAD (SECTION I) 20.9 KVA — KVA PER PHASE: A 6.6 B 7.9 C 6.4

**FUSIBLE PANEL E2R2S** (SECTION II) MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W LOCATION: 2ND FLR SOUTH ELEC CLOSET
225 AMPERE BUS | 225 A MLO | 100% RATED NEUTRAL BUS | 50,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.4 | 31 | UH-14&15 | 1 | 15 | 2 | 12 | 12 | 3/4 | 32 | SMOKE VENT | 1 | 20 | 2 | 10 | 10 | 3/4 | 1.2 |
| 0.2 | 33 | UH-10 | 1 | 15 | 2 | 12 | 12 | 3/4 | 34 | EF-2 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.2 | 35 | UH-9 | 1 | 15 | 2 | 12 | 12 | 3/4 | 36 | EF-3 | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| | 37 | SPACE | 1 | | | | | | 38 | EF-7 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.8 |
| | 39 | SPACE | 1 | | | | | | 40 | EF-8 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 41 | EF-10 | 1 | 15 | 2 | 12 | 12 | 3/4 | 42 | EF-9 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.8 |
| | 43 | SPARE | 1 | 20 | | | | | 44 | SPARE | 1 | 20 | | | | | |
| | 45 | SPARE | 1 | 20 | | | | | 46 | SPARE | 1 | 20 | | | | | |
| | 47 | SPARE | 1 | 20 | | | | | 48 | SPARE | 1 | 20 | | | | | |
| | 49 | SPARE | 1 | 20 | | | | | 50 | SPARE | 1 | 20 | | | | | |
| | 51 | SPARE | 1 | 20 | | | | | 52 | SPARE | 1 | 20 | | | | | |
| | 53 | SPARE | 1 | 20 | | | | | 54 | SPARE | 1 | 20 | | | | | |
| | 55 | SPARE | 1 | 20 | | | | | 56 | SPARE | 1 | 20 | | | | | |
| | 57 | SPARE | 1 | 20 | | | | | 58 | SPARE | 1 | 20 | | | | | |
| | 59 | SPACE | 1 | | | | | | 60 | SPACE | 1 | | | | | | |

CONNECTED LOAD (SECTION II) 7.2 KVA — KVA PER PHASE: A 2.4 B 1.8 C 3.0
TOTAL CONNECTED LOAD 28.1 KVA — KVA PER PHASE: A 9 B 9.7 C 9.4

**FUSIBLE PANEL E2H2N** MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W LOCATION: 2ND FLR NORTH ELEC CLOSET
200 AMPERE BUS | 200 A MAIN SWITCH | 100% RATED NEUTRAL BUS | 50,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | FUSE P | FUSE AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | FUSE P | FUSE AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10.5 | 1 | ERV-7 | 3 | 60 | 3 | 6 | 8 | 3/4 | 2 | ERV-4 | 3 | 35 | 3 | 8 | 10 | 3/4 | 6.4 |
| 10.5 | 3 | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | 6.4 |
| 10.5 | 5 | - | - | - | - | - | - | - | 6 | - | - | - | - | - | - | - | 6.4 |
| | 7 | SPARE | 3 | 15 | | | | | 8 | FPP-13 | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.6 |
| | 9 | - | - | - | - | - | - | - | 10 | - | - | - | - | - | - | - | 0.6 |
| | 11 | - | - | - | - | - | - | - | 12 | - | - | - | - | - | - | - | 0.6 |
| | 13 | SPARE | 3 | 15 | | | | | 14 | SPARE | 3 | 60 | | | | | |
| | 15 | - | - | - | - | - | - | - | 16 | - | - | - | - | - | - | - | |
| | 17 | - | - | - | - | - | - | - | 18 | - | - | - | - | - | - | - | |
| | 19 | SPACE | 1 | | | | | | 20 | SPACE | 1 | | | | | | |
| | 21 | SPACE | 1 | | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | SPACE | 1 | | | | | | |
| 3.7 | 25 | PANEL E2R2N | 3 | 30 | REFER TO XFMR SCHEDULE | | | | 26 | SPACE | 1 | | | | | | |
| 4.1 | 27 | VIA XFMR TE2R2N | - | - | - | - | - | - | 28 | SPACE | 1 | | | | | | |
| 3.8 | 29 | - | - | - | - | - | - | - | 30 | SPACE | 1 | | | | | | |

TOTAL CONNECTED LOAD 64.1 KVA — KVA PER PHASE: A 21.2 B 21.6 C 21.3


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The professional services of ABHA/BSA+A, LLC. are undertaken for and performed in the interest of the NCCVT School District. No contractual obligation is assumed by ABHA/BSA+A, LLC. for the benefit of any other person involved in the project.

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

2575 GLASGOW AVENUE
NEWARK, DE 19702

SHEET TITLE
**PANEL SCHEDULES**

SHEET NO.
**E604**

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN

## DISTRIBUTION PANEL DP1E

MOUNTING: SURFACE — A.I.C. RATING: 65,000 — LOCATION: 1ST FLR EAST EC
VOLTAGE: 480/277, 3 PHASE, 4 WIRE — 800A MAIN BUS — 800A MCB

DISTRIBUTION SECTION

| FDR NO | SERVES | CIRCUIT BREAKER P | FRAME | TRIP | WIRING SETS | NO | SIZE | GND | C | REMARKS | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PANELS P1EAA/PIEAB (VIA XFMR TP1EA) | 3 | 400 | 400 | REFER TO XFMR SCHEDULE | | | | | | 274.5 |
| 2 | PANELS P1EBA/P1EBB (VIA XFMR TP1EB) | 3 | 400 | 225 | REFER TO XFMR SCHEDULE | | | | | | 136.2 |
| 3 | PANEL P1EC (VIA XFMR TP1EC) | 3 | 100 | 60 | REFER TO XFMR SCHEDULE | | | | | | 9.4 |
| 4 | PANELS P1EDA/PIEDB (VIA XFMR TP1ED) | 3 | 400 | 300 | REFER TO XFMR SCHEDULE | | | | | | 0.8 |
| 5 | SPARE | 3 | 400 | 300 | | | | | | | |
| 6 | SPARE | 3 | 400 | 300 | | | | | | | |
| 7 | SPACE | 3 | 400 | | | | | | | | |
| 8 | SPACE | 3 | 400 | | | | | | | | |
| 9 | SPACE | 3 | 225 | | | | | | | | |
| 10 | SPACE | 3 | 225 | | | | | | | | |
| 11 | SPACE | 3 | 225 | | | | | | | | |
| 12 | SPACE | 3 | 225 | | | | | | | | |
| 13 | SPACE | 3 | 225 | | | | | | | | |
| 14 | SPACE | 3 | 225 | | | | | | | | |
| | TOTAL CONNECTED LOAD | | | | | | | | | | 420.9 KVA |

## PANEL P1EAA (SECTION I)

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: PLUMBING SHOP
400 AMPERE BUS — 400 A MCB W/ SHUNT TRIP (120V) COIL — 100% RATED NEUTRAL BUS — 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.5 | 1 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 2 | WELDING BOOTH-1 | 2 | 50 | 2 | 6 | 10 | 3/4 | 4.7 |
| 1.5 | 3 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 4 | - | - | - | - | - | - | - | 4.7 |
| 1.5 | 5 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 6 | WELDING BOOTH-1 | 2 | 100 | 2 | 1 | 8 | 1 1/4 | 8.3 |
| 1.5 | 7 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 8 | - | - | - | - | - | - | - | 8.3 |
| 1.5 | 9 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 10 | WELDING | 2 | 30 | 2 | 10 | 10 | 3/4 | 2.6 |
| 1.5 | 11 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 12 | - | - | - | - | - | - | - | 2.6 |
| 1.5 | 13 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 14 | WELDING | 2 | 30 | 2 | 10 | 10 | 3/4 | 2.6 |
| 1.5 | 15 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 16 | - | - | - | - | - | - | - | 2.6 |
| 1.5 | 17 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 18 | WELDING | 2 | 30 | 2 | 10 | 10 | 3/4 | 2.6 |
| 1.2 | 19 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | - | - | - | - | - | - | - | 2.6 |
| 1.2 | 21 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 22 | WELDING BOOTH-2 | 2 | 100 | 2 | 1 | 8 | 1 1/4 | 8.3 |
| 1.2 | 23 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 24 | - | - | - | - | - | - | - | 8.3 |
| 1.2 | 25 | RECP | 3 | 20 | 4 | 12 | 12 | 3/4 | 26 | WELDING BOOTH-2 | 2 | 50 | 2 | 6 | 10 | 3/4 | 4.7 |
| 1.2 | 27 | - | - | - | - | - | - | - | 28 | - | - | - | - | - | - | - | 4.7 |
| 1.2 | 29 | - | - | - | - | - | - | - | 30 | WELDING BOOTH-3 | 2 | 100 | 2 | 1 | 8 | 1 1/4 | 8.3 |
| 1.2 | 31 | RECP | 3 | 20 | 4 | 12 | 12 | 3/4 | 32 | - | - | - | - | - | - | - | 8.3 |
| 1.2 | 33 | - | - | - | - | - | - | - | 34 | WELDING BOOTH-3 | 2 | 50 | 2 | 6 | 10 | 3/4 | 4.7 |
| 1.2 | 35 | - | - | - | - | - | - | - | 36 | - | - | - | - | - | - | - | 4.7 |
| 1.2 | 37 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 38 | WELDING BOOTH-1 | 1 | 20 | 2 | 10 | 10 | 3/4 | 1.5 |
| 1.2 | 39 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 40 | WELDING BOOTH-2 | 1 | 20 | 2 | 10 | 10 | 3/4 | 1.5 |
| 1.2 | 41 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 42 | WELDING BOOTH-3 | 1 | 20 | 2 | 10 | 10 | 3/4 | 1.5 |

CONNECTED LOAD (SECTION I) 126.1 KVA — KVA PER PHASE: A 42.0 B 38.4 C 45.6

## PANEL P1EAA (SECTION II)

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: PLUMBING SHOP
400 AMPERE BUS — 400 A MLO — 100% RATED NEUTRAL BUS — 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.2 | 43 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 44 | SPARE | 2 | 50 | | | | | |
| 1.2 | 45 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 46 | - | - | - | - | - | - | - | |
| 1.2 | 47 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 48 | SPARE | 2 | 100 | | | | | |
| 1.2 | 49 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 50 | - | - | - | - | - | - | - | |
| 1.2 | 51 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 52 | SPARE | 2 | 30 | | | | | |
| 1.2 | 53 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 54 | - | - | - | - | - | - | - | |
| | 55 | SPARE | 3 | 20 | | | | | 56 | SPARE | 3 | 20 | | | | | |
| | 57 | - | - | - | - | - | - | - | 58 | - | - | - | - | - | - | - | |
| | 59 | - | - | - | - | - | - | - | 60 | - | - | - | - | - | - | - | |
| 1.2 | 61 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 62 | SPARE | 1 | 20 | | | | | |
| 1.2 | 63 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 64 | SPARE | 1 | 20 | | | | | |
| 1.2 | 65 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 66 | SPARE | 1 | 20 | | | | | |
| 1.2 | 67 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 68 | SPARE | 1 | 20 | | | | | |
| | 69 | SPARE | 1 | 20 | | | | | 70 | SPARE | 1 | 20 | | | | | |
| | 71 | SPARE | 1 | 20 | | | | | 72 | SPARE | 1 | 20 | | | | | |
| | 73 | SPACE | 1 | | | | | | 74 | SPACE | 1 | | | | | | |
| | 75 | SPACE | 1 | | | | | | 76 | SPACE | 1 | | | | | | |
| | 77 | SPACE | 1 | | | | | | 78 | SPACE | 1 | | | | | | |
| | 79 | SPACE | 1 | | | | | | 80 | SPACE | 1 | | | | | | |
| | 81 | SPACE | 1 | | | | | | 82 | SPACE | 1 | | | | | | |
| | 83 | SPACE | 1 | | | | | | 84 | SPACE | 1 | | | | | | |

CONNECTED LOAD (SECTION II) 12 KVA — KVA PER PHASE: A 4.8 B 3.6 C 3.6
**TOTAL CONNECTED LOAD** 138.1 **KVA** — KVA PER PHASE: A 46.8 B 42.0 C 49.2

## PANEL P1EAB (SECTION I)

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: PLUMBING SHOP
400 AMPERE BUS — 400 A MCB W/ SHUNT TRIP (120V) COIL — 100% RATED NEUTRAL BUS — 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.5 | 1 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 2 | WELDING BOOTH-4 | 2 | 50 | 2 | 6 | 10 | 3/4 | 4.7 |
| 1.5 | 3 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 4 | - | - | - | - | - | - | - | 4.7 |
| 1.5 | 5 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 6 | WELDING BOOTH-4 | 2 | 100 | 2 | 1 | 8 | 1 1/4 | 8.3 |
| 1.5 | 7 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 8 | - | - | - | - | - | - | - | 8.3 |
| 1.5 | 9 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 10 | WELDING | 2 | 30 | 2 | 10 | 10 | 3/4 | 2.6 |
| 1.5 | 11 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 12 | - | - | - | - | - | - | - | 2.6 |
| 1.0 | 13 | GEN RECP - STORAGE | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | WELDING | 2 | 30 | 2 | 10 | 10 | 3/4 | 2.6 |
| 1.5 | 15 | RECP - TOOL CHARGING | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | - | - | - | - | - | - | - | 2.6 |
| 1.5 | 17 | RECP - TOOL CHARGING | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | WELDING | 2 | 30 | 2 | 10 | 10 | 3/4 | 2.6 |
| 1.5 | 19 | RECP - TOOL CHARGING | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | - | - | - | - | - | - | - | 2.6 |
| 1.5 | 21 | RECP - TOOL CHARGING | 1 | 20 | 2 | 12 | 12 | 3/4 | 22 | WELDING BOOTH-5 | 2 | 100 | 2 | 1 | 8 | 1 1/4 | 8.3 |
| 0.8 | 23 | GEN RECP - LOCKERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 24 | - | - | - | - | - | - | - | 8.3 |
| 1.2 | 25 | RECP | 3 | 20 | 4 | 12 | 12 | 3/4 | 26 | WELDING BOOTH-5 | 2 | 50 | 2 | 6 | 10 | 3/4 | 4.7 |
| 1.2 | 27 | - | - | - | - | - | - | - | 28 | - | - | - | - | - | - | - | 4.7 |
| 1.2 | 29 | - | - | - | - | - | - | - | 30 | WELDING BOOTH-6 | 2 | 100 | 2 | 1 | 8 | 1 1/4 | 8.3 |
| 1.2 | 31 | RECP | 3 | 20 | 4 | 12 | 12 | 3/4 | 32 | - | - | - | - | - | - | - | 8.3 |
| 1.2 | 33 | - | - | - | - | - | - | - | 34 | WELDING BOOTH-6 | 2 | 50 | 2 | 6 | 10 | 3/4 | 4.7 |
| 1.2 | 35 | - | - | - | - | - | - | - | 36 | - | - | - | - | - | - | - | 4.7 |
| 1.2 | 37 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 38 | WELDING BOOTH-4 | 1 | 20GFI | 2 | 10 | 10 | 3/4 | 1.5 |
| 1.2 | 39 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 40 | WELDING BOOTH-5 | 1 | 20GFI | 2 | 10 | 10 | 3/4 | 1.5 |
| 1.2 | 41 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 42 | WELDING BOOTH-6 | 1 | 20GFI | 2 | 10 | 10 | 3/4 | 1.5 |

CONNECTED LOAD (SECTION I) 125.8 KVA — KVA PER PHASE: A 41.8 B 38.7 C 45.2

## PANEL P1EAB (SECTION II)

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: PLUMBING SHOP
400 AMPERE BUS — 400 A MLO — 100% RATED NEUTRAL BUS — 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.2 | 43 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 44 | SPARE | 2 | 50 | | | | | |
| 1.2 | 45 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 46 | - | - | - | - | - | - | - | |
| 1.2 | 47 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 48 | SPARE | 2 | 100 | | | | | |
| 1.2 | 49 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 50 | - | - | - | - | - | - | - | |
| 1.2 | 51 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 52 | SPARE | 2 | 30 | | | | | |
| 1.0 | 53 | EWC | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 54 | - | - | - | - | - | - | - | |
| 1.2 | 55 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 56 | SPARE | 3 | 20 | | | | | |
| 1.2 | 57 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 58 | - | - | - | - | - | - | - | |
| 1.2 | 59 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 60 | - | - | - | - | - | - | - | |
| | 61 | SPARE | 1 | 20 | | | | | 62 | SPARE | 1 | 20 | | | | | |
| | 63 | SPARE | 1 | 20 | | | | | 64 | SPARE | 1 | 20 | | | | | |
| | 65 | SPARE | 1 | 20 | | | | | 66 | SPARE | 1 | 20 | | | | | |
| | 67 | SPARE | 1 | 20 | | | | | 68 | SPARE | 1 | 20 | | | | | |
| | 69 | SPARE | 1 | 20 | | | | | 70 | SPARE | 1 | 20 | | | | | |
| | 71 | SPARE | 1 | 20 | | | | | 72 | SPARE | 1 | 20 | | | | | |
| | 73 | SPACE | 1 | | | | | | 74 | SPACE | 1 | | | | | | |
| | 75 | SPACE | 1 | | | | | | 76 | SPACE | 1 | | | | | | |
| | 77 | SPACE | 1 | | | | | | 78 | SPACE | 1 | | | | | | |
| | 79 | SPACE | 1 | | | | | | 80 | SPACE | 1 | | | | | | |
| | 81 | SPACE | 1 | | | | | | 82 | SPACE | 1 | | | | | | |
| | 83 | SPACE | 1 | | | | | | 84 | SPACE | 1 | | | | | | |

CONNECTED LOAD (SECTION II) 10.6 KVA — KVA PER PHASE: A 3.6 B 3.6 C 3.4
**TOTAL CONNECTED LOAD** 136.4 **KVA** — KVA PER PHASE: A 45.4 B 42.3 C 48.6

## PANEL P1EDA (SECTION I)

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 1ST FLR EAST ELEC CLOSET
225 AMPERE BUS — 225 A MCB W/ SHUNT TRIP (120V) COIL — 100% RATED NEUTRAL BUS — 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.8 | 1 | RECP/LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | SPARE | 1 | 20 | | | | | |
| | 3 | SPARE | 1 | 20 | | | | | 4 | SPARE | 1 | 20 | | | | | |
| | 5 | SPARE | 1 | 20 | | | | | 6 | SPARE | 1 | 20 | | | | | |
| | 7 | SPARE | 1 | 20 | | | | | 8 | SPARE | 1 | 20 | | | | | |
| | 9 | SPARE | 1 | 20 | | | | | 10 | SPARE | 1 | 20 | | | | | |
| | 11 | SPARE | 1 | 20 | | | | | 12 | SPARE | 1 | 20 | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | SPACE | 1 | | | | | | |
| | 15 | SPACE | 1 | | | | | | 16 | SPACE | 1 | | | | | | |
| | 17 | SPACE | 1 | | | | | | 18 | SPACE | 1 | | | | | | |
| | 19 | SPACE | 1 | | | | | | 20 | SPACE | 1 | | | | | | |
| | 21 | SPACE | 1 | | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | SPACE | 1 | | | | | | |
| | 25 | SPACE | 1 | | | | | | 26 | SPACE | 1 | | | | | | |
| | 27 | SPACE | 1 | | | | | | 28 | SPACE | 1 | | | | | | |
| | 29 | SPACE | 1 | | | | | | 30 | SPACE | 1 | | | | | | |
| | 31 | SPACE | 1 | | | | | | 32 | SPACE | 1 | | | | | | |
| | 33 | SPACE | 1 | | | | | | 34 | SPACE | 1 | | | | | | |
| | 35 | SPACE | 1 | | | | | | 36 | SPACE | 1 | | | | | | |
| | 37 | SPACE | 1 | | | | | | 38 | SPACE | 1 | | | | | | |
| | 39 | SPACE | 1 | | | | | | 40 | SPACE | 1 | | | | | | |
| | 41 | SPACE | 1 | | | | | | 42 | SPACE | 1 | | | | | | |

CONNECTED LOAD (SECTION I) 0.8 KVA — KVA PER PHASE: A 0.8 B 0 C 0.0

## PANEL P1EDA (SECTION II)

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 1ST FLR EAST ELEC CLOSET
225 AMPERE BUS — 225 A MLO — 100% RATED NEUTRAL BUS — 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 43 | SPARE | 1 | 20 | | | | | 44 | SPARE | 1 | 20 | | | | | |
| | 45 | SPARE | 1 | 20 | | | | | 46 | SPARE | 1 | 20 | | | | | |
| | 47 | SPARE | 1 | 20 | | | | | 48 | SPARE | 1 | 20 | | | | | |
| | 49 | SPARE | 1 | 20 | | | | | 50 | SPARE | 1 | 20 | | | | | |
| | 51 | SPARE | 1 | 20 | | | | | 52 | SPARE | 1 | 20 | | | | | |
| | 53 | SPARE | 1 | 20 | | | | | 54 | SPARE | 1 | 20 | | | | | |
| | 55 | SPACE | 1 | | | | | | 56 | SPACE | 1 | | | | | | |
| | 57 | SPACE | 1 | | | | | | 58 | SPACE | 1 | | | | | | |
| | 59 | SPACE | 1 | | | | | | 60 | SPACE | 1 | | | | | | |
| | 61 | SPACE | 1 | | | | | | 62 | SPACE | 1 | | | | | | |
| | 63 | SPACE | 1 | | | | | | 64 | SPACE | 1 | | | | | | |
| | 65 | SPACE | 1 | | | | | | 66 | SPACE | 1 | | | | | | |
| | 67 | SPACE | 1 | | | | | | 68 | SPACE | 1 | | | | | | |
| | 69 | SPACE | 1 | | | | | | 70 | SPACE | 1 | | | | | | |
| | 71 | SPACE | 1 | | | | | | 72 | SPACE | 1 | | | | | | |
| | 73 | SPACE | 1 | | | | | | 74 | SPACE | 1 | | | | | | |
| | 75 | SPACE | 1 | | | | | | 76 | SPACE | 1 | | | | | | |
| | 77 | SPACE | 1 | | | | | | 78 | SPACE | 1 | | | | | | |
| | 79 | SPACE | 1 | | | | | | 80 | SPACE | 1 | | | | | | |
| | 81 | SPACE | 1 | | | | | | 82 | SPACE | 1 | | | | | | |
| | 83 | SPACE | 1 | | | | | | 84 | SPACE | 1 | | | | | | |

CONNECTED LOAD (SECTION II) 0 KVA — KVA PER PHASE: A 0 B 0 C 0
**TOTAL CONNECTED LOAD** 0.8 **KVA** — KVA PER PHASE: A 0.8 B 0 C 0

## PANEL P1EC

MOUNTING: SURFACE (NEMA 12)
VOLTAGE: 208/120, 3PH, 4W — LOCATION: MASONRY SHOP
100 AMPERE BUS — 100 A MCB W/ SHUNT TRIP (120V) COIL — 100% RATED NEUTRAL BUS — 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.0 | 1 | EWC | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 2 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 3 | ELEC MORTAR MIXER | 2 | 20 | 3 | 12 | 12 | 3/4 | 4 | TABLE SAW | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 5 | - | - | - | - | - | - | - | 6 | CHOP SAW | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.6 | 7 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| 0.2 | 9 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| 0.2 | 11 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| 0.2 | 13 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| 0.2 | 15 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | SPARE | 1 | 20 | | | | | |
| 0.2 | 17 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | SPARE | 2 | 20 | | | | | |
| | 19 | SPARE | 1 | 20 | | | | | 20 | - | - | - | - | - | - | - | |
| | 21 | SPARE | 1 | 20 | | | | | 22 | SPARE | 2 | 20 | | | | | |
| | 23 | SPARE | 1 | 20 | | | | | 24 | - | - | - | - | - | - | - | |
| | 25 | SPARE | 1 | 20 | | | | | 26 | SPARE | 1 | 20 | | | | | |
| | 27 | SPARE | 1 | 20 | | | | | 28 | SPARE | 1 | 20 | | | | | |
| | 29 | SPARE | 1 | 20 | | | | | 30 | SPARE | 1 | 20 | | | | | |
| | 31 | SPACE | 1 | | | | | | 32 | SPACE | 1 | | | | | | |
| | 33 | SPACE | 1 | | | | | | 34 | SPACE | 1 | | | | | | |
| | 35 | SPACE | 1 | | | | | | 36 | SPACE | 1 | | | | | | |
| | 37 | SPACE | 1 | | | | | | 38 | SPACE | 1 | | | | | | |
| | 39 | SPACE | 1 | | | | | | 40 | SPACE | 1 | | | | | | |
| | 41 | SPACE | 1 | | | | | | 42 | SPACE | 1 | | | | | | |

**TOTAL CONNECTED LOAD** 9.4 KVA — KVA PER PHASE: A 3.4 B 3 C 3.0

## PANEL P1EBA

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: ELECTRICAL SHOP
225 AMPERE BUS — 200 A MCB W/ SHUNT TRIP (120V) COIL — 100% RATED NEUTRAL BUS — 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.8 | 1 | MC WORKSTATION | 3 | 30 | 4 | 10 | 10 | 3/4 | 2 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.8 | 3 | - | - | - | - | - | - | - | 4 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.8 | 5 | - | - | - | - | - | - | - | 6 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.8 | 7 | MC WORKSTATION | 3 | 30 | 4 | 10 | 10 | 3/4 | 8 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.8 | 9 | - | - | - | - | - | - | - | 10 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.8 | 11 | - | - | - | - | - | - | - | 12 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.8 | 13 | MC WORKSTATION | 3 | 30 | 4 | 10 | 10 | 3/4 | 14 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.8 | 15 | - | - | - | - | - | - | - | 16 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.8 | 17 | - | - | - | - | - | - | - | 18 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.8 | 19 | MC WORKSTATION | 3 | 30 | 4 | 10 | 10 | 3/4 | 20 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.8 | 21 | - | - | - | - | - | - | - | 22 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.8 | 23 | - | - | - | - | - | - | - | 24 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.8 | 25 | MC WORKSTATION | 3 | 30 | 4 | 10 | 10 | 3/4 | 26 | EWC | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.8 | 27 | - | - | - | - | - | - | - | 28 | RECP STORAGE | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.8 | 29 | - | - | - | - | - | - | - | 30 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| | 31 | SPARE | 3 | 30 | | | | | 32 | LOADCENTER LC-4 | 2 | 60 | 3 | 4 | 8 | 1 | 4.2 |
| | 33 | - | - | - | - | - | - | - | 34 | - | - | - | - | - | - | - | 4.2 |
| | 35 | - | - | - | - | - | - | - | 36 | LOADCENTER LC-5 | 2 | 60 | 3 | 4 | 8 | 1 | 4.2 |
| 0.8 | 37 | MC RM RECPS | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 38 | - | - | - | - | - | - | - | 4.2 |
| 1.2 | 39 | MC RM DROP CORD | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 40 | LOADCENTER CONTROLS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.2 | 41 | MC RM DROP CORD | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 42 | SPACE | 1 | | | | | | |
| | 43 | SPARE | 3 | 20 | | | | | 44 | SPACE | 1 | | | | | | |
| | 45 | - | - | - | - | - | - | - | 46 | SPACE | 1 | | | | | | |
| | 47 | - | - | - | - | - | - | - | 48 | SPACE | 1 | | | | | | |
| | 49 | SPARE | 3 | 20 | | | | | 50 | SPACE | 1 | | | | | | |
| | 51 | - | - | - | - | - | - | - | 52 | SPARE | 1 | 20 | | | | | |
| | 53 | - | - | - | - | - | - | - | 54 | SPARE | 1 | 20 | | | | | |
| | 55 | SPARE | 3 | 20 | | | | | 56 | SPARE | 3 | 20 | | | | | |
| | 57 | - | - | - | - | - | - | - | 58 | - | - | - | - | - | - | - | |
| | 59 | - | - | - | - | - | - | - | 60 | - | - | - | - | - | - | - | |

**TOTAL CONNECTED LOAD** 66.0 KVA — **KVA PER PHASE:** A 24.2 B 21.4 C 20.4

## PANEL P1EBB

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: ELECTRICAL SHOP
225 AMPERE BUS — 200 A MCB W/ SHUNT TRIP (120V) COIL — 100% RATED NEUTRAL BUS — 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.2 | 1 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 2 | MC WORKSTATION | 3 | 30 | 4 | 10 | 10 | 3/4 | 1.8 |
| 1.2 | 3 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 4 | - | - | - | - | - | - | - | 1.8 |
| 1.2 | 5 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 6 | - | - | - | - | - | - | - | 1.8 |
| 1.2 | 7 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 8 | MC WORKSTATION | 3 | 30 | 4 | 10 | 10 | 3/4 | 1.8 |
| 1.2 | 9 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 10 | - | - | - | - | - | - | - | 1.8 |
| 1.2 | 11 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 12 | - | - | - | - | - | - | - | 1.8 |
| 4.2 | 13 | LOADCENTER LC-1 | 2 | 60 | 3 | 4 | 8 | 1 | 4.2 | MC WORKSTATION | 3 | 30 | 4 | 10 | 10 | 3/4 | 1.8 |
| 4.2 | 15 | - | - | - | - | - | - | - | 4.2 | - | - | - | - | - | - | - | 1.8 |
| 4.2 | 17 | LOADCENTER LC-2 | 2 | 60 | 3 | 4 | 8 | 1 | 4.2 | - | - | - | - | - | - | - | 1.8 |
| 4.2 | 19 | - | - | - | - | - | - | - | 4.2 | MC WORKSTATION | 3 | 30 | 4 | 10 | 10 | 3/4 | 1.8 |
| 4.2 | 21 | LOADCENTER LC-3 | 2 | 60 | 3 | 4 | 8 | 1 | 4.2 | - | - | - | - | - | - | - | 1.8 |
| 4.2 | 23 | - | - | - | - | - | - | - | 4.2 | - | - | - | - | - | - | - | 1.8 |
| 1.2 | 25 | CONDUIT THREAD MACH | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | MC WORKSTATION | 3 | 30 | 4 | 10 | 10 | 3/4 | 1.8 |
| 1.2 | 27 | CONDUIT THREAD MACH | 1 | 20 | 2 | 12 | 12 | 3/4 | 28 | - | - | - | - | - | - | - | 1.8 |
| 1.2 | 29 | CONDUIT THREAD MACH | 1 | 20 | 2 | 12 | 12 | 3/4 | 30 | - | - | - | - | - | - | - | 1.8 |
| 1.2 | 31 | CONDUIT BENDING MACH | 1 | 20 | 2 | 12 | 12 | 3/4 | 32 | ELEC SHOP DROP CORD | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 33 | PVC BENDING MACHINE | 1 | 20 | 2 | 12 | 12 | 3/4 | 34 | ELEC SHOP DROP CORD | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 35 | PVC BENDING MACHINE | 1 | 20 | 2 | 12 | 12 | 3/4 | 36 | ELEC SHOP DROP CORD | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| | 37 | SPARE | 3 | 20 | | | | | 38 | SPARE | 1 | 20 | | | | | |
| | 39 | - | - | - | - | - | - | - | 40 | SPARE | 1 | 20 | | | | | |
| | 41 | - | - | - | - | - | - | - | 42 | SPARE | 1 | 20 | | | | | |
| | 43 | SPARE | 3 | 20 | | | | | 44 | SPARE | 1 | 20 | | | | | |
| | 45 | - | - | - | - | - | - | - | 46 | SPARE | 1 | 20 | | | | | |
| | 47 | - | - | - | - | - | - | - | 48 | SPARE | 1 | 20 | | | | | |
| | 49 | SPARE | 3 | 20 | | | | | 50 | SPARE | 3 | 20 | | | | | |
| | 51 | - | - | - | - | - | - | - | 52 | - | - | - | - | - | - | - | |
| | 53 | - | - | - | - | - | - | - | 54 | - | - | - | - | - | - | - | |
| | 55 | SPARE | 3 | 20 | | | | | 56 | SPARE | 3 | 20 | | | | | |
| | 57 | - | - | - | - | - | - | - | 58 | - | - | - | - | - | - | - | |
| | 59 | - | - | - | - | - | - | - | 60 | - | - | - | - | - | - | - | |

**TOTAL CONNECTED LOAD** 70.2 KVA — **KVA PER PHASE:** A 23.4 B 23.4 C 23.4

| | | |
|---|---|---|
| DP1E | P1EAB | P1EC |
| P1EAA | | P1EBA |
| | P1EDA | P1EBB |


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The professional services of ABHA/BSA+A, LLC. are undertaken for and performed in the interest of the NCCVT School District. No contractual obligation is assumed by ABHA/BSA+A, LLC. for the benefit of any other person involved in the project.

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

2575 GLASGOW AVENUE
NEWARK, DE 19702

SHEET TITLE
**PANEL SCHEDULES**

SHEET NO.
**E605**

## DISTRIBUTION PANEL DP2S

| | | |
|---|---|---|
| MOUNTING: SURFACE | A.I.C. RATING: 65,000 | LOCATION: 1ST FLR SOUTH EC |
| VOLTAGE: 480/277, 3 PHASE, 4 WIRE | 1200A MAIN BUS | 1200A MLO |

### DISTRIBUTION SECTION

| FDR NO | SERVES | CIRCUIT BREAKER P | FRAME | TRIP | WIRING SETS | NO | SIZE | GND | C | REMARKS | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PANELS P2SAA/P2SAB (VIA XFMR TP2SA) | 3 | 400 | 400 | REFER TO XFMR SCHEDULE | | | | | | 271.3 |
| 2 | PANELS P2SBA/P2SBB (VIA XFMR TP2SB) | 3 | 400 | 400 | REFER TO XFMR SCHEDULE | | | | | | 202.7 |
| 3 | PANELS P2SCA/P2SCB (VIA XFMR TP2SC) | 3 | 400 | 400 | REFER TO XFMR SCHEDULE | | | | | | 207.8 |
| 4 | PANELS P2SDA/P2SDB (VIA XFMR TP2SD) | 3 | 400 | 300 | REFER TO XFMR SCHEDULE | | | | | | 124.4 |
| 5 | PANELS P2SEA/P2SEB (VIA XFMR TP2SE) | 3 | 400 | 300 | REFER TO XFMR SCHEDULE | | | | | | 108.4 |
| 6 | SPARE | 3 | 400 | 400 | | | | | | | |
| 7 | SPARE | 3 | 400 | 400 | | | | | | | |
| 8 | SPACE | 3 | 400 | | | | | | | | |
| 9 | SPACE | 3 | 400 | | | | | | | | |
| 10 | SPACE | 3 | 225 | | | | | | | | |
| 11 | SPACE | 3 | 225 | | | | | | | | |
| 12 | SPACE | 3 | 225 | | | | | | | | |
| 13 | SPACE | 3 | 225 | | | | | | | | |
| 14 | SPACE | 3 | 225 | | | | | | | | |
| | TOTAL CONNECTED LOAD | | | | | | | | | | 914.6 KVA |

## PANEL P2SAA (SECTION I)

MOUNTING: SURFACE
VOLTAGE:208/120, 3PH, 4W — LOCATION: AUTO TECH SHOP
400 AMPERE BUS — 400 A MCB W/ SHUNT TRIP (120V) COIL — 100% RATED NEUTRAL BUS — 25,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.5 | 1 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | LIFT [E-AT-1] | 2 | 30 | 2 | 10 | 10 | 3/4 | 1.8 |
| 1.5 | 3 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | - | - | - | - | - | - | - | 1.8 |
| 1.5 | 5 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 7 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 9 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | LIFT [E-AT-1] | 2 | 30 | 2 | 10 | 10 | 3/4 | 1.8 |
| 1.5 | 11 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | - | - | - | - | - | - | - | 1.8 |
| 1.5 | 13 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 15 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 17 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | LIFT [E-AT-1] | 2 | 30 | 2 | 10 | 10 | 3/4 | 1.8 |
| 1.5 | 19 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | - | - | - | - | - | - | - | 1.8 |
| 1.5 | 21 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 22 | LIFT [E-AT-1] | 2 | 30 | 2 | 10 | 10 | 3/4 | 1.8 |
| 1.5 | 23 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 24 | - | - | - | - | - | - | - | 1.8 |
| 1.5 | 25 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 27 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 28 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 29 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 30 | LIFT [E-AT-1] | 2 | 30 | 2 | 10 | 10 | 3/4 | 1.8 |
| 1.2 | 31 | CORD REEL | 2 | 20 | 2 | 12 | 12 | 3/4 | 32 | - | - | - | - | - | - | - | 1.8 |
| 1.2 | 33 | - | - | - | - | - | - | - | 34 | CORD REEL | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.2 | 35 | TIRE BALANCER [E-AT-8] | 2 | 20 | 2 | 12 | 12 | 3/4 | 36 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.2 | 37 | - | - | - | - | - | - | - | 38 | LIFT [E-AT-1] | 2 | 30 | 2 | 10 | 10 | 3/4 | 1.8 |
| 2.2 | 39 | LIFT [E-AT-1] | 2 | 40 | 2 | 8 | 10 | 3/4 | 40 | - | - | - | - | - | - | - | 1.8 |
| 2.2 | 41 | - | - | - | - | - | - | - | 42 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |

CONNECTED LOAD (SECTION I): 66.8 KVA — KVA PER PHASE: A 21.6 B 22.6 C 22.6

## PANEL P2SAA (SECTION II)

MOUNTING: SURFACE
VOLTAGE:208/120, 3PH, 4W — LOCATION: AUTO TECH SHOP
400 AMPERE BUS — 400 A MLO — 100% RATED NEUTRAL BUS — 25,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.5 | 43 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 44 | RECP | 2 | 30 | 2 | 10 | 10 | 3/4 | 2.5 |
| 1.5 | 45 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 46 | - | - | - | - | - | - | - | 2.5 |
| 1.5 | 47 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 48 | RECP | 2 | 30 | 2 | 10 | 10 | 3/4 | 2.5 |
| 1.5 | 49 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 50 | - | - | - | - | - | - | - | 2.5 |
| 1.5 | 51 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 52 | RECP | 2 | 30 | 2 | 10 | 10 | 3/4 | 2.5 |
| 1.5 | 53 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 54 | - | - | - | - | - | - | - | 2.5 |
| 1.5 | 55 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 56 | RECP | 2 | 30 | 2 | 10 | 10 | 3/4 | 2.5 |
| 1.8 | 57 | ALIGNMENT LIFT [E-AT-2] | 2 | 30 | 3 | 10 | 10 | 3/4 | 58 | - | - | - | - | - | - | - | 2.5 |
| 1.8 | 59 | - | - | - | - | - | - | - | 60 | RECP | 2 | 30 | 2 | 10 | 10 | 3/4 | 2.5 |
| 0.4 | 61 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 62 | - | - | - | - | - | - | - | 2.5 |
| | 63 | SPARE | 2 | 30 | | | | | 64 | RECP | 2 | 30 | 2 | 10 | 10 | 3/4 | 2.5 |
| | 65 | - | - | - | - | - | - | - | 66 | - | - | - | - | - | - | - | 2.5 |
| | 67 | SPARE | 2 | 30 | | | | | 68 | SPARE | 1 | 20 | | | | | |
| | 69 | - | - | - | - | - | - | - | 70 | SPARE | 1 | 20 | | | | | |
| | 71 | SPARE | 2 | 40 | | | | | 72 | SPARE | 1 | 20 | | | | | |
| | 73 | - | - | - | - | - | - | - | 74 | SPARE | 1 | 20 | | | | | |
| | 75 | SPARE | 1 | 20 | | | | | 76 | SPARE | 1 | 20 | | | | | |
| | 77 | SPARE | 1 | 20 | | | | | 78 | SPARE | 1 | 20 | | | | | |
| | 79 | SPACE | 1 | | | | | | 80 | SPACE | 1 | | | | | | |
| | 81 | SPACE | 1 | | | | | | 82 | SPACE | 1 | | | | | | |
| | 83 | SPACE | 1 | | | | | | 84 | SPACE | 1 | | | | | | |

CONNECTED LOAD (SECTION II): 44.5 KVA — KVA PER PHASE: A 14.9 B 14.8 C 14.8
TOTAL CONNECTED LOAD: 111.3 KVA — KVA PER PHASE: A 36.5 B 37.4 C 37.4

## PANEL P2SBA (SECTION I)

MOUNTING: SURFACE
VOLTAGE:208/120, 3PH, 4W — LOCATION: AUTO BODY SHOP
400 AMPERE BUS — 400 A MCB W/ SHUNT TRIP (120V) COIL — 100% RATED NEUTRAL BUS — 25,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.9 | 1 | ALIGNMENT LIFT [E-AB-2] | 2 | 30 | 2 | 10 | 10 | 3/4 | 2 | AIR REEL RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.9 | 3 | - | - | - | - | - | - | - | 4 | AIR REEL RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.5 |
| 3.0 | 5 | RECP | 3 | 50 | 3 | 6 | 8 | 3/4 | 6 | AIR REEL RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.5 |
| 3.0 | 7 | - | - | - | - | - | - | - | 8 | AIR REEL RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.5 |
| 3.0 | 9 | - | - | - | - | - | - | - | 10 | AIR REEL RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.5 |
| 3.0 | 11 | RECP | 3 | 50 | 3 | 6 | 8 | 3/4 | 12 | AIR REEL RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.5 |
| 3.0 | 13 | - | - | - | - | - | - | - | 14 | AIR REEL RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.5 |
| 3.0 | 15 | - | - | - | - | - | - | - | 16 | AIR REEL RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.5 |
| 3.0 | 17 | RECP | 3 | 50 | 3 | 6 | 8 | 3/4 | 18 | AIR REEL RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.5 |
| 3.0 | 19 | - | - | - | - | - | - | - | 20 | AIR REEL RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.5 |
| 3.0 | 21 | - | - | - | - | - | - | - | 22 | AIR REEL RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.5 |
| 2.5 | 23 | RECP | 2 | 30 | 3 | 10 | 10 | 3/4 | 24 | RECP | 2 | 50 | 2 | 6 | 8 | 3/4 | 3.0 |
| 2.5 | 25 | - | - | - | - | - | - | - | 26 | - | - | - | - | - | - | - | 3.0 |
| 2.5 | 27 | RECP | 2 | 30 | 3 | 10 | 10 | 3/4 | 28 | RECP | 2 | 50 | 2 | 6 | 8 | 3/4 | 3.0 |
| 2.5 | 29 | - | - | - | - | - | - | - | 30 | - | - | - | - | - | - | - | 3.0 |
| 2.5 | 31 | RECP | 2 | 30 | 3 | 10 | 10 | 3/4 | 32 | RECP | 2 | 50 | 2 | 6 | 8 | 3/4 | 3.0 |
| 2.5 | 33 | - | - | - | - | - | - | - | 34 | - | - | - | - | - | - | - | 3.0 |
| 2.0 | 35 | RECP | 2 | 20 | 2 | 12 | 12 | 3/4 | 36 | RECP | 2 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 2.0 | 37 | - | - | - | - | - | - | - | 38 | - | - | - | - | - | - | - | 1.5 |
| | 39 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 40 | RECP | 2 | 40 | 2 | 8 | 10 | 3/4 | 2.0 |
| | 41 | | | | | | | | 42 | - | - | - | - | - | - | - | 2.0 |

CONNECTED LOAD (SECTION I): 91.3 KVA — KVA PER PHASE: A 31.4 B 29.9 C 30.0

## PANEL P2SBA (SECTION II)

MOUNTING: SURFACE
VOLTAGE:208/120, 3PH, 4W — LOCATION: AUTO BODY SHOP
400 AMPERE BUS — 400 A MLO — 100% RATED NEUTRAL BUS — 25,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.5 | 43 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 44 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 45 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 46 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 47 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 48 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 49 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 50 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 51 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 52 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 53 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 54 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 55 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 56 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 57 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 58 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 59 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 60 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.0 | 61 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 62 | SPARE | 3 | 50 | | | | | |
| | 63 | SPARE | 2 | 30 | | | | | 64 | - | - | - | - | - | - | - | |
| | 65 | - | - | - | - | - | - | - | 66 | - | - | - | - | - | - | - | |
| | 67 | SPARE | 2 | 50 | | | | | 68 | SPARE | 1 | 20 | | | | | |
| | 69 | - | - | - | - | - | - | - | 70 | SPARE | 1 | 20 | | | | | |
| | 71 | SPARE | 1 | 20 | | | | | 72 | SPARE | 1 | 20 | | | | | |
| | 73 | SPARE | 1 | 20 | | | | | 74 | SPARE | 1 | 20 | | | | | |
| | 75 | SPARE | 1 | 20 | | | | | 76 | SPARE | 1 | 20 | | | | | |
| | 77 | SPARE | 1 | 20 | | | | | 78 | SPARE | 1 | 20 | | | | | |
| | 79 | SPACE | 1 | | | | | | 80 | SPACE | 1 | | | | | | |
| | 81 | SPACE | 1 | | | | | | 82 | SPACE | 1 | | | | | | |
| | 83 | SPACE | 1 | | | | | | 84 | SPACE | 1 | | | | | | |

CONNECTED LOAD (SECTION II): 28 KVA — KVA PER PHASE: A 10 B 9 C 9
TOTAL CONNECTED LOAD: 119.3 KVA — KVA PER PHASE: A 41.4 B 38.9 C 39

## PANEL P2SAB (SECTION I)

MOUNTING: SURFACE
VOLTAGE:208/120, 3PH, 4W — LOCATION: AUTO TECH SHOP
400 AMPERE BUS — 400 A MCB W/ SHUNT TRIP (120V) COIL — 100% RATED NEUTRAL BUS — 25,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4.8 | 1 | RECP | 3 | 50 | 3 | 6 | 8 | 1 | 2 | RECP | 3 | 50 | 3 | 6 | 8 | 1 | 4.8 |
| 4.8 | 3 | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | 4.8 |
| 4.8 | 5 | - | - | - | - | - | - | - | 6 | - | - | - | - | - | - | - | 4.8 |
| 4.8 | 7 | RECP | 3 | 50 | 3 | 6 | 8 | 3/4 | 8 | RECP | 3 | 50 | 3 | 6 | 8 | 3/4 | 4.8 |
| 4.8 | 9 | - | - | - | - | - | - | - | 10 | - | - | - | - | - | - | - | 4.8 |
| 4.8 | 11 | - | - | - | - | - | - | - | 12 | - | - | - | - | - | - | - | 4.8 |
| 4.8 | 13 | RECP | 3 | 50 | 3 | 6 | 8 | 3/4 | 14 | RECP | 3 | 50 | 3 | 6 | 8 | 3/4 | 4.8 |
| 4.8 | 15 | - | - | - | - | - | - | - | 16 | - | - | - | - | - | - | - | 4.8 |
| 4.8 | 17 | - | - | - | - | - | - | - | 18 | - | - | - | - | - | - | - | 4.8 |
| 4.1 | 19 | RECP | 2 | 50 | 2 | 6 | 8 | 3/4 | 20 | RECP | 2 | 50 | 2 | 6 | 8 | 3/4 | 4.1 |
| 4.1 | 21 | - | - | - | - | - | - | - | 22 | - | - | - | - | - | - | - | 4.1 |
| 4.1 | 23 | RECP | 2 | 50 | 2 | 6 | 8 | 3/4 | 24 | RECP | 2 | 50 | 2 | 6 | 8 | 3/4 | 4.1 |
| 4.1 | 25 | - | - | - | - | - | - | - | 26 | - | - | - | - | - | - | - | 4.1 |
| 4.1 | 27 | RECP | 2 | 50 | 2 | 6 | 8 | 3/4 | 28 | RECP | 2 | 50 | 2 | 6 | 8 | 3/4 | 4.1 |
| 4.1 | 29 | - | - | - | - | - | - | - | 30 | - | - | - | - | - | - | - | 4.1 |
| 1.5 | 31 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 32 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 33 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 34 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 35 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 36 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 37 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 38 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 39 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 40 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 41 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 42 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |

CONNECTED LOAD (SECTION I): 153.6 KVA — KVA PER PHASE: A 51.2 B 51.2 C 51.2

## PANEL P2SAB (SECTION II)

MOUNTING: SURFACE
VOLTAGE:208/120, 3PH, 4W — LOCATION: AUTO TECH SHOP
400 AMPERE BUS — 400 A MLO — 100% RATED NEUTRAL BUS — 25,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.4 | 43 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 44 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.4 | 45 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 46 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| | 47 | SPARE | 1 | 20 | | | | | 48 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.4 | 49 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 50 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.4 | 51 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 52 | RECP - MEZZANINE | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.4 | 53 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 54 | RECP - MEZZANINE | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.4 | 55 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 56 | SPARE | 3 | 50 | | | | | |
| 1.0 | 57 | EWC | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 58 | - | - | - | - | - | - | - | |
| | 59 | SPARE | 2 | 50 | | | | | 60 | - | - | - | - | - | - | - | |
| | 61 | - | - | - | - | - | - | - | 62 | SPARE | 3 | 50 | | | | | |
| | 63 | SPARE | 2 | 50 | | | | | 64 | - | - | - | - | - | - | - | |
| | 65 | - | - | - | - | - | - | - | 66 | - | - | - | - | - | - | - | |
| | 67 | SPARE | 1 | 20 | | | | | 68 | SPARE | 1 | 20 | | | | | |
| | 69 | SPARE | 1 | 20 | | | | | 70 | SPARE | 1 | 20 | | | | | |
| | 71 | SPARE | 1 | 20 | | | | | 72 | SPARE | 1 | 20 | | | | | |
| | 73 | SPARE | 1 | 20 | | | | | 74 | SPARE | 1 | 20 | | | | | |
| | 75 | SPARE | 1 | 20 | | | | | 76 | SPARE | 1 | 20 | | | | | |
| | 77 | SPARE | 1 | 20 | | | | | 78 | SPARE | 1 | 20 | | | | | |
| | 79 | SPACE | 1 | | | | | | 80 | SPACE | 1 | | | | | | |
| | 81 | SPACE | 1 | | | | | | 82 | SPACE | 1 | | | | | | |
| | 83 | SPACE | 1 | | | | | | 84 | SPACE | 1 | | | | | | |

CONNECTED LOAD (SECTION II): 6.4 KVA — KVA PER PHASE: A 2 B 2.6 C 1.8
TOTAL CONNECTED LOAD: 160 KVA — KVA PER PHASE: A 53.2 B 53.8 C 53

## PANEL P2SBB (SECTION I)

MOUNTING: SURFACE
VOLTAGE:208/120, 3PH, 4W — LOCATION: AUTO BODY SHOP
400 AMPERE BUS — 400 A MCB W/ SHUNT TRIP (120V) COIL — 100% RATED NEUTRAL BUS — 25,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3.0 | 1 | RECP | 3 | 50 | 3 | 6 | 8 | 3/4 | 2 | RECP | 2 | 50 | 2 | 6 | 8 | 3/4 | 3.0 |
| 3.0 | 3 | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | 3.0 |
| 3.0 | 5 | - | - | - | - | - | - | - | 6 | RECP | 2 | 50 | 2 | 6 | 8 | 3/4 | 3.0 |
| 3.0 | 7 | RECP | 3 | 50 | 3 | 6 | 8 | 3/4 | 8 | - | - | - | - | - | - | - | 3.0 |
| 3.0 | 9 | - | - | - | - | - | - | - | 10 | RECP | 2 | 50 | 2 | 6 | 8 | 3/4 | 3.0 |
| 3.0 | 11 | - | - | - | - | - | - | - | 12 | - | - | - | - | - | - | - | 3.0 |
| 3.0 | 13 | RECP | 3 | 50 | 3 | 6 | 8 | 3/4 | 14 | RECP | 2 | 50 | 3 | 6 | 8 | 3/4 | 3.0 |
| 3.0 | 15 | - | - | - | - | - | - | - | 16 | - | - | - | - | - | - | - | 3.0 |
| 3.0 | 17 | - | - | - | - | - | - | - | 18 | RECP | 2 | 30 | 3 | 10 | 10 | 3/4 | 2.5 |
| 3.0 | 19 | RECP | 3 | 50 | 3 | 6 | 8 | 3/4 | 20 | - | - | - | - | - | - | - | 2.5 |
| 3.0 | 21 | - | - | - | - | - | - | - | 22 | RECP | 2 | 30 | 3 | 10 | 10 | 3/4 | 2.5 |
| 3.0 | 23 | - | - | - | - | - | - | - | 24 | - | - | - | - | - | - | - | 2.5 |
| | 25 | SPARE | 3 | 50 | | | | | 26 | RECP | 2 | 30 | 3 | 10 | 10 | 3/4 | 2.5 |
| | 27 | - | - | - | - | - | - | - | 28 | - | - | - | - | - | - | - | 2.5 |
| | 29 | - | - | - | - | - | - | - | 30 | RECP | 2 | 30 | 3 | 10 | 10 | 3/4 | 2.5 |
| | 31 | SPARE | 3 | 50 | | | | | 32 | - | - | - | - | - | - | - | 2.5 |
| | 33 | - | - | - | - | - | - | - | 34 | SPARE | 2 | 50 | | | | | |
| | 35 | - | - | - | - | - | - | - | 36 | - | - | - | - | - | - | - | |
| | 37 | SPACE | 1 | | | | | | 38 | SPACE | 1 | | | | | | |
| | 39 | SPACE | 1 | | | | | | 40 | SPACE | 1 | | | | | | |
| | 41 | SPACE | 1 | | | | | | 42 | SPACE | 1 | | | | | | |

CONNECTED LOAD (SECTION I): 80.0 KVA — KVA PER PHASE: A 28.5 B 26 C 25.5

## PANEL P2SBB (SECTION II)

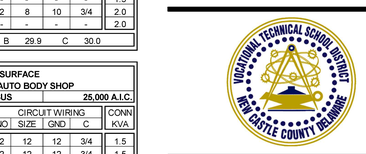
MOUNTING: SURFACE
VOLTAGE:208/120, 3PH, 4W — LOCATION: AUTO BODY SHOP
400 AMPERE BUS — 400 A MLO — 100% RATED NEUTRAL BUS — 25,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 43 | SPARE | 2 | 50 | | | | | 44 | SPARE | 2 | 30 | | | | | |
| | 45 | - | - | - | - | - | - | - | 46 | - | - | - | - | - | - | - | |
| 0.4 | 47 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 48 | SPARE | 2 | 30 | | | | | |
| 0.4 | 49 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 50 | - | - | - | - | - | - | - | |
| 0.4 | 51 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 52 | SPARE | 2 | 30 | | | | | |
| 0.4 | 53 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 54 | - | - | - | - | - | - | - | |
| 1.0 | 55 | EWC | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 56 | SPARE | 1 | 20 | | | | | |
| 0.8 | 57 | RECP - MEZZANINE | 1 | 20 | 2 | 12 | 12 | 3/4 | 58 | SPARE | 1 | 20 | | | | | |
| | 59 | SPARE | 1 | 20 | | | | | 60 | SPARE | 1 | 20 | | | | | |
| | 61 | SPARE | 1 | 20 | | | | | 62 | SPARE | 1 | 20 | | | | | |
| | 63 | SPARE | 1 | 20 | | | | | 64 | SPACE | 1 | | | | | | |
| | 65 | SPARE | 1 | 20 | | | | | 66 | SPACE | 1 | | | | | | |
| | 67 | SPACE | 1 | | | | | | 68 | SPACE | 1 | | | | | | |
| | 69 | SPACE | 1 | | | | | | 70 | SPACE | 1 | | | | | | |
| | 71 | SPACE | 1 | | | | | | 72 | SPACE | 1 | | | | | | |
| | 73 | SPACE | 1 | | | | | | 74 | SPACE | 1 | | | | | | |
| | 75 | SPACE | 1 | | | | | | 76 | SPACE | 1 | | | | | | |
| | 77 | SPACE | 1 | | | | | | 78 | SPACE | 1 | | | | | | |
| | 79 | SPACE | 1 | | | | | | 80 | SPACE | 1 | | | | | | |
| | 81 | SPACE | 1 | | | | | | 82 | SPACE | 1 | | | | | | |
| | 83 | SPACE | 1 | | | | | | 84 | SPACE | 1 | | | | | | |

CONNECTED LOAD (SECTION II): 3.4 KVA — KVA PER PHASE: A 1.4 B 1.2 C 0.8
TOTAL CONNECTED LOAD: 83.4 KVA — KVA PER PHASE: A 29.9 B 27.2 C 26.3

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN





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The professional services of ABHA/BSA+A, LLC are undertaken for and performed in the interest of the NCCVT School District. No contractual obligation is assumed by ABHA/BSA+A, LLC. for the benefit of any other person involved in the project.

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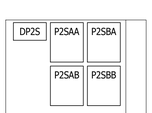
JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**PANEL SCHEDULES**




SHEET NO.

**E606**

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN

**PANEL P2SCA** (SECTION I) **MOUNTING: SURFACE**
**VOLTAGE:208/120, 3PH, 4W** **LOCATION: IND MILLWRIGHT SHOP**
**400 AMPERE BUS** | **400 A MCB W/ SHUNT TRIP (120V) COIL** | **100% RATED NEUTRAL BUS** | **25,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.5 | 1 | LATHE [E-IM-12] | 1 | 20 | 2 | 10 | 10 | 3/4 | 2 | PLASMA PRO [E-IM-8] | 2 | 60 | 2 | 4 | 10 | 1 | 4.5 |
| 1.5 | 3 | LATHE [E-IN-12] | 1 | 20 | 2 | 10 | 10 | 3/4 | 4 | - | - | - | - | - | - | - | 4.5 |
| 1.5 | 5 | LATHE [E-IN-12] | 1 | 20 | 2 | 10 | 10 | 3/4 | 6 | PLASMA PRO RECP | 1 | 20 | 2 | 10 | 10 | 3/4 | 0.5 |
| 1.5 | 7 | LATHE [E-IN-12] | 1 | 20 | 2 | 10 | 10 | 3/4 | 8 | PLASMA PRO EF | 3 | 20 | 3 | 10 | 10 | 3/4 | 1.2 |
| 1.5 | 9 | BENCH TOP MILL [E-IM-11] | 1 | 20 | 2 | 10 | 10 | 3/4 | 10 | - | - | - | - | - | - | - | 1.2 |
| 1.5 | 11 | JET DRILL PRESS [E-IM-20] | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | - | - | - | - | - | - | - | 1.2 |
| 1.5 | 13 | JET DRILL PRESS [E-IM-20] | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | PLASMA PRO | 3 | 30 | 3 | 8 | 10 | 3/4 | 1.8 |
| 1.5 | 15 | JET DRILL PRESS [E-IM-20] | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | COMPRESSOR | - | - | - | - | - | - | 1.8 |
| 1.5 | 17 | JET DRILL PRESS [E-IM-20] | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | - | - | - | - | - | - | - | 1.8 |
| 1.5 | 19 | JET DRILL PRESS [E-IM-20] | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | WELDING BOOTH RECP | 1 | 20 | 2 | 10 | 10 | 3/4 | 1.5 |
| 1.5 | 21 | THREADING MACH [E-IM-15] | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 22 | WELDING BOOTH RECP | 1 | 20 | 2 | 10 | 10 | 3/4 | 1.5 |
| 1.5 | 23 | IRONWORKER [E-IM-16] | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 24 | WELDING BOOTH RECP | 1 | 20 | 2 | 10 | 10 | 3/4 | 1.5 |
| 1.5 | 25 | PRESS TRAINER [E-IM-17] | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 26 | WELDING BOOTH RECP | 1 | 20 | 2 | 10 | 10 | 3/4 | 1.5 |
| 1.5 | 27 | HORIZ BANDSAW [E-IM-24] | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 28 | WELDING BOOTH RECP | 1 | 20 | 2 | 10 | 10 | 3/4 | 1.5 |
| 0.6 | 29 | BENCH GRINDER [E-IM-14] | 2 | 15 | 2 | 12 | 12 | 3/4 | 30 | WELDING BOOTH RECP | 1 | 20 | 2 | 10 | 10 | 3/4 | 1.5 |
| 0.6 | 31 | - | - | - | - | - | - | - | 32 | RECEP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.6 | 33 | BENCH GRINDER [E-IM-14] | 2 | 15 | 2 | 12 | 12 | 3/4 | 34 | SPARE | 3 | 30 | | | | | |
| 0.6 | 35 | - | - | - | - | - | - | - | 36 | - | - | - | - | - | - | - | |
| | 37 | SPACE | 1 | | | | | | 38 | - | - | - | - | - | - | - | |
| | 39 | SPACE | 1 | | | | | | 40 | SPARE | 1 | 20 | | | | | |
| | 41 | SPACE | 1 | | | | | | 42 | SPARE | 1 | 20 | | | | | |

CONNECTED LOAD (SECTION I) 51.3 KVA — KVA PER PHASE: A 19 B 18.6 C 13.7

**PANEL P2SCA** (SECTION II) **MOUNTING: SURFACE**
**VOLTAGE:208/120, 3PH, 4W** **LOCATION: IND MILLWRIGHT SHOP**
**400 AMPERE BUS** | **400 A MLO** | **100% RATED NEUTRAL BUS** | **25,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.8 | 43 | WELDING BOOTH | 2 | 20 | 2 | 10 | 10 | 3/4 | 44 | WELDING BOOTH | 2 | 20 | 2 | 10 | 10 | 3/4 | 2.8 |
| 2.8 | 45 | - | - | - | - | - | - | - | 46 | - | - | - | - | - | - | - | 2.8 |
| 2.8 | 47 | WELDING BOOTH | 2 | 20 | 2 | 10 | 10 | 3/4 | 48 | WELDING BOOTH | 2 | 20 | 2 | 10 | 10 | 3/4 | 2.8 |
| 2.8 | 49 | - | - | - | - | - | - | - | 50 | - | - | - | - | - | - | - | 2.8 |
| 2.8 | 51 | WELDING BOOTH | 2 | 20 | 2 | 10 | 10 | 3/4 | 52 | WELDING BOOTH | 2 | 20 | 2 | 10 | 10 | 3/4 | 2.8 |
| 2.8 | 53 | - | - | - | - | - | - | - | 54 | - | - | - | - | - | - | - | 2.8 |
| | 55 | SPARE | 3 | 20 | | | | | 56 | SPARE | 2 | 20 | | | | | |
| | 57 | - | - | - | - | - | - | - | 58 | - | - | - | - | - | - | - | |
| | 59 | - | - | - | - | - | - | - | 60 | SPARE | 2 | 20 | | | | | |
| | 61 | SPARE | 1 | 20 | | | | | 62 | - | - | - | - | - | - | - | |
| | 63 | SPARE | 1 | 20 | | | | | 64 | SPARE | 2 | 20 | | | | | |
| | 65 | SPARE | 1 | 20 | | | | | 66 | - | - | - | - | - | - | - | |
| | 67 | SPARE | 1 | 20 | | | | | 68 | SPARE | 1 | 20 | | | | | |
| | 69 | SPARE | 1 | 20 | | | | | 70 | SPARE | 1 | 20 | | | | | |
| | 71 | SPARE | 1 | 20 | | | | | 72 | SPARE | 1 | 20 | | | | | |
| | 73 | SPACE | 1 | | | | | | 74 | SPACE | 1 | | | | | | |
| | 75 | SPACE | 1 | | | | | | 76 | SPACE | 1 | | | | | | |
| | 77 | SPACE | 1 | | | | | | 78 | SPACE | 1 | | | | | | |
| | 79 | SPACE | 1 | | | | | | 80 | SPACE | 1 | | | | | | |
| | 81 | SPACE | 1 | | | | | | 82 | SPACE | 1 | | | | | | |
| | 83 | SPACE | 1 | | | | | | 84 | SPACE | 1 | | | | | | |

CONNECTED LOAD (SECTION II) 33.6 KVA — KVA PER PHASE: A 11.2 B 11.2 C 11.2
**TOTAL CONNECTED LOAD** 84.9 **KVA** — KVA PER PHASE: A 30.2 B 29.8 C 24.9

**PANEL P2SCB** (SECTION I) **MOUNTING: SURFACE**
**VOLTAGE:208/120, 3PH, 4W** **LOCATION: IND MILLWRIGHT SHOP**
**400 AMPERE BUS** | **400 A MCB W/ SHUNT TRIP (120V) COIL** | **100% RATED NEUTRAL BUS** | **25,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5.4 | 1 | WELDING BOOTH | 2 | 50 | 2 | 4 | 8 | 1 | 2 | WELDING BOOTH | 2 | 50 | 2 | 4 | 8 | 1 | 5.4 |
| 5.4 | 3 | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | 5.4 |
| 5.4 | 5 | WELDING BOOTH | 2 | 50 | 2 | 4 | 8 | 1 | 6 | WELDING BOOTH | 2 | 50 | 2 | 4 | 8 | 1 | 5.4 |
| 5.4 | 7 | - | - | - | - | - | - | - | 8 | - | - | - | - | - | - | - | 5.4 |
| 5.4 | 9 | WELDING BOOTH | 2 | 50 | 2 | 4 | 8 | 1 | 10 | WELDING BOOTH | 2 | 50 | 2 | 4 | 8 | 1 | 5.4 |
| 5.4 | 11 | - | - | - | - | - | - | - | 12 | - | - | - | - | - | - | - | 5.4 |
| 5.4 | 13 | MIG WELDER | 2 | 50 | 2 | 4 | 8 | 1 | 14 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.5 |
| 5.4 | 15 | - | - | - | - | - | - | - | 16 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.5 |
| 5.4 | 17 | MIG WELDER | 2 | 50 | 2 | 4 | 8 | 1 | 18 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.5 |
| 5.4 | 19 | - | - | - | - | - | - | - | 20 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 21 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 22 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 23 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 24 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 25 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 27 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 28 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 29 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 30 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 31 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 32 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 33 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 34 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 35 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 36 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 0.6 | 37 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 38 | EWC | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.5 | 39 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 40 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 41 | CORD REEL | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 42 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |

CONNECTED LOAD (SECTION I) 122.9 KVA — KVA PER PHASE: A 43 B 40.5 C 39.4

**PANEL P2SCB** (SECTION II) **MOUNTING: SURFACE**
**VOLTAGE:208/120, 3PH, 4W** **LOCATION: IND MILLWRIGHT SHOP**
**400 AMPERE BUS** | **400 A MLO** | **100% RATED NEUTRAL BUS** | **25,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 43 | SPARE | 1 | 20 | | | | | 44 | SPARE | 1 | 20 | | | | | |
| | 45 | SPARE | 1 | 20 | | | | | 46 | SPARE | 1 | 20 | | | | | |
| | 47 | SPARE | 1 | 20 | | | | | 48 | SPARE | 1 | 20 | | | | | |
| | 49 | SPARE | 1 | 20 | | | | | 50 | SPARE | 1 | 20 | | | | | |
| | 51 | SPARE | 1 | 20 | | | | | 52 | SPARE | 1 | 20 | | | | | |
| | 53 | SPARE | 1 | 20 | | | | | 54 | SPARE | 1 | 20 | | | | | |
| | 55 | SPACE | 1 | | | | | | 56 | SPACE | 1 | | | | | | |
| | 57 | SPACE | 1 | | | | | | 58 | SPACE | 1 | | | | | | |
| | 59 | SPACE | 1 | | | | | | 60 | SPACE | 1 | | | | | | |
| | 61 | SPACE | 1 | | | | | | 62 | SPACE | 1 | | | | | | |
| | 63 | SPACE | 1 | | | | | | 64 | SPACE | 1 | | | | | | |
| | 65 | SPACE | 1 | | | | | | 66 | SPACE | 1 | | | | | | |
| | 67 | SPACE | 1 | | | | | | 68 | SPACE | 1 | | | | | | |
| | 69 | SPACE | 1 | | | | | | 70 | SPACE | 1 | | | | | | |
| | 71 | SPACE | 1 | | | | | | 72 | SPACE | 1 | | | | | | |
| | 73 | SPACE | 1 | | | | | | 74 | SPACE | 1 | | | | | | |
| | 75 | SPACE | 1 | | | | | | 76 | SPACE | 1 | | | | | | |
| | 77 | SPACE | 1 | | | | | | 78 | SPACE | 1 | | | | | | |
| | 79 | SPACE | 1 | | | | | | 80 | SPACE | 1 | | | | | | |
| | 81 | SPACE | 1 | | | | | | 82 | SPACE | 1 | | | | | | |
| | 83 | SPACE | 1 | | | | | | 84 | SPACE | 1 | | | | | | |

CONNECTED LOAD (SECTION II) 0 KVA — KVA PER PHASE: A 0 B 0 C 0
**TOTAL CONNECTED LOAD** 122.9 **KVA** — KVA PER PHASE: A 43 B 40.5 C 39.4

**PANEL P2SDA** (SECTION I) **MOUNTING: SURFACE (NEMA 12)**
**VOLTAGE:208/120, 3PH, 4W** **LOCATION: CARPENTRY SHOP**
**225 AMPERE BUS** | **225 A MCB W/ SHUNT TRIP (120V) COIL** | **100% RATED NEUTRAL BUS** | **10,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.0 | 1 | WOOD ROUTER [E-C-4] | 3 | 30 | 3 | 6 | 8 | 1 | 2 | PLANER [E-C-1] | 3 | 50 | 3 | 6 | 10 | 3/4 | 3.0 |
| 1.0 | 3 | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | 3.0 |
| 1.0 | 5 | - | - | - | - | - | - | - | 6 | - | - | - | - | - | - | - | 3.0 |
| 1.0 | 7 | RADIAL ARM SAW [E-C-9] | | | | | | | 8 | WOOD LATHE [E-C-3] | 2 | 40 | 2 | 8 | 10 | 3/4 | 2.2 |
| 1.0 | 9 | - | - | - | - | - | - | - | 10 | - | - | - | - | - | - | - | 2.2 |
| 1.0 | 11 | - | - | - | - | - | - | - | 12 | DRILL PRESS [E-C-5] | 1 | 40 | 2 | 8 | 10 | 3/4 | 2.4 |
| | 13 | SPARE | 1 | 20 | | | | | 14 | TABLE SAW [E-C-7] | 1 | 30 | 2 | 10 | 10 | 3/4 | 1.7 |
| | 15 | SPARE | 1 | 20 | | | | | 16 | CNC WOOD ROUTER | 2 | 30 | 2 | 10 | 10 | 3/4 | 2.0 |
| | 17 | SPARE | 1 | 20 | | | | | 18 | [E-C-4] | - | - | - | - | - | - | 2.0 |
| | 19 | SPARE | 1 | 20 | | | | | 20 | BAND SAW [E-C-8] | 3 | 30 | 3 | 10 | 10 | 3/4 | 1.4 |
| | 21 | SPARE | 1 | 20 | | | | | 22 | - | - | - | - | - | - | - | 1.4 |
| | 23 | SPARE | 1 | 20 | | | | | 24 | - | - | - | - | - | - | - | 1.4 |
| | 25 | SPACE | 1 | | | | | | 26 | POCKET HOLE MACH[E-C-6] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| | 27 | SPACE | 1 | | | | | | 28 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | |
| | 29 | SPACE | 1 | | | | | | 30 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | |
| | 31 | SPACE | 1 | | | | | | 32 | 36" SANDER [E-C-2] | 3 | 150 | | | | | 9.4 |
| | 33 | SPACE | 1 | | | | | | 34 | - | - | - | - | - | - | - | 9.4 |
| | 35 | SPACE | 1 | | | | | | 36 | - | - | - | - | - | - | - | 9.4 |
| | 37 | SPACE | 1 | | | | | | 38 | - | - | - | - | - | - | - | |
| | 39 | SPACE | 1 | | | | | | 40 | - | - | - | - | - | - | - | |
| | 41 | SPACE | 1 | | | | | | 42 | - | - | - | - | - | - | - | |

CONNECTED LOAD (SECTION I) 61.4 KVA — KVA PER PHASE: A 21.2 B 20 C 20.2

**PANEL P2SDA** (SECTION II) **MOUNTING: SURFACE (NEMA 12)**
**VOLTAGE:208/120, 3PH, 4W** **LOCATION: CARPENTRY SHOP**
**225 AMPERE BUS** | **225 A MLO** | **100% RATED NEUTRAL BUS** | **10,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 43 | SPARE | 1 | 20 | | | | | 44 | SPARE | 1 | 20 | | | | | |
| | 45 | SPARE | 1 | 20 | | | | | 46 | SPARE | 1 | 20 | | | | | |
| | 47 | SPARE | 1 | 20 | | | | | 48 | SPARE | 1 | 20 | | | | | |
| | 49 | SPARE | 1 | 20 | | | | | 50 | SPARE | 1 | 20 | | | | | |
| | 51 | SPARE | 1 | 20 | | | | | 52 | SPARE | 1 | 20 | | | | | |
| | 53 | SPARE | 1 | 20 | | | | | 54 | SPARE | 1 | 20 | | | | | |
| | 55 | SPACE | 1 | | | | | | 56 | SPACE | 1 | | | | | | |
| | 57 | SPACE | 1 | | | | | | 58 | SPACE | 1 | | | | | | |
| | 59 | SPACE | 1 | | | | | | 60 | SPACE | 1 | | | | | | |
| | 61 | SPACE | 1 | | | | | | 62 | SPACE | 1 | | | | | | |
| | 63 | SPACE | 1 | | | | | | 64 | SPACE | 1 | | | | | | |
| | 65 | SPACE | 1 | | | | | | 66 | SPACE | 1 | | | | | | |
| | 67 | SPACE | 1 | | | | | | 68 | SPACE | 1 | | | | | | |
| | 69 | SPACE | 1 | | | | | | 70 | SPACE | 1 | | | | | | |
| | 71 | SPACE | 1 | | | | | | 72 | SPACE | 1 | | | | | | |
| | 73 | SPACE | 1 | | | | | | 74 | SPACE | 1 | | | | | | |
| | 75 | SPACE | 1 | | | | | | 76 | SPACE | 1 | | | | | | |
| | 77 | SPACE | 1 | | | | | | 78 | SPACE | 1 | | | | | | |
| | 79 | SPACE | 1 | | | | | | 80 | SPACE | 1 | | | | | | |
| | 81 | SPACE | 1 | | | | | | 82 | SPACE | 1 | | | | | | |
| | 83 | SPACE | 1 | | | | | | 84 | SPACE | 1 | | | | | | |

CONNECTED LOAD (SECTION II) 0 KVA — KVA PER PHASE: A 0 B 0 C 0
**TOTAL CONNECTED LOAD** 61.4 **KVA** — KVA PER PHASE: A 21.2 B 20 C 20.2

**PANEL P2SDB** (SECTION I) **MOUNTING: SURFACE (NEMA 12)**
**VOLTAGE:208/120, 3PH, 4W** **LOCATION: CARPENTRY SHOP**
**225 AMPERE BUS** | **225 A MCB W/ SHUNT TRIP (120V) COIL** | **100% RATED NEUTRAL BUS** | **10,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.0 | 1 | RECP | 3 | 20 | 3 | 12 | 12 | 3/4 | 2 | RECP | 3 | 20 | 3 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 3 | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | 1.0 |
| 1.0 | 5 | - | - | - | - | - | - | - | 6 | - | - | - | - | - | - | - | 1.0 |
| 1.0 | 7 | RECP | 3 | 20 | 3 | 12 | 12 | 3/4 | 8 | RECP | 3 | 20 | 3 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 9 | - | - | - | - | - | - | - | 10 | - | - | - | - | - | - | - | 1.0 |
| 1.0 | 11 | - | - | - | - | - | - | - | 12 | - | - | - | - | - | - | - | 1.0 |
| 1.0 | 13 | RECP | 3 | 20 | 3 | 12 | 12 | 3/4 | 14 | RECP | 3 | 20 | 3 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 15 | - | - | - | - | - | - | - | 16 | - | - | - | - | - | - | - | 1.0 |
| 1.0 | 17 | - | - | - | - | - | - | - | 18 | - | - | - | - | - | - | - | 1.0 |
| 1.0 | 19 | RECP | 3 | 20 | 3 | 12 | 12 | 3/4 | 20 | RECP | 3 | 20 | 3 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 21 | - | - | - | - | - | - | - | 22 | - | - | - | - | - | - | - | 1.0 |
| 1.0 | 23 | - | - | - | - | - | - | - | 24 | - | - | - | - | - | - | - | 1.0 |
| 1.0 | 25 | RECP | 3 | 20 | 3 | 12 | 12 | 3/4 | 26 | RECP | 3 | 20 | 3 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 27 | - | - | - | - | - | - | - | 28 | - | - | - | - | - | - | - | 1.0 |
| 1.0 | 29 | - | - | - | - | - | - | - | 30 | - | - | - | - | - | - | - | 1.0 |
| 1.5 | 31 | CORD REEL | 1 | 20 | 2 | 10 | 10 | 3/4 | 32 | SPARE | 1 | 20 | | | | | |
| 1.5 | 33 | CORD REEL | 1 | 20 | 2 | 10 | 10 | 3/4 | 34 | SPARE | 1 | 20 | | | | | |
| 1.5 | 35 | CORD REEL | 1 | 20 | 2 | 10 | 10 | 3/4 | 36 | SPARE | 1 | 20 | | | | | |
| 1.5 | 37 | CORD REEL | 1 | 20 | 2 | 10 | 10 | 3/4 | 38 | SPARE | 1 | 20 | | | | | |
| 1.5 | 39 | CORD REEL | 1 | 20 | 2 | 10 | 10 | 3/4 | 40 | SPARE | 1 | 20 | | | | | |
| 1.5 | 41 | CORD REEL | 1 | 20 | 2 | 10 | 10 | 3/4 | 42 | SPARE | 1 | 20 | | | | | |

CONNECTED LOAD (SECTION I) 39.0 KVA — KVA PER PHASE: A 13 B 13 C 13.0

**PANEL P2SDB** (SECTION II) **MOUNTING: SURFACE (NEMA 12)**
**VOLTAGE:208/120, 3PH, 4W** **LOCATION: CARPENTRY SHOP**
**225 AMPERE BUS** | **225 A MLO** | **100% RATED NEUTRAL BUS** | **10,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.8 | 43 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 44 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 45 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 46 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 47 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 48 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 49 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 50 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 51 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 52 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 53 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 54 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 55 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 56 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 57 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 58 | EWC | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 59 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 60 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 61 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 62 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 63 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 64 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 65 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 66 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 67 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 68 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 69 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 70 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 71 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 72 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| | 73 | SPARE | 1 | 20 | | | | | 74 | SPARE | 1 | 20 | | | | | |
| | 75 | SPARE | 1 | 20 | | | | | 76 | SPARE | 1 | 20 | | | | | |
| | 77 | SPARE | 1 | 20 | | | | | 78 | SPARE | 1 | 20 | | | | | |
| | 79 | SPARE | 1 | 20 | | | | | 80 | SPARE | 1 | 20 | | | | | |
| | 81 | SPARE | 1 | 20 | | | | | 82 | SPARE | 1 | 20 | | | | | |
| | 83 | SPARE | 1 | 20 | | | | | 84 | SPARE | 1 | 20 | | | | | |

CONNECTED LOAD (SECTION II) 24 KVA — KVA PER PHASE: A 8 B 8 C 8
**TOTAL CONNECTED LOAD** 63 **KVA** — KVA PER PHASE: A 21 B 21 C 21

**PANEL P2SEA** **MOUNTING: SURFACE**
**VOLTAGE:208/120, 3PH, 4W** **LOCATION: 1ST FLR SOUTH ELEC CLOSET**
**225 AMPERE BUS** | **225 A MCB** | **100% RATED NEUTRAL BUS** | **10,000 A.I.C.**

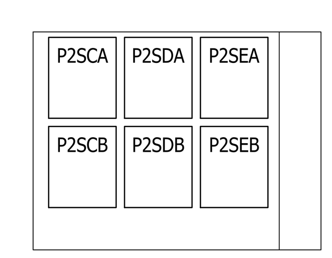
| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.5 | 1 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 3 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 5 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 7 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 9 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 11 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 13 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 15 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 17 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 19 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 21 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 22 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 23 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 24 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 0.9 | 25 | HAIR DRYER [E-COS-5] | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | WASHER [E-COS-8] | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.9 | 27 | HAIR DRYER [E-COS-5] | 1 | 20 | 2 | 12 | 12 | 3/4 | 28 | DRYER [E-COS-9] | 2 | 30GFI | 2 | 10 | 10 | 3/4 | 2.5 |
| 1.5 | 29 | PEDICURE [E-COS-4] | 1 | 20 | 2 | 12 | 12 | 3/4 | 30 | - | - | - | - | - | - | - | 2.5 |
| 0.6 | 31 | RECS | 1 | 20 | 2 | 12 | 12 | 3/4 | 32 | SPARE | 1 | 20 | | | | | |
| 0.6 | 33 | RECS | 1 | 20 | 2 | 12 | 12 | 3/4 | 34 | SPARE | 1 | 20 | | | | | |
| 0.6 | 35 | RECS | 1 | 20 | 2 | 12 | 12 | 3/4 | 36 | SPARE | 1 | 20 | | | | | |
| 0.8 | 37 | RECS | 1 | 20 | 2 | 12 | 12 | 3/4 | 38 | SPARE | 1 | 20 | | | | | |
| 1.0 | 39 | RECS | 1 | 20 | 2 | 12 | 12 | 3/4 | 40 | SPARE | 1 | 20 | | | | | |
| | 41 | SPARE | 1 | 20 | | | | | 42 | SPARE | 1 | 20 | | | | | |
| | 43 | SPARE | 1 | 20 | | | | | 44 | SPARE | 1 | 20 | | | | | |
| | 45 | SPARE | 1 | 20 | | | | | 46 | SPARE | 1 | 20 | | | | | |
| | 47 | SPARE | 1 | 20 | | | | | 48 | SPARE | 1 | 20 | | | | | |
| | 49 | SPARE | 1 | 20 | | | | | 50 | SPARE | 1 | 20 | | | | | |
| | 51 | SPARE | 1 | 20 | | | | | 52 | SPARE | 1 | 20 | | | | | |
| | 53 | SPARE | 1 | 20 | | | | | 54 | SPARE | 1 | 20 | | | | | |
| | 55 | SPACE | 1 | | | | | | 56 | SPACE | 1 | | | | | | |
| | 57 | SPACE | 1 | | | | | | 58 | SPACE | 1 | | | | | | |
| | 59 | SPACE | 1 | | | | | | 60 | SPACE | 1 | | | | | | |

**TOTAL CONNECTED LOAD** 49.1 **KVA** — **KVA PER PHASE:** A 15.5 B 17.0 C 16.6

**PANEL P2SEB** **MOUNTING: SURFACE**
**VOLTAGE:208/120, 3PH, 4W** **LOCATION: 1ST FLR SOUTH ELEC CLOSET**
**225 AMPERE BUS** | **225 A MCB** | **100% RATED NEUTRAL BUS** | **10,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | SPARE | 1 | 20 | | | | | 2 | SPARE | 1 | 20 | | | | | |
| | 3 | SPARE | 1 | 20 | | | | | 4 | SPARE | 1 | 20 | | | | | |
| | 5 | SPARE | 1 | 20 | | | | | 6 | SPARE | 1 | 20 | | | | | |
| | 7 | SPARE | 1 | 20 | | | | | 8 | SPARE | 1 | 20 | | | | | |
| | 9 | SPARE | 1 | 20 | | | | | 10 | SPARE | 1 | 20 | | | | | |
| | 11 | SPARE | 1 | 20 | | | | | 12 | SPARE | 1 | 20 | | | | | |
| | 13 | SPARE | 1 | 20 | | | | | 14 | SPARE | 1 | 20 | | | | | |
| | 15 | SPARE | 1 | 20 | | | | | 16 | SPARE | 1 | 20 | | | | | |
| | 17 | SPARE | 1 | 20 | | | | | 18 | SPARE | 1 | 20 | | | | | |
| 1.5 | 19 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 21 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 22 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 23 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 24 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 25 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | WASHER [E-COS-8] | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.5 | 27 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 28 | DRYER [E-COS-9] | 2 | 30GFI | 2 | 10 | 10 | 3/4 | 2.5 |
| 1.5 | 29 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 30 | - | - | - | - | - | - | - | 2.5 |
| 1.5 | 31 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 32 | RECS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.5 | 33 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 34 | RECS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.4 |
| 1.5 | 35 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 36 | RECS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.4 |
| 0.9 | 37 | HAIR DRYER [E-COS-5] | 1 | 20 | 2 | 12 | 12 | 3/4 | 38 | RECS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.9 | 39 | HAIR DRYER [E-COS-5] | 1 | 20 | 2 | 12 | 12 | 3/4 | 40 | RECS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.5 | 41 | PEDICURE [E-COS-4] | 1 | 20 | 2 | 12 | 12 | 3/4 | 42 | SPARE | 1 | 20 | | | | | |
| 1.5 | 43 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 44 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 45 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 46 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 47 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 48 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 49 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 50 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 51 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 52 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 53 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 54 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 55 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 56 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 57 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 58 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 59 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 60 | SALON STATION [E-COS-1] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |

**TOTAL CONNECTED LOAD** 59.3 **KVA** — KVA PER PHASE: A 18.5 B 20.4 C 20.4





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The professional services of ABHA/BSA+A, LLC. are undertaken for and performed in the interest of the NCCVT School District. No contractual obligation is assumed by ABHA/BSA+A, LLC. for the benefit of any other person involved in the project.

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**PANEL SCHEDULES**

SHEET NO.

**E607**

## DISTRIBUTION PANEL DL1

MOUNTING: SURFACE | A.I.C. RATING: 65,000 | LOCATION: MAIN ELEC ROOM
VOLTAGE: 480/277, 3 PHASE, 4 WIRE | 400A MAIN BUS | 400A MLO

### DISTRIBUTION SECTION

| FDR NO | SERVES | CIRCUIT BREAKER P | FRAME | TRIP | WIRING SETS | NO | SIZE | GND | C | REMARKS | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PANEL L1M | 3 | 100 | 60 | 1 | 4 | 4 | 8 | 1 1/4 | | 23.4 |
| 2 | PANEL L1G | 3 | 100 | 60 | 1 | 4 | 4 | 8 | 1 1/4 | | 20.0 |
| 3 | PANEL L11E | 3 | 100 | 60 | 1 | 4 | 4 | 8 | 1 1/4 | | 17.1 |
| 4 | PANEL L11S | 3 | 100 | 60 | 1 | 4 | 3 | 8 | 1 1/4 | | 26.0 |
| 5 | PANEL L11N | 3 | 100 | 60 | 1 | 4 | 4 | 8 | 1 1/4 | | 17.7 |
| 6 | PANEL L11W | 3 | 100 | 60 | 1 | 4 | 3 | 8 | 1 1/4 | | 15.3 |
| 7 | PANEL L12E | 3 | 100 | 60 | 1 | 4 | 4 | 8 | 1 1/4 | | 13.7 |
| 8 | PANEL L12S | 3 | 100 | 60 | 1 | 4 | 3 | 8 | 1 1/4 | | 14.0 |
| 9 | SPARE | 3 | 100 | 60 | | | | | | | |
| 10 | SPARE | 3 | 100 | 60 | | | | | | | |
| 11 | SPACE | 3 | 100 | | | | | | | | |
| 12 | SPACE | 3 | 100 | | | | | | | | |
| 13 | SPACE | 3 | 100 | | | | | | | | |
| 14 | SPD | 3 | 60 | 60 | 1 | 4 | 6 | 8 | 1 | | |

TOTAL CONNECTED LOAD: 147.2 KVA

## PANEL L2X

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W | LOCATION: MAIN ELECTRIC ROOM
100 AMPERE BUS | 60A MCB | 100% RATED NEUTRAL BUS | 65,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | FUSE P | AMPS | NO | CIRCUIT WIRING SIZE | GND | C | CKT | DESCRIPTION | FUSE P | AMPS | NO | CIRCUIT WIRING SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.2 | 1 | EAST PARKING LOT | 1 | 20 | 2 | 8 | 10 | 1 | 2 | WEST ROADWAY | 1 | 20 | 2 | 10 | 10 | 1 | 0.5 |
| 0.9 | 3 | EAST PARKING LOT | 1 | 20 | 2 | 8 | 10 | 1 | 4 | WEST PARKING | 1 | 20 | 2 | 10 | 10 | 1 | 0.4 |
| 0.7 | 5 | EAST ROADWAY LTS | 1 | 20 | 2 | 8 | 10 | 1 | 6 | BUS LOOP/W PARKING | 1 | 20 | 2 | 10 | 10 | 1 | 0.8 |
| 0.4 | 7 | EAST WALKWAY LTS | 1 | 20 | 2 | 8 | 10 | 1 | 8 | MAIN ROADWAY EAST | 1 | 20 | 2 | 8 | 10 | 1 | 0.6 |
| 1.5 | 9 | SOUTH PARKING/ROAD | 1 | 20 | 2 | 8 | 10 | 1 | 10 | CONTROL CIRCUIT | 1 | 20 | 2 | 12 | 12 | 1 | 1.0 |
| 0.8 | 11 | NORTH WALKWAY LTS | 1 | 20 | 2 | 8 | 10 | 1 | 12 | MAIN ROADWAY WEST | 1 | 20 | 2 | 8 | 10 | 1 | 0.7 |
| 2.5 | 13 | SCHOOL SIGN | 2 | 15 | 2 | 4 | 8 | 1 1/2 | 14 | NORTH SPORTS PARKING | 1 | 20 | 2 | 8 | 10 | 1 | 0.8 |
| 2.5 | 15 | - | - | - | - | - | - | - | 16 | NORTH ROADWAY | 1 | 20 | 2 | 8 | 10 | 1 | 0.6 |
| | 17 | SPARE | 1 | 20 | | | | | 18 | EAST SPORTS PARKING | 1 | 20 | 2 | 8 | 10 | 1 | 1.0 |
| | 19 | SPARE | 1 | 20 | | | | | 20 | SPACE | 1 | | | | | | |
| | 21 | SPARE | 1 | 20 | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPARE | 1 | 20 | | | | | 24 | SPACE | 1 | | | | | | |
| | 25 | SPACE | 1 | | | | | | 26 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 27 | SPACE | 1 | | | | | | 28 | - | - | - | - | - | - | - | |
| | 29 | SPACE | 1 | | | | | | 30 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD: 16.9 KVA | KVA PER PHASE: A 6.0 B 6.9 C 4.0

## PANEL L1G

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W | LOCATION: GYM ELECTRIC ROOM
100 AMPERE BUS | 60 MCB | 100% RATED NEUTRAL BUS | 14,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | NO | CIRCUIT WIRING SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | NO | CIRCUIT WIRING SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.5 | 1 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 2.7 |
| 2.8 | 3 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 2.8 |
| 2.7 | 5 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.8 |
| 1.3 | 7 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | CONTROL CIRCUIT | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| 0.3 | 9 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | SPARE | 1 | 20 | | | | | |
| 2.9 | 11 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | SPARE | 1 | 20 | | | | | |
| | 13 | SPARE | 1 | 20 | | | | | 14 | SPACE | 1 | | | | | | |
| | 15 | SPARE | 1 | 20 | | | | | 16 | SPACE | 1 | | | | | | |
| | 17 | SPARE | 1 | 20 | | | | | 18 | SPACE | 1 | | | | | | |
| | 19 | SPACE | 1 | | | | | | 20 | SPACE | 1 | | | | | | |
| | 21 | SPACE | 1 | | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | SPACE | 1 | | | | | | |
| | 25 | SPACE | 1 | | | | | | 26 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 27 | SPACE | 1 | | | | | | 28 | - | - | - | - | - | - | - | |
| | 29 | SPACE | 1 | | | | | | 30 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD: 20.0 KVA | KVA PER PHASE: A 6.7 B 5.9 C 7.4

## PANEL L11E

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W | LOCATION: EAST ELECTRIC CLOSET
100 AMPERE BUS | 60 MCB | 100% RATED NEUTRAL BUS | 35,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | NO | CIRCUIT WIRING SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | NO | CIRCUIT WIRING SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.5 | 1 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 2.1 |
| 2.4 | 3 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.4 |
| 1.9 | 5 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 2.3 |
| 0.4 | 7 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 1.6 | 9 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.3 | 11 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| | 13 | SPARE | 1 | 20 | | | | | 14 | CONTROL CIRCUIT | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| | 15 | SPARE | 1 | 20 | | | | | 16 | SPARE | 1 | 20 | | | | | |
| | 17 | SPARE | 1 | 20 | | | | | 18 | SPARE | 1 | 20 | | | | | |
| | 19 | SPACE | 1 | | | | | | 20 | SPACE | 1 | | | | | | |
| | 21 | SPACE | 1 | | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | SPACE | 1 | | | | | | |
| | 25 | SPACE | 1 | | | | | | 26 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 27 | SPACE | 1 | | | | | | 28 | - | - | - | - | - | - | - | |
| | 29 | SPACE | 1 | | | | | | 30 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD: 17.1 KVA | KVA PER PHASE: A 5.6 B 5.8 C 5.7

## PANEL L11S

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W | LOCATION: SOUTH ELECTRIC CLOSET
100 AMPERE BUS | 60 MCB | 100% RATED NEUTRAL BUS | 14,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | NO | CIRCUIT WIRING SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | NO | CIRCUIT WIRING SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.8 | 1 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 2.6 | 3 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.1 | 5 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 2.0 |
| 1.7 | 7 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 2.0 |
| 2.5 | 9 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 2.7 | 11 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.4 |
| 1.9 | 13 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | SPARE | 1 | 20 | | | | | |
| 0.8 | 15 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | SPARE | 1 | 20 | | | | | |
| 1.1 | 17 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | CONTROL CIRCUIT | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| | 19 | SPARE | 1 | 20 | | | | | 20 | SPACE | 1 | | | | | | |
| | 21 | SPARE | 1 | 20 | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | SPACE | 1 | | | | | | |
| | 25 | SPACE | 1 | | | | | | 26 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 27 | SPACE | 1 | | | | | | 28 | - | - | - | - | - | - | - | |
| | 29 | SPACE | 1 | | | | | | 30 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD: 26.0 KVA | KVA PER PHASE: A 8.9 B 8.6 C 8.5

## PANEL L11N

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W | LOCATION: 1ST FLR NORTH ELEC CLOSET
100 AMPERE BUS | 60 MCB | 100% RATED NEUTRAL BUS | 14,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | NO | CIRCUIT WIRING SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | NO | CIRCUIT WIRING SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.7 | 1 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.4 |
| 1.3 | 3 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 2.0 |
| 2.3 | 5 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.3 |
| 1.2 | 7 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.7 |
| 1.0 | 9 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.3 |
| 1.7 | 11 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.3 |
| | 13 | SPARE | 1 | 20 | | | | | 14 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.3 |
| | 15 | SPARE | 1 | 20 | | | | | 16 | CONTROL CIRCUIT | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| | 17 | SPARE | 1 | 20 | | | | | 18 | SPARE | 1 | 20 | | | | | |
| | 19 | SPACE | 1 | | | | | | 20 | SPACE | 1 | | | | | | |
| | 21 | SPACE | 1 | | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | SPACE | 1 | | | | | | |
| | 25 | SPACE | 1 | | | | | | 26 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 27 | SPACE | 1 | | | | | | 28 | - | - | - | - | - | - | - | |
| | 29 | SPACE | 1 | | | | | | 30 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD: 17.7 KVA | KVA PER PHASE: A 6.3 B 5.8 C 5.6

## PANEL L12E

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W | LOCATION: 2ND FLR EAST ELEC CLOSET
100 AMPERE BUS | 60 MCB | 100% RATED NEUTRAL BUS | 14,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | NO | CIRCUIT WIRING SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | NO | CIRCUIT WIRING SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.2 | 1 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.7 |
| 1.4 | 3 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.4 |
| 0.4 | 5 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 2.4 |
| 2.3 | 7 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | SPARE | 1 | 20 | | | | | |
| 1.4 | 9 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | SPARE | 1 | 20 | | | | | |
| 1.5 | 11 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | SPARE | 1 | 20 | | | | | |
| | 13 | SPARE | 1 | 20 | | | | | 14 | SPACE | 1 | | | | | | |
| | 15 | SPARE | 1 | 20 | | | | | 16 | SPACE | 1 | | | | | | |
| | 17 | SPACE | 1 | | | | | | 18 | SPACE | 1 | | | | | | |
| | 19 | SPACE | 1 | | | | | | 20 | SPACE | 1 | | | | | | |
| | 21 | SPACE | 1 | | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | SPACE | 1 | | | | | | |
| | 25 | SPACE | 1 | | | | | | 26 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 27 | SPACE | 1 | | | | | | 28 | - | - | - | - | - | - | - | |
| | 29 | SPACE | 1 | | | | | | 30 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD: 13.7 KVA | KVA PER PHASE: A 5.2 B 4.2 C 4.3

## PANEL L11W

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W | LOCATION: 1ST FLR WEST ELEC CLOSET
100 AMPERE BUS | 60 MCB | 100% RATED NEUTRAL BUS | 14,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | NO | CIRCUIT WIRING SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | NO | CIRCUIT WIRING SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.5 | 1 | CORRIDOR LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | CORRIDOR LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.3 |
| 1.8 | 3 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.7 |
| 2.1 | 5 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 2.2 |
| 1.2 | 7 | LIGHTING | 1 | 20 | | | | | 8 | EXTERIOR LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.1 |
| 1.1 | 9 | LIGHTING | 1 | 20 | | | | | 10 | STAIR LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.7 | 11 | CORRIDOR LIGHTING | 1 | 20 | | | | | 12 | STAIR LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| | 13 | SPARE | 1 | 20 | | | | | 14 | SPARE | 1 | 20 | | | | | |
| | 15 | SPARE | 1 | 20 | | | | | 16 | SPARE | 1 | 20 | | | | | |
| | 17 | SPARE | 1 | 20 | | | | | 18 | SPARE | 1 | 20 | | | | | |
| | 19 | SPACE | 1 | | | | | | 20 | SPACE | 1 | | | | | | |
| | 21 | SPACE | 1 | | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | LIGHTING CONTROLS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| | 25 | SPACE | 1 | | | | | | 26 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 27 | SPACE | 1 | | | | | | 28 | - | - | - | - | - | - | - | |
| | 29 | SPACE | 1 | | | | | | 30 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD: 15.3 KVA | KVA PER PHASE: A 4.1 B 5.0 C 6.2

## PANEL L12S

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W | LOCATION: 2ND FLR SOUTH ELEC CLOSET
100 AMPERE BUS | 60 MCB | 100% RATED NEUTRAL BUS | 14,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | NO | CIRCUIT WIRING SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | NO | CIRCUIT WIRING SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | 1 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.4 | 3 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.7 |
| 1.5 | 5 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.4 |
| 1.5 | 7 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.7 |
| 0.8 | 9 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | SPARE | 1 | 20 | | | | | |
| 1.7 | 11 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | SPARE | 1 | 20 | | | | | |
| | 13 | SPARE | 1 | 20 | | | | | 14 | SPARE | 1 | 20 | | | | | |
| | 15 | SPARE | 1 | 20 | | | | | 16 | SPACE | 1 | | | | | | |
| | 17 | SPARE | 1 | 20 | | | | | 18 | SPACE | 1 | | | | | | |
| | 19 | SPARE | 1 | 20 | | | | | 20 | SPACE | 1 | | | | | | |
| | 21 | SPACE | 1 | | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | SPACE | 1 | | | | | | |
| | 25 | SPACE | 1 | | | | | | 26 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 27 | SPACE | 1 | | | | | | 28 | - | - | - | - | - | - | - | |
| | 29 | SPACE | 1 | | | | | | 30 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD: 14.0 KVA | KVA PER PHASE: A 5.5 B 3.9 C 4.6

## PANEL L2A

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W | LOCATION: AUD ELEC CLOSET
400 AMPERE BUS | 400 A MCB | 100% RATED NEUTRAL BUS | 35,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | NO | CIRCUIT WIRING SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | NO | CIRCUIT WIRING SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.5 | 1 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | CONTROL CIRCUIT | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| 1.5 | 3 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | SPARE | 1 | 20 | | | | | |
| 1.5 | 5 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | SPARE | 1 | 20 | | | | | |
| | 7 | SPARE | 1 | 20 | | | | | 8 | SPARE | 1 | 20 | | | | | |
| | 9 | SPARE | 1 | 20 | | | | | 10 | SPARE | 1 | 20 | | | | | |
| | 11 | SPARE | 1 | 20 | | | | | 12 | SPARE | 1 | 20 | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | SPACE | 1 | | | | | | |
| | 15 | SPACE | 1 | | | | | | 16 | SPACE | 1 | | | | | | |
| | 17 | SPACE | 1 | | | | | | 18 | SPACE | 1 | | | | | | |
| | 19 | SPACE | 1 | | | | | | 20 | SPACE | 1 | | | | | | |
| | 21 | SPACE | 1 | | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | SPACE | 1 | | | | | | |
| | 25 | SPACE | 1 | | | | | | 26 | SPACE | 1 | | | | | | |
| | 27 | SPACE | 1 | | | | | | 28 | SPACE | 1 | | | | | | |
| | 29 | SPACE | 1 | | | | | | 30 | SPACE | 1 | | | | | | |
| 10.0 | 31 | PANEL PB-1S | 3 | 60 | REFER TO XFMR SCHEDULE | | | | 32 | SPARE | 3 | 60 | | | | | |
| 10.0 | 33 | (VIA XFMR TAUD2) | - | - | - | - | - | - | 34 | - | - | - | - | - | - | - | |
| 10.0 | 35 | - | - | - | - | - | - | - | 36 | - | - | - | - | - | - | - | |
| 24.0 | 37 | AUDITORIUM LIGHTING | 3 | 125 | REFER TO XFMR SCHEDULE | | | | 38 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| 24.0 | 39 | RELAY PANEL RP-1S | - | - | - | - | - | - | 40 | - | - | - | - | - | - | - | |
| 24.0 | 41 | (VIA XFMR TAUD) | - | - | - | - | - | - | 42 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD: 106.7 KVA | KVA PER PHASE: A 35.7 B 35.5 C 35.5

## PANEL L1M

MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W | LOCATION: MAIN ELECTRIC ROOM
100 AMPERE BUS | 60 MCB | 100% RATED NEUTRAL BUS | 35,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | NO | CIRCUIT WIRING SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | NO | CIRCUIT WIRING SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.5 | 1 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.6 |
| 1.3 | 3 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.1 |
| 2.7 | 5 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.3 |
| 1.2 | 7 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 2.6 | 9 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 2.0 |
| 0.4 | 11 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 2.1 |
| 2.6 | 13 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| 1.0 | 15 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.3 |
| 2.2 | 17 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | SPARE | 1 | 20 | | | | | |
| 0.1 | 19 | EXTERIOR LTG | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | SPARE | 1 | 20 | | | | | |
| | 21 | SPARE | 1 | 20 | | | | | 22 | SPARE | 1 | 20 | | | | | |
| | 23 | SPARE | 1 | 20 | | | | | 24 | SPARE | 1 | 20 | | | | | |
| | 25 | SPARE | 1 | 20 | | | | | 26 | SPARE | 1 | 20 | | | | | |
| | 27 | SPARE | 1 | 20 | | | | | 28 | SPARE | 1 | 20 | | | | | |
| | 29 | SPARE | 1 | 20 | | | | | 30 | SPARE | 1 | 20 | | | | | |
| | 31 | SPACE | 1 | | | | | | 32 | SPACE | 1 | | | | | | |
| | 33 | SPACE | 1 | | | | | | 34 | SPACE | 1 | | | | | | |
| | 35 | SPACE | 1 | | | | | | 36 | SPACE | 1 | | | | | | |
| | 37 | SPACE | 1 | | | | | | 38 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 39 | SPACE | 1 | | | | | | 40 | - | - | - | - | - | - | - | |
| | 41 | SPACE | 1 | | | | | | 42 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD: 23.4 KVA | KVA PER PHASE: A 7.3 B 8.3 C 7.7

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN

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The professional services of ABHA/BSA+A, LLC. are undertaken for and performed in the interest of the NCCVT School District. No contractual obligation is assumed by ABHA/BSA+A, LLC. for the benefit of any other person involved in the project.

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**PANEL SCHEDULES**

SHEET NO.

**E608**

| | | |
|---|---|---|
| DL1 | L11S | L2A |
| L2X | L11N | L1M |
| L1G | L12E | |
| L11E | L11W | |
| | L12S | |

**PANEL KCR2A** (SECTION I) **MOUNTING: RECESSED (NEMA 4X)**
**VOLTAGE: 208/120, 3PH, 4W** **LOCATION: CULINARY KITCHEN**
**400 AMPERE BUS** **400 A MLO** **100% RATED NEUTRAL BUS** **25,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.2 | 1 | REC - ECV2 | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | **ICE MAKER - E100** | 2 | 20 | 3 | 12 | 12 | 3/4 | 1.3 |
| 0.3 | 3 | REFRIG - E108 | 1 | 15 | 2 | 12 | 12 | 3/4 | 4 | - | - | - | - | - | - | - | 1.3 |
| 0.2 | 5 | DISP CASE REFRIG - E119 | 1 | 15 | 2 | 12 | 12 | 3/4 | 6 | **REACH-IN REFRIG - E62** | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.3 | 7 | REFRIG - E119 | 1 | 15 | 2 | 12 | 12 | 3/4 | 8 | **HOT/COLD DROP-IN - E72** | 1 | 30 | 2 | 10 | 10 | 3/4 | 2.5 |
| 1.4 | 9 | POS SYSTEM - E68 | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | **HEAT LAMP - E138** | 1 | 30 | 2 | 10 | 10 | 3/4 | 2.8 |
| 0.6 | 11 | REC/TV | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | **REFRIG SANDWICH - E97** | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.7 |
| 0.4 | 13 | REC | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | **HEAT LAMP - E138** | 1 | 30 | 2 | 10 | 10 | 3/4 | 2.8 |
| 0.6 | 15 | REC | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | **PASS THRU HTD CAB - E61** | 2 | 20 | 2 | 12 | 12 | 3/4 | 0.7 |
| 0.6 | 17 | REC | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | - | - | - | - | - | - | - | 0.7 |
| 0.6 | 19 | REC | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | **CONV REC - CV3** | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.5 | 21 | COFFEE POT | 1 | 20 | 2 | 12 | 12 | 3/4 | 22 | **CONV REC - CV3** | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 23 | REC | 1 | 20 | 2 | 12 | 12 | 3/4 | 24 | **80 QUART MIXER - E45** | 2 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.5 | 25 | COFFEE POT | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | - | - | - | - | - | - | - | 1.2 |
| 4.0 | 27 | COFFEE POT - E107 | 3 | 45 | 4 | 6 | 10 | 3/4 | 28 | **CONV REC - CV2** | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 4.0 | 29 | - | - | - | - | - | - | - | 30 | FOOD WASTE DISP - E15 | 3 | 15 | 3 | 12 | 12 | 3/4 | 1.0 |
| 4.0 | 31 | - | - | - | - | - | - | - | 32 | - | - | - | - | - | - | - | 1.0 |
| 1.7 | 33 | ICED TEA BREWER - E106 | 1 | 20 | 2 | 12 | 12 | 3/4 | 34 | - | - | - | - | - | - | - | 1.0 |
| 1.2 | 35 | ICE MAKER - E40 | 1 | 20 | 2 | 12 | 12 | 3/4 | 36 | SPARE | 1 | 20 | | | | | |
| 1.4 | 37 | SODA/ICE DISP - E104 | 1 | 20 | 2 | 12 | 12 | 3/4 | 38 | SPARE | 1 | 20 | | | | | |
| 1.4 | 39 | SODA SYSTEM - E103 | 1 | 20 | 2 | 12 | 12 | 3/4 | 40 | SPARE | 1 | 20 | | | | | |
| | 41 | SPARE | 1 | 20 | | | | | 42 | SPARE | 1 | 20 | | | | | |

CONNECTED LOAD (SECTION I) 46.9 KVA KVA PER PHASE: A 17.8 B 17.7 C 11.4

**PANEL KCR2A** (SECTION II) **MOUNTING: RECESSED (NEMA 4X)**
**VOLTAGE: 208/120, 3PH, 4W** **LOCATION: CULINARY KITCHEN**
**400 AMPERE BUS** **400 A MLO** **100% RATED NEUTRAL BUS** **25,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.3 | 43 | UNDERCTR REFRIG - E108 | 1 | 15GFI | 2 | 12 | 12 | 3/4 | 44 | UNDERCTR REFRIG - E108 | 1 | 15GFI | 2 | 12 | 12 | 3/4 | 0.3 |
| 0.3 | 45 | UNDERCTR REFRIG - E108 | 1 | 15GFI | 2 | 12 | 12 | 3/4 | 46 | UNDERCTR REFRIG - E108 | 1 | 15GFI | 2 | 12 | 12 | 3/4 | 0.3 |
| 0.3 | 47 | UNDERCTR REFRIG - E108 | 1 | 15GFI | 2 | 12 | 12 | 3/4 | 48 | UNDERCTR REFRIG - E108 | 1 | 15GFI | 2 | 12 | 12 | 3/4 | 0.3 |
| 0.3 | 49 | UNDERCTR REFRIG - E108 | 1 | 15GFI | 2 | 12 | 12 | 3/4 | 50 | UNDERCTR REFRIG - E108 | 1 | 15GFI | 2 | 12 | 12 | 3/4 | 0.3 |
| 0.3 | 51 | UNDERCTR REFRIG - E108 | 1 | 15GFI | 2 | 12 | 12 | 3/4 | 52 | UNDERCTR REFRIG - E108 | 1 | 15GFI | 2 | 12 | 12 | 3/4 | 0.3 |
| 0.3 | 53 | UNDERCTR REFRIG - E108 | 1 | 15GFI | 2 | 12 | 12 | 3/4 | 54 | UNDERCTR REFRIG - E108 | 1 | 15GFI | 2 | 12 | 12 | 3/4 | 0.3 |
| 0.3 | 55 | UNDERCTR REFRIG - E108 | 1 | 15GFI | 2 | 12 | 12 | 3/4 | 56 | UNDERCTR REFRIG - E108 | 1 | 15GFI | 2 | 12 | 12 | 3/4 | 0.3 |
| 0.3 | 57 | UNDERCTR REFRIG - E108 | 1 | 15GFI | 2 | 12 | 12 | 3/4 | 58 | REC | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 1.4 | 59 | REC | 1 | 20 | 2 | 12 | 12 | 3/4 | 60 | REC | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.5 | 61 | GAS SOLENOID | 1 | 20 | 2 | 12 | 12 | 3/4 | 62 | TELEVISIONS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.6 | 63 | CAMERA/TELEVISIONS | 1 | 20 | 2 | 12 | 12 | 3/4 | 64 | SPARE | 1 | 20 | | | | | |
| | 65 | SPARE | 1 | 20 | | | | | 66 | SPARE | 1 | 20 | | | | | |
| | 67 | SPARE | 1 | 20 | | | | | 68 | SPACE | 1 | | | | | | |
| | 69 | SPACE | 1 | | | | | | 70 | SPACE | 1 | | | | | | |
| | 71 | SPACE | 1 | | | | | | 72 | SPACE | 1 | | | | | | |
| 4.5 | 73 | COMBI-OVEN VENTLESS | 3 | 50 | 3 | 6 | 10 | 3/4 | 74 | COMBI-OVEN VENTLESS | 3 | 50 | 3 | 6 | 10 | 3/4 | 4.5 |
| 4.5 | 75 | - | - | - | - | - | - | - | 76 | - | - | - | - | - | - | - | 4.5 |
| 4.5 | 77 | - | - | - | - | - | - | - | 78 | - | - | - | - | - | - | - | 4.5 |
| 4.5 | 79 | COMBI-OVEN VENTLESS | 3 | 50 | 3 | 6 | 10 | 3/4 | 80 | COMBI-OVEN VENTLESS | 3 | 50 | 3 | 6 | 10 | 3/4 | 4.5 |
| 4.5 | 81 | - | - | - | - | - | - | - | 82 | - | - | - | - | - | - | - | 4.5 |
| 4.5 | 83 | - | - | - | - | - | - | - | 84 | - | - | - | - | - | - | - | 4.5 |

CONNECTED LOAD (SECTION II) 63.8 KVA KVA PER PHASE: A 21.1 B 20.9 C 21.8
**TOTAL CONNECTED LOAD** 110.7 **KVA** KVA PER PHASE: A 38.9 B 38.6 C 33.2

**PANEL KCR2B** (SECTION I) **MOUNTING: RECESSED (NEMA 4X)**
**VOLTAGE: 208/120, 3PH, 4W** **LOCATION: CULINARY KITCHEN**
**800 AMPERE BUS** **800 A MCB W/ SHUNT TRIP (120V) COIL** **100% RATED NEUTRAL BUS** **25,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | SPARE | 1 | 20 | | | | | 2 | SPARE | 1 | 20 | | | | | |
| | 3 | SPARE | 1 | 20 | | | | | 4 | SPARE | 1 | 20 | | | | | |
| | 5 | SPARE | 1 | 20 | | | | | 6 | SPARE | 1 | 20 | | | | | |
| | 7 | SPARE | 1 | 20 | | | | | 8 | SPARE | 1 | 20 | | | | | |
| | 9 | SPARE | 1 | 20 | | | | | 10 | SPARE | 1 | 20 | | | | | |
| | 11 | SPARE | 1 | 20 | | | | | 12 | SPARE | 1 | 20 | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | SPACE | 1 | | | | | | |
| | 15 | SPACE | 1 | | | | | | 16 | SPACE | 1 | | | | | | |
| | 17 | SPACE | 1 | | | | | | 18 | SPACE | 1 | | | | | | |
| 38.9 | 19 | PANEL KCR2A | 3 | 400 | 4 | 500KCMIL | 3 | 3 | 20 | SPACE | 1 | | | | | | |
| 38.6 | 21 | - | - | - | - | - | - | - | 22 | SPACE | 1 | | | | | | |
| 33.2 | 23 | - | - | - | - | - | - | - | 24 | SPACE | 1 | | | | | | |
| 9.6 | 25 | UTILITY RACEWAY - 137 | 3 | 100 | 4 | 1 | 8 | 1-1/2 | 26 | SPACE | 1 | | | | | | |
| 9.6 | 27 | - | - | - | - | - | - | - | 28 | SPACE | 1 | | | | | | |
| 9.6 | 29 | - | - | - | - | - | - | - | 30 | SPACE | 1 | | | | | | |
| 16.7 | 31 | DISHWASHER - E113 | 3 | 200 | 3 | 1/0 | 6 | 1-1/2 | 32 | SPACE | 1 | | | | | | |
| 16.7 | 33 | - | - | - | - | - | - | - | 34 | SPACE | 1 | | | | | | |
| 16.7 | 35 | - | - | - | - | - | - | - | 36 | SPACE | 1 | | | | | | |
| 4.8 | 37 | UTILITY RACEWAY - E110 | 3 | 50 | 4 | 6 | 10 | 1 | 38 | SPACE | 1 | | | | | | |
| 4.8 | 39 | - | - | - | - | - | - | - | 40 | SPACE | 1 | | | | | | |
| 4.8 | 41 | - | - | - | - | - | - | - | 42 | SPACE | 1 | | | | | | |

CONNECTED LOAD (SECTION I) 204.0 KVA KVA PER PHASE: A 70 B 69.7 C 64.3

**PANEL KR1A** (SECTION I) **MOUNTING: RECESSED (NEMA 4X)**
**VOLTAGE: 208/120, 3PH, 4W** **LOCATION: KITCHEN**
**400 AMPERE BUS** **400 A MLO** **100% RATED NEUTRAL BUS** **25,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.5 | 1 | POS [E68] | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | MILK COOLER [E70] | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.4 | 3 | MILK COOLER [E70] | 1 | 15 | 2 | 12 | 12 | 3/4 | 4 | DISPLAY CASE [E134] | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 5 | DISPLAY CASE [E134] | 1 | 15 | 2 | 12 | 12 | 3/4 | 6 | POS [E68] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.0 | 7 | REACH IN REFRIG [E130] | 1 | 15 | 2 | 12 | 12 | 3/4 | 8 | HEATED CABINET [E61] | 2 | 20 | 3 | 12 | 12 | 3/4 | 0.8 |
| 1.0 | 9 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | - | - | - | - | - | - | - | 0.8 |
| 1.0 | 11 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | PASS-THRU REF [E62] | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.7 |
| 1.9 | 13 | DROP-IN [E75] | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | HEATED CABINET [E61] | 2 | 20 | 3 | 12 | 12 | 3/4 | 0.8 |
| 1.2 | 15 | SNEEZE GUARD [E127] | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | - | - | - | - | - | - | - | 0.8 |
| 1.9 | 17 | DROP-IN [E75] | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | PASS-THRU REF [E62] | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.7 |
| 1.2 | 19 | SNEEZE GUARD [E127] | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | MILK COOLER [E70] | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.4 |
| 1.9 | 21 | DROP-IN [E75] | 1 | 20 | 2 | 12 | 12 | 3/4 | 22 | POS [E68] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.2 | 23 | SNEEZE GUARD [E127] | 1 | 20 | 2 | 12 | 12 | 3/4 | 24 | DISPLAY CASE [E134] | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.9 | 25 | DROP-IN [E75] | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | GENERAL RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 27 | SNEEZE GUARD [E127] | 1 | 20 | 2 | 12 | 12 | 3/4 | 28 | DROP-IN [E75] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.9 |
| 0.8 | 29 | HEATED CABINET [E61] | 2 | 20 | 3 | 12 | 12 | 3/4 | 30 | SNEEZE GUARD [E127] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.8 | 31 | - | - | - | - | - | - | - | 32 | DROP-IN [E75] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.9 |
| 0.7 | 33 | PASS-THRU REF [E62] | 1 | 15 | 2 | 12 | 12 | 3/4 | 34 | SNEEZE GUARD [E127] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.8 | 35 | HEATED CABINET [E61] | 2 | 20 | 3 | 12 | 12 | 3/4 | 36 | DROP-IN [E75] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.9 |
| 0.8 | 37 | - | - | - | - | - | - | - | 38 | SNEEZE GUARD [E127] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.7 | 39 | PASS-THRU REF [E62] | 1 | 15 | 2 | 12 | 12 | 3/4 | 40 | DROP-IN [E75] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.9 |
| 0.8 | 41 | FOOD CUTTER [E46] | 1 | 15 | 2 | 12 | 12 | 3/4 | 42 | SNEEZE GUARD [E127] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |

CONNECTED LOAD (SECTION I) 47.7 KVA KVA PER PHASE: A 15.8 B 16.2 C 15.7

**PANEL KR1A** (SECTION II) **MOUNTING: RECESSED (NEMA 4X)**
**VOLTAGE: 208/120, 3PH, 4W** **LOCATION: KITCHEN**
**400 AMPERE BUS** **400 A MLO** **100% RATED NEUTRAL BUS** **25,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.0 | 43 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 44 | POS [E68] | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.0 | 45 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 46 | MILK COOLER [E70] | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.4 |
| 1.0 | 47 | REACH IN REFRIG [E130] | 1 | 15 | 2 | 12 | 12 | 3/4 | 48 | DISPLAY CASE [E134] | 1 | 15 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.1 | 49 | FOOD DISPOSAL [E15] | 3 | 20 | 3 | 12 | 12 | 3/4 | 50 | UTILITY DISTRIBUTION | 3 | 50 | 4 | 6 | 8 | 3/4 | 4.8 |
| 1.1 | 51 | - | - | - | - | - | - | - | 52 | SYSTEM [E42] | - | - | - | - | - | - | 4.8 |
| 1.1 | 53 | - | - | - | - | - | - | - | 54 | - | - | - | - | - | - | - | 4.8 |
| 1.2 | 55 | OH RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 56 | OH RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 57 | OH RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 58 | OH RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 59 | OH RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 60 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 2.3 | 61 | BLAST CHILLER [E38] | 3 | 30 | 3 | 10 | 10 | 3/4 | 62 | ICE MAKER | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.3 |
| 2.3 | 63 | - | - | - | - | - | - | - | 64 | OFFICE RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 2.3 | 65 | - | - | - | - | - | - | - | 66 | BREAK RM CTR RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.0 | 67 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 68 | REFRIGERATOR | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 69 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 70 | DRYER | 2 | 30 | 3 | 10 | 10 | 3/4 | 0.5 |
| 1.2 | 71 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 72 | - | - | - | - | - | - | - | 2.5 |
| 1.1 | 73 | FOOD DISPOSAL [E74] | 3 | 20 | 3 | 12 | 12 | 3/4 | 74 | WASHER | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.1 | 75 | - | - | - | - | - | - | - | 76 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.1 | 77 | - | - | - | - | - | - | - | 78 | SPARE | 1 | 20 | | | | | |
| | 79 | SPARE | 1 | 20 | | | | | 80 | SPARE | 1 | 20 | | | | | |
| | 81 | SPARE | 1 | 20 | | | | | 82 | SPARE | 1 | 20 | | | | | |
| 1.0 | 83 | UDC SHUNT TRIP | 1 | 20 | 2 | 12 | 12 | 3/4 | 84 | SPARE | 1 | 20 | | | | | |

CONNECTED LOAD (SECTION II) 55.4 KVA KVA PER PHASE: A 18.9 B 16.6 C 19.9
**TOTAL CONNECTED LOAD** 103.1 **KVA** KVA PER PHASE: A 34.7 B 32.8 C 35.6

**PANEL KR1** **MOUNTING: RECESSED (NEMA 4X)**
**VOLTAGE: 208/120, 3PH, 4W** **LOCATION: KITCHEN**
**800 AMPERE BUS** **800 A MCB** **100% RATED NEUTRAL BUS** **25,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | SPARE | 1 | 20 | | | | | 2 | SPARE | 1 | 20 | | | | | |
| | 3 | SPARE | 1 | 20 | | | | | 4 | SPARE | 1 | 20 | | | | | |
| | 5 | SPARE | 1 | 20 | | | | | 6 | SPARE | 1 | 20 | | | | | |
| | 7 | SPARE | 1 | 20 | | | | | 8 | SPARE | 1 | 20 | | | | | |
| | 9 | SPARE | 1 | 20 | | | | | 10 | SPARE | 1 | 20 | | | | | |
| | 11 | SPARE | 1 | 20 | | | | | 12 | SPARE | 1 | 20 | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | SPACE | 1 | | | | | | |
| | 15 | SPACE | 1 | | | | | | 16 | SPACE | 1 | | | | | | |
| | 17 | SPACE | 1 | | | | | | 18 | SPACE | 1 | | | | | | |
| 34.7 | 19 | PANEL KR1A | 3 | 400 | 4 | 500KCMIL | 3 | 3 | 20 | SPACE | 1 | | | | | | |
| 32.8 | 21 | - | - | - | - | - | - | - | 22 | SPACE | 1 | | | | | | |
| 35.6 | 23 | - | - | - | - | - | - | - | 24 | SPACE | 1 | | | | | | |
| 20.0 | 25 | UTILITY DISTRIBUTION | 3 | 200 | 4 | 4/0 | 6 | 1 | 26 | SPACE | 1 | | | | | | |
| 20.0 | 27 | SYSTEM [E136] | - | - | - | - | - | - | 28 | SPACE | 1 | | | | | | |
| 20.0 | 29 | - | - | - | - | - | - | - | 30 | SPACE | 1 | | | | | | |
| 20.0 | 31 | DISHWASHER/RACK [E13] | 3 | 200 | 4 | 4/0 | 6 | 1 | 32 | SPACE | 1 | | | | | | |
| 20.0 | 33 | - | - | - | - | - | - | - | 34 | SPACE | 1 | | | | | | |
| 20.0 | 35 | - | - | - | - | - | - | - | 36 | SPACE | 1 | | | | | | |
| 20.0 | 37 | DISHWASHER/RACK [E13] | 3 | 200 | 4 | 4/0 | 6 | 1 | 38 | SPACE | 1 | | | | | | |
| 20.0 | 39 | - | - | - | - | - | - | - | 40 | SPACE | 1 | | | | | | |
| 20.0 | 41 | - | - | - | - | - | - | - | 42 | SPACE | 1 | | | | | | |

CONNECTED LOAD (SECTION I) 283.1 KVA KVA PER PHASE: A 94.7 B 92.8 C 95.6

KCR2A | KR1A
KCR2 | KR1

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN

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The professional services of ABHA/BSA+A, LLC. are undertaken for and performed in the interest of the NCCVT School District. No contractual obligation is assumed by ABHA/BSA+A, LLC. for the benefit of any other person involved in the project.

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**PANEL SCHEDULES**

SHEET NO.

**E609**

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN

## DISTRIBUTION PANEL DC1

MOUNTING: SURFACE | A.I.C. RATING: 65,000 | LOCATION: MAIN ELEC ROOM
VOLTAGE: 480/277, 3 PHASE, 4 WIRE | 600A MAIN BUS | 600A MLO

DISTRIBUTION SECTION

| FDR NO | SERVES | CIRCUIT BREAKER P | FRAME | TRIP | WIRING SETS | NO | SIZE | GND | C | REMARKS | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PANEL C1M (VIA XFMR TC1M) | 3 | 225 | 150 | REFER TO XFMR SCHEDULE | | | | | | 61.7 |
| 2 | PANELS C11NA/C11NB (VIA XFMR TC11N) | 3 | 225 | 225 | REFER TO XFMR SCHEDULE | | | | | | 124.4 |
| 3 | PANELS C11EA/C11EB (VIA XFMR TC11E) | 3 | 400 | 300 | REFER TO XFMR SCHEDULE | | | | | | 124.1 |
| 4 | PANEL DC12E (VIA XFMR TC12E) | 3 | 225 | 225 | REFER TO XFMR SCHEDULE | | | | | | 59.6 |
| 5 | PANELS C12NA/C12NB (VIA XFMR TC12N) | 3 | 225 | 150 | REFER TO XFMR SCHEDULE | | | | | | 75.9 |
| 6 | PANEL C1AV (VIA XFMR TC1AV) | 3 | 225 | 150 | REFER TO XFMR SCHEDULE | | | | | | 29.6 |
| 7 | SPARE | 3 | 100 | 100 | | | | | | | |
| 8 | SPARE | 3 | 100 | 100 | | | | | | | |
| 9 | SPACE | 3 | 100 | | | | | | | | |
| 10 | SPACE | 3 | 100 | | | | | | | | |
| 11 | SPACE | 3 | 100 | | | | | | | | |
| 12 | SPACE | 3 | 100 | | | | | | | | |
| 13 | SPACE | 3 | 100 | | | | | | | | |
| 14 | SPD | 3 | 60 | 60 | | | | | | | |
| | TOTAL CONNECTED LOAD | | | | | | | | | | 475.3 KVA |

## PANEL C1M (SECTION I)

VOLTAGE: 208/120, 3PH, 4W | MOUNTING: SURFACE | LOCATION: MAIN ELECTRICAL ROOM
225 AMPERE BUS | 225 A MCB | 200% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.8 | 1 | RECEPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.8 | 3 | RECEPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | RECEPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.0 | 5 | WASHER | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | RECEPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 2.5 | 7 | DRYER | 2 | 30 | 3 | 10 | 10 | 3/4 | 8 | INDUCTION COOKING SYS | 3 | 30 | 3 | 10 | 10 | 3/4 | 2.7 |
| 2.5 | 9 | - | - | - | - | - | - | - | 10 | - | - | - | - | - | - | - | 2.7 |
| 1.0 | 11 | WASHER | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | - | - | - | - | - | - | - | 2.7 |
| 2.5 | 13 | DRYER | 2 | 30 | 3 | 10 | 10 | 3/4 | 14 | RECEPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 2.5 | 15 | - | - | - | - | - | - | - | 16 | RECEPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.6 | 17 | RECEPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | RECEPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 19 | RECEPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | RECEPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 21 | RECEPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 22 | RECEPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 1.0 | 23 | RECEPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 24 | RECEPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 25 | RECEPS - ROOF | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | CAMERA/TELEVISIONS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.0 | 27 | RECEPS - ROOF | 1 | 20 | 2 | 12 | 12 | 3/4 | 28 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.6 | 29 | RECEPS - ROOF | 1 | 20 | 2 | 12 | 12 | 3/4 | 30 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 1.1 | 31 | OVERHEAD COIL DOOR | 1 | 20 | 2 | 12 | 12 | 3/4 | 32 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.1 | 33 | OVERHEAD COIL DOOR | 1 | 20 | 2 | 12 | 12 | 3/4 | 34 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 1.0 | 35 | TELEVISIONS | 1 | 20 | 2 | 12 | 12 | 3/4 | 36 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| | 37 | SPACE | 1 | | | | | | 38 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| | 39 | SPACE | 1 | | | | | | 40 | SPARE | 1 | 20 | | | | | |
| | 41 | SPACE | 1 | | | | | | 42 | RECP CONTROL ZONE C4 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |

CONNECTED LOAD (SECTION I) 41.7 KVA | KVA PER PHASE: A 15.2 B 14.2 C 12.3

## PANEL C1M (SECTION II)

VOLTAGE: 208/120, 3PH, 4W | MOUNTING: SURFACE | LOCATION: MAIN ELECTRICAL ROOM
225 AMPERE BUS | 225 A MLO | 100% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.0 | 43 | DRIVERS SIM RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 44 | SPARE | 1 | 20 | | | | | |
| 1.0 | 45 | DRIVERS SIM RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 46 | SPARE | 1 | 20 | | | | | |
| 1.0 | 47 | DRIVERS SIM RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 48 | DRIVERS SIM RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 49 | DRIVERS SIM RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 50 | DRIVERS SIM RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 51 | DRIVERS SIM RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 52 | DRIVERS SIM RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 53 | DRIVERS SIM RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 54 | DRIVERS SIM RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 55 | DRIVERS SIM RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 56 | DRIVERS SIM RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 57 | DRIVERS SIM RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 58 | DRIVERS SIM RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 59 | DRIVERS SIM RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 60 | RECEPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.0 | 61 | DRIVERS SIM RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 62 | FLOOR RACEWAY | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 1.0 | 63 | DRIVERS SIM RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 64 | SPARE | 1 | 20 | | | | | |
| 1.0 | 65 | DRIVERS SIM RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 66 | SPARE | 1 | 20 | | | | | |
| | 67 | SPARE | 1 | 20 | | | | | 68 | SPARE | 1 | 20 | | | | | |
| | 69 | SPARE | 1 | 20 | | | | | 70 | SPARE | 1 | 20 | | | | | |
| | 71 | SPARE | 1 | 20 | | | | | 72 | SPACE | 1 | | | | | | |
| | 73 | SPACE | 1 | | | | | | 74 | SPACE | 1 | | | | | | |
| | 75 | SPACE | 1 | | | | | | 76 | SPACE | 1 | | | | | | |
| | 77 | SPACE | 1 | | | | | | 78 | SPACE | 1 | | | | | | |
| | 79 | SPACE | 1 | | | | | | 80 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 81 | SPACE | 1 | | | | | | 82 | - | - | - | - | - | - | - | |
| | 83 | SPACE | 1 | | | | | | 84 | - | - | - | - | - | - | - | |

CONNECTED LOAD (SECTION II) 20 KVA | KVA PER PHASE: A 6.8 B 6 C 7.2
**TOTAL CONNECTED LOAD 61.7 KVA** | KVA PER PHASE: A 22 B 20.2 C 19.5

## PANEL C11EB (SINGLE SECTION)

VOLTAGE: 208/120, 3PH, 4W | MOUNTING: SURFACE | LOCATION: SERVER D102D
225 AMPERE BUS | 225 A MCB | 200% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.5 | 1 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 3 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 5 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 7 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 9 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 11 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 0.8 | 13 | RECP SERVER | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 0.8 | 15 | RECP SERVER | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 17 | RECP SERVER | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 19 | RECP SERVER | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 2.2 | 21 | RACK RECP | 1 | 30 | 2 | 10 | 10 | 3/4 | 22 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 2.2 | 23 | RACK RECP | 1 | 30 | 2 | 10 | 10 | 3/4 | 24 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.5 | 25 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.5 | 27 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 28 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 1.5 | 29 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 30 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.5 | 31 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 32 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 1.5 | 33 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 34 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 1.5 | 35 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 36 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.5 | 37 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 38 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 39 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 40 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 41 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 42 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 43 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 44 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.5 | 45 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 46 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 1.5 | 47 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 48 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.4 |
| 1.5 | 49 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 50 | PRINTER | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.8 | 51 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 52 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 53 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 54 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 1.0 | 55 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 46 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 57 | SPARE | 1 | 20 | | | | | 58 | - | - | - | - | - | - | - | |
| | 59 | SPARE | 1 | 20 | | | | | 60 | - | - | - | - | - | - | - | |

**TOTAL CONNECTED LOAD 72.4 KVA** | KVA PER PHASE: A 24.9 B 22.6 C 24.9

## PANEL C11NA (SECTION I)

VOLTAGE: 208/120, 3PH, 4W | MOUNTING: SURFACE | LOCATION: 1ST FLR NORTH ELEC CLOSET
225 AMPERE BUS | 200 A MCB | 200% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.0 | 1 | REFRIG | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 2 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.4 | 3 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.4 | 5 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.8 | 7 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 1.5 | 9 | MICROWAVE | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 10 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.0 | 11 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.0 | 13 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.2 | 15 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | SPARE | 1 | 20 | | | | | |
| 1.2 | 17 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.6 | 19 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 21 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 22 | MICROWAVE | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.2 | 23 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 24 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.6 | 25 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 27 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 28 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.2 | 29 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 30 | REFRIG | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 31 | EWC | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 32 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 1.0 | 33 | LAVATORY | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 34 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 35 | LAVATORY | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 36 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.0 | 37 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 38 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.8 | 39 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 40 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.6 | 41 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 42 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |

CONNECTED LOAD (SECTION I) 38.6 KVA | KVA PER PHASE: A 12.4 B 13.6 C 12.6

## PANEL C11NA (SECTION II)

VOLTAGE: 208/120, 3PH, 4W | MOUNTING: SURFACE | LOCATION: 1ST FLR NORTH ELEC CLOSET
225 AMPERE BUS | 225 A MLO | 200% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.8 | 43 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 44 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.6 | 45 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 46 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.2 | 47 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 48 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 49 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 50 | RECEPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 51 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 52 | RECEPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.6 | 53 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 54 | EWC | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.8 | 55 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 56 | SPARE | 1 | 20 | | | | | |
| 0.8 | 57 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 58 | SPARE | 1 | 20 | | | | | |
| 0.8 | 59 | RECP - EXTERIOR | 1 | 20 | 2 | 12 | 12 | 3/4 | 60 | SPARE | 1 | 20 | | | | | |
| | 61 | SPARE | 1 | 20 | | | | | 62 | SPARE | 1 | 20 | | | | | |
| | 63 | SPARE | 1 | 20 | | | | | 64 | RECP CONTROL ZONE C1 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| | 65 | SPARE | 1 | 20 | | | | | 66 | RECP CONTROL ZONE B1 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| | 67 | SPARE | 1 | 20 | | | | | 68 | RECP CONTROL ZONE B1 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| | 69 | SPACE | 1 | | | | | | 70 | SPACE | 1 | | | | | | |
| | 71 | SPACE | 1 | | | | | | 72 | SPACE | 1 | | | | | | |
| | 73 | SPACE | 1 | | | | | | 74 | SPACE | 1 | | | | | | |
| | 75 | SPACE | 1 | | | | | | 76 | SPACE | 1 | | | | | | |
| | 77 | SPACE | 1 | | | | | | 78 | SPACE | 1 | | | | | | |
| | 79 | SPACE | 1 | | | | | | 80 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 81 | SPACE | 1 | | | | | | 82 | - | - | - | - | - | - | - | |
| | 83 | SPACE | 1 | | | | | | 84 | - | - | - | - | - | - | - | |

CONNECTED LOAD (SECTION II) 17.2 KVA | KVA PER PHASE: A 6 B 5.6 C 5.6
**TOTAL CONNECTED LOAD 55.8 KVA** | KVA PER PHASE: A 18.4 B 19.2 C 18.2

## PANEL C11NB (SECTION I)

VOLTAGE: 208/120, 3PH, 4W | MOUNTING: SURFACE | LOCATION: 1ST FLR NORTH ELEC CLOSET
225 AMPERE BUS | 200 A MCB | 200% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.0 | 1 | PTMA RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | PTMA WASHER | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.0 | 3 | PTMA RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | PTMA DRYER | 2 | 30 | 3 | 10 | 10 | 3/4 | 2.5 |
| 1.0 | 5 | PTMA RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | - | - | - | - | - | - | - | 2.5 |
| 1.0 | 7 | PTMA RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | PTMA RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 9 | PTMA RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | PTMA RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 11 | PTMA RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | PTMA RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 13 | PTMA RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | PTMA RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 15 | PTMA RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | PTMA RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 17 | PTMA RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | GEN PTMA RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 19 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | GEN PTMA RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 21 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 22 | GEN PTMA RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.6 | 23 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 24 | PTMA RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.6 | 25 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | PTMA RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| | 27 | SPARE | 1 | 20 | | | | | 28 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| | 29 | SPARE | 1 | 20 | | | | | 30 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| | 31 | SPARE | 1 | 20 | | | | | 32 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| | 33 | SPARE | 1 | 20 | | | | | 34 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| | 35 | SPACE | 1 | | | | | | 36 | SPARE | 1 | 20 | | | | | |
| | 37 | SPACE | 1 | | | | | | 38 | SPARE | 1 | 20 | | | | | |
| | 39 | SPACE | 1 | | | | | | 40 | SPARE | 1 | 20 | | | | | |
| | 41 | SPACE | 1 | | | | | | 42 | SPARE | 1 | 20 | | | | | |

CONNECTED LOAD (SECTION I) 30.8 KVA | KVA PER PHASE: A 10.2 B 10.7 C 9.9

## PANEL C11NB (SECTION II)

VOLTAGE: 208/120, 3PH, 4W | MOUNTING: SURFACE | LOCATION: 1ST FLR NORTH ELEC CLOSET
225 AMPERE BUS | 225 A MLO | 200% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.4 | 43 | NURSE TECH RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 44 | NURSE TECH RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.4 |
| 1.4 | 45 | NURSE TECH RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 46 | NURSE TECH RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.4 |
| 1.4 | 47 | NURSE TECH RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 48 | NURSE TECH RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.4 |
| 1.4 | 49 | NURSE TECH RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 50 | NURSE TECH RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.4 |
| 1.4 | 51 | NURSE TECH RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 52 | NURSE TECH DRYER | 2 | 30 | 3 | 10 | 10 | 3/4 | 2.5 |
| 1.4 | 53 | NURSE TECH RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 54 | - | - | - | - | - | - | - | 2.5 |
| 1.0 | 55 | NURSE TECH RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 56 | NURSE TECH WASHER | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.8 | 57 | NURSE TECH RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 58 | NURSE TECH WASHER | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.8 | 59 | NURSE TECH RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 60 | NURSE TECH DRYER | 2 | 30 | 3 | 10 | 10 | 3/4 | 2.5 |
| 1.0 | 61 | NURSE TECH RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 62 | - | - | - | - | - | - | - | 2.5 |
| 0.4 | 63 | NURSE TECH RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 64 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.0 | 65 | NURSE TECH RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 66 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.6 | 67 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 68 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.8 | 69 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 70 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.6 | 71 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 72 | SPARE | 1 | 20 | | | | | |
| 0.6 | 73 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 74 | SPARE | 1 | 20 | | | | | |
| | 75 | SPARE | 1 | 20 | | | | | 76 | SPARE | 1 | 20 | | | | | |
| | 77 | SPARE | 1 | 20 | | | | | 78 | SPARE | 1 | 20 | | | | | |
| | 79 | SPARE | 1 | 20 | | | | | 80 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 81 | SPARE | 1 | 20 | | | | | 82 | - | - | - | - | - | - | - | |
| | 83 | SPARE | 1 | 20 | | | | | 84 | - | - | - | - | - | - | - | |

CONNECTED LOAD (SECTION II) 37.8 KVA | KVA PER PHASE: A 13.1 B 11.9 C 12.8
**TOTAL CONNECTED LOAD 68.6 KVA** | KVA PER PHASE: A 23.3 B 22.6 C 22.7

## PANEL C1AV

VOLTAGE: 208/120, 3PH, 4W | MOUNTING: SURFACE | LOCATION: AUD AV ELEC ROOM
100 AMPERE BUS | 100 A MCB | 200% RATED NEUTRAL BUS/ISOLATED GROUND (IG) BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | G/IG | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | G/IG | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.2 | 1 | AV IG RECP | 1 | 20 | 2 | 10 | 10/8 | 3/4 | 2 | AV RACK | 1 | 20 | 2 | 10 | 10/8 | 3/4 | 1.2 |
| 1.2 | 3 | AV IG RECP | 1 | 20 | 2 | 10 | 10/8 | 3/4 | 4 | AV RACK | 1 | 20 | 2 | 10 | 10/8 | 3/4 | 0.6 |
| 1.2 | 5 | AV IG RECP | 1 | 20 | 2 | 10 | 10/8 | 3/4 | 6 | AV RACK | 1 | 20 | 2 | 10 | 10/8 | 3/4 | 0.6 |
| 0.6 | 7 | AV IG RECP | 1 | 20 | 2 | 10 | 10/8 | 3/4 | 8 | AV RACK | 1 | 20 | 2 | 10 | 10/8 | 3/4 | 0.6 |
| 0.6 | 9 | AV IG RECP | 1 | 20 | 2 | 10 | 10/8 | 3/4 | 10 | AV IG RECP | 1 | 20 | 2 | 10 | 10/8 | 3/4 | 1.2 |
| 0.6 | 11 | AV IG RECP | 1 | 20 | 2 | 10 | 10/8 | 3/4 | 12 | AV IG RECP | 1 | 20 | 2 | 10 | 10/8 | 3/4 | 1.2 |
| | 13 | SPARE | 1 | 20 | | | | | 14 | AV IG RECP | 1 | 20 | | | | | 0.6 |
| | 15 | SPARE | 1 | 20 | | | | | 16 | PROJECTOR IG RECP | 1 | 20 | | | | | 0.8 |
| | 17 | SPARE | 1 | 20 | | | | | 18 | SPARE | 1 | 20 | | | | | |
| | 19 | SPACE | 1 | | | | | | 20 | SPACE | 1 | | | | | | |
| | 21 | SPACE | 1 | | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | SPACE | 1 | | | | | | |
| 5.8 | 25 | COMPANY SWITCH RECP | 3 | 60 | 4 | 4 | 10/2 | 1 1/4 | 26 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| 5.8 | 27 | - | - | - | - | - | - | - | 28 | - | - | - | - | - | - | - | |
| 5.8 | 29 | - | - | - | - | - | - | - | 30 | - | - | - | - | - | - | - | |

**TOTAL CONNECTED LOAD 29.6 KVA** | KVA PER PHASE: A 10.0 B 10.2 C 9.4

## PANEL C11EA (SECTION I)

VOLTAGE: 208/120, 3PH, 4W | MOUNTING: SURFACE | LOCATION: 1ST FLR EAST ELEC CLOSET
225 AMPERE BUS | 225 A MCB | 200% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.8 | 1 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.8 | 3 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.8 | 5 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.8 | 7 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.8 | 9 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.2 | 11 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 13 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.8 | 15 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 17 | 3-HOLE PUNCH - E-TD-7 | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.4 | 19 | LAMINATOR - E-TD-4 | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.0 | 21 | LASER PRINTER - E-TD-5 | 1 | 20 | 2 | 12 | 12 | 3/4 | 22 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.4 | 23 | 3D PRINTER - ETD-1 | 1 | 20 | 2 | 12 | 12 | 3/4 | 24 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.4 | 25 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.4 | 27 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 28 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.4 | 29 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 30 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.4 | 31 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 32 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.4 | 33 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 34 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 35 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 36 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 37 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 38 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 39 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 40 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.8 | 41 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 42 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.8 | 43 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 44 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.4 | 45 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 46 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 47 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 48 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.8 | 49 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 50 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 51 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 52 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 53 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 54 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.8 | 55 | RECP (ALT) | 1 | 20 | 2 | 12 | 12 | 3/4 | 46 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.4 | 57 | RECP - ROOF | 1 | 20 | 2 | 12 | 12 | 3/4 | 58 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 59 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 60 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |

CONNECTED LOAD (SECTION I) 38.2 KVA | KVA PER PHASE: A 13.4 B 12.2 C 12.6

## PANEL C11EA (SECTION II)

VOLTAGE: 208/120, 3PH, 4W | MOUNTING: SURFACE | LOCATION: 1ST FLR EAST ELEC CLOSET
225 AMPERE BUS | 225 A MLO | 200% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.8 | 61 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 62 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.6 | 63 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 64 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.4 | 65 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 66 | EWC | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.6 | 67 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 68 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| 0.6 | 69 | FLOOR BOX | 1 | 20 | 2 | 12 | 12 | 3/4 | 70 | ELEC SHOP EPO | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| 0.8 | 71 | RECP (ALT 3) | 1 | 20 | 2 | 12 | 12 | 3/4 | 72 | MASONRY SHOP EPO | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| 0.2 | 73 | LARGE PLOTTER - E-TD-3 | 1 | 20 | 2 | 12 | 12 | 3/4 | 74 | PLUMBING SHOP EPO | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| 0.2 | 75 | 3D PRINTER REPL - E-TD-2 | 1 | 20 | 2 | 12 | 12 | 3/4 | 76 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| | 77 | SPARE | 1 | 20 | | | | | 78 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| | 79 | SPARE | 1 | 20 | | | | | 80 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| | 81 | SPARE | 1 | 20 | | | | | 82 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| | 83 | SPARE | 1 | 20 | | | | | 84 | SPARE | 1 | 20 | | | | | |
| | 85 | SPACE | 1 | | | | | | 86 | RECP CONTROL ZONE C3 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| | 87 | SPACE | 1 | | | | | | 88 | RECP CONTROL ZONE C4 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| | 89 | SPACE | 1 | | | | | | 90 | SPACE | 1 | | | | | | |
| | 91 | SPACE | 1 | | | | | | 82 | SPACE | 1 | | | | | | |
| | 93 | SPACE | 1 | | | | | | 94 | SPACE | 1 | | | | | | |
| | 95 | SPACE | 1 | | | | | | 96 | SPACE | 1 | | | | | | |
| | 97 | SPACE | 1 | | | | | | 98 | SPACE | 1 | | | | | | |
| | 99 | SPACE | 1 | | | | | | 100 | SPACE | 1 | | | | | | |
| | 101 | SPACE | 1 | | | | | | 102 | SPACE | 1 | | | | | | |
| | 103 | SPACE | 1 | | | | | | 104 | SPACE | 1 | | | | | | |
| | 105 | SPACE | 1 | | | | | | 106 | SPACE | 1 | | | | | | |
| | 107 | SPACE | 1 | | | | | | 108 | SPACE | 1 | | | | | | |
| | 109 | SPACE | 1 | | | | | | 110 | SPACE | 1 | | | | | | |
| | 111 | SPACE | 1 | | | | | | 112 | SPACE | 1 | | | | | | |
| | 113 | SPACE | 1 | | | | | | 114 | SPACE | 1 | | | | | | |
| | 115 | SPACE | 1 | | | | | | 116 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 117 | SPACE | 1 | | | | | | 118 | - | - | - | - | - | - | - | |
| | 119 | SPACE | 1 | | | | | | 120 | - | - | - | - | - | - | - | |

CONNECTED LOAD (SECTION II) 13.5 KVA | KVA PER PHASE: A 4.9 B 5.3 C 3.3
**TOTAL CONNECTED LOAD 51.7 KVA** | KVA PER PHASE: A 18.3 B 17.5 C 15.9

DC1 | C11NA | C1AV
C1M | C11NB | C11EA
C11EB


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The professional services of ABHA/BSA+A, LLC. are undertaken for and performed in the interest of the NCCVT School District. No contractual obligation is assumed by ABHA/BSA+A, LLC. for the benefit of any other person involved in the project.

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

2575 GLASGOW AVENUE
NEWARK, DE 19702

SHEET TITLE
**PANEL SCHEDULES**

SHEET NO.
**E610**

## PANEL C12NA (SECTION I)

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 2ND FLR NORTH ELEC CLOSET
225 AMPERE BUS — 125 A MCB — 200% RATED NEUTRAL BUS — 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C |
|---|---|---|---|---|---|---|---|---|
| 0.6 | 1 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 3 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 5 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 7 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 9 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 11 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 13 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 15 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 17 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 19 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 21 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 23 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 25 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 27 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 29 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 31 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 1.2 | 33 | COPIER | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 35 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 37 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 39 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 41 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 2 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 4 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 6 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 8 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 10 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 12 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 14 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 16 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 18 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 20 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 22 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 24 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 26 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.4 | 28 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 1.0 | 30 | REFRIG | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.5 | 32 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 1.5 | 34 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 1.5 | 36 | MICROWAVE | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.6 | 38 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 40 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 42 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |

CONNECTED LOAD (SECTION I): 32.5 KVA — KVA PER PHASE: A 10.7 B 11.1 C 10.7

## PANEL C12NA (SECTION II)

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 2ND FLR NORTH ELEC CLOSET
225 AMPERE BUS — 225 A MLO — 200% RATED NEUTRAL BUS — 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C |
|---|---|---|---|---|---|---|---|---|
| 0.4 | 43 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 45 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 47 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.4 | 49 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 51 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 53 | RECP - ROOF | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.4 | 55 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| | 57 | SPARE | 1 | 20 | | | | |
| | 59 | SPARE | 1 | 20 | | | | |
| | 61 | SPARE | 1 | 20 | | | | |
| | 63 | SPACE | 1 | | | | | |
| | 65 | SPACE | 1 | | | | | |
| | 67 | SPACE | 1 | | | | | |
| | 69 | SPACE | 1 | | | | | |
| | 71 | SPACE | 1 | | | | | |
| | 73 | SPACE | 1 | | | | | |
| | 75 | SPACE | 1 | | | | | |
| | 77 | SPACE | 1 | | | | | |
| | 79 | SPACE | 1 | | | | | |
| | 81 | SPACE | 1 | | | | | |
| | 83 | SPACE | 1 | | | | | |
| 1.0 | 44 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 46 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 48 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 50 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 1.2 | 52 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 54 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| | 56 | SPARE | 1 | 20 | | | | |
| | 58 | SPARE | 1 | 20 | | | | |
| | 60 | SPARE | 1 | 20 | | | | |
| | 62 | SPACE | 1 | | | | | |
| | 64 | SPACE | 1 | | | | | |
| | 66 | SPACE | 1 | | | | | |
| | 68 | SPACE | 1 | | | | | |
| | 70 | SPACE | 1 | | | | | |
| | 72 | SPACE | 1 | | | | | |
| 0.2 | 74 | RECP CONTROL ZONE A3 | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 1.0 | 76 | RECP CONTROL ZONE A1 | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 1.2 | 78 | RECP CONTROL ZONE A2 | 1 | 20 | 2 | 12 | 12 | 3/4 |
| | 80 | SPD | 3 | 30 | 4 | 6 | 8 | 1 |
| | 82 | - | - | - | - | - | - | - |
| | 84 | - | - | - | - | - | - | - |

CONNECTED LOAD (SECTION II): 12 KVA — KVA PER PHASE: A 3.2 B 4.6 C 4.2
**TOTAL CONNECTED LOAD: 44.5 KVA** — KVA PER PHASE: A 13.9 B 15.7 C 14.9

## PANEL C12NB (SECTION I)

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 2ND FLR NORTH ELEC CLOSET
225 AMPERE BUS — 125 A MCB — 200% RATED NEUTRAL BUS — 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C |
|---|---|---|---|---|---|---|---|---|
| 1.2 | 1 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 1.0 | 3 | EWC | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 5 | LAVATORY | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 7 | LAVATORY | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.6 | 9 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 11 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 13 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 15 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 17 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 19 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 21 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 23 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 25 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 27 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 29 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 31 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 33 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 35 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 37 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 39 | RECP - ROOF | 1 | 20 | 2 | 12 | 12 | 3/4 |
| | 41 | SPARE | 1 | 20 | | | | |
| | 2 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 1.0 | 4 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.4 | 6 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 8 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 10 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 12 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 14 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 16 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 18 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 20 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 22 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 24 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 26 | COPIER | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 28 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 30 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 32 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 34 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 36 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 38 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 1.0 | 40 | EWC | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.2 | 42 | RECP CONTROL ZONE A10 | 1 | 20 | 2 | 12 | 12 | 3/4 |

CONNECTED LOAD (SECTION I): 31.4 KVA — KVA PER PHASE: A 11 B 10.6 C 9.8

## PANEL C12NB (SECTION II)

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 2ND FLR NORTH ELEC CLOSET
225 AMPERE BUS — 225 A MLO — 200% RATED NEUTRAL BUS — 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C |
|---|---|---|---|---|---|---|---|---|
| | 43 | SPARE | 1 | 20 | | | | |
| | 45 | SPARE | 1 | 20 | | | | |
| | 47 | SPARE | 1 | 20 | | | | |
| | 49 | SPARE | 1 | 20 | | | | |
| | 51 | SPACE | 1 | | | | | |
| | 53 | SPACE | 1 | | | | | |
| | 55 | SPACE | 1 | | | | | |
| | 57 | SPACE | 1 | | | | | |
| | 59 | SPACE | 1 | | | | | |
| | 61 | SPACE | 1 | | | | | |
| | 63 | SPACE | 1 | | | | | |
| | 65 | SPACE | 1 | | | | | |
| | 67 | SPACE | 1 | | | | | |
| | 69 | SPACE | 1 | | | | | |
| | 71 | SPACE | 1 | | | | | |
| | 73 | SPACE | 1 | | | | | |
| | 75 | SPACE | 1 | | | | | |
| | 77 | SPACE | 1 | | | | | |
| | 79 | SPACE | 1 | | | | | |
| | 81 | SPACE | 1 | | | | | |
| | 83 | SPACE | 1 | | | | | |
| | 44 | SPARE | 1 | 20 | | | | |
| | 46 | SPARE | 1 | 20 | | | | |
| | 48 | SPARE | 1 | 20 | | | | |
| | 50 | SPARE | 1 | 20 | | | | |
| | 52 | SPACE | 1 | | | | | |
| | 54 | SPACE | 1 | | | | | |
| | 56 | SPACE | 1 | | | | | |
| | 58 | SPACE | 1 | | | | | |
| | 60 | SPACE | 1 | | | | | |
| | 62 | SPACE | 1 | | | | | |
| | 64 | SPACE | 1 | | | | | |
| | 66 | SPACE | 1 | | | | | |
| | 68 | SPACE | 1 | | | | | |
| | 70 | SPACE | 1 | | | | | |
| | 72 | SPACE | 1 | | | | | |
| | 74 | SPACE | 1 | | | | | |
| | 76 | SPACE | 1 | | | | | |
| | 78 | SPACE | 1 | | | | | |
| | 80 | SPD | 3 | 30 | 4 | 6 | 8 | 1 |
| | 82 | - | - | - | - | - | - | - |
| | 84 | - | - | - | - | - | - | - |

CONNECTED LOAD (SECTION II): 0 KVA — KVA PER PHASE: A 0 B 0 C 0
**TOTAL CONNECTED LOAD: 31.4 KVA** — KVA PER PHASE: A 11 B 10.6 C 9.8

## DISTRIBUTION PANEL DC12E

MOUNTING: SURFACE — A.I.C. RATING: 25,000 — LOCATION: 2ND FLR EAST EC
VOLTAGE: 208/120, 3 PHASE, 4 WIRE — 400A MAIN BUS, 200% RATED NEUTRAL BUS — 400 MCB

### DISTRIBUTION SECTION

| FDR NO | SERVES | CIRCUIT BREAKER P | CIRCUIT BREAKER FRAME | CIRCUIT BREAKER TRIP | WIRING SETS | WIRING NO | WIRING SIZE | WIRING GND | WIRING C | REMARKS | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PANEL C12EA | 3 | 100 | 80 | 1 | 3+N | 1, 3/0 | 8 | 2 | | 9.9 |
| 2 | PANEL C12EB | 3 | 100 | 80 | 1 | 3+N | 1, 3/0 | 8 | 2 | | 18.0 |
| 3 | PANEL C12EC | 3 | 100 | 80 | 1 | 3+N | 1, 3/0 | 8 | 2 | | 12.4 |
| 4 | PANEL C12ED | 3 | 100 | 80 | 1 | 3+N | 1, 3/0 | 8 | 2 | | 19.3 |
| 5 | SPARE | 3 | 100 | 100 | | | | | | | |
| 6 | SPARE | 3 | 100 | 100 | | | | | | | |
| 7 | SPACE | 3 | 100 | | | | | | | | |
| 8 | ST, ST, RECEP | 3 | 100 | 20 | 3 | 2 | 12 | 12 | 3/4 | (3) 1P, 20A CIRCUIT BREAKERS | |
| 9 | ST, ST, RECEP | 3 | 100 | 20 | 3 | 2 | 12 | 12 | 3/4 | (3) 1P, 20A CIRCUIT BREAKERS | |
| 10 | RECP CONTROL ZONE A9, SPARE, SPARE | 3 | 100 | 20 | 1 | 2 | 12 | 12 | 3/4 | (3)1P,20A CIRCUIT BREAKERS | |
| 11 | SPACE | 3 | 100 | | | | | | | | |
| 12 | SPACE | 3 | 100 | | | | | | | | |
| 13 | SPACE | 3 | 100 | | | | | | | | |
| 14 | SPD | 3 | 60 | 60 | | | | | | | |

**TOTAL CONNECTED LOAD: 59.6 KVA**

## PANEL C12EA

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 2ND FLR EAST ELEC CLOSET
100 AMPERE BUS — 100 A MCB W/ SHUNT TRIP (120V) COIL — 200% RATED NEUTRAL BUS — 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C |
|---|---|---|---|---|---|---|---|---|
| 0.6 | 1 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.4 | 3 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 1.0 | 5 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.2 | 7 | GOGGLE CABINET | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 1.0 | 9 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.4 | 11 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.4 | 13 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 15 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 17 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| | 19 | SPARE | 1 | 20 | | | | |
| | 21 | SPARE | 1 | 20 | | | | |
| | 23 | SPARE | 1 | 20 | | | | |
| | 25 | SPACE | 1 | | | | | |
| | 27 | SPACE | 1 | | | | | |
| | 29 | SPACE | 1 | | | | | |
| 1.0 | 2 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 4 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.4 | 6 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| | 8 | SPARE | 1 | 20GFI | | | | |
| | 10 | SPARE | 1 | 20GFI | | | | |
| 0.4 | 12 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.4 | 14 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.5 | 16 | GAS SOLENOID | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.2 | 18 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| | 20 | SPARE | 1 | 20 | | | | |
| | 22 | SPARE | 1 | 20 | | | | |
| | 24 | SPARE | 1 | 20 | | | | |
| | 26 | SPACE | 1 | | | | | |
| | 28 | SPACE | 1 | | | | | |
| | 30 | SPACE | 1 | | | | | |

**TOTAL CONNECTED LOAD: 9.9 KVA** — KVA PER PHASE: A 2.6 B 3.9 C 3.4

## PANEL C12EB

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 2ND FLR EAST ELEC CLOSET
100 AMPERE BUS — 100 A MCB W/ SHUNT TRIP (120V) COIL — 200% RATED NEUTRAL BUS — 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C |
|---|---|---|---|---|---|---|---|---|
| 0.6 | 1 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.4 | 3 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.4 | 5 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 7 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.2 | 9 | GOGGLE CABINET | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.4 | 11 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.4 | 13 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 15 | FUME HOOD | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 17 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 1.0 | 19 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 1.0 | 21 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 23 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.7 | 25 | HOOD FAN | 1 | 20 | 2 | 12 | 12 | 3/4 |
| | 27 | SPARE | 1 | 20 | | | | |
| | 29 | SPARE | 1 | 20 | | | | |
| 1.0 | 2 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 4 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.4 | 6 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 8 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 10 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 12 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 14 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 16 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 18 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 20 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.5 | 22 | GAS SOLENOID | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.2 | 24 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| | 26 | SPACE | 1 | | | | | |
| | 28 | SPACE | 1 | | | | | |
| | 30 | SPACE | 1 | | | | | |

**TOTAL CONNECTED LOAD: 18.0 KVA** — KVA PER PHASE: A 7.7 B 6.1 C 4.2

## PANEL C12EC

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 2ND FLR EAST ELEC CLOSET
100 AMPERE BUS — 100 A MCB W/ SHUNT TRIP (120V) COIL — 200% RATED NEUTRAL BUS — 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C |
|---|---|---|---|---|---|---|---|---|
| 0.6 | 1 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 1.0 | 3 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.2 | 5 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.8 | 7 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.2 | 9 | GOGGLE CABINET | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.4 | 11 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.4 | 13 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 15 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.4 | 17 | FUME HOOD | 1 | 20 | 2 | 12 | 12 | 3/4 |
| | 19 | SPARE | 1 | 20GFI | | | | |
| | 21 | SPARE | 1 | 20GFI | | | | |
| 0.5 | 23 | GAS SOLENOID | 1 | 20 | 2 | 12 | 12 | 3/4 |
| | 25 | SPACE | 1 | | | | | |
| | 27 | SPACE | 1 | | | | | |
| | 29 | SPACE | 1 | | | | | |
| 1.0 | 2 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 4 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.4 | 6 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 8 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 10 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.4 | 12 | SPARE | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 14 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.4 | 16 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 18 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 20 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 22 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.5 | 24 | HOOD FAN | 1 | 20 | 2 | 12 | 12 | 3/4 |
| | 26 | SPARE | 1 | 20 | | | | |
| | 28 | SPARE | 1 | 20 | | | | |
| | 30 | SPARE | 1 | 20 | | | | |

**TOTAL CONNECTED LOAD: 12.4 KVA** — KVA PER PHASE: A 3.8 B 4.6 C 4.0

## PANEL C12ED

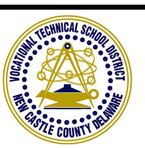
MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 2ND FLR EAST ELEC CLOSET
100 AMPERE BUS — 100 A MCB W/ SHUNT TRIP (120V) COIL — 200% RATED NEUTRAL BUS — 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C |
|---|---|---|---|---|---|---|---|---|
| 0.6 | 1 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 1.0 | 3 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 1.2 | 5 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 0.6 | 7 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 9 | GOGGLE CABINET | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 1.0 | 11 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.4 | 13 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 15 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.4 | 17 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 19 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 21 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.5 | 23 | GAS SOLENOID | 1 | 20 | 2 | 12 | 12 | 3/4 |
| | 25 | SPACE | 1 | | | | | |
| | 27 | SPACE | 1 | | | | | |
| | 29 | SPACE | 1 | | | | | |
| 1.0 | 2 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 4 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 6 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 8 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.4 | 10 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 12 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 14 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.4 | 16 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.6 | 18 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 |
| 1.0 | 20 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 1.0 | 22 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 |
| 0.2 | 24 | UC LTS | 1 | 20 | 2 | 12 | 12 | 3/4 |
| | 26 | SPARE | 1 | 20 | | | | |
| | 28 | SPACE | 1 | 20 | | | | |
| | 30 | SPACE | 1 | 20 | | | | |

**TOTAL CONNECTED LOAD: 19.3 KVA** — KVA PER PHASE: A 6.6 B 6.2 C 6.5

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN

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The professional services of ABHA/BSA+A, LLC. are undertaken for and performed in the interest of the NCCVT School District. No contractual obligation is assumed by ABHA/BSA+A, LLC. for the benefit of any other person involved in the project.

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

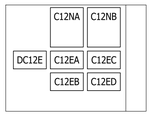
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**PANEL SCHEDULES**

SHEET NO.

