

ADDENDUM NO. 1

TO

RED CLAY CONSOLIDATED SCHOOL DISTRICT  
BRANDYWINE SPRINGS SCHOOL RENOVATIONS  
BID PACKAGE 'A'

This addendum is hereby made part of the Project Manual and Drawings dated 1 May 2015.

The Project Manual and Drawings shall be supplemented or amended as specified herein.

This Addendum contains changes to the requirement of the Project Manual. Such changes shall be incorporated into the Contract Documents and shall apply to work with the same meaning and force as if they had been included in the original Documents. Whenever this Addendum modifies a portion of a paragraph of the Project Manual, the remainder of the paragraph affected shall remain in force. Added information is shown as **Bold**, deleted information is shown as ~~strike through~~.

This Addendum contains changes to the requirement of the Drawings. Such changes shall be incorporated into the Contract Documents and shall apply to work with the same meaning and force as if they had been included in the original Documents. Whenever this Addendum modifies a portion of any drawing, the remainder of the drawing affected shall remain in force. Added, deleted or revised information is shown as "clouded".

The conditions and terms of the basic Contract Documents shall govern work unless otherwise described in this Addendum. Whenever the conditions of work, and the quality or quantity of materials, or workmanship are not fully described in this Addendum, the conditions of work included in the basic Contract Documents for similar items of work shall apply to the work described in this Addendum.

If no similar items of work are included in the basic Contract Document, the best quality of material and workmanship shall apply and all work shall be subject to the written acceptance of the Architect.

**THE BID OPENING DATE HAS CHANGED. ALL BIDS ARE DUE AT THE MAIN OFFICE OF BRANDYWINE SPRINGS SCHOOL, 2916 DUNCAN ROAD, WILMINGTON, DELAWARE 19808 UNTIL 4:00 PM LOCAL TIME ON WEDNESDAY, 27 MAY 2015.**

**ADDITIONAL SITE VISIT IS SCHEDULED ON MONDAY, 18 MAY 2015 AT 4:00 PM LOCAL TIME.**

**PRE-BID MEETING SIGN IN SHEET DATED 7 MAY 2015 ATTACHED HERETO.**

**THE LAST DAY FOR QUESTIONS IS WEDNESDAY, 20 MAY 2015.**

**BIDDERS ARE ADVISED THAT THE ONLY RELIABLE SOURCE OF DOCUMENTS FOR THIS SOLICITATION IS THE EDIS FTP SITE. BIDDERS THAT RELY ON INFORMATION PUBLISHED ON ANY OTHER COMMERCIAL WEBSITES DO SO AT THEIR OWN RISK.**

Addendum No. 1 – Consists of the following:

- I. Response to Bidders' Questions
- II. Revisions to Project Manual/Specifications
- III. Revisions to Drawings

**I. RESPONSE TO BIDDERS' QUESTIONS**

- A. NO QUESTIONS HAVE BEEN SUBMITTED AT THIS TIME.

**II. REVISIONS TO PROJECT MANUAL/SPECIFICATIONS**

- A. **SECTION 000110 – TABLE OF CONTENTS - Make the following pen and ink changes to this section and annotate these changes as Addendum No. 1.**

1. ADD Section 03 30 00 – CAST-IN-PLACE CONCRETE to Division 03 on page 000110-02.
2. ADD Section 23 62 13 – PACKAGED AIR COOLED REFRIGERANT COMPRESSOR AND CONDENSING UNITS to Division 23 on page 000110-03.
3. ADD Section 23 81 24 – COMPUTER ROOM AIR CONDITIONERS - FLOOR OR WALL MOUNTED to Division 23 on page 000110-03.

- B. **SECTION 000115 – LIST OF DRAWINGS**

1. **ADD the following drawings to the List of Drawings:**

- a) A PH-1 First Floor Phasing Plan dated 5/1/15
- b) A PH-2 Second Floor Phasing Plan dated 5/1/15
- c) M8.41 – Annex Alternate #5 Mechanical Roof Plan
- d) E9.26 – Annex Alternate #6 Electrical 1st Floor Plan
- e) E9.27 – Annex Alternate #5 Electrical Roof Plan

- C. **SECTION 004100 – BID FORMS**

**1. Contract A-01 Demolition**

- a) DELETE pages 004100-1 through 004100-7 in their entirety. INSERT revised pages 004100-1 through 004100-7 annotated Addendum No. 1.

**2. Contract A-02 Carpentry & General Works**

- a) DELETE pages 004100-1 through 004100-7 in their entirety. INSERT revised pages 004100-1 through 004100-7 annotated Addendum No. 1.

**3. Contract A-03 Structural Steel & Miscellaneous Metals**

- a) DELETE pages 004100-1 through 004100-7 in their entirety. INSERT revised pages 004100-1 through 004100-7 annotated Addendum No. 1.

**4. Contract A-04 Acoustical Ceilings**

- a) DELETE pages 004100-1 through 004100-7 in their entirety. INSERT revised pages 004100-1 through 004100-7 annotated Addendum No. 1.

**5. Contract A-05 Mechanical & Plumbing**

- a) DELETE pages 004100-1 through 004100-7 in their entirety. INSERT revised pages 004100-1 through 004100-7 annotated Addendum No. 1.

**6. Contract A-06 Testing & Balancing**

- a) DELETE pages 004100-1 through 004100-7 in their entirety. INSERT revised pages 004100-1 through 004100-7 annotated Addendum No. 1.

**7. Contract A-07 Electrical**

- a) DELETE pages 004100-1 through 004100-7 in their entirety. INSERT revised pages 004100-1 through 004100-7 annotated Addendum No. 1.

**D. SECTION 011100 – SUMMARY OF WORK**

- 1. DELETE pages 011100-1 through 011100-20 in their entirety. INSERT revised pages 011100-1 through 011100-26 annotated Addendum No. 1.

**E. SECTION 012300 – ALTERNATES**

- 1. DELETE pages 012300-1 through 012300-2 in their entirety. INSERT revised pages 012300-1 through 012300-2 annotated Addendum No. 1.

**F. SECTION 013216 – CONSTRUCTION SCHEDULE**

- 1. ADD – Red Clay Consolidated School District, Brandywine Springs School Renovations Master Construction Schedule annotated Addendum No. 1.

**G. Section 03 30 00 – CAST-IN-PLACE CONCRETE.** ADD section included in this addendum.

**H. Section 23 62 13 – PACKAGED AIR COOLED REFRIGERANT COMPRESSOR AND CONDENSING UNITS.** ADD section included in this addendum.

**I. Section 23 81 24 – COMPUTER ROOM AIR CONDITIONERS - FLOOR OR WALL MOUNTED.** ADD section included in this addendum.

**III. REVISIONS TO DRAWINGS**

**A. Drawing G1.0 – ADD the following sheets to the drawing list:**

- 1. A. PH-1 First Floor Phasing Plan dated 5/1/15.
- 2. A. PH-2 Second Floor Phasing Plan dated 5/1/15.
- 3. M8.41 – Annex Alternate #5 Mechanical Roof Plan
- 4. E9.26 – Annex Alternate #6 Electrical 1st Floor Plan
- 5. E9.27 – Annex Alternate #5 Electrical Roof Plan

**B. ADD sheets A PH-1 First Floor Phasing Plan and A PH-2 Second Floor Phasing Plan dated 5/1/15.**

- C. Drawings A3.11 through A3.13 - Construction note C-1 to include text "Per Alternate #3". No sketch issued to reflect this change.
- D. Drawing A3.11 - Details 2/A3.11 and 3/A3.11 to include text "Alternate #3" in detail title. No sketch issued to reflect this change.
- E. Drawing A3.12 – Detail titles for 3/A3.12 and 4/A3.12 Revised to read "Alternate #4". Construction note C-2 Revised to read "Per Alternate #4". No sketch issued to reflect this change.
- F. Drawing A3.12 – Revision to Alternate note at roof section to read "Alternate #4". ADDED scope of work to Annex Roof Plan. See sketch SK-A.1.
- G. Drawing A3.12 – ADDED "Typical Roof Curb Detail". See sketch SK-A.2.
- H. ADD sheet M8.41 - Annex Alternate #5 Mechanical Roof Plan.
- I. Per SK-M.1, Note revision on sheet M8.10. Revised note, Was: Existing HHW Pipe Risers to Remain. Now: Existing HHW Pipe Risers to be demolished.
- J. ADD sheet E9.26 - Annex Alternate #6 Electrical 1st Floor Plan.
- K. ADD sheet E9.27 - Annex Alternate #5 Electrical Roof Plan.