**E611**



## DISTRIBUTION PANEL DC2

MOUNTING: SURFACE | A.I.C. RATING: 65,000 | LOCATION: MAIN ELEC ROOM
VOLTAGE: 480/277, 3 PHASE, 4 WIRE | 600A MAIN BUS | 600A MLO

**DISTRIBUTION SECTION**

| FDR NO | SERVES | CIRCUIT BREAKER P | FRAME | TRIP | WIRING SETS | NO | SIZE | GND | C | REMARKS | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PANEL C2G (VIA XFMR TC2G) | 3 | 225 | 150 | REFER TO XFMR SCHEDULE | | | | | | 82.9 |
| 2 | PANEL C21S (VIA XFMR TC21S) | 3 | 100 | 90 | REFER TO XFMR SCHEDULE | | | | | | 34.8 |
| 3 | PANELS C21WA/C21WB (VIA XFMR TC21W) | 3 | 400 | 225 | REFER TO XFMR SCHEDULE | | | | | | 132.6 |
| 4 | PANELS C22WA/C22WB (VIA XFMR TC22W) | 3 | 225 | 150 | REFER TO XFMR SCHEDULE | | | | | | 80.4 |
| 5 | PANEL DC22S (VIA XFMR TC22S) | 3 | 400 | 225 | REFER TO XFMR SCHEDULE | | | | | | 61.3 |
| 6 | PANEL C2A (VIA XFMR TC2A) | 3 | 100 | 90 | REFER TO XFMR SCHEDULE | | | | | | 30.8 |
| 7 | SPARE | 3 | 225 | 225 | | | | | | | |
| 8 | SPARE | 3 | 100 | 100 | | | | | | | |
| 9 | SPACE | 3 | 100 | | | | | | | | |
| 10 | SPACE | 3 | 100 | | | | | | | | |
| 11 | SPACE | 3 | 100 | | | | | | | | |
| 12 | SPACE | 3 | 100 | | | | | | | | |
| 13 | SPACE | 3 | 100 | | | | | | | | |
| 14 | SPD | 3 | 60 | 60 | | | | | | | |

TOTAL CONNECTED LOAD: 422.8 KVA

## PANEL C21WA (SECTION I)

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 1ST FLR WEST ELEC CLOSET
225 AMPERE BUS | 175 A MCB | 200% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | 1 | POWER DOOR OPENER | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.2 | 3 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 1.0 | 5 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 1.4 | 7 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | COPIER | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.4 | 9 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 11 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.8 | 13 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.8 | 15 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.6 | 17 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.6 | 19 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 21 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 22 | REFRIG | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.8 | 23 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 24 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.4 | 25 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | MICROWAVE | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.0 | 27 | REFRIG | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 28 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 0.4 | 29 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 30 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| 0.4 | 31 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 32 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 33 | COPIER | 1 | 20 | 2 | 12 | 12 | 3/4 | 34 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.8 | 35 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 36 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.0 | 37 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 38 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.2 | 39 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 40 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| | 41 | SPARE | 1 | 20 | | | | | 42 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |

CONNECTED LOAD (SECTION I) 40.2 KVA — KVA PER PHASE: A 15.2 B 13.5 C 11.5

## PANEL C21WA (SECTION II)

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 1ST FLR WEST ELEC CLOSET
225 AMPERE BUS | 225 A MLO | 200% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.2 | 43 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 44 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.0 | 45 | REFRIG | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 46 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.4 |
| 1.0 | 47 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 48 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.4 |
| 0.8 | 49 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 50 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 51 | COPIER | 1 | 20 | 2 | 12 | 12 | 3/4 | 52 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.2 | 53 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 54 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 55 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 56 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.2 | 57 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 58 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.4 | 59 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 60 | SPARE | 1 | 20 | | | | | |
| 0.6 | 61 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 62 | SPARE | 1 | 20 | | | | | |
| | 63 | SPARE | 1 | 20 | | | | | 64 | SPARE | 1 | 20 | | | | | |
| | 65 | SPARE | 1 | 20 | | | | | 66 | SPARE | 1 | 20 | | | | | |
| | 67 | SPARE | 1 | 20 | | | | | 68 | SPARE | 1 | 20 | | | | | |
| | 69 | SPARE | 1 | 20 | | | | | 70 | SPACE | 1 | | | | | | |
| | 71 | SPARE | 1 | 20 | | | | | 72 | RECP CONTROL ZONE B4 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| | 73 | SPACE | 1 | | | | | | 74 | RECP CONTROL ZONE B2 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| | 75 | SPACE | 1 | | | | | | 76 | RECP CONTROL ZONE B3 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| | 77 | SPACE | 1 | | | | | | 78 | RECP CONTROL ZONE B3 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 79 | FLAGPOLE LT | 1 | 20 | 2 | 12 | 12 | 3/4 | 80 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| 0.8 | 81 | FLAGPOLE LT | 1 | 20 | 2 | 12 | 12 | 3/4 | 82 | - | - | - | - | - | - | - | |
| 0.8 | 83 | FLAGPOLE LT | 1 | 20 | 2 | 12 | 12 | 3/4 | 84 | - | - | - | - | - | - | - | |

CONNECTED LOAD (SECTION II) 23.6 KVA — KVA PER PHASE: A 7.8 B 8.2 C 7.6
**TOTAL CONNECTED LOAD** 63.8 **KVA** — KVA PER PHASE: A 23 B 21.7 C 19.1

## PANEL C21WB (SECTION I)

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 1ST FLR WEST ELEC CLOSET
225 AMPERE BUS | 225 A MCB | 200% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.6 | 1 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.8 | 3 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.8 | 5 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 7 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.0 | 9 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.8 | 11 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.8 | 13 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 15 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | REFRIG | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.2 | 17 | PRINTER | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.5 | 19 | MICROWAVE | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.4 | 21 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 22 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.4 | 23 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 24 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.5 | 25 | RANGE HOOD | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| | 27 | SPARE | 2 | 40GFI | | | | | 28 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.4 |
| | 29 | - | - | - | - | - | - | - | 30 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.4 | 31 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 32 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 1.0 | 33 | DISHWASHER | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 34 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 35 | REFRIG | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 36 | DENTAL CHAIR | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.6 | 37 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 38 | DENTAL CHAIR | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.6 | 39 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 40 | DENTAL CHAIR | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.6 | 41 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 42 | DENTAL CHAIR | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.6 | 43 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 44 | TELEVISIONS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.6 | 45 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 46 | INTRA ORAL X-RAY | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.6 |
| 0.6 | 47 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 48 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.6 | 49 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 50 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.2 | 51 | ULTRASONIC CLEANER | 1 | 20 | 2 | 12 | 12 | 3/4 | 52 | INTRA ORAL X-RAY | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.6 |
| 1.4 | 53 | STERILIZER | 1 | 20 | 2 | 12 | 12 | 3/4 | 54 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 1.3 | 55 | STATIM | 1 | 20 | 2 | 12 | 12 | 3/4 | 56 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.5 | 57 | MODEL TRIMMER | 1 | 20 | 2 | 12 | 12 | 3/4 | 58 | X-RAY | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.5 | 59 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 60 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |

CONNECTED LOAD (SECTION I) 50.3 KVA — KVA PER PHASE: A 16.1 B 17.1 C 17.1

## PANEL C21WB (SECTION II)

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 1ST FLR WEST ELEC CLOSET
225 AMPERE BUS | 225 A MLO | 200% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.8 | 61 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 62 | RECP | 1 | 20 | 3 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 63 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 64 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 65 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 66 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 1.0 | 67 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 68 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.4 | 69 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 70 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.5 | 71 | TRAP PRIMER-4 | 1 | 20 | 2 | 12 | 12 | 3/4 | 72 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 73 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 74 | STERILIZER | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.4 |
| 0.2 | 75 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 76 | STERILIZATION CABINET | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.6 |
| 0.2 | 77 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 78 | SPARE | 1 | 20 | | | | | |
| 0.8 | 79 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 80 | SPARE | 1 | 20 | | | | | |
| 0.8 | 81 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 82 | RANGE | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.8 |
| | 83 | SPARE | 1 | 20 | | | | | 84 | SPARE | 1 | 20 | | | | | |
| | 85 | SPARE | 1 | 20 | | | | | 86 | SPARE | 1 | 20 | | | | | |
| | 87 | SPARE | 1 | 20 | | | | | 88 | SPARE | 1 | 20 | | | | | |
| | 89 | SPARE | 1 | 20 | | | | | 90 | SPARE | 1 | 20 | | | | | |
| | 91 | SPACE | 1 | | | | | | 92 | SPACE | 1 | | | | | | |
| | 93 | SPACE | 1 | | | | | | 94 | SPACE | 1 | | | | | | |
| | 95 | SPACE | 1 | | | | | | 96 | SPACE | 1 | | | | | | |
| | 97 | SPACE | 1 | | | | | | 98 | SPACE | 1 | | | | | | |
| | 99 | SPACE | 1 | | | | | | 100 | SPACE | 1 | | | | | | |
| | 101 | SPACE | 1 | | | | | | 102 | SPACE | 1 | | | | | | |
| | 103 | SPACE | 1 | | | | | | 104 | SPACE | 1 | | | | | | |
| | 105 | SPACE | 1 | | | | | | 106 | SPACE | 1 | | | | | | |
| | 107 | SPACE | 1 | | | | | | 108 | SPACE | 1 | | | | | | |
| | 109 | SPACE | 1 | | | | | | 110 | RECP CONTROL ZONE B4 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| | 111 | SPACE | 1 | | | | | | 112 | RECP CONTROL ZONE C6 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| | 113 | SPACE | 1 | | | | | | 114 | RECP CONTROL ZONE C7 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| | 115 | SPACE | 1 | | | | | | 116 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 117 | SPACE | 1 | | | | | | 118 | - | - | - | - | - | - | - | |
| | 119 | SPACE | 1 | | | | | | 120 | - | - | - | - | - | - | - | |

CONNECTED LOAD (SECTION II) 18.5 KVA — KVA PER PHASE: A 7.0 B 7.8 C 3.7
**TOTAL CONNECTED LOAD** 68.8 **KVA** — KVA PER PHASE: A 23.1 B 24.9 C 20.8

## PANEL C2A (SECTION I)

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: AUD ELEC CLOSET
225 AMPERE BUS | 150 A MCB | 200% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.0 | 1 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | AUDITORIUM PARTITION | 3 | 20 | 2 | 12 | 12 | 3/4 | 1.3 |
| 0.4 | 3 | RECP CONTROL ZONE B5 | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | - | - | - | - | - | - | - | 1.3 |
| 0.6 | 5 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | - | - | - | - | - | - | - | 1.3 |
| | 7 | SPARE | 1 | 20 | | | | | 8 | AUDITORIUM PARTITION | 3 | 20 | 3 | 12 | 12 | 3/4 | 0.6 |
| | 9 | SPARE | 1 | 20 | | | | | 10 | (ALTERNATE NO. 8) | - | - | - | - | - | - | 0.6 |
| | 11 | SPARE | 1 | 20 | | | | | 12 | - | - | - | - | - | - | - | 0.6 |
| 0.4 | 13 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | SPARE | 3 | 20 | | | | | |
| 0.4 | 15 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | - | - | - | - | - | - | - | |
| 1.0 | 17 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | - | - | - | - | - | - | - | |
| 0.8 | 19 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | TELESCOPING SEATING | 3 | 30 | 4 | 10 | 10 | 3/4 | 1.0 |
| 0.6 | 21 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 22 | - | - | - | - | - | - | - | 1.0 |
| 0.4 | 23 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 24 | - | - | - | - | - | - | - | 1.0 |
| 0.4 | 25 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | TELESCOPING SEATING | 3 | 30 | 4 | 10 | 10 | 3/4 | 1.0 |
| 0.6 | 27 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 28 | - | - | - | - | - | - | - | 1.0 |
| 0.4 | 29 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 30 | - | - | - | - | - | - | - | 1.0 |
| 0.4 | 31 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 32 | ER-1S | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| 0.4 | 33 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 34 | SPARE | 1 | 20 | | | | | |
| 0.4 | 35 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 36 | DSOU-9 | 2 | 30 | 2 | 10 | 10 | 3/4 | 1.7 |
| 0.8 | 37 | FLOOR RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 38 | - | - | - | - | - | - | - | 1.7 |
| | 39 | SPARE | 1 | 20 | | | | | 40 | P1MB EPO SHUNT | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| | 41 | SPARE | 1 | 20 | | | | | 42 | SPARE | 1 | 20 | | | | | |

CONNECTED LOAD (SECTION I) 24.8 KVA — KVA PER PHASE: A 9.9 B 6.5 C 8.4

## PANEL C2A (SECTION II)

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: AUD ELEC CLOSET
225 AMPERE BUS | 225 A MLO | 200% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.0 | 43 | AUD LTG XS-1301 | 1 | 20 | 2 | 12 | 12 | 3/4 | 44 | SPARE | 1 | 20 | | | | | |
| 1.0 | 45 | AUD LTG XS-1301 | 1 | 20 | 2 | 12 | 12 | 3/4 | 46 | SPARE | 1 | 20 | | | | | |
| 1.0 | 47 | AUD LTG XS-1302 | 1 | 20 | 2 | 12 | 12 | 3/4 | 48 | SPARE | 1 | 20 | | | | | |
| 1.0 | 49 | AUD LTG XS-1302 | 1 | 20 | 2 | 12 | 12 | 3/4 | 50 | SPARE | 1 | 20 | | | | | |
| 1.0 | 51 | AUD LTG XS-1303 | 1 | 20 | 2 | 12 | 12 | 3/4 | 52 | SPARE | 1 | 20 | | | | | |
| 1.0 | 53 | AUD LTG XS-1303 | 1 | 20 | 2 | 12 | 12 | 3/4 | 54 | SPACE | 1 | | | | | | |
| | 55 | SPARE | 1 | 20 | | | | | 56 | SPACE | 1 | | | | | | |
| | 57 | SPARE | 1 | 20 | | | | | 58 | SPACE | 1 | | | | | | |
| | 59 | SPARE | 1 | 20 | | | | | 60 | SPACE | 1 | | | | | | |
| | 61 | SPARE | 1 | 20 | | | | | 62 | SPACE | 1 | | | | | | |
| | 63 | SPARE | 1 | 20 | | | | | 64 | SPACE | 1 | | | | | | |
| | 65 | SPACE | 1 | | | | | | 66 | SPACE | 1 | | | | | | |
| | 67 | SPACE | 1 | | | | | | 68 | SPACE | 1 | | | | | | |
| | 69 | SPACE | 1 | | | | | | 70 | SPACE | 1 | | | | | | |
| | 71 | SPACE | 1 | | | | | | 72 | SPACE | 1 | | | | | | |
| | 73 | SPACE | 1 | | | | | | 74 | SPACE | 1 | | | | | | |
| | 75 | SPACE | 1 | | | | | | 76 | SPACE | 1 | | | | | | |
| | 77 | SPACE | 1 | | | | | | 78 | SPACE | 1 | | | | | | |
| | 79 | SPACE | 1 | | | | | | 80 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 81 | SPACE | 1 | | | | | | 82 | - | - | - | - | - | - | - | |
| | 83 | SPACE | 1 | | | | | | 84 | - | - | - | - | - | - | - | |

CONNECTED LOAD (SECTION II) 6 KVA — KVA PER PHASE: A 2 B 2 C 2
**TOTAL CONNECTED LOAD** 30.8 **KVA** — KVA PER PHASE: A 11.9 B 8.5 C 10.4

## PANEL C21S

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 1ST FLR SOUTH ELEC CLOSET
225 AMPERE BUS | 150 A MCB | 200% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.4 | 1 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.2 | 3 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 1.0 | 5 | EWC | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 6 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 7 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.8 | 9 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | COPIER | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.6 | 11 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.8 | 13 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.8 | 15 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | EWC | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.8 | 17 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | LAVATORY | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.6 | 19 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | EWC | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.8 | 21 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 22 | LAVATORY | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.6 | 23 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 24 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 25 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | SPARE | 1 | 20 | | | | | |
| | 27 | SPARE | 1 | 20 | | | | | 28 | SPARE | 1 | 20 | | | | | |
| | 29 | SPARE | 1 | 20 | | | | | 30 | SPARE | 1 | 20 | | | | | |
| | 31 | SPARE | 1 | 20 | | | | | 32 | RECP CONTROL ZONE C5 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| | 33 | SPARE | 1 | 20 | | | | | 34 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| | 35 | SPARE | 1 | 20 | | | | | 36 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 4.2 | 37 | PANEL C21SA | 3 | 60 | 3+N | 1,3/0 | 6 | 1 1/2 | 38 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| 2.8 | 39 | - | - | - | - | - | - | - | 40 | - | - | - | - | - | - | - | |
| 3.6 | 41 | - | - | - | - | - | - | - | 42 | - | - | - | - | - | - | - | |

**TOTAL CONNECTED LOAD** 34.8 **KVA** — KVA PER PHASE: A 12 B 11.6 C 11.2

## PANEL C21SA

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 1ST FLOOR SOUTH MEZZANINE
100 AMPERE BUS | 60 A MCB | 200% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.8 | 1 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 3 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.6 | 5 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.8 | 7 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.6 | 9 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | RECPS - ROOF | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| 0.8 | 11 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| | 13 | SPARE | 1 | 20 | | | | | 14 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| | 15 | SPARE | 1 | 20 | | | | | 16 | AUTOTECH EPO | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| | 17 | SPARE | 1 | 20 | | | | | 18 | AUTOBODY EPO | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| | 19 | SPARE | 1 | 20 | | | | | 20 | SPARE | 1 | 20 | | | | | |
| | 21 | SPACE | 1 | | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | SPACE | 1 | | | | | | |
| 0.4 | 25 | RECP CONTROL ZONE C5 | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 27 | MOTORIZED GATE | 2 | 30 | 2 | 10 | 10 | 1 | 28 | - | - | - | - | - | - | - | |
| | 29 | (VIA CONTROL PWR XFMR) | - | - | - | - | - | - | 30 | - | - | - | - | - | - | - | |

**TOTAL CONNECTED LOAD** 10.6 **KVA** — KVA PER PHASE: A 4.2 B 2.8 C 3.6

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE
**PANEL SCHEDULES**

DC2 | C21WB | C2A | C21WA | C21S | C21SA

SHEET NO.
**E612**

**PANEL C2G** (SECTION I) **MOUNTING: SURFACE**
**VOLTAGE: 208/120, 3PH, 4W** **LOCATION: GYM ELEC CLOSET**
**225 AMPERE BUS** **225 A MCB** **200% RATED NEUTRAL BUS** **10,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.5 | 1 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 3 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.2 | 5 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 7 | WASHER | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 8 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.4 |
| 2.5 | 9 | DRYER | 2 | 30 | 3 | 10 | 10 | 3/4 | 10 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.4 |
| 2.5 | 11 | - | - | - | - | - | - | - | 12 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.4 |
| 2.5 | 13 | DRYER | 2 | 30 | 3 | 10 | 10 | 3/4 | 14 | LAVATORY | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.2 |
| 2.5 | 15 | - | - | - | - | - | - | - | 16 | LAVATORY | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 17 | WASHER | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 18 | LAVATORY | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 19 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | LAVATORY | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.8 | 21 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 22 | EWC'S | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.4 | 23 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 24 | EWC'S | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.2 | 25 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | RECPS | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.2 | 27 | WRESTLING LT HOIST | 1 | 20 | 2 | 12 | 12 | 3/4 | 28 | ICE MAKER | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 0.8 |
| 1.2 | 29 | WRESTLING LT HOIST | 1 | 20 | 2 | 12 | 12 | 3/4 | 30 | ICE MAKER | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 0.8 |
| 1.5 | 31 | CONCESSIONS RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 32 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.5 | 33 | CONCESSIONS RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 34 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 1.5 | 35 | CONCESSIONS RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 36 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 0.4 | 37 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 38 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.4 | 39 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 40 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 41 | SCOREBOARDS | 1 | 20 | 2 | 12 | 12 | 3/4 | 42 | SPARE | 1 | 20 | | | | | |
| 1.1 | 43 | BACKSTOP | 1 | 20 | 2 | 12 | 12 | 3/4 | 44 | BACKSTOP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.1 |
| 1.1 | 45 | BACKSTOP | 1 | 20 | 2 | 12 | 12 | 3/4 | 46 | BACKSTOP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.1 |
| 1.1 | 47 | BACKSTOP | 1 | 20 | 2 | 12 | 12 | 3/4 | 48 | BACKSTOP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.1 |
| 0.5 | 49 | BLEACHER | 3 | 15 | 3 | 12 | 12 | 3/4 | 50 | BLEACHER | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.5 |
| 0.5 | 51 | - | - | - | - | - | - | - | 52 | - | - | - | - | - | - | - | 0.5 |
| 0.5 | 53 | - | - | - | - | - | - | - | 54 | - | - | - | - | - | - | - | 0.5 |
| 1.0 | 55 | DIVIDER CURTAIN | 1 | 20 | 2 | 12 | 12 | 3/4 | 56 | BLEACHER | 3 | 15 | 3 | 12 | 12 | 3/4 | 0.5 |
| 0.6 | 57 | SHOT CLOCKS | 1 | 20 | 2 | 12 | 12 | 3/4 | 58 | - | - | - | - | - | - | - | 0.5 |
| 1.2 | 59 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 60 | - | - | - | - | - | - | - | 0.6 |

CONNECTED LOAD (SECTION I) 66.0 KVA KVA PER PHASE: A 22.2 B 21.9 C 21.9

**PANEL C2G** (SECTION II) **MOUNTING: SURFACE**
**VOLTAGE: 208/120, 3PH, 4W** **LOCATION: GYM ELEC CLOSET**
**225 AMPERE BUS** **225 A MLO** **200% RATED NEUTRAL BUS** **10,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.0 | 61 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 62 | SPARE | 3 | 20 | 3 | 12 | 12 | 3/4 | |
| 1.0 | 63 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 64 | - | - | - | - | - | - | - | |
| 1.3 | 65 | MAT MOVER | 3 | 20 | 3 | 12 | 12 | 3/4 | 66 | - | - | - | - | - | - | - | |
| 1.3 | 67 | - | - | - | - | - | - | - | 68 | GYM CONTROLLER | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.5 |
| 1.3 | 69 | - | - | - | - | - | - | - | 70 | RECPS - ROOF | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.6 | 71 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 72 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.6 | 73 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 74 | TRAP PRIMER-1 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| 0.5 | 75 | TRAP PRIMER-2 | 1 | 20 | 2 | 12 | 12 | 3/4 | 76 | TRAP PRIMER-3 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| 1.0 | 77 | EWC | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 78 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.0 | 79 | EWC | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 80 | RECP CONTROL ZONE B6 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 1.2 | 81 | AUTO DOOR OPERATOR | 1 | 20 | 2 | 12 | 12 | 3/4 | 82 | WHIRLPOOL - F125 | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.1 |
| | 83 | SPARE | 1 | 20 | | | | | 84 | SPARE | 1 | 20 | | | | | |
| | 85 | SPARE | 1 | 20 | | | | | 86 | SPARE | 1 | 20 | | | | | |
| | 87 | SPARE | 1 | 20 | | | | | 88 | SPARE | 1 | 20 | | | | | |
| | 89 | SPARE | 1 | 20 | | | | | 90 | SPARE | 1 | 20 | | | | | |
| | 91 | SPACE | 1 | | | | | | 92 | SPACE | 1 | | | | | | |
| | 93 | SPACE | 1 | | | | | | 94 | SPACE | 1 | | | | | | |
| | 95 | SPACE | 1 | | | | | | 96 | SPACE | 1 | | | | | | |
| | 97 | SPACE | 1 | | | | | | 98 | SPACE | 1 | | | | | | |
| | 99 | SPACE | 1 | | | | | | 100 | SPACE | 1 | | | | | | |
| | 101 | SPACE | 1 | | | | | | 102 | SPACE | 1 | | | | | | |
| | 103 | SPACE | 1 | | | | | | 104 | SPACE | 1 | | | | | | |
| | 105 | SPACE | 1 | | | | | | 106 | SPACE | 1 | | | | | | |
| | 107 | SPACE | 1 | | | | | | 108 | SPACE | 1 | | | | | | |
| | 109 | SPACE | 1 | | | | | | 110 | SPACE | 1 | | | | | | |
| | 111 | SPACE | 1 | | | | | | 112 | SPACE | 1 | | | | | | |
| | 113 | SPACE | 1 | | | | | | 114 | SPACE | 1 | | | | | | |
| | 115 | SPACE | 1 | | | | | | 116 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 117 | SPACE | 1 | | | | | | 118 | - | - | - | - | - | - | - | |
| | 119 | SPACE | 1 | | | | | | 120 | - | - | - | - | - | - | - | |

CONNECTED LOAD (SECTION II) 16.9 KVA KVA PER PHASE: A 5.3 B 6.4 C 5.2
**TOTAL CONNECTED LOAD** 82.9 **KVA** KVA PER PHASE: A 27.5 B 28.3 C 27.1

**PANEL C22WA** (SECTION I) **MOUNTING: SURFACE**
**VOLTAGE: 208/120, 3PH, 4W** **LOCATION: 2ND FLR WEST ELEC CLOSET**
**225 AMPERE BUS** **125 A MCB** **200% RATED NEUTRAL BUS** **10,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.0 | 1 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 3 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 5 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.6 | 7 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 9 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 11 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 13 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 15 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 17 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 19 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 21 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 22 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.6 | 23 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 24 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.8 | 25 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.6 | 27 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 28 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.8 | 29 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 30 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.6 | 31 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 32 | COPIER | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.4 |
| 1.0 | 33 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 34 | RECPS | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.4 | 35 | RECPS - ROOF | 1 | 20 | 2 | 12 | 12 | 3/4 | 36 | PRINTER | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.0 | 37 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 38 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 39 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 40 | PRINTER | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.0 | 41 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 42 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |

CONNECTED LOAD (SECTION I) 32.4 KVA KVA PER PHASE: A 11.8 B 10.8 C 9.8

**PANEL C22WA** (SECTION II) **MOUNTING: SURFACE**
**VOLTAGE: 208/120, 3PH, 4W** **LOCATION: 2ND FLR WEST ELEC CLOSET**
**225 AMPERE BUS** **225 A MLO** **100% RATED NEUTRAL BUS** **10,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 43 | SPARE | 1 | 20 | | | | | 44 | SPARE | 1 | 20 | | | | | |
| | 45 | SPARE | 1 | 20 | | | | | 46 | SPARE | 1 | 20 | | | | | |
| | 47 | SPARE | 1 | 20 | | | | | 48 | SPARE | 1 | 20 | | | | | |
| | 49 | SPARE | 1 | 20 | | | | | 50 | SPARE | 1 | 20 | | | | | |
| | 51 | SPARE | 1 | 20 | | | | | 52 | SPARE | 1 | 20 | | | | | |
| | 53 | SPACE | 1 | | | | | | 54 | SPACE | 1 | | | | | | |
| | 55 | SPACE | 1 | | | | | | 56 | SPACE | 1 | | | | | | |
| | 57 | SPACE | 1 | | | | | | 58 | SPACE | 1 | | | | | | |
| | 59 | SPACE | 1 | | | | | | 60 | SPACE | 1 | | | | | | |
| | 61 | SPACE | 1 | | | | | | 62 | SPACE | 1 | | | | | | |
| | 63 | SPACE | 1 | | | | | | 64 | SPACE | 1 | | | | | | |
| | 65 | SPACE | 1 | | | | | | 66 | SPACE | 1 | | | | | | |
| | 67 | SPACE | 1 | | | | | | 68 | SPACE | 1 | | | | | | |
| | 69 | SPACE | 1 | | | | | | 70 | SPACE | 1 | | | | | | |
| | 71 | SPACE | 1 | | | | | | 72 | SPACE | 1 | | | | | | |
| | 73 | SPACE | 1 | | | | | | 74 | SPACE | 1 | | | | | | |
| | 75 | SPACE | 1 | | | | | | 76 | RECP CONTROL ZONE A4 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| | 77 | SPACE | 1 | | | | | | 78 | RECP CONTROL ZONE A7 | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| | 79 | SPACE | 1 | | | | | | 80 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 81 | SPACE | 1 | | | | | | 82 | - | - | - | - | - | - | - | |
| | 83 | SPACE | 1 | | | | | | 84 | - | - | - | - | - | - | - | |

CONNECTED LOAD (SECTION II) 1.8 KVA KVA PER PHASE: A 0 B 0.8 C 1
**TOTAL CONNECTED LOAD** 34.2 **KVA** KVA PER PHASE: A 11.8 B 11.6 C 10.8

**PANEL C22WB** (SECTION I) **MOUNTING: SURFACE**
**VOLTAGE: 208/120, 3PH, 4W** **LOCATION: 2ND FLR WEST ELEC CLOSET**
**225 AMPERE BUS** **125 A MCB** **200% RATED NEUTRAL BUS** **10,000 A.I.C.**

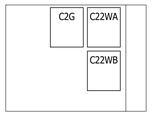
| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.6 | 1 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.8 | 3 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.6 | 5 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.8 | 7 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.6 | 9 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.8 | 11 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.6 | 13 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.8 | 15 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.6 | 17 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.8 | 19 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.6 | 21 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 22 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.8 | 23 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 24 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.6 | 25 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | COPIER | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.8 | 27 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 28 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 1.0 | 29 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 30 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 31 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 32 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.8 | 33 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 34 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 35 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 36 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 37 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 38 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 39 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 40 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 41 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 42 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |

CONNECTED LOAD (SECTION I) 30.0 KVA KVA PER PHASE: A 10 B 10 C 10.0

**PANEL C22WB** (SECTION II) **MOUNTING: SURFACE**
**VOLTAGE: 208/120, 3PH, 4W** **LOCATION: 2ND FLR WEST ELEC CLOSET**
**225 AMPERE BUS** **225 A MLO** **200% RATED NEUTRAL BUS** **10,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.6 | 43 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 44 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 45 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 46 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.2 | 47 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 48 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 49 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 50 | EWC | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 51 | LAVATORY | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 52 | LAVATORY | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 53 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 54 | RECPS - ROOF | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.8 | 55 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 56 | RECPS - ROOF | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 57 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 58 | SPARE | 1 | 20 | | | | | |
| 1.0 | 59 | EWC | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 60 | SPARE | 1 | 20 | | | | | |
| | 61 | SPARE | 1 | 20 | | | | | 62 | SPARE | 1 | 20 | | | | | |
| | 63 | SPARE | 1 | 20 | | | | | 64 | SPARE | 1 | 20 | | | | | |
| | 65 | SPACE | 1 | | | | | | 66 | SPACE | 1 | | | | | | |
| | 67 | SPACE | 1 | | | | | | 68 | SPACE | 1 | | | | | | |
| | 69 | SPACE | 1 | | | | | | 70 | SPACE | 1 | | | | | | |
| | 71 | SPACE | 1 | | | | | | 72 | SPACE | 1 | | | | | | |
| | 73 | SPACE | 1 | | | | | | 74 | SPACE | 1 | | | | | | |
| | 75 | SPACE | 1 | | | | | | 76 | RECP CONTROL ZONE A5 | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| | 77 | SPACE | 1 | | | | | | 78 | RECP CONTROL ZONE A6 | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| | 79 | SPACE | 1 | | | | | | 80 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 81 | SPACE | 1 | | | | | | 82 | - | - | - | - | - | - | - | |
| | 83 | SPACE | 1 | | | | | | 84 | - | - | - | - | - | - | - | |

CONNECTED LOAD (SECTION II) 16.2 KVA KVA PER PHASE: A 4.8 B 5.2 C 6.2
**TOTAL CONNECTED LOAD** 46.2 **KVA** KVA PER PHASE: A 14.8 B 15.2 C 16.2




| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN


OWNER

New Castle County Vo-Tech School District

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Wilmington, DE 19804

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The professional services of ABHA/BSA+A, LLC. are undertaken for and performed in the interest of the NCCVT School District. No contractual obligation is assumed by ABHA/BSA+A, LLC. for the benefit of any other person involved in the project.

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**PANEL SCHEDULES**

SHEET NO.

**E613**

## DISTRIBUTION PANEL DC22S

**MOUNTING: SURFACE** | **A.I.C. RATING: 10,000** | **LOCATION: 2ND FLR SOUTH EC**

**VOLTAGE: 208/120, 3 PHASE, 4 WIRE** | **400A MAIN BUS, 200% RATED NEUTRAL BUS** | **400 MCB**

**DISTRIBUTION SECTION**

| FDR NO | SERVES | CIRCUIT BREAKER P | CIRCUIT BREAKER FRAME | CIRCUIT BREAKER TRIP | WIRING SETS | WIRING NO | WIRING SIZE | WIRING GND | WIRING C | REMARKS | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PANEL C22SA | 3 | 100 | 100 | 1 | 3+N | 1, 3/0 | 8 | 2 | | 13.1 |
| 2 | PANEL C22SB | 3 | 100 | 80 | 1 | 3+N | 1, 3/0 | 8 | 2 | | 11.9 |
| 3 | PANEL C22SC | 3 | 100 | 80 | 1 | 3+N | 1, 3/0 | 8 | 2 | | 12.7 |
| 4 | PANEL C22SD | 3 | 100 | 80 | 1 | 3+N | 1, 3/0 | 8 | 2 | | 11.1 |
| 5 | PANEL C22SE | 3 | 100 | 80 | 1 | 3+N | 1, 3/0 | 8 | 2 | | 12.5 |
| 6 | SPARE | 3 | 100 | 100 | | | | | | | |
| 7 | SPARE | 3 | 100 | 100 | | | | | | | |
| 8 | 8A, 8B, 8C | 3 | 100 | 20 | 3 | 2 | 12 | 12 | 3/4 | (3)1P,20A CIRCUIT BREAKERS | |
| 9 | 9A, 9B, 9C | 3 | 100 | 20 | 3 | 2 | 12 | 12 | 3/4 | (3)1P,20A CIRCUIT BREAKERS | |
| 10 | RECP CONTROL ZONE A9, SPARE, SPARE | 3 | 100 | 20 | 1 | 2 | 12 | 12 | 3/4 | (3)1P,20A CIRCUIT BREAKERS | |
| 11 | SPACE | 3 | 100 | | | | | | | | |
| 12 | SPACE | 3 | 100 | | | | | | | | |
| 13 | SPACE | 3 | 100 | | | | | | | | |
| 14 | SPD | 3 | 60 | 60 | | | | | | | |

**TOTAL CONNECTED LOAD** 61.3 KVA

## PANEL C22SA

**MOUNTING: SURFACE**
**VOLTAGE: 208/120, 3PH, 4W** | **LOCATION: 2ND FLR SOUTH ELEC CLOSET**
**100 AMPERE BUS** | **100 A MCB W/ SHUNT TRIP (120V) COIL** | **200% RATED NEUTRAL BUS** | **10,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.6 | 1 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.4 | 3 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.2 | 5 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | SPARE | 1 | 20GFI | | | | | |
| 0.2 | 7 | GOGGLE CABINET | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | SPARE | 1 | 20GFI | | | | | |
| 1.0 | 9 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 10 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 11 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 12 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 13 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 14 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 15 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 16 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| | 17 | SPARE | 1 | 20GFI | | | | | 18 | SPARE | 1 | 20GFI | | | | | |
| | 19 | SPARE | 1 | 20GFI | | | | | 20 | SPARE | 1 | 20GFI | | | | | |
| | 21 | SPARE | 1 | 20GFI | | | | | 22 | GAS SOLENOID | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| | 23 | SPARE | 1 | 20GFI | | | | | 24 | UC LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| | 25 | SPACE | 1 | | | | | | 26 | SPARE | 1 | | | | | | |
| | 27 | SPACE | 1 | | | | | | 28 | SPARE | 1 | | | | | | |
| | 29 | SPACE | 1 | | | | | | 30 | SPARE | 1 | | | | | | |

**TOTAL CONNECTED LOAD** 13.1 KVA | KVA PER PHASE: A 3.8 B 5.9 C 3.4

## PANEL C22SB

**MOUNTING: SURFACE**
**VOLTAGE: 208/120, 3PH, 4W** | **LOCATION: 2ND FLR SOUTH ELEC CLOSET**
**100 AMPERE BUS** | **100 A MCB W/ SHUNT TRIP (120V) COIL** | **200% RATED NEUTRAL BUS** | **10,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.6 | 1 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.4 | 3 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.2 | 5 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.6 | 7 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 8 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 9 | GOGGLE CABINET | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | SPARE | 1 | 20GFI | | | | | |
| 1.0 | 11 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 12 | SPARE | 1 | 20GFI | | | | | |
| 0.4 | 13 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 14 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.4 | 15 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 16 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 0.4 |
| | 17 | SPARE | 1 | 20GFI | | | | | 18 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| | 19 | SPARE | 1 | 20GFI | | | | | 20 | SPARE | 1 | 20GFI | | | | | |
| 0.5 | 21 | GAS SOLENOID | 1 | 20 | 2 | 12 | 12 | 3/4 | 22 | SPARE | 1 | 20GFI | | | | | |
| | 23 | SPARE | 1 | 20 | | | | | 24 | SPARE | 1 | 20 | | | | | |
| | 25 | SPACE | 1 | | | | | | 26 | SPARE | 1 | 20 | | | | | |
| | 27 | SPACE | 1 | | | | | | 28 | SPARE | 1 | 20 | | | | | |
| | 29 | SPACE | 1 | | | | | | 30 | SPARE | 1 | 20 | | | | | |

**TOTAL CONNECTED LOAD** 11.9 KVA | KVA PER PHASE: A 4.6 B 3.7 C 3.6

## PANEL C22SC

**MOUNTING: SURFACE**
**VOLTAGE: 208/120, 3PH, 4W** | **LOCATION: 2ND FLR SOUTH ELEC CLOSET**
**100 AMPERE BUS** | **100 A MCB W/ SHUNT TRIP (120V) COIL** | **200% RATED NEUTRAL BUS** | **10,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.6 | 1 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.4 | 3 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.2 | 5 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.2 | 7 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 8 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 9 | GOGGLE CABINET | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 11 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 12 | SPARE | 1 | 20GFI | | | | | |
| 0.4 | 13 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 14 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.4 | 15 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 16 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| | 17 | SPARE | 1 | 20GFI | | | | | 18 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| | 19 | SPARE | 1 | 20GFI | | | | | 20 | SPARE | 1 | 20GFI | | | | | |
| 0.5 | 21 | GAS SOLENOID | 1 | 20 | 2 | 12 | 12 | 3/4 | 22 | SPARE | 1 | 20GFI | | | | | |
| 0.2 | 23 | UC LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 24 | SPARE | 1 | 20 | | | | | |
| | 25 | SPACE | 1 | | | | | | 26 | SPARE | 1 | 20 | | | | | |
| | 27 | SPACE | 1 | | | | | | 28 | SPARE | 1 | 20 | | | | | |
| | 29 | SPACE | 1 | | | | | | 30 | SPARE | 1 | 20 | | | | | |

**TOTAL CONNECTED LOAD** 12.7 KVA | KVA PER PHASE: A 3.6 B 5.3 C 3.8

## PANEL C22SD

**MOUNTING: SURFACE**
**VOLTAGE: 208/120, 3PH, 4W** | **LOCATION: 2ND FLR SOUTH ELEC CLOSET**
**100 AMPERE BUS** | **100 A MCB W/ SHUNT TRIP (120V) COIL** | **200% RATED NEUTRAL BUS** | **10,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.6 | 1 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.4 | 3 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.2 | 5 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.6 | 7 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 8 | SPARE | 1 | 20GFI | | | | | |
| 1.0 | 9 | GOGGLE CABINET | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | SPARE | 1 | 20GFI | | | | | |
| 1.0 | 11 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 12 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.4 | 13 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 14 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.4 | 15 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 16 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 0.4 |
| | 17 | SPARE | 1 | 20GFI | | | | | 18 | SPARE | 1 | 20GFI | | | | | |
| | 19 | SPARE | 1 | 20GFI | | | | | 20 | SPARE | 1 | 20GFI | | | | | |
| 0.5 | 21 | GAS SOLENOID | 1 | 20 | 2 | 12 | 12 | 3/4 | 22 | SPARE | 1 | 20GFI | | | | | |
| | 23 | SPARE | 1 | 20 | | | | | 24 | SPARE | 1 | 20 | | | | | |
| | 25 | SPACE | 1 | | | | | | 26 | SPARE | 1 | 20 | | | | | |
| | 27 | SPACE | 1 | | | | | | 28 | SPARE | 1 | 20 | | | | | |
| | 29 | SPACE | 1 | | | | | | 30 | SPARE | 1 | 20 | | | | | |

**TOTAL CONNECTED LOAD** 11.1 KVA | KVA PER PHASE: A 3.6 B 2.9 C 4.6

## PANEL C22SE

**MOUNTING: SURFACE**
**VOLTAGE: 208/120, 3PH, 4W** | **LOCATION: 2ND FLR SOUTH ELEC CLOSET**
**100 AMPERE BUS** | **100 A MCB W/ SHUNT TRIP (120V) COIL** | **200% RATED NEUTRAL BUS** | **10,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.6 | 1 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.4 | 3 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.2 | 5 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.6 | 7 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 8 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 9 | GOGGLE CABINET | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | SPARE | 1 | 20GFI | | | | | |
| 1.0 | 11 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 12 | SPARE | 1 | 20GFI | | | | | |
| 0.4 | 13 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 14 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| 0.4 | 15 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 16 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.6 | 17 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 18 | RECP | 1 | 20GFI | 2 | 12 | 12 | 3/4 | 1.0 |
| | 19 | SPARE | 1 | 20GFI | | | | | 20 | SPARE | 1 | 20GFI | | | | | |
| | 21 | SPARE | 1 | 20GFI | | | | | 22 | SPARE | 1 | 20GFI | | | | | |
| 0.5 | 23 | GAS SOLENOID | 1 | 20 | 2 | 12 | 12 | 3/4 | 24 | SPARE | 1 | 20 | | | | | |
| | 25 | SPACE | 1 | | | | | | 26 | SPARE | 1 | 20 | | | | | |
| | 27 | SPACE | 1 | | | | | | 28 | SPARE | 1 | 20 | | | | | |
| | 29 | SPACE | 1 | | | | | | 30 | SPARE | 1 | 20 | | | | | |

**TOTAL CONNECTED LOAD** 12.5 KVA | KVA PER PHASE: A 4.6 B 3.2 C 4.7

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN

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The professional services of ABHA/BSA+A, LLC. are undertaken for and performed in the interest of the NCCVT School District. No contractual obligation is assumed by ABHA/BSA+A, LLC. for the benefit of any other person involved in the project.

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**PANEL SCHEDULES**

SHEET NO.

**E614**

DC22S | C22SA | C22SD | C22SB | C22SE | C22SD

## DISTRIBUTION PANEL E3DC

| MOUNTING: SURFACE | A.I.C. RATING: 65,000 | LOCATION: MAIN EMER ELEC ROOM |
|---|---|---|
| VOLTAGE: 480/277, 3 PHASE, 4 WIRE | 600A MAIN BUS | 500A MCB |

**DISTRIBUTION SECTION**

| FDR NO | SERVES | CIRCUIT BREAKER P | FRAME | TRIP | WIRING SETS | NO | SIZE | GND | C | REMARKS | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PANEL E3CM (VIA XFMR TE3CM) | 3 | 100 | 60 | REFER TO XFMR SCHEDULE | | | | | | 19.6 |
| 2 | PANEL E3KR (VIA XFMR TE3KR) | 3 | 225 | 150 | REFER TO XFMR SCHEDULE | | | | | | 62.9 |
| 3 | PANEL E3CA (VIA XFMR TE3CA) | 3 | 100 | 60 | REFER TO XFMR SCHEDULE | | | | | | 15.6 |
| 4 | PANEL E3CG (VIA XFMR TE3CG) | 3 | 100 | 60 | REFER TO XFMR SCHEDULE | | | | | | 19.8 |
| 5 | PANEL E3C1N (VIA XFMR TE3C1N) | 3 | 100 | 60 | REFER TO XFMR SCHEDULE | | | | | | 15.2 |
| 6 | PANEL E3C1S (VIA XFMR TE3C1S) | 3 | 100 | 150 | REFER TO XFMR SCHEDULE | | | | | | 53.6 |
| 7 | PANEL E3C1E (VIA XFMR TE3C1E) | 3 | 100 | 60 | REFER TO XFMR SCHEDULE | | | | | | 42.4 |
| 8 | PANEL E3C1W (VIA XFMR TE3C1W) | 3 | 100 | 60 | REFER TO XFMR SCHEDULE | | | | | | 13.6 |
| 9 | PANEL E3C2N (VIA XFMR TE3C2N) | 3 | 100 | 60 | REFER TO XFMR SCHEDULE | | | | | | 24.8 |
| 10 | SPARE | 3 | 100 | 60 | | | | | | | |
| 11 | PANEL E3C2E (VIA XFMR TE3C2E) | 3 | 100 | 60 | REFER TO XFMR SCHEDULE | | | | | | 22.2 |
| 12 | PANEL E3C2W (VIA XFMR TE3C2W) | 3 | 100 | 60 | REFER TO XFMR SCHEDULE | | | | | | 22.6 |
| 13 | SPARE | 3 | | | | | | | | | |
| 14 | SPARE | 3 | | | | | | | | | |
| 15 | SPACE | 3 | | | | | | | | | |
| 16-18 | SPACES | 3 | | | | | | | | | |
| 19 | SPD | 3 | 60 | 60 | | | | | | | |

TOTAL CONNECTED LOAD: 312.3 KVA

## PANEL E3KR (SECTION I)

MOUNTING: SURFACE
VOLTAGE:208/120, 3PH, 4W — LOCATION: MAIN EMER ELEC RM
225 AMPERE BUS | 225 A MCB | 100% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.3 | 1 | WALK-IN FREEZER [79] | 2 | 15 | 2 | 12 | 12 | 3/4 | 2 | WALK-IN FREEZER [80] | 3 | 40 | 3 | 8 | 10 | 3/4 | 2.6 |
| 1.3 | 3 | EVAPORATOR | - | - | - | - | - | - | 4 | CONDENSER | - | - | - | - | - | - | 2.6 |
| 0.1 | 5 | WALK-IN COOLER [77] | 2 | 15 | 2 | 12 | 12 | 3/4 | 6 | - | - | - | - | - | - | - | 2.6 |
| 0.1 | 7 | EVAPORATOR | - | - | - | - | - | - | 8 | WALK-IN COOLER [78] | 3 | 25 | 3 | 12 | 12 | 3/4 | 1.7 |
| 0.1 | 9 | MILK COOLER [2] | 2 | 15 | 2 | 12 | 12 | 3/4 | 10 | CONDENSER | - | - | - | - | - | - | 1.7 |
| 0.1 | 11 | EVAPORATOR | - | - | - | - | - | - | 12 | - | - | - | - | - | - | - | 1.7 |
| 1.0 | 13 | WALK-IN DOORS | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | MILK COOLER [3] | 3 | 20 | 3 | 12 | 12 | 3/4 | 1.3 |
| 1.0 | 15 | WALK-IN DOORS | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | CONDENSER | - | - | - | - | - | - | 1.3 |
| 0.7 | 17 | WALK-IN DOORS (CUL) | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | - | - | - | - | - | - | - | 1.3 |
| 1.7 | 19 | WALK-IN COOLER [26] | 3 | 25 | 3 | 12 | 12 | 3/4 | 20 | WALK-IN COOLER [77] | 2 | 15 | 2 | 12 | 12 | 3/4 | 0.1 |
| 1.7 | 21 | CONDENSER | - | - | - | - | - | - | 22 | EVAPORATOR | - | - | - | - | - | - | 0.1 |
| 1.7 | 23 | - | - | - | - | - | - | - | 24 | WALK-IN COOLER [25] | 2 | 15 | 2 | 12 | 12 | 3/4 | 0.1 |
| 1.7 | 25 | WALK-IN COOLER [28] | 3 | 25 | 3 | 12 | 12 | 3/4 | 26 | EVAPORATOR | - | - | - | - | - | - | 0.1 |
| 1.7 | 27 | CONDENSER | - | - | - | - | - | - | 28 | WALK-IN COOLER [27] | 2 | 15 | 2 | 12 | 12 | 3/4 | 0.1 |
| 1.7 | 29 | - | - | - | - | - | - | - | 30 | EVAPORATOR | - | - | - | - | - | - | 0.1 |
| 2.6 | 31 | WALK-IN FREEZER [30] | 3 | 40 | 3 | 8 | 10 | 3/4 | 32 | WALK-IN FREEZER [29] | 2 | 25 | 2 | 10 | 10 | 3/4 | 1.5 |
| 2.6 | 33 | CONDENSER | - | - | - | - | - | - | 34 | EVAPORATOR | - | - | - | - | - | - | 1.5 |
| 2.6 | 35 | - | - | - | - | - | - | - | 36 | WALK-IN FREEZER [31] | 2 | 25 | 2 | 10 | 10 | 3/4 | 1.5 |
| 2.6 | 37 | WALK-IN FREEZER [32] | 3 | 40 | 3 | 8 | 10 | 3/4 | 38 | EVAPORATOR | - | - | - | - | - | - | 1.5 |
| 2.6 | 39 | CONDENSER | - | - | - | - | - | - | 40 | WALK-IN FREEZER [79] | 2 | 25 | 2 | 10 | 10 | 3/4 | 1.5 |
| 2.6 | 41 | - | - | - | - | - | - | - | 42 | - | - | - | - | - | - | - | 1.5 |

CONNECTED LOAD (SECTION I) 57.9 KVA — KVA PER PHASE: A 19.8 B 19.8 C 18.3

## PANEL E3KR (SECTION II)

MOUNTING: SURFACE
VOLTAGE:208/120, 3PH, 4W — LOCATION: MAIN EMER ELEC RM
225 AMPERE BUS | 225 A MLO | 100% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 43 | SPARE | 3 | 20 | | | | | 44 | SPARE | 3 | 30 | | | | | |
| | 45 | - | - | - | - | - | - | - | 46 | - | - | - | - | - | - | - | |
| | 47 | - | - | - | - | - | - | - | 48 | - | - | - | - | - | - | - | |
| 1.0 | 49 | HEAT TRACE RECP | 1 | 20GFEP | 2 | 12 | 12 | 3/4 | 50 | WALK-IN DOORS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 51 | HEAT TRACE RECP | 1 | 20GFEP | 2 | 12 | 12 | 3/4 | 52 | WALK-IN DOORS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.0 | 53 | HEAT TRACE RECP | 1 | 20GFEP | 2 | 12 | 12 | 3/4 | 54 | SPARE | 1 | 20 | | | | | |
| | 55 | SPARE | 1 | 20 | | | | | 56 | SPARE | 1 | 20 | | | | | |
| | 57 | SPARE | 1 | 20 | | | | | 58 | SPARE | 1 | 20 | | | | | |
| | 59 | SPARE | 1 | 20 | | | | | 60 | SPARE | 1 | 20 | | | | | |
| | 61 | SPARE | 1 | 20 | | | | | 62 | SPARE | 1 | 20 | | | | | |
| | 63 | SPARE | 1 | 20 | | | | | 64 | SPARE | 1 | 20 | | | | | |
| | 65 | SPARE | 1 | 20 | | | | | 66 | SPACE | 1 | | | | | | |
| | 67 | SPACE | 1 | | | | | | 68 | SPACE | 1 | | | | | | |
| | 69 | SPACE | 1 | | | | | | 70 | SPACE | 1 | | | | | | |
| | 71 | SPACE | 1 | | | | | | 72 | SPACE | 1 | | | | | | |
| | 73 | SPACE | 1 | | | | | | 74 | SPACE | 1 | | | | | | |
| | 75 | SPACE | 1 | | | | | | 76 | SPACE | 1 | | | | | | |
| | 77 | SPACE | 1 | | | | | | 78 | SPACE | 1 | | | | | | |
| | 79 | SPACE | 1 | | | | | | 80 | SPACE | 1 | | | | | | |
| | 81 | SPACE | 1 | | | | | | 82 | SPACE | 1 | | | | | | |
| | 83 | SPACE | 1 | | | | | | 84 | SPACE | 1 | | | | | | |

CONNECTED LOAD (SECTION II) 5 KVA — KVA PER PHASE: A 2 B 2 C 1
TOTAL CONNECTED LOAD 62.9 KVA — KVA PER PHASE: A 21.8 B 21.8 C 19.3

## PANEL E3CM

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: MAIN EMER ELEC RM
100 AMPERE BUS | 100 A MCB | 200% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | SPARE | 1 | 30 | | | | | 2 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| | 3 | SPARE | 1 | 30 | | | | | 4 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| | 5 | SPARE | 1 | 30 | | | | | 6 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| | 7 | SPARE | 1 | 20 | | | | | 8 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 1.0 | 9 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.6 | 11 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.8 | 13 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.2 | 15 | CARD READERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | CARD READERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| | 17 | SPARE | 1 | 20 | | | | | 18 | CH-1 CHWS HEAT TAPE | 1 | 20GEP | 2 | 12 | 12 | 3/4 | 0.8 |
| | 19 | SPARE | 1 | 20 | | | | | 20 | CH-1 CHWS HEAT TAPE | 1 | 20GEP | 2 | 12 | 12 | 3/4 | 0.8 |
| | 21 | SPARE | 1 | 20 | | | | | 22 | CH-1 CHWR HEAT TAPE | 1 | 20GEP | 2 | 12 | 12 | 3/4 | 0.8 |
| 1.5 | 23 | EUH-3 | 2 | 20 | 2 | 12 | 12 | 3/4 | 24 | CH-1 CHWR HEAT TAPE | 1 | 20GEP | 2 | 12 | 12 | 3/4 | 0.8 |
| 1.5 | 25 | - | - | - | - | - | - | - | 26 | CH-2 CHWS HEAT TAPE | 1 | 20GEP | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.5 | 27 | EUH-1 | 2 | 20 | 2 | 12 | 12 | 3/4 | 28 | CH-2 CHWS HEAT TAPE | 1 | 20GEP | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.5 | 29 | - | - | - | - | - | - | - | 30 | CH-2 CHWR HEAT TAPE | 1 | 20GEP | 2 | 12 | 12 | 3/4 | 0.6 |
| | 31 | SPARE | 2 | 20 | | | | | 32 | CH-2 CHWR HEAT TAPE | 1 | 20GEP | 2 | 12 | 12 | 3/4 | 0.6 |
| | 33 | - | - | - | - | - | - | - | 34 | HEAT TRACE CONTACTOR | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| | 35 | SPARE | 1 | 20 | | | | | 36 | SPARE | 1 | 20 | | | | | |
| | 37 | SPACE | 1 | | | | | | 38 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 39 | SPACE | 1 | | | | | | 40 | - | - | - | - | - | - | - | |
| | 41 | SPACE | 1 | | | | | | 42 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 19.6 KVA — KVA PER PHASE: A 5.7 B 7.3 C 6.6

## PANEL E3CA

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: AUD ELEC CLOSET
100 AMPERE BUS | 100 A MCB | 200% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3.0 | 1 | DATA RACK | 1 | 30 | 2 | 10 | 10 | 3/4 | 2 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 3 | DATA RACK | 1 | 30 | 2 | 10 | 10 | 3/4 | 4 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 5 | DATA RACK | 1 | 30 | 2 | 10 | 10 | 3/4 | 6 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.6 | 7 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.6 | 9 | CARD READERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| | 11 | SPARE | 1 | 20 | | | | | 12 | SPARE | 1 | 20 | | | | | |
| | 13 | SPARE | 1 | 20 | | | | | 14 | SPARE | 1 | 20 | | | | | |
| | 15 | SPARE | 1 | 20 | | | | | 16 | SPARE | 1 | 20 | | | | | |
| | 17 | SPACE | 1 | | | | | | 18 | SPACE | 1 | | | | | | |
| | 19 | SPACE | 1 | | | | | | 20 | SPACE | 1 | | | | | | |
| | 21 | SPACE | 1 | | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | SPACE | 1 | | | | | | |
| | 25 | SPACE | 1 | | | | | | 26 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| 1.7 | 27 | DSOU-10 | 2 | 30 | 2 | 10 | 10 | 3/4 | 28 | - | - | - | - | - | - | - | |
| 1.7 | 29 | - | - | - | - | - | - | - | 30 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 15.6 KVA — KVA PER PHASE: A 4.4 B 6.1 C 5.1

## PANEL E3CG

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: GYM ELEC CLOSET
100 AMPERE BUS | 100 A MCB | 200% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3.0 | 1 | DATA RACK | 1 | 30 | 2 | 10 | 10 | 3/4 | 2 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 3 | DATA RACK | 1 | 30 | 2 | 10 | 10 | 3/4 | 4 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 5 | DATA RACK | 1 | 30 | 2 | 10 | 10 | 3/4 | 6 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 1.5 | 7 | GYM SOUND SYSTEM | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.4 | 9 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 1.5 | 11 | CAFETERIA SOUND SYS | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.6 | 13 | CARD READERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | CARD READERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| | 15 | SPARE | 1 | 20 | | | | | 16 | SPARE | 1 | 20 | | | | | |
| | 17 | SPARE | 1 | 20 | | | | | 18 | SPARE | 1 | 20 | | | | | |
| | 19 | SPARE | 1 | 20 | | | | | 20 | SPARE | 1 | 20 | | | | | |
| | 21 | SPARE | 1 | 20 | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | SPACE | 1 | | | | | | |
| | 25 | SPACE | 1 | | | | | | 26 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| 1.7 | 27 | DSOU-11 | 2 | 30 | 2 | 10 | 10 | 3/4 | 28 | - | - | - | - | - | - | - | |
| 1.7 | 29 | - | - | - | - | - | - | - | 30 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 19.8 KVA — KVA PER PHASE: A 6.9 B 5.9 C 7.0

## PANEL E3C1E

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 1ST FLR EAST ELEC CLST
225 AMPERE BUS | 150 A MCB | 200% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3.0 | 1 | DATA RACK IDF | 1 | 30 | 2 | 10 | 10 | 3/4 | 2 | RECP IDF | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 3 | DATA RACK IDF | 1 | 30 | 2 | 10 | 10 | 3/4 | 4 | RECP IDF | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 5 | DATA RACK IDF | 1 | 30 | 2 | 10 | 10 | 3/4 | 6 | RECP IDF | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 7 | DATA RACK SERVER | 1 | 30 | 2 | 10 | 10 | 3/4 | 8 | RECP IDF | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 9 | DATA RACK SERVER | 1 | 30 | 2 | 10 | 10 | 3/4 | 10 | RECP IDF | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 11 | DATA RACK SERVER | 1 | 30 | 2 | 10 | 10 | 3/4 | 12 | RECP SERVER | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 13 | DATA RACK IDF | 1 | 30 | 2 | 10 | 10 | 3/4 | 14 | RECP SERVER | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.6 | 15 | CARD READERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | RECP SERVER | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.4 | 17 | RECP IDF | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | RECP SERVER | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 19 | DATA RACK IDF | 1 | 30 | 2 | 10 | 10 | 3/4 | 20 | RECP SERVER | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 21 | DATA RACK IDF | 1 | 30 | 2 | 10 | 10 | 3/4 | 22 | RECP IDF | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 23 | DATA RACK IDF | 1 | 30 | 2 | 10 | 10 | 3/4 | 24 | RECP IDF | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 1.0 | 25 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | RECP IDF | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.6 | 27 | CARD READERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 28 | RECP IDF | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| | 29 | SPARE | 1 | | | | | | 30 | RECP IDF | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| | 31 | SPACE | 1 | | | | | | 32 | RECP IDF | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| | 33 | SPACE | 1 | | | | | | 34 | SPARE | 2 | 60 | | | | | |
| | 35 | SPACE | 1 | | | | | | 36 | - | - | - | - | - | - | - | |
| | 37 | SPACE | 1 | | | | | | 38 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| 1.7 | 39 | DSOU-7 | 2 | 30 | 2 | 10 | 10 | 3/4 | 40 | - | - | - | - | - | - | - | |
| 1.7 | 41 | - | - | - | - | - | - | - | 42 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 42.4 KVA — KVA PER PHASE: A 15.4 B 13.9 C 13.1

## PANEL E3C2E

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 2ND FLR EAST ELEC CLST
100 AMPERE BUS | 100 A MCB | 200% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3.0 | 1 | DATA RACK | 1 | 30 | 2 | 10 | 10 | 3/4 | 2 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 3 | DATA RACK | 1 | 30 | 2 | 10 | 10 | 3/4 | 4 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 5 | DATA RACK | 1 | 30 | 2 | 10 | 10 | 3/4 | 6 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.4 | 7 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.6 | 9 | CARD READERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| | 11 | SPARE | 1 | 20 | | | | | 12 | SPARE | 1 | 20 | | | | | |
| | 13 | SPARE | 1 | 20 | | | | | 14 | SPARE | 1 | 20 | | | | | |
| | 15 | SPARE | 1 | 20 | | | | | 16 | SPARE | 1 | 20 | | | | | |
| | 17 | SPARE | 1 | 20 | | | | | 18 | SPARE | 1 | 20 | | | | | |
| 1.7 | 19 | DSOU-14 | 2 | 30 | 2 | 10 | 10 | 3/4 | 20 | SPACE | 1 | | | | | | |
| 1.7 | 21 | - | - | - | - | - | - | - | 22 | SPACE | 1 | | | | | | |
| 1.7 | 23 | DSOU-6 | 2 | 30 | 2 | 10 | 10 | 3/4 | 24 | SPACE | 1 | | | | | | |
| 1.7 | 25 | - | - | - | - | - | - | - | 26 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| 1.7 | 27 | DSOU-8 | 2 | 30 | 2 | 10 | 10 | 3/4 | 28 | - | - | - | - | - | - | - | |
| 1.7 | 29 | - | - | - | - | - | - | - | 30 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 22.2 KVA — KVA PER PHASE: A 7.6 B 7.8 C 6.8

## PANEL E3C1W

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 1ST FLR WEST ELEC CLST
100 AMPERE BUS | 100 A MCB | 200% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3.0 | 1 | DATA RACK IDF | 1 | 30 | 2 | 10 | 10 | 3/4 | 2 | RECP IDF | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 3 | DATA RACK IDF | 1 | 30 | 2 | 10 | 10 | 3/4 | 4 | RECP IDF | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 5 | DATA RACK IDF | 1 | 30 | 2 | 10 | 10 | 3/4 | 6 | RECP IDF | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.4 | 7 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | RECP IDF | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.6 | 9 | CARD READERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | RECP IDF | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.6 | 11 | CARD READERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | CARD READERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.2 | 13 | CARD READERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | SPARE | 1 | 20 | | | | | |
| | 15 | SPARE | 1 | 20 | | | | | 16 | SPARE | 1 | 20 | | | | | |
| | 17 | SPARE | 1 | 20 | | | | | 18 | SPARE | 1 | 20 | | | | | |
| | 19 | SPARE | 1 | 20 | | | | | 20 | SPARE | 1 | 20 | | | | | |
| | 21 | SPARE | 1 | 20 | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | SPACE | 1 | | | | | | |
| | 25 | SPACE | 1 | | | | | | 26 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 27 | SPACE | 1 | | | | | | 28 | - | - | - | - | - | - | - | |
| | 29 | SPACE | 1 | | | | | | 30 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 13.6 KVA — KVA PER PHASE: A 4.4 B 4.4 C 4.8

## PANEL E3C2W

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 2ND FLR WEST ELEC CLST
100 AMPERE BUS | 100 A MCB | 200% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3.0 | 1 | DATA RACK | 1 | 30 | 2 | 10 | 10 | 3/4 | 2 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 3 | DATA RACK | 1 | 30 | 2 | 10 | 10 | 3/4 | 4 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 5 | DATA RACK | 1 | 30 | 2 | 10 | 10 | 3/4 | 6 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.6 | 7 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| | 9 | SPARE | 1 | 20 | | | | | 10 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.8 | 11 | SPARE | 1 | 20 | | | | | 12 | SPARE | 1 | 20 | | | | | |
| | 13 | SPARE | 1 | 20 | | | | | 14 | SPARE | 1 | 20 | | | | | |
| | 15 | SPARE | 1 | 20 | | | | | 16 | SPARE | 1 | 20 | | | | | |
| | 17 | SPARE | 1 | 20 | | | | | 18 | SPARE | 1 | 20 | | | | | |
| 1.7 | 19 | DSOU-1 | 2 | 30 | 2 | 10 | 10 | 3/4 | 20 | SPARE | 1 | 20 | | | | | |
| 1.7 | 21 | - | - | - | - | - | - | - | 22 | SPARE | 2 | 30 | | | | | |
| 1.7 | 23 | DSOU-3 | 2 | 30 | 2 | 10 | 10 | 3/4 | 24 | - | - | - | - | - | - | - | |
| 1.7 | 25 | - | - | - | - | - | - | - | 26 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| 1.7 | 27 | DSOU-15 | 2 | 30 | 2 | 10 | 10 | 3/4 | 28 | - | - | - | - | - | - | - | |
| 1.7 | 29 | - | - | - | - | - | - | - | 30 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 22.6 KVA — KVA PER PHASE: A 7.8 B 7.2 C 7.6

## PANEL E3C1N

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 1ST FLR NORTH EC
100 AMPERE BUS | 100 A MCB | 200% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3.0 | 1 | DATA RACK | 1 | 30 | 2 | 10 | 10 | 3/4 | 2 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 3 | DATA RACK | 1 | 30 | 2 | 10 | 10 | 3/4 | 4 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 5 | DATA RACK | 1 | 30 | 2 | 10 | 10 | 3/4 | 6 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 1.0 | 7 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.4 | 9 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | ESP-1 | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 0.4 | 11 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | CARD READERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.0 | 13 | REFRIG | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | SPARE | 1 | 20 | | | | | |
| | 15 | SPARE | 1 | 20 | | | | | 16 | SPARE | 1 | 20 | | | | | |
| | 17 | SPARE | 1 | 20 | | | | | 18 | SPARE | 1 | 20 | | | | | |
| | 19 | SPARE | 1 | 20 | | | | | 20 | SPARE | 1 | 20 | | | | | |
| | 21 | SPACE | 1 | | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | SPACE | 1 | | | | | | |
| | 25 | SPACE | 1 | | | | | | 26 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 27 | SPACE | 1 | | | | | | 28 | - | - | - | - | - | - | - | |
| | 29 | SPACE | 1 | | | | | | 30 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 15.2 KVA — KVA PER PHASE: A 5.8 B 5.0 C 4.4

## PANEL E3C2N

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 2ND FLR NORTH EC
100 AMPERE BUS | 100 A MCB | 200% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3.0 | 1 | DATA RACK | 1 | 30 | 2 | 10 | 10 | 3/4 | 2 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 3 | DATA RACK | 1 | 30 | 2 | 10 | 10 | 3/4 | 4 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 5 | DATA RACK | 1 | 30 | 2 | 10 | 10 | 3/4 | 6 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.4 | 7 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.6 | 9 | CARD READERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | SPARE | 1 | 20 | | | | | |
| | 11 | SPARE | 1 | 20 | | | | | 12 | SPARE | 1 | 20 | | | | | |
| | 13 | SPARE | 1 | 20 | | | | | 14 | SPARE | 1 | 20 | | | | | |
| | 15 | SPARE | 1 | 20 | | | | | 16 | SPARE | 1 | 20 | | | | | |
| | 17 | SPARE | 1 | 20 | | | | | 18 | SPACE | 1 | | | | | | |
| 1.7 | 19 | DSOU-12 | 2 | 30 | 2 | 10 | 10 | 3/4 | 20 | SPACE | 1 | | | | | | |
| 1.7 | 21 | - | - | - | - | - | - | - | 22 | EUH-4 | 2 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.7 | 23 | DSOU-2 | 2 | 30 | 2 | 10 | 10 | 3/4 | 24 | - | - | - | - | - | - | - | 1.5 |
| 1.7 | 25 | - | - | - | - | - | - | - | 26 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| 1.7 | 27 | DSOU-13 | 2 | 30 | 2 | 10 | 10 | 3/4 | 28 | - | - | - | - | - | - | - | |
| 1.7 | 29 | - | - | - | - | - | - | - | 30 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 24.8 KVA — KVA PER PHASE: A 7.6 B 8.9 C 8.3

## PANEL E3C1S

MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 1ST FLR SOUTH EC
225 AMPERE BUS | 225 A MCB | 200% RATED NEUTRAL BUS | 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3.0 | 1 | DATA RACK | 1 | 30 | 2 | 10 | 10 | 3/4 | 2 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 3 | DATA RACK | 1 | 30 | 2 | 10 | 10 | 3/4 | 4 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 5 | DATA RACK | 1 | 30 | 2 | 10 | 10 | 3/4 | 6 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 7 | DATA RACK | 1 | 30 | 2 | 10 | 10 | 3/4 | 8 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 9 | DATA RACK | 1 | 30 | 2 | 10 | 10 | 3/4 | 10 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 11 | DATA RACK | 1 | 30 | 2 | 10 | 10 | 3/4 | 12 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 13 | DATA RACK | 1 | 30 | 2 | 10 | 10 | 3/4 | 14 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 15 | DATA RACK | 1 | 30 | 2 | 10 | 10 | 3/4 | 16 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.4 | 17 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.4 | 19 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 0.4 | 21 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 22 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 23 | DATA RACK | 1 | 30 | 2 | 6 | 8 | 3/4 | 24 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 25 | DATA RACK | 1 | 30 | 2 | 6 | 8 | 3/4 | 26 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 3.0 | 27 | DATA RACK | 1 | 30 | 2 | 6 | 8 | 3/4 | 28 | CARD READERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.6 | 29 | CARD READERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 30 | CARD READERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 1.5 | 31 | EUH-2 | 2 | 20 | 2 | 12 | 12 | 3/4 | 32 | CARD READERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.5 | 33 | - | - | - | - | - | - | - | 34 | SPARE | 1 | 20 | | | | | |
| 1.7 | 35 | DSOU-5 | 2 | 30 | 2 | 10 | 10 | 3/4 | 36 | SPARE | 1 | 20 | | | | | |
| 1.7 | 37 | - | - | - | - | - | - | - | 38 | SPARE | 1 | 20 | | | | | |
| 2.5 | 39 | DSOU-4 | 2 | 40 | 2 | 8 | 10 | 3/4 | 40 | SPARE | 1 | 20 | | | | | |
| 2.5 | 41 | - | - | - | - | - | - | - | 42 | SPARE | 1 | 20 | | | | | |
| | 43 | SPACE | 1 | | | | | | 44 | SPARE | 1 | 30 | | | | | |
| | 45 | SPACE | 1 | | | | | | 46 | SPARE | 1 | 30 | | | | | |
| | 47 | SPACE | 1 | | | | | | 48 | SPARE | 1 | 30 | | | | | |
| | 49 | SPACE | 1 | | | | | | 50 | SPACE | 1 | | | | | | |
| | 51 | SPACE | 1 | | | | | | 52 | SPACE | 1 | | | | | | |
| | 53 | SPACE | 1 | | | | | | 54 | SPACE | 1 | | | | | | |
| | 55 | SPACE | 1 | | | | | | 56 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 57 | SPACE | 1 | | | | | | 58 | - | - | - | - | - | - | - | |
| | 59 | SPACE | 1 | | | | | | 60 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 53.6 KVA — KVA PER PHASE: A 10.2 B 10.2 C 7.6

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN

E3DC | E3CA | E3C2W
E3KR | E3CG | E3C1N
E3C1E | E3C2N
E3CM | E3C2E | E3C1S
E3C1W


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The professional services of ABHA/BSA+A, LLC. are undertaken for and performed in the interest of the NCCVT School District. No contractual obligation is assumed by ABHA/BSA+A, LLC. for the benefit of any other person involved in the project.

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

2575 GLASGOW AVENUE
NEWARK, DE 19702

SHEET TITLE
**PANEL SCHEDULES**

SHEET NO.
**E615**

### FUSIBLE PANEL E1DL

VOLTAGE: 480/277, 3PH, 4W — MOUNTING: SURFACE — LOCATION: MAIN EMER ELEC RM

400 AMPERE BUS — 400 A MAIN FUSE — 100% RATED NEUTRAL BUS — 50,000 A.I.C.

| CONN | | | FUSE | | CIRCUIT WIRING | | | | | | FUSE | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 1.2 | 1 | PANEL E1LM | 3 | 150 | 4 | 4 | 10 | 1 1/4 | 2 | SPACE | 3 | 100 | | | | | |
| 1.7 | 3 | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | |
| 2.2 | 5 | - | - | - | - | - | - | - | 6 | - | - | - | - | - | - | - | |
| 3.7 | 7 | PANEL E1L2E | 3 | 60 | 4 | 4 | 10 | 1 1/4 | 8 | PANEL E1L2S | 3 | 60 | 4 | 4 | 10 | 1 1/4 | 1.9 |
| 3.9 | 9 | - | - | - | - | - | - | - | 10 | - | - | - | - | - | - | - | 1.6 |
| 4.7 | 11 | - | - | - | - | - | - | - | 12 | - | - | - | - | - | - | - | 2.8 |
| 13.7 | 13 | PANEL E1CM | 3 | 60 | REFER TO XFMR SCHEDULE | | | | 14 | PANEL E1LA | 3 | 125 | 4 | 3/0 | 6 | 2 | 2.8 |
| 12.7 | 15 | VIA XFMR TE1CM | - | - | - | - | - | - | 16 | - | - | - | - | - | - | - | 2.5 |
| 11.2 | 17 | - | - | - | - | - | - | - | 18 | - | - | - | - | - | - | - | 2.3 |
| 3.6 | 19 | PANEL E1LG | 3 | 60 | 4 | 4 | 10 | 1 1/4 | 20 | PANEL E1L1E | 3 | 200 | 4 | 3/0 | 6 | 2 | 13.7 |
| 3.1 | 21 | - | - | - | - | - | - | - | 22 | - | - | - | - | - | - | - | 12.6 |
| 2.9 | 23 | - | - | - | - | - | - | - | 24 | - | - | - | - | - | - | - | 10.8 |
| 3.1 | 25 | PANEL E1L1S | 3 | 60 | 4 | 4 | 10 | 1 1/4 | 26 | PANEL E1L1N | 3 | 60 | 4 | 4 | 10 | 1 1/4 | 4.0 |
| 2.6 | 27 | - | - | - | - | - | - | - | 28 | - | - | - | - | - | - | - | 2.9 |
| 3.6 | 29 | - | - | - | - | - | - | - | 30 | - | - | - | - | - | - | - | 3.0 |
| 2.1 | 31 | PANEL E1L1W | 3 | 60 | 4 | 4 | 10 | 1 1/4 | 32 | GENERATOR PANEL | 3 | 90 | REFER TO XFMR SCHEDULE | | | | 15.0 |
| 1.8 | 33 | - | - | - | - | - | - | - | 34 | VIA XFMR TE1GEN | - | - | - | - | - | - | 15.0 |
| 2.6 | 35 | - | - | - | - | - | - | - | 36 | - | - | - | - | - | - | - | 15.0 |
| 1.5 | 37 | PANEL E1LF | 3 | 60 | 4 | 4 | 10 | 2 | 38 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| 1.5 | 39 | - | - | - | - | - | - | - | 40 | - | - | - | - | - | - | - | |
| 0.0 | 41 | - | - | - | - | - | - | - | 42 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 189.3 KVA — KVA PER PHASE: A 66.3 B 61.9 C 61.1

### FUSIBLE PANEL E1CM

VOLTAGE: 208/120, 3PH, 4W — MOUNTING: SURFACE — LOCATION: MAIN EMER ELEC RM

100 AMPERE BUS — 100 A MAIN FUSE — 200% RATED NEUTRAL BUS — 50,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 1.5 | 1 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | VF-2 | 1 | 20 | 3 | 12 | 12 | 3/4 | 1.2 |
| 1.5 | 3 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | VF-4 | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.2 |
| 1.5 | 5 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | UH-4 | 1 | 15 | 2 | 12 | 12 | 3/4 | 0.2 |
| 1.0 | 7 | EXH HOOD CTRL PNL-E53.1 | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | EXH HOOD-ANSUL SYS-E57 | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 9 | FIRE SUPP SYS - E53.2 | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | FIRE SUPP SYS - E57.2 | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 11 | EXH HOOD - E53 | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | EXH HOOD CNTRL PNL-E57.1 | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.5 | 13 | EXH HOOD - E53 | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | SPARE | 1 | 20 | | | | | |
| | 15 | SPARE | 1 | 20 | | | | | 16 | SPARE | 1 | 20 | | | | | |
| | 17 | SPARE | 1 | 20 | | | | | 18 | SPARE | 1 | 20 | | | | | |
| | 19 | SPACE | 1 | | | | | | 20 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 21 | SPACE | 1 | | | | | | 22 | - | - | - | - | - | - | - | |
| | 23 | SPACE | 1 | | | | | | 24 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 16.6 KVA — KVA PER PHASE: A 6.7 B 5.7 C 4.2

### FUSIBLE PANEL E1LA

VOLTAGE: 480/277, 3PH, 4W — MOUNTING: SURFACE — LOCATION: AUD ELEC CLOSET

200 AMPERE BUS — 200 A MAIN SWITCH — 100% RATED NEUTRAL BUS — 50,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 0.1 | 1 | EXIT SIGNS | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | LC-13 CONTROL CKT | 1 | 20 | 2 | 12 | 12 | 3/4 | |
| 0.2 | 3 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | SPARE | 1 | 20 | | | | | |
| 0.1 | 5 | EXTERIOR LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | SPARE | 1 | 20 | | | | | |
| | 7 | SPARE | 1 | 20 | | | | | 8 | SPACE | 1 | | | | | | |
| | 9 | SPARE | 1 | 20 | | | | | 10 | SPACE | 1 | | | | | | |
| | 11 | SPARE | 1 | 20 | | | | | 12 | SPACE | 1 | | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | SPACE | 1 | | | | | | |
| | 15 | SPACE | 1 | | | | | | 16 | SPACE | 1 | | | | | | |
| | 17 | SPACE | 1 | | | | | | 18 | SPACE | 1 | | | | | | |
| 2.7 | 19 | PANEL E1CA/ELTS | 3 | 60 | REFER TO XFMR SCHEDULE | | | | 20 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| 2.3 | 21 | VIA XFMR TE1CA | - | - | - | - | - | - | 22 | - | - | - | - | - | - | - | |
| 2.2 | 23 | - | - | - | - | - | - | - | 24 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 7.6 KVA — KVA PER PHASE: A 2.8 B 2.5 C 2.3

### FUSIBLE PANEL E1CA

VOLTAGE: 208/120, 3PH, 4W — MOUNTING: SURFACE — LOCATION: AUD ELEC CLOSET

60 AMPERE BUS — 60 A MAIN FUSE — 200% RATED NEUTRAL BUS — 50,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 1.5 | 1 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | DEM-1S | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| 1.5 | 3 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | AISLE LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| 1.5 | 5 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | AUD VESTIBULE LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.1 |
| 0.3 | 7 | AUD HOUSE LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | AUD HOUSE LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.3 |
| 0.1 | 9 | MP1 LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | MP2 LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.1 |
| 0.1 | 11 | MP1 DNLTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | MP2 DNLTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.1 |
| 0.1 | 13 | WORK LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | SPARE | 1 | 20 | | | | | |
| 0.4 | 15 | DOOR HOLDERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | SPARE | 1 | 20 | | | | | |
| 0.4 | 17 | DOOR HOLDERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | SPARE | 1 | 20 | | | | | |
| | 19 | SPACE | 1 | | | | | | 20 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 21 | SPACE | 1 | | | | | | 22 | - | - | - | - | - | - | - | |
| | 23 | SPACE | 1 | | | | | | 24 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 7.2 KVA — KVA PER PHASE: A 2.7 B 2.3 C 2.2

### FUSIBLE PANEL E1LG

VOLTAGE: 480/277, 3PH, 4W — MOUNTING: SURFACE — LOCATION: GYM ELEC CLOSET

60 AMPERE BUS — 60 A MAIN FUSE — 100% RATED NEUTRAL BUS — 50,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 0.5 | 1 | CORRIDOR EMER LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | LC-11 CONTROL CKT | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.1 |
| 0.1 | 3 | EXIT SIGNS | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | SPARE | 1 | 20 | | | | | |
| 0.7 | 5 | EMER LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | SPARE | 1 | 20 | | | | | |
| 1.1 | 7 | GYM LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | SPACE | 1 | | | | | | |
| 1.1 | 9 | GYM LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | SPACE | 1 | | | | | | |
| 0.1 | 11 | EXTERIOR LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | SPACE | 1 | | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | SPACE | 1 | | | | | | |
| | 15 | SPACE | 1 | | | | | | 16 | SPACE | 1 | | | | | | |
| | 17 | SPACE | 1 | | | | | | 18 | SPACE | 1 | | | | | | |
| 1.9 | 19 | PANEL E1CG | 3 | 30 | REFER TO XFMR SCHEDULE | | | | 20 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| 1.9 | 21 | VIA XFMR TE1CG | - | - | - | - | - | - | 22 | - | - | - | - | - | - | - | |
| 2.1 | 23 | - | - | - | - | - | - | - | 24 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 9.6 KVA — KVA PER PHASE: A 3.6 B 3.1 C 2.9

### FUSIBLE PANEL E1CG

VOLTAGE: 208/120, 3PH, 4W — MOUNTING: SURFACE — LOCATION: GYM ELEC CLOSET

60 AMPERE BUS — 60 A MAIN FUSE — 200% RATED NEUTRAL BUS — 50,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 1.5 | 1 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | DOOR HOLDERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 1.5 | 3 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | DOOR HOLDERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 1.5 | 5 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | SMOKE DAMPERS 2,4,6 | 1 | 20 | 2 | 10 | 10 | 3/4 | 0.6 |
| | 7 | SPACE | 1 | | | | | | 8 | SPACE | 1 | | | | | | |
| | 9 | SPACE | 1 | | | | | | 10 | SPACE | 1 | | | | | | |
| | 11 | SPACE | 1 | | | | | | 12 | SPACE | 1 | | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 15 | SPACE | 1 | | | | | | 16 | - | - | - | - | - | - | - | |
| | 17 | SPACE | 1 | | | | | | 18 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 5.9 KVA — KVA PER PHASE: A 1.9 B 1.9 C 2.1

### FUSIBLE PANEL E1L1E

VOLTAGE: 480/277, 3PH, 4W — MOUNTING: SURFACE — LOCATION: 1ST FLR EAST ELEC CLOSET

200 AMPERE BUS — 200 A MAIN SWITCH — 100% RATED NEUTRAL BUS — 50,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 0.2 | 1 | CORRIDOR EMER LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | LC-19 CONTROL CKT | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.1 |
| 0.1 | 3 | EXIT SIGNS | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | ELEC SHOP EMER LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.4 | 5 | EMER LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | SHOP EXIT SIGNS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.1 |
| 0.3 | 7 | LOBBY EMER LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | MASONRY EMER LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 9 | EXTERIOR EMER LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | SPARE | 1 | 20 | | | | | |
| 0.5 | 11 | LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | SPARE | 1 | 20 | | | | | |
| 0.5 | 13 | PLUMBING EMER LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | SPACE | 1 | | | | | | |
| | 15 | SPARE | 1 | 20 | | | | | 16 | SPACE | 1 | | | | | | |
| | 17 | SPARE | 1 | 20 | | | | | 18 | SPACE | 1 | | | | | | |
| 12.0 | 19 | PANEL E1C1E | 3 | 60 | REFER TO XFMR SCHEDULE | | | | 20 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| 11.3 | 21 | VIA XFMR TE1C1E | - | - | - | - | - | - | 22 | - | - | - | - | - | - | - | |
| 9.8 | 23 | - | - | - | - | - | - | - | 24 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 37.1 KVA — KVA PER PHASE: A 13.7 B 12.6 C 10.8

### PANEL E1C1E

VOLTAGE: 208/120, 3PH, 4W — MOUNTING: SURFACE — LOCATION: 1ST FLR EAST ELEC CLOSET

60 AMPERE BUS — 100 A MAIN FUSE — 100% RATED NEUTRAL BUS — A.I.C.

| CONN | | | FUSE | | CIRCUIT WIRING | | | | | | FUSE | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 1.5 | 1 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | FIRE SUPPRESSION SYS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 3 | FIRE SUPPRESSION SYS | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | FIRE SUPPRESSION SYS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 5 | FIRE SUPPRESSION SYS | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | FIRE SUPPRESSION SYS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 7 | FIRE SUPPRESSION SYS | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | FIRE SUPPRESSION SYS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 9 | FIRE SUPPRESSION SYS | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | DPAC-1 | 2 | 15 | 2 | 12 | 12 | 3/4 | 0.8 |
| 1.5 | 11 | FIRE SUPPRESSION SYS | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | - | - | - | - | - | - | - | 0.8 |
| 1.5 | 13 | FIRE SUPPRESSION SYS | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | FIRE SUPPRESSION SYS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 15 | FIRE SUPPRESSION SYS | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | FIRE SUPPRESSION SYS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 17 | FIRE SUPPRESSION SYS | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | FIRE SUPPRESSION SYS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 19 | FIRE SUPPRESSION SYS | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | FIRE SUPPRESSION SYS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 21 | FIRE SUPPRESSION SYS | 1 | 20 | 2 | 12 | 12 | 3/4 | 22 | FIRE SUPPRESSION SYS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.5 | 23 | FIRE SUPPRESSION SYS | 1 | 20 | 2 | 12 | 12 | 3/4 | 24 | SPARE | 1 | 20 | | | | | |
| | 25 | SPARE | 1 | 20 | | | | | 26 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 27 | SPARE | 1 | 20 | | | | | 28 | - | - | - | - | - | - | - | |
| | 29 | SPARE | 1 | 20 | | | | | 30 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 33.1 KVA — KVA PER PHASE: A 12.0 B 11.3 C 9.8

### FUSIBLE PANEL E1L1S

VOLTAGE: 480/277, 3PH, 4W — MOUNTING: SURFACE — LOCATION: 1ST FLR SOUTH ELEC CLOSET

60 AMPERE BUS — 60 A MAIN FUSE — 100% RATED NEUTRAL BUS — 50,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 0.1 | 1 | EXIT SIGNS | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | SPARE | 1 | 20 | | | | | |
| 0.2 | 3 | CORRIDOR EMER LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | SPARE | 1 | 20 | | | | | |
| 0.9 | 5 | EMER LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | EXTERIOR LTG | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.3 |
| 0.8 | 7 | CARPENTRY EMER LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | LC-17 CONTROL CKT | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.1 |
| 0.1 | 9 | SHOP EXIT SIGNS | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | SPARE | 1 | 20 | | | | | |
| 0.8 | 11 | IND MILL EMER LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | SPARE | 1 | 20 | | | | | |
| 0.6 | 13 | AUTO BODY EMER LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | SPACE | 1 | | | | | | |
| 0.8 | 15 | AUTO TECH EMER LTG | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | SPACE | 1 | | | | | | |
| 0.1 | 17 | SHOP EXIT SIGNS | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | SPACE | 1 | | | | | | |
| 1.5 | 19 | PANEL E1C1S | 3 | 30 | REFER TO XFMR SCHEDULE | | | | 20 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| 1.5 | 21 | VIA XFMR TE1C1S | - | - | - | - | - | - | 22 | - | - | - | - | - | - | - | |
| 1.5 | 23 | - | - | - | - | - | - | - | 24 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 9.3 KVA — KVA PER PHASE: A 3.1 B 2.6 C 3.6

### FUSIBLE PANEL E1C1S

VOLTAGE: 208/120, 3PH, 4W — MOUNTING: SURFACE — LOCATION: 1ST FLR SOUTH ELEC CLOSET

60 AMPERE BUS — 60 A MAIN FUSE — 200% RATED NEUTRAL BUS — 50,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 1.5 | 1 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | SPARE | 1 | 20 | | | | | |
| 1.5 | 3 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | SPARE | 1 | 20 | | | | | |
| 1.5 | 5 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | SPARE | 1 | 20 | | | | | |
| | 7 | SPACE | 1 | | | | | | 8 | SPACE | 1 | | | | | | |
| | 9 | SPACE | 1 | | | | | | 10 | SPACE | 1 | | | | | | |
| | 11 | SPACE | 1 | | | | | | 12 | SPACE | 1 | | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 15 | SPACE | 1 | | | | | | 16 | - | - | - | - | - | - | - | |
| | 17 | SPACE | 1 | | | | | | 18 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 4.5 KVA — KVA PER PHASE: A 1.5 B 1.5 C 1.5

### FUSIBLE PANEL E1L1N

VOLTAGE: 480/277, 3PH, 4W — MOUNTING: SURFACE — LOCATION: 1ST FLR NORTH ELEC CLOSET

60 AMPERE BUS — 60 A MAIN FUSE — 100% RATED NEUTRAL BUS — 50,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 0.4 | 1 | CORRIDOR EMER LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | LC-15 CONTROL CKT | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.1 |
| 0.5 | 3 | EXIT SIGNS | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | STAIR 4 EM LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.3 |
| 0.9 | 5 | EMER LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | EXTERIOR EM LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.1 |
| 0.5 | 7 | LOBBY/MEDIA CTR EM LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | STAIR 3/MR EM LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.3 |
| 0.1 | 9 | EXTERIOR EM LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | SPARE | 1 | 20 | | | | | |
| | 11 | SPARE | 1 | 20 | | | | | 12 | SPARE | 1 | 20 | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | SPACE | 1 | | | | | | |
| | 15 | SPACE | 1 | | | | | | 16 | SPACE | 1 | | | | | | |
| | 17 | SPACE | 1 | | | | | | 18 | SPACE | 1 | | | | | | |
| 2.1 | 19 | PANEL E1C2N | 3 | 30 | REFER TO XFMR SCHEDULE | | | | 20 | SPACE | 1 | | | | | | |
| 1.9 | 21 | VIA XFMR TE1C2N | - | - | - | - | - | - | 22 | SPACE | 1 | | | | | | |
| 1.5 | 23 | - | - | - | - | - | - | - | 24 | SPACE | 1 | | | | | | |
| 2.7 | 25 | PANEL E1C1N | 3 | 30 | REFER TO XFMR SCHEDULE | | | | 26 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| 2.0 | 27 | VIA XFMR TE1C1N | - | - | - | - | - | - | 22 | - | - | - | - | - | - | - | |
| 2.0 | 29 | - | - | - | - | - | - | - | 30 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 15.4 KVA — KVA PER PHASE: A 4.0 B 2.9 C 3.0

### FUSIBLE PANEL E1C1N

VOLTAGE: 208/120, 3PH, 4W — MOUNTING: SURFACE — LOCATION: 1ST FLR NORTH ELEC CLOSET

60 AMPERE BUS — 60 A MAIN FUSE — 200% RATED NEUTRAL BUS — 50,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 1.5 | 1 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | ELEVATOR CAB LT/FAN | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.5 | 3 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | ELEVATOR CONTROLS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| 1.5 | 5 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | ELEVATOR SHUNT TRIP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| 0.2 | 7 | SMOKE DAMPER | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | SPACE | 1 | | | | | | |
| | 9 | SPARE | 1 | 20 | | | | | 10 | SPACE | 1 | | | | | | |
| | 11 | SPARE | 1 | 20 | | | | | 12 | SPACE | 1 | | | | | | |
| | 13 | SPARE | 1 | 20 | | | | | 14 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 15 | SPACE | 1 | | | | | | 16 | - | - | - | - | - | - | - | |
| | 17 | SPACE | 1 | | | | | | 18 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 6.7 KVA — KVA PER PHASE: A 2.7 B 2.0 C 2.0

### FUSIBLE PANEL E1L1W

VOLTAGE: 480/277, 3PH, 4W — MOUNTING: SURFACE — LOCATION: 1ST FLR WEST ELEC CLOSET

60 AMPERE BUS — 60 A MAIN FUSE — 100% RATED NEUTRAL BUS — 50,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 0.3 | 1 | CORRIDOR EMER LTG | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | STAIR EMER LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| 0.1 | 3 | EXIT SIGNS | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | STAIR EMER LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| 0.8 | 5 | EMER LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | EXTERIOR EMER LTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.1 |
| | 7 | SPARE | 1 | 20 | | | | | 8 | LC-21 CONTROL CKT | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.1 |
| | 9 | SPARE | 1 | 20 | | | | | 10 | SPACE | 1 | | | | | | |
| | 11 | SPARE | 1 | 20 | | | | | 12 | SPACE | 1 | | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | SPACE | 1 | | | | | | |
| | 15 | SPACE | 1 | | | | | | 16 | SPACE | 1 | | | | | | |
| | 17 | SPACE | 1 | | | | | | 18 | SPACE | 1 | | | | | | |
| 1.5 | 19 | PANEL E1C1W | 3 | 30 | REFER TO XFMR SCHEDULE | | | | 20 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| 1.5 | 21 | VIA XFMR TE1C1W | - | - | - | - | - | - | 22 | - | - | - | - | - | - | - | |
| 1.7 | 23 | - | - | - | - | - | - | - | 24 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 6.5 KVA — KVA PER PHASE: A 2.1 B 1.8 C 2.6

### FUSIBLE PANEL E1C1W

VOLTAGE: 208/120, 3PH, 4W — MOUNTING: SURFACE — LOCATION: 1ST FLR WEST ELEC CLOSET

60 AMPERE BUS — 60 A MAIN FUSE — 200% RATED NEUTRAL BUS — 50,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 1.5 | 1 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | SPARE | 1 | 20 | | | | | |
| 1.5 | 3 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | SPARE | 1 | 20 | | | | | |
| 1.5 | 5 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | SMOKE DAMPER 7 | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| | 7 | SPACE | 1 | | | | | | 8 | SPACE | 1 | | | | | | |
| | 9 | SPACE | 1 | | | | | | 10 | SPACE | 1 | | | | | | |
| | 11 | SPACE | 1 | | | | | | 12 | SPACE | 1 | | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 15 | SPACE | 1 | | | | | | 16 | - | - | - | - | - | - | - | |
| | 17 | SPACE | 1 | | | | | | 18 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 4.7 KVA — KVA PER PHASE: A 1.5 B 1.5 C 1.7

### FUSIBLE PANEL E1L2E

VOLTAGE: 480/277, 3PH, 4W — MOUNTING: SURFACE — LOCATION: 2ND FLR EAST ELEC CLOSET

60 AMPERE BUS — 60 A MAIN FUSE — 100% RATED NEUTRAL BUS — 50,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 0.1 | 1 | EXIT SIGNS | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | SPARE | 1 | 20 | | | | | |
| 0.1 | 3 | CORRIDOR EM LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | SPARE | 1 | 20 | | | | | |
| 0.2 | 5 | EMERGENCY LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | SPARE | 1 | 20 | | | | | |
| | 7 | SPARE | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | SPACE | 1 | | | | | | |
| | 9 | SPARE | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | SPACE | 1 | | | | | | |
| | 11 | SPARE | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | SPACE | 1 | | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | PANEL E1C2E | 3 | 30 | REFER TO XFMR SCHEDULE | | | | 1.5 |
| | 15 | SPACE | 1 | | | | | | 16 | VIA XFMR TE1C2E | - | - | - | - | - | - | 1.9 |
| | 17 | SPACE | 1 | | | | | | 18 | - | - | - | - | - | - | - | 3.0 |
| 2.1 | 19 | PANEL E1C2N | 3 | 30 | REFER TO XFMR SCHEDULE | | | | 20 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| 1.9 | 21 | VIA XFMR TE1C2N | - | - | - | - | - | - | 22 | - | - | - | - | - | - | - | |
| 1.5 | 23 | - | - | - | - | - | - | - | 24 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 12.3 KVA — KVA PER PHASE: A 3.7 B 3.9 C 4.7

### FUSIBLE PANEL E1C2E

VOLTAGE: 208/120, 3PH, 4W — MOUNTING: SURFACE — LOCATION: 2ND FLR EAST ELEC CLOSET

60 AMPERE BUS — 60 A MAIN FUSE — 200% RATED NEUTRAL BUS — 50,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 1.5 | 1 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | SPARE | 1 | 20 | | | | | |
| 1.5 | 3 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | SMOKE DAMPERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 1.5 | 5 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | DAS ROOFTOP AMP | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| | 7 | SPACE | 1 | | | | | | 8 | SPACE | 1 | | | | | | |
| | 9 | SPACE | 1 | | | | | | 10 | SPACE | 1 | | | | | | |
| | 11 | SPACE | 1 | | | | | | 12 | SPACE | 1 | | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 15 | SPACE | 1 | | | | | | 16 | - | - | - | - | - | - | - | |
| | 17 | SPACE | 1 | | | | | | 18 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 6.4 KVA — KVA PER PHASE: A 1.5 B 1.9 C 3.0

### FUSIBLE PANEL E1C2N

VOLTAGE: 208/120, 3PH, 4W — MOUNTING: SURFACE — LOCATION: 2ND FLR NORTH ELEC CLOSET

60 AMPERE BUS — 60 A MAIN FUSE — 200% RATED NEUTRAL BUS — 50,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 1.5 | 1 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | SMOKE DAMPERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 1.5 | 3 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | SMOKE DAMPERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| 1.5 | 5 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | SPARE | 1 | 20 | | | | | |
| | 7 | SPACE | 1 | | | | | | 8 | SPACE | 1 | | | | | | |
| | 9 | SPACE | 1 | | | | | | 10 | SPACE | 1 | | | | | | |
| | 11 | SPACE | 1 | | | | | | 12 | SPACE | 1 | | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 15 | SPACE | 1 | | | | | | 16 | - | - | - | - | - | - | - | |
| | 17 | SPACE | 1 | | | | | | 18 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 5.5 KVA — KVA PER PHASE: A 2.1 B 1.9 C 1.5

### FUSIBLE PANEL E1L2S

VOLTAGE: 480/277, 3PH, 4W — MOUNTING: SURFACE — LOCATION: 2ND FLR WEST ELEC CLOSET

60 AMPERE BUS — 60 A MAIN FUSE — 100% RATED NEUTRAL BUS — 50,000 A.I.C.

| CONN | | | BREAKER | | CIRCUIT WIRING | | | | | | BREAKER | | CIRCUIT WIRING | | | | CONN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KVA | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | CKT | DESCRIPTION | P | AMPS | NO | SIZE | GND | C | KVA |
| 0.4 | 1 | CORRIDOR EM LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | SPARE | 1 | 20 | | | | | |
| 0.1 | 3 | EXIT SIGNS | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | SPARE | 1 | 20 | | | | | |
| 0.9 | 5 | EMERGENCY LIGHTING | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | SPARE | 1 | 20 | | | | | |
| | 7 | SPARE | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | SPACE | 1 | | | | | | |
| | 9 | SPARE | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | SPACE | 1 | | | | | | |
| | 11 | SPARE | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | SPACE | 1 | | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | PANEL E1C2S | 3 | 30 | REFER TO XFMR SCHEDULE | | | | 1.5 |
| | 15 | SPACE | 1 | | | | | | 16 | VIA XFMR TE1C2S | - | - | - | - | - | - | 1.5 |
| | 17 | SPACE | 1 | | | | | | 18 | - | - | - | - | - | - | - | 1.9 |
| | 19 | SPACE | 1 | | | | | | 20 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 21 | SPACE | 1 | | | | | | 22 | - | - | - | - | - | - | - | |
| | 23 | SPACE | 1 | | | | | | 24 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 6.3 KVA — KVA PER PHASE: A 1.9 B 1.6 C 2.8

| E1DL | E1L1E | E1L1W |
|---|---|---|
| E1CM | E1C1E | E1C1W |
| E1LA | E1L1S | E1L2E |
| E1CA | E1C1S | E1C2E |
| E1LG | E1L1N | E1C2N |
| E1CG | E1C1N | E1L2S |

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN


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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

2575 GLASGOW AVENUE
NEWARK, DE 19702

SHEET TITLE

PANEL SCHEDULES

SHEET NO.

E616

**LOADCENTER LC-# (TYPICAL 1 THROUGH 5)** — MOUNTING: SURFACE
VOLTAGE: 120/240V, 1PH, 3W — LOCATION: ELEC SHOP
60 AMPERE BUS — 60 A MLO — 100% RATED NEUTRAL BUS — 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | CABLE | 2 | 15GFI | 2 | 10 | 10 | 3/4 | 2 | CABLE | 1 | 20GFI | 2 | 10 | 10 | 3/4 | |
| | 3 | - | - | - | - | - | - | - | 4 | SPARE | 1 | 20GFI | | | | | |
| | 5 | CABLE | 2 | 30GFI | 2 | 10 | 10 | 3/4 | 6 | RECP BELOW LC | 1 | 20GFI | 2 | 12 | 12 | 3/4 | |
| | 7 | - | - | - | - | - | - | - | 8 | SPACE | 1 | | | | | | |

TOTAL CONNECTED LOAD: 0.0 KVA — KVA PER PHASE: A 0.0 B 0.0

**SEALED UNIT SUBSTATION PZ1** — SQ D MINIPOWER ZONE 5KVA, 480V PRIMARY — MOUNTING: SURFACE 3R ENCLOSURE
VOLTAGE: 120/240, 1 PHASE, 3 WIRE SECONDARY — LOCATION: EXTERIOR SCOREBOARD
15 A PRIMARY MCB — 18,000 A.I.C.
60 AMPERE BUS LOADCENTER — 30 A SECONDARY CB — 100% RATED NEUTRAL BUS — 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.5 | 1 | SCOREBOARD | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | SPARE | 1 | 20 | | | | | |
| 1.5 | 3 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | SPARE | 1 | 20 | | | | | |
| | 5 | SPARE | 1 | 20 | | | | | 6 | SPACE | 1 | | | | | | |
| | 7 | SPARE | 1 | 20 | | | | | 8 | SPACE | 1 | | | | | | |
| | 9 | SPACE | 1 | | | | | | 10 | SPACE | 1 | | | | | | |
| | 11 | SPACE | 1 | | | | | | 12 | SPACE | 1 | | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | SPACE | 1 | | | | | | |
| | 15 | SPACE | 1 | | | | | | 16 | SPACE | 1 | | | | | | |
| | 17 | SPACE | 1 | | | | | | 18 | SPACE | 1 | | | | | | |
| | 19 | SPACE | 1 | | | | | | 20 | SPACE | 1 | | | | | | |

TOTAL CONNECTED LOAD 3.0 KVA — A 1.5 — C 1.5

**SEALED UNIT SUBSTATION PZ2** — SQ D MINIPOWER ZONE 5KVA, 480V PRIMARY — MOUNTING: SURFACE 3R ENCLOSURE
VOLTAGE: 120/240, 1 PHASE, 3 WIRE SECONDARY — LOCATION: EXTERIOR SCOREBOARD 2
15 A PRIMARY MCB — 18,000 A.I.C.
60 AMPERE BUS LOADCENTER — 30 A SECONDARY CB — 100% RATED NEUTRAL BUS — 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.5 | 1 | SCOREBOARD | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | SPARE | 1 | 20 | | | | | |
| 1.5 | 3 | RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | SPARE | 1 | 20 | | | | | |
| | 5 | SPARE | 1 | 20 | | | | | 6 | SPACE | 1 | | | | | | |
| | 7 | SPARE | 1 | 20 | | | | | 8 | SPACE | 1 | | | | | | |
| | 9 | SPACE | 1 | | | | | | 10 | SPACE | 1 | | | | | | |
| | 11 | SPACE | 1 | | | | | | 12 | SPACE | 1 | | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | SPACE | 1 | | | | | | |
| | 15 | SPACE | 1 | | | | | | 16 | SPACE | 1 | | | | | | |
| | 17 | SPACE | 1 | | | | | | 18 | SPACE | 1 | | | | | | |
| | 19 | SPACE | 1 | | | | | | 20 | SPACE | 1 | | | | | | |

TOTAL CONNECTED LOAD 3.0 KVA — A 1.5 — C 1.5

**SEALED UNIT SUBSTATION PZ3** — SQ D MINIPOWER ZONE 5KVA, 480V PRIMARY — MOUNTING: SURFACE 3R ENCLOSURE
VOLTAGE: 120/240, 1 PHASE, 3 WIRE SECONDARY — LOCATION: DUGOUT
15 A PRIMARY MCB — 18,000 A.I.C.
60 AMPERE BUS LOADCENTER — 30 A SECONDARY CB — 100% RATED NEUTRAL BUS — 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.5 | 1 | BATTING CAGE RECP | 1 | 20 | 2 | 12 | 12 | 1 | 2 | DUGOUT RECPS | 1 | 20 | 2 | 12 | 12 | 1 | 0.4 |
| 1.5 | 3 | BATTING CAGE RECP | 1 | 20 | 2 | 10 | 10 | 1 | 4 | DUGOUT RECPS | 1 | 20 | 2 | 10 | 10 | 1 | 0.4 |
| | 5 | SPARE | 1 | 20 | | | | | 6 | SPACE | 1 | | | | | | |
| | 7 | SPARE | 1 | 20 | | | | | 8 | SPACE | 1 | | | | | | |
| | 9 | SPACE | 1 | | | | | | 10 | SPACE | 1 | | | | | | |
| | 11 | SPACE | 1 | | | | | | 12 | SPACE | 1 | | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | SPACE | 1 | | | | | | |
| | 15 | SPACE | 1 | | | | | | 16 | SPACE | 1 | | | | | | |
| | 17 | SPACE | 1 | | | | | | 18 | SPACE | 1 | | | | | | |
| | 19 | SPACE | 1 | | | | | | 20 | SPACE | 1 | | | | | | |

TOTAL CONNECTED LOAD 3.8 KVA — A 1.9 — C 1.9

**SEALED UNIT SUBSTATION PZ4** — SQ D MINIPOWER ZONE 5KVA, 480V PRIMARY — MOUNTING: SURFACE 3R ENCLOSURE
VOLTAGE: 120/240, 1 PHASE, 3 WIRE SECONDARY — LOCATION: DUGOUT
15 A PRIMARY MCB — 18,000 A.I.C.
60 AMPERE BUS LOADCENTER — 30 A SECONDARY CB — 100% RATED NEUTRAL BUS — 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | SPARE | 1 | 20 | | | | | 2 | DUGOUT RECPS | 1 | 20 | 2 | 12 | 12 | 1 | 0.4 |
| | 3 | SPARE | 1 | 20 | | | | | 4 | DUGOUT RECPS | 1 | 20 | 2 | 12 | 12 | 1 | 0.4 |
| | 5 | SPARE | 1 | 20 | | | | | 6 | SPACE | 1 | | | | | | |
| | 7 | SPARE | 1 | 20 | | | | | 8 | SPACE | 1 | | | | | | |
| | 9 | SPACE | 1 | | | | | | 10 | SPACE | 1 | | | | | | |
| | 11 | SPACE | 1 | | | | | | 12 | SPACE | 1 | | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | SPACE | 1 | | | | | | |
| | 15 | SPACE | 1 | | | | | | 16 | SPACE | 1 | | | | | | |
| | 17 | SPACE | 1 | | | | | | 18 | SPACE | 1 | | | | | | |
| | 19 | SPACE | 1 | | | | | | 20 | SPACE | 1 | | | | | | |

TOTAL CONNECTED LOAD 0.8 KVA — A 0.4 — C 0.4

**FUSIBLE PANEL E1LM** — MOUNTING: SURFACE
VOLTAGE: 480/277, 3PH, 4W — LOCATION: EMER ELEC RM
100 AMPERE BUS — 60 A MAIN FUSE — 100% RATED NEUTRAL BUS — 50,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.3 | 1 | CORRIDOR EMER LTG | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | CAFETERIA EXIT SIGNS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| 0.2 | 3 | EXIT SIGNS | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | CAFETERIA EMER LTG | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| 1.5 | 5 | EMER LTG | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | EXTERIOR LTG | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.1 |
| 0.2 | 7 | EMER LTG | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | SPACE | 1 | | | | | | |
| | 9 | SPARE | 1 | 20 | | | | | 10 | SPACE | 1 | | | | | | |
| | 11 | SPARE | 1 | 20 | | | | | 12 | LC-1 CONTROL CKT | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.1 |
| 0.5 | 13 | JOCKEY PUMP | 3 | 15 | 3 | 12 | 12 | 3/4 | 14 | SPACE | 1 | | | | | | |
| 0.5 | 15 | - | - | - | - | - | - | - | 16 | SPACE | 1 | | | | | | |
| 0.5 | 17 | - | - | - | - | - | - | - | 18 | SPACE | 1 | | | | | | |
| | 19 | SPACE | 1 | | | | | | 20 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 21 | SPACE | 1 | | | | | | 22 | - | - | - | - | - | - | - | |
| | 23 | SPACE | 1 | | | | | | 24 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 5.1 KVA — KVA PER PHASE: A 1.2 B 1.7 C 2.2

**FUSIBLE PANEL E1C2S** — MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 2ND FLR WEST ELEC CLOSET
60 AMPERE BUS — 60 A MAIN FUSE — 200% RATED NEUTRAL BUS — 50,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.5 | 1 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | SPARE | 1 | 20 | | | | | |
| 1.5 | 3 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | SPARE | 1 | 20 | | | | | |
| 1.5 | 5 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | SMOKE DAMPERS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.4 |
| | 7 | SPACE | 1 | | | | | | 8 | SPACE | 1 | | | | | | |
| | 9 | SPACE | 1 | | | | | | 10 | SPACE | 1 | | | | | | |
| | 11 | SPACE | 1 | | | | | | 12 | SPACE | 1 | | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 15 | SPACE | 1 | | | | | | 16 | - | - | - | - | - | - | - | |
| | 17 | SPACE | 1 | | | | | | 18 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 4.9 KVA — KVA PER PHASE: A 1.5 B 1.5 C 1.9

**FUSIBLE PANEL E1C2W** — MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 2ND FLR WEST ELEC CLOSET
60 AMPERE BUS — 60 A MAIN FUSE — 200% RATED NEUTRAL BUS — 50,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.5 | 1 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | SPARE | 1 | 20 | | | | | |
| 1.5 | 3 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | SPARE | 1 | 20 | | | | | |
| 1.5 | 5 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | SMOKE DAMPER | 1 | 20 | 2 | 12 | 12 | 3/4 | |
| | 7 | SPACE | 1 | | | | | | 8 | SPACE | 1 | | | | | | |
| | 9 | SPACE | 1 | | | | | | 10 | SPACE | 1 | | | | | | |
| | 11 | SPACE | 1 | | | | | | 12 | SPACE | 1 | | | | | | |
| | 13 | SPACE | 1 | | | | | | 14 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 15 | SPACE | 1 | | | | | | 16 | - | - | - | - | - | - | - | |
| | 17 | SPACE | 1 | | | | | | 18 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 4.5 KVA — KVA PER PHASE: A 1.5 B 1.5 C 1.5

**PANEL C21SA** — MOUNTING: SURFACE
VOLTAGE: 208/120, 3PH, 4W — LOCATION: 1ST FLOOR SOUTH MEZZANINE
100 AMPERE BUS — 60 A MCB — 200% RATED NEUTRAL BUS — 10,000 A.I.C.

| CONN KVA | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CKT | DESCRIPTION | BREAKER P | AMPS | CIRCUIT WIRING NO | SIZE | GND | C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.8 | 1 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.6 | 3 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.6 | 5 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| 0.8 | 7 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.6 | 9 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | RECPS - ROOF | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| 0.8 | 11 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.0 |
| | 13 | SPARE | 1 | 20 | | | | | 14 | RECPS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| | 15 | SPARE | 1 | 20 | | | | | 16 | AUTOTECH EPO | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| | 17 | SPARE | 1 | 20 | | | | | 18 | AUTOBODY EPO | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.6 |
| | 19 | SPARE | 1 | 20 | | | | | 20 | SPARE | 1 | 20 | | | | | |
| | 21 | SPACE | 1 | | | | | | 22 | SPACE | 1 | | | | | | |
| | 23 | SPACE | 1 | | | | | | 24 | SPACE | 1 | | | | | | |
| 0.4 | 25 | RECP CONTROL ZONE C5 | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 27 | MOTORIZED GATE | 2 | 30 | 2 | 10 | 10 | 1 | 28 | - | - | - | - | - | - | - | |
| | 29 | (VIA CONTROL PWR XFMR) | - | - | - | - | - | - | 30 | - | - | - | - | - | - | - | |

TOTAL CONNECTED LOAD 10.6 KVA — KVA PER PHASE: A 4.2 B 2.8 C 3.6

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN

LC-# | E1LM
PZ1 | E1C2S
PZ2 | E1C2W
PZ3 | C21SA
PZ4

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The professional services of ABHA/BSA+A, LLC. are undertaken for and performed in the interest of the NCCVT School District. No contractual obligation is assumed by ABHA/BSA+A, LLC. for the benefit of any other person involved in the project.

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE
**PANEL SCHEDULES**

SHEET NO.
**E617**

## THEATER AV DEVICE SCHEDULE

| ID | DESCRIPTION | LOCATION | MOUNT | HEIGHT | BACKBOX SIZE | PANEL SIZE | CONDUIT HOMERUN DESTINATION | CONDUIT HOMERUN SIZE/QUANTITY | |
|---|---|---|---|---|---|---|---|---|---|
| C11 | MULTIPLE SIGNAL COMBO PANEL | DOWNSTAGE RIGHT | RECESSED | 12" AFF | 12" X 8" X 4" | 14 X 10 | ER1 EQUIPMENT RACK | (3) 3/4", (1) 1" | HOFFMAN ASE-SERIES STANDARD JB |
| | 20A 120V IG QUAD RECP | | RECESSED | | 2-GANG | | REFER TO FLOOR PLANS | | |
| C12 | MULTIPLE SIGNAL COMBO PANEL | DOWNSTAGE LEFT | RECESSED | 12" AFF | 10" X 8" X 4" | 12 X 10 | ER1 EQUIPMENT RACK | (3) 3/4", (1) 1" | HOFFMAN ASE-SERIES STANDARD JB |
| | 20A 120V IG QUAD RECP | | RECESSED | | 2-GANG | | REFER TO FLOOR PLANS | | |
| C13 | MULTIPLE SIGNAL COMBO PANEL | UPSTAGE RIGHT | RECESSED | 12" AFF | 8" X 8" X 4" | 10 X 10 | ER1 EQUIPMENT RACK | (3) 3/4", (1) 1" | HOFFMAN ASE-SERIES STANDARD JB |
| | 20A 120V IG QUAD RECP | | RECESSED | | 2-GANG | | REFER TO FLOOR PLANS | | |
| C14 | MULTIPLE SIGNAL COMBO PANEL | UPSTAGE LEFT | RECESSED | 12" AFF | 8" X 8" X 4" | 10 X 10 | ER1 EQUIPMENT RACK | (3) 3/4", (1) 1" | HOFFMAN ASE-SERIES STANDARD JB |
| | 20A 120V IG QUAD RECP | | RECESSED | | 2-GANG | | REFER TO FLOOR PLANS | | |
| C15 | MULTIPLE SIGNAL COMBO PANEL | MIX POSITION | FLOOR BOX | FLOOR | 12" X 10" X 6" | 8.25 X 4.5/5.375 X 4.5 | ER1 EQUIPMENT RACK | (2) 3/4", (1) 1" | FSR FL-500P FLOOR BOX |
| | 20A 120V IG DUPLEX RECP | | FLOOR BOX | | 1-GANG | | REFER TO FLOOR PLANS | | |
| C16 | MULTIPLE SIGNAL COMBO PANEL | HOUSE REAR LEFT | RECESSED | 12" AFF | 8" X 8" X 4" | 10 X 10 | ER1 EQUIPMENT RACK | (1) 3/4", (1) 1" | HOFFMAN ASE-SERIES STANDARD JB |
| | 20A 120V IG QUAD RECP | | RECESSED | | 2-GANG | | REFER TO FLOOR PLANS | | |
| C17 | MULTIPLE SIGNAL COMBO PANEL | HOUSE REAR RIGHT | RECESSED | 12" AFF | 8" X 8" X 4" | 10 X 10 | ER1 EQUIPMENT RACK | (2) 3/4", (1) 1" | HOFFMAN ASE-SERIES STANDARD JB |
| | 20A 120V IG QUAD RECP | | RECESSED | | 2-GANG | | REFER TO FLOOR PLANS | | |
| C18 | MULTIPLE SIGNAL COMBO PANEL | MP ROOM 1 | FLOOR BOX | FLOOR | 12" X 10" X 6" | 8.25 X 4.5/5.375 X 4.5 | ER1 EQUIPMENT RACK | (1) 3/4", (1) 1" | FSR FL-500P FLOOR BOX |
| | 20A 120V IG DUPLEX RECP | | FLOOR BOX | | 1-GANG | | REFER TO FLOOR PLANS | | |
| C19 | MULTIPLE SIGNAL COMBO PANEL | MP ROOM 1 | FLOOR BOX | FLOOR | 12" X 10" X 6" | 8.25 X 4.5/5.375 X 4.5 | ER1 EQUIPMENT RACK | (1) 3/4", (1) 1" | FSR FL-500P FLOOR BOX |
| | 20A 120V IG DUPLEX RECP | | FLOOR BOX | | 1-GANG | | REFER TO FLOOR PLANS | | |
| A2 | 2 CH MICRO PNL SVC DEVICE #101 | FOH LX PIPE | PIPE | PIPE | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| ANT | RF ANTENNA PNL SVC DEVICE #101 | STAGE RIGHT | RECESSED | 120" AFF | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| ANT | HDMI INPUT PNL SVC DEVICE #102 | STAGE RIGHT | RECESSED | 120" AFF | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| ANT | RF ANTENNA PNL SVC DEVICE #201 | HOUSE RIGHT | RECESSED | 29" AFF | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| PRJ | PROJECTOR PNL SVC DEVICE #101 | PROJECTOR | RECESSED | 132" AFF | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| | 20A 120V IG DUPLEX RECP | | RECESSED | | 1-GANG | | REFER TO FLOOR PLANS | | |
| HD | HDMI INPUT PNL SVC DEVICE #101 | STAGE RIGHT | RECESSED | 60" AFF | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| ICW | WIRELESS INTERCOM SVC DEVICE #101 | STAGE RIGHT | RECESSED | 120" AFF | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| SC | SCREEN CTRL PNL SVC DEVICE #101 | STAGE RIGHT | RECESSED | 60" AFF | 1-GANG 3"D | 1-GANG | PROJECTOR SCREEN | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| SC | SCREEN CTRL PNL SVC DEVICE #102 | PROJECTOR SCREEN | J-BOX | @SCREEN | N/A | | SC-101 | (1) 3/4" | |
| | 20A 120V IG DUPLEX RECP | | | | N/A | | REFER TO FLOOR PLANS | | |
| TP | TOUCH PNL SVC DEVICE #101 | MP ROOM 1 | RECESSED | 48" AFF | 2-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| TP | TOUCH PNL SVC DEVICE #102 | MP ROOM 2 | RECESSED | 48" AFF | 2-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| S1 | SINGLE LOUDSPEAKER PNL SVC DEVICE #101 | LEFT PROSC | RECESSED | 18" AFF | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| S1 | SINGLE LOUDSPEAKER PNL SVC DEVICE #102 | RIGHT PROSC | RECESSED | 18" AFF | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| S1 | SINGLE LOUDSPEAKER PNL SVC DEVICE #103 | REAR SEATING | SURFACE | TBD | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| S1 | SINGLE LOUDSPEAKER PNL SVC DEVICE #104 | REAR SEATING | SURFACE | TBD | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| S1 | SINGLE LOUDSPEAKER PNL SVC DEVICE #105 | REAR SEATING | SURFACE | TBD | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| S1 | SINGLE LOUDSPEAKER PNL SVC DEVICE #106 | REAR SEATING | SURFACE | TBD | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| S1 | SINGLE LOUDSPEAKER PNL SVC DEVICE #201 | SUB | SURFACE | CEILING | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| S2 | DUAL LOUDSPEAKER PNL SVC DEVICE #201 | CENTER PROSC | RECESSED | 22" AFF | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| ER1 | (4) 20A 120V IG QUAD RECPS | AT RACK | | VARIES | | | REFER TO FLOOR PLANS | | PROVIDE JBOX FOR POWER TIE-IN TO RACK POWER RACEWAY & POWER SEQUENCER |

**NOTES:**
1 PROVIDE DIELECTRIC FITTINGS FOR ALL A/V CONDUITS AT AUDIO EQUIPMENT RACK ER1. ALL CONDUITS ARE NOT BONDED TO THE AUDIO EQUIOPMENT RACK PER NEC 640.23(B)

## THEATRICAL LIGHTING DEVICE SCHEDULE

| ID | DESCRIPTION | LOCATION | MOUNT | HEIGHT | BACKBOX SIZE | PANEL SIZE | CONDUIT HOMERUN DESTINATION | CONDUIT HOMERUN SIZE/QUANTITY | |
|---|---|---|---|---|---|---|---|---|---|
| C11 | MULTIPLE SIGNAL COMBO PANEL | DOWNSTAGE RIGHT | RECESSED | 12" AFF | 12" X 8" X 4" | 14 X 10 | ER1 EQUIPMENT RACK | (2) 3/4", (1) 1" | HOFFMAN ASE-SERIES STANDARD JB |
| | 20A 120V IG QUAD RECP | | RECESSED | | 2-GANG | | REFER TO FLOOR PLANS | | |
| C12 | MULTIPLE SIGNAL COMBO PANEL | DOWNSTAGE LEFT | RECESSED | 12" AFF | 10" X 8" X 4" | 12 X 10 | ER1 EQUIPMENT RACK | (2) 3/4", (1) 1" | HOFFMAN ASE-SERIES STANDARD JB |
| | 20A 120V IG QUAD RECP | | RECESSED | | 2-GANG | | REFER TO FLOOR PLANS | | |
| C13 | MULTIPLE SIGNAL COMBO PANEL | UPSTAGE RIGHT | RECESSED | 12" AFF | 8" X 8" X 4" | 10 X 10 | ER1 EQUIPMENT RACK | (2) 3/4", (1) 1" | HOFFMAN ASE-SERIES STANDARD JB |
| | 20A 120V IG QUAD RECP | | RECESSED | | 2-GANG | | REFER TO FLOOR PLANS | | |
| C14 | MULTIPLE SIGNAL COMBO PANEL | UPSTAGE LEFT | RECESSED | 12" AFF | 8" X 8" X 4" | 10 X 10 | ER1 EQUIPMENT RACK | (2) 3/4", (1) 1" | HOFFMAN ASE-SERIES STANDARD JB |
| | 20A 120V IG QUAD RECP | | RECESSED | | 2-GANG | | REFER TO FLOOR PLANS | | |
| C15 | MULTIPLE SIGNAL COMBO PANEL | MIX POSITION | FLOOR BOX | FLOOR | 12" X 10" X 6" | 8.25 X 4.5/5.375 X 4.5 | ER1 EQUIPMENT RACK | (1) 3/4", (1) 1" | FSR FL-500P FLOOR BOX |
| | 20A 120V IG DUPLEX RECP | | FLOOR BOX | | 1-GANG | | REFER TO FLOOR PLANS | | |
| C16 | MULTIPLE SIGNAL COMBO PANEL | HOUSE REAR LEFT | RECESSED | 12" AFF | 8" X 8" X 4" | 10 X 10 | ER1 EQUIPMENT RACK | (1) 3/4", (1) 1" | HOFFMAN ASE-SERIES STANDARD JB |
| | 20A 120V IG QUAD RECP | | RECESSED | | 2-GANG | | REFER TO FLOOR PLANS | | |
| C17 | MULTIPLE SIGNAL COMBO PANEL | HOUSE REAR RIGHT | RECESSED | 12" AFF | 8" X 8" X 4" | 10 X 10 | ER1 EQUIPMENT RACK | (1) 3/4", (1) 1" | HOFFMAN ASE-SERIES STANDARD JB |
| | 20A 120V IG QUAD RECP | | RECESSED | | 2-GANG | | REFER TO FLOOR PLANS | | |
| C18 | MULTIPLE SIGNAL COMBO PANEL | MP ROOM 1 | FLOOR BOX | FLOOR | 12" X 10" X 6" | 8.25 X 4.5/5.375 X 4.5 | ER1 EQUIPMENT RACK | (1) 3/4", (1) 1" | FSR FL-500P FLOOR BOX |
| | 20A 120V IG DUPLEX RECP | | FLOOR BOX | | 1-GANG | | REFER TO FLOOR PLANS | | |
| C19 | MULTIPLE SIGNAL COMBO PANEL | MP ROOM 1 | FLOOR BOX | FLOOR | 12" X 10" X 6" | 8.25 X 4.5/5.375 X 4.5 | ER1 EQUIPMENT RACK | (1) 3/4", (1) 1" | FSR FL-500P FLOOR BOX |
| | 20A 120V IG DUPLEX RECP | | FLOOR BOX | | 1-GANG | | REFER TO FLOOR PLANS | | |
| A2 | 2 CH MICRO PNL SVC DEVICE #101 | FOH LX PIPE | PIPE | PIPE | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| ANT | RF ANTENNA PNL SVC DEVICE #101 | STAGE RIGHT | RECESSED | 120" AFF | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| ANT | HDMI INPUT PNL SVC DEVICE #102 | STAGE RIGHT | RECESSED | 120" AFF | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| ANT | RF ANTENNA PNL SVC DEVICE #201 | HOUSE RIGHT | RECESSED | 29" AFF | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| PRJ | PROJECTOR PNL SVC DEVICE #101 | PROJECTOR | RECESSED | 132" AFF | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| | 20A 120V IG DUPLEX RECP | | RECESSED | | 1-GANG | | REFER TO FLOOR PLANS | | |
| HD | HDMI INPUT PNL SVC DEVICE #101 | STAGE RIGHT | RECESSED | 60" AFF | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| ICW | WIRELESS INTERCOM SVC DEVICE #101 | STAGE RIGHT | RECESSED | 120" AFF | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| SC | SCREEN CTRL PNL SVC DEVICE #101 | STAGE RIGHT | RECESSED | 60" AFF | 1-GANG 3"D | 1-GANG | PROJECTOR SCREEN | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| SC | SCREEN CTRL PNL SVC DEVICE #102 | PROJECTOR SCREEN | J-BOX | @SCREEN | N/A | | SC-101 | (1) 3/4" | |
| | 20A 120V IG DUPLEX RECP | | | | N/A | | REFER TO FLOOR PLANS | | |
| TP | TOUCH PNL SVC DEVICE #101 | MP ROOM 1 | RECESSED | 48" AFF | 2-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| TP | TOUCH PNL SVC DEVICE #102 | MP ROOM 2 | RECESSED | 48" AFF | 2-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| S1 | SINGLE LOUDSPEAKER PNL SVC DEVICE #101 | LEFT PROSC | RECESSED | 18" AFF | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| S1 | SINGLE LOUDSPEAKER PNL SVC DEVICE #102 | RIGHT PROSC | RECESSED | 18" AFF | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| S1 | SINGLE LOUDSPEAKER PNL SVC DEVICE #103 | REAR SEATING | SURFACE | TBD | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| S1 | SINGLE LOUDSPEAKER PNL SVC DEVICE #104 | REAR SEATING | SURFACE | TBD | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| S1 | SINGLE LOUDSPEAKER PNL SVC DEVICE #105 | REAR SEATING | SURFACE | TBD | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| S1 | SINGLE LOUDSPEAKER PNL SVC DEVICE #106 | REAR SEATING | SURFACE | TBD | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| S1 | SINGLE LOUDSPEAKER PNL SVC DEVICE #201 | SUB | SURFACE | CEILING | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| S2 | DUAL LOUDSPEAKER PNL SVC DEVICE #201 | CENTER PROSC | RECESSED | 22" AFF | 1-GANG 3"D | 1-GANG | ER1 EQUIPMENT RACK | (1) 3/4" | PROVIDE 3" DEEP BACKBOX |
| ER1 | (4) 20A 120V IG QUAD RECPS | AT RACK | | VARIES | | | REFER TO FLOOR PLANS | | PROVIDE JBOX FOR POWER TIE-IN TO RACK POWER RACEWAY & POWER SEQUENCER |

**NOTES:**
1 PROVIDE DIELECTRIC FITTINGS FOR ALL A/V CONDUITS AT AUDIO EQUIPMENT RACK ER1. ALL CONDUITS ARE NOT BONDED TO THE AUDIO EQUIOPMENT RACK PER NEC 640.23(B)

## PERFORMANCE & HOUSE LIGHTING RELAY PANEL RP-1S

**MOUNTING: SURFACE**
**VOLTAGE: 208/120, 3PH, 4W** — **LOCATION: AUDITORIUM AV CLOSET**
**200 AMPERE BUS** — **200 A MCB** — **200% RATED NEUTRAL BUS** — **10,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.8 | 1 | FOH ELEC RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | FOH ELEC RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 3 | FOH ELEC RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | FOH ELEC RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 5 | FOH ELEC RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 6 | FOH ELEC RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 7 | STAGE ELEC #1 RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 8 | STAGE ELEC #1 RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 9 | STAGE ELEC #1 RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 10 | STAGE ELEC #1 RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 11 | STAGE ELEC #1 RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 12 | STAGE ELEC #1 RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 13 | STAGE ELEC #1 RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 14 | STAGE ELEC #1 RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 15 | STAGE ELEC #1 RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 16 | STAGE ELEC #1 RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 17 | STAGE ELEC #1 RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 18 | STAGE ELEC #1 RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 19 | STAGE ELEC #2 RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 20 | STAGE ELEC #2 RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 21 | STAGE ELEC #2 RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 22 | STAGE ELEC #2 RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 23 | STAGE ELEC #2 RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 24 | STAGE ELEC #2 RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 25 | STAGE ELEC #2 RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 26 | STAGE ELEC #2 RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 27 | STAGE ELEC #2 RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 28 | STAGE ELEC #2 RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 29 | STAGE ELEC #2 RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 30 | STAGE ELEC #2 RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 31 | DOWNSTAGE LEFT RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 32 | DOWNSTAGE RIGHT RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 33 | UPSTAGE LEFT RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 34 | UPSTAGE RIGHT RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.8 | 35 | UPSTAGE LEFT RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 36 | UPSTAGE RIGHT RECP | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.4 | 37 | STAGE WORK LTG | 1 | 20 | 2 | 12 | 12 | 3/4 | 38 | SCONCES | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| 0.8 | 39 | HOUSE LTG FRONT AUD | 1 | 20 | 2 | 12 | 12 | 3/4 | 40 | HOUSE LTG BACK AUD | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.8 |
| 0.5 | 41 | MP RM 1 LTG | 1 | 20 | 2 | 12 | 12 | 3/4 | 42 | MP 2 LTG | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.5 |
| 0.8 | 43 | WALL LTG | 1 | 20 | 2 | 12 | 12 | 3/4 | 44 | AISLE LTG | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.2 |
| 0.1 | 45 | MP1 RM DOWNLTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 46 | MP1 RM DOWNLTS | 1 | 20 | 2 | 12 | 12 | 3/4 | 0.1 |
| 1.0 | 47 | VESTIBULE LTG | 1 | 20 | 2 | 12 | 12 | 3/4 | 48 | SPARE | 1 | 20 | | | | | |

**TOTAL CONNECTED LOAD** 32.7 KVA — KVA PER PHASE: A 9.4 B 9.3 C 9.5

## EMER LIGHTING TRANSFER RELAY PANEL ELTS-1S (FURNISHED BY OTHERS)

**MOUNTING: SURFACE**
**LOCATION: AUDITORIUM AV CLOSET**

| CONN KVA | CKT | DESCRIPTION | SWITCH P | SWITCH AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | SWITCH P | SWITCH AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | EMER HOUSE LTG | 1 | 20 | 2 | 12 | 12 | 3/4 | **2** | EMER HOUSE LTG | 1 | 20 | 2 | 12 | 12 | 3/4 | |
| | | NORMAL SOURCE | | | | RP-1S-39 | | | | NORMAL SOURCE | | | | RP-1S-40 | | | |
| | | EMERGENCY SOURCE | | | | E1CA | | | | EMERGENCY SOURCE | | | | E1CA | | | |
| | **3** | MP1 EMER LTG | 1 | 20 | 2 | 12 | 12 | 3/4 | **4** | MP2 EMER LTG | 1 | 20 | 2 | 12 | 12 | 3/4 | |
| | | NORMAL SOURCE | | | | RP-1S-41 | | | | NORMAL SOURCE | | | | RP-1S-42 | | | |
| | | EMERGENCY SOURCE | | | | E1CA | | | | EMERGENCY SOURCE | | | | E1CA | | | |
| | **5** | MP1 DNLTS EMER LTG | 1 | 20 | 2 | 12 | 12 | 3/4 | **6** | MP2 DNLTS EMER LTG | 1 | 20 | 2 | 12 | 12 | 3/4 | |
| | | NORMAL SOURCE | -1S-45 | | | | | | | NORMAL SOURCE | -1S-46 | | | | | | |
| | | EMERGENCY SOURCE | | | | E1CA | | | | EMERGENCY SOURCE | | | | E1CA | | | |
| | **7** | HOUSE EMER LTG | 1 | 20 | 2 | 12 | 12 | 3/4 | **8** | VESTIBULE EMER LTG | 1 | 20 | 2 | 12 | 12 | 3/4 | |
| | | NORMAL SOURCE | | | | RP-1S-37 | | | | NORMAL SOURCE | | | | RP-1S-47 | | | |
| | | EMERGENCY SOURCE | | | | E1CA | | | | EMERGENCY SOURCE | | | | E1CA | | | |
| | **9** | AISLE LTG | 1 | 20 | 2 | 12 | 12 | 3/4 | **10** | SPARE | 1 | 20 | | | | | |
| | | NORMAL SOURCE | | | | RP-1S-44 | | | | NORMAL SOURCE | | | | | | | |
| | | EMERGENCY SOURCE | | | | E1CA | | | | EMERGENCY SOURCE | | | | E1CA | | | |

## PANEL PB1S

**MOUNTING: SURFACE**
**VOLTAGE: 208/120, 3PH, 4W** — **LOCATION: BACKSTAGE**
**100 AMPERE BUS** — **100 A MCB** — **200% RATED NEUTRAL BUS** — **10,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.7 | 1 | PUB | 2 | 20 | 3 | 12 | 12 | 3/4 | 2 | PUB | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.7 | 3 | - | - | - | - | - | - | - | 4 | PUB | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.7 | 5 | PUB | 2 | 20 | 3 | 12 | 12 | 3/4 | 6 | PUB | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.7 | 7 | - | - | - | - | - | - | - | 8 | PUB | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.7 | 9 | PUB | 2 | 20 | 3 | 12 | 12 | 3/4 | 10 | PUB | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.7 | 11 | - | - | - | - | - | - | - | 12 | PUB | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.7 | 13 | PUB | 2 | 20 | 3 | 12 | 12 | 3/4 | 14 | PUB | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.7 | 15 | - | - | - | - | - | - | - | 16 | PUB | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 0.2 | 17 | RIGGING CTRL STATION | 2 | 20 | 2 | 12 | 12 | 3/4 | 18 | PUB | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.0 | 19 | RIGGING HOIST | 3 | 15 | 3 | 12 | 12 | 3/4 | 20 | PUB | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.0 | 21 | - | - | - | - | - | - | - | 22 | PUB | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |
| 1.0 | 23 | - | - | - | - | - | - | - | 24 | PUB | 1 | 20 | 2 | 12 | 12 | 3/4 | 1.5 |

**TOTAL CONNECTED LOAD** 34.8 **KVA** — KVA PER PHASE: A 12.1 B 12.1 C 10.6

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN

VOCATIONAL TECHNICAL SCHOOL DISTRICT — NEW CASTLE COUNTY DELAWARE

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The professional services of ABHA/BSA+A, LLC. are undertaken for and performed in the interest of the NCCVT School District. No contractual obligation is assumed by ABHA/BSA+A, LLC. for the benefit of any other person involved in the project.

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**PANEL SCHEDULES**

SHEET NO.

**E618**

RP-1S
ELTS-1S
PB1S

**PANEL HF** — MOUNTING: SURFACE
**VOLTAGE: 480/277, 3PH, 4W** — LOCATION: FIELDHOUSE
**400 AMPERE BUS** — **400 A MCB** — **100% RATED NEUTRAL BUS** — **25,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | | | | | | | | 2 | | | | | | | | |
| | 3 | | | | | | | | 4 | | | | | | | | |
| | 5 | | | | | | | | 6 | | | | | | | | |
| | 7 | | | | | | | | 8 | | | | | | | | |
| | 9 | | | | | | | | 10 | | | | | | | | |
| | 11 | | | | | | | | 12 | | | | | | | | |
| 1.9 | 13 | PZ3 (BASEBALL) | 2 | 15 | 2 | 6 | 8 | 1 | 14 | | | | | | | | |
| 1.9 | 15 | - | - | - | - | - | - | - | 16 | PZ4 (BASEBALL) | 2 | 15 | 2 | 6 | 8 | 1 | 0.4 |
| 1.5 | 17 | PZ2 (SCOREBOARD) | 2 | 15 | 2 | 6 | 8 | 1 | 18 | - | - | - | - | - | - | - | 0.4 |
| 1.5 | 19 | - | - | - | - | - | - | - | 20 | ERV-10 | 3 | 45 | 3 | 6 | 10 | 3/4 | 8.0 |
| 1.5 | 21 | PZ1 (SCOREBOARD) | 2 | 15 | 2 | 6 | 8 | 1 | 22 | - | - | - | - | - | - | - | 8.0 |
| 1.5 | 23 | - | - | - | - | - | - | - | 24 | - | - | - | - | - | - | - | 8.0 |
| | 25 | STADIUM LIGHTING | 3 | | | | | | 26 | STADIUM LIGHTING | 3 | | | | | | |
| | 27 | POLE #1 | - | - | - | - | - | - | 28 | POLE #2 | - | - | - | - | - | - | |
| | 29 | (VIA CONTROL PANEL) | - | - | - | - | - | - | 30 | (VIA CONTROL PANEL) | - | - | - | - | - | - | |
| | 31 | STADIUM LIGHTING | 3 | | | | | | 32 | STADIUM LIGHTING | 3 | | | | | | |
| | 33 | POLE #3 | - | - | - | - | - | - | 34 | POLE #4 | - | - | - | - | - | - | |
| | 35 | (VIA CONTROL PANEL) | - | - | - | - | - | - | 36 | (VIA CONTROL PANEL) | - | - | - | - | - | - | |
| 0.0 | 37 | PANEL RF | 3 | 150 | REFER TO XFMR SCHEDULE | | | | 38 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| 10.0 | 39 | VIA XFMR TRF | - | - | - | - | - | - | 40 | - | - | - | - | - | - | - | |
| 10.0 | 41 | - | - | - | - | - | - | - | 42 | - | - | - | - | - | - | - | |

**TOTAL CONNECTED LOAD** 54.6 **KVA** — KVA PER PHASE: A 11.4 B 21.8 C 21.4

**PANEL RF** (SECTION I) — MOUNTING: SURFACE
**VOLTAGE: 208/120, 3PH, 4W** — LOCATION: FIELDHOUSE
**225 AMPERE BUS** — **225 A MCB** — **100% RATED NEUTRAL BUS** — **10,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | | | | | | | | 2 | | | | | | | | |
| | 3 | | | | | | | | 4 | | | | | | | | |
| | 5 | | | | | | | | 6 | | | | | | | | |
| | 7 | | | | | | | | 8 | | | | | | | | |
| | 9 | | | | | | | | 10 | | | | | | | | |
| | 11 | | | | | | | | 12 | | | | | | | | |
| | 13 | | | | | | | | 14 | | | | | | | | |
| | 15 | | | | | | | | 16 | | | | | | | | |
| | 17 | | | | | | | | 18 | | | | | | | | |
| | 19 | | | | | | | | 20 | | | | | | | | |
| | 21 | | | | | | | | 22 | | | | | | | | |
| | 23 | | | | | | | | 24 | | | | | | | | |
| | 25 | | | | | | | | 26 | | | | | | | | |
| | 27 | | | | | | | | 28 | | | | | | | | |
| | 29 | | | | | | | | 30 | | | | | | | | |
| | 31 | | | | | | | | 32 | | | | | | | | |
| | 33 | | | | | | | | 34 | | | | | | | | |
| | 35 | CUH- | 1 | 20 | 2 | 12 | 12 | 3/4 | 36 | | | | | | | | |
| | 37 | CUH- | 1 | 20 | 2 | 12 | 12 | 3/4 | 38 | SPARE | 1 | 20 | | | | | |
| | 39 | CUH- | 1 | 20 | 2 | 12 | 12 | 3/4 | 40 | PRESSBOX | 2 | 125 | | | | | 10.0 |
| | 41 | CUH- | 1 | 20 | 2 | 12 | 12 | 3/4 | 42 | - | - | - | - | - | - | - | 10.0 |

CONNECTED LOAD (SECTION I) 20.0 KVA — KVA PER PHASE: A 0 B 10 C 10.0

**PANEL RF** (SECTION II) — MOUNTING: SURFACE
**VOLTAGE: 208/120, 3PH, 4W** — LOCATION: FIELDHOUSE
**225 AMPERE BUS** — **225 A MLO** — **100% RATED NEUTRAL BUS** — **10,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 43 | | | | | | | | 44 | | | | | | | | |
| | 45 | | | | | | | | 46 | | | | | | | | |
| | 47 | | | | | | | | 48 | | | | | | | | |
| | 49 | | | | | | | | 50 | | | | | | | | |
| | 51 | | | | | | | | 52 | | | | | | | | |
| | 53 | | | | | | | | 54 | | | | | | | | |
| | 55 | | | | | | | | 56 | | | | | | | | |
| | 57 | | | | | | | | 58 | | | | | | | | |
| | 59 | | | | | | | | 60 | | | | | | | | |
| | 61 | | | | | | | | 62 | | | | | | | | |
| | 63 | | | | | | | | 64 | | | | | | | | |
| | 65 | | | | | | | | 66 | | | | | | | | |
| | 67 | | | | | | | | 68 | | | | | | | | |
| | 69 | | | | | | | | 70 | | | | | | | | |
| | 71 | | | | | | | | 72 | | | | | | | | |
| | 73 | | | | | | | | 74 | | | | | | | | |
| | 75 | | | | | | | | 76 | | | | | | | | |
| | 77 | | | | | | | | 78 | | | | | | | | |
| | 79 | | | | | | | | 80 | | | | | | | | |
| | 81 | | | | | | | | 82 | | | | | | | | |
| | 83 | | | | | | | | 84 | | | | | | | | |

CONNECTED LOAD (SECTION II) 0 KVA — KVA PER PHASE: A 0 B 0 C 0
**TOTAL CONNECTED LOAD** 20 **KVA** — KVA PER PHASE: A 0 B 10 C 10

**FUSIBLE PANEL E1LF** — MOUNTING: SURFACE
**VOLTAGE: 480/277, 3PH, 4W** — LOCATION: FIELDHOUSE
**200 AMPERE BUS** — **200 A MAIN FUSE** — **100% RATED NEUTRAL BUS** — **50,000 A.I.C.**

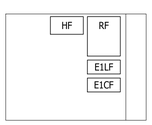
| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | | | | | | | | 2 | | | | | | | | |
| | 3 | | | | | | | | 4 | | | | | | | | |
| | 5 | | | | | | | | 6 | | | | | | | | |
| | 7 | | | | | | | | 8 | | | | | | | | |
| | 9 | | | | | | | | 10 | | | | | | | | |
| | 11 | | | | | | | | 12 | | | | | | | | |
| | 13 | | | | | | | | 14 | | | | | | | | |
| | 15 | | | | | | | | 16 | | | | | | | | |
| | 17 | | | | | | | | 18 | | | | | | | | |
| 1.5 | 19 | PANEL E1CF | 3 | 30 | REFER TO XFMR SCHEDULE | | | | 20 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| 1.5 | 21 | VIA XFMR TE1CF | - | - | - | - | - | - | 22 | - | - | - | - | - | - | - | |
| 0.0 | 23 | - | - | - | - | - | - | - | 24 | - | - | - | - | - | - | - | |

**TOTAL CONNECTED LOAD** 3.0 **KVA** — KVA PER PHASE: A 1.5 B 1.5 C 0.0

**FUSIBLE PANEL E1CF** — MOUNTING: SURFACE
**VOLTAGE: 208/120, 3PH, 4W** — LOCATION: FIELDHOUSE
**60 AMPERE BUS** — **60 A MAIN FUSE** — **200% RATED NEUTRAL BUS** — **50,000 A.I.C.**

| CONN KVA | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CKT | DESCRIPTION | BREAKER P | BREAKER AMPS | CIRCUIT WIRING NO | CIRCUIT WIRING SIZE | CIRCUIT WIRING GND | CIRCUIT WIRING C | CONN KVA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.5 | 1 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 2 | | | | | | | | |
| 1.5 | 3 | FIRE ALARM | 1 | 20 | 2 | 12 | 12 | 3/4 | 4 | | | | | | | | |
| | 5 | FIRE ALARM | | | | | | | 6 | | | | | | | | |
| | 7 | | | | | | | | 8 | | | | | | | | |
| | 9 | | | | | | | | 10 | | | | | | | | |
| | 11 | | | | | | | | 12 | | | | | | | | |
| | 13 | | | | | | | | 14 | SPD | 3 | 30 | 4 | 6 | 8 | 1 | |
| | 15 | | | | | | | | 16 | - | - | - | - | - | - | - | |
| | 17 | | | | | | | | 18 | - | - | - | - | - | - | - | |

**TOTAL CONNECTED LOAD** 3.0 **KVA** — KVA PER PHASE: A 1.5 B 1.5 C 0.0




| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN


OWNER

New Castle County Vo-Tech School District

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The professional services of ABHA/BSA+A, LLC are undertaken for and performed in the interest of the NCCVT School District. No contractual obligation is assumed by ABHA/BSA+A, LLC for the benefit of any other person involved in the project.

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**PANEL SCHEDULES**

SHEET NO.

**E619**

## MECHANICAL EQUIPMENT CONNECTION SCHEDULE

| EQUIPMENT NAME | LOAD | | | SERVICE | | SOURCE CIRCUIT | STARTER SIZE | DISCONNECT (MOUNT AT UNIT UON) | | | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | KW | HP | AMPS | VOLTS | PH | | | POLE | AMPS | FUSE (VERIFY W/ NAMEPLATE) | NEMA ENCLOSURE | |
| CHILLER-1 | | | 872.4 | 480 | 3 | MSB1-2 | | 3 | 1200 | 1200 | 4X | |
| WATER BOX HEATER | | | 6 | 120 | 1 | E2RM-4 | | 2 | 30 | 15 | 4X | |
| CHILLER-2 | | | 872.4 | 480 | 3 | MSB2-2 | | 3 | 1200 | 1200 | 4X | |
| WATER BOX HEATER | | | 6 | 120 | 1 | E2RM-6 | | 2 | 30 | 15 | 4X | |
| | | | | | | | | | | | | |
| ERV-1 | | | 38 | 480 | 3 | E2H1G-1 | | 3 | 60 | 60 | 4X | 2 (INTEGRAL F/SS) |
| ERV-2 | | | 38 | 480 | | E2HMB-1 | | 3 | 60 | 60 | 4X | 2 (INTEGRAL F/SS) |
| ERV-3 | | | 29 | 480 | 3 | E2H1E-1 | | 3 | 60 | 45 | 4X | 2 (INTEGRAL F/SS) |
| ERV-4 | | | 23 | 480 | 3 | E2H2N-2 | | 3 | 60 | 35 | 4X | 2 (INTEGRAL F/SS) |
| ERV-5 | | | 23 | 480 | 3 | E2H1E-2 | | 3 | 60 | 35 | 4X | 2 (INTEGRAL F/SS) |
| ERV-6 | | | 33 | 480 | 3 | E2H2S-1 | | 3 | 60 | 50 | 4X | 2 (INTEGRAL F/SS) |
| ERV-7 | | | 38 | 480 | 3 | E2H2N-1 | | 3 | 60 | 60 | 4X | 2 (INTEGRAL F/SS) |
| ERV-8 | | | 29 | 480 | 3 | E2H2W-1 | | 3 | 60 | 45 | 4X | 2 (INTEGRAL F/SS) |
| ERV-9 | | | 42 | 480 | 3 | E2H2S-2 | | 3 | 100 | 70 | 4X | 2 (INTEGRAL F/SS) |
| ERV-10 | | | 29 | 480 | 3 | HF-20 | | 3 | 60 | 45 | 4X | 2 (INTEGRAL F/SS) |
| | | | | | | | | | | | | |
| SZVAV-1 | | | 38 | 480 | 3 | H21G-1 | | 3 | 60 | 60 | 4X | 2 (INTEGRAL F/SS) |
| SZVAV-2 | | | 38 | 480 | 3 | H21G-2 | | 3 | 60 | 60 | 4X | 2 (INTEGRAL F/SS) |
| SZVAV-3 | | | 29 | 480 | 3 | H11M-25 | | 3 | 60 | 45 | 4X | 2 (INTEGRAL F/SS) |
| SZVAV-4 | | | 29 | 480 | 3 | H11M-43 | | 3 | 60 | 45 | 4X | 2 (INTEGRAL F/SS) |
| SZVAV-5 | | | 22 | 480 | 3 | H21A-1 | | 3 | 60 | 35 | 4X | 2 (INTEGRAL F/SS) |
| SZVAV-6 | | | 22 | 480 | 3 | H21A-2 | | 3 | 60 | 35 | 4X | 2 (INTEGRAL F/SS) |
| | | | | | | | | | | | | |
| H&V-1 | | | 33 | 480 | 3 | H11E-1 | | 3 | 60 | 50 | 1 | 2 (INTEGRAL F/SS) |
| H&V-2 | | | 38 | 480 | 3 | H11E-2 | | 3 | 60 | 60 | 1 | 2 (INTEGRAL F/SS) |
| H&V-3 | | | 38 | 480 | 3 | H11E-7 | | 3 | 60 | 60 | 1 | 2 (INTEGRAL F/SS) |
| H&V-4 | | | 38 | 480 | 3 | H21SA-1 | | 3 | 60 | 60 | 1 | 2 (INTEGRAL F/SS) |
| H&V-5 | | | 33 | 480 | 3 | H21SA-2 | | 3 | 60 | 50 | 1 | 2 (INTEGRAL F/SS) |
| H&V-6 | | | 38 | 480 | 3 | H21SA-7 | | 3 | 60 | 60 | 1 | 2 (INTEGRAL F/SS) |
| H&V-7 | | | 38 | 480 | 3 | H21SB-8 | | 3 | 60 | 60 | 1 | 2 (INTEGRAL F/SS) |
| H&V-8 | | | 3 | 480 | 3 | H21SB-50 | | 3 | 30 | 15 | 1 | 2 (INTEGRAL F/SS) |
| H&V-9 | | | 9 | 480 | 3 | H21A-13 | | 3 | 30 | 15 | 4X | 2 (INTEGRAL F/SS) |
| | | | | | | | | | | | | |
| RTU-1 | | | 3 | 480 | 3 | H21A-7 | | 3 | 30 | 15 | 4X | 2 (INTEGRAL F/SS) |
| RTU-2 | | | 3 | 480 | 3 | H21A-8 | | 3 | 30 | 15 | 4X | 2 (INTEGRAL F/SS) |
| | | | | | | | | | | | | |
| KMAU-1 | | 10 | | 480 | 3 | H11M-14 | | | | | | 1 |
| KMAU-2 | | 10 | | 480 | 3 | H11M-19 | | 3 | 30 | 25 | 4X | 8 |
| KMAU-3 | | 15 | | 480 | 3 | H11M-20 | | 3 | 60 | 50 | 4X | 8 |
| | | | | | | | | | | | | |
| MAU-1 | | 1.5 | | 480 | 3 | H21SB-13 | | | | | | 1 |
| MAU-2 | | 10 | | 480 | 3 | H21SA-14 | | | | | | 1 |
| MAU-3 | | 3 | | 480 | 3 | H11E-8 | | | | | | 1 |
| | | | | | | | | | | | | |
| KEF-1 | | 1 | | 480 | 3 | E2HMB-8 | 0 | 3 | 30 | | 4X | 3 |
| KEF-2 | | 3 | | 480 | 3 | E2HMB-13 | | | | | | 1 |
| KEF-3 | | 3 | | 480 | 3 | E2HMB-14 | | | | | | 1 |
| KEF-4 | | 2 | | 480 | 3 | E2HMB-19 | | | | | | 1 |
| KEF-5 | | 2 | | 480 | 3 | E2HMB-20 | | | | | | 1 |
| KEF-6 | | 1.5 | | 480 | 3 | E2HMB-25 | | | | | | 1 |
| KEF-7 | | 0.75 | | 480 | 3 | E2HMB-26 | 0 | 3 | 30 | | 4X | 3 |
| KEF-8 | | 1 | | 480 | 3 | E2HMB-31 | | | | | | 1 |
| KEF-9 | | 1 | | 480 | 3 | E2HMB-32 | | | | | | 1 |
| KEF-10 | | 1 | | 480 | 3 | E2HMB-43 | | | | | | 1 |
| KEF-11 | | 1 | | 480 | 3 | E2HMB-44 | | | | | | 1 |
| KEF-12 | | 1 | | 480 | 3 | E2HMB-49 | | | | | | 1 |
| KEF-13 | | 1 | | 480 | 3 | E2HMB-50 | | | | | | 1 |
| KEF-14 | | 1 | | 480 | 3 | E2HMB-55 | | | | | | 1 |
| KEF-15 | | 0.75 | | 480 | 3 | E2HMB-56 | | | | | | 1 |
| | | | | | | | | | | | | |
| CARBON MONOXIDE EF COEF-1 | | 3 | | 480 | 3 | H21SB-37 | | | | | | 1 |
| | | | | | | | | | | | | |
| FIRE PUMP | | 50 | 65 | 480 | 3 | REFER TO SCHEMATIC POWER RISER DIAGRAM | | | | | | |
| JOCKEY PUMP | | 1 | | 480 | 3 | EILM-13 | | | | | | 9 |
| DPAC-1 | | 1 | | 208 | 1 | E1C1E-10 | | | | | 1 | 12.9 |
| | | | | | | | | | | | | |
| BOILER-1 | | | 5 | 480 | 3 | E2HMA-19 | | | | | 1 | 4,7 |
| BOILER-2 | | | 5 | 480 | 3 | E2HMA-20 | | | | | 1 | 4,7 |
| BOILER-3 | | | 5 | 480 | 3 | E2HMA-25 | | | | | 1 | 4,7 |
| | | | | | | | | | | | | |
| WATER HEATER WH-1 | | | 5.8 | 120 | 1 | R11M-9 | | 2 | 30 | 15 | 1 | 7 |
| WATER HEATER WH-2 | | | 5.8 | 120 | 1 | R11M-11 | | 2 | 30 | 15 | 1 | 7 |
| EWH - (FH) | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| DRP-1 | | 1 | | 208 | 3 | R11M-1 | 0 | 3 | 30 | - | 1 | 3 |
| DRP-2 | | 1/8 | | 120 | 1 | R11M-7 | | | | | 1 | 5 |
| DRP- (FH) | | | | | | | | | | | | |

## MECHANICAL EQUIPMENT CONNECTION SCHEDULE

| EQUIPMENT NAME | LOAD | | | SERVICE | | SOURCE CIRCUIT | STARTER SIZE | DISCONNECT (MOUNT AT UNIT UON) | | | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | KW | HP | AMPS | VOLTS | PH | | | POLE | AMPS | FUSE (VERIFY W/ NAMEPLATE) | NEMA ENCLOSURE | |
| DOM BOOSTER PUMP DBP-1 (DUPLEX) | | 2@7.5 | | 480 | 3 | H11M-26 | | 3 | 60 | 40 | 1 | 9 |
| | | | | | | | | | | | | |
| AIR COMPRESSOR CA-1 | | 2@15 | | 480 | 3 | H21SB-2 | | 3 | 60 | 50 | 1 | 9 (BASE BID) |
| | | 30 | | 480 | 3 | H21SB-56 | | 3 | 100 | 70 | 1 | 9,16 |
| AIR DRYER RAD-1 | | | 20 | 120 | 1 | R21S-6 | | 2 | 60 | | 1 | 9 |
| AUTOMATIC CONDENSATE DRAIN | | | | 120 | 1 | | | | | | | |
| | | | | | | | | | | | | |
| AIR COMPRESSOR CA-2 | | 2@15 | | 480 | 3 | H11E-26 | | 3 | 60 | 50 | 1 | 9 (BASE BID) |
| | | 30 | | 480 | 3 | H11E-62 | | 3 | 100 | 70 | 1 | 9,16 |
| AIR DRYER RAD-2 | | | 20 | 120 | 1 | R11E-36 | | 2 | 60 | | 1 | 9 |
| AUTOMATIC CONDENSATE DRAIN | | | | 120 | 1 | | | | | | | |
| DENTAL AIR COMPRESSOR DAC-1 | | 2@3 | | 480 | 3 | H21SA-32 | | 3 | 30 | 15 | 1 | 9 |
| DENTAL VACUUM PUMP DVP-1 | | 2@3 | | 480 | 3 | H21SA-31 | | 3 | 30 | 15 | 1 | 9 |
| ELEVATOR SUMP PUMP ESP-1 | | 1/2 | | 120 | 1 | E3C1N-10 | | | | | | 13 |
| | | | | | | | | | | | | |
| PUMP-1 | | 20 | | 480 | 3 | H11M-1 | 2 | 3 | 60 | | 1 | 3 |
| PUMP-2 | | 20 | | 480 | 3 | H11M-2 | 2 | 3 | 60 | | 1 | 3 |
| PUMP-3 | | 20 | | 480 | 3 | H11M-7 | 2 | 3 | 60 | | 1 | 3 |
| PUMP-4 (SB) | | 20 | | 480 | 3 | H11M-8 | 2 | 3 | 60 | | 1 | 3 |
| PUMP-5 | | 40 | | 480 | 3 | DH1-6 | | | | | | 1,4 |
| PUMP-6 | | 40 | | 480 | 3 | DH1-7 | | | | | | 1,4 |
| PUMP-7 (SB) | | 40 | | 480 | 3 | DH1-8 | | | | | | 1,4 |
| PUMP-8 | | 7.5 | | 480 | 3 | E2HMA-1 | 1 | 3 | 30 | | 1 | 3,4 |
| PUMP-9 | | 7.5 | | 480 | 3 | E2HMA-2 | 1 | 3 | 30 | | 1 | 3,4 |
| PUMP-10 (SB) | | 7.5 | | 480 | 3 | E2HMA-7 | 1 | 3 | 30 | | 1 | 3,4 |
| PUMP-11 | | 30 | | 480 | 3 | E2HMA-8 | | | | | | 1,4 |
| PUMP-12 | | 30 | | 480 | 3 | E2HMA-13 | | | | | | 1,4 |
| PUMP-13 (SB) | | 30 | | 480 | 3 | E2HMA-14 | | | | | | 1,4 |
| | | | | | | | | | | | | |
| GLYCOL MAKEUP UNIT-1 | | 3/4 | | 120 | 1 | R11M-2 | | | | | 1 | 18 |
| GLYCOL MAKEUP UNIT-2 | | 3/4 | | 120 | 1 | E2RM-2 | | | | | 1 | 18 |
| | | | | | | | | | | | | |
| RELIEF AIR FAN RAF-1 | | 1 | | 480 | 3 | H11E-25 | | 3 | 30 | | 4X | 8 |
| RAF-2 | | 1 | | 480 | 3 | H11E-31 | | | | | | 1 |
| RAF-3 | | 1 | | 480 | 3 | H11E-32 | | | | | | 1 |
| RAF-4 | | 1 | | 480 | 3 | H21SA-13 | | | | | | 1 |
| RAF-5 | | 1 | | 480 | 3 | H21SA-8 | | | | | | 1 |
| RAF-6 | | 1 | | 480 | 3 | H21SB-1 | | | | | | 1 |
| RAF-7 | | 1.5 | | 480 | 3 | H21SB-14 | | | | | | 1 |
| RAF-8 | | 0.5 | | 480 | 3 | H21SB-50 | | | | | | 1 |
| RAF-9 | | 1 | | 480 | 3 | H21A-19 | | | | | | 1 |
| | | | | | | | | | | | | |
| FUME HOOD EXH FAN FHEF-1 | | 1 | | 480 | 3 | H12E-1 | 0 | 3 | 30 | - | 4X | 3 |
| FUME HOOD EXH FAN FHEF-2 | | 1 | | 480 | 3 | H12E-2 | 0 | 3 | 30 | - | 4X | 3 |
| | | | | | | | | | | | | |
| VENTILATION FAN VF-1 | | 1 | | 480 | 3 | E2HMA-26 | 0 | 3 | 30 | - | 1 | 3 |
| VF-2 | | 1/2 | | 120 | 1 | E1CM-2 | | | | | 1 | 5 |
| VF-3 | | 3/4 | | 480 | 3 | E2HMB-7 | 0 | 3 | 30 | - | 1 | 3 |
| VF-4 | | 1/2 | | 120 | 1 | E1CM-4 | | | | | 1 | 5 |
| VF-5 | | 3/4 | | 480 | 3 | E2H1E-13 | 0 | 3 | 30 | - | 1 | 3 |
| VF-6 | | 3/4 | | 480 | 3 | E2H1E-14 | 0 | 3 | 30 | - | 1 | 3 |
| VF-7 | | 1 1/2 | | 480 | 3 | E2H2S-26 | 0 | 3 | 30 | - | 4X | 3 |
| VF-8 | | 1 | | 480 | 3 | E2H2S-32 | 0 | 3 | 30 | - | 1 | 3 |
| VF-9 | | 3/4 | | 480 | 3 | E2H2S-43 | 0 | 3 | 30 | - | 1 | 3 |
| VF-10 | | 1 | | 480 | 3 | E2H2S-44 | 0 | 3 | 30 | - | 1 | 3 |
| VF-11 | | 1/6 | | 120 | 1 | E2R1G-4 | | | | | 4X | 5 |
| VF-12 | | 1/6 | | 120 | 1 | E2R1A-12 | | | | | 4X | 5 |
| VF-13 | | 1/4 | | 120 | 1 | E2R1E-15 | | | | | 4X | 5 |
| VF-14 | | 1/6 | | 120 | 1 | E2R2N-13 | | | | | 4X | 5 |
| VF-15 | | 1/4 | | 120 | 1 | E2R2W-3 | | | | | 4X | 5 |
| VF-16 | | 1/6 | | 120 | 1 | E2R2S-20 | | | | | 4X | 5 |
| VF-17 | | 1/6 | | 120 | 1 | E2R2N-15 | | | | | 4X | 5 |
| VF-18 | | 1/6 | | 120 | 1 | E2R2E-1 | | | | | 4X | 5 |

MECHANICAL SCHEDULE NOTES:

1. INSTALL VFD (FURNISHED UNDER MECHANICAL DIVISION) MAKE ALL CONNECTIONS TO EQUIPMENT.
2. MAKE CONNECTION TO INTEGRAL DISCONNECT.
3. PROVIDE COMBINATION STARTER/DISCONNECT.
4. PROVIDE KINDORF SUPPORTS FOR MOUNTING.
5. PROVIDE SINGLE POLE MANUAL MOTOR STARTING SWITCH WITH HOA SWITCH.
6. PROVIDE CONNECTION AT OUTDOOR UNIT AND EXTEND CONNECTION TO INDOOR UNIT AS RECOMMENDED BY MFGR.
7. ROUTE HOMERUN VIA CONTACTOR CB.
8. PROVIDE N.O. AND N.C. AUXILIARY CONTACTS WITH LOCAL DISCONNECT. MAKE CONNECTION VIA REMOTE VFD AS REQUIRED.
9. MAKE CONNECTION TO CONTROLLER FURNISHED WITH UNIT AS REQUIRED BY SYSTEM MANUFACTURER.
10. PROVIDE L5-15R RECEPTACLE ADJACENT TO UNIT, MAKE CONNECTION VIA MOTOR RATED TOGGLE SWITCH.
11. MAKE CONNECTION TO REMOTE DIGITAL CONTROLLER FURNISHED WITH UNIT AS REQUIRED BY MFGR.
12. PROVIDE TWO POLE MANUAL MOTOR STARTING SWITCH WITH HOA SWITCH.
13. PROVIDE RECEPTACLE ADJACENT TO UNIT.
14. PROVIDE ALL ASSOCIATED ELECTRICAL WORK UNDER ALTERNATE #11.
15. PROVIDE HP RATED TOGGLE DISCONNECT SWITCH AT UNIT.
16. PROVIDE CONNECTION UNDER ALTERNATE#12 IN LIEU OF BASE BID DUPLEX COMPRESSOR.
17. PROVIDE MOTOR RATED SWITCH ON WALL 48" AFF TO TOP.
18. PROVIDE NEMA 5-30R RECEPTACLE ADJACENT TO UNIT.
19. ROUTE HOMERUN VIA CONTACTOR CM1.
20. ROUTE HOMERUN VIA CONTACTOR CM2.
21. ROUTE HOMERUN VIA CONTACTOR CM3.
22. ROUTE HOMERUN VIA CONTACTOR CM4.
23. INTERLOCK CONTROLLER WITH FIRE RELAY COIL FURNISHED WITH FAN SUCH THAT RELAY COIL IS ENERGIZED AND FAN SHUTS DOWN WHEN SIGNAL IS RECEIVED FROM FACP DURING ALARM.

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN


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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**MECHANICAL EQUIPMENT CONNECTION SCHEDULE**

SHEET NO.

**E620**

## MECHANICAL EQUIPMENT CONNECTION SCHEDULE

| EQUIPMENT NAME | LOAD | | | SERVICE | | SOURCE CIRCUIT | STARTER SIZE | DISCONNECT (MOUNT AT UNIT UON) | | | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | KW | HP | AMPS | VOLTS | PH | | | POLE | AMPS | FUSE (VERIFY W/ NAMEPLATE) | NEMA ENCLOSURE | |
| VF-19 | | 1/6 | | 120 | 1 | E2R2W-1 | | | | | 4X | 5 |
| VF-20 | | 1/4 | | 120 | 1 | E2R2S-24 | | | | | 4X | 5 |
| | | | | | | | | | | | | |
| UH-1 | | 1/15 | | 120 | 1 | E2RM-34 | | | | | 1 | 5 |
| UH-2 | | 1/15 | | 120 | 1 | E2RM-34 | | | | | 1 | 5 |
| UH-3 | | 1/15 | | 120 | 1 | E1CM-6 | | | | | 1 | 5 |
| UH-4 | | 1/15 | | 120 | 1 | E2R1A-21 | | | | | 1 | 5 |
| UH-5 | | 1/15 | | 120 | 1 | E2R1A-21 | | | | | 1 | 5 |
| UH-6 | | 1/10 | | 120 | 1 | E2R1E-12 | | | | | 1 | 5 |
| UH-7 | | 1/10 | | 120 | 1 | E2R1E-14 | | | | | 1 | 5 |
| UH-8 | | 1/10 | | 120 | 1 | E2R1E-16 | | | | | 1 | 5 |
| UH-9 | | 1/10 | | 120 | 1 | E2R2S-35 | | | | | 1 | 5 |
| UH-10 | | 1/10 | | 120 | 1 | E2R2S-33 | | | | | 1 | 5 |
| UH-11 | | 1/10 | | 120 | 1 | E2R2S-29 | | | | | 1 | 5 |
| UH-12 | | 1/10 | | 120 | 1 | E2R2S-29 | | | | | 1 | 5 |
| UH-13 | | 1/15 | | 120 | 1 | E2R2S-29 | | | | | 1 | 5 |
| UH-14 | | 1/10 | | 120 | 1 | E2R2S-31 | | | | | 1 | 5 |
| UH-15 | | 1/10 | | 120 | 1 | E2R2S-31 | | | | | 1 | 5 |
| UH-16 | | 1/15 | | 120 | 1 | E2R1E-20 | | | | | 1 | 5 |
| UH-17 | | 1/15 | | 120 | 1 | E2R1E-20 | | | | | 1 | 5 |
| UH-18 | | 1/15 | | 120 | 1 | E2R1E-18 | | | | | 1 | 5 |
| UH-19 | | 1/15 | | 120 | 1 | E2R1E-18 | | | | | 1 | 5 |
| UH-20 | | 1/15 | | 120 | 1 | E2R2S-23 | | | | | 1 | 5 |
| UH-21 | | 1/15 | | 120 | 1 | E2R2S-23 | | | | | 1 | 5 |
| UH-22 | | 1/15 | | 120 | 1 | E2R2S-21 | | | | | 1 | 5 |
| UH-23 | | 1/15 | | 120 | 1 | E2R2S-21 | | | | | 1 | 5 |
| UH-24 | | 1/15 | | 120 | 1 | E2R2S-19 | | | | | 1 | 5 |
| UH-25 | | 1/10 | | 120 | 1 | E2R2S-25 | | | | | 1 | 5 |
| UH-26 | | 1/10 | | 120 | 1 | E2R2S-25 | | | | | 1 | 5 |
| UH-27 | | 1/15 | | 120 | 1 | E2RM-36 | | | | | 1 | 5 |
| UH-28 | | 1/15 | | 120 | 1 | E2RM-36 | | | | | 1 | 5 |
| UH-29 | | 1/15 | | 120 | 1 | E2RM-38 | | | | | 1 | 5 |
| UH-30 | | 1/15 | | 120 | 1 | E2RM-38 | | | | | 1 | 5 |
| UH-31 | | 1/10 | | 120 | 1 | E2R1E-24 | | | | | 1 | 5 |
| UH-32 | | 1/10 | | 120 | 1 | E2R1E-24 | | | | | 1 | 5 |
| UH-33 | | 1/10 | | 120 | 1 | E2R1E-24 | | | | | 1 | 5 |
| UH-34 | | 1/10 | | 120 | 1 | E2R1E-24 | | | | | 1 | 5 |
| UH-40 | | | | 120 | 1 | RF- | | | | | 1 | 5 |
| UH-41 | | | | 120 | 1 | RF- | | | | | 1 | 5 |
| UH-42 | | | | 120 | 1 | RF- | | | | | 1 | 5 |
| | | | | | | | | | | | | |
| FREEZE PROTECTION PUMP FPP-1 | | 1 | | 480 | 3 | E2H1G-2 | 0 | 3 | 30 | | 1 | 3,14 |
| FPP-2 | | 0.5 | | 120 | 1 | E2R1G-2 | | | | | 1 | 5,14 |
| FPP-3 | | 1 | | 480 | 3 | E2HMB-2 | 0 | 3 | 30 | | 1 | 3,14 |
| FPP-4 | | 0.5 | | 120 | 1 | E2RM-8 | | | | | 1 | 5,14 |
| FPP-5 | | 0.75 | | 480 | 3 | E2H1E-7 | 0 | 3 | 30 | | 1 | 3,14 |
| FPP-6 | | 0.5 | | 120 | 1 | E2R1E-1 | | | | | 1 | 5,14 |
| FPP-7 | | 0.5 | | 120 | 1 | E2R2N-12 | | | | | 1 | 5,14 |
| FPP-8 | | 0.167 | | 120 | 1 | E2R2N-1 | | | | | 1 | 5,14 |
| FPP-9 | | 0.75 | | 480 | 3 | E2H1E-8 | 0 | 3 | 30 | | 1 | 3,14 |
| FPP-10 | | 0.167 | | 120 | 1 | E2R1E-3 | | | | | 1 | 5,14 |
| FPP-11 | | 0.75 | | 480 | 3 | E2H2S-25 | 0 | 3 | 30 | | 1 | 3,14 |
| FPP-12 | | 0.5 | | 120 | 1 | E2R2S-1 | | | | | 1 | 5,14 |
| FPP-13 | | 1 | | 480 | 3 | E2H2N-8 | 0 | 3 | 30 | | 1 | 3,14 |
| FPP-14 | | 0.5 | | 120 | 1 | E2R2N-3 | | | | | 1 | 5,14 |
| FPP-15 | | 0.75 | | 480 | 3 | E2H2W-2 | 0 | 3 | 30 | | 1 | 3,14 |
| FPP-16 | | 0.5 | | 120 | 1 | E2R2W-5 | | | | | 1 | 5,14 |
| FPP-17 | | 1 | | 480 | 3 | E2H2S-8 | 0 | 3 | 30 | | 1 | 3,14 |
| FPP-18 | | 0.5 | | 120 | 1 | E2R2S-3 | | | | | 1 | 5,14 |
| FPP-20 | | 1 | | 480 | 3 | E2H1G-7 | 0 | 3 | 30 | | 1 | 3,14 |
| FPP-21 | | 0.75 | | 480 | 3 | E2H1G-8 | 0 | 3 | 30 | | 1 | 3,14 |
| FPP-22 | | 1 | | 480 | 3 | E2H1G-13 | 0 | 3 | 30 | | 1 | 3,14 |
| FPP-23 | | 0.5 | | 120 | 1 | E2R1G-6 | | | | | 1 | 5,14 |
| FPP-24 | | 0.75 | | 480 | 3 | E2HMB-73 | 0 | 3 | 30 | | 1 | 3,14 |
| FPP-25 | | 0.5 | | 120 | 1 | E2RM-10 | | | | | 1 | 5,14 |
| FPP-26 | | 0.75 | | 480 | 3 | E2HMB-38 | 0 | 3 | 30 | | 1 | 3,14 |
| FPP-27 | | 0.5 | | 120 | 1 | E2RM-12 | | | | | 1 | 5,14 |
| FPP-28 | | 0.75 | | 480 | 3 | E2H1A-1 | 0 | 3 | 30 | | 1 | 3,14 |
| FPP-29 | | 0.5 | | 120 | 1 | E2R1A-2 | | | | | 1 | 5,14 |
| FPP-30 | | 0.75 | | 480 | 3 | E2H1A-2 | 0 | 3 | 30 | | 1 | 3,14 |
| FPP-31 | | 0.5 | | 120 | 1 | E2R1A-4 | | | | | 1 | 5,14 |
| FPP-32 | | 1 | | 480 | 3 | E2HMB-68 | 0 | 3 | 30 | | 1 | 3,14 |
| FPP-33 | | 0.75 | | 480 | 3 | E2HMB-74 | | | | | 1 | 5 |
| FPP-34 | | 0.5 | | 120 | 1 | E2RM-7 | 0 | 3 | 30 | | 1 | 3,14 |
| FPP-35 | | 1 | | 480 | 3 | E2HMB-61 | | | | | 1 | 5,14 |
| FPP-36 | | 0.5 | | 120 | 1 | E2RM-9 | | | | | 1 | 5 |
| FPP-37 | | 0.5 | | 120 | 1 | E2RM-11 | | | | | 1 | 5,14 |
| FPP-38 | | 1.5 | | 480 | 3 | E2HMB-62 | 0 | 3 | 30 | | 1 | 3,14 |

## MECHANICAL EQUIPMENT CONNECTION SCHEDULE

| EQUIPMENT NAME | LOAD | | | SERVICE | | SOURCE CIRCUIT | STARTER SIZE | DISCONNECT (MOUNT AT UNIT UON) | | | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | KW | HP | AMPS | VOLTS | PH | | | POLE | AMPS | FUSE (VERIFY W/ NAMEPLATE) | NEMA ENCLOSURE | |
| FPP-39 | | 1 | | 480 | 3 | E2HMB-67 | 0 | 3 | 30 | | 1 | 3 |
| FPP-40 | | 1 | | 480 | 3 | E2HMB-37 | 0 | 3 | 30 | | 1 | 3,14 |
| FPP-41 | | 0.167 | | 120 | 1 | E2R2S-5 | | | | | 1 | 5 |
| FPP-42 | | 0.167 | | 120 | 1 | E2R2S-7 | | | | | 1 | 5,14 |
| FPP-43 | | 0.75 | | 480 | 3 | E2H2S-7 | 0 | 3 | 30 | | 1 | 3 |
| FPP-44 | | 0.75 | | 480 | 3 | E2H2S-13 | 0 | 3 | 30 | | 1 | 3,14 |
| FPP-45 | | 0.5 | | 120 | 1 | E2R1E-5 | | | | | 1 | 5 |
| FPP-46 | | 0.5 | | 120 | 1 | E2R1E-7 | | | | | 1 | 5,14 |
| FPP-49 | | 0.5 | | 120 | 1 | E2R1E-9 | | | | | 1 | 5,14 |
| FPP-50 | | 0.5 | | 120 | 1 | E2R1E-11 | | | | | 1 | 5,14 |
| FPP-51 | | 0.5 | | 120 | 1 | E2R1E-13 | | | | | 1 | 5,14 |
| FPP-52 | | 0.5 | | 120 | 1 | E2R2S-2 | | | | | 1 | 5,14 |
| FPP-53 | | 0.5 | | 120 | 1 | E2R2S-4 | | | | | 1 | 5,14 |
| FPP-54 | | 0.75 | | 480 | 3 | E2H2S-19 | 0 | 3 | 30 | | 1 | 3,14 |
| FPP-55 | | 0.75 | | 480 | 3 | E2H2S-20 | 0 | 3 | 30 | | 1 | 3,14 |
| FPP-56 | | 0.167 | | 120 | 1 | E2R2S-6 | | | | | 1 | 5,14 |
| FPP-57 | | 0.5 | | 120 | 1 | E2R1A-6 | | | | | 1 | 5,14 |
| FPP-58 | | 0.5 | | 120 | 1 | E2R1A-1 | | | | | 1 | 5,14 |
| FPP-59 | | 0.167 | | 120 | 1 | E2R1A-8 | | | | | 1 | 5,14 |
| FPP-60 | | 0.5 | | 120 | 1 | E2R1A-23 | | | | | 1 | 5,14 |
| FPP-61 | | 0.167 | | 120 | 1 | E2R1A-3 | | | | | 1 | 5,14 |
| | | | | | | | | | | | | |
| DUST COLLECTOR DC-1 | | 15 | | 480 | 3 | H21SA-25 | | 3 | 60 | - | 4X | 9 |
| | | | | | | | | | | | | |
| EXHAUST FAN EF-1 | | 1/4 | | 120 | 1 | E2R2W-6 | | | | | 4X | 5 |
| EXHAUST FAN EF-2 | | 1/3 | | 120 | 1 | E2R2S-34 | | | | | 4X | 5 |
| EXHAUST FAN EF-3 | | 1/2 | | 120 | 1 | E2R2S-36 | | | | | 4X | 5 |
| EXHAUST FAN EF-4 | | 1/3 | | 120 | 1 | E2R2N-17 | | | | | 4X | 5 |
| EXHAUST FAN EF-5 | | 1/3 | | 120 | 1 | E2R2N-14 | | | | | 4X | 5 |
| EXHAUST FAN EF-6 | | 1/3 | | 120 | 1 | E2R2S-9 | | | | | 4X | 5 |
| EXHAUST FAN EF-7 | | 1/3 | | 120 | 1 | E2R2S-38 | | | | | 4X | 5 |
| EXHAUST FAN EF-8 | | 1/3 | | 120 | 1 | E2R2S-40 | | | | | 4X | 5 |
| EXHAUST FAN EF-9 | | 1/3 | | 120 | 1 | E2R2S-42 | | | | | 4X | 5 |
| EXHAUST FAN EF-10 | | 1/3 | | 120 | 1 | E2R2S-41 | | | | | 4X | 5 |
| EXHAUST FAN EF-11 | | 1/4 | | 120 | 1 | E2RM-40 | | | | | 4X | 5 |
| | | | | | | | | | | | | |
| WELDING EXH FAN WEF-1 | | 7.5 | | 480 | 3 | H21SB-31 | | | | | | 1 |
| WELDING EXH FAN WEF-2 | | 3 | | 480 | 3 | H21SB-32 | | | | | | 1 |
| WELDING EXH FAN WEF-3 | | 3 | | 480 | 3 | H21SB-38 | | | | | | 1 |
| WELDING EXH FAN WEF-4 | | 3 | | 480 | 3 | H21SB-25 | | | | | | 1 |
| WELDING EXH FAN WEF-5 | | 7.5 | | 480 | 3 | H11E-49 | | | | | | 1 |
| | | | | | | | | | | | | |
| CEILING PADDLE FAN CPF-1 | | | 6.4 | 120 | 1 | R11E-1 | | | | | 1 | 5,11,23 |
| CEILING PADDLE FAN CPF-2 | | | 6.4 | 120 | 1 | R11E-3 | | | | | 1 | 5,11,23 |
| CEILING PADDLE FAN CPF-3 | | | 6.4 | 120 | 1 | R11E-5 | | | | | 1 | 5,11,23 |
| CEILING PADDLE FAN CPF-4 | | | 6.4 | 120 | 1 | R21S-1 | | | | | 1 | 5,11,23 |
| CEILING PADDLE FAN CPF-5 | | | 6.4 | 120 | 1 | R21S-3 | | | | | 1 | 5,11,23 |
| CEILING PADDLE FAN CPF-6 | | | 6.4 | 120 | 1 | R21S-5 | | | | | 1 | 5,11,23 |
| CEILING PADDLE FAN CPF-7 | | | 6.4 | 120 | 1 | R21S-7 | | | | | 1 | 5,11,23 |
| CEILING PADDLE FAN CPF-8 | | | 6.4 | 120 | 1 | R21S-9 | | | | | 1 | 5,11,23 |
| CEILING PADDLE FAN CPF-9 | | | 6.4 | 120 | 1 | R21S-11 | | | | | 1 | 5,11,23 |
| CEILING PADDLE FAN CPF-10 | | | 6.4 | 120 | 1 | R21S-13 | | | | | 1 | 5,11,23 |
| | | | | | | | | | | | | |
| CUH-1 | | 1/30 | | 120 | 1 | RF-37 | | | | | | 2 |
| CUH-2 | | 1/30 | | 120 | 1 | | | | | | | 2 |
| CUH-3 | | 1/30 | | 120 | 1 | | | | | | | 2 |
| CUH-4 | | 1/30 | | 120 | 1 | | | | | | | 2 |
| CUH-5 | | 1/30 | | 120 | 1 | | | | | | | 2 |
| CUH-6 | | 1/30 | | 120 | 1 | | | | | | | 2 |
| CUH-7 | | 1/30 | | 120 | 1 | | | | | | | 2 |
| CUH-8 | | 1/30 | | 120 | 1 | | | | | | | 2 |
| CUH-9 | | 1/30 | | 120 | 1 | | | | | | | 2 |
| CUH-10 | | 1/30 | | 120 | 1 | | | | | | | 2 |

MECHANICAL SCHEDULE NOTES:

1. INSTALL VFD (FURNISHED UNDER MECHANICAL DIVISION) MAKE ALL CONNECTIONS TO EQUIPMENT.
2. MAKE CONNECTION TO INTEGRAL DISCONNECT.
3. PROVIDE COMBINATION STARTER/DISCONNECT.
4. PROVIDE KINDORF SUPPORTS FOR MOUNTING.
5. PROVIDE SINGLE POLE MANUAL MOTOR STARTING SWITCH WITH HOA SWITCH.
6. PROVIDE CONNECTION AT OUTDOOR UNIT AND EXTEND CONNECTION TO INDOOR UNIT AS RECOMMENDED BY MFGR.
7. ROUTE HOMERUN VIA CONTACTOR CB.
8. PROVIDE N.O. AND N.C. AUXILIARY CONTACTS WITH LOCAL DISCONNECT. MAKE CONNECTION VIA REMOTE VFD AS REQUIRED.
9. MAKE CONNECTION TO CONTROLLER FURNISHED WITH UNIT AS REQUIRED BY SYSTEM MANUFACTURER.
10. PROVIDE L5-15R RECEPTACLE ADJACENT TO UNIT, MAKE CONNECTION VIA MOTOR RATED TOGGLE SWITCH.
11. MAKE CONNECTION TO REMOTE DIGITAL CONTROLLER FURNISHED WITH UNIT AS REQUIRED BY MFGR.
12. PROVIDE TWO POLE MANUAL MOTOR STARTING SWITCH WITH HOA SWITCH.
13. PROVIDE RECEPTACLE ADJACENT TO UNIT.
14. PROVIDE ALL ASSOCIATED ELECTRICAL WORK UNDER ALTERNATE #11.
15. PROVIDE HP RATED TOGGLE DISCONNECT SWITCH AT UNIT.
16. PROVIDE CONNECTION UNDER ALTERNATE#12 IN LIEU OF BASE BID DUPLEX COMPRESSOR.
17. PROVIDE MOTOR RATED SWITCH ON WALL 48" AFF TO TOP.
18. PROVIDE NEMA 5-30R RECEPTACLE ADJACENT TO UNIT.
19. ROUTE HOMERUN VIA CONTACTOR CM1.
20. ROUTE HOMERUN VIA CONTACTOR CM2.
21. ROUTE HOMERUN VIA CONTACTOR CM3.
22. ROUTE HOMERUN VIA CONTACTOR CM4.
23. INTERLOCK CONTROLLER WITH FIRE RELAY COIL FURNISHED WITH FAN SUCH THAT RELAY COIL IS ENERGIZED AND FAN SHUTS DOWN WHEN SIGNAL IS RECEIVED FROM FACP DURING ALARM.

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN


OWNER

New Castle County Vo-Tech School District

1417 Newport Pike
Wilmington, DE 19804

STRUCTURAL ENGINEER

DCI + MacIntosh Engineers

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MECHANICAL / ELECTRICAL ENGINEER

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Easton, MD 21601
Phone (410) 822-8688

CIVIL ENGINEER

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ARCHITECTS

**ABHA | BSA+A**

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The professional services of ABHA/BSA+A, LLC. are undertaken for and performed in the interest of the NCCVT School District. No contractual obligation is assumed by ABHA/BSA+A, LLC. for the benefit of any other person involved in the project.

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**MECHANICAL EQUIPMENT CONNECTION SCHEDULE**

SHEET NO.

**E621**

## MECHANICAL EQUIPMENT CONNECTION SCHEDULE

| EQUIPMENT NAME | LOAD | | | SERVICE | | SOURCE CIRCUIT | STARTER SIZE | DISCONNECT (MOUNT AT UNIT UON) | | | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | KW | HP | AMPS | VOLTS | PH | | | POLE | AMPS | FUSE (VERIFY W/ NAMEPLATE) | NEMA ENCLOSURE | |
| CUH-10 | | 1/30 | | 120 | 1 | | | | | | | 2 |
| CUH-11 | | 1/30 | | 120 | 1 | | | | | | | 2 |
| CUH-12 | | 1/30 | | 120 | 1 | | | | | | | 2 |
| CUH-13 | | 1/30 | | 120 | 1 | | | | | | | 2 |
| CUH-14 | | 1/30 | | 120 | 1 | | | | | | | 2 |
| CUH-15 | | 1/30 | | 120 | 1 | | | | | | | 2 |
| CUH-16 | | 1/30 | | 120 | 1 | | | | | | | 2 |
| CUH-17 | | 1/30 | | 120 | 1 | | | | | | | 2 |
| CUH-18 | | 1/30 | | 120 | 1 | | | | | | | 2 |
| CUH-19 | | 1/30 | | 120 | 1 | | | | | | | 2 |
| CUH-20 | | 1/30 | | 120 | 1 | | | | | | | 2 |
| CUH-21 | | 1/30 | | 120 | 1 | | | | | | | 2 |
| CUH-22 | | 1/30 | | 120 | 1 | | | | | | | 2 |
| CUH-23 | | 1/30 | | 120 | 1 | | | | | | | 2 |
| | | | | | | | | | | | | |
| INDUSTRIAL AIR CLEANER IAC-1 | | 3/4 | | 120 | 1 | R11E-26 | | | | | 1 | 5,19 |
| IAC-2 | | 3/4 | | 120 | 1 | R11E-28 | | | | | 1 | 5,19 |
| IAC-3 | | 3/4 | | 120 | 1 | R11E-30 | | | | | 1 | 5,19 |
| IAC-4 | | 3/4 | | 120 | 1 | R11E-32 | | | | | 1 | 5,19 |
| IAC-5 | | 3/4 | | 120 | 1 | R21S-33 | | | | | 1 | 5,20 |
| IAC-6 | | 3/4 | | 120 | 1 | R21S-35 | | | | | 1 | 5,20 |
| IAC-7 | | 3/4 | | 120 | 1 | R21S-37 | | | | | 1 | 5,20 |
| IAC-8 | | 3/4 | | 120 | 1 | R21S-39 | | | | | 1 | 5,20 |
| IAC-9 | | 3/4 | | 120 | 1 | R21S-41 | | | | | 1 | 5,20 |
| IAC-10 | | 3/4 | | 120 | 1 | R21S-43 | | | | | 1 | 5,20 |
| IAC-11 | | 3/4 | | 120 | 1 | R21S-45 | | | | | 1 | 5,21 |
| IAC-12 | | 3/4 | | 120 | 1 | R21S-47 | | | | | 1 | 5,21 |
| IAC-13 | | 3/4 | | 120 | 1 | R21S-22 | | | | | 1 | 5,21 |
| IAC-14 | | 3/4 | | 120 | 1 | R21S-26 | | | | | 1 | 5,21 |
| IAC-15 | | 3/4 | | 120 | 1 | R21S-28 | | | | | 1 | 5,21 |
| IAC-16 | | 3/4 | | 120 | 1 | R21S-30 | | | | | 1 | 5,22 |
| IAC-17 | | 3/4 | | 120 | 1 | R21S-32 | | | | | 1 | 5,22 |
| IAC-18 | | 3/4 | | 120 | 1 | R21S-34 | | | | | 1 | 5,22 |
| IAC-19 | | 3/4 | | 120 | 1 | R21S-36 | | | | | 1 | 5,22 |
| IAC-20 | | 3/4 | | 120 | 1 | R21S-38 | | | | | 1 | 5,22 |
| IAC-21 | | 3/4 | | 120 | 1 | R21S-40 | | | | | 1 | 5,22 |
| IAC-22 | | 3/4 | | 120 | 1 | R21S-42 | | | | | 1 | 5,22 |
| | | | | | | | | | | | | |
| DSOU-1 | | | 11 | 208 | 1 | E3C2N-19 | | 2 | 30 | 15 | 4X | |
| DSIU-1 | | | 1 | 208 | 1 | | | 3 | 30 | 15 | 1 | 6 |
| DSOU-2 | | | 11 | 208 | 1 | E3C2N-23 | | 2 | 30 | 15 | 4X | |
| DSIU-2 | | | 1 | 208 | 1 | | | 3 | 30 | 15 | 1 | 6 |
| DSOU-3 | | | 11 | 208 | 1 | E3C2W-23 | | 2 | 30 | 15 | 4X | |
| DSIU-3 | | | 1 | 208 | 1 | | | 3 | 30 | 15 | 1 | 6 |
| DSOU-4 | | | 11 | 208 | 1 | E3C1S-39 | | 2 | 30 | 20 | 4X | |
| DSIU-4 | | | 1 | 208 | 1 | | | 3 | 30 | 15 | 1 | 6 |
| DSOU-5 | | | 11 | 208 | 1 | E3C1S-35 | | 2 | 30 | 15 | 4X | |
| DSIU-5 | | | 1 | 208 | 1 | | | 3 | 30 | 15 | 1 | 6 |
| DSOU-6 | | | 11 | 208 | 1 | E3C2E-23 | | 2 | 30 | 15 | 4X | |
| DSIU-6 | | | 1 | 208 | 1 | | | 3 | 30 | 15 | 1 | 6 |
| DSOU-7 | | | 11 | 208 | 1 | E3C1E-39 | | 2 | 30 | 15 | 4X | |
| DSIU-7 | | | 1 | 208 | 1 | | | 3 | 30 | 15 | 1 | 6 |
| DSOU-8 | | | 11 | 208 | 1 | E3C2E-27 | | 2 | 30 | 15 | 4X | |
| DSIU-8 | | | 1 | 208 | 1 | | | 3 | 30 | 15 | 1 | 6 |
| DSOU-9 | | | 11 | 208 | 1 | C2A-36 | | 2 | 30 | 15 | 4X | |
| DSIU-9 | | | 1 | 208 | 1 | | | 3 | 30 | 15 | 1 | 6 |
| DSOU-10 | | | 11 | 208 | 1 | E3CA-27 | | 2 | 30 | 15 | 4X | |
| DSIU-10 | | | 1 | 208 | 1 | | | 3 | 30 | 15 | 1 | 6 |
| DSOU-11 | | | 11 | 208 | 1 | E3CG-27 | | 2 | 30 | 15 | 4X | |
| DSIU-11 | | | 1 | 208 | 1 | | | 3 | 30 | 15 | 1 | 6 |
| DSOU-12 | | | 11 | 208 | 1 | E3C2W-22 | | 2 | 30 | 15 | 4X | |
| DSIU-12 | | | 1 | 208 | 1 | | | 3 | 30 | 15 | 1 | 6 |
| DSOU-13 | | | 11 | 208 | 1 | E3C2N-27 | | 2 | 30 | 15 | 4X | |
| DSIU-13 | | | 1 | 208 | 1 | | | 3 | 30 | 15 | 1 | 6 |
| DSOU-14 | | | 11 | 208 | 1 | E3C2E-19 | | 2 | 30 | 15 | 4X | |
| DSIU-14 | | | 1 | 208 | 1 | | | 3 | 30 | 15 | 1 | 6 |
| DSOU-15 | | | 11 | 208 | 1 | E3C2W-27 | | 2 | 30 | 15 | 4X | |
| DSIU-15 | | | 1 | 208 | 1 | | | 3 | 30 | 15 | 1 | 6 |
| DSOU-16 | | | 11 | 208 | 1 | R11M-23 | | 2 | 30 | 15 | 4X | |
| DSIU-16 | | | 1 | 208 | 1 | | | 3 | 30 | 15 | 1 | 6 |
| DSOU-17 | | | 11 | 208 | 1 | R11M-27 | | 2 | 30 | 15 | 4X | |
| DSIU-17 | | | 1 | 208 | 1 | | | 3 | 30 | 15 | 1 | 6 |
| . | | | | | | | | | | | | |
| CO TUBE STORAGE REEL TSR-1 | | 1/6 | | 120 | 1 | R21S-23 | | | | | | 10 |
| CO TUBE STORAGE REEL TSR-2 | | 1/6 | | 120 | 1 | R21S-49 | | | | | | 10 |
| CO TUBE STORAGE REEL TSR-3 | | 1/6 | | 120 | 1 | R21S-51 | | | | | | 10 |
| CO TUBE STORAGE REEL TSR-4 | | 1/6 | | 120 | 1 | R21S-53 | | | | | | 10 |

## MECHANICAL EQUIPMENT CONNECTION SCHEDULE

| EQUIPMENT NAME | LOAD | | | SERVICE | | SOURCE CIRCUIT | STARTER SIZE | DISCONNECT (MOUNT AT UNIT UON) | | | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | KW | HP | AMPS | VOLTS | PH | | | POLE | AMPS | FUSE (VERIFY W/ NAMEPLATE) | NEMA ENCLOSURE | |
| | | | | | | | | | | | | |
| EUH-1 | 3.0 | | | 208 | 1 | E3CM-33 | | 2 | 30 | 20 | 1 | |
| EUH-2 | 3.0 | | | 208 | 1 | E3C1S-31 | | 2 | 30 | 20 | 1 | |
| EUH-3 | 3.0 | | | 208 | 1 | E3CM-23 | | 2 | 30 | 20 | 1 | |
| EUH-4 | 3.0 | | | 208 | 1 | E3C2N-22 | | 2 | 30 | 20 | 1 | |
| | | | | | | | | | | | | |
| DRYER BOOSTER FAN DBF-1 | | | 0.5 | 120 | 1 | R21S-15 | | | | | 1 | 15 |
| DRYER BOOSTER FAN DBF-2 | | | 0.5 | 120 | 1 | R11M-15 | | | | | 1 | 15 |
| | | | | | | | | | | | | |
| DHP-1 | | | | | | RF- | | | | | | |
| DHP-2 | | | | | | | | | | | | |
| DHP-3 | | | | | | | | | | | | |

MECHANICAL SCHEDULE NOTES:
1. INSTALL VFD (FURNISHED UNDER MECHANICAL DIVISION) MAKE ALL CONNECTIONS TO EQUIPMENT.
2. MAKE CONNECTION TO INTEGRAL DISCONNECT.
3. PROVIDE COMBINATION STARTER/DISCONNECT.
4. PROVIDE KINDORF SUPPORTS FOR MOUNTING.
5. PROVIDE SINGLE POLE MANUAL MOTOR STARTING SWITCH WITH HOA SWITCH.
6. PROVIDE CONNECTION AT OUTDOOR UNIT AND EXTEND CONNECTION TO INDOOR UNIT AS RECOMMENDED BY MFGR.
7. ROUTE HOMERUN VIA CONTACTOR CB.
8. PROVIDE N.O. AND N.C. AUXILIARY CONTACTS WITH LOCAL DISCONNECT. MAKE CONNECTION VIA REMOTE VFD AS REQUIRED.
9. MAKE CONNECTION TO CONTROLLER FURNISHED WITH UNIT AS REQUIRED BY SYSTEM MANUFACTURER.
10. PROVIDE L5-15R RECEPTACLE ADJACENT TO UNIT, MAKE CONNECTION VIA MOTOR RATED TOGGLE SWITCH.
11. MAKE CONNECTION TO REMOTE DIGITAL CONTROLLER FURNISHED WITH UNIT AS REQUIRED BY MFGR.
12. PROVIDE TWO POLE MANUAL MOTOR STARTING SWITCH WITH HOA SWITCH.
13. PROVIDE RECEPTACLE ADJACENT TO UNIT.
14. PROVIDE ALL ASSOCIATED ELECTRICAL WORK UNDER ALTERNATE #11.
15. PROVIDE HP RATED TOGGLE DISCONNECT SWITCH AT UNIT.
16. PROVIDE CONNECTION UNDER ALTERNATE#12 IN LIEU OF BASE BID DUPLEX COMPRESSOR.
17. PROVIDE MOTOR RATED SWITCH ON WALL 48" AFF TO TOP.
18. PROVIDE NEMA 5-30R RECEPTACLE ADJACENT TO UNIT.
19. ROUTE HOMERUN VIA CONTACTOR CM1.
20. ROUTE HOMERUN VIA CONTACTOR CM2.
21. ROUTE HOMERUN VIA CONTACTOR CM3.
22. ROUTE HOMERUN VIA CONTACTOR CM4.
23. INTERLOCK CONTROLLER WITH FIRE RELAY COIL FURNISHED WITH FAN SUCH THAT RELAY COIL IS ENERGIZED AND FAN SHUTS DOWN WHEN SIGNAL IS RECEIVED FROM FACP DURING ALARM.

## HVAC EQUIPMENT CONTACTOR SCHEDULE

| NUMBER | EQUIPMENT SERVED | VOLTAGE | # POLES | COIL VOLTAGE | CONTROL CKT | REMARKS |
|---|---|---|---|---|---|---|
| CB | BOILERS/HW GENERATORS | 480 | 12 | 120 | E2RM-26 | NOTE 1 |
| CM1 | MASONRY SHOP IAC'S | 120 | 4 | 120 | R11E-14 | NOTES 1 & 2 |
| CM2 | CARPENTRY SHOP IAC'S | 120 | 6 | 120 | R21S-52 | NOTES 1 & 2 |
| CM3 | INDUSTRIAL MILLWRIGHT SHOP IAC'S | 120 | 6 | 120 | R21S-54 | NOTES 1 & 2 |
| CM4 | AUTOBODY SHOP IAC'S | 120 | 8 | 120 | R21S-20 | NOTES 1 & 2 |
| CM5 | CHW HEAT TRACE | 120 | 8 | 120 | E3CM-34 | NOTE 1 |
| | | | | | | |

NOTES:
1. PROVIDE NEMA 12 ENCLOSURES, MOUNT 10' AFF UON.
2. PROVIDE NORMALLY CLOSED ELECTRICALLY HELD CONTACTOR FOR OPERATION BY LOCAL TOGGLE SWITCH. PROVIDE ENGRAVED LABEL LABEL ON SWITCH COVER PLATE READING "INDUSTRIAL AIR CLEANERS"

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

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The professional services of ABHA/BSA+A, LLC. are undertaken for and performed in the interest of the NCCVT School District. No contractual obligation is assumed by ABHA/BSA+A, LLC. for the benefit of any other person involved in the project.

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE
**MECHANICAL EQUIPMENT CONNECTION SCHEDULE**

SHEET NO.
**E622**

## MECHANICAL EQUIPMENT CONNECTION SCHEDULE

| EQUIPMENT NAME | LOAD | | | SERVICE | | SOURCE CIRCUIT | STARTER SIZE | DISCONNECT (MOUNT AT UNIT UON) | | | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | KW | HP | AMPS | VOLTS | PH | | | POLE | AMPS | FUSE (VERIFY W/ NAMEPLATE) | NEMA ENCLOSURE | |
| FCU-1.01 | | | 0.7 | 277 | 1 | H21G-12 | | | | | 1 | 5 |
| FCU-1.02 | | | 0.7 | 277 | 1 | H21G-12 | | | | | 1 | 5 |
| FCU-1.03 | | | 0.7 | 277 | 1 | H21G-12 | | | | | 1 | 5 |
| FCU-1.04 | | | 0.7 | 277 | 1 | H21G-12 | | | | | 1 | 5 |
| FCU-1.05 | | | 0.7 | 277 | 1 | H21G-12 | | | | | 1 | 5 |
| FCU-1.06 | | | 0.7 | 277 | 1 | H21G-12 | | | | | 1 | 5 |
| FCU-1.07 | | | 0.7 | 277 | 1 | H21G-12 | | | | | 1 | 5 |
| FCU-1.08 | | | 0.7 | 277 | 1 | H21G-12 | | | | | 1 | 5 |
| FCU-1.09 | | | 0.7 | 277 | 1 | H21G-10 | | | | | 1 | 5 |
| FCU-1.10 | | | 0.7 | 277 | 1 | H21G-10 | | | | | 1 | 5 |
| FCU-1.11 | | | 0.7 | 277 | 1 | H21G-9 | | | | | 1 | 5 |
| FCU-1.12 | | | 0.7 | 277 | 1 | H21G-10 | | | | | 1 | 5 |
| FCU-1.13 | | | 0.7 | 277 | 1 | H21G-10 | | | | | 1 | 5 |
| FCU-1.14 | | | 0.7 | 277 | 1 | H21G-10 | | | | | 1 | 5 |
| FCU-1.15 | | | 0.7 | 277 | 1 | H21G-9 | | | | | 1 | 5 |
| FCU-1.16 | | | 0.9 | 277 | 1 | H21G-8 | | | | | 1 | 5 |
| **FCU-1.17** | | | 3 | 480 | 3 | H21G-13 | 0 | 3 | 30 | | 1 | 3 |
| FCU-1.18 | | | 0.7 | 277 | 1 | H21G-8 | | | | | 1 | 5 |
| FCU-1.19 | | | 0.7 | 277 | 1 | H21G-8 | | | | | 1 | 5 |
| FCU-1.20 | | | 0.7 | 277 | 1 | H21G-11 | | | | | 1 | 5 |
| FCU-1.21 | | | 0.7 | 277 | 1 | H21G-7 | | | | | 1 | 5 |
| FCU-1.22 | | | 0.7 | 277 | 1 | H21G-7 | | | | | 1 | 5 |
| FCU-1.23 | | | 0.7 | 277 | 1 | H21G-11 | | | | | 1 | 5 |
| FCU-1.24 | | | 0.9 | 277 | 1 | H21G-7 | | | | | 1 | 5 |
| FCU-1.25 | | | 0.9 | 277 | 1 | H21G-7 | | | | | 1 | 5 |
| FCU-1.26 | | | 0.9 | 277 | 1 | H21G-7 | | | | | 1 | 5 |
| FCU-1.27 | | | 0.9 | 277 | 1 | H21G-7 | | | | | 1 | 5 |
| FCU-1.28 | | | 0.9 | 277 | 1 | H21G-11 | | | | | 1 | 5 |
| FCU-1.29 | | | 0.9 | 277 | 1 | H21G-11 | | | | | 1 | 5 |
| FCU-1.30 | | | 0.9 | 277 | 1 | H21G-11 | | | | | 1 | 5 |
| FCU-1.31 | | | 0.9 | 277 | 1 | H21G-11 | | | | | 1 | 5 |
| FCU-1.32 | | | 0.7 | 277 | 1 | H21G-8 | | | | | 1 | 5 |
| FCU-1.33 | | | 0.7 | 277 | 1 | H21G-8 | | | | | 1 | 5 |
| FCU-1.34 | | | 1.3 | 277 | 1 | H21G-9 | | | | | 1 | 5 |
| FCU-1.35 | | | 1.3 | 277 | 1 | H21G-9 | | | | | 1 | 5 |
| | | | | | | | | | | | | |
| FCU-2.01 | | | 0.9 | 277 | 1 | H11M-31 | | | | | 1 | 5 |
| FCU-2.02 | | | 0.9 | 277 | 1 | H11M-31 | | | | | 1 | 5 |
| FCU-2.03 | | | 0.7 | 277 | 1 | H11M-31 | | | | | 1 | 5 |
| FCU-2.04 | | | 0.7 | 277 | 1 | H11M-31 | | | | | 1 | 5 |
| FCU-2.05 | | | 0.7 | 277 | 1 | H11M-31 | | | | | 1 | 5 |
| FCU-2.06 | | | 1.3 | 277 | 1 | H11M-35 | | | | | 1 | 5 |
| FCU-2.07 | | | 0.7 | 277 | 1 | H11M-35 | | | | | 1 | 5 |
| FCU-2.08 | | | 0.7 | 277 | 1 | H11M-35 | | | | | 1 | 5 |
| FCU-2.09 | | | 0.7 | 277 | 1 | H11M-35 | | | | | 1 | 5 |
| FCU-2.10 | | | 0.9 | 277 | 1 | H11M-33 | | | | | 1 | 5 |
| FCU-2.11 | | | 0.9 | 277 | 1 | H11M-33 | | | | | 1 | 5 |
| FCU-2.12 | | | 0.9 | 277 | 1 | H11M-33 | | | | | 1 | 5 |
| FCU-2.13 | | | 0.9 | 277 | 1 | H11M-33 | | | | | 1 | 5 |
| FCU-2.14 | | | 0.9 | 277 | 1 | H11M-33 | | | | | 1 | 5 |
| FCU-2.15 | | | 0.9 | 277 | 1 | H11M-33 | | | | | 1 | 5 |
| FCU-2.16 | | | 0.7 | 277 | 1 | H11M-34 | | | | | 1 | 5 |
| FCU-2.17 | | | 0.9 | 277 | 1 | H11M-36 | | | | | 1 | 5 |
| FCU-2.18 | | | 0.9 | 277 | 1 | H11M-36 | | | | | 1 | 5 |
| FCU-2.19 | | | 1.3 | 277 | 1 | H11M-36 | | | | | 1 | 5 |
| FCU-2.20 | | | 1.3 | 277 | 1 | H11M-36 | | | | | 1 | 5 |
| FCU-2.21 | | | 1.3 | 277 | 1 | H11M-38 | | | | | 1 | 5 |
| FCU-2.22 | | | 1.3 | 277 | 1 | H11M-38 | | | | | 1 | 5 |
| FCU-2.23 | | | 0.7 | 277 | 1 | H11M-34 | | | | | 1 | 5 |
| FCU-2.24 | | | 0.9 | 277 | 1 | H11M-34 | | | | | 1 | 5 |
| FCU-2.25 | | | 0.9 | 277 | 1 | H11M-34 | | | | | 1 | 5 |
| FCU-2.26 | | | 1.3 | 277 | 1 | H11M-32 | | | | | 1 | 5 |
| FCU-2.27 | | | 1.3 | 277 | 1 | H11M-32 | | | | | 1 | 5 |
| FCU-2.28 | | | 1.3 | 277 | 1 | H11M-32 | | | | | 1 | 5 |
| FCU-2.29 | | | 0.9 | 277 | 1 | H11M-35 | | | | | 1 | 5 |
| FCU-2.30 | | | 0.9 | 277 | 1 | H11M-35 | | | | | 1 | 5 |
| FCU-2.31 | | | 0.9 | 277 | 1 | H11M-35 | | | | | 1 | 5 |
| FCU-2.32 | | | 1.3 | 277 | 1 | H11E-40 | | | | | 1 | 5 |
| FCU-2.33 | | | 0.9 | 277 | 1 | H11E-40 | | | | | 1 | 5 |
| FCU-2.34 | | | 0.9 | 277 | 1 | H11E-40 | | | | | 1 | 5 |
| FCU-2.35 | | | 0.9 | 277 | 1 | H11E-42 | | | | | 1 | 5 |
| FCU-2.36 | | | 0.9 | 277 | 1 | H11E-40 | | | | | 1 | 5 |
| FCU-2.37 | | | 0.9 | 277 | 1 | H11E-40 | | | | | 1 | 5 |
| FCU-2.38 | | | 0.9 | 277 | 1 | H11E-40 | | | | | 1 | 5 |
| FCU-2.39 | | | 0.9 | 277 | 1 | H11E-42 | | | | | 1 | 5 |
| | | | | | | | | | | | | |
| FCU-3.01 | | | 0.9 | 277 | 1 | H11E-13 | | | | | 1 | 5 |

## MECHANICAL EQUIPMENT CONNECTION SCHEDULE

| EQUIPMENT NAME | LOAD | | | SERVICE | | SOURCE CIRCUIT | STARTER SIZE | DISCONNECT (MOUNT AT UNIT UON) | | | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | KW | HP | AMPS | VOLTS | PH | | | POLE | AMPS | FUSE (VERIFY W/ NAMEPLATE) | NEMA ENCLOSURE | |
| FCU-3.02 | | | 0.9 | 277 | 1 | H11E-13 | | | | | 1 | 5 |
| FCU-3.03 | | | 0.7 | 277 | 1 | H11E-38 | | | | | 1 | 5 |
| FCU-3.04 | | | 0.9 | 277 | 1 | H11E-13 | | | | | 1 | 5 |
| FCU-3.05 | | | 0.9 | 277 | 1 | H11E-38 | | | | | 1 | 5 |
| FCU-3.06 | | | 0.9 | 277 | 1 | H11E-38 | | | | | 1 | 5 |
| FCU-3.07 | | | 0.9 | 277 | 1 | H11E-38 | | | | | 1 | 5 |
| FCU-3.08 | | | 0.9 | 277 | 1 | H11E-38 | | | | | 1 | 5 |
| FCU-3.09 | | | 0.7 | 277 | 1 | H11N-1 | | | | | 1 | 5 |
| FCU-3.10 | | | 0.9 | 277 | 1 | H11N-1 | | | | | 1 | 5 |
| FCU-3.11 | | | 0.9 | 277 | 1 | H11E-15 | | | | | 1 | 5 |
| FCU-3.12 | | | 0.9 | 277 | 1 | H11E-15 | | | | | 1 | 5 |
| FCU-3.13 | | | 0.9 | 277 | 1 | H11E-15 | | | | | 1 | 5 |
| FCU-3.14 | | | 0.7 | 277 | 1 | H11E-17 | | | | | 1 | 5 |
| FCU-3.15 | | | 0.7 | 277 | 1 | H11E-15 | | | | | 1 | 5 |
| FCU-3.16 | | | 1.3 | 277 | 1 | H11E-15 | | | | | 1 | 5 |
| FCU-3.17 | | | 1.3 | 277 | 1 | H11E-17 | | | | | 1 | 5 |
| FCU-3.18 | | | 1.3 | 277 | 1 | H11E-17 | | | | | 1 | 5 |
| FCU-3.19 | | | 0.9 | 277 | 1 | H11N-5 | | | | | 1 | 5 |
| FCU-3.20 | | | 0.9 | 277 | 1 | H11N-5 | | | | | 1 | 5 |
| FCU-3.21 | | | 1.3 | 277 | 1 | H11N-3 | | | | | 1 | 5 |
| FCU-3.22 | | | 1.3 | 277 | 1 | H11N-3 | | | | | 1 | 5 |
| FCU-3.23 | | | 0.7 | 277 | 1 | H11N-3 | | | | | 1 | 5 |
| FCU-3.24 | | | 0.7 | 277 | 1 | H11N-3 | | | | | 1 | 5 |
| FCU-3.25 | | | 1.3 | 277 | 1 | H11N-1 | | | | | 1 | 5 |
| FCU-3.26 | | | 0.9 | 277 | 1 | H11N-5 | | | | | 1 | 5 |
| FCU-3.27 | | | 0.9 | 277 | 1 | H11N-5 | | | | | 1 | 5 |
| FCU-3.28 | | | 1.3 | 277 | 1 | H11N-4 | | | | | 1 | 5 |
| FCU-3.29 | | | 1.3 | 277 | 1 | H11N-4 | | | | | 1 | 5 |
| FCU-3.30 | | | 1.3 | 277 | 1 | H11N-2 | | | | | 1 | 5 |
| FCU-3.31 | | | 1.3 | 277 | 1 | H11N-2 | | | | | 1 | 5 |
| FCU-3.32 | | | 1.3 | 277 | 1 | H11N-2 | | | | | 1 | 5 |
| FCU-3.33 | | | 1.3 | 277 | 1 | H11N-2 | | | | | 1 | 5 |
| FCU-3.34 | | | 0.9 | 277 | 1 | H11N-4 | | | | | 1 | 5 |
| FCU-3.35 | | | 0.9 | 277 | 1 | H11N-4 | | | | | 1 | 5 |
| FCU-3.36 | | | 8.5 | 120 | 1 | R11N-3 | | | | | | 2 |
| | | | | | | | | | | | | |
| FCU-4.01 | | | 0.9 | 277 | 1 | H11N-8 | | | | | 1 | 5 |
| FCU-4.02 | | | 0.9 | 277 | 1 | H11N-8 | | | | | 1 | 5 |
| FCU-4.03 | | | 0.7 | 277 | 1 | H11N-8 | | | | | 1 | 5 |
| FCU-4.04 | | | 0.7 | 277 | 1 | H11N-8 | | | | | 1 | 5 |
| FCU-4.05 | | | 0.7 | 277 | 1 | H11N-8 | | | | | 1 | 5 |
| FCU-4.06 | | | 0.9 | 277 | 1 | H11N-10 | | | | | 1 | 5 |
| FCU-4.07 | | | 0.7 | 277 | 1 | H11N-10 | | | | | 1 | 5 |
| FCU-4.08 | | | 0.9 | 277 | 1 | H11N-10 | | | | | 1 | 5 |
| FCU-4.09 | | | 0.7 | 277 | 1 | H11N-10 | | | | | 1 | 5 |
| FCU-4.10 | | | 0.9 | 277 | 1 | H11N-10 | | | | | 1 | 5 |
| FCU-4.11 | | | 0.7 | 277 | 1 | H11N-6 | | | | | 1 | 5 |
| FCU-4.12 | | | 0.9 | 277 | 1 | H11N-6 | | | | | 1 | 5 |
| FCU-4.13 | | | 0.7 | 277 | 1 | H11N-6 | | | | | 1 | 5 |
| FCU-4.14 | | | 0.7 | 277 | 1 | H11N-6 | | | | | 1 | 5 |
| FCU-4.15 | | | 0.7 | 277 | 1 | H11N-6 | | | | | 1 | 5 |
| FCU-4.16 | | | 0.7 | 277 | 1 | H11N-6 | | | | | 1 | 5 |
| FCU-4.17 | | | 0.7 | 277 | 1 | H11N-6 | | | | | 1 | 5 |
| FCU-4.18 | | | 0.9 | 277 | 1 | H11N-12 | | | | | 1 | 5 |
| FCU-4.19 | | | 0.7 | 277 | 1 | H11N-12 | | | | | 1 | 5 |
| FCU-4.20 | | | 0.9 | 277 | 1 | H11N-12 | | | | | 1 | 5 |
| FCU-4.21 | | | 0.9 | 277 | 1 | H11N-12 | | | | | 1 | 5 |
| FCU-4.22 | | | 0.7 | 277 | 1 | H11N-12 | | | | | 1 | 5 |
| FCU-4.23 | | | 0.7 | 277 | 1 | H11N-7 | | | | | 1 | 5 |
| FCU-4.24 | | 1.5 | | 480 | 3 | H11N-13 | 0 | 3 | 30 | - | 1 | 3 |
| FCU-4.25 | | | 0.9 | 277 | 1 | H11N-7 | | | | | 1 | 5 |
| FCU-4.26 | | | 0.9 | 277 | 1 | H11N-7 | | | | | 1 | 5 |
| FCU-4.27 | | | 8.5 | 120 | 1 | R11N-5 | | | | | | 2 |
| FCU-4.28 | | | 0.8 | 277 | 1 | H11N-7 | | | | | 1 | 5 |
| | | | | | | | | | | | | |
| FCU-5.01 | | | 0.7 | 277 | 1 | H21W-1 | | | | | 1 | 5 |
| FCU-5.02 | | | 0.7 | 277 | 1 | H21W-1 | | | | | 1 | 5 |
| FCU-5.03 | | | 0.9 | 277 | 1 | H21W-1 | | | | | 1 | 5 |
| FCU-5.04 | | | 0.7 | 277 | 1 | H21W-1 | | | | | 1 | 5 |
| FCU-5.05 | | | 0.7 | 277 | 1 | H21W-1 | | | | | 1 | 5 |
| FCU-5.06 | | | 0.7 | 277 | 1 | H21W-1 | | | | | 1 | 5 |
| FCU-5.07 | | | 0.9 | 277 | 1 | H21W-3 | | | | | 1 | 5 |
| FCU-5.08 | | | 0.7 | 277 | 1 | H21W-3 | | | | | 1 | 5 |
| FCU-5.09 | | | 1.3 | 277 | 1 | H21W-3 | | | | | 1 | 5 |
| FCU-5.10 | | | 0.7 | 277 | 1 | H21W-3 | | | | | 1 | 5 |

REFER TO DRAWING E620 FOR MECHANICAL EQUIPMENT CONNECTION SCHEDULE NOTES

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

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The professional services of ABHA/BSA+A, LLC. are undertaken for and performed in the interest of the NCCVT School District. No contractual obligation is assumed by ABHA/BSA+A, LLC. for the benefit of any other person involved in the project.

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**MECHANICAL EQUIPMENT CONNECTION SCHEDULE**

SHEET NO.

**E623**

## MECHANICAL EQUIPMENT CONNECTION SCHEDULE

| EQUIPMENT NAME | LOAD | | | SERVICE | | SOURCE CIRCUIT | STARTER SIZE | DISCONNECT (MOUNT AT UNIT UON) | | | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | KW | HP | AMPS | VOLTS | PH | | | POLE | AMPS | FUSE (VERIFY W/ NAMEPLATE) | NEMA ENCLOSURE | |
| FCU-5.11 | | | 0.9 | 277 | 1 | H21W-3 | | | | | 1 | 5 |
| FCU-5.12 | | | 0.7 | 277 | 1 | H21W-3 | | | | | 1 | 5 |
| FCU-5.13 | | | 0.9 | 277 | 1 | H21W-5 | | | | | 1 | 5 |
| FCU-5.14 | | | 0.7 | 277 | 1 | H21W-5 | | | | | 1 | 5 |
| FCU-5.15 | | | 0.7 | 277 | 1 | H21W-5 | | | | | 1 | 5 |
| FCU-5.16 | | | 0.7 | 277 | 1 | H21W-5 | | | | | 1 | 5 |
| FCU-5.17 | | | 0.7 | 277 | 1 | H21W-5 | | | | | 1 | 5 |
| FCU-5.18 | | | 0.7 | 277 | 1 | H21W-5 | | | | | 1 | 5 |
| FCU-5.19 | | | 0.9 | 277 | 1 | H21W-5 | | | | | 1 | 5 |
| FCU-5.20 | | | 0.7 | 277 | 1 | H21W-5 | | | | | 1 | 5 |
| FCU-5.21 | | | 0.7 | 277 | 1 | H21W-7 | | | | | 1 | 5 |
| FCU-5.22 | | | 0.7 | 277 | 1 | H21W-7 | | | | | 1 | 5 |
| FCU-5.23 | | | 0.7 | 277 | 1 | H21W-7 | | | | | 1 | 5 |
| FCU-5.24 | | | 0.7 | 277 | 1 | H21W-7 | | | | | 1 | 5 |
| FCU-5.25 | | | 0.9 | 277 | 1 | H21W-7 | | | | | 1 | 5 |
| FCU-5.26 | | | 0.7 | 277 | 1 | H21W-7 | | | | | 1 | 5 |
| FCU-5.27 | | | 0.7 | 277 | 1 | H21W-7 | | | | | 1 | 5 |
| FCU-5.28 | | | 0.7 | 277 | 1 | H21W-7 | | | | | 1 | 5 |
| FCU-5.29 | | | 0.7 | 277 | 1 | H21W-2 | | | | | 1 | 5 |
| FCU-5.30 | | | 0.7 | 277 | 1 | H21W-2 | | | | | 1 | 5 |
| FCU-5.31 | | | 0.9 | 277 | 1 | H21W-2 | | | | | 1 | 5 |
| FCU-5.32 | | | 0.7 | 277 | 1 | H21W-2 | | | | | 1 | 5 |
| FCU-5.33 | | | 0.9 | 277 | 1 | H21W-2 | | | | | 1 | 5 |
| FCU-5.34 | | | 0.7 | 277 | 1 | H21W-2 | | | | | 1 | 5 |
| FCU-5.35 | | | 0.7 | 277 | 1 | H21W-2 | | | | | 1 | 5 |
| FCU-5.36 | | | 0.9 | 277 | 1 | H21W-4 | | | | | 1 | 5 |
| FCU-5.37 | | | 0.7 | 277 | 1 | H21W-4 | | | | | 1 | 5 |
| FCU-5.38 | | | 0.7 | 277 | 1 | H21W-4 | | | | | 1 | 5 |
| FCU-5.39 | | | 1.3 | 277 | 1 | H21W-6 | | | | | 1 | 5 |
| FCU-5.40 | | | 0.7 | 277 | 1 | H21W-4 | | | | | 1 | 5 |
| FCU-5.41 | | | 0.7 | 277 | 1 | H21W-4 | | | | | 1 | 5 |
| FCU-5.42 | | | 0.7 | 277 | 1 | H21W-6 | | | | | 1 | 5 |
| FCU-5.43 | | | 0.7 | 277 | 1 | H21W-6 | | | | | 1 | 5 |
| FCU-5.44 | | | 0.9 | 277 | 1 | H21W-6 | | | | | 1 | 5 |
| FCU-5.45 | | | 0.9 | 277 | 1 | H21W-6 | | | | | 1 | 5 |
| FCU-5.46 | | | 0.7 | 277 | 1 | H21W-12 | | | | | 1 | 5 |
| FCU-5.47 | | | 0.7 | 277 | 1 | H21W-12 | | | | | 1 | 5 |
| FCU-5.48 | | | 0.7 | 277 | 1 | H21W-12 | | | | | 1 | 5 |
| FCU-5.49 | | | 0.7 | 277 | 1 | H21W-12 | | | | | 1 | 5 |
| FCU-5.50 | | | 0.7 | 277 | 1 | H21W-12 | | | | | 1 | 5 |
| FCU-5.51 | | | 0.7 | 277 | 1 | H21W-12 | | | | | 1 | 5 |
| FCU-5.52 | | | 1.3 | 277 | 1 | H21W-9 | | | | | 1 | 5 |
| FCU-5.53 | | | 1.3 | 277 | 1 | H21W-9 | | | | | 1 | 5 |
| FCU-5.54 | | | 0.9 | 277 | 1 | H21W-9 | | | | | 1 | 5 |
| FCU-5.55 | | | 0.7 | 277 | 1 | H21W-9 | | | | | 1 | 5 |
| FCU-5.56 | | | 0.7 | 277 | 1 | H21W-11 | | | | | 1 | 5 |
| FCU-5.57 | | | 0.9 | 277 | 1 | H21W-11 | | | | | 1 | 5 |
| FCU-5.58 | | | 1.3 | 277 | 1 | H21W-11 | | | | | 1 | 5 |
| FCU-5.59 | | | 0.9 | 277 | 1 | H21W-4 | | | | | 1 | 5 |
| FCU-5.60 | | | 8.5 | 120 | 1 | R21W-3 | | | | | | 2 |
| FCU-5.61 | | | 8.5 | 120 | 1 | R21W-5 | | | | | | 2 |
| | | | | | | | | | | | | |
| FCU-6.01 | | | 1.3 | 277 | 1 | H11E-50 | | | | | 1 | 5 |
| FCU-6.02 | | | 1.3 | 277 | 1 | H11E-50 | | | | | 1 | 5 |
| FCU-6.03 | | | 1.3 | 277 | 1 | H11E-50 | | | | | 1 | 5 |
| FCU-6.04 | | | 0.7 | 277 | 1 | H21SA-22 | | | | | 1 | 5 |
| FCU-6.05 | | | 1.3 | 277 | 1 | H21SA-20 | | | | | 1 | 5 |
| FCU-6.06 | | | 0.9 | 277 | 1 | H21SA-22 | | | | | 1 | 5 |
| FCU-6.07 | | | 0.9 | 277 | 1 | H21SA-22 | | | | | 1 | 5 |
| FCU-6.08 | | | 0.7 | 277 | 1 | H21SA-22 | | | | | 1 | 5 |
| FCU-6.09 | | | 0.9 | 277 | 1 | H21SA-44 | | | | | 1 | 5 |
| FCU-6.10 | | | 0.7 | 277 | 1 | H21SA-22 | | | | | 1 | 5 |
| FCU-6.11 | | | 0.9 | 277 | 1 | H21SA-24 | | | | | 1 | 5 |
| FCU-6.12 | | | 0.9 | 277 | 1 | H21SA-24 | | | | | 1 | 5 |
| FCU-6.13 | | | 0.7 | 277 | 1 | H21SA-24 | | | | | 1 | 5 |
| FCU-6.14 | | | 0.9 | 277 | 1 | H21SA-44 | | | | | 1 | 5 |
| FCU-6.15 | | | 0.9 | 277 | 1 | H21SA-24 | | | | | 1 | 5 |
| FCU-6.16 | | | 0.9 | 277 | 1 | H21SA-24 | | | | | 1 | 5 |
| FCU-6.17 | | | 0.9 | 277 | 1 | H21SA-24 | | | | | 1 | 5 |
| FCU-6.18 | | | 1.3 | 277 | 1 | H21SA-20 | | | | | 1 | 5 |
| FCU-6.19 | | | 1.3 | 277 | 1 | H21SA-20 | | | | | 1 | 5 |
| FCU-6.20 | | | 0.7 | 277 | 1 | H21SA-19 | | | | | 1 | 5 |
| FCU-6.21 | | | 1.3 | 277 | 1 | H21SA-23 | | | | | 1 | 5 |
| FCU-6.22 | | | 0.9 | 277 | 1 | H21SA-23 | | | | | 1 | 5 |
| FCU-6.23 | | | 1.3 | 277 | 1 | H21SA-19 | | | | | 1 | 5 |
| FCU-6.24 | | | 0.9 | 277 | 1 | H21SA-23 | | | | | 1 | 5 |
| FCU-6.25 | | | 1.3 | 277 | 1 | H21SA-19 | | | | | 1 | 5 |

## MECHANICAL EQUIPMENT CONNECTION SCHEDULE

| EQUIPMENT NAME | LOAD | | | SERVICE | | SOURCE CIRCUIT | STARTER SIZE | DISCONNECT (MOUNT AT UNIT UON) | | | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | KW | HP | AMPS | VOLTS | PH | | | POLE | AMPS | FUSE (VERIFY W/ NAMEPLATE) | NEMA ENCLOSURE | |
| FCU-6.26 | | | 1.3 | 277 | 1 | H21SA-19 | | | | | 1 | 5 |
| FCU-6.27 | | | 0.7 | 277 | 1 | H21SA-21 | | | | | 1 | 5 |
| FCU-6.28 | | | 1.3 | 277 | 1 | H21SA-21 | | | | | 1 | 5 |
| FCU-6.29 | | | 0.9 | 277 | 1 | H21SA-44 | | | | | 1 | 5 |
| FCU-6.30 | | | 0.9 | 277 | 1 | H21SA-23 | | | | | 1 | 5 |
| FCU-6.31 | | | 1.3 | 277 | 1 | H21SA-21 | | | | | 1 | 5 |
| | | | | | | | | | | | | |
| FCU-7.01 | | | 0.7 | 277 | 1 | H12N-3 | | | | | 1 | 5 |
| FCU-7.02 | | | 1.3 | 277 | 1 | H12N-1 | | | | | 1 | 5 |
| FCU-7.03 | | | 1.3 | 277 | 1 | H12N-1 | | | | | 1 | 5 |
| FCU-7.04 | | | 1.3 | 277 | 1 | H12N-3 | | | | | 1 | 5 |
| FCU-7.05 | | | 0.9 | 277 | 1 | H12N-3 | | | | | 1 | 5 |
| FCU-7.06 | | | 1.3 | 277 | 1 | H12N-1 | | | | | 1 | 5 |
| FCU-7.07 | | | 1.3 | 277 | 1 | H12N-1 | | | | | 1 | 5 |
| FCU-7.08 | | | 1.3 | 277 | 1 | H12N-5 | | | | | 1 | 5 |
| FCU-7.09 | | | 1.3 | 277 | 1 | H12N-3 | | | | | 1 | 5 |
| FCU-7.10 | | | 1.3 | 277 | 1 | H12N-5 | | | | | 1 | 5 |
| FCU-7.11 | | | 1.3 | 277 | 1 | H12N-5 | | | | | 1 | 5 |
| FCU-7.12 | | | 0.9 | 277 | 1 | H12N-5 | | | | | 1 | 5 |
| FCU-7.13 | | | 1.3 | 277 | 1 | H12N-9 | | | | | 1 | 5 |
| FCU-7.14 | | | 1.3 | 277 | 1 | H12N-2 | | | | | 1 | 5 |
| FCU-7.15 | | | 1.3 | 277 | 1 | H12N-2 | | | | | 1 | 5 |
| FCU-7.16 | | | 1.3 | 277 | 1 | H12N-2 | | | | | 1 | 5 |
| FCU-7.17 | | | 0.7 | 277 | 1 | H12N-9 | | | | | 1 | 5 |
| FCU-7.18 | | | 0.7 | 277 | 1 | H12N-9 | | | | | 1 | 5 |
| FCU-7.19 | | | 1.3 | 277 | 1 | H12N-4 | | | | | 1 | 5 |
| FCU-7.20 | | | 1.3 | 277 | 1 | H12N-4 | | | | | 1 | 5 |
| FCU-7.21 | | | 1.3 | 277 | 1 | H12N-4 | | | | | 1 | 5 |
| FCU-7.22 | | | 0.7 | 277 | 1 | H12N-4 | | | | | 1 | 5 |
| FCU-7.23 | | | 1.3 | 277 | 1 | H12N-6 | | | | | 1 | 5 |
| FCU-7.24 | | | 1.3 | 277 | 1 | H12N-6 | | | | | 1 | 5 |
| FCU-7.25 | | | 1.3 | 277 | 1 | H12N-6 | | | | | 1 | 5 |
| FCU-7.26 | | | 0.7 | 277 | 1 | H12N-9 | | | | | 1 | 5 |
| FCU-7.27 | | 1.5 | | 480 | 3 | H22W-8 | 0 | 3 | 30 | - | 1 | 3 |
| FCU-7.28 | | 1.5 | | 480 | 3 | H12N-8 | 0 | 3 | 30 | - | 1 | 3 |
| FCU-7.29 | | 1.5 | | 480 | 3 | H12N-14 | 0 | 3 | 30 | - | 1 | 3 |
| FCU-7.30 | | | 0.7 | 277 | 1 | H12N-11 | | | | | 1 | 5 |
| FCU-7.31 | | | 0.9 | 277 | 1 | H12N-11 | | | | | 1 | 5 |
| FCU-7.32 | | | 0.7 | 277 | 1 | H12N-11 | | | | | 1 | 5 |
| FCU-7.33 | | | 1.3 | 277 | 1 | H12N-2 | | | | | 1 | 5 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| FCU-8.01 | | | 1.3 | 277 | 1 | H22W-1 | | | | | 1 | 5 |
| FCU-8.02 | | | 1.3 | 277 | 1 | H22W-1 | | | | | 1 | 5 |
| FCU-8.03 | | | 1.3 | 277 | 1 | H22W-1 | | | | | 1 | 5 |
| FCU-8.04 | | | 1.3 | 277 | 1 | H22W-1 | | | | | 1 | 5 |
| FCU-8.05 | | | 1.3 | 277 | 1 | H22W-3 | | | | | 1 | 5 |
| FCU-8.06 | | | 1.3 | 277 | 1 | H22W-3 | | | | | 1 | 5 |
| FCU-8.07 | | | 1.3 | 277 | 1 | H22W-5 | | | | | 1 | 5 |
| FCU-8.08 | | | 1.3 | 277 | 1 | H22W-2 | | | | | 1 | 5 |
| FCU-8.09 | | | 1.3 | 277 | 1 | H22W-2 | | | | | 1 | 5 |
| FCU-8.10 | | | 0.9 | 277 | 1 | H22W-2 | | | | | 1 | 5 |
| FCU-8.11 | | | 0.9 | 277 | 1 | H22W-5 | | | | | 1 | 5 |
| FCU-8.12 | | | 0.7 | 277 | 1 | H22W-2 | | | | | 1 | 5 |
| FCU-8.13 | | | 0.9 | 277 | 1 | H22W-6 | | | | | 1 | 5 |
| FCU-8.14 | | | 1.3 | 277 | 1 | H22W-4 | | | | | 1 | 5 |
| FCU-8.15 | | | 1.3 | 277 | 1 | H22W-6 | | | | | 1 | 5 |
| FCU-8.16 | | | 1.3 | 277 | 1 | H22W-6 | | | | | 1 | 5 |
| FCU-8.17 | | | 1.3 | 277 | 1 | H22W-6 | | | | | 1 | 5 |
| FCU-8.18 | | | 0.7 | 277 | 1 | H22W-6 | | | | | 1 | 5 |
| FCU-8.19 | | | 1.3 | 277 | 1 | H22W-4 | | | | | 1 | 5 |
| FCU-8.20 | | | 1.3 | 277 | 1 | H22W-4 | | | | | 1 | 5 |
| FCU-8.21 | | | 1.3 | 277 | 1 | H22W-4 | | | | | 1 | 5 |
| FCU-8.22 | | | 0.9 | 277 | 1 | H22W-5 | | | | | 1 | 5 |
| FCU-8.23 | | | 0.9 | 277 | 1 | H22W-5 | | | | | 1 | 5 |
| FCU-8.24 | | | 0.9 | 277 | 1 | H22W-5 | | | | | 1 | 5 |
| FCU-8.25 | | | 0.9 | 277 | 1 | H22W-2 | | | | | 1 | 5 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| FCU-9.01 | | | 0.7 | 277 | 1 | H22S-1 | | | | | 1 | 5 |
| FCU-9.02 | | | 0.7 | 277 | 1 | H22S-1 | | | | | 1 | 5 |
| FCU-9.03 | | | 0.9 | 277 | 1 | H22S-1 | | | | | 1 | 5 |
| FCU-9.04 | | | 0.9 | 277 | 1 | H22S-1 | | | | | 1 | 5 |

REFER TO DRAWING E620 FOR MECHANICAL EQUIPMENT CONNECTION SCHEDULE NOTES

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN


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1417 Newport Pike
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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**MECHANICAL EQUIPMENT CONNECTION SCHEDULE**

SHEET NO.

**E624**

## MECHANICAL EQUIPMENT CONNECTION SCHEDULE

| EQUIPMENT NAME | LOAD | | | SERVICE | | SOURCE CIRCUIT | STARTER SIZE | DISCONNECT (MOUNT AT UNIT UON) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | KW | HP | AMPS | VOLTS | PH | | | POLE | AMPS | FUSE (VERIFY W/ NAMEPLATE) | NEMA ENCLOSURE | NOTES |
| FCU-9.05 | | | 0.9 | 277 | 1 | H22S-1 | | | | | 1 | 5 |
| FCU-9.06 | | | 0.9 | 277 | 1 | H22S-1 | | | | | 1 | 5 |
| FCU-9.07 | | | 0.9 | 277 | 1 | H22S-3 | | | | | 1 | 5 |
| FCU-9.08 | | | 0.9 | 277 | 1 | H22S-3 | | | | | 1 | 5 |
| FCU-9.09 | | | 0.9 | 277 | 1 | H22S-5 | | | | | 1 | 5 |
| FCU-9.10 | | | 0.9 | 277 | 1 | H22S-5 | | | | | 1 | 5 |
| FCU-9.11 | | | 0.9 | 277 | 1 | H22S-5 | | | | | 1 | 5 |
| FCU-9.12 | | | 0.9 | 277 | 1 | H22S-5 | | | | | 1 | 5 |
| FCU-9.13 | | | 1.3 | 277 | 1 | H22S-3 | | | | | 1 | 5 |
| FCU-9.14 | | | 1.3 | 277 | 1 | H22S-3 | | | | | 1 | 5 |
| FCU-9.15 | | | 1.3 | 277 | 1 | H12E-7 | | | | | 1 | 5 |
| FCU-9.16 | | | 1.3 | 277 | 1 | H12E-7 | | | | | 1 | 5 |
| FCU-9.17 | | | 0.9 | 277 | 1 | H12E-9 | | | | | 1 | 5 |
| FCU-9.18 | | | 0.9 | 277 | 1 | H12E-9 | | | | | 1 | 5 |
| FCU-9.19 | | | 0.9 | 277 | 1 | H12E-9 | | | | | 1 | 5 |
| FCU-9.20 | | | 0.9 | 277 | 1 | H12E-9 | | | | | 1 | 5 |
| FCU-9.21 | | | 1.3 | 277 | 1 | H12E-7 | | | | | 1 | 5 |
| FCU-9.22 | | | 0.7 | 277 | 1 | H12E-11 | | | | | 1 | 5 |
| FCU-9.23 | | | 0.7 | 277 | 1 | H12E-11 | | | | | 1 | 5 |
| FCU-9.24 | | | 0.9 | 277 | 1 | H12E-11 | | | | | 1 | 5 |
| FCU-9.25 | | | 0.9 | 277 | 1 | H12E-11 | | | | | 1 | 5 |
| FCU-9.26 | | | 0.9 | 277 | 1 | H12E-11 | | | | | 1 | 5 |
| FCU-9.27 | | | 0.9 | 277 | 1 | H12E-11 | | | | | 1 | 5 |
| FCU-9.28 | | | 1.3 | 277 | 1 | H12E-7 | | | | | 1 | 5 |
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| | | | | | | | | | | | | |
| ERHP-1 | 0.375 | | | 277 | 1 | H21A-16 | | | | | 1 | 5 |
| ERHP-2 | 0.375 | | | 277 | 1 | H21A-16 | | | | | 1 | 5 |
| | | | | | | | | | | | | |
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REFER TO DRAWING E620 FOR MECHANICAL EQUIPMENT CONNECTION SCHEDULE NOTES

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN


OWNER

New Castle County Vo-Tech School District

1417 Newport Pike
Wilmington, DE 19804

STRUCTURAL ENGINEER

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Wilmington , DE 19806
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MECHANICAL / ELECTRICAL ENGINEER

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Landmark Science & Engineering

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THEATER PLANNING

STAGES CONSULTANTS, LLC

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Phone (732) 333-8003

ARCHITECTS

**ABHA | BSA+A**

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Phone (302) 658-6426
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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**MECHANICAL EQUIPMENT CONNECTION SCHEDULE**

SHEET NO.

**E625**

# KITCHEN EQUIPMENT CONNECTION SCHEDULE

| NO. | DESCRIPTION | HP | KW | AMP | VOLT | PH | ROUGH-IN HEIGHT AFF | PROVIDE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | CORD & PLUG | RECP | DISC | JB |
| E1 | WALK-IN MILK COOLER | | | 10.0 | 120 | 1 | | | | | |
| E2 | EVAPORATOR COIL, WALK-IN MILK COOLER | | | 1.1 | 208/230 | 3 | FROM ABOVE | | | 3P-30A-FSS | |
| E3 | CONDENSING UNIT, WALK-IN MILK COOLER | 2 | | 16 | 208/230 | 3 | FROM ABOVE | | | 3P-30A-FSS | |
| E13 | DISHWASHER, RACK CONVEYOR | | | 180.1 | 208 | 3 | 5'-6" | | | 3P-200A-NFSS | |
| E15 | FOOD WASTE DISPOSER | 3 | | 8.8 | 208 | 3 | 24" | | | 3P-30A-FSS | |
| E22 | WALK-IN COOLER/FREEZER COMBINATION | | | 10.0 | 120 | 1 | FROM ABOVE | | | 2P-30A-FSS | |
| E25 | EVAPORATOR COIL, WALK-IN COOLER | | | 1.1 | 208/230 | 1 | FROM ABOVE | | | 2P-30A-FSS | |
| E26 | CONDENSING UNIT, WALK-IN COOLER | | | 13.9 | 208/230 | 3 | FROM ABOVE | | | 2P-30A-FSS | |
| E27 | EVAPORATOR COIL, WALK-IN COOLER | | | 1.1 | 208/230 | 1 | FROM ABOVE | | | 2P-30A-FSS | |
| E28 | CONDENSING UNIT, WALK-IN COOLER | | | 13.9 | 208/230 | 3 | FROM ABOVE | | | 2P-30A-FSS | |
| E29 | EVAPORATOR COIL, WALK-IN FREEZER | | | 14.1 | 208/230 | 1 | FROM ABOVE | | | 2P-30A-FSS | |
| E30 | CONDENSING UNIT, WALK-IN FREEZER | 4 | | 21.5 | 208/230 | 3 | FROM ABOVE | | | 2P-30A-FSS | |
| E31 | EVAPORATOR COIL, WALK-IN FREEZER | | | 14.1 | 208/230 | 1 | FROM ABOVE | | | 2P-30A-FSS | |
| E32 | CONDENSING UNIT, WALK-IN FREEZER | 4 | | 21.5 | 208/230 | 3 | FROM ABOVE | | | 2P-30A-FSS | |
| E38 | BLAST CHILLER, ROLL-IN | | | 19.5 | 208 | 3 | FROM ABOVE | | | 3P-30A-FSS | |
| E40 | ICE MAKER | | | 10.6 | 120 | 1 | 5'-6" | | | 2P-30A-FSS | |
| E42 | UTILITY DISTRIBUTION SYSTEM | | | 50.0 | 120/208 | 3 | | | | | |
| E43 | POWER WASH SINK | 3 | 3 | 17.0 | 208 | 3 | FED FROM UDS SYSTEM | | | | |
| E45 | 80 QUART MIXER | 3 | | 12.0 | 200-240V | 3 | STUB UP | X | L15-20R | | |
| E46 | FOOD CUTTER | 1 | | 7.0 | 120 | 1 | STUB UP | X | 5-15R | | |
| E48 | STEAMER CONVECTION | | 0.3 | 2.5 | 120 | 1 | FED FROM UDS SYSTEM | | | | |
| E50 | SANDWICH UNIT, REFRIGERATED | 1/3 | | 5.8 | 120 | 1 | FED FROM UDS SYSTEM | | | | |
| E51 | REFRIGERATOR, REACH-IN | 1/2 | | 8.5 | 120 | 1 | FED FROM UDS SYSTEM | | | | |
| E52 | FREEZER, REACH-IN | 1/2 | | 7.6 | 120 | 1 | FED FROM UDS SYSTEM | | | | |
| E53 | EXHAUST HOOD * | | | 20.0 | 120 | 1 | | | | | X |
| E53.1 | HOOD CONTROL PANEL * | | | 8.0 | 120 | 1 | | | | | X |
| E53.2 | FIRE SUPPRESSION SYSTEM * | | | 20.0 | 120 | 1 | | | | | X |
| E54 | TILT SKILLET | | 23 | 64.0 | 208 | 3 | FED FROM UDS SYSTEM | | | | |
| E56 | KETTLE, STEAM JACKETED | | 1.2 | 10.0 | 120 | 1 | FED FROM UDS SYSTEM | | | | |
| E57 | EXHAUST HOOD W/ ANSUL CABINET * | | | 20.0 | 120 | 1 | | | | | X |
| E57.1 | HOOD CONTROL PANEL * | | | 8.0 | 120 | 1 | | | | | X |
| E57.2 | FIRE SUPPRESSION SYSTEM * | | | 20.0 | 120 | 1 | | | | | X |
| E58 | CONVECTION OVEN, DOUBLE STACKED | 1/2 | | 6.0 | 120 | 1 | FED FROM UDS SYSTEM | | | | |
| | | 1/2 | | 6.0 | 120 | 1 | FED FROM UDS SYSTEM | | | | |
| E59 | 6-BURNER RANGE (GAS) | 1/3 | | 3.4 | 120 | | FED FROM UDS SYSTEM | | | | |
| E61 | HEATED CABINET, PASS-THRU | | | 7.2 | 208/230 | 1 | SUSPENDED | X | 6-20R | | |
| E62 | REFRIGERATOR, PASS-THRU | 1/4 | | 5.5 | 120 | 1 | SUSPENDED | | 5-15R | | |
| E63 | HYDROVECTION OVEN | | 1.2 | 10.0 | 120 | 1 | FED FROM UDS SYSTEM | | | | |
| E67 | REFRIGERATOR, REACH-IN | 1/4 | 0.7 | 5.9 | 120 | 1 | FED FROM UDS SYSTEM | | | | |
| E68 | P.O.S. SYSTEM | | | 12.0 | 120 | 1 | STUB UP | | 5-20R | | |
| E70 | MILK COOLER | | | 3.0 | 120 | 1 | STUB UP | X | 5-15R | | |
| E72 | DROP-IN, HOT/COLD/FREEZE | | | 21.0 | 120 | 1 | STUB UP | | L5-30R | | |
| E74 | FOOD WASTE DISPOSER | 3.0 | | 8.8 | 208 | 3 | STUB UP | | | 3P-30A-FSS | |
| E75 | DROP-IN, HOT/COLD/FREEZE | | | 16.0 | 120 | 1 | STUB UP | X | 5-20R | | |
| E76 | WALK-IN COOLER/FREEZER COMBINATION | | | 10.0 | 120 | 1 | | | | 2P-30A-FSS | |
| E77 | EVAPORATOR COIL, WALK-IN COOLER | | | 1.1 | 208/230 | 1 | | | | 2P-30A-FSS | |
| E78 | CONDENSING UNIT, WALK-IN COOLER | | 1.5 | 13.9 | 208/230 | 3 | | | | 2P-30A-FSS | |
| E79 | EVAPORATOR COIL, WALK-IN FREEZER | | | 14.1 | 208/230 | 1 | | | | 2P-30A-FSS | |
| E80 | CONDENSING UNIT, WALK-IN FREEZER | 2-3/5 | | 21.5 | 208/230 | 3 | | | | 2P-30A-FSS | |
| E83 | EXHAUST HOOD * | | | 20.0 | 120 | 1 | | | | | |
| E83.1 | HOOD CONTROL PANEL * | | | 8.0 | 120 | 1 | | | | | |
| E83.2 | FIRE SUPPRESSION SYSTEM * | | | 20.0 | 120 | 1 | | | | | |
| E84 | OVEN RACK | | 13.0 | 64.0 | 208 | 3 | FED FROM UDS SYSTEM | | | | |
| E90 | EXHAUST HOOD * | | | 20.0 | 120 | 1 | | | | | X |
| E90.1 | HOOD CONTROL PANEL * | | | 8.0 | 120 | 1 | | | | | X |
| E90.2 | FIRE SUPPRESSION SYSTEM * | | | 20.0 | 120 | 1 | | | | | X |
| E91 | FRYER, GAS | | 1.1 | 9.0 | 120 | 1 | FED FROM UDS SYSTEM | | | | |
| E93 | GRIDDLE STAND REFRIGERATED BASE | 1/5 | 0.3 | 2.5 | 120 | 1 | FED FROM UDS SYSTEM | | | | |
| E95 | COMBI-OVEN | | 0.8 | 6.8 | 120 | 1 | FED FROM UDS SYSTEM | | | | |
| E97 | SANDWICH UNIT, REFRIGERATED | 1/3 | | 5.7 | 120 | 1 | STUB UP | X | 5-15R | | |
| E100 | ICE MAKER | | | 12.5 | 208/230 | 1 | 5'-6" | | | 2P-30A-FSS | |
| E103 | SODA SYSTEM | | | 12.0 | 120 | 1 | 2'-0" | X | 5-15R | | |
| E104 | SODA/ICE DISPENSER | | | 12.0 | 120 | 1 | 4'-0" | X | 5-15R | | |
| E106 | ICED TEA BREWER | | | 14.4 | 120 | 1 | 4'-0" | X | 5-15R | | |
| E107 | COFFEE BREWER | | | 33.4 | 120/208 | 3 | 4'-0" | | | 3P-60-FSS | |
| E108 | REFRIGERATOR, UNDERCOUNTER | 1/5 | | 2.5 | 120 | 1 | STUB UP | X | 5-15R | | |
| E110 | UTILITY DISTRIBUTION SYSTEM | | | 50.0 | 120/208 | 3 | | | | | |
| E113 | DISH WASHER, RACK CONVEYOR | | | 138.9 | 208 | 3 | 5'-6" | | | 3P-200A FSS | |
| E119 | DISPLAY CASE NON-REFRIGERATED COUNTERTOP | | | 1.0 | 120 | 1 | STUB UP | | 5-15R | | |
| E123 | REFRIGERATOR, UNDERCOUNTER | 1/5 | | 2.5 | 120 | 1 | STUB UP | X | 5-15R | | |
| E127 | SNEEZE GUARD | | | 9.5 | 120 | 1 | STUB UP | | | | X |
| E128 | EXHAUST HOOD * | | | 10.0 | 120 | 1 | | | | | X |
| E128.1 | FIRE SUPPRESSION SYSTEM * | | | 20.0 | 120 | 1 | | | | | X |
| E128.2 | HOOD CONTROL PANEL * | | | 8.0 | 120 | 1 | | | | | X |
| E130 | REFRIGERATOR, REACH-IN | 1/3 | | 8.1 | 120 | 1 | 4'-0" | X | 5-15R | | |
| E131 | EXHAUST HOOD * | | | 10.0 | 120 | 1 | | | | | X |
| E131.1 | HOOD CONTROL PANEL * | | | 8.0 | 120 | 1 | | | | | X |
| E131.2 | FIRE SUPPRESSION SYSTEM * | | | 20.0 | 120 | 1 | | | | | X |
| E133 | COMBI OVEN VENTLESS | | | 37.9 | 208 | 3 | 2'-0" | | | 3P-60A-FSS | |
| | | | | 37.9 | 208 | 3 | 2'-0" | | | 3P-60A-FSS | |
| E134 | DROP-IN DISPLAY CASE, SELF CONTAINED | | | 8.0 | 120 | 1 | STUB UP | X | 5-15R | | |
| E136 | UTILITY DISTRIBUTION SYSTEM | | | 200.0 | 120/208 | 3 | | | | | |
| E137 | UTILITY DISTRIBUTION SYSTEM | | | 125.0 | 120/208 | 3 | | | | | |
| E138 | HEAT LAMP | | | 24.0 | 120 | 1 | | | | | |
| E142 | INDUCTION COOKING SYSTEM | | | 27.0 | 208/220 | 1 | STUB UP | X | 14-50R | | |
| ECV1 | CONVENIENCE OUTLET | | | | 120 | 1 | 2'-0" | X | 5-20R | | |
| ECV2 | CONVENIENCE OUTLET | | | | 120 | 1 | 4'-0" | X | 5-20R | | |
| ECV3 | CONVENIENCE OUTLET (RETRACTABLE RECEPTACLE) | | | | 120 | 1 | FROM ABOVE | X | 5-20R | | |
| EX01 | EXISTING COMBI-OVEN | | 6.8 | 15.0 | 120 | 1 | FED FROM UDS SYSTEM | | | | |
| | | | 6.8 | 15.0 | 120 | 1 | FED FROM UDS SYSTEM | | | | |
| EX02 | EXISTING HYDROVECTION OVEN | | 1.2 | 10.0 | 120 | 1 | FED FROM UDS SYSTEM | | | | |
| EX03 | EXISTING FOOD SLICER | | 0.7 | 5.6 | 120 | 1 | FED FROM UDS SYSTEM | | | | |

*** - (2) CONNECTIONS REQUIRED, FEED DOWN FROM ABOVE AND INTERCONNECT CONTROL PANEL & BUILDING FIRE SYSTEM, 24 HOUR DEDICATED SERVICE

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

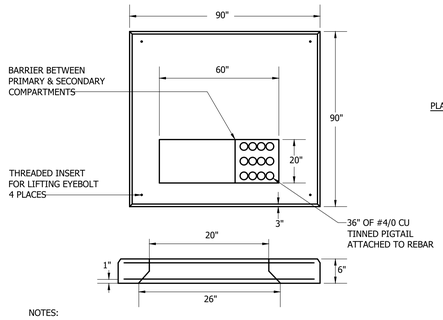
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**KITCHEN EQUIPMENT CONNECTION SCHEDULE**

SHEET NO.

**E626**

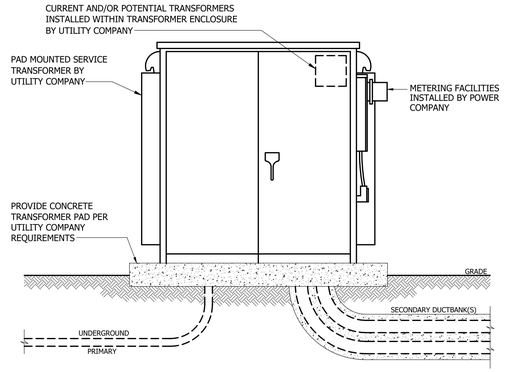



NOTES:

1. THE 90" x 90" PRECAST CONCRETE PAD CAN ACCOMMODATE 15kV. 750-1500kVA. 25kV. 750-2500kVA. & 35kV. 75-1000kVA. THE SECONDARY CONDUITS WILL FIT INTO THE 20" x 23" WINDOW.
2. SEE Z-577.3 FOR INSTALLATION DETAILS AND CONDUIT LAYOUT FOR THE WINDOW.

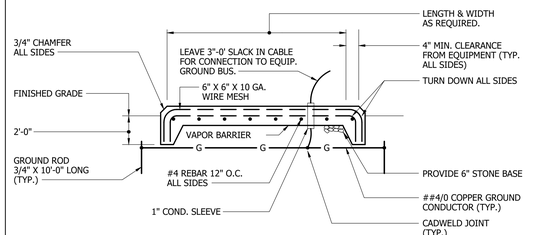
## 1 TYPICAL UTILITY PAD DIMENSION DETAIL

SCALE: NONE




## 2 TYPICAL UTILITY TRANSFORMER

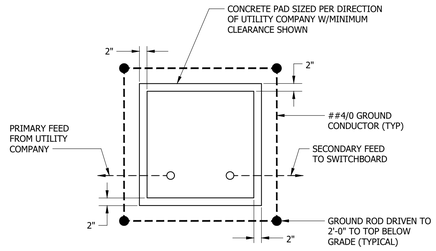
SCALE: NONE




NOTE: TRANSFORMER PAD CONSTRUCTION/INSTALLATION SHALL BE COORDINATED IN ADVANCE WITH UTILITY COMPANY.

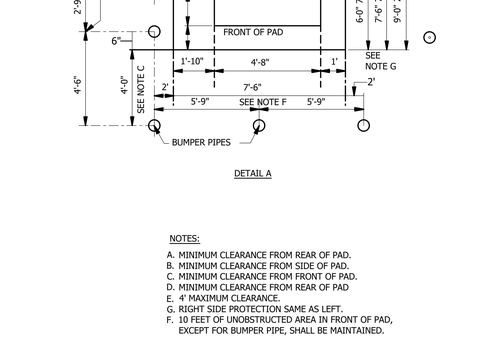
## 3 TYPICAL UTILITY PAD GROUNDING

SCALE: NONE



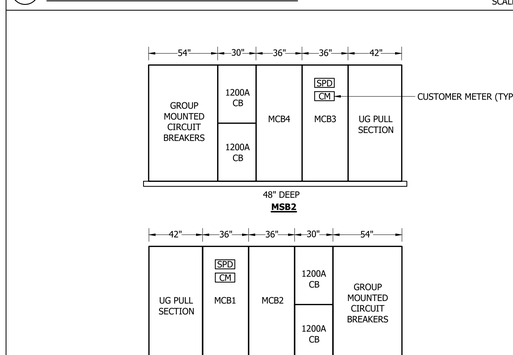

## 4 TYPICAL TRANSFORMER PAD GROUNDING

SCALE: NONE



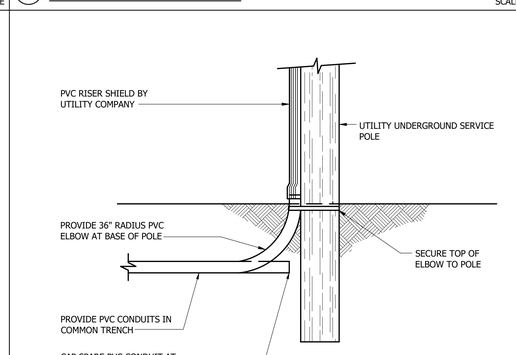

## 5 SECONDARY DUCTBANK

SCALE: NONE



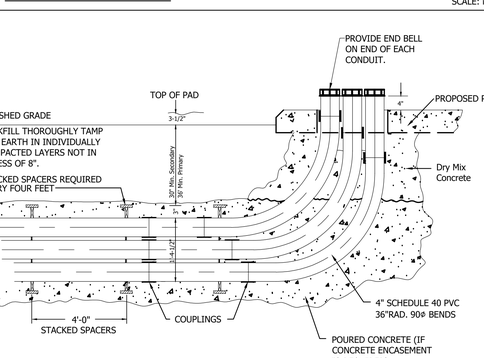

## 6 4-WAY DUCTBANK

SCALE: NONE




## 7 GENERATOR DUCTBANK - FIRE PUMP

SCALE: NONE




## 8 SECONDARY DUCTBANK - FP (FIRE PUMP)

SCALE: NONE




DETAIL A

NOTES:

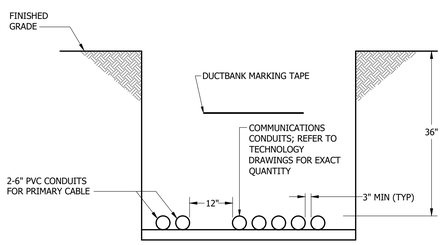
A. MINIMUM CLEARANCE FROM REAR OF PAD.
B. MINIMUM CLEARANCE FROM SIDE OF PAD.
C. MINIMUM CLEARANCE FROM FRONT OF PAD.
D. MINIMUM CLEARANCE FROM REAR OF PAD
E. 4' MAXIMUM CLEARANCE.
G. RIGHT SIDE PROTECTION SAME AS LEFT.
F. 10 FEET OF UNOBSTRUCTED AREA IN FRONT OF PAD, EXCEPT FOR BUMPER PIPE, SHALL BE MAINTAINED.

## 9 PHYSICAL PROTECTION FOR UTILITY PAD-MOUNT EQUIPMENT

SCALE: NONE

NOTES:

1. TRANSFORMER SHALL BE PROTECTED ON ALL SIDES EXPOSED TO VEHICULAR TRAFFIC.
2. PROTECTION MAY CONSIST OF THE FOLLOWING: BUMPER PIPES - 10 FOOT, CONCRETE FILLED. 5 INCH OR LARGER (I.O.) GALVANIZED IRON PIPE WITH MINIMUM OF 1/4 INCH WALLS INSTALLED 5 FEET IN THE GROUND. SEE DETAIL A FOR PLACEMENT.




NOTE: COORDINATE EXCAVATION OF TRENCH AND INSTALLATION OF CONDUITS WITH UTILITY COMPANIES IN ADVANCE. MAINTAIN 5'-0" FROM GAS/WATER UTILITIES

## 10 TRENCH - INCOMING SERVICES

SCALE: NONE




## 11 GENERATOR DUCTBANK

SCALE: NONE




## 12 PRIMARY DUCTBANK

SCALE: NONE




NOTE: PROVIDE CONCRETE ENCASEMENT UNDER PAVED AREAS ONLY

## 13 MAIN SERVICE SWITCHBOARD ELEVATIONS

SCALE: NONE

## 14 UNDERGROUND SERVICE POLE

SCALE: NONE

## 15 TURNING CONDUITS INTO EQUIPMENT PADS

SCALE: NONE

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN

VOCATIONAL TECHNICAL SCHOOL DISTRICT NEW CASTLE COUNTY DELAWARE

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

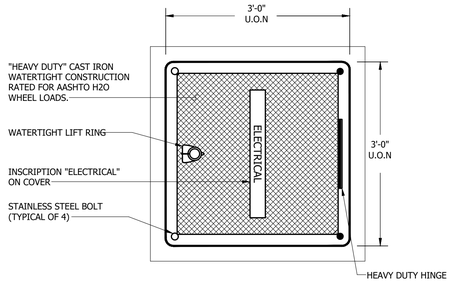
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

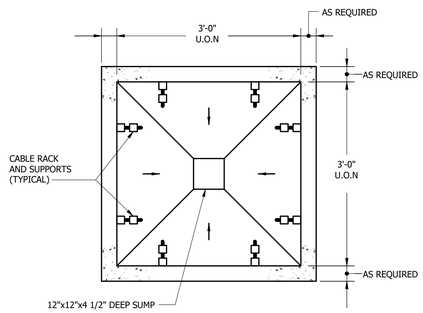
**ELECTRICAL DETAILS**

SHEET NO.

**E701**

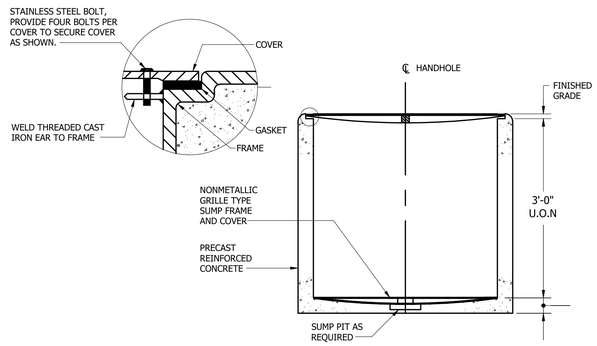



HANDHOLE COVER
NO SCALE




HANDHOLE PLAN
NO SCALE

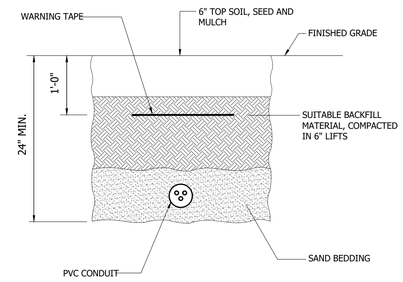
PLAN SYMBOL: H




HANDHOLE SECTION
NO SCALE

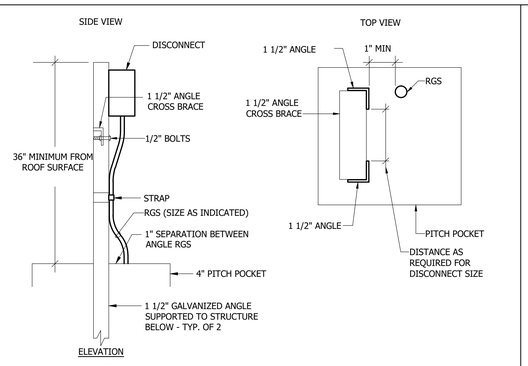
## 1 TYPICAL ELECTRICAL HANDHOLE

SCALE: NONE




## 2 TYPICAL DIRECT BURIED PVC CONDUIT

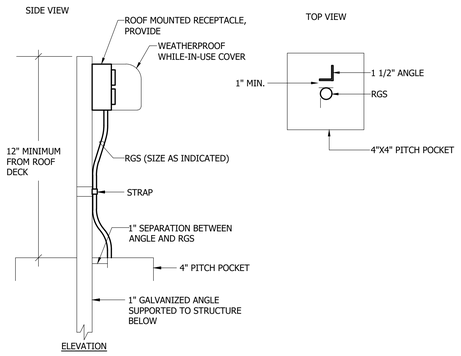
SCALE: NONE




NOTE:
DISCONNECT SHOULD BE LOCATED 8"-12" FROM EQUIPMENT. DO NOT LOCATE IN FRONT OF ACCESS DOORS/PANELS.

## 3 TYPICAL DISCONNECT MOUNTING ON ROOF

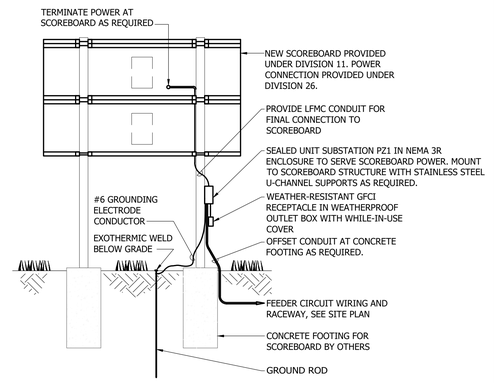
SCALE: NONE




NOTE:
RECEPTACLE SHOULD BE LOCATED 8"-12" FROM EQUIPMENT. DO NOT LOCATE IN FRONT OF ACCESS DOORS/PANELS.

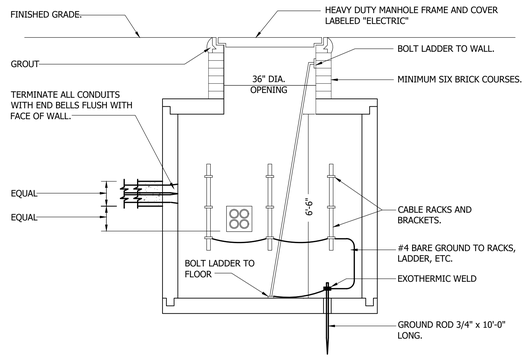
## 4 TYPICAL RECEPTACLE MOUNTING ON ROOF

SCALE: NONE



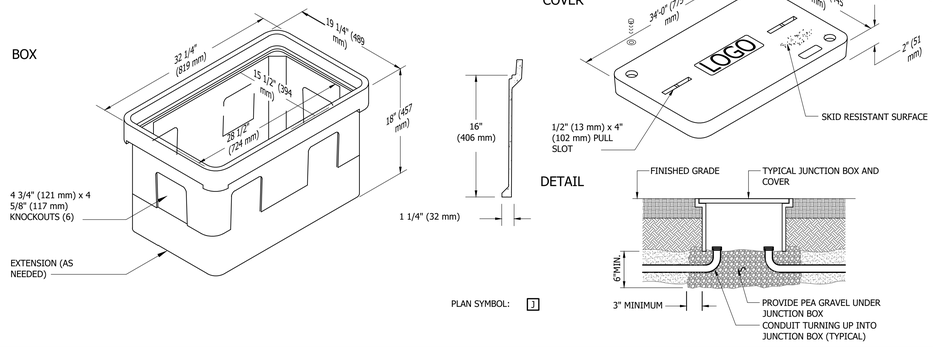

## 5 EXTERIOR SCOREBOARD POWER

SCALE: NONE



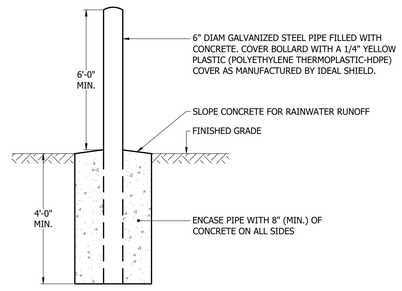

## 6 TYPICAL EXTERIOR JUNCTION BOX

SCALE: NONE



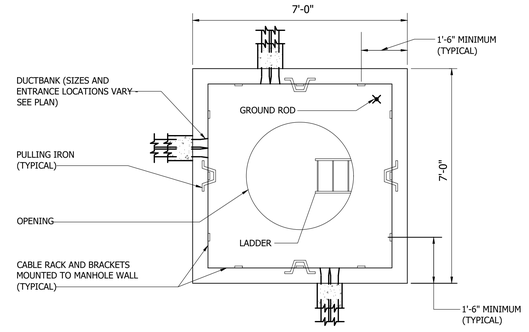

## 7 PROTECTIVE BOLLARD

SCALE: NONE




NOTES:

1. FIELD-COORDINATE EXACT LOCATION(S) OF BOLLARD(S) WITH EQUIPMENT BEING PROTECTED BY THE SAME TO ENSURE THAT BOLLARD(S) DO NOT OBSTRUCT ACCESS TO EQUIPMENT.
2. PROVIDE BOLLARD 12" TALLER THAN UTILITY TRANFORMER, ADJUST DEPTH AS REQUIRED.



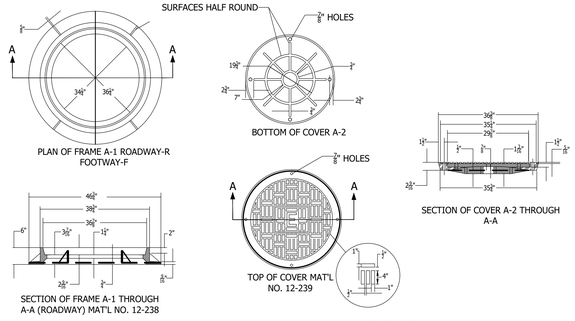

## 8 TYPICAL MANHOLE

SCALE: NONE

## 9 NOT USED

## 10 NOT USED

SCALE: NONE




AVERAGE WEIGHT OF COVER A-2-300 LBS. AVERAGE WEIGHT OF FRAME A-1 (R) 375 LBS. 4" LETTER E CENTERED ON COVER FRAME AND COVER SHALL BE DESIGNED TO AASHO HS20-40 LOADING AND SHALL BE FABRICATED USING ASTM A-48 CLASS 30 IRON.

## 11 TYPICAL MANHOLE FRAME AND COVER

SCALE: NONE

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

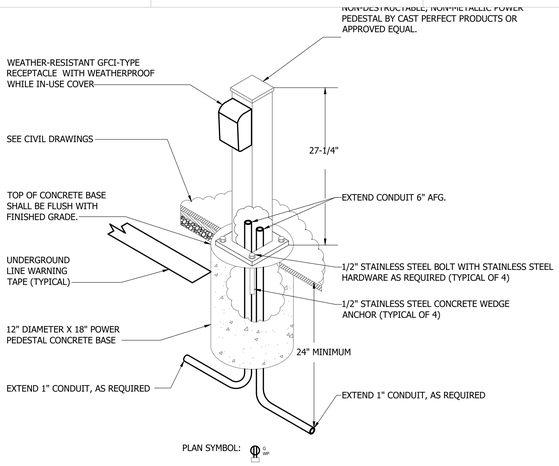
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**ELECTRICAL DETAILS**

SHEET NO.

**E702**

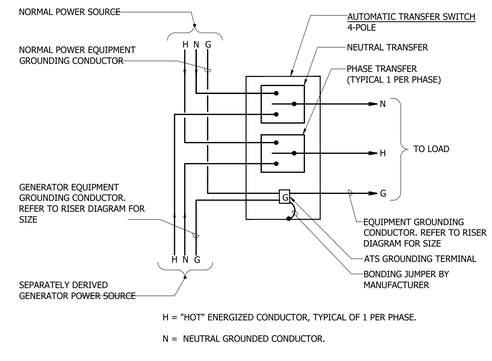



NOTES:

1. COORDINATE GRADE AND LOCATIONS WITH CIVIL DRAWINGS.
2. ARCHITECT SHALL SELECT FINISH.

## 1 FREESTANDING RECEPTACLE PEDESTAL - BATTING CAGES

NO SCALE

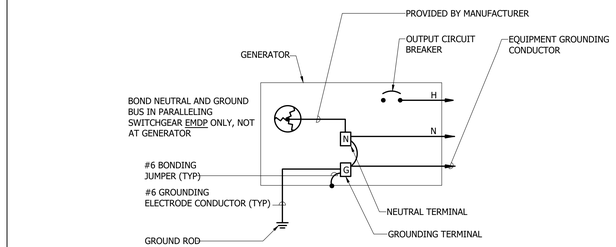



H = "HOT" ENERGIZED CONDUCTOR, TYPICAL OF 1 PER PHASE.

N = NEUTRAL GROUNDED CONDUCTOR.

## 2 TYPICAL AUTOMATIC TRANSFER SWITCH GROUND WIRING DIAGRAM

NO SCALE

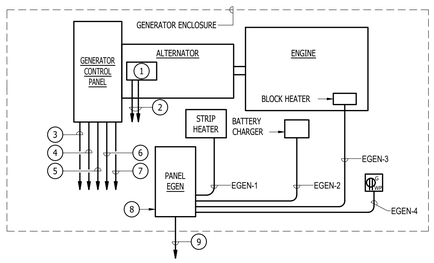



H = "HOT" ENERGIZED CONDUCTOR, TYPICAL OF 1 PER PHASE.

N = NEUTRAL GROUNDED CONDUCTOR.

## 3 GENERATOR GROUNDING WIRING DIAGRAM

NO SCALE

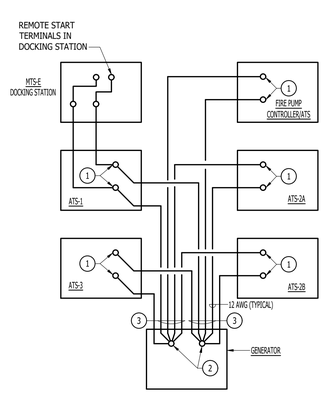



NOTES:

1. GENERATOR CIRCUIT BREAKER ENCLOSURE(S).
2. FEEDERS - REFER TO SCHEMATIC POWER RISER DIAGRAM FOR ADDITIONAL INFORMATION.
3. FOUR 12 AWG START CONDUCTORS) TO EACH SET OF AUTOMATIC TRANSFER SWITCHES INCLUDING FIRE PUMP CONTROLLER.
4. TO REMOTE ANNUNCIATOR.
5. (1) 1" CONDUIT TO FIRE ALARM CONTROL PANEL.
6. (1) 1" CONDUIT TO MAIN ATC PANEL IN MECHANICAL ROOM.
7. (2) 1" SPARE CONDUITS WITH PULL STRINGS TO EMERGENCY ELECTRICAL ROOM.
8. PANELBOARD PROVIDED WITH GENERATOR ENCLOSURE, BRANCH CIRCUITS SHALL BE PRE-WIRED BY GENERATOR MANUFACTURER, INCLUDING LIGHTING AND DAMPERS (NOT SHOWN) AS REQUIRED.
9. FEEDER - SEE SCHEMATIC POWER RISER DIAGRAM FOR ADDITIONAL INFORMATION.

## 4 GENERATOR ENCLOSURE ACCESSORY CONNECTIONS

NO SCALE




### DRAWING NOTES:

(APPLY TO THIS DETAIL ONLY)

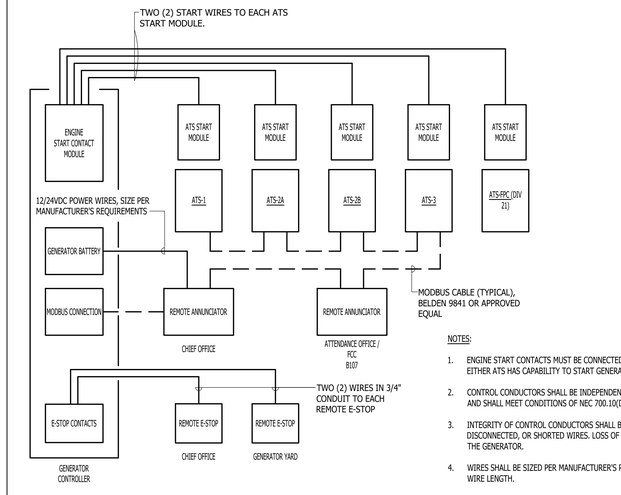
1. ENGINE START CIRCUIT WIRING. EXTEND TO MANUFACTURER FURNISHED TERMINAL BLOCK INSIDE ATS.
2. ENGINE START CIRCUIT WIRING TERMINAL BLOCK TERMINATION POINTS INSIDE GENERATOR ENCLOSURE.
3. INSTALL ENGINE START CONDUCTORS IN SEPARATE CONDUIT TO GENERATOR CONTROL PANEL.

NOTES:

1. ENGINE START CONTACTS MUST BE CONNECTED IN PARALLEL SO THAT EITHER ATS HAS CAPABILITY TO START GENERATOR.
2. CONTROL CONDUCTORS SHALL BE INDEPENDENT OF ALL OTHER WIRING AND SHALL MEET CONDITIONS OF NEC 700.10(D)(2).
3. INTEGRITY OF CONTROL CONDUCTORS SHALL BE MONITORED FOR BROKEN, DISCONNECTED, OR SHORTED WIRES. LOSS OF INTEGRITY SHALL START THE GENERATOR.

## 5 AUTOMATIC TRANSFER SWITCH - GENERATOR START CIRCUIT WIRING DIAGRAM

NO SCALE

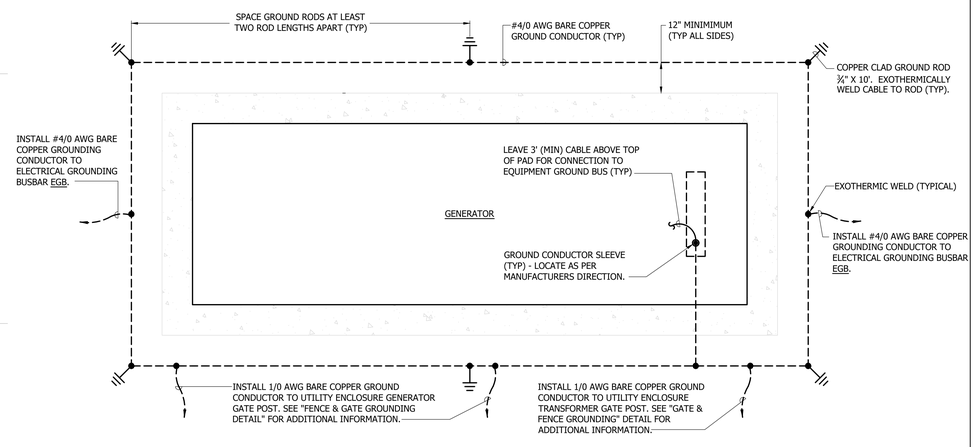



NOTES:

1. ENGINE START CONTACTS MUST BE CONNECTED IN PARALLEL SO THAT EITHER ATS HAS CAPABILITY TO START GENERATOR.
2. CONTROL CONDUCTORS SHALL BE INDEPENDENT OF ALL OTHER WIRING AND SHALL MEET CONDITIONS OF NEC 700.10(D)(2).
3. INTEGRITY OF CONTROL CONDUCTORS SHALL BE MONITORED FOR BROKEN, DISCONNECTED, OR SHORTED WIRES. LOSS OF INTEGRITY SHALL START THE GENERATOR.
4. WIRES SHALL BE SIZED PER MANUFACTURER'S REQUIREMENTS BASED ON WIRE LENGTH.

## 6 GENERATOR COMMUNICATIONS ONE-LINE DIAGRAM

NO SCALE



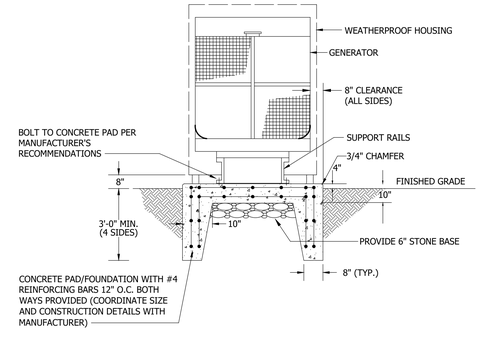

NOTES:

1. ALL UNDERGROUND CONNECTIONS SHALL BE EXOTHERMICALLY WELDED.
2. GROUND RODS AND GROUNDING CONDUCTORS SHALL BE A MINIMUM OF 24" BELOW FINISHED GRADE.

## 7 ELECTRICAL EQUIPMENT PAD GROUNDING PLAN FOR GENERATOR

## 8 NOT USED

NO SCALE




## 9 GENERATOR CONCRETE PAD INSTALLATION

NO SCALE

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

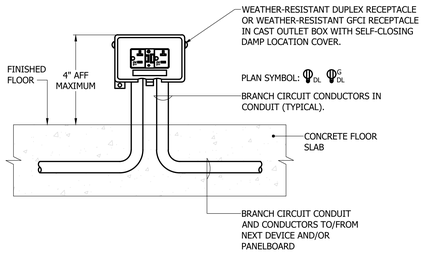
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

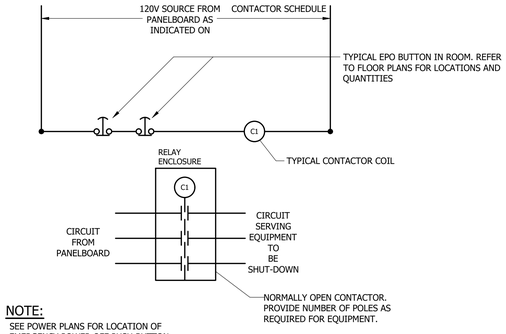
**ELECTRICAL DETAILS**

SHEET NO.

**E703**

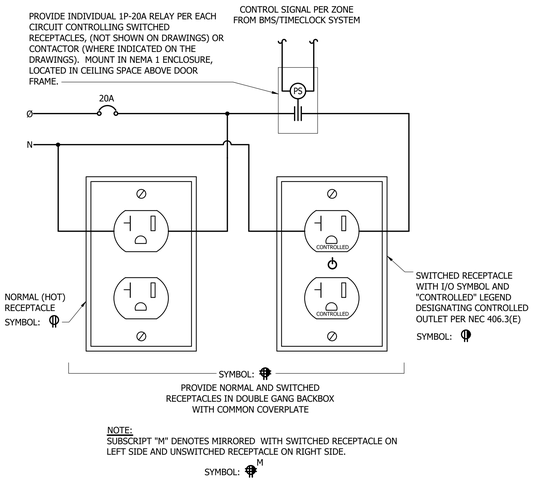



1 FLOOR MOUNTED RECEPTACLE OUTLET SCALE: NONE




NOTE:
SEE POWER PLANS FOR LOCATION OF EMERGENCY POWER OFF PUSH BUTTON IN EACH RESPECTIVE ROOM

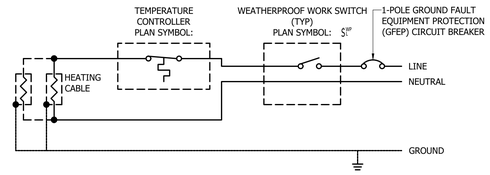
2 TYPICAL EMERGENCY SHUT-OFF WIRING DIAGRAM - CONTACTORS SCALE: NONE



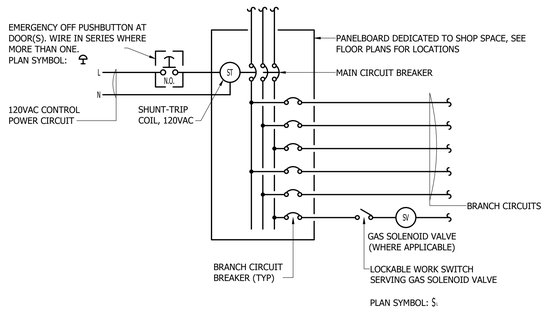

NOTE:
SUBSCRIPT "M" DENOTES MIRRORED WITH SWITCHED RECEPTACLE ON LEFT SIDE AND UNSWITCHED RECEPTACLE ON RIGHT SIDE.

SYMBOL: M

3 TYPICAL SWITCHED RECEPTACLE WIRING DIAGRAM SCALE: NONE




4 ELECTRICAL HEAT TRACE SCHEMATIC SINGLE CONTROL SCALE: NONE




NOTES:

1. THIS DETAIL IS TYPICAL FOR .
2. SEE FLOOR PLANS FOR QUANTITIES AND LOCATIONS OF EMERGENCY UTILITIES OFF PUSH-BUTTONS.
3. QUANTITIES OF BRANCH CIRCUIT BREAKERS INDICATED ON THIS DETAIL ARE DIAGRAMMATIC ONLY. REFER TO FLOOR PLANS FOR ACTUAL CIRCUIT QUANTITIES.

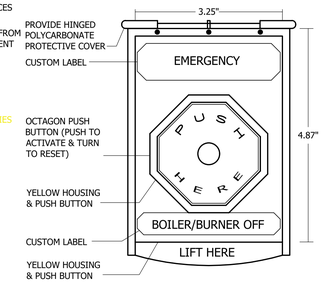
5 TYPICAL EMERGENCY SHUT-OFF WIRING DIAGRAM - PANELBOARDS WITH SHUNT TRIP MAIN BREAKERS SCALE: NONE

NOTES:

1. EMERGENCY PUSHBUTTON SHALL BE MAINTAINED TYPE WITH PROTECTIVE COVER.
2. REMOTE SHUTDOWN SWITCH SHALL COMPLY WITH ASME CSD-1-1992 "CONTROLS & SAFETY DEVICES FOR AUTOMATICALLY FIRED BOILERS".
3. PROVIDE CONTROL WIRING IN 3/4" CONDUIT FROM SHUTDOWN SWITCH TO ASSOCIATED EQUIPMENT CONTROL PANEL AND/OR CONTACTOR.

LABELS:
(REFER TO FLOOR PLANS FOR EXACT QUANTITIES AND LOCATIONS)

1. "BOILER/BURNER OFF"
   -MECHANICAL ROOM 112
2. "HOT WATER/BURNER OFF"
   -MECHANICAL ROOM 112
3. "POWER SHUT-OFF"
   -SHOPS
   -SCIENCE LABS
   -KITCHEN
   -CULINARY KITCHEN



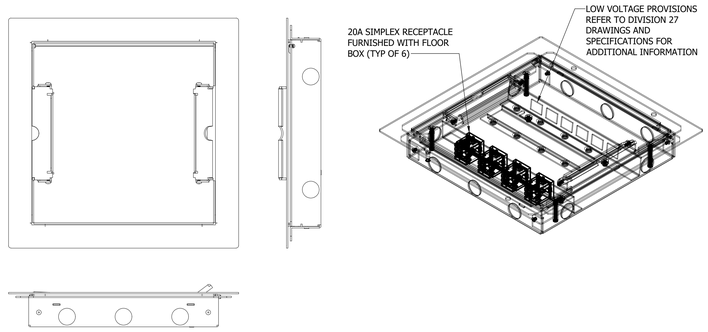

PLAN SYMBOL:

TYPICAL REMOTE SHUT-OFF SWITCH

6 TYPICAL REMOTE SHUT-OFF SWITCH SCALE: NONE

NOTES:

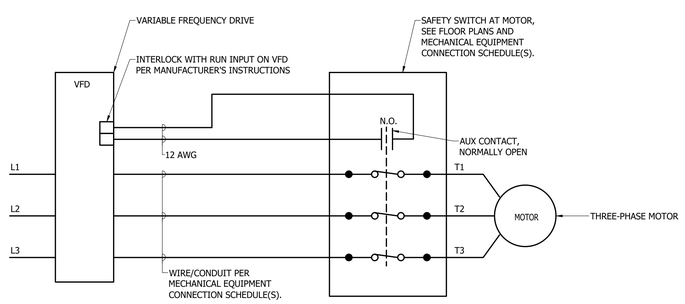
1. RAISED FLOOR AND ASSOCIATED FLOOR BOXES WITH FURNISHED RECEPTACLES AND FACEPLATES SPECIFIED UNDER DIVISION 09.
2. ALL LOW VOLTAGE DATA, VOICE, AUDIO & CATV CABLES, DEVICE JACKS & TERMINATIONS ARE PROVIDED BY OTHERS.
3. REFER TO FLOOR PLANS FOR LOCATIONS AND CIRCUITING REQUIREMENTS.
4. WHERE ONE (1) CIRCUIT HOMERUN IS INDICATED (3) RECEPTACLES IN EACH FLOOR BOX SHALL BE WIRED THROUGH ROOM CONTACTOR FOR SWITCHING OF RECEPTACLES. WHERE TWO (2) CIRCUIT HOMERUNS ARE INDICATED, (4) FOUR RECEPTACLES IN EACH FLOOR BOX SHALL BE WIRED THROUGH ROOM CONTRACTOR PER CIRCUIT FOR A TOTAL OF FOUR (4) RECEPTACLES PER FLOOR BOX. PROVIDE MARKINGS TO INDICATE WHICH RECEPTACLE(S) ARE ON SWITCHED CIRCUIT. REFER TO DRAWINGS FOR CONTACTOR INFORMATION.




PLAN SYMBOL:

BASIS OF DESIGN IS NETFLOOR, MODEL # ECO 40 SQUARE 6_8 NFUSA 111016-005 WITH (6) SIMPLEX RECEPTACLES AND (8) SPECIAL SYSTEMS PROVISIONS. (BOX DETAIL SHOWN IS FOR ILLUSTRATION ONLY)

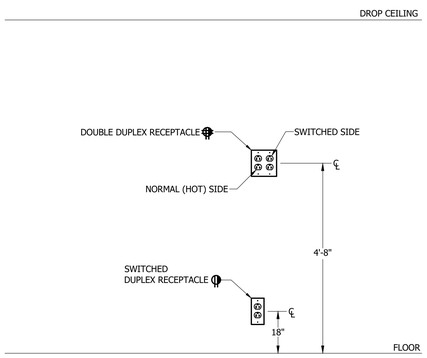
9 RAISED FLOOR SYSTEM FLOOR BOX SCALE: NONE




NOTES:

1. THIS DETAIL APPLIES TO MOTORS THAT ARE CONTROLLED BY VARIABLE FREQUENCY DRIVES WHICH ARE NOT LOCATED WITHIN SIGHT OF THE MOTOR, E.G. ROOF MOUNTED FANS.

7 SCHEMATIC WIRING DIAGRAM - THREE-PHASE MOTOR SERVED BY REMOTE VARIABLE FREQUENCY DRIVE SCALE: NONE




PLAN SYMBOL:

NOTE:
1. REFER TO TYPICAL SWITCHED RECEPTACLE WIRING DIAGRAM FOR WIRING REQUIREMENTS.
2. REFER TO TECHNOLOGY DRAWING T504 DETAIL "M PATHWAY" FOR ADDITIONAL INFORMATION

8 TYPICAL SMARTBOARD RECEPTACLE ELEVATION SCALE: NONE

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN

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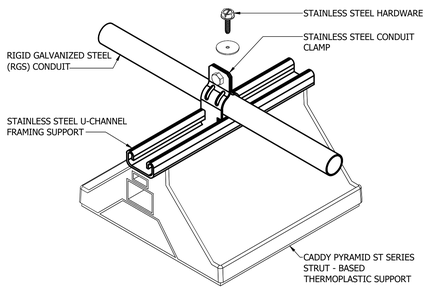
SHEET TITLE

**ELECTRICAL DETAILS**

SHEET NO.

**E704**

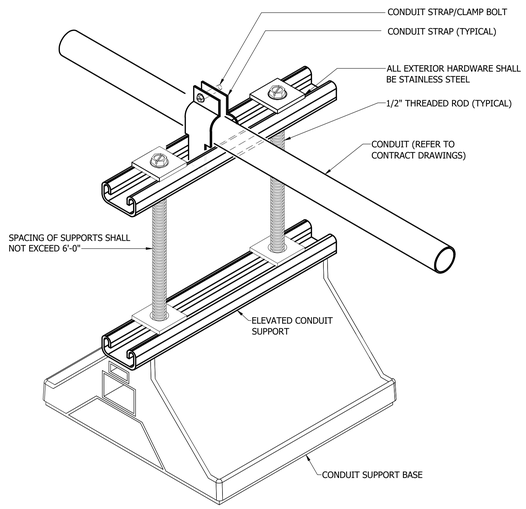



NOTES:

1. SECURE SUPPORT FRAME TO ROOF AS DIRECTED BY ROOFING CONTRACTOR.

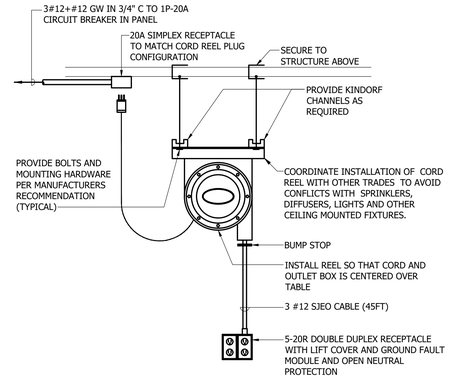
1 TYPICAL CONDUIT SUPPORT - FIXED HEIGHT

SCALE: NONE




2 TYPICAL CONDUIT SUPPORT - ADJUSTABLE HEIGHT

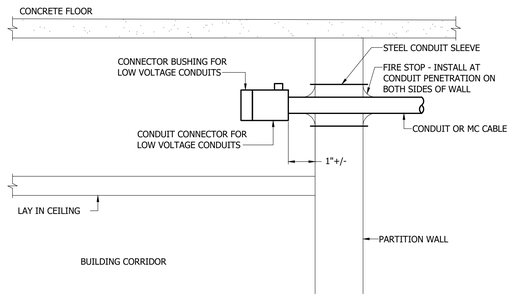
SCALE: NONE




NOTE: CORD REEL SHALL BE HUBBELL SERIES HBL45123GF20Y OR APPROVED EQUAL.

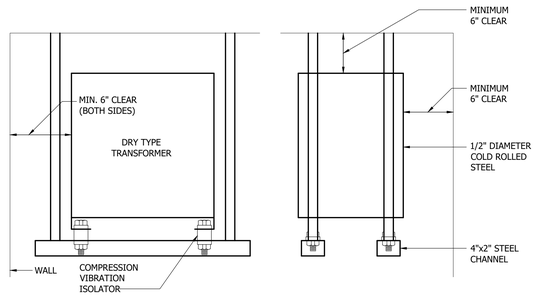
3 TYPICAL POWER CORD REEL

SCALE: NONE



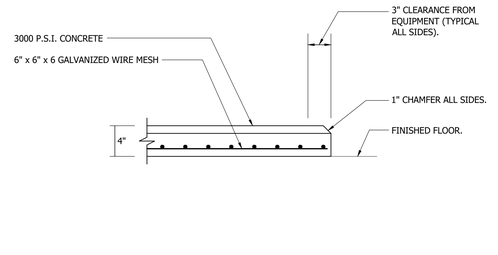

4 CORRIDOR WALL PENETRATION DETAIL

SCALE: NONE



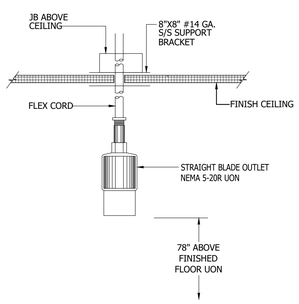

5 SUSPENDED MOUNTING OF DRY TYPE TRANSFORMERS

SCALE: NONE



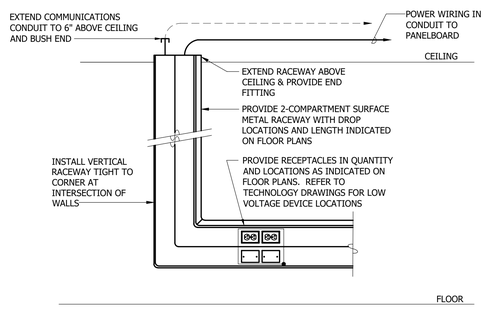

6 TYPICAL CONCRETE HOUSEKEEPING PAD

SCALE: NONE




7 TYPICAL DROP CORD RECEPTACLE

SCALE: NONE

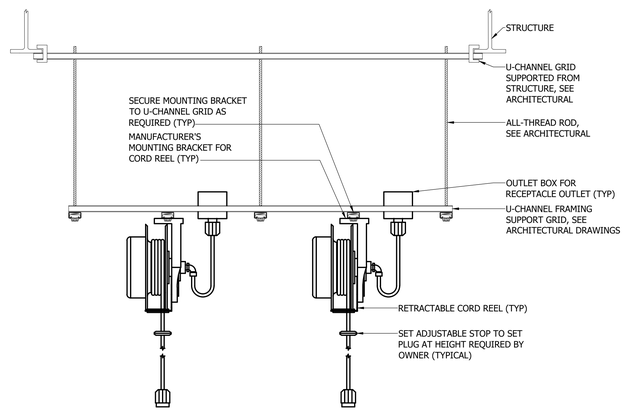



NOTES:

1. ALL POWER WIRING, RACEWAY, BOXES, RECEPTACLES & FACEPLATE COVERS ARE PROVIDED UNDER DIVISION 26.
2. ALL LOW VOLTAGE DATA, VOICE, AUDIO & CATV CABLES, DEVICE JACKS & TERMINATIONS ARE PROVIDED UNDER DIVISION 27 - REFER TO TECHNOLOGY DRAWINGS.

8 TYPICAL MULTI-OUTLET ASSEMBLY

SCALE: NONE




NOTES:

1. THIS DETAIL APPLIES TO POWER CORD REEL. REFER TO POWER CORD REEL DETAIL 6/E705 FOR ADDITIONAL INFORMATION.

9 RETRACTABLE POWER CORD REEL - UNISTRUT / U-CHANNEL GRID

SCALE: NONE

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

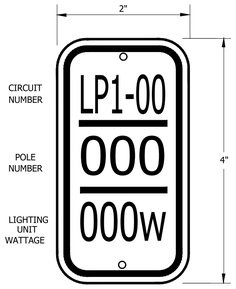
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**ELECTRICAL DETAILS**

SHEET NO.

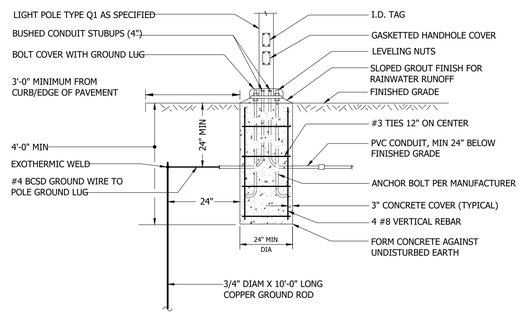
**E705**




NOTE: POLE IDENTIFICATION TAG SHALL BE E/G SILVER/WHITE REFLECTIVE SHEETING, BLACK LEGEND ADHERED TO .080 ALUMINUM REMOVABLE PLATE. LETTERING SHALL BE 3/4". PLACE TAG TO FACE THE SHOULDER/CURB.

## 1 TYPICAL LIGHTING POLE IDENTIFICATION TAG

SCALE: NONE

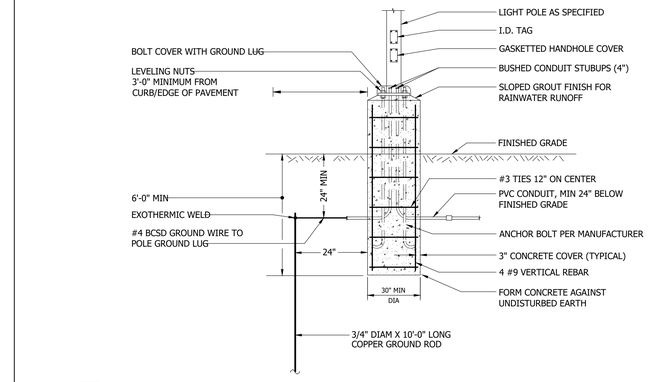



NOTES:

1. MAINTAIN 12" MINIMUM SEPARATION BETWEEN EDGE OF POLE BASE AND EDGES OF SIDEWALKS AND CURBS.
2. ALL REINFORCING STEEL SHALL BE ASTM A615, GRADE 60 EXCEPT TIES, WHICH SHALL BE GRADE 40.

## 2 TYPICAL WALKWAY POLE INSTALLATION (TYPE P1 ONLY)

SCALE: NONE

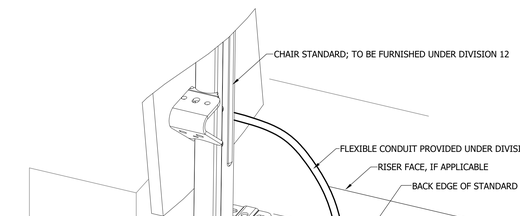



NOTES:

1. MAINTAIN 12" MINIMUM SEPARATION BETWEEN EDGE OF POLE BASE AND EDGES OF SIDEWALKS AND CURBS.
2. ALL REINFORCING STEEL SHALL BE ASTM A615, GRADE 60 EXCEPT TIES, WHICH SHALL BE GRADE 40.
3. REFER TO TECHNOLOGY DRAWING T100 FOR SECURITY CAMERA LOCATIONS AND CONDUIT SIZE REQUIREMENTS.

## 3 TYPICAL PARKING AREA POLE INSTALLATION

SCALE: NONE




PLAN SYMBOL: ①

NOTES:

1. ALL POWER WIRING, RACEWAY, BOXES, RECEPTACLES & FACEPLATE COVERS ARE PROVIDED UNDER DIVISION 26.
2. FURNISH AND INSTALL TYPE AND QUANTITY OF DEVICES AS INDICATED ON DRAWINGS.
3. COORDINATE EXACT FLOOR BOX LOCATION WITH OWNER AND ARCHITECT.
4. BASIS OF DESIGN: HUBBELL F3185 THEATER SEATING BOX WITH COVER PLATE. ARCHITECT TO SELECT FINISH OF COVER.

## 5 AUDITORIUM AISLE LIGHTING - FLOOR BOX INSTALLATION

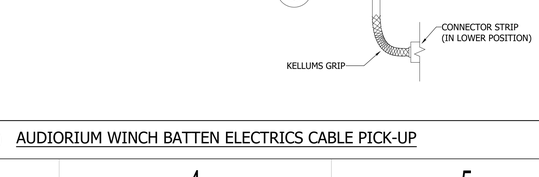



NOTES:

1. REFER TO ONE GANG FLOOR BOX DETAIL FOR ADDITIONAL INFORMATION.
2. VERIFY ALL DIMENSIONS WITH DIVISION 12.

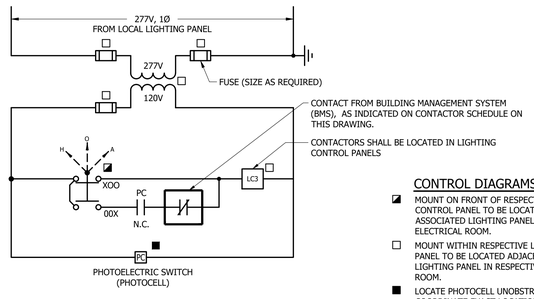
## 6 AUDITORIUM AISLE LIGHTING - CONNECTION TO FLOOR BOX

SCALE: NONE




## 8 AUDIORIUM WINCH BATTEN ELECTRICS CABLE PICK-UP

SCALE: NONE



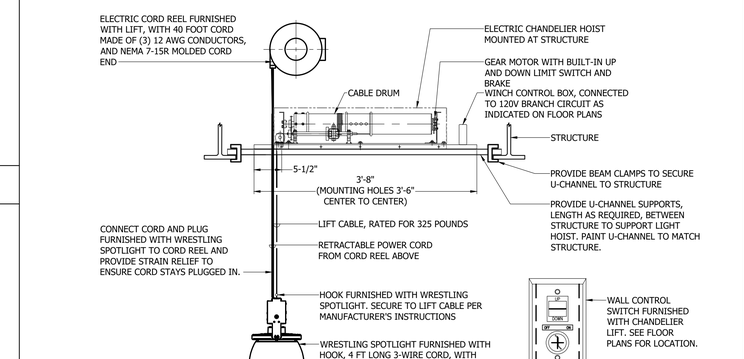

CONTROL DIAGRAMS LEGEND:

- ◪ MOUNT ON FRONT OF RESPECTIVE LIGHTING CONTROL PANEL TO BE LOCATED ADJACENT TO ASSOCIATED LIGHTING PANEL IN RESPECTIVE ELECTRICAL ROOM.
- □ MOUNT WITHIN RESPECTIVE LIGHTING CONTROL PANEL TO BE LOCATED ADJACENT TO ASSOCIATED LIGHTING PANEL IN RESPECTIVE ELECTRICAL ROOM.
- ■ LOCATE PHOTOCELL UNOBSTRUCTED ON ROOF. COORDINATE EXACT LOCATION IN FIELD.

**LIGHTING CONTACTOR SCHEDULE**

| NUMBER | AREA SERVED | VOLTAGE | # POLES | COIL VOLTAGE | CONTROL CKT | REMARKS |
|---|---|---|---|---|---|---|
| LC-1 | BUILDING MOUNTED EMER LTG MER | 277 | 1 | 120 | E1LM-10 | PC/HOA |
| LC-2 | BUILDING MOUNTED LTG MER | 277 | 1 | 120 | L2X-10 | PC & BMS/HOA |
| LC-3 | WALKWAY & ROADWAY LTG | 277 | 10 | 120 | L2X-10 | PC & BMS/HOA |
| LC-4 | ROADWAY LTG | 277 | 6 | 120 | L2X-10 | PC & BMS/HOA |
| LC-5 | SOUTH PARKING LOT | 277 | 2 | 120 | L2X-10 | PC & BMS/HOA |
| LC-6 | BUS LOOP PARKING LOT | 277 | 2 | 120 | L2X-10 | PC & BMS/HOA |
| LC-7 | STADIUM PARKING LOT | 277 | 1 | 120 | L2X-10 | PC & BMS/HOA |
| LC-8 | BASEBALL PARKING LOT | 277 | 1 | 120 | L2X-10 | PC & BMS/HOA |
| LC-9 | SCHOOL SIGN | 277 | 1 | 120 | L2X-10 | PC & BMS/HOA |
| LC-10 | FLAGPOLE LTG | 277 | 3 | 120 | L11W-24 | PC/HOA |
| LC-11 | BUILDING MOUNTED EMER LTG GYM | 277 | 1 | 120 | E1LG-2 | PC/HOA |
| LC-12 | BUILDING MOUNTED LTG GYM | 277 | 1 | 120 | L1G-8 | PC & BMS/HOA |
| LC-13 | BUILDING MOUNTED EMER LTG AUD | 277 | 1 | 120 | E1LA-2 | PC/HOA |
| LC-14 | BUILDING MOUNTED LTG AUD | 277 | 1 | 120 | L2A-2 | PC & BMS/HOA |
| LC-15 | BUILDING MOUNTED EMER LTG NORTH | 277 | 1 | 120 | E1L1N-2 | PC/HOA |
| LC-16 | BUILDING MOUNTED LTG NORTH | 277 | 1 | 120 | L11N-16 | PC & BMS/HOA |
| LC-17 | BUILDING MOUNTED EMER LTG SOUTH | 277 | 1 | 120 | E1L1S-8 | PC/HOA |
| LC-18 | BUILDING MOUNTED LTG SOUTH | 277 | 1 | 120 | L11S-18 | PC & BMS/HOA |
| LC-19 | BUILDING MOUNTED EMER LTG EAST | 277 | 1 | 120 | E1L1E-2 | PC/HOA |
| LC-20 | BUILDING MOUNTED LTG EAST | 277 | 1 | 120 | L11E-14 | PC & BMS/HOA |
| LC-21 | BUILDING MOUNTED EMER LTG WEST | 277 | 1 | 120 | E1L1W-8 | PC/HOA |
| LC-22 | BUILDING MOUNTED LTG WEST | 277 | 1 | 120 | L11W-24 | PC & BMS/HOA |

## 7 TYPICAL EXTERIOR LIGHTING CONTROL DIAGRAM




## 5 POLE BASE AND FOUNDATION - LUMINAIRES NEAR STORMWATER MANAGEMENT AREA

SCALE: NONE




NOTES:

1. BASIS OF DESIGN CHANDELIER HOIST: PETER ALBRECHT COMPANY, SERIES 696W.
2. HOIST SHALL MAINTAIN POWER TO LIGHTING FIXTURE WHEN FIXTURE IS LOWERED. HOISTS THAT DO NOT MAINTAIN POWER WHEN FIXTURE IS LOWERED ARE NOT ACCEPTABLE.
3. HOIST LOCATION SHOWN ON FLOORPLANS IS APPROXIMATE. PROVIDE ALL PULLEYS, LOFTBLOCK ASSEMBLIES, ETC. AS REQUIRED TO COORDINATE WITH STRUCTURE, SPEAKER CLUSTERS, ETC.

## 9 TYPICAL MOTORIZED HOIST FOR WRESTLING SPOT LIGHT

SCALE: NONE

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

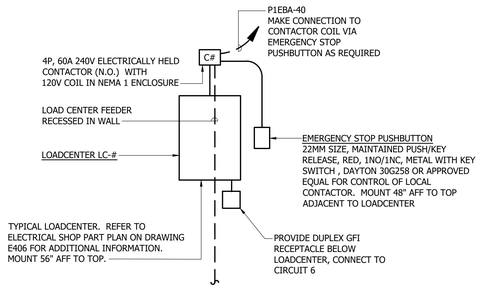
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**ELECTRICAL DETAILS**

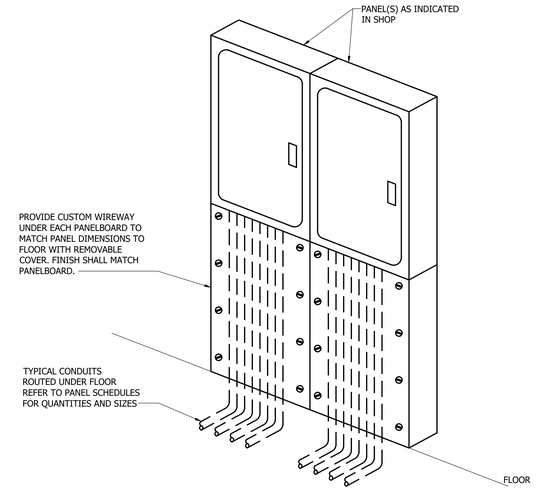
SHEET NO.

**E706**



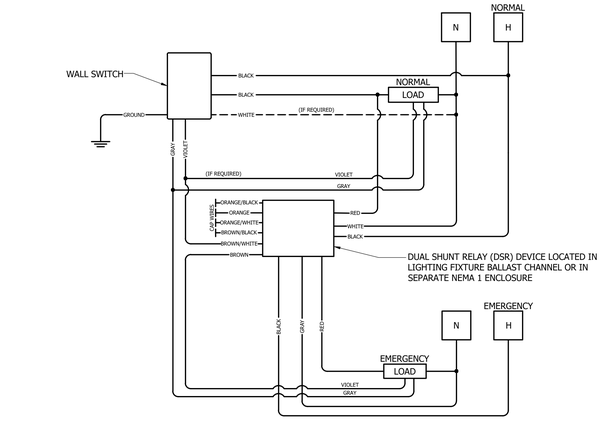

1 ELECTRICAL SHOP D110 LOAD CENTER CONTACTOR CONTROLS

NO SCALE




2 TYPICAL SHOP SUFACE MOUNTED PANEL INSTALLATION

NO SCALE

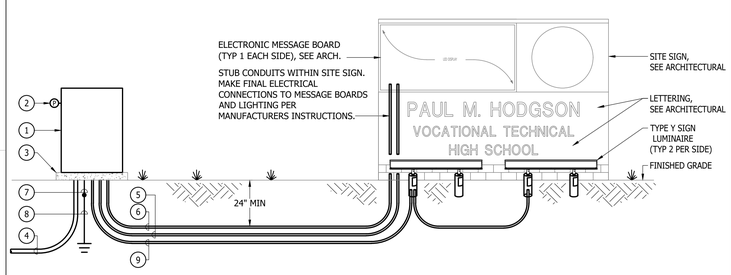



3 SCHEMATIC WIRING DIAGRAM - DUAL SHUNT RELAY

NO SCALE

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN

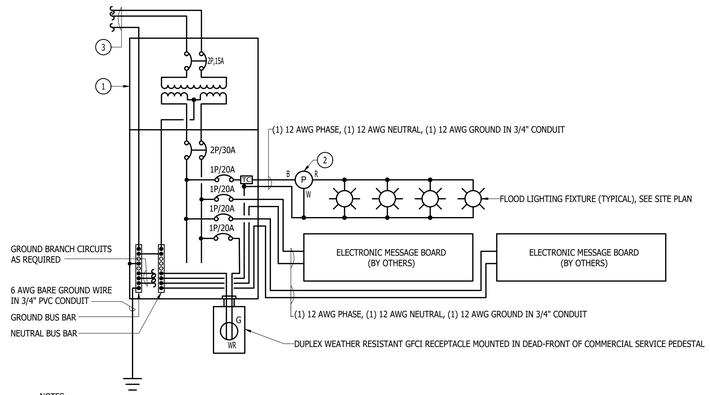



NOTES:

1. PROVIDE COMMERCIAL SERVICE PEDESTAL TO PROVIDE POWER FOR SITE SIGN. SEE SITE SIGN WIRING DIAGRAM DETAIL FOR MORE INFORMATION.
2. LINE VOLTAGE PHOTOCELL FOR DUSK-TO-DAWN OPERATION OF SIGN FLOODLIGHT LUMINAIRES. SEE SITE SIGN WIRING DIAGRAM DETAIL.
3. PROVIDE CONCRETE EQUIPMENT PAD FOR SERVICE PEDESTAL.
4. FEEDER CONDUIT FOR SERVICE PEDESTAL, STUBBED UP THROUGH PAD.
5. BRANCH CIRCUIT CONDUITS FOR ELECTRONIC MESSAGE BOARD #1, STUBBED UP WITHIN SIGN. COORDINATE INSTALLATION WITH STRUCTURAL FOOTER. SEE SITE SIGN WIRING DIAGRAM DETAIL FOR ADDITIONAL INFORMATION.
6. SPARE 1" CONDUIT WITH PULL STRING, STUBBED UP WITHIN SIGN. COORDINATE INSTALLATION WITH STRUCTURAL FOOTER.
7. INSTALL GROUNDING ELECTRODE CONDUCTOR IN 3/4" PVC RACEWAY FROM SERVICE PEDESTAL TO SIX INCHES BELOW GRADE.
8. GROUNDING ELECTRODE(S).
9. BRANCH CIRCUIT CONDUIT FOR SIGN FLOODLIGHT LUMINAIRES. COORDINATE INSTALLATION WITH STRUCTURAL FOOTER. SEE SITE SIGN WIRING DIAGRAM DETAIL FOR ADDITIONAL INFORMATION.

4 SITE SIGN - POWER INFRASTRUCTURE

NO SCALE



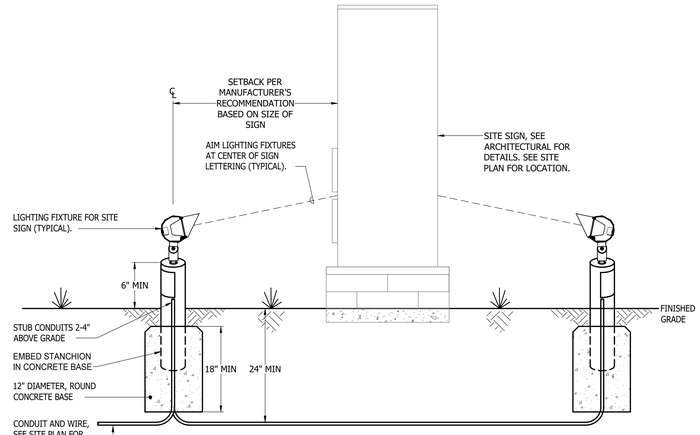

NOTES:

1. PROVIDE COMMERCIAL SERVICE PEDESTAL WITH BASE, AS MANUFACTURED BY MILBANK OR APPROVED EQUIAL, MOSS GRAY (RAL 7003) FINISH, WITH THE FOLLOWING: (1) 2P, 15A, 600V MOLDED CASE CIRCUIT BREAKER, (1) 5KVA 480V-240V 1-PHASE TRANSFORMER, (1) 120/240/1PH/3W 8-CIRCUIT LOAD CENTER WITH 2P, 30A MAIN CIRCUIT BREAKER, 20A/125V DUPLEX WEATHER-RESISTANT GFCI RECEPTACLE LOCATED IN PEDESTAL BELOW LOAD CENTER, AND 120V TIME CLOCK AND 120V PHOTOCELL. TIME CLOCK SHALL BE PROGRAMMED TO TURN LIGHTS OFF FROM 12AM-6AM.
2. LINE VOLTAGE PHOTOCELL SHALL BE INTERNALLY MOUNTED IN SERVICE PEDESTAL WITH VIEWING WINDOW THROUGH PEDESTAL ENCLOSURE, AND SHALL BE WIRED
3. DOWNSTREAM OF TIME CLOCK FOR DAYLIGHT SHUTOFF.

FEEDER CIRCUIT FOR SERVICE PEDESTAL. REFER TO SITE PLAN.

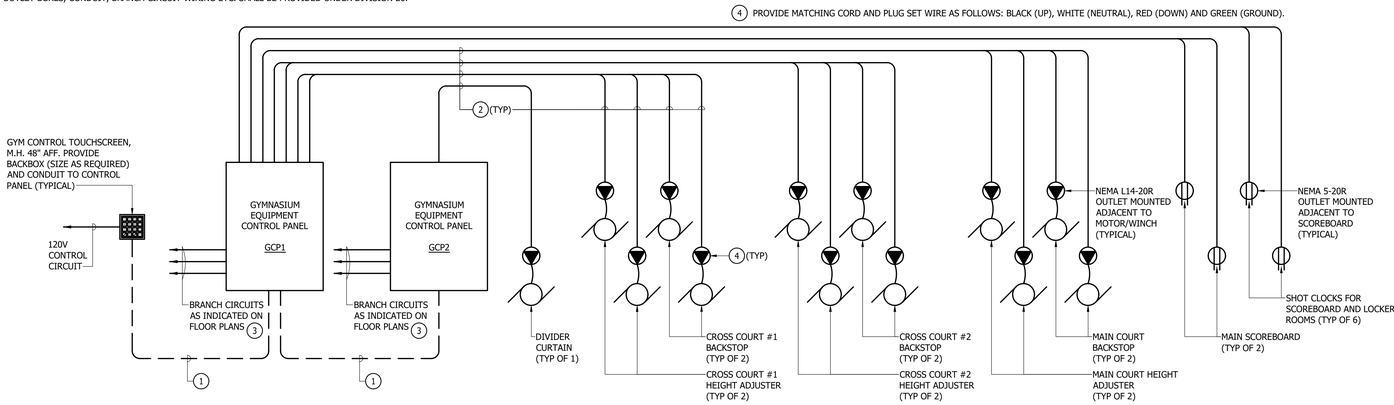
5 SITE SIGN - WIRING DIAGRAM (WITH ELECTRONIC MESSAGE BOARD)

NO SCALE



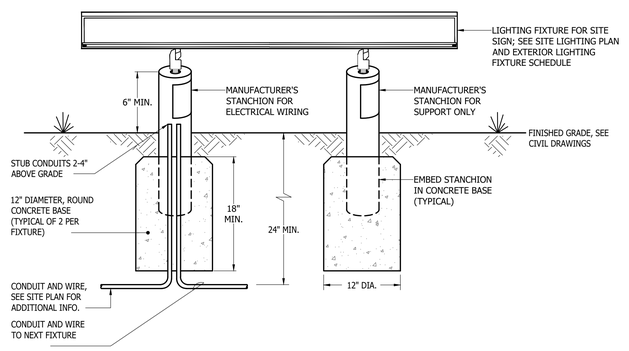

6 SITE SIGN LUMINAIRES - INSTALLATION AND AIMING

NO SCALE




7 GYMNASIUM EQUIPMENT CONTROL WIRING DIAGRAM - MAIN GYMNASIUM

NO SCALE




8 SITE SIGN LUMINARIES - INSTALLATION

NO SCALE

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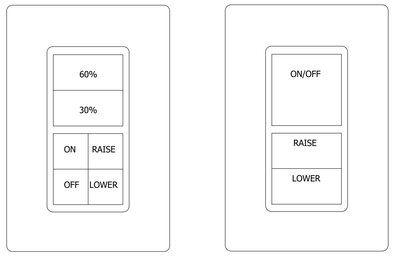
SHEET TITLE

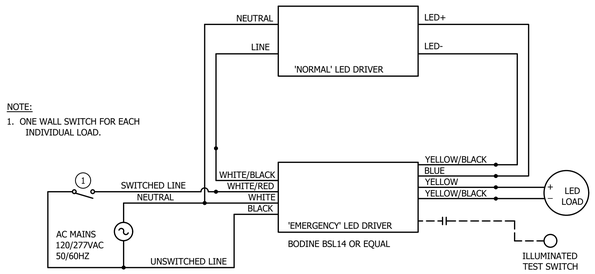
**ELECTRICAL DETAILS**

SHEET NO.

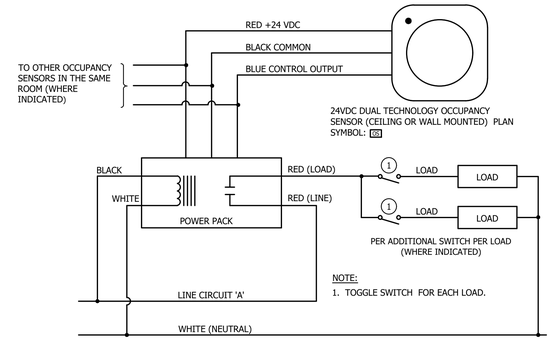
**E707**



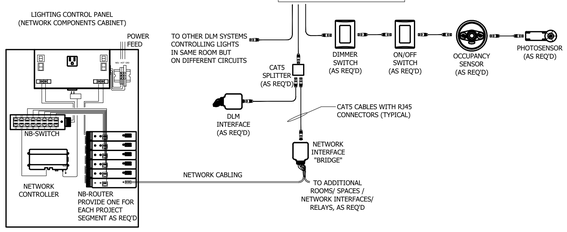

1 TYPICAL LOW-VOLTAGE LIGHTING CONTROL DIMMER SWITCHES — SCALE: NONE



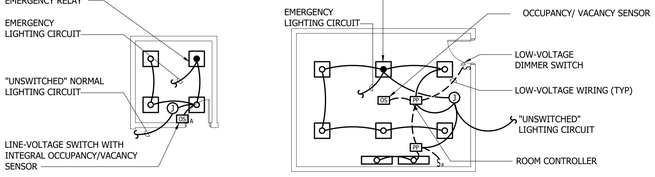

2 INTERNAL EMERGENCY DRIVER WIRING DIAGRAM — SCALE: NONE




3 TYPICAL OCCUPANCY SENSOR WIRING — SCALE: NONE




4 LOW VOLTAGE DIGITAL LIGHTING CONTROL SCHEMATIC — SCALE: NONE

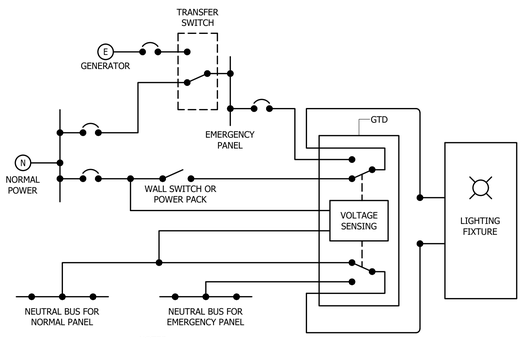



NOTES:
1. SETTINGS TO BE APPLIED TO ROOM CONTROLLER AS INDICATED ON PLANS. REFER TO LIGHTING CONTROL MATRIX FOR ADDITIONAL INFORMATION.
2. PROVIDE NUMBER OF FIXTURES, SWITCHES, OCCUPANCY OR VACANCY SENSORS, EMERGENCY FIXTURES, ETC. IN EACH ROOM AS INDICATED ON THE FLOOR PLANS

5 TYPICAL ROOM LIGHTING CONTROL — SCALE: NONE



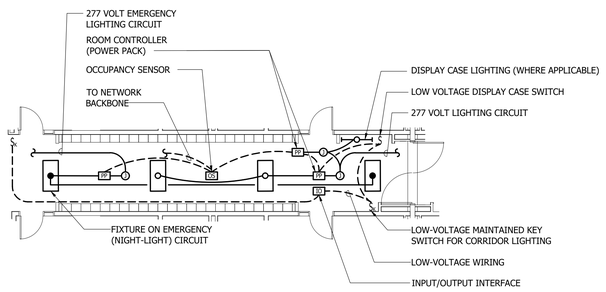

8 TYPICAL CLASSROOM LIGHTING CONTROL — SCALE: NONE




NOTES:
1. EMERGENCY TRANSFER RELAY SHALL BE BODINE (GTD) GENERATOR TRANSFER DEVICE.
2. WIRING IS TYPICAL FOR "E" SUFFIX.

EMERGENCY TRANSFER RELAY DIAGRAM

6 EMERGENCY TRANSFER RELAY DIAGRAM — SCALE: NONE




NOTE: SETTINGS TO BE APPLIED TO ROOM CONTROLLER FOR AUTOMATIC-ON, AUTOMATIC-OFF.

7 TYPICAL CORRIDOR LIGHTING CONTROL — SCALE: NONE

NOTES:

MOUNT ROOM CONTROLLERS OUTSIDE OF ENTRY DOOR OF CLASSROOM ABOVE CEILING TILE IN ACCESSIBLE CEILING SPACE OF CORRIDOR. PROVIDE IDENTIFICATION PLATE ON THE CEILING OR OVER DOOR TO IDENTIFY THE LOCATION OF ROOM CONTROLLER IN ROOM.

MANUFACTURER TO SUBMIT SHOP DRAWING SHOWING LOCATION OF OCCUPANCY / VACANCY SENSOR(S) AND DAYLIGHT SENSOR(S) INCLUDING COVERAGE.

LIGHTING RELAY ROOM CONTROLLERS SHALL BE TIED TO A CENTRAL LOCATION IN THE SCHOOL USING LIGHTING SOFTWARE INSTALLED ON A COMPUTER IN THE CUSTODIAN OFFICE, AN ETHERNET INTERFACE MODULE SHALL BE INSTALLED IN THE MAIN TELECOM ROOM TO CONNECT TO THE SCHOOL'S DATA NETWORK. THE LIGHTING SOFTWARE SHALL BE SET UP ON THE CHIEF CUSTODIAN'S COMPUTER TO COMMUNICATE WITH THE LIGHTING RELAY ROOM CONTROLLERS. LIGHTING ROOM CONTROLLERS TO BE NETWORKED TOGETHER IN ORDER TO TROUBLESHOOT THE SYSTEM VIA WEB-BASED SOFTWARE OR FROM OWNER'S CENTRAL OFFICE.

LIGHTING CONTROLS IN A TYPICAL CLASSROOM SHALL CONSIST OF A RELAY-BASED LIGHTING CONTROL PANEL (LIGHTING RELAY ROOM CONTROLLER), WIRED LOW-VOLTAGE CEILING-MOUNTED VACANCY SENSOR(S), SIX-BUTTON DIMMER CONTROL SCENE STATION(S).

A. TWO CONTROL ZONES IN A TYPICAL CLASSROOM
   - ZONE 1: STANDARD ZONE - ALL FIXTURES NOT IN ZONE 2
   - ZONE 2: DAYLIGHT ZONE - IDENTIFIED ON PLANS WITH "D" SUFFIX ON FIXTURE TYPE (WHERE APPLICABLE)

B. SIX-BUTTON CONTROL STATIONS:
   ON/OFF/RAISE/LOWER/60%/30%

"ON" CONTROL WILL RETURN THE FIXTURES TO THE 100% LIGHT LEVEL

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

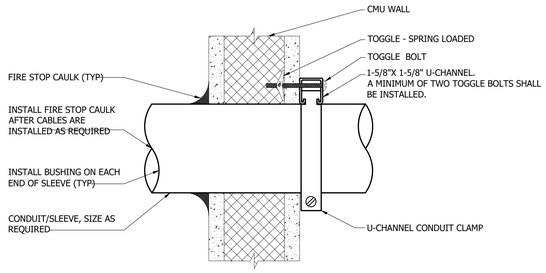
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

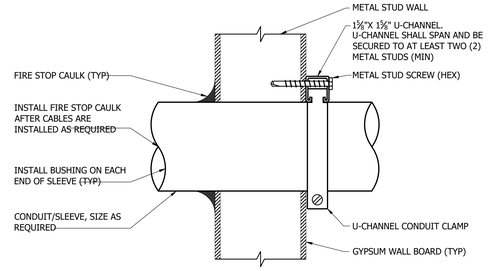
**ELECTRICAL DETAILS**

SHEET NO.

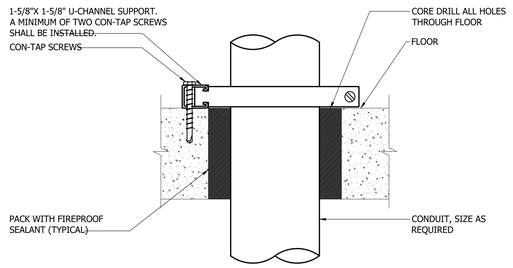
**E708**



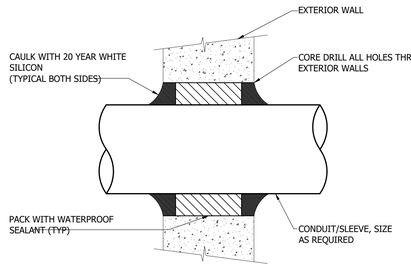

1 TYPICAL CONDUIT SLEEVE THROUGH INTERIOR CMU WALL — NO SCALE



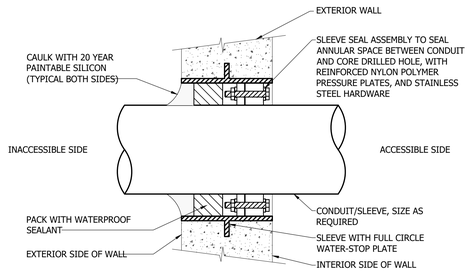

2 TYPICAL CONDUIT SLEEVE THROUGH INTERIOR STUD WALL — NO SCALE



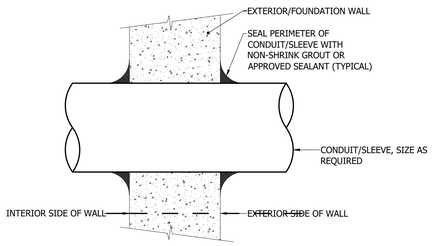

3 TYPICAL CONDUIT THROUGH FLOOR — NO SCALE



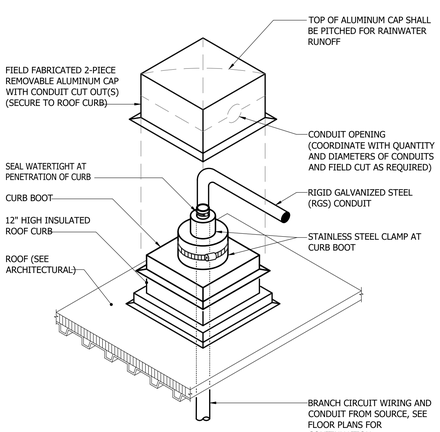

4 TYPICAL CONDUIT THROUGH EXTERIOR WALL - ABOVE GRADE — NO SCALE




5 TYPICAL CONDUIT THROUGH EXTERIOR WALL - BELOW GRADE ON ONE SIDE, ACCESSIBLE SPACE ON OTHER SIDE, E.G. CRAWLSPACE/BASEMENT — NO SCALE



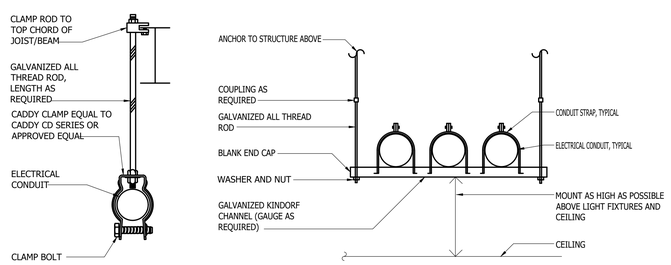

6 TYPICAL CONDUIT THROUGH EXTERIOR WALL - BELOW GRADE ON BOTH SIDES — NO SCALE




NOTES:

1. PROVIDE ADDITIONAL BOOTS FOR MULTIPLE CONDUIT PENETRATIONS THROUGH ROOF.
2. PROVIDE SLOPED CURBS TO MATCH ROOF PITCH WHERE REQUIRED.

7 TYPICAL CONDUIT THROUGH ROOF DECK — NO SCALE

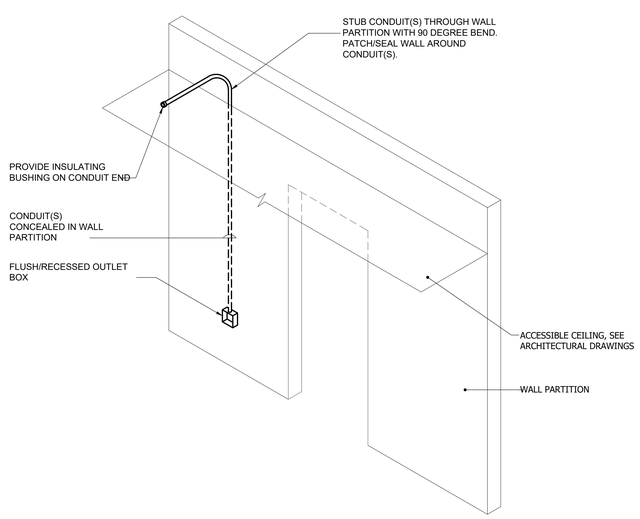



INDIVIDUAL MULTIPLE

NOTES:

1. ALL ELECTRICAL HANGERS AND SUPPORT COMPONENTS IN DRY INTERIOR LOCATIONS SHALL HAVE A NON-CORROSIVE METAL FINISH, GALV-KROM OR EQUAL.
2. ALL ELECTRICAL HANGERS AND SUPPORT COMPONENTS IN DAMP/WET LOCATIONS SHALL BE STAINLESS STEEL .
3. ALL EXPOSED CONDUIT HANGERS AND SUPPORTS SHALL BE PAINTED WITH RUST INHIBITING PAINT AS SPECIFIED, UNLESS OTHERWISE NOTED.

8 TYPICAL CONDUIT SUPPORT — NO SCALE




9 CONDUIT STUB ABOVE ACCESSIBLE CEILING — NO SCALE

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

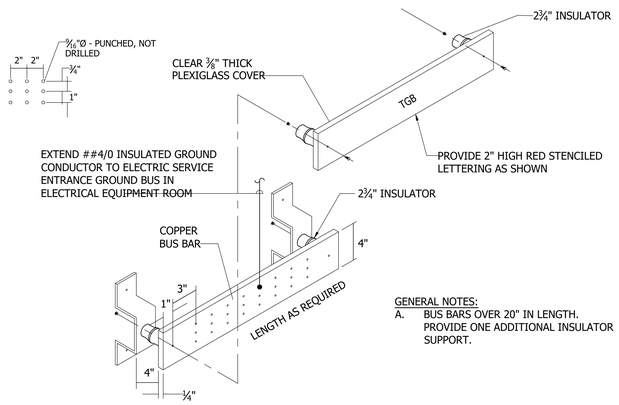
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**ELECTRICAL DETAILS**

SHEET NO.

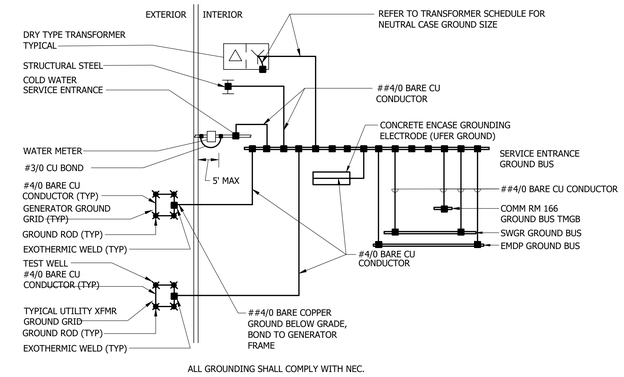
**E709**




GENERAL NOTES:

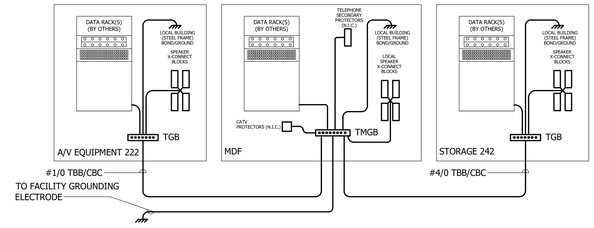
A. BUS BARS OVER 20" IN LENGTH. PROVIDE ONE ADDITIONAL INSULATOR SUPPORT.