END OF ADDENDUM NO. 1



Contract No. A-01 Demolition

BID FORM

For Bids Due: \_\_\_\_\_ To: Red Clay Consolidated School District  
1502 Spruce Avenue  
Wilmington, DE 19805

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 Delaware Business License 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:

\$ \_\_\_\_\_ (\$ \_\_\_\_\_)

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. 1: Second Shift Work

Add/Deduct \_\_\_\_\_ (\$ \_\_\_\_\_)

~~Alternate No. 2: Lobby Upgrades (ADD#1)~~

Add/Deduct \_\_\_\_\_ ~~N/A~~ (\$ ~~N/A~~)

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~~Alternate No. 3: Fascia Repairs (ADD#1)~~

Add/Deduct \_\_\_\_\_ N/A \_\_\_\_\_ (\$ \_\_\_\_\_ N/A \_\_\_\_\_)

~~Alternate No. 4: Restroom Upgrades (ADD#1)~~

Add/Deduct \_\_\_\_\_ N/A \_\_\_\_\_ (\$ \_\_\_\_\_ N/A \_\_\_\_\_)

UNIT PRICES

Unit prices conform to applicable project specification section. Refer to the specifications for a complete description of the following Unit Prices:

N/A

NOTE: The difference in price between Add and Deduct in the above Unit Prices should not exceed fifteen percent (15%).

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 ninety (90) days 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.

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)

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Business Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Witness: \_\_\_\_\_ By: \_\_\_\_\_  
(SEAL) ( Authorized Signature )  
\_\_\_\_\_  
( Title )  
Date: \_\_\_\_\_

ATTACHMENTS

- Sub-Contractor List
- Non-Collusion Statement
- Bid Bond
- Consent of Surety
- Delaware Business License
- (Others as Required by Project Manuals)

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SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 6962 (d)(10)b Delaware Code, the following sub-contractor listing must accompany the bid submittal. The name and address of the sub-contractor must be listed for each category where the bidder intends to use a sub-contractor to perform that category of work. In order to provide full disclosure and acceptance of the bid by the Owner, **it is required that bidders list themselves as being the sub-contractor for all categories where he/she is qualified and intends to perform such work.**

<u>Subcontractor</u> <u>Category</u>	<u>Subcontractor</u>	<u>Address (City &amp; State)</u>	<u>Subcontractors tax payer ID #</u> <u>or Delaware Business license #</u>
1. Demolition	_____	_____	_____

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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 No.: A-01 Demolition* have been thoroughly examined and are understood.

NAME OF BIDDER: \_\_\_\_\_

AUTHORIZED REPRESENTATIVE  
(TYPED): \_\_\_\_\_

AUTHORIZED REPRESENTATIVE  
(SIGNATURE): \_\_\_\_\_

TITLE: \_\_\_\_\_

ADDRESS OF BIDDER: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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.

**BID BOND**

TO ACCOMPANY PROPOSAL  
(Not necessary if security is used)

KNOW ALL MEN BY THESE PRESENTS That: \_\_\_\_\_ of  
\_\_\_\_\_ in the County of \_\_\_\_\_ and State of \_\_\_\_\_ as  
Principal, and \_\_\_\_\_ of \_\_\_\_\_ in the County of \_\_\_\_\_  
\_\_\_\_\_ and State of \_\_\_\_\_ as Surety, legally authorized to do business in the State of Delaware  
("State"), are held and firmly unto the Red Clay Consolidated School District in the sum of \_\_\_\_\_  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_), or percent not to exceed \_\_\_\_\_  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_) of amount of bid on Contract No. **A-01 Demolition** to be paid to the  
Red Clay Consolidated School District for the use and benefit of the Red Clay Consolidated School District for which  
payment well and truly to be made, we do bind ourselves, our and each of our heirs, executors, administrators, and  
successors, jointly and severally for and in the whole firmly by these presents.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH That if the above bounden Principal who has submitted to the  
Red Clay Consolidated School District a certain proposal to enter into this contract for the furnishing of certain material  
and/or services within the State, shall be awarded this Contract, and if said Principal shall well and truly enter into and  
execute this Contract as may be required by the terms of this Contract and approved by the Red Clay Consolidated School  
District this Contract to be entered into within twenty days after the date of official notice of the award thereof in  
accordance with the terms of said proposal, then this obligation shall be void or else to be and remain in full force and  
virtue.

Sealed with \_\_\_\_\_ seal and dated this \_\_\_ day of \_\_\_\_\_ in the year of our Lord two thousand  
and \_\_\_\_\_ (20\_\_).

SEALED, AND DELIVERED IN THE PRESENCE OF

\_\_\_\_\_  
Name of Bidder (Organization)

Corporate  
Seal  
Attest \_\_\_\_\_

By: \_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Name of Surety

Witness \_\_\_\_\_

\_\_\_\_\_  
Title

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CONSENT OF SURETY

DATE \_\_\_\_\_

To:

Gentlemen:

We, the \_\_\_\_\_

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(Surety Company's Address)

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

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(Contractor)

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(Address)

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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.

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(Surety Company)

By \_\_\_\_\_  
(Attorney-in-Fact)

END OF SECTION

*Contract No. A-02 Carpentry & General Works*

BID FORM

For Bids Due: \_\_\_\_\_ To: Red Clay Consolidated School District  
1502 Spruce Avenue  
Wilmington, DE 19805

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 Delaware Business License 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:

\$ \_\_\_\_\_ (\$ \_\_\_\_\_)

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. 1: Second Shift Work

Add/Deduct \_\_\_\_\_ (\$ \_\_\_\_\_)

Alternate No. 2: Lobby Upgrades

Add/Deduct \_\_\_\_\_ (\$ \_\_\_\_\_)

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Alternate No. 3: **Main Building Fascia Repairs (ADD#1)**

Add/Deduct \_\_\_\_\_ (\$ \_\_\_\_\_ )

Alternate No. 4: ~~Restroom Upgrades~~ **Annex Building Fascia Repairs (ADD#1)**

Add/Deduct \_\_\_\_\_ (\$ \_\_\_\_\_ )

Alternate No. 5: **Annex Roof Top Unit (ADD#1)**

Add/Deduct \_\_\_\_\_ (\$ \_\_\_\_\_ )

Alternate No. 6: **Annex Server Room Upgrades (ADD#1)**

Add/Deduct \_\_\_\_\_ (\$ \_\_\_\_\_ )

Alternate No. 7: **Room 100X Cub Care Partition (ADD#1)**

Add/Deduct \_\_\_\_\_ (\$ \_\_\_\_\_ )

UNIT PRICES

Unit prices conform to applicable project specification section. Refer to the specifications for a complete description of the following Unit Prices:

N/A

NOTE: The difference in price between Add and Deduct in the above Unit Prices should not exceed fifteen percent (15%).

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 ninety (90) days 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.

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

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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: \_\_\_\_\_  
(SEAL) ( Authorized Signature )  
\_\_\_\_\_  
( Title )  
Date: \_\_\_\_\_

ATTACHMENTS

- Sub-Contractor List
- Non-Collusion Statement
- Bid Bond
- Consent of Surety
- Delaware Business License
- (Others as Required by Project Manuals)

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SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 6962 (d)(10)b Delaware Code, the following sub-contractor listing must accompany the bid submittal. The name and address of the sub-contractor must be listed for each category where the bidder intends to use a sub-contractor to perform that category of work. In order to provide full disclosure and acceptance of the bid by the Owner, **it is required that bidders list themselves as being the sub-contractor for all categories where he/she is qualified and intends to perform such work.**

Subcontractor

<u>Category</u>	<u>Subcontractor</u>	<u>Address (City &amp; State)</u>	<u>Subcontractors tax payer ID # or Delaware Business license #</u>
1. Carpentry	_____	_____	_____
2. Metal Studs & Drywall	_____	_____	_____
3. Doors & Hardware (Supply)	_____	_____	_____
4. Roofing	_____	_____	_____

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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 No.: A-02 Carpentry & General Works* have been thoroughly examined and are understood.

NAME OF BIDDER: \_\_\_\_\_

AUTHORIZED REPRESENTATIVE  
(TYPED): \_\_\_\_\_

AUTHORIZED REPRESENTATIVE  
(SIGNATURE): \_\_\_\_\_

TITLE: \_\_\_\_\_

ADDRESS OF BIDDER: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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.

**BID BOND**

TO ACCOMPANY PROPOSAL  
(Not necessary if security is used)

KNOW ALL MEN BY THESE PRESENTS That: \_\_\_\_\_ of  
\_\_\_\_\_ in the County of \_\_\_\_\_ and State of \_\_\_\_\_ as  
Principal, and \_\_\_\_\_ of \_\_\_\_\_ in the County of \_\_\_\_\_  
\_\_\_\_\_ and State of \_\_\_\_\_ as Surety, legally authorized to do business in the State of Delaware  
("State"), are held and firmly unto the Red Clay Consolidated School District in the sum of \_\_\_\_\_  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_), or percent not to exceed \_\_\_\_\_  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_) of amount of bid on Contract No. *A-02 Carpentry & General Works*  
to be paid to the Red Clay Consolidated School District for the use and benefit of the Red Clay Consolidated School  
District for which payment well and truly to be made, we do bind ourselves, our and each of our heirs, executors,  
administrators, and successors, jointly and severally for and in the whole firmly by these presents.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH That if the above bounden Principal who has submitted to the  
Red Clay Consolidated School District a certain proposal to enter into this contract for the furnishing of certain material  
and/or services within the State, shall be awarded this Contract, and if said Principal shall well and truly enter into and  
execute this Contract as may be required by the terms of this Contract and approved by the Red Clay Consolidated School  
District this Contract to be entered into within twenty days after the date of official notice of the award thereof in  
accordance with the terms of said proposal, then this obligation shall be void or else to be and remain in full force and  
virtue.

Sealed with \_\_\_\_\_ seal and dated this \_\_\_ day of \_\_\_\_\_ in the year of our Lord two thousand  
and \_\_\_\_\_ (20\_\_).

SEALED, AND DELIVERED IN THE PRESENCE OF

\_\_\_\_\_  
Name of Bidder (Organization)

Corporate Seal	By: _____ Authorized Signature
Attest _____	_____ Title
Witness _____	_____ Name of Surety
	_____ Title

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CONSENT OF SURETY

DATE \_\_\_\_\_

To:

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)

END OF SECTION

*Contract No. A-03 Structural Steel & Miscellaneous Metals*

BID FORM

For Bids Due: \_\_\_\_\_ To: Red Clay Consolidated School District  
1502 Spruce Avenue  
Wilmington, DE 19805

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 Delaware Business License 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:

\$ \_\_\_\_\_ (\$ \_\_\_\_\_)

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. 1: Second Shift Work

Add/Deduct \_\_\_\_\_ (\$ \_\_\_\_\_)

~~Alternate No. 2: Lobby Upgrades (ADD#1)~~

Add/Deduct \_\_\_\_\_ ~~N/A~~ (\$ ~~N/A~~)

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~~Alternate No. 3: Fascia Repairs (ADD#1)~~

Add/Deduct \_\_\_\_\_ N/A \_\_\_\_\_ (\$ \_\_\_\_\_ N/A \_\_\_\_\_)

~~Alternate No. 4: Restroom Upgrades (ADD#1)~~

Add/Deduct \_\_\_\_\_ N/A \_\_\_\_\_ (\$ \_\_\_\_\_ N/A \_\_\_\_\_)

UNIT PRICES

Unit prices conform to applicable project specification section. Refer to the specifications for a complete description of the following Unit Prices:

N/A

NOTE: The difference in price between Add and Deduct in the above Unit Prices should not exceed fifteen percent (15%).

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 ninety (90) days 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.

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: \_\_\_\_\_  
(SEAL) ( Authorized Signature )  
\_\_\_\_\_  
( Title )  
Date: \_\_\_\_\_

ATTACHMENTS

- Sub-Contractor List
- Non-Collusion Statement
- Bid Bond
- Consent of Surety
- Delaware Business License
- (Others as Required by Project Manuals)

---

SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 6962 (d)(10)b Delaware Code, the following sub-contractor listing must accompany the bid submittal. The name and address of the sub-contractor must be listed for each category where the bidder intends to use a sub-contractor to perform that category of work. In order to provide full disclosure and acceptance of the bid by the Owner, **it is required that bidders list themselves as being the sub-contractor for all categories where he/she is qualified and intends to perform such work.**

<u>Subcontractor</u> <u>Category</u>	<u>Subcontractor</u>	<u>Address (City &amp; State)</u>	<u>Subcontractors tax payer ID #</u> <u>or Delaware Business license #</u>
1. Structural Steel	_____	_____	_____

---

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 No.: A-03 Structural Steel & Miscellaneous Metals* have been thoroughly examined and are understood.

NAME OF BIDDER: \_\_\_\_\_

AUTHORIZED REPRESENTATIVE  
(TYPED): \_\_\_\_\_

AUTHORIZED REPRESENTATIVE  
(SIGNATURE): \_\_\_\_\_

TITLE: \_\_\_\_\_

ADDRESS OF BIDDER: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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.

**BID BOND**

TO ACCOMPANY PROPOSAL  
(Not necessary if security is used)

KNOW ALL MEN BY THESE PRESENTS That: \_\_\_\_\_ of  
\_\_\_\_\_ in the County of \_\_\_\_\_ and State of \_\_\_\_\_ as  
Principal, and \_\_\_\_\_ of \_\_\_\_\_ in the County of \_\_\_\_\_  
\_\_\_\_\_ and State of \_\_\_\_\_ as Surety, legally authorized to do business in the State of Delaware  
("State"), are held and firmly unto the Red Clay Consolidated School District in the sum of \_\_\_\_\_  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_), or percent not to exceed \_\_\_\_\_  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_) of amount of bid on Contract No. ***A-03 Structural Steel &  
Miscellaneous Metals*** to be paid to the Red Clay Consolidated School District for the use and benefit of the Red Clay  
Consolidated School District for which payment well and truly to be made, we do bind ourselves, our and each of our  
heirs, executors, administrators, and successors, jointly and severally for and in the whole firmly by these presents.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH That if the above bounden Principal who has submitted to the  
Red Clay Consolidated School District a certain proposal to enter into this contract for the furnishing of certain material  
and/or services within the State, shall be awarded this Contract, and if said Principal shall well and truly enter into and  
execute this Contract as may be required by the terms of this Contract and approved by the Red Clay Consolidated School  
District this Contract to be entered into within twenty days after the date of official notice of the award thereof in  
accordance with the terms of said proposal, then this obligation shall be void or else to be and remain in full force and  
virtue.

Sealed with \_\_\_\_\_ seal and dated this \_\_\_ day of \_\_\_\_\_ in the year of our Lord two thousand  
and \_\_\_\_\_ (20\_\_).

SEALED, AND DELIVERED IN THE PRESENCE OF

\_\_\_\_\_  
Name of Bidder (Organization)

Corporate Seal	By: _____ Authorized Signature
Attest _____	_____ Title
Witness _____	_____ Name of Surety
	_____ Title

---

CONSENT OF SURETY

DATE \_\_\_\_\_

To:

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)

END OF SECTION

---

*Contract No. A-04 Acoustical Ceilings*

BID FORM

For Bids Due: \_\_\_\_\_ To: Red Clay Consolidated School District  
1502 Spruce Avenue  
Wilmington, DE 19805

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 Delaware Business License 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:

\$ \_\_\_\_\_ (\$ \_\_\_\_\_)

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. 1: Second Shift Work

Add/Deduct \_\_\_\_\_ (\$ \_\_\_\_\_)

Alternate No. 2: Lobby Upgrades

Add/Deduct \_\_\_\_\_ (\$ \_\_\_\_\_)

---

~~Alternate No. 3: Fascia Repairs (ADD#1)~~

Add/Deduct \_\_\_\_\_ N/A \_\_\_\_\_ (\$ \_\_\_\_\_ N/A \_\_\_\_\_)

~~Alternate No. 4: Restroom Upgrades (ADD#1)~~

Add/Deduct \_\_\_\_\_ N/A \_\_\_\_\_ (\$ \_\_\_\_\_ N/A \_\_\_\_\_)

**Alternate No. 7: Room 100X Cub Care Partition (ADD#1)**

Add/Deduct \_\_\_\_\_ (\$ \_\_\_\_\_)

UNIT PRICES

Unit prices conform to applicable project specification section. Refer to the specifications for a complete description of the following Unit Prices:

N/A

**NOTE:** The difference in price between Add and Deduct in the above Unit Prices should not exceed fifteen percent (15%).

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 ninety (90) days 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.