1 TYPICAL GROUNDING BUS BAR — NO SCALE




ALL GROUNDING SHALL COMPLY WITH NEC.

2 PARTIAL SCHEMATIC GROUNDING DIAGRAM — NO SCALE

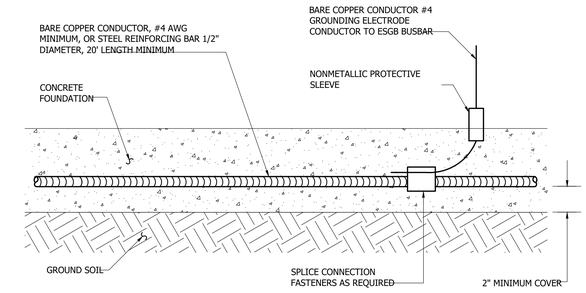



NOTES:

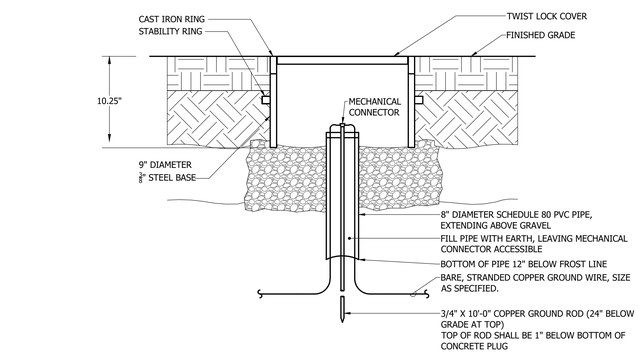
1. PROVIDE #6 GREEN INSULATED COPPER GROUND WIRE UON.
2. PROVIDE 12" COPPER BUSBAR FOR EACH TGB. PROVIDE 36" COPPER BUSBAR FOR TMGB UON.
3. ALL WORK SHALL COMPLY TO APPLICABLE CODES AND THE LATEST VERSION OF ANSI/TIA/EIA-602 COMMERICAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS EQUIPMENT.

| | |
|---|---|
| TGB | TELECOMMUNICATIONS GROUNDING BUSBAR |
| TMGB | TELECOMMUNICATIONS MAIN GROUNDING BUSBAR |
| | BONDING CONDUCTOR |
| TBB: | TELECOM BONDING BACKBONE |
| TGB: | TELECOM GROUNDING BUSBAR |
| TMGB: | TELECOM MAIN GROUNDING BUSBAR |

3 TELECOMMUNICATIONS GROUNDING SYSTEM DIAGRAM — NO SCALE

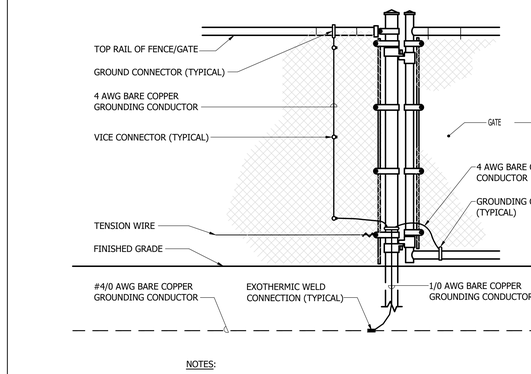



4 UFER GROUND CONNECTION — NO SCALE




TEST WELL SHALL BE HARGER MODEL #GAW910 OR APPROVED EQUAL

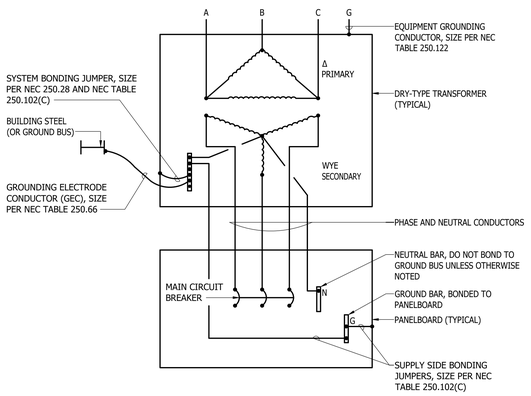
5 GROUNDING ELECTRODE TEST WELL — NO SCALE



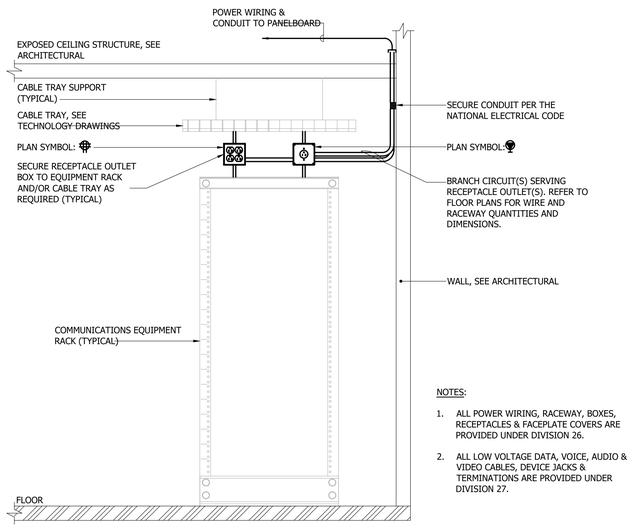

NOTES:

1. THIS DETAIL APPLIES TO THE GATE SERVING THE GENERATOR AND TRANSFORMER YARD.
2. SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.

6 GATE AND FENCE GROUNDING (TYPICAL) — NO SCALE



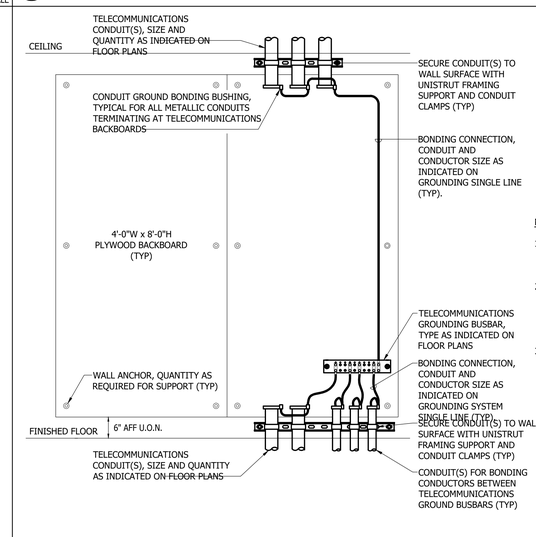

7 TYPICAL DRY TYPE TRANSFORMER GROUNDING — NO SCALE




NOTES:

1. ALL POWER WIRING, RACEWAY, BOXES, RECEPTACLES & FACEPLATE COVERS ARE PROVIDED UNDER DIVISION 26.
2. ALL LOW VOLTAGE DATA, VOICE, AUDIO & VIDEO CABLES, DEVICE JACKS & TERMINATIONS ARE PROVIDED UNDER DIVISION 27.

8 COMMUNICATIONS EQUIPMENT RACK RECEPTACLE OUTLET INSTALLATION — NO SCALE




NOTES:

1. DETAIL IS TYPICAL FOR ALL TELECOMMUNICATIONS/DATA EQUIPMENT ROOMS, UNLESS OTHERWISE NOTED.
2. CONDUITS SHOWN ARE FOR ILLUSTRATION PURPOSES ONLY. PROVIDE CONDUITS AND CONDUCTORS AS INDICATED ON FLOOR PLANS AND GROUNDING SYSTEM SINGLE LINE DIAGRAM DETAILS.
3. ALL PLYWOOD BACKBOARDS SHALL BE 3/4" THICK, TYPE "AC". PAINT ALL SIDES WITH TWO COATS OF FIRE-RETARDANT PAINT, SHERWIN WILLIAMS "FLAME CONTROL" OR APPROVED EQUAL, PER MANUFACTURER'S RECOMMENDATIONS. INSTALL "C" SIDE OF PLYWOOD AGAINST WALL.

9 TYPICAL TELECOMMUNICATIONS ROOM GROUNDING & BONDING CONNECTIONS — NO SCALE

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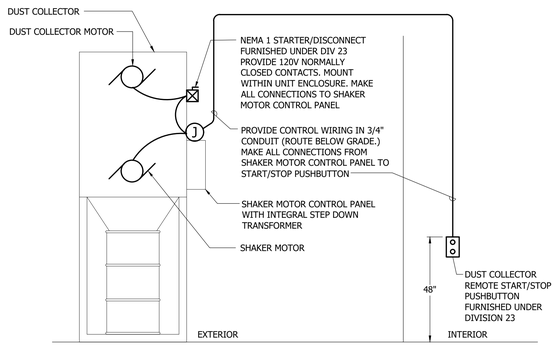
SHEET TITLE

**ELECTRICAL DETAILS**

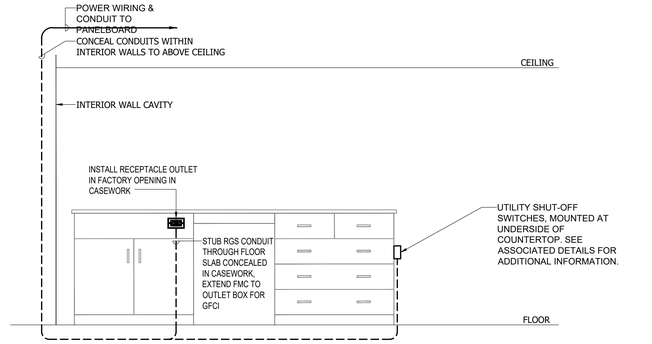
SHEET NO.

**E710**




## 1 DUST COLLECTOR CONNECTION DETAIL

NO SCALE

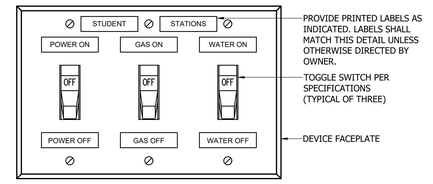



NOTES:

1. ALL POWER WIRING, RACEWAY, BOXES, RECEPTACLES & FACEPLATE COVERS ARE PROVIDED UNDER DIVISION 26.
2. ALL LOW VOLTAGE DATA, VOICE, AUDIO & CATV CABLES, DEVICE JACKS & TERMINATIONS ARE PROVIDED UNDER DIVISION 27.

## 2 TYPICAL TEACHER DROP - SCIENCE CLASSROOM

NO SCALE

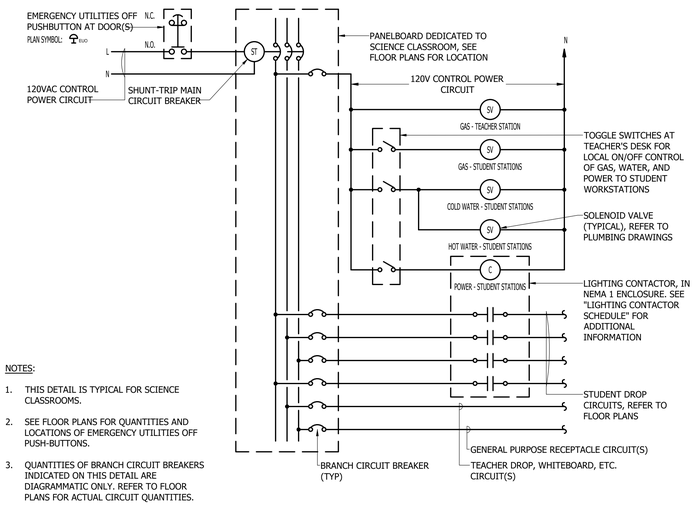



NOTES:

1. SWITCHES SHALL BE INSTALLED IN SCIENCE CLASSROOM TEACHER'S WORKSTATION/CASEWORK. REFER TO FLOOR PLANS FOR SWITCH LOCATIONS.
2. REFER TO "SCIENCE CLASSROOM UTILITIES OFF SINGLE LINE DIAGRAM" DETAIL AND "SCIENCE CLASSROOM UTILITIES OFF WIRING DIAGRAM" DETAIL FOR ADDITIONAL INFORMATION.

## 3 SCIENCE CLASSROOM - UTILITIES OFF TOGGLE SWITCHES

NO SCALE

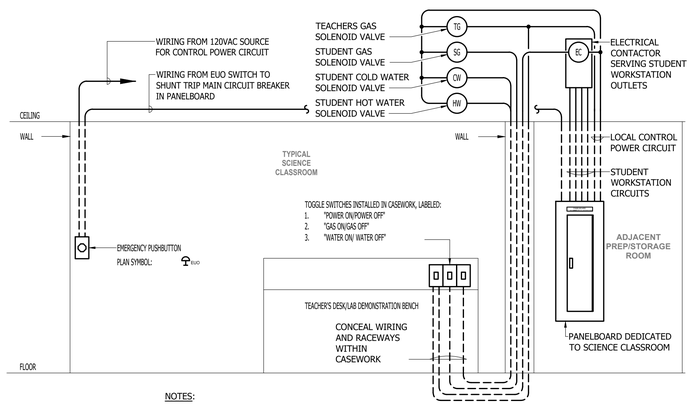



NOTES:

1. THIS DETAIL IS TYPICAL FOR SCIENCE CLASSROOMS.
2. SEE FLOOR PLANS FOR QUANTITIES AND LOCATIONS OF EMERGENCY UTILITIES OFF PUSH-BUTTONS.
3. QUANTITIES OF BRANCH CIRCUIT BREAKERS INDICATED ON THIS DETAIL ARE DIAGRAMMATIC ONLY. REFER TO FLOOR PLANS FOR ACTUAL CIRCUIT QUANTITIES.

## 4 SCIENCE CLASSROOM - UTILITIES OFF WIRING DIAGRAM

NO SCALE




NOTES:

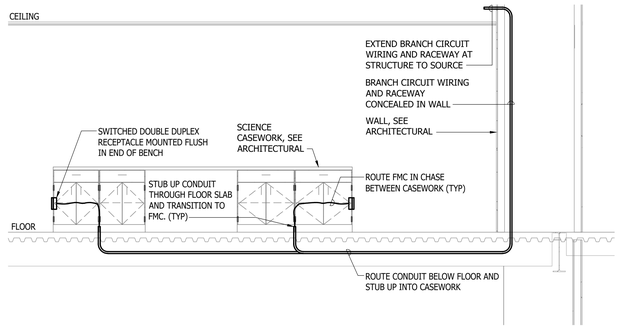
1. SINGLE LINE DIAGRAM IS SCHEMATIC IN NATURE, AND IS ONLY INTENDED TO DISPLAY OVERALL INTENT FOR A TYPICAL SCIENCE CLASSROOM.
2. SINGLE LINE DIAGRAM DOES NOT NECESSARILY INDICATE ACTUAL QUANTITIES AND/OR TYPES OF DEVICES. REFER TO FLOOR PLANS FOR QUANTITIES AND LOCATIONS.
3. PROVIDE ALL WIRING TYPES, SIZES AND INTERCONNECTIONS AS REQUIRED BY THE MANUFACTURER.
4. REFER TO "EMERGENCY SHUT-OFF CONTROL DIAGRAM - POWER AND WATER IN SCIENCE LABS" DETAIL FOR ADDITIONAL INFORMATION.

## 5 SCIENCE CLASSROOM - UTILITIES OFF BLOCK DIAGRAM

NO SCALE

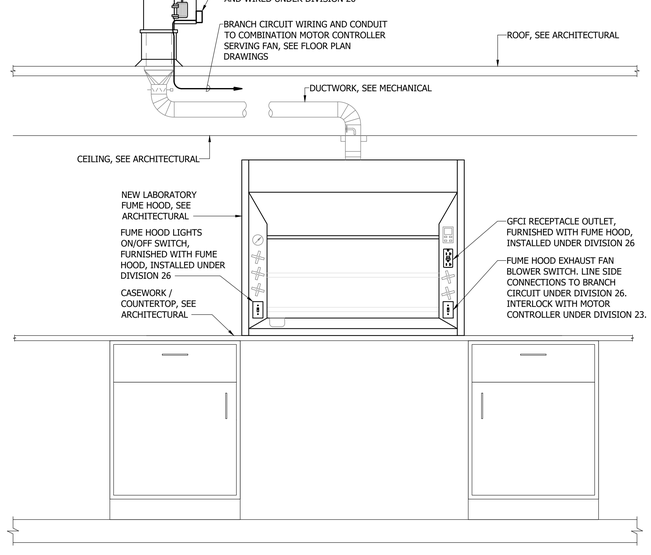
## 6 NOT USED

NO SCALE




## 7 LAB BENCH RECPTACLE- INSTALLATION

NO SCALE




NOTES:

1. FUME HOOD SHALL BE PRE-WIRED WITH ALL SWITCHES, RECEPTACLES, ETC. UNLESS OTHERWISE NOTED.
2. CONNECT ALL UTILITIES TO FUME HOOD AS REQUIRED PER MANUFACTURER'S INSTRUCTIONS.
3. REFER TO HVAC AND PLUMBING DRAWINGS FOR ADDITIONAL DETAILS.

## 8 HVAC EQUIPMENT CONNECTION - FUME HOOD AND EXHAUST FAN

NO SCALE

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

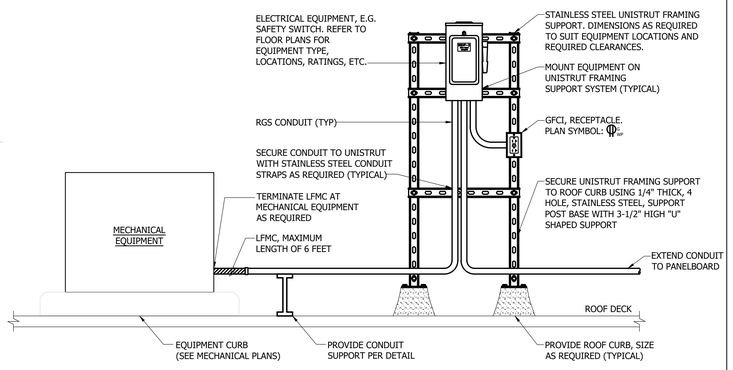
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

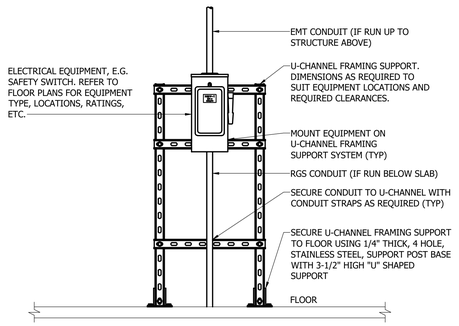
**ELECTRICAL DETAILS**

SHEET NO.

**E711**

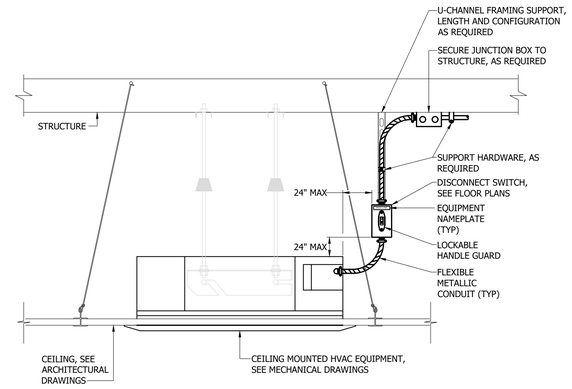



1 FREE STANDING ELECTRICAL EQUIPMENT - ROOF MOUNTING DETAIL




2 FREE-STANDING U-CHANNEL SUPPORT FOR ELECTRICAL EQUIPMENT

NO SCALE

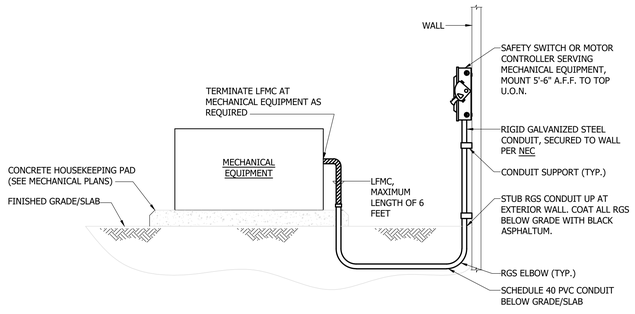



NOTES:

1. COORDINATE LOCATION WITH DIVISION 23, SEE MECHANICAL DRAWINGS.
2. REFRIGERATION PIPING NOT SHOWN, SEE MECHANICAL DRAWINGS.
3. MAKE FINAL CONNECTION TO EQUIPMENT PER MANUFACTURER'S INSTRUCTIONS.

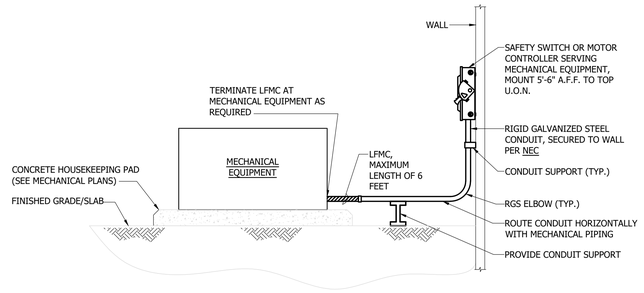
3 HVAC EQUIPMENT CONNECTION - CEILING MOUNTED EQUIPMENT

NO SCALE



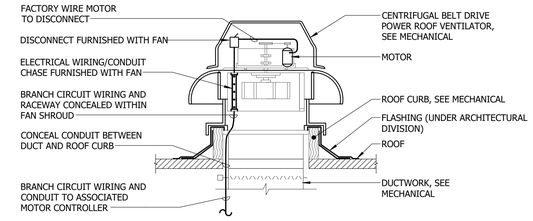

4 PAD-MOUNTED MECHANICAL EQUIPMENT CONNECTION - CONDUIT BELOW SLAB

NO SCALE




5 PAD-MOUNTED MECHANICAL EQUIPMENT CONNECTION - CONDUIT ABOVE SLAB

NO SCALE

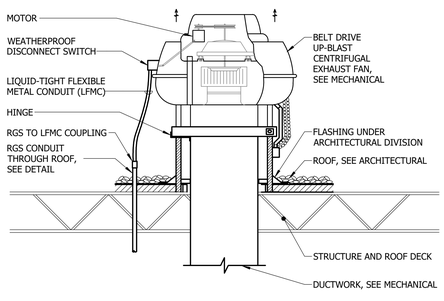



NOTE :

1. THIS DETAIL APPLIES TO ROOF MOUNTED EXHAUST FANS THAT DO NOT HANDLE GREASE OR HINGE OPEN.
2. COORDINATE ELECTRICAL CONNECTION AND CONDUIT INSTALLATION WITH DIVISION 23 CONTRACTOR.

6 ROOF MOUNTED EXHAUST FAN - CONCEALED CONDUIT

NO SCALE

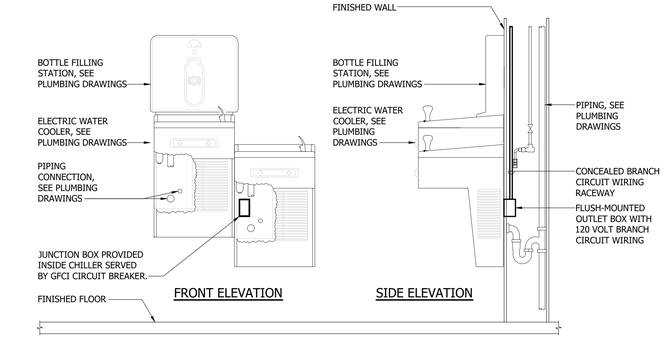



NOTES :

1. THIS DETAIL APPLIES TO ROOF MOUNTED EXHAUST FANS FOR GREASE APPLICATIONS (E.G. KITCHEN) AND FANS THAT HINGE OPEN.
2. COORDINATE ELECTRICAL CONNECTION AND CONDUIT INSTALLATION WITH DIVISION 23 CONTRACTOR.
3. COORDINATE ROOF PENETRATIONS WITH ROOFING CONTRACTOR.

7 ROOF MOUNTED EXHAUST FAN - EXPOSED CONDUIT

NO SCALE

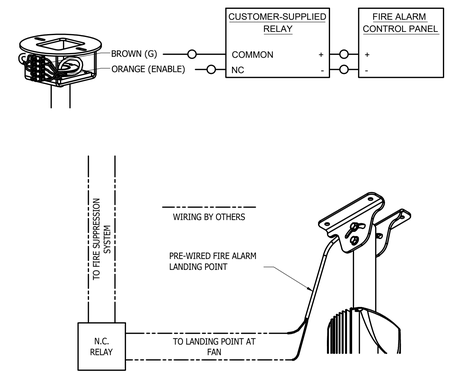



NOTES:

1. MOUNTING HEIGHT TO COMPLY WITH FEDERAL, STATE, AND LOCAL CODES.
2. MANUFACTURER TO PROVIDE POWER CORD WITH PLUG.

8 PLUMBING EQUIPMENT ROUGH-IN/CONNECTION - ELECTRIC WATER COOLER

NO SCALE




9 CEILING PADDLE FAN - FIRE SYSTEM INTEGRATION WIRING DIAGRAM

NO SCALE

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**ELECTRICAL DETAILS**

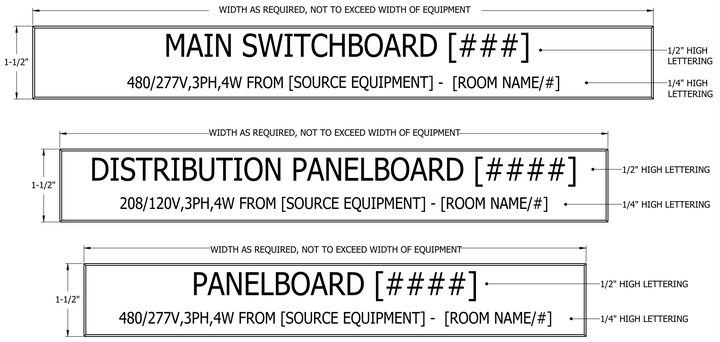
SHEET NO.

**E712**

NOTES:

1. NAMEPLATE SHALL BE ENGRAVED WITH WHITE LETTERING ON BLACK BACKGROUND.
2. INSTALL NAMEPLATE ON FRONT OF SAFETY SWITCH SERVING MOTOR.

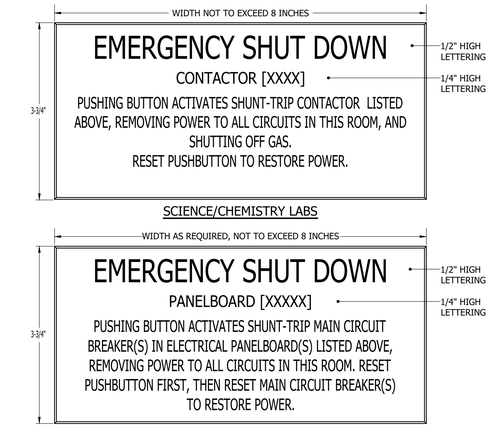
1 SAFETY SWITCH NAMEPLATE - THREE-PHASE MOTOR SERVED BY REMOTE VARIABLE FREQUENCY DRIVE — NO SCALE




NOTES:

1. LINE #1 IDENTIFIES EQUIPMENTDESIGNATION: SWITCHBOARD, DISTRIBUTION PANELBOARD, PANELBOARD [PANELBOARD DESIGNATION, E.G. DP1D1]
2. LINE #2 IDENTIFIES FEEDER CIRCUIT INFORMATION: [VOLTAGE], [PHASE], [# WIRES] FROM [SOURCE EQUIPMENT/CIRCUIT DESIGNATION] - [ROOM WHERE SOURCE IS LOCATED]

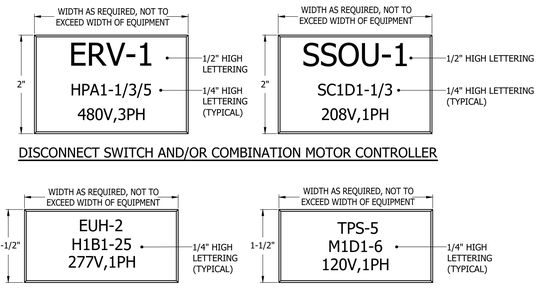
2 TYPICAL EQUIPMENT NAMEPLATES — NO SCALE




NOTES:

1. NAMEPLATE SHALL BE ENGRAVED WITH WHITE LETTERING ON RED BACKGROUND.
2. EDIT PANELBOARD NAME(S) ON LINE 2 OF NAMEPLATES TO SUIT EACH SPACE. WHERE MORE THAN ONE (1) PANELBOARD IS AFFECTED, REVISE LINE 2 TO READ "PANELBOARDS" FOLLOWED BY PANELBOARD DESIGNATIONS.
3. INSTALL NAMEPLATES ON WALL ABOVE EMERGENCY PUSH-BUTTON(S). SEE FLOOR PLANS FOR QUANTITIES AND LOCATIONS.

3 EMERGENCY PUSH-BUTTON INSTRUCTION NAMEPLATES - SCIENCE/CHEMISTRY LABS AND SHOP SPACES — NO SCALE




DISCONNECT SWITCH AND/OR COMBINATION MOTOR CONTROLLER

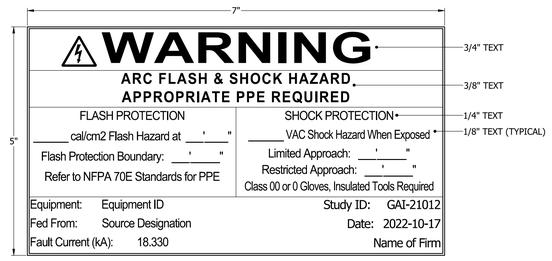



MANUAL MOTOR STARTER/CONTROL SWITCH

NOTES:

1. LINE #1 IDENTIFIES LOAD DESIGNATION: [LOAD DESIGNATION, E.G. ERV-1]
2. LINE #2 IDENTIFIES BRANCH CIRCUIT: [SOURCE EQUIPMENT/CIRCUIT DESIGNATION, E.G. [HPA1-1/3/5]
3. LINE #3 IDENTIFIES BRANCH CIRCUIT INFORMATION: [VOLTAGE], [PHASE], [# WIRES (NOT REQUIRED FOR SINGLE PHASE CIRCUITS)]
4. WHERE MOTOR SWITCH IS DOWNSTREAM OF THE MOTOR CONTROLLER, ADD A FOURTH LINE OF TEXT TO IDENTIFY MOTOR CONTROLLER LOCATION: [MOTOR CONTROLLER] [VFD] SERVING THIS MOTOR IS LOCATED IN [ROOM NAME] [ROOM NUMBER].
5. PROVIDE NAMEPLATES FOR ALL DISCONNECTING MEANS FOR EQUIPMENT, INCLUDING FACTORY DISCONNECTS PROVIDED INTEGRAL WITH EQUIPMENT.

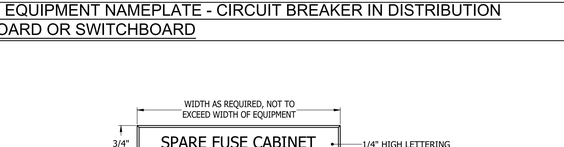
4 TYPICAL EQUIPMENT NAMEPLATES — NO SCALE




NOTES:

1. APPLY ARC FLASH HAZARD LABELS AT EACH PIECE OF ELECTRICAL DISTRIBUTION EQUIPMENT REQUIRED BY NFPA 70 AND NFPA70E.
2. ARC FLASH HAZARD LABELS SHALL BE SPECIFIC TO EACH PIECE OF EQUIPMENT. GENERIC LABELS SUPPLIED WITH EQUIPMENT ARE NOT ACCEPTABLE.

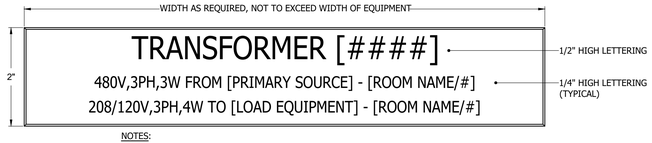
5 TYPICAL ARC FLASH HAZARD LABEL — NO SCALE




NOTES:

1. LINE #1 IDENTIFIES CONTACTOR DESIGNATION: CONTACTOR [CONTACTOR DESIGNATION, E.G. "EC-1"]
2. LINE #2 IDENTIFIES CONTROL POWER CIRCUIT INFORMATION: [VOLTAGE], [PHASE], [# WIRES] FROM [SOURCE PANELBOARD - [ROOM WHERE SOURCE PANELBOARD IS LOCATED]
3. LINE #3 IDENTIFIES LOAD CONTROLLED BY CONTACTOR.

6 DETAIL - TYPICAL EQUIPMENT NAMEPLATE - ENCLOSED CONTACTOR — NO SCALE




NOTES:

1. LINE #1 IDENTIFIES TRANSFORMER DESIGNATION: TRANSFORMER [TRANSFORMER DESIGNATION, E.G. TDP1D1]
2. LINE #2 IDENTIFIES PRIMARY CIRCUIT INFORMATION: [VOLTAGE], [PHASE], [# WIRES] FROM [SOURCE EQUIPMENT/CIRCUIT DESIGNATION] - [ROOM WHERE SOURCE IS LOCATED]
3. LINE #3 IDENTIFIES SECONDARY INFORMATION: [VOLTAGE], [PHASE], [# WIRES] TO [LOAD EQUIPMENT/CIRCUIT DESIGNATION] - [ROOM WHERE LOAD IS LOCATED]

7 TYPICAL EQUIPMENT NAMEPLATE - DRY-TYPE TRANSFORMER — NO SCALE




NOTES:

1. LINE #1 IDENTIFIES EQUIPMENT DESIGNATION: ELEVATOR CAR LIGHTS
2. LINE #2 IDENTIFIES SOURCE INFORMATION: SOURCE: [VOLTAGE], [PHASE], [# WIRES] FROM [SOURCE EQUIPMENT/CIRCUIT DESIGNATION] - [SOURCE LOCATION]

NOTES:

1. LINE #1 IDENTIFIES EQUIPMENT DESIGNATION: ELEVATOR CONTROLLER POWER
2. LINE #2 IDENTIFIES SOURCE INFORMATION: SOURCE: [VOLTAGE], [PHASE], [# WIRES] FROM [SOURCE EQUIPMENT/CIRCUIT DESIGNATION] - [SOURCE LOCATION]
3. LINE #3 IDENTIFIES SHUNT-TRIP INFORMATION: SHUNT-TRIP: [VOLTAGE] FROM [CIRCUIT DESIGNATION] - [SOURCE LOCATION]

8 TYPICAL EQUIPMENT NAMEPLATE - ELEVATOR DISCONNECT / CONTROL SWITCH — NO SCALE




NOTES:

1. LINE #1 IDENTIFIES DISCONNECT: XFMR [PRIMARY] [SECONDARY] DISCONNECT
2. LINE #2 IDENTIFIES SOURCE CIRCUIT INFORMATION: SOURCE: [VOLTAGE], [PHASE], [# WIRES] FROM [SOURCE EQUIPMENT/CIRCUIT DESIGNATION] - [ROOM WHERE SOURCE IS LOCATED]
3. LINE #3 IDENTIFIES LOAD CIRCUIT INFORMATION: LOAD: [VOLTAGE], [PHASE], [# WIRES] TO [LOAD EQUIPMENT/CIRCUIT DESIGNATION] - [ROOM WHERE LOAD IS LOCATED]

9 TYPICAL EQUIPMENT NAMEPLATE - TRANSFORMER PRIMARY / SECONDARY DISCONNECTING MEANS — NO SCALE




NOTES:

1. LINE #1 IDENTIFIES LOAD SERVED BY CIRCUIT BREAKER.
2. APPLY TO ALL CIRCUIT BREAKERS IN THE MAIN SWITCHBOARD AND EACH DISTRIBUTION PANELBOARD.

10 TYPICAL EQUIPMENT NAMEPLATE - CIRCUIT BREAKER IN DISTRIBUTION PANELBOARD OR SWITCHBOARD — NO SCALE




NOTES:

1. LINE #1 IDENTIFIES SPARE FUSE CABINET.
2. APPLY TO ALL SPARE FUSE CABINETS LOCATED IN MECHANICAL / ELECTRICAL ROOMS AND PENTHOUSES / MEZZANINES.

11 TYPICAL EQUIPMENT NAMEPLATE - SPARE FUSE CABINET — NO SCALE

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

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**NEWARK, DE 19702**

SHEET TITLE

**ELECTRICAL DETAILS**

SHEET NO.

**E713**

WIDTH AS REQUIRED, NOT TO EXCEED WIDTH OF EQUIPMENT

2-1/2"

**GENERATOR G-1** — 1/2" HIGH LETTERING

OUTPUT CB#1: 480/277V, 3PH, 4W TO DISTRIBUTION PANELBOARD [E1DP] - [ROOM NAME/#] — 1/4" HIGH LETTERING (TYPICAL)

OUTPUT CB#2: 480/277V, 3PH, 4W TO DISTRIBUTION PANELBOARD [E2DP] - [ROOM NAME/#]

OUTPUT CB#3: 480/277V, 3PH, 4W TO DISTRIBUTION PANELBOARD [E3DP] - [ROOM NAME/#]

OUTPUT #4: 480/277V, 3PH, 4W TO FIRE PUMP CONTROLLER - [ROOM NAME/#]

NOTES:

1. LINE #1 IDENTIFIES GENERATOR DESIGNATION: STANDBY GENERATOR [GENERATOR DESIGNATION, E.G. "G-1"]
2. LINES #2-#4 IDENTIFY GENERATOR OUTPUT CIRCUIT INFORMATION: CB-[CIRCUIT BREAKER #]: [VOLTAGE], [PHASE], [# WIRES] TO [LOAD EQUIPMENT/CIRCUIT DESIGNATION, E.G. ATS-E] - [ROOM WHERE SOURCE IS LOCATED]

1 EQUIPMENT NAMEPLATE - GENERATOR — NO SCALE

5"

3-1/2"

**WARNING**

**SHOCK HAZARD EXISTS IF GROUNDING ELECTRODE CONDUCTOR OR BONDING JUMPER CONNECTION IN THIS EQUIPMENT IS REMOVED WHILE ALTERNATE SOURCE(S) IS ENERGIZED.**

**CAUTION**

**STANDBY GENERATOR AUTOMATICALLY STARTS DURING POWER OUTAGE**

**TYPE OF GENERATOR**
1500kW DIESEL

**GENERATOR LOCATION**
UTILITY YARD

NOTES:

1. APPLY WARNING LABELS AT EACH SERVICE DISCONNECTING MEANS BONDED TO THE GROUNDING ELECTRODE SYSTEM, I.E. MSB1, MSB2, AND FIRE PUMP CONTROLLER.
2. APPLY CAUTION LABELS AT EACH SERVICE DISCONNECTING MEANS, I.E. MSB1, MSB2, AND FIRE PUMP CONTROLLER.

3 CAUTION/WARNING LABELS - GENERATOR — NO SCALE

10"

7"

**GENERATOR EMERGENCY STOP** — 1-1/2" TEXT MINIMUM

NOTES:

1. APPLY SIGN AT EACH GENERATOR EMERGENCY SHUTDOWN SWITCH.
2. SIGNS SHALL BE CONSTRUCTED OF ALUMINUM WITH UV-RESISTANT DUROSHIELD TOPCOAT.
3. SIGNS SHALL BE RED WITH WHITE LETTERING.

6 SIGNAGE - GENERATOR EMERGENCY SHUTDOWN SWITCH

WIDTH AS REQUIRED, NOT TO EXCEED WIDTH OF EQUIPMENT

1-7/8"

**EMERGENCY AUTOMATIC TRANSFER SWITCH ATS-1** — 1/2" HIGH LETTERING

NORMAL/UTILITY SOURCE: 480/277V,3PH,4W FROM [SOURCE EQUIP] - [ROOM NAME/#] — 1/4" HIGH LETTERING (TYPICAL)

EMERGENCY/GENERATOR SOURCE: 480/277V,3PH,4W FROM [SOURCE EQUIP] - [ROOM NAME/#]

LOAD: 480/277V,3PH,4W TO [LOAD EQUIP] - [ROOM NAME/#]

WIDTH AS REQUIRED, NOT TO EXCEED WIDTH OF EQUIPMENT

1-7/8"

**LEGALLY REQUIRED AUTOMATIC TRANSFER SWITCH ATS-2** — 1/2" HIGH LETTERING

NORMAL/UTILITY SOURCE: 480/277V,3PH,4W FROM [SOURCE EQUIP] - [ROOM NAME/#] — 1/4" HIGH LETTERING (TYPICAL)

EMERGENCY/GENERATOR SOURCE: 480/277V,3PH,4W FROM [SOURCE EQUIP] - [ROOM NAME/#]

LOAD: 480/277V,3PH,4W TO [LOAD EQUIP] - [ROOM NAME/#]

WIDTH AS REQUIRED, NOT TO EXCEED WIDTH OF EQUIPMENT

1-7/8"

**STANDBY AUTOMATIC TRANSFER SWITCH ATS-3** — 1/2" HIGH LETTERING

NORMAL/UTILITY SOURCE: 480/277V,3PH,4W FROM [SOURCE EQUIP] - [ROOM NAME/#] — 1/4" HIGH LETTERING (TYPICAL)

EMERGENCY/GENERATOR SOURCE: 480/277V,3PH,4W FROM [SOURCE EQUIP] - [ROOM NAME/#]

LOAD: 480/277V,3PH,4W TO [LOAD EQUIP] - [ROOM NAME/#]

NOTES:

1. LINE #1 IDENTIFIES AUTOMATIC TRANSFER SWITCH DESIGNATION:
   AUTOMATIC TRANSFER SWITCH [AUTOMATIC TRANSFER SWITCH DESIGNATION]
2. LINE #2 IDENTIFIES UTILITY SOURCE INFORMATION:
   NORMAL SOURCE: [VOLTAGE], [PHASE], [# WIRES] FROM [SOURCE EQUIPMENT/CIRCUIT DESIGNATION] - [ROOM WHERE SOURCE IS LOCATED]
3. LINE #3 IDENTIFIES GENERATOR SOURCE INFORMATION:
   GENERATOR SOURCE: [VOLTAGE], [PHASE], [# WIRES] FROM [SOURCE EQUIPMENT/CIRCUIT DESIGNATION] - [ROOM WHERE SOURCE IS LOCATED]
4. LINE #4 IDENTIFIES LOAD INFORMATION:
   LOAD: [VOLTAGE], [PHASE], [# WIRES] TO [LOAD EQUIPMENT/CIRCUIT DESIGNATION] - [ROOM WHERE LOAD IS LOCATED]

2 TYPICAL EQUIPMENT NAMEPLATE - AUTOMATIC TRANSFER SWITCH (ATS) - UTILITY/GENERATOR — NO SCALE

WIDTH AS REQUIRED, NOT TO EXCEED WIDTH OF EQUIPMENT

2-1/2"

**FIRE PUMP CONTROLLER** — 1/2" HIGH LETTERING

NORMAL SOURCE: 480V,3PH,3W FROM [SOURCE EQUIP] — 1/4" HIGH LETTERING (TYPICAL)

EMERGENCY SOURCE: 480V,3PH,3W FROM [SOURCE EQUIP] - [ROOM NAME/#]

LOAD: 480V,3PH,3W TO [LOAD EQUIP] - [ROOM NAME/#]

NOTES:

1. LINE #1 IDENTIFIES AUTOMATIC TRANSFER SWITCH DESIGNATION:
   AUTOMATIC TRANSFER SWITCH [AUTOMATIC TRANSFER SWITCH DESIGNATION]
2. LINE #2 IDENTIFIES UTILITY SOURCE INFORMATION:
   NORMAL SOURCE: [VOLTAGE], [PHASE], [# WIRES] FROM [SOURCE EQUIPMENT/CIRCUIT DESIGNATION] - [ROOM WHERE SOURCE IS LOCATED]
3. LINE #3 IDENTIFIES GENERATOR SOURCE INFORMATION:
   GENERATOR SOURCE: [VOLTAGE], [PHASE], [# WIRES] FROM [SOURCE EQUIPMENT/CIRCUIT DESIGNATION] - [ROOM WHERE SOURCE IS LOCATED]
4. LINE #4 IDENTIFIES LOAD INFORMATION:
   LOAD: [VOLTAGE], [PHASE], [# WIRES] TO [LOAD EQUIPMENT/CIRCUIT DESIGNATION] - [ROOM WHERE LOAD IS LOCATED]

4 TYPICAL EQUIPMENT NAMEPLATE - FIRE PUMP CONTROLLER — NO SCALE

WIDTH AS REQUIRED, NOT TO EXCEED WIDTH OF EQUIPMENT

2"

SERVICE 1 - DISCONNECT 1 OF 5
NORMAL POWER SUPPLY TO MSB1
SERVICE 2 DISCONNECTS LOCATED IN MSB2 - ELEC D140
SERVICE 3 DISCONNECT LOCATED IN FCP - FIRE PUMP D142 — 1/4" HIGH LETTERING (TYPICAL)

WIDTH AS REQUIRED, NOT TO EXCEED WIDTH OF EQUIPMENT

2"

SERVICE 1 - DISCONNECT 2 OF 5
NORMAL POWER SUPPLY TO ATS-E1
SERVICE 2 DISCONNECTS LOCATED IN MSB2 - ELEC D140
SERVICE 3 DISCONNECT LOCATED IN FCP - FIRE PUMP D142 — 1/4" HIGH LETTERING (TYPICAL)

MAIN SWITCHBOARD MSB1

NOTES:

1. INSTALL NAMEPLATES ADJACENT TO OR BELOW EQUIPMENT/CIRCUIT BREAKER DESIGNATION NAMEPLATE.

7 EQUIPMENT NAMEPLATES - SERVICE DISCONNECTS - MSB1 — NO SCALE

WIDTH AS REQUIRED, NOT TO EXCEED WIDTH OF EQUIPMENT

1-1/2"

SERVICE 3 - FIRE PUMP CONTROLLER - DISCONNECT 5 OF 5
SERVICE 1 DISCONNECTS LOCATED IN MSB1 - ELEC D140
SERVICE 2 DISCONNECTS LOCATED IN MSB2 - ELEC D140 — 1/4" HIGH LETTERING (TYPICAL)

FIRE PUMP CONTROLLER

NOTES:

1. INSTALL NAMEPLATE ADJACENT TO OR BELOW EQUIPMENT/CIRCUIT BREAKER DESIGNATION NAMEPLATE.

5 EQUIPMENT NAMEPLATES - SERVICE DISCONNECT - FIRE PUMP CONTROLLER — NO SCALE

WIDTH AS REQUIRED, NOT TO EXCEED WIDTH OF EQUIPMENT

2"

SERVICE 2 - DISCONNECT 3 OF 5
NORMAL POWER SUPPLY TO MSB2
SERVICE 1 DISCONNECTS LOCATED IN MSB1 - ELEC D140
SERVICE 3 DISCONNECT LOCATED IN FCP - FIRE PUMP D142 — 1/4" HIGH LETTERING (TYPICAL)

WIDTH AS REQUIRED, NOT TO EXCEED WIDTH OF EQUIPMENT

2"

SERVICE 2 - DISCONNECT 4 OF 5
NORMAL POWER SUPPLY TO ATS-E2
SERVICE 1 DISCONNECTS LOCATED IN MSB1 - ELEC D140
SERVICE 3 DISCONNECT LOCATED IN FCP - FIRE PUMP D142 — 1/4" HIGH LETTERING (TYPICAL)

WIDTH AS REQUIRED, NOT TO EXCEED WIDTH OF EQUIPMENT

MAIN SWITCHBOARD MSB2

NOTES:

1. INSTALL NAMEPLATES ADJACENT TO OR BELOW EQUIPMENT/CIRCUIT BREAKER DESIGNATION NAMEPLATE.

8 EQUIPMENT NAMEPLATES - SERVICE DISCONNECTS - MSB2 — NO SCALE

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

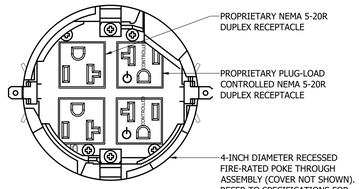
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**ELECTRICAL DETAILS**

SHEET NO.

**E714**

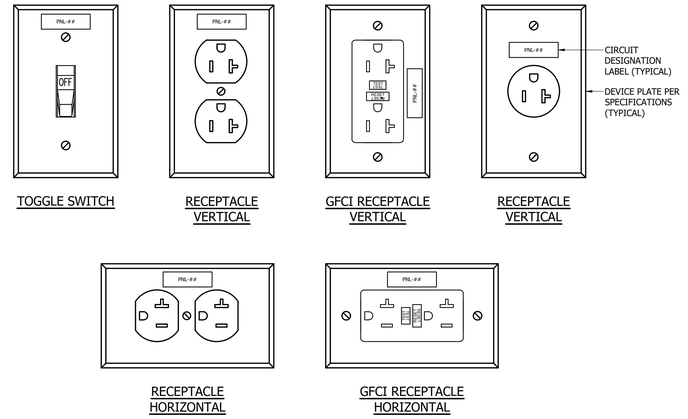



PLAN SYMBOL: ⊙

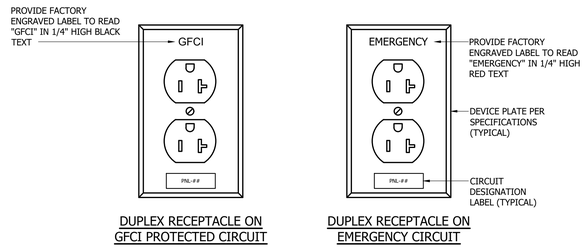
NOTES:

1. POKE-THROUGH DEVICE, RECEPTACLES, RACEWAYS, POWER WIRING & FACEPLATE COVERS ARE PROVIDED UNDER DIVISION 26.
2. COORDINATE EXACT POKE-THROUGH LOCATION WITH OWNER AND ARCHITECT.
3. INSTALL POKE-THROUGH IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
4. BASIS OF DESIGN: WIREMOLD EVOLUTION 4ATC SERIES 2 HR FIRE-RATED POKE-THROUGH DEVICE WITH RECESSED ASSEMBLY, SURFACE STYLE COVER, ONE (1) PROPRIETARY TAMPER RESISTANT NEMA 5-20R DUPLEX RECEPTACLE (WIREMOLD 4REC) AND ONE (1) PROPRIETARY TAMPER RESISTANT NEMA 5-20R CONTROLLED DUPLEX RECEPTACLE (WIREMOLD 4REC-CTRL).

1 TYPICAL POKE-THROUGH DEVICE - PLAN VIEW — NO SCALE



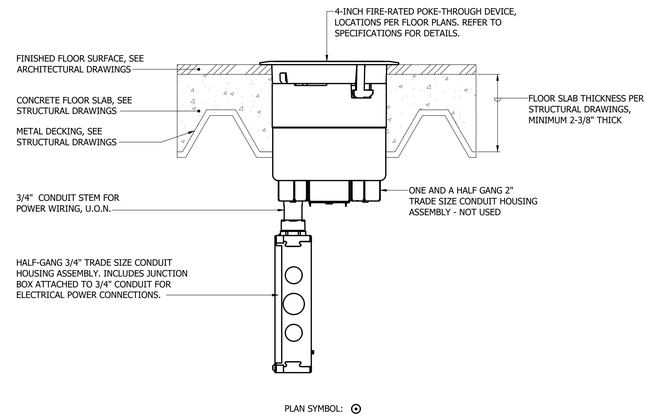

2 TYPICAL FACEPLATE LABELING - TOGGLE SWITCHES AND RECEPTACLES — NO SCALE




NOTES:

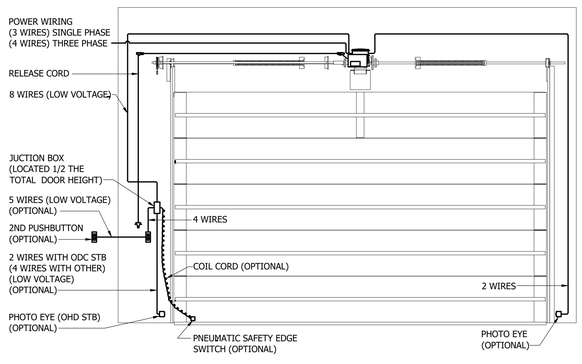
1. PROVIDE FACEPLATES ON ALL RECEPTACLES PROTECTED BY GFCI CIRCUIT BREAKERS, E.G. ELECTRIC WATER COOLERS, AUTOMATIC FAUCETS, ETC.

3 CUSTOM ENGRAVED RECEPTACLE FACEPLATES — NO SCALE

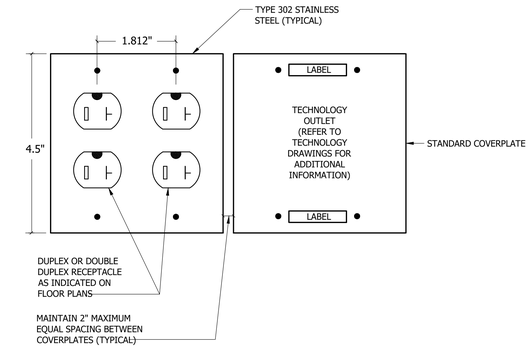



PLAN SYMBOL: ⊙

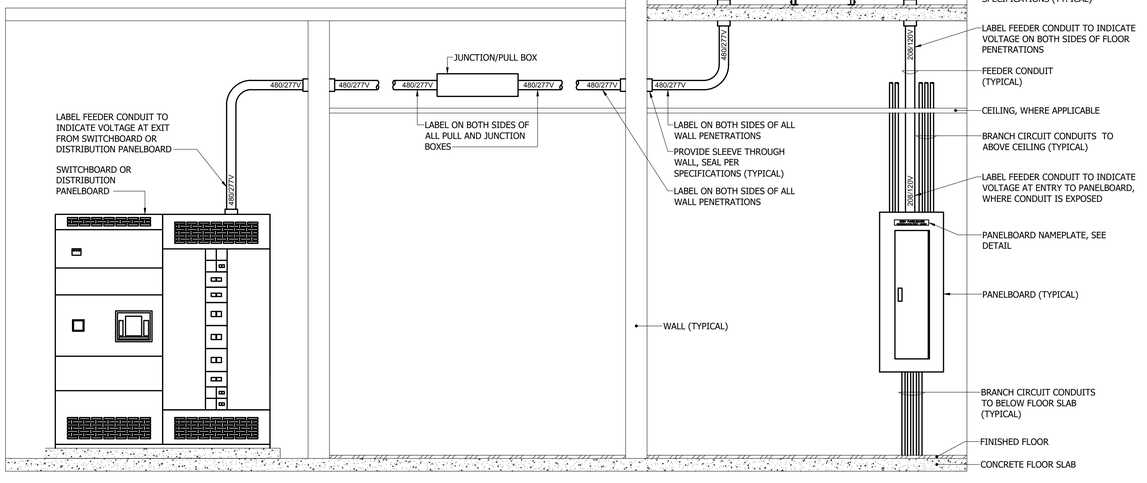
4 TYPICAL POKE-THROUGH DEVICE - INSTALLATION — NO SCALE




5 TYPICAL OVERHEAD SECTIONAL DOOR INSTALLATION — NO SCALE




6 TYPICAL RECEPTACLE/TECHNOLOGY OUTLET INSTALLATION — NO SCALE




7 ELECTRICAL IDENTIFICATION - FEEDER CONDUIT LABELING — NO SCALE

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

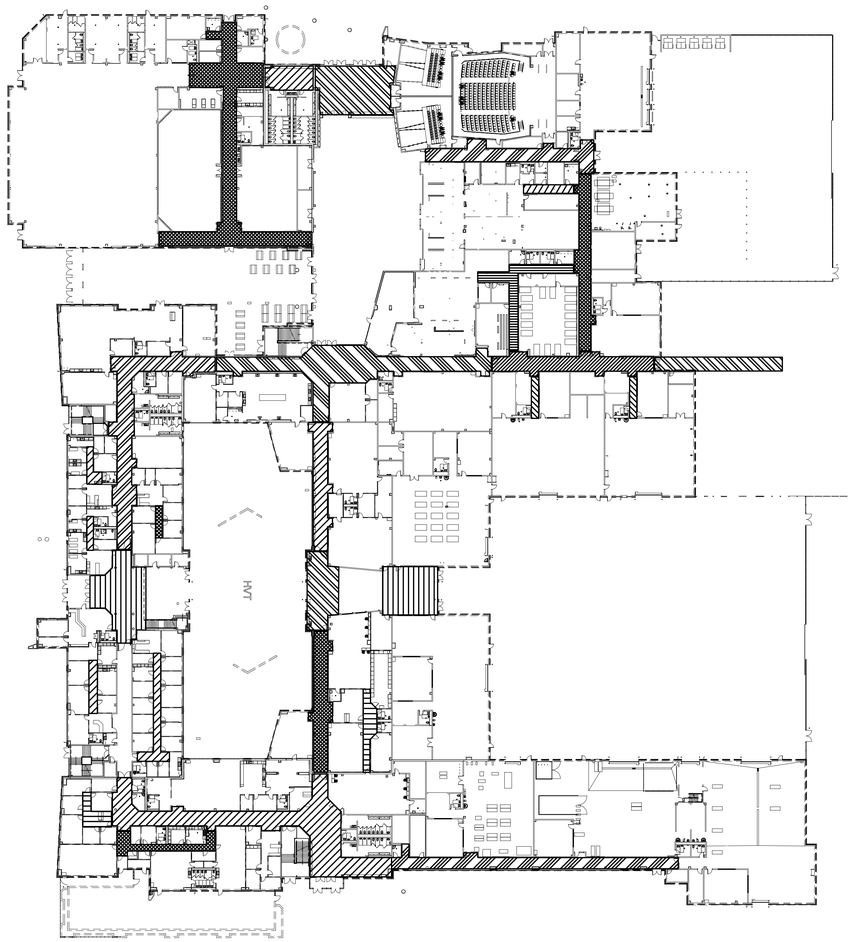
**ELECTRICAL DETAILS**

SHEET NO.

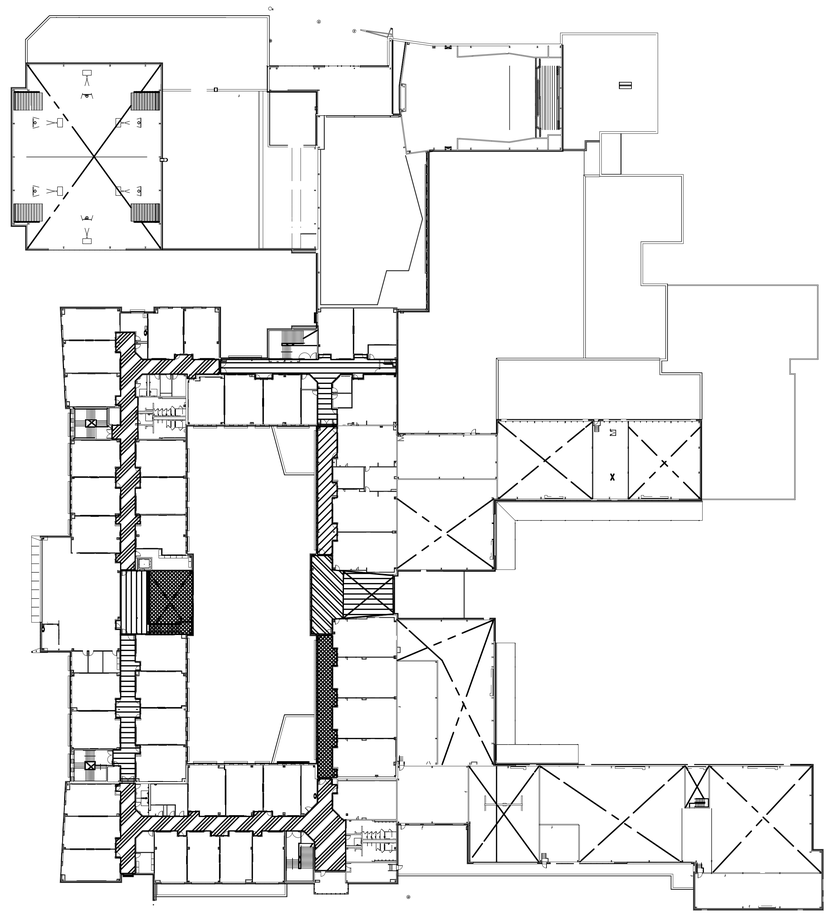
**E715**

## GENERAL NOTES:

1. EACH SPACE HIGHLIGHTED SHALL BE A TREATED AS A SEPARATE CORRIDOR CONTROL ZONE. ALL LIGHTING FIXTURES WITHIN EACH CONTROL ZONE SHALL BE CONTROLLED BY OCCUPANCY SENSORS LOCATED WITHIN THE SAME CORRIDOR AS A SINGLE ZONE.
2. REFER TO LIGHTING PLANS FOR FIXTURES AND OCCUPANCY SENSORS.
3. VESTIBULES AND RECEPTION AREAS SHALL BE INDEPENDENT CORRIDOR CONTROL ZONES UNLESS OTHERWISE NOTED.




FIRST FLOOR PLAN - CORRIDOR LIGHTING CONTROL ZONES
SCALE: NONE



SECOND FLOOR PLAN - CORRIDOR LIGHTING CONTROL ZONES
SCALE: NONE

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

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**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**CORRIDOR LIGHTING CONTROL ZONES**

SHEET NO.

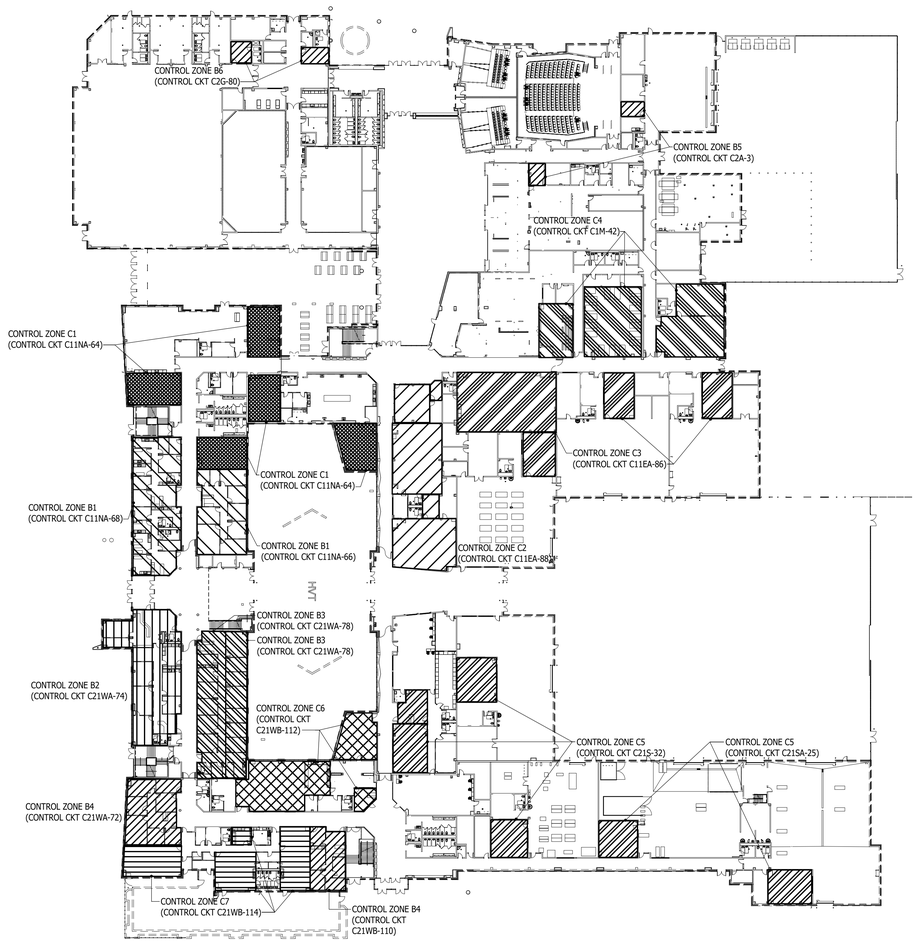
**E716**

## RECEPTACLE CONTACTOR SCHEDULE

| NUMBER | ROOMS/AREA SERVED | VOLTAGE | # POLES | COIL VOLTAGE | CONTROL CKT | REMARKS |
|---|---|---|---|---|---|---|
| RC1 | TYPICAL CLASSROOMS | 120 | 4 | 120 | PER CONTROL ZONE | |
| RC2 | TYPICAL SCIENCE CLASSROOMS | 120 | 12 | 120 | PER CONTROL ZONE | |
| RC3 | TYPICAL CONFERENCE ROOMS | 120 | 2 | 120 | PER CONTROL ZONE | |
| RC4 | TYPICAL OFFICE SPACES | 120 | 1 | 120 | PER CONTROL ZONE | |

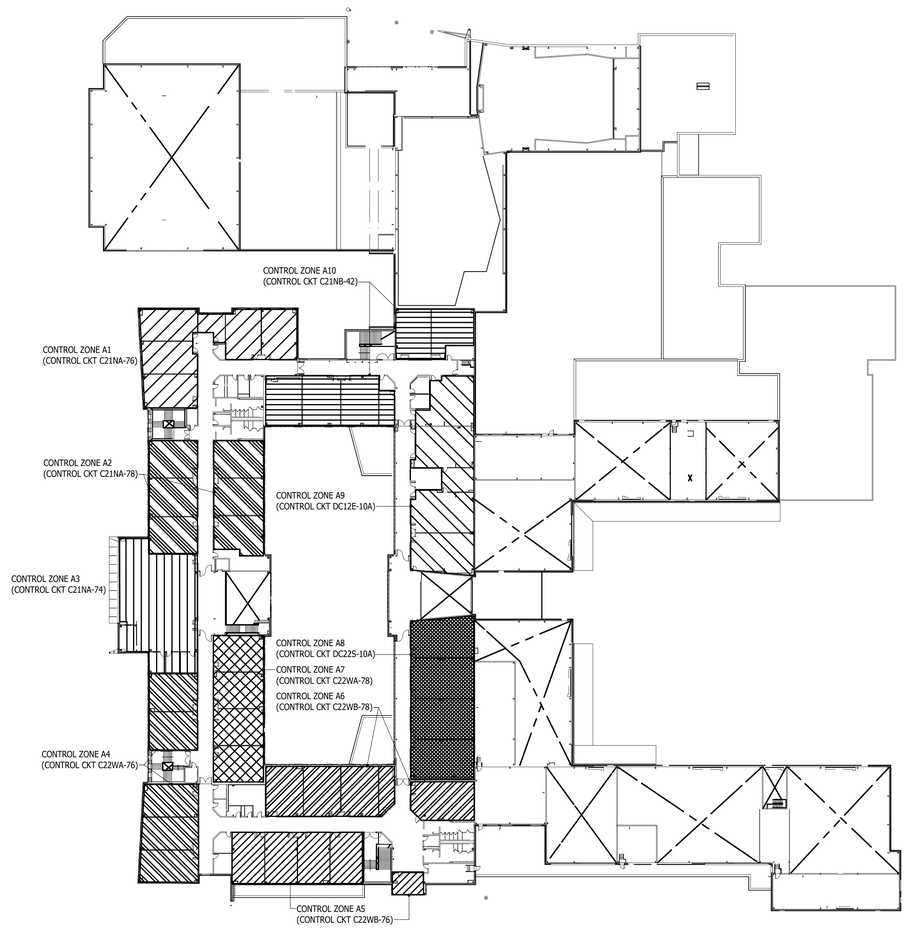
## GENERAL NOTES:

1. ALL RELAYS AND/OR CONTACTORS FOR SWITCHED RECEPTACLES LOCATED WITHIN A CONTROL ZONE SHALL BE ON A DEDICATED ATC CONTROL POINT FOR INDEPENDENT TIME CONTROL.
2. MAKE CONNECTION TO RELAYS AND/OR CONTACTORS WITHIN CONTROL ZONES FROM CIRCUIT INDICATED VIA ATC SYSTEM CONTROLLER AS REQUIRED.
3. REFER TO POWER PLANS FOR LOCATIONS OF SWITCHED RECEPTACLES.




FIRST FLOOR PLAN - SWITCHED RECEPTACLE CONTROL ZONES

SCALE: NONE




SECOND FLOOR PLAN - SWITCHED RECEPTACLE CONTROL ZONES

SCALE: NONE

| No. | Description | Date |
|---|---|---|
| 1 | ASI #10 - BPD Conformance Set | 2/16/24 |

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**NEWARK, DE 19702**

SHEET TITLE

**SWITCHED RECEPTACLE CONTROL ZONES**

SHEET NO.

**E717**

## DRAWING SCHEDULE

| DWG# | TITLE | ISSUE/DATE | NOTES |
|---|---|---|---|
| AV-000 | AV SYSTEMS - SCHEDULES | AUG 21, 2023 | 100% CD |
| AV-001 | AV SYSTEMS - AUDIO TECHNICAL POWER CONCEPT | AUG 21, 2023 | 100% CD |
| AV-101 | AV SYSTEMS - LEVEL ONE PLAN | AUG 21, 2023 | 100% CD |
| AV-201 | AV SYSTEMS - AUDITORIUM CENTERLINE SECTION | AUG 21, 2023 | 100% CD |
| AV-301 | AV SYSTEMS - COMBINATION PANEL DETAILS | AUG 21, 2023 | 100% CD |
| AV-302 | AV SYSTEMS - SVC DEVICE DETAILS | AUG 21, 2023 | 100% CD |
| AV-303 | AV SYSTEMS - RACK PANEL DETAILS | AUG 21, 2023 | 100% CD |
| AV-304 | AV SYSTEMS - RACK ELEVATIONS | AUG 21, 2023 | 100% CD |
| AV-401 | AV SYSTEMS - SIGNAL FLOW 1 | AUG 21, 2023 | 100% CD |
| AV-402 | AV SYSTEMS - SIGNAL FLOW 2 | AUG 21, 2023 | 100% CD |

## WIRE TYPE SCHEDULE

| TYPE | DESCRIPTION | MFR/CAT # | O.D. (INCHES) | NOTES |
|---|---|---|---|---|
| MICROPHONE & LINE LEVEL AUDIO - GROUP A | | | | |
| A1 | 1X 24 AWG TIWSTED PAIR, COPPER STRAND SHIELD (16X37 STRANDING) | BELDEN 9451 | 0.135 | 1 CH |
| A2 | 2X 24 AWG TWISTED PAIR, COPPER STRAND SHIELD (16X37 STRANDING) | BELDEN 1509C | 0.301 | 2 CH |
| A4 | 4X 24 AWG TWISTED PAIR, COPPER STRAND SHIELD (16X37 STRANDING) | BELDEN 1510C | 0.352 | 4 CH |
| DATA, VIDEO & RF - GROUP D | | | | |
| D1 | 75 OHM TYPE RG-6/U LOW LOSS DIGITAL COAXIAL CABLE (18 AWG SOLID CENTER & COPPER BRAID SHIELD) | BELDEN 1694A | 0.275 | PRODUCTION VIDEO |
| D2 | 50 OHM TYPE RG8/U B'CAST COAXIAL CABLE (10 AWG SOLID CENTER & COPPER BRAID SHIELD) | BELDEN 9914 | 0.405 | RF ANTENNA |
| D3 | 4X 24 AWG TWISTED PAIR, FOIL SHIELD, CAT6A | WEST PENN 4246AF | 0.299 | DATA, DISTRIBUTED VIDEO |
| D4 | 4X 20 AWG STRANDED W/PVC JACKET (7X28 STRANDING) | WEST PENN 242 | 0.159 | CONTROL |
| INTERCOM LEVEL - GROUP E | | | | |
| E1 | 20 AWG TWISTED PAIR, MYLAR SHIELD (7X30 STRANDING) | WEST PENN 292 | 0.14 | PROD INTERCOM - 1 CH |
| LOW IMPEDANCE LOUDSPEAKER LEVEL - GROUP F | | | | |
| F1 | 2X 12 AWG STRANDED COPPER W/ PVC JACKET (16X30 STRANDING) | BELDEN 5000UP | 0.312 | LOW Z LOUDSPEAKER - 1 CH |

NOTES:PROVIDE SEPARATE CONDUIT FOR EACH WIRE TYPE, MAX 40% FILL
PROVIDE 12" OF SEPARATION BETWEEN SVC CONDUITS AND ALL HIGH VOLTAGE CONDUIT

## POWER DEVICE SCHEDULE

20A 120V IG QUAD RECEPTACLE

| # | LOCATION | MOUNT | HEIGHT | BACKBOX SIZE | PANEL SIZE | WIRE TYPE | WIRE QTY | ADJACENCY | DIVERSITY |
|---|---|---|---|---|---|---|---|---|---|
| 101 | DOWNSTAGE RIGHT | RECESSED | 12" AFF | 2-GANG | 2-GANG | PER EE | PER EE | C11 | 50% |
| 102 | DOWNSTAGE LEFT | RECESSED | 12" AFF | 2-GANG | 2-GANG | PER EE | PER EE | C12 | 50% |
| 103 | UPSTAGE RIGHT | RECESSED | 12" AFF | 2-GANG | 2-GANG | PER EE | PER EE | C13 | 50% |
| 104 | UPSTAGE LEFT | RECESSED | 12" AFF | 2-GANG | 2-GANG | PER EE | PER EE | C14 | 50% |
| 106 | HOUSE REAR LEFT | RECESSED | 12" AFF | 2-GANG | 2-GANG | PER EE | PER EE | C16 | 50% |
| 107 | HOUSE REAR RIGHT | RECESSED | 12" AFF | 2-GANG | 2-GANG | PER EE | PER EE | C17 | 50% |

20A 120V IG DUPLEX RECEPTACLE

| # | LOCATION | MOUNT | HEIGHT | BACKBOX SIZE | PANEL SIZE | WIRE TYPE | WIRE QTY | ADJACENCY | DIVERSITY |
|---|---|---|---|---|---|---|---|---|---|
| 101 | ER1 EQUIPMENT RACK | IN RACK | TBD | N/A | N/A | PER EE | PER EE | IN RACK | 100% |
| 102 | ER1 EQUIPMENT RACK | IN RACK | TBD | N/A | N/A | PER EE | PER EE | IN RACK | 100% |
| 103 | ER1 EQUIPMENT RACK | IN RACK | TBD | N/A | N/A | PER EE | PER EE | IN RACK | 100% |
| 104 | ER1 EQUIPMENT RACK | IN RACK | TBD | N/A | N/A | PER EE | PER EE | IN RACK | 100% |
| 105 | PROJECTOR | RECESSED | TBD | 1-GANG | 1-GANG | PER EE | PER EE | PRJ-101 | 25% |

20A 120V IG DUPLEX RECEPTACLE- FLOOR BOX

| # | LOCATION | MOUNT | HEIGHT | BACKBOX SIZE | PANEL SIZE | WIRE TYPE | WIRE QTY | ADJACENCY | DIVERSITY |
|---|---|---|---|---|---|---|---|---|---|
| 101 | MIX POSITION | FLOOR | FLOOR | FSR FL-500B | 1-GANG | PER EE | PER EE | C15 | 50% |
| 102 | MP ROOM 1 | FLOOR | FLOOR | FSR FL-500B | 1-GANG | PER EE | PER EE | C18 | 50% |
| 103 | MP ROOM 2 | FLOOR | FLOOR | FSR FL-500B | 1-GANG | PER EE | PER EE | C19 | 50% |

20A 120V Junction Box

| # | LOCATION | MOUNT | HEIGHT | BACKBOX SIZE | PANEL SIZE | WIRE TYPE | WIRE QTY | ADJACENCY | DIVERSITY |
|---|---|---|---|---|---|---|---|---|---|
| 101 | PROJECTION SCREEN | RECESSED | CEILING | 1-GANG | 1-GANG | PER EE | PER EE | SCREEN | 25% |

## COMBO PANEL SCHEDULE

| # | LOCATION | MOUNT | HEIGHT | BACKBOX SIZE | PANEL SIZE | CONX TYPE | CONX QTY | WIRE TYPE | WIRE QTY | PURPOSE | ROUTING |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C11 | DOWNSTAGE RIGHT | RECESSED | 12" AFF | 12x8x4 | 14x10 | | | | | | |
| | | | | | | M/F-XLR | 4/4 | A4 | 1 | AUDIO TIE-LINES | ER1 EQUIPMENT RACK |
| | | | | | | M-XLR | 2 | E1 | 2 | INTERCOM | ER1 EQUIPMENT RACK |
| | | | | | | E-CON | 8 | D3 | 8 | DATA/DANTE | ER1 EQUIPMENT RACK |
| | | | | | | NL4 | 2 | F1 | 2 | MONITOR SPEAKER | ER1 EQUIPMENT RACK |
| C12 | DOWNSTAGE LEFT | RECESSED | 12" AFF | 10x8x4 | 12x10 | | | | | | |
| | | | | | | M/F-XLR | 4/4 | A4 | 1 | AUDIO TIE-LINES | ER1 EQUIPMENT RACK |
| | | | | | | M-XLR | 2 | E1 | 2 | INTERCOM | ER1 EQUIPMENT RACK |
| | | | | | | E-CON | 8 | D3 | 8 | DATA/DANTE | ER1 EQUIPMENT RACK |
| | | | | | | NL4 | 2 | F1 | 2 | MONITOR SPEAKER | ER1 EQUIPMENT RACK |
| C13 | UPSTAGE RIGHT | RECESSED | 12" AFF | 8x8x4 | 10x10 | | | | | | |
| | | | | | | M/F-XLR | 4/4 | A4 | 1 | AUDIO TIE-LINES | ER1 EQUIPMENT RACK |
| | | | | | | IC | 2 | E1 | 2 | INTERCOM | C11 |
| | | | | | | E-CON | 4 | D3 | 4 | DATA | ER1 EQUIPMENT RACK |
| | | | | | | NL4 | 1 | F1 | 1 | MONITOR SPEAKER | ER1 EQUIPMENT RACK |
| C14 | UPSTAGE LEFT | RECESSED | 12" AFF | 8x8x4 | 10x10 | | | | | | |
| | | | | | | M/F-XLR | 4 | A4 | 1 | AUDIO TIE-LINES | ER1 EQUIPMENT RACK |
| | | | | | | IC | 2 | E1 | 2 | INTERCOM | C12 |
| | | | | | | E-CON | 4 | D3 | 4 | DATA | ER1 EQUIPMENT RACK |
| | | | | | | NL4 | 1 | F1 | 1 | MONITOR SPEAKER | ER1 EQUIPMENT RACK |
| C15 | MIX POSITION | FLOORBOX | FLOOR | 12x10x6 | 8.25x4.5 | | | | | | |
| | | | | FSR FL-500P | 5.375x4.5 | M/F-XLR | 2/2 | A2 | 1 | AUDIO TIE-LINES | ER1 EQUIPMENT RACK |
| | | | | FLOOR BOX | | IC | 2 | E1 | 2 | INTERCOM | ER1 EQUIPMENT RACK |
| | | | | | | E-CON | 6 | D3 | 6 | DATA/DANTE | ER1 EQUIPMENT RACK |
| C16 | HOUSE REAR LEFT | RECESSED | 12" AFF | 8x8x4 | 10x10 | | | | | | |
| | | | | | | M/F-XLR | 4/4 | A4 | 1 | AUDIO TIE-LINES | ER1 EQUIPMENT RACK |
| | | | | | | IC | 2 | E1 | 2 | INTERCOM | ER1 EQUIPMENT RACK |
| | | | | | | E-CON | 4 | D3 | 4 | DATA | ER1 EQUIPMENT RACK |
| C17 | HOUSE REAR RIGHT | RECESSED | 12" AFF | 8x8x4 | 10x10 | | | | | | |
| | | | | | | M/F-XLR | 4/4 | A4 | 1 | AUDIO TIE-LINES | ER1 EQUIPMENT RACK |
| | | | | | | IC | 2 | E1 | 2 | INTERCOM | ER1 EQUIPMENT RACK |
| | | | | | | E-CON | 4 | D3 | 4 | DATA | ER1 EQUIPMENT RACK |
| C18 | MP ROOM 1 | FLOORBOX | FLOOR | 12x10x6 | 8.25x4.5 | | | | | | |
| | | | | FSR FL-500P | 5.375x4.5 | F-XLR | 2 | A2 | 1 | LOCAL INPUTS | ER1 EQUIPMENT RACK |
| | | | | FLOOR BOX | | E-CON | 4 | D3 | 4 | DATA | ER1 EQUIPMENT RACK |
| C19 | MP ROOM 1 | FLOORBOX | FLOOR | 12x10x6 | 8.25x4.5 | | | | | | |
| | | | | FSR FL-500P | 5.375x4.5 | F-XLR | 2 | A2 | 1 | LOCAL INPUTS | ER1 EQUIPMENT RACK |
| | | | | FLOOR BOX | | E-CON | 4 | D3 | 4 | DATA | ER1 EQUIPMENT RACK |

## SVC DEVICE SCHEDULE

| TYPE | # | LOCATION | MOUNT | HEIGHT | BACKBOX | PANEL | WIRE TYPE | WIRE QTY | ROUTING |
|---|---|---|---|---|---|---|---|---|---|
| A2 | 101 | FOH LX PIPE | PIPE | PIPE | 1-G DEEP | 1-GANG | A1 | 2 | ER1 EQUIPMENT RACK |
| ANT | 101 | STAGE RIGHT | RECESSED | 120" AFF | 1-G DEEP | 1-GANG | D2 | 1 | ER1 EQUIPMENT RACK |
| ANT | 102 | STAGE RIGHT | RECESSED | 120" AFF | 1-G DEEP | 1-GANG | D2 | 1 | ER1 EQUIPMENT RACK |
| ANT | 201 | HOUSE RIGHT | RECESSED | 29' AFF | 1-G DEEP | 1-GANG | D2 | 1 | ER1 EQUIPMENT RACK |
| PRJ | 101 | PROJECTOR | RECESSED | 132" AFF | 1-G DEEP | 1-GANG | D3 | 2 | ER1 EQUIPMENT RACK |
| HD | 101 | STAGE RIGHT | RECESSED | 60" AFF | 1-G DEEP | 1-GANG | D3 | 1 | ER1 EQUIPMENT RACK |
| ICW | 101 | STAGE RIGHT | RECESSED | 120" AFF | 1-G DEEP | 1-GANG | E1/D3 | 1/1 | ER1 EQUIPMENT RACK |
| SC | 101 | STAGE RIGHT | RECESSED | 60" AFF | 1-G DEEP | 1-GANG | D4 | 1 | PROJECTOR SCREEN |
| SC | 102 | PROJECTOR SCREEN | J-BOX | @SCREEN | N/A | N/A | D4 | 1 | SC-101 |
| TP | 101 | MP ROOM 1 | RECESSED | 48" AFF | 2-G DEEP | 2-GANG | D3 | 1 | ER1 EQUIPMENT RACK |
| TP | 102 | MP ROOM 2 | RECESSED | 48" AFF | 2-G DEEP | 2-GANG | D3 | 1 | ER1 EQUIPMENT RACK |
| S1 | 101 | LEFT PROSC | RECESSED | 18' AFF | 1-G DEEP | 1-GANG | F1 | 1 | ER1 EQUIPMENT RACK |
| S1 | 102 | RIGHT PROSC | RECESSED | 18' AFF | 1-G DEEP | 1-GANG | F1 | 1 | ER1 EQUIPMENT RACK |
| S1 | 103 | REAR SEATING | SURFACE | TBD | 1-G DEEP | 1-GANG | F1 | 1 | ER1 EQUIPMENT RACK |
| S1 | 104 | REAR SEATING | SURFACE | TBD | 1-G DEEP | 1-GANG | F1 | 1 | ER1 EQUIPMENT RACK |
| S1 | 105 | REAR SEATING | SURFACE | TBD | 1-G DEEP | 1-GANG | F1 | 1 | ER1 EQUIPMENT RACK |
| S1 | 106 | REAR SEATING | SURFACE | TBD | 1-G DEEP | 1-GANG | F1 | 1 | ER1 EQUIPMENT RACK |
| S1 | 201 | SUB | SURFACE | CEILING | 1-G DEEP | 1-GANG | F1 | 1 | ER1 EQUIPMENT RACK |
| S2 | 201 | CENTER PROSC | RECESSED | 22' AFF | 1-G DEEP | 1-GANG | F1 | 2 | ER1 EQUIPMENT RACK |

NOTE FIELD CONDITIONS MAY REQUIRE AUDIO/VIDEO DEVICE LOCATIONS TO DEVIATE FROM THE LOCATIONS ILLUSTRATED ON THE DRAWINGS. THE SPECIFIC, INSTALLED, LOCATION OF ALL AUDIO/VIDEO DEVICES SHALL BE COORDINATED WITH THE OWNER AND THE AUDIO/VISUAL SYSTEM DESIGNER PRIOR TO INSTALLATION.

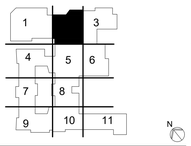
NOTE 2 THE MINIMUM CONDUIT SIZE SHALL BE 3/4" AND THE CONDUIT SHOULD BE SIZED FOR MAX. 40% FILL, OR LESS IF REQUIRED BY PREVAILING CODE.

NOTE 3 PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR:
1. COMPLETE CONDUIT SYSTEM W/PULL STRINGS FOR AV SYSTEMS PROVIDED AND INSTALLED BY THE ELECTRICALCONTRACTOR. COOORDINATE FINAL CONDUIT DESIGN AND DETIALS WITH AV CONTRACTOR AND AV CONSULTANT.
2. SMALL AV DEVICE BACK-BOXES (1-G-2G-3G-4G) ARE EXTRA DEEP (3"), PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR.
3. LARGE AV DEVICE AND COMBO PANEL BACK-BOXES ARE HOFFMAN ASE-SERIES STANDARD JUNCTION BOXES PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR.
4. FOR NON-SQUARE BACK-BOXES, ORIENT PER AV CUSTOM PANEL DRAWINGS TO ENSURE PROPER FIT WITH CUSTOM PANELS.

NOTE 4 PROVIDED AND INSTALLED BY AV CONTRACTOR:
AV I/O PANELS ARE PROVIDED, INSTALLED AND TERMINTATED BY THE AV CONTRACTOR.
AV SYSTEMS CABLING PROVIDED, INSATLLED AND TERMINATED BY THE AV CONTRACTOR.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN





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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

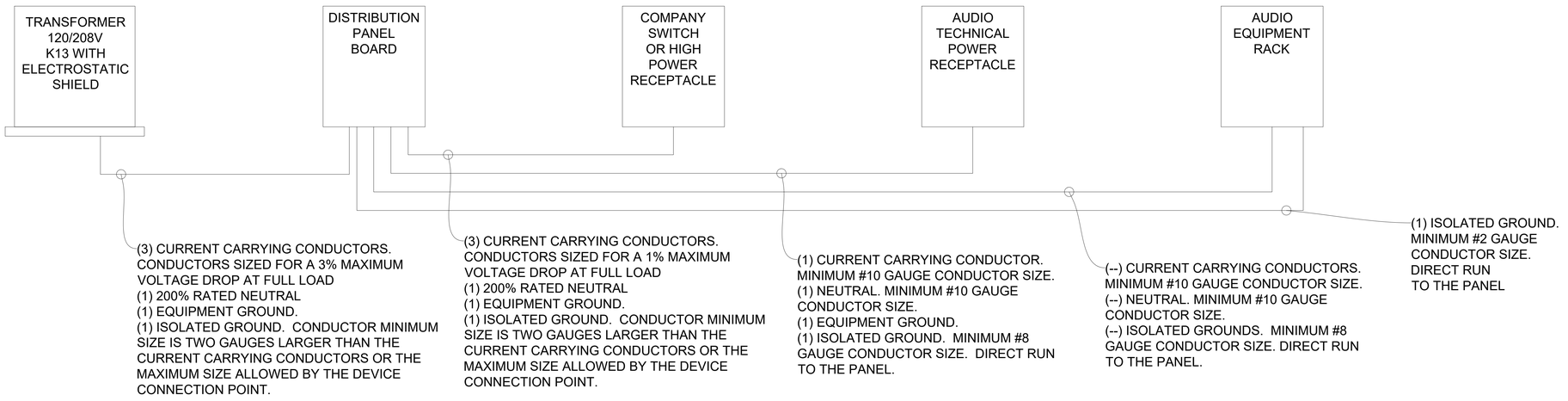
SHEET TITLE

**AV SYSTEMS - SCHEDULES**

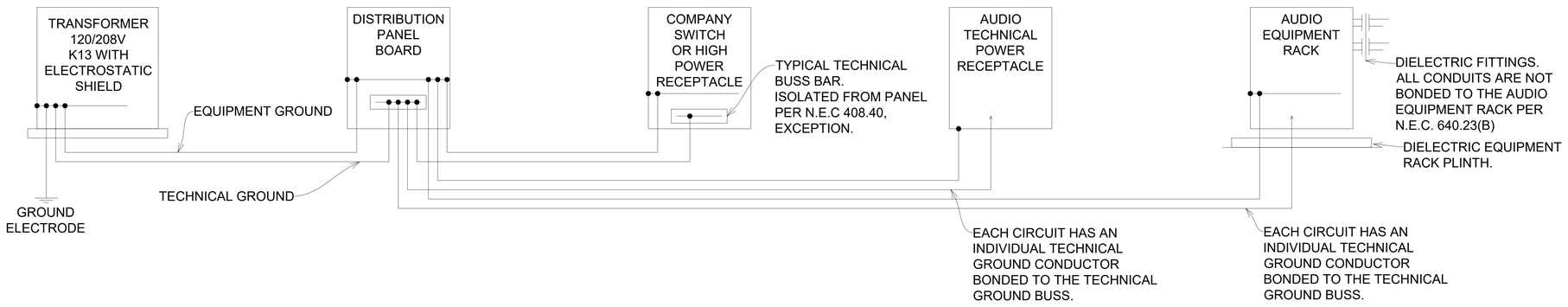
SHEET NO.

**AV-001**

# AUDIO TECHNICAL POWER CONCEPT

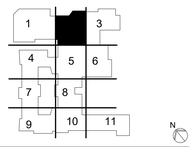



# AUDIO TECHNICAL POWER GROUND CONCEPT




| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

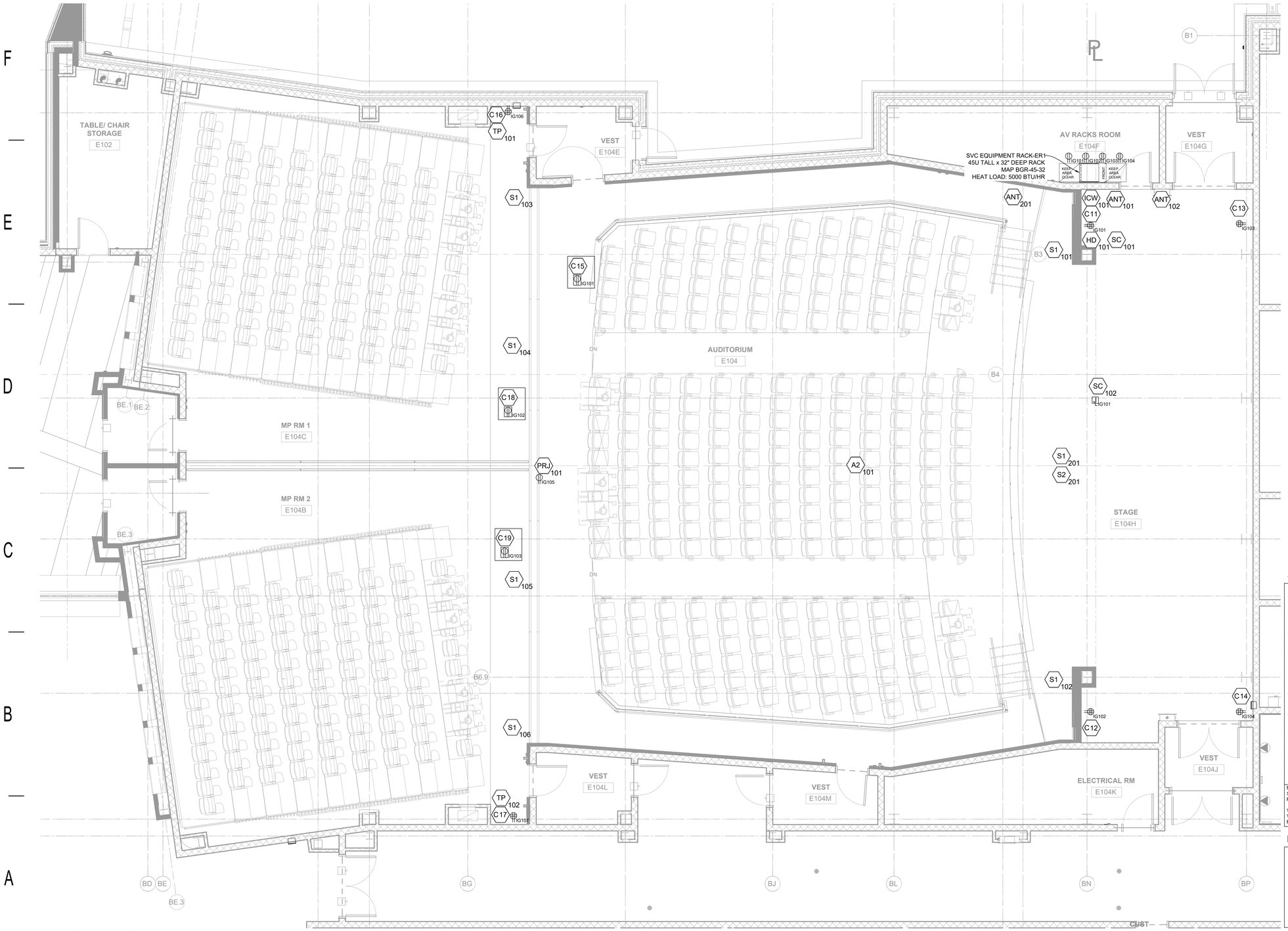
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**AV SYSTEMS - TECHNICAL POWER CONCEPT**

SHEET NO.

**AV-002**




[ 1 ] LEVEL ONE PLAN
1/4" = 1'-0"

## SVC DEVICE SYMBOL KEY

| | |
|---|---|
| A2 ### | 2Ch Microphone Panel<br>1-Gang/Wire Type: A1 qty. 2 |
| ANT ### | RF Antenna Panel<br>1-Gang/Wire Type: D2 qty. 1 |
| HD ### | HDMI Input Panel<br>1-Gang/Wire Type: D3 qty. 1 |
| ICW ### | Wireless Intercom Panel<br>1-Gang/Wire Type: D3/E1 |
| PRJ ### | Projector Panel<br>1-Gang/Wire Type: D3 qty. 2 |
| SC ### | Screen Control Panel<br>1-Gang/Wire Type: D4 qty. 1 |
| TP ### | Touch Panel<br>2-Gang/Wire Type: D4 qty. 1 |
| S1 ### | Single Loudspeaker Panel<br>1-Gang/Wire Type: F1 qty. 1 |
| S2 ### | Dual Loudspeaker Panel<br>1-Gang/Wire Type: F1 qty. 2 |
| C## | Multiple Signal Combination Panel<br>See Schedule for Wire Info |

NOTES:
SEE SVC DEVICE & COMBINATION PANEL SCHEDULES FOR MOUNTING, CONNECTOR & WIRE INFORMATION

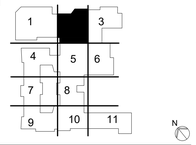
WHERE CONDUIT IS NOT PROVIDED, USE PLENUM-RATED WIRE.
BUNDLE ADJACENT CABLES AND PROTECT WIRE PATH.

## POWER DEVICE SYMBOL KEY

| | |
|---|---|
| IG### | 125v 20A Duplex Receptacle-<br>Isolated Ground |
| IG### | 125v 20A Duplex Floor Receptacle-<br>Isolated Ground |
| IG### | 125v 20A Quad Receptacle-<br>Isolated Ground |
| IG### | 125v 20A Junction Box-<br>Isolated Ground |

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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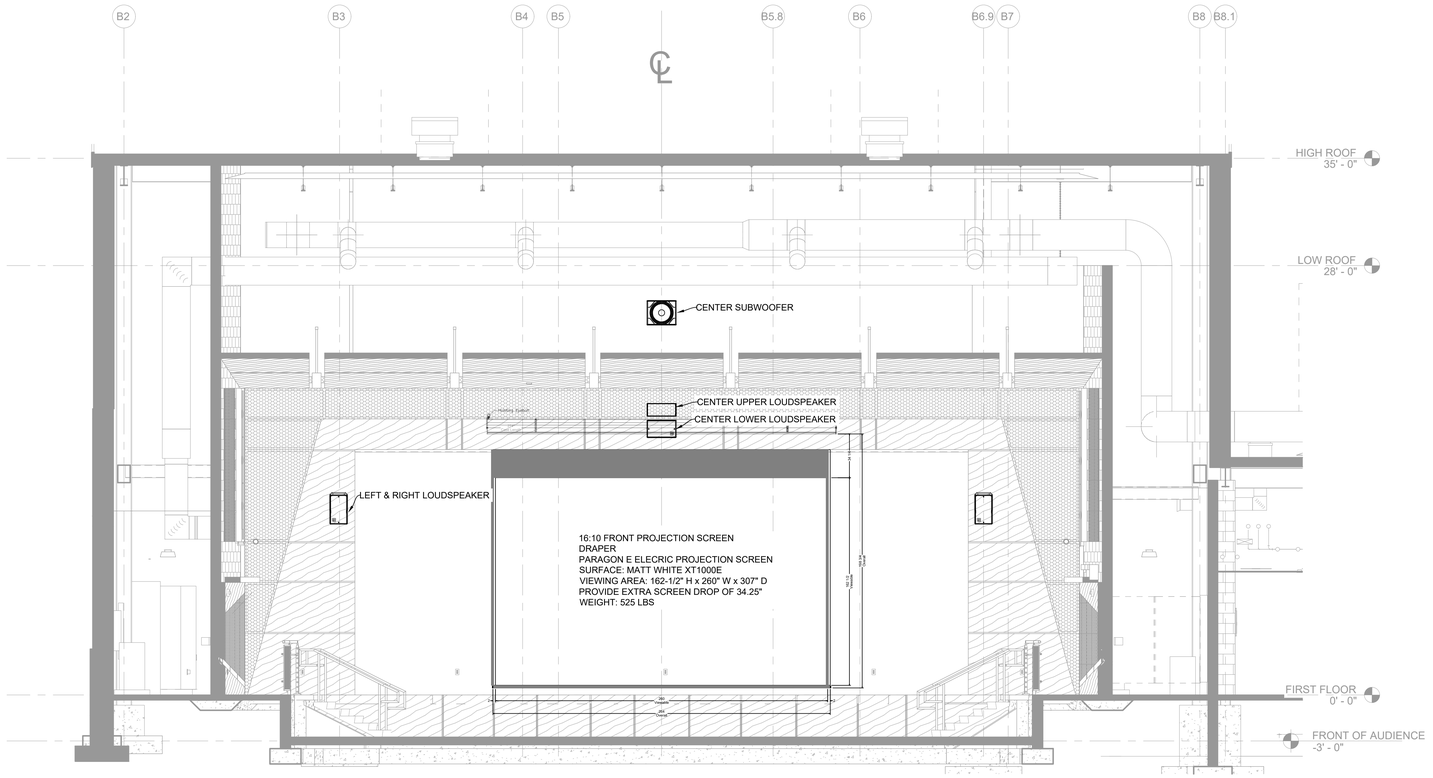
JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

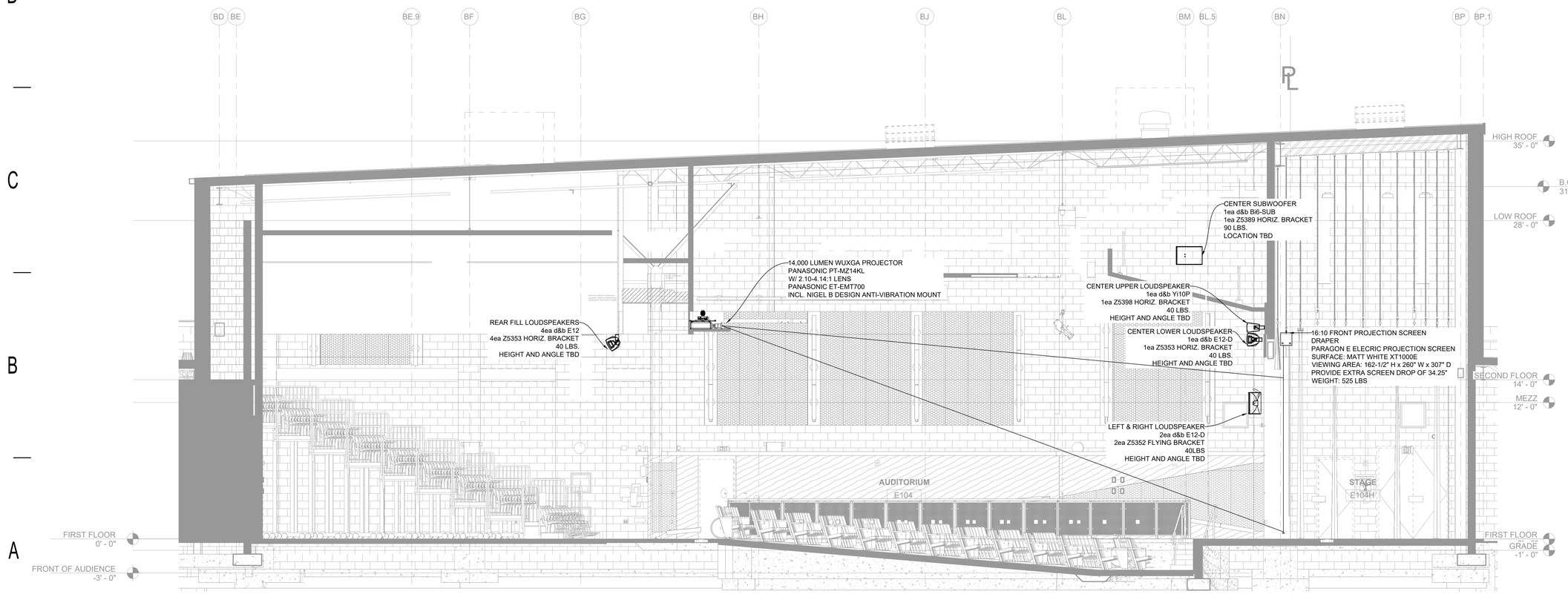
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE
**AV SYSTEMS-LEVEL 1 PLAN**

SHEET NO.
**AV-101**



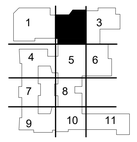

[ 2 ] AUDIENCE FACING STAGE
1/4" = 1'-0"




[ 1 ] LOUDSPEAKER & PROJECTION CENTERLINE
1/4" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

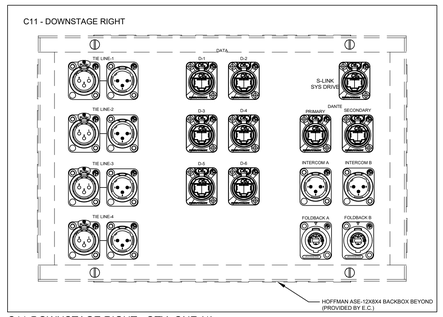
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

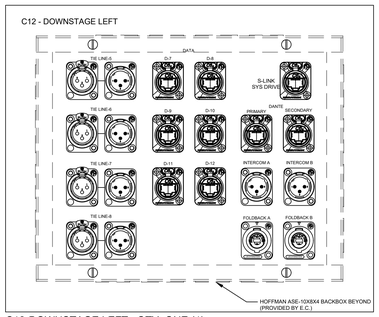
**AV SYSTEMS - LOUDSPEAKER & PROJECTION CENTERLINE**

SHEET NO.

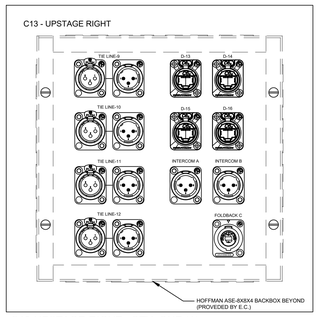
**AV-201**



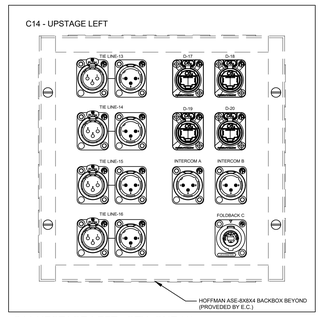

C11-DOWNSTAGE RIGHT. QTY: ONE (1)
14X10 PANEL IN HOFFMAN ASE12X8X4 BACKBOX
TYPE: HOFFMAN ASE SERIES BACKBOX. FLUSH MOUNT.
CUSTOM BLACK ALUMINUM PANEL W/COUNTERSUNK TAPS
BLACK MOUNTING SCREWS/WASHERS TO FIT HOFFMAN BACKBOX.
CUSTOM FABRICATED BY WHIRLWIND



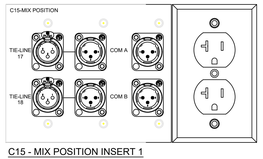

C12-DOWNSTAGE LEFT. QTY: ONE (1)
12X10 PANEL IN HOFFMAN ASE10X8X4 BACKBOX
TYPE: HOFFMAN ASE SERIES BACKBOX. FLUSH MOUNT.
CUSTOM BLACK ALUMINUM PANEL W/COUNTERSUNK TAPS
BLACK MOUNTING SCREWS/WASHERS TO FIT HOFFMAN BACKBOX.
CUSTOM FABRICATED BY WHIRLWIND



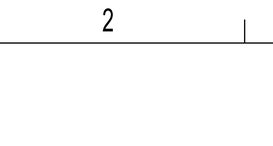

C13-UPSTAGE-RIGHT. QTY: ONE (1)
10X10 PANEL IN HOFFMAN ASE8X8X4 BACKBOX
TYPE: HOFFMAN ASE SERIES BACKBOX. FLUSH MOUNT.
CUSTOM BLACK ALUMINUM PANEL W/COUNTERSUNK TAPS
BLACK MOUNTING SCREWS/WASHERS TO FIT HOFFMAN BACKBOX.
CUSTOM FABRICATED BY WHIRLWIND



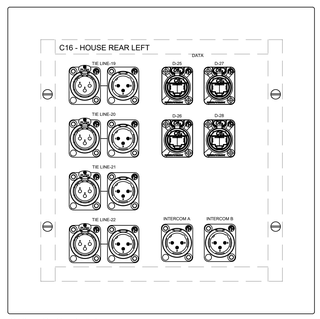

C14-UPSTAGE-LEFT. QTY: ONE (1)
10X10 PANEL IN HOFFMAN ASE8X8X4 BACKBOX
TYPE: HOFFMAN ASE SERIES BACKBOX. FLUSH MOUNT.
CUSTOM BLACK ALUMINUM PANEL W/COUNTERSUNK TAPS
BLACK MOUNTING SCREWS/WASHERS TO FIT HOFFMAN BACKBOX.
CUSTOM FABRICATED BY WHIRLWIND



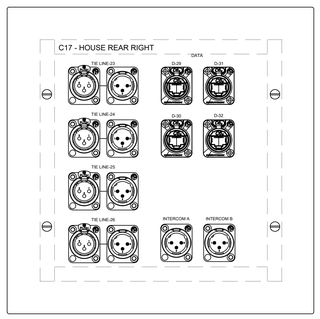

C15 - MIX POSITION INSERT 1
QTY: ONE (1)
5-3/8" x 4-1/2" PANEL IN 12x10x6 IN FSR FL-500P FLOOR BOX
TYPE: FSR FL-500P FLOOR BOX.
FLUSH MOUNT CONNECTOR PANEL
CUSTOM-FABRICATED BY WHIRLWIND.



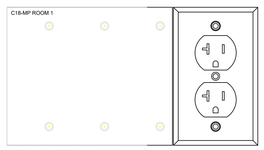

C15 - MIX POSITION INSERT 2
QTY: ONE (1)
8-1/4" x 4-1/2" PANEL IN 12x10x6 IN FSR FL-500P FLOOR BOX
TYPE: FSR FL-500P FLOOR BOX.
FLUSH MOUNT CONNECTOR PANEL
CUSTOM-FABRICATED BY WHIRLWIND.



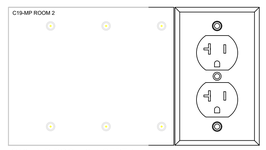

C16 - HOUSE REAR LEFT
QTY: ONE (1)
10x10 PANEL IN 8x8x4 HOFFMAN BACKBOX
TYPE: HOFFMAN ASE SERIES BACKBOX.
FLUSH MOUNT CONNECTOR PANEL
CUSTOM-FABRICATED BY WHIRLWIND.



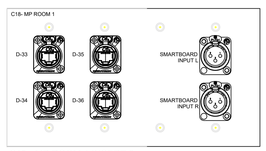

C17 - HOUSE REAR RIGHT
QTY: ONE (1)
10x10 PANEL IN 8x8x4 HOFFMAN BACKBOX
TYPE: HOFFMAN ASE SERIES BACKBOX.
FLUSH MOUNT CONNECTOR PANEL
CUSTOM-FABRICATED BY WHIRLWIND.



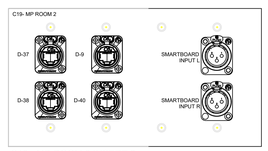

C18 - MP ROOM 1 INSERT 1
QTY: ONE (1)
5-3/8" x 4-1/2" PANEL IN 12x10x6 IN FSR FL-500P FLOOR BOX
TYPE: FSR FL-500P FLOOR BOX.
FLUSH MOUNT CONNECTOR PANEL
CUSTOM-FABRICATED BY WHIRLWIND.




C19 - MP ROOM 2 INSERT 1
QTY: ONE (1)
5-3/8" x 4-1/2" PANEL IN 12x10x6 IN FSR FL-500P FLOOR BOX
TYPE: FSR FL-500P FLOOR BOX.
FLUSH MOUNT CONNECTOR PANEL
CUSTOM-FABRICATED BY WHIRLWIND.




C18 - MP ROOM 1 INSERT 2
QTY: ONE (1)
8-1/4" x 4-1/2" PANEL IN 12x10x6 IN FSR FL-500P FLOOR BOX
TYPE: FSR FL-500P FLOOR BOX.
FLUSH MOUNT CONNECTOR PANEL
CUSTOM-FABRICATED BY WHIRLWIND.

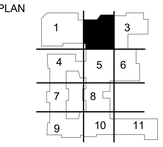



C19 - MP ROOM 2 INSERT 2
QTY: ONE (1)
8-1/4" x 4-1/2" PANEL IN 12x10x6 IN FSR FL-500P FLOOR BOX
TYPE: FSR FL-500P FLOOR BOX.
FLUSH MOUNT CONNECTOR PANEL
CUSTOM-FABRICATED BY WHIRLWIND.

[ 1 ] COMBINATION PANEL DETAILS
1:2

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE
**AV SYSTEMS - COMBO PANEL DETAILS**

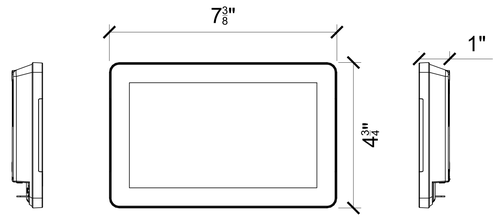
SHEET NO.
**AV-301**

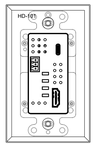
A2 RECEPTACLE
TYPE: 1-GANG, 2 $\frac{1}{2}$" DEEP BACKBOX
WW FABRICATED SINGLE-GANG CUSTOM PANEL (BLACK).
INCLUDES ALL CONNECTORS &
BLACK MOUNTING SCREWS /WASHERS.
A2-201. QTY: ONE (1)

ANT-101 ANTENNA RECEPTACLE
TYPE: 1-GANG, 2 $\frac{1}{2}$" DEEP BACKBOX
WW FABRICATED SINGLE GANG CUSTOM PANEL (BLACK).
INCLUDES 1x WHIRLWIND BNC50FF
& BLACK MOUNTING SCREWS /WASHERS
QTY: ONE (1)

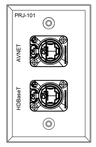
ANT-102 ANTENNA RECEPTACLE
TYPE: 1-GANG, 2 $\frac{1}{2}$" DEEP BACKBOX
WW FABRICATED SINGLE GANG CUSTOM PANEL (BLACK).
INCLUDES 1x WHIRLWIND BNC50FF
& BLACK MOUNTING SCREWS /WASHERS
QTY: ONE (1)

ANT-201 ANTENNA RECEPTACLE
TYPE: 1-GANG, 2 $\frac{1}{2}$" DEEP BACKBOX
WW FABRICATED SINGLE GANG CUSTOM PANEL (BLACK).
INCLUDES 1x WHIRLWIND BNC50FF
& BLACK MOUNTING SCREWS /WASHERS
QTY: ONE (1)



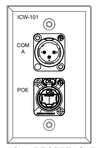




HD-101
TYPE: 1-GANG, 2 $\frac{1}{2}$" DEEP BACKBOX
WW FABRICATED SINGLE GANG CUSTOM PANEL (BLACK).
INCLUDES ATLONA AT-OME-EX-TX-2P
QTY: ONE (1)

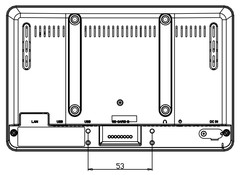



PRJ-101 RECEPTACLE
TYPE: 1-GANG, 2 $\frac{1}{2}$" DEEP BACKBOX
WW FABRICATED SINGLE-GANG CUSTOM PANEL (BLACK).
INCLUDES 2x NEUTRIK NEBFDX-Y6-B
& BLACK MOUNTING SCREWS /WASHERS.
QTY: ONE (1)

SC-101 SCREEN CONTROL
TYPE: 1-GANG, 2 $\frac{1}{2}$" DEEP BACKBOX
WW FABRICATED SINGLE-GANG DECORA PANEL (BLACK).
INCLUDES DRAPER LVC-S SWITCH
& BLACK MOUNTING SCREWS /WASHERS.
QTY: ONE (1)




ICW RECEPTACLE
TYPE: 1-GANG, 2 $\frac{1}{2}$" DEEP BACKBOX
WW FABRICATED SINGLE-GANG CUSTOM PANEL (BLACK).
INCLUDES ALL CONNECTORS &
BLACK MOUNTING SCREWS /WASHERS.
ICW-101. QTY: ONE (1)




TP-101 & TP-102 TOUCH PANEL
TYPE: ALLEN&HEATH CC7
MOUNT TO 2-GANG BACKBOX W/CC-STN WALL MOUNT
QTY: ONE (2)

S1 RECEPTACLE
TYPE: 1-GANG, 2 $\frac{1}{2}$" DEEP BACKBOX
WW FABRICATED SINGLE-GANG CUSTOM PANEL (BLACK).
INCLUDES ALL CONNECTORS & BLACK MOUNTING SCREWS /WASHERS.
S1-101. QTY: ONE (1)

S1 RECEPTACLE
TYPE: 1-GANG, 2 $\frac{1}{2}$" DEEP BACKBOX
WW FABRICATED SINGLE-GANG CUSTOM PANEL (BLACK).
INCLUDES ALL CONNECTORS & BLACK MOUNTING SCREWS /WASHERS.
S1-102. QTY: ONE (1)

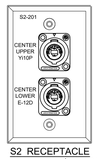
S1 RECEPTACLE
TYPE: 1-GANG, 2 $\frac{1}{2}$" DEEP BACKBOX
WW FABRICATED SINGLE-GANG CUSTOM PANEL (BLACK).
INCLUDES ALL CONNECTORS & BLACK MOUNTING SCREWS /WASHERS.
S1-103 QTY: ONE (1)

S1 RECEPTACLE
TYPE: 1-GANG, 2 $\frac{1}{2}$" DEEP BACKBOX
WW FABRICATED SINGLE-GANG CUSTOM PANEL (BLACK).
INCLUDES ALL CONNECTORS & BLACK MOUNTING SCREWS /WASHERS.
S1-104. QTY: ONE (1)

S1 RECEPTACLE
TYPE: 1-GANG, 2 $\frac{1}{2}$" DEEP BACKBOX
WW FABRICATED SINGLE-GANG CUSTOM PANEL (BLACK).
INCLUDES ALL CONNECTORS & BLACK MOUNTING SCREWS /WASHERS.
S1-105. QTY: ONE (1)

S1 RECEPTACLE
TYPE: 1-GANG, 2 $\frac{1}{2}$" DEEP BACKBOX
WW FABRICATED SINGLE-GANG CUSTOM PANEL (BLACK).
INCLUDES ALL CONNECTORS & BLACK MOUNTING SCREWS /WASHERS.
S1-106. QTY: ONE (1)

S1 RECEPTACLE
TYPE: 1-GANG, 2 $\frac{1}{2}$" DEEP BACKBOX
WW FABRICATED SINGLE-GANG CUSTOM PANEL (BLACK).
INCLUDES ALL CONNECTORS & BLACK MOUNTING SCREWS /WASHERS.
S1-201. QTY: ONE (1)

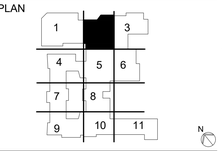



S2 RECEPTACLE
TYPE: 1-GANG, 2 $\frac{1}{2}$" DEEP BACKBOX
WW FABRICATED SINGLE-GANG CUSTOM PANEL (BLACK).
INCLUDES ALL CONNECTORS & BLACK MOUNTING SCREWS /WASHERS.
S2-201. QTY: ONE (1)

[ 1 ] SVC DEVICE DETAILS
1:2

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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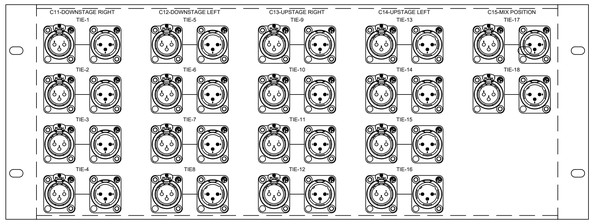
JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

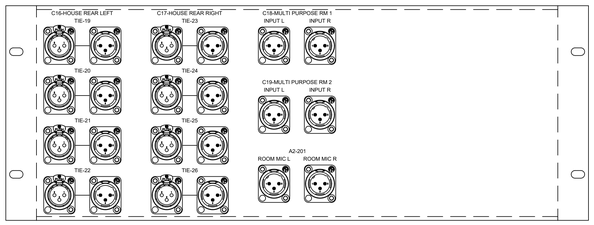
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE
**AV SYSTEMS - SVC DEVICE DETAILS**

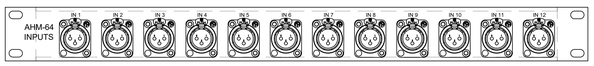
SHEET NO.
**AV-302**




TIE LINES PATCH PANEL 1 - AV ER1 EQUIPMENT RACK
4RU RACK PANEL
CUSTOM-FABRICATED BY WHIRLWIND.



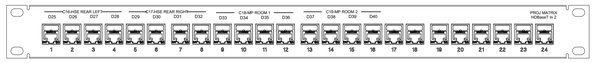

TIE LINES PATCH PANEL 2 - AV ER1 EQUIPMENT RACK
4RU RACK PANEL
CUSTOM-FABRICATED BY WHIRLWIND.




AHM64 INPUT PATCH PANEL - AV ER1 EQUIPMENT RACK
1RU RACK PANEL
CUSTOM-FABRICATED BY WHIRLWIND.

S-LINK SYSTEM DRIVE PATCH PANEL - AV ER1 EQUIPMENT RACK
1RU RACK PANEL
CUSTOM-FABRICATED BY WHIRLWIND.

CAT6A PATCH PANEL 1 - AV ER1 EQUIPMENT RACK
1RU 24 PORT PATCH PANEL - STRUCTURED CABLE PRODUCTS 324U-6ASH W/ 24x
CAT6A-SH-JACK-WT SHIELDED CAT6A JACKS

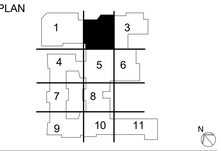



CAT6A PATCH PANEL 2 - AV ER1 EQUIPMENT RACK
1RU 24 PORT PATCH PANEL - STRUCTURED CABLE PRODUCTS 324U-6ASH W/ 24x
CAT6A-SH-JACK-WT SHIELDED CAT6A JACKS

[ 1 ] AV RACK PANEL DETAILS
1:2

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

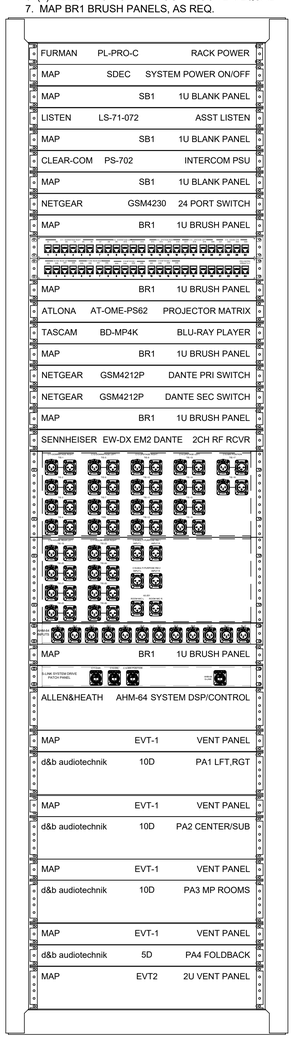
SHEET TITLE

**AV SYSTEMS - RACK PANEL DETAILS**

SHEET NO.

**AV-303**

PROVIDE AND INSTALL:
1. (1) MAP STANDARD REAR DOOR-INCL W/RACK
2. (1) MAP LBP-1.5, LACER BARS (10PK)
3. MAP EVT-1, EB-1 VENT/BLANK PANELS AS REQ
4. MAP HP500 RACK SCREWS
5. (1) MAP WL60 RACK WORK LIGHT
6. (2) HELL/TYTON CABLE DUCT W/COVER-EQUAL
7. MAP BR1 BRUSH PANELS, AS REQ.




**SVC EQUIPMENT RACK- ER1**
FRONT VIEW
MIDDLE ATLANTIC BGR-45SA-32
45RU-32" DEEP EQUIPMENT RACK
LOCATED IN AVRACK ROOM E104F
SCALE: 1:5

SEQA REMOTE TERMINAL:
UP
COMMON
DOWN

FIRE-ALARM BUS RELAY CLOSURE
AT AMP RACK
NORMALLY-OPEN
ALARM CONDITION-CLOSED

EXTERNAL GROUND STUD

E.C. TO PROVIDE 4EA 20A CIRCUITS
TO CONTRACTOR-SUPPLIED JBOX FOR POWER TIE-IN

MPR-JBB3 JUNCTION BOX

CONNECT TO QSC
CORE-FLEX8 GPIO

MPR-SEQA

SEQUENCER

20A-CIRC#1
ALWAYS ON

BLM-BLANK

FURMAN PL-PRO

M-2X20IGA

20A-CIRC#1

BLM-BLANK

d&b 10D #1

RLM-20IGA

20A-CIRC#2

d&b 10D #2

RLM-20IGA

20A-CIRC#3

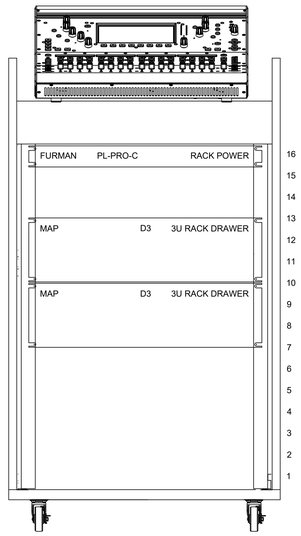
d&b 10D #3

d&b 5D

RLM-20IGA

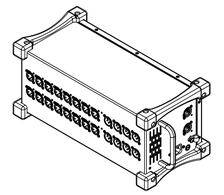
20A-CIRC#4

**BACKSTAGE RACK POWER RACEWAY & POWER SEQUENCER**
FRONT VIEW
MIDDLE-ATLANTIC MPR-6A RACEWAY




ALLEN & HEATH SQ-5 MIXER
W/ RACK MOUNT KIT P/N: SQ-5-RK19

**PORTABLE MIX RACK**
FRONT VIEW
PRO-X MIXER CASE W/RACK-MOUNT MIXER W-13U TOP
P/N: T-16MRSS13ULT

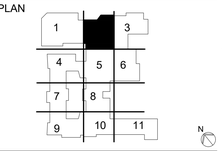


**PORTABLESTAGE IO**
ISOMETRIC VIEW
ALLEN & HEATH DT-168

[ 1 ] AV RACK ELEVATIONS #1
1:5

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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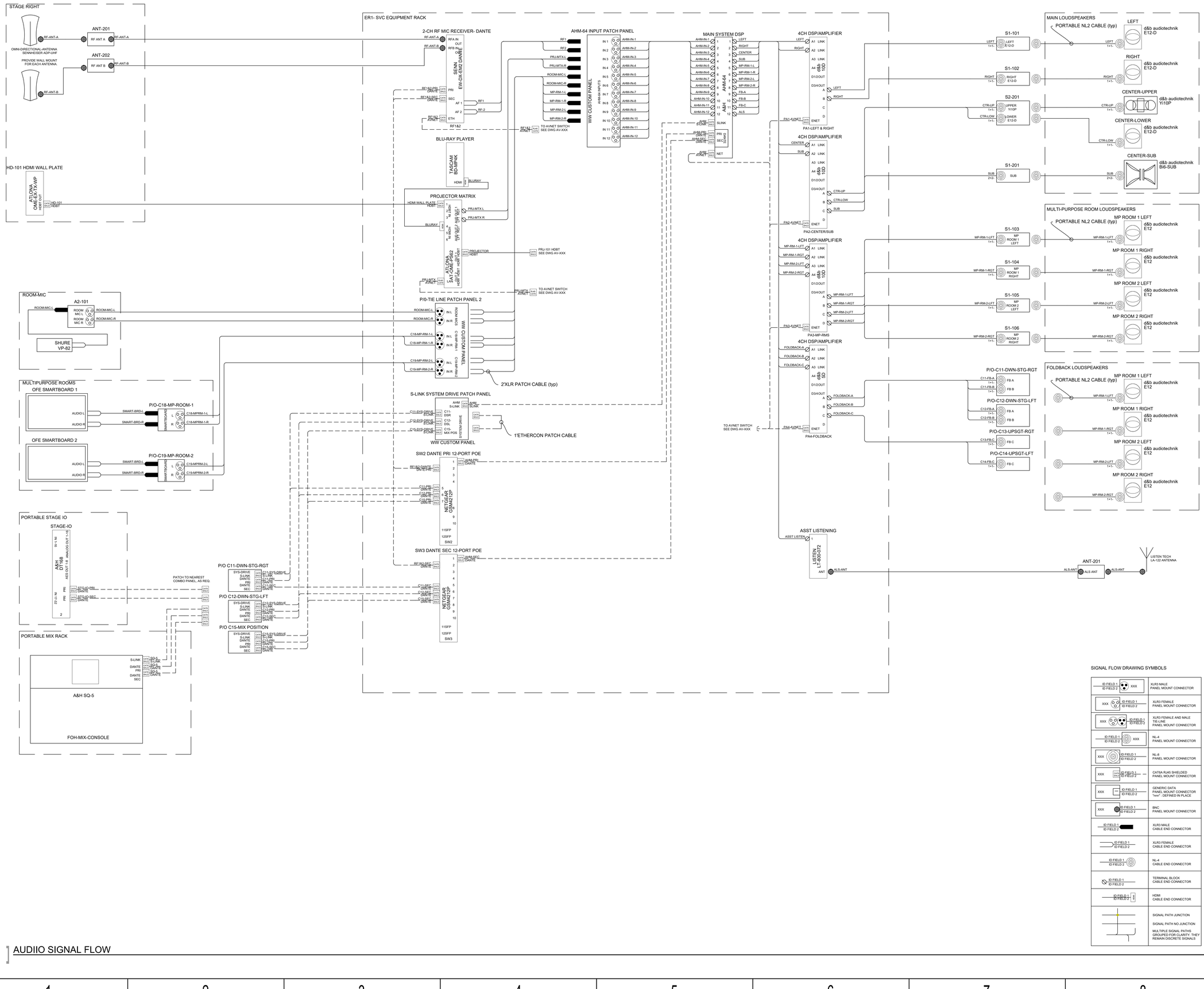
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE
**AV SYSTEMS - RACK ELEVATIONS**

SHEET NO.
**AV-304**



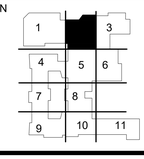

[ 1 ] AUDIIO SIGNAL FLOW

SIGNAL FLOW DRAWING SYMBOLS

| | |
|---|---|
| ID FIELD 1 / ID FIELD 2 — XXX | XLR3 MALE PANEL MOUNT CONNECTOR |
| XXX — ID FIELD 1 / ID FIELD 2 | XLR3 FEMALE PANEL MOUNT CONNECTOR |
| XXX — ID FIELD 1 / ID FIELD 2 / ID FIELD 3 | XLR3 FEMALE AND MALE TIE-LINE PANEL MOUNT CONNECTOR |
| ID FIELD 1 / ID FIELD 2 — XXX | NL-4 PANEL MOUNT CONNECTOR |
| XXX — ID FIELD 1 / ID FIELD 2 | NL-8 PANEL MOUNT CONNECTOR |
| XXX — DATA / ID FIELD 1 / ID FIELD 2 | CATSX RJ45 SHIELDED PANEL MOUNT CONNECTOR |
| XXX — ID FIELD 1 / ID FIELD 2 | GENERIC DATA PANEL MOUNT CONNECTOR *see*". DEFINED IN PLACE |
| XXX — ID FIELD 1 / ID FIELD 2 | BNC PANEL MOUNT CONNECTOR |
| ID FIELD 1 / ID FIELD 2 | XLR3 MALE CABLE END CONNECTOR |
| ID FIELD 1 / ID FIELD 2 | XLR3 FEMALE CABLE END CONNECTOR |
| ID FIELD 1 / ID FIELD 2 | NL-4 CABLE END CONNECTOR |
| ID FIELD 1 / ID FIELD 2 | TERMINAL BLOCK CABLE END CONNECTOR |
| ID FIELD 1 / ID FIELD 2 — HDMI | HDMI CABLE END CONNECTOR |
| | SIGNAL PATH JUNCTION |
| | SIGNAL PATH NO JUNCTION |
| | MULTIPLE SIGNAL PATHS GROUPED FOR CLARITY. THEY REMAIN DISCRETE SIGNALS |

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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NEW CASTLE COUNTY DELAWARE

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Wilmington, DE 19804

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

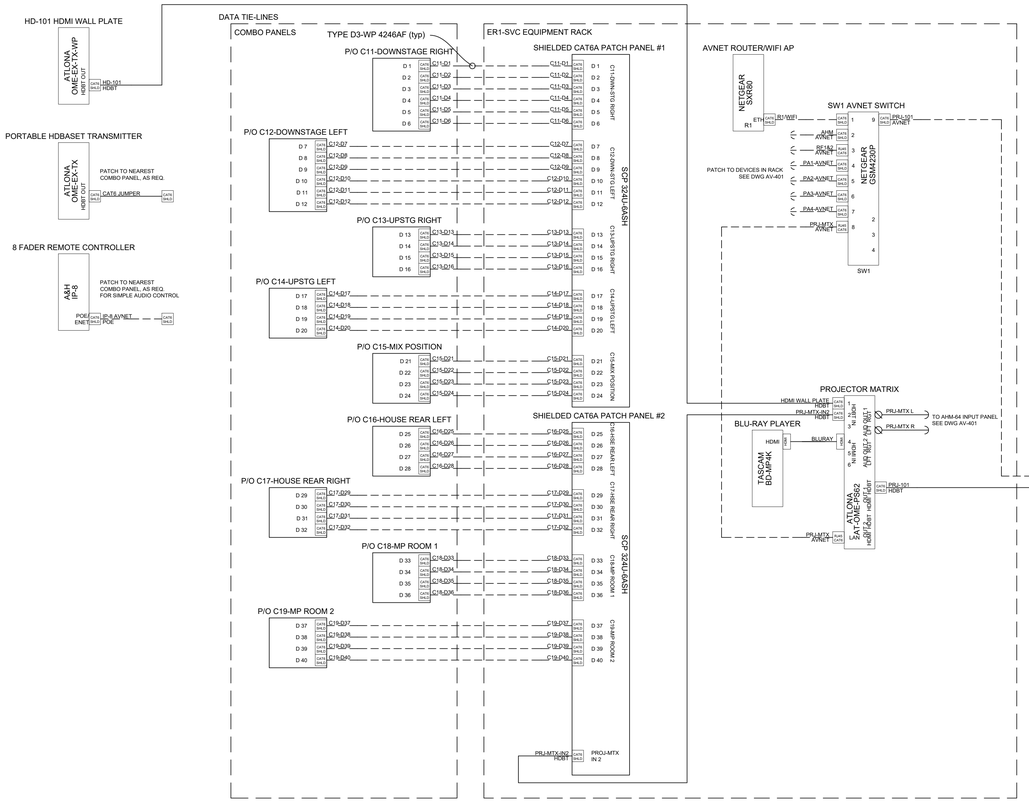
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

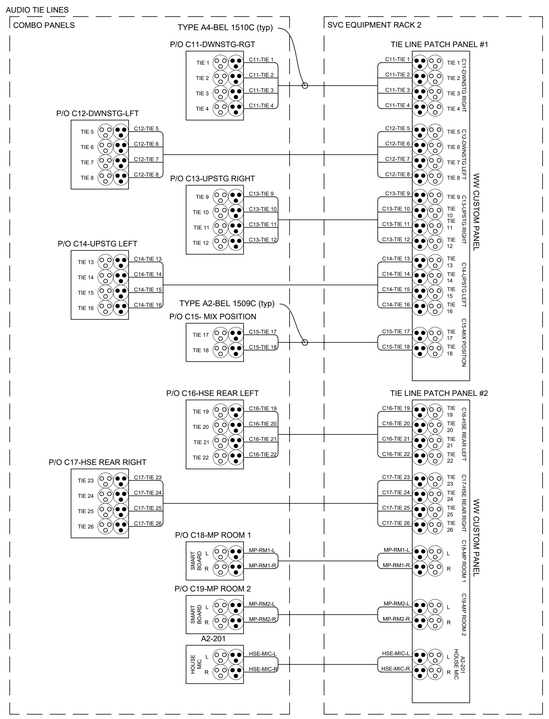
**AV SYSTEMS - SIGNAL FLOWS 1**

SHEET NO.

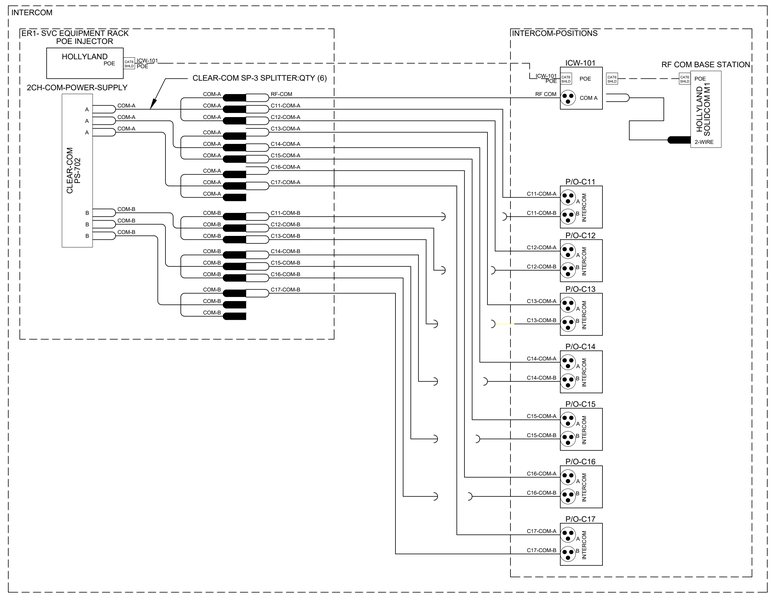
**AV-401**




[ 1 ] NETWORK AND PROJECTION SIGNAL FLOW




[ 2 ] AUDIO TIE-LINES



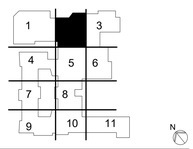

[ 3 ] INTERCOM SIGNAL FLOW

SIGNAL FLOW DRAWING SYMBOLS

| | |
|---|---|
| ID FIELD 1 / ID FIELD 2 — XXX | XLR5 MALE PANEL MOUNT CONNECTOR |
| XXX — ID FIELD 1 / ID FIELD 2 | XLR5 FEMALE PANEL MOUNT CONNECTOR |
| XXX — ID FIELD 1 / ID FIELD 2 | XLR3 FEMALE AND MALE TIE-LINE PANEL MOUNT CONNECTOR |
| ID FIELD 1 / ID FIELD 2 — XXX | NL-4 PANEL MOUNT CONNECTOR |
| XXX — ID FIELD 1 / ID FIELD 2 | NL-8 PANEL MOUNT CONNECTOR |
| XXX — DATA / ID FIELD 1 / ID FIELD 2 | CAT5A RJ45 SHIELDED PANEL MOUNT CONNECTOR |
| XXX — ID FIELD 1 / ID FIELD 2 | GENERIC DATA PANEL MOUNT CONNECTOR "nnn" : DEFINED IN PLACE |
| XXX — ID FIELD 1 / ID FIELD 2 | BNC PANEL MOUNT CONNECTOR |
| ID FIELD 1 / ID FIELD 2 | XLR3 MALE CABLE END CONNECTOR |
| ID FIELD 1 / ID FIELD 2 | XLR3 FEMALE CABLE END CONNECTOR |
| ID FIELD 1 / ID FIELD 2 | NL-4 CABLE END CONNECTOR |
| ID FIELD 1 / ID FIELD 2 | TERMINAL BLOCK CABLE END CONNECTOR |
| ID FIELD 1 / ID FIELD 2 — HDMI | HDMI CABLE END CONNECTOR |
| | SIGNAL PATH JUNCTION |
| | SIGNAL PATH NO JUNCTION |
| | MULTIPLE SIGNAL PATHS GROUPED FOR CLARITY. THEY REMAIN DISCRETE SIGNALS |

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

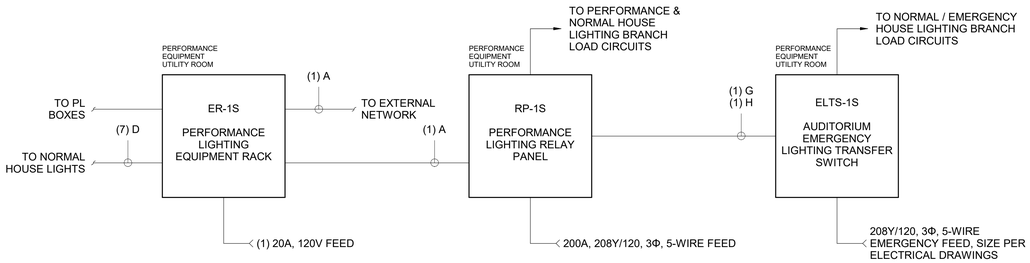
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

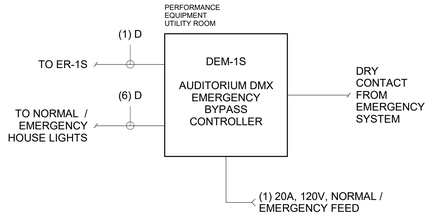
SHEET TITLE

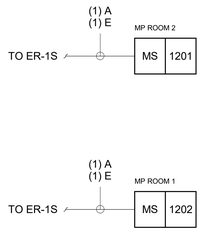
**AV SYSTEMS - SIGNAL FLOWS 2**

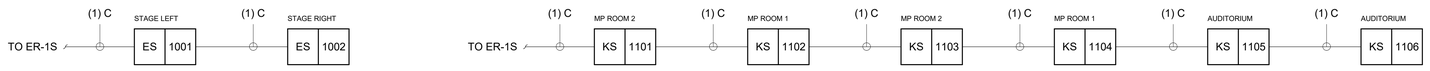
SHEET NO.

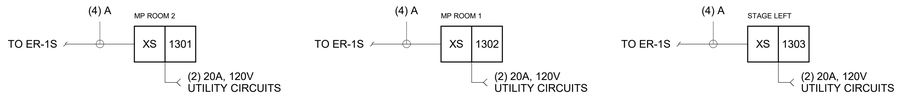
**AV-402**

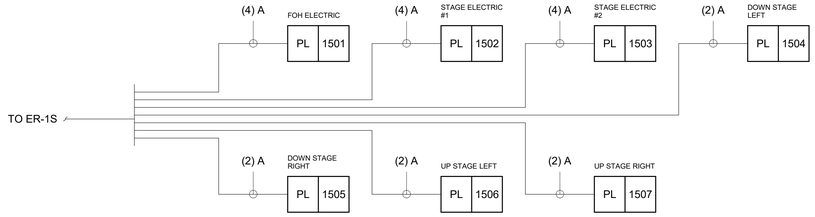


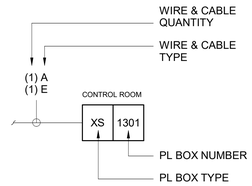

## NOTES:

1. THIS DIAGRAM SHOWS THE LAYOUT AND INTERCONNECTION OF THE COMPONENTS IN THE THEATRE LIGHTING CONTROL SYSTEMS TO CONVEY DESIGN INTENT ONLY. FINAL WIRE QUANTITIES, TYPES AND TOPOLOGY SHALL BE DETERMINED BY THE EQUIPMENT MANUFACTURER.
2. ADDITIONAL PORTABLE EQUIPMENT, INCLUDING CONTROL CONSOLES, HAND-HELD REMOTES & STAGE LIGHTING FIXTURES ARE NOT SHOWN.
3. LOW VOLTAGE WIRING SHALL BE RUN IN SEPARATE CONDUIT FROM VIDEO AND LINE VOLTAGE WIRING.
4. MAXIMUM ACCEPTABLE CABLE LENGTH FOR CAT6a ETHERNET CABLE (BELDEN #2148A) IS 300'-0". INSTALLATION AND TERMINATION PRACTICES SHALL BE IN COMPLIANCE WITH ANSI/TIA/EIA 568A AND AS/NZS 3080 STANDARDS.
5. MAXIMUM ACCEPTABLE CABLE LENGTH FOR FIBER-OPTIC CABLE (BELDEN #B9C039) IS 5000'.
6. MAXIMUM ACCEPTABLE CABLE LENGTH FOR HOUSELIGHT CONTROL CABLE (BELDEN #8471) IS 1,000'.
7. MAXIMUM ACCEPTABLE LENGTH FOR DMX DATA CABLE (BELDEN #9729) IS 1,000'.
8. LOW VOLTAGE CABLE SHALL BE IN NEW, METAL, 1" (MIN.) CONDUIT, PHYSICALLY SEPARATED FROM HIGH VOLTAGE WIRING.

## WIRE & CABLE SCHEDULE:

| | |
|---|---|
| A | (1) BELDEN #2148A CAT6a ETHERNET CABLE |
| B | (1) BELDEN #8471 HOUSE LIGHTING CONTROL CABLE<br>(1) #14 AWG WIRE |
| C | (1) BELDEN #8471 HOUSE LIGHTING CONTROL CABLE<br>(2) #16 AWG WIRE<br>(1) #14 AWG WIRE |
| D | (1) BELDEN #2148A CABLE FOR DMX SIGNAL |
| E | (3) #16 AWG WIRE FOR PANIC CONTROL |
| F | (1) BELDEN #B9CO39 FOR FIBRE-OPTIC CABLE |
| G | (4) #14 AWG WIRES FOR ELTS POWER SENSE |
| H | INDIVIDUAL 20A HOUSE LIGHTING NORMAL POWER BRANCH LOAD CIRCUITS, QUANTITY TBD |

## PL BOX DEVICE LEGEND




## PL BOX TYPE LEGEND

| | |
|---|---|
| ES | ENTRY STATION |
| KS | KEYSWITCH STATION |
| PS | PANIC STATION |
| MS | MASTER STATION |
| XS | CONSOLE STATION |
| RS | REHEARSAL STATION |
| NS | NETWORK STATION |
| PL | PERFORMANCE LIGHTING OUTLET DEVICE |

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

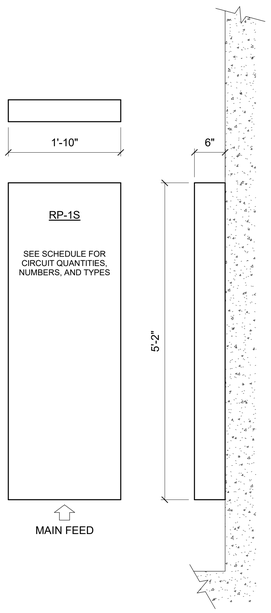
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**PERFORMANCE LIGHTING SYSTEMS**

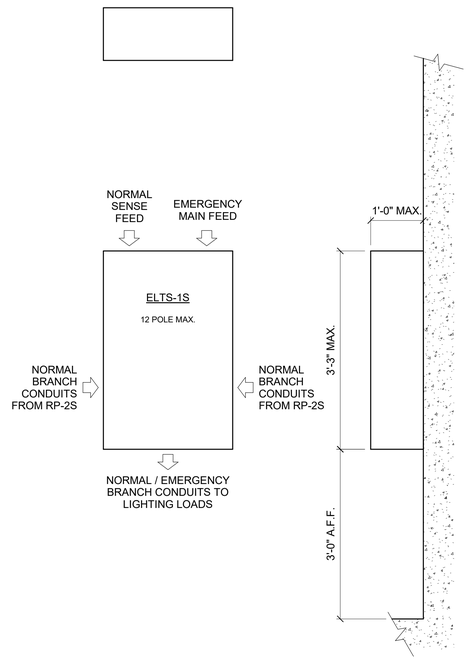
SHEET NO.

**TE-110**



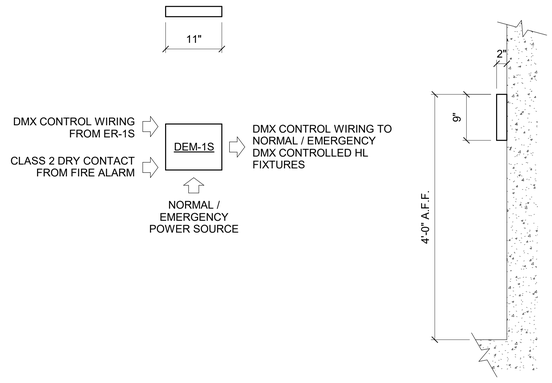

NOTES:
1. RACK REQUIRES 200A, 208Y/120, 3Φ, 5-WIRE FEED.

## [ 1 ] PERFORMANCE AND HOUSE LIGHTING RELAY PANEL
1" = 1'-0"




NOTES:
1. REFER TO E-DRAWINGS FOR RACK FEED SIZE AND CONFIGURATION

## [ 2 ] EMERGENCY LIGHTING TRANSFER SYSTEM ELTS-1S
1" = 1'-0"

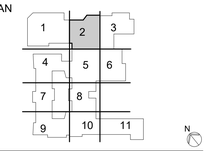



NOTES:
1. CONTROLLER REQUIRES 20A, 120V NORMAL / EMERGENCY FEED.

## [ 3 ] DMX EMERGENCY BYPASS CONTROLLER DEM-1S
1" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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PAUL M. HODGSON VO-TECH HIGH SCHOOL

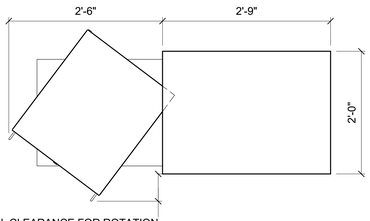
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

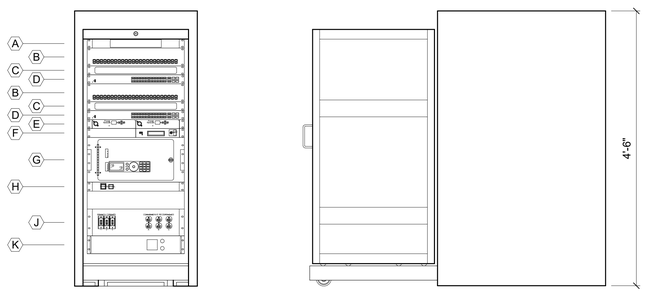
**PERFORMANCE LIGHTING SYSTEMS**

SHEET NO.

**TE-120**




6" MIN. CLEARANCE FOR ROTATION

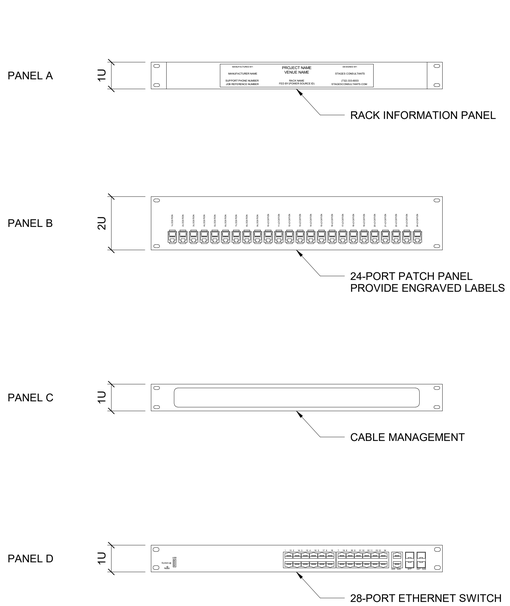



NOTES:
1. ALL EQUIPMENT MUST FIT IN A SINGLE MIDDLE ATLANTIC WR-24-32 RACK FRAME.
2. PROVIDE MATTE BLACK BLANK PANELS FOR ALL OPEN SPACES.
3. EQUIPMENT RACK FED WITH 20A, 120V FEED.

[ 2 ] DIMMER ROOM EQUIPMENT RACK ER-1S
1" = 1'-0"

## DIMMER ROOM EQUIPMENT RACK ER-1S SCHEDULE

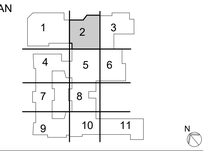
| PANEL | DESCRIPTION | NOTES | RACK SPACES | QTY |
|---|---|---|---|---|
| A | RACK ID NAMEPLATE | LIST OF PROJECT INFO, SUPPORT CONTACT, AND CONSULTANT / INSTALLER CONTACT. | 1U | 1 |
| B | ETHERNET PATCH W/ LEGEND | RJ45 AND FIBER RECEPTACLES AS REQUIRED. ENGRAVED LEGEND SHALL IDENTIFY LOCATION OF FINAL RUN. | 2U | 2 |
| C | ETHERNET CABLE MANAGEMENT | USE MIDDLE ATLANTIC BRUSH GROMMET PANEL OR EQUAL. | 1U | 2 |
| D | ETHERNET SWITCH | 24-PORT, 802.3AT COMPLIANT SWITCH. | 1U | 2 |
| E | DMX GATEWAY | DMX GATEWAY CONTAINING OUTPUTS TO HOUSE LIGHTING FIXTURES. | 1U | 1 |
| F | NETWORK SERVICES GATEWAY | GATEWAY FOR NETWORK CONFIGURATION SERVICES. | 1U | 1 |
| G | HOUSE LIGHT PROCESSOR | PROCESSOR WITH 1024 DMX ADDRESS CAPACITY. | 5U | 1 |
| H | PANIC POWER SUPPLY | POWER SUPPLY FOR PANIC CONTROL STATIONS. | 1U | 1 |
| J | UTILITY RECEPTACLES / BREAKER PANEL | PROVIDE (3) NEMA 5-20R DUPLEX CONVENIENCE RECEPTACLES AT FRONT AND (3) NEMA 5-20R DUPLEX RECEPTALCES AT REAR. SUPPLY BREAKERS AS REQUIRED. | 3U | 1 |
| K | UNINTERRUPTIBLE POWER SUPPLY | 1900VA, INPUT 120V/OUTPUT 120V ENTERPRISE GRADE UPS. | 2U | 1 |




[ 1 ] DIMMER ROOM EQUIPMENT RACK ER-1S DETAILS
3" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN





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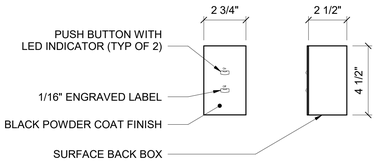
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**PERFORMANCE LIGHTING SYSTEMS**

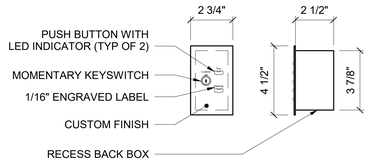
SHEET NO.

**TE-130**



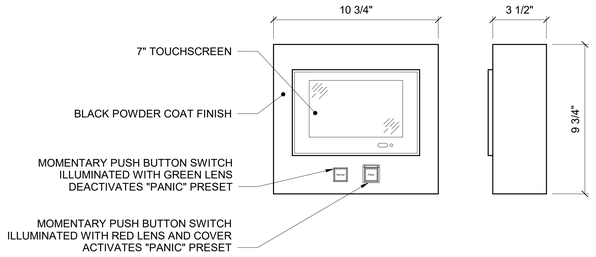

SEE SCHEDULE FOR QUANTITIES AND CONFIGURATIONS

[ 1 ] ENTRY STATION "ES" TYPE A
N.T.S.



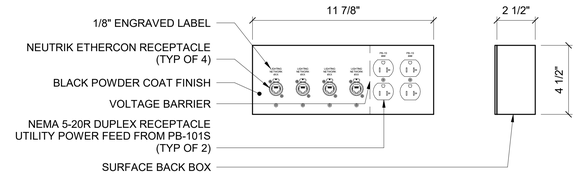

SEE SCHEDULE FOR QUANTITIES AND CONFIGURATIONS

[ 2 ] KEYSWITCH STATION "KS" TYPE A
N.T.S.




SEE SCHEDULE FOR QUANTITIES AND CONFIGURATIONS

[ 3 ] MASTER STATION "MS" TYPE A
N.T.S.

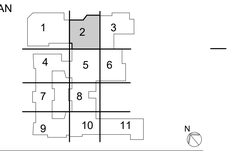



SEE SCHEDULE FOR QUANTITIES AND CONFIGURATIONS

[ 4 ] CONSOLE STATION "XS" TYPE A
N.T.S.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

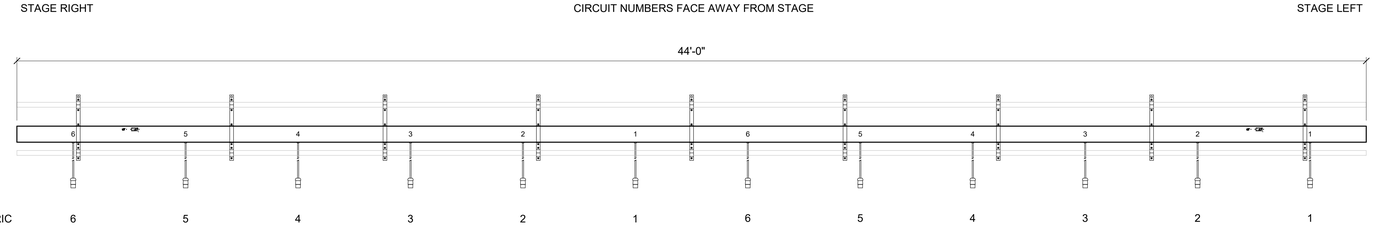
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**PERFORMANCE LIGHTING SYSTEMS**

SHEET NO.

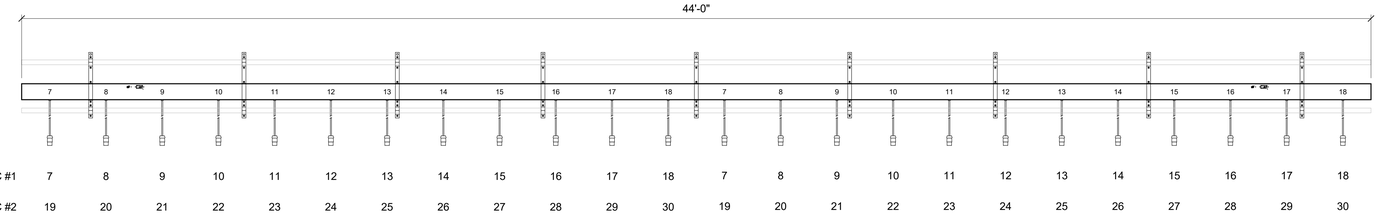
**TE-140**




NOTE: MULTICABLE AND CABLE MANAGEMENT PROVIDED BY RIGGING CONTRACTOR. REFER TO TR-SERIES DRAWINGS FOR DETAILS.

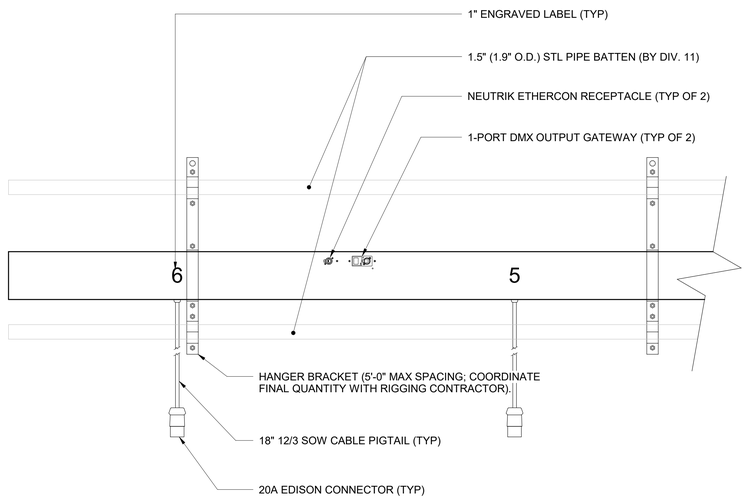
## [ 1 ] OUTLET DEVICE "PL" TYPE A

1/2" = 1'-0"



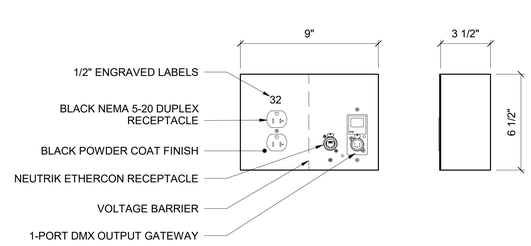

## [ 2 ] OUTLET DEVICE "PL" TYPE B

1/2" = 1'-0"




## [ 5 ] OUTLET DEVICE "PL" TYPE A & B DETAILS

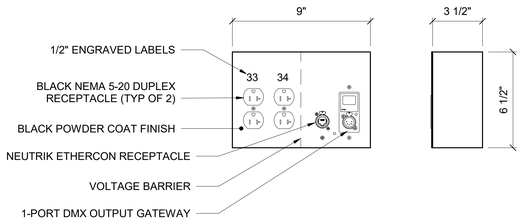
1 1/2" = 1'-0"




SEE SCHEDULE FOR QUANTITIES AND CONFIGURATIONS

## [ 3 ] OUTLET DEVICE "PL" TYPE C

3" = 1'-0"



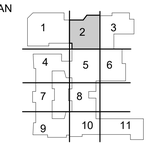

SEE SCHEDULE FOR QUANTITIES AND CONFIGURATIONS

## [ 4 ] OUTLET DEVICE "PL" TYPE D

3" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**PERFORMANCE LIGHTING SYSTEMS**

SHEET NO.

**TE-150**

## PERFORMANCE & HOUSE LIGHTING RELAY PANEL SCHEDULE (RP-1S)

| RELAY NUMBER | USE | CIRCUIT NUMBER | RELAY TYPE | UNIVERSE / ADDRESS | CONNECTED LOAD | LOAD TYPE | EMERGENCY |
|---|---|---|---|---|---|---|---|
| 1 | FOH ELECTRIC RECEPTACLE | 1 | 20A - 1P | 1 / 1 | VARIES | VARIES | NO |
| 2 | FOH ELECTRIC RECEPTACLE | 2 | 20A - 1P | 1 / 2 | VARIES | VARIES | NO |
| 3 | FOH ELECTRIC RECEPTACLE | 3 | 20A - 1P | 1 / 3 | VARIES | VARIES | NO |
| 4 | FOH ELECTRIC RECEPTACLE | 4 | 20A - 1P | 1 / 4 | VARIES | VARIES | NO |
| 5 | FOH ELECTRIC RECEPTACLE | 5 | 20A - 1P | 1 / 5 | VARIES | VARIES | NO |
| 6 | FOH ELECTRIC RECEPTACLE | 6 | 20A - 1P | 1 / 6 | VARIES | VARIES | NO |
| 7 | STAGE ELECTRIC #1 RECEPTACLE | 7 | 20A - 1P | 1 / 7 | VARIES | VARIES | NO |
| 8 | STAGE ELECTRIC #1 RECEPTACLE | 8 | 20A - 1P | 1 / 8 | VARIES | VARIES | NO |
| 9 | STAGE ELECTRIC #1 RECEPTACLE | 9 | 20A - 1P | 1 / 9 | VARIES | VARIES | NO |
| 10 | STAGE ELECTRIC #1 RECEPTACLE | 10 | 20A - 1P | 1 / 10 | VARIES | VARIES | NO |
| 11 | STAGE ELECTRIC #1 RECEPTACLE | 11 | 20A - 1P | 1 / 11 | VARIES | VARIES | NO |
| 12 | STAGE ELECTRIC #1 RECEPTACLE | 12 | 20A - 1P | 1 / 12 | VARIES | VARIES | NO |
| 13 | STAGE ELECTRIC #1 RECEPTACLE | 13 | 20A - 1P | 1 / 13 | VARIES | VARIES | NO |
| 14 | STAGE ELECTRIC #1 RECEPTACLE | 14 | 20A - 1P | 1 / 14 | VARIES | VARIES | NO |
| 15 | STAGE ELECTRIC #1 RECEPTACLE | 15 | 20A - 1P | 1 / 15 | VARIES | VARIES | NO |
| 16 | STAGE ELECTRIC #1 RECEPTACLE | 16 | 20A - 1P | 1 / 16 | VARIES | VARIES | NO |
| 17 | STAGE ELECTRIC #1 RECEPTACLE | 17 | 20A - 1P | 1 / 17 | VARIES | VARIES | NO |
| 18 | STAGE ELECTRIC #1 RECEPTACLE | 18 | 20A - 1P | 1 / 18 | VARIES | VARIES | NO |
| 19 | STAGE ELECTRIC #2 RECEPTACLE | 19 | 20A - 1P | 1 / 19 | VARIES | VARIES | NO |
| 20 | STAGE ELECTRIC #2 RECEPTACLE | 20 | 20A - 1P | 1 / 20 | VARIES | VARIES | NO |
| 21 | STAGE ELECTRIC #2 RECEPTACLE | 21 | 20A - 1P | 1 / 21 | VARIES | VARIES | NO |
| 22 | STAGE ELECTRIC #2 RECEPTACLE | 22 | 20A - 1P | 1 / 22 | VARIES | VARIES | NO |
| 23 | STAGE ELECTRIC #2 RECEPTACLE | 23 | 20A - 1P | 1 / 23 | VARIES | VARIES | NO |
| 24 | STAGE ELECTRIC #2 RECEPTACLE | 24 | 20A - 1P | 1 / 24 | VARIES | VARIES | NO |
| 25 | STAGE ELECTRIC #2 RECEPTACLE | 25 | 20A - 1P | 1 / 25 | VARIES | VARIES | NO |
| 26 | STAGE ELECTRIC #2 RECEPTACLE | 26 | 20A - 1P | 1 / 26 | VARIES | VARIES | NO |
| 27 | STAGE ELECTRIC #2 RECEPTACLE | 27 | 20A - 1P | 1 / 27 | VARIES | VARIES | NO |
| 28 | STAGE ELECTRIC #2 RECEPTACLE | 28 | 20A - 1P | 1 / 28 | VARIES | VARIES | NO |
| 29 | STAGE ELECTRIC #2 RECEPTACLE | 29 | 20A - 1P | 1 / 29 | VARIES | VARIES | NO |
| 30 | STAGE ELECTRIC #2 RECEPTACLE | 30 | 20A - 1P | 1 / 30 | VARIES | VARIES | NO |
| 31 | DOWN STAGE LEFT RECEPTACLE | 31 | 20A - 1P | 1 / 31 | VARIES | VARIES | NO |
| 32 | DOWN STAGE RIGHT RECEPTACLE | 32 | 20A - 1P | 1 / 32 | VARIES | VARIES | NO |
| 33 | UP STAGE LEFT RECEPTACLE | 33 | 20A - 1P | 1 / 33 | VARIES | VARIES | NO |
| 34 | UP STAGE LEFT RECEPTACLE | 34 | 20A - 1P | 1 / 34 | VARIES | VARIES | NO |
| 35 | UP STAGE RIGHT RECEPTACLE | 35 | 20A - 1P | 1 / 35 | VARIES | VARIES | NO |
| 36 | UP STAGE RIGHT RECEPTACLE | 36 | 20A - 1P | 1 / 36 | VARIES | VARIES | NO |
| 37 | HOUSE OR WORK LIGHTING | 37 | 20A - 1P | 1 / 37 | TBD | TBD | TBD |
| 38 | HOUSE OR WORK LIGHTING | 38 | 20A - 1P | 1 / 38 | TBD | TBD | TBD |
| 39 | HOUSE OR WORK LIGHTING | 39 | 20A - 1P | 1 / 39 | TBD | TBD | TBD |
| 40 | HOUSE OR WORK LIGHTING | 40 | 20A - 1P | 1 / 40 | TBD | TBD | TBD |
| 41 | HOUSE OR WORK LIGHTING | 41 | 20A - 1P | 1 / 41 | TBD | TBD | TBD |
| 42 | HOUSE OR WORK LIGHTING | 42 | 20A - 1P | 1 / 42 | TBD | TBD | TBD |
| 43 | HOUSE OR WORK LIGHTING | 43 | 20A - 1P | 1 / 43 | TBD | TBD | TBD |
| 44 | HOUSE OR WORK LIGHTING | 44 | 20A - 1P | 1 / 44 | TBD | TBD | TBD |
| 45 | HOUSE OR WORK LIGHTING | 45 | 20A - 1P | 1 / 45 | TBD | TBD | TBD |
| 46 | HOUSE OR WORK LIGHTING | 46 | 20A - 1P | 1 / 46 | TBD | TBD | TBD |
| 47 | HOUSE OR WORK LIGHTING | 47 | 20A - 1P | 1 / 47 | TBD | TBD | TBD |
| 48 | HOUSE OR WORK LIGHTING | 48 | 20A - 1P | 1 / 48 | TBD | TBD | TBD |

## PL DEVICE SCHEDULE

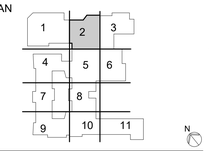
| BOX NUMBER | BOX TYPE | BOX VERSION | LOCATION | FINISH | BACK BOX TYPE | MOUNTING HEIGHT | 20A/120V NON-DIM | CIR ZONE NUMS | L.V. WIRE & CABLE QUANTITY (BY E.C.) | | | | | | PANEL CONNECTION | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | A | B | C | D | E | F | | |
| 1001 | ES | A | STAGE LEFT | BLACK | SURFACE | 3'-6" A.F.F. | | | 0 | 0 | 1 | 0 | 0 | 0 | ER-1S | 2-BUTTON LIGHTING CONTROL SWITCH |
| 1002 | ES | A | STAGE RIGHT | BLACK | SURFACE | 3'-6" A.F.F. | | | 0 | 0 | 1 | 0 | 0 | 0 | ER-1S | 2-BUTTON LIGHTING CONTROL SWITCH |
| 1101 | KS | A | MP ROOM 2 | BLACK | RECESS | 3'-6" A.F.F. | | | 0 | 1 | 0 | 0 | 0 | 0 | ER-1S | LIGHTING CONTROL SWITCH |
| 1102 | KS | A | MP ROOM 1 | BLACK | RECESS | 3'-6" A.F.F. | | | 0 | 1 | 0 | 0 | 0 | 0 | ER-1S | LIGHTING CONTROL SWITCH |
| 1103 | KS | A | MP ROOM 2 | BLACK | RECESS | 3'-6" A.F.F. | | | 0 | 1 | 0 | 0 | 0 | 0 | ER-1S | LIGHTING CONTROL SWITCH |
| 1104 | KS | A | MP ROOM 1 | BLACK | RECESS | 3'-6" A.F.F. | | | 0 | 1 | 0 | 0 | 0 | 0 | ER-1S | LIGHTING CONTROL SWITCH |
| 1105 | KS | A | AUDITORIUM | BLACK | RECESS | 3'-6" A.F.F. | | | 0 | 1 | 0 | 0 | 0 | 0 | ER-1S | LIGHTING CONTROL SWITCH |
| 1106 | KS | A | AUDITORIUM | BLACK | RECESS | 3'-6" A.F.F. | | | 0 | 1 | 0 | 0 | 0 | 0 | ER-1S | LIGHTING CONTROL SWITCH |
| 1201 | MS | A | MP ROOM 2 | BLACK | SURFACE | 4'-6" A.F.F. | | | 1 | 0 | 0 | 1 | 0 | 0 | ER-1S | 7" LIGHTING CONTROL TOUCHSCREEN |
| 1202 | MS | A | MP ROOM 1 | BLACK | SURFACE | 4'-6" A.F.F. | | | 1 | 0 | 0 | 1 | 0 | 0 | ER-1S | 7" LIGHTING CONTROL TOUCHSCREEN |
| 1203 | MS | A | STAGE LEFT | BLACK | SURFACE | 4'-6" A.F.F. | | | 1 | 0 | 0 | 1 | 0 | 0 | ER-1S | 7" LIGHTING CONTROL TOUCHSCREEN |
| 1301 | XS | A | MP ROOM 2 | BLACK | RECESS | 1'-6" A.F.F. | | | 4 | 0 | 0 | 0 | 0 | 0 | ER-1S | |
| 1302 | XS | A | MP ROOM 1 | BLACK | RECESS | 1'-6" A.F.F. | | | 4 | 0 | 0 | 0 | 0 | 0 | ER-1S | |
| 1303 | XS | A | STAGE LEFT | BLACK | RECESS | 1'-6" A.F.F. | | | 4 | 0 | 0 | 0 | 0 | 0 | ER-1S | |
| 1501 | PL | A | FOH ELECTRIC | BLACK | SURFACE | SEE DWGS | 6 | 1-6 | 4 | 0 | 0 | 0 | 0 | 0 | RP-1S & ER-1S | |
| 1502 | PL | B | STAGE ELECTRIC 1 | BLACK | PIPE | SEE DWGS | 12 | 7-18 | 4 | 0 | 0 | 0 | 0 | 0 | RP-1S & ER-1S | |
| 1503 | PL | B | STAGE ELECTRIC 2 | BLACK | PIPE | SEE DWGS | 12 | 19-30 | 4 | 0 | 0 | 0 | 0 | 0 | RP-1S & ER-1S | |
| 1504 | PL | C | DOWN STAGE LEFT | BLACK | SURFACE | 1'-6" A.F.F. | 1 | 31 | 2 | 0 | 0 | 0 | 0 | 0 | RP-1S & ER-1S | |
| 1505 | PL | C | DOWN STAGE RIGHT | BLACK | SURFACE | 1'-6" A.F.F. | 1 | 32 | 2 | 0 | 0 | 0 | 0 | 0 | RP-1S & ER-1S | |
| 1506 | PL | D | UP STAGE LEFT | BLACK | SURFACE | 1'-6" A.F.F. | 2 | 33-34 | 2 | 0 | 0 | 0 | 0 | 0 | RP-1S & ER-1S | |
| 1507 | PL | D | UP STAGE RIGHT | BLACK | SURFACE | 1'-6" A.F.F. | 2 | 35-36 | 2 | 0 | 0 | 0 | 0 | 0 | RP-1S & ER-1S | |
| 1601 | PUB | A | | BLACK | SURFACE | SEE DWGS | - | - | 0 | 0 | 0 | 0 | 0 | 0 | PB-1S & | WIRED TO ASSOCIATED PANELBOARD |

LOW VOLTAGE WIRE & CABLE SCHEDULE

A = (1) BELDEN #2148A CAT6a ETHERNET CABLE
B = (1) BELDEN #8471 HOUSE LIGHTING CONTROL CABLE
(1) #14 AWG WIRE
C = (1) BELDEN #8471 HOUSE LIGHTING CONTROL CABLE
(2) #16 AWG WIRES
(1) #14 AWG WIRE
D = (1) BELDEN #2148A CABLE FOR DMX SIGNAL
E = (3) #16 AWG WIRES FOR PANIC CONTROL
F = (1) BELDEN #B9C039 FOR FIBER-OPTIC CABLE

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN





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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

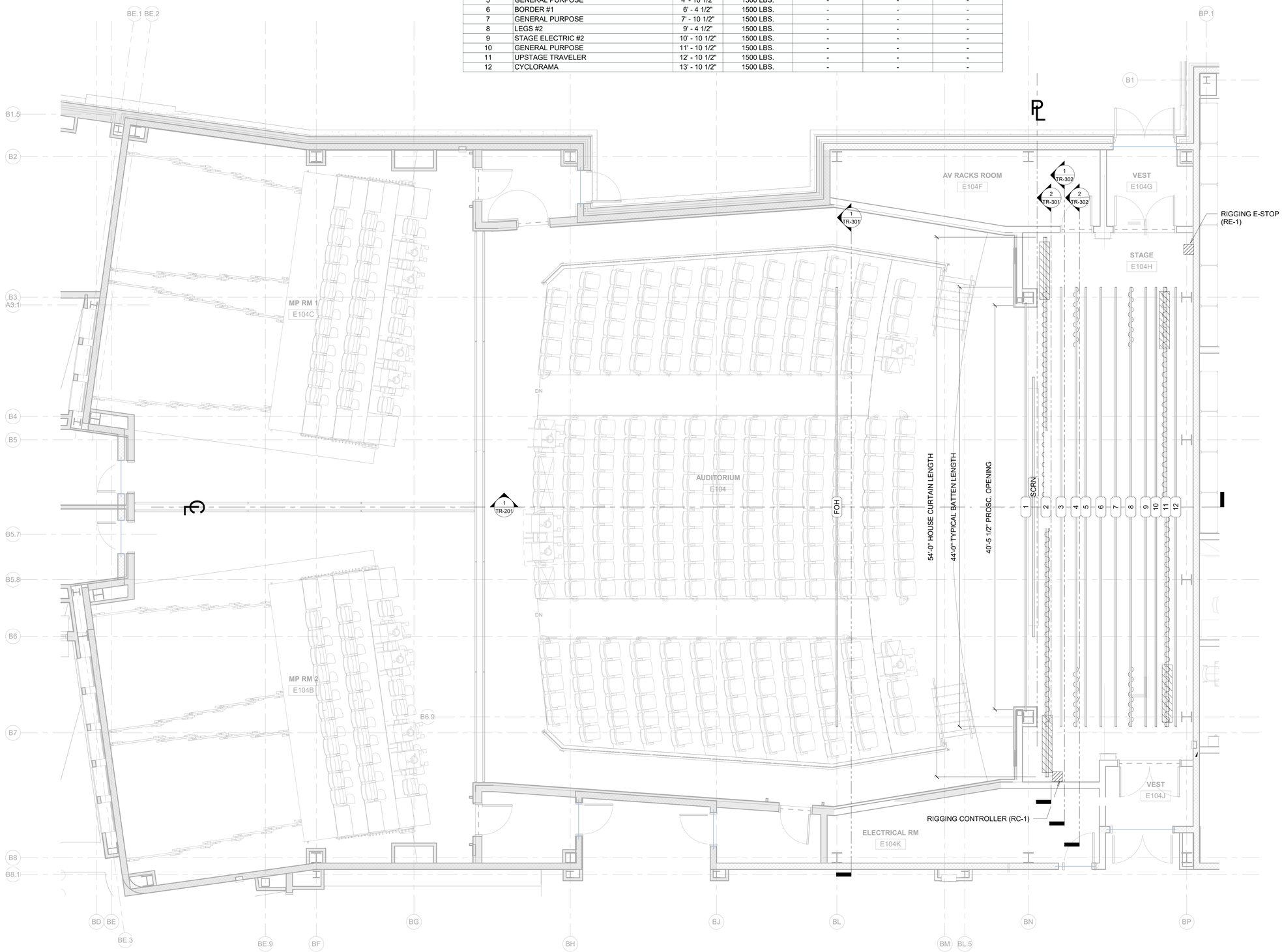
SHEET TITLE

**PERFORMANCE LIGHTING SYSTEMS**

SHEET NO.

**TE-160**

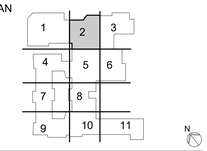
| AUDITORIUM RIGGING LINESET SCHEDULE | | | | | | |
|---|---|---|---|---|---|---|
| LINESET # | PURPOSE | DISTANCE TO PL | WORKING LOAD | HOIST CAPACITY | DRIVE TYPE | SPEED |
| FOH | FOH ELECTRIC | -20' - 0" | 1500 LBS. | 2000 LBS. | FIXED | 30 FPM |
| 1 | VALANCE | -1' - 1 1/2" | 1500 LBS. | - | - | - |
| SCRN | PROJECTION SCREEN (BY DIV. 27) | -0' - 4 1/2" | 600 LBS. | - | - | - |
| 2 | HOUSE CURTAIN | 0' - 10 1/2" | 1500 LBS. | - | - | - |
| 3 | STAGE ELECTRIC #1 | 2' - 4 1/2" | 1500 LBS. | - | - | - |
| 4 | LEGS #1 | 3' - 10 1/2" | 1500 LBS. | - | - | - |
| 5 | GENERAL PURPOSE | 4' - 10 1/2" | 1500 LBS. | - | - | - |
| 6 | BORDER #1 | 6' - 4 1/2" | 1500 LBS. | - | - | - |
| 7 | GENERAL PURPOSE | 7' - 10 1/2" | 1500 LBS. | - | - | - |
| 8 | LEGS #2 | 9' - 4 1/2" | 1500 LBS. | - | - | - |
| 9 | STAGE ELECTRIC #2 | 10' - 10 1/2" | 1500 LBS. | - | - | - |
| 10 | GENERAL PURPOSE | 11' - 10 1/2" | 1500 LBS. | - | - | - |
| 11 | UPSTAGE TRAVELER | 12' - 10 1/2" | 1500 LBS. | - | - | - |
| 12 | CYCLORAMA | 13' - 10 1/2" | 1500 LBS. | - | - | - |




[ 1 ] STAGE RIGGING FLOOR PLAN
1/4" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN





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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

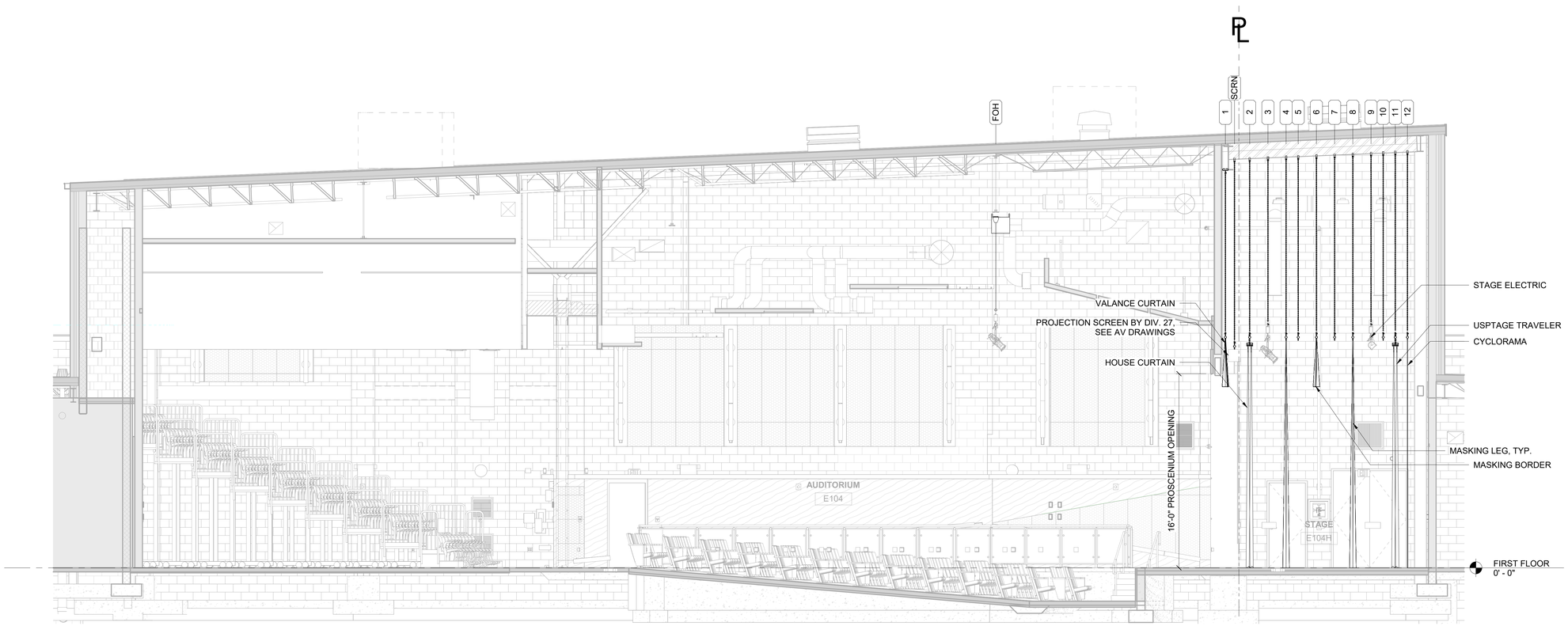
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**KEYPLAN 2 - STAGE RIGGING PLAN**

SHEET NO.

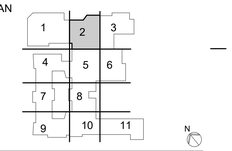
**TR-101**




[ 1 ] STAGE RIGGING CENTERLINE SECTION
1/4" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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Wilmington, DE 19804

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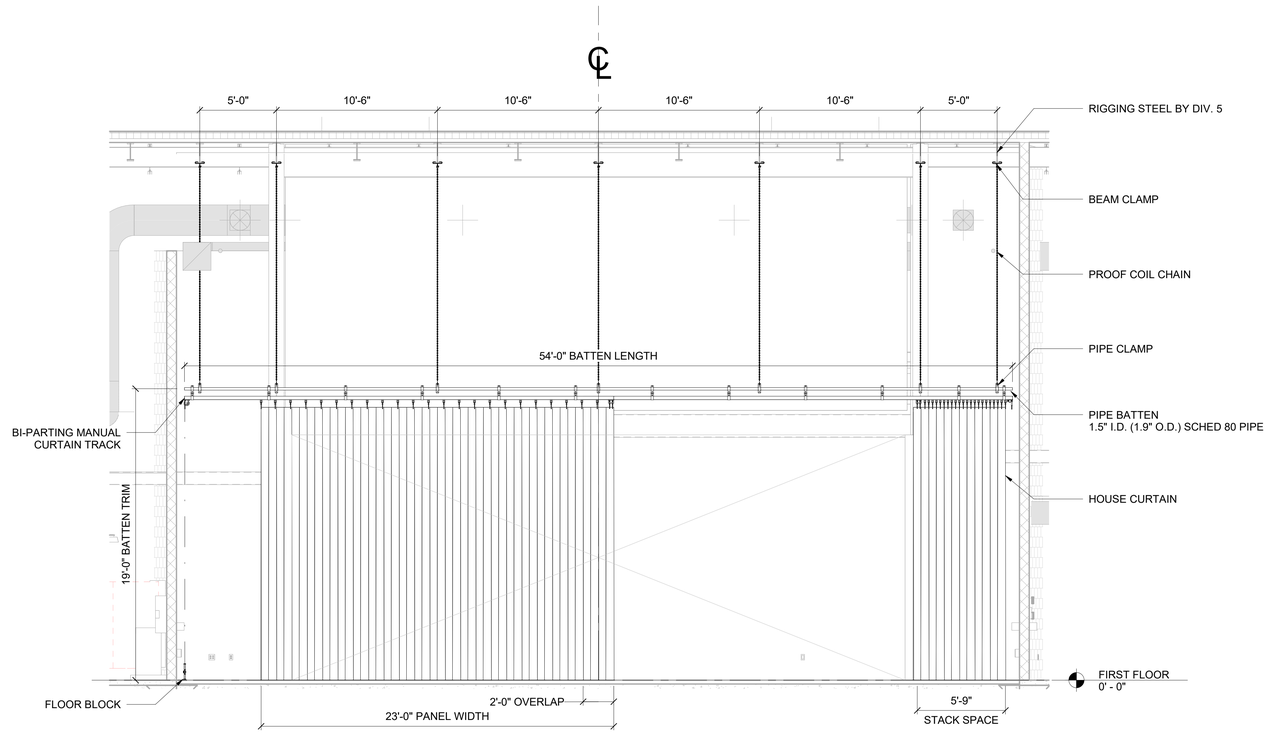
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**KEYPLAN 2 - STAGE RIGGING SECTION**

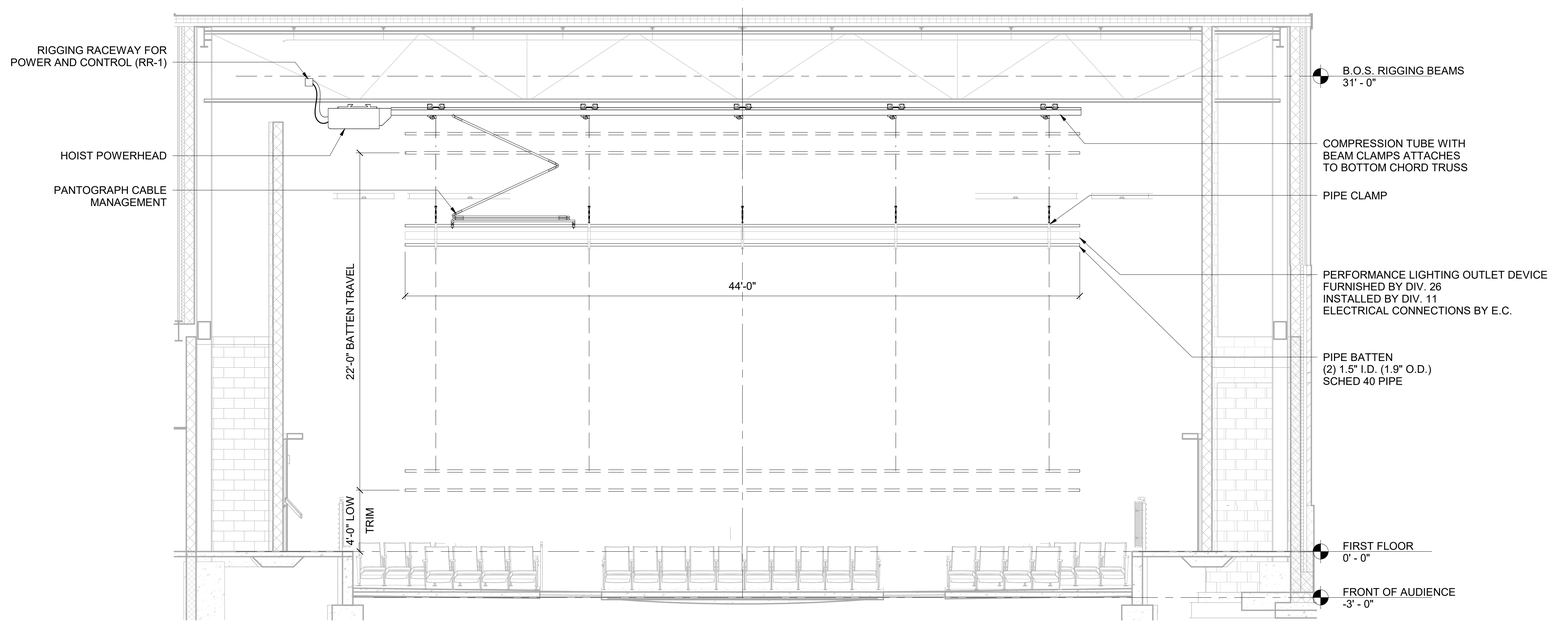
SHEET NO.

**TR-201**




[ 2 ] HOUSE CURTAIN ELEVATION

1/4" = 1'-0"

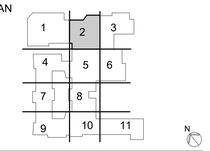



[ 1 ] FRONT OF HOUSE ELECTRIC ELEVATION

1/4" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

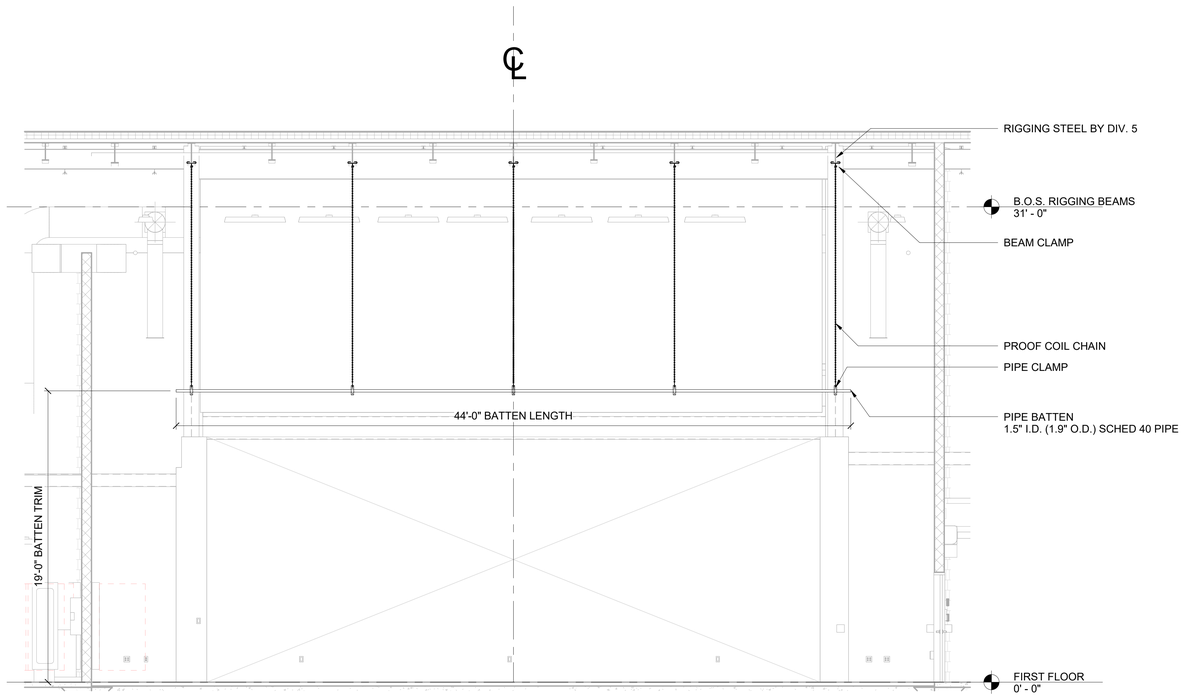
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**KEYPLAN 2 - STAGE RIGGING ELEVATIONS**

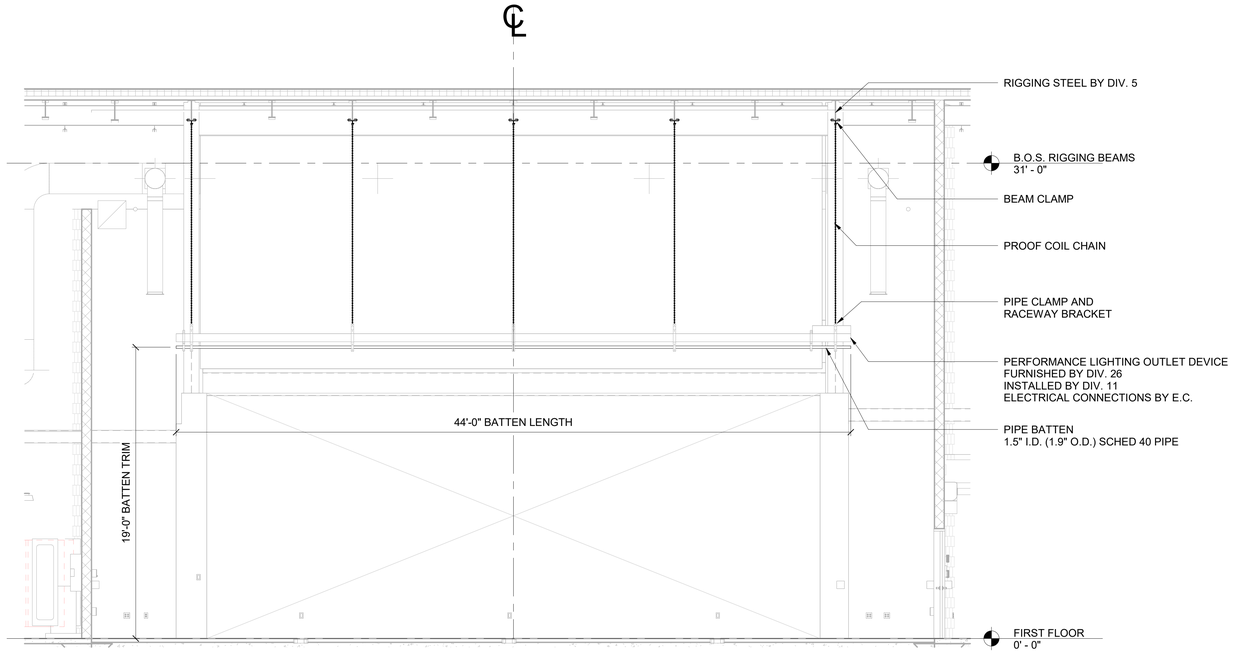
SHEET NO.

**TR-301**




[ 2 ] TYPICAL STAGE BATTEN

1/4" = 1'-0"

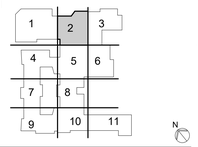



[ 1 ] TYPICAL STAGE ELECTRIC ELEVATION

1/4" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

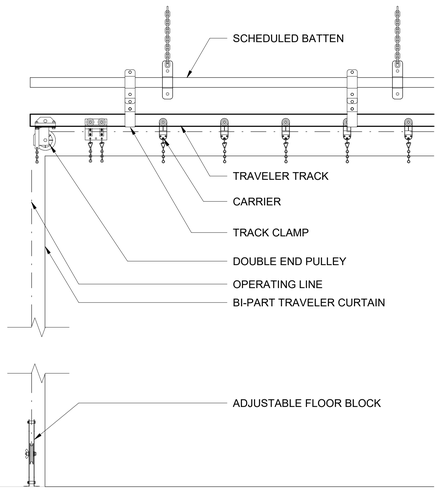
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

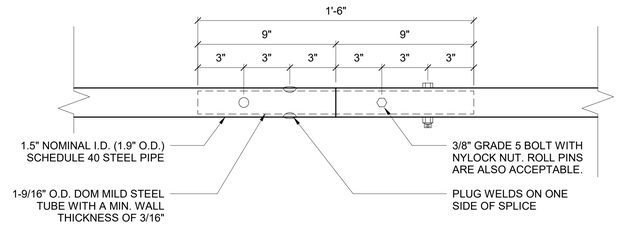
**KEYPLAN 2 - STAGE RIGGING ELEVATIONS**

SHEET NO.

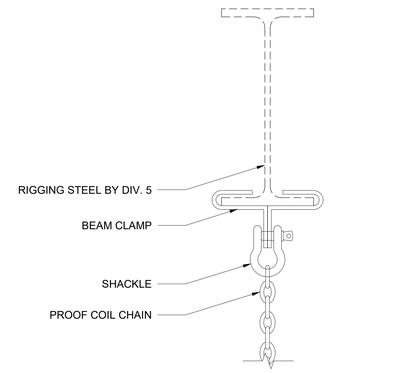
**TR-302**

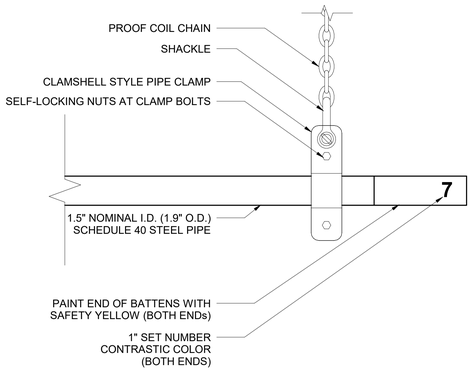



[ 1 ] DETAIL - TRAVELER CURTAIN TRACK
1" = 1'-0"

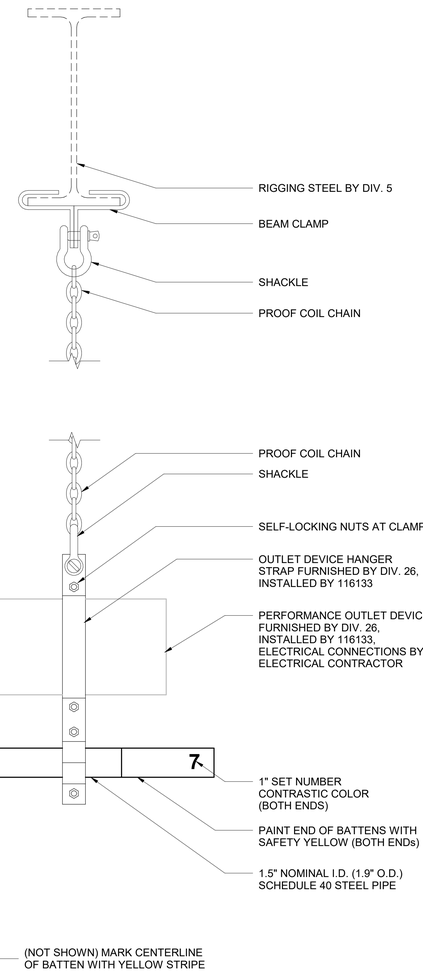



[ 2 ] DETAIL - BATTEN SPLICE
3" = 1'-0"

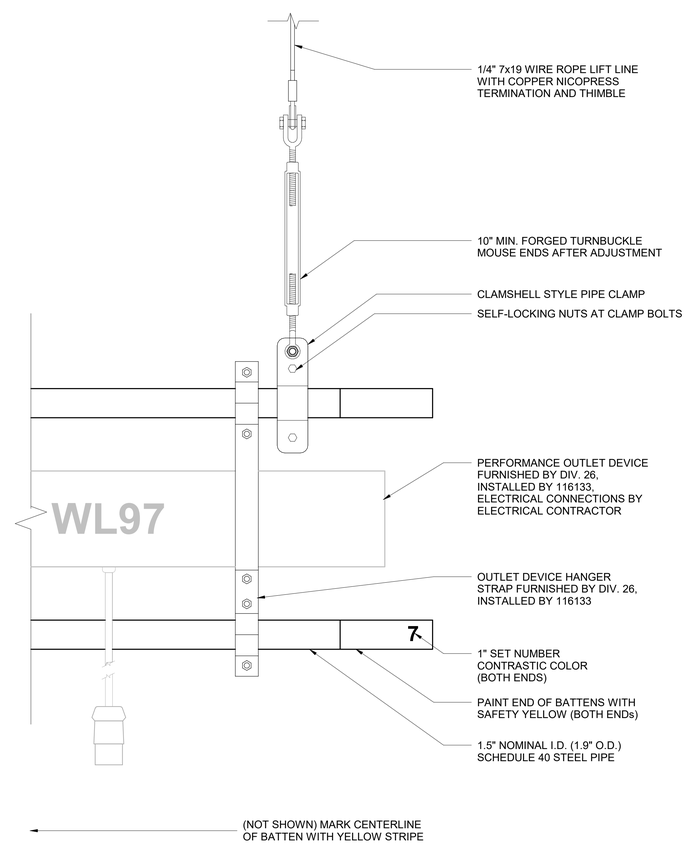



[ 3 ] DETAIL - BATTEN - DEAD-HUNG
3" = 1'-0"



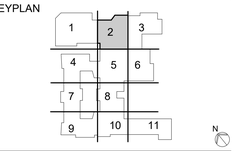

[ 4 ] DETAIL - ELECTRIC - DEAD-HUNG
3" = 1'-0"




[ 5 ] DETAIL - ELECTRIC - MOTORIZED
3" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

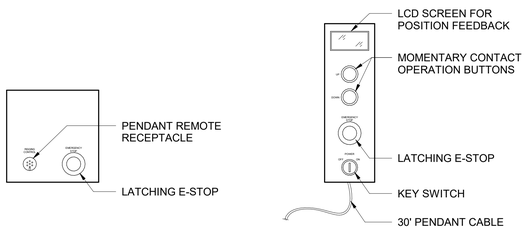
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

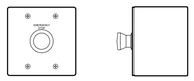
**KEYPLAN 2 - STAGE RIGGING DETAILS**

SHEET NO.

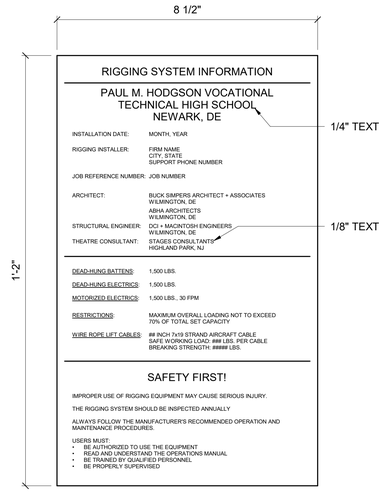
**TR-401**



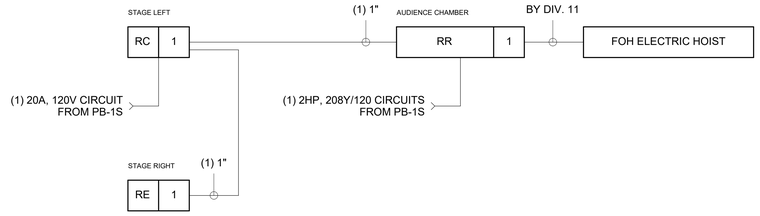

[ 1 ] DETAIL - RIGGING CONTROLLER (RC-1)
N.T.S.



[ 2 ] DETAIL - RIGGING E-STOP (RE)
N.T.S.




[ 3 ] DETAIL - RIGGING SIGNAGE
6" = 1'-0"

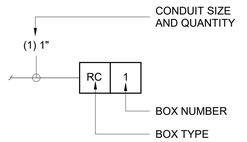



[ 4 ] RIGGING ELECTRICAL DIAGRAM
N.T.S.

NOTES:

1. THIS DIAGRAM SHOWS THE LAYOUT AND INTERCONNECTION OF THE COMPONENTS IN THE RIGGING ELECTRICAL SYSTEMS TO CONVEY DESIGN INTENT ONLY. FINAL WIRE QUANTITIES, TYPES, AND TOPOLOGY SHALL BE DETERMINED BY THE RIGGING MANUFACTURER.

DEVICE LEGEND

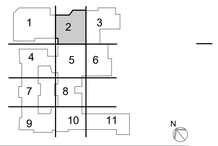



BOX TYPE LEGEND

| | |
|---|---|
| RC | RIGGING CONTROLLER STATION WITH E-STOP |
| RE | RIGGING CONTROL SYSTEM E-STOP |
| RR | RIGGING RACEWAY |

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

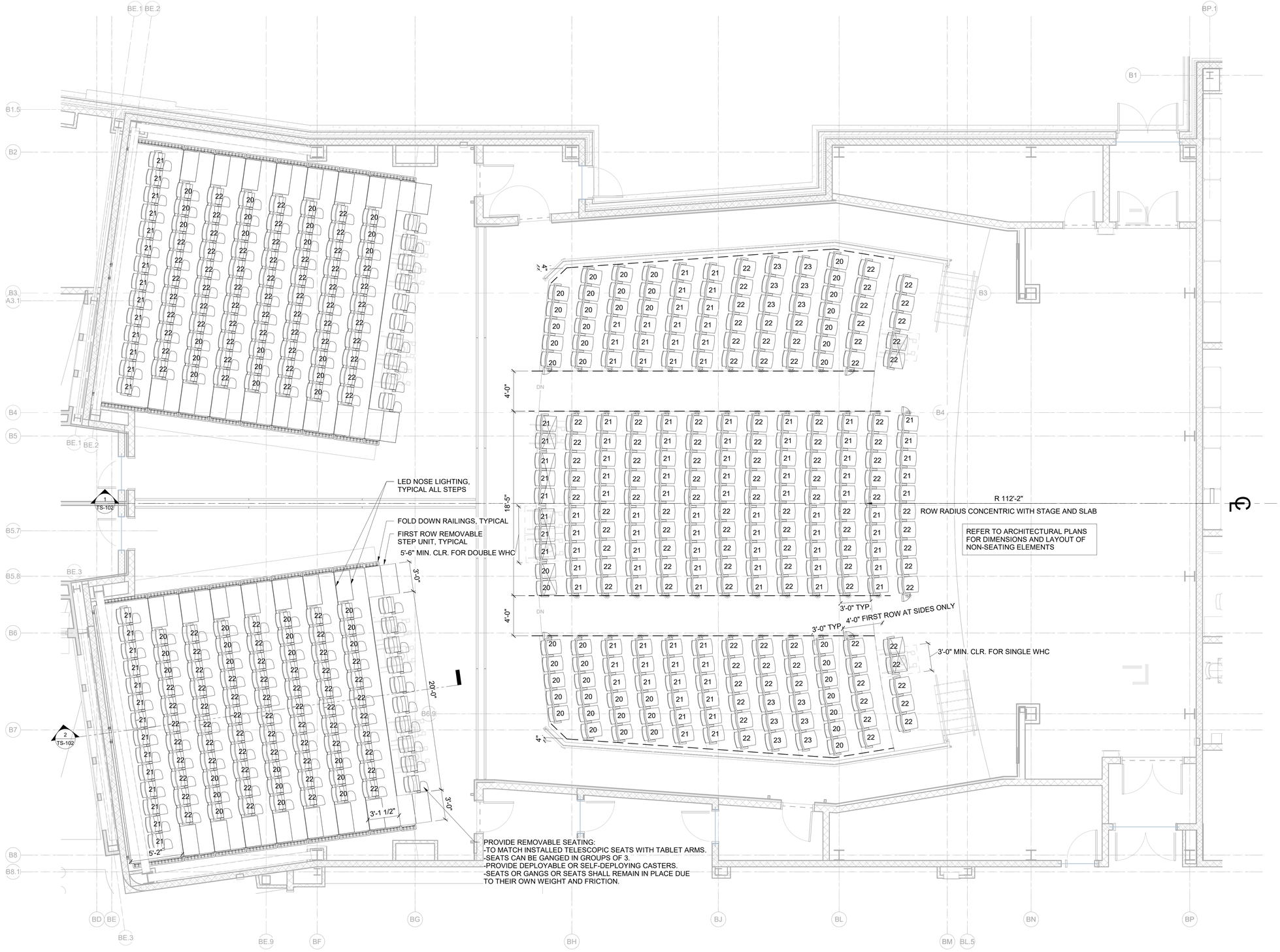
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**KEYPLAN 2 - STAGE RIGGING DETAILS**

SHEET NO.

**TR-402**




## [ 1 ] KEYPLAN 2 - AUDITORIUM SEATING PLAN

1/4" = 1'-0"

SYMBOL KEY

| FIXED CHAIR | REMOVABLE CHAIR | LOOSE CHAIR | FOLD DOWN CHAIR WITH TABLET ARM | ARM W/ AISLE LIGHT | ADA TRANSFER ARM |
|---|---|---|---|---|---|
| 21 | 21 | | 21 | | |

## [ 2 ] SEATING SYMBOL KEY

N.T.S.

**474 TOTAL SEATS**

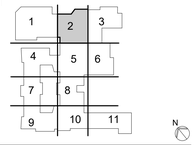
258 FIXED SEATS (LOWER SEATING)
**14** REMOVABLE SEATS (LOWER SEATING)

91 FOLD DOWN SEATS WITH TABLET (LEFT RETRACTABLE BANK)
10 LOOSE SEATS WITH TABLET ARMS (LEFT RETRACTABLE BANK)

91 FOLD DOWN SEATS WITH TABLET (RIGHT RETRACTABLE BANK)
10 LOOSE SEATS WITH TABLET ARMS (RIGHT RETRACTABLE BANK)

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN





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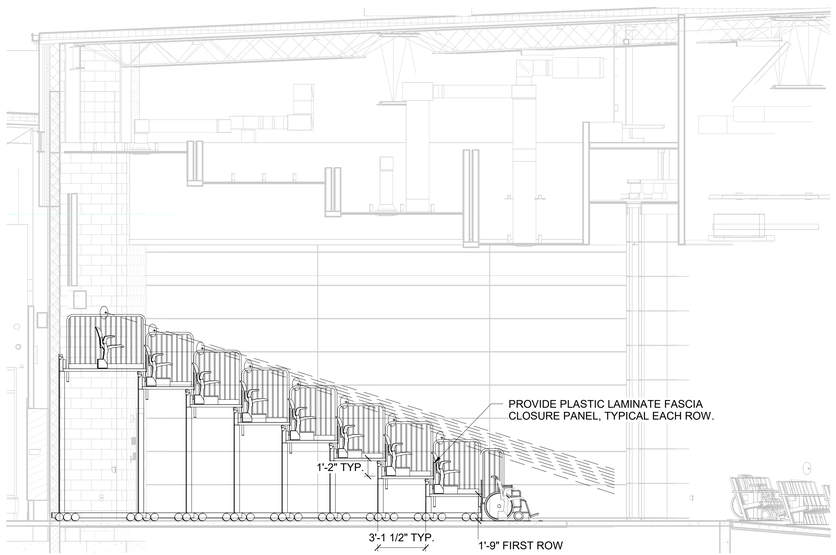
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

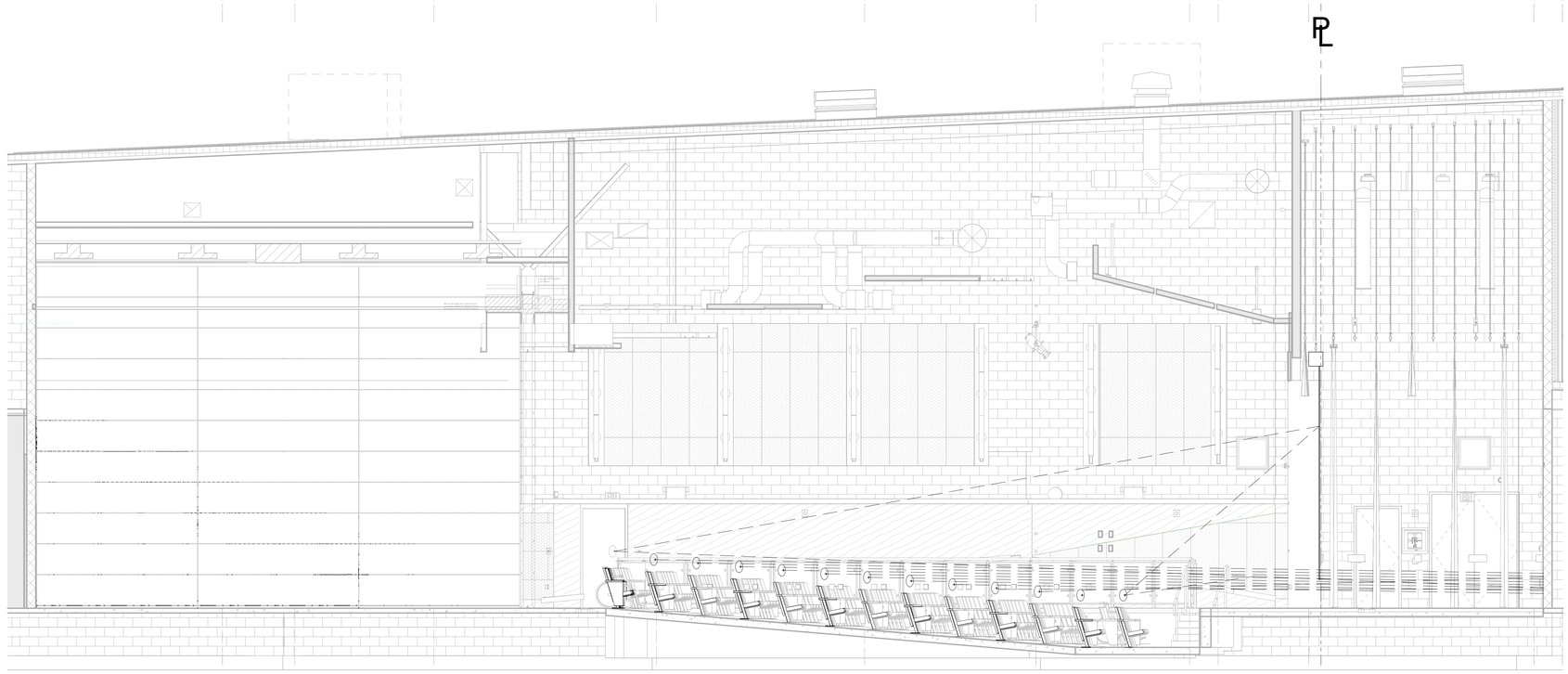
**KEYPLAN 2 - AUDITORIUM SEATING PLAN**

SHEET NO.

**TS-101**




[ 2 ] MULTI-PURPOSE ROOM - RETRACTABLE SEATING SECTION
1/4" = 1'-0"



[ 1 ] AUDITORIUM - SEATING CENTERLINE SECTION
1/4" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

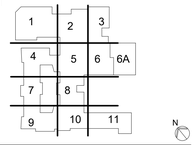
SHEET **KEYPLAN 2 - AUDITORIUM SEATING CENTERLINE SECTION**

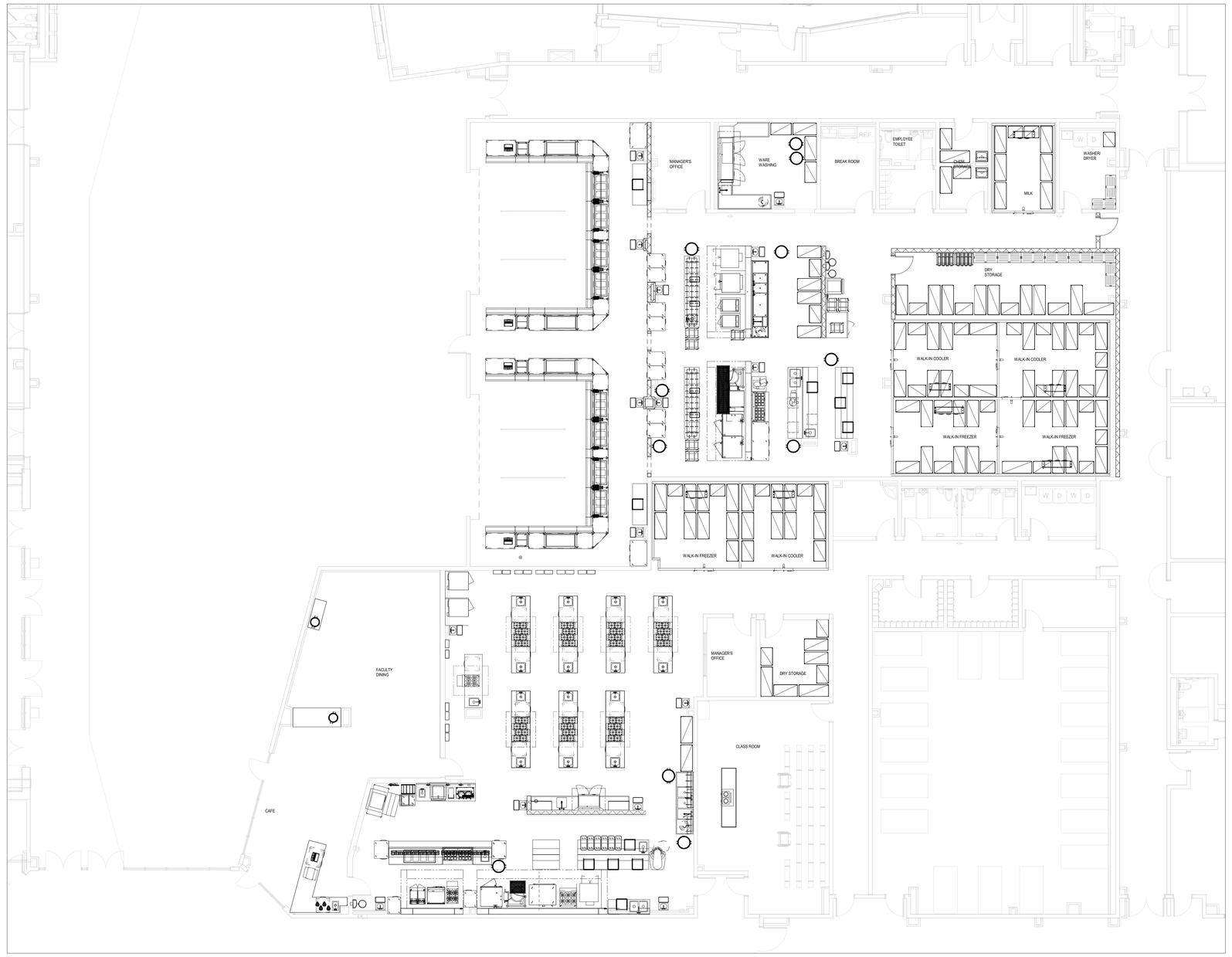
SHEET NO.

**TS-102**

| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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PAUL M. HODGSON VO-TECH HIGH SCHOOL

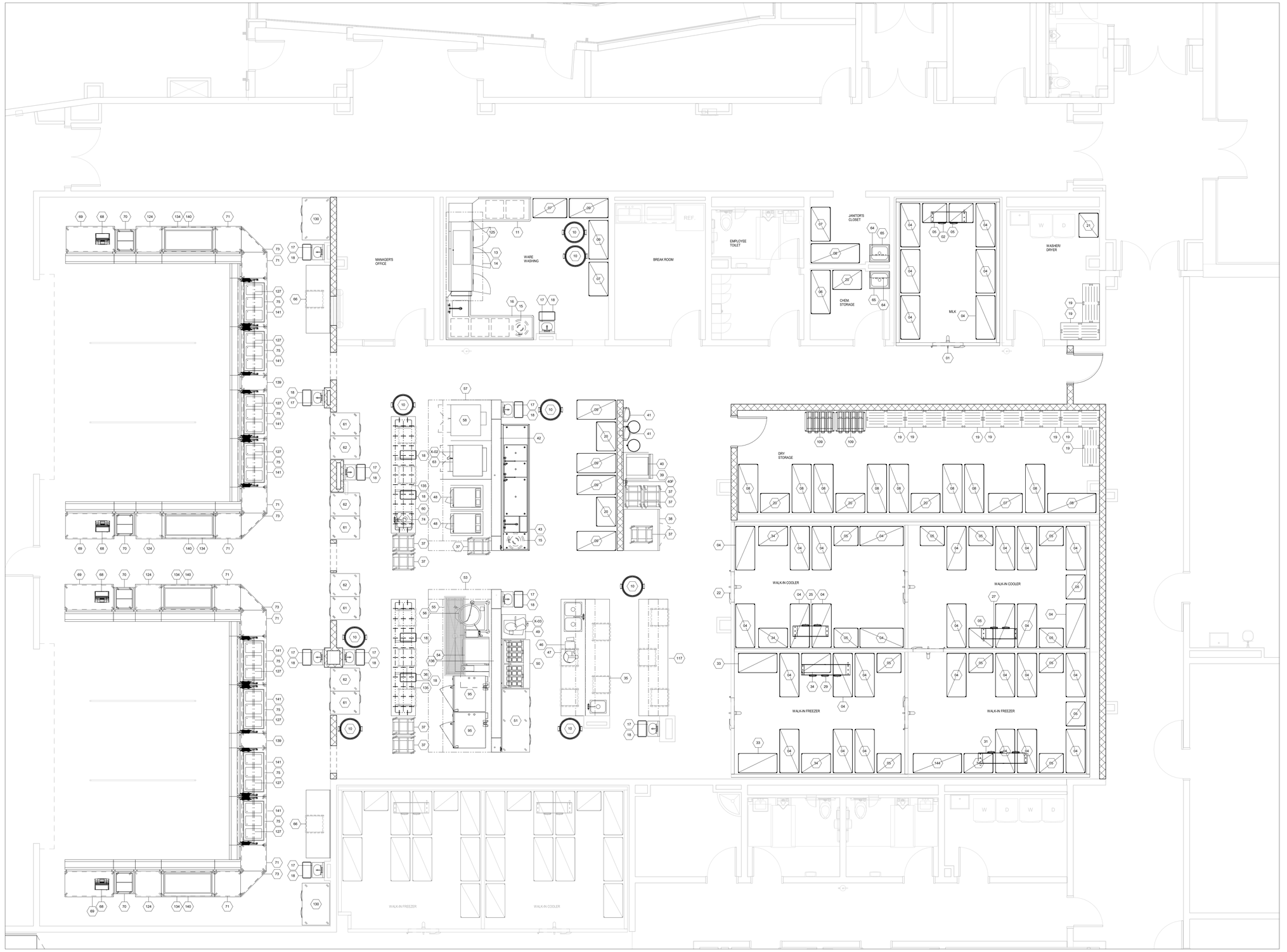
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FOODSERVICE EQUIPMENT PLAN - OVERALL**

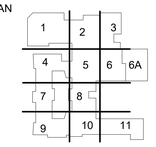
SHEET NO.

**FS-1.0**




| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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PAUL M. HODGSON VO-TECH HIGH SCHOOL

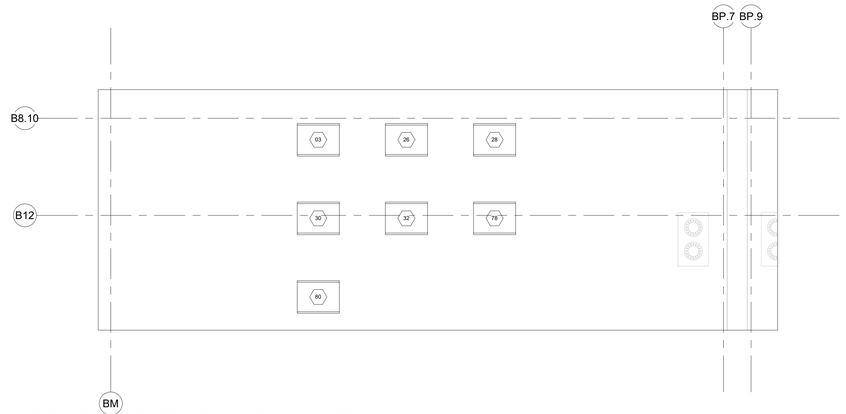
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

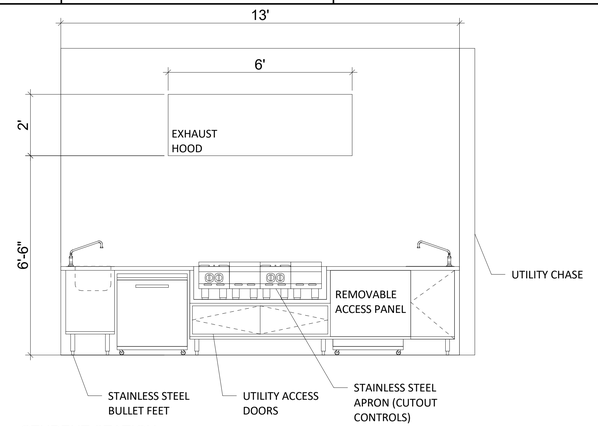
**FOODSERVICE EQUIPMENT PLAN - CAFETERIA**

SHEET NO.

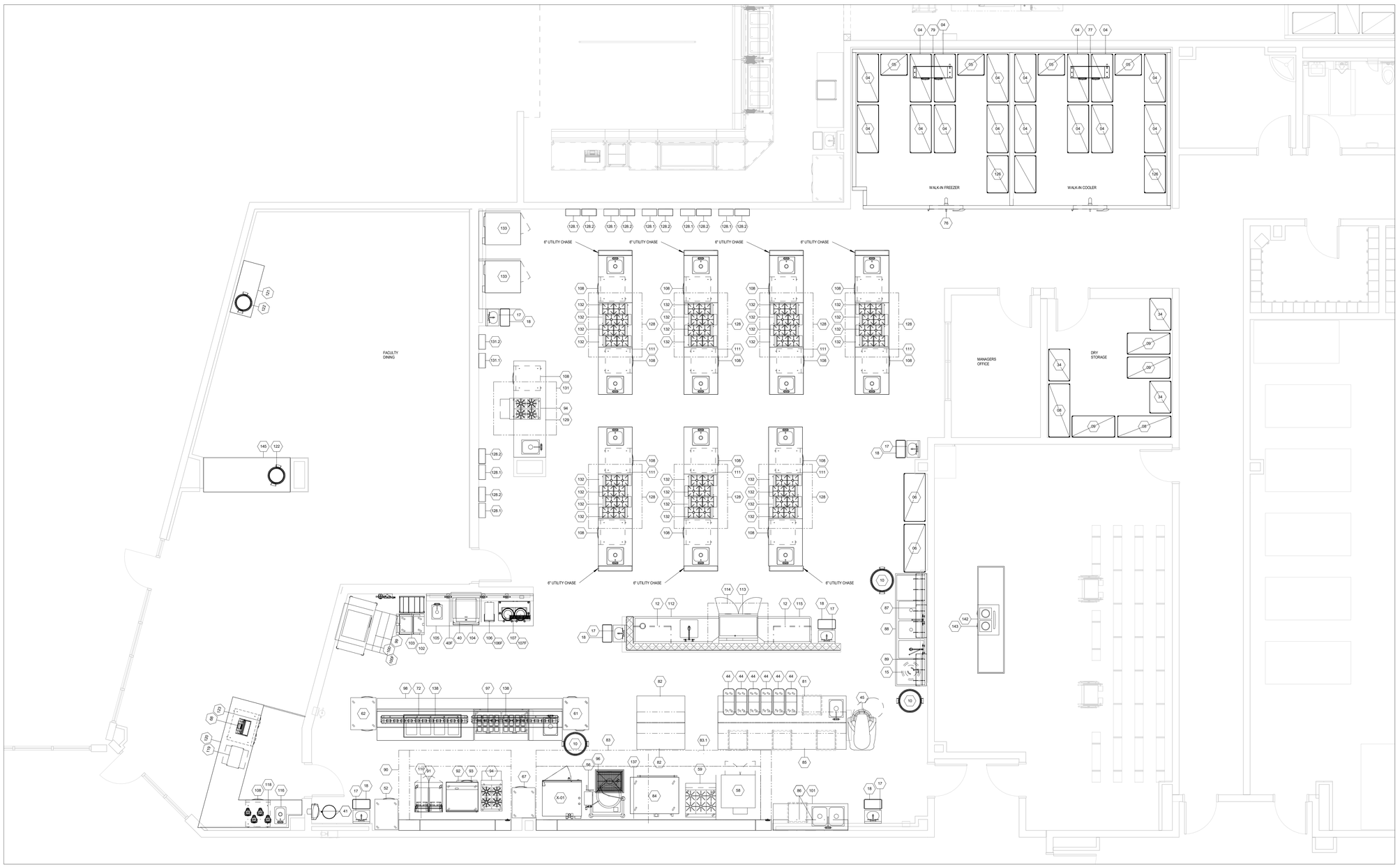
**FS-1.1**




3 MID ROOF - FOODSERVICE CONDENSING UNITS
1/4" = 1'-0"



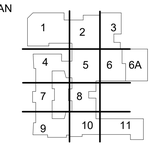

2 STUDENT STATION
1/2" = 1'-0"




1 FIRST FLOOR - FOODSERVICE EQUIPMENT - FOOD LAB
1/4" = 1'-0"

| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

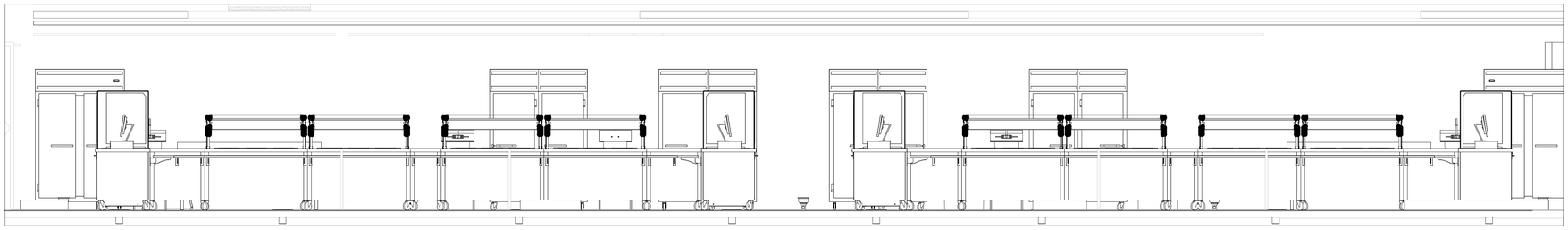
PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE
**FOODSERVICE EQUIPMENT PLAN - FOOD LAB**

SHEET NO.
**FS-1.2**

| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |



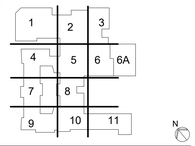
FOODSERVICE EQUIPMENT SCHEDULE

| ITEM NO. | QTY. | DESCRIPTION | MANUFACTURER | MODEL | REMARKS |
|---|---|---|---|---|---|
| 01 | 1 | WALK-IN MILK COOLER | AMERICAN PANEL | | |
| 02 | 1 | EVAPORATOR COIL, WALK-IN MILK COOLER | AMERICAN PANEL | | |
| 03 | 1 | CONDENSING UNIT, WALK-IN MILK COOLER | AMERICAN PANEL | | |
| 04 | 51 | WIRE SHELVING, 4-TIERS, 70"H POSTS | METRO | PR2454NK3 | |
| 05 | 20 | WIRE SHELVING, 4-TIERS, 70"H POSTS | METRO | PR2430NK3 | |
| 06 | 3 | WIRE SHELVING, 5-TIERS, 74"H POSTS | METRO | PR2454NK3 | |
| 07 | 4 | WIRE SHELVING, 5-TIERS, 74"H POSTS | METRO | PR2442NK3 | |
| 08 | 12 | WIRE SHELVING, 5-TIERS, 74"H POSTS | METRO | PR2460NK3 | |
| 09 | 9 | WIRE SHELVING, 5-TIERS, 74"H POSTS | METRO | PR2448NK3 | |
| 10 | 11 | 55. GAL TRASH CAN | RUBBERMAID | FG265500GRAY | |
| 11 | 1 | CLEAN DISHTABLE | EAGLE GROUP/METAL MASTERS | CDTR-72-14/3 | |
| 12 | 2 | GLASS RACK, WALL MOUNT | EAGLE GROUP/METAL MASTERS | 606642 | |
| 13 | 1 | DISHWASHER, RACK CONVEYOR | HOBART | CLPS86eN+BUILDUP | HIGHER THAN STANDARD HEIGHT |
| 14 | 1 | CONDENSATE HOOD | CAPTIVE-AIRE | | |
| 15 | 3 | FOOD WASTE DISPOSER | SALVAJOR | 300-CA-ARSS-LD | |
| 16 | 1 | SOILED DISHTABLE | EAGLE GROUP/METAL MASTERS | SDTCL-60-14/3 | |
| 17 | 16 | HAND SINK, WALL MOUNT | EAGLE GROUP/METAL MASTERS | HSA-10-FAW | |
| 18 | 20 | TRASH CAN, SLIM | RUBBERMAID | FG354060GRAY | |
| 19 | 9 | DUNNAGE RACK | CAMBRO | DRS480131 | |
| 20 | 6 | WIRE SHELVING, 5-TIERS, 74"H POSTS | METRO | PR2436NK3 | |
| 21 | 1 | WIRE SHELVING, 5-TIERS, 74"H POSTS | METRO | PR2430NK3 | |
| 22 | 1 | WALK-IN COOLER/FREEZER COMBINATION | AMERICAN PANEL | | |
| 23-24 | 1 | SPARE NUMBER | | | |
| 25 | 1 | EVAPORATOR COIL, WALK-IN COOLER | AMERICAN PANEL | | |
| 26 | 1 | CONDENSING UNIT, WALK-IN COOLER | AMERICAN PANEL | | |
| 27 | 1 | EVAPORATOR COIL, WALK-IN COOLER | AMERICAN PANEL | | |
| 28 | 1 | CONDENSING UNIT, WALK-IN COOLER | AMERICAN PANEL | | |
| 29 | 1 | EVAPORATOR COIL, WALK-IN FREEZER | AMERICAN PANEL | | |
| 30 | 1 | CONDENSING UNIT, WALK-IN FREEZER | AMERICAN PANEL | | |
| 31 | 1 | EVAPORATOR COIL, WALK-IN FREEZER | AMERICAN PANEL | | |
| 32 | 1 | CONDENSING UNIT, WALK-IN FREEZER | AMERICAN PANEL | | |
| 33 | 2 | WIRE SHELVING, 4-TIERS, 70"H POSTS | METRO | PR2448NK3 | |
| 34 | 8 | WIRE SHELVING, 4-TIERS, 70"H POSTS | METRO | PR2436NK3 | |
| 35 | 1 | WORK TABLE W/ PREP SINK | EAGLE GROUP/METAL MASTERS | T30144SE | |
| 36 | 1 | WORK TABLE | EAGLE GROUP/METAL MASTERS | T30144SE | |
| 37 | 8 | BUN PAN RACK | CHANNEL MANUFACTURING | 404A | |
| 38 | 1 | BLAST CHILLER, ROLL-IN | AMERICAN PANEL | AP20BCF200-3 | |
| 39 | 1 | ICE BIN | HOSHIZAKI AMERICA | B-500SF | |
| 40 | 2 | ICE MAKER | HOSHIZAKI AMERICA, | KM-515MAJ | |
| 40F | 2 | WATER FILTRATION SYSTEM | EVERPURE | QC7I SINGLE 4FC-S | |
| 41 | 3 | REVERSE OSMOSIS SYSTEM | EVERPURE | EZ-RO 200/16G-BL | |
| 42 | 1 | UTILITY DISTRIBUTION SYSTEM | CAPTIVE-AIRE | | |
| 43 | 1 | POWER WASH SINK | POWER SOAK | PP3-STD-4TNK 156" L-R | |
| 44 | 6 | INGREDIENT BIN | CAMBRO | IBS20148 | |
| 45 | 1 | 80 QT. MIXER | HOBART | HL800-1STD | |
| 46 | 1 | FOOD CUTTER | HOBART | 84145-18 | |
| 47 | 1 | WORK TABLE W/ DOUBLE PREP SINK | EAGLE GROUP/METAL MASTERS | T30144SE | |
| 48 | 2 | STEAMER, CONVECTION | CLEVELAND | 24-CGA-10.2 | |
| 49 | 1 | WORK TABLE | EAGLE GROUP/METAL MASTERS | T3030SE-BS | |
| 50 | 1 | SANDWICH UNIT, REFRIGERATED | CONTINENTAL REFRIGERATOR | SW60N24M | |
| 51 | 1 | REFRIGERATOR, REACH-IN | CONTINENTAL REFRIGERATOR | 3RNSS | |
| 52 | 1 | FREEZER, REACH-IN | CONTINENTAL REFRIGERATOR | 1FNSS | |
| 53 | 1 | EXHAUST HOOD | CAPTIVE-AIRE | | |
| 54 | 1 | TILT SKILLET | RATIONAL | IVARIO PRO L | EXISTING; RELOCATED |
| 55 | 1 | FLOOR TROUGH | IMC TEDDY | ASFT-2496-SG | |
| 56 | 2 | KETTLE, STEAM JACKETED | CLEVELAND RANGE | KGL-40-T | |
| 57 | 1 | EXHAUST HOOD W/ ANSUL CABINET | CAPTIVE-AIRE | | |
| 57.1 | 1 | HOOD CONTROL PANEL | CAPTIVE-AIRE | | |
| 58 | 2 | CONVECTION OVEN, DBL STACKED | BLODGETT | DFG200 Double | |
| 59 | 1 | 6-BURNER RANGE | GARLAND | M43R | |
| 60 | 1 | WORK TABLE W/ PREP SINK | EAGLE GROUP/METAL MASTERS | T30144SE | |
| 61 | 5 | HEATED CABINET, PASS-THRU | CONTINENTAL REFRIGERATOR | DL1WE-PT | |
| 62 | 5 | REFRIGERATOR, PASS-THRU | CONTINENTAL REFRIGERATOR | 1RENPT | |
| 63 | 1 | HYDROVECTION OVEN | BLODGETT | HV-100G | TO STACK ONTO EXISTING UNIT ITEM #X-02 |
| 64 | 2 | MOP SHELF | EAGLE GROUP/METAL MASTERS | US0824-16/3 | |
| 65 | 2 | MOP SINK | EAGLE GROUP/METAL MASTERS | F1916 | |
| 66 | 2 | WORK TABLE | EAGLE GROUP/METAL MASTERS | T3084SE-BS | |
| 67 | 1 | REFRIGERATOR, REACH-IN | CONTINENTAL REFRIGERATOR | 1RNSS | |
| 68 | 5 | P.O.S. SYSTEM | N.I.C. - BY OTHERS | | N.I.C. - BY OTHERS |
| 69 | 4 | CASHIER COUNTER | DUKE MANUFACTURING | TCS-60SS | |
| 70 | 4 | MILK COOLER | BEVERAGE AIR | NC28-1-W | |
| 71 | 8 | SOLID TOP UNITS | DUKE MANUFACTURING | TST-32SS | |
| 72 | 1 | DROP-IN, HOT/COLD/FREEZE | DUKE MANUFACTURING | HCF-4 | |
| 73 | 4 | TRIANGLE CORNER UNIT | DUKE MANUFACTURING | TTU-90SS | |
| 74 | 1 | FOOD WASTE DISPOSER | SALVAJOR | 300-SA-ARSS-LD | |
| 75 | 8 | DROP-IN, HOT/COLD/FREEZE | DUKE MANUFACTURING | HCF-3 | PROVIDE WITH AUTO-FILL ASSEMBLY |

FOODSERVICE EQUIPMENT SCHEDULE

| ITEM NO. | QTY. | DESCRIPTION | MANUFACTURER | MODEL | REMARKS |
|---|---|---|---|---|---|
| 76 | 1 | WALK-IN COOLER/FREEZER COMBINATION | AMERICAN PANEL | | |
| 77 | 1 | EVAPORATOR COIL, WALK-IN COOLER | AMERICAN PANEL | | |
| 78 | 1 | CONDENSING UNIT, WALK-IN COOLER | AMERICAN PANEL | | |
| 79 | 1 | EVAPORATOR COIL, WALK-IN FREEZER | AMERICAN PANEL | | |
| 80 | 1 | CONDENSING UNIT, WALK-IN FREEZER | AMERICAN PANEL | | |
| 81 | 1 | WORK TABLE W/ PREP SINK | EAGLE GROUP/METAL MASTERS | T30144STE | |
| 82 | 2 | WORK TABLE | EAGLE GROUP/METAL MASTERS | T3054SE | |
| 83 | 1 | EXHAUST HOOD | CAPTIVE-AIRE | | |
| 83.1 | 1 | " | " | | |
| 84 | 1 | OVEN, RACK | DOYON | 2T2 | |
| 85 | 1 | WORK TABLE | EAGLE GROUP/METAL MASTERS | T30144SE | |
| 86 | 2 | SHELF, WALL MOUNT | EAGLE GROUP/METAL MASTERS | WS1284-14/3 | |
| 87 | 1 | POT RACK, WALL MOUNTED | EAGLE GROUP/METAL MASTERS | WM72PR | |
| 88 | 1 | THREE-COMPARTMENT SINK | EAGLE GROUP | FN2860-3-30-14/3 | |
| 89 | 1 | POT RACK, WALL MOUNTED | EAGLE GROUP/METAL MASTERS | WM36PR | |
| 90 | 1 | EXHAUST HOOD | CAPTIVE-AIRE | | |
| 91 | 1 | FRYER, GAS | FRYMASTER | FPPH255 | |
| 92 | 1 | GRIDDLE | GARLAND | GTGG36-GT36M | |
| 93 | 1 | GRIDDLE STAND, REFRIGERATOR | CONTINENTAL REFRIGERATOR | D36GN | |
| 94 | 2 | 4-BURNER RANGE | GARLAND | G24-4L | |
| 95 | 2 | COMBI-OVEN | ALTO-SHAAM | CTP7-20G OVER CTP7-20G | |
| 96 | 1 | FLOOR TROUGH | IMC TEDDY | ASFT-2430-SG | |
| 97 | 1 | SANDWICH UNIT, REFRIGERATED | CONTINENTAL REFRIGERATOR | SW60N24M-FB | |
| 98 | 1 | CHEF'S COUNTER | EAGLE GROUP/METAL MASTERS | | |
| 99 | 1 | ICE BIN | FOLLET CORPORATION | DEV1080SG-60 | |
| 100 | 1 | ICE MAKER | HOSHIZAKI AMERICA | KM-1100MAH | |
| 100F | 1 | WATER FILTRATION SYSTEM | EVERPURE | QC7I PF TWIN 7FC-S | |
| 101 | 1 | WORK TABLE W/ DOUBLE PREP SINK | EAGLE GROUP/METAL MASTERS | T3084SE-BS | |
| 102 | 1 | ICE CADDY | CAMBRO | ICS125L110 | |
| 103 | 1 | SODA SYSTEM (RACK, B-I-B BOXES, CO2 TANKS) | N.I.C. - BY OTHERS | | N.I.C. - BY OTHERS |
| 104 | 1 | SODA/ICE DISPENSER | N.I.C. - BY OTHERS | | N.I.C. - BY OTHERS |
| 105 | 1 | BEVERAGE COUNTER | EAGLE GROUP/METAL MASTERS | BEV30120SE-10BS/L | |
| 106 | 1 | TEA BREWER | BUNN-O-MATIC | 36700.0009 | |
| 106F | 1 | WATER FILTRATION SYSTEM | EVERPURE | QC7I SINGLE 4FC-S | |
| 107 | 1 | COFFEE BREWER | BUNN-O-MATIC | 39200.0000 | |
| 107F | 1 | WATER FILTRATION SYSTEM | EVERPURE | QC7I SINGLE 7FC-S | |
| 108 | 16 | REFRIGERATOR, UNDERCOUNTER | CONTINENTAL REFRIGERATOR | SW27N-U | |
| 109 | 2 | CAN RACK | EAGLE GROUP/METAL MASTERS | CRC4 | |
| 110 | 1 | UTILITY DISTRIBUTION SYSTEM | CAPTIVE-AIRE | | |
| 111 | 7 | WORK TABLE W/ (2) PREP SINKS | EAGLE GROUP/METAL MASTERS | CUSTOM | |
| 112 | 1 | SOILED DISHTABLE | EAGLE GROUP/METAL MASTERS | SDTL-96-14/3 | |
| 113 | 1 | DISH WASHER, RACK CONVEYOR | HOBART | CL44EN-ADV+BUILDUP | |
| 114 | 1 | CONDENSATE HOOD | CAPTIVE-AIRE | | |
| 115 | 1 | CLEAN DISHTABLE | EAGLE GROUP/METAL MASTERS | CDTR-60-14/3 | |
| 116 | 1 | HAND SINK, DROP-IN | Eagle Group | SR10-14-9.5-1 | |
| 117 | 1 | WORK TABLE | EAGLE GROUP/METAL MASTERS | T36144SE | |
| 118 | 4 | AIRPOT | BUNN-O-MATIC | 32125.0000 INM | |
| 119 | 1 | DISPLAY CASE, NON-REFRIGERATED COUNTERTOP | EQUIPEX | TN583 | |
| 120 | 1 | FRONT COUNTER | DUKE MANUFACTURING | | |
| 121 | 1 | CONDIMENT COUNTER | DUKE MANUFACTURING | | |
| 122 | 2 | TRASH CAN, 55 GAL | RUBBERMAID | FG263200GRAY | |
| 123 | 1 | REFRIGERATOR, UNDERCOUNTER | CONTINENTAL REFRIGERATOR | SW36N-U | |
| 124 | 4 | FLAT TOP COUNTER | DUKE MANUFACTURING | TST-32SS | |
| 125 | 1 | SIDE LOADER | HOBART | SL23/E-NOHDLR | |
| 126 | 3 | WIRE SHELVING, 4-TIERS, 70"H POSTS | METRO | PR2442NK3 | |
| 127 | 8 | SNEEZE GUARD | BSI, LLC. | ZG9930 | |
| 128 | 7 | EXHAUST HOOD | CAPTIVE-AIRE | | |
| 128.1 | 7 | FIRE SUPPRESSION SYSTEM | ANSUL | R-102 | |
| 128.2 | 7 | HOOD CONTROL PANEL | CAPTIVE-AIRE | | |
| 129 | 1 | WORK TABLE W/ PREP SINK | EAGLE GROUP/METAL MASTERS | CUSTOM | |
| 130 | 2 | REFRIGERATOR, REACH-IN | CONTINENTAL REFRIGERATOR | 2RNSS | |
| 131 | 1 | EXHAUST HOOD | CAPTIVE-AIRE | | |
| 132 | 28 | 2-BURNER, GAS | ELECTROLUX | 169101 | |
| 133 | 2 | COMBI OVEN, VENTLESS | ALTO-SHAAM | CTP6-10E/CTP10-10E W/VH-10 VENT HOOD | |
| 134 | 4 | DROP-IN DISPLAY CASE, SELF-CONTAINED | FEDERAL INDUSTRIES | ITR6034-SC | |
| 135 | 2 | CEILING MOUNTED POT RACK | EAGLE GROUP/METAL MASTERS | CM144PR | |
| 136 | 1 | UTILITY DISTRIBUTION SYSTEM | CAPTIVE-AIRE | | |
| 137 | 1 | UTILITY DISTRIBUTION SYSTEM | CAPTIVE-AIRE | | |
| 138 | 2 | HEAT LAMP | HATCO CORPORATION | GRAHL-96 | |
| 139 | 2 | FLAT TOP COUNTER | DUKE MANUFACTURING | TST-18SS | |
| 140 | 4 | FLAT TOP COUNTER | DUKE MANUFACTURING | TST-66SS | |
| 141 | 8 | FLAT TOP COUNTER | DUKE MANUFACTURING | TST-60SS | |
| 142 | 1 | INDUCTION COOKING SYSTEM | SPRING USA | ICB234-26 | |
| 143 | 1 | WORK TABLE, ENCLOSED BASE | EAGLE GROUP/METAL MASTERS | CBH30120SEM | |
| 144 | 1 | WIRE SHELVING, 4-TIERS, 70"H POSTS | METRO | PR2460NK3 | |
| 145 | 1 | CONDIMENT COUNTER | DUKE MANUFACTURING | | |
| X-01 | 1 | EXISTING COMBI-OVEN | RATIONAL | SCC WE 62G | STEAM 79.5 MBTU/HR; GAS 106 MBTU/HR |
| X-02 | 1 | EXISTING HYDROVECTION OVEN | BLODGETT | HV-100G | |
| X-03 | 1 | EXISTING FOOD SLICER | HOBART | HS7 | |

KEYPLAN




VOCATIONAL TECHNICAL SCHOOL DISTRICT
NEW CASTLE COUNTY DELAWARE

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

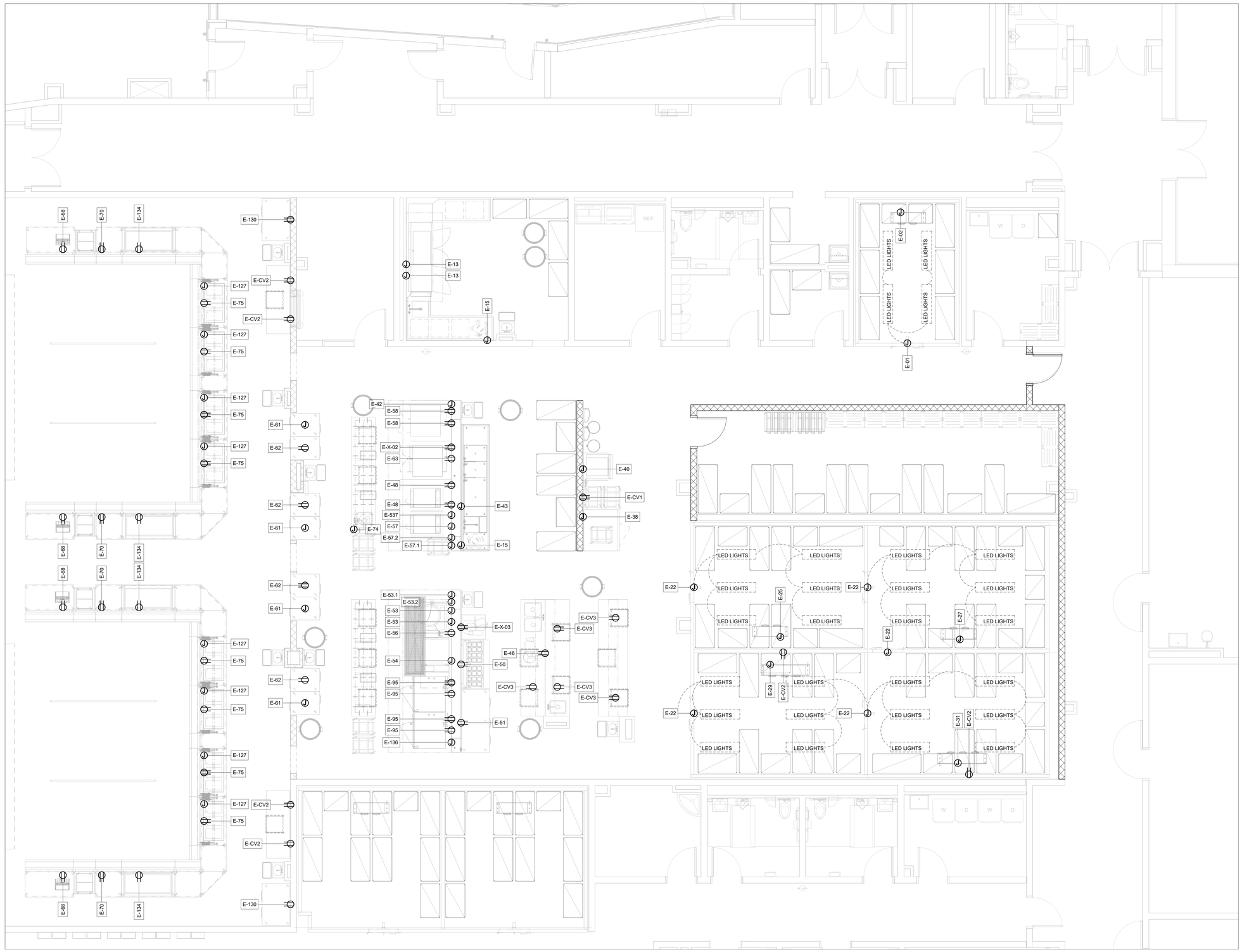
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FOODSERVICE EQUIPMENT SCHEDULE**

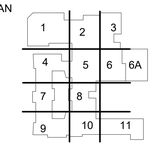
SHEET NO.

**FS-1.3**




| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN





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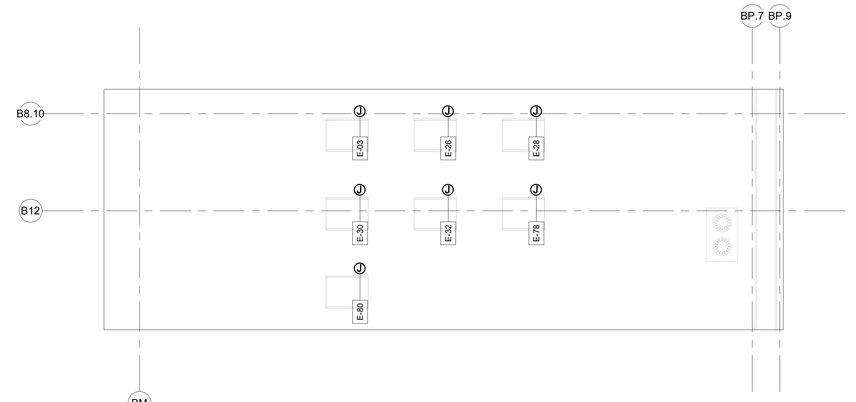
SHEET TITLE

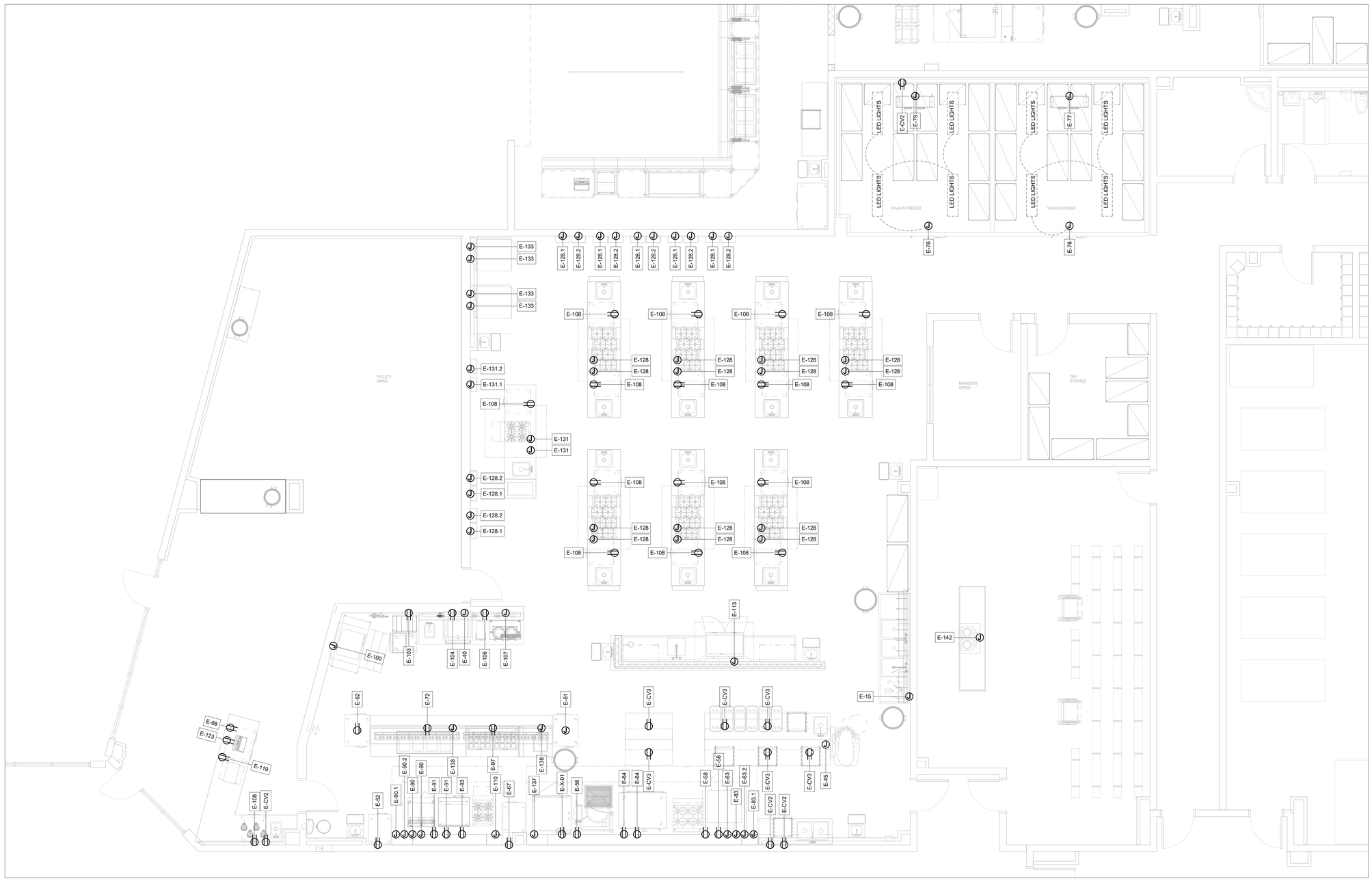
**FOODSERVICE ELECTRICAL PLAN - CAFETERIA**

SHEET NO.

**FS-1.4**

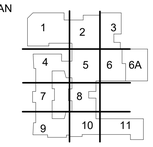



2 MID ROOF - FOODSERVICE CONDENSING UNITS - ELECTRICAL PLAN
1/4" = 1'-0"




| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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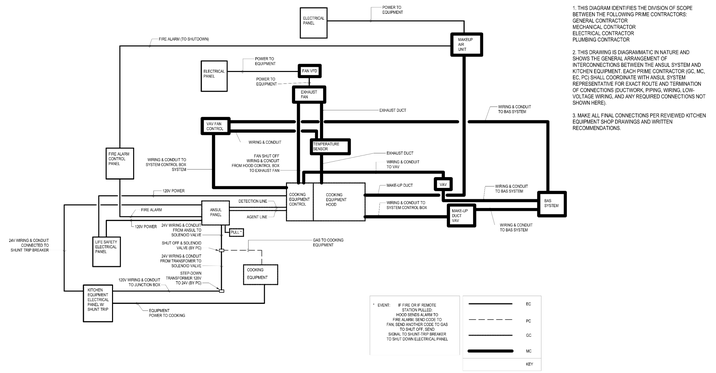
SHEET TITLE

**FOODSERVICE ELECTRICAL PLAN - FOOD LAB**

SHEET NO.

**FS-1.5**




1. THIS DIAGRAM IDENTIFIES THE DIVISION OF SCOPE BETWEEN THE FOLLOWING PRIME CONTRACTORS:
GENERAL CONTRACTOR
MECHANICAL CONTRACTOR
ELECTRICAL CONTRACTOR
PLUMBING CONTRACTOR

2. THIS DRAWING IS DIAGRAMMATIC IN NATURE AND SHOWS THE GENERAL ARRANGEMENT OF INTERCONNECTIONS BETWEEN THE ANSUL SYSTEM AND KITCHEN EQUIPMENT. EACH PRIME CONTRACTOR (GC, MC, EC, PC) SHALL COORDINATE WITH ANSUL SYSTEM REPRESENTATIVE FOR EXACT ROUTE AND TERMINATION OF CONNECTIONS (DUCTWORK, PIPING, WIRING, LOW-VOLTAGE WIRING, AND ANY REQUIRED CONNECTIONS NOT SHOWN HERE).

3. MAKE ALL FINAL CONNECTIONS PER REVIEWED KITCHEN EQUIPMENT SHOP DRAWINGS AND WRITTEN RECOMMENDATIONS.

## FOODSERVICE ELECTRICAL SCHEDULE

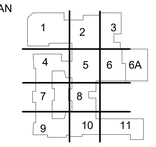
| ITEM NO. [E] | AMPS | HP | VOLTS | PH | ELECTRICAL CONNECTION TYPE | ROUGH-IN HEIGHT | DESCRIPTION | ELEC REMARKS |
|---|---|---|---|---|---|---|---|---|
| 01 | 10.0 A | | 120V | 1 | DIRECT | | WALK-IN MILK COOLER | CONNECTION DOWN FROM ABOVE |
| 02 | 1.1 A | | 208-230V | 1 | DIRECT | | EVAPORATOR COIL, WALK-IN MILK COOLER | CONNECTION DOWN FROM ABOVE |
| 03 | 14.4 A | | 208-230V | 3 | DIRECT | | CONDENSING UNIT, WALK-IN MILK COOLER | CONNECTION DOWN FROM ABOVE |
| 13 | 180.1 A | | 208V | 3 | DIRECT | 5' - 6" | DISHWASHER, RACK CONVEYOR | |
| 15 | 8.8 A | 3 | 208V | 3 | DIRECT | 2' - 0" | FOOD WASTE DISPOSER | |
| 22 | 10.0 A | | 120 V | 1 | DIRECT | | WALK-IN COOLER/FREEZER COMBINATION | CONNECTION DOWN FROM ABOVE |
| 25 | 1.1 A | | 208-230V | 1 | DIRECT | | EVAPORATOR COIL, WALK-IN COOLER | CONNECTION DOWN FROM ABOVE |
| 26 | 13.9 A | | 208-230V | 3 | DIRECT | | CONDENSING UNIT, WALK-IN COOLER | CONNECTION DOWN FROM ABOVE |
| 27 | 1.1 A | | 208-230V | 1 | DIRECT | | EVAPORATOR COIL, WALK-IN COOLER | CONNECTION DOWN FROM ABOVE |
| 28 | 13.9 A | | 208-230V | 3 | DIRECT | | CONDENSING UNIT, WALK-IN COOLER | CONNECTION DOWN FROM ABOVE |
| 29 | 14.1 A | | 208-230V | 1 | DIRECT | | EVAPORATOR COIL, WALK-IN FREEZER | CONNECTION DOWN FROM ABOVE |
| 30 | 21.5 A | | 208-230V | 3 | DIRECT | | CONDENSING UNIT, WALK-IN FREEZER | CONNECTION DOWN FROM ABOVE |
| 31 | 14.1 A | | 208-230V | 1 | DIRECT | | EVAPORATOR COIL, WALK-IN FREEZER | CONNECTION DOWN FROM ABOVE |
| 32 | 21.5 A | | 208-230V | 3 | DIRECT | | CONDENSING UNIT, WALK-IN FREEZER | CONNECTION DOWN FROM ABOVE |
| 38 | 19.5 A | | 208V | 3 | DIRECT | | BLAST CHILLER, ROLL-IN | CONNECTION DOWN FROM ABOVE |
| 40 | 10.6 A | | 120V | 1 | DIRECT | 5' - 6" | ICE MAKER | |
| 42 | | | | | | | UTILITY DISTRIBUTION SYSTEM | CONNECTION DOWN FROM ABOVE; SEE UTILITIES DISTRIBUTION SYSTEM SHEETS FOR DETAILS |
| 43 | 17.0 A | | 208V | 3 | DIRECT | 2' - 0" | POWER WASH SINK | |
| 45 | 12.0 A | 3 | 200-240V | 3 | DIRECT | 0' - 6" | 80 QT. MIXER | STUB UP CONNECTION |
| 46 | 7.0 A | 1 | 120V | 1 | NEMA 5-15P | 0' - 6" | FOOD CUTTER | STUB UP CONNECTION |
| 48 | 2.5 A | | 120V | 1 | NEMA 5-15P | 2' - 0" | STEAMER, CONVECTION | |
| 50 | 5.7 A | 1/3 | 120V | 1 | NEMA 5-15P | 2' - 0" | SANDWICH UNIT, REFRIGERATED | |
| 51 | 8.5 A | 1/2 | 120V | 1 | NEMA 5-15P | 4' - 0" | REFRIGERATOR, REACH-IN | |
| 52 | 7.6 A | 1/2 | 120V | 1 | NEMA 5-15P | 4' - 0" | FREEZER, REACH-IN | |
| 53 | 20.0 A | | 120V | 1 | DIRECT | | EXHAUST HOOD | (2) CONNECTIONS REQUIRED; CONNECTION DOWN FROM ABOVE; INTERCONNECT TO CONTROL PANEL & BUILDING FIRE SYSTEM, 24 HR DEDICATED SERVICE |
| 53.1 | 8.0 A | | 120V | 1 | DIRECT | | HOOD CONTROL PANEL | CONNECTION DOWN FROM ABOVE; INTERCONNECT TO HOOD & BUILDING FIRE SYSTEM, 24 HR DEDICATED SERVICE |
| 53.2 | 20.0 A | | 120V | 1 | DIRECT | | FIRE SUPPRESSION SYSTEM | CONNECTION DOWN FROM ABOVE; INTERCONNECT TO HOOD, CONTROL PANEL & BUILDING FIRE SYSTEM, 24 HR DEDICATED SERVICE |
| 54 | 64.0 A | | 208V | 3 | DIRECT | 2' - 0" | TILT SKILLET | KEC TO VERIFY UTILITIES REQUIREMENTS |
| 56 | 10.0 A | | 120V | 1 | NEMA 5-15P | 2' - 0" | KETTLE, STEAM JACKETED | |
| 57 | 20.0 A | | 120V | 1 | DIRECT | | EXHAUST HOOD W/ ANSUL CABINET | (2) CONNECTIONS REQUIRED; CONNECTION DOWN FROM ABOVE; INTERCONNECT TO CONTROL PANEL & BUILDING FIRE SYSTEM, 24 HR DEDICATED SERVICE |
| 57.1 | 8.0 A | | 120V | 1 | DIRECT | | HOOD CONTROL PANEL | CONNECTION DOWN FROM ABOVE; INTERCONNECT TO HOOD & BUILDING FIRE SYSTEM, 24 HR DEDICATED SERVICE |
| 57.2 | 20.0 A | | 120V | 1 | DIRECT | | FIRE SUPPRESSION SYSTEM | CONNECTION DOWN FROM ABOVE; INTERCONNECT TO HOOD, CONTROL PANEL & BUILDING FIRE SYSTEM, 24 HR DEDICATED SERVICE |
| 58 | 6.0 A | | 120V | 1 | NEMA 5-15P | | CONVECTION OVEN, DBL STACKED | (2) CONNECTIONS REQUIRED |
| 61 | 7.2 A | | 208-230V | 1 | DIRECT | | HEATED CABINET, PASS-THRU | CONNECTION DOWN FROM ABOVE |
| 62 | 5.5 A | 1/4 | 120V | 1 | NEMA 5-15P | | REFRIGERATOR, PASS-THRU | CONNECTION DOWN FROM ABOVE |
| 63 | 10.0 A | | 120V | 1 | NEMA 5-20P | 4' - 0" | HYDROVECTION OVEN | |
| 67 | 5.2 A | 1/4 | 120V | 1 | NEMA 5-15P | 4' - 0" | REFRIGERATOR, REACH-IN | |
| 68 | 12.0 A | | 120V | 1 | NEMA 5-20P | 0' - 6" | P.O.S. SYSTEM | DATA LINE REQUIRED; STUB UP CONNECTION; KEC TO VERIFY UTILITIES REQUIREMENTS |
| 70 | 3.0 A | | 120V | 1 | NEMA 5-15P | 0' - 6" | MILK COOLER | STUB UP CONNECTION |
| 72 | 21.0 A | | 120V | 1 | NEMA L5-30P | 0' - 6" | DROP-IN, HOT/COLD/FREEZE | STUB UP CONNECTION |
| 74 | 8.8 A | 3 | 208V | 3 | DIRECT | 0' - 6" | FOOD WASTE DISPOSER | STUB UP CONNECTION |
| 75 | 16.0 A | | 120V | 1 | NEMA 5-20P | 0' - 6" | DROP-IN, HOT/COLD/FREEZE | STUB UP CONNECTION |
| 76 | 10.0 A | | 120V | 1 | DIRECT | | WALK-IN COOLER/FREEZER COMBINATION | CONNECTION DOWN FROM ABOVE |
| 77 | 1.1 A | | 208-230V | 1 | DIRECT | | EVAPORATOR COIL, WALK-IN COOLER | CONNECTION DOWN FROM ABOVE |
| 78 | 13.9 A | | 208-230V | 3 | DIRECT | | CONDENSING UNIT, WALK-IN COOLER | CONNECTION DOWN FROM ABOVE |
| 79 | 14.1 A | | 208-230V | 1 | DIRECT | | EVAPORATOR COIL, WALK-IN FREEZER | CONNECTION DOWN FROM ABOVE |
| 80 | 21.5 A | | 208-230V | 3 | DIRECT | | CONDENSING UNIT, WALK-IN FREEZER | CONNECTION DOWN FROM ABOVE |
| 83 | 20.0 A | | 120V | 1 | DIRECT | | EXHAUST HOOD | (2) CONNECTIONS REQUIRED; CONNECTION DOWN FROM ABOVE; INTERCONNECT TO CONTROL PANEL & BUILDING FIRE SYSTEM, 24 HR DEDICATED SERVICE |
| 83.1 | 8.0 A | | 120V | 1 | DIRECT | | HOOD CONTROL PANEL | CONNECTION DOWN FROM ABOVE; INTERCONNECT TO HOOD & BUILDING FIRE SYSTEM, 24 HR DEDICATED SERVICE |
| 83.2 | 20.0 A | | 120V | 1 | DIRECT | | FIRE SUPPRESSION SYSTEM | CONNECTION DOWN FROM ABOVE; INTERCONNECT TO HOOD, CONTROL PANEL & BUILDING FIRE SYSTEM, 24 HR DEDICATED SERVICE |
| 84 | 64.0 A | | 208V | 3 | DIRECT | 4' - 0" | OVEN, RACK | (2) CONNECTIONS REQUIRED |
| 90 | 20.0 A | | 120V | 1 | DIRECT | | EXHAUST HOOD | (2) CONNECTIONS REQUIRED; CONNECTION DOWN FROM ABOVE; INTERCONNECT TO CONTROL PANEL & BUILDING FIRE SYSTEM, 24 HR DEDICATED SERVICE |
| 90.1 | 8.0 A | | 120V | 1 | DIRECT | | HOOD CONTROL PANEL | CONNECTION DOWN FROM ABOVE; INTERCONNECT TO HOOD & BUILDING FIRE SYSTEM, 24 HR DEDICATED SERVICE |
| 90.2 | 20.0 A | | 120V | 1 | DIRECT | | FIRE SUPPRESSION SYSTEM | CONNECTION DOWN FROM ABOVE; INTERCONNECT TO HOOD, CONTROL PANEL & BUILDING FIRE SYSTEM, 24 HR DEDICATED SERVICE |
| 91 | 9.0 A | | 120V | 1 | DIRECT | 2' - 0" | FRYER, GAS | |
| 93 | 2.5 A | 1/5 | 120V | 1 | NEMA 5-15P | 2' - 0" | GRIDDLE STAND, REFRIGERATOR | |
| 95 | 6.8 A | | 120V | 1 | NEMA 5-15P | 0' - 0" | COMBI-OVEN | (2) CONNECTIONS REQUIRED |
| 97 | 5.7 A | 1/3 | 120V | 1 | NEMA 5-15P | 0' - 6" | SANDWICH UNIT, REFRIGERATED | STUB UP CONNECTION |
| 100 | 12.5 A | | 208-230V | 1 | DIRECT | 5' - 6" | ICE MAKER | |
| 103 | 12.0 A | | 120V | 1 | NEMA 5-15P | 2' - 0" | SODA SYSTEM (RACK, B-I-B BOXES, CO2 TANKS) | KEC TO VERIFY UTILITIES REQUIREMENTS |
| 104 | 12.0 A | | 120V | 1 | NEMA 5-15P | 4' - 0" | SODA/ICE DISPENSER | KEC TO VERIFY UTILITIES REQUIREMENTS |
| 106 | 14.4 A | | 120V | 1 | NEMA 5-15P | 4' - 0" | TEA BREWER | |
| 107 | 33.4 A | | 120/280V | 3 | DIRECT | 4' - 0" | COFFEE BREWER | |
| 108 | 2.5 A | 1/5 | 120V | 1 | NEMA 5-15P | 0' - 6" | REFRIGERATOR, UNDERCOUNTER | STUB UP CONNECTION |
| 110 | | | | | | | UTILITY DISTRIBUTION SYSTEM | CONNECTION DOWN FROM ABOVE; SEE UTILITIES DISTRIBUTION SYSTEM SHEETS FOR DETAILS |
| 113 | 138.9 A | | 208V | 3 | DIRECT | 5' - 6" | DISH WASHER, RACK CONVEYOR | |
| 119 | 1.0 A | | 120V | 1 | NEMA 5-15P | 0' - 6" | DISPLAY CASE, NON-REFRIGERATED COUNTERTOP | STUB UP CONNECTION |
| 123 | 2.5 A | 1/5 | 120V | 1 | NEMA 5-15P | 0' - 6" | REFRIGERATOR, UNDERCOUNTER | STUB UP CONNECTION |
| 127 | 9.5 A | | 120V | 1 | DIRECT | 0' - 6" | SNEEZE GUARD | STUB UP CONNECTION |
| 128 | 10.0 A | | 120V | 1 | DIRECT | | EXHAUST HOOD | (2) CONNECTIONS REQUIRED; CONNECTION DOWN FROM ABOVE; INTERCONNECT TO CONTROL PANEL & BUILDING FIRE SYSTEM, 24 HR DEDICATED SERVICE |
| 128.1 | 20.0 A | | 120V | 1 | DIRECT | | FIRE SUPPRESSION SYSTEM | CONNECTION DOWN FROM ABOVE; INTERCONNECT TO HOOD, CONTROL PANEL & BUILDING FIRE SYSTEM, 24 HR DEDICATED SERVICE |
| 128.2 | 8.0 A | | 120V | 1 | DIRECT | | HOOD CONTROL PANEL | CONNECTION DOWN FROM ABOVE; INTERCONNECT TO HOOD & BUILDING FIRE SYSTEM, 24 HR DEDICATED SERVICE |
| 130 | 8.1 A | 1/3 | 120V | 1 | NEMA 5-15P | 4' - 0" | REFRIGERATOR, REACH-IN | |
| 131 | 10.0 A | | 120V | 1 | DIRECT | | EXHAUST HOOD | (2) CONNECTIONS REQUIRED; CONNECTION DOWN FROM ABOVE; INTERCONNECT TO CONTROL PANEL & BUILDING FIRE SYSTEM, 24 HR DEDICATED SERVICE |
| 131.1 | 8.0 A | | 120V | 1 | DIRECT | | HOOD CONTROL PANEL | CONNECTION DOWN FROM ABOVE; INTERCONNECT TO HOOD & BUILDING FIRE SYSTEM, 24 HR DEDICATED SERVICE |
| 131.2 | 20.0 A | | 120V | 1 | DIRECT | | FIRE SUPPRESSION SYSTEM | CONNECTION DOWN FROM ABOVE; INTERCONNECT TO HOOD, CONTROL PANEL & BUILDING FIRE SYSTEM, 24 HR DEDICATED SERVICE |
| 133 | 37.9 A | | 208V | 3 | DIRECT | 2' - 0" | COMBI OVEN, VENTLESS | (2) CONNECTIONS REQUIRED |
| 134 | 8.0 A | | 120V | 1 | NEMA 5-15P | 0' - 6" | DROP-IN DISPLAY CASE, SELF-CONTAINED | STUB UP CONNECTION |
| 136 | | | | | | | UTILITY DISTRIBUTION SYSTEM | CONNECTION DOWN FROM ABOVE; SEE UTILITIES DISTRIBUTION SYSTEM SHEETS FOR DETAILS |
| 137 | | | | | | | UTILITY DISTRIBUTION SYSTEM | CONNECTION DOWN FROM ABOVE; SEE UTILITIES DISTRIBUTION SYSTEM SHEETS FOR DETAILS |
| 138 | 24.0 A | | 120V | 1 | DIRECT | | HEAT LAMP | CONNECTION DOWN FROM ABOVE |
| 142 | 27.0 A | | 208-220V | 1 | DIRECT | 0' - 6" | INDUCTION COOKING SYSTEM | STUB UP CONNECTION |
| CV1 | 20.0 A | | 120V | 1 | NEMA 5-20R | 2' - 0" | CONVENIENCE OUTLET | |
| CV2 | 20.0 A | | 120V | 1 | NEMA 5-20R | 4' - 0" | CONVENIENCE OUTLET | |
| CV3 | 20.0 A | | 120V | 1 | NEMA 5-20R | | CONVENIENCE OUTLET (RETRACTABLE RECEPTACLE) | CONNECTION DOWN FROM ABOVE; RETRACTABLE RECEPTACLE PROVIDED BY OTHERS |
| X-01 | 6.8 A | | 120V | 1 | NEMA 5-15P | 0' - 0" | EXISTING COMBI-OVEN | (2) CONNECTIONS REQUIRED; KEC TO VERIFY UTILITIES REQUIREMENTS |
| X-02 | 10.0 A | | 120V | 1 | NEMA 5-20P | 4' - 0" | EXISTING HYDROVECTION OVEN | KEC TO VERIFY UTILITIES REQUIREMENTS |
| X-03 | 5.6 A | | 120V | 1 | NEMA 5-15P | 4' - 0" | EXISTING FOOD SLICER | KEC TO VERIFY UTILITIES REQUIREMENTS |

### LEGEND - ELECTRICAL CONNECTIONS

- DR-DUPLEX RECEPTACLE — REFER TO ELECTRICAL PLAN FOR VALUE
- SR-SIMPLEX RECEPTACLE — REFER TO ELECTRICAL PLAN FOR VALUE
- DATA LINE
- SPR-SPECIAL PURPOSE RECEPTACLE — REFER TO ELECTRICAL PLAN FOR VALUE
- JB-JUNCTION BOX
- FIELD WIRING, EXPOSED RIGID

| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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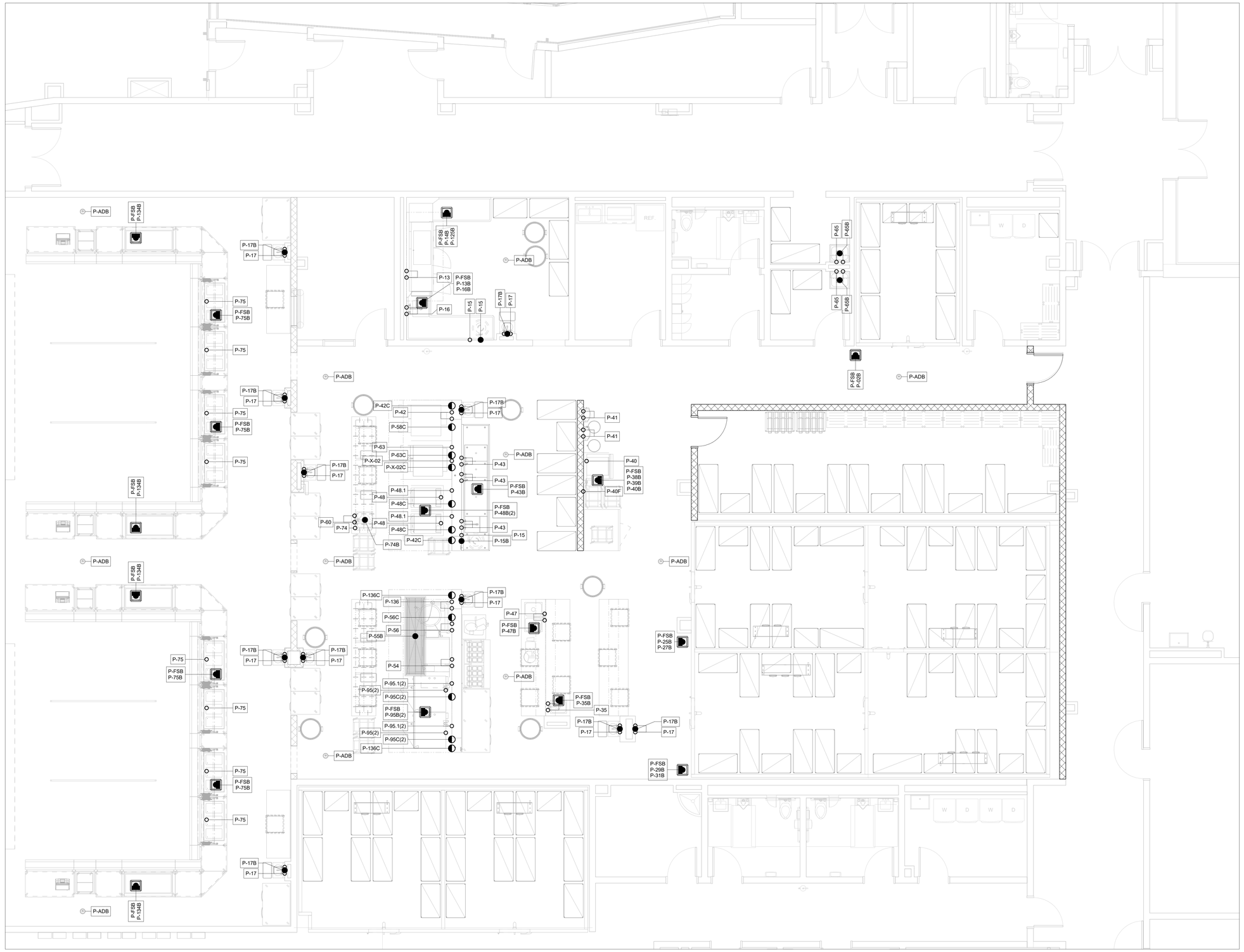
**NEWARK, DE 19702**

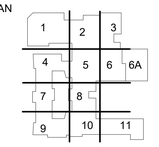
SHEET TITLE
**FOODSERVICE ELECTRICAL SCHEDULE**

SHEET NO.
**FS-1.6**




| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN




VOCATIONAL TECHNICAL SCHOOL DISTRICT
NEW CASTLE COUNTY DELAWARE

OWNER

New Castle County Vo-Tech School District

1417 Newport Pike
Wilmington, DE 19804

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Phone (410) 822-8688

CIVIL ENGINEER

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Phone (302) 323-9377
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KITCHEN CONSULTANT

Corsi Associates, LLC

300 Smith Street
Farmingdale, NY 11735
Phone (610) 888-1955

THEATER PLANNING

Stages Consultants, LLC

300 Raritan Ave, 2nd Flr
Highland Park, NJ 08904
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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

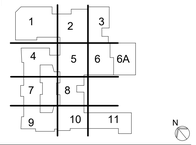
**FOODSERVICE PLUMBING PLAN - CAFETERIA**

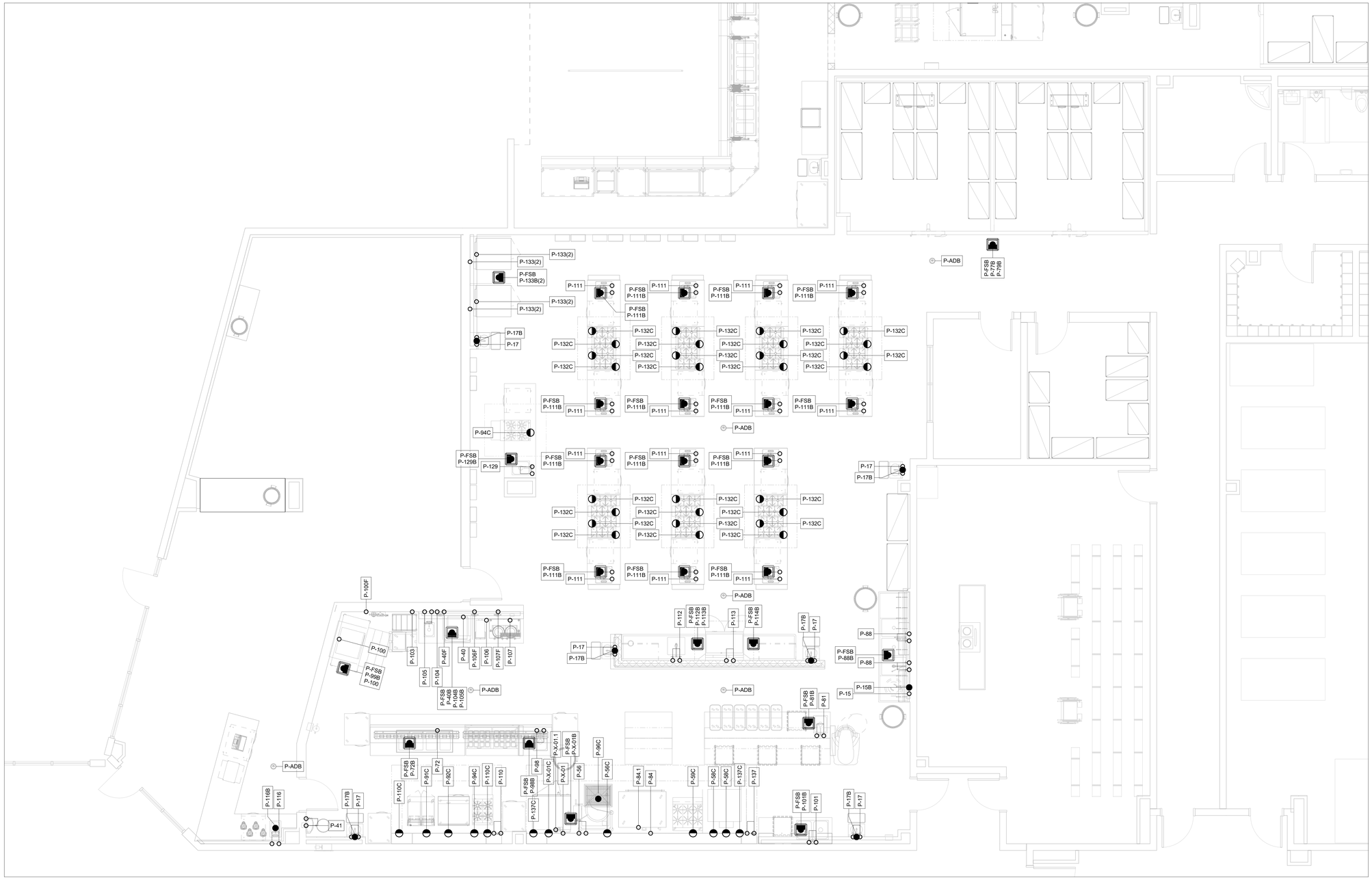
SHEET NO.

**FS-1.7**

| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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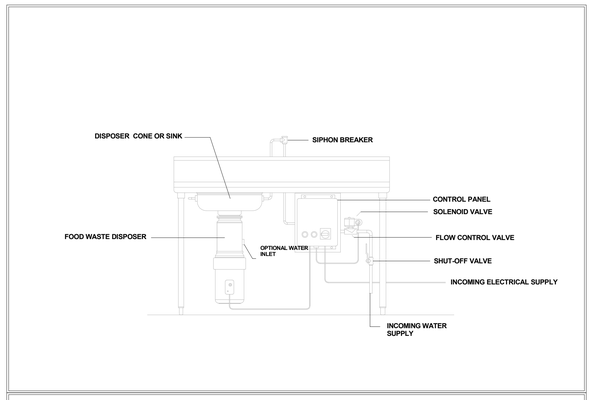
**NEWARK, DE 19702**

SHEET TITLE

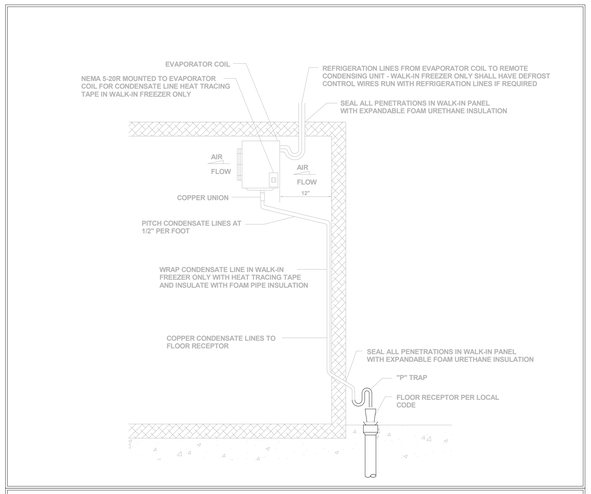
**FOODSERVICE PLUMBING PLAN - FOOD LAB**

SHEET NO.

**FS-1.8**



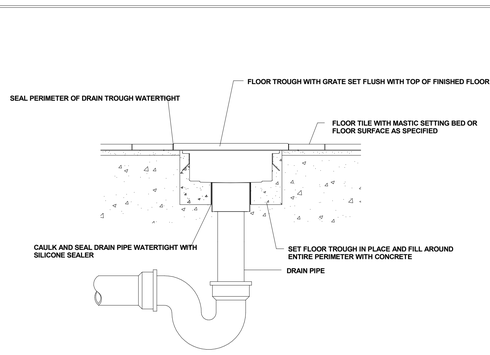

FOOD WASTE DISPOSER INSTALLATION DIAGRAM




TYPICAL WALK-IN COOLER/FREEZER CONDENSATE LINE DETAIL

## LEGEND - PLUMBING CONNECTIONS

- CW-COLD WATER
- HW-HOT WATER
- GAS
- WASTE, DIRECT-CONNECTED UNLESS NOTED "OPEN HUB"
- FLOOR DRAIN
- FLOOR SINK WITH HALF GRATE UNLESS NOTED OTHERWISE
- FIELD CONNECTIONS



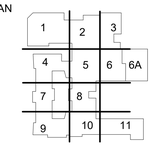

FLOOR TROUGH INSTALLATION DETAIL

FOODSERVICE PLUMBING SCHEDULE

| ITEM NO. [P] | CW SIZE | CW ROUGH-IN HEIGHT | HW SIZE | HW ROUGH-IN HEIGHT | IDW SIZE (B) | DW SIZE (B) | DW ROUGH-IN HEIGHT | GAS SIZE (C) | GAS BTU | GAS ROUGH-IN HEIGHT | DESCRIPTION | PLUMBING REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 02 | | | | | 3/4" | | | | | | EVAPORATOR COIL, WALK-IN MILK COOLER | |
| 13 | 1/2" | 5' - 0" | 1/2" | 5' - 0" | 2" | | | | | | DISHWASHER, RACK CONVEYOR | |
| 14 | | | | | 3/4" | | | | | | CONDENSATE HOOD | |
| 15 | 1/2" | 1' - 6" | | | | 2" | | | | | FOOD WASTE DISPOSER | |
| 16 | 1/2" | 1' - 6" | 1/2" | 1' - 6" | 1 1/2" | | | | | | SOILED DISHTABLE | |
| 17 | 1/2" | 1' - 6" | 1/2" | 1' - 6" | | 1 1/2" | 2' - 0" | | | | HAND SINK, WALL MOUNT | |
| 25 | | | | | 3/4" | | | | | | EVAPORATOR COIL, WALK-IN COOLER | |
| 27 | | | | | 3/4" | | | | | | EVAPORATOR COIL, WALK-IN COOLER | |
| 29 | | | | | 3/4" | | | | | | EVAPORATOR COIL, WALK-IN FREEZER | |
| 31 | | | | | 3/4" | | | | | | EVAPORATOR COIL, WALK-IN FREEZER | |
| 35 | 1/2" | 1' - 6" | 1/2" | 1' - 6" | 1 1/2" | | | | | | WORK TABLE W/ PREP SINK | |
| 38 | | | | | 1" | | | | | | BLAST CHILLER, ROLL-IN | |
| 39 | | | | | 3/4" | | | | | | ICE BIN | |
| 40 | 1/2" | | | | 3/4" | | | | | | ICE MAKER | *CW FROM REVERSE OSMOSIS SYSTEM ITEM #40 |
| 40F | 3/8" | 5' - 0" | | | 3/8" | | | | | | WATER FILTRATION SYSTEM | |
| 41 | 3/8" | 5' - 0" | 3/8" | 5' - 0" | | | | | | | REVERSE OSMOSIS SYSTEM | INTERCONNECT TO ICE MAKERS, STEAM & BEVERAGE EQUIPMENT |
| 42 | | | | | | | | | | | UTILITY DISTRIBUTION SYSTEM | CONNECTION DOWN FROM ABOVE; SEE UTILITIES DISTRIBUTION SYSTEM SHEETS FOR DETAILS |
| 43 | 3/4" | 1' - 6" | 3/4" | 1' - 6" | 2" | | | | | | POWER WASH SINK | |
| 47 | 1/2" | 1' - 6" | 1/2" | 1' - 6" | 1 1/2" | | | | | | WORK TABLE W/ DOUBLE PREP SINK | |
| 48 | 3/8" | 1' - 6" | | | 1 1/2" | | | 3/4" | 144000.000 Btu/h | 2' - 6" | STEAMER, CONVECTION | |
| 48.1 | 1/2" | | | | | | | | | | " | *CW FROM REVERSE OSMOSIS SYSTEM ITEM #40 |
| 54 | 1/2" | 1' - 6" | 1/2" | 1' - 6" | | | | 3/4" | 200000.000 Btu/h | 2' - 6" | TILT SKILLET | |
| 55 | | | | | | 4" | | | | | FLOOR TROUGH | *DRAIN AT FLOOR |
| 56 | 1/2" | 1' - 6" | 1/2" | 1' - 6" | | | | 3/4" | 140000.000 Btu/h | 2' - 6" | KETTLE, STEAM JACKETED | |
| 58 | | | | | | | | 3/4" | 120000.000 Btu/h | 2' - 6" | CONVECTION OVEN, DBL STACKED | MANIFOLD CONNECTION |
| 59 | | | | | | | | 3/4" | 184000.000 Btu/h | 2' - 6" | 6-BURNER RANGE | |
| 60 | 1/2" | 1' - 6" | 1/2" | 1' - 6" | 1 1/2" | | | | | | WORK TABLE W/ PREP SINK | |
| 63 | 3/4" | | | | 1 1/4" | | | 3/4" | 60000.000 Btu/h | 2' - 6" | HYDROVECTION OVEN | *CW FROM REVERSE OSMOSIS SYSTEM ITEM #40 |
| 65 | 1/2" | 3' - 0" | 1/2" | 3' - 0" | | 2" | | | | | MOP SINK | *DRAIN AT FLOOR |
| 72 | 1/4" | 0' - 6" | | | 3/4" | | | | | | DROP-IN, HOT/COLD/FREEZE | STUB UP CONNECTION |
| 74 | 1/2" | 0' - 6" | | | | 2" | | | | | FOOD WASTE DISPOSER | STUB UP CONNECTION; DRAIN AT FLOOR |
| 75 | 1/4" | 0' - 6" | | | 3/4" | | | | | | DROP-IN, HOT/COLD/FREEZE | STUB UP CONNECTION |
| 77 | | | | | 3/4" | | | | | | EVAPORATOR COIL, WALK-IN COOLER | |
| 79 | | | | | 3/4" | | | | | | EVAPORATOR COIL, WALK-IN FREEZER | |
| 81 | 1/2" | 0' - 6" | 1/2" | 0' - 6" | 1 1/2" | | | | | | WORK TABLE W/ PREP SINK | STUB UP CONNECTION |
| 84 | 1/2" | | | | 1/2" | | | | | | OVEN, RACK | (2) CONNECTIONS REQUIRED |
| 84.1 | 1/2" | | | | | | | | | | " | *CW FROM REVERSE OSMOSIS SYSTEM ITEM #40; (2) CONNECTIONS REQUIRED |
| 88 | 1/2" | 1' - 6" | 1/2" | 1' - 6" | 1 1/2" | | | | | | THREE-COMPARTMENT SINK | |
| 91 | | | | | | | | 1 1/2" | 160000.000 Btu/h | 2' - 6" | FRYER, GAS | |
| 92 | | | | | | | | 3/4" | 84000.000 Btu/h | 2' - 6" | GRIDDLE | |
| 94 | | | | | | | | 3/4" | 164000.000 Btu/h | 2' - 6" | 4-BURNER RANGE | |
| 95 | 3/4" | 1' - 6" | | | 1 1/2" | | | 3/4" | 98000.000 Btu/h | 2' - 6" | COMBI-OVEN | (2) CONNECTIONS REQUIRED |
| 95.1 | 3/4" | | | | | | | | | | " | *CW FROM REVERSE OSMOSIS SYSTEM ITEM #40 |
| 96 | | | | | | 4" | | | | | FLOOR TROUGH | *DRAIN AT FLOOR |
| 98 | 1/2" | 0' - 6" | 1/2" | 0' - 6" | 1 1/2" | | | | | | CHEF'S COUNTER | |
| 99 | | | | | 1" | | | | | | ICE BIN | |
| 100 | 3/8" | | | | 3/4" | | | | | | ICE MAKER | *CW FROM REVERSE OSMOSIS SYSTEM ITEM #40 |
| 100F | 3/4" | 0' - 0" | | | 3/4" | | | | | | WATER FILTRATION SYSTEM | |
| 101 | 1/2" | 1' - 6" | 1/2" | 1' - 6" | 1 1/2" | | | | | | WORK TABLE W/ DOUBLE PREP SINK | |
| 103 | 1/2" | 1' - 6" | | | | | | | | | SODA SYSTEM (RACK, B-I-B BOXES, CO2 TANKS) | KEC TO VERIFY UTILITIES REQUIREMENTS |
| 104 | 3/8" | 1' - 6" | | | 3/4" | | | | | | SODA/ICE DISPENSER | KEC TO VERIFY UTILITIES REQUIREMENTS |
| 105 | 1/2" | 1' - 6" | 1/2" | 1' - 6" | 1 1/2" | | | | | | BEVERAGE COUNTER | |
| 106 | 1/4" | | | | | | | | | | TEA BREWER | *CW FROM REVERSE OSMOSIS SYSTEM ITEM #40 |
| 106F | 3/8" | 1' - 6" | | | 3/8" | | | | | | WATER FILTRATION SYSTEM | |
| 107 | 3/8" | | | | | | | | | | COFFEE BREWER | *CW FROM REVERSE OSMOSIS SYSTEM ITEM #40 |
| 107F | 3/8" | 1' - 6" | | | 3/8" | | | | | | WATER FILTRATION SYSTEM | |
| 110 | | | | | | | | | | | UTILITY DISTRIBUTION SYSTEM | CONNECTION DOWN FROM ABOVE; SEE UTILITIES DISTRIBUTION SYSTEM SHEETS FOR DETAILS |
| 111 | 0" | 0' - 0" | 0" | 0' - 0" | 0" | | | | | | WORK TABLE W/ (2) PREP SINKS | |
| 112 | 1/2" | 1' - 6" | 1/2" | 1' - 6" | 1 1/2" | | | | | | SOILED DISHTABLE | |
| 113 | 1/2" | 5' - 0" | 1/2" | 5' - 0" | 2" | | | | | | DISH WASHER, RACK CONVEYOR | |
| 114 | | | | | 1 1/2" | | | | | | CONDENSATE HOOD | |
| 116 | 1/2" | 1' - 6" | 1/2" | 1' - 6" | 1 1/2" | | | | | | HAND SINK, DROP-IN | |
| 125 | | | | | 1 1/2" | | | | | | SIDE LOADER | |
| 129 | 1/2" | 1' - 6" | 1/2" | 1' - 6" | 1 1/2" | | | | | | WORK TABLE W/ PREP SINK | |
| 132 | | | | | | | | 3/4" | 65000.000 Btu/h | 2' - 6" | 2-BURNER, GAS | |
| 133 | 3/4" | 1' - 6" | | | 1 1/2" | | | | | | COMBI OVEN, VENTLESS | |
| 134 | | | | | 3/4" | | | | | | DROP-IN DISPLAY CASE, SELF-CONTAINED | |
| 136 | | | | | | | | | | | UTILITY DISTRIBUTION SYSTEM | CONNECTION DOWN FROM ABOVE; SEE UTILITIES DISTRIBUTION SYSTEM SHEETS FOR DETAILS |
| 137 | | | | | | | | | | | UTILITY DISTRIBUTION SYSTEM | CONNECTION DOWN FROM ABOVE; SEE UTILITIES DISTRIBUTION SYSTEM SHEETS FOR DETAILS |
| AD | | | | | | 3" | | | | | AREA DRAIN | DRAIN AT FLOOR |
| FS | | | | | | 4" | | | | | FLOOR SINK | DRAIN AT FLOOR |
| X-01 | 3/4" | 1' - 6" | | | 1 1/2" | | | 3/4" | 98000.000 Btu/h | 2' - 6" | EXISTING COMBI-OVEN | KEC TO VERIFY UTILITIES REQUIREMENTS |
| X-02 | 3/4" | | | | 1 1/4" | | | 3/4" | 60000.000 Btu/h | 2' - 6" | EXISTING HYDROVECTION OVEN | KEC TO VERIFY UTILITIES REQUIREMENTS |

| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN





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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

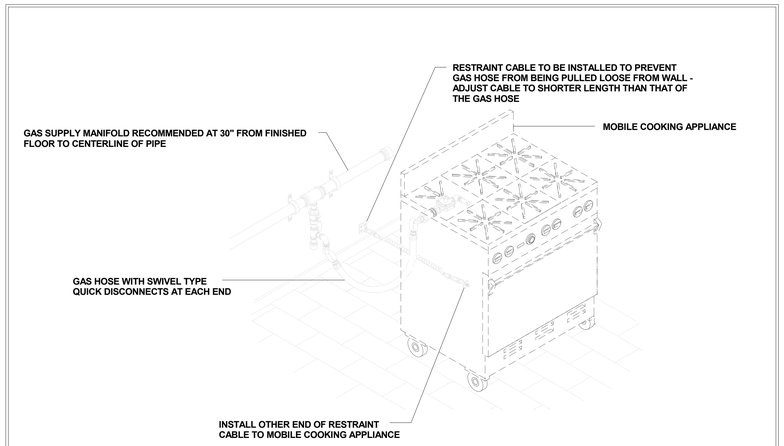
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

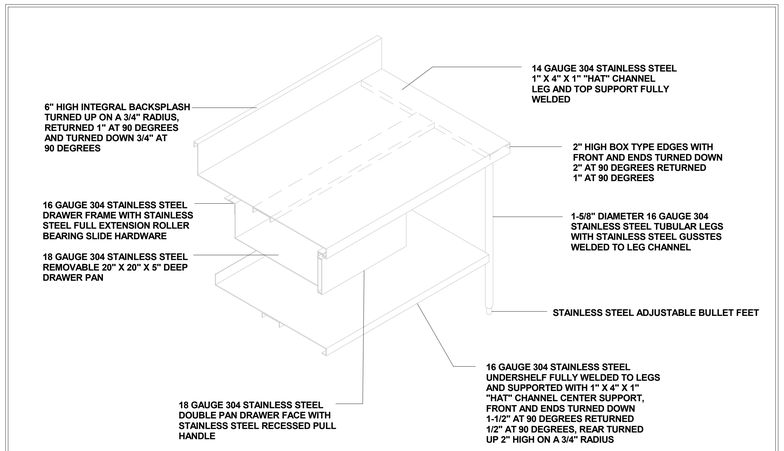
**FOODSERVICE PLUMBING SCHEDULE**

SHEET NO.

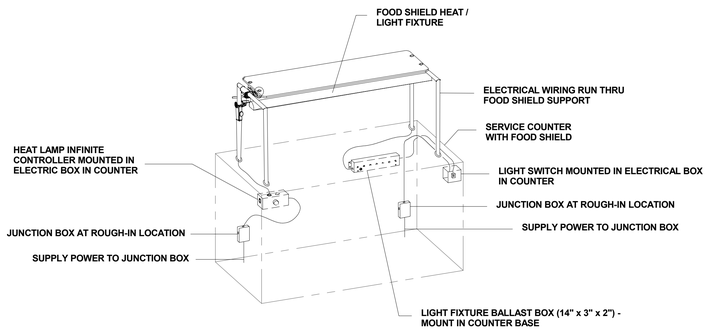
**FS-1.9**



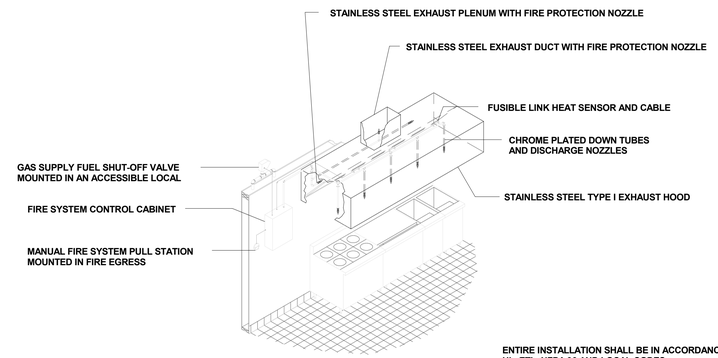

QUICK DISCONNECT GAS HOSE ASSEMBLY INSTALLATION DETAIL




EXPLODED ISOMETRIC DIAGRAM OF TYPICAL WORK TABLE



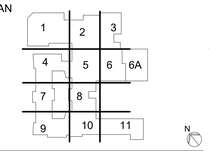

FOOD SHIELD HEAT / LIGHT FIXTURE INSTALLATION DETAIL




TYPICAL WET CHEMICAL FIRE SUPPRESSION INSTALLATION DETAIL

| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FOODSERVICE DETAILS**

SHEET NO.

**FS-1.10**

*HOOD INFORMATION – JOB#5852582*

| HOOD NO | TAG | MODEL | MANUFACTURER | LENGTH | MAX COOKING TEMP | TYPE | APPLIANCE DUTY | DESIGN CFM/FT | TOTAL EXH CFM | EXHAUST PLENUM RISER(S) WIDTH | LENG | HEIGHT | DIA | CFM | VEL | SP | TOTAL SUPPLY CFM | HOOD CONSTRUCTION | HOOD CONFIG END TO END | ROW |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Item #14 | 4824 VHB-G | CAPTIVEAIRE | 9' 0" | 700 DEG | II | N/A | 167 | 1500 | 10" | 10" | 4" | | 750 | 1080 | -0.117" | 0 | 430 SS 100% | ALONE | ALONE |
| | | | | | | | | | | 10" | 10" | 4" | | 750 | 1080 | -0.117" | | | | |
| 2 | Item #53 | 6024 ND-2-PSP-F | CAPTIVEAIRE | 15' 9" | 600 DEG | I | HEAVY | 214 | 3370 | 10" | 16" | 4" | | 1685 | 1516 | -0.632" | 2695 | 430 SS 100% | ALONE | ALONE |
| | | | | | | | | | | 10" | 16" | 4" | | 1685 | 1516 | -0.632" | | | | |
| 3 | Item #57 | 6024 ND-2-PSP-F | CAPTIVEAIRE | 14' 6" | 600 DEG | I | HEAVY | 207 | 3000 | 10" | 14" | 4" | | 1500 | 1543 | -0.575" | 2400 | 430 SS 100% | ALONE | ALONE |
| | | | | | | | | | | 10" | 14" | 4" | | 1500 | 1543 | -0.575" | | | | |
| 4 | Item #83 | 6024 ND-2-PSP-F | CAPTIVEAIRE | 10' 0" | 600 DEG | I | HEAVY | 212 | 2120 | 10" | 20" | 4" | | 2120 | 1526 | -0.656" | 1695 | 430 SS 100% | LEFT | ALONE |
| 5 | Item #83 | 6024 ND-2-PSP-F | CAPTIVEAIRE | 10' 11" | 600 DEG | I | HEAVY | 214 | 2335 | 10" | 22" | 4" | | 2335 | 1528 | -0.735" | 1785 | 430 SS 100% | RIGHT | ALONE |
| 6 | Item #90 | 6024 ND-2-PSP-F | CAPTIVEAIRE | 9' 6" | 600 DEG | I | HEAVY | 215 | 2045 | 10" | 19" | 4" | | 2045 | 1550 | -0.696" | 1635 | 430 SS 100% | ALONE | ALONE |
| 7 | Item #114 | 4824 VHB-G | CAPTIVEAIRE | 5' 9" | 700 DEG | II | N/A | 157 | 900 | 12" | 12" | 4" | | 900 | 900 | -0.098" | 0 | 430 SS 100% | ALONE | ALONE |
| 8 | Item #128 | 6024 ND-2WI-PSP-FB | CAPTIVEAIRE | 6' 0" | 450 DEG | I | MEDIUM | 275 | 1650 | 10" | 15" | 4" | | 1650 | 1584 | -0.729" | 1385 | 430 SS 100% | ALONE | ALONE |
| 9 | Item #128 | 6024 ND-2WI-PSP-FB | CAPTIVEAIRE | 6' 0" | 450 DEG | I | MEDIUM | 275 | 1650 | 10" | 15" | 4" | | 1650 | 1584 | -0.729" | 1385 | 430 SS 100% | ALONE | ALONE |
| 10 | Item #128 | 6024 ND-2WI-PSP-FB | CAPTIVEAIRE | 6' 0" | 450 DEG | I | MEDIUM | 275 | 1650 | 10" | 15" | 4" | | 1650 | 1584 | -0.729" | 1385 | 430 SS 100% | ALONE | ALONE |
| 11 | Item #128 | 6024 ND-2WI-PSP-FB | CAPTIVEAIRE | 6' 0" | 450 DEG | I | MEDIUM | 275 | 1650 | 10" | 15" | 4" | | 1650 | 1584 | -0.729" | 1385 | 430 SS 100% | ALONE | ALONE |
| 12 | Item #128 | 6024 ND-2WI-PSP-FB | CAPTIVEAIRE | 6' 0" | 450 DEG | I | MEDIUM | 275 | 1650 | 10" | 15" | 4" | | 1650 | 1584 | -0.729" | 1385 | 430 SS 100% | ALONE | ALONE |
| 13 | Item #128 | 6024 ND-2WI-PSP-FB | CAPTIVEAIRE | 6' 0" | 450 DEG | I | MEDIUM | 275 | 1650 | 10" | 15" | 4" | | 1650 | 1584 | -0.729" | 1385 | 430 SS 100% | ALONE | ALONE |
| 14 | Item #128 | 6024 ND-2WI-PSP-FB | CAPTIVEAIRE | 6' 0" | 450 DEG | I | MEDIUM | 275 | 1650 | 10" | 15" | 4" | | 1650 | 1584 | -0.729" | 1385 | 430 SS 100% | ALONE | ALONE |
| 15 | Item #131 | 6024 ND-2WI-PSP-FB | CAPTIVEAIRE | 4' 0" | 450 DEG | I | MEDIUM | 275 | 1100 | 10" | 10" | 4" | | 1100 | 1584 | -0.683" | 880 | 430 SS 100% | ALONE | ALONE |

*HOOD INFORMATION*

| HOOD NO | TAG | FILTER(S) TYPE | QTY | HEIGHT | LENGTH | EFFICIENCY @ 7 MICRONS | LIGHT(S) QTY | TYPE | WIRE GUARD | UTILITY CABINET(S) LOCATION | SIZE | FIRE SYSTEM TYPE | FIRE SYSTEM SIZE | ELECTRICAL MODEL # | SWITCHES QUANTITY | FIRE SYSTEM PIPING | HOOD HANGING WEIGHT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Item #14 | | | | | | 0 | | | | | | | | | NO | 287 LBS |
| 2 | Item #53 | CAPTRATE SOLO FILTER | 11 | 20" | 16" | 85% SEE FILTER SPEC | 4 | RECESSED ROUND | NO | LEFT | 12"x60"x24" | TANK FS | 4.0/4.0 | DCV-1111 | 1 LIGHT 1 FAN | YES | 1238 LBS |
| 3 | Item #57 | CAPTRATE SOLO FILTER | 10 | 20" | 16" | 85% SEE FILTER SPEC | 4 | RECESSED ROUND | NO | RIGHT | 12"x60"x24" | TANK FS | 4.0/4.0 | DCV-1111 | 1 LIGHT 1 FAN | YES | 1157 LBS |
| 4 | Item #83 | CAPTRATE SOLO FILTER | 7 | 20" | 16" | 85% SEE FILTER SPEC | 3 | RECESSED ROUND | NO | LEFT | 12"x60"x24" | | | | | YES | 701 LBS |
| 5 | Item #83 | CAPTRATE SOLO FILTER | 8 | 20" | 16" | 85% SEE FILTER SPEC | 3 | RECESSED ROUND | NO | | | | | | | YES | 603 LBS |
| 6 | Item #90 | CAPTRATE SOLO FILTER | 7 | 20" | 16" | 85% SEE FILTER SPEC | 3 | RECESSED ROUND | NO | RIGHT | 12"x60"x24" | TANK FS | 4.0/4.0 | DCV-1111 | 1 LIGHT 1 FAN | YES | 1003 LBS |
| 7 | Item #114 | | | | | | 0 | | | | | | | | | NO | 222 LBS |
| 8 | Item #128 | CAPTRATE SOLO FILTER | 4 | 20" | 16" | 85% SEE FILTER SPEC | 3 | RECESSED ROUND | NO | | | | | | | YES | 430 LBS |
| 9 | Item #128 | CAPTRATE SOLO FILTER | 4 | 20" | 16" | 85% SEE FILTER SPEC | 3 | RECESSED ROUND | NO | | | | | | | NO | 430 LBS |
| 10 | Item #128 | CAPTRATE SOLO FILTER | 4 | 20" | 16" | 85% SEE FILTER SPEC | 3 | RECESSED ROUND | NO | | | | | | | NO | 430 LBS |
| 11 | Item #128 | CAPTRATE SOLO FILTER | 4 | 20" | 16" | 85% SEE FILTER SPEC | 3 | RECESSED ROUND | NO | | | | | | | NO | 430 LBS |
| 12 | Item #128 | CAPTRATE SOLO FILTER | 4 | 20" | 16" | 85% SEE FILTER SPEC | 3 | RECESSED ROUND | NO | | | | | | | NO | 430 LBS |
| 13 | Item #128 | CAPTRATE SOLO FILTER | 4 | 20" | 16" | 85% SEE FILTER SPEC | 3 | RECESSED ROUND | NO | | | | | | | NO | 430 LBS |
| 14 | Item #128 | CAPTRATE SOLO FILTER | 4 | 20" | 16" | 85% SEE FILTER SPEC | 3 | RECESSED ROUND | NO | | | | | | | NO | 430 LBS |
| 15 | Item #131 | CAPTRATE SOLO FILTER | 2 | 20" | 20" | 85% SEE FILTER SPEC | 2 | RECESSED ROUND | NO | | | | | | | NO | 335 LBS |

**REVISIONS**

| | DESCRIPTION | DATE |
|---|---|---|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |

CAPTIVEAIRE

560 Stokes Road, Unit 13A6, Medford, NJ, 08055 PHONE: (609) 654-8388 FAX: (919) 747-5604 EMAIL: reg19@captiveaire.com

**Delaware / South NJ Mechanical**

www.captiveaire.com

Hodgson Technical School
2575 Glasgow Avenue,
Newark, DE, 19702

**DATE:** 6/16/2023

**DWG.#:** 5852582

**DRAWN BY:** JRE

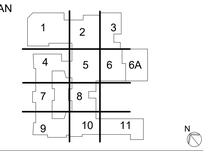
**SCALE:** 3/4" = 1'-0"

**MASTER DRAWING**

**SHEET NO.** 1

| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN




VOCATIONAL TECHNICAL SCHOOL DISTRICT
NEW CASTLE COUNTY DELAWARE

OWNER

New Castle County Vo-Tech School District

1417 Newport Pike
Wilmington, DE 19804

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Gipe Associates, Inc.

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Easton, MD 21601
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Landmark Science & Engineering

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Newark, DE 19713
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Fax (302) 323-9461

KITCHEN CONSULTANT

Corsi Associates, LLC

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Farmingdale, NY 11735
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Stages Consultants, LLC

300 Raritan Ave, 2nd Flr
Highland Park, NJ 08904
Phone (732) 333-8003

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**ABHA | BSA+A**

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Fax (302) 658-8431

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FOODSERVICE EXHAUST HOOD DETAILS**

SHEET NO.

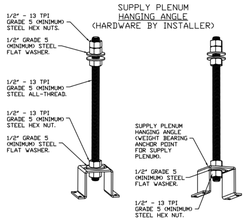
**FS-2.0**

## *HOOD OPTIONS*

| HOOD NO | TAG | OPTION |
|---|---|---|
| 1 | Item #14 | FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT. |
| 2 | Item #53 | FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT. |
| | | BACKSPLASH 80.00" HIGH X 201.00" LONG 430 SS VERTICAL. |
| | | RIGHT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. |
| | | LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. |
| | | BALANCE DAMPERS. |
| | | STRUCTURAL FRONT PANEL. |
| | | SENSOR-CV. |
| 3 | Item #57 | FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT. |
| | | BACKSPLASH 84.00" HIGH X 186.00" LONG 430 SS VERTICAL. |
| | | RIGHT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. |
| | | LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. |
| | | BALANCE DAMPERS. |
| | | STRUCTURAL FRONT PANEL. |
| | | SENSOR-CV. |
| 4 | Item #83 | FIELD WRAPPER 18.00" HIGH FRONT, LEFT. |
| | | BACKSPLASH 84.00" HIGH X 213.00" LONG 430 SS VERTICAL. |
| | | BALANCE DAMPERS. |
| | | STRUCTURAL FRONT PANEL. |
| | | LEFT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS. |
| | | SENSOR-CV. |
| 5 | Item #83 | FIELD WRAPPER 18.00" HIGH FRONT, RIGHT. |
| | | RIGHT END STANDOFF (FINISHED) 1" WIDE 60" LONG INSULATED. |
| | | BALANCE DAMPERS. |
| | | STRUCTURAL FRONT PANEL. |
| | | SENSOR-CV. |
| 6 | Item #90 | FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT. |
| | | BACKSPLASH 80.00" HIGH X 126.00" LONG 430 SS VERTICAL. |
| | | BALANCE DAMPERS. |
| | | STRUCTURAL FRONT PANEL. |
| | | RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS. |
| | | LEFT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS. |
| | | SENSOR-CV. |
| 7 | Item #114 | FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT. |
| 8 | Item #128 | FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT, BACK. |
| | | BALANCE DAMPERS. |
| | | FINISHED BACK- ISL/REV INSTALL 72.00" LONG, (FILTERS TO THE FRONT). |
| 9 | Item #128 | FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT, BACK. |
| | | BALANCE DAMPERS. |
| | | FINISHED BACK- ISL/REV INSTALL 72.00" LONG, (FILTERS TO THE FRONT). |
| 10 | Item #128 | FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT, BACK. |
| | | BALANCE DAMPERS. |
| | | FINISHED BACK- ISL/REV INSTALL 72.00" LONG, (FILTERS TO THE FRONT). |
| 11 | Item #128 | FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT, BACK. |
| | | BALANCE DAMPERS. |
| | | FINISHED BACK- ISL/REV INSTALL 72.00" LONG, (FILTERS TO THE FRONT). |
| 12 | Item #128 | FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT, BACK. |
| | | BALANCE DAMPERS. |
| | | FINISHED BACK- ISL/REV INSTALL 72.00" LONG, (FILTERS TO THE FRONT). |
| 13 | Item #128 | FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT, BACK. |
| | | BALANCE DAMPERS. |
| | | FINISHED BACK- ISL/REV INSTALL 72.00" LONG, (FILTERS TO THE FRONT). |
| 14 | Item #128 | FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT, BACK. |
| | | BALANCE DAMPERS. |
| | | FINISHED BACK- ISL/REV INSTALL 72.00" LONG, (FILTERS TO THE FRONT). |
| 15 | Item #131 | FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT, BACK. |
| | | BALANCE DAMPERS. |
| | | FINISHED BACK- ISL/REV INSTALL 48.00" LONG, (FILTERS TO THE FRONT). |

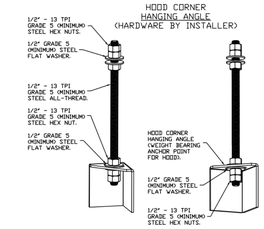
## *PERFORATED SUPPLY PLENUM(S)*

| HOOD NO | TAG | POS | LENGTH | WIDTH | HEIGHT | TYPE | RISER(S) WIDTH | RISER(S) LENG | RISER(S) DIA | CFM | SP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | Item #53 | Front | 201" | 14" | 6" | MUA | 12" | 28" | | 672 | 0.172" |
| | | | | | | MUA | 12" | 28" | | 672 | 0.172" |
| | | | | | | MUA | 12" | 28" | | 672 | 0.172" |
| | | | | | | MUA | 12" | 28" | | 672 | 0.172" |
| 3 | Item #57 | Front | 186" | 14" | 6" | MUA | 12" | 28" | | 800 | 0.206" |
| | | | | | | MUA | 12" | 28" | | 800 | 0.206" |
| | | | | | | MUA | 12" | 28" | | 800 | 0.206" |
| 4 | Item #83 | Front | 132" | 14" | 6" | MUA | 12" | 20" | | 565 | 0.174" |
| | | | | | | MUA | 12" | 20" | | 565 | 0.174" |
| | | | | | | MUA | 12" | 20" | | 565 | 0.174" |
| 5 | Item #83 | Front | 132" | 14" | 6" | MUA | 12" | 20" | | 594 | 0.191" |
| | | | | | | MUA | 12" | 20" | | 594 | 0.191" |
| | | | | | | MUA | 12" | 20" | | 594 | 0.191" |
| 6 | Item #90 | Front | 126" | 14" | 6" | MUA | 12" | 28" | | 817 | 0.214" |
| | | | | | | MUA | 12" | 28" | | 817 | 0.214" |
| 8 | Item #128 | Back | 72" | 12" | 6" | MUA | 8" | 36" | | 692 | 0.171" |
| | | Front | 72" | 12" | 6" | MUA | 8" | 36" | | 692 | 0.171" |
| 9 | Item #128 | Back | 72" | 12" | 6" | MUA | 8" | 36" | | 692 | 0.171" |
| | | Front | 72" | 12" | 6" | MUA | 8" | 36" | | 692 | 0.171" |
| 10 | Item #128 | Back | 72" | 12" | 6" | MUA | 8" | 36" | | 692 | 0.171" |
| | | Front | 72" | 12" | 6" | MUA | 8" | 36" | | 692 | 0.171" |
| 11 | Item #128 | Back | 72" | 12" | 6" | MUA | 8" | 36" | | 692 | 0.171" |
| | | Front | 72" | 12" | 6" | MUA | 8" | 36" | | 692 | 0.171" |
| 12 | Item #128 | Back | 72" | 12" | 6" | MUA | 8" | 36" | | 692 | 0.171" |
| | | Front | 72" | 12" | 6" | MUA | 8" | 36" | | 692 | 0.171" |
| 13 | Item #128 | Back | 72" | 12" | 6" | MUA | 8" | 36" | | 692 | 0.171" |
| | | Front | 72" | 12" | 6" | MUA | 8" | 36" | | 692 | 0.171" |
| 14 | Item #128 | Back | 72" | 12" | 6" | MUA | 8" | 36" | | 692 | 0.171" |
| | | Front | 72" | 12" | 6" | MUA | 8" | 36" | | 692 | 0.171" |
| 15 | Item #131 | Back | 48" | 12" | 6" | MUA | 8" | 26" | | 438 | 0.124" |
| | | Front | 48" | 12" | 6" | MUA | 8" | 26" | | 438 | 0.124" |




ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR PSP HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.




ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

## SPECIFICATION: CAPTRATE® GREASE-STOP® SDLD FILTER

THE CAPTRATE GREASE-STOP SDLD FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

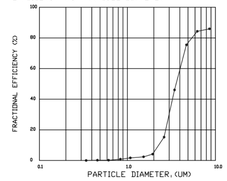
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNELS).

UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

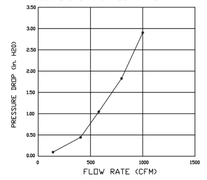
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

THE CAPTRATE GREASE-STOP SDLD WAS TESTED TO ASTM STANDARD ASTM E2519-05. MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER.

EFFICIENCY VS. PARTICLE DIAMETER




PRESSURE DROP VS. FLOW RATE




CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:
NFPA #96.
NSF STANDARD #2.
UL STANDARD #1046.
INT. MECH. CODE (IMC).
ULC-S649.

PLEASE NOTE: THE HOOD MAY BE INSTALLED WITH A 0 INCH CLEARANCE TO COMBUSTIBLE MATERIALS IF CONSTRUCTED IN ONE OF THE FOLLOWING METHODS:
1 INCH LAYER OF INSULATION (TYPE 475) OWENS CORNING, JOHNS MANVILLE, OR 3M FIRE WRAP
1 INCH INSULATED BACKSPLASH
BACK-RETURN (BR) SUPPY PLENUM WITH 1 INCH LAYER OF INSULATION
THESE RATINGS APPLY TO TOP, ENDS, BACK AND FRONT OF THE EXHAUST HOOD

PLEASE NOTE: THE HOOD MAY BE INSTALLED WITH A 3 INCH CLEARANCE TO LIMITED COMBUSTIBLE MATERIALS IF CONSTRUCTED IN ONE OF THE FOLLOWING METHODS:
3 INCH FACTORY INSTALLED REAR UN-INSULATED STANDOFF
3 INCH FACTORY INSTALLED TOP WRAPPER / ENCLOSURE SYSTEM
3 INCH FACTORY INSTALLED END STANDOFF
BACK-RETURN (BR) SUPPY PLENUM
THESE RATINGS APPLY TO TOP, ENDS, BACK AND FRONT OF THE EXHAUST HOOD

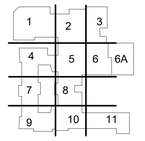

FOR QUESTIONS, CALL THE:
NJ, DE, PA SALES DIVISION
560 STOKES ROAD MEDFORD, NJ 08055
PHONE: (866) 654-8368
FAX: (919) 747-5604


CAPTIVE-AIRE HOODS ARE BUILT IN COMPLIANCE WITH

NFPA #96 - 2014 EDITION
ETL LISTED TO UL-710 REQUIREMENTS
*IMC 2018*

| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN




REVISIONS

| | DESCRIPTION | DATE |
|---|---|---|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |


CAPTIVE-AIRE
Delaware / South NJ Mechanical
560 Stokes Road, Unit 1346, Medford, NJ 08055 PHONE: (609) 654-8368 FAX: (919) 747-5604 EMAIL: reg1@captiveaire.com
www.captiveaire.com


Hodgson Technical School
2575 Glasgow Avenue,
Newark, DE, 19702

**DATE:** 6/16/2023

**DWG.#:** 5852582

**DRAWN BY:** JRE

**SCALE:** 3/4" = 1'-0"

**MASTER DRAWING**

**SHEET NO.** 2

OWNER
New Castle County Vo-Tech School District
1417 Newport Pike
Wilmington, DE 19804

STRUCTURAL ENGINEER
DCI + MacIntosh Engineers
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Wilmington , DE 19806
Phone (302) 252-9200
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MECHANICAL / ELECTRICAL ENGINEER
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**ABHA | BSA+A**
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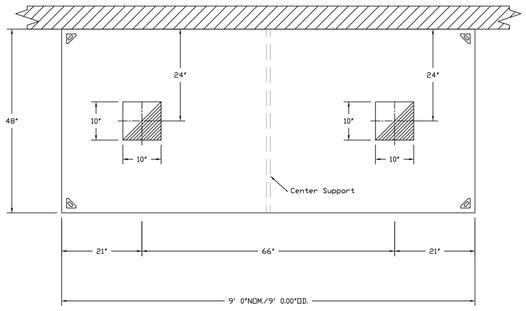
PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE NEWARK, DE 19702**

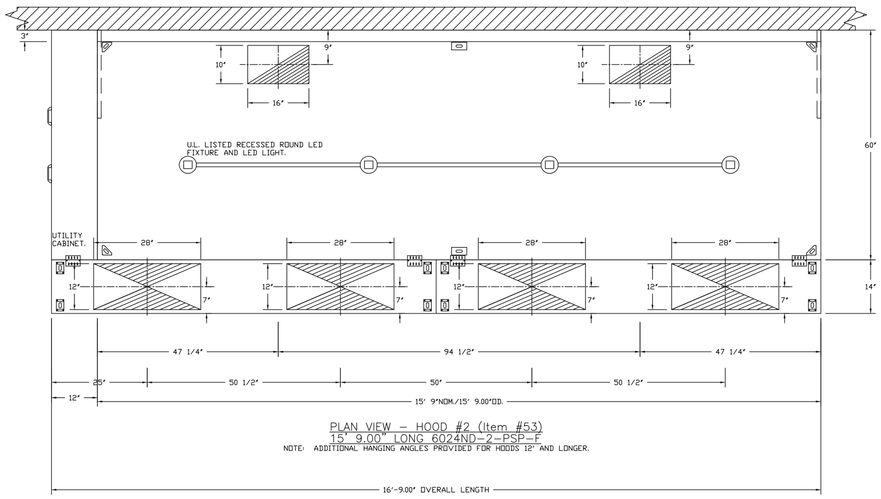
SHEET TITLE
**FOODSERVICE EXHAUST HOOD DETAILS**

SHEET NO.
**FS-2.1**

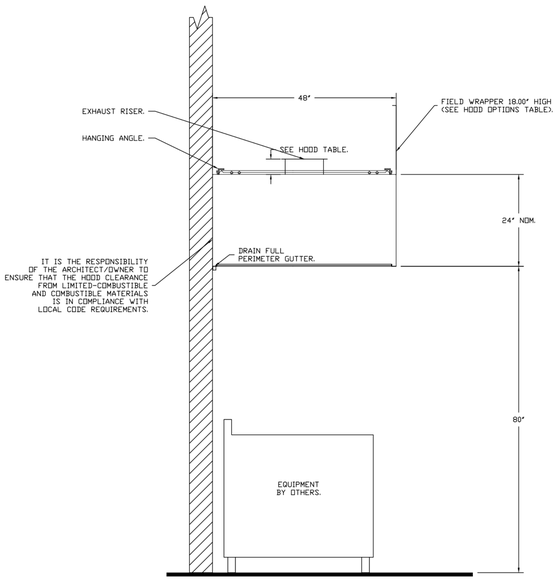



PLAN VIEW – HOOD #1 (Item #14)
9' 0.00" LONG 4824VHB-G

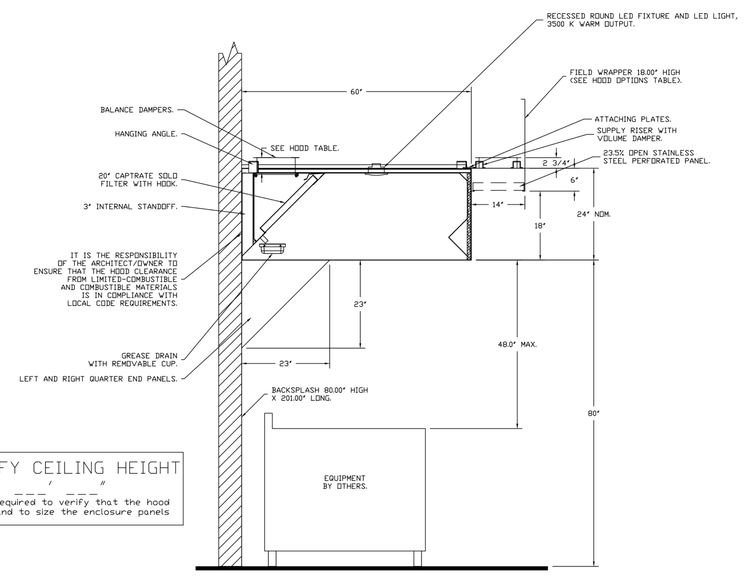
VERIFY CEILING HEIGHT
' "
Height required to verify that the hood will fit and to size the enclosure panels




PLAN VIEW – HOOD #2 (Item #53)
15' 9.00" LONG 6024ND-2-PSP-F
NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12' AND LONGER.