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: \_\_\_\_\_  
(SEAL) ( Authorized Signature )  
\_\_\_\_\_  
( Title )  
Date: \_\_\_\_\_

ATTACHMENTS

- Sub-Contractor List
- Non-Collusion Statement
- Bid Bond
- Consent of Surety
- Delaware Business License
- (Others as Required by Project Manuals)

---

SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 6962 (d)(10)b Delaware Code, the following sub-contractor listing must accompany the bid submittal. The name and address of the sub-contractor must be listed for each category where the bidder intends to use a sub-contractor to perform that category of work. In order to provide full disclosure and acceptance of the bid by the Owner, **it is required that bidders list themselves as being the sub-contractor for all categories where he/she is qualified and intends to perform such work.**

Subcontractor

<u>Category</u>	<u>Subcontractor</u>	<u>Address (City &amp; State)</u>	<u>Subcontractors tax payer ID # or Delaware Business license #</u>
1. Acoustical Ceilings	_____	_____	_____

---

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 No.: A-04 Acoustical Ceilings* have been thoroughly examined and are understood.

NAME OF BIDDER: \_\_\_\_\_

AUTHORIZED REPRESENTATIVE  
(TYPED): \_\_\_\_\_

AUTHORIZED REPRESENTATIVE  
(SIGNATURE): \_\_\_\_\_

TITLE: \_\_\_\_\_

ADDRESS OF BIDDER: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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.

**BID BOND**

TO ACCOMPANY PROPOSAL  
(Not necessary if security is used)

KNOW ALL MEN BY THESE PRESENTS That: \_\_\_\_\_ of  
\_\_\_\_\_ in the County of \_\_\_\_\_ and State of \_\_\_\_\_ as  
Principal, and \_\_\_\_\_ of \_\_\_\_\_ in the County of \_\_\_\_\_  
\_\_\_\_\_ and State of \_\_\_\_\_ as Surety, legally authorized to do business in the State of Delaware  
("State"), are held and firmly unto the Red Clay Consolidated School District in the sum of \_\_\_\_\_  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_), or percent not to exceed \_\_\_\_\_  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_) of amount of bid on Contract No. *A-04 Acoustical Ceilings* to be  
paid to the Red Clay Consolidated School District for the use and benefit of the Red Clay Consolidated School District for  
which payment well and truly to be made, we do bind ourselves, our and each of our heirs, executors, administrators, and  
successors, jointly and severally for and in the whole firmly by these presents.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH That if the above bounden Principal who has submitted to the  
Red Clay Consolidated School District a certain proposal to enter into this contract for the furnishing of certain material  
and/or services within the State, shall be awarded this Contract, and if said Principal shall well and truly enter into and  
execute this Contract as may be required by the terms of this Contract and approved by the Red Clay Consolidated School  
District this Contract to be entered into within twenty days after the date of official notice of the award thereof in  
accordance with the terms of said proposal, then this obligation shall be void or else to be and remain in full force and  
virtue.

Sealed with \_\_\_\_\_ seal and dated this \_\_\_ day of \_\_\_\_\_ in the year of our Lord two thousand  
and \_\_\_\_\_ (20\_\_).

SEALED, AND DELIVERED IN THE PRESENCE OF

\_\_\_\_\_  
Name of Bidder (Organization)

Corporate Seal	By: _____ Authorized Signature
Attest _____	_____ Title
Witness _____	_____ Name of Surety
	_____ Title

---

CONSENT OF SURETY

DATE \_\_\_\_\_

To:

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)

END OF SECTION

*Contract No. A-05 Mechanical & Plumbing*

BID FORM

For Bids Due: \_\_\_\_\_ To: Red Clay Consolidated School District  
1502 Spruce Avenue  
Wilmington, DE 19805

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 Delaware Business License 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:

\$ \_\_\_\_\_ (\$ \_\_\_\_\_)

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. 1: Second Shift Work

Add/Deduct \_\_\_\_\_ (\$ \_\_\_\_\_)

Alternate No. 2: Lobby Upgrades

Add/Deduct \_\_\_\_\_ (\$ \_\_\_\_\_)

Alternate No. 3: Fascia Repairs (ADD#1)

Add/Deduct \_\_\_\_\_ N/A \_\_\_\_\_ (\$ \_\_\_\_\_ N/A \_\_\_\_\_)

Alternate No. 4: Restroom Upgrades (ADD#1)

Add/Deduct \_\_\_\_\_ N/A \_\_\_\_\_ (\$ \_\_\_\_\_ N/A \_\_\_\_\_)

Alternate No. 5: Annex Roof Top Unit (ADD#1)

Add/Deduct \_\_\_\_\_ (\$ \_\_\_\_\_)

Alternate No. 6: Annex Server Room Upgrades (ADD#1)

Add/Deduct \_\_\_\_\_ (\$ \_\_\_\_\_)

UNIT PRICES

Unit prices conform to applicable project specification section. Refer to the specifications for a complete description of the following Unit Prices:

	Add	Deduct
Unit Price #1 - Price to cut and replace up to ten feet (10') of 0" to 2" hydronic piping per linear foot.	_____	_____
Unit Price #2 - Price to cut and replace up to ten feet (10') of 2-1/4" to 3" hydronic piping per linear foot.	_____	_____
Unit Price #3 - Price to cut and replace up to ten feet (10') of 3-1/4" to 4" hydronic piping per linear foot.	_____	_____
Unit Price #4 - Price to cut and replace up to ten feet (10') of 4-1/4" to 5" hydronic piping per linear foot.	_____	_____
Unit Price #5 - Price to cut and replace up to ten feet (10') of 5-1/4" to 6" hydronic piping per linear foot.	_____	_____
Unit Price #6 - Remove and replace (1) ducted 1.5 ton horizontal split system air cooled heat pump system.	_____	_____
Unit Price #7 - Remove and replace (1) ducted 2.0 ton horizontal split system air cooled heat pump system.	_____	_____
Unit Price #8 - Remove and replace (1) ducted 3.0 ton horizontal split system air cooled heat pump system.	_____	_____

---

**NOTE:** The difference in price between Add and Deduct in the above Unit Prices should not exceed fifteen percent (15%).

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 ninety (90) days 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.

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: \_\_\_\_\_  
(SEAL) ( Authorized Signature )  
\_\_\_\_\_  
( Title )  
Date: \_\_\_\_\_

**ATTACHMENTS**

Sub-Contractor List, Non-Collusion Statement, Bid Bond, Consent of Surety,  
Delaware Business License, (Others as Required by Project Manuals)

SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 6962 (d)(10)b Delaware Code, the following sub-contractor listing must accompany the bid submittal. The name and address of the sub-contractor must be listed for each category where the bidder intends to use a sub-contractor to perform that category of work. In order to provide full disclosure and acceptance of the bid by the Owner, **it is required that bidders list themselves as being the sub-contractor for all categories where he/she is qualified and intends to perform such work.**

<u>Subcontractor Category</u>	<u>Subcontractor</u>	<u>Address (City &amp; State)</u>	<u>Subcontractors tax payer ID # or Delaware Business license #</u>
1. Mechanical	_____	_____	_____
2. Plumbing	_____	_____	_____
3. Sheet Metal	_____	_____	_____
4. Insulation	_____	_____	_____
5. Direct-Digital Control System (Supply)	_____	_____	_____
6. Direct-Digital Control System (Install)	_____	_____	_____

---

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 No.: A-05 Mechanical & Plumbing* have been thoroughly examined and are understood.

NAME OF BIDDER: \_\_\_\_\_

AUTHORIZED REPRESENTATIVE  
(TYPED): \_\_\_\_\_

AUTHORIZED REPRESENTATIVE  
(SIGNATURE): \_\_\_\_\_

TITLE: \_\_\_\_\_

ADDRESS OF BIDDER: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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.

**BID BOND**

TO ACCOMPANY PROPOSAL  
(Not necessary if security is used)

KNOW ALL MEN BY THESE PRESENTS That: \_\_\_\_\_ of  
\_\_\_\_\_ in the County of \_\_\_\_\_ and State of \_\_\_\_\_ as  
Principal, and \_\_\_\_\_ of \_\_\_\_\_ in the County of \_\_\_\_\_  
\_\_\_\_\_ and State of \_\_\_\_\_ as Surety, legally authorized to do business in the State of Delaware  
("State"), are held and firmly unto the Red Clay Consolidated School District in the sum of \_\_\_\_\_  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_), or percent not to exceed \_\_\_\_\_  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_) of amount of bid on Contract No. *A-05 Mechanical & Plumbing* to  
be paid to the Red Clay Consolidated School District for the use and benefit of the Red Clay Consolidated School District  
for which payment well and truly to be made, we do bind ourselves, our and each of our heirs, executors, administrators,  
and successors, jointly and severally for and in the whole firmly by these presents.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH That if the above bounden Principal who has submitted to the  
Red Clay Consolidated School District a certain proposal to enter into this contract for the furnishing of certain material  
and/or services within the State, shall be awarded this Contract, and if said Principal shall well and truly enter into and  
execute this Contract as may be required by the terms of this Contract and approved by the Red Clay Consolidated School  
District this Contract to be entered into within twenty days after the date of official notice of the award thereof in  
accordance with the terms of said proposal, then this obligation shall be void or else to be and remain in full force and  
virtue.