*SECTION VIEW – MODEL 4824VHB-C*
*HOOD – #1 (Item #14)*

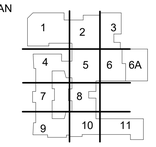



VERIFY CEILING HEIGHT
' "
Height required to verify that the hood will fit and to size the enclosure panels

*SECTION VIEW – MODEL 6024ND-2-PSP-F*
*HOOD – #2 (Item #53)*

| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN




**REVISIONS**

| | DESCRIPTION | DATE: |
|---|---|---|
| 1 | | |
| 2 | | |
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www.captiveaire.com


Hodgson Technical School
2575 Glasgow Avenue,
Newark, DE, 19702

**DATE:** 6/16/2023

**DWG.#:** 5852582

**DRAWN BY:** JRE

**SCALE:** 3/4" = 1'-0"

**MASTER DRAWING**

**SHEET NO.** 3

OWNER

New Castle County Vo-Tech School District

1417 Newport Pike
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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

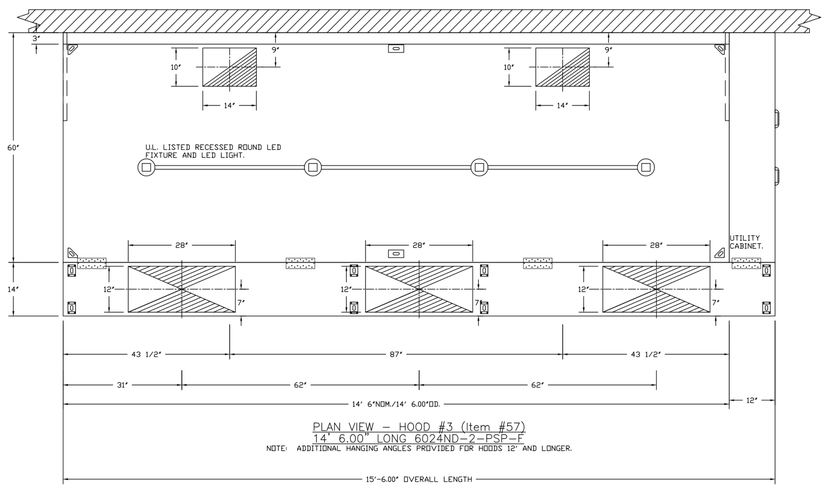
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

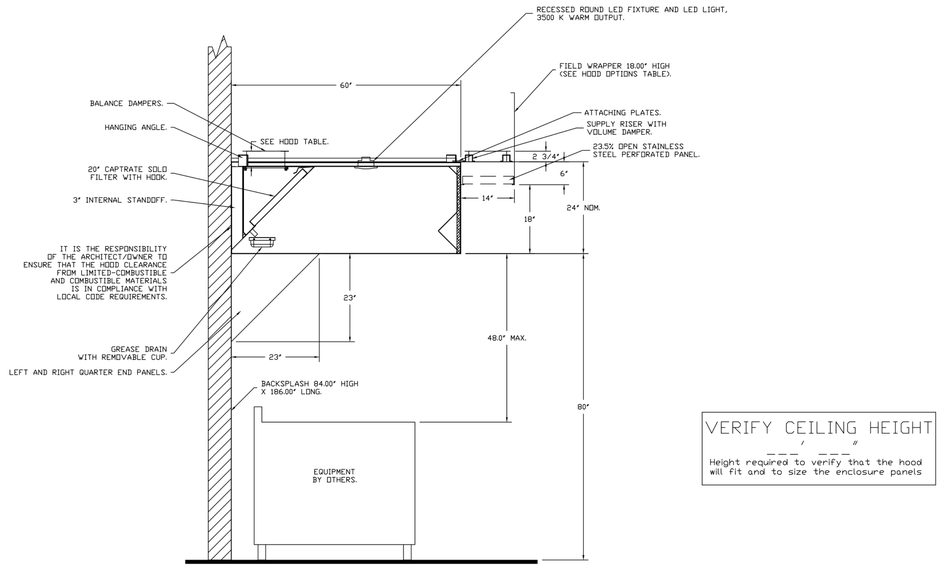
**FOODSERVICE EXHAUST HOOD DETAILS**

SHEET NO.

**FS-2.2**




PLAN VIEW – HOOD #3 (Item #57)
14' 6.00" LONG 6024ND-2-PSP-F
NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12' AND LONGER.

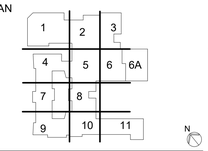



*SECTION VIEW – MODEL 6024ND-2-PSP-F*
*HOOD – #3 (Item #57)*

VERIFY CEILING HEIGHT
___' ___"
Height required to verify that the hood will fit and to size the enclosure panels

| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN




**REVISIONS**

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| 1 | | |
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Hodgson Technical School
2575 Glasgow Avenue,
Newark, DE, 19702

**DATE:** 6/16/2023

**DWG.#:** 5852582

**DRAWN BY:** JRE

**SCALE:** 3/4" = 1'-0"

**MASTER DRAWING**

**SHEET NO.** 4

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

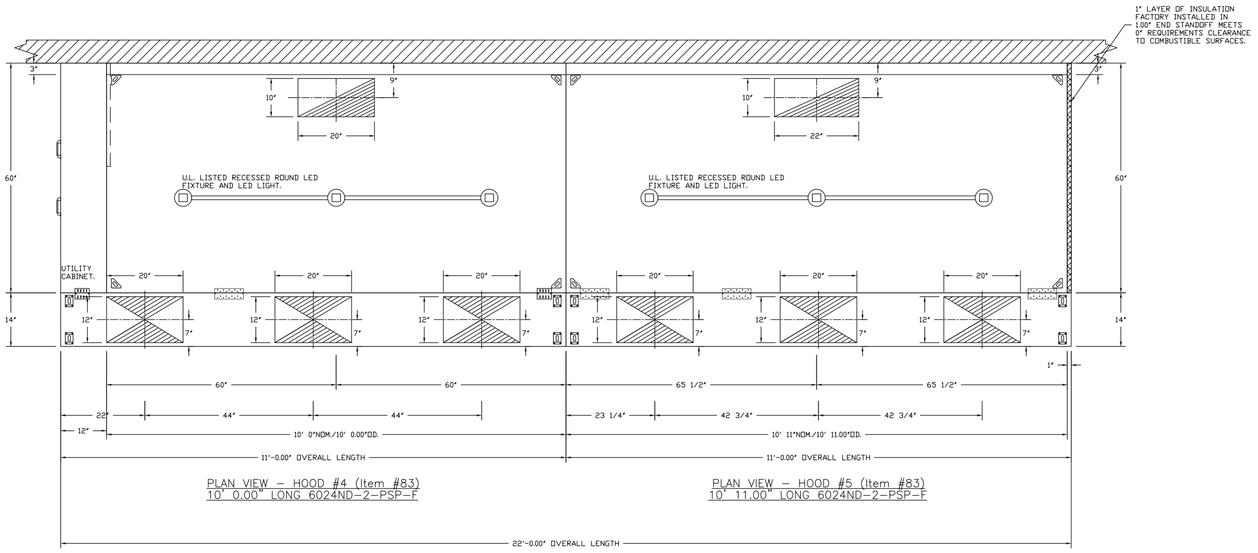
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FOODSERVICE EXHAUST HOOD DETAILS**

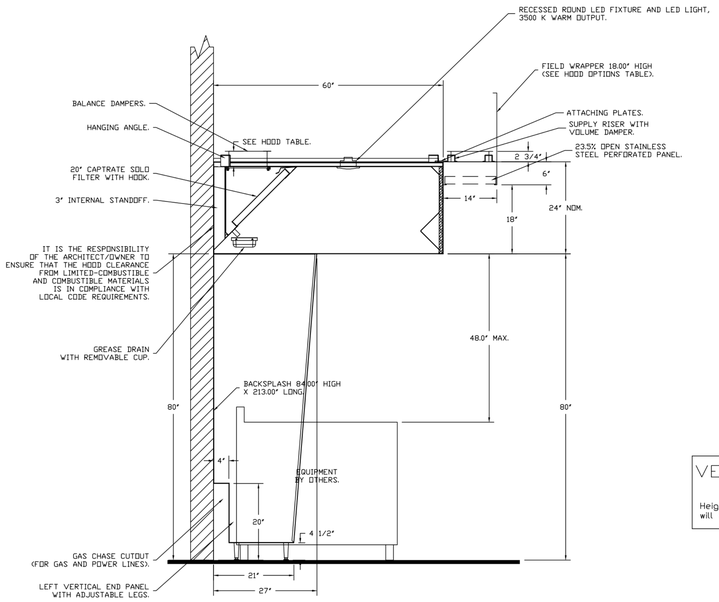
SHEET NO.

**FS-2.3**



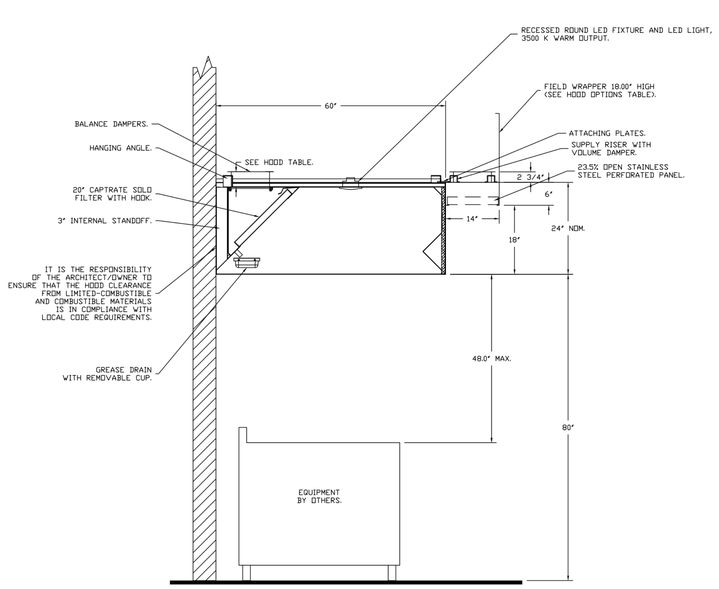

PLAN VIEW – HOOD #4 (Item #83)
10' 0.00" LONG 6024ND-2-PSP-F

PLAN VIEW – HOOD #5 (Item #83)
10' 11.00" LONG 6024ND-2-PSP-F




*SECTION VIEW – MODEL 6024ND-2-PSP-F*
*HOOD – #4 (Item #83)*

VERIFY CEILING HEIGHT
___' ___"
Height required to verify that the hood will fit and to size the enclosure panels




*SECTION VIEW – MODEL 6024ND-2-PSP-F*
*HOOD – #5 (Item #83)*

**REVISIONS**

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Hodgson Technical School
2575 Glasgow Avenue,
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**DATE:** 6/16/2023

**DWG.#:** 5852582

**DRAWN BY:** JRE

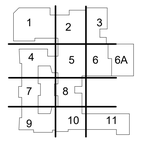
**SCALE:** 3/4" = 1'-0"

**MASTER DRAWING**

**SHEET NO.** 5

| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN




VOCATIONAL TECHNICAL SCHOOL DISTRICT
NEW CASTLE COUNTY DELAWARE

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

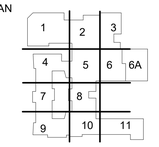
**FOODSERVICE EXHAUST HOOD DETAILS**

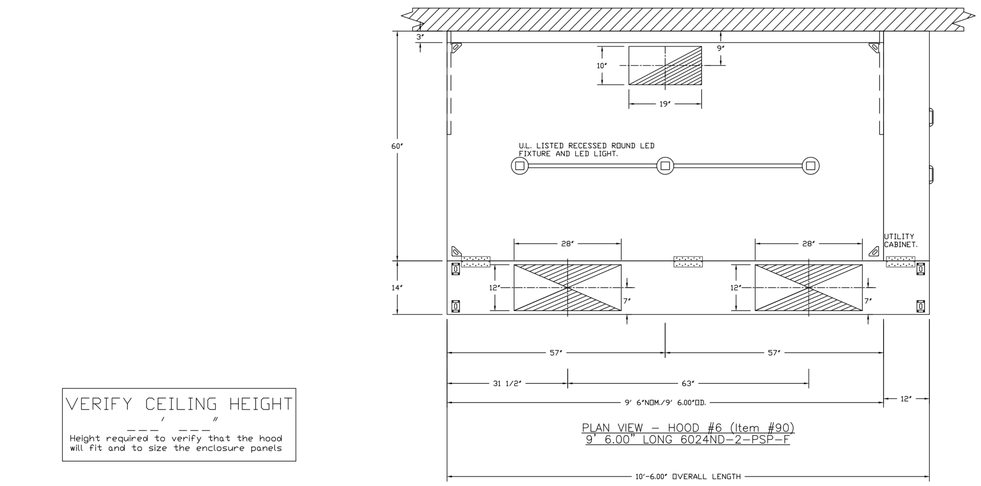
SHEET NO.

**FS-2.4**

| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN



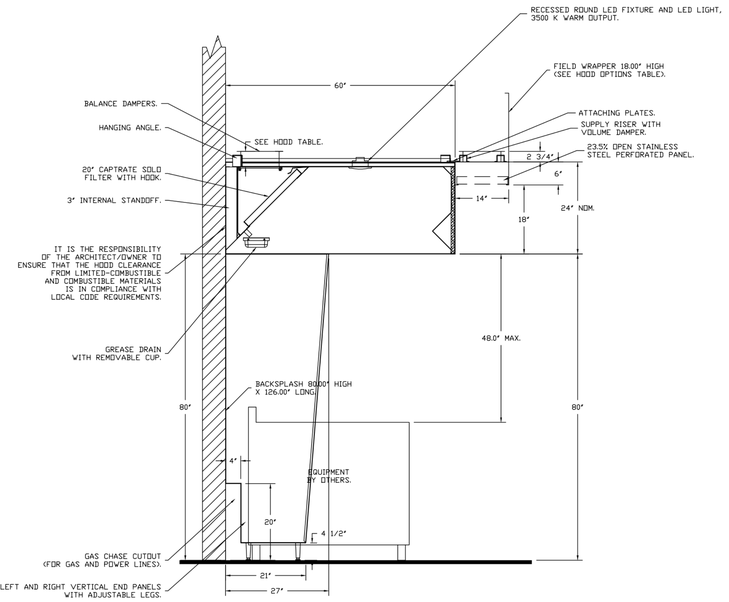

PLAN VIEW – HOOD #6 (Item #90)
9' 6.00" LONG 6024ND-2-PSP-F

10'-6.00" OVERALL LENGTH

VERIFY CEILING HEIGHT

___' ___"

Height required to verify that the hood will fit and to size the enclosure panels




*SECTION VIEW – MODEL 6024ND-2-PSP-F*
*HOOD – #6 (Item #90)*

**REVISIONS**

| | DESCRIPTION | DATE: |
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www.captivealre.com

Hodgson Technical School
2575 Glasgow Avenue,
Newark, DE, 19702

**DATE:** 6/16/2023

**DWG.#:** 5852582

**DRAWN BY:** JRE

**SCALE:** 3/4" = 1'-0"

**MASTER DRAWING**

**SHEET NO.** 6

OWNER

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Wilmington, DE 19804

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PAUL M. HODGSON VO-TECH HIGH SCHOOL

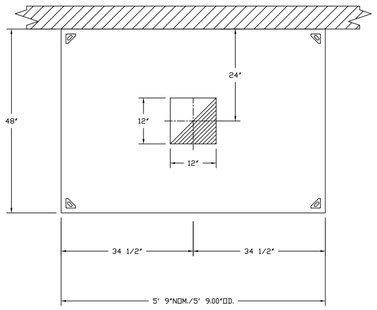
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FOODSERVICE EXHAUST HOOD DETAILS**

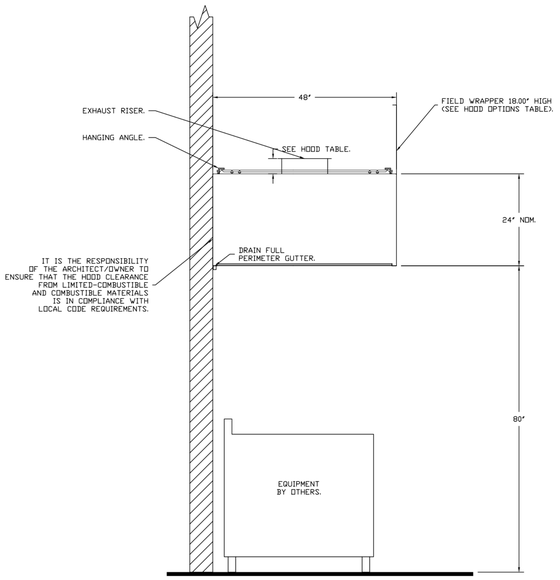
SHEET NO.

**FS-2.5**




PLAN VIEW – HOOD #7 (Item #114)
5' 9.00" LONG 4824VHB-G

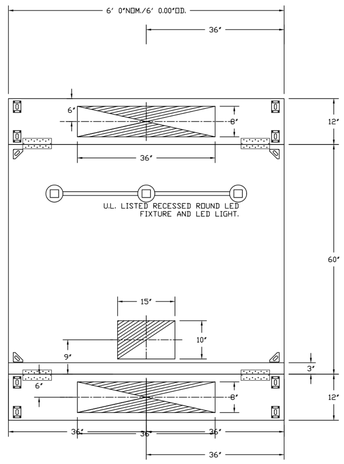
VERIFY CEILING HEIGHT
___' ___"
Height required to verify that the hood will fit and to size the enclosure panels

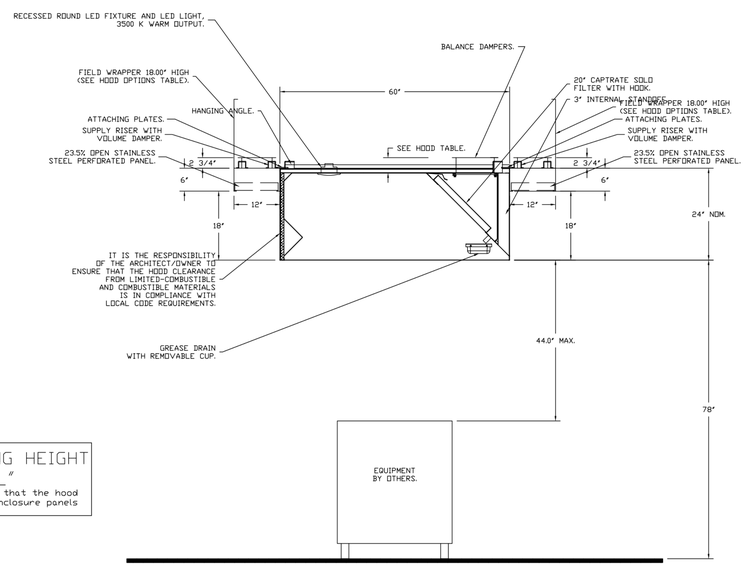



SECTION VIEW – MODEL 4824VHB-C
HOOD – #7 (Item #114)

PLAN VIEW – HOOD #8 (Item #128), HOOD #9 (Item #128), #10 (Item #128), #11 (Item #128), #12 (Item #128), #13 (Item #128), #14 (Item #128)

6' 0.00" LONG 6024ND-2WI-PSP-FB



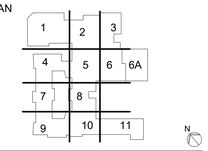

VERIFY CEILING HEIGHT
___' ___"
Height required to verify that the hood will fit and to size the enclosure panels

SECTION VIEW – MODEL 6024ND-2WI-PSP-FB

HOODS – #8 (Item #128), #9 (Item #128), #10 (Item #128), #11 (Item #128), #12 (Item #128), #13 (Item #128), #14 (Item #128)

| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN




REVISIONS

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Hodgson Technical School
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Newark, DE, 19702

**DATE:** 6/16/2023

**DWG.#:** 5852582

**DRAWN BY:** JRE

**SCALE:** 3/4" = 1'-0"

**MASTER DRAWING**

**SHEET NO.** 7

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

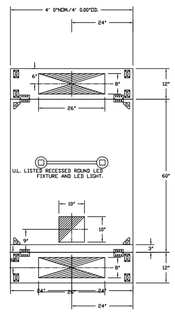
SHEET TITLE

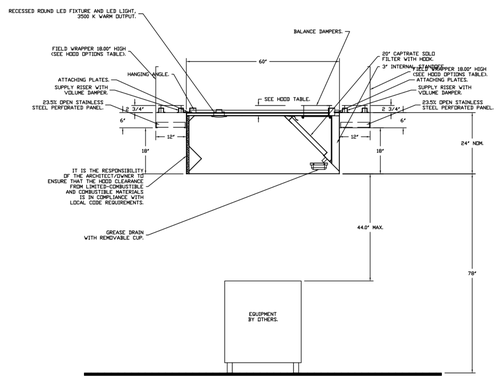
**FOODSERVICE EXHAUST HOOD DETAILS**

SHEET NO.

**FS-2.6**

PLAN VIEW – HOOD #15 (Item #131)
4' 0.00" LONG 6024ND-2WI-PSP-FB



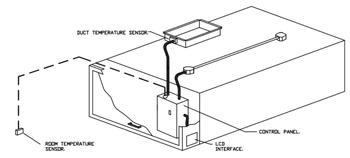




*SECTION VIEW – MODEL 6024ND-2WI-PSP-FB*
*HOOD – #15 (Item #131)*

VERIFY CEILING HEIGHT
Height required to verify that the hood will fit and to size the enclosure panels

DEMAND CONTROL VENTILATION HOOD CONTROL PANEL SPECIFICATIONS:

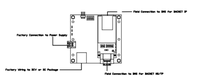
- CONTROLS SHALL BE LISTED BY ETL (UL 508A) AND SHALL COMPLY WITH DEMAND VENTILATION SYSTEM TURNDOWN REQUIREMENTS OUTLINED IN ICCC 403.7.5 (2021).
- THE CONTROL ENCLOSURE SHALL BE NEMA 1 RATED AND LISTED FOR INSTALLATION INSIDE OF THE EXHAUST HOOD UTILITY CABINET. THE CONTROL ENCLOSURE MAY BE CONSTRUCTED OF STAINLESS STEEL OR PAINTED STEEL.
- TEMPERATURE PROBE(S) LOCATED IN THE EXHAUST DUCT RISER(S) SHALL BE CONSTRUCTED OF STAINLESS STEEL.
- A DIGITAL CONTROLLER SHALL BE PROVIDED TO ACTIVATE THE HOOD EXHAUST FANS DYNAMICALLY BASED ON A FIXED DIFFERENTIAL BETWEEN THE AMBIENT AND DUCT TEMPERATURES SENSORS. THIS FUNCTION SHALL MEET THE REQUIREMENTS OF IMC 507.1.1.
- A DIGITAL CONTROLLER SHALL PROVIDE ADJUSTABLE HYSTERESIS SETTINGS TO PREVENT CYCLING OF THE FANS AFTER THE COOKING APPLIANCES HAVE BEEN TURNED OFF AND/OR THE HEAT IN THE EXHAUST SYSTEM IS REDUCED.
- A DIGITAL CONTROLLER SHALL PROVIDE AN ADJUSTABLE MINIMUM FAN RUN-TIME SETTING TO PREVENT FAN CYCLING.
- VARIABLE FREQUENCY DRIVES (VFDS) SHALL BE PROVIDED FOR FANS AS REQUIRED. THE DIGITAL CONTROLLER SHALL MODULATE THE VFDS BETWEEN A MINIMUM SETPOINT AND A MAXIMUM SETPOINT ON DEMAND. THE DUCT TEMPERATURE SENSOR INPUT(S) TO THE DIGITAL CONTROLLER SHALL BE USED TO CALCULATE THE SPEED REFERENCE SIGNAL.
- THE VFD SPEED RANGE OF OPERATION SHALL BE FROM 0% TO 100% FOR THE SYSTEM, WITH THE ACTUAL MINIMUM SPEED SET AS REQUIRED TO MEET MINIMUM VENTILATION REQUIREMENTS.
- AN INTERNAL ALGORITHM TO THE DIGITAL CONTROLLER SHALL MODULATE SUPPLY FAN VFD SPEED PROPORTIONAL TO ALL EXHAUST FANS THAT ARE LOCATED IN THE SAME FAN GROUP AS THE SUPPLY FAN.
- THE SYSTEM SHALL OPERATE IN PREP MODE DURING LIGHT COOKING LOAD OR COOL DOWN MODE WHEN SUFFICIENT HEAT REMAINS UNDERNEATH THE HOOD SYSTEM AFTER COOKING OPERATIONS HAVE COMPLETED. OPERATION DURING EITHER OF THESE PERIODS WILL DISABLE THE SUPPLY FANS AND PROVIDE AN EXHAUST FAN SPEED THAT IS EQUAL TO THE MINIMUM VENTILATION REQUIREMENT.
- A DIGITAL CONTROLLER SHALL DISABLE THE SUPPLY FAN(S), ACTIVATE THE EXHAUST FAN(S), ACTIVATE THE APPLIANCE SHUNT TRIP, AND DISABLE AN ELECTRIC GAS VALVE AUTOMATICALLY WHEN FIRE CONDITION IS DETECTED ON A COVERED HOOD.
- A DIGITAL CONTROLLER SHALL ALLOW FOR EXTERNAL BMS FAN CONTROL VIA DRY CONTACT (EXTERNAL CONTROL SHALL NOT OVERRIDE FAN OPERATION LOGIC AS REQUIRED BY CODE).
- AN LCD INTERFACE SHALL BE PROVIDED WITH THE FOLLOWING FEATURES:
  A. ON/OFF PUSH BUTTON FAN & LIGHT SWITCH ACTIVATION.
  B. INTEGRATED GAS VALVE RESET FOR ELECTRONIC GAS VALVES (NO RESET RELAY REQUIRED).
  C. VFD FAULT DISPLAY WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  D. DUCT TEMPERATURE SENSOR FAILURE DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  E. MIS-WIRED DUCT TEMPERATURE SENSOR DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  F. A SINGLE LOW VOLTAGE CAT-5 RJ45 WIRING CONNECTION.
  G. AN ENERGY SAVINGS INDICATOR THAT UTILIZES MEASURED KWH FROM THE VFDS.




*TYPICAL HOOD CONTROL PANEL INSTALLATION*

SEQUENCE OF OPERATIONS:
THE HOOD CONTROL PANEL IS CAPABLE OF OPERATING IN ONE OR MORE OF THE FOLLOWING STATES AT ANY GIVEN TIME:

- AUTOMATIC: THE SYSTEM OPERATES BASED ON THE DIFFERENTIAL BETWEEN ROOM TEMPERATURE AND THE TEMPERATURE AT THE HOOD CAVITY OR EXHAUST DUCT COLLAR. FANS ACTIVATE AT A CONFIGURABLE TEMPERATURE DIFFERENTIAL THRESHOLD. DEPENDING ON THE JOB CONFIGURATION EACH FAN ZONE CAN BE CONFIGURED AS STATIC OR DYNAMIC. THESE TERMS REFER TO WHETHER A VARIABLE MOTOR (SUCH AS EC MOTORS OR VFD DRIVEN MOTORS) MODULATE WITH TEMPERATURE. IF THE PANEL IS EQUIPPED WITH VARIABLE SPEED FANS AND THE ZONE IS DEFINED AS "DYNAMIC", THESE WILL MODULATE WITHIN A USER-DEFINED RANGE BASED ON THE TEMPERATURE DIFFERENTIAL. PANELS EQUIPPED WITH VARIABLE SPEED FANS AND A FAN ZONE DEFINED AS "STATIC", FANS WILL RUN AT A SET SPEED CALCULATED FOR THE DRIVE. DEMAND CONTROL VENTILATION SYSTEMS ARE CAPABLE OF MODULATING EXHAUST AND MAKE UP AIR FAN SPEEDS PER THE REQUIREMENTS OUTLINED IN ICCC 403.7.5 (2021).
- MANUAL: THE SYSTEM OPERATES BASED ON HUMAN INPUT FROM AN HMI.
- SCHEDULE: A WEEKLY SCHEDULE CAN BE SET TO RUN FANS FOR A SPECIFIED PERIOD THROUGHOUT THE DAY. THERE ARE THREE OCCUPIED TIMES PER DAY TO ALLOW FOR THE USER TO SET UP A TIME THAT IS SUITABLE TO THEIR NEEDS. ANY TIME THAT IS WITHIN THE DEFINED OCCUPIED TIME, THE SYSTEM WILL RUN AT MODULATION MODE AND FOLLOW THE FAN PROCEDURE ALGORITHM BASED ON TEMPERATURE DURING THIS TIME. DURING UNOCCUPIED TIME, THE SYSTEM WILL HAVE AN EXTRA OFFSET TO PREVENT UNINTENDED ACTIVATION OF THE SYSTEM DURING A TIME WHERE THE SYSTEM IS NOT BEING OCCUPIED.
- OTHER: THE SYSTEM OPERATES BASED ON THE INPUT FROM AN EXTERNAL SOURCE (BDC, BMS OR HARD-WIRED INTERLOCK).
- FIRE: UPON ACTIVATION OF THE HOOD FIRE SUPPRESSION SYSTEM, THE EXHAUST FAN WILL COME ON OR CONTINUE TO TO RUN, THE HOOD MAKEUP AIR WILL SHUTDOWN, AND A SIGNAL WILL BE SENT FOR ACTIVATING THE SHUNT TRIP BREAKER PROVIDED BY THE ELECTRICIAN. FUEL GAS WILL SHUT OFF VIA A MECHANICAL/ELECTRICAL GAS VALVE ACTUATED BY THE HOOD FIRE SUPPRESSION SYSTEM.




*BACNET Interface for DCV and SC Packages*

BACNET Interface for Hood Control Panel Specifications:
- The Hood Control Panel provides BACNET MS/TP connections to an external Building Management System through a RS-485 wired gateway (BACNET IP is optional).
- The Hood Control Panel communicates real time data from sensors and equipment to the Building Management System. The Hood Control Panel can allow the Building Management System to control fans, lights and wash cycles.
- The BACNET objects and controlling points for Hood Smart Controls and Demand Control Ventilation Systems are listed below:

*MONITORING AND CONTROL POINTS LIST*

| DCV Packages | Function |
|---|---|
| Room Temperature | MONITOR |
| Duct Temperature(s) | MONITOR |
| VFD1 Discharge Temperature | MONITOR |
| Hidden VFD1 Discharge Temperature | MONITOR |
| Fan Speed | MONITOR |
| Fan Amperage | MONITOR |
| Fan Power | MONITOR |
| VFD Faults | MONITOR |
| Controller Faults | MONITOR |
| Fan Faults | MONITOR |
| Fan Status | MONITOR |
| VFD Faults | MONITOR |
| VFD Filter Clog Percentage | MONITOR |
| Fan Deadtime | MONITOR |
| Hood Fire System | MONITOR |
| Building Pressure | MONITOR |
| Fan Enable(s) | MONITOR & CONTROL |
| Light Status(s) | MONITOR & CONTROL |
| Push Button | MONITOR & CONTROL |

| SC Packages | Function |
|---|---|
| Room Temperature(s) | MONITOR |
| Duct Temperature(s) | MONITOR |
| VFD1 Discharge Temperature | MONITOR |
| Hidden VFD1 Discharge Temperature | MONITOR |
| Controller Faults | MONITOR |
| Fan Faults | MONITOR |
| Fan Status | MONITOR |
| VFD Faults | MONITOR |
| VFD Filter Clog Percentage | MONITOR |
| Fan Deadtime | MONITOR |
| Hood Fire System | MONITOR |
| Building Pressure | MONITOR |
| Fan Enable(s) | MONITOR & CONTROL |
| Light Status(s) | MONITOR & CONTROL |
| Push Button | MONITOR & CONTROL |

## 24V TANK ELECTRIC WET CHEMICAL BASIC OPERATING INSTRUCTIONS

TANK ELECTRIC WET CHEMICAL PROTECTION FIRE SYSTEM

TANK ELECTRIC WET CHEMICAL (EWC) PROTECTION FIRE SYSTEMS CAN BE INSTALLED FOR HOOD FIRE PROTECTION, AS WELL AS POLLUTION CONTROL UNIT FIRE PROTECTION. IN THE EVENT OF A FIRE, OR ON MANUAL ACTUATION CORE EWC PROTECTION IS ACTIVATED.

IF THE INSTALLED FIRESTAT IN THE AIRSTREAM SENSES A TEMPERATURE HOTTER THAN THE FIRESTAT IS RATED FOR, OR IF THE MANUAL ACTUATION DEVICE IS PUSHED THE FIRE SYSTEM IS ACTIVATED. IN KITCHEN HOODS AN ELECTRICAL SOLENOID IS ENERGIZED ALLOWING THE FLOW OF WET CHEMICAL AGENT TO THE HOOD, DUCT, PLENUM AND APPLIANCE(S) THROUGH THE FIRE SYSTEM DISTRIBUTION PIPING. IN A POLLUTION CONTROL UNIT, THIS ELECTRONIC SIGNAL ENERGIZES A SOLENOID ALLOWING THE FLOW OF WET CHEMICAL AGENT INTO THE INDIVIDUALLY PIPED MODULES.

ONCE THE FIRE SYSTEM IS ACTIVATED A FIRE SYSTEM ACTIVATED LIGHT IS ENGAGED ON THE FIRE SYSTEM CONTROL PANEL, AND AN AUDIBLE ALARM SOUNDS FOR KITCHEN HOOD INSTALLATION ALL GAS AND ELECTRIC APPLIANCES UNDER THE HOOD MUST BE ELECTRONICALLY INTERLOCKED TO SHUT OFF. THIS IS ACHIEVED VIA A GAS VALVE RELAY AND/OR A SHUNT TRIP BREAKER.

THE FIRE SYSTEM IS ELECTRICALLY OPERATED AND THUS REQUIRES A BATTERY BACKUP SYSTEM IN THE EVENT OF A LOSS OF ELECTRICAL POWER, ALL GAS AND ELECTRIC APPLIANCES UNDER THE HOOD MUST BE ELECTRONICALLY INTERLOCKED TO SHUT OFF. THIS IS ACHIEVED VIA A GAS VALVE RELAY AND/OR A SHUNT TRIP BREAKER. THE BATTERY BACKUP WILL AUTOMATICALLY ENERGIZE UPON A LOSS OF POWER. THE BATTERY BACKUP WILL MONITOR THE FIRE SYSTEM CIRCUIT FOR ONE DAY AND BE ABLE TO OPERATE THE FIRE SYSTEM CIRCUIT FOR A MINIMUM OF 30 MINUTES ONCE POWER IS RESTORED. THE BATTERY WILL AUTOMATICALLY RECHARGE.

TANK PROTECTION RESET OVERVIEW

THERE ARE MULTIPLE ACTIONS REQUIRED TO RESET THE FIRE SYSTEM. FIRST, THE FIRESTAT MUST BE ALLOWED TO COOL TO ITS INTERNAL SET POINT AND THE MANUAL ACTUATION DEVICE MUST BE RESET BY TWISTING THE BUTTON IN A CLOCKWISE DIRECTION. ONCE BOTH OF THESE DEVICES HAVE BEEN RESET, THE GAS CARTRIDGE MUST BE REMOVED AND REPLACED. ONCE THE GAS CARTRIDGE HAS BEEN REINSTALLED THE WET CHEMICAL ACTIVATOR CAN BE RESET FOLLOWING THE WET CHEMICAL FIRE SUPPRESSION SYSTEM MANUFACTURER'S GUIDELINES. NOTE: THE FIRESTAT MUST BE COOL AND THE MANUAL ACTUATION DEVICE MUST BE RESET IN ORDER TO RE-ARM THE SYSTEM.

THE FIRE SYSTEM MUST BE RE-COMMISSIONED PER THE MANUFACTURES RECOMMENDATIONS AND GUIDELINES BY AN AUTHORIZED FIRE SYSTEM DISTRIBUTOR AND/OR AUTHORIZED SERVICE AGENT.

AFTER A FIRE, FULL INSPECTION BY A CERTIFIED PROFESSIONAL MUST BE CONDUCTED PRIOR TO RESTARTING THE FIRE SYSTEM.

TANK APPLICATION SPECIFIC DETAILS

DUCT FIRESTATS
HOODS RATED FOR 600 DEGREE APPLIANCES REQUIRE ADDITIONAL FIRESTATS TO BE INSTALLED IF THERE ARE ANY HORIZONTAL SECTIONS OF DUCT OVER 25 FT.

IMPORTANT:
ANY DEVIATION FROM ANY OF THE MANUFACTURER'S RECOMMENDATIONS IN THIS DOCUMENT OR THE OPERATION AND INSTALLATION MANUAL MUST BE APPROVED BY THE OWNER OF THIS EQUIPMENT AND VOIDS THE WARRANTY AND PERFORMANCE GUARANTEE OF THIS PRODUCT.

**REVISIONS**

| | DESCRIPTION | DATE: |
|---|---|---|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |


CAPTIVE-AIRE
Delaware / South NJ Mechanical
560 Stokes Road, Unit 1346, Medford, NJ, 08055 PHONE: (609) 654-8368 FAX: (919) 747-5604 EMAIL: reg19@captiveaire.com
www.captiveaire.com


Hodgson Technical School
2575 Glasgow Avenue,
Newark, DE, 19702

**DATE:** 6/16/2023

**DWG.#:** 5852582

**DRAWN BY:** JRE

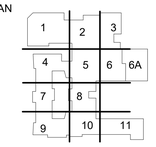
**SCALE:** 1/2" = 1'-0"

**MASTER DRAWING**

**SHEET NO.** 8

| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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NEW CASTLE COUNTY DELAWARE

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The professional services of ABHA/BSA+A, LLC. are undertaken for and performed in the interest of the NCCVT School District. No contractual obligation is assumed by ABHA/BSA+A, LLC. for the benefit of any other person involved in the project.

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

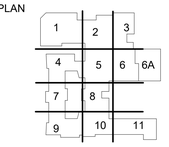
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE
**FOODSERVICE EXHAUST HOOD DETAILS**

SHEET NO.
**FS-2.7**

| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN




## IMPORTANT SPECIAL UDS PARTS/NOTES

- VERTICAL END PANEL LOCATION.
- UDS IS "L" SHAPED DUE TO NEC CODE RESTRICTIONS.
- NEOPRENE BUMPER GUARDS.
- ONE (1) EV-9797-40 WATER FILTER WITH WINDOW.

UDS CONSTRUCTION TO BE 18 GA., TYPE 304 STAINLESS STEEL

UTILITY DISTRIBUTION SYSTEM MODEL UDI IS LISTED UNDER ETL FILE NUMBER 3054803 CONFORMS TO UL STD 891 CERTIFIED TO CAN/CSA C22.2 No. 31-M89

PRIOR TO SCHEDULING UDS FOR PRODUCTION, PLEASE PROVIDE APPROVED SUBMITTAL CUTSHEETS ON FINAL KITCHEN EQUIPMENT ASSOCIATED WITH THE UDS (NEW & USED) SO THAT CONNECTION SIZES, TYPES AND LOCATIONS CAN BE VERIFIED.

ANY CHANGES TO SUBMITTAL DRAWING MAY AFFECT PRICE AND PRODUCTION TIME. PLEASE FORWARD CHANGES ASAP.

----NOTE----
CUSTOMER TO VERIFY FLOOR DRAIN LOCATIONS PRIOR TO ORDERING UDS. C.A.S. IS NOT RESPONSIBLE FOR DRAINS LOCATED UNDERNEATH RISERS/PEDESTALS LOCATIONS.

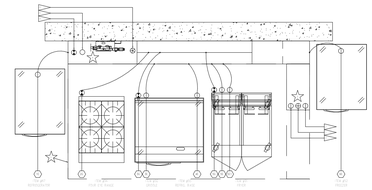
----NOTE----
NEC REQUIRES 36" OF FIELD CLEARANCE IN FRONT OF CIRCUIT BREAKERS FOR ACCESS

SYMBOL SCHEDULE

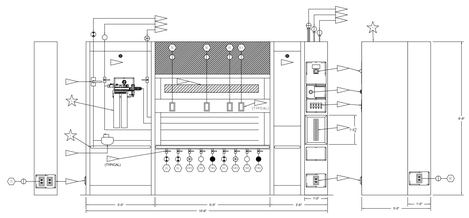
- (GU) NOTE
- (AC) NOTE
- (FLOOD) NOTE
- (WATER) NOTE
- (GAS) NOTE
- (TEMP) NOTE
- (GU) NO. 1 PHASE
- (CB) NO. 1 PHASE
- (CB) NO. 2 PHASE
- (AC) NO. 1 PHASE
- (TEMP SUPPLY)
- (TEMP CONDUIT RETURN)

STANDARD FLAG NOTES

1. ELECTRICAL SERVICE FROM ABOVE, SEE SCHEDULE FOR DETAILS. PROVIDED BY ELECTRICAL CONTRACTOR.
2. 120V/1PH/15A DEDICATED ELECTRICAL CIRCUIT INTO UDS TERMINALS "H", "G" FOR FUEL/SMART CONTROL. (PROVIDED BY ELECTRICAL CONTRACTOR) SEE SCHEMATIC BELOW.
3. 3-WIRE ELECTRICAL CIRCUIT FROM HOOD CONTROL PACKAGE TERMINALS "GAS, ST & 4TB" TO UDS TERMINALS "GAS, ST & 4TB" FOR GAS VALVE CONTROL IN A FIRE CONDITION. (PROVIDED BY ELECTRICAL CONTRACTOR) SEE SCHEMATIC BELOW.
4. GAS SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE AND STYLE (PROVIDED BY PLUMBING CONTRACTOR).
5. COLD WATER SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE (PROVIDED BY PLUMBING CONTRACTOR).
6. HOT WATER SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE (PROVIDED BY PLUMBING CONTRACTOR).
7. SERVICE MAIN BREAKER W/SHUNT TRIP AND RESET HANDLE, SEE SCHEDULE FOR DETAILS.
8. STATUS INDICATOR LIGHTS.
9. EMERGENCY KILL SWITCH.
10. GCO RECEPTACLE W/ BREAKER & WEATHERPROOF COVER.
11. ELECTRICAL LOAD CENTER WITH INDIVIDUAL CIRCUIT BREAKERS.
12. ELECTRICAL WIRING TO APPLIANCES.
13. ELECTRICAL CONNECTION W/WEATHERPROOF COVER AS SPECIFIED ON THE EQUIPMENT SCHEDULE, SEE THIS SHEET.
14. PLUMBING CONNECTION AS SPECIFIED ON THE EQUIPMENT SCHEDULE, SEE THIS SHEET.
15. MANUAL SHUT OFF VALVE.
16. 120V ELECTRICAL GAS VALVE.
17. REMOVABLE ACCESS DOORS.



WALL VIEW – WALL UDS – UDW




ELEVATION – WALL UDS – UDW

PAGE 1 OF 2

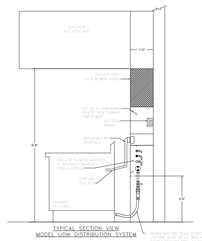
| | |
|---|---|
| JOB | HODGSON TECHNICAL SCHOOL 110 |
| LOCATION | - |
| DATE | 6/28/23 |
| JOB # | - |
| DRG. # | - |
| DRAWN BY | DDH |
| REV. | 3-10/3/23-DDH |
| SCALE | 3/4" |

## UTILITY DISTRIBUTION SYSTEM EQUIPMENT SCHEDULE

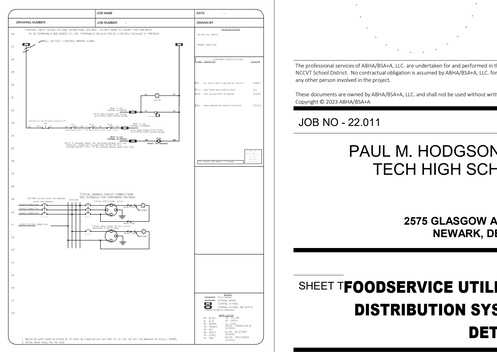
| EQUIPMENT | | | | | ELECTRICAL | | | | CIRCUIT BREAKER | | RECEPTACLE | GAS | WATER | | STEAM | | CONNECTION | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONN.# | ITEM | DESCRIPTION | MANUFACTURER | MODEL # | KW | AMPS | HP | VOLT | PH | AMPS | POLES | PART # | SIZE | MBH | HOT | COLD | SUPPLY | COND. RETURN | LBS/HR | TYPE | LENGTH | NOTES |
| - | 1E | 1 | REFRIGERATOR | CONTINENTAL | DRW20 | 0.7 | 5.9 | - | 120 | 1 | 20 | 1 | DR20 | - | - | - | - | - | - | SUPPLIED W/ EQUIP. | - | GFI BREAKER |
| - | 2G | 2 | FOUR EYE RANGE | GARLAND | G24-RL | - | - | - | - | - | - | - | - | - | - | - | - | - | - | QUICK DISCONNECT | 'A' | - |
| - | 3E | 3 | GRIDDLE | GARLAND | GTGG36-GTSMM | 0.1 | 1.0 | - | 120 | 1 | 20 | 1 | DR20 | - | - | - | - | - | - | SUPPLIED W/ EQUIP. | - | GFI BREAKER |
| - | 3G | 3 | GRIDDLE | GARLAND | GTGG36-GTSMM | - | - | - | - | - | - | - | - | 3/4" | 84 | - | - | - | - | QUICK DISCONNECT | 'A' | - |
| - | 4E | 4 | CHEESE MELTER | CONTINENTAL | CMW36 | 0.3 | 2.5 | - | 120 | 1 | 20 | 1 | DR20 | - | - | - | - | - | - | SUPPLIED W/ EQUIP. | - | GFI BREAKER |
| - | 4E | 5 | FRYER | FRYMASTER | FPPH50S | 0.1 | 0.8 | - | 120 | 1 | 20 | 1 | DR20 | - | - | - | - | - | - | SUPPLIED W/ EQUIP. | - | GFI BREAKER |
| - | 5E1 | 6 | FRYER | FRYMASTER | FPPH50S | 1.0 | 8.0 | - | 120 | 1 | 20 | 1 | DR20 | - | - | - | - | - | - | SUPPLIED W/ EQUIP. | - | GFI BREAKER |
| - | 5E | 7 | FRYER | FRYMASTER | FPPH50S | - | - | - | - | - | - | - | - | - | - | - | - | - | - | QUICK DISCONNECT | 'A' | - |
| - | 6E | 8 | FREEZER | CONTINENTAL | 1FM35 | 0.9 | 7.6 | - | 120 | 1 | 20 | 1 | DR20 | - | - | - | - | - | - | SUPPLIED W/ EQUIP. | - | GFI BREAKER |
| - | 2G | - | DUPLEX OUTLET | - | - | - | - | - | 120 | 1 | 20 | 1 | DR20 | - | - | - | - | - | - | FACTORY | - | GFI BREAKER |
| - | 1G | - | DUPLEX OUTLET | - | - | - | - | - | 120 | 1 | 20 | - | DR20 | - | - | - | - | - | - | FACTORY | - | GFI BREAKER |
| TOTAL CONNECTED LOAD: | | | | | 3.1 | KW | 8.7 | AMP | 0.0 | KW | 0.0 | AMP | 408 | MBH | H.W. | | STEAM SUPPLY | | | | | |
| FUTURE AVAILABLE LOAD CAPACITY: | | | | | 11.3 | KW | 31.3 | AMP | 0.0 | KW | 0.0 | AMP | 382 | MBH | 3/4" | | | | | | | |
| SYSTEM CAPACITY: | | | | | 14.4 | KW | 40.0 | AMP | 0.0 | KW | 0.0 | AMP | 790 | MBH | C.W. | | COND. RETURN | | | | | |
| SERVICE SIZE: | | | | | 120/208 V/ 3 PH/ 50 AMP | | | | V/ PH/ AMP | | | | 1-1/2" IPS SINGLE | | 3/4" | | - | | | | | |

## UTILITY DISTRIBUTION SYSTEM FILTER CALCULATIONS

| EQUIPMENT | | | | FILTER | | | | |
|---|---|---|---|---|---|---|---|---|
| CONN. # | ITEM | DESCRIPTION | MANUFACTURER | MODEL # | EQUIPMENT FLOW RATE (GPM) | MANUFACTURER | MODEL # | FILTER FLOWRATE (GPM) | CONNECTION TYPE INLET | CONNECTION TYPE OUTLET |
| FWS | - | FILTERED WATER SPARE | - | - | - | - | - | - | - | - |
| FWS | - | FILTERED WATER SPARE | - | - | - | EVERPURE | EV-9797-40 | 3/4" | 3/4" | S |




| PRODUCT DESCRIPTION | |
|---|---|
| SOLD TO | (TYP.) |
| HOOD HEIGHT | 90" |
| DECK HEIGHT | 80" |
| TRIM CEILLAR SIZE | NA |
| TRIM CEILLAR LOCATION | NA |
| DUCT WIDTH | 12" |
| TOP OF RACEWAY FROM FLOOR | 12" |
| OUTLET LOCATION | ON PAD |
| OUTLET HEIGHT (IF APPLICABLE) | 90" |
| PLUMBING VENDOR | OP |




PAGE 2 OF 2

| | |
|---|---|
| JOB | HODGSON TECHNICAL SCHOOL 110 |
| LOCATION | - |
| DATE | 6/28/23 |
| JOB # | - |
| DRG. # | - |
| DRAWN BY | DDH |
| REV. | 3-10/3/23-DDH |
| SCALE | 3/4" |

OWNER

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**Stages Consultants, LLC**

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ARCHITECTS

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

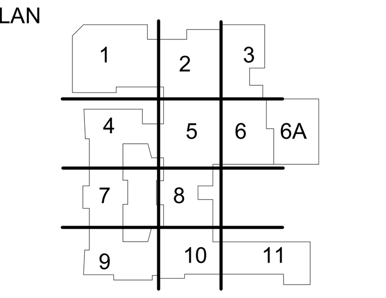
**FOODSERVICE UTILITIES DISTRIBUTION SYSTEM DETAILS**

SHEET NO.

**FS-2.8**

| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN




## IMPORTANT SPECIAL UDS PARTS/NOTES

| | |
|---|---|
| ☆ | ONE (1) EV-9797-40 WATER FILTER WITH WINDOW. |
| ☆ | ONE (1) EAGLE HSA-10-FAW HAND SINK MOUNTED TO RISER (PROVIDED BY OTHERS). |
| ☆ | VERTICAL END PANEL LOCATION. |
| ☆ | NEOPRENE BUMPER GUARDS. |
| | |
| | |

UDS CONSTRUCTION TO BE 18 GA., TYPE 304 STAINLESS STEEL

UTILITY DISTRIBUTION SYSTEM MODEL UDI IS LISTED UNDER ETL FILE NUMBER 3054803 CONFORMS TO UL STD 891 CERTIFIED TO CAN/CSA C22.2 No. 31–M89

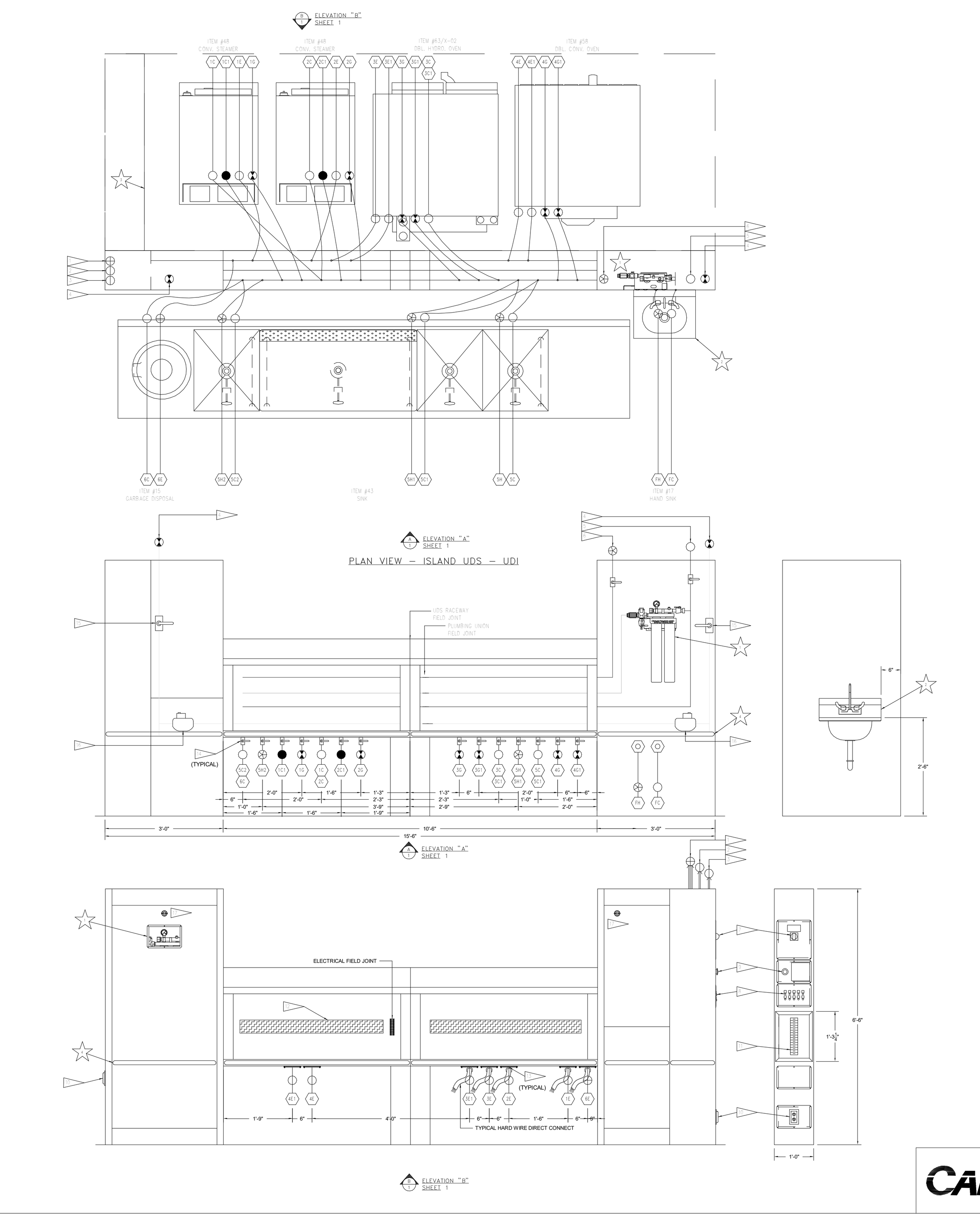
PRIOR TO SCHEDULING UDS FOR PRODUCTION PLEASE PROVIDE APPROVED SUBMITTAL CUTSHEETS ON FINAL KITCHEN EQUIPMENT ASSOCIATED WITH THE UDS (NEW & USED) SO THAT CONNECTION SIZES, TYPES AND LOCATIONS CAN BE VERIFIED

ANY CHANGES TO SUBMITTAL DRAWING MAY AFFECT PRICE AND PRODUCTION TIME PLEASE FORWARD CHANGES ASAP

----NOTE----
CUSTOMER TO VERIFY FLOOR DRAIN LOCATIONS PRIOR TO ORDERING UDS. C.A.S. IS NOT RESPONSIBLE FOR DRAINS LOCATED UNDERNEATH RISERS/PEDESTALS LOCATIONS.

----NOTE----
NEC REQUIRES 36" OF FIELD CLEARANCE IN FRONT OF CIRCUIT BREAKERS FOR ACCESS

SYMBOL SCHEDULE
- COLD WATER
- HOT WATER
- FILTERED WATER
- NATURAL GAS
- PROPANE
- 120 VAC 1 PHASE
- 208 VAC 1 PHASE
- 208 VAC 3 PHASE
- 480 VAC 3 PHASE
- STEAM SUPPLY
- STEAM CONDENSATE RETURN




STANDARD FLAG NOTES
- ELECTRICAL SERVICE FROM ABOVE, SEE SCHEDULE FOR DETAILS. PROVIDED BY ELECTICAL CONTRACTOR.
- 120V/1PH/15A DEDICATED ELECTRICAL CIRCUIT INTO UDS TERMINALS "H1, N1" FOR FUEL/SHUNT CONTROL. (PROVIDED BY ELECTRICAL CONTRACTOR) SEE SCHEMATIC BELOW.
- 3-WIRE ELECTRICAL CIRCUIT FROM HOOD CONTROL PACKAGE TERMINALS "GAS, ST & KTS" TO UDS LIKE TERMINALS "GAS, ST & KTS" FOR UDS SHUT DOWN IN A FIRE CONDITION. (PROVIDED BY ELECTRICAL CONTRACTOR). SEE SCHEMATIC BELOW.
- GAS SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE AND STYLE (PROVIDED BY PLUMBING CONTRACTOR)
- COLD WATER SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE (PROVIDED BY PLUMBING CONTRACTOR)
- HOT WATER SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE (PROVIDED BY PLUMBING CONTRACTOR)
- SERVICE MAIN BREAKER W/SHUNT TRIP AND RESET HANDLE, SEE SCHEDULE FOR DETAILS.
- STATUS INDICATOR LIGHTS.
- EMERGENCY KILL SWITCH.
- DCO RECEPTACLE W/ BREAKER & WEATHERPROOF COVER.
- ELECTRICAL LOAD CENTER WITH INDIVIDUAL CIRCUIT BREAKERS.
- ELECTRICAL WIRING TO APPLIANCES.
- ELECTRICAL CONNECTION W/WEATHERPROOF COVER AS SPECIFIED ON THE EQUIPMENT SCHEDULE, SEE THIS SHEET.
- PLUMBING CONNECTION AS SPECIFIED ON THE EQUIPMENT SCHEDULE, SEE THIS SHEET.
- MANUAL SHUT OFF VALVE.
- 120V ELECTRICAL GAS VALVE.
- REMOVABLE ACCESS DOORS.

PAGE 1 OF 2

| | |
|---|---|
| JOB | HODGSON TECHNICAL SCHOOL 42 |
| LOCATION | - |
| DATE 6/28/23 | JOB # - |
| DWG # - | DRAWN BY DDH |
| REV. 3-10/3/23-DDH | SCALE 3/4" |


IMPORTANT SPECIAL UDS PARTS/NOTES

ONE (1) EV-9797-40 WATER FILTER WITH WINDOW.
ONE (1) EAGLE HSA-10-FAW HAND SINK MOUNTED TO RISER (PROVIDED BY OTHERS).
VERTICAL END PANEL LOCATION.
NEOPRENE BUMPER GUARDS.

ONE (1) EAGLE HSA-10-FAW HAND SINK MOUNTED TO RISER (PROVIDED BY OTHERS).
UDS CONSTRUCTION TO BE 18 GA., TYPE 304 STAINLESS STEEL

UTILITY DISTRIBUTION SYSTEM MODEL UDI IS LISTED UNDER ETL FILE NUMBER 3054803 CONFORMS TO UL STD 891 CERTIFIED TO CAN/CSA C22.2 No. 31–M89

PRIOR TO SCHEDULING UDS FOR PRODUCTION PLEASE PROVIDE APPROVED SUBMITTAL CUTSHEETS ON FINAL KITCHEN EQUIPMENT ASSOCIATED WITH THE UDS (NEW & USED) SO THAT CONNECTION SIZES, TYPES AND LOCATIONS CAN BE VERIFIED

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----NOTE----
CUSTOMER TO VERIFY FLOOR DRAIN LOCATIONS PRIOR TO ORDERING UDS. C.A.S. IS NOT RESPONSIBLE FOR DRAINS LOCATED UNDERNEATH RISERS/PEDESTALS LOCATIONS.

----NOTE----
NEC REQUIRES 36" OF FIELD CLEARANCE IN FRONT OF CIRCUIT BREAKERS FOR ACCESS

SYMBOL SCHEDULE
COLD WATER
HOT WATER
FILTERED WATER
NATURAL GAS
PROPANE
120 VAC 1 PHASE
208 VAC 1 PHASE
208 VAC 3 PHASE
480 VAC 3 PHASE
STEAM SUPPLY
STEAM CONDENSATE RETURN


CUSTOMER TO CONFIRM UTILITY CONNECTIONS PRIOR TO ORDERING

## UTILITY DISTRIBUTION SYSTEM EQUIPMENT SCHEDULE

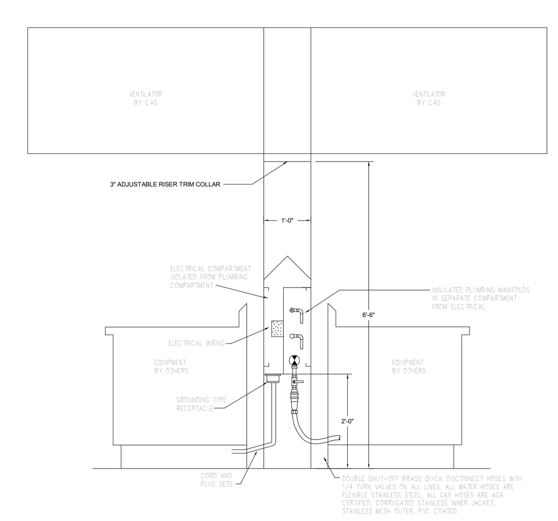
| EQUIPMENT | | | | | ELECTRICAL | | | | | CIRCUIT BREAKER | | RECEPTACLE | GAS | | WATER | | STEAM | | | CONNECTION | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONN.# | ITEM | DESCRIPTION | MANUFACTURER | MODEL # | KW. | AMPS | HP | VOLT | PH | AMPS | POLES | PART # | SIZE | MBH | HOT | COLD | SUPPLY | COND. RETURN | LBS/HR | TYPE | LENGTH | |
| 1E | 48 | CONV. STEAMER | CLEVELAND | 24-CGA-10.2 | 0.3 | 2.5 | - | 120 | 1 | 20 | 1 | - | - | - | - | - | - | - | - | DIRECT | 8' | CONDUIT & WIRE |
| 1G | 48 | CONV. STEAMER | CLEVELAND | 24-CGA-10.2 | - | - | - | - | - | - | - | - | 3/4" | 144 | - | - | - | - | - | QUICK DISCONNECT | 5' | - |
| 1C | 48 | CONV. STEAMER | CLEVELAND | 24-CGA-10.2 | - | - | - | - | - | - | - | - | - | - | - | 3/8" | - | - | - | QUICK DISCONNECT | 5' | - |
| 1C1 | 48 | CONV. STEAMER | CLEVELAND | 24-CGA-10.2 | - | - | - | - | - | - | - | - | - | - | - | 3/8" | - | - | - | QUICK DISCONNECT | 5' | FILTERED |
| 2E | 48 | CONV. STEAMER | CLEVELAND | 24-CGA-10.2 | 0.3 | 2.5 | - | 120 | 1 | 20 | 1 | - | - | - | - | - | - | - | - | DIRECT | 8' | CONDUIT & WIRE |
| 2G | 48 | CONV. STEAMER | CLEVELAND | 24-CGA-10.2 | - | - | - | - | - | - | - | - | 3/4" | 144 | - | - | - | - | - | QUICK DISCONNECT | 5' | - |
| 2C | 48 | CONV. STEAMER | CLEVELAND | 24-CGA-10.2 | - | - | - | - | - | - | - | - | - | - | - | 3/8" | - | - | - | QUICK DISCONNECT | 5' | - |
| 2C1 | 48 | CONV. STEAMER | CLEVELAND | 24-CGA-10.2 | - | - | - | - | - | - | - | - | - | - | - | 3/8" | - | - | - | QUICK DISCONNECT | 5' | FILTERED |
| 3E | 63/X-02 | DBL. HYDRO. OVEN | BLODGETT | HV-100G | 1.2 | 10.0 | - | 120 | 1 | 20 | 1 | - | - | - | - | - | - | - | - | DIRECT | 8' | CONDUIT & WIRE |
| 3E1 | 63/X-02 | DBL. HYDRO. OVEN | BLODGETT | HV-100G | 1.2 | 10.0 | - | 120 | 1 | 20 | 1 | - | - | - | - | - | - | - | - | DIRECT | 8' | CONDUIT & WIRE |
| 3G | 63/X-02 | DBL. HYDRO. OVEN | BLODGETT | HV-100G | - | - | - | - | - | - | - | - | 3/4" | 60 | - | - | - | - | - | QUICK DISCONNECT | 5' | - |
| 3G1 | 63/X-02 | DBL. HYDRO. OVEN | BLODGETT | HV-100G | - | - | - | - | - | - | - | - | 3/4" | 60 | - | - | - | - | - | QUICK DISCONNECT | 5' | - |
| 3C | 63/X-02 | DBL. HYDRO. OVEN | BLODGETT | HV-100G | - | - | - | - | - | - | - | - | - | - | - | 3/4" | - | - | - | QUICK DISCONNECT | 5' | - |
| 3C1 | 63/X-02 | DBL. HYDRO. OVEN | BLODGETT | HV-100G | - | - | - | - | - | - | - | - | - | - | - | 3/4" | - | - | - | QUICK DISCONNECT | 5' | - |
| 4E | 58 | DBL. CONV. OVEN | BLODGETT | DFG200 DBL | 0.7 | 6.0 | - | 120 | 1 | 20 | 1 | DR20 | - | - | - | - | - | - | - | SUPPLIED W/ EQUIP. | - | GFI BREAKER |
| 4E1 | 58 | DBL. CONV. OVEN | BLODGETT | DFG200 DBL | 0.7 | 6.0 | - | 120 | 1 | 20 | 1 | DR20 | - | - | - | - | - | - | - | SUPPLIED W/ EQUIP. | - | GFI BREAKER |
| 4G | 58 | DBL. CONV. OVEN | BLODGETT | DFG200 DBL | - | - | - | - | - | - | - | - | 3/4" | 60 | - | - | - | - | - | QUICK DISCONNECT | 5' | - |
| 4G1 | 58 | DBL. CONV. OVEN | BLODGETT | DFG200 DBL | - | - | - | - | - | - | - | - | 3/4" | 60 | - | - | - | - | - | QUICK DISCONNECT | 5' | - |
| FH | 17 | HAND SINK | EAGLE | HSA-10-FAW | - | - | - | - | - | - | - | - | - | - | 1/2" | - | - | - | - | FACTORY | - | - |
| FC | 17 | HAND SINK | EAGLE | HSA-10-FAW | - | - | - | - | - | - | - | - | - | - | - | 1/2" | - | - | - | FACTORY | - | - |
| 5H | 43 | SINK | POWER SOAK | PP3-STD-4TNK | - | - | - | - | - | - | - | - | - | - | 1/2" | - | - | - | - | QUICK DISCONNECT | 5' | - |
| 5C | 43 | SINK | POWER SOAK | PP3-STD-4TNK | - | - | - | - | - | - | - | - | - | - | - | 1/2" | - | - | - | QUICK DISCONNECT | 5' | - |
| 5H1 | 43 | SINK | POWER SOAK | PP3-STD-4TNK | - | - | - | - | - | - | - | - | - | - | 1/2" | - | - | - | - | QUICK DISCONNECT | 5' | - |
| 5C1 | 43 | SINK | POWER SOAK | PP3-STD-4TNK | - | - | - | - | - | - | - | - | - | - | - | 1/2" | - | - | - | QUICK DISCONNECT | 5' | - |
| 5H2 | 43 | SINK | POWER SOAK | PP3-STD-4TNK | - | - | - | - | - | - | - | - | - | - | 1/2" | - | - | - | - | QUICK DISCONNECT | 5' | - |
| 5C2 | 43 | SINK | POWER SOAK | PP3-STD-4TNK | - | - | - | - | - | - | - | - | - | - | - | 1/2" | - | - | - | QUICK DISCONNECT | 5' | - |
| 6E | 15 | GARBAGE DISPOSAL | SALVAJOR | 300-CA-ARSS-LD | 3.2 | 8.8 | - | 208 | 3 | 15 | 3 | - | - | - | - | - | - | - | - | DIRECT | 8' | CONDUIT & WIRE |
| 6C | 15 | GARBAGE DISPOSAL | SALVAJOR | 300-CA-ARSS-LD | - | - | - | - | - | - | - | - | - | - | - | 1/2" | - | - | - | QUICK DISCONNECT | 5' | - |
| D1 | - | DUPLEX OUTLET | - | - | - | - | - | 120 | 1 | 20 | 1 | DR20 | - | - | - | - | - | - | - | FACTORY | - | GFI BREAKER |
| D2 | - | DUPLEX OUTLET | - | - | - | - | - | 120 | 1 | 20 | 1 | DR20 | - | - | - | - | - | - | - | FACTORY | - | GFI BREAKER |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL CONNECTED LOAD: | 7.6 | KW. | 21.1 | AMP | 0.0 | KW. | 0.0 | AMP | 528 | MBH | H.W. | STEAM SUPPLY |
| FUTURE AVAILABLE LOAD CAPACITY: | 6.8 | KW. | 18.9 | AMP | 0.0 | KW. | 0.0 | AMP | 832 | MBH | 3/4" | - |
| SYSTEM CAPACITY: | 14.4 | KW. | 40.0 | AMP | 0.0 | KW. | 0.0 | AMP | 1360 | MBH | C.W. | COND. RETURN |
| SERVICE SIZE: | 120/208 V/ 3 PH/ 50 AMP | | | | V/ PH/ AMP | | | | 1-1/2" IPS LOOPED | | 3/4" | - |

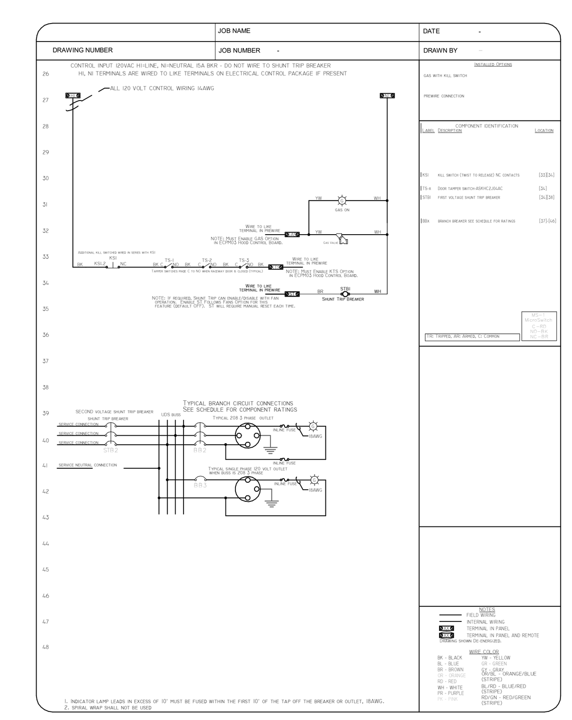
LEGEND
MBH = BTU PER HOUR (1000S)
SB = STRAIGHT BLADE PLUGS
TL = TWIST LOCK PLUGS
PS = PIN & SLEEVE PLUGS
DCO = DUAL CONVENIENCE OUTLET
DIRECT = CONDUIT & WIRE

## UTILITY DISTRIBUTION SYSTEM FILTER CALCULATIONS

| EQUIPMENT | | | | | | FILTER | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| CONN. # | ITEM | DESCRIPTION | MANUFACTURER | MODEL # | EQUIPMENT FLOW RATE (GPM) | MANUFACTURER | MODEL # | FILTER FLOWRATE (GPM) | CONNECTION TYPE INLET | CONNECTION TYPE OUTLET |
| 1C1 | 48 | CONV. STEAMER | CLEVELAND | 24-CGA-10.2 | 0.194 | EVERPURE | EV-9797-40 | 5 | 3/4" | 3/4" |
| 2C1 | 48 | CONV. STEAMER | CLEVELAND | 24-CGA-10.2 | 0.194 | | | | | |




TYPICAL SECTION VIEW
MODEL UDI DISTRIBUTION SYSTEM




| PRODUCT DESCRIPTION | |
|---|---|
| UDS STYLE | ISLAND |
| HOOD HEIGHT | 80" |
| RISER HEIGHT | 78"-81" |
| TRIM COLLAR SIZE | 3" |
| RACEWAY TO FLOOR | 24" |
| UDS WIDTH | 12" |
| TOP OF RACEWAY FROM FLOOR | 53.88" |
| OUTLET LOCATION | UNDERNEATH |
| OUTLET HEIGHT (IF APPLICABLE) | NA |
| PLUMBING HEIGHT | 22" |


STANDARD FLAG NOTES
ELECTRICAL SERVICE FROM ABOVE, SEE SCHEDULE FOR DETAILS. PROVIDED BY ELECTICAL CONTRACTOR.
120V/1PH/15A DEDICATED ELECTRICAL CIRCUIT INTO UDS TERMINALS "H1, N1" FOR FUEL/SHUNT CONTROL. (PROVIDED BY ELECTRICAL CONTRACTOR) SEE SCHEMATIC BELOW.
3-WIRE ELECTRICAL CIRCUIT FROM HOOD CONTROL PACKAGE TERMINALS "GAS, ST & KTS" TO UDS LIKE TERMINALS "GAS, ST & KTS" FOR UDS SHUT DOWN IN A FIRE CONDITION. (PROVIDED BY ELECTRICAL CONTRACTOR). SEE SCHEMATIC BELOW.
GAS SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE AND STYLE (PROVIDED BY PLUMBING CONTRACTOR)
COLD WATER SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE (PROVIDED BY PLUMBING CONTRACTOR)
HOT WATER SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE (PROVIDED BY PLUMBING CONTRACTOR)
SERVICE MAIN BREAKER W/SHUNT TRIP AND RESET HANDLE, SEE SCHEDULE FOR DETAILS.
STATUS INDICATOR LIGHTS.
EMERGENCY KILL SWITCH.
DCO RECEPTACLE W/ BREAKER & WEATHERPROOF COVER.
ELECTRICAL LOAD CENTER WITH INDIVIDUAL CIRCUIT BREAKERS.
ELECTRICAL WIRING TO APPLIANCES.
ELECTRICAL CONNECTION W/WEATHERPROOF COVER AS SPECIFIED ON THE EQUIPMENT SCHEDULE, SEE THIS SHEET.
PLUMBING CONNECTION AS SPECIFIED ON THE EQUIPMENT SCHEDULE, SEE THIS SHEET.
MANUAL SHUT OFF VALVE.
120V ELECTRICAL GAS VALVE.
REMOVABLE ACCESS DOORS.


PAGE 2 OF 2


| | |
|---|---|
| JOB | HODGSON TECHNICAL SCHOOL 42 |
| LOCATION | - |
| DATE 6/28/23 | JOB # - |
| DWG # - | DRAWN BY DDH |
| REV. 3-10/3/23-DDH | SCALE 3/4" |



OWNER
New Castle County Vo-Tech School District
1417 Newport Pike
Wilmington, DE 19804

STRUCTURAL ENGINEER
DCI + MacIntosh Engineers
2 Mill Road, Suite 100
Wilmington , DE 19806
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Phone (410) 822-8688

CIVIL ENGINEER
Landmark Science & Engineering
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Newark, DE 19713
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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

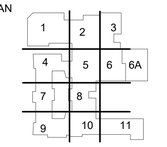
2575 GLASGOW AVENUE
NEWARK, DE 19702

SHEET TITLE: **FOODSERVICE UTILITIES DISTRIBUTION SYSTEM DETAILS**

SHEET NO.
**FS-2.9**

| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN




## IMPORTANT SPECIAL UDS PARTS/NOTES

- ☆ ONE (1) EV-9797-40 WATER FILTER WITH WINDOW.
- ☆ UDS IS "L" SHAPED DUE TO NEC CODE RESTRICTIONS.
- ☆ NEOPRENE BUMPER GUARDS.
- ☆ VERTICAL END PANEL LOCATION.

UDS CONSTRUCTION TO BE 18 GA., TYPE 304 STAINLESS STEEL

UTILITY DISTRIBUTION SYSTEM MODEL UDI IS LISTED UNDER ETL FILE NUMBER 3054803 CONFORMS TO UL STD 891 CERTIFIED TO CAN/CSA C22.2 No. 31-M89

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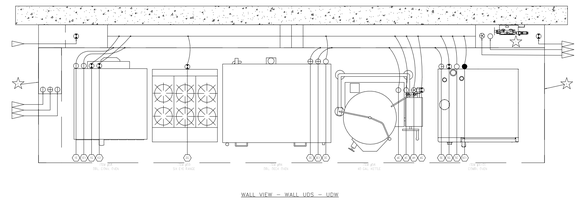
----NOTE----
NEC REQUIRES 36" OF FIELD CLEARANCE IN FRONT OF CIRCUIT BREAKERS FOR ACCESS

SYMBOL SCHEDULE

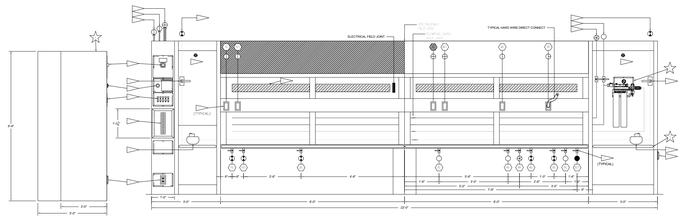
| | |
|---|---|
| | 1ST WATER |
| | HOT WATER |
| | FILTERED WATER |
| | NATURAL GAS |
| | PROPANE |
| | 120 VAC 1 PHASE |
| | 208 VAC 1 PHASE |
| | 208 VAC 3 PHASE |
| | 480 VAC 3 PHASE |
| | STEAM SUPPLY |
| | STEAM CONDENSATE RETURN |

STANDARD FLAG NOTES

1. ELECTRICAL SERVICE FROM ABOVE, SEE SCHEDULE FOR DETAILS. PROVIDED BY ELECTRICAL CONTRACTOR.
2. 120V/1PH/15A DEDICATED ELECTRICAL CIRCUIT INTO UDS TERMINALS "H1, N1". FOR FUEL/SMOKE CONTROL. (PROVIDED BY ELECTRICAL CONTRACTOR) SEE SCHEMATIC BELOW.
3. 3-WIRE ELECTRICAL CIRCUIT FROM HOOD CONTROL PACKAGE TERMINALS "GAS, ST & 473" TO UDS LINE TERMINALS "GAS, ST & 473" FOR UDS SHUT DOWN IN A FIRE CONDITION. (PROVIDED BY ELECTRICAL CONTRACTOR) SEE SCHEMATIC BELOW.
4. GAS SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE AND STYLE (PROVIDED BY PLUMBING CONTRACTOR)
5. COLD WATER SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE (PROVIDED BY PLUMBING CONTRACTOR)
6. HOT WATER SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE (PROVIDED BY PLUMBING CONTRACTOR)
7. SERVICE MAIN BREAKER W/SHUNT TRIP AND RESET HANDLE, SEE SCHEDULE FOR DETAILS.
8. STATUS INDICATOR LIGHTS.
9. EMERGENCY PULL SWITCH.
10. DCO RECEPTACLE W/ BREAKER & WEATHERPROOF COVER.
11. ELECTRICAL LOAD CENTER WITH INDIVIDUAL CIRCUIT BREAKERS.
12. ELECTRICAL WIRING TO APPLIANCES.
13. ELECTRICAL CONNECTION W/WEATHERPROOF COVER AS SPECIFIED ON THE EQUIPMENT SCHEDULE, SEE THIS SHEET.
14. PLUMBING CONNECTION AS SPECIFIED ON THE EQUIPMENT SCHEDULE, SEE THIS SHEET.
15. MANUAL SHUT OFF VALVE.
16. 120V ELECTRICAL GAS VALVE.
17. REMOVABLE ACCESS DOORS.



WALL VIEW – WALL UDS – UDW




ELEVATION – WALL UDS – UDW

PAGE 1 OF 2

CAPTIVE-AIRE

| | |
|---|---|
| JOB | HODGSON TECHNICAL SCHOOL 137 |
| LOCATION | - |
| DATE | 6/28/23 |
| JOB # | - |
| DRG # | - |
| DRAWN BY | DDH |
| REV. | 3-10/3/23-DDH |
| SCALE | 3/4" |

## IMPORTANT SPECIAL UDS PARTS/NOTES

- ☆ ONE (1) EV-9797-40 WATER FILTER WITH WINDOW.
- ☆ UDS IS "L" SHAPED DUE TO NEC CODE RESTRICTIONS.
- ☆ NEOPRENE BUMPER GUARDS.
- ☆ VERTICAL END PANEL LOCATION.

UDS CONSTRUCTION TO BE 18 GA., TYPE 304 STAINLESS STEEL

UTILITY DISTRIBUTION SYSTEM MODEL UDI IS LISTED UNDER ETL FILE NUMBER 3054803 CONFORMS TO UL STD 891 CERTIFIED TO CAN/CSA C22.2 No. 31-M89

PRIOR TO SCHEDULING UDS FOR PRODUCTION PLEASE PROVIDE APPROVED SUBMITTAL CUTSHEETS ON FINAL KITCHEN EQUIPMENT ASSOCIATED WITH THE UDS (NEW & USED) SO THAT CONNECTION SIZES, TYPES AND LOCATIONS CAN BE VERIFIED

ANY CHANGES TO SUBMITTAL DRAWING MAY AFFECT PRICE AND PRODUCTION TIME PLEASE FORWARD CHANGES ASAP

----NOTE----
CUSTOMER TO VERIFY FLOOR DRAIN LOCATIONS PRIOR TO ORDERING UDS. C.A.S. IS NOT RESPONSIBLE FOR DRAINS LOCATED UNDERNEATH RISERS/PEDESTALS LOCATIONS.

----NOTE----
NEC REQUIRES 36" OF FIELD CLEARANCE IN FRONT OF CIRCUIT BREAKERS FOR ACCESS

SYMBOL SCHEDULE

| | |
|---|---|
| | 1ST WATER |
| | HOT WATER |
| | FILTERED WATER |
| | NATURAL GAS |
| | PROPANE |
| | 120 VAC 1 PHASE |
| | 208 VAC 1 PHASE |
| | 208 VAC 3 PHASE |
| | 480 VAC 3 PHASE |
| | STEAM SUPPLY |
| | STEAM CONDENSATE RETURN |

STANDARD FLAG NOTES

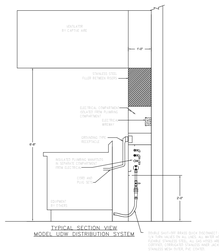
1. ELECTRICAL SERVICE FROM ABOVE, SEE SCHEDULE FOR DETAILS. PROVIDED BY ELECTRICAL CONTRACTOR.
2. 120V/1PH/15A DEDICATED ELECTRICAL CIRCUIT INTO UDS TERMINALS "H1, N1". FOR FUEL/SMOKE CONTROL. (PROVIDED BY ELECTRICAL CONTRACTOR) SEE SCHEMATIC BELOW.
3. 3-WIRE ELECTRICAL CIRCUIT FROM HOOD CONTROL PACKAGE TERMINALS "GAS, ST & 473" TO UDS LINE TERMINALS "GAS, ST & 473" FOR UDS SHUT DOWN IN A FIRE CONDITION. (PROVIDED BY ELECTRICAL CONTRACTOR) SEE SCHEMATIC BELOW.
4. GAS SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE AND STYLE (PROVIDED BY PLUMBING CONTRACTOR)
5. COLD WATER SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE (PROVIDED BY PLUMBING CONTRACTOR)
6. HOT WATER SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE (PROVIDED BY PLUMBING CONTRACTOR)
7. SERVICE MAIN BREAKER W/SHUNT TRIP AND RESET HANDLE, SEE SCHEDULE FOR DETAILS.
8. STATUS INDICATOR LIGHTS.
9. EMERGENCY PULL SWITCH.
10. DCO RECEPTACLE W/ BREAKER & WEATHERPROOF COVER.
11. ELECTRICAL LOAD CENTER WITH INDIVIDUAL CIRCUIT BREAKERS.
12. ELECTRICAL WIRING TO APPLIANCES.
13. ELECTRICAL CONNECTION W/WEATHERPROOF COVER AS SPECIFIED ON THE EQUIPMENT SCHEDULE, SEE THIS SHEET.
14. PLUMBING CONNECTION AS SPECIFIED ON THE EQUIPMENT SCHEDULE, SEE THIS SHEET.
15. MANUAL SHUT OFF VALVE.
16. 120V ELECTRICAL GAS VALVE.
17. REMOVABLE ACCESS DOORS.

UTILITY DISTRIBUTION SYSTEM EQUIPMENT SCHEDULE

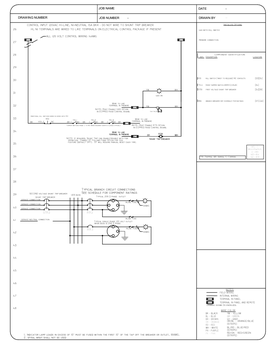
| | EQUIPMENT | | | | ELECTRICAL | | | | CIRCUIT BREAKER | | RECEPTACLE | | GAS | | WATER | | | STEAM | | CONNECTION | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONN.# | ITEM | DESCRIPTION | MANUFACTURER | MODEL # | KW | AMPS | HP | VOLT | PH | AMPS | POLES | PART # | SIZE | MBH | HOT | COLD | SUPPLY | COND. | RETURN | LBS/HR | TYPE | LENGTH | NOTES |
| 14 | 58 | DBL CONV. OVEN | BLODGETT | DFG100 DBL | 0.7 | 6.0 | - | 120 | 1 | 20 | 1 | DR20 | - | - | - | - | - | - | - | - | SUPPLIED W/ EQUIP. | - | GFI BREAKER |
| 151 | 58 | DBL CONV. OVEN | BLODGETT | DFG100 DBL | 0.7 | 6.0 | - | 120 | 1 | 20 | 1 | DR20 | - | - | - | - | - | - | - | - | SUPPLIED W/ EQUIP. | - | GFI BREAKER |
| 152 | 58 | DBL CONV. OVEN | BLODGETT | DFG100 DBL | - | - | - | - | - | - | - | - | 3/4" | 90 | - | - | - | - | - | - | QUICK DISCONNECT | 5' | - |
| 153 | 58 | DBL CONV. OVEN | BLODGETT | DFG100 DBL | - | - | - | - | - | - | - | - | 3/4" | 90 | - | - | - | - | - | - | QUICK DISCONNECT | 5' | - |
| 154 | 58 | DBL CONV. OVEN | GARLAND | SWUB | - | - | - | - | - | - | - | - | 3/4" | 184 | - | - | - | - | - | - | QUICK DISCONNECT | 5' | - |
| 36 | 84 | DBL DECK OVEN | DOYON | JZ12 | 13.0 | 36.0 | - | 208 | 3 | 50 | 3 | CB169 | - | - | - | - | - | - | - | - | CORD & PLUG | 6' | GFI BREAKER |
| 361 | 84 | DBL DECK OVEN | DOYON | JZ12 | 13.0 | 36.0 | - | 208 | 3 | 50 | 3 | CB169 | - | - | - | - | - | - | - | - | CORD & PLUG | 6' | GFI BREAKER |
| 35 | 84 | DBL DECK OVEN | DOYON | JZ12 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1/2" | - | QUICK DISCONNECT | 5' | - |
| 48 | 56 | 40 GAL KETTLE | CLEVELAND | MSG-40-7 | 1.2 | 10.0 | - | 120 | 1 | 20 | 1 | DR20 | - | - | - | - | - | - | - | - | SUPPLIED W/ EQUIP. | - | GFI BREAKER |
| 46 | 56 | 40 GAL KETTLE | CLEVELAND | MSG-40-7 | - | - | - | - | - | - | - | - | 3/4" | 140 | - | - | - | - | - | - | QUICK DISCONNECT | 5' | - |
| 44 | 56 | 40 GAL KETTLE | CLEVELAND | MSG-40-7 | - | - | - | - | - | - | - | - | - | - | 1/2" | - | - | - | - | - | QUICK DISCONNECT | 5' | - |
| 55 | R-55 | COMBI. OVEN | NATIONAL | SCC WE 6ZG | - | - | - | - | - | - | - | - | - | - | - | - | 3/4" | - | - | - | QUICK DISCONNECT | 5' | - |
| 56 | R-55 | COMBI. OVEN | NATIONAL | SCC WE 6ZG | 3.1 | 15.0 | - | 208 | 1 | 20 | 2 | - | - | - | - | - | - | - | - | - | DIRECT | 8' | CONDUIT & WIRE |
| 55 | R-55 | COMBI. OVEN | NATIONAL | SCC WE 6ZG | - | - | - | - | - | - | - | - | 3/4" | 106 | - | - | - | - | - | - | QUICK DISCONNECT | 5' | - |
| 5C | R-55 | COMBI. OVEN | NATIONAL | SCC WE 6ZG | - | - | - | - | - | - | - | - | - | - | 3/4" | - | - | - | - | - | QUICK DISCONNECT | 5' | - |
| 5C1 | R-55 | COMBI. OVEN | NATIONAL | SCC WE 6ZG | - | - | - | - | - | - | - | - | - | - | 3/4" | - | - | - | - | - | QUICK DISCONNECT | 5' | FILTERED |
| 25 | - | DUPLEX OUTLET | - | - | - | - | - | 120 | 1 | 20 | 1 | DR20 | - | - | - | - | - | - | - | - | FACTORY | - | GFI BREAKER |
| 17 | - | DUPLEX OUTLET | - | - | - | - | - | 120 | 1 | 20 | 1 | DR20 | - | - | - | - | - | - | - | - | FACTORY | - | GFI BREAKER |
| TOTAL CONNECTED LOAD: | | | | | 31.7 | KW | 88.0 | AMP | 0.0 | KW | 0.0 | AMP | 550 | MBH | H.W. | | STEAM SUPPLY | | | | | |
| FUTURE AVAILABLE LOAD CAPACITY: | | | | | 4.3 | KW | 12.0 | AMP | 0.0 | KW | 0.0 | AMP | 550 | MBH | 3/4" | | | | | | | |
| SYSTEM CAPACITY: | | | | | 36.0 | KW | 100.0 | AMP | 0.0 | KW | 0.0 | AMP | 3100 | MBH | C.W. | | COND. RETURN | | | | | |
| SERVICE SIZE: | | | | | 120/208 V/ 3 PH/ 125 AMP | | | | V/ PH/ AMP | | | | 1-1/2" IPS LOOPED | | 3/4" | | - | | | | | |

UTILITY DISTRIBUTION SYSTEM FILTER CALCULATIONS

| EQUIPMENT | | | | | FILTER | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CONN. # | ITEM | DESCRIPTION | MANUFACTURER | MODEL # | EQUIPMENT RATING (GPM) | MANUFACTURER | MODEL # | FILTER RATING (GPM) | CONNECTION TYPE INPUT / OUTPUT |
| 5C1 | #55 | COMBI. OVEN | RATIONAL | SCC WE 6ZG | 4 | EVERPURE | EV-9797-40 | 7 | 3/4" 3/4" |




| PRODUCT DESCRIPTION | |
|---|---|
| UDS STYLE | WALL |
| HOOD HEIGHT | 84" |
| RISER HEIGHT | 84" |
| TRANSITION SIZE | N/A |
| DISCHARGE OUTLET | 12" |
| TOP OF RACEWAY | 12" |
| TOP OF RACEWAY FROM FLOOR | 97" |
| OUTLET LOCATION | ON FACE |
| OUTLET HEIGHT (IF APPLICABLE) | 48" |
| PLENUM HEIGHT | 18" |




PAGE 2 OF 2

CAPTIVE-AIRE

| | |
|---|---|
| JOB | HODGSON TECHNICAL SCHOOL 137 |
| LOCATION | - |
| DATE | 6/28/23 |
| JOB # | - |
| DRG # | - |
| DRAWN BY | DDH |
| REV. | 3-10/3/23-DDH |
| SCALE | 3/4" |

OWNER

**New Castle County Vo-Tech School District**

1417 Newport Pike
Wilmington, DE 19804

STRUCTURAL ENGINEER

**DCI + MacIntosh Engineers**

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Phone (302) 252-9200
Fax (302) 252-9201

MECHANICAL / ELECTRICAL ENGINEER

**Gipe Associates, Inc.**

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Easton, MD 21601
Phone (410) 822-8688

CIVIL ENGINEER

**Landmark Science & Engineering**

200 Continental Drive, Suite 400
Newark, DE 19713
Phone (302) 323-9377
Fax (302) 323-9461

KITCHEN CONSULTANT

**Corsi Associates, LLC**

300 Smith Street
Farmingdale, NY 11735
Phone (610) 888-1955

THEATER PLANNING

**Stages Consultants, LLC**

300 Raritan Ave, 2nd Flr
Highland Park, NJ 08904
Phone (732) 333-8003

ARCHITECTS

**ABHA | BSA+A**

1621 North Lincoln Street
Wilmington, Delaware 19806
Phone (302) 658-6426
Fax (302) 658-8431

The professional services of ABHA/BSA+A, LLC. are undertaken for and performed in the interest of the NCCVT School District. No contractual obligation is assumed by ABHA/BSA+A, LLC. for the benefit of any other person involved in the project.

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE NEWARK, DE 19702**

SHEET TITLE

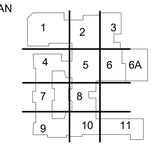
**FOODSERVICE UTILITIES DISTRIBUTION SYSTEM DETAILS**

SHEET NO.

**FS-2.10**

| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN




## IMPORTANT SPECIAL UDS PARTS/NOTES

- ONE (1) EV-9797-40 WATER FILTERS WITH WINDOWS.
- ONE (1) EAGLE HSA-10-FAW HAND SINK MOUNTED TO RISER (PROVIDED BY OTHERS).
- VERTICAL END PANEL LOCATION.
- NEOPRENE BUMPER GUARDS.

UDS CONSTRUCTION TO BE 18 GA., TYPE 304 STAINLESS STEEL

UTILITY DISTRIBUTION SYSTEM MODEL UDI IS LISTED UNDER ETL FILE NUMBER 3054803 CONFORMS TO UL STD 891 CERTIFIED TO CAN/CSA C22.2 No. 31-M89

PRIOR TO SCHEDULING UDS FOR PRODUCTION PLEASE PROVIDE APPROVED SUBMITTAL CUTSHEETS ON FINAL KITCHEN EQUIPMENT ASSOCIATED WITH THE UDS (NEW & USED) SO THAT CONNECTION SIZES, TYPES AND LOCATIONS CAN BE VERIFIED

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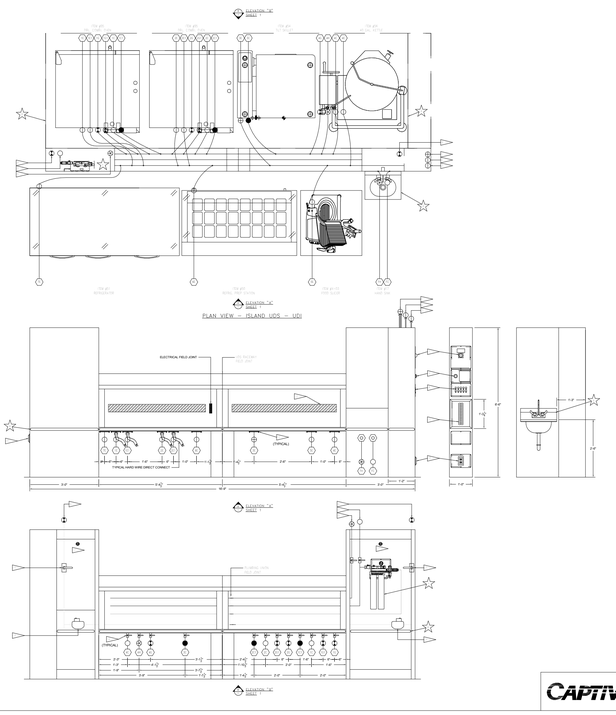
----NOTE----
NEC REQUIRES 36" OF FIELD CLEARANCE IN FRONT OF CIRCUIT BREAKERS FOR ACCESS

SYMBOL SCHEDULE

- (S) 16oz WATER
- (AV) AIR VENT
- (E) ELECTRIC WATER
- (T) INSTRUMENTATION TAP
- (P) PEDESTAL
- (3) 120 VAC, 1 PHASE
- (2) 208 VAC, 1 PHASE
- (3) 208 VAC, 3 PHASE
- (4) 480 VAC, 3 PHASE
- (GPO) 16mm GRIPPO
- (CO) 16mm CONDENSATE OUTLET

STANDARD FLAG NOTES

1. ELECTRICAL SERVICE FROM ABOVE, SEE SCHEDULE FOR DETAILS. PROVIDED BY ELECTRICAL CONTRACTOR.
2. 120V/1PH/15A DEDICATED ELECTRICAL CIRCUIT INTO UDS TERMINALS TH1, N1* FOR FUEL/WAHT CONTROL. (PROVIDED BY ELECTRICAL CONTRACTOR) SEE SCHEMATIC BELOW.
3. 3-WIRE ELECTRICAL CIRCUIT FROM HOOD CONTROL PACKAGE TERMINALS TG60, ST & ATST TO TERMINALS TH60, ST, & ATST FOR UDS SHUTDOWN IN A FIRE CONDITION. (PROVIDED BY ELECTRICAL CONTRACTOR)
4. GAS SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE AND STYLE (PROVIDED BY PLUMBING CONTRACTOR)
5. COLD WATER SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE (PROVIDED BY PLUMBING CONTRACTOR)
6. HOT WATER SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE (PROVIDED BY PLUMBING CONTRACTOR)
7. SERVICE MAIN BREAKER W/SHUNT TRIP AND RESET HANDLE, SEE SCHEDULE FOR DETAILS
8. STATUS INDICATOR LIGHTS.
9. EMERGENCY KILL SWITCH.
10. GCO RECEPTACLE W/ BREAKER & WEATHERPROOF COVER.
11. ELECTRICAL LOAD CENTER WITH INDIVIDUAL CIRCUIT BREAKERS.
12. ELECTRICAL WIRING TO APPLIANCES.
13. ELECTRICAL CONNECTION W/WEATHERPROOF COVER AS SPECIFIED ON THE EQUIPMENT SCHEDULE, SEE THIS SHEET.
14. PLUMBING CONNECTION AS SPECIFIED ON THE EQUIPMENT SCHEDULE, SEE THIS SHEET.
15. MANUAL SHUT OFF VALVE.
16. 120V ELECTRICAL GAS VALVE.
17. REMOVABLE ACCESS DOORS.




PAGE 1 OF 2

CAPTIVEAIRE

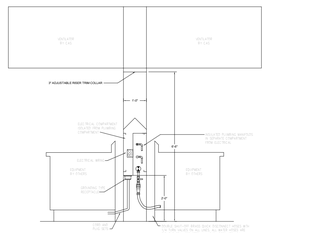
| | |
|---|---|
| JOB | HODGSON TECHNICAL SCHOOL 136 |
| LOCATION | - |
| DATE | 6/28/23 |
| JOB # | - |
| DRG # | - |
| DRAWN BY | DDH |
| REV | 3-10/3/23-DDH |
| SCALE | 3/4" |

## UTILITY DISTRIBUTION SYSTEM EQUIPMENT SCHEDULE

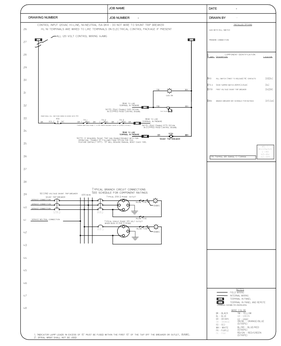
| CONN # | ITEM | DESCRIPTION | EQUIPMENT MANUFACTURER | MODEL # | ELECTRICAL KW | AMPS | HP | VOLT | PH | CIRCUIT BREAKER AMPS | POLES | RECEPTACLE PART # | GAS SIZE | WATER HW | WATER COLD | STEAM SUPPLY | STEAM COND. RETURN | LBS/HR | CONNECTION TYPE | CONNECTION LENGTH | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1E | 95 | DBL COMBI. OVEN | ALTO SHAAM | CTP7-20G/CTP7-20G | 0.8 | 6.8 | - | 120 | 1 | 20 | 1 | - | - | - | - | - | - | - | DIRECT | 8' | CONDUIT & WIRE |
| 1F2 | 95 | DBL COMBI. OVEN | ALTO SHAAM | CTP7-20G/CTP7-20G | 0.8 | 6.8 | - | 120 | 1 | 20 | 1 | - | - | - | - | - | - | - | DIRECT | 8' | CONDUIT & WIRE |
| 1G | 95 | DBL COMBI. OVEN | ALTO SHAAM | CTP7-20G/CTP7-20G | - | - | - | - | - | - | - | - | 3/4" | 98 | - | - | - | - | QUICK DISCONNECT | 5' | - |
| 1G1 | 95 | DBL COMBI. OVEN | ALTO SHAAM | CTP7-20G/CTP7-20G | - | - | - | - | - | - | - | - | 3/4" | 98 | - | - | - | - | QUICK DISCONNECT | 5' | - |
| 1G' | 95 | DBL COMBI. OVEN | ALTO SHAAM | CTP7-20G/CTP7-20G | - | - | - | - | - | - | - | - | - | - | 3/4" | - | - | - | QUICK DISCONNECT | 5' | - |
| 1H | 95 | DBL COMBI. OVEN | ALTO SHAAM | CTP7-20G/CTP7-20G | - | - | - | - | - | - | - | - | - | - | 3/4" | - | - | - | QUICK DISCONNECT | 5' | FILTERED |
| 1J1 | 95 | DBL COMBI. OVEN | ALTO SHAAM | CTP7-20G/CTP7-20G | 0.8 | 6.8 | - | 120 | 1 | 20 | 1 | - | - | - | - | - | - | - | DIRECT | 8' | CONDUIT & WIRE |
| 2E3 | 95 | DBL COMBI. OVEN | ALTO SHAAM | CTP7-20G/CTP7-20G | 0.8 | 6.8 | - | 120 | 1 | 20 | 1 | - | - | - | - | - | - | - | DIRECT | 8' | CONDUIT & WIRE |
| 2G | 95 | DBL COMBI. OVEN | ALTO SHAAM | CTP7-20G/CTP7-20G | - | - | - | - | - | - | - | - | 3/4" | 98 | - | - | - | - | QUICK DISCONNECT | 5' | - |
| 2G1 | 95 | DBL COMBI. OVEN | ALTO SHAAM | CTP7-20G/CTP7-20G | - | - | - | - | - | - | - | - | 3/4" | 98 | - | - | - | - | QUICK DISCONNECT | 5' | - |
| 2G' | 95 | DBL COMBI. OVEN | ALTO SHAAM | CTP7-20G/CTP7-20G | - | - | - | - | - | - | - | - | - | - | 3/4" | - | - | - | QUICK DISCONNECT | 5' | - |
| 2G3 | 95 | DBL COMBI. OVEN | ALTO SHAAM | CTP7-20G/CTP7-20G | - | - | - | - | - | - | - | - | 3/4" | - | - | - | - | - | QUICK DISCONNECT | 5' | FILTERED |
| 3E | 54 | T&T SKILLET | NATIONAL | SVMB2 PRO L | - | - | - | - | - | - | - | - | - | - | - | - | - | - | DIRECT | 8' | CONDUIT & WIRE |
| 4C | 54 | T&T SKILLET | NATIONAL | SVMB2 PRO L | - | - | - | - | - | - | - | - | - | - | 3/4" | - | - | - | QUICK DISCONNECT | 5' | FILTERED |
| 4E | 54 | T&T SKILLET | NATIONAL | SVMB2 PRO L | 23.92 | 84.0 | - | 208 | 3 | 70 | 3 | - | - | - | - | - | - | - | DIRECT | 8' | CONDUIT & WIRE |
| 4G | 56 | 40 GAL KETTLE | CLEVELAND | KEL-40-T | 1.2 | 10.0 | - | 120 | 1 | 20 | 1 | DR20 | - | - | - | - | - | - | QUICK DISCONNECT | 5' | GFI BREAKER |
| 4H | 56 | 40 GAL KETTLE | CLEVELAND | KEL-40-T | - | - | - | - | - | - | - | - | 3/4" | 140 | - | - | - | - | QUICK DISCONNECT | 5' | - |
| 4H | 56 | 40 GAL KETTLE | CLEVELAND | KEL-40-T | - | - | - | - | - | - | - | - | - | - | 1/2" | - | - | - | QUICK DISCONNECT | 5' | - |
| 4C | 56 | 40 GAL KETTLE | CLEVELAND | KEL-40-T | - | - | - | - | - | - | - | - | - | - | - | 1/2" | - | - | QUICK DISCONNECT | 5' | - |
| 1H | 17 | HAND SINK | EAGLE | HSA-10-FAW | - | - | - | - | - | - | - | - | - | - | - | - | - | - | FACTORY | - | - |
| 1C | 17 | HAND SINK | EAGLE | HSA-10-FAW | - | - | - | - | - | - | - | - | - | - | - | 1/2" | - | - | FACTORY | - | - |
| 5E | 4.03 | FOOD SLICER | HOBART | HS7 | 0.7 | 5.6 | - | 120 | 1 | 20 | 1 | DR20 | - | - | - | - | - | - | SUPPLIED W/ EQUIP. | - | GFI BREAKER |
| 6E | 59 | 10 GAL STEAMER | CONTINENTAL | 5MAGNUM | 0.7 | 5.7 | - | 120 | 1 | 20 | 1 | DR20 | - | - | - | - | - | - | SUPPLIED W/ EQUIP. | - | GFI BREAKER |
| 7E | 51 | REFRIGERATOR | CONTINENTAL | 3RR5S | 1.0 | 8.5 | - | 120 | 1 | 20 | 1 | DR20 | - | - | - | - | - | - | SUPPLIED W/ EQUIP. | - | GFI BREAKER |
| 1U | - | DUPLEX OUTLET | - | - | - | - | - | 120 | 1 | 20 | 1 | DR20 | - | - | - | - | - | - | FACTORY | - | GFI BREAKER |
| 2U | - | DUPLEX OUTLET | - | - | - | - | - | 120 | 1 | 20 | 1 | DR20 | - | - | - | - | - | - | FACTORY | - | GFI BREAKER |
| TOTAL CONNECTED LOAD: | | | | 29.8 | KW | 82.9 | AMP | 0.0 | KW | 0.0 | AMP | 9.50 | MBH | H.W. | | STEAM SUPPLY | | | | | |
| FIXTURE INSTALLABLE LOAD CAPACITY: | | | | 27.8 | KW | 77.2 | AMP | 0.0 | KW | 0.0 | AMP | 826 | MBH | S.W. | | | | | | | |
| SYSTEM CAPACITY: | | | | 57.6 | KW | 160.0 | AMP | 0.0 | KW | 0.0 | AMP | 1800 | MBH | C.W. | | COND. RETURN | | | | | |
| SERVICE SIZE: | | | | 120/208 V/ 3 PH/ 200 AMP | | | | V/ PH/ AMP | | | | 1-1/2" IPS LOOPED | | 3/4" | | - | | | | | |

## UTILITY DISTRIBUTION SYSTEM FILTER CALCULATIONS

| EQUIPMENT CONN # | EQUIPMENT ITEM # | EQUIPMENT DESCRIPTION | EQUIPMENT MANUFACTURER | EQUIPMENT MODEL # | EQUIPMENT FLOW RATE (GPM) | FILTER MANUFACTURER | FILTER MODEL # | FILTER FLOWRATE (GPM) | FILTER CONNECTION TYPE INLET | FILTER CONNECTION TYPE OUTLET |
|---|---|---|---|---|---|---|---|---|---|---|
| 1C1 | 95 | DBL COMBI. OVEN | ALTO SHAAM | CTP7-20G/CTP7-20G | 0.26 | | | | | |
| 2C | 95 | DBL COMBI. OVEN | ALTO SHAAM | CTP7-20G/CTP7-20G | 0.26 | EVERPURE | EV-9797-40 | 5 | 3/4" | 3/4" |
| 3C | 54 | T&T SKILLET | NATIONAL | SVMB2 PRO L | 2.5 | | | | | |




| PRODUCT DESCRIPTION | |
|---|---|
| UDI STYLE | ISLAND |
| BASE HEIGHT | 36" |
| TOP HEIGHT | 42" |
| TRIM COLLAR SIZE | 3" |
| BACKWAY TO FLOOR | 24" |
| UDI WIDTH | 54" |
| TOP OF BACKWAY FROM FLOOR | 33.88" |
| TOP OF UDI FROM FLOOR | 42" (NOMINAL) |
| OUTLET HEIGHT (IF APPLICABLE) | N/A |
| PLUMBING HEIGHT | 24" |




PAGE 2 OF 2

CAPTIVEAIRE

| | |
|---|---|
| JOB | HODGSON TECHNICAL SCHOOL 136 |
| LOCATION | - |
| DATE | 6/28/23 |
| JOB # | - |
| DRG # | - |
| DRAWN BY | DDH |
| REV | 3-10/3/23-DDH |
| SCALE | 3/4" |

VOCATIONAL TECHNICAL SCHOOL DISTRICT
NEW CASTLE COUNTY DELAWARE

OWNER

New Castle County Vo-Tech School District

1417 Newport Pike
Wilmington, DE 19804

STRUCTURAL ENGINEER

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

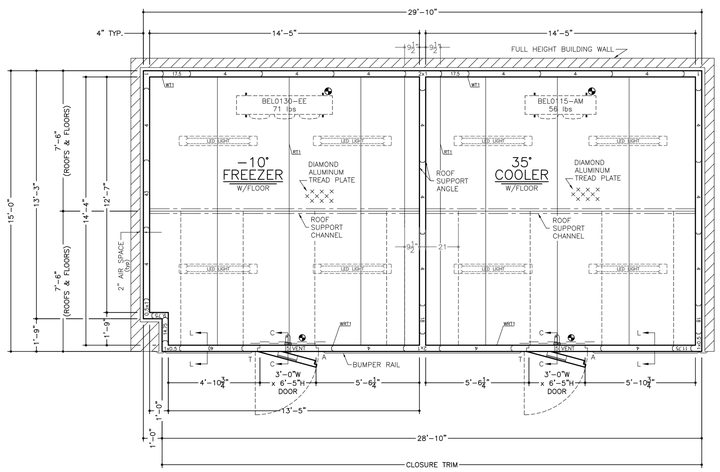
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

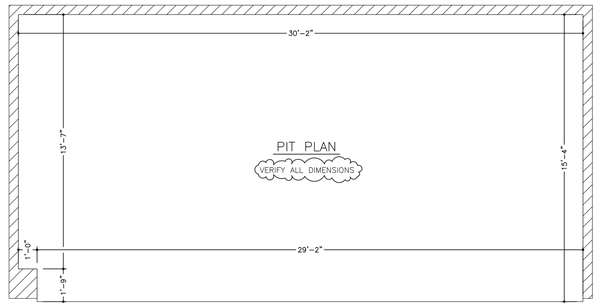
SHEET TITLE

# FOODSERVICE UTILITIES DISTRIBUTION SYSTEM DETAILS

SHEET NO.

# FS-2.11




~SPECIFICATIONS~

BOX HEIGHT: FREEZER – 8'-6" OVERALL (7'-10 1/4" INTERIOR)
COOLER – 8'-6" OVERALL (7'-10 1/4" INTERIOR)

CONSTRUCTION: FOAMED IN PLACE
NSF LISTED, STANDARD NO. 7

INSULATION: 4" URETHANE, FINISHED PANEL
UL CLASSIFIED FLAME SPREAD 20
CORE SMOKE DEVELOPED 250

INSTALLATION: INDOOR

FLOOR: (SEE DETAILS) FREEZER – STANDARD W/3/4" MARINE PLYWOOD UNDERLAYMENT
COOLER – STANDARD W/3/4" MARINE PLYWOOD UNDERLAYMENT

DOOR HARDWARE & ACCESSORIES: (EACH DOOR)
POWER TO BE STUBBED OUT CEILING PANEL
DRY CONTACT LEADS TO BE STUBBED OUT CEILING PANEL IN A SEPARATE STUB OUT
DEADBOLT HANDLE W/KEYED CYLINDER LOCK, PADLOCK
PROVISION & QUARTER TURN INSIDE RELEASE
1/8" STAINLESS STEEL THRESHOLD COVER PLATE
FRAME HEATER WIRE
HYDRAULIC DOOR CLOSER
IC+ WAVE–IN DOOR CONTROLLER AND ALARM SYSTEM INCLUDING:
DOOR AJAR ON/OFF SWITCH WITH AUTOMATIC LIGHT OFF AND 3–WAY & 4–WAY CAPABILITY
TEMPERATURE MONITOR AND LOGGER WITH HIGH TEMP, AND LOW TEMP, VISUAL AND AUDIO ALARM
F OR C TEMPERATURE SELECTION
INTEGRATED DRY CONTACT FOR ALARM SIGNALING & POWER FAILURE (1A @ 24VAC, 1A @ 30VDC)
DOOR AND WINDOW HEATER CONTROL (WHEN SO EQUIPPED)
HACCP PREVIEW VIA ONBOARD LCD SCREEN
HACCP DOWNLOAD VIA USB
WIFI CONNECTIVITY (INTERNET ENABLED WIFI NETWORK NEEDED)
BATTERY BACKUP
TEMPERATURE ALARM NOTIFICATION VIA EMAIL &/OR EMAIL TO SMS TEXT MESSAGES
POWER FAILURE NOTIFICATION VIA EMAIL &/OR EMAIL TO SMS TEXT MESSAGES
(FOR THIS FEATURE TO WORK THE LOCAL WIFI NETWORK MUST BE
POWER PROTECTED AND WORKING AT THE TIME OF POWER FAILURE EVENT)
AUTOMATIC AND ON DEMAND TRANSMISSION OF HACCP DATA VIA EMAIL
ADAPTIVE SETTINGS
25° AIR TEMPERATURE PROBE
DOOR SWITCH TO ENABLE DOOR AJAR ALARM, DOOR AJAR NOTIFICATION VIA EMAIL &/OR
EMAIL TO SMS TEXT MESSAGES, AND AUTOMATIC LIGHTS ON WHEN DOOR OPENS
PANIC BUTTON TO ENABLE DOOR AJAR AUDIBLE & VISUAL ALARM BUZZER WITH LED,
& NOTIFICATION VIA EMAIL &/OR EMAILTO SMS TEXT MESSAGES
2" FLUSH MOUNT DIAL THERMOMETER W/6" PROBE
KASON SCREW–IN VAPOR PROOF LIGHT FIXTURE
W/8.5 WATT SYLVANIA LED BULB & GLOBE
(CENTERED ABOVE DOOR)
STRIP CURTAIN
3 – STD. CAM RISE HINGES
HEATED VISION WINDOW (14" x 14")
1/8" DIAMOND ALUMINUM TREAD PLATE KICKPLATES @ 48" HIGH I/S & O/S DOOR & FRAME
KASON #1827 PRESSURE RELIEF VENT

ACCESSORIES: VERIFY HEIGHT (SHIPPED LOOSE)
2 – PCS. TRIM ANGLE
8 – 48" (1810LC) LED LIGHT FIXTURE(S) @ 40W EACH
CLOSURE TRIM TO MATCH EXISTING CEILING (PER PLAN)
RIGID POLYETHYLENE BUMPER RAIL (BOSTON SERIES 2000) W/VINYL INSERT @ 48" A.F.F. (PER PLAN)
ROOF SUPPORT CHANNEL
FACTORY MUTUAL TRIM
STAINLESS STEEL WALL & CEILING PLUG BUTTONS
ROOF SUPPORT CHANNEL W/STAINLESS STEEL HAT SHAPED ENCLOSURE

METAL FINISHES: INTERIOR & EXTERIOR DOOR & FRAME – 18 GA STAINLESS STEEL, #3 FINISH
INTERIOR CEILINGS & WALLS – WHITE 26 GA STUCCO GALVANIZED
EXPOSED EXTERIOR – 26 GA STUCCO ACRYLUME
UNEXPOSED EXTERIOR – 26 GA STUCCO ACRYLUME
EXTERIOR FLOOR & CEILING – 26 GA STUCCO ACRYLUME
INTERIOR FLOOR – 1/8" DIAMOND ALUMINUM TREAD PLATE INTEGRAL

REFRIGERATION: U.L. LISTED, AIR COOLED, OUTDOORS

FREEZER: CONDENSING UNIT: 1 – STD. PRE–ASSEMBLED REMOTE – HERMETIC–SCROLL
3.00 HP MODEL NO. FTAL–A302–TFC–075 (R–448A)
CONDENSING UNIT DIMENSIONS: 34 1/8"L x 25"W x 23 1/8"H – WEIGHT 237 LBS
EVAPORATOR: 1 – MODEL NO. BEL0130B56EE W/E.C. MOTORS & I.R.C.
EVAPORATOR DIMENSIONS: 61 1/2"L x 16 7/16"W x 17 3/4"H – WEIGHT 71 LBS

COOLER: CONDENSING UNIT: 1 – STD. PRE–ASSEMBLED REMOTE – HERMETIC–SCROLL
2.00 HP MODEL NO. FTAP–A202–TFC–075 (R–448A)
CONDENSING UNIT DIMENSIONS: 34 1/8"L x 25 1/8"W x 19"H – WEIGHT 157 LBS
EVAPORATOR: 1 – MODEL NO. BEL0115BSAM W/E.C. MOTORS & I.R.C.
EVAPORATOR DIMENSIONS: 45 1/2"L x 15 3/8"W x 17 3/4"H – WEIGHT 56 LBS

REFRIGERATION ACCESSORIES: 2 – WINTERIZATION CONTROLS/LASA
2 – U.L. LISTED COMPRESSOR COVER(S) (HINGED)
2 – STAND(S) FOR U.L. COVER (18" HIGH)

NOTE: THE LARGEST WALK–IN DOOR ON THIS JOB IS 57.5" x 94".
NOTE: THE LARGEST WALK–IN FLOOR ON THIS JOB IS 46" x 134".
CUSTOMER IS TO VERIFY THAT THIS PANEL SIZE
WILL NOT CONFLICT WITH ANY JOB SITE RESTRICTIONS.
NOTE: CUSTOMER IS TO VERIFY ALL DIMENSIONS,
SECTIONS, DETAILS AND SPECIFICATIONS
NOTE: MAXIMUM LIGHT CIRCUIT LOAD IS 1200W 120VAC TUNGSTEN.
USE OF ELECTRONIC BALLAST FOR HIGHER LOADS. ADDITIONAL
LIGHT FIXTURES MUST BE CONTROLLED VIA RELAY (BY OTHERS).
NOTE: LIGHT PLACEMENT IS SHOWN AS A GUIDE FOR INSTALLERS
LIGHTS ARE NOT PRE–DRILLED NOR MOUNTED BY APC

ELECTRICAL DATA
⏚ = POINT OF ELECTRICAL CONNECTIONS.
FREEZER
CONDENSING UNIT: 208–230V/60/3Ø 17.2/21.5/30.0 (RLA/MCA/MOP)
EVAPORATOR: 208–230V/60/1Ø 2.0/14.1 AMPS
COOLER
CONDENSING UNIT: 208–230V/60/3Ø 9.7/13.9/20.0 (RLA/MCA/MOP)
EVAPORATOR: 208–230V/60/1Ø 1.1 AMPS
WALK–IN DOORS: 115v/1Ø – 350w*
*NOTE: ADD WATTAGE FOR EACH ADDITIONAL LIGHT FIXTURE IN ACCESSORIES.

| INSULATION R–VALUES | | |
|---|---|---|
| PANEL TYPE | COOLER | FREEZER |
| 4" WALLS, ROOFS | R–29 | R–32 |
| 5" WALLS, ROOFS | R–36 | R–40 |
| FLOORS | R–25 | R–28 |
| DOORS | R–32 | |

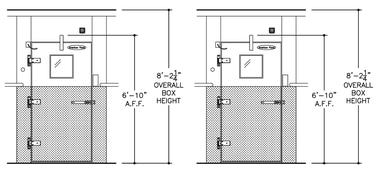
| COOLER DOOR | |
|---|---|
| DOOR FRAME KWHr/DAY | 1.584 |
| CONDENSING UNIT AMEF VALUE | 7.6 |
| EVAP AMEF VALUE | 9.0 |

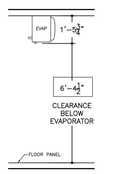
| FREEZER DOOR | |
|---|---|
| DOOR FRAME KWHr/DAY | 3.600 |
| CONDENSING UNIT AMEF VALUE | 3.15 |
| EVAP AMEF VALUE | 4.0 |

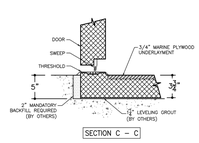
| WALK-IN PANEL | | | |
|---|---|---|---|
| R-8967 | | | |
| BUILDING UNITS | R-8967 | 2743 | |
| USA | | | |
| SURFACE BURNING CHARACTERISTICS | | | |
| MATERIAL DETAILS | "FLAME SPREAD" | "SMOKE DEVELOPED" | |
| ALUMINUM PANELS, PAINTED OR UNPAINTED, 5" OR LESS | 15 | 350 | |
| "GALVANIZED STEEL OR STAINLESS STEEL PANELS, PAINTED OR UNPAINTED, 5" OR LESS | 10 | 400 TO 500 | |
| CORE MATERIAL 6" THICK | 20 | 250 | |

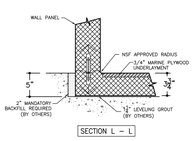
AMERICAN PANEL WALK–IN COOLERS AND FREEZERS COMPLY WITH THE 2021 INTERNATIONAL ENERGY CONSERVATION CODE (IECC), SECTION C403.11

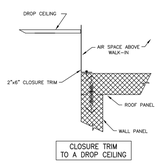
THIS AMERICAN PANEL WALK–IN WILL BE MANUFACTURED TO UL & NSF REQUIREMENTS. AMERICAN PANEL ACCEPTS NO LIABILITY FOR LOCAL CODE REQUIREMENTS OF WHICH AMERICAN PANEL HAS NOT BEEN MADE AWARE OF IN WRITING PRIOR TO FABRICATION.

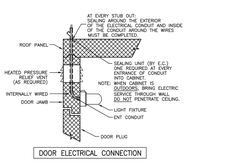


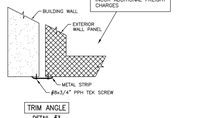



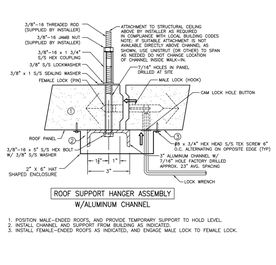



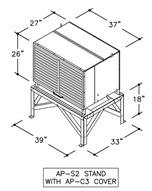



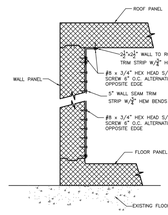



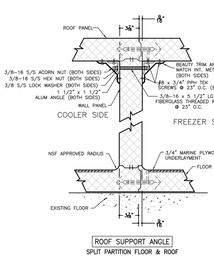




1. POSITION MALE–ENDED ROOFS, AND PROVIDE TEMPORARY SUPPORT TO HOLD LEVEL.
2. INSTALL CHANNEL AND SUPPORT FROM BUILDING AS INDICATED.
3. INSTALL FEMALE–ENDED ROOFS AS INDICATED, AND ENGAGE MALE LOCK TO FEMALE LOCK.




1) Please verify that door swing and location are correct.

2) If this walk–in is to be installed in a depression, or quarry tile is to be applied to the interior, depression depths or tile thickness must be specified to insure proper door height.

3) All site preparation, floor or slab construction, plumbing, electrical connections (including control wiring) by others.

4) ⏚ Electrical: 115–60–1 required above latch side of each door, through ceiling, to operate frame heater and light.

5) Special note to General Contractor and his Sub Contractor for quarry tile or concrete wearing floors: the sheet metal panel facings may be susceptible to staining due to excessive moisture created by hydration of concrete type materials. Therefore, it is absolutely necessary that each room be properly ventilated. Also note that special precautions must be taken when using muriatic acid due to effects hydrochloric acid fumes have on aluminum and stainless steel.

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☐ APPROVED
☐ APPROVED AS NOTED
☐ REVISE & RESUBMIT
SIGNATURE _____
PRINT NAME _____
DATE _____

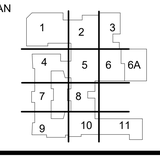
| REV. | DATE | DESCRIPTION | REV. BY | CK'D BY |
|---|---|---|---|---|
| C | 7/26/23 | NO CHANGES | LC | NQ |
| B | 7/11/23 | NEW WALK–IN LAYOUT | SM | WQ |
| A | 5/29/23 | ADDED LIGHTS TO PLAN VIEW | SM | WQ |

American Panel
AMERICAN PANEL CORPORATION
5800 S.E. 78th St. Ocala, Florida 34472
Ph. (352) 245–7055 Fax (352) 245–0726

CUSTOMER: CORSI ASSOCIATES
PROJECT: HODGSON VOTECH TECHNICAL HIGH SCHOOL – NEWARK,DE
DATE: 2/24/23 | DRAWN BY: LC/MEM | P.O.#:
SCALE: 5/16"=1'–0" | PROPOSAL#: PD205557 | JOB#: | SHEET: 1 of 4

| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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NEW CASTLE COUNTY DELAWARE

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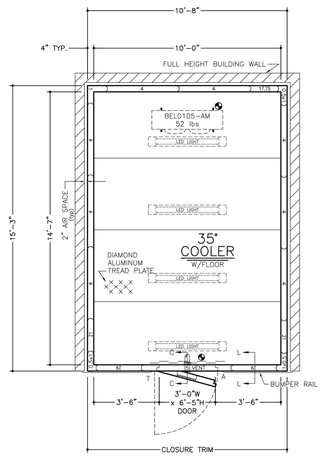
JOB NO - 22.011

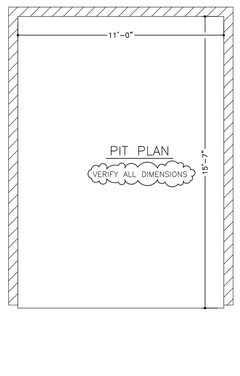
PAUL M. HODGSON VO-TECH HIGH SCHOOL

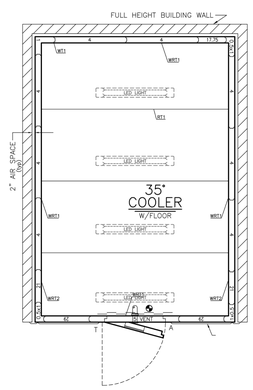
**2575 GLASGOW AVENUE NEWARK, DE 19702**

SHEET TITLE
**FOODSERVICE WALK-IN DETAILS**

SHEET NO.
**FS-3.0**

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KASON SCREW-IN VAPOR PROOF LIGHT FIXTURE
W/8.5 WATT SYLVANIA LED BULB & GLOBE
STRIP CURTAIN (ABOVE DOOR)
3 – STD. CAM RISE HINGES
HEATED VISION WINDOW (14" x 14")
1/8" DIAMOND ALUMINUM TREAD PLATE KICKPLATES @ 48" HIGH I/S & O/S DOOR & FRAME
KASON #1807 PRESSURE RELIEF VENT

ACCESSORIES: (SHIPPED LOOSE)
2 – PCS. TRIM ANGLE
4 – 48" (1810LC) LED LIGHT FIXTURE(S) @ 40W EACH
CLOSURE TRIM TO AN EXISTING CEILING (PER PLAN)
RIGID VINYL CHANNEL BUMPER RAIL (BOSTON SERIES 2000) W/VINYL INSERT @ 49" A.F.F. (PER PLAN)
FACTORY MUTUAL TRIM
STAINLESS STEEL WALL & CEILING PLUG BUTTONS

VERIFY HEIGHT

METAL FINISHES: INTERIOR & EXTERIOR DOOR & FRAME – 18 GA STAINLESS STEEL #3 FINISH
INTERIOR CEILINGS & WALLS – WHITE 26 GA STUCCO GALVANIZED
EXPOSED EXTERIOR – 26 GA STUCCO ACRYLUME
UNEXPOSED EXTERIOR – 26 GA STUCCO ACRYLUME
EXTERIOR FLOOR & CEILING – 26 GA STUCCO ACRYLUME
INTERIOR FLOOR – 1/8" DIAMOND ALUMINUM TREAD PLATE INTEGRAL

REFRIGERATION: U.L. LISTED, AIR COOLED, OUTDOORS
CONDENSING UNIT: 1 – STD. PRE-ASSEMBLED REMOTE – HERMETIC-SCROLL
1.75 HP MODEL NO. FTAP-A1ZZ-TFC-075 (R-448A)
CONDENSING UNIT DIMENSIONS: 24 1/8"L x 19"W x 17"H – WEIGHT 111 LBS
EVAPORATOR: 1 – MODEL NO. BEL0105BSGAM W/E.C. MOTORS & U.R.C.
EVAPORATOR DIMENSIONS: 45 1/2"L x 13 3/8"W x 17 3/4"H – WEIGHT 52 LBS

REFRIGERATION ACCESSORIES: 1 – WINTERIZATION CONTROLS/LAGA
1 – U.L. LISTED COMPRESSOR COVER(S) (HINGED)
1 – STAND(S) FOR U.L. COVER (18" HIGH)

NOTE: THE LARGEST WALK-IN DOOR ON THIS JOB IS 57.5" x 94".
NOTE: THE LARGEST WALK-IN ROOF/FLOOR ON THIS JOB IS 46.5" x 152".
CUSTOMER IS TO VERIFY THAT THIS PANEL SIZE
WILL NOT CONFLICT WITH ANY JOB SITE RESTRICTIONS.
NOTE: CUSTOMER IS TO VERIFY ALL DIMENSIONS,
SECTIONS, DETAILS AND SPECIFICATIONS
NOTE: LIGHT PLACEMENT IS SHOWN AS A GUIDE FOR INSTALLERS
LIGHTS ARE NOT PRE-DRILLED NOR MOUNTED BY APC

ELECTRICAL DATA
– POINT OF ELECTRICAL CONNECTIONS.
COOLER
CONDENSING UNIT: 208-230v/60/3ø 10.4/14.4/20.0 (RLA/MCA/MOP)
EVAPORATOR: 208-230v/60/1ø 1.1 AMPS
WALK-IN DOORS: 115v/1ø – 350w*
*NOTE: ADD WATTAGE FOR EACH ADDITIONAL LIGHT FIXTURE IN ACCESSORIES.

| INSULATION R-VALUES | | |
|---|---|---|
| PANEL TYPE | COOLER | FREEZER |
| 4" WALLS, ROOFS | R-29 | R-32 |
| 5" WALLS, ROOFS | R-36 | R-40 |
| FLOORS | R-25 | R-28 |
| DOORS | R-32 | |

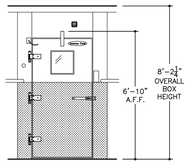
| COOLER DOOR | |
|---|---|
| DOOR FRAME HEAT/DAY | 1,584 |
| CONDENSING UNIT AMBIENT VALUE | 7.6 |
| EVAP AMBIENT VALUE | 9.0 |

| WALK-IN PANEL R-8967 | | |
|---|---|---|
| BUILDING UNITS | R-8967 | STND |
| USA | | |
| SURFACE BURNING CHARACTERISTICS | | |
| MATERIAL DETAILS | "FLAME SPREAD" | "SMOKE DEVELOPED" |
| ALUMINUM PANELS, PAINTED OR UNPAINTED, 5" OR LESS | 15 | 350 |
| GALVANIZED STEEL OR STAINLESS STEEL PANELS, PAINTED OR UNPAINTED, 5" OR LESS | 10 | 400 TO 500 |
| CORE MATERIAL, 4" THICK | 20 | 250 |

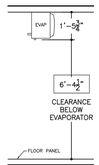
AMERICAN PANEL WALK-IN COOLERS AND FREEZERS COMPLY WITH THE 2021 INTERNATIONAL ENERGY CONSERVATION CODE (IECC), SECTION C403.11

THIS AMERICAN PANEL WALK-IN WILL BE MANUFACTURED TO UL & NSF REQUIREMENTS. AMERICAN PANEL ACCEPTS NO LIABILITY FOR LOCAL CODE REQUIREMENTS OF WHICH AMERICAN PANEL HAS NOT BEEN MADE AWARE OF IN WRITING PRIOR TO FABRICATION.

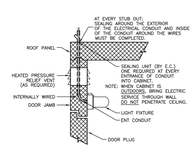
FACTORY MUTUAL ROOF TO WALL, WALL TO WALL, AND ROOF TO ROOF TRIM



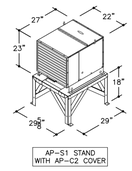
COOLER DOOR ELEVATION



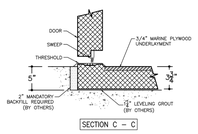
SECTION AT EVAPORATOR
FLOOR



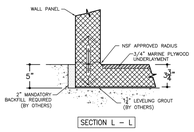
DOOR ELECTRICAL CONNECTION



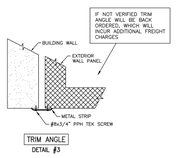
AP-S1 STAND
WITH AP-C2 COVER



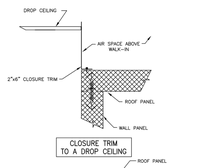
SECTION C – C



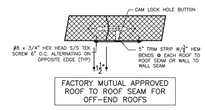
SECTION L – L



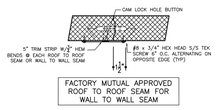
TRIM ANGLE
DETAIL #3



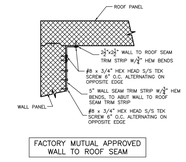
CLOSURE TRIM
TO A DROP CEILING



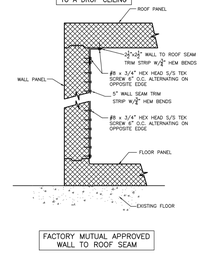
FACTORY MUTUAL APPROVED
ROOF TO ROOF SEAM FOR
OFF-END ROOFS



FACTORY MUTUAL APPROVED
ROOF TO WALL SEAM FOR
WALL TO WALL SEAM



FACTORY MUTUAL APPROVED
WALL TO ROOF SEAM



FACTORY MUTUAL APPROVED
WALL TO ROOF SEAM

1) Please verify that door swing and location are correct.

2) If this walk-in is to be installed in a depression, or quarry tile is to be applied to the interior, depression depths or tile thickness must be specified to insure proper door height.

3) All site preparation, floor or slab construction, plumbing, electrical connections (including control wiring) by others.

4) Electrical: 115-60-1 required above latch side of each door, through ceiling, to operate frame heater and light.

5) Special note to General Contractor and his Sub Contractor for quarry tile or concrete wearing floors: the sheet metal panel facings may be susceptible to staining due to excessive moisture created by hydration of concrete type materials. Therefore, it is absolutely necessary that each room be properly ventilated. Also note that special precautions must be taken when using muriatic acid due to effects hydrochloric acid fumes have on aluminum and stainless steel.

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ITEM #1

☐ APPROVED
☐ APPROVED AS NOTED
☐ REVISE & RESUBMIT
SIGNATURE _____
PRINT NAME _____
DATE _____

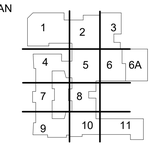
| REV. | DATE | DESCRIPTION | BY |
|---|---|---|---|
| C | 7/26/23 | REVISED WALK IN WIDTH/REVISED PIT PLAN | LC WQ |
| B | 7/11/23 | NO CHANGES TO THIS SHEET | SM WQ |
| A | 6/29/23 | ADDED LIGHTS TO PLAN VIEW | SM WQ |

American Panel
AMERICAN PANEL CORPORATION
5800 S.E. 78th St. Ocala, Florida 34472
Ph. (352) 245-7055 Fax (352) 245-0726

CUSTOMER: CORSI ASSOCIATES
PROJECT: HODGSON VOTECH TECHNICAL HIGH SCHOOL – NEWARK,DE
DATE: 2/24/23 | DRAWN BY: LC/MEM | P.O.#:
SCALE: 5/16"=1'-0" | PROPOSAL#: PD205557 | JOB#: | SHEET: 2 of 4

| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN




VOCATIONAL TECHNICAL SCHOOL DISTRICT
NEW CASTLE COUNTY DELAWARE

OWNER
New Castle County Vo-Tech School District
1417 Newport Pike
Wilmington, DE 19804

STRUCTURAL ENGINEER
DCI + MacIntosh Engineers
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Wilmington , DE 19806
Phone (302) 252-9200
Fax (302) 252-9201

MECHANICAL / ELECTRICAL ENGINEER
Gipe Associates, Inc.
8719 Brooks Drive
Easton, MD 21601
Phone (410) 822-8688

CIVIL ENGINEER
Landmark Science & Engineering
200 Continental Drive, Suite 400
Newark, DE 19713
Phone (302) 323-9377
Fax (302) 323-9461

KITCHEN CONSULTANT
Corsi Associates, LLC
300 Smith Street
Farmingdale, NY 11735
Phone (610) 888-1955

THEATER PLANNING
Stages Consultants, LLC
300 Raritan Ave, 2nd Flr
Highland Park, NJ 08904
Phone (732) 333-8003

ARCHITECTS
**ABHA | BSA+A**
1621 North Lincoln Street
Wilmington, Delaware 19806
Phone (302) 658-6426
Fax (302) 658-8431

The professional services of ABHA/BSA+A, LLC. are undertaken for and performed in the interest of the NCCVT School District. No contractual obligation is assumed by ABHA/BSA+A, LLC. for the benefit of any other person involved in the project.

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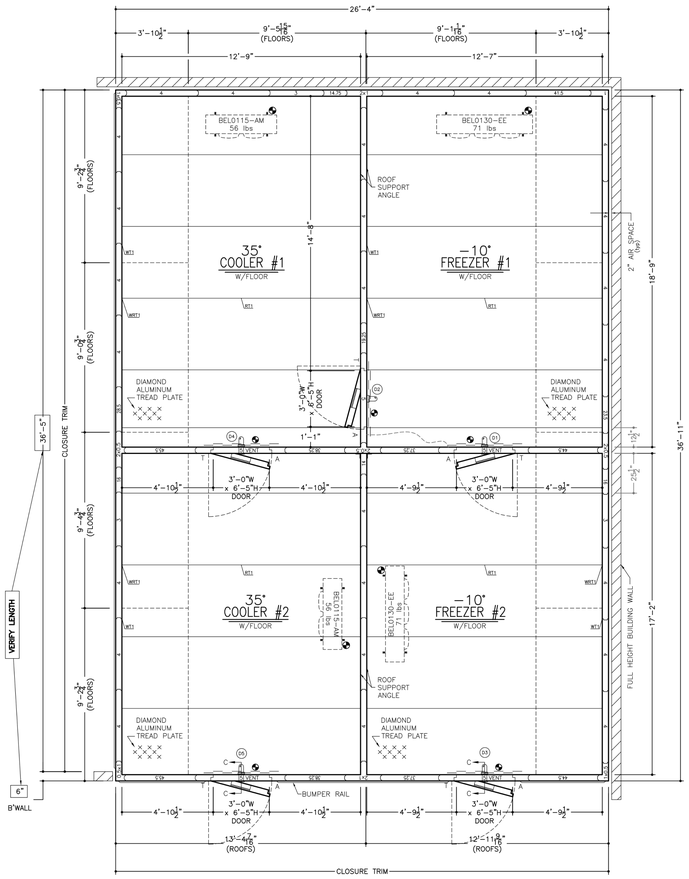
JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE
**FOODSERVICE WALK-IN DETAILS**

SHEET NO.
**FS-3.1**




~SPECIFICATIONS~

BOX HEIGHT:
FREEZER #1 – 8'-6" OVERALL (7'-10 1/4" INTERIOR)
FREEZER #2 – 8'-4" OVERALL (7'-10 1/4" INTERIOR)
COOLER #1 – 8'-6" OVERALL (7'-10 1/4" INTERIOR)
COOLER #2 – 8'-6" OVERALL (7'-10 1/4" INTERIOR)

CONSTRUCTION:
FOAMED IN PLACE
NSF LISTED, STANDARD NO. 7

INSULATION:
4" URETHANE, FINISHED PANEL
UL CLASSIFIED FLAME SPREAD 20
CORE SMOKE DEVELOPED 250

INSTALLATION:
INDOOR

FLOOR: (SEE DETAILS)
FREEZER#1 – STANDARD W/3/4" MARINE PLYWOOD UNDERLAYMENT
FREEZER#2 – STANDARD W/3/4" MARINE PLYWOOD UNDERLAYMENT
COOLER#1 – STANDARD W/3/4" MARINE PLYWOOD UNDERLAYMENT
COOLER#2 – STANDARD W/3/4" MARINE PLYWOOD UNDERLAYMENT

DOOR HARDWARE & ACCESSORIES: (EACH DOOR)
POWER TO BE STUBBED OUT CEILING PANEL
DRY CONTACT LEADS TO BE STUBBED OUT CEILING PANEL IN A SEPARATE STUB OUT
DEADBOLT HANDLE W/KEYED CYLINDER LOCK, PADLOCK
PROVISION & QUARTER TURN INSIDE RELEASE
1/8" STAINLESS STEEL THRESHOLD COVER PLATE
FRAME HEATER WIRE
HYDRAULIC DOOR CLOSER
IC+ WALK-IN DOOR CONTROLLER AND ALARM SYSTEM INCLUDING:
INTEGRATED LIGHT STRIP WITH AUTOMATIC LIGHT OFF AND 3-WAY & 4-WAY CAPABILITY
TEMPERATURE ALARM AND LOGGER WITH HIGH TEMP, AND LOW TEMP, VISUAL AND AUDIO ALARM
IP 65 COMPRESSION SEAL
INTEGRATED DRY CONTACT FOR ALARM SIGNALING & POWER FAILURE (1A @ 24VAC, 1A @ 30VDC)
DOOR AND WINDOW HEATER CONTROL (WHEN SO EQUIPPED)
HACCP PREVIEW VIA ONBOARD LCD SCREEN
HACCP DOWNLOAD VIA USB
WIFI CONNECTIVITY (INTERNET ENABLED WIFI NETWORK NEEDED)
BATTERY BACKUP
TEMPERATURE ALARM NOTIFICATION VIA EMAIL &/OR EMAIL TO SMS TEXT MESSAGES
POWER FAILURE NOTIFICATION VIA EMAIL &/OR EMAIL TO SMS TEXT MESSAGES
(FOR THIS FEATURE TO WORK THE LOCAL WIFI NETWORK MUST BE POWER PROTECTED AND WORKING AT THE TIME OF POWER FAILURE EVENT)
AUTOMATIC AND ON DEMAND TRANSMISSION OF HACCP DATA VIA EMAIL
ADAPTIVE SETTINGS
25' AIR TEMPERATURE PROBE
DOOR SWITCH TO ENABLE DOOR AJAR ALARM, DOOR AJAR NOTIFICATION VIA EMAIL &/OR EMAIL TO SMS TEXT MESSAGES, AND AUTOMATIC LIGHTS ON WHEN DOOR OPENS
PANIC ALARM WITH ILLUMINATED PANIC BUTTON, ALARM BUZZER WITH LED,
& NOTIFICATION VIA EMAIL &/OR EMAIL TO SMS TEXT MESSAGES
2" FLUSH MOUNTED DOOR MOUNTED LED DOOR LIGHT
KASON SCW24-IN VAPOR PROOF LIGHT FIXTURE
W/8.5 WATT SYLVANIA LED BULB & GLOBE
(CENTERED ABOVE DOOR)
STRIP CURTAIN
3 – STD. CAM RISE HINGES
HEATED VISION WINDOW (11" x 14")
1/8" DIAMOND ALUMINUM TREAD PLATE KICKPLATES @ 48" HIGH I/S & O/S DOOR & FRAME
KASON #1827 PRESSURE RELIEF VENT (DOORS 1, 3, 4, & 5 ONLY)

ACCESSORIES: (SHIPPED LOOSE)
4 – PCS. TRIM ANGLE
VERY HEIGHT
16 – 48" (1810LC) LED LIGHT FIXTURE(S) @ 40W EACH
CLOSURE TRIM TO AN EXISTING CEILING (PER PLAN)
RIGID VINYL CHANNEL BUMPER RAIL (BOSTON SERIES 2000) W/VINYL INSERT @ 48" A.F.F. (PER PLAN)
FACTORY MUTUAL TRIM W/BEAUTY TRIM
FACTORY MUTUAL TRIM
STAINLESS STEEL WALL & CEILING PLUG BUTTONS
FLOOR STIFFENERS (FOAMED IN PANELS – ALL FLOORS UNDER PARTITION WALL)

METAL FINISHES:
INTERIOR & EXTERIOR DOOR & FRAME – 18 GA STAINLESS STEEL, #3 FINISH
INTERIOR CEILINGS & WALLS – WHITE 26 GA STUCCO GALVANIZED
EXPOSED EXTERIOR – 26 GA STUCCO ACRYLUME
UNEXPOSED EXTERIOR – 26 GA STUCCO ACRYLUME
EXTERIOR FLOOR & CEILING – 26 GA STUCCO ACRYLUME
INTERIOR FLOOR – 1/8" DIAMOND ALUMINUM TREAD PLATE INTEGRAL

REFRIGERATION:
U.L. LISTED, AIR COOLED, OUTDOORS

FREEZER#1 CONDENSING UNIT: 1 – STD. PRE-ASSEMBLED REMOTE – HERMETIC SCROLL
3.00 HP MODEL NO. TFAL-A3Q2-TFC-075 (R-448A)
CONDENSING UNIT DIMENSIONS: 34 1/8"L x 25"W x 33 1/8"H – WEIGHT 237 LBS
EVAPORATOR: 1 – MODEL NO. BEL0130RSEEE W/E.C. MOTORS & U.R.C.
EVAPORATOR DIMENSIONS: 61 1/2"L x 15 3/8"W x 17 3/4"H – WEIGHT 71 LBS

FREEZER#2 CONDENSING UNIT: 1 – STD. PRE-ASSEMBLED REMOTE – HERMETIC SCROLL
3.00 HP MODEL NO. TFAL-A3Q2-TFC-075 (R-448A)
CONDENSING UNIT DIMENSIONS: 34 1/8"L x 25"W x 33 1/8"H – WEIGHT 237 LBS
EVAPORATOR: 1 – MODEL NO. BEL0130RSEEE W/E.C. MOTORS & U.R.C.
EVAPORATOR DIMENSIONS: 61 1/2"L x 15 3/8"W x 17 3/4"H – WEIGHT 71 LBS

COOLER#1 CONDENSING UNIT: 1 – STD. PRE-ASSEMBLED REMOTE – HERMETIC SCROLL
2.00 HP MODEL NO. TFAP-A2Q2-TFC-075 (R-448A)
CONDENSING UNIT DIMENSIONS: 34 1/8"L x 25"W x 18 7/8"H – WEIGHT 174 LBS
EVAPORATOR: 1 – MODEL NO. BEL0115RSAM W/E.C. MOTORS & U.R.C.
EVAPORATOR DIMENSIONS: 45 1/2"L x 15 3/8"W x 17 3/4"H – WEIGHT 56 LBS

COOLER#2 CONDENSING UNIT: 1 – STD. PRE-ASSEMBLED REMOTE – HERMETIC SCROLL
2.00 HP MODEL NO. TFAP-A2Q2-TFC-075 (R-448A)
CONDENSING UNIT DIMENSIONS: 34 1/8"L x 25"W x 18 7/8"H – WEIGHT 174 LBS
EVAPORATOR: 1 – MODEL NO. BEL0115RSAM W/E.C. MOTORS & U.R.C.
EVAPORATOR DIMENSIONS: 45 1/2"L x 15 3/8"W x 17 3/4"H – WEIGHT 56 LBS

REFRIGERATION ACCESSORIES:
4 – WINTERIZATION CONTROLS/LASA
4 – U.L. LISTED COMPRESSOR COVER(S) (HINGED)
4 – STAND(S) FOR U.L. COVER (18" HIGH)

NOTE: THE LARGEST WALK-IN DOOR ON THIS JOB IS 57.5" x 94".
NOTE: THE LARGEST WALK-IN ROOF ON THIS JOB IS 46.5" x 160.5".
CUSTOMER IS TO VERIFY THAT THIS PANEL SIZE WILL NOT CONFLICT WITH ANY JOB SITE RESTRICTIONS.
NOTE: CUSTOMER IS TO VERIFY ALL DIMENSIONS, SECTIONS, DETAILS AND SPECIFICATIONS

ELECTRICAL DATA

⚽ = POINT OF ELECTRICAL CONNECTIONS.

FREEZER #1 & #2
CONDENSING UNIT: 208-230V/60/3Ø 17.2/21.5/30.0 (RLA/MCA/MOP)
EVAPORATOR: 208-230v/60/1Ø 2.0/14.1 AMPS

COOLER #1 & #2
CONDENSING UNIT: 208-230V/60/3Ø 10.3/13.9/20.0 (RLA/MCA/MOP)
EVAPORATOR: 208-230v/60/1Ø 1.1 AMPS

WALK-IN DOORS: 115v/1Ø – 350w*

*NOTE: ADD WATTAGE FOR EACH ADDITIONAL LIGHT FIXTURE IN ACCESSORIES.

| COOLER DOOR# 1,2,3 | |
|---|---|
| DOOR FRAME KW/H/DAY | 1.584 |
| CONDENSING UNIT AMET VALUE | 7.6 |
| EVAP AMET VALUE | 9.0 |

| FREEZER DOOR | |
|---|---|
| DOOR FRAME KW/H/DAY | 3.600 |
| CONDENSING UNIT AMET VALUE | 3.15 |
| EVAP AMET VALUE | 4.0 |

| INSULATION R-VALUES | | |
|---|---|---|
| PANEL TYPE | COOLER | FREEZER |
| 4" WALLS, ROOFS | R-29 | R-32 |
| 5" WALLS, ROOFS | R-36 | R-40 |
| FLOORS | R-25 | R-28 |
| DOORS | R-32 | |

1) Please verify that door swing and location are correct.

2) If this walk-in is to be installed in a depression, or quarry tile is to be applied to the interior, depression depths or tile thickness must be specified to insure proper door height.

3) All site preparation, floor or slab construction, plumbing, electrical connections (including control wiring) by others.

4) ⚽ Electrical: 115-60-1 required above latch side of each door, through ceiling, to operate frame heater and light.

5) Special note to General Contractor and his Sub Contractor for quarry tile or concrete wearing floors: the sheet metal panel facings may be susceptible to staining due to excessive moisture created by hydration of concrete type materials. Therefore, it is absolutely necessary that each room be properly ventilated. Also note that special precautions must be taken when using muriatic acid due to effects hydrochloric acid fumes have on aluminum and stainless steel.

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☐ APPROVED
☐ APPROVED AS NOTED
☐ REVISE & RESUBMIT
SIGNATURE _____
PRINT NAME _____
DATE _____

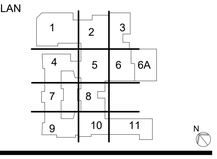
| REV. | DATE | DESCRIPTION | REV. BY | CHK'D BY |
|---|---|---|---|---|
| C | 7/26/23 | NO CHANGES | LC | NQ |
| B | 7/11/23 | REVISED WALK-IN DIMS & LAYOUT | SM | WQ |
| A | 6/29/23 | NEW WALK-IN LAYOUT & SPECS | SM | WQ |

American Panel
AMERICAN PANEL CORPORATION
5800 S.E. 78th St. Ocala, Florida 34472
Ph. (352) 245-7055 Fax (352) 245-0726

CUSTOMER: CORSI ASSOCIATES
PROJECT: HODGSON VOTECH TECHNICAL HIGH SCHOOL – NEWARK,DE
DATE: 2/24/23 | DRAWN BY: LC/MEM | P.O.#:
SCALE: 3/16"=1'-0" | PROPOSAL#: P0205557 | JOB#: | SHEET: 3 of 4

| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN




VOCATIONAL TECHNICAL SCHOOL DISTRICT
NEW CASTLE COUNTY DELAWARE

OWNER
New Castle County Vo-Tech School District
1417 Newport Pike
Wilmington, DE 19804

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DCI + MacIntosh Engineers
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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

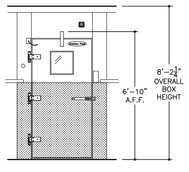
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE
**FOODSERVICE WALK-IN DETAILS**

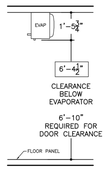
SHEET NO.
**FS-3.2**

PIT PLAN

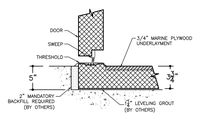
VERIFY ALL DIMENSIONS



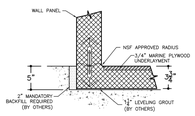

DOOR 3 & 5 ELEVATION




SECTION AT EVAPORATOR FLOOR




SECTION C – C

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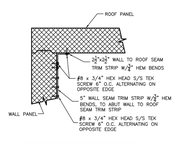
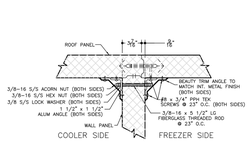
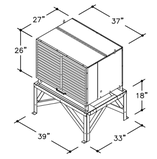


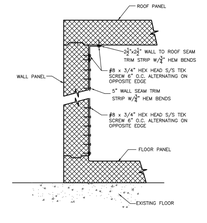

FACTORY MUTUAL APPROVED WALL TO ROOF SEAM



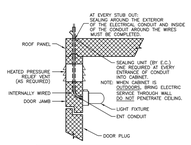

ROOF SUPPORT ANGLE WITH BEAUTY TRIM



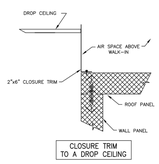

AP-S2 STAND WITH AP-C3 COVER



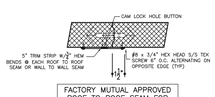

FACTORY MUTUAL APPROVED WALL TO ROOF SEAM



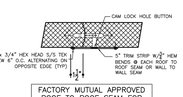

DOOR ELECTRICAL CONNECTION



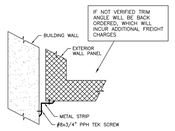

CLOSURE TRIM TO A DROP CEILING



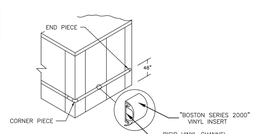

FACTORY MUTUAL APPROVED ROOF TO ROOF SEAM FOR WALL TO WALL SEAM



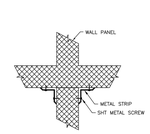

FACTORY MUTUAL APPROVED ROOF TO ROOF SEAM FOR OFF-END ROOFS




TRIM ANGLE
DETAIL #2




BUMPER RAIL




TRIM ANGLE

☐ APPROVED
☐ APPROVED AS NOTED
☐ REVISE & RESUBMIT
SIGNATURE
PRINT NAME
DATE

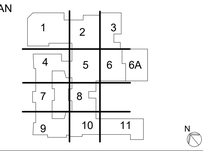
| REV. | DATE | DESCRIPTION | REV. BY | CW'D BY |
|---|---|---|---|---|
| C | 7/26/23 | NO CHANGES | LC | NQ |
| B | 7/11/23 | REVISED DOOR ELEVATION | SM | WQ |
| A | 6/29/23 | DETAILS & PIT PLAN TO REFLECT NEW WALK-IN LAYOUT | SM | WQ |

American Panel — AMERICAN PANEL CORPORATION, 5800 S.E. 78th St. Ocala, Florida 34472, Ph. (352) 245-7055 Fax (352) 245-0726

CUSTOMER: CORSI ASSOCIATES
PROJECT: HODGSON VOTECH TECHNICAL HIGH SCHOOL – NEWARK,DE
DATE: 2/24/23 | DRAWN BY: LC/MEM | P.O.#:
SCALE: 5/16"=1'-0" | PROPOSAL#: PP205557 | JOB#: | SHEET: 4 of 4

| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

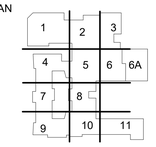
**FOODSERVICE WALK-IN DETAILS**

SHEET NO.

**FS-3.3**

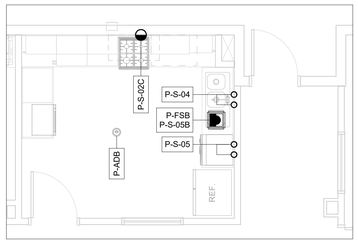
| No. | Description | Date |
|---|---|---|
| | ASI#10 - BPD - Conformance Set | 2/16/24 |

KEYPLAN




FOODSERVICE PLUMBING SCHEDULE - SUPPORT KITCHEN

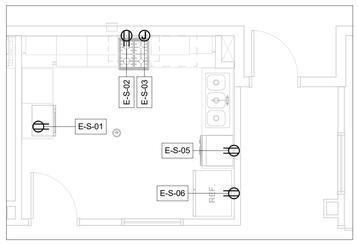
| ITEM NO. [P] | QTY. | CW SIZE | CW ROUGH-IN HEIGHT | HW SIZE | HW ROUGH-IN HEIGHT | IDW SIZE (B) | DW SIZE (B) | DW ROUGH-IN HEIGHT | GAS SIZE (C) | GAS BTU | GAS ROUGH-IN HEIGHT | DESCRIPTION | PLUMBING REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S-02 | 1 | | | | | | | | 1/2" | 80000.000 Btu/h | 2' - 6" | RESIDENTIAL RANGE | |
| S-04 | 1 | 1/2" | 1' - 6" | 1/2" | 1' - 6" | 1 1/2" | | | | | | 3-COMPARTMENT SINK, DROP-IN | |
| S-05 | 1 | 1/2" | 1' - 6" | 1/2" | 1' - 6" | 1 1/2" | | | | | | RESIDENTIAL DISH WASHER | |




3 FIRST FLOOR - FOODSERVICE PLUMBING - SUPPORT KITCHEN
1/4" = 1'-0"

FOODSERVICE ELECTRICAL SCHEDULE - SUPPORT KITCHEN

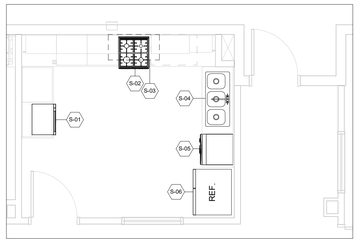
| ITEM NO. [E] | AMPS | HP | VOLTS | PH | ELECTRICAL CONNECTION TYPE | ROUGH-IN HEIGHT | DESCRIPTION | ELEC REMARKS |
|---|---|---|---|---|---|---|---|---|
| S-01 | 10.0 A | | 120V | 1 | NEMA 5-20P | 2' - 0" | RESIDENTIAL MICROWAVE | KEC TO VERIFY UTILITIES REQUIREMENTS |
| S-02 | 15.0 A | | 120V | 1 | NEMA 5-20P | 2' - 0" | RESIDENTIAL RANGE | KEC TO VERIFY UTILITIES REQUIREMENTS |
| S-03 | 2.1 A | | 120V | 1 | DIRECT | | RESIDENTIAL HOOD | CONNECTION DOWN FROM ABOVE; KEC TO VERIFY UTILITIES REQUIREMENTS |
| S-05 | 6.0 A | | 120/208V | 1 | NEMA 5-20P | 2' - 0" | RESIDENTIAL DISH WASHER | KEC TO VERIFY UTILITIES REQUIREMENTS |
| S-06 | 8.0 A | | 120V | 1 | NEMA 5-20P | 4' - 0" | RESIDENTIAL REFRIGERATOR | KEC TO VERIFY UTILITIES REQUIREMENTS |




2 FIRST FLOOR - FOODSERVICE ELECTRICAL - SUPPORT KITCHEN
1/4" = 1'-0"

FOODSERVICE EQUIPMENT SCHEDULE - SUPPORT KITCHEN

| ITEM NO. | QTY. | DESCRIPTION | MANUFACTURER | MODEL | REMARKS |
|---|---|---|---|---|---|
| S-01 | 1 | RESIDENTIAL MICROWAVE | N.I.C. - BY OTHERS | | N.I.C. - BY OTHERS |
| S-02 | 1 | RESIDENTIAL RANGE | N.I.C. - BY OTHERS | | N.I.C. - BY OTHERS |
| S-03 | 1 | RESIDENTIAL HOOD | CAPTIVE-AIRE | | |
| S-04 | 1 | 3-COMPARTMENT SINK, DROP-IN | EAGLE GROUP/METAL MASTERS | SR12-14-9.5-3 | |
| S-05 | 1 | RESIDENTIAL DISH WASHER | N.I.C. - BY OTHERS | | N.I.C. - BY OTHERS |
| S-06 | 1 | RESIDENTIAL REFRIGERATOR | N.I.C. - BY OTHERS | | N.I.C. - BY OTHERS |




1 FIRST FLOOR - FOODSERVICE EQUIPMENT - SUPPORT KITCHEN
1/4" = 1'-0"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PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FOODSERVICE EQUIPMENT PLAN - SUPPORT KITCHEN**

SHEET NO.

**FS-4.0**

| | |
|---|---|
| X | FLOORBOX MOUNTED TELECOM OUTLET |
| X | POKE THROUGH MOUNTED TELECOM OUTLET |
| X | CEILING MOUNTED TELECOM OUTLET |
| X | BLANK TELECOM OUTLET (DUPLEX ELECTRICAL OUTLET) |
| P | 1 CAT 6 DATA |
| D | 1 CAT 6 DATA (DUPLEX ELECTRICAL OUTLET) |
| DD | 2 CAT 6 DATA (QUAD ELECTRICAL OUTLET) |
| D2 | 2 CAT 6 DATA (DUPLEX ELECTRICAL OUTLET) |
| Q | 4 CAT 6 DATA (2 QUAD ELECTRICAL OUTLETS) |
| V | 1 CAT 6 DATA (DUPLEX ELECTRICAL OUTLET) |
| L1 | 2 CAT 6 DATA, HDBASE-T AV TO M OUTLET (QUAD ELECTRICAL OUTLET) |
| M1 | 2 CAT 6 DATA, HDBASE-T AV FROM L1 (1 QUAD ELECTRICAL OUTLET, 1 DUPLEX) |
| L | 2 CAT 6 DATA, HDBASE-T AV TO M OUTLET (QUAD ELECTRICAL OUTLET) |
| M | 2 CAT 6 DATA, HDBASE-T AV FROM L OUTLET MONITOR OUT TO SOUND ENHANCEMENT (1 QUAD ELECTRICAL OUTLET, 1 DUPLEX) |
| AS | 2 CAT 6 DATA, AUDIO FROM DISPLAY, SE AMP/MIXER (QUAD ELECTRICAL OUTLET) |
| W | 2 CAT 6A DATA |
| CP | DEMO CAMERA CONTROL PANEL |
| DC | DEMO CAMERA |
| CE | DEMO CAMERA CEILING ENCLOSURE (DUPLEX ELECTRICAL OUTLET) |
| T1 | 1 CAT 6, 1 HDMI (QUAD ELECTRICAL OUTLET) |
| T2 | 2 CAT 6 DATA, 2 HDMI (QUAD ELECTRICAL OUTLET) |
| C | INTERCOM CALL SWITCH |
| CV | INTERCOM CALL SWITCH WITH VOLUME CONTROL |
| CS | INTERCOM CALL SWITCH WITH SPEAKER |
| AD | INTERCOM ADMINISTRATIVE HANDSET |
| IC | INTERCOM SINGLE LINE HANDSET |
| VC | INTERCOM VOLUME CONTROL |
| SP | INTERCOM CEILING SPEAKER |
| INT | INTERCOM HORN SPEAKER |
| SP | INTERCOM WALL SPEAKER |
| SP | AUXILIARY SOUND SYSTEM SPEAKER |
| M | AUXILIARY SOUND MIC OUTLET |
| S | AUXILIARY SOUND MONITOR OUTLET |
| L | AUXILIARY SOUND LINE LEVEL OUTLET |
| L1 | AUXILIARY SOUND A/V OUTLET |
| L2 | AUXILIARY SOUND CONTROLLER |
| L3 | AUXILIARY SOUND BLUETOOTH INPUT |
| S2 | AUXILIARY SOUND SPEAKER INPUT |
| D | 4" IP POE DIGITAL CLOCK |
| SE | SOUND ENHANCEMENT CEILING SPEAKER |
| SE | SOUND ENHANCEMENT WALL SPEAKER |

NOTE: SEE ARCHITECTURAL DRAWINGS FOR UNIVERSAL INTERIOR ELEVATIONS AT DEVICES AS NEEDED.

1 T000 TECHNOLOGY SYMBOLS
N.T.S.

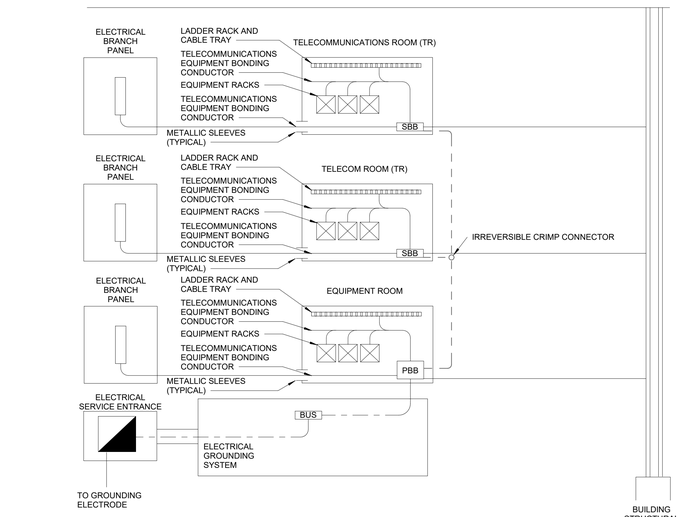
1. ALL ELECTRICAL SYSTEMS, EQUIPMENT, RACEWAYS, CABLING, BOXES, FIRESEALS, GROUNDING AND DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF THE NEC GUIDELINES.
2. ALL CONDUITS AND RACEWAYS SHALL BE PAINTED TO MATCH SURROUNDING FINISHED UNLESS OTHERWISE NOTED.
3. ALL LOW VOLTAGE CABLING MUST BE INSTALLED ACCORDING TO BICSI GUIDELINES AND METHODS.
4. ALL CABLING SHALL BE APPROPRIATELY LABELED. SEE T SERIES DRAWINGS FOR EXACT REQUIREMENTS.
5. CONTRACTOR SHALL NOT INSTALL ANY EQUIPMENT PRIOR TO ITS APPROVAL BY THE ARCHITECT, ENGINEER AND OWNER. CONTRACTOR SHALL BE LIABLE FOR ITS REMOVAL IN ANY SUCH CASE.
6. SEE ELECTRICAL DRAWINGS FOR POWER CIRCUITS AND REQUIREMENTS RELATED TO LOW VOLTAGE OUTLETS SHOWN IN THESE DRAWINGS.
7. ANY PENETRATION OF A FIRE-RATED BARRIER MUST BE PROPERLY SEALED WITH FIRESTOPPING MATERIAL IN ACCORDANCE WITH LOCAL AND STATE LAWS AND THE AUTHORITY HAVING JURISDICTION.
8. PRIOR TO BEGINNING ANY WORK, THE CONTRACTOR SHALL SECURE THE NECESSARY PERMITS AND CLEARANCES FROM THE AUTHORITIES HAVING JURISDICTION
9. THE CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS FOR COMPLETE INSTALLATION.
10. THE WORK SHALL BE PERFORMED AND COMPLETED BY EXPERIENCED TRADESMEN WHO ARE LICENSED IN THE JURISDICTION WHERE THE PROJECT IS BEING CONSTRUCTED.
11. CONDUITS AND PATHWAYS SHALL BE RUN BEHIND FINISHED SURFACES WHERE POSSIBLE UNLESS OTHERWISE NOTED.
12. THE TECHNOLOGY PLANS ARE DIAGRAMMATIC. ALL WORK MUST BE COORDINATED PRIOR TO INSTALLATION.
13. THE CONTRACTOR SHALL INFORM THE ARCHITECT, ENGINEER AND OWNER PRIOR TO BEGINNING CONSTRUCTION AND PRIOR TO COMPLETION TO ALLOW FOR SUFFICIENT TIME OF WORK REQUIRING ADDITIONAL COORDINATION.
14. THE CONTRACTOR SHALL INCLUDE IN THE WORK, WITHOUT EXTRA COST, ANY LABOR, MATERIALS, SERVICES, APPARATUS, DRAWINGS (IN ADDITION TO CONTRACT DRAWINGS AND DOCUMENTS) IN ORDER TO COMPLY WITH ALL APPLICABLE LAWS, INDICATED OR EXPRESSED.
15. BEFORE SUBMITTING BIDS, THE CONTRACTOR SHALL VISIT THE SITE AND EXAMINE THE SITE, ADJOINING SITES AND STRUCTURES, ANY EXISTING STRUCTURES OR BUILDINGS AND SPACES RELEVANT TO THEIR WORK. THE CONTRACTOR SHALL PROVIDE WRITTEN REPORT THAT DETAILS ANY CONDITIONS WHICH MIGHT PREVENT EQUIPMENT INSTALLATION IN THE MANNER SHOWN ON THE CONTRACT DOCUMENTS.
16. NO CONSIDERATION OR ALLOWANCE SHALL BE GIVEN FOR FAILURE TO VISIT THE SITE, NOR FOR ANY ALLEGED MISUNDERSTANDING OF THE MATERIALS TO BE FURNISHED AND INSTALLED PROPERLY.
17. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT, ENGINEER AND OWNER IN WRITING OF ANY DISCOVERED CONFLICTS BETWEEN THE WORK INDICATED WITHIN THE CONTRACT DOCUMENTS AND THE FIELD CONDITIONS. SUCH NOTIFICATION SHALL BE ACCOMPANIED BY A DRAWING DELINEATING THE PROPOSES SOLUTION PRIOR TO STARTING WORK IN THE AFFECTED AREA.
18. ALL SLAB PENETRATIONS MUST BE X-RAYED AND DOCUMENTED PRIOR TO BEGINNING WORK.
19. THE EXACT NUMBER OF WIRES MAY NOT BE INDICATED FOR ALL SYSTEMS. PROVIDE WIRES AND CABLES NECESSARY FOR THE PROPER FUNCTION OF THE SYSTEM WHETHER INDICATED ON THE PLANS OR NOT.
20. REFER TO THE ARCHITECTURAL DRAWINGS FOR THE FINISH, EXACT LOCATION, ELEVATION, MOUNTING HEIGHTS AND DETAILS OF ALL LIGHT FIXTURES AND OTHER DEVICES WITHIN THE CEILING GRID FOR COORDINATION WITH TECHNOLOGY EQUIPMENT. REPORT ANY DISCREPANCIES TO THE ARCHITECT IMMEDIATELY.
21. WHEREVER CONDUITS PENETRATE WALLS OR FLOORS, THE SPACE REMAINING IN SUCH PENETRATIONS SHALL BE FILLED. THE FILLING MATERIAL SHALL BE FIRE RESISTIVE IN AN EQUAL OR GREATER AMOUNT THAN THE SURROUNDINGS.
22. PROVIDE AND LEAVE ACCESSIBLE A PULL STRING IN ALL CONDUITS AND RACEWAYS FOR LOW VOLTAGE WIRES TO BE INSTALLED.
23. OUTLET BOXES INSTALLED ON OPPOSITE SIDES OF A PARTITION SHALL BE INSTALLED OFFSET FROM ONE ANOTHER.
24. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS, WRITTEN SUBMITTALS, CUT SHEETS, CALCULATIONS AND EQUIPMENT LITERATURE FOR ALL EQUIPMENT BEING PROVIDED AS PART OF THIS SCOPE OF WORK. THE EXACT DEVICE OR PIECE OF EQUIPMENT MUST BE CLEARLY CALLED OUT FOR THE DESIGN TEAM TO REVIEW. SUBMITTALS WITHOUT THE PROPER INFORMATION HIGHLIGHTED SHALL BE REJECTED FOR RESUBMITTAL.
25. THE CONTRACTOR SHALL PROVIDE COMPLETE AS-BUILT DOCUMENTATION IN HARDCOPY AND ELECTRONIC FORMAT FOR REVIEW AND APPROVAL BY THE DESIGN TEAM PRIOR TO JOB COMPLETION.
26. THE CONTRACTOR SHALL PROVIDE A COMPLETE PUNCHLIST OF ALL INSTALLED SYSTEMS TO THE CONSTRUCTION MANAGER WHEN THE INSTALLED WORK IS READY TO BE EXAMINED BY THE DESIGN TEAM. INCOMPLETE SYSTEMS SHALL NOT BE REVIEWED UNTIL IT IS DETERMINED THAT THE SYSTEM ARE APPROXIMATELY AND APPROPRIATELY COMPLETE.

2 T000 TECHNOLOGY GENERAL NOTES
N.T.S.

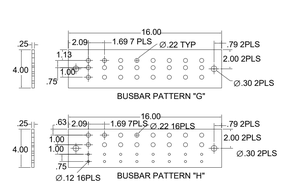
1. PATHWAYS
   A. CONTRACTOR SHALL SUPPLY AND INSTALL ALL LOW VOLTAGE PATHWAYS INCLUDING, BUT NOT LIMITED TOO, CONDUITS, BOXES, JUNCTION BOXES, SLEEVES, CHASES, RACEWAYS, CABLE TRAYS AND J-HOOKS TO PROPERLY SUPPORT THE LOW VOLTAGE INFRASTRUCTURE.
2. BONDING AND GROUNDING
   A. PROVIDE AND INSTALL A COMPLETE TELECOM GROUNDING AND BONDING SYSTEM INCLUDING ALL SBBs, PBBs, BONDING CONDUCTORS, LUGS, NUTS, CABLES AND CONNECTORS. BOND TO THE MAIN ELECTRICAL GROUNDING SYSTEM IN THE BUILDING.
3. DATA / VOIP / WIRELESS INFRASTRUCTURE
   A. PROVIDE A COMPLETE DATA NETWORK INFRASTRUCTURE INCLUDING ALL CABLING, PATHWAYS, RACKS, CABINETS, UPSs, PATCH PANELS, CROSS CONNECTS, TERMINATION EQUIPMENT AND ASSOCIATED COMPONENTS.
   B. OWNER SHALL SUPPLY NETWORK ELECTRONICS FOR THIS CONTRACTOR TO INSTALL. COORDINATE ACTIVE ELECTRONICS INSTALLATION WITH OWNER AT TIME OF INSTALLATION FOR A COMPLETE AND ACTIVE INSTALLATION.
   C. OWNER SHALL PROVIDE AND INSTALL HANDSETS AND TELEPHONE ELECTRONICS. COORDINATE WITH OWNER AT TIME OF CONSTRUCTION FOR A COMPLETE AND ACTIVE INSTALLATION.
   D. OWNER SHALL SUPPLY WIRELESS ACCESS POINTS FOR THIS CONTRACTOR TO INSTALL. COORDINATE ACTIVE ELECTRONICS INSTALLATION WITH OWNER AT TIME OF INSTALLATION FOR A COMPLETE AND ACTIVE INSTALLATION.
      a. PROVIDE AN ALLOWANCE FOR UP TO 24 ADDITIONAL DATA DROPS FROM WHAT IS SHOWN ON THE TECHNOLOGY PLANS IF NECESSARY FOR ADDITIONAL WAPS. PROVIDE UNIT PRICING PER LOCATION.
4. ANALOG INFRASTRUCTURE
   A. PROVIDE AND INSTALL A COMPLETE ANALOG INFRASTRUCTURE SYSTEM INCLUDING ALL CABLING, PATHWAYS, 110 BLOCKS, PATCH PANELS, TERMINATIONS, AND ASSOCIATED COMPONENTS.
   B. PROVIDE CONNECTIONS REQUIRED FOR FIRE ALARM PANELS, ELEVATORS AND SECURITY PANELS AS NEEDED. COORDINATE WITH THOSE CONTRACTORS FOR EXACT LOCATIONS AND WIRE TYPES.
5. INTERCOM / PUBLIC ADDRESS / CLOCK
   A. PROVIDE AND INSTALL A COMPLETE INTERCOM/PA/MASTER CLOCK SYSTEM INCLUDING ALL CABLING, PATHWAYS, TERMINATION DEVICES, END USER DEVICES, CLOCKS, CALL SWITCHES HANDSETS, SPEAKERS, HEADEND ELECTRONICS AND ASSOCIATED COMPONENTS.
   B. SYSTEM MANUFACTURER MUST MATCH THE CLASSROOM / CONFERENCE ROOM AV SYSTEM MANUFACTURER.
6. AUDIO AND VIDEO SYSTEMS
   A. PROVIDE AND INSTALL COMPLETE GYMNASIUM AND CAFETERIA AUDIO SYSTEMS INCLUDING ALL CABLING, CONNECTORS, FACEPLATES, JACKS, SPEAKERS, AMPS, SIGNAL PROCESSORS, CONTROLLERS AND ASSOCIATED COMPONENTS. SYSTEMS SHALL BE TIED TO THE INTERCOM/PA SYSTEM AND FIRE ALARM SYSTEM.
7. CLASSROOM / CONFERENCE ROOM AV SYSTEMS
   A. PROVIDE AND INSTALL COMPLETE LEARNING SPACE AV SYSTEMS INCLUDING ALL AV CABLING, CONNECTORS, SOUND ENHANCEMENT EQUIPMENT, SPEAKERS AND ASSOCIATED COMPONENTS FOR COMPLETE SYSTEMS.
   B. OWNER SHALL SUPPLY INTERACTIVE DISPLAY DEVICES FOR THIS CONTRACTOR TO INSTALL. COORDINATE INSTALLATION WITH OWNER
   C. SYSTEM MANUFACTURER MUST MATCH THE INTERCOM / PUBLIC ADDRESS / CLOCK MANUFACTURER.
8. DEMO CAMERA SYSTEM
   A. PROVIDE AND INSTALL A COMPLETE DEMO CAMERA SYSTEM IN THE CULINARY LAB INCLUDING CAMERAS, SWITCHERS, DISTRIBUTION AMPLIFIERS, CABLING, DISPLAYS AND ASSOCIATED COMPONENTS FOR A COMPLETE AND ACTIVE SYSTEM.
9. DATA DROP ALLOWANCE
   A. PROVIDE AN ADDITIONAL 16 HARDWIRED DATA DROPS FOR BAS EQUIPMENT. EXACT LOCATIONS SHALL BE DETERMINED DURING CONSTRUCTION BY THIS CONTRACTOR IN COORDINATION WITH THE OWNER, MEP CONTRACTOR AND BAS CONTRACTOR.

3 T000 TECHNOLOGY SCOPE NOTES
N.T.S.

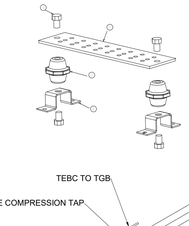
| TECHNOLOGY SHEET LIST | |
|---|---|
| T000 | SYMBOLS AND NOTES |
| T100 | SITE PLAN |
| T101 | OVERALL FIRST FLOOR PLAN |
| T102 | OVERALL SECOND FLOOR PLAN |
| T103 | FLOOR PLAN - SHOPS - MEZZANINE LEVEL |
| T111 | FIRST FLOOR PLAN - KEYPLAN 1 |
| T112 | FIRST FLOOR PLAN - KEYPLAN 2 |
| T113 | FIRST FLOOR PLAN - KEYPLAN 3 |
| T114 | FIRST FLOOR PLAN - KEYPLAN 4 |
| T115 | FIRST FLOOR PLAN - KEYPLAN 5 |
| T116 | FIRST FLOOR PLAN - KEYPLAN 6 |
| T116A | FIRST FLOOR PLAN - KEYPLAN 6 ALTERNATE |
| T117 | FIRST FLOOR PLAN - KEYPLAN 7 |
| T118 | FIRST FLOOR PLAN - KEYPLAN 8 |
| T119 | FIRST FLOOR PLAN - KEYPLAN 9 |
| T120 | FIRST FLOOR PLAN - KEYPLAN 10 |
| T121 | FIRST FLOOR PLAN - KEYPLAN 11 |
| T131 | SECOND FLOOR - KEYPLAN 4 |
| T132 | SECOND FLOOR - KEYPLAN 5 |
| T133 | SECOND FLOOR - KEYPLAN 7 |
| T134 | SECOND FLOOR - KEYPLAN 8 |
| T135 | SECOND FLOOR - KEYPLAN 9 |
| T136 | SECOND FLOOR - KEYPLAN 10 |
| T137 | FIELD HOUSE TECHNOLOGY PLAN |
| T500 | MAIN TELECOM ROOM DETAILS |
| T501 | TELECOM ROOMS FIRST FLOOR 1 |
| T502 | TELECOM ROOMS FIRST FLOOR 2 |
| T503 | TELECOM ROOMS SECOND FLOOR 1 |
| T504 | PATHWAYS |
| T505 | FACEPLATES |
| T507 | INTERCOM & CLOCK SYSTEM |
| T508 | CAFETERIA AUDIO SYSTEM |
| T509 | GYMNASIUM AUDIO SYSTEM |
| T510 | DEMO CAMERA SYSTEM |

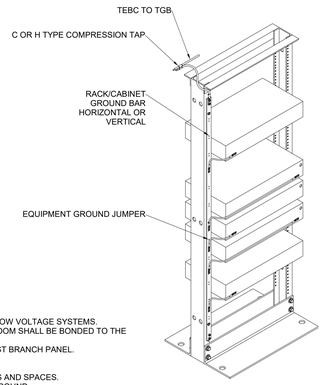



SBB SECONDARY BONDING BUSBAR
PBB PRIMARY BONDING BUSBAR
TELECOMMUNICATIONS BONDING BACKBONE
TELECOMMUNICATIONS BONDING CONDUCTOR
TELECOMMUNICATIONS EQUIPMENT BONDING CONDUCTOR



ASSEMBLED HEIGHT, ALL VERSIONS






| ITEM NO. | DESCRIPTION | QTY. |
|---|---|---|
| 1 | COPPER BUSBAR | 1 |
| 2 | NON CONDUCTIVE ISOLATION BUSHING | 2 |
| 3 | 3/8-16" STAINLESS STEEL HEX BOLTS | 4 |
| 4 | 3/8" S.S. LOCK WASHERS (NOT SHOWN) | 4 |

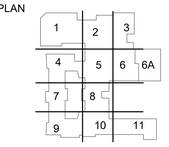
| CATALOG NO. | FINISH | DESCRIPTION | BUSBAR PATTERN | "N" QTY |
|---|---|---|---|---|
| HBBB14216G | BARE COPPER | 4"X16"X.25" BUSBAR | "G" | N/A |
| HBBB1416H | BARE COPPER | 4"X16"X.25" BUSBAR | "H" | N/A |
| HBBB14420J | BARE COPPER | 4"X20"X.25" BUSBAR | "J" | N/A |
| HBBB14216GTP | TIN PLATED | 4"X16"X.25" BUSBAR | "G" | N/A |
| HBBB1416HTP | TIN PLATED | 4"X16"X.25" BUSBAR | "H" | N/A |
| HBBB14420JTP | TIN PLATED | 4"X20"X.25" BUSBAR | "J" | N/A |
| HGRKTTMGB16H | BARE COPPER | 4"X16"X.25" BUSBAR | "H" | 1 |

BONDING AND GROUNDING NOTES.
1. BONDING AND GROUNDING SYSTEM SHALL BE PROVIDED AND INSTALLED FOR ALL LOW VOLTAGE SYSTEMS.
2. A TEBC SHALL BE PROVIDED IN EACH TELECOM ROOM. EQUIPMENT WITHIN THAT ROOM SHALL BE BONDED TO THE TEBC. THE TEBC SHALL BE BONDED TO THE PBB/SBB IN THAT SPACE.
3. THE PBB/SBB SHALL BE BONDED TO THE TBB, STRUCTURAL STEEL AND THE NEAREST BRANCH PANEL.
4. ALL CONNECTIONS SHALL BE PERMANENT / IRREVERABLE TYPE CONNECTIONS.
5. BONDING AND GROUNDING SYSTEM SHALL CONFORM TO TIA-607-D.
6. BONDING AND GROUND SYSTEM SHALL FOLLOW TELECOMMUNICATIONS PATHWAYS AND SPACES.
7. BONDING AND GROUNDING SYSTEM SHALL BE BONDED TO BUILDING ELECTRICAL GROUND.
8. BONDING AND GROUNDING SYSTEM WIRE SHALL BE SIZED APPROPRIATELY FOR DISTANCE AND LOAD.
9. BONDING AND GROUND SYSTEM SHALL COMPLY WITH THE LATEST EDITION OF THE BICSI TDMM.
10. BONDING AND GROUNDING SYSTEM SHALL COMPLY WITH THE LATEST EDITIONS OF THE NEC.

4 T000 TECHNOLOGY TYPICAL GROUNDING DIAGRAM
N.T.S.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN





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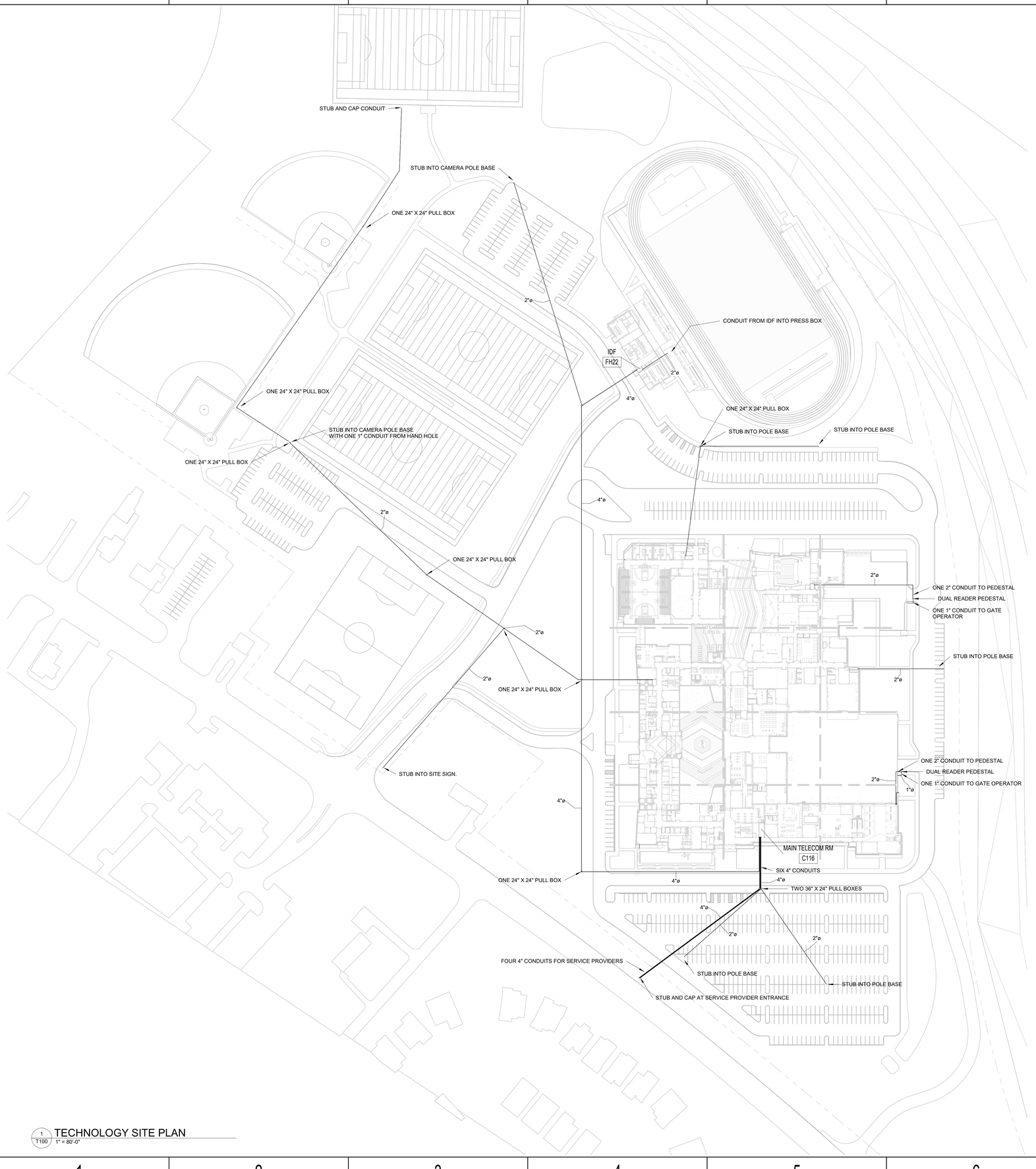
JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

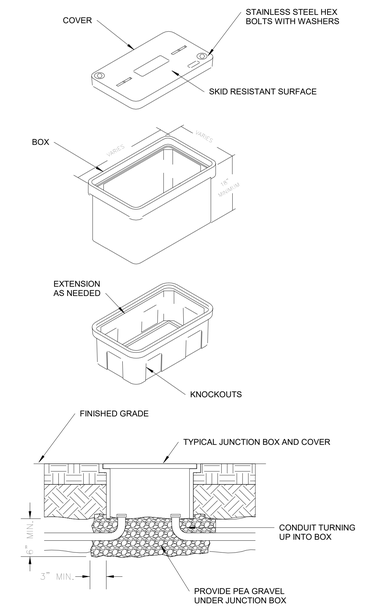
SHEET TITLE
**SYMBOLS AND NOTES**

SHEET NO.
**T000**




1 T100 TECHNOLOGY SITE PLAN
1" = 80'-0"

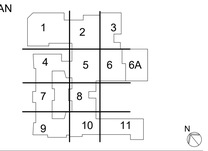
1. UNDERGROUND LOW VOLTAGE CONDUITS/DUCT BANKS SHALL BE A MINIMUM OF 24" BELOW GRADE AND COORDINATED WITH OTHER TRADES PRIOR TO INSTALLATION.
2. COORDINATE WITH OWNER AND SERVICE PROVIDERS TO DELIVER SERVICES FROM EXISTING SERVICE POLES / HAND HOLES TO QUAZITE PULL BOXES AND INTO THE FACILITY VIA THE UNDERGROUND PATHWAY SYSTEM. SERVICE PROVIDERS SHALL BE IN SEPARATE HANDHOLES.
3. SERVICE PROVIDER CABLES SHALL LAND IN THE MDF. THE MDF SHALL BE THE POINT OF DEMARCATION.
4. CONDUITS SHALL BE 4" SCHEDULE 40 PVC WITH PROPER FITTINGS AND BEND RADIUS.
5. ANY CONDUIT NOT TERMINATED IN A QUAZITE PULL BOX SHALL BE CAPPED.
6. PULL STRINGS SHALL BE LEFT ACCESSIBLE IN ALL CONDUITS.
7. CONDUITS SHALL STUB INTO THE BUILDING AND ANY OTHER STRUCTURES.
8. COORDINATE INSTALLATION AT SITE SIGN BASED ON THE EXACT EQUIPMENT PROVIDED.
9. QUAZITE HAND HOLES / PULL BOXES SHALL BE A MINIMUM OF 24" X 36" X 18". INCREASE SIZE AS NEEDED. PROVIDE LIDS.
10. TRAFFIC RATED LIDS SHALL BE PROVIDED FOR ANY LOCATION IN A ROADWAY.
11. EXACT LOCATIONS MUST BE COORDINATED IN THE FIELD WITH OTHER UTILITIES.
12. PROVIDE AND INSTALL LIGHTNING/SURGE SUPRESSION DEVICES ON INCOMING AND SITE CABLES.




2 T100 Hand Hole Detail
12" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

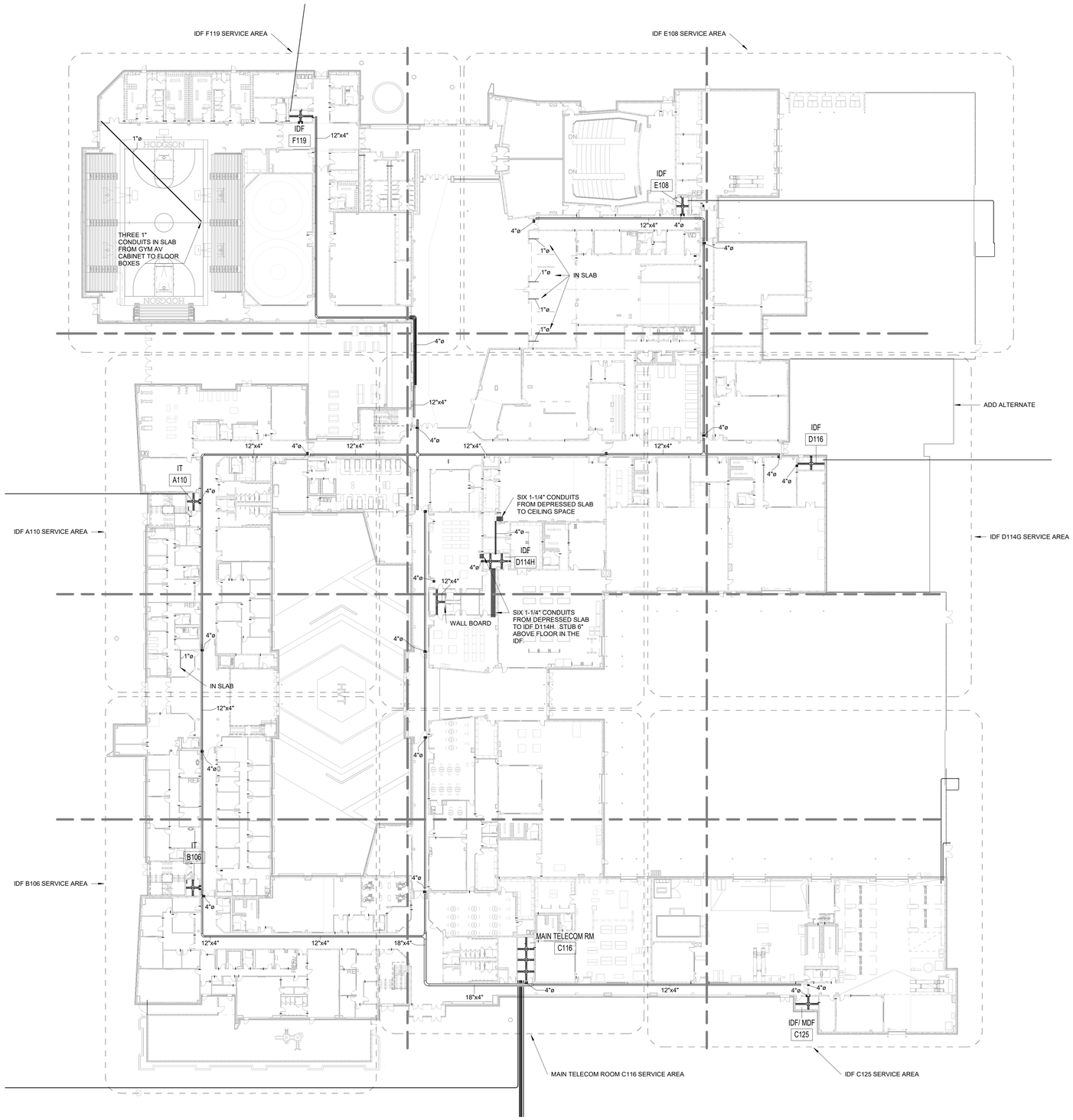
SHEET TITLE

**SITE PLAN**

SHEET NO.

**T100**

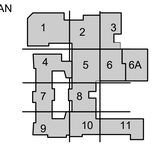
1. PROVIDE AND INSTALL WIRE MESH CABLE TRAY FOR LOW VOLTAGE DISTRIBUTION AS SHOWN. CABLE TRAY SHALL BE INSTALLED 3" ABOVE DROP CEILINGS AND HAVE 3" CLEAR ABOVE THE TOP RIM FOR ACCESS.
2. COORDINATE INSTALLATION WITH OTHER TRADES.
3. PROVIDE AND INSTALL 4" CONDUITS AS SHOWN FOR LOW VOLTAGE DISTRIBUTION.
4. PROVIDE AND INSTALL 2" CONDUITS INTO EACH SPACE ABOVE CEILING FOR LOW VOLTAGE DISTRIBUTION.
5. SERVICE AREAS SHOWN SHALL BE ADJUSTED AS NEEDED TO ALLOW HORIZONTAL STRUCTURED CABLES TO REMAIN LESS THAN 90 METERS.
6. COORDINATE ALL CABLE TRAY AND CONDUITS WITH FIREWALLS AND EXPANSION JOINTS. PENETRATIONS MUST PROVIDE THE SAME OR GREATER FIRE RATING.




1 T101 OVERALL FIRST FLOOR PLAN
1" = 30'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

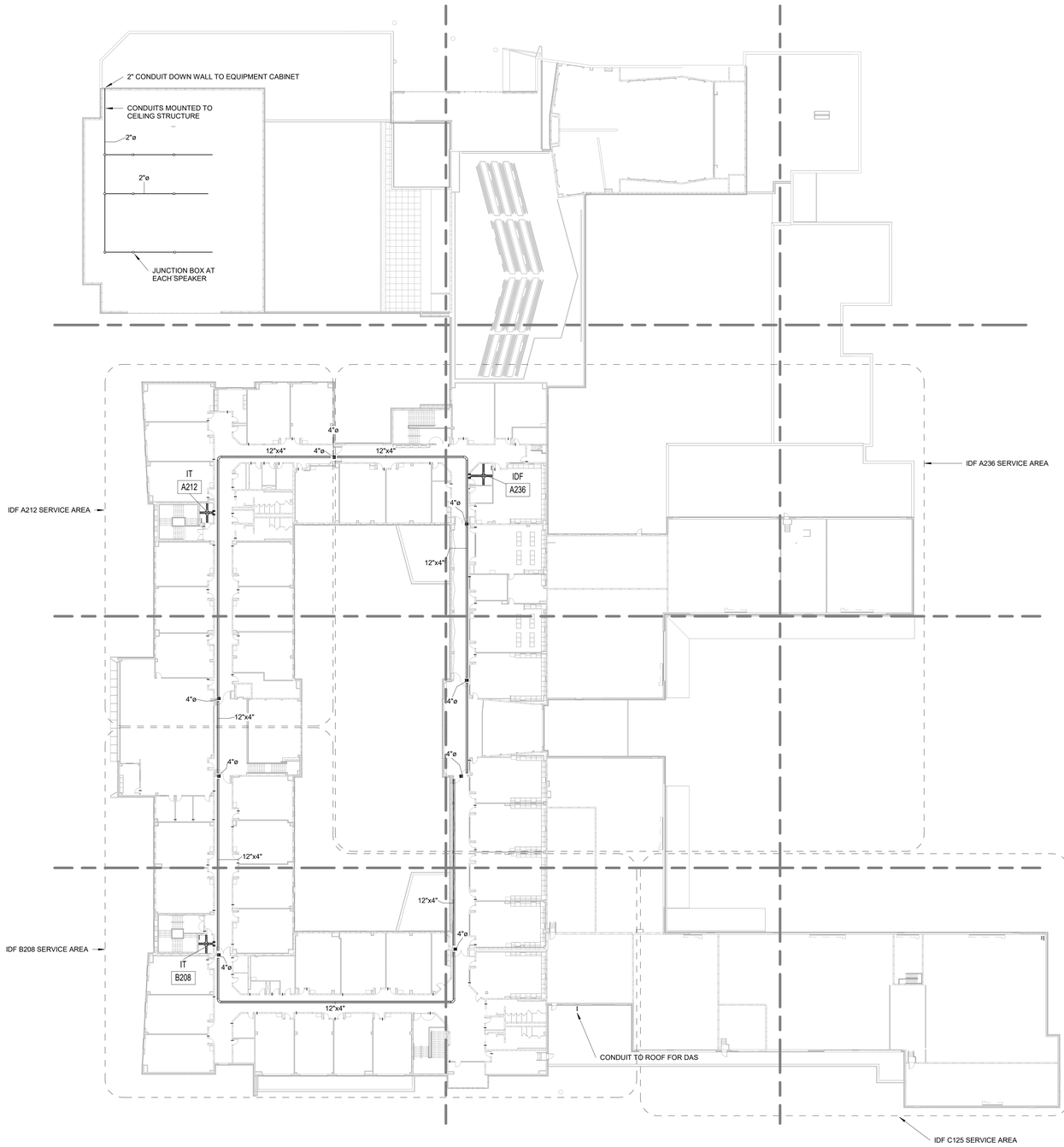
SHEET TITLE

**OVERALL FIRST FLOOR PLAN**

SHEET NO.

**T101**

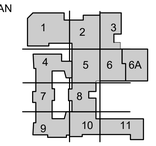
1. PROVIDE AND INSTALL WIRE MESH CABLE TRAY FOR LOW VOLTAGE DISTRIBUTION AS SHOWN. CABLE TRAY SHALL BE INSTALLED 3" ABOVE DROP CEILINGS AND HAVE 3" CLEAR ABOVE THE TOP RIM FOR ACCESS.
2. COORDINATE INSTALLATION WITH OTHER TRADES.
3. PROVIDE AND INSTALL 4" CONDUITS AS SHOWN FOR LOW VOLTAGE DISTRIBUTION.
4. PROVIDE AND INSTALL 2" CONDUITS INTO EACH SPACE ABOVE CEILING FOR LOW VOLTAGE DISTRIBUTION.
5. SERVICE AREAS SHOWN SHALL BE ADJUSTED AS NEEDED TO ALLOW HORIZONTAL STRUCTURED CABLES TO REMAIN LESS THAN 90 METERS.
6. COORDINATE ALL CABLE TRAY AND CONDUITS WITH FIREWALLS AND EXPANSION JOINTS. PENETRATIONS MUST PROVIDE THE SAME OR GREATER FIRE RATING.




1 T102 OVERALL SECOND FLOOR PLAN
1" = 30'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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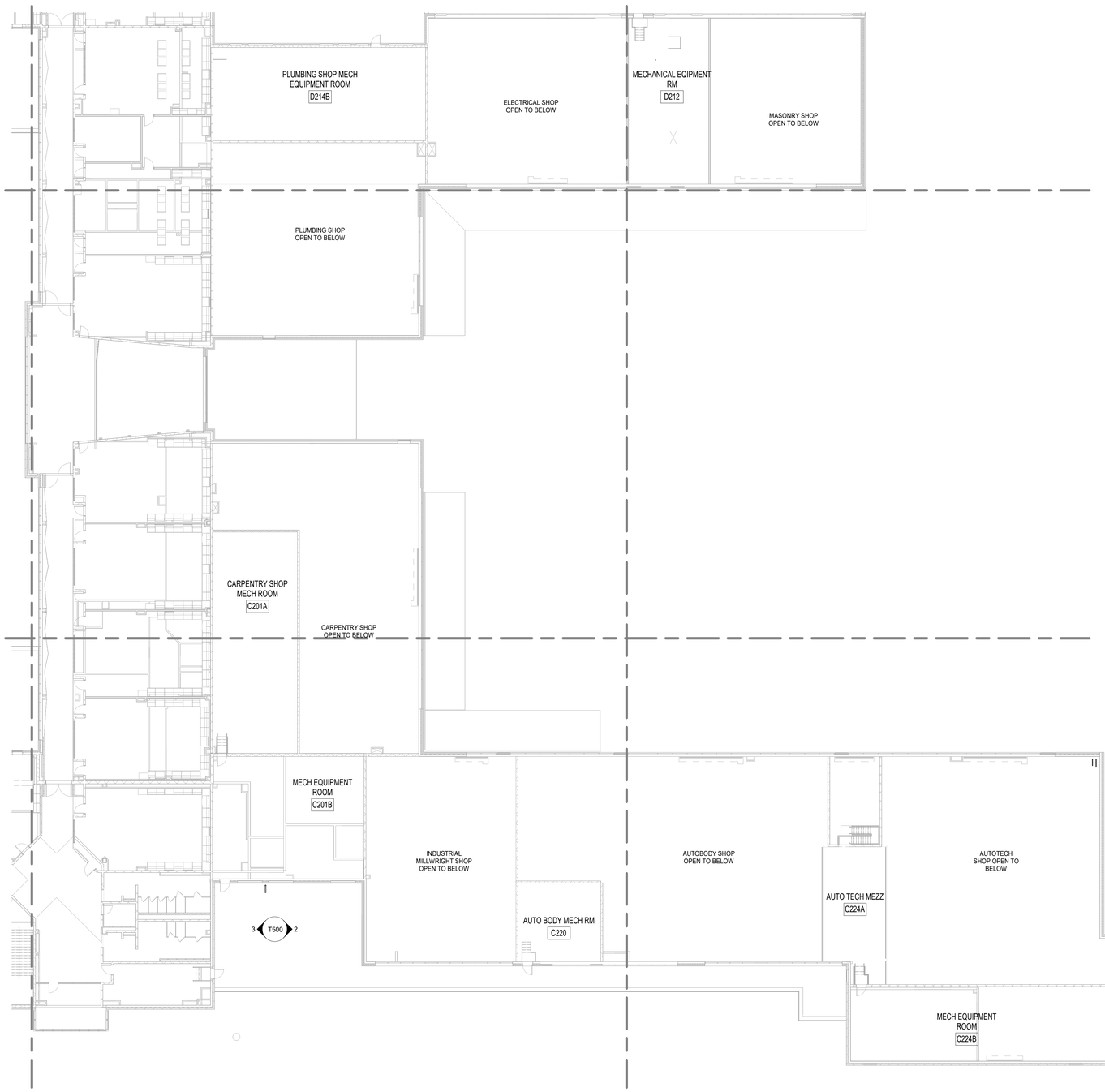
SHEET TITLE

**OVERALL SECOND FLOOR PLAN**

SHEET NO.

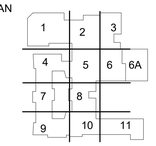
**T102**




1 T103 OVERALL FLOOR PLAN - MEZZANINE
1/16" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FLOOR PLAN - SHOPS - MEZZANINE LEVEL**

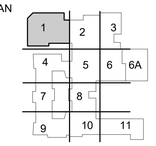
SHEET NO.

**T103**

1 T111 FIRST FLOOR - KEYPLAN 1
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN





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PAUL M. HODGSON VO-TECH HIGH SCHOOL

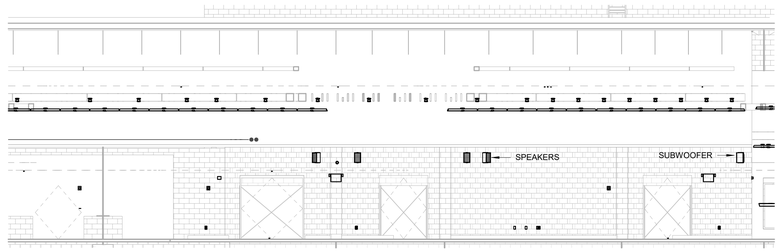
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR PLAN - KEYPLAN 1**

SHEET NO.

**T111**




3 T112 CAFETERIA AV SECTION 1
1/8" = 1'-0"

1 T112 FIRST FLOOR - KEYPLAN 2
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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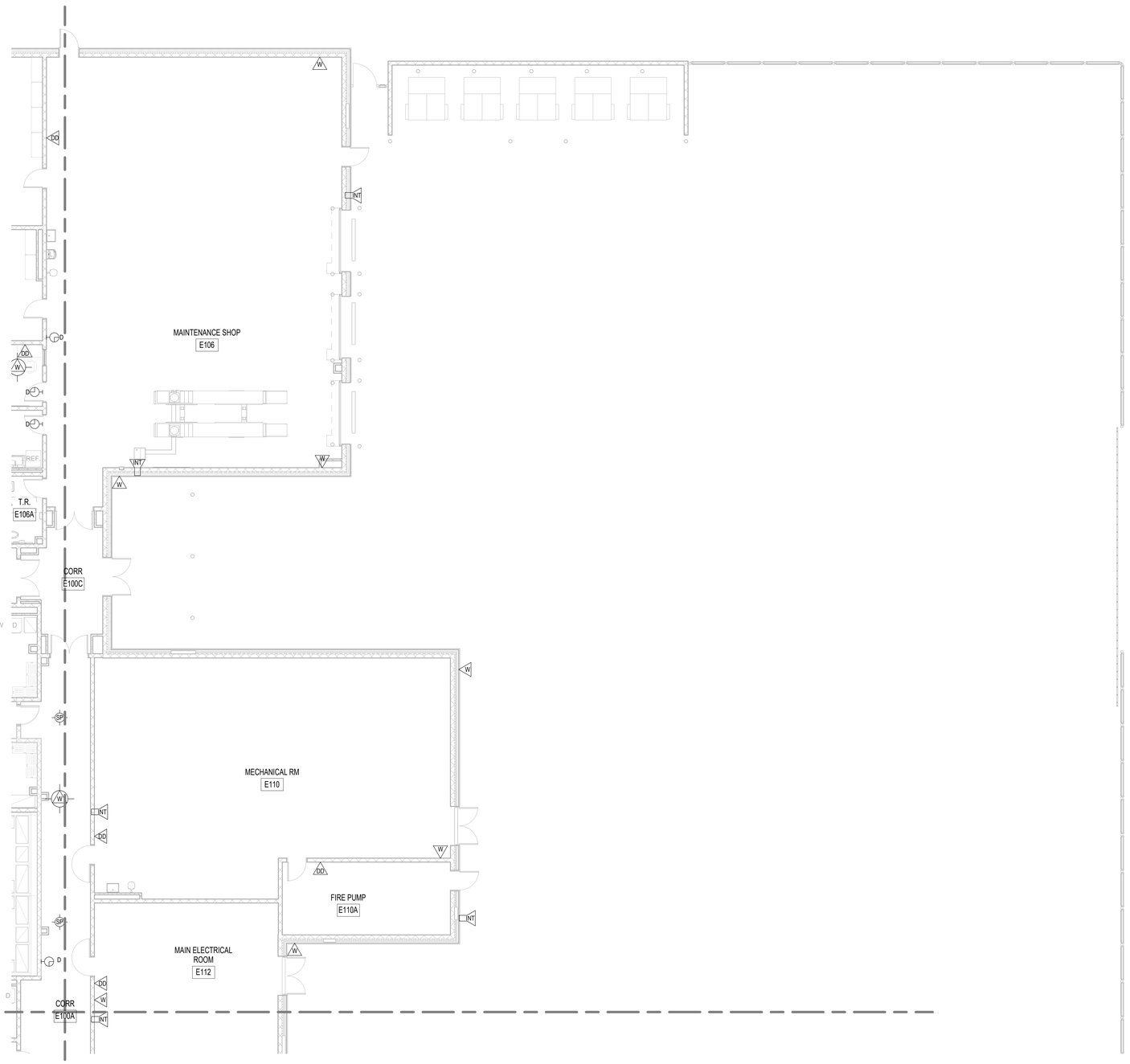
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR PLAN - KEYPLAN 2**

SHEET NO.

**T112**




1 T113 FIRST FLOOR - KEYPLAN 3
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR PLAN - KEYPLAN 3**

SHEET NO.

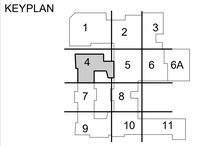
**T113**

1 / T114 FIRST FLOOR - KEYPLAN 4

1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

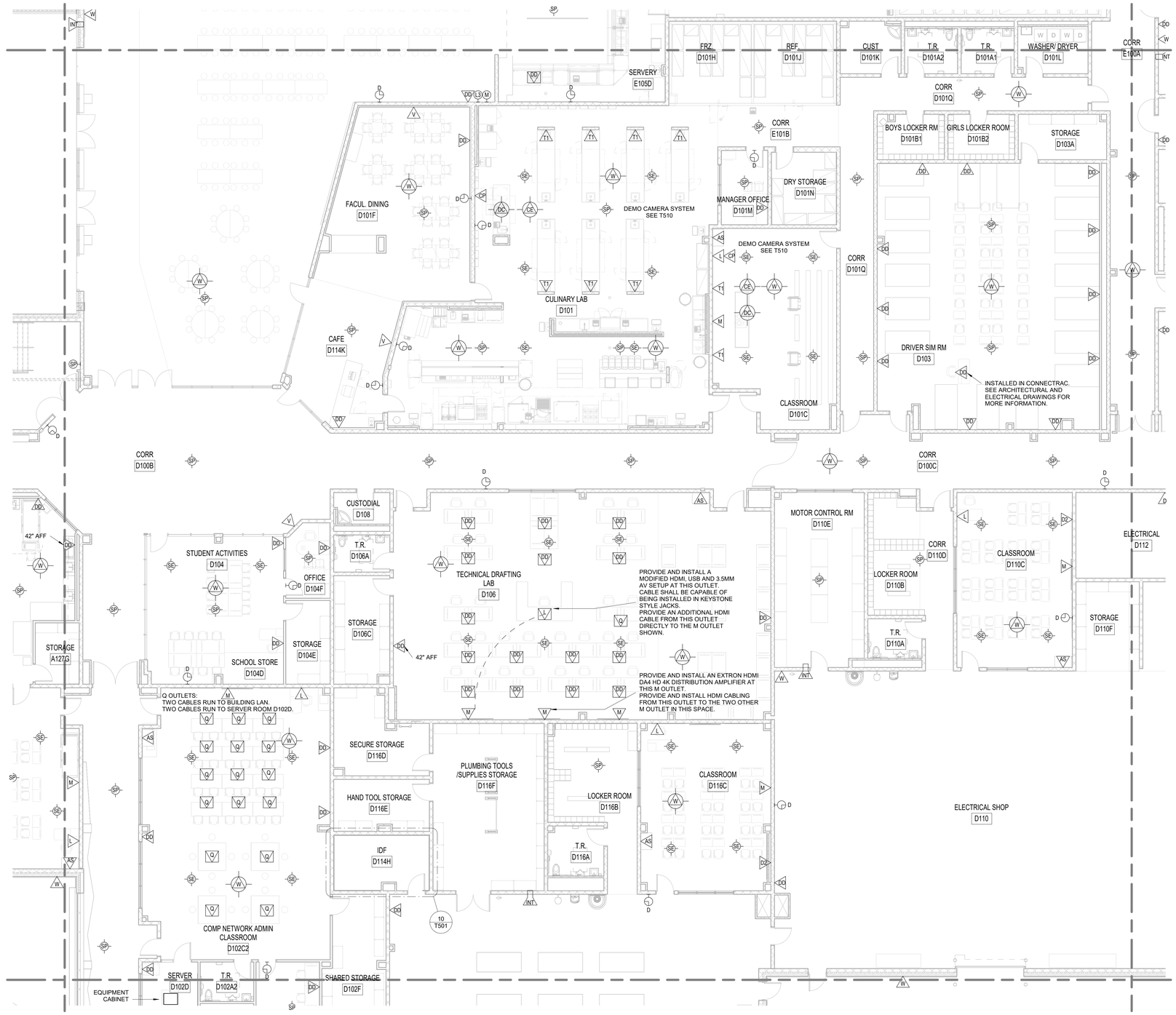
**FIRST FLOOR PLAN - KEYPLAN 4**

SHEET NO.

**T114**

1. A RAISED FLOORING SYSTEM SHALL BE INSTALLED IN THE FOLLOWING ROOMS:
   A. SERVER D102
   B. CNAC D102C1
   C. CNAC D102C2
   D. TECHNICAL DRAFTING LAB D106
2. SYSTEM BASIS OF DESIGN SHALL BE NETFLOOR USA.
   A. NETFLOOR NFUSA 110116-005 FLOOR BOXES SHALL BE USED.
3. FLOORING SYSTEM SHALL BE FULLY BONDED TO BUILDING GROUNDING.
4. SYSTEM CABLE ROUTING SHALL BE DETERMINED IN THE FIELD. CABLES SHALL BE ROUTED TO MINIMIZE PROXIMITY WITH POWER CABLING. COORDINATE IN THE FIELD.
5. CABLE FILL RATIOS SHALL BE MAINTAINED AND ADJUSTED IF NEEDED.
6. D106 LAN STATION CABLES SHALL ALL BE ROUTED TO IDF D114H.
7. D102C1 AND D102C2
   A. EACH Q FLOOR BOX SHALL HAVE FOUR CABLES.
      a. TWO CAT 6 UTP CABLES SHALL BE RUN TO IDF D114H.
      b. TWO CAT 6 UTP CABLES SHALL BE RUN TO SERVER D102.
8. SHIELDED CAT 6 UTP CABLING SHALL BE USED IN RAISED FLOOR TO PREVENT EMI DISRUPTION.

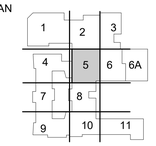
## RAISED FLOOR NOTES
N.T.S.




1 T115 FIRST FLOOR - KEYPLAN 5
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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PAUL M. HODGSON VO-TECH HIGH SCHOOL

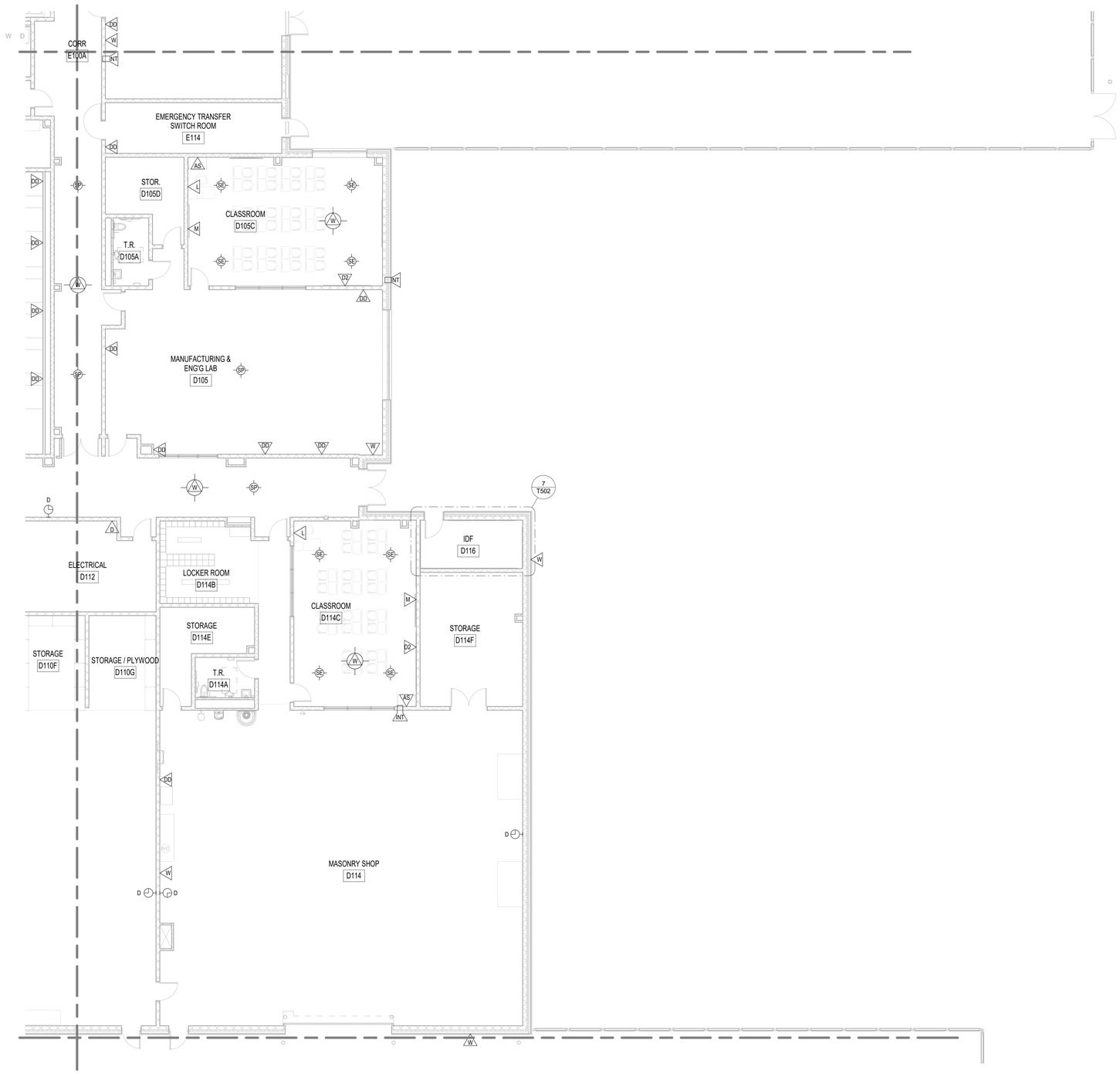
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR PLAN - KEYPLAN 5**

SHEET NO.

**T115**




1 T116 FIRST FLOOR - KEYPLAN 6
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

VOCATIONAL TECHNICAL SCHOOL DISTRICT
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**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR PLAN - KEYPLAN 6**

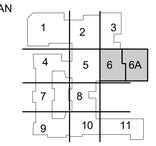
SHEET NO.

**T116**

1 T116A FIRST FLOOR - KEYPLAN 6 - (FUTURE SHOP AND TECH)
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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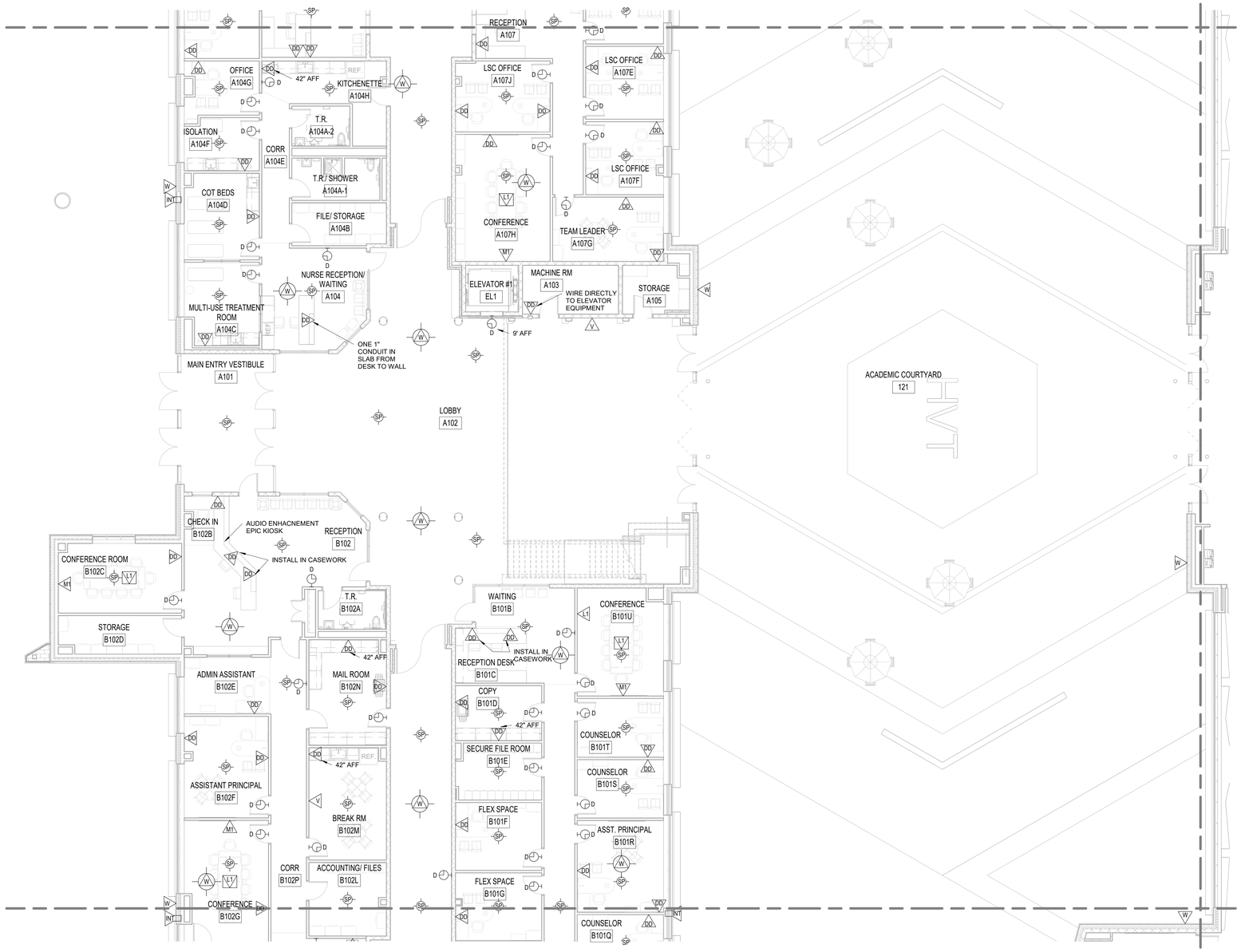
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR PLAN - KEYPLAN 6 ALTERNATE**

SHEET NO.

**T116A**




1 T117 FIRST FLOOR - KEYPLAN 7

1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

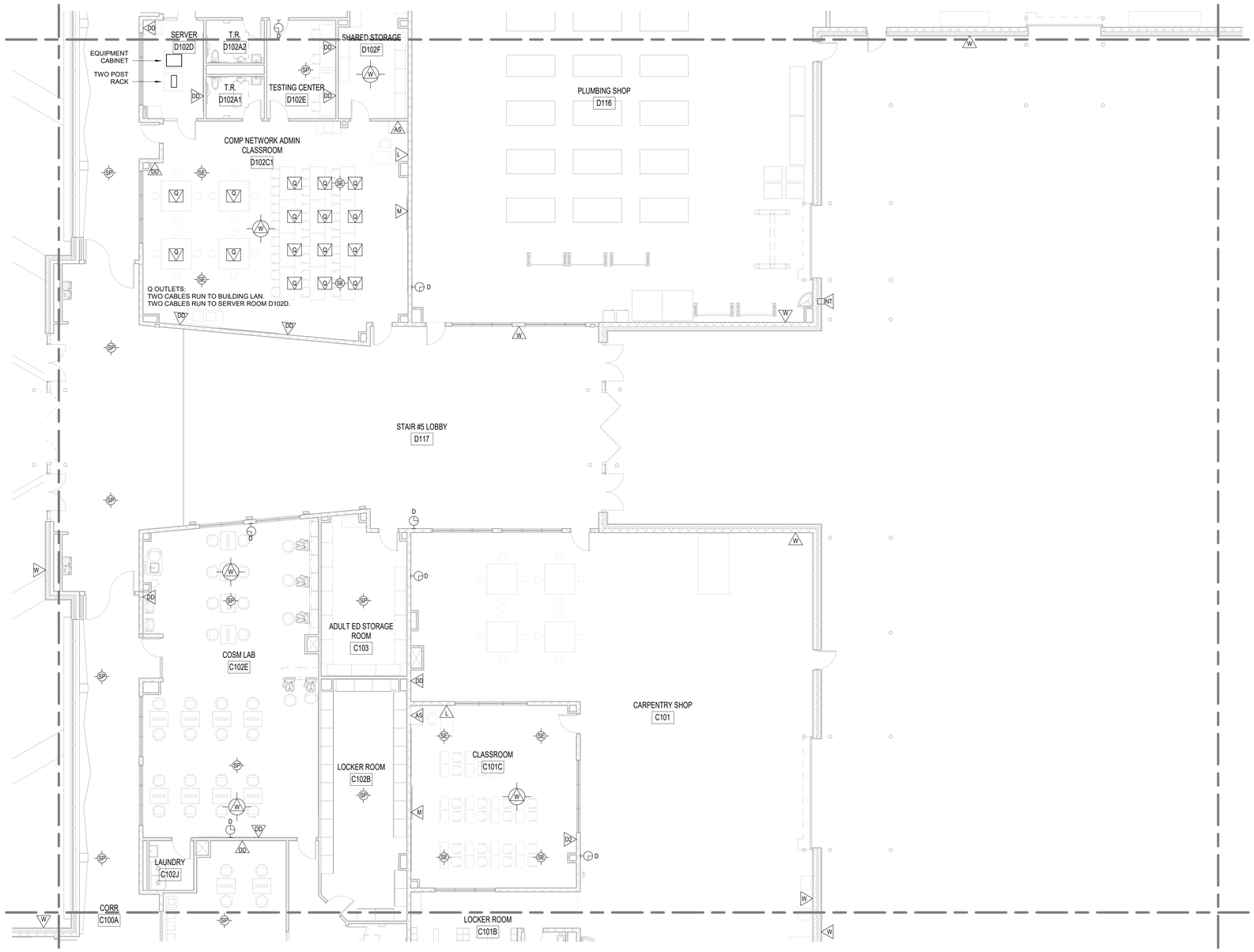
**FIRST FLOOR PLAN - KEYPLAN 7**

SHEET NO.

**T117**

1. A RAISED FLOORING SYSTEM SHALL BE INSTALLED IN THE FOLLOWING ROOMS:
   A. SERVER D102
   B. CNAC D102C1
   C. CNAC D102C2
   D. TECHNICAL DRAFTING LAB D106
2. SYSTEM BASIS OF DESIGN SHALL BE NETFLOOR USA.
   A. NETFLOOR NFUSA 110116-005 FLOOR BOXES SHALL BE USED.
3. FLOORING SYSTEM SHALL BE FULLY BONDED TO BUILDING GROUNDING.
4. SYSTEM CABLE ROUTING SHALL BE DETERMINED IN THE FIELD. CABLES SHALL BE ROUTED TO MINIMIZE PROXIMITY WITH POWER CABLING. COORDINATE IN THE FIELD.
5. CABLE FILL RATIOS SHALL BE MAINTAINED AND ADJUSTED IF NEEDED.
6. D106 LAN STATION CABLES SHALL ALL BE ROUTED TO IDF D114H.
7. D102C1 AND D102C2
   A. EACH Q FLOOR BOX SHALL HAVE FOUR CABLES.
      a. TWO CAT 6 UTP CABLES SHALL BE RUN TO IDF D114H.
      b. TWO CAT 6 UTP CABLES SHALL BE RUN TO SERVER D102.
8. SHIELDED CAT 6 UTP CABLING SHALL BE USED IN RAISED FLOOR TO PREVENT EMI DISRUPTION.

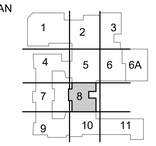
## RAISED FLOOR NOTES
N.T.S.




1 T118 FIRST FLOOR - KEYPLAN 8
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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THEATER PLANNING

Stages Consultants, LLC

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR PLAN - KEYPLAN 8**

SHEET NO.

**T118**

1. THE B107 SUITE OF DENTAL ROOMS SHALL BE COORDINATED WITH THE PROPOSED DENTAL PLANS AND THIRD-PARTY DENTAL LAYOUTS.
2. PER PROPOSED DRAWING DA-111, PROVIDE THE FOLLOWING PATHWAYS AND WIRING IN ADDITION TO WHAT IS CURRENTLY SHOWN ON THE FLOOR PLANS:
   A. DENTAL CHAIR - EMPTY 2" CONDUIT.
   B. REAR CABINET - EMPTY 2" CONDUIT AND EMPTY 3/4" CONDUIT.
   C. CENTRAL CABINEET - EMPTY 2" CONDUIT.
   D. INTRA ORAL X-RAY - 3/4" CONDUIT, 18/3 WIRE, EMPTY J-BOX.
   E. COMPRESSOR - 18/4 WIRE, EMPTY J-BOX, CAT 6 UTP.
   F. VACUUM - 18/4 WIRE, EMPTY J-BOX, CAT 6 UTP.

1 T119 FIRST FLOOR - KEYPLAN 9
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

VOCATIONAL TECHNICAL SCHOOL DISTRICT NEW CASTLE COUNTY DELAWARE

OWNER

New Castle County Vo-Tech School District

1417 Newport Pike
Wilmington, DE 19804

STRUCTURAL ENGINEER

DCI + MacIntosh Engineers

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Wilmington , DE 19806
Phone (302) 252-9200
Fax (302) 252-9201

MECHANICAL / ELECTRICAL ENGINEER

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CIVIL ENGINEER

Landmark Science & Engineering

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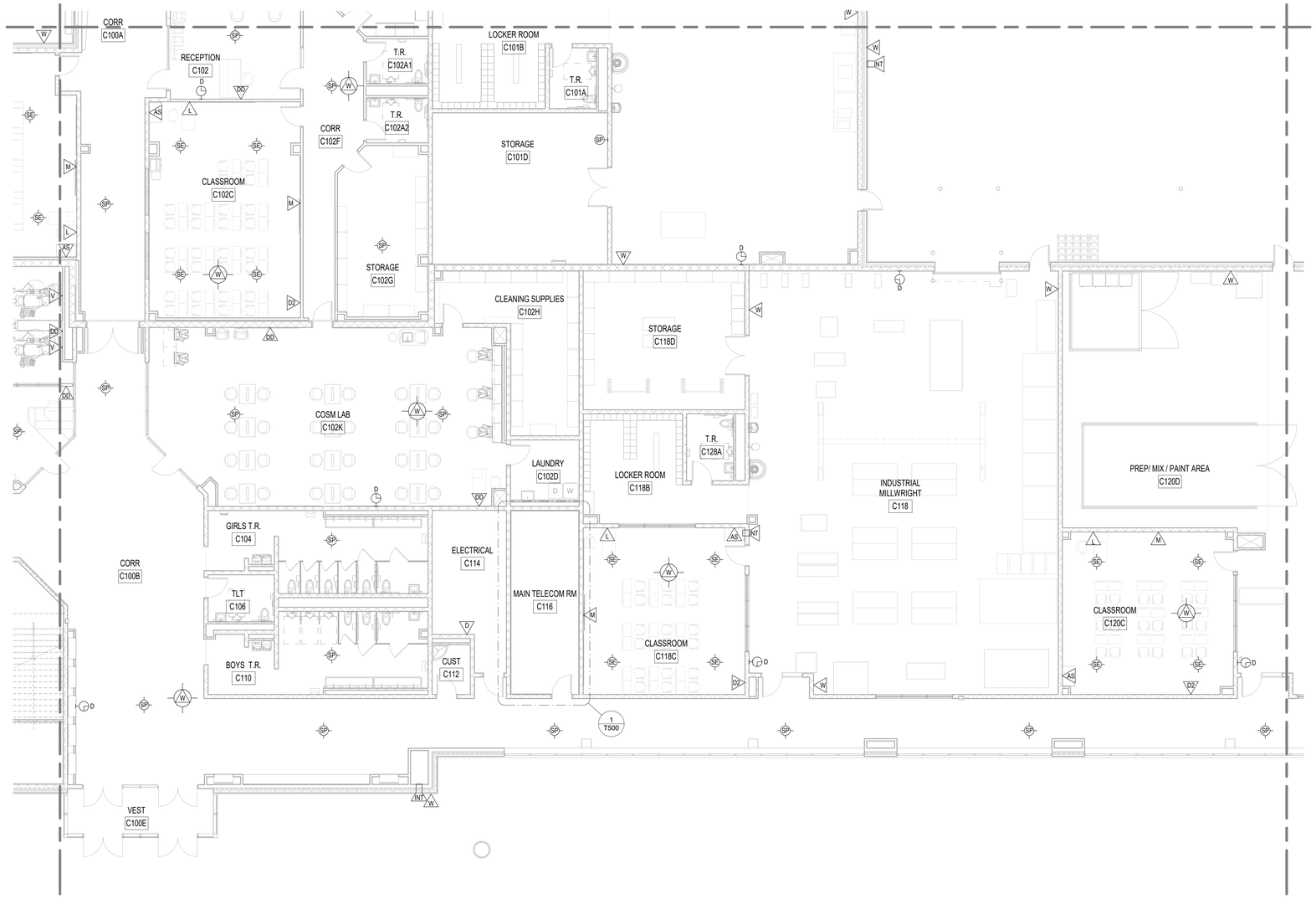
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR PLAN - KEYPLAN 9**

SHEET NO.

**T119**




1 T120 FIRST FLOOR - KEYPLAN 10
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

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NEW CASTLE COUNTY DELAWARE

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New Castle County Vo-Tech School District

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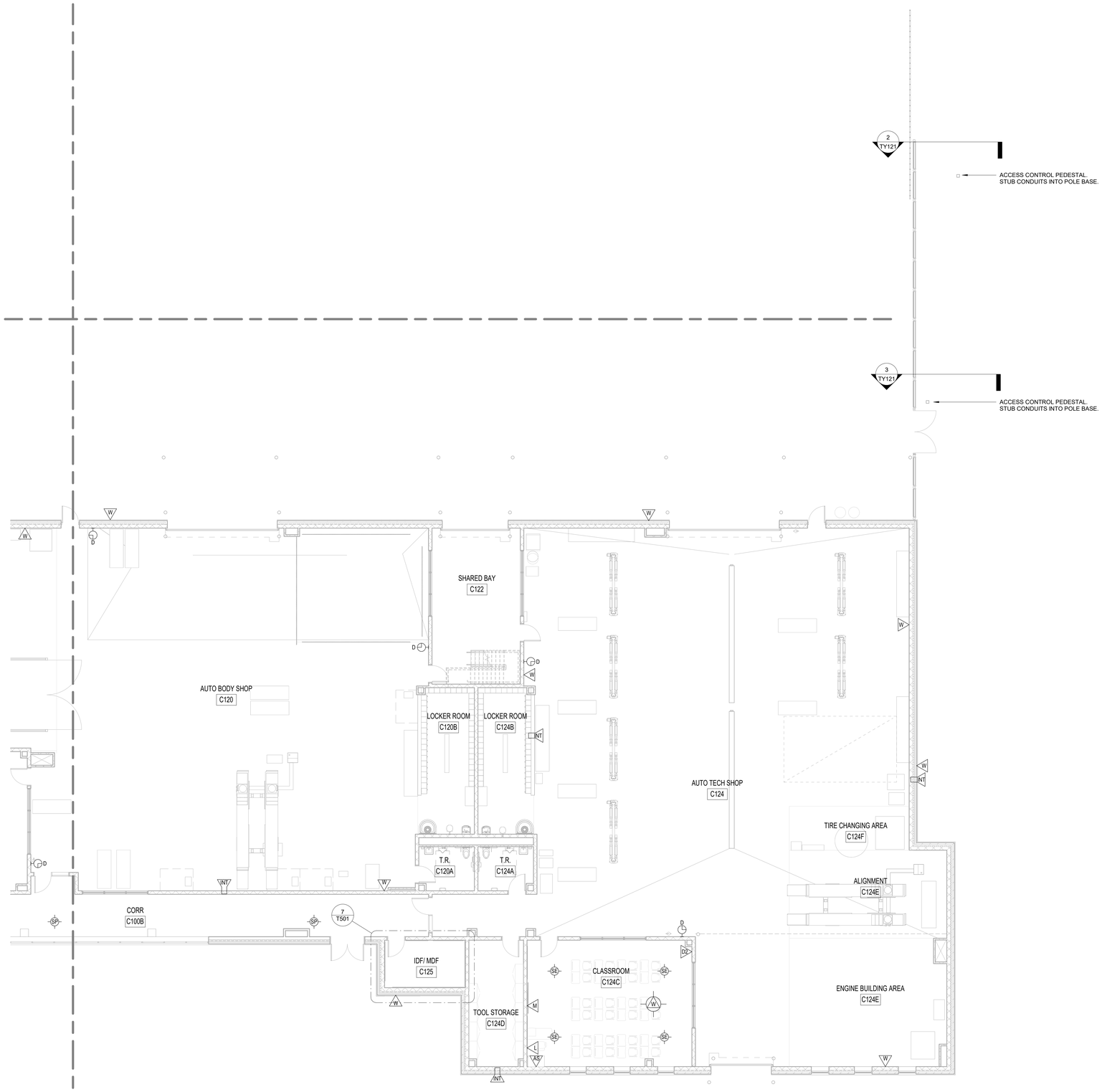
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR PLAN - KEYPLAN 10**

SHEET NO.

**T120**




1 T121 FIRST FLOOR - KEYPLAN 11
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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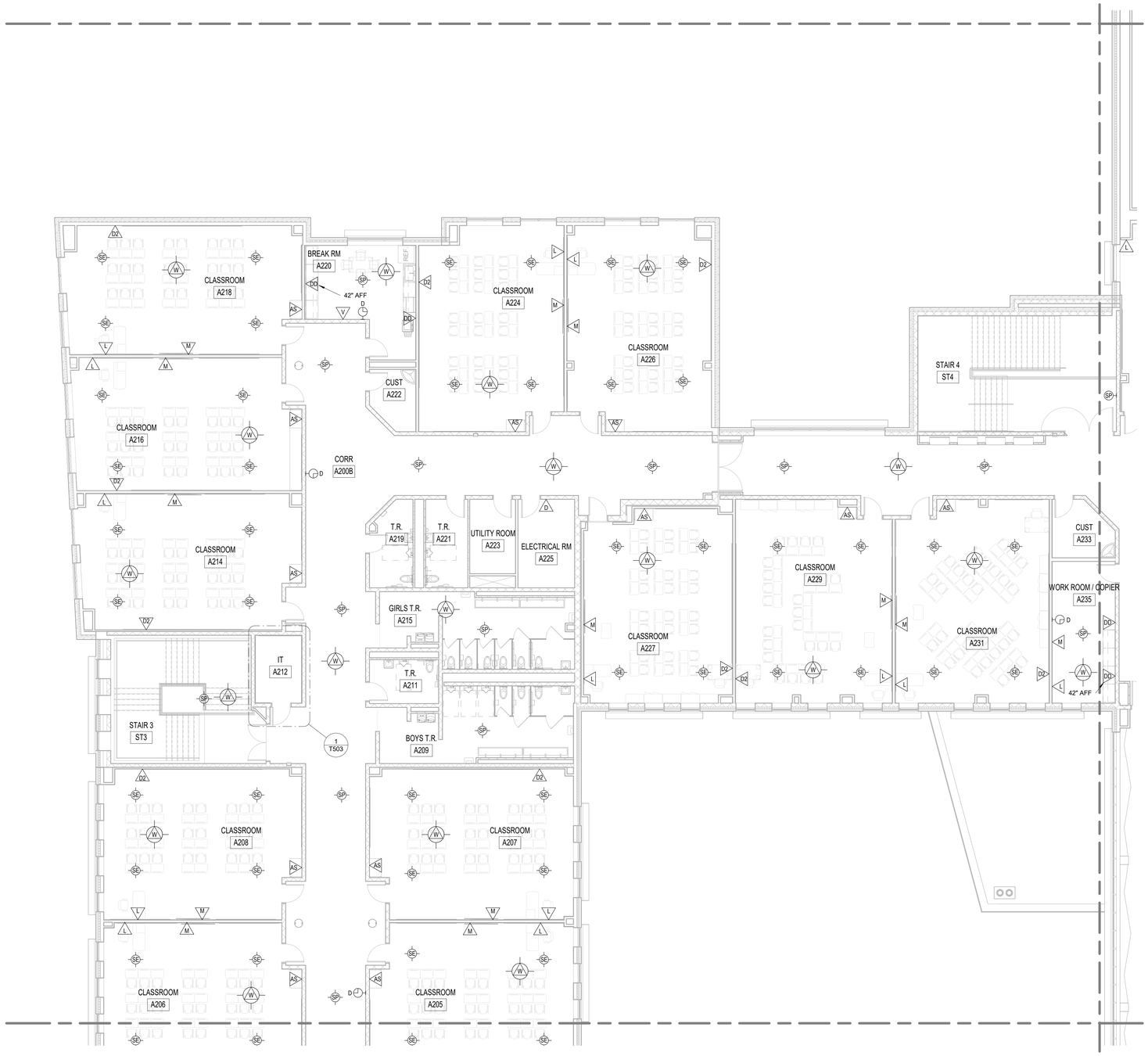
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR PLAN - KEYPLAN 11**

SHEET NO.

**T121**




1 T131 SECOND FLOOR - KEYPLAN 4
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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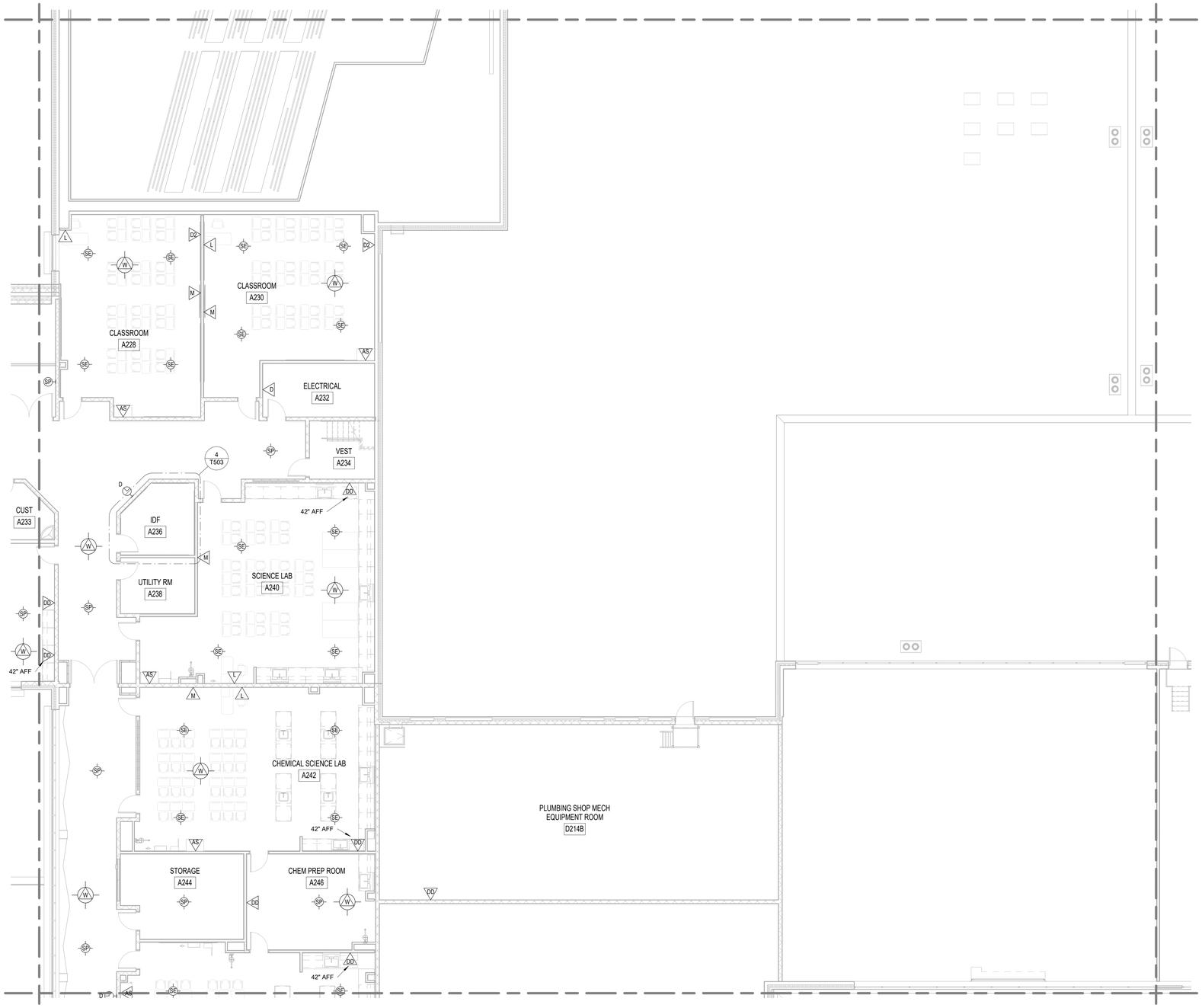
**NEWARK, DE 19702**

SHEET TITLE

**SECOND FLOOR - KEYPLAN 4**

SHEET NO.

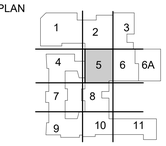
**T131**




1 / T132 SECOND FLOOR - KEYPLAN 5
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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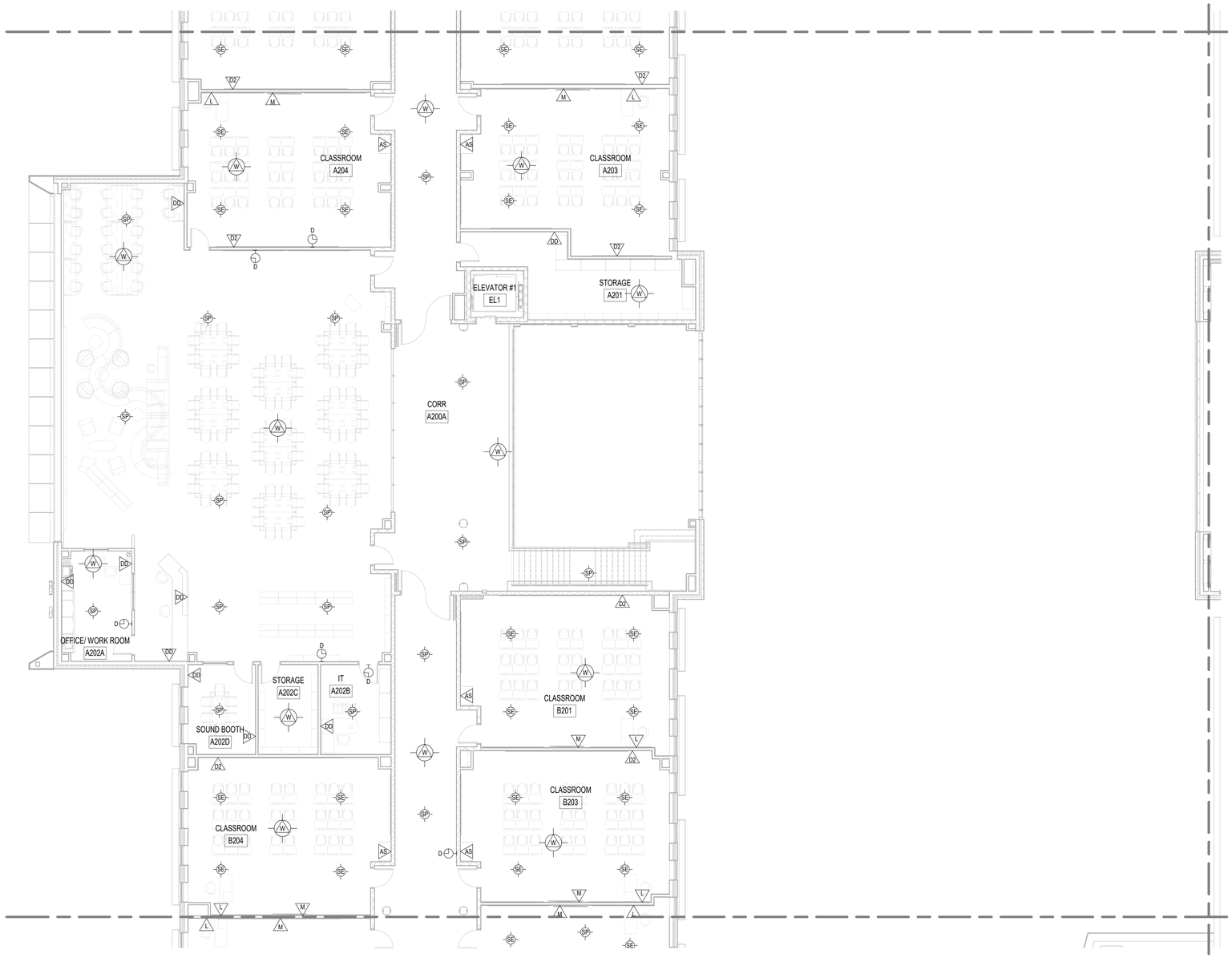
**NEWARK, DE 19702**

SHEET TITLE

**SECOND FLOOR - KEYPLAN 5**

SHEET NO.

**T132**




1 / T133 SECOND FLOOR - KEYPLAN 7
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

VOCATIONAL TECHNICAL SCHOOL DISTRICT
NEW CASTLE COUNTY DELAWARE

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**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**SECOND FLOOR - KEYPLAN 7**

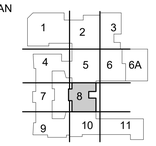
SHEET NO.

**T133**

1 T134 SECOND FLOOR - KEYPLAN 8
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN





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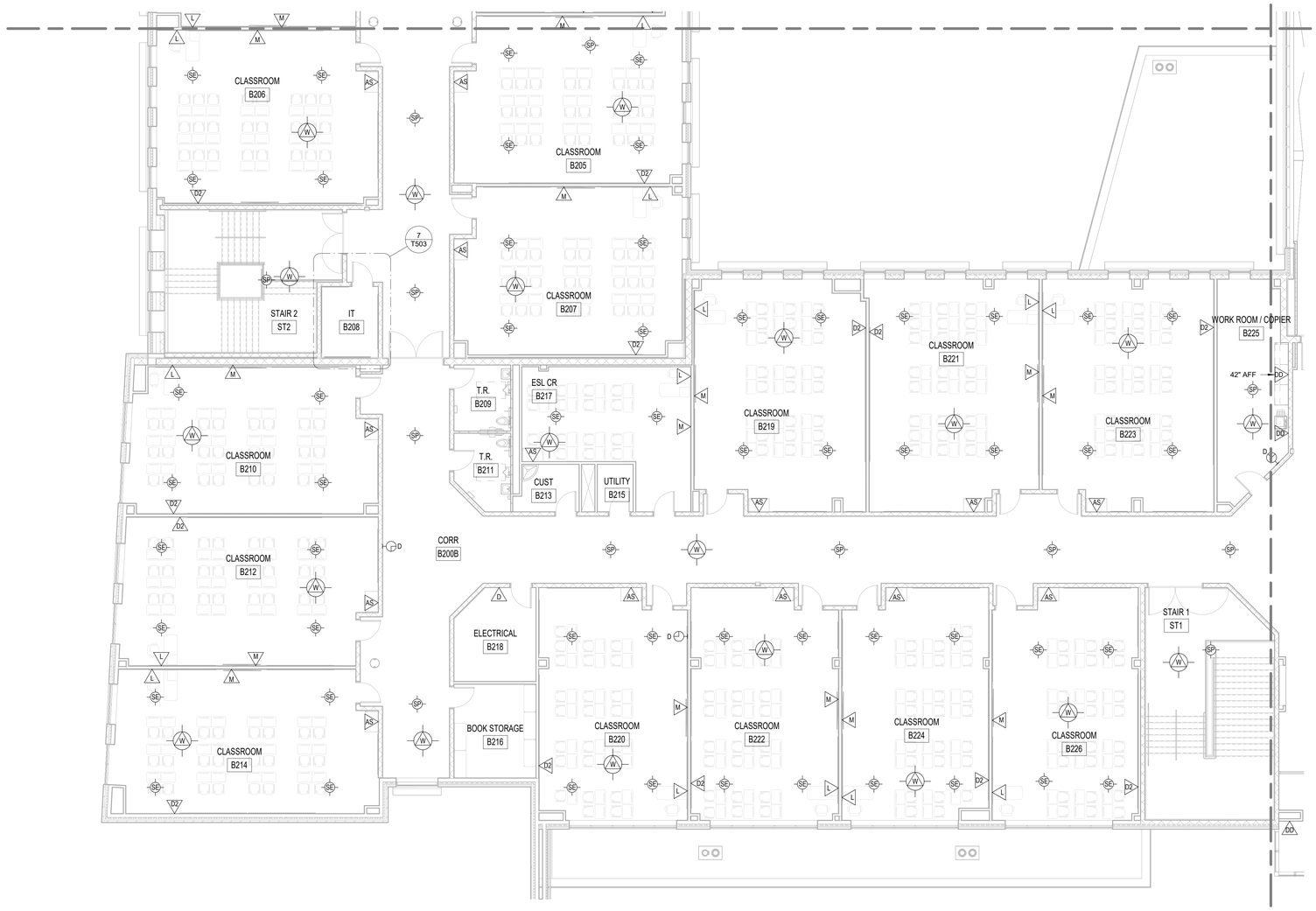
**NEWARK, DE 19702**

SHEET TITLE

**SECOND FLOOR - KEYPLAN 8**

SHEET NO.

**T134**




1 T135 SECOND FLOOR - KEYPLAN 9
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

VOCATIONAL TECHNICAL SCHOOL DISTRICT
NEW CASTLE COUNTY DELAWARE

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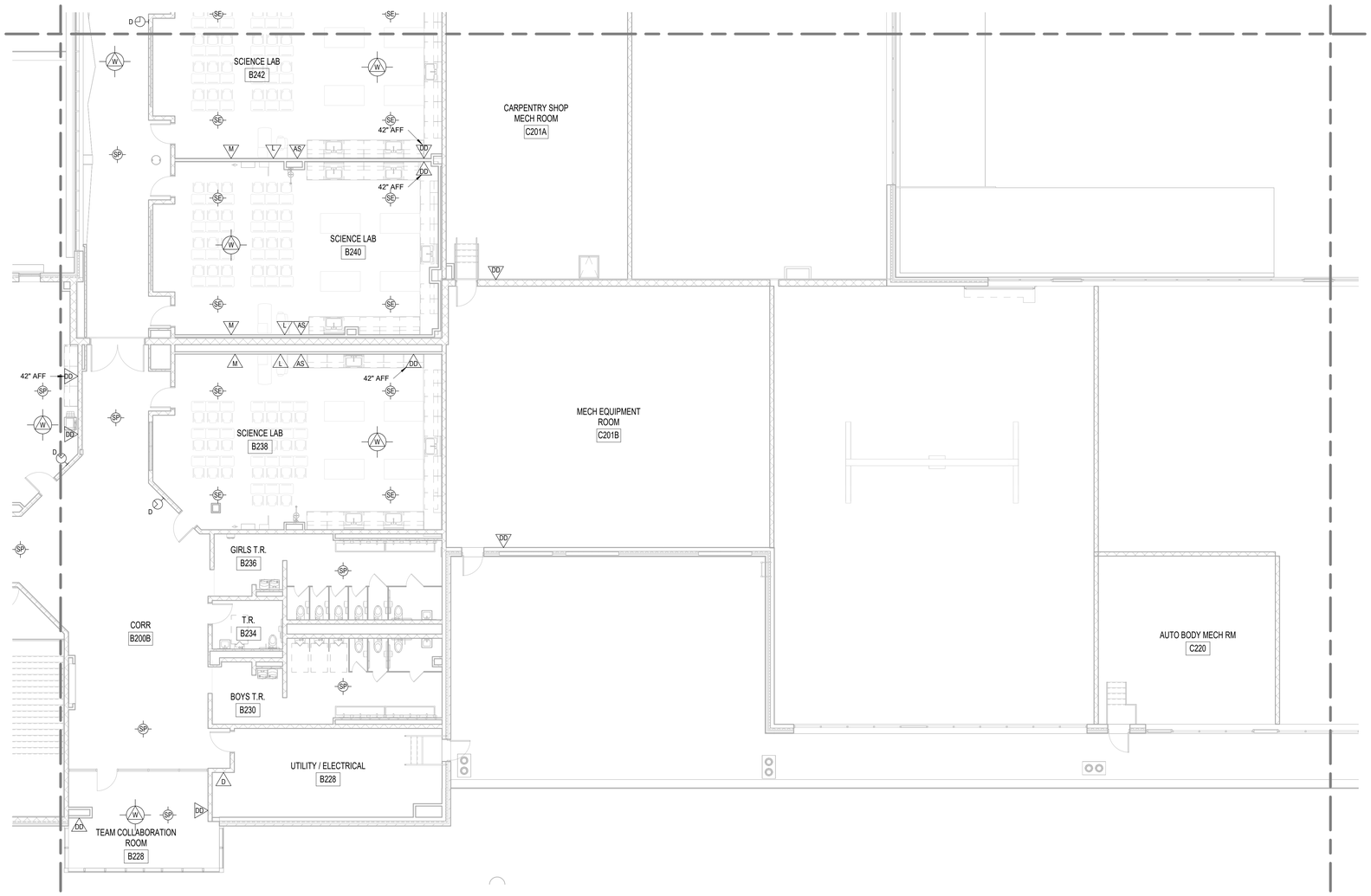
SHEET TITLE

**SECOND FLOOR - KEYPLAN 9**

SHEET NO.

**T135**




1 T136 SECOND FLOOR - KEYPLAN 10
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

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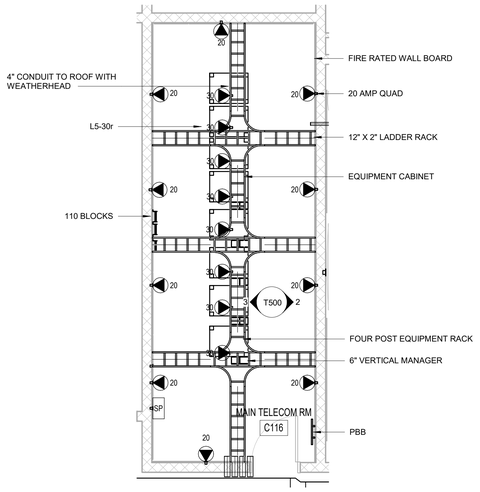
SHEET TITLE

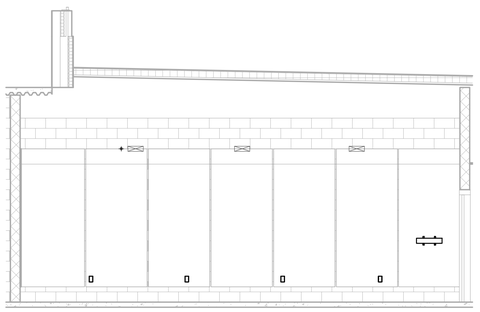
**SECOND FLOOR - KEYPLAN 10**

SHEET NO.

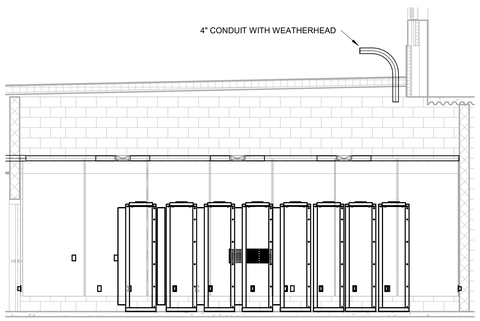
**T136**



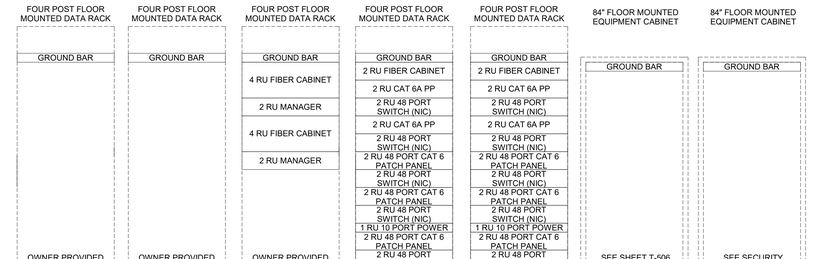

1 T500 MAIN TELECOM ROOM C116
1/4" = 1'-0"



2 T500 Elevation 1 - a
1/4" = 1'-0"



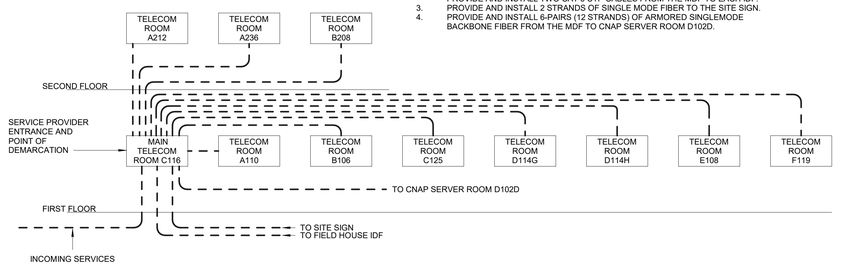

3 T500 Elevation 1 - c
1/4" = 1'-0"




1. OWNER / DTI SHALL PROVIDE AND INSTALL SWITCHES.
2. PATCH PANEL AND SWITCH QUANTITY SHALL BE BASED OF DRAWING TAKEOFFS.
3. PROVIDE AND INSTALL UPS EQUIPMENT AS SHOWN.
4. PROVIDE AND INSTALL RACK SHELVES / SUPPORTS FOR EQUIPMENT EQUIPMENT.
5. PROVIDE AND INSTALL ALL OTHER EQUIPMENT AS SHOWN.
6. PATCH CORDS SHALL NOT HAVE BOOTS.
7. DATA CABLES SHALL USE A 3' PATCH CORD AT THE RACK.
8. WIRELESS CABLES SHALL USE A 5' PATCH CORD AT THE RACK.
9. CCTV CAMERAS SHALL USE A 3' PATCH CABLE AT THE RACK.
10. COORDINATE INSTALLATION WITH OWNER AT TIME OF CONSTRUCTION.

4 T500 MAIN EQUIPMENT ROOM RACKS
N.T.S.

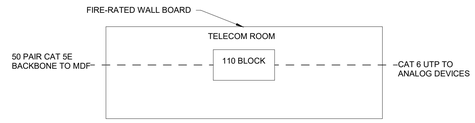
1. THE MAIN TELECOM ROOM SHALL SERVE AS THE POINT OF DEMARCATION FOR INCOMING SERVICES TO THE MAIN BUILDING. SERVICE PROVIDER EQUIPMENT SHALL BE LOCATED ON FIRE-RATED WALL BOARD WITHIN THIS SPACE AND SHALL BE THE POINT OF PRESENCE.
2. PROVIDE AND INSTALL 6-PAIRS (12 STRANDS) OF ARMORED SINGLEMODE BACKBONE FIBER FROM THE MDF TO EACH IDF.
   PROVIDE AND INSTALL TWO CAT 6 UTP CABLES FROM THE MDF TO EACH IDF.
3. PROVIDE AND INSTALL 2 STRANDS OF SINGLE MODE FIBER TO THE SITE SIGN.
4. PROVIDE AND INSTALL 6-PAIRS (12 STRANDS) OF ARMORED SINGLEMODE BACKBONE FIBER FROM THE MDF TO CNAP SERVER ROOM D102D.




8 T500 BACKBONE RISER DIAGRAM
N.T.S.

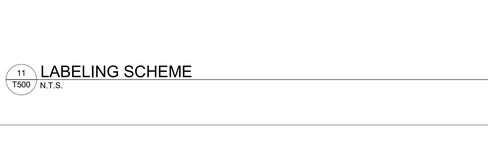
1. NOTES RELATED TO ALL TECHNOLOGY DRAWINGS.
2. COORDINATE EQUIPMENT INSTALLATION WITH OWNER AND OTHER TRADES AT TIME OF CONSTRUCTION.
3. EQUIPMENT SHALL BE INSTALLED WITHIN RACKS AND CABINETS OR SECURELY FASTENED TO WALL BOARD.
4. ELECTRICAL RECEPTACLES FOR RACKS/CABINETS SHALL BE INSTALLED ON LADDER RACK ABOVE AND NOT INTERFERE WITH EQUIPMENT INSTALLATION.
5. WIRING AND CABLES SHALL BE INSTALLED WITHIN PATHWAYS DEDICATED FOR LOW VOLTAGE EQUIPMENT.
6. 10' OF CABLE SLACK SHALL BE PROVIDED WITHIN THE MAIN TELECOM ROOM AND TELECOM ROOMS FOR ALL BACKBONE AND HORIZONTAL CABLES TO ALLOW FOR FUTURE CHANGES TO CABLING.
7. 3' OF CABLE SLACK SHALL BE PROVIDED IN THE CEILING AT THE STATION/DEVICE END FOR ALL HORIZONTAL CABLES TO ALLOW FOR FUTURE CHANGES TO CABLING UNLESS OTHERWISE NOTED.
8. CABLES SHALL BE NEATLY AND LOOSELY BUNDLED WITH VELCRO STRAPS. PERMANENT CABLE TIES ARE NOT ACCEPTABLE FOR BUNDLING CABLES. CABLES IN TRAY SHALL NOT BE BUNDLED BUT RATHER NEATLY LAID IN TRAY BY SYSTEM TO ALLOW FOR HEAT DISSIPATION.
9. WIRES SHALL NOT BE INSTALLED IN ANY PATHWAYS WITH HIGH VOLTAGE EQUIPMENT AND SEPARATION SHALL BE MAINTAINED BETWEEN LOW AND HIGH VOLTAGE CABLES.
10. COMMUNICATIONS CABLES SHALL BE RUN DIRECTLY TO ELEVATOR EQUIPMENT. COORDINATE WITH EXACT ELEVATOR EQUIPMENT PROVIDED.
11. ANALOG COMMUNICATIONS LINES SHALL BE INCLUDED WITHIN THIS SCOPE OF WORK FOR VOICE, FIRE ALARM PANELS, FAX LINES, ELEVATORS, SECURITY PANELS AND OTHER SYSTEMS AND EQUIPMENT REQUIRING ANALOG CONNECTIVITY. CABLE SHALL BE RUN DIRECTLY TO ELEVATOR EQUIPMENT PER CODE.
12. PATCH PANELS SHALL BE PROVIDED WITH 20% SPARE CAPACITY. ANY CABLES ADDED THROUGHOUT CONSTRUCTION SHALL MAINTAIN THE 20% SPARE CAPACITY FOR THE OWNER.
13. PATCH CABLES SHALL BE PROVIDED FOR BOTH ENDS OF HORIZONTAL CABLES AND ALL FIBER JUMPER/UPLINK CABLES SHALL BE PROVIDED SO EQUIPMENT IS CONNECTED ON BOTH ENDS.
14. ALL CABLES SHALL BE PROPERLY SUPPORTED USING TRAY, LADDER RACK AND J-HOOKS. J-HOOKS SHALL BE NO FURTHER THAT 5-6 FEET APART AND MUST BE PROPERLY SIZED TO HOLD THE ANTICIPATED AMOUNT OF CABLES. EMPTY, SPARE CAPACITY SHALL BE PROVIDED.
15. INCOMING SERVICES MUST BE COORDINATED WITH THE SERVICE PROVIDERS AND OWNER AS PART OF THIS SCOPE OF WORK.
16. THE MDF SHALL SERVE AS THE POINT OF DEMARCATION FOR SERVICE PROVIDERS.
17. PROVIDE AND INSTALL A 10 PORT POWER STRIP IN EACH RACK/CABINET.
18. ALL CABLING, EQUIPMENT AND WORK MUST COMPLY WITH THE LATEST VERSION OF THE OWNER'S DESIGN STANDARDS AND DELEWARE DTI STANDARDS. ALL EQUIPMENT AND CABLING MUST BE SUBMITTED FOR REVIEW TO THE DESIGN CONSULTANT AND OWNER FOR APPROVAL PRIOR TO PURCHASE AND INSTALLATION. ANY EQUIPMENT NOT MEETING THE DESIGN DOCUMENTS AND OWNER STANDARDS WILL BE REJECTED.
19. ALL SUBMITTALS MUST INCLUDE A TABLE OF CONTENTS WITH SPECIFIC PART NUMBERS OR SPECIFIC EQUIPMENT HIGHLIGHTED WITHIN THE SUBMITTAL. SUBMITTALS NOT MEETING THESE REQUIREMENTS WILL BE IMMEDIATELY REJECTED.
20. PROVIDE AND INSTALL SURGE SUPPRESSION DEVICES FOR ALL CABLES ENTERING THE BUILDING.

10 T500 TELECOM NOTES
N.T.S.




1. PROVIDE AND INSTALL NEW BACKBONE MULTIPAIR CABLE FROM THE MDF TO EACH TELECOM ROOM. PROVIDE IN SUFFICIENT QUANTITY FOR DEVICE LOAD.
2. PROVIDE AND INSTALL NEW WALL MOUNTED 110 BLOCKS. PROVIDE IN SUFFICIENT QUANTITY FOR DEVICE LOAD
3. PROVIDE AND INSTALL NEW HORIZONTAL CAT 6 UTP CABLE AND PATCH CORD FOR ANALOG DEVICES
4. INSTALL WITH 3' OF SLACK AT DEVICE END AND 10' OF SLACK AT 110 BLOCK.
5. VOICE CABLES SHALL BE WHITE.
6. VOICE PATCH CORDS SHALL BE GRAY.

5 T500 ANALOG CONNECTION DIAGRAM
N.T.S.




1. PROVIDE AND INSTALL NEW EQUIPMENT RACKS.
2. PROVIDE AND INSTALL NEW FIBER AND COPPER PATCH PANELS.
3. PROVIDE AND INSTALL NEW CAT 6 PATCH PANELS
4. PROVIDE AND INSTALL NEW HORIZONTAL CAT 6 UTP CABLE AND PATCH CORDS FOR BOTH ENDS OF THE CABLE.
5. INSTALL WITH 3' OF CABLE SLACK AT THE WORKSTATION END AND 10' OF SLACK AT THE RACK.
6. PATCH CORDS FOR DATA SHALL BE GRAY.
7. DATA CABLES SHALL BE BLUE.

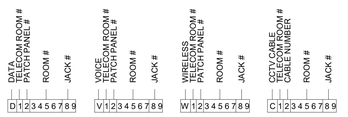
6 T500 HORIZONTAL STRUCTURED CABLING DIAGRAM
N.T.S.




1. PROVIDE AND INSTALL NEW EQUIPMENT RACKS.
2. PROVIDE AND INSTALL NEW FIBER AND COPPER PATCH PANELS.
3. PROVIDE AND INSTALL NEW CAT 6A PATCH PANELS
4. PROVIDE AND INSTALL NEW HORIZONTAL CAT 6A UTP CABLES AND PATCH CORDS AT THE TELECOM ROOM END.
5. PROVIDE AND INSTALL A 15' SERVICE LOOP AND MALE RJ-45 END ON WAP END OF CABLE.
6. INSTALL WITH 15' OF CABLE SLACK AT THE WAP END AND 10' OF SLACK AT THE RACK.
7. PATCH CORDS FOR WIRELESS SHALL BE PURPLE.
8. PROVIDE AND INSTALL A WIRELESS ACCESS POINT ON EACH SITE LIGHT POLE WITH A CCTV CAMERA FOR A TOTAL OF SEVEN LIGHT POLE WAPS.

7 T500 WIRELESS STRUCTURED CABLING DIAGRAM
N.T.S.

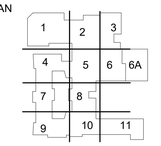
1. SUBMIT POPULATED FACEPLATE SAMPLES FOR REVIEW PRIOR TO APPROVAL BY THE DESIGN TEAM AND OWNER.
2. ALL EMPTY PORTS SHALL BE FILLED WITH A BLANK JACK
3. LABELING SCHEME MUST BE SUBMITTED TO OWNER FOR REVIEW AND APPROVAL PRIOR TO BEGINNING WORK.




11 T500 LABELING SCHEME
N.T.S.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN




VOCATIONAL TECHNICAL SCHOOL DISTRICT NEW CASTLE COUNTY DELAWARE

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Fax (302) 658-8431

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

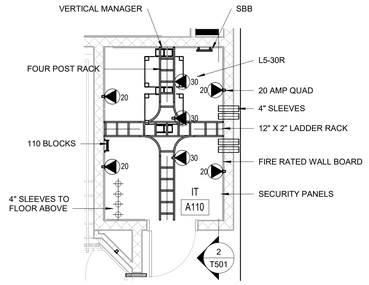
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

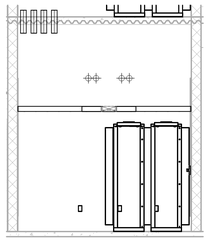
**MAIN TELECOM ROOM DETAILS**

SHEET NO.

**T500**




1 T501 IDF A110
1/4" = 1'-0"



2 T501 IDF A110 SECTION
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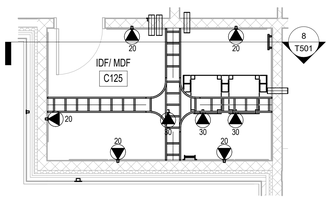
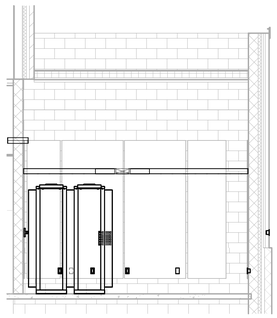
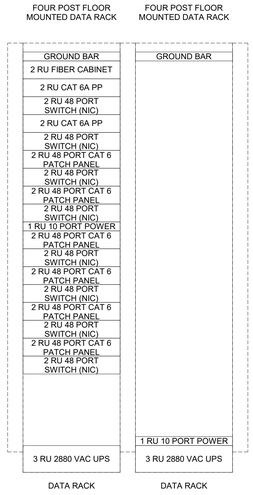



7 T501 IDF C125
1/4" = 1'-0"

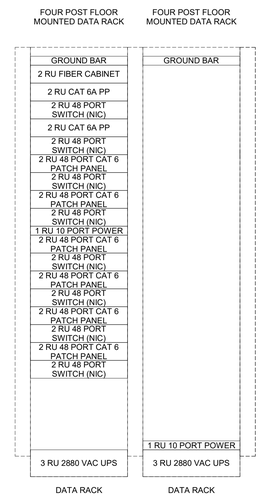


8 T501 IDF C125 SECTION
1/4" = 1'-0"




1. OWNER / DTI SHALL PROVIDE AND INSTALL SWITCHES.
2. PATCH PANEL AND SWITCH QUANTITY SHALL BE BASED ON DRAWING TAKEOFFS.
3. PROVIDE AND INSTALL UPS EQUIPMENT AS SHOWN.
4. PROVIDE AND INSTALL RACK SHELVES / SUPPORTS FOR UPS EQUIPMENT.
5. PROVIDE AND INSTALL ALL OTHER EQUIPMENT AS SHOWN.
6. PATCH CORDS SHALL NOT HAVE BOOTS.
7. DATA CABLES SHALL USE A 1' PATCH CORD AT THE RACK.
8. WIRELESS CABLES SHALL USE A 1' PATCH CORD AT THE RACK.
9. CCTV CAMERAS SHALL USE A 1' PATCH CABLE AT THE RACK.
10. COORDINATE INSTALLATION WITH OWNER AND OWNER PROVIDED EQUIPMENT AT THE TIME OF CONSTRUCTION.

3 T501 TELECOM ROOM A110 EQUIPMENT RACKS
N.T.S.

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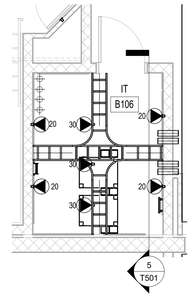
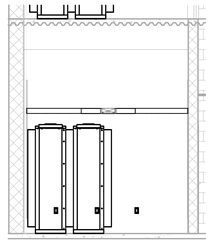
9. CCTV CAMERAS SHALL USE A 1' PATCH CABLE AT THE RACK.
10. COORDINATE INSTALLATION WITH OWNER AND OWNER PROVIDED EQUIPMENT AT THE TIME OF CONSTRUCTION.

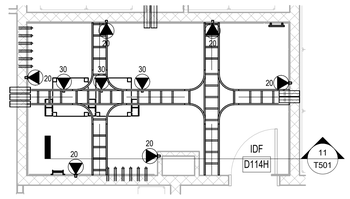
9 T501 TELECOM ROOM C125 EQUIPMENT RACKS
N.T.S.



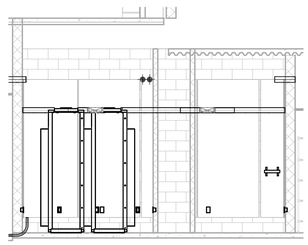

4 T501 IDF B106
1/4" = 1'-0"



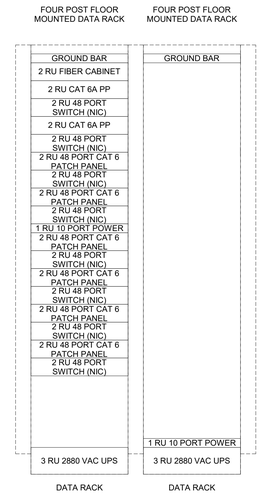
5 T501 IDF B106 SECTION
1/4" = 1'-0"




10 T501 IDF D114H
1/4" = 1'-0"



11 T501 IDF D114H SECTION
1/4" = 1'-0"

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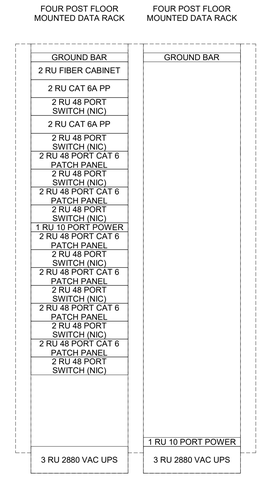
2. PATCH PANEL AND SWITCH QUANTITY SHALL BE BASED ON DRAWING TAKEOFFS.
3. PROVIDE AND INSTALL UPS EQUIPMENT AS SHOWN.
4. PROVIDE AND INSTALL RACK SHELVES / SUPPORTS FOR UPS EQUIPMENT.
5. PROVIDE AND INSTALL ALL OTHER EQUIPMENT AS SHOWN.
6. PATCH CORDS SHALL NOT HAVE BOOTS.
7. DATA CABLES SHALL USE A 1' PATCH CORD AT THE RACK.
8. WIRELESS CABLES SHALL USE A 1' PATCH CORD AT THE RACK.
9. CCTV CAMERAS SHALL USE A 1' PATCH CABLE AT THE RACK.
10. COORDINATE INSTALLATION WITH OWNER AND OWNER PROVIDED EQUIPMENT AT THE TIME OF CONSTRUCTION.

6 T501 TELECOM ROOM B106 EQUIPMENT RACKS
N.T.S.

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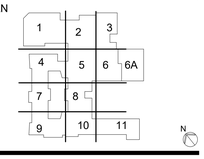
9. CCTV CAMERAS SHALL USE A 1' PATCH CABLE AT THE RACK.
10. COORDINATE INSTALLATION WITH OWNER AND OWNER PROVIDED EQUIPMENT AT THE TIME OF CONSTRUCTION.

12 T501 TELECOM ROOM D114H EQUIPMENT RACKS
N.T.S.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN





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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

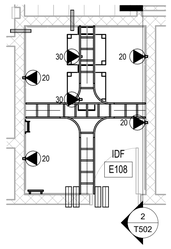
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

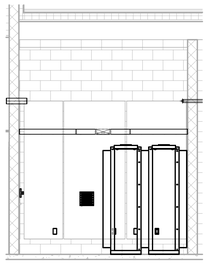
**TELECOM ROOMS FIRST FLOOR 1**

SHEET NO.

**T501**




1 T502 IDF E108
1/4" = 1'-0"



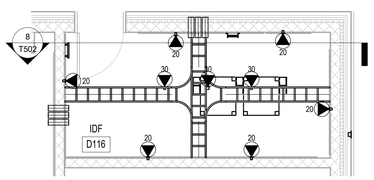
2 T502 IDF E108 SECTION
1/4" = 1'-0"

FOUR POST FLOOR MOUNTED DATA RACK | FOUR POST FLOOR MOUNTED DATA RACK

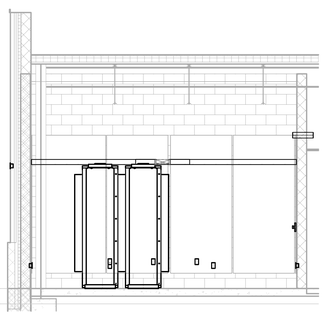
| | |
|---|---|
| GROUND BAR | GROUND BAR |
| 2 RU FIBER CABINET | |
| 2 RU CAT 6A PP | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU CAT 6A PP | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 1 RU 10 PORT POWER | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| | 1 RU 10 PORT POWER |
| 3 RU 2880 VAC UPS | 3 RU 2880 VAC UPS |
| DATA RACK | DATA RACK |

1. OWNER / DTI SHALL PROVIDE AND INSTALL SWITCHES.
2. PATCH PANEL AND SWITCH QUANTITY SHALL BE BASED ON DRAWING TAKEOFFS.
3. PROVIDE AND INSTALL UPS EQUIPMENT AS SHOWN.
4. PROVIDE AND INSTALL RACK SHELVES / SUPPORTS FOR UPS EQUIPMENT.
5. PROVIDE AND INSTALL ALL OTHER EQUIPMENT AS SHOWN.
6. PATCH CORDS SHALL NOT HAVE BOOTS.
7. DATA CABLES SHALL USE A 1' PATCH CORD AT THE RACK.
8. WIRELESS CABLES SHALL USE A 1' PATCH CORD AT THE RACK.
9. CCTV CAMERAS SHALL USE A 1' PATCH CABLE AT THE RACK.
10. COORDINATE INSTALLATION WITH OWNER AND OWNER PROVIDED EQUIPMENT AT THE TIME OF CONSTRUCTION.

3 T502 TELECOM ROOM E108 EQUIPMENT RACKS
N.T.S.




7 T502 IDF D114G
1/4" = 1'-0"



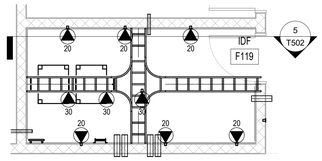
8 T502 IDF D114G SECTION
1/4" = 1'-0"

FOUR POST FLOOR MOUNTED DATA RACK | FOUR POST FLOOR MOUNTED DATA RACK

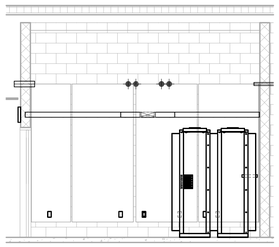
| | |
|---|---|
| GROUND BAR | GROUND BAR |
| 2 RU FIBER CABINET | |
| 2 RU CAT 6A PP | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU CAT 6A PP | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 1 RU 10 PORT POWER | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| | 1 RU 10 PORT POWER |
| 3 RU 2880 VAC UPS | 3 RU 2880 VAC UPS |
| DATA RACK | DATA RACK |

1. OWNER / DTI SHALL PROVIDE AND INSTALL SWITCHES.
2. PATCH PANEL AND SWITCH QUANTITY SHALL BE BASED ON DRAWING TAKEOFFS.
3. PROVIDE AND INSTALL UPS EQUIPMENT AS SHOWN.
4. PROVIDE AND INSTALL RACK SHELVES / SUPPORTS FOR UPS EQUIPMENT.
5. PROVIDE AND INSTALL ALL OTHER EQUIPMENT AS SHOWN.
6. PATCH CORDS SHALL NOT HAVE BOOTS.
7. DATA CABLES SHALL USE A 1' PATCH CORD AT THE RACK.
8. WIRELESS CABLES SHALL USE A 1' PATCH CORD AT THE RACK.
9. CCTV CAMERAS SHALL USE A 1' PATCH CABLE AT THE RACK.
10. COORDINATE INSTALLATION WITH OWNER AND OWNER PROVIDED EQUIPMENT AT THE TIME OF CONSTRUCTION.

9 T502 TELECOM ROOM D114G EQUIPMENT RACKS
N.T.S.




4 T502 IDF F119
1/4" = 1'-0"



5 T502 IDF F119 SECTION
1/4" = 1'-0"

FOUR POST FLOOR MOUNTED DATA RACK | FOUR POST FLOOR MOUNTED DATA RACK

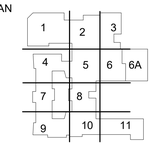
| | |
|---|---|
| GROUND BAR | GROUND BAR |
| 2 RU FIBER CABINET | |
| 2 RU CAT 6A PP | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU CAT 6A PP | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 1 RU 10 PORT POWER | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| | 1 RU 10 PORT POWER |
| 3 RU 2880 VAC UPS | 3 RU 2880 VAC UPS |
| DATA RACK | DATA RACK |

1. OWNER / DTI SHALL PROVIDE AND INSTALL SWITCHES.
2. PATCH PANEL AND SWITCH QUANTITY SHALL BE BASED ON DRAWING TAKEOFFS.
3. PROVIDE AND INSTALL UPS EQUIPMENT AS SHOWN.
4. PROVIDE AND INSTALL RACK SHELVES / SUPPORTS FOR UPS EQUIPMENT.
5. PROVIDE AND INSTALL ALL OTHER EQUIPMENT AS SHOWN.
6. PATCH CORDS SHALL NOT HAVE BOOTS.
7. DATA CABLES SHALL USE A 1' PATCH CORD AT THE RACK.
8. WIRELESS CABLES SHALL USE A 1' PATCH CORD AT THE RACK.
9. CCTV CAMERAS SHALL USE A 1' PATCH CABLE AT THE RACK.
10. COORDINATE INSTALLATION WITH OWNER AND OWNER PROVIDED EQUIPMENT AT THE TIME OF CONSTRUCTION.

6 T502 TELECOM ROOM F119 EQUIPMENT RACKS
N.T.S.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN





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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

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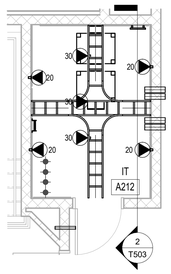
**NEWARK, DE 19702**

SHEET TITLE

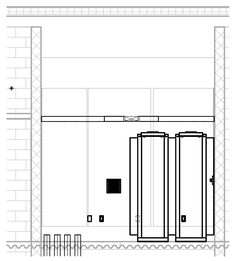
**TELECOM ROOMS FIRST FLOOR 2**

SHEET NO.

**T502**




1 T503 IDF A212
1/4" = 1'-0"

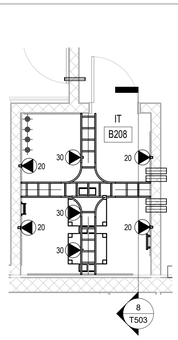


2 T503 IDF A212 SECTION
1/4" = 1'-0"

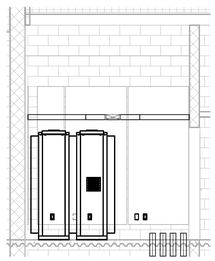
| FOUR POST FLOOR MOUNTED DATA RACK | FOUR POST FLOOR MOUNTED DATA RACK |
|---|---|
| GROUND BAR | GROUND BAR |
| 2 RU FIBER CABINET | |
| 2 RU CAT 6A PP | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU CAT 6A PP | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 1 RU 10 PORT POWER | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| | 1 RU 10 PORT POWER |
| 3 RU 2880 VAC UPS | 3 RU 2880 VAC UPS |
| DATA RACK | DATA RACK |

1. OWNER / DTI SHALL PROVIDE AND INSTALL SWITCHES.
2. PATCH PANEL AND SWITCH QUANTITY SHALL BE BASED ON DRAWING TAKEOFFS.
3. PROVIDE AND INSTALL UPS EQUIPMENT AS SHOWN.
4. PROVIDE AND INSTALL RACK SHELVES / SUPPORTS FOR UPS EQUIPMENT.
5. PROVIDE AND INSTALL ALL OTHER EQUIPMENT AS SHOWN.
6. PATCH CORDS SHALL NOT HAVE BOOTS.
7. DATA CABLES SHALL USE A 1' PATCH CORD AT THE RACK.
8. WIRELESS CABLES SHALL USE A 1' PATCH CORD AT THE RACK.
9. CCTV CAMERAS SHALL USE A 1' PATCH CABLE AT THE RACK.
10. COORDINATE INSTALLATION WITH OWNER AND OWNER PROVIDED EQUIPMENT AT THE TIME OF CONSTRUCTION.

3 T503 TELECOM ROOM A212 EQUIPMENT RACKS
N.T.S.




7 T503 IDF B208
1/4" = 1'-0"



8 T503 IDF B208 SECTION
1/4" = 1'-0"

| FOUR POST FLOOR MOUNTED DATA RACK | FOUR POST FLOOR MOUNTED DATA RACK |
|---|---|
| GROUND BAR | GROUND BAR |
| 2 RU FIBER CABINET | |
| 2 RU CAT 6A PP | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU CAT 6A PP | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 1 RU 10 PORT POWER | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| | 1 RU 10 PORT POWER |
| 3 RU 2880 VAC UPS | 3 RU 2880 VAC UPS |
| DATA RACK | DATA RACK |

1. OWNER / DTI SHALL PROVIDE AND INSTALL SWITCHES.
2. PATCH PANEL AND SWITCH QUANTITY SHALL BE BASED ON DRAWING TAKEOFFS.
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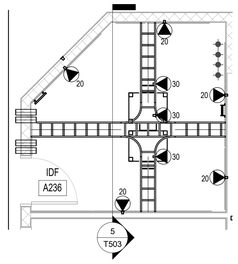
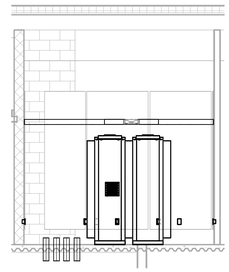
6. PATCH CORDS SHALL NOT HAVE BOOTS.
7. DATA CABLES SHALL USE A 1' PATCH CORD AT THE RACK.
8. WIRELESS CABLES SHALL USE A 1' PATCH CORD AT THE RACK.
9. CCTV CAMERAS SHALL USE A 1' PATCH CABLE AT THE RACK.
10. COORDINATE INSTALLATION WITH OWNER AND OWNER PROVIDED EQUIPMENT AT THE TIME OF CONSTRUCTION.

9 T503 TELECOM ROOM B208 EQUIPMENT RACKS
N.T.S.




4 T503 IDF A236
1/4" = 1'-0"



5 T503 IDF A236 SECTION
1/4" = 1'-0"

| FOUR POST FLOOR MOUNTED DATA RACK | FOUR POST FLOOR MOUNTED DATA RACK |
|---|---|
| GROUND BAR | GROUND BAR |
| 2 RU FIBER CABINET | |
| 2 RU CAT 6A PP | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU CAT 6A PP | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 1 RU 10 PORT POWER | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| 2 RU 48 PORT CAT 6 PATCH PANEL | |
| 2 RU 48 PORT SWITCH (NIC) | |
| | 1 RU 10 PORT POWER |
| 3 RU 2880 VAC UPS | 3 RU 2880 VAC UPS |
| DATA RACK | DATA RACK |

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7. DATA CABLES SHALL USE A 1' PATCH CORD AT THE RACK.
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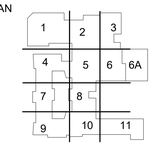
10. COORDINATE INSTALLATION WITH OWNER AND OWNER PROVIDED EQUIPMENT AT THE TIME OF CONSTRUCTION.

6 T503 TELECOM ROOM A236 EQUIPMENT RACKS
N.T.S.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

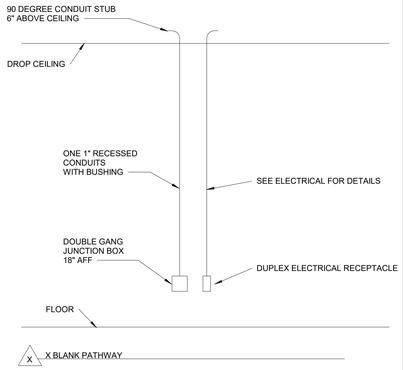
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

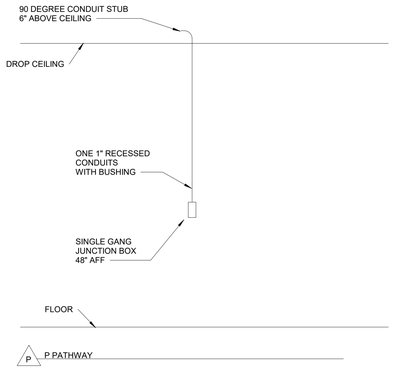
SHEET TITLE

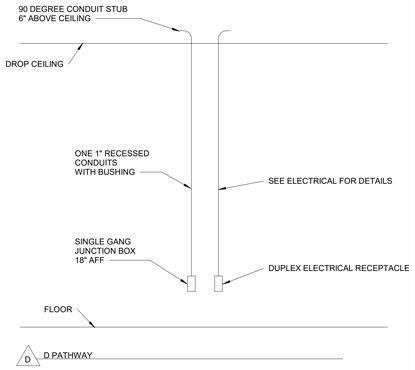
**TELECOM ROOMS SECOND FLOOR 1**

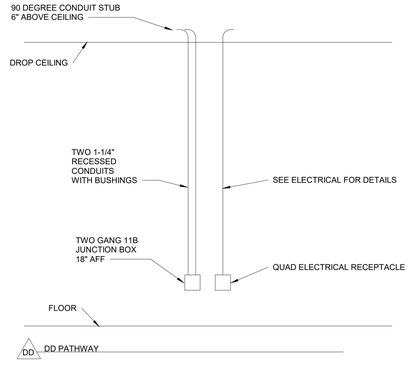
SHEET NO.

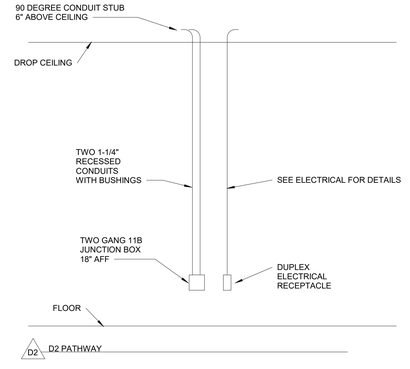
**T503**

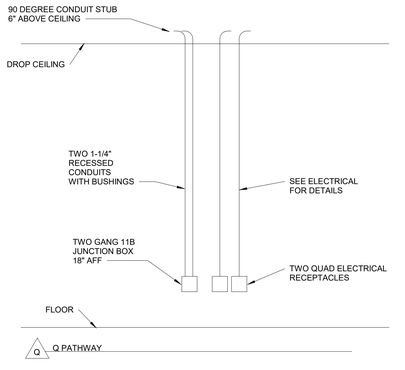


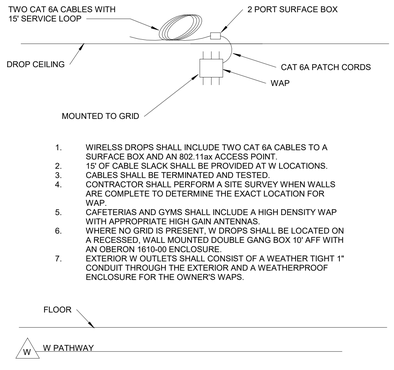



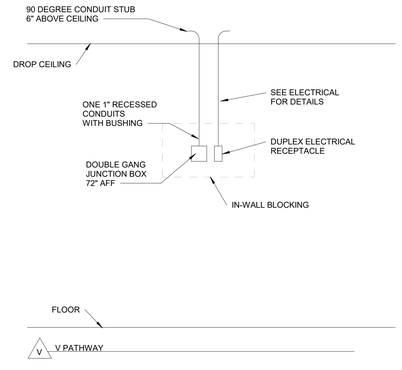



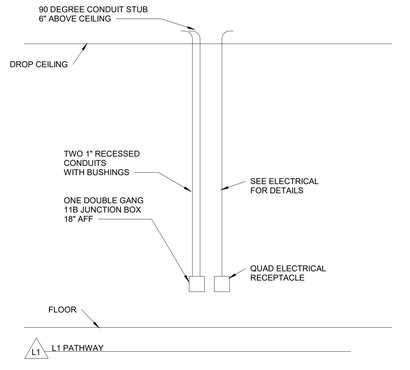



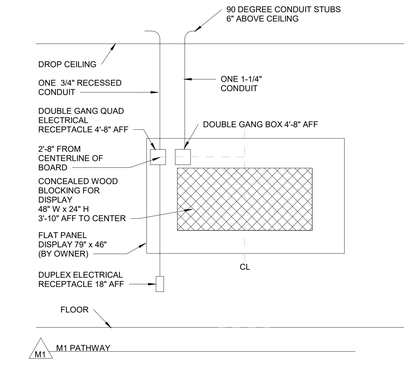



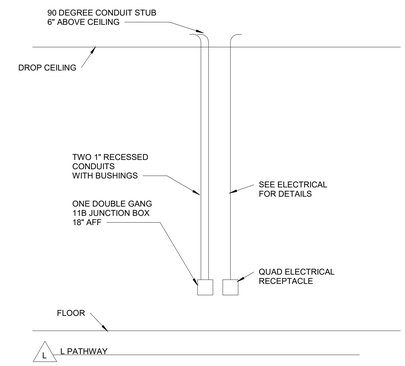



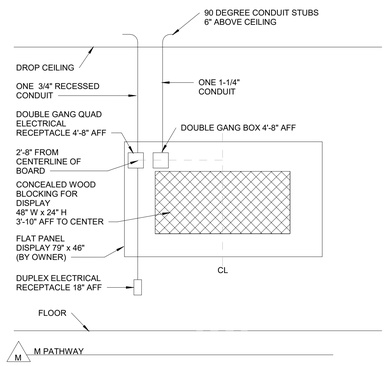

1. WIRELSS DROPS SHALL INCLUDE TWO CAT 6A CABLES TO A SURFACE BOX AND AN 802.11ax ACCESS POINT.
2. 15' OF CABLE SLACK SHALL BE PROVIDED AT W LOCATIONS.
3. CABLES SHALL BE TERMINATED AND TESTED.
4. CONTRACTOR SHALL PERFORM A SITE SURVEY WHEN WALLS ARE COMPLETE TO DETERMINE THE EXACT LOCATION FOR WAP.
5. CAFETERIAS AND GYMS SHALL INCLUDE A HIGH DENSITY WAP WITH APPROPRIATE HIGH GAIN ANTENNAS.
6. WHERE NO GRID IS PRESENT, W DROPS SHALL BE LOCATED ON A RECESSED, WALL MOUNTED DOUBLE GANG BOX 10' AFF WITH AN OBERON 1610-00 ENCLOSURE.
7. EXTERIOR W OUTLETS SHALL CONSIST OF A WEATHER TIGHT 1" CONDUIT THROUGH THE EXTERIOR AND A WEATHERPROOF ENCLOSURE FOR THE OWNER'S WAPS.

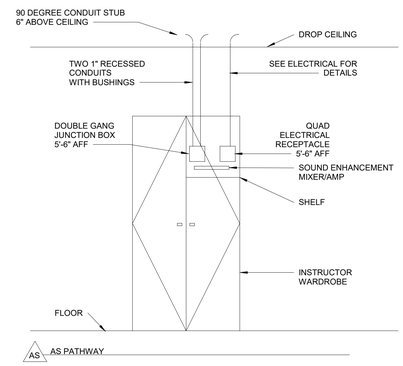


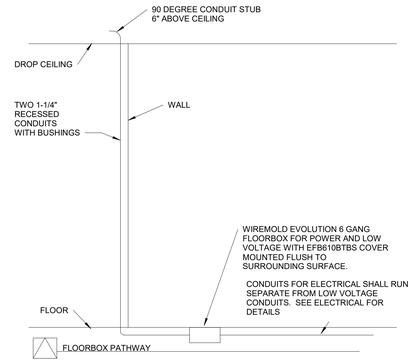



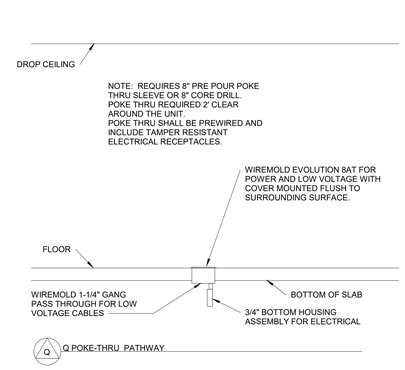



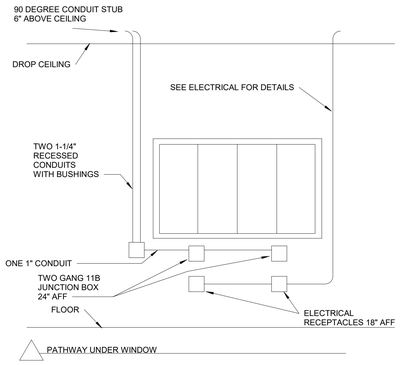



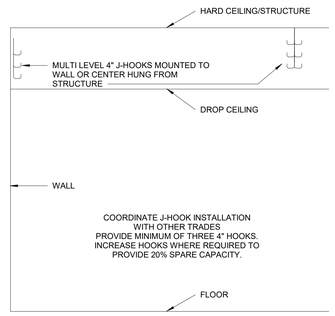




1. CLASSROOM OUTLETS SHALL BE INSTALLED 18" AFF UNLESS OTHERWISE NOTED.
2. OUTLET HEIGHTS ARE STANDARD UNLESS OTHERWISE NOTED ON THE FLOOR PLAN DRAWINGS.
3. EXTENSION RINGS AND MUD RINGS SHALL BE ADDED TO BOXES WHERE PARTITIONS HAVE MULTIPLE LAYERS. FST MUD-2GAV RINGS SHALL BE USED.
4. POWER OUTLETS SHALL BE INSTALLED 6" TO 12" FROM LOW VOLTAGE OUTLETS TYPICALLY.
5. UTILIZE A LOCKNUT ON THE INTERIOR AND EXTERIOR OF THE JUCTION BOX TO SET THE HEIGHT/DEPTH OF ATTACHED CONDUITS.
6. CONDUITS SHALL NOT PROTRUDE INTO THE JUNCTION BOX BEYOND THE ATTACHMENT FLANGES.



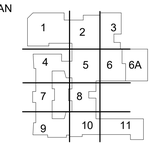




TYPICAL J-HOOK INSTALLATION FOR CABLE DISTRIBUTION

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN





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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

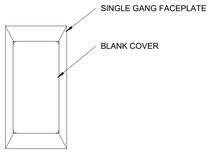
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

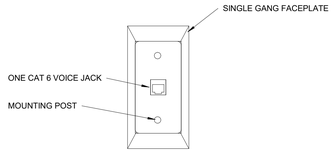
**PATHWAYS**

SHEET NO.

**T504**




X X FACEPLATE

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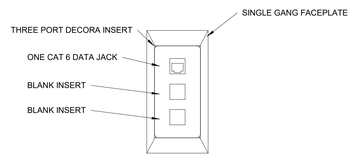


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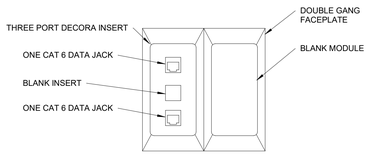


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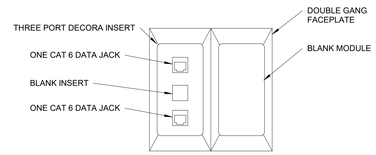
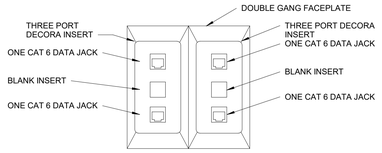



D2 D2 FACEPLATE

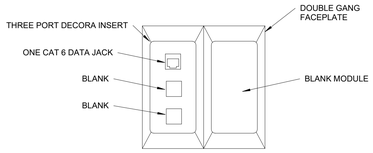
1. DOUBLE GANG FACEPLATES SHALL SUPPORT AT LEAST 6 JACKS.
2. DATA JACKS SHALL BE BLUE.
3. ANALOG JACKS SHALL BE WHITE.
4. BLANK PORTS SHALL HAVE A WHITE BLANK.
5. ALL EMPTY PORTS IN FACEPLATES MUST BE FILLED WITH BLANKS.
6. ALL PORTS IN FACEPLATES MUST BE CLEARLY LABELED WITH A PROPER LABEL AND LABEL FIELD.
7. ZIP TIES ARE NOT ACCEPTABLE. VELCO STRAPS MUST BE USED TO SECURE CABLES THROUGHOUT THE PROJECT.



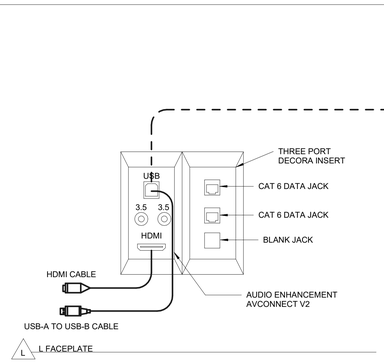

Q Q FACEPLATE

1. WIRELSS DROPS SHALL INCLUDE TWO CAT 6A CABLES TO A SURFACE BOX AND AN 802.11ax ACCESS POINT.
2. 15' OF CABLE SLACK SHALL BE PROVIDED AT W LOCATIONS.
3. CABLES SHALL BE TERMINATED AND TESTED.
4. CONTRACTOR SHALL PERFORM A SITE SURVEY WHEN WALLS ARE COMPLETE TO DETERMINE THE EXACT LOCATION FOR WAP.
5. CAFETERIAS AND GYMS SHALL INCLUDE A HIGH DENSITY WAP WITH APPROPRIATE HIGH GAIN ANTENNAS.
6. WHERE NO GRID IS PRESENT, W DROPS SHALL BE LOCATED ON A RECESSED, WALL MOUNTED DOUBLE GANG BOX 10' AFF WITH AN OBERON 1610-00 ENCLOSURE.

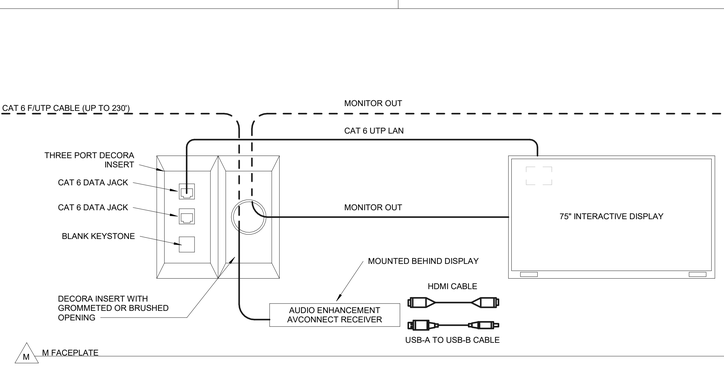
W W FACEPLATE



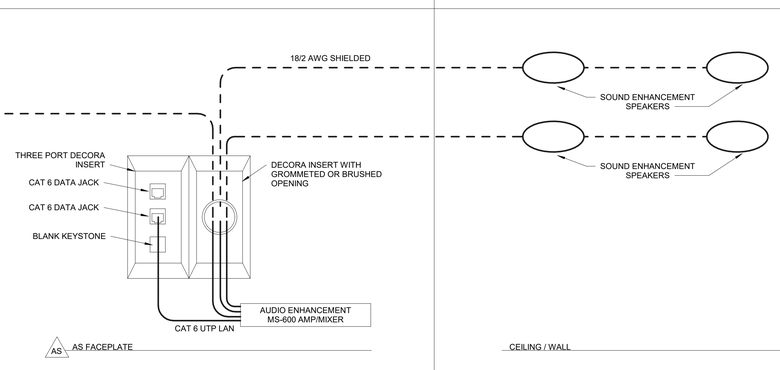

V V FACEPLATE




L L FACEPLATE

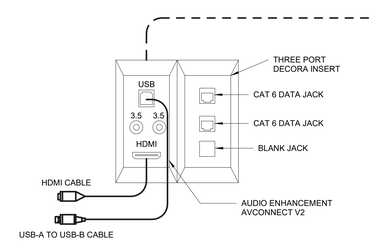



M M FACEPLATE

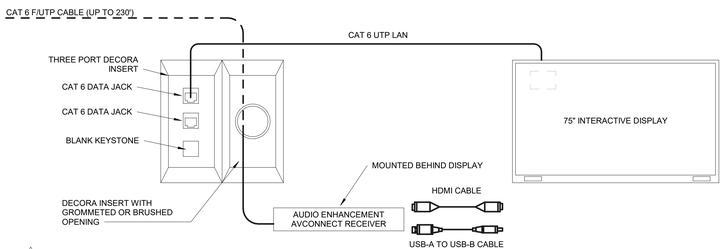



AS AS FACEPLATE

CEILING / WALL




L1 L1 FACEPLATE




M1 M1 FACEPLATE

| No. | Description | Date |
|---|---|---|
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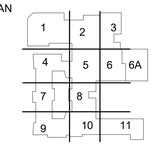
KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FACEPLATES**

SHEET NO.

**T505**

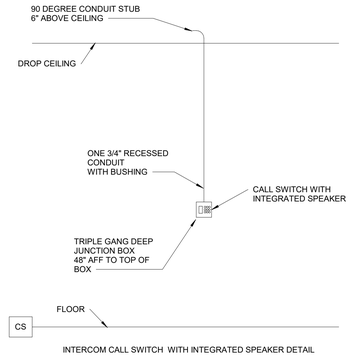
INTERCOM CALL SWITCH DETAIL



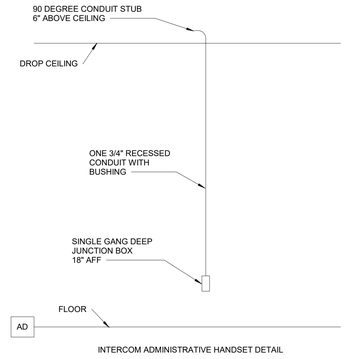

INTERCOM CALL SWITCH WITH VOLUME CONTROL DETAIL




VOLUME CONTROL DETAIL




INTERCOM CALL SWITCH WITH INTEGRATED SPEAKER DETAIL




INTERCOM ADMINISTRATIVE HANDSET DETAIL

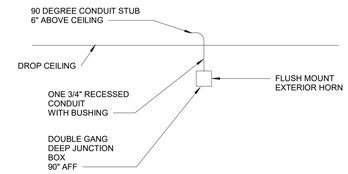




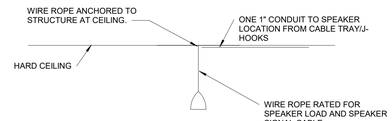


CUT-IN LOCATIONS SHALL ONLY BE USED IN HARD CEILINGS




WALL SPEAKERS SHALL ONLY BE USED IN AREAS WITHOUT CEILINGS







INTERIOR DROP-IN SPEAKER DETAIL



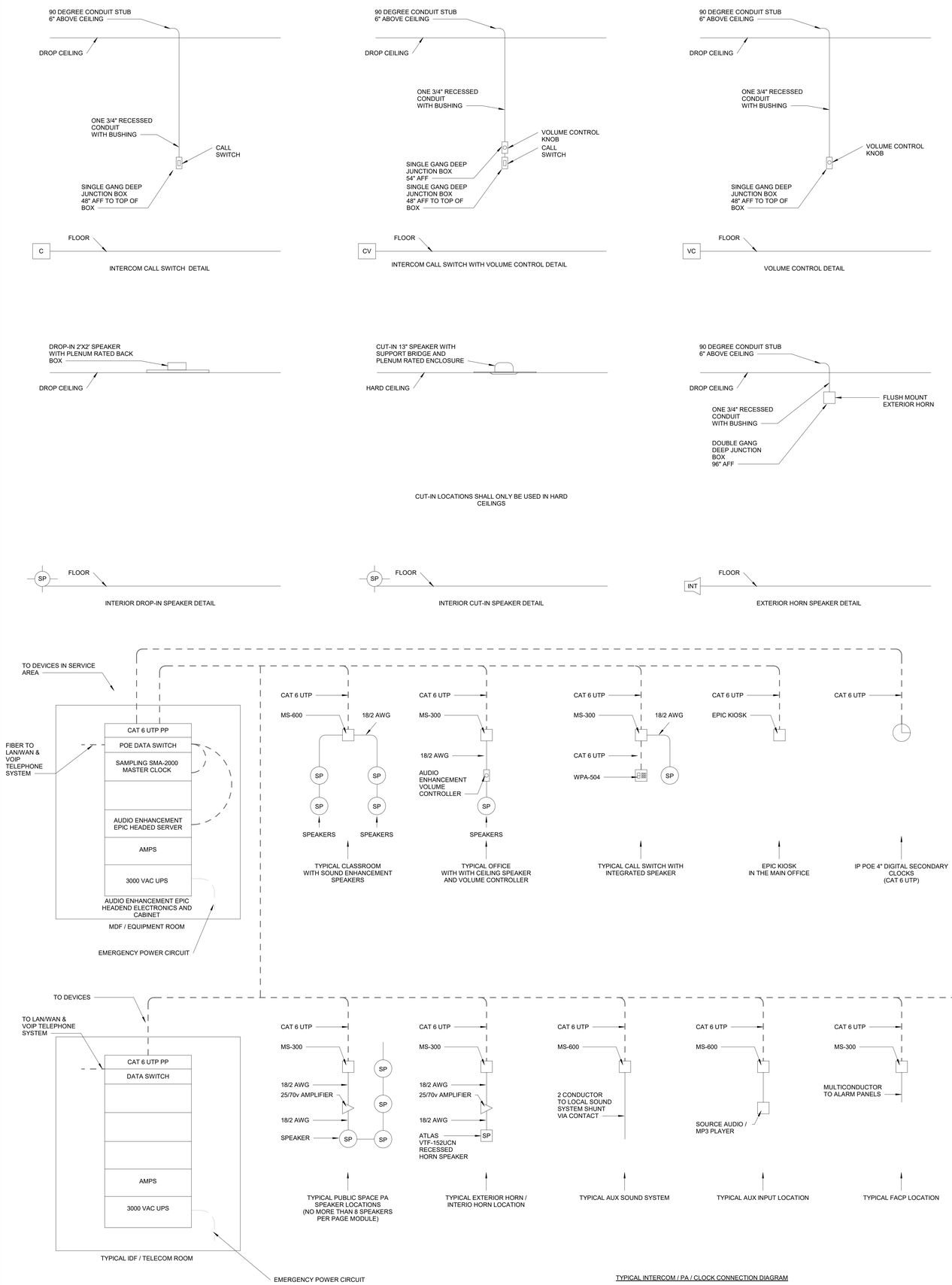

INTERIOR CUT-IN SPEAKER DETAIL



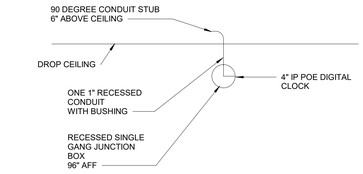

EXTERIOR HORN SPEAKER DETAIL

INTERCOM WALL SPEAKER DETAIL

INTERIOR PENDANT SPEAKER DETAIL




TYPICAL INTERCOM / PA / CLOCK CONNECTION DIAGRAM




NOTE: DOUBLE FACE CLOCK LOCATIONS SHALL MOUNT OVER A DOUBLE GANG BOX WITH 1" RECESSED CONDUIT.

SECONDARY CLOCK DETAIL

1. THE INTERCOM SYSTEM MUST BE INTERCONNECTED TO THE TELEPHONE SYSTEM AT THE FACILITY. IP TELEPHONE HANDSETS THROUGHOUT THE FACILITY MUST BE CONNECTED TO THE INTERCOM SYSTEM TO ALLOW FOR ALL CALLS AND ROOM TO ROOM CALLING USING TELEPHONE HANDSETS INTO THE INTERCOM SYSTEM.
2. PROVIDE AND INSTALL ALL PATHWAYS, CABLING, TERMINATION FIELDS, CALL SWITCHES, HANDSETS, SPEAKERS, CLOCKS AND HEADEND ELECTRONICS FOR A COMPLETE AND FULLY FUNCTIONAL INTERCOM/PA/MASTER CLOCK SYSTEM.
3. INTERCOM WALL DEVICES SHALL BE COORDINATED WITH OTHER WALL DEVICES AND GROUT LINES PRIOR TO INSTALLATION.
4. THE INTERCOM HEADEND SHALL BE LOCATED IN THE MDF AND MUST BE CONNECTED TO A 30 MINUTE UPS AND EMERGENCY POWER CIRCUITS.
5. THE INTERCOM HEADEND SHALL BE INTERCONNECTED TO THE VOIP TELEPHONE SYSTEM AT THE FACILITY. PROVIDE ALL NECESSARY CABLES AND CONNECTORS FOR INTERCONNECTION.
6. THE EQUIPMENT CABINET FOR ALL CABLES FROM INTERCOM AND CLOCK DEVICES.
7. THE INTERCOM HEADEND SHALL BE INTERCONNECTED TO AUXILIARY SOUND SYSTEMS AT THE FACILITY. PROVIDE ALL NECESSARY CABLES AND DEVICES FOR INTERCONNECTION. COORDINATE WORK WITH AUXILIARY SOUND SYSTEM CONTRACTOR.
8. THE INTERCOM SYSTEM SHALL SHALL OVERRIDE ALL LOCAL SOUND SYSTEMS IN THE EVENT OF AN ALL CALL OR EMERGENCY CALL.
9. THE INTERCOM SYSTEM SHALL BE INTERCONNECTED TO THE FIRE ALARM SYSTEM AT THE FACILITY. PROVIDE ALL NECESSARY CABLES AND DEVICES FOR INTERCONNECTION. COORDINATE ALL WORK WITH FIRE ALARM CONTRACTOR.
10. THE INTERCOM SYSTEM SHALL HAVE A VISUAL DISPLAY INSTALLED IN THE MAIN OFFICE AREA WHICH VISUALLY INDICATES SYSTEM ACTIVITY.
11. CABLING SHALL BE PER MANUFACTURER'S SPECIFICATIONS AND FOLLOW MANUFACTURER GUIDELINES. SEE LINE DIAGRAM FOR CABLE TYPES. WIRE GAUGE SIZE SHALL BE INCREASED WHERE REQUIRED FOR PROPER SIGNAL TRANSMISSION.
12. ALL CABLES SHALL BE CLEARLY LABELED AT EACH END FOR IDENTIFICATION PURPOSES.
13. CLOCKS SHALL BE IP CLOCKS WITH A CAT 6 UTP DATA CONNECTION TO A POE NETWORK SWITCH.
14. GYMNASIUM/ATHLETIC CLOCKS SHALL BE LARGE FORMAT AND HAVE A PROTECTIVE WIREGUARD INSTALLED.
15. PROVIDE ALL NECESSARY TESTING AND ADJUSTING FOR PROPER SIGNAL STRENGTH AND SOUND LEVELS PRIOR TO ACCEPTANCE.
16. AS-BUILT DOCUMENTATION SHALL INCLUDE ALL DEVICE LOCATIONS, CABLE ROUTING, LABELING, WIRING DIAGRAMS AND OTHER RELEVANT INFORMATION.
17. O&M MANUALS SHALL BE PROVIDED FOR THE OWNER UPON SYSTEM ACCEPTANCE.
18. PROVIDE ALL PROGRAMMING FOR TELEPHONE AND INTERCOM INTERCONNECTION AND FUNCTION. COORDINATE THIS WORK WITH THE OWNER'S TELEPHONE SYSTEM AND EQUIPMENT.

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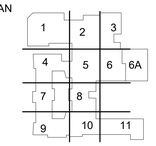
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

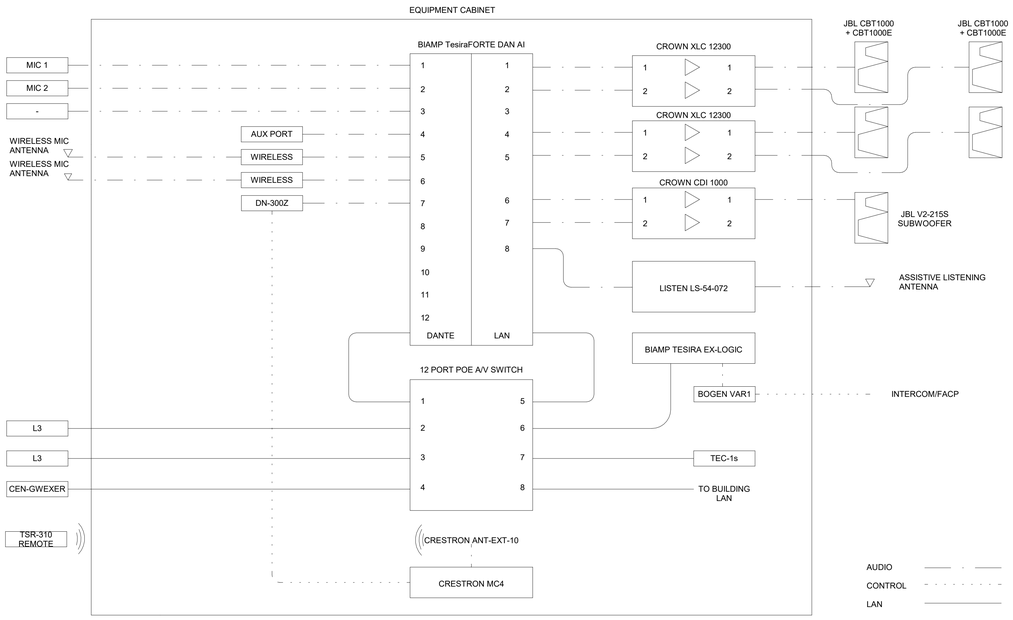
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

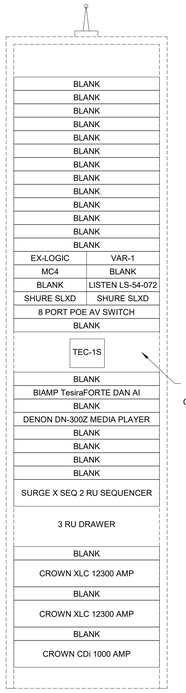
**INTERCOM & CLOCK SYSTEM**

SHEET NO.

**T507**

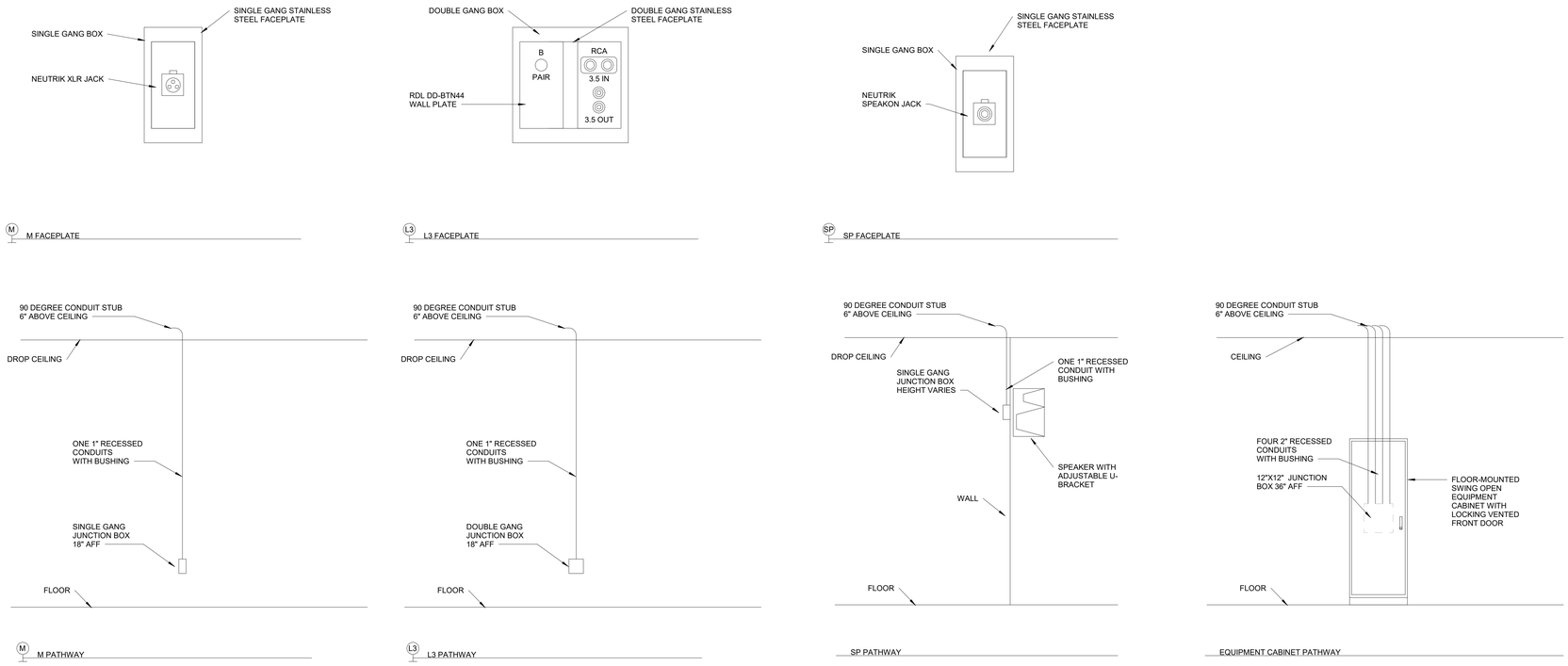



1 T508 CAFETERIA SOUND SYSTEM LINE DIAGRAM
N.T.S.




NOTES:
1. PROVIDE AND INSTALL ALL REQUIRED PATHWAYS, CABLING, RACK EQUIPMENT, MICS, ELECTRONICS AND SPEAKERS FOR THE AUXILIARY SOUND SYSTEM AS DESCRIBED IN THE TECHNOLOGY DRAWINGS.
2. ELECTRONICS FOR THE AUXILIARY SOUND SYSTEMS SHALL BE PROVIDED, INSTALLED AND TESTED AND BE SHOWN TO BE FREE FROM DEFECT.
3. FLOOR-MOUNTED SWING OPEN EQUIPMENT CABINET SHALL BE PROVIDE, INSTALLED AND PROPERLY SECURED TO THE WALL AND FLOOR AND HOLD THE ANTICIPATED AMOUNT OF EQUIPMENT AND WEIGHT.
4. THE AUXILIARY SOUND SYSTEMS SHALL BE TIED TO THE FACP AND INTERCOM SYSTEM AND SHUNT DURING AN EMERGENCY CALL OR ALERT. COORDINATE WORK WITH INTERCOM, FACP AND ELECTRICAL INSTALLERS.
5. ALL CABLES SHALL BE RUN IN RIGID METALLIC CONDUIT RUN BEHIND SURFACES WHERE POSSIBLE.
6. ALL CABLES SHALL BE LABELED AT BOTH ENDS WITH IDENTIFICATION, SIGNAL STRENGTH AND CABLE LENGTH.
7. SOUND SHALL BE ADJUSTED, VERIFIED AND DEMONSTRATED AS PART OF SYSTEM INSTALLATION. PROVIDE AN EASE PLOT FOR THE SPEAKERS SELECTED WHICH SHOWN SOUND PRESSURE LEVELS FOR THE SPACE BEING SERVED.
8. SEE RELATED SPECIFICATION SECTION FOR EQUIPMENT AND INSTALLATION DETAILS.

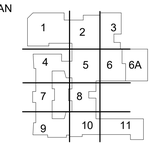
2 T508 CAFETERIA SOUND EQUIPMENT RACK
N.T.S.




3 T508 CAFETERIA SOUND OUTLETS
N.T.S.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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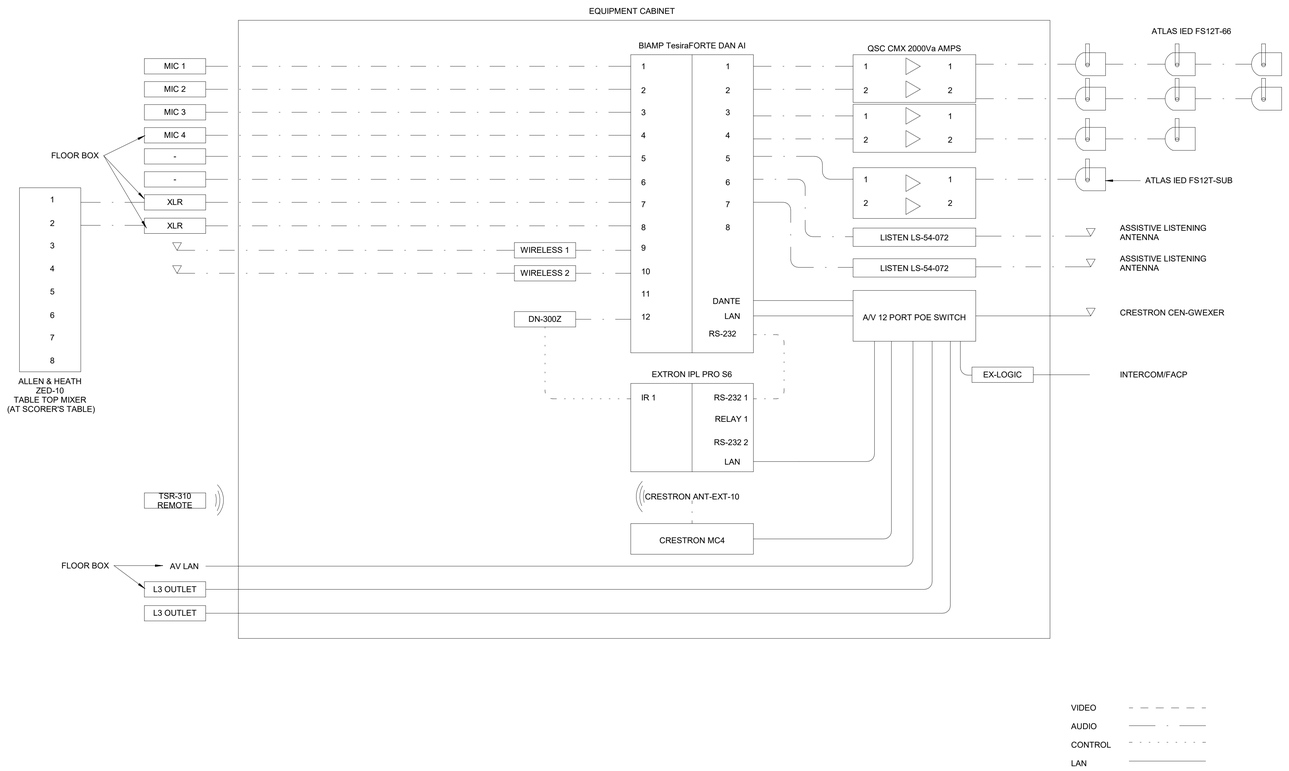
SHEET TITLE

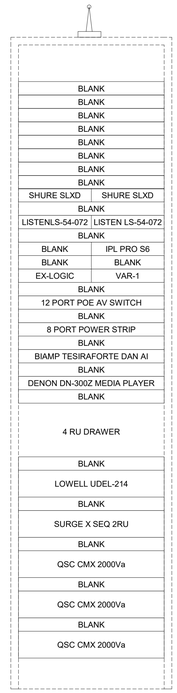
**CAFETERIA AUDIO SYSTEM**

SHEET NO.