Sealed with \_\_\_\_\_ seal and dated this \_\_\_ day of \_\_\_\_\_ in the year of our Lord two thousand  
and \_\_\_\_\_ (20\_\_).

SEALED, AND DELIVERED IN THE PRESENCE OF

\_\_\_\_\_  
Name of Bidder (Organization)

Corporate Seal	By: _____ Authorized Signature
Attest _____	_____ Title
	_____ Name of Surety
Witness _____	_____ Title

---

CONSENT OF SURETY

DATE \_\_\_\_\_

To:

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)

END OF SECTION

*Contract No. A-06 Testing & Balancing*

BID FORM

For Bids Due: \_\_\_\_\_ To: Red Clay Consolidated School District  
1502 Spruce Avenue  
Wilmington, DE 19805

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 Delaware Business License 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:

\$ \_\_\_\_\_ (\$ \_\_\_\_\_)

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. 1: Second Shift Work

Add/Deduct \_\_\_\_\_ (\$ \_\_\_\_\_)

~~Alternate No. 2: Lobby Upgrades (ADD#1)~~

Add/Deduct \_\_\_\_\_ ~~N/A~~ (\$ ~~N/A~~)

---

~~Alternate No. 3: Fascia Repairs (ADD#1)~~

Add/Deduct \_\_\_\_\_ N/A \_\_\_\_\_ (\$ \_\_\_\_\_ N/A \_\_\_\_\_)

~~Alternate No. 4: Restroom Upgrades (ADD#1)~~

Add/Deduct \_\_\_\_\_ N/A \_\_\_\_\_ (\$ \_\_\_\_\_ N/A \_\_\_\_\_)

**Alternate No. 5: Annex Roof Top Unit (ADD#1)**

Add/Deduct \_\_\_\_\_ (\$ \_\_\_\_\_)

**Alternate No. 6: Annex Server Room Upgrades (ADD#1)**

Add/Deduct \_\_\_\_\_ (\$ \_\_\_\_\_)

UNIT PRICES

Unit prices conform to applicable project specification section. Refer to the specifications for a complete description of the following Unit Prices:

**Unit Price #6 - Remove and replace (1) ducted 1.5 ton horizontal split system air cooled heat pump system. (ADD#1)** \_\_\_\_\_

**Unit Price #7 - Remove and replace (1) ducted 2.0 ton horizontal split system air cooled heat pump system. (ADD#1)** \_\_\_\_\_

**Unit Price #8 - Remove and replace (1) ducted 3.0 ton horizontal split system air cooled heat pump system. (ADD#1)** \_\_\_\_\_

NOTE: The difference in price between Add and Deduct in the above Unit Prices should not exceed fifteen percent (15%).

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 ninety (90) days 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.

---

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: \_\_\_\_\_  
(SEAL) ( Authorized Signature )  
\_\_\_\_\_  
( Title )  
Date: \_\_\_\_\_

ATTACHMENTS

- Sub-Contractor List
- Non-Collusion Statement
- Bid Bond
- Consent of Surety
- Delaware Business License
- (Others as Required by Project Manuals)

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SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 6962 (d)(10)b Delaware Code, the following sub-contractor listing must accompany the bid submittal. The name and address of the sub-contractor must be listed for each category where the bidder intends to use a sub-contractor to perform that category of work. In order to provide full disclosure and acceptance of the bid by the Owner, **it is required that bidders list themselves as being the sub-contractor for all categories where he/she is qualified and intends to perform such work.**

Subcontractor

<u>Category</u>	<u>Subcontractor</u>	<u>Address (City &amp; State)</u>	<u>Subcontractors tax payer ID # or Delaware Business license #</u>
1. Testing & Balancing	_____	_____	_____

---

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 No.: A-06 Testing & Balancing* have been thoroughly examined and are understood.

NAME OF BIDDER: \_\_\_\_\_

AUTHORIZED REPRESENTATIVE  
(TYPED): \_\_\_\_\_

AUTHORIZED REPRESENTATIVE  
(SIGNATURE): \_\_\_\_\_

TITLE: \_\_\_\_\_

ADDRESS OF BIDDER: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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.

**BID BOND**

TO ACCOMPANY PROPOSAL  
(Not necessary if security is used)

KNOW ALL MEN BY THESE PRESENTS That: \_\_\_\_\_ of  
\_\_\_\_\_ in the County of \_\_\_\_\_ and State of \_\_\_\_\_ as  
Principal, and \_\_\_\_\_ of \_\_\_\_\_ in the County of \_\_\_\_\_  
\_\_\_\_\_ and State of \_\_\_\_\_ as Surety, legally authorized to do business in the State of Delaware  
("State"), are held and firmly unto the Red Clay Consolidated School District in the sum of \_\_\_\_\_  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_), or percent not to exceed \_\_\_\_\_  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_) of amount of bid on Contract No. *A-06 Testing & Balancing* to be  
paid to the Red Clay Consolidated School District for the use and benefit of the Red Clay Consolidated School District for  
which payment well and truly to be made, we do bind ourselves, our and each of our heirs, executors, administrators, and  
successors, jointly and severally for and in the whole firmly by these presents.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH That if the above bounden Principal who has submitted to the  
Red Clay Consolidated School District a certain proposal to enter into this contract for the furnishing of certain material  
and/or services within the State, shall be awarded this Contract, and if said Principal shall well and truly enter into and  
execute this Contract as may be required by the terms of this Contract and approved by the Red Clay Consolidated School  
District this Contract to be entered into within twenty days after the date of official notice of the award thereof in  
accordance with the terms of said proposal, then this obligation shall be void or else to be and remain in full force and  
virtue.

Sealed with \_\_\_\_\_ seal and dated this \_\_\_ day of \_\_\_\_\_ in the year of our Lord two thousand  
and \_\_\_\_\_ (20\_\_).

SEALED, AND DELIVERED IN THE PRESENCE OF

\_\_\_\_\_  
Name of Bidder (Organization)

Corporate Seal	By: _____ Authorized Signature
Attest _____	_____ Title
Witness _____	_____ Name of Surety
	_____ Title

---

CONSENT OF SURETY

DATE \_\_\_\_\_

To:

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)

END OF SECTION

*Contract No. A-07 Electrical*

BID FORM

For Bids Due: \_\_\_\_\_ To: Red Clay Consolidated School District  
1502 Spruce Avenue  
Wilmington, DE 19805

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 Delaware Business License 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:

\$ \_\_\_\_\_ (\$ \_\_\_\_\_)

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. 1: Second Shift Work

Add/Deduct \_\_\_\_\_ (\$ \_\_\_\_\_)

Alternate No. 2: Lobby Upgrades

Add/Deduct \_\_\_\_\_ (\$ \_\_\_\_\_)

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Alternate No. 3: Main Building Fascia Repairs (ADD#1)

Add/Deduct \_\_\_\_\_ (\$ \_\_\_\_\_ )

Alternate No. 4: Annex Building Fascia Repairs (ADD#1)

Add/Deduct \_\_\_\_\_ (\$ \_\_\_\_\_ )

Alternate No. 5: Annex Roof Top Unit (ADD#1)

Add/Deduct \_\_\_\_\_ (\$ \_\_\_\_\_ )

Alternate No. 6: Annex Server Room Upgrades (ADD#1)

Add/Deduct \_\_\_\_\_ (\$ \_\_\_\_\_ )

Alternate No. 7: Room 100X Cub Care Partition (ADD#1)

Add/Deduct \_\_\_\_\_ (\$ \_\_\_\_\_ )

UNIT PRICES

Unit prices conform to applicable project specification section. Refer to the specifications for a complete description of the following Unit Prices:

Unit Price #6 - Remove and replace (1) ducted 1.5 ton horizontal split system air cooled heat pump system. \_\_\_\_\_

Unit Price #7 - Remove and replace (1) ducted 2.0 ton horizontal split system air cooled heat pump system. \_\_\_\_\_

Unit Price #8 - Remove and replace (1) ducted 3.0 ton horizontal split system air cooled heat pump system. \_\_\_\_\_

NOTE: The difference in price between Add and Deduct in the above Unit Prices should not exceed fifteen percent (15%).

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 ninety (90) days 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.

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: \_\_\_\_\_  
(SEAL) ( Authorized Signature )  
\_\_\_\_\_  
( Title )  
Date: \_\_\_\_\_

ATTACHMENTS

- Sub-Contractor List
- Non-Collusion Statement
- Bid Bond
- Consent of Surety
- Delaware Business License
- (Others as Required by Project Manuals)

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SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 6962 (d)(10)b Delaware Code, the following sub-contractor listing must accompany the bid submittal. The name and address of the sub-contractor must be listed for each category where the bidder intends to use a sub-contractor to perform that category of work. In order to provide full disclosure and acceptance of the bid by the Owner, **it is required that bidders list themselves as being the sub-contractor for all categories where he/she is qualified and intends to perform such work.**

<u>Subcontractor</u> <u>Category</u>	<u>Subcontractor</u>	<u>Address (City &amp; State)</u>	<u>Subcontractors tax payer ID #</u> <u>or Delaware Business license #</u>
1. Electrical	_____	_____	_____
2. <b>Fire Alarm</b> <b>(ADD#1)</b>	_____	_____	_____

---

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 No.: A-07 Electrical* have been thoroughly examined and are understood.

NAME OF BIDDER: \_\_\_\_\_

AUTHORIZED REPRESENTATIVE  
(TYPED): \_\_\_\_\_

AUTHORIZED REPRESENTATIVE  
(SIGNATURE): \_\_\_\_\_

TITLE: \_\_\_\_\_

ADDRESS OF BIDDER: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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.

**BID BOND**

TO ACCOMPANY PROPOSAL  
(Not necessary if security is used)

KNOW ALL MEN BY THESE PRESENTS That: \_\_\_\_\_ of  
\_\_\_\_\_ in the County of \_\_\_\_\_ and State of \_\_\_\_\_ as  
Principal, and \_\_\_\_\_ of \_\_\_\_\_ in the County of \_\_\_\_\_  
\_\_\_\_\_ and State of \_\_\_\_\_ as Surety, legally authorized to do business in the State of Delaware  
("State"), are held and firmly unto the Red Clay Consolidated School District in the sum of \_\_\_\_\_  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_), or percent not to exceed \_\_\_\_\_  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_) of amount of bid on Contract No. *A-07 Electrical* to be paid to the  
Red Clay Consolidated School District for the use and benefit of the Red Clay Consolidated School District for which  
payment well and truly to be made, we do bind ourselves, our and each of our heirs, executors, administrators, and  
successors, jointly and severally for and in the whole firmly by these presents.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH That if the above bounden Principal who has submitted to the  
Red Clay Consolidated School District a certain proposal to enter into this contract for the furnishing of certain material  
and/or services within the State, shall be awarded this Contract, and if said Principal shall well and truly enter into and  
execute this Contract as may be required by the terms of this Contract and approved by the Red Clay Consolidated School  
District this Contract to be entered into within twenty days after the date of official notice of the award thereof in  
accordance with the terms of said proposal, then this obligation shall be void or else to be and remain in full force and  
virtue.

Sealed with \_\_\_\_\_ seal and dated this \_\_\_ day of \_\_\_\_\_ in the year of our Lord two thousand  
and \_\_\_\_\_ (20\_\_).

SEALED, AND DELIVERED IN THE PRESENCE OF

\_\_\_\_\_  
Name of Bidder (Organization)

Corporate  
Seal  
Attest \_\_\_\_\_

By: \_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Name of Surety

Witness \_\_\_\_\_

\_\_\_\_\_  
Title

---

CONSENT OF SURETY

DATE \_\_\_\_\_

To:

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)

END OF SECTION

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. The demolition, mechanical, and electrical contractors will be responsible to provide their own dumpsters for existing materials demolished under their contracts.
- 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. There is not sufficient space on site for either office or storage trailers. Contractors will need to store materials and equipment off site until they are ready for installation during their respective phases. Off-site storage will be included in each contractor's quotation.

- Neither the owner or construction manager will be charged additional costs for storage during the project.
- 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 on AIA G702/CMA, Application for Payment and G703, Continuation Sheet.
- 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. Each individual Contractor will provide fine clean up on a daily basis. Fine cleaning will be defined as those means/methods utilized to ensure that all odors, dust, and debris will be non-existent within the project area at the end of each workday. In addition, means and methods shall be utilized that prevent the migration of odors, dust, debris, and excessive noise from migrating into non-working areas. An approved cleanup plan will be required before the initial start of the work. The construction manager reserves the right to stop the work, or any portion thereof, upon failure to provide the required cleaning. Contractors will be individually back charged by the Construction Manager for clean up 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 and in 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. Existing mechanical, electrical, plumbing, sprinkler, medical gas, fire alarm, etc. systems will be shut off and locked out by the Owner as required by the Work. Tie-in and modifications to those systems will be performed by the specific Contractor associated with the work as indicated in the Contract Documents. Re-energizing and re-startup of all systems should be performed by the Owner.
- AA. 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.
- AB. 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.
- AC. Contractor is responsible for having a competent project superintendent/foreman on-site during all work performed under its contract.
- AD. 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.
- AE. 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.
- AF. Contractor shall provide the necessary safety barricades and railings required to complete their work and comply with all OSHA, local code and contract specifications.

- AG. **Liquidated Damages:** Contractors are responsible to provide sufficient manpower and equipment and materials to complete work as shown in the project schedule. Any delays in completing a phase of work due to issues caused by a contractor will be subject to a penalty of \$1,000 per calendar day that the work is not completed following the scheduled completion date of that phase of work.
- AH. Temporary Protection: Provide temporary protection to ensure that no damages occur to existing or new finishes, building components, materials, equipment, etc. In addition, provide all approved signage and safety devices applicable to the referenced temporary protection. An approved temporary protection plan will be required before the initial start of the work.
- AI. **Each individual Contractor will provide fine cleanup on a daily basis. Fine cleaning will be defined as those means/methods utilized to ensure that all odors, dust, and debris will be non-existent within the project area at the end of each workday. In addition, means and methods shall be utilized that prevent the migration of odors, dust, debris, and excessive noise from migrating into non-working areas. An approved cleanup plan will be required before the initial start of the work. The construction manager reserves the right to stop the work, or any portion thereof, upon failure to provide the required cleaning. Contractors will be individually back charged by the Construction Manager for cleanup not satisfactorily performed by the Contractor. (ADDENDUM NO. 1)**
- AJ. **The building will be occupied during construction. Contractor must provide Exhaust Purifiers / Scrubbers when any equipment produces airborne contaminants and will be used in an enclosed building. The Contractor shall verify air quality by the use of air monitoring equipment and document such verified air quality on the daily report. The monitoring equipment shall, at a minimum, be designed with an auditory alarm and shall provide continuous monitoring of these four gases: Oxygen, Hydrogen Sulfide, Carbon Monoxide and Combustible gases. (ADDENDUM NO. 1)**

**CONTRACT NO. A-01 - DEMOLITION**

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
Section 024100	Demolition

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

- 1-1. Provide complete interior demolition as shown on the architectural drawings. Demolition of the existing doors and hardware, shown on the architectural drawings, will be by the Carpentry & General Works Contractor. Demolition of existing mechanical, plumbing, and electrical systems is to be provided by the associated contractor.
- 1-2. Provide protection of adjacent materials and structures.
- 1-3. Provide all labor, material, trucking, equipment, hoisting, scaffolding, power, temporary facilities, permit fees, supervision, layout, clean up, etc. for the complete performance of all demolition work.
- 1-4. Provide dumpsters and complete removal from site for all demolition debris. This project will require sorting and recycling. This contractor owns providing dump tickets showing that all demolition debris has been recycled and detailed quantities of recycled debris.
- 1-5. Provide daily cleanup and fine cleaning.
- 1-6. Remove from site all combustible material including, but not limited to wood, steel, iron, structural steel, and dispose of in a legal manner. No on site burning of material will be allowed at any time.
- 1-7. This Contractor shall notify the Construction Manager immediately if hazardous materials (i.e. asbestos, lead, PCB's, etc.) are uncovered. At that time, all work in the affected area will be stopped until proper removal can be completed by others (i.e. hazardous material abatement contractor).
- 1-8. Temporary maintenance standby labor such as for temporary water, temporary power, temporary light and the like where required due to this Contractor's work is to be included within the Contract Price.