**T508**

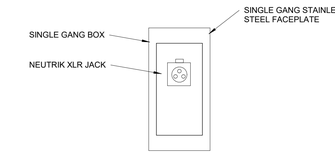



1 T509 GYMNASIUM SOUND SYSTEM LINE DIAGRAM
N.T.S.

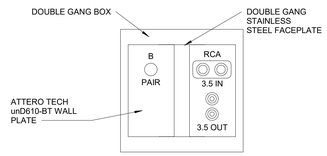



NOTES:
1. PROVIDE AND INSTALL ALL REQUIRED PATHWAYS, CABLING, RACK EQUIPMENT, MICS, ELECTRONICS AND SPEAKERS FOR THE AUXILIARY SOUND SYSTEM AS DESCRIBED IN THE TECHNOLOGY DRAWINGS.
2. ELECTRONICS FOR THE AUXILIARY SOUND SYSTEMS SHALL BE PROVIDED, INSTALLED AND TESTED AND BE SHOWN TO BE FREE FROM DEFECT.
3. FLOOR-MOUNTED SWING OPEN EQUIPMENT CABINET SHALL BE PROVIDED, INSTALLED AND PROPERLY SECURED TO THE WALL AND FLOOR AND HOLD THE ANTICIPATED AMOUNT OF EQUIPMENT AND WEIGHT.
4. THE AUXILIARY SOUND SYSTEMS SHALL BE TIED TO THE FACP AND INTERCOM SYSTEM AND SHUNT DURING AN EMERGENCY CALL OR ALERT. COORDINATE WORK WITH INTERCOM, FACP AND ELECTRICAL INSTALLERS.
5. ALL CABLES SHALL BE RUN IN RIGID METALLIC CONDUIT RUN BEHIND SURFACES WHERE POSSIBLE.
6. ALL CABLES SHALL BE LABELED AT BOTH ENDS WITH IDENTIFICATION, SIGNAL STRENGTH AND CABLE LENGTH.
7. SOUND SHALL BE ADJUSTED, VERIFIED AND DEMONSTRATED AS PART OF SYSTEM INSTALLATION. PROVIDE AN EASE PLOT FOR THE SPEAKERS SELECTED WHICH SHOWN SOUND PRESSURE LEVELS FOR THE SPACE BEING SERVED.
8. PROVIDE A WHIRLWIND ISOPOD FOR IPOD CONNECTION.
9. SEE RELATED SPECIFICATION SECTION FOR EQUIPMENT AND INSTALLATION DETAILS.

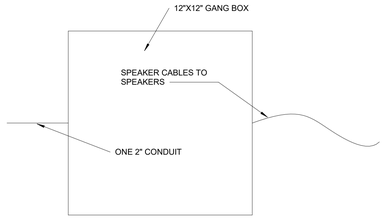
2 T509 GYMNASIUM EQUIPMENT RACK
N.T.S.



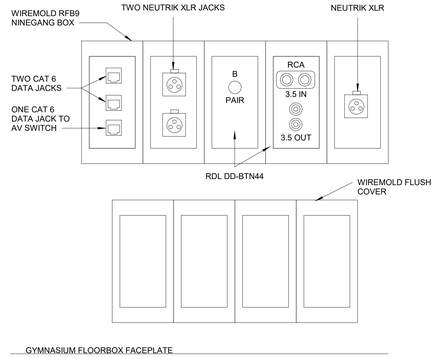

M M FACEPLATE



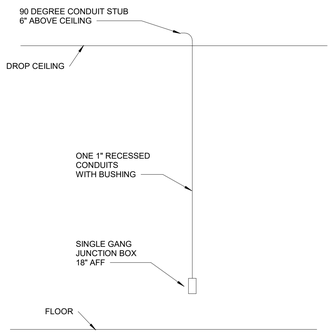

L3 L3 FACEPLATE



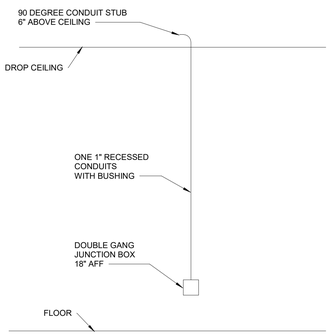

SP SP FACEPLATE



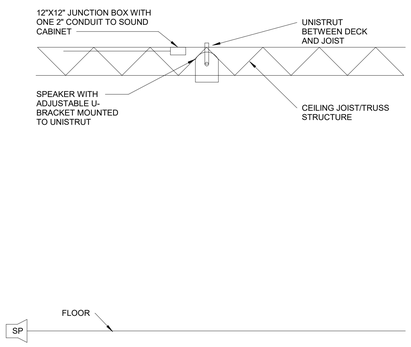

GYMNASIUM FLOORBOX FACEPLATE



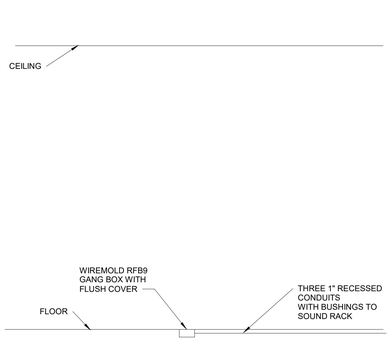

M M PATHWAY



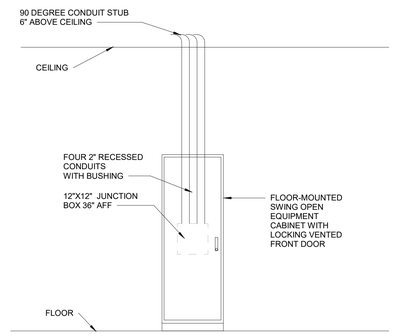

L3 L3 PATHWAY




SP PATHWAY




GYMNASIUM FLOORBOX PATHWAY

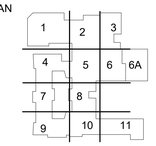



EQUIPMENT CABINET PATHWAY

3 T509 GYMNASIUM OUTLETS
N.T.S.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

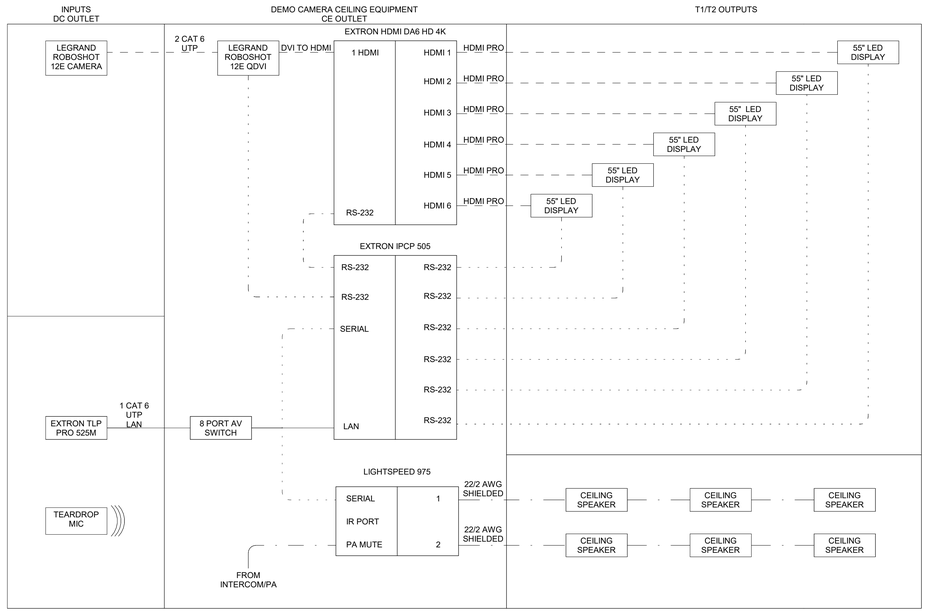
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**GYMNASIUM AUDIO SYSTEM**

SHEET NO.

**T509**



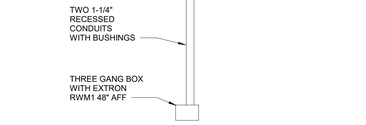

1 T510 DEMO CAMERA A/V LINE DIAGRAM N.T.S.

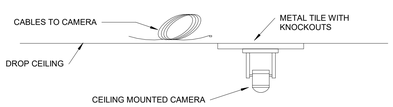
| LEGRAND ROBOSHOT 121E QDVI | |
|---|---|
| IPCP 505 | HDMI DA6 |
| | MS-400 |

CHIEF CB-22 CEILING ENCLOSURE

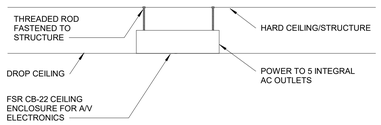
NOTES:
1. PROVIDE AND INSTALL ALL REQUIRED PATHWAYS, CABLING, RACK EQUIPMENT, MICS, ELECTRONICS, DISPLAYS AND SPEAKERS FOR THE A/V SYSTEM AS DESCRIBED IN THE TECHNOLOGY DRAWINGS AND SPECIFICATIONS.
2. ELECTRONICS FOR THE A/V SYSTEMS SHALL BE PROVIDED, INSTALLED AND TESTED AND BE SHOWN TO BE FREE FROM DEFECT.
3. EQUIPMENT ENCLOSURE SHALL BE PROVIDED, INSTALLED AND PROPERLY SECURED TO THE CEILING AND HOLD THE ANTICIPATED AMOUNT OF EQUIPMENT AND WEIGHT.
4. THE A/V SYSTEMS SHALL BE TIED TO THE FACP AND INTERCOM SYSTEM AND SHUNT DURING AN EMERGENCY CALL OR ALERT. COORDINATE WORK WITH INTERCOM, FACP AND ELECTRICAL INSTALLERS.
5. ALL CABLES SHALL BE RUN IN RIGID METALLIC CONDUIT RUN BEHIND SURFACES WHERE POSSIBLE.
6. ALL CABLES SHALL BE LABELED AT BOTH ENDS WITH IDENTIFICATION, SIGNAL STRENGTH AND CABLE LENGTH.
7. SOUND AND VIDEO SHALL BE ADJUSTED, VERIFIED AND DEMONSTRATED AS PART OF SYSTEM INSTALLATION. EDID AND HDCP SETTINGS SHALL BE ADJUSTED, VERIFIED AND RECORDED FOR VIDEO SIGNALS.
8. SEE RELATED SPECIFICATION SECTION FOR EQUIPMENT AND INSTALLATION DETAILS.
9. THE APPROPRIATE NUMBER OF DISPLAYS SHALL BE INCLUDED FOR EACH SYSTEM. QUANTITY OF DISPLAYS FOR EACH SYSTEM SHOWN ON THE FLOOR PLAN DRAWINGS. ADJUST THE LINE DIAGRAM PER SYSTEM TO REFLECT THE APPROPRIATE NUMBER OF DISPLAYS.

2 T510 DEMO CAMERA A/V EQUIPMENT N.T.S.

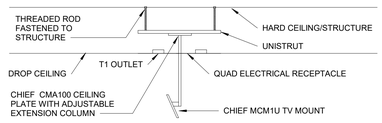


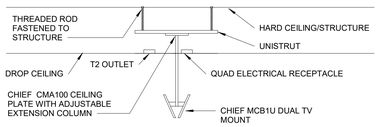

WHERE NO DROP CEILING IS PRESENT, A DOUBLE GANG BOX SHALL BE INSTALLED 1" BELOW THE HARD CEILING AND A 1" CONDUIT SHALL BE RUN TO THE NEAREST CORRIDOR. MOUNT CAMERA OVER DEMO STATION WITH WALL MOUNT.




1. SUPPLY ALL FASTENERS NECESSARY FOR A SECURE INSTALLATION.
2. SUPPLY AND INSTALL THE FSR FAN KIT




1. SUPPLY ALL FASTENERS NECESSARY FOR A SECURE INSTALLATION.
2. COORDINATE INSTALLATION WITH OTHER TRADES PRIOR TO INSTALLATION.




1. SUPPLY ALL FASTENERS NECESSARY FOR A SECURE INSTALLATION.
2. COORDINATE INSTALLATION WITH OTHER TRADES PRIOR TO INSTALLATION.

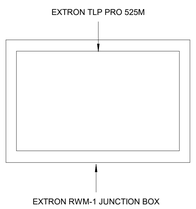
FLOOR
CP EXTRON TLP 525M PATHWAY

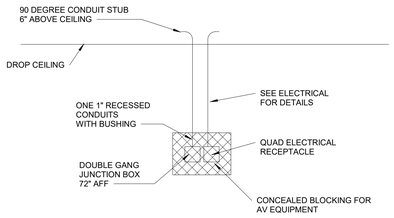
FLOOR
DC DEMO CAMERA PATHWAY

FLOOR
CE CEILING A/V ENCLOSURE PATHWAY

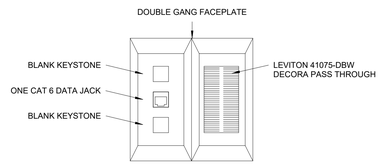
FLOOR
T1 T1 CEILING PATHWAY

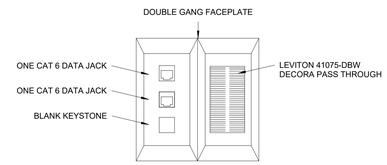
FLOOR
T2 T2 CEILING PATHWAY




PROVIDE AND INSTALL AN ARTICULATING WALL MOUNT SIMILAR TO A PEERLESS SMARTMOUNT




FLOOR
CP EXTRON TLP 525M PATHWAY

FLOOR
T1 T1 PATHWAY

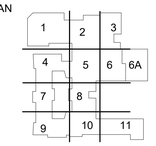
T1 T1 FACEPLATE

T2 T2 FACEPLATE

3 T510 DEMO CAMERA PATHWAYS N.T.S.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE
**DEMO CAMERA SYSTEM**

SHEET NO.
**T510**

1. ALL ELECTRICAL SYSTEMS, EQUIPMENT, RACEWAYS, CABLING, BOXES, FIRESEALS, GROUNDING AND DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF THE NEC GUIDELINES.
2. ALL CONDUITS AND RACEWAYS SHALL BE PAINTED TO MATCH SURROUNDING FINISHES UNLESS OTHERWISE NOTED.
3. ALL LOW VOLTAGE CABLING MUST BE INSTALLED ACCORDING TO BICSI GUIDELINES AND METHODS.
4. ALL CABLING SHALL BE APPROPRIATELY LABELED. SEE TY SERIES DRAWINGS FOR EXACT REQUIREMENTS.
5. CONTRACTOR SHALL NOT INSTALL ANY EQUIPMENT PRIOR TO ITS APPROVAL BY THE ARCHITECT, ENGINEER AND OWNER. CONTRACTOR SHALL BE LIABLE FOR ITS REMOVAL IN ANY SUCH CASE.
6. CONTRACTOR SHALL NOT INSTALL ANY EQUIPMENT PRIOR TO ITS APPROVAL BY THE ARCHITECT, ENGINEER AND OWNER. CONTRACTOR SHALL BE LIABLE FOR ITS REMOVAL IN ANY SUCH CASE.
7. SEE ELECTRICAL DRAWINGS FOR POWER CIRCUITS AND REQUIREMENTS RELATED TO LOW VOLTAGE OUTLETS SHOWN IN THESE DRAWINGS.
8. ANY PENETRATION OF A FIRE-RATED BARRIER MUST BE PROPERLY SEALED WITH FIRESTOPPING MATERIAL IN ACCORDANCE WITH LOCAL AND STATE LAWS AND THE AUTHORITY HAVING JURISDICTION.
9. PRIOR TO BEGINNING ANY WORK, THE CONTRACTOR SHALL SECURE THE NECESSARY PERMITS AND CLEARANCES FROM THE AUTHORITIES HAVING JURISDICTION.
10. THE CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS FOR COMPLETE INSTALLATION.
11. THE WORK SHALL BE PERFORMED AND COMPLETED BY EXPERIENCED TRADESMEN WHO ARE LICENSED IN THE JURISDICTION WHERE THE PROJECT IS BEING CONSTRUCTED.
12. CONDUITS AND PATHWAYS SHALL BE RUN BEHIND FINISHED SURFACES WHERE POSSIBLE UNLESS OTHERWISE NOTED.
13. THE PLANS ARE DIAGRAMMATIC. ALL WORK MUST BE COORDINATED PRIOR TO INSTALLATION.
14. THE CONTRACTOR SHALL INFORM THE ARCHITECT, ENGINEER AND OWNER PRIOR TO BEGINNING CONSTRUCTION AND PRIOR TO COMPLETION TO ALLOW FOR SUFFICIENT TIME OF WORK REQUIRING ADDITIONAL COORDINATION.
15. THE CONTRACTOR SHALL INCLUDE IN THE WORK, WITHOUT EXTRA COST, ANY LABOR, MATERIALS, SERVICES, APPARATUS, DRAWINGS (IN ADDITION TO CONTRACT DRAWINGS AND DOCUMENTS) IN ORDER TO COMPLY WITH ALL APPLICABLE LAWS, INDICATED OR EXPRESSED.
16. BEFORE SUBMITTING BIDS, THE CONTRACTOR SHALL VISIT THE SITE AND EXAMINE THE SITE, ADJOINING SITES AND STRUCTURES, ANY EXISTING STRUCTURES OR BUILDINGS AND SPACES RELEVANT TO THEIR WORK. THE CONTRACTOR SHALL PROVIDE WRITTEN REPORT THAT DETAILS ANY CONDITIONS WHICH MIGHT PREVENT EQUIPMENT INSTALLATION IN THE MANNER SHOWN ON THE CONTRACT DOCUMENTS.
17. NO CONSIDERATION OR ALLOWANCE SHALL BE GIVEN FOR FAILURE TO VISIT THE SITE, NOR FOR ANY ALLEGED MISUNDERSTANDING OF THE MATERIALS TO BE FURNISHED AND INSTALLED PROPERLY.
18. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT, ENGINEER AND OWNER IN WRITING OF ANY DISCOVERED CONFLICTS BETWEEN EXISTING INSTALLATIONS WHICH ARE NOT SCHEDULED FOR DEMOLITION AND THE WORK INDICATED WITHIN THE CONTRACT DOCUMENTS. SUCH NOTIFICATION SHALL BE ACCOMPANIED BY A DRAWING DELINEATING THE PROPOSES SOLUTION PRIOR TO STARTING WORK IN THE AFFECTED AREA.
19. ALL SLAB PENETRATIONS MUST BE X-RAYED AND DOCUMENTED PRIOR TO BEGINNING WORK.
20. REFER TO THE ARCHITECTURAL DRAWINGS FOR THE FINISH, EXACT LOCATION, ELEVATION, MOUNTING HEIGHTS AND DETAILS OF ALL LIGHT FIXTURES AND OTHER DEVICES WITHIN THE CEILING GRID FOR COORDINATION WITH EQUIPMENT. REPORT ANY DISCREPANCIES TO THE ARCHITECT IMMEDIATELY.
21. WHEREVER CONDUITS PENETRATE WALLS OR FLOORS, THE SPACE REMAINING IN SUCH PENETRATIONS SHALL BE FILLED. THE FILLING MATERIAL SHALL BE FIRE RESISTIVE IN AN EQUAL OR GREATER AMOUNT THAN THE SURROUNDINGS.
22. PROVIDE AND LEAVE ACCESSIBLE A PULL STRING IN ALL CONDUITS AND RACEWAYS FOR LOW VOLTAGE WIRES TO BE INSTALLED.
23. OUTLET BOXES INSTALLED ON OPPOSITE SIDES OF A PARTITION SHALL BE INSTALLED OFFSET FROM ONE ANOTHER.
24. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS, WRITTEN SUBMITTALS, CUT SHEETS, CALCULATIONS AND EQUIPMENT LITERATURE FOR ALL EQUIPMENT BEING PROVIDED AS PART OF THIS SCOPE OF WORK. THE EXACT DEVICE OR PIECE OF EQUIPMENT MUST BE CLEARLY CALLED OUT FOR THE DESIGN TEAM TO REVIEW. SUBMITTALS WITHOUT THE PROPER INFORMATION HIGHLIGHTED SHALL BE REJECTED FOR RESUBMITTAL.
25. THE CONTRACTOR SHALL PROVIDE COMPLETE AS-BUILT DOCUMENTATION IN HARDCOPY AND ELECTRONIC FORMAT FOR REVIEW AND APPROVAL BY THE DESIGN TEAM PRIOR TO JOB COMPLETION.
26. THE CONTRACTOR SHALL PROVIDE A COMPLETE PUNCHLIST OF ALL INSTALLED SYSTEMS TO THE CONSTRUCTION MANAGER WHEN THE INSTALLED WORK IS READY TO BE EXAMINED BY THE DESIGN TEAM. INCOMPLETE SYSTEMS SHALL NOT BE REVIEWED UNTIL IT IS DETERMINED THAT THE SYSTEM ARE APPROXIMATELY AND APPROPRIATELY COMPLETE.

## 2 TY000 SECURITY GENERAL NOTES
N.T.S.

| | |
|---|---|
| D | DOOR CONTACT |
| M | LONG RANGE MOTION DETECTOR SINGLE GANG JUNCTION BOX |
| W | WIDE ANGLE MOTION DETECTOR SINGLE GANG JUNCTION BOX |
| RX | REQUEST TO EXIT DEVICE |
| SP | INTRUSION DETECTION SECURITY PANEL |
| KP | INTRUSION DETECTION KEYPAD |
| CR | WIRED CARD READER |
| ACS | ACCESS CONTROL PANEL |
| LR | ELECTRIC LOCK RELEASE |
| LB | ELECTRIC LOCK RELEASE BUTTON |
| AI | VIDEO PHONE INTERIOR STATION |
| AE | VIDEO PHONE EXTERIOR STATION |
| # | CCTV CAMERA |
| HS | HALO SENSOR |

## 1 TY000 SECURITY SYMBOLS
N.T.S.

1. PATHWAYS
   A. SUPPLY AND INSTALL ALL LOW VOLTAGE PATHWAYS INCLUDING, BUT NOT LIMITED TOO, CONDUITS, BOXES, JUNCTION BOXES, SLEEVES, CHASES, RACEWAYS, CABLE TRAYS AND J-HOOKS TO PROPERLY SUPPORT THE LOW VOLTAGE SECURITY INFRASTRUCTURE.
2. INTRUSION DETECTION SYSTEM
   A. PROVIDE AND INSTALL A COMPLETE INTRUSION DETECTION SYSTEM INCLUDING ALL PATHWAYS, MOTION DETECTORS, DOOR CONTACTS, KEYPADS, PANELS, BATTERY BACKUP UNITS, UPS, CABLES AND ASSOCIATED COMPONENTS FOR A LIVE SYSTEM.
   B. THE SYSTEM SHALL BE FULLY INTEGRATED WITH THE ACCESS CONTROL SYSTEM. A ZONE/PARTITION CHART SHALL BE INCLUDED BY THE CONTRACTOR ONCE ZONES AND PARTITIONS ARE COMPLETED.
3. ACCESS CONTROL SYSTEM
   A. PROVIDE AND INSTALL A COMPLETE ACCESS CONTROL SYSTEM INCLUDING ALL PATHWAYS CARD READERS, SERVERS, ACCESS CONTROLLERS, BATTERY BACKUPS, UPS, CABLES AND ASSOCIATED COMPONENTS FOR A LIVE SYSTEM.
   B. THE SYSTEM SHALL BE INTEGRATED WITH THE INTRUSION DETECTION SYSTEM AND ELECTRIC DOOR HARDWARE.
4. ENTRY DOOR VIDEO INTERCOM SYSTEM
   A. PROVIDE AND INSTALL A COMPLETE ENTRY DOOR VIDEO INTERCOM SYSTEM INCLUDING ALL PATHWAYS, EXTERIOR UNITS, INTERIOR UNITS, JUNCTION BOXES, CABLES CONNECTORS AND ASSOCIATED COMPONENTS FOR A COMPLETE AND ACTIVE SYSTEM.
5. VIDEO SURVEILLANCE SYSTEM
   A. PROVIDE AND INSTALL A COMPLETE CCTV SYSTEM INCLUDING ALL CONDUITS, JUNCTION BOXES, CABLES TRAYS, J-HOOKS NVRs, CAMERAS, MOUNTS AND CABLING FOR A COMPLETE AND ACTIVE SYSTEM.
   B. OWNER SHALL PROVIDE NETWORK SWITCHES FOR THIS CONTRACTOR TO INSTALL.
   C. SEE SECTION 282000 FOR EXACT SCOPE BETWEEN CONTRACTOR AND OWNER.
6. COORDINATE ACCESS CONTROL, INTRUSION DETECTION AND AIPHONE SYSTEMS AND INSTALLATION WITH DOOR HARDWARE, POWER AND ADA REQUIREMENTS PRIOR TO INSTALLATION.
7. DOOR HARDWARE, ADA EQUIPMENT AND POWER FOR THOSE DEVICES MUST BE COORDINATED PRIOR TO INSTALLATION.

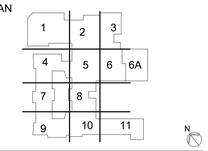
## 3 TY000 SECURITY SCOPE NOTES
N.T.S.

SECURITY SHEET LIST


| | |
|---|---|
| TY000 | SECURITY SYMBOLS AND NOTES |
| TY100 | SITE SECURITY PLAN |
| TY101 | OVERALL FIRST FLOOR SECURITY PLAN |
| TY102 | OVERALL SECOND FLOOR SECURITY PLAN |
| TY103 | FLOOR PLAN - SHOPS - MEZZANINE LEVEL SECURITY |
| TY111 | FIRST FLOOR SECURITY PLAN - KEYPLAN 1 |
| TY112 | FIRST FLOOR SECURITY PLAN - KEYPLAN 2 |
| TY113 | FIRST FLOOR SECURITY PLAN - KEYPLAN 3 |
| TY114 | FIRST FLOOR SECURITY PLAN - KEYPLAN 4 |
| TY115 | FIRST FLOOR SECURITY PLAN - KEYPLAN 5 |
| TY116 | FIRST FLOOR SECURITY PLAN - KEYPLAN 6 |
| TY116A | FIRST FLOOR SECURITY PLAN - KEYPLAN 6 ALTERNATE |
| TY117 | FIRST FLOOR SECURITY PLAN - KEYPLAN 7 |
| TY118 | FIRST FLOOR SECURITY PLAN - KEYPLAN 8 |
| TY119 | FIRST FLOOR SECURITY PLAN - KEYPLAN 9 |
| TY120 | FIRST FLOOR SECURITY PLAN - KEYPLAN 10 |
| TY121 | FIRST FLOOR SECURITY PLAN - KEYPLAN 11 |
| TY131 | SECOND FLOOR SECURITY PLAN - KEYPLAN 4 |
| TY132 | SECOND FLOOR SECURITY PLAN - KEYPLAN 5 |
| TY133 | SECOND FLOOR SECURITY PLAN - KEYPLAN 7 |
| TY134 | SECOND FLOOR SECURITY PLAN - KEYPLAN 8 |
| TY135 | SECOND FLOOR SECURITY PLAN - KEYPLAN 9 |
| TY136 | SECOND FLOOR SECURITY PLAN - KEYPLAN 10 |
| TY137 | FIELD HOUSE SECURITY PLAN |
| TY500 | INTRUSION DETECTION SYSTEM |
| TY501 | ACCESS CONTROL SYSTEM |
| TY502 | VIDEO SURVEILLANCE SYSTEM |


| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

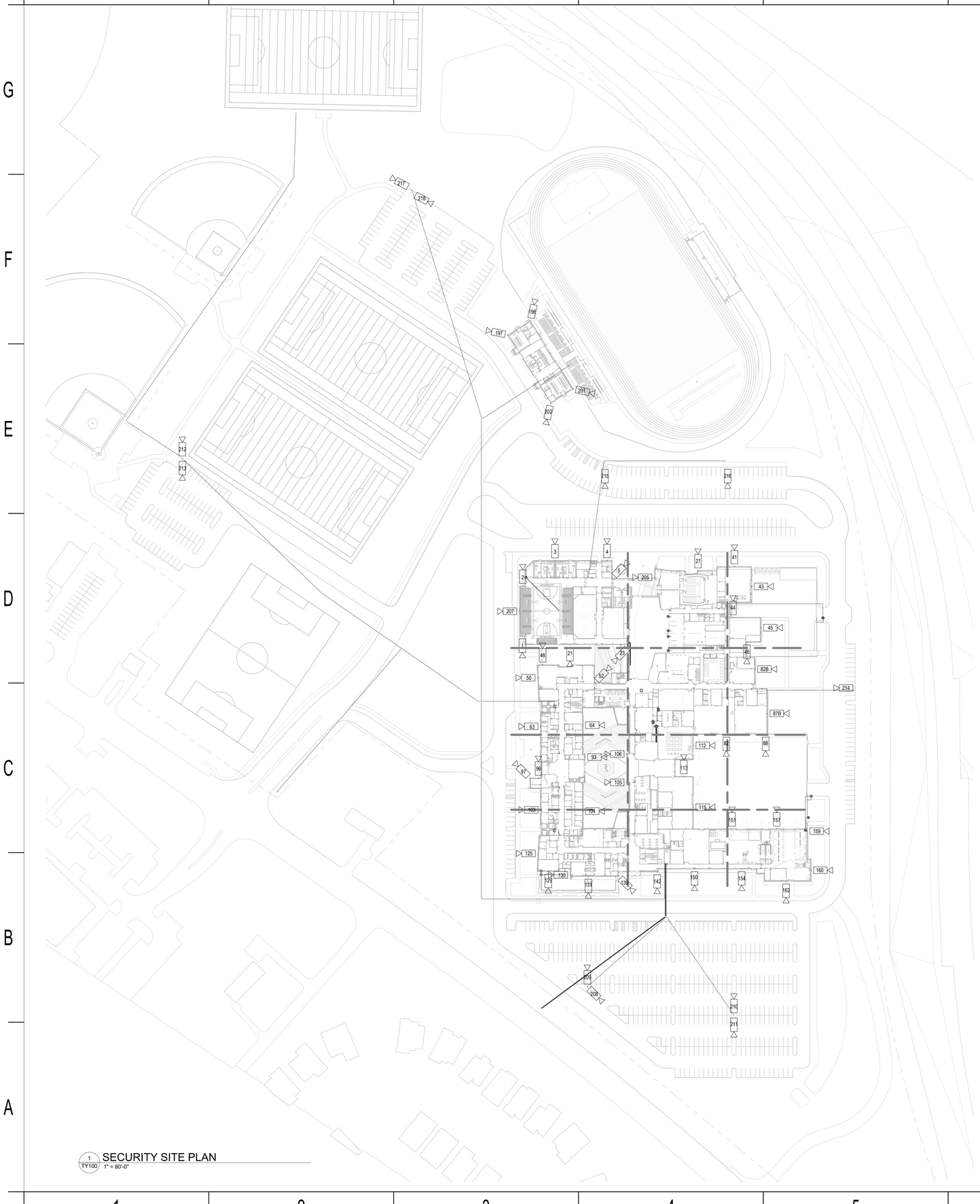
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**SECURITY SYMBOLS AND NOTES**

SHEET NO.

**TY000**

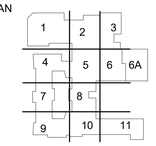



1. PARKING LOT VIDEO SURVEILLANCE CAMERAS SHALL BE LOCATED ON LIGHT POLES. SEE ELECTRICAL SITE PLAN FOR MORE INFORMATION.
2. COORDINATE WITH EXACT LAYOUT IN THE FIELD.

1 TY100 SECURITY SITE PLAN
1" = 80'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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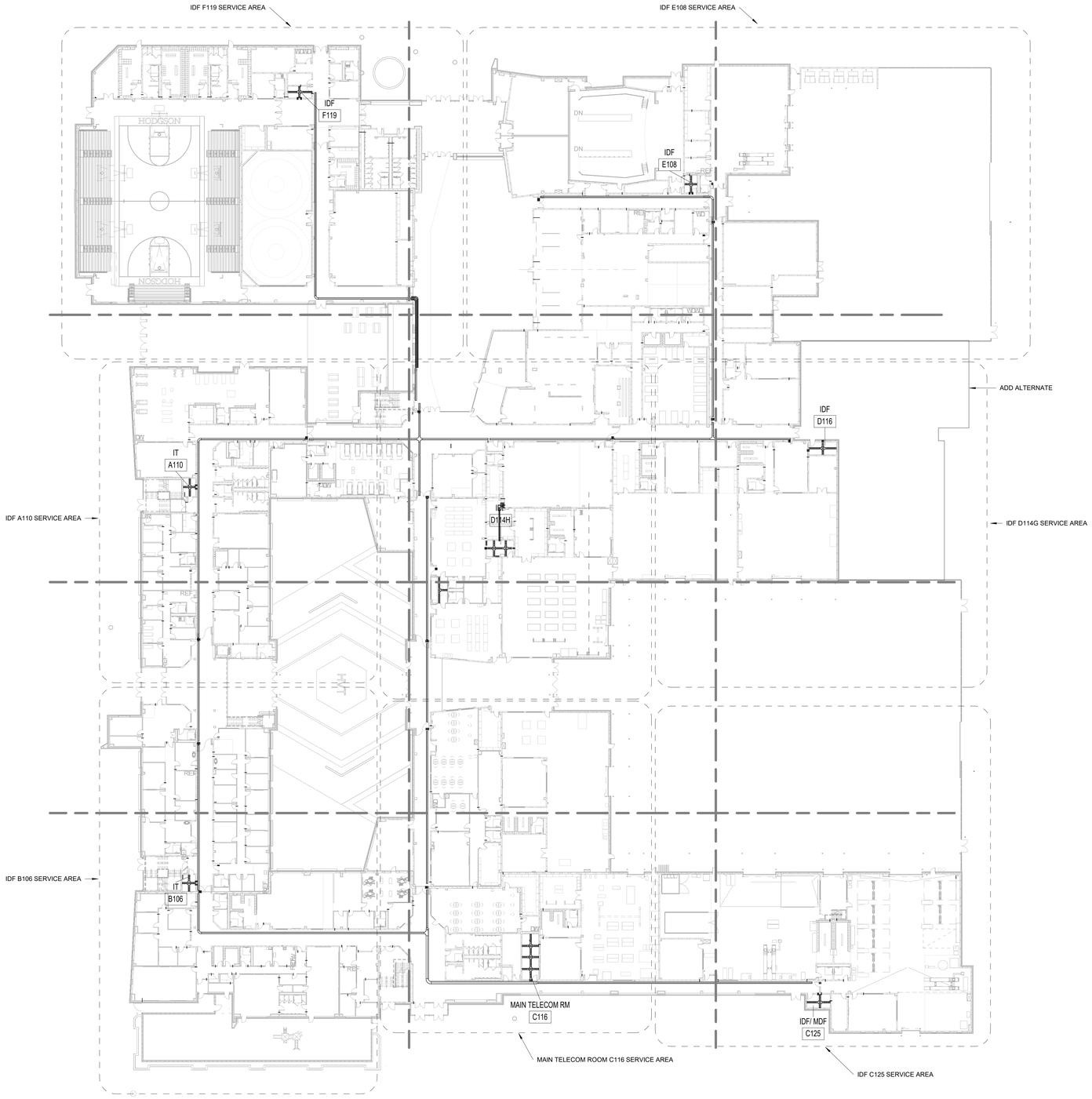
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**SITE SECURITY PLAN**

SHEET NO.

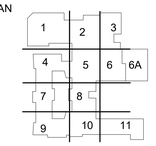
**TY100**




1 TY101 OVERALL FIRST FLOOR SECURITY PLAN
1" = 30'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN





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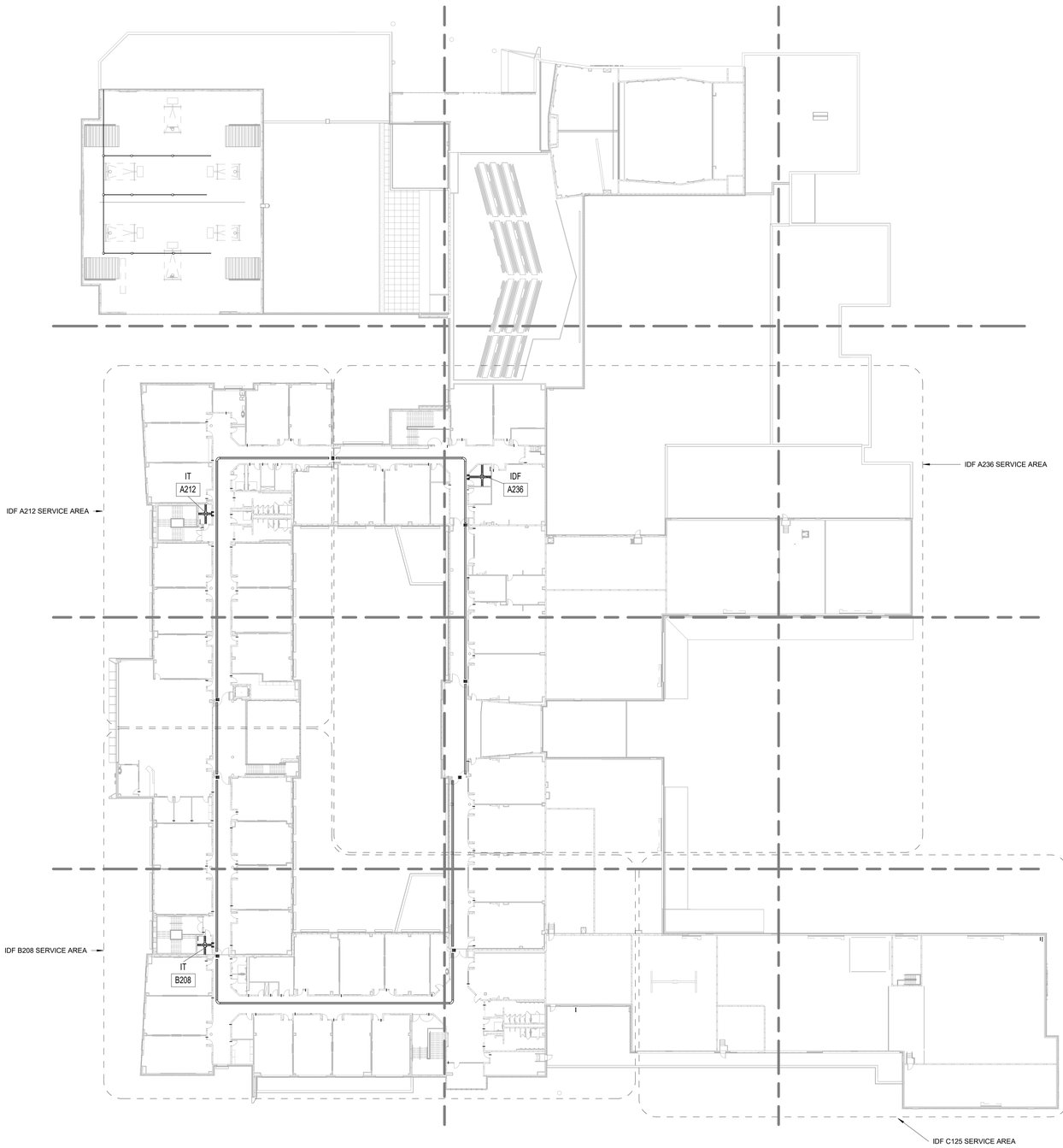
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**OVERALL FIRST FLOOR SECURITY PLAN**

SHEET NO.

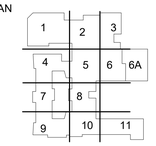
**TY101**




1 TY102 OVERALL SECOND FLOOR SECURITIY PLAN
1" = 30'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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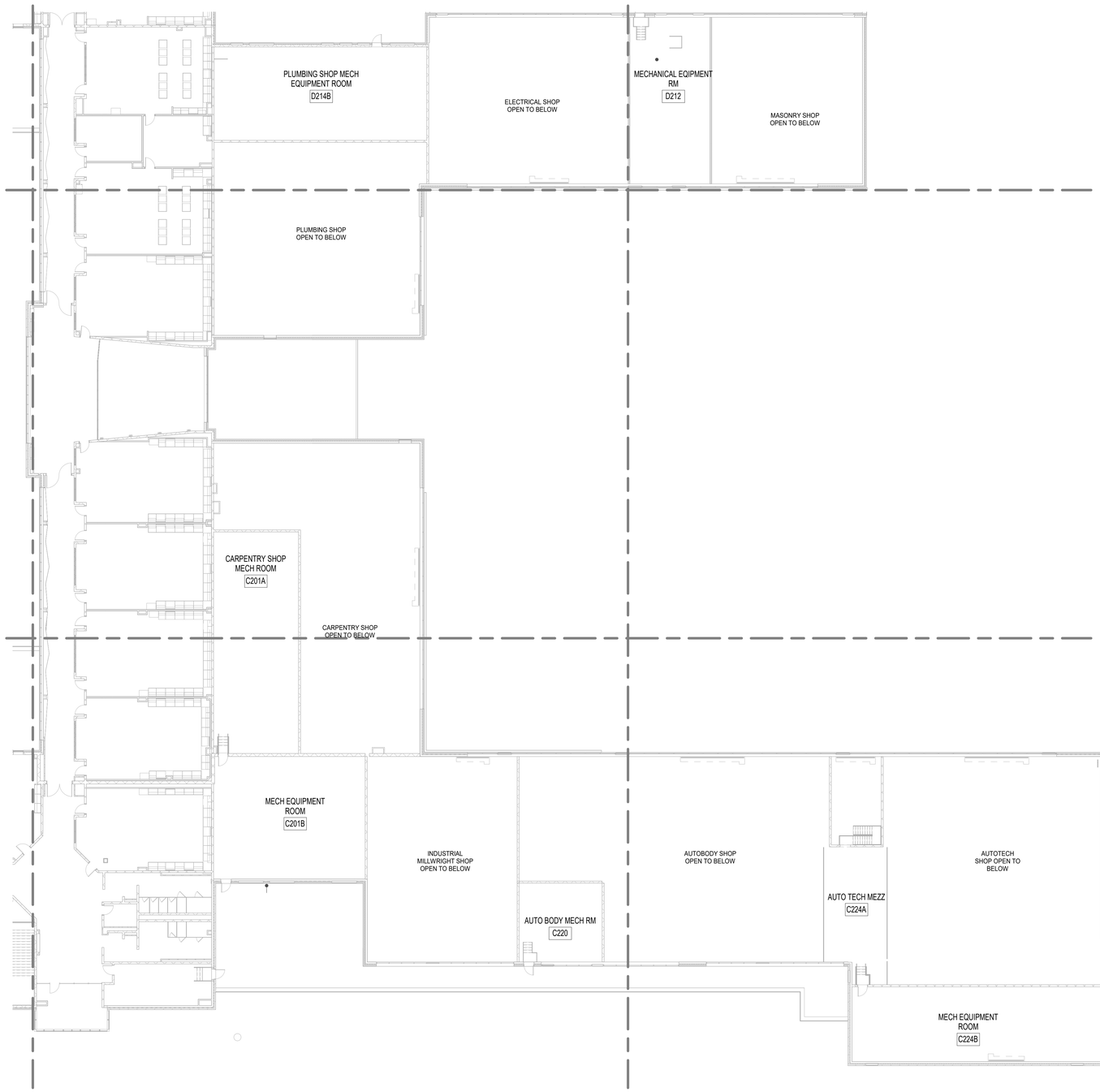
**NEWARK, DE 19702**

SHEET TITLE

**OVERALL SECOND FLOOR SECURITY PLAN**

SHEET NO.

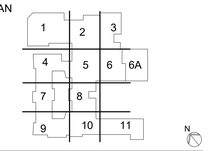
**TY102**




1 TY103 OVERALL SECURITIY FLOOR PLAN - MEZZANINE
1/16" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN





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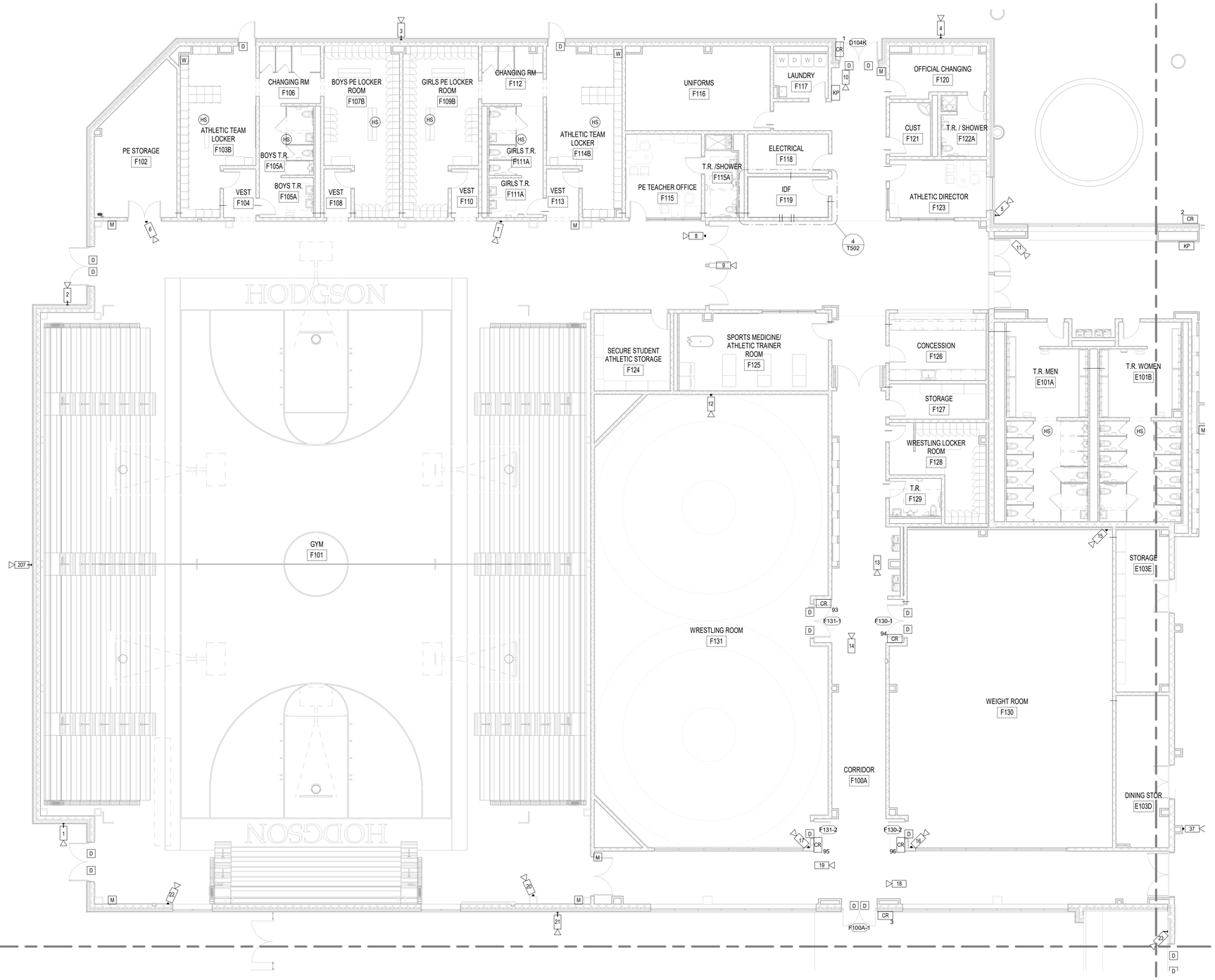
SHEET TITLE

**FLOOR PLAN - SHOPS - MEZZANINE LEVEL SECURITY**

SHEET NO.

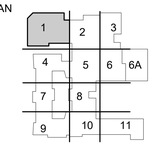
**TY103**




1 TY111 FIRST FLOOR SECURITY - KEYPLAN 1
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR SECURITY PLAN - KEYPLAN 1**

SHEET NO.

**TY111**

1 TY112 FIRST FLOOR SECURITY - KEYPLAN 2

1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

VOCATIONAL TECHNICAL SCHOOL DISTRICT NEW CASTLE COUNTY DELAWARE

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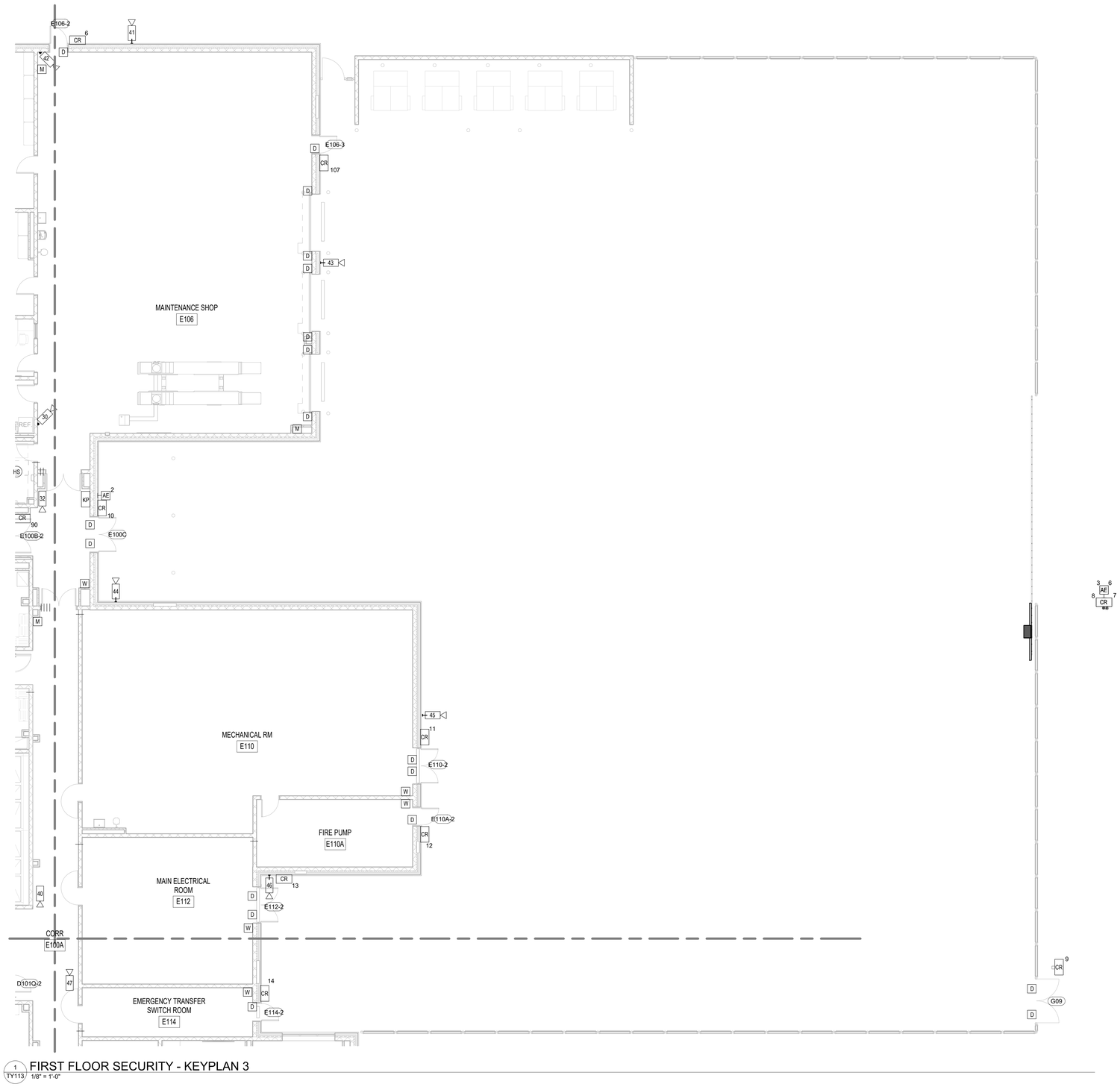
SHEET TITLE

**FIRST FLOOR SECURITY PLAN - KEYPLAN 2**

SHEET NO.

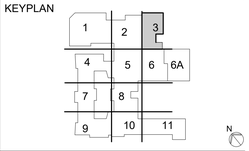
**TY112**




1 TY113 FIRST FLOOR SECURITY - KEYPLAN 3
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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PAUL M. HODGSON VO-TECH HIGH SCHOOL

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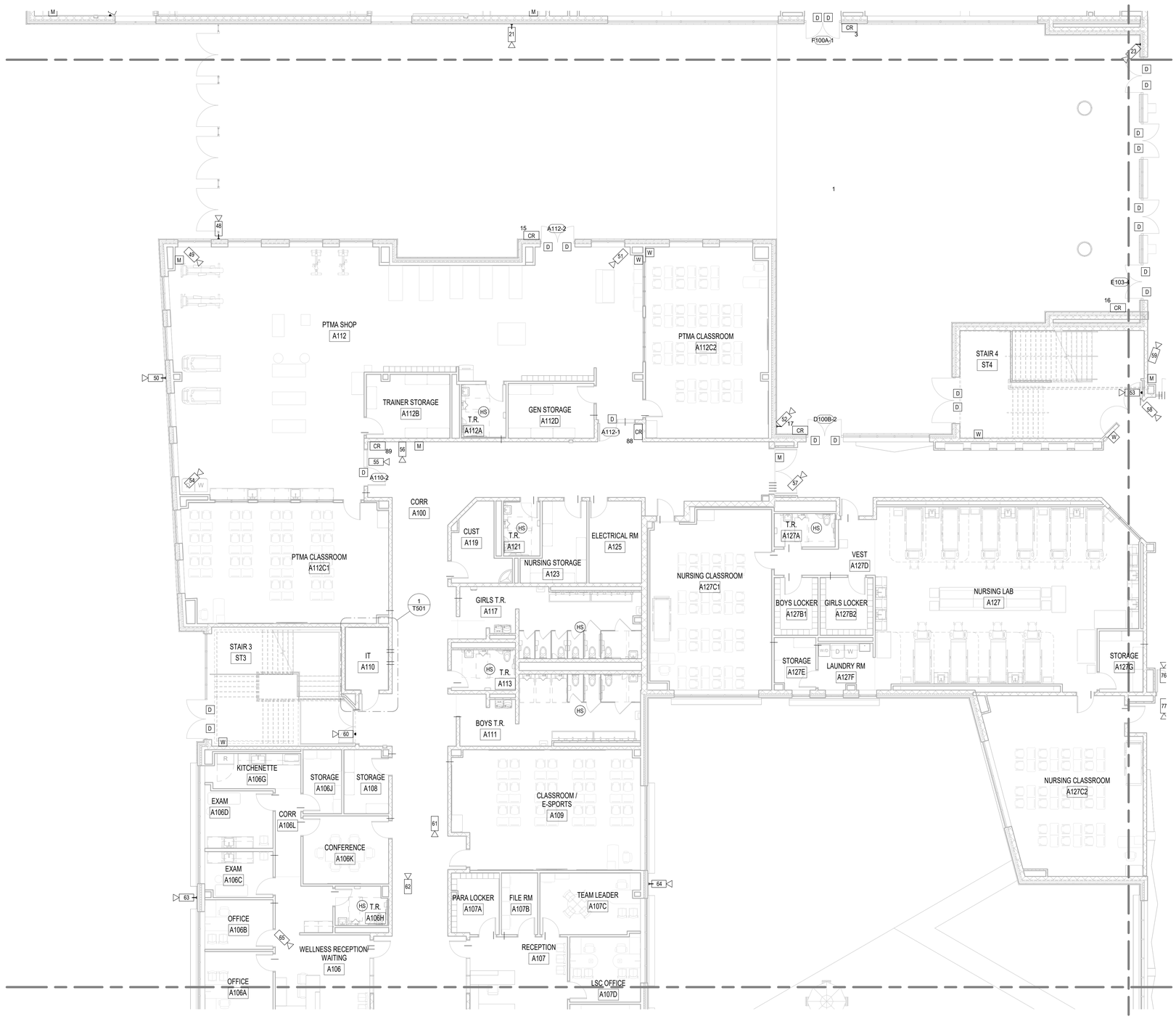
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR SECURITY PLAN - KEYPLAN 3**

SHEET NO.

**TY113**




1 TY114 FIRST FLOOR SECURITY - KEYPLAN 4
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

VOCATIONAL TECHNICAL SCHOOL DISTRICT
NEW CASTLE COUNTY DELAWARE

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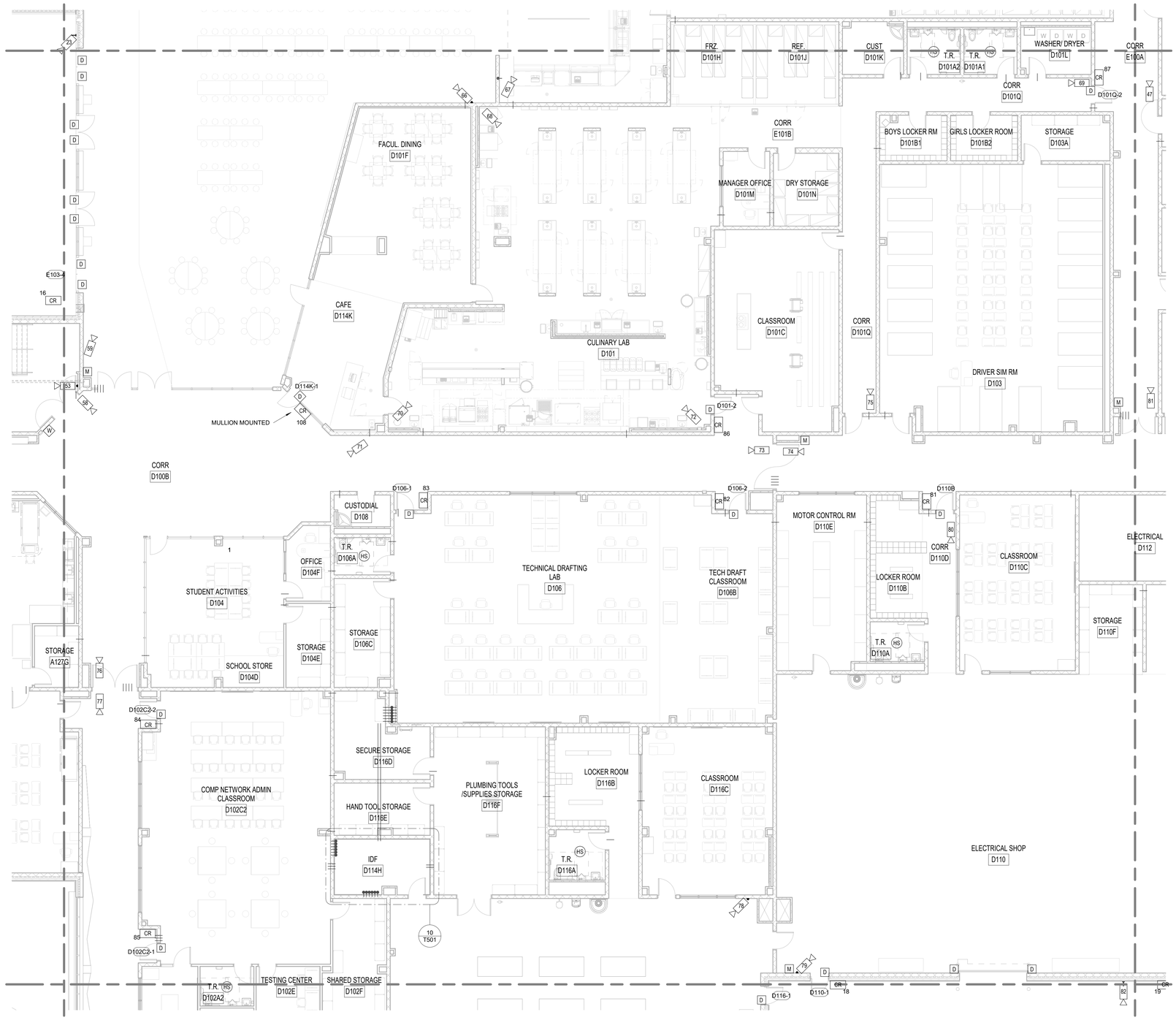
SHEET TITLE
**FIRST FLOOR SECURITY PLAN - KEYPLAN 4**

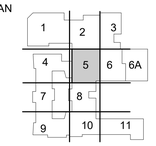
SHEET NO.
**TY114**




1 TY115 FIRST FLOOR SECURITY - KEYPLAN 5
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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NEW CASTLE COUNTY DELAWARE

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

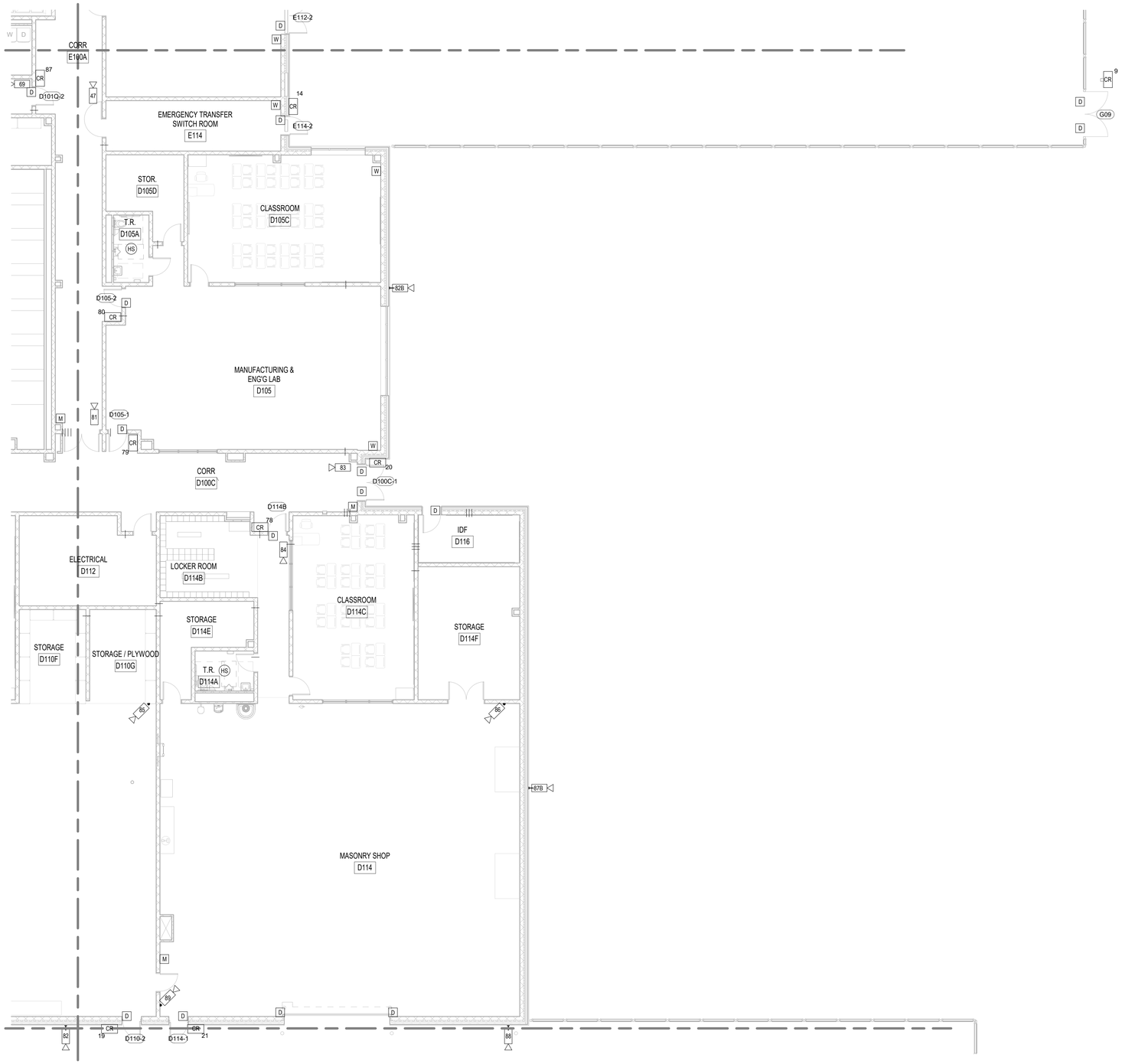
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR SECURITY PLAN - KEYPLAN 5**

SHEET NO.

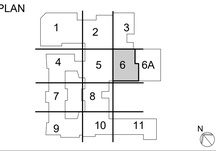
**TY115**




1 TY116 FIRST FLOOR SECURITY - KEYPLAN 6
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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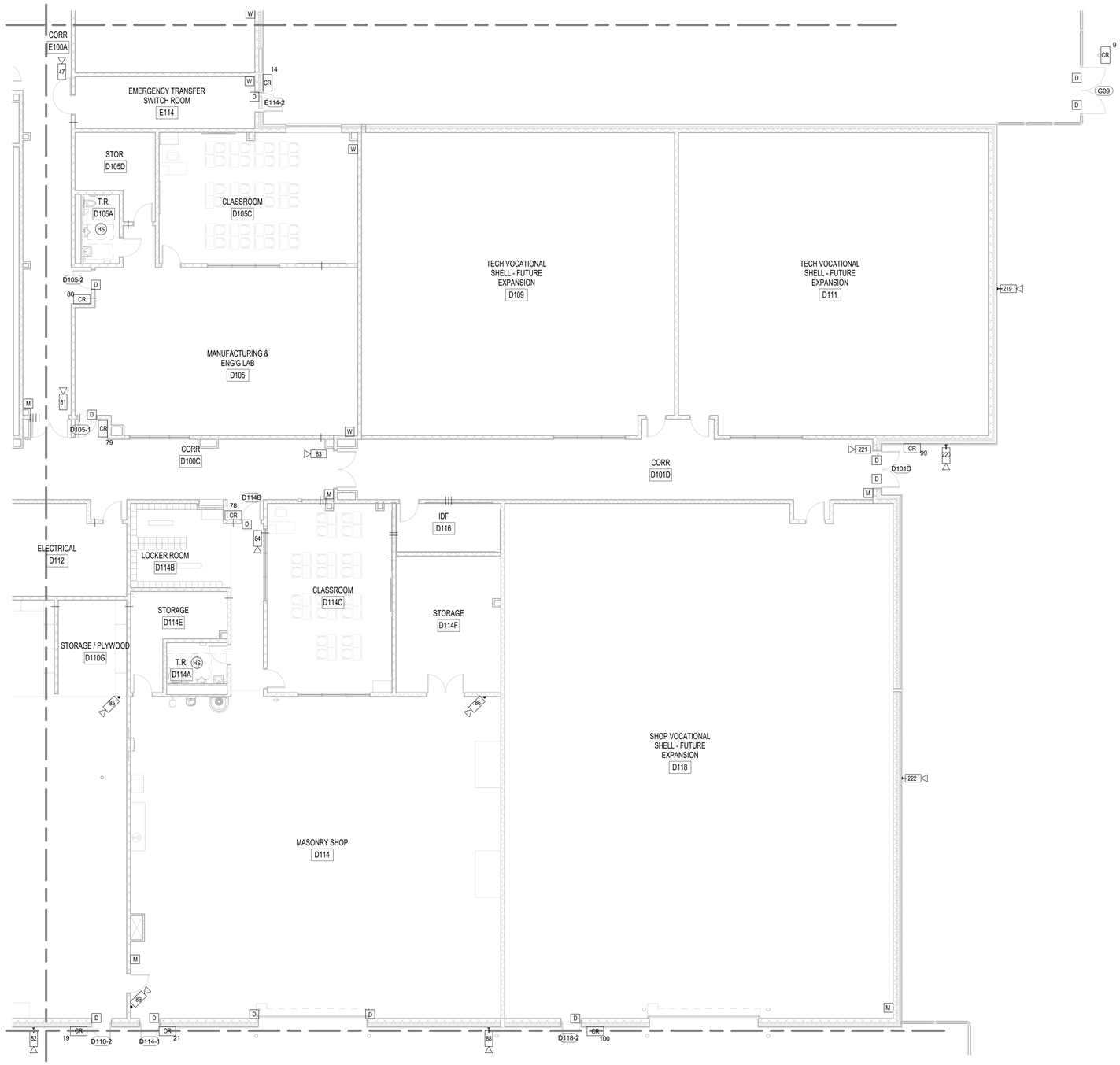
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR SECURITY PLAN - KEYPLAN 6**

SHEET NO.

**TY116**




1 TY116A FIRST FLOOR SECURITY - KEYPLAN 6 - (FUTURE SHOP AND TECH)
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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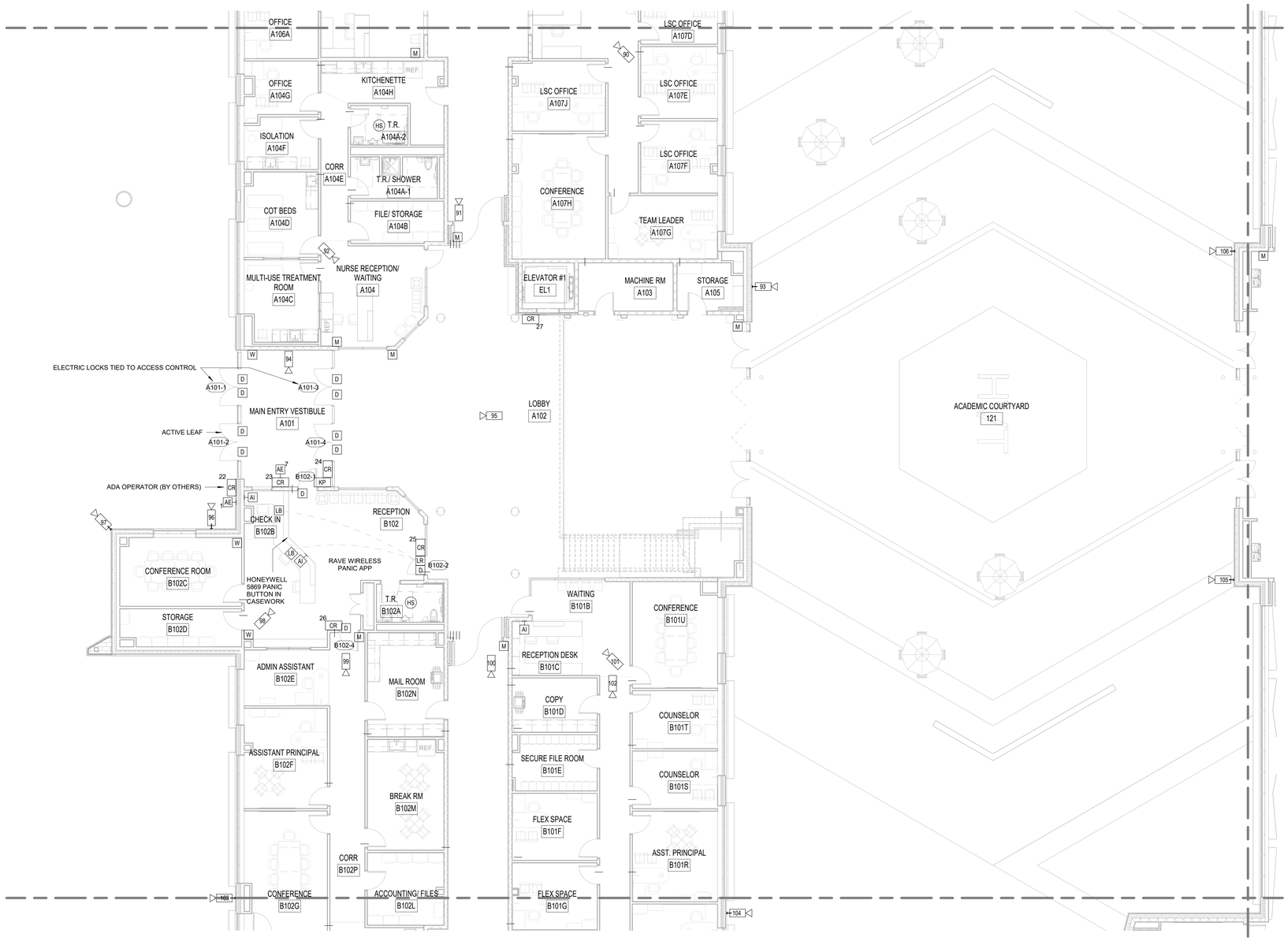
SHEET TITLE

**FIRST FLOOR SECURITY PLAN - KEYPLAN 6 ALTERNATE**

SHEET NO.

**TY116A**




1 TY117 FIRST FLOOR SECURITY - KEYPLAN 7
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

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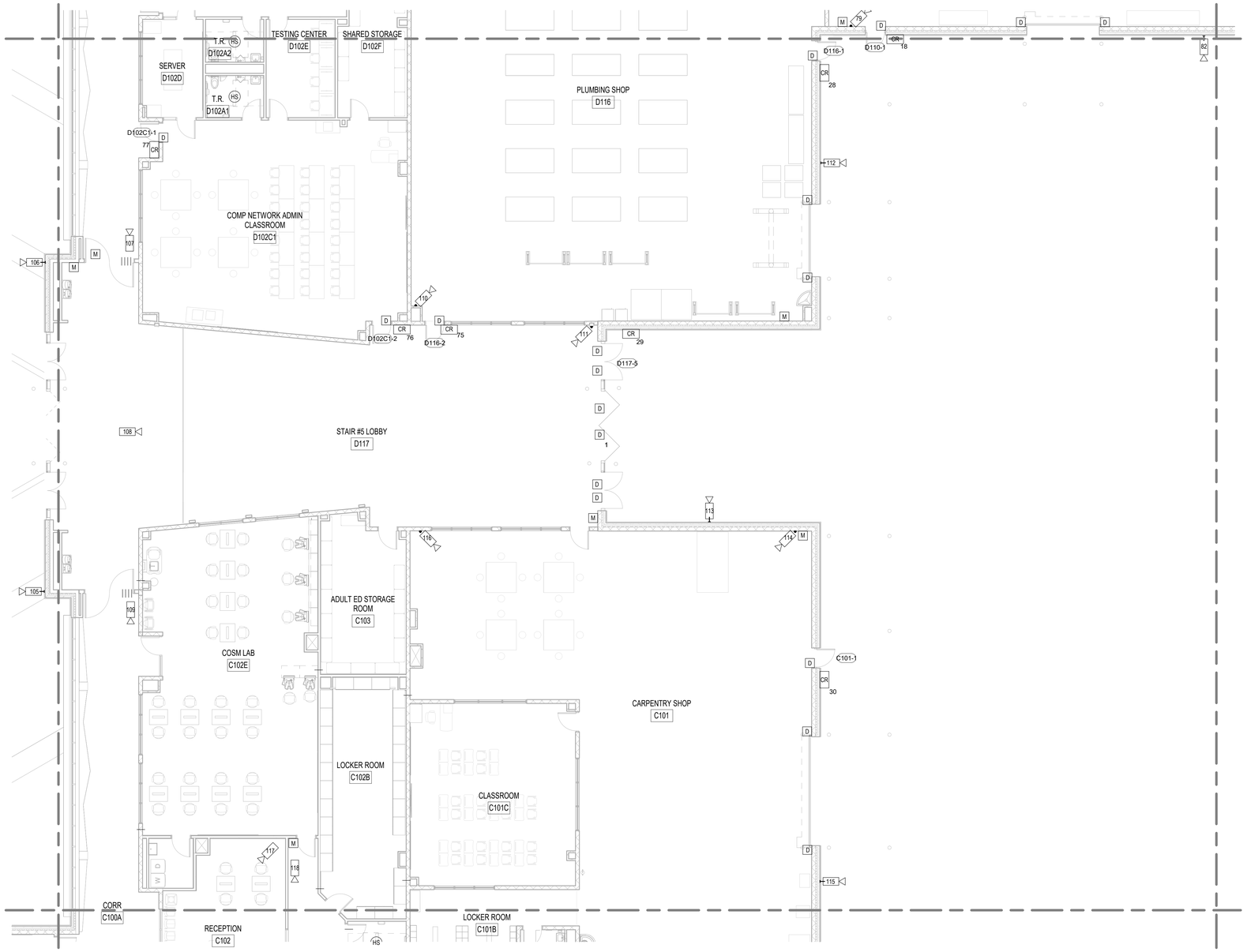
SHEET TITLE

**FIRST FLOOR SECURITY PLAN - KEYPLAN 7**

SHEET NO.

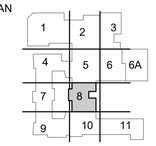
**TY117**




1 TY118 FIRST FLOOR SECURITY - KEYPLAN 8
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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SHEET TITLE

**FIRST FLOOR SECURITY PLAN - KEYPLAN 8**

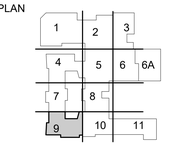
SHEET NO.

**TY118**

1 TY119 FIRST FLOOR SECURITY - KEYPLAN 9
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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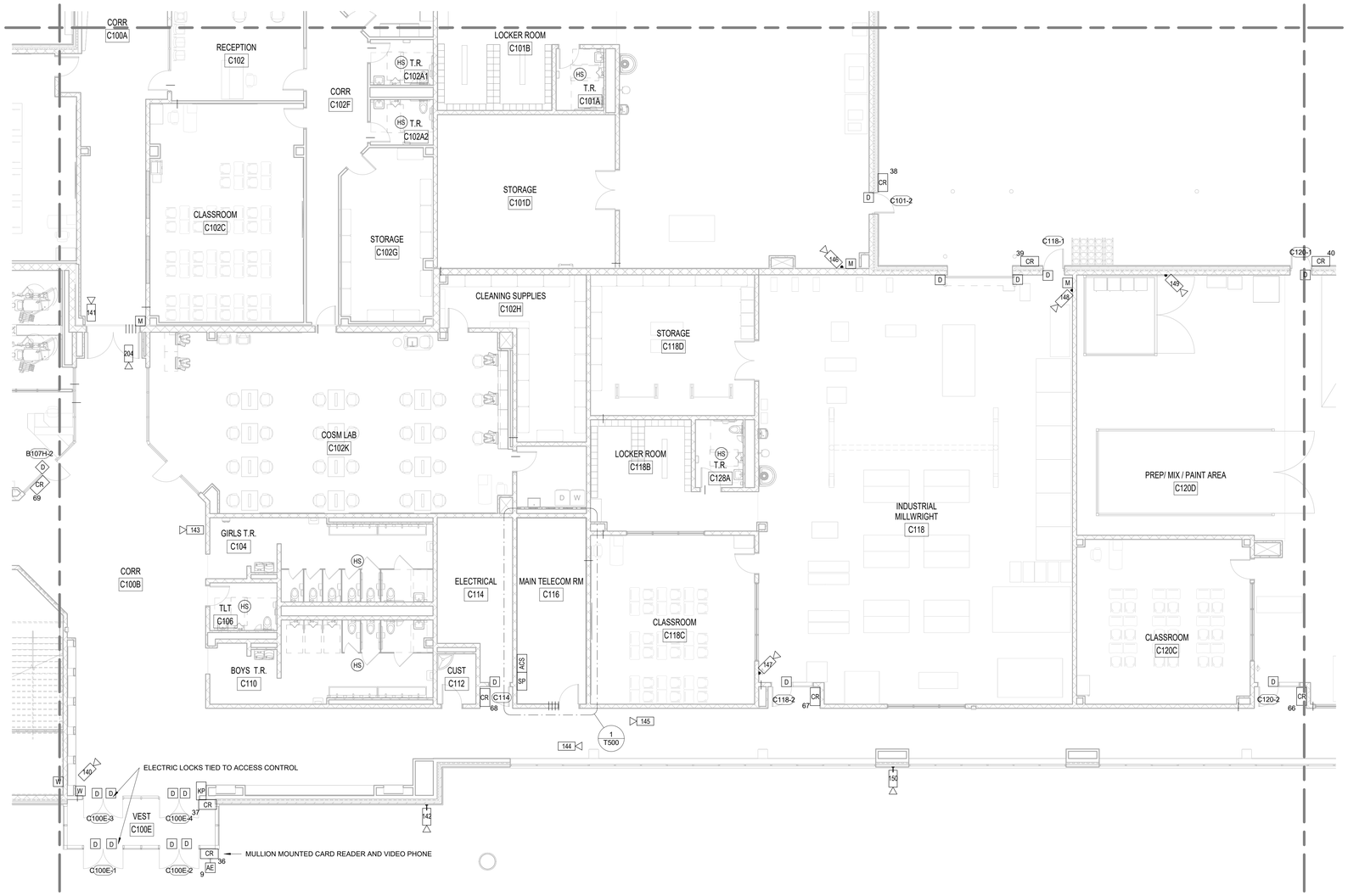
SHEET TITLE

**FIRST FLOOR SECURITY PLAN - KEYPLAN 9**

SHEET NO.

**TY119**




1 TY120 FIRST FLOOR SECURITY - KEYPLAN 10
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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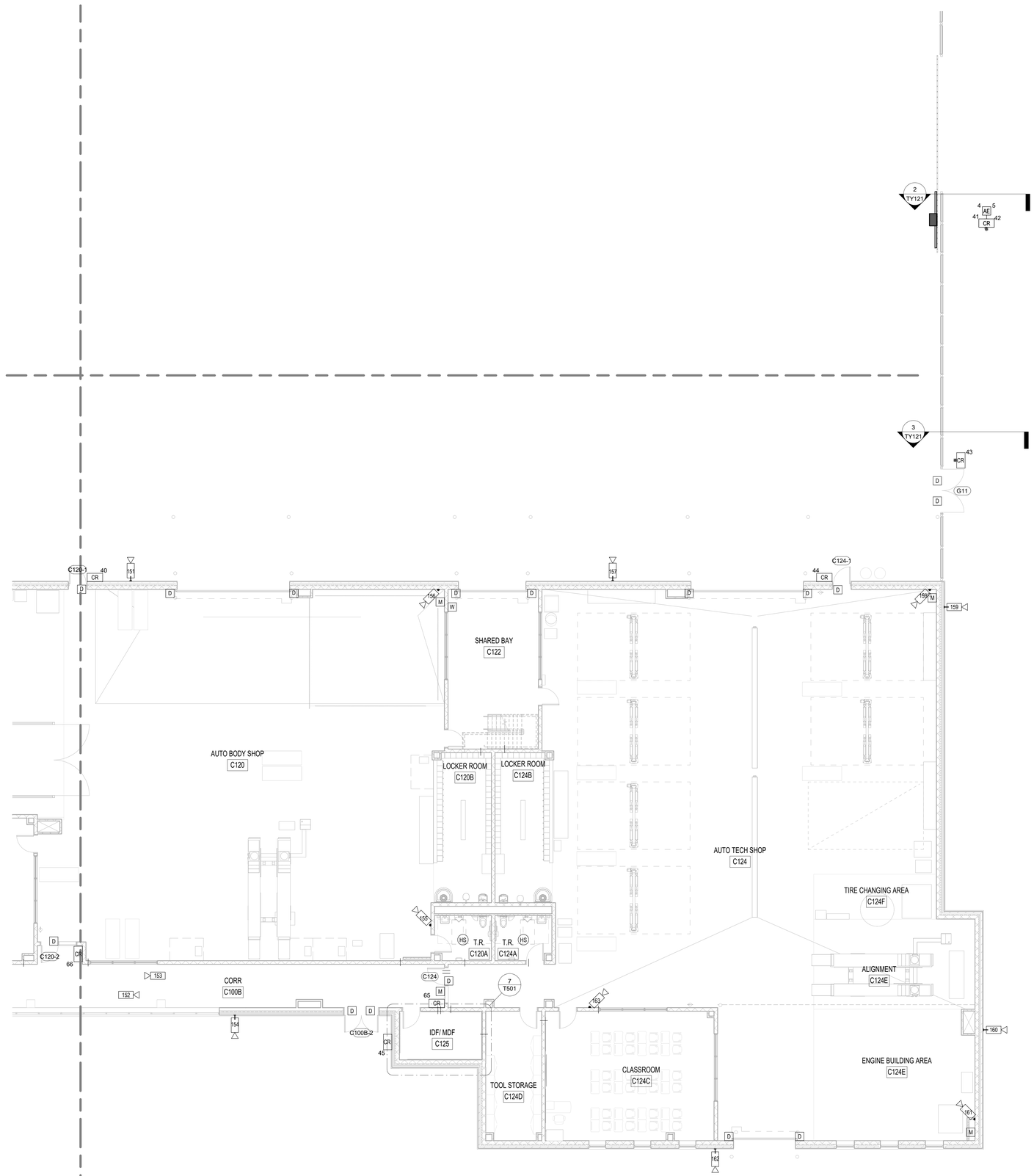
SHEET TITLE

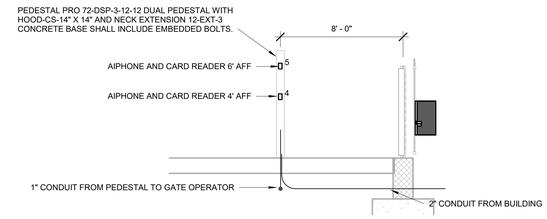
**FIRST FLOOR SECURITY PLAN - KEYPLAN 10**

SHEET NO.

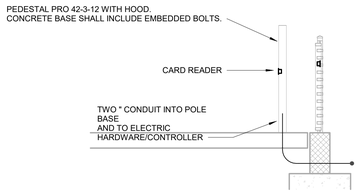
**TY120**




1 TY121 FIRST FLOOR SECURITY - KEYPLAN 11
1/8" = 1'-0"




2 TY121 VEHICULAR GATE PEDESTAL ACCESS CONTROL SECTION
1/4" = 1'-0"




3 TY121 PEDESTRIAN GATE PEDESTAL ACCESS CONTROL SECTION
1/4" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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PAUL M. HODGSON VO-TECH HIGH SCHOOL

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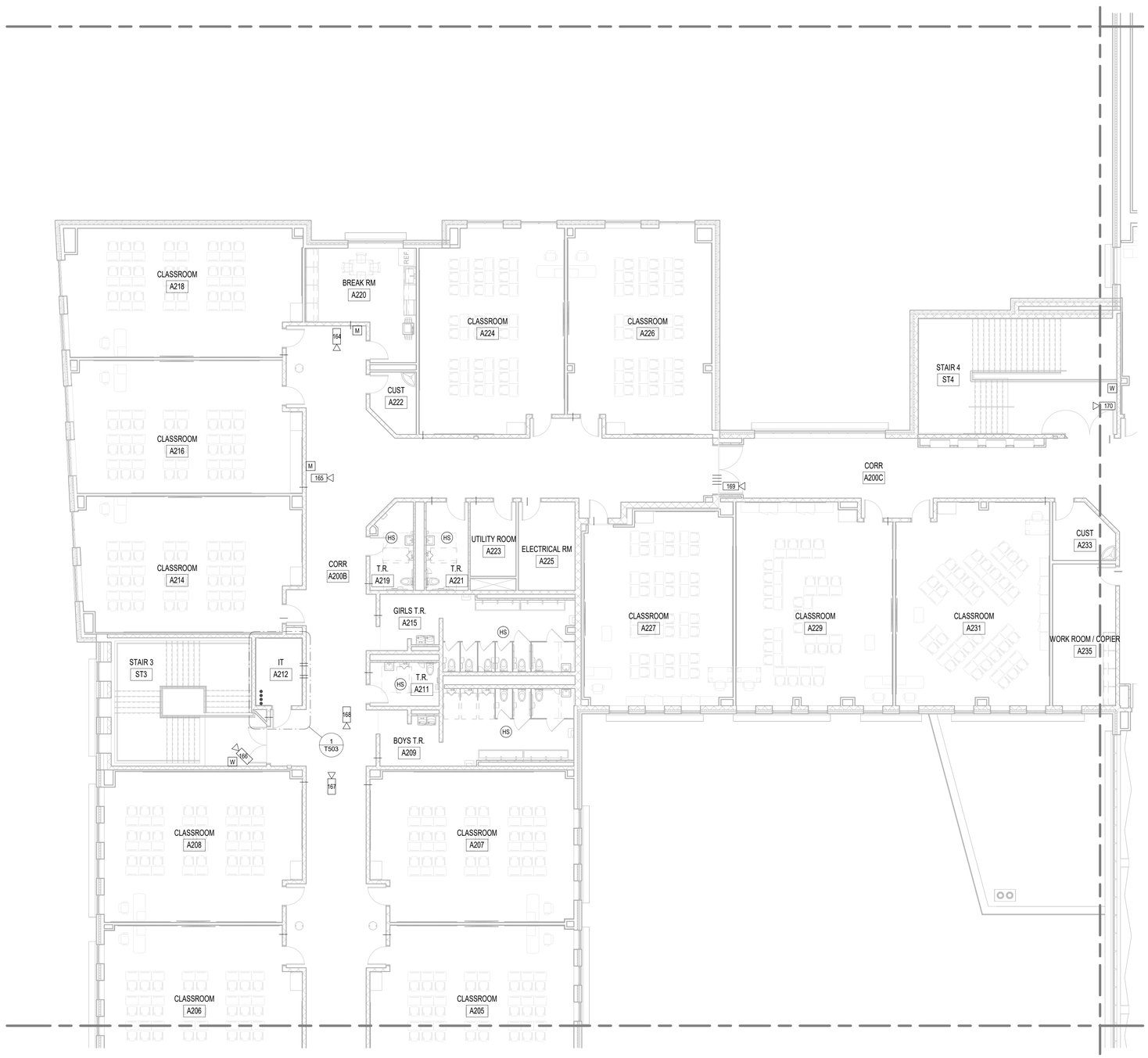
**NEWARK, DE 19702**

SHEET TITLE

**FIRST FLOOR SECURITY PLAN - KEYPLAN 11**

SHEET NO.

**TY121**




1 TY131 SECOND FLOOR SECURITY - KEYPLAN 4
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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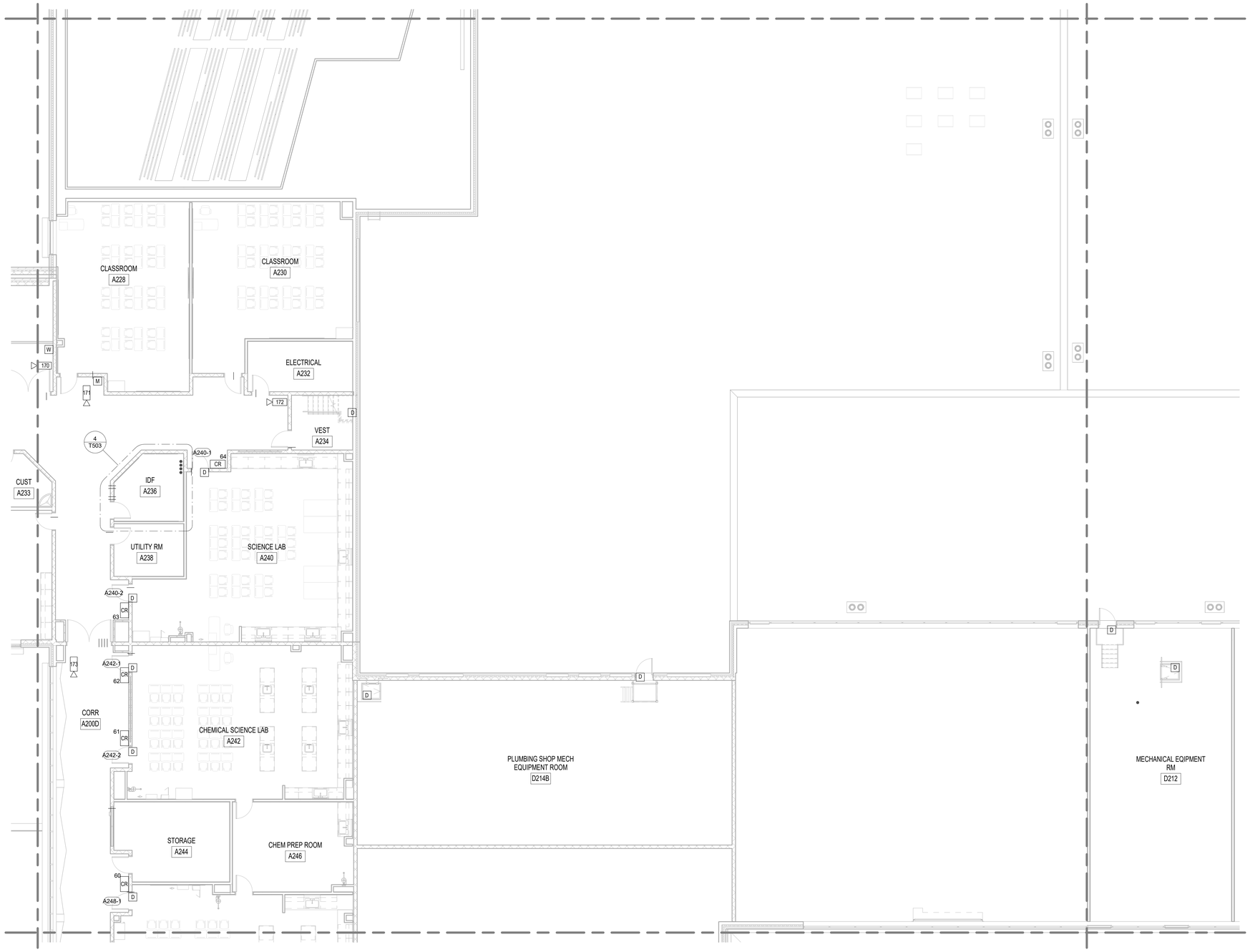
**SECOND FLOOR SECURITY PLAN - KEYPLAN 4**

SHEET NO.

**TY131**




1 TY132 SECOND FLOOR SECURITY - KEYPLAN 5
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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**SECOND FLOOR SECURITY PLAN - KEYPLAN 5**

SHEET NO.

**TY132**

1 TY133 SECOND FLOOR SECURITY - KEYPLAN 7
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

VOCATIONAL TECHNICAL SCHOOL DISTRICT
NEW CASTLE COUNTY DELAWARE

OWNER

New Castle County Vo-Tech School District

1417 Newport Pike
Wilmington, DE 19804

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DCI + MacIntosh Engineers

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Fax (302) 252-9201

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CIVIL ENGINEER

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Corsi Associates, LLC

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Stages Consultants, LLC

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

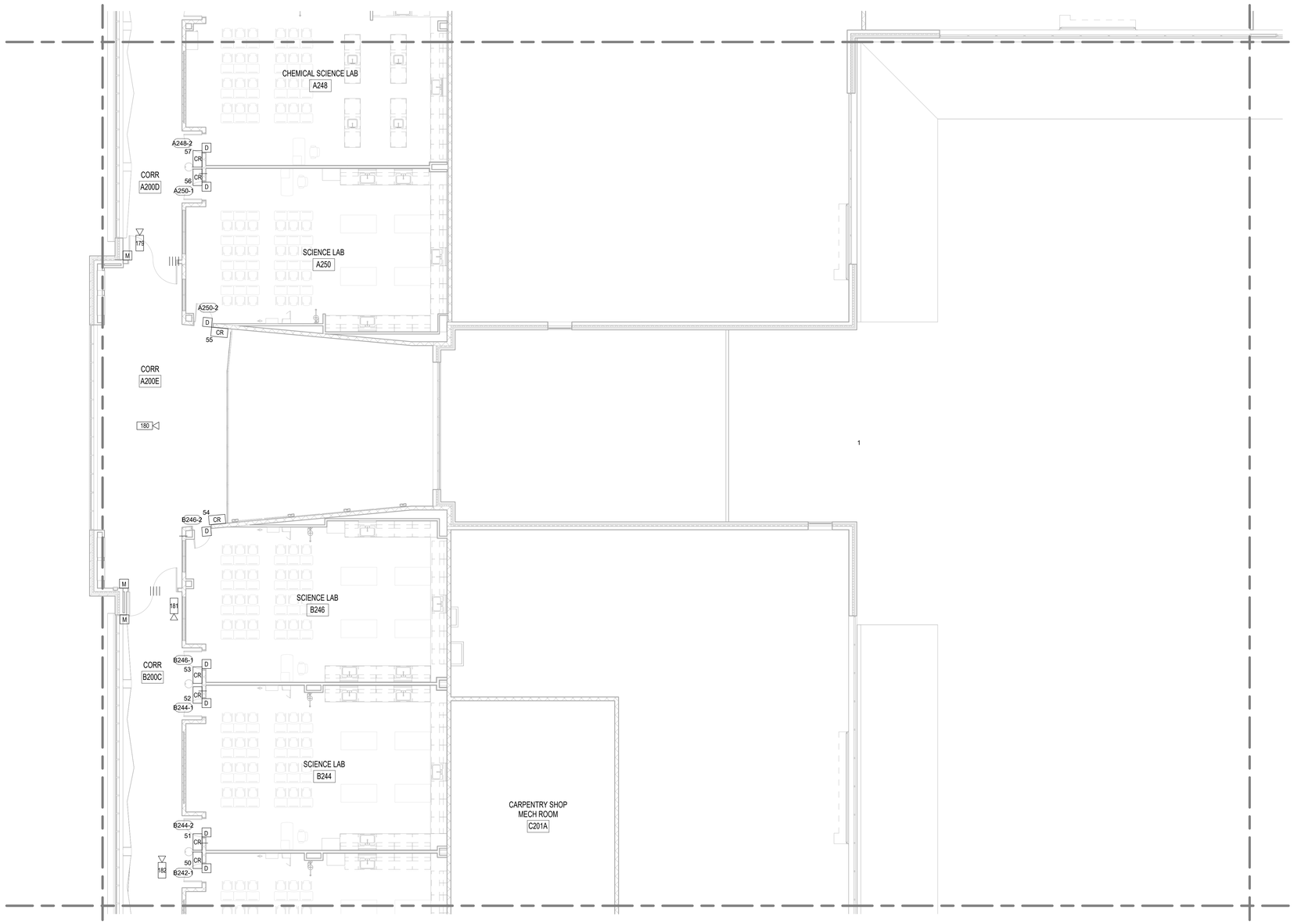
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**SECOND FLOOR SECURITY PLAN - KEYPLAN 7**

SHEET NO.

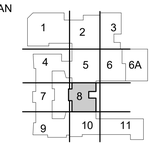
**TY133**




1 TY134 SECOND FLOOR SECURITY - KEYPLAN 8
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**SECOND FLOOR SECURITY PLAN - KEYPLAN 8**

SHEET NO.

**TY134**

1 TY135 SECOND FLOOR SECURITY - KEYPLAN 9
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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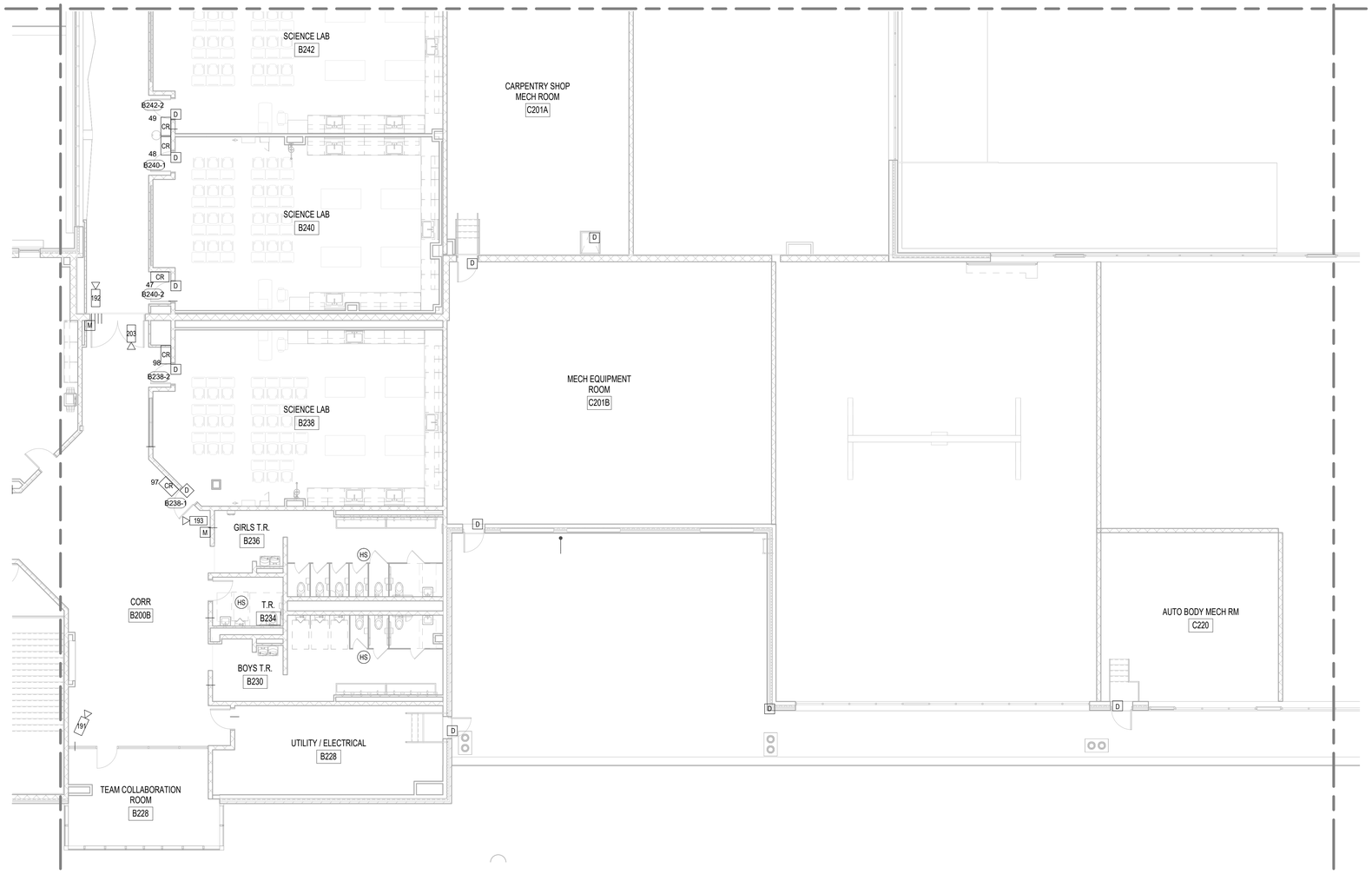
**NEWARK, DE 19702**

SHEET TITLE

**SECOND FLOOR SECURITY PLAN - KEYPLAN 9**

SHEET NO.

**TY135**




1 TY136 SECOND FLOOR SECURITY - KEYPLAN 10
1/8" = 1'-0"

2 TY136 AUTO TECH MEZZANINE
1/8" = 1'-0"

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

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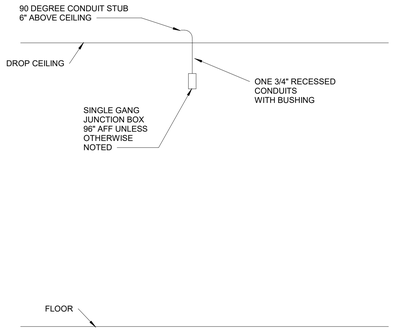
**NEWARK, DE 19702**

SHEET TITLE

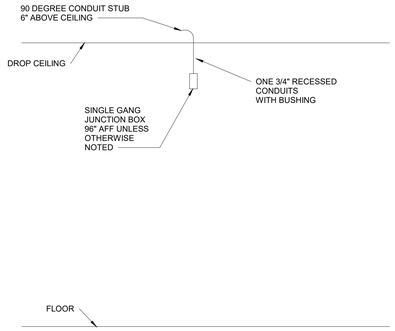
**SECOND FLOOR SECURITY PLAN - KEYPLAN 10**

SHEET NO.

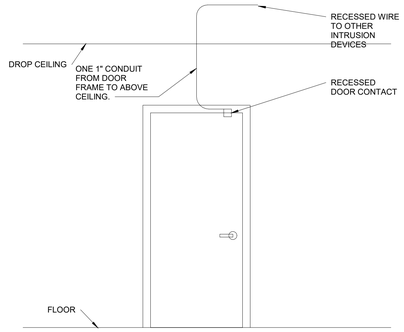
**TY136**



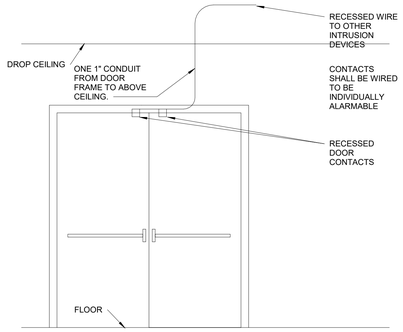

M MOTION DETECTOR PATHWAY



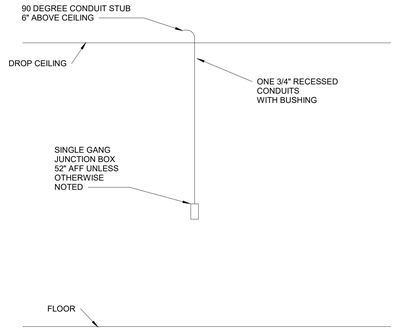

W WIDE ANGLE MOTION DETECTOR PATHWAY



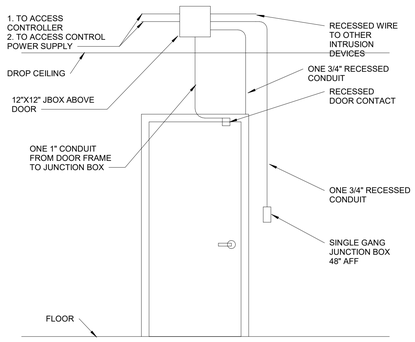

D DOOR CONTACT PATHWAY SINGLE DOOR



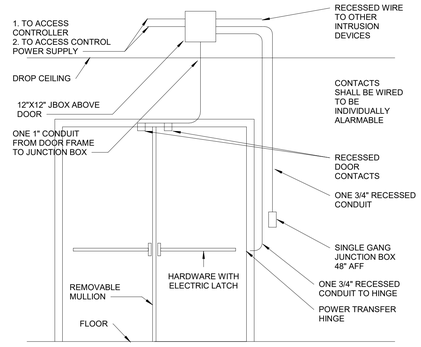

D DOOR CONTACT PATHWAY DOUBLE DOOR



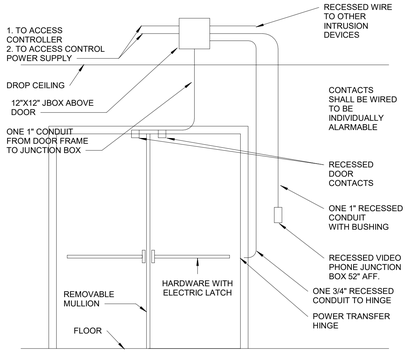

KP KEYPAD PATHWAY



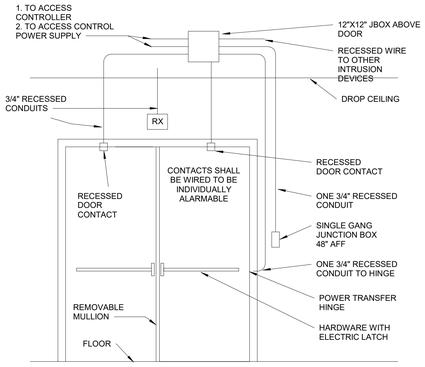

CR CARD READER PATHWAY SINGLE DOOR



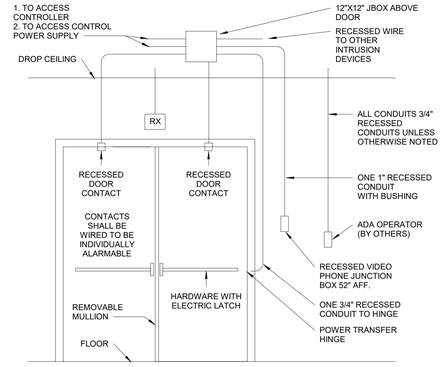

CR CARD READER PATHWAY DOUBLE DOOR




CR CARD READER WITH VIDEO PHONE PATHWAY

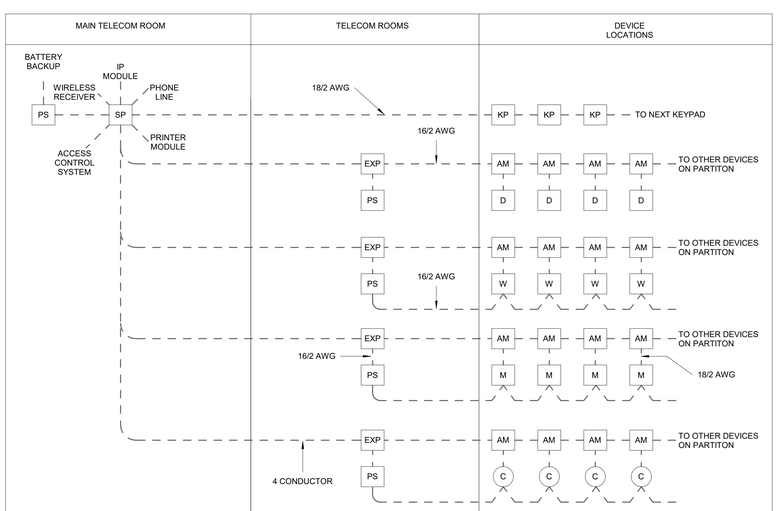



CR CARD READER PATHWAY DOUBLE DOOR WITH LATCH RETRACTION




CR CARD READER w/VIDEO PHONE & ADA OPERATORS PATHWAY DOUBLE DOOR w/LATCH RETRACTION

## 1 TY500 INTRUSION DETECTION PATHWAYS
N.T.S.




## 2 TY500 INTRUSION DETECTION LINE DIAGRAM
N.T.S.

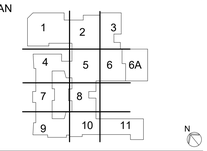
INTRUSION SYSTEM NOTES

1. INSTALLING CONTRACTOR SHALL BE A CERTIFIED INTRUSION DETECTION VENDOR/INSTALLER OF THE SELECTED SYSTEM.
2. ACCESS CONTROL, INTRUSION DETECTION AND ENTRY DOOR VIDEO INTERCOM SYSTEMS SHALL BE FULLY INTERFACED, INTEGRATED & INTERCONNECTED.
3. THE FIELD HOUSE SHALL HAVE ITS OWN MAIN INTRUSION PANEL, SEPARATE FROM THE MAIN BUILDING. THE PANEL BE THE SAME MAKE AS THE MAIN BUILDING AND FUNCTION IN AN IDENTICAL MANNER.
4. ALL COMPONENTS OF THE SYSTEMS SHALL BE CONNECTED TO GENERATOR CIRCUITS.
5. LIGHTING SYSTEM SHALL BE CONNECTED TO THE INTRUSION SYSTEM.
6. PROVIDE AND INSTALL A COMPLETE INTRUSION DETECTION SYSTEM.
7. EGRESS SHALL NOT BE IMPEDED BY INTRUSION EQUIPMENT AND SHALL BE ACCOMPLISHED BY THE DOOR HARDWARE..
8. ELECTRICAL CONTRACTOR SHALL PROVIDE POWER CIRCUITS AND RECEPTACLES FOR THE SYSTEM. CORDINATE WITH ELECTRICAL CONTRACTOR FOR POWER REQUIREMENTS.
9. ELECTRIC DOOR HARDWARE SHALL BE PROVIDED AND INSTALLED BY OTHERS AND MUST BE COORDINATED INTRUSION EQUIPMENT PRIOR TO INSTALLATION.
10. THE INTRUSION LINE DIAGRAM REPRESENTS A TYPICAL SYSTEM WIRING SCHEME. NOT ALL CONNECTIONS ARE SHOWN.
11. THE INTRUSION DETECTION SYSTEM SHALL INCLUDE DPDT DOOR CONTACTS, MOTION DETECTORS, KEYPADS, EXPANSION MODULES, POWER SUPPLIES, BATTERY BACKUP, SECURITY PANELS, SERVERS, CABLES, CONNECTORS, MOUNTS AND ASSOCIATED COMPONENTS FOR A COMPLETE AND OPERATIONS SYSTEM.
12. THE INTRUSION DETECTION SYSTEM SHALL BE CAPABLE OF BEING MONITORED LOCALLY AND REMOTELY. THE SYSTEM SHALL BE CONNECTED TO POTS LINES, IP LAN/WAN CONNECTIONS, THE ACCESS CONTROL SYSTEM, THE INTERCOM SYSTEM, THE LIGHTING CONTROL SYSTEM AND TO BATTERY BACKUP FOR OPERATION IN THE EVENT OF A POWER FAILURE.
13. ALL CABLING SHALL BE COLOR CODED AND PROPERLY LABELED ON EACH END OF THE CABLE.
14. ALL CABLE GAUGE SHALL BE BASED ON DISTANCE AND LOAD CALCULATIONS. PROVIDE DISTANCE AND LOAD CALCULATIONS BASED ON THE EXACT LOCATION AND WIRING PATH OF DEVICES.
15. ALL WIRING SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.
16. ALL PANELS (SP) AND EXPANSION MODULES (EXP) SHALL BE INSTALLED WITHIN SECURITY JUNCTION BOXES. JUNCTION BOXES SHALL BE COLOR CODED.
17. NO MORE THAN TEN DEVICES PER POWER SUPPLY.
18. MOTION DETECTORS SHALL BE WALL MOUNTED ON GIMBAL MOUNTS FOR ADJUSTABILITY.
19. DOOR CONTACTS SHALL BE RECESSED UNLESS OTHERWISE NOTED.
20. DOOR CONTACTS SHALL BE DPDT TYPE CONTACTS.
21. INSTALLATION MUST BE COORDINATED WITH THE ENTRY DOOR VIDEO SYSTEM.
22. INSTALLATION MUST BE COORDINATED WITH ANY DOOR OPERATOR EQUIPMENT.
23. INSTALLATION MUST BE COORDINATED WITH THE OWNER, ARCHITECT, ELECTRICAL CONTRACTOR AND DOOR HARDWARE CONTRACTOR PRIOR TO INSTALLATION.
24. SUBMITTALS AND SHOP DRAWINGS MUST INCLUDED EXACT PRODUCT DATA CLEARLY INDICATED, SYSTEM CONNECTIONS, WIRING DIAGRAMS AND DEVICE LOCATIONS.
25. SYSTEM PROGRAMMING AND PARTITIONS MUST BE INCLUDED WITH SHOP DRAWING AND SUBMITTAL INFORMATION. A COMPLETED PARTITION AND ZONE SHEET MUST BE PROVIDED BASED ON THE OWNER'S INPUT.
26. AS-BUILT DOCUMENTATION SHALL BE SUBMITTED IN ELECTRONIC AUTOCAD AND HARDCOPY FORMAT AND SHALL INCLUDE ALL SYSTEM REVISIONS.

| | |
|---|---|
| SP | DR550 SECURITY PANEL |
| PS | POWER SUPPLY |
| KP | KEYPAD |
| EXP | EXPANSION MODULE |
| AM | ADDRESABLE MODULE (IF REQUIRED) |
| M | LONG RANGE MOTION |
| M | WIDE ANGLE MOTION DETECTOR |
| D | DOOR CONTACT |
| C | CEILING MOTION DETECTOR |

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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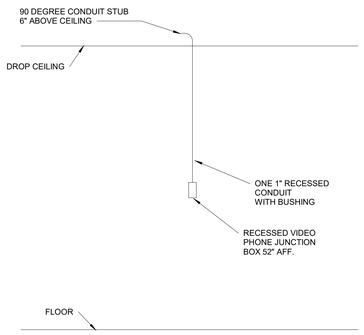
SHEET TITLE

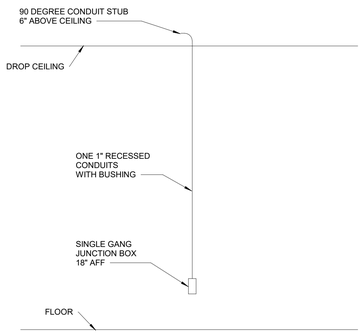
**INTRUSION DETECTION SYSTEM**

SHEET NO.

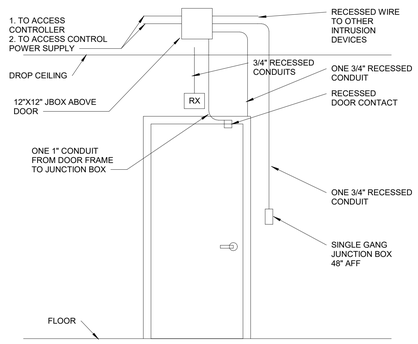
**TY500**



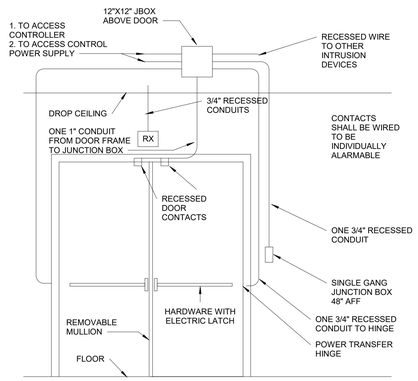

AE VIDEO PHONE EXTERIOR PATHWAY



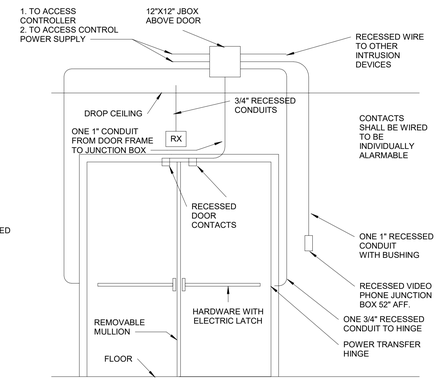

AI VIDEO PHONE INTERIOR PATHWAY



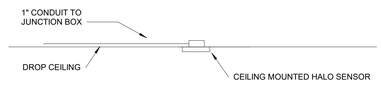

C CARD READER PATHWAY SINGLE DOOR



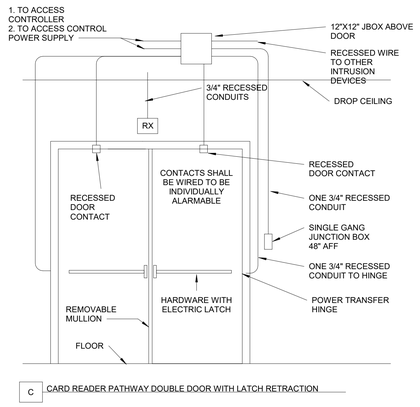

C CARD READER PATHWAY DOUBLE DOOR



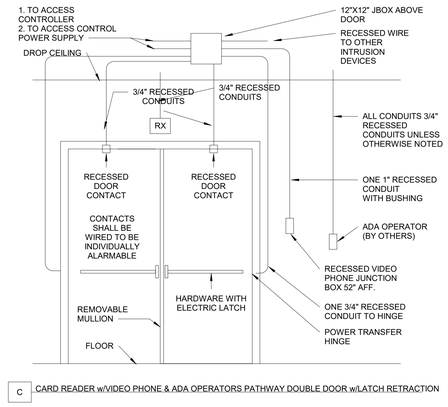

C CARD READER WITH VIDEO PHONE PATHWAY




1. ONE CAT 6 UTP LAN CABLE SHALL BE INSTALLED AT EACH HALO SENSOR.
2. SENSOR MOUNTING SHALL FOLLOW MANUFACTURER'S INSTRUCTIONS.
3. ONE 1" CONDUIT SHALL BE RUN FROM THE JUNCTION BOX TO ACCESSIBLE CEILING.




C CARD READER PATHWAY DOUBLE DOOR WITH LATCH RETRACTION




C CARD READER w/VIDEO PHONE & ADA OPERATORS PATHWAY DOUBLE DOOR w/LATCH RETRACTION

## 1 ACCESS ACCESS CONTROL PATHWAYS
TY501 N.T.S.

| MAIN TELECOM ROOM | TELECOM ROOMS | DEVICE LOCATIONS |
|---|---|---|
| IP/POTS CONNECTIONS<br>PS<br>AC<br>CONTROL PANEL<br>TO INTRUSION DETECTION SYSTEM | POWER SUPPLY CONNECTED TO EMERGENCY CIRCUIT<br>PS<br>AC<br>CAT 6 UTP LAN CONNECTION<br>NETWORK NODE IN JBOX FOR:<br>1. 2 READER NODES<br>2. 4 READER NODES<br>3. 8 READER NODES<br>4. 0 READER NODES<br>5. SUPERVISED INPUT BLADES<br>6. RELAY CONTROLLED OUTPUT BLADES | 2 CONDUCTOR<br>6 CONDUCTOR<br>2 CONDUCTOR<br>2 CONDUCTOR<br>TO LOCKING DEVICE FOR DOOR (LOCK BY DIVISION 08)<br>C — HID THINLINE II<br>D — DOOR POSITION CONTACT MONITOR<br>REX — REQUEST TO EXIT DEVICE (IF NOT INCLUDED WITH ELECTRIC HARDWARE) |

ACCESS CONTROL SYSTEM NOTES
1. ACCESS, ENTRY DOOR INTERCOM PHONES AND INTRUSION SYSTEMS SHALL BE FULLY INTERFACED, INTEGRATED & INTERCONNECTED.
2. ALL COMPONENTS OF THE SYSTEMS SHALL BE CONNECTED TO EMERGENCY POWER AND GENERATOR CIRCUITS.
3. PROVIDE AND INSTALL ACCESS CONTROL PATHWAYS, WIRING, DEVICES AND ELECTRONICS FOR A COMPLETE SYSTEM.
4. EGRESS SHALL NOT BE IMPEDED BY ACCESS CONTROL EQUIPMENT AND SHALL BE ACCOMPLISHED BY THE DOOR HARDWARE.
5. ELECTRICAL CONTRACTOR SHALL PROVIDE POWER CIRCUITS AND RECEPTACLES FOR THE SYSTEM. CORDINATE WITH ELECTRICAL CONTRACTOR FOR POWER REQUIREMENTS.
6. ELECTRIC DOOR HARDWARE SHALL BE PROVIDED AND INSTALLED BY OTHERS AND MUST BE COORDINATED INTRUSION EQUIPMENT PRIOR TO INSTALLATION.
7. THE ACCESS CONTROL LINE DIAGRAM REPRESENTS A TYPICAL SYSTEM WIRING SCHEME. NOT ALL CONNECTIONS ARE SHOWN.
8. WHERE DOOR HARDWARE DOES NOT PROVIDE A SHUNT SIGNAL TO THE ACCESS CONTROL SYSTEM ON THE INTERIOR SIDE OF AN ACCESS CONTROLLED DOOR, A REX DEVICE SHALL BE INCLUDED AS PART OF THIS SCOPE OF WORK.
   A. REX SHALL NOT RELEASE ANY LOCKS.
   B. REX NOT REQUIRED IF ELECTRIC LOCKING HARDWARE PROVIDES THIS FUNCTION.
9. THE ACCESS CONTROL SYSTEM SHALL INCLUDE CARD READERS, DOOR CONTROLLERS, POWER SUPPLIES, BATTERY BACKUP, ACCESS CONTROL PANELS, ACCESS CONTROL SERVERS, CABLES, CONNECTORS, MOUNTS AND ASSOCIATED COMPONENTS FOR A COMPLETE AND OPERATIONAL SYSTEM.
10. THE ACCESS CONTROL SYSTEM SHALL BE CAPABLE OF BEING MONITORED LOCALLY AND REMOTELY. THE SYSTEM SHALL BE CONNECTED TO POTS LINES, IP LAN/WAN CONNECTIONS, THE INTRUSION DETECTION SYSTEM, THE INTERCOM SYSTEM, THE LIGHTING CONTROL SYSTEM AND TO BATTERY BACKUP FOR OPERATION IN THE EVENT OF A POWER FAILURE.
11. ALL CABLING SHALL BE COLOR CODED AND PROPERLY LABELED ON EACH END OF THE CABLE.
12. ALL CABLE GAUGE SHALL BE BASED ON DISTANCE AND LOAD CALCULATIONS. PROVIDE DISTANCE AND LOAD CALCULATIONS BASED ON THE EXACT LOCATION AND WIRING PATH OF DEVICES.
13. ALL WIRING SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.
14. ALL EXPANSION MODULESSHALL BE INSTALLED WITHIN SECURITY JUNCTION BOXES. JUNCTION BOXES SHALL BE COLOR CODED.
15. CARD READER PATHWAYS SHALL BE FLUSH MOUNTED.
16. CARD READERS SHALL ONLY OPERATE ONE LEAF IN A SET OF DOUBLE DOORS.
17. INSTALLATION MUST BE COORDINATED WITH THE AIPHONE ENTRY DOOR VIDEO SYSTEM.
18. INSTALLATION MUST BE COORDINATED WITH ANY DOOR OPERATOR EQUIPMENT.
19. INSTALLATION MUST BE COORDINATED WITH THE OWNER, ARCHITECT, ELECTRICAL CONTRACTOR AND DOOR HARDWARE CONTRACTOR PRIOR TO INSTALLATION.
20. SUBMITTALS AND SHOP DRAWINGS MUST INCLUDED EXACT PRODUCT DATA CLEARLY INDICATED, SYSTEM CONNECTIONS, WIRING DIAGRAMS AND DEVICE LOCATIONS.
21. SYSTEM PROGRAMMING MUST BE INCLUDED WITH SHOP DRAWING AND SUBMITTAL INFORMATION.
22. AS-BUILT DOCUMENTATION SHALL BE SUBMITTED IN ELECTRONIC AUTOCAD AND HARDCOPY FORMAT AND SHALL INCLUDE ALL SYSTEM REVISIONS.

| | |
|---|---|
| C | ACCESS CONTROL CARD READER |
| AC | ACCESS CONTROL MODULE |
| REX | REQUEST TO EXIT (WHERE REQUIRED) |
| D | DOOR CONTACT |
| PS | POWER SUPPLY |
| PS | POWER SUPPLY |

ADA OPERATOR SEQUENCE OF OPERATIONS
1. EXTERIOR ADA OPERATORS SHALL NOT BE ACTIVE UNTIL AN ACCEPTABLE ACCESS CONTROL CREDENTIAL OR AIPHONE LOCK RELEASE HAS BEEN SIGNALED.
2. UPON ACCEPTABLE CARD READER CREDENTIAL OR AIPHONE LOCK RELEASE, THE ADA OPERATOR SHALL BE ELECTRIFIED.
3. THE ADA OPERATOR SHALL BE REQUIRED TO BE MANUALLY DEPRESSED TO OPERATE THE DOOR.
4. UPON MANUAL DEPRESSION, THE ADA OPERATOR SHALL BE ACTIVATED AND THE DOOR SHALL AUTOMATICALLY OPEN.
5. THE ADA OPERATOR SHALL DEACTIVATE ONCE THE DOOR HAS RECLOSED.
6. INTERIOR ADA OPERATORS SHALL ALWAYS BE ELECTRIFIED.

## 2 ACCESS CONTROL LINE DIAGRAM
TY501 N.T.S.

CARD READER SCHEDULE

| NUMBER | DOOR # | VIDEO INTERCOM | LOCK RELEASE |
|---|---|---|---|
| 1 | D104K | | |
| 2 | E101-1 | | |
| 3 | F100A-1 | | |
| 4 | E104E-2 | | |
| 5 | E104G-2 | | |
| 6 | E106-2 | | |
| 7 | VEHICLE GATE | X | |
| 8 | VEHICLE GATE | X | |
| 9 | G07 | | |
| 10 | E100A | X | |
| 11 | E110-2 | | |
| 12 | E110A-2 | | |
| 13 | E112-2 | | |
| 14 | E114-2 | | |
| 15 | A112-2 | | |
| 16 | E103-4 | | |
| 17 | D100B-2 | | |
| 18 | D110-1 | | |
| 19 | D110-2 | | |
| 20 | D100C-1 | | |
| 21 | D114-1 | | |
| 22 | A101-2 | X | |
| 23 | B102-1 | X | |
| 24 | A101-4 | | |
| 25 | B102-2 | | X |
| 26 | B102-4 | | |
| 27 | ELEVATOR | | |
| 28 | D116-1 | | |
| 29 | D101-5 | | |
| 30 | C101-1 | | |
| 31 | B114B-2 | | |
| 32 | B114B-1 | X | |
| 33 | B114C2-2 | | |
| 34 | B114C3-2 | | |
| 35 | G01 | | |
| 36 | C101-2 | X | |
| 37 | C101-4 | | |
| 38 | C101-2 | | |
| 39 | C118-1 | | |
| 40 | C120-1 | | |
| 41 | VEHICLE GATE | X | |
| 42 | VEHICLE GATE | X | |
| 43 | G09 | | |
| 44 | C124-1 | | |
| 45 | C100B | | |
| 46 | ELEVATOR | | |
| 47 | B240-2 | | |
| 48 | B240-1 | | |
| 49 | B242-2 | | |

THE FOLLOWING DOORS SHALL BE TIED TO THE ACCESS CONTROL SYSTEM BUT DO NOT HAVE A CARD READER:
1. A101-1
2. A101-3
3. E101-2
4. E101-3
5. E101-4
6. C100E-1
7. C100E-3

CARD READER SCHEDULE

| NUMBER | DOOR # | VIDEO INTERCOM | LOCK RELEASE |
|---|---|---|---|
| 50 | B242-1 | | |
| 51 | B244-2 | | |
| 52 | B244-1 | | |
| 53 | B246-1 | | |
| 54 | B246-2 | | |
| 55 | A250-2 | | |
| 56 | A250-1 | | |
| 57 | A248-2 | | |
| 58 | A202-1 | | |
| 59 | A202-2 | | |
| 60 | A248-1 | | |
| 61 | A242-2 | | |
| 62 | A242-1 | | |
| 63 | A240-2 | | |
| 64 | A240-1 | | |
| 65 | C124 | | |
| 66 | C120-2 | | |
| 67 | C118-2 | | |
| 68 | C114 | | |
| 69 | B107H | | |
| 70 | B107H-1 | | |
| 71 | B107J | | |
| 73 | B107C-1 | | |
| 74 | B114-1 | | |
| 75 | D116-2 | | |
| 76 | D102C1-2 | | |
| 77 | D102C1-1 | | |
| 78 | D114B | | |
| 79 | D105-1 | | |
| 80 | D105-2 | | |
| 81 | D110B | | |
| 82 | D106-2 | | |
| 83 | D106-1 | | |
| 84 | D102C2-2 | | |
| 85 | D102C2-1 | | |
| 86 | D101-2 | | |
| 87 | D101Q-2 | | |
| 88 | A112-1 | | |
| 89 | A110-2 | | |
| 90 | E100A-2 | | |
| 91 | E100B | | |
| 92 | E101-5 | | |
| 93 | F132-1 | | |
| 94 | F133-1 | | |
| 95 | F132-2 | | |
| 96 | F133-2 | | |
| 97 | B238-1 | | |
| 98 | B238-2 | | |
| 101 | B114-2 | | |
| 102 | E104E-1 | | |
| 103 | E104A2 | | |
| 104 | E104A1 | | |
| 105 | E104L-2 | | |
| 106 | E104M-2 | | |
| 107 | E106-3 | | |
| 108 | D114K-1 | | |

CARD READER SCHEDULE - ADD ALTERNATE

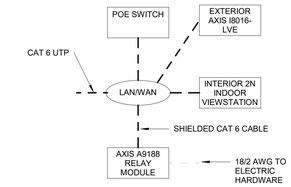
| NUMBER | DOOR # | AIPHONE | LOCK RELEASE |
|---|---|---|---|
| 99 | D101D | | |
| 100 | D118-2 | | |

EXTERIOR VIDEO INTERCOM SCHEDULE

| Number | Door Number | Hardware Set |
|---|---|---|
| 1 | A101-2 | |
| 2 | E100A | |
| 3 | VEHICLE GATE | |
| 4 | VEHICLE GATE | |
| 5 | VEHICLE GATE | |
| 6 | VEHICLE GATE | |
| 7 | B102-1 | |
| 8 | B114B-1 | |
| 9 | C101-2 | |

INTERIOR VIDEO INTERCOM SCHEDULE

| Number | Room Number |
|---|---|
| 1 | B102B |
| 2 | B102 |
| 3 | B101C |
| 4 | E105E |
| 5 | E105 |

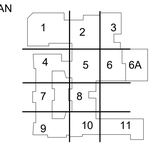



1. DOOR HARDWARE SHALL BE PROVIDED AND INSTALLED BY OTHERS.
2. COORDINATE INSTALLATION WITH DIVISION 07 DOOR HARDWARE, DIVISION 26 ELECTRICALWORK AND ARCHITECT PRIOR TO INSTALLATION.
3. PROVIDE AN INSTALL A COMPLETE IP BASED ENTRY DOOR VIDEO INTERCOM SYSTEM INCLUDING PATHWAYS, CONTROLLERS, EXTERIOR STATIONS, DOOR RELEASE MECHANISMS, INTERIOR STATION, IP MANAGERS, PATCH PANELS, CAT 6 CABLES, MULTICONDUCTOR WIRING AND POWER SUPPLIES.
4. SYSTEM SHALL BE CONNECTED TO EMERGENCY POWER AND SHALL FUNCTION IN THE EVENT OF A MAIN POWER FAILURE.
5. ALL DEVICES SHALL BE WIRED PER MANUFACTURER SPECIFICATIONS.
6. COORDINATE INSTALLATION WITH INTRUSION DETECTION SYSTEM AND EQUIPMENT.
7. ALL CABLING SHALL CONFORM TO THE LATEST NEC AND BICSI GUIDELINES.
8. CABLES SHALL BE PROPERLY LABELED ON BOTH ENDS OF THE CABLE.
9. SEE ACCESS CONTROL SPECIFICATIONS FOR MORE DETAIL.

## 3 VIDEO INTERCOM SYSTEM DETAILS
TY501 N.T.S.

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN

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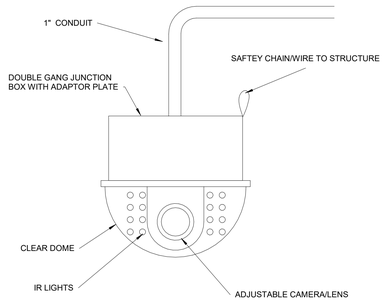
JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

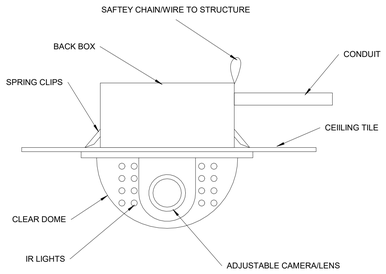
**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE
**ACCESS CONTROL SYSTEM**

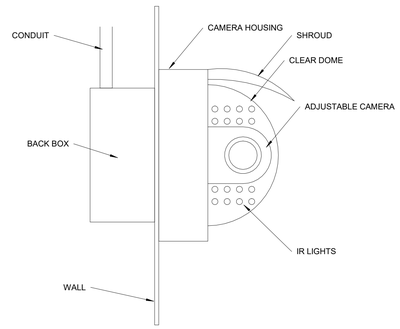
SHEET NO.
**TY501**



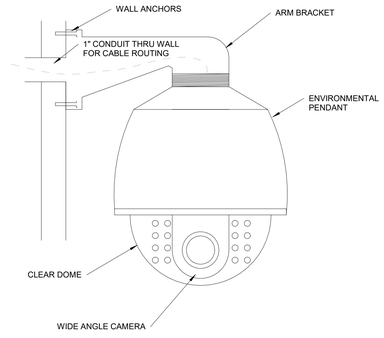

HARD CEILING CAMERA DETAIL



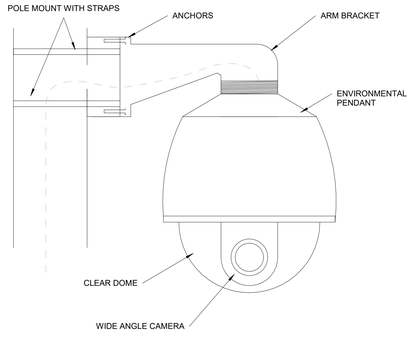

IN-CEILING FIXED IR CAMERA DETAIL



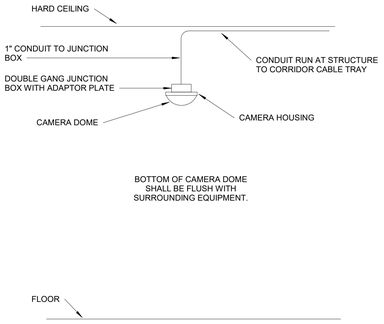

IN-WALL FIXED IR CAMERA DETAIL




PENDANT DOME CAMERA DETAIL

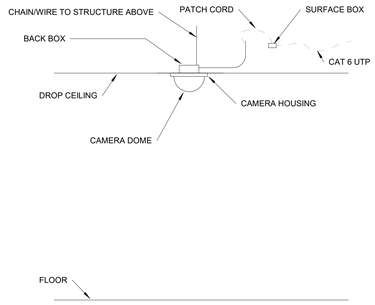



POLE MOUNT DOME CAMERA DETAIL

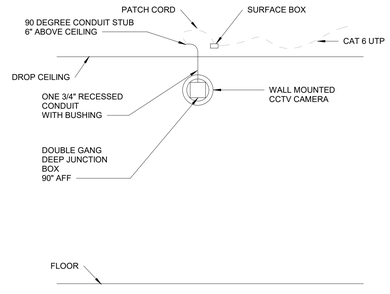



BOTTOM OF CAMERA DOME SHALL BE FLUSH WITH SURROUNDING EQUIPMENT.

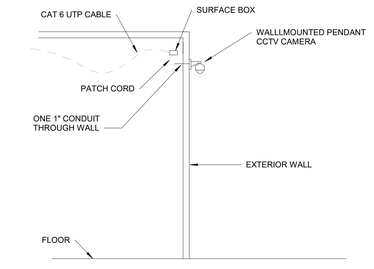
HARD CEILING CCTV CAMERA PATHWAY DETAIL



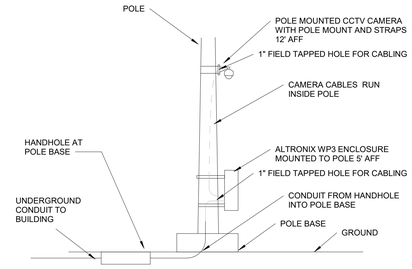

IN-CEILING CCTV CAMERA PATHWAY DETAIL




IN-WALL CCTV CAMERA PATHWAY DETAIL




EXTERIOR PENDANT CCTV CAMERA PATHWAY DETAIL




POLE MOUNTED CCTV CAMERA DETAIL

## 1 TY502 VIDEO SURVEILLANCE PATHWAYS

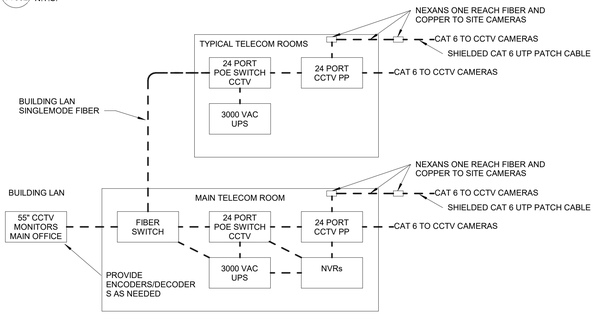
N.T.S.

84" FLOOR MOUNTED DATA CABINET

1. PROVIDE AND INSTALL EQUIPMENT AS SHOWN FOR A COMPLETE AND FUNCTIONAL IP VIDEO SURVEILLANCE SYSTEM.
2. PROVIDE AND INSTALL HALO SENSORS AS PART OF THIS SCOPE OF WORK AND INTEGRATE WITH THE VMS.
3. CAMERAS MUST BE FULLY COMPATIBLE WITH THIS SYSTEM AND PROVIDE MOTION BASED RECORDING.
4. PROVIDE AND INSTALL VIDEO SURVEILLANCE NVRS, SOFTWARE, CAMERAS, EQUIPMENT CABINETS, PATCH PANELS, POWER STRIPS, CABLES, CONNECTORS, MOUNTS, HOUSINGS AND UPS EQUIPMENT.
5. SWITCHES PROVIDED BY DTI / OWNER
6. NETWORK VIDEO RECORDERS SHALL PROVIDE 30 DAYS OF STORAGE CAPACITY AT MAXIMUM CAMERA RESOLUTION FOR 10 FPS WITH 75% RECORDING DURING A 24/7 TIME PERIOD.
7. THE SYSTEM SHALL BE FULLY PROGRAMMED AND ADJUSTED AS PART OF THIS CONTRACT.
8. CAMERA FIELD OF VEIW MUST BE VERIFIED PRIOR TO COMPLETION.
9. ALL CABLES SHALL BE CLEARLY LABELED AT EACH END AND INCLUDE THE CABLE LENGTH AND UNIQUE LABEL.
10. ALL CABLES SHALL BE RUN IN CABLE TRAY, J-HOOKS NO MORE THAN 6' APART AND WITHIN RIGID EMT CONDUIT.
11. PROVIDE AND INSTALL ALL CAT 6 UTP HORIZONTAL AND PATCHING CABLES NECESSARY AS PART OF THIS CONTRACT.
12. HORIZONTAL CABLES UNDER 90 METERS SHALL BE CAT 6 UTP WITH 15' OF SLACK AND A SURFACE BOX AT THE CAMERA END AND A A CAT 6 UTP PATCH CORD.
13. HORIZONTAL CABLES OVER 90 METERS SHALL BE TWO STRANDS OF MM FIBER AND 2 AWG COPPER FOR POWER DISTRIBUTION.
14. CAMERA FIELD OF VIEW MUST BE VERIFIED AND ADJUSTED IN THE FIELD PRIOR TO INSTALLATION. MAKE ADJUSTMENTS AS NECESSARY TO PROVIDE THE INTENDED CAMERA COVERAGE AREA.
15. THE INSTALLATION SHALL BE COORDINATED WITH THE OWNER, ELECTRICIAN AND LOW VOLTAGE CONTRACTOR.
16. CCTV VIEWSTATIONS SHALL BE CONNECTED TO ENCODER/DECODER, UPS EQUIPMENT AND OUTLETS ON BACKUP EMERGENCY POWER
17. PROVIDE COMPLETE SHOP DRAWINGS AND EQUIPMENT SUBMITTALS WHICH CLEARLY IDENTIFY EACH SPECIFIC PIECE OF EQUIPMENT, CABLE ROUTE, EQUIPMENT LOCATION AND SYSTEM INTERCONNECTIONS.
18. PROVIDE COMPLETE AS-BUILT DRAWINGS WHEN THE INSTALLATION IS CONSIDERED COMPLETE. PUNCH LIST ITEMS SHALL HAVE BEEN CORRECTED, TEST RESULTS PROVIDED. AS-BUILTS MUST INCLUDE DEVICE LOCATIONS, EQUIPMENT CONNECTIONS, WIRING DIAGRAMS AND PROGRAMMING INFORMATION. PROVIDE IN HARDCOPY AND AUTOCAD 2018 OR LATER FORMAT.
19. SEE CCTV SPECIFICATION SECTION FOR EQUIPMENT DETAILS.

## 2 TY502 VIDEO SURVEILLANCE EQUIPMENT RACK

N.T.S.




## 3 TY502 VIDEO SURVEILLANCE LINE DIAGRAM

N.T.S.

CCTV CAMERA SCHEDULE

| CAMERA | TYPE | MOUNT | HEIGHT | AXIS P3268-LVE | AXIS P3268-LV | AXIS P3818-PVE | Axis P3719-PLE |
|---|---|---|---|---|---|---|---|
| 1 | Fixed | PENDANT | 10' | X | | | |
| 2 | Fixed | PENDANT | 10' | X | | | |
| 3 | Wide Angle | PENDANT | 12' | | | X | |
| 4 | Wide Angle | PENDANT | 12' | | | X | |
| 5 | Wide Angle | PENDANT | 10' | X | | | |
| 6 | Wide Angle | WALL | 12' | | | X | |
| 7 | Wide Angle | WALL | 12' | | | X | |
| 8 | Fixed | WALL | 9' | | X | | |
| 9 | Fixed | CEILING | CEILING | | X | | |
| 10 | Fixed | CEILING | CEILING | | X | | |
| 11 | Fixed | CEILING | CEILING | | X | | |
| 12 | Wide Angle | WALL | 9' | | | X | |
| 13 | Fixed | CEILING | CEILING | | X | | |
| 14 | Fixed | CEILING | CEILING | | X | | |
| 15 | Fixed | WALL | 9' | | X | | |
| 16 | Fixed | WALL | 9' | | X | | |
| 17 | Fixed | WALL | 9' | | X | | |
| 18 | Fixed | CEILING | CEILING | | X | | |
| 19 | Fixed | CEILING | CEILING | | X | | |
| 20 | Wide Angle | WALL | 10' | | | X | |
| 21 | Wide Angle | PENDANT | 12' | | | X | |
| 22 | Wide Angle | WALL | 12' | | | X | |
| 23 | Wide Angle | PENDANT | 10' | X | | | |
| 24 | Fixed | WALL | 9' | | X | | |
| 25 | Fixed | CEILING | CEILING | | X | | |
| 26 | Fixed | WALL | 11' | | X | | |
| 27 | Wide Angle | PENDANT | 12' | | | X | |
| 28 | Fixed | WALL | 10' | | X | | |
| 29 | Fixed | WALL | 10' | | X | | |
| 30 | Fixed | WALL | 8' | | X | | |
| 31 | Fixed | WALL | 9' | | X | | |
| 32 | Fixed | CEILING | CEILING | | X | | |
| 33 | Fixed | CEILING | CEILING | | X | | |
| 34 | Fixed | CEILING | CEILING | | X | | |
| 35 | Fixed | WALL | 10' | | X | | |
| 36 | Fixed | CEILING | CEILING | | X | | |
| 37 | Wide Angle | WALL | 10' | | | X | |
| 38 | Fixed | CEILING | CEILING | | X | | |
| 39 | Fixed | CEILING | CEILING | | X | | |
| 40 | Fixed | CEILING | CEILING | | X | | |
| 41 | Wide Angle | PENDANT | 12' | | | X | |
| 42 | Fixed | WALL | 8' | | X | | |
| 43 | Wide Angle | PENDANT | 12' | | | X | |
| 44 | Fixed | PENDANT | 10' | X | | | |
| 45 | Wide Angle | PENDANT | 12' | | | X | |
| 46 | Fixed | PENDANT | 12' | X | | | |
| 47 | Fixed | CEILING | CEILING | | X | | |
| 48 | Wide Angle | PENDANT | 12' | | | X | |
| 49 | Fixed | CEILING | CEILING | | X | | |
| 50 | Wide Angle | PENDANT | 12' | | | X | |
| 51 | Fixed | CEILING | CEILING | | X | | |
| 52 | Fixed | PENDANT | 12' | X | | | |
| 53 | Fixed | WALL | 9' | | X | | |
| 54 | Fixed | CEILING | CEILING | | X | | |
| 55 | Fixed | CEILING | CEILING | | X | | |
| 56 | Fixed | CEILING | CEILING | | X | | |
| 57 | Fixed | CEILING | CEILING | | X | | |
| 58 | Fixed | CEILING | CEILING | | X | | |
| 59 | Fixed | CEILING | CEILING | | X | | |
| 60 | Fixed | WALL | 9' | | X | | |
| 61 | Fixed | CEILING | CEILING | | X | | |
| 62 | Fixed | CEILING | CEILING | | X | | |
| 63 | Wide Angle | PENDANT | 11' | | | X | |
| 64 | Wide Angle | PENDANT | 11' | | | X | |
| 65 | Fixed | CEILING | CEILING | | X | | |
| 66 | Fixed | WALL | 10' | | X | | |
| 67 | Fixed | CEILING | CEILING | | X | | |
| 68 | Fixed | CEILING | CEILING | | X | | |
| 69 | Fixed | CEILING | CEILING | | X | | |
| 70 | Fixed | CEILING | CEILING | | X | | |
| 71 | Fixed | CEILING | CEILING | | X | | |
| 72 | Fixed | CEILING | CEILING | | X | | |
| 73 | Fixed | CEILING | CEILING | | X | | |
| 74 | Fixed | CEILING | CEILING | | X | | |
| 75 | Fixed | CEILING | CEILING | | X | | |

CCTV CAMERA SCHEDULE

| CAMERA | TYPE | MOUNT | HEIGHT | AXIS P3268-LVE | AXIS P3268-LV | AXIS P3818-PVE | Axis P3719-PLE |
|---|---|---|---|---|---|---|---|
| 76 | Fixed | CEILING | CEILING | | X | | |
| 77 | Fixed | CEILING | CEILING | | X | | |
| 78 | Fixed | WALL | 10' | | X | | |
| 79 | Fixed | WALL | 10' | | X | | |
| 80 | Fixed | CEILING | CEILING | | X | | |
| 81 | Fixed | CEILING | CEILING | | X | | |
| 82 | Wide Angle | PENDANT | 12' | | | X | |
| 82B | Wide Angle | PENDANT | 12' | | | X | |
| 83 | Fixed | CEILING | CEILING | | X | | |
| 84 | Fixed | CEILING | CEILING | | X | | |
| 85 | Fixed | WALL | 10' | | X | | |
| 86 | Fixed | WALL | 10' | | X | | |
| 87B | Wide Angle | PENDANT | 12' | | | X | |
| 88 | Wide Angle | PENDANT | 12' | | | X | |
| 89 | Fixed | WALL | 10' | | X | | |
| 90 | Fixed | CEILING | CEILING | | X | | |
| 91 | Fixed | CEILING | CEILING | | X | | |
| 92 | Fixed | CEILING | CEILING | | X | | |
| 93 | Wide Angle | PENDANT | 12' | | | X | |
| 94 | Fixed | CEILING | CEILING | | X | | |
| 95 | Wide Angle | CEILING | CEILING | | | | X |
| 96 | Fixed | PENDANT | 10' | X | | | |
| 97 | Wide Angle | PENDANT | 10' | | | | X |
| 98 | Fixed | CEILING | CEILING | | X | | |
| 99 | Fixed | CEILING | CEILING | | X | | |
| 100 | Fixed | CEILING | CEILING | | X | | |
| 101 | Fixed | CEILING | CEILING | | X | | |
| 102 | Fixed | CEILING | CEILING | | X | | |
| 103 | Wide Angle | PENDANT | 11' | | | X | |
| 104 | Wide Angle | PENDANT | 11' | | | X | |
| 105 | Wide Angle | PENDANT | 12' | | | X | |
| 106 | Wide Angle | PENDANT | 12' | | | X | |
| 107 | Fixed | CEILING | CEILING | | X | | |
| 108 | Wide Angle | CEILING | CEILING | | | | X |
| 109 | Fixed | CEILING | CEILING | | X | | |
| 110 | Fixed | WALL | 10' | | X | | |
| 111 | Fixed | WALL | 9' | | X | | |
| 112 | Wide Angle | PENDANT | 12' | | | X | |
| 113 | Fixed | PENDANT | 12' | | | X | |
| 114 | Fixed | WALL | 10' | | X | | |
| 115 | Wide Angle | PENDANT | 12' | | | X | |
| 116 | Fixed | WALL | 10' | | X | | |
| 117 | Fixed | CEILING | CEILING | | X | | |
| 118 | Fixed | CEILING | CEILING | | X | | |
| 120 | Fixed | WALL | 9' | | X | | |
| 121 | Fixed | CEILING | CEILING | | X | | |
| 122 | Fixed | CEILING | CEILING | | X | | |
| 123 | Fixed | CEILING | CEILING | | X | | |
| 124 | Fixed | CEILING | CEILING | | X | | |
| 125 | Wide Angle | PENDANT | 12' | | | X | |
| 126 | Fixed | CEILING | CEILING | | X | | |
| 127 | Fixed | CEILING | CEILING | | X | | |
| 128 | Fixed | CEILING | CEILING | | X | | |
| 129 | Wide Angle | PENDANT | 12' | | | X | |
| 130 | Fixed | PENDANT | 12' | X | | | |
| 131 | Wide Angle | PENDANT | 12' | | | X | |
| 132 | Fixed | CEILING | CEILING | | X | | |
| 133 | Fixed | CEILING | CEILING | | X | | |
| 134 | Fixed | CEILING | CEILING | | X | | |
| 135 | Fixed | CEILING | CEILING | | X | | |
| 136 | Fixed | CEILING | CEILING | | X | | |
| 137 | Fixed | WALL | 9' | | X | | |
| 138 | Fixed | CEILING | CEILING | | X | | |
| 139 | Wide Angle | PENDANT | 12' | | | | X |
| 140 | Fixed | CEILING | CEILING | | X | | |
| 141 | Fixed | CEILING | CEILING | | X | | |
| 142 | Wide Angle | PENDANT | 12' | | | X | |
| 143 | Fixed | CEILING | CEILING | | X | | |
| 144 | Fixed | CEILING | CEILING | | X | | |
| 145 | Fixed | CEILING | CEILING | | X | | |
| 146 | Fixed | WALL | 10' | | X | | |
| 147 | Fixed | WALL | 10' | | X | | |
| 148 | Fixed | WALL | 10' | | X | | |
| 149 | Fixed | WALL | 10' | | X | | |
| 150 | Wide Angle | PENDANT | 12' | | | X | |

CCTV CAMERA SCHEDULE

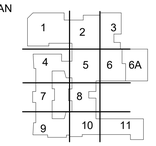
| CAMERA | TYPE | MOUNT | HEIGHT | AXIS P3268-LVE | AXIS P3268-LV | AXIS P3818-PVE | Axis P3719-PLE |
|---|---|---|---|---|---|---|---|
| 151 | Wide Angle | PENDANT | 12' | | | X | |
| 152 | Fixed | CEILING | CEILING | | X | | |
| 153 | Fixed | CEILING | CEILING | | X | | |
| 154 | Wide Angle | PENDANT | 12' | | | X | |
| 155 | Fixed | WALL | 10' | | X | | |
| 156 | Fixed | WALL | 10' | | X | | |
| 157 | Wide Angle | PENDANT | 12' | | | X | |
| 159 | Wide Angle | PENDANT | 12' | | | X | |
| 159 | Fixed | WALL | 10' | | X | | |
| 160 | Wide Angle | PENDANT | 12' | | | X | |
| 161 | Fixed | WALL | 10' | | X | | |
| 162 | Wide Angle | PENDANT | 12' | | | X | |
| 163 | Fixed | WALL | 10' | | X | | |
| 164 | Fixed | CEILING | CEILING | | X | | |
| 165 | Fixed | CEILING | CEILING | | X | | |
| 166 | Fixed | CEILING | CEILING | | X | | |
| 167 | Fixed | CEILING | CEILING | | X | | |
| 168 | Fixed | CEILING | CEILING | | X | | |
| 169 | Fixed | CEILING | CEILING | | X | | |
| 170 | Fixed | CEILING | CEILING | | X | | |
| 171 | Fixed | CEILING | CEILING | | X | | |
| 172 | Fixed | CEILING | CEILING | | X | | |
| 173 | Fixed | CEILING | CEILING | | X | | |
| 174 | Fixed | CEILING | CEILING | | X | | |
| 175 | Fixed | CEILING | CEILING | | X | | |
| 176 | Fixed | CEILING | CEILING | | X | | |
| 177 | Wide Angle | CEILING | CEILING | | | | X |
| 178 | Fixed | CEILING | CEILING | | X | | |
| 179 | Fixed | CEILING | CEILING | | X | | |
| 180 | Wide Angle | CEILING | CEILING | | | | X |
| 181 | Fixed | CEILING | CEILING | | X | | |
| 182 | Fixed | CEILING | CEILING | | X | | |
| 183 | Fixed | CEILING | CEILING | | X | | |
| 184 | Fixed | CEILING | CEILING | | X | | |
| 185 | Fixed | CEILING | CEILING | | X | | |
| 186 | Fixed | CEILING | CEILING | | X | | |
| 187 | Fixed | CEILING | CEILING | | X | | |
| 188 | Fixed | CEILING | CEILING | | X | | |
| 189 | Fixed | CEILING | CEILING | | X | | |
| 190 | Fixed | CEILING | CEILING | | X | | |
| 191 | Fixed | CEILING | CEILING | | X | | |
| 192 | Fixed | CEILING | CEILING | | X | | |
| 193 | Fixed | CEILING | CEILING | | X | | |
| 194 | Wide Angle | PENDANT | 10' | | | | X |
| 195 | Wide Angle | PENDANT | 10' | | | | X |
| 196 | Wide Angle | PENDANT | 10' | | | | X |
| 197 | Wide Angle | PENDANT | 10' | | | | X |
| 198 | Wide Angle | WALL | 10' | | | X | |
| 199 | Wide Angle | WALL | 10' | | | X | |
| 200 | Wide Angle | WALL | 10' | | | X | |
| 201 | Wide Angle | PENDANT | 10' | | | | X |
| 202 | Wide Angle | PENDANT | 10' | | | | X |
| 203 | Fixed | CEILING | CEILING | | X | | |
| 204 | Fixed | CEILING | CEILING | | X | | |
| 205 | Fixed | PENDANT | 12" | X | | | |
| 206 | Fixed | CEILING | CEILING | | X | | |
| 207 | Wide Angle | PENDANT | 12' | | | X | |
| 208 | Wide Angle | PENDANT | 12' | | | | X |
| 209 | Wide Angle | PENDANT | 12' | | | | X |
| 210 | Wide Angle | PENDANT | 12' | | | | X |
| 211 | Wide Angle | PENDANT | 12' | | | | X |
| 212 | Wide Angle | PENDANT | 12' | | | | X |
| 213 | Wide Angle | PENDANT | 12' | | | | X |
| 214 | Wide Angle | PENDANT | 12' | | | | X |
| 215 | Wide Angle | PENDANT | 12' | | | | X |
| 216 | Wide Angle | PENDANT | 12' | | | | X |
| 217 | Wide Angle | PENDANT | 12' | | | | X |
| 218 | Wide Angle | PENDANT | 12' | | | | X |

CCTV CAMERA SCHEDULE ALTERNATE

| CAMERA | TYPE | MOUNT | HEIGHT | AXIS P3268-LVE | AXIS P3268-LV | AXIS P3818-PVE | Axis P3719-PLE |
|---|---|---|---|---|---|---|---|
| 219 | Wide Angle | PENDANT | 12' | | | X | |
| 220 | Fixed | PENDANT | 12' | X | | | |
| 221 | Fixed | CEILING | CEILING | | X | | |
| 222 | Wide Angle | PENDANT | 12' | | | X | |

| No. | Description | Date |
|---|---|---|
| 1 | ASI#10-BPD-Conformance Set | 2/16/24 |

KEYPLAN




VOCATIONAL TECHNICAL SCHOOL DISTRICT NEW CASTLE COUNTY DELAWARE

OWNER

New Castle County Vo-Tech School District

1417 Newport Pike
Wilmington, DE 19804

STRUCTURAL ENGINEER

DCI + MacIntosh Engineers

2 Mill Road, Suite 100
Wilmington , DE 19806
Phone (302) 252-9200
Fax (302) 252-9201

MECHANICAL / ELECTRICAL ENGINEER

Gipe Associates, Inc.

8719 Brooks Drive
Easton, MD 21601
Phone (410) 822-8688

CIVIL ENGINEER

Landmark Science & Engineering

200 Continental Drive, Suite 400
Newark, DE 19713
Phone (302) 323-9377
Fax (302) 323-9461

KITCHEN CONSULTANT

Corsi Associates, LLC

300 Smith Street
Farmingdale, NY 11735
Phone (610) 888-1955

THEATER PLANNING

Stages Consultants, LLC

300 Raritan Ave, 2nd Flr
Highland Park, NJ 08904
Phone (732) 333-8003

ARCHITECTS

**ABHA | BSA+A**

1621 North Lincoln Street
Wilmington, Delaware 19806
Phone (302) 658-6426
Fax (302) 658-8431

The professional services of ABHA/BSA+A, LLC. are undertaken for and performed in the interest of the NCCVT School District. No contractual obligation is assumed by ABHA/BSA+A, LLC. for the benefit of any other person involved in the project.

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JOB NO - 22.011

PAUL M. HODGSON VO-TECH HIGH SCHOOL

**2575 GLASGOW AVENUE**
**NEWARK, DE 19702**

SHEET TITLE

**VIDEO SURVEILLANCE SYSTEM**

SHEET NO.

**TY502**

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**AGENDA**
**New Castle County Vocational Technical School District**
**Hodgson Vo-Tech High School**
**Bid Package D.1 Re-Bid Building Envelope and Fit Out**
**Pre-Bid Meeting 2:00 PM**
**2 April 2024**
**Page 1**

1. **Introduction**

   Owner – NCCVT - New Castle County Vocational Technical School District
   Design Team Members – ABHA|BSA+A, Landmark, MacIntosh, Gipe
   EDiS Role – Construction Manager. NCCVT holds contracts with the contractors.
   Attendees – Introductions from the attendees (Primes and Subcontractors)

2. **Project**

   Contract D.1-02 Miscellaneous Metals, Stairs, and Rails
   Contract D.1-05 Exterior Metal Panels
   Contract D.1-38 Electrical Service Primary Ductbank

3. **Bid Information**

   - Bids will be received at the office of New Castle County Vo-Tech School District, 1417 Newport Road, Wilmington, DE 19804 until **3:00 PM local time on Wednesday, April 17, 2024**
   - Bid opening is public.
   - Three (3) copies of the bids should be in a sealed envelope clearly marked "**NEW CASTLE COUNTY VOCATIONAL TECHNICAL SCHOOL DISTRICT - HODGSON VO-TECH FOUNDATIONS AND STRUCTURES – BID PACK D-____ SEALED BID – DO NOT OPEN"** The bidder's name and address should also be marked on the envelope. Electronic bids will not be accepted.
   - Addenda are the only method to change the documents.
   - No addenda will be issued later than four (4) days prior to the bid opening, except when cancelling the bid, extending the bid opening date or changing the bid opening location.
   - Bid bonds are required.
   - Performance and Payment Bonds are required.
   - A Drug Testing Program is required. An affidavit of Employee Drug Testing Program is in Section 004100.
   - Craft Training Program is required. Certification and Affidavit required prior to contract.
   - The bid form is in Section 004100 of the project manual. No modifications, clarifications or qualifications are allowed.

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4. **BP-D.1 Addendum #1 will be issued Friday 4/5/24.**

5. Section 002113 Instructions to Bidders. (review carefully)

6. DBE Pilot Program overview.

7. EDiS has created a landing page for information about both the pilot program and clear, actionable information for interested bidders, vendors, and suppliers. We will be updating this page throughout the bidding process to help make it easy for you to understand what your next steps and important dates are. QR code for easy access.

   If you are a DBE contractor and are not registered with DelDOT or the Office of Supply Diversity State of Delaware, you can contact Shavonne White at OSD and she will help you understand the procedure and work to get you certified. Shavonne can be reached at **302-577-8497** or shavonne.white@delaware.gov.

8. Section 003132 Geo-Tech Reports.

9. Section 004100 Bid Forms.

10. Review Subcontractors List for each contract. Approved by group.

11. Contract, AIA A132/CMa 2019 Edition, is in Section 005200 of the project manual.

12. Supplement to AIA A132/CMa 2019 Edition is in Section 005413 of the project manual.

13. Insurance requirements are listed in Section 006216 of the project manual. (Pollution Insurance Required)

14. General Conditions of the Contract, AIA A232-2019 are in Section 007200.

15. Supplementary General Conditions are in Section 007300.

16. Prevailing wage rates must be followed. A copy of the 2023 wage rates can be found in Section 007343 of the project manual. **(Current 2024 wage rate determination for BP-D.1 to be issued in Addendum #1)**

17. Review COOP wage information.

18. General Requirements Section 008113

19. Scopes of Work are in Section 011100
    Note: BP-D.1 contractors are responsible for reviewing the documents of previously issued bid packages for reference and incorporation in preparing your proposal.

20. Review Site Logistic Requirements - Loading & unloading, onsite storage, site access, parking.

21. Allowances are in Section 012100 of the project manual, listed in the scopes of work, and on the bid forms.

22. Unit Costs are in Section 012200 of the project manual, listed in the scopes of work, and on the bid forms.

23. Alternates are in Section 012300 of the project manual. (please review carefully)

24. Contractors are required to use the web-based project management system – Building Blok See Section 013125.

25. A pre-bid construction schedule can be found in Section 013216 of the project manual. **(will be issued with Addendum #1)**

26. Safety program requirements are in Section 013523 of the project manual.

27. Submit questions in writing and e-mail to Kevin Lucas klucas@ediscompany.com, (302) 421-2893.

28. No questions after seven (7) days prior to bid.

29. A site visit is not mandatory but is encouraged. By submitting a proposal, the contractor bidding on the project attests that they have familiarized themselves with the site and all of the existing conditions affecting the work.

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30. Documents may be viewed and downloaded at EDiS' FTP site after approval for circulation by NCCVT. Bidders requesting the log on information may obtain username and password permission by contacting Jackie McKee with EDiS Company at jmckee@ediscompany.com

31. It is the responsibility of each Bidder to review and coordinate all Project Documents. This includes plans, specifications and addendums. All bidders must provide all requested contact information on Pre-Bid Meeting sign in sheet or email the information to Jackie McKee to receive notice of addendums.

32. EDiS, NCCVT and OMB are available to help the Prime contractors and the DBE contractors find each other and foster relationships for bidding this project and others. Please reach out and we will assist in helping in any way possible.

33. EDiS POC: Kevin Lucas at klucas@ediscompany.com, (302) 421-2893.

EDiS Since 1908

**New Castle County**
**Hodgson Vo Tech High School**
**BP-D.1 Pre-Bid Meeting**
**2-Apr-24**

**Please Print!**

| COMPANY NAME | CONTACT NAME | EMAIL ADDRESS | PHONE NUMBER |
|---|---|---|---|
| EDH Company | Kevin Hogan | K.Hogan@edhcompany.com | 302-420-3083 |
| Superior Electric | Mike Barrett | Mike@superiorelectric.biz | 302-420-4572 |
| BATTAGLIA ELECTRIC | JOHN MILLER | JMILLER@BATTAG.COM | 302-358-1607 |
| PREFERRED | Larry Buyarski | LSBUYARSKI@PREFERREDINC.NET | 302-293-7414 |
| NICKLE ELECTRICAL | MATT HEALY | MHEALY@NICKLE.EMAIL | 302-453-4000 |
| EDiS | Tom Cover | ~~tom@~~ tcover@ediscompany.com | 302-383-1037 |
| EDiS | Shawn David | sdavid@ediscompany.com | 302-553-1227 |
| EDiS | Olek Kostyszyn | okostyszyn@ediscompany.com | 302-559-3454 |
| Steel Suppliers | Danny Monar | dmonar@steelsupplierserectors.com | 302-654-5743 |
| " | Adam Short | adam@steelsupplierserectors.com | " " |
| Thomas Building Group | Michael Poore | mpoore@tbgde.com | 302-893-0278 |
| Thomas Bldg Group | Jim Connolley | " " " | 302-293-8506 |
| NCCVT | Al Scurum | A.Scurum@nccvt.k12.de.us | 302-299-9106 |
| MDAVIS | Karl Kressley | karl.kressley@mdavisinc.com | 302 363 1402 |
| AVI, INC | Salvatore Esposito | Salvatore.Esposito@AVIpower.com | 443-566-0378 |
| Summit Steel Inc | Jeff Argoe | JeffArgoe@gmail.com | 302-325-3220 |
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