- 1-9. This Project is to be constructed adjacent to existing buildings, this 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 buildings in the area.
- 1-10. This Contractor shall clean public streets and sidewalks daily. This Contractor shall collect and remove from the site daily all rubbish, scrap and other debris resulting from its operations.
- 1-11. All light, power, water and any other utilities, including special provisions for hookups to same for this Contractor's operations will be provided by this Contractor within the Contract Price and unit prices.
- 1-12. This Contractor shall comply with all Federal, State and local laws requiring noise control and hours which work is to be conducted. Mufflers, "whisperized" compressors, etc., shall be used as required for compliance with laws and ordinances throughout the course of the Work.
- 1-13. It is understood that all Work under this Contract shall be in strict accordance with the Building Code with the City, State and any other agency having jurisdiction. In the event of any conflict in any provisions of any regulatory agency and Contract Documents, the more stringent requirements shall apply.
- 1-14. This Contractor is aware of the structural capacities of various portions of the structure. Cranes, materials, deliveries and material storage, shall not exceed rated capacities without this Contractor taking appropriate steps to compensate for the imposition of loads which may exceed the design criteria and which are imposed solely by this Contractor's operations.
- 1-15. This Contractor shall provide any and all "fire watch" personnel required due to the Contractor's cutting, burning, welding or other open flame activity.
- 1-16. This Contractor shall submit proposed methods and operations of building demolition to the Owner, his representative or agents for review prior to the start of work, including a schedule of coordinating the shut off, capping and/or continuation of utility services as required.
- 1-17. This Contractor shall visit the site of the proposed work, fully acquaint and familiarize himself with the conditions as they exist and the character of the operations to be carried out under the proposed Contract, and make such investigation as he may see fit so that he shall fully understand the facilities, physical conditions and restrictions affecting the work under the Contract. Claims for additional compensation and/or extensions of time because of Contractor's failure to familiarize himself with all conditions which might

affect the work shall not be allowed.

- 1-18. This Contractor, before commencement of any part of the Work, shall give any notices, required to be given to an adjoining landowner and other parties.
- 1-19. This Contractor, in the performance of the Work under his contract, shall maintain all required means of egress from the existing buildings and alter such stairs, platforms and fire escapes as required to satisfy all agencies having jurisdiction.
- 1-20. Existing services to remain will be defined by the Owner prior to or immediately after the start of demolition work.
- 1-21. This Contractor shall make a careful examination of the structures to be demolished and the adjoining property and utilities which are to remain; take whatever precautions are necessary and carry on operations so as to prevent personal injury and any settlement, collapse, damage from falling debris or other causes to adjacent building.
- 1-22. Any damage to public property, private property, or to utilities due to demolition operations, or the Contractor's neglect, shall be corrected by this Contractor, in a manner approved by the Owner and the parties whose property has been damaged, all at no additional cost to the Owner.
- 1-23. All equipment, materials and debris shall be regularly removed by this Contractor from the Site as work progresses in such manner as not to create a nuisance, and shall be disposed of by this Contractor at his own expense, at locations to be determined by this Contractor. Permits required in connection with the disposal of the materials shall be obtained by this Contractor. Disposal shall be in accordance with all Federal, State and local laws, rules, codes, orders and regulations.
- 1-24. Materials and equipment to be salvaged or which have been sold to others by this Contractor must be promptly removed by this Contractor, and shall not be stored at the site. The offering, advertising, display or sale of materials and equipment will not be permitted.
- 1-25. Contractor shall remove debris promptly and will not burn anything on the site. Contractor shall keep required fire extinguishing equipment in serviceable condition, properly distributed so that it will be available for immediate use, particularly during any acetylene cutting operations. This Contractor shall afford adequate facilities for inspection by, and carry out the recommendations of, the local Fire Department. This Contractor shall maintain one fire riser during demolition.
- 1-26. This Contractor shall, prior to the start of Work, provide the name and location of proposed dump site to receive the demolition debris. Dump site must be licensed and acceptable to all local government agencies having jurisdiction.

- 1-27. This Contractor shall provide signed and stamped dump site debris tickets identifying the location, date, time and quantity of debris deposited at the dump site.
- 1-28. Provide protection of existing floors and finishes as required during demolition operations.
- 1-29. Provide demolition and removal from site of existing housekeeping pads left after removal of existing mechanical, plumbing, fire protection, and electrical equipment.
- 1-30. Provide pricing for all alternates as described in Section 012300-Alternates.
- 1-31. Provide temporary protection of the existing floors using masonite prior to the start of demolition in each phase. This protection will be maintained throughout the phase until directed by the Construction Manager to be removed. This Contractor will remove and store the masonite between phases until able to install in the next phase. This Contractor will remove and dispose of the masonite at the end of the last phase of construction.
- 1-32. Provide \$15,000 allowance to be used at the discretion of the Construction Manager.
- 1-33. **Demolish and dispose of existing SACT Ceiling, Grid & Soffit Systems, and Plaster/Gyp Board Ceiling & Soffit Systems. (ADDENDUM NO. 1)**

**CONTRACT NO. A-02 - CARPENTRY & GENERAL WORKS**

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
<b>Section 031000</b>	<b>Concrete Forming and Accessories (ADD#1)</b>
<b>Section 032000</b>	<b>Concrete Reinforcing (ADD#1)</b>
<b>Section 033000</b>	<b>Cast-in-Place Concrete (ADD#1)</b>
<b>Section 040511</b>	<b>Masonry Mortaring and Grouting (ADD#1)</b>
<b>Section 042000</b>	<b>Unit Masonry (ADD#1)</b>
Section 061000	Rough Carpentry
Section 062000	Finish Carpentry
<del>Section 074100</del>	<del>Sheet Metal Soffit Panels</del>
<b>Section 074633</b>	<b>Plastic Siding (ADD#1)</b>
Section 076200	Sheet Metal Flashing and Trim
Section 078400	Firestopping
<del>Section 079005</del>	<del>Joint Sealants (ADD#1)</del>
<b>Section 079005</b>	<b>Joint Sealers (ADD#1)</b>
Section 081113	Hollow Metal Doors and Frames
<b>Section 081416</b>	<b>Flush Wood Doors (ADD#1)</b>
Section 081613	Fiberglass Reinforced Polyester Flush Doors
Section 083100	Access Doors and Panels
Section 087100	Door Hardware
Section 088000	Glazing
Section 089100	Louvers
<b>Section 092116</b>	<b>Gypsum Board Assemblies (ADD#1)</b>
<b>Section 096500</b>	<b>Resilient Flooring (ADD#1)</b>
<b>Section 099000</b>	<b>Painting and Coating (ADD#1)</b>

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

- 2-1 Provide labor and materials to perform the work related to all carpentry and general work.
- 2-2 All rough carpentry related to the exterior skin of the building including wood nailers and blocking and exterior sheathing.
- 2-3 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, etc. including fire treating, as required.

- 2-4 Provide complete demolition of the existing exterior doors and hardware, shown on the architectural drawings, immediately prior to the installation of the new doors and hardware. This work will be closely coordinated so as not to leave any part of the building unsecure at any time.
- 2-5 Provide blocking, cutting, flashing, and roof patching for any new penetrations through the existing roof by other trades. This contractor is to provide a weathertight enclosure at all new roof openings. Provide flashing for all new roof curbs. Patch and seal existing roof at demolished roof top equipment.
- 2-6 Provide daily cleanup and fine cleaning.
- 2-7 Provide hollow metal doors, hollow metal frames, and fiberglass reinforced polyester flush doors. This includes anchoring devices, fasteners, inserts and other related items associated with the installation of the above items.
- 2-8 Coordinate electrical requirements with any automatic door operations.
- 2-9 Furnish hold open closers with fire alarm interface: Power wiring by Electrical Contractor. Fire alarm ties in by Electrical Contractor.
- 2-10 Coordinate card reader requirements with electrical hardware.
- 2-11 Keying. All lock sets (Hollow Metal, Wood Doors, and Aluminum Entrances). Provide Owner with copy of pin schedule.
- 2-12 Provide construction cylinders.
- 2-13 Provide all field trimming required to adjust to existing conditions.
- 2-14 This Subcontractor shall at a minimum provide and maintain for the length of the project, one temporary fire extinguisher for each 3,000 sq. ft of the protected building area. Fire extinguishers shall be 10lb, Multi-Purpose (ABC) dry chemical, UL labeled, with a rating of 3a:40bc.
- 2-15 Provide all painting of new walls and ceilings. Sealing all interior joints between dissimilar materials that require sealants.
- 2-16 Paint exposed piping and ductwork (sprinkler, plumbing, electrical) in accordance with the Drawings and Specifications.
- 2-17 Provide supplementary ventilation as required in enclosed spaces.

- 2-18 Paint and caulk all new hollow metal frames and doors as shown on the door schedule.
- 2-19 Prefinished items will not be painted by this Contractor.
- 2-20 Protection of adjacent surfaces.
- 2-21 Minor patching prior to application of finishes.
- 2-22 Final coat of paint is to be installed after ceilings are installed, if directed by Construction Manager.
- 2-23 Provide louvers and grilles.
- 2-24 Provide metal studs, insulation, gypsum wallboard, taping, spackling, plaster and stucco.
- 2-25 Scaffolding and lifts for this work.
- 2-26 Comebacks and out-of-sequence work may be required and as such should be included.
- 2-27 Include all necessary field measurements.
- 2-28 Include two (2) passes per floor to “touch-up” mechanical penetrations to insure 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.
- 2-29 Bidders are advised to pay particular attention to top of wall conditions, fire and smoke safing of slabs and acoustical sealants.
- 2-30 Provide all metal framing as indicated for back up of other materials.
- 2-31 Provide access panels.
- 2-32 Provide \$20,000 allowance to be used at the discretion of the Construction Manager.
- 2-33 Provide pricing for all alternates as described in Section 012300-Alternates.
- 2-34 Prep & Paint existing overhead coiling door. Reference Demo Key Note D-2 on Dwg. A 2.3 & Construction Key Note C-4 on Dwg. A 3.3. (ADDENDUM NO. 1)**
- 2-35 Provide new wall infill and access panels as noted on Dwg. A 3.1, A 3.3, A 3.4 & A 3.5, Construction Key Note C-2 and Dwg. A 3.2 Construction Key Note C-8. Tooth in CMU and paint to match existing. Verify locations with mechanical Dwgs. (ADDENDUM NO. 1)**

- 2-36 Provide new floor infill as noted on Dwg. A 3.1, A 3.3, A 3.4 & A 3.5, Construction Key Note C-2 and Dwg. A 3.2, Construction Key Note C-9. Infill deck and concrete to match existing. Where adjacent to existing VCT floor finish, provide new VCT to match existing. Verify locations with mechanical dwgs. (ADDENDUM NO. 1)**
- 2-37 Contractor shall coordinate ceiling layout with Mechanical, Electrical, Plumbing & Fire Protection Drawings. (ADDENDUM NO. 1)**
- 2-38 Contractor shall install, maintain and remove temporary partitions with double doors, closers, and panic devices as indicated on the Phasing Plan Drawings. Partitions facing the occupied areas shall receive 5/8" fire rated plywood painted to match adjacent finishes. Doors shall be reconfigured per phase to ensure the door swing is in compliance with egress requirements. Partitions shall be constructed to the underside of the existing structure. Partitions shall not be mechanically fastened to the floor. Any fastening methods shall be repaired to match the existing finishes. This contractor will also modify the partitions during each phase to allow for the installation of the new ceilings while maintaining separation between the construction area and the occupied areas. (ADDENDUM NO. 1)**

**CONTRACT NO. A-03 - STRUCTURAL STEEL & MISCELLANEOUS METALS**

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
<del>Section 05 12 00</del>	<del>Structural Steel Framing (ADD#1)</del>
<del>Section 05 31 00</del>	<del>Steel Decking (ADD#1)</del>
<del>Section 05 50 00</del>	<del>Metal Fabrications (ADD#1)</del>
<del>Section 05 51 00</del>	<del>Metal Stairs (ADD#1)</del>
<del>Section 05 52 13</del>	<del>Pipe and Tube Railings (ADD#1)</del>
<del>Section 05 53 05</del>	<del>Metal Gratings and Floor Plates (ADD#1)</del>
<del>Section 05 71 13</del>	<del>Fabricated Spiral Stairs (ADD#1)</del>

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

- 3-1. Provide structural steel, metal floor decking, and roof decking.
- 3-2. Provide supplementary steel for roof top units.
- 3-3. Provide lintels.
- 3-4. Framing out for openings (mechanical openings, stairs, etc.). Assume opening frames will be field installed.
- 3-5. Prime paint systems, galvanizing, and related finishing of steel items, including touch up.
- 3-6. All steel testing will be the responsibility of the Construction Manager, however, this Contractor will cooperate with the testing agency in the inspection at the fabrication shop and in the field.
- 3-7. No electrical power for welders will be provided.
- 3-8. 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.
- 3-9. This Contractor shall include all necessary staging, rigging, matting and remobilizations to accommodate phasing of construction.
- 3-10. Miscellaneous rough hardware, iron shapes, framing and support angles.

- 3-11. Provide metal gratings and floor plates
- 3-12. Galvanizing, as required.
- 3-13. Anchoring devices, fasteners, inserts and other related items associated with the installation of the above items.
- 3-14. Field touch-up paint.
- 3-15. Verify field dimensions.
- 3-16. Smoke eaters must be utilized at all areas where welding or torch work is required. These must be utilized at all welds.
- 3-17. Provide patching of existing metal roof deck where existing mechanical and plumbing equipment is being removed. Also patch the existing metal roof deck where new mechanical equipment, frames, post, etc. are being installed.
- 3-18. Provide in the base bid \$15,000 allowance for work as directed by the Construction Manager.
- 3-19. Reference Mechanical Drawings, General Mechanical Note 3. At each location where ducts are shown to cross a center line of bridging, this contractor is to provide the removal and re-work of existing joist cross bracing as detailed on structural drawing S2.1 to facilitate duct routing. (ADDENDUM NO. 1)**

**CONTRACT NO. A-04 – ACOUSTICAL 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	Procurement and Contract Requirements
Division 1	General Requirements
<b>Section 079005</b>	<b>Joint Sealers (ADD#1)</b>
Section 095100	Acoustical Ceilings

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

- 4-1. **Provide acoustical panel ceilings, soffits, suspension systems and hangers per Dwg A 3.6 thru A 3.10, Ceiling Key Notes C-1, C-3 & C-4. (ADDENDUM NO. 1)**
- 4-2. Acoustical lay in insulation blankets above ceiling where required by Specifications or Drawings.
- 4-3. Supplemental suspension hangers at large ducts above ceilings and at openings for lighting fixtures.
- 4-4. Continuous acoustical sealant on back of vertical leg before installing moldings.
- 4-5. Furnish and install hold down clips where required by governing regulations for fire resistant ratings.
- 4-6. Expansion joints.
- 4-7. Reflected ceiling layout.
- 4-8. This Contractor shall cut openings in ceilings for sprinkler heads, lights, mechanical diffusers and grilles, etc.
- 4-9. Provide attic stock.
- 4-10. Provide daily cleanup and fine cleaning
- 4-11. Provide pricing for all alternates as described in Section 012300-Alternates.
- 4-12. **Contractor shall coordinate ceiling layout with Mechanical, Electrical, Plumbing & Fire Protection Drawings. (ADDENDUM NO. 1)**

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**CONTRACT NO. A-05 - MECHANICAL & 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	Procurement and Contract Requirements
Division 1	General Requirements
Section 024100	Demolition
<b>Section 031000</b>	<b>Concrete Forming and Accessories (ADD#1)</b>
<b>Section 032000</b>	<b>Concrete Reinforcing (ADD#1)</b>
<b>Section 033000</b>	<b>Cast-in-Place Concrete (ADD#1)</b>
<b>Section 078400</b>	<b>Firestopping (ADD#1)</b>
<b>Section 079005</b>	<b>Joint Sealers (ADD#1)</b>
<b>Section 083100</b>	<b>Access Doors and Panels (ADD#1)</b>
Division 22	Plumbing
Division 23	Heating, Ventilating, and Air-Conditioning (HVAC)
Division 26	Electrical

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

- 5-1. Provide a complete mechanical, plumbing and piping system as indicated on the Drawings and in the Specifications. Include all necessary design labor and quick-ship costs to supply Unit Ventilators, Air Handling Units, and Cabinet Unit Heaters for installation in Phase 1 areas for installation prior to the end of August 2015 as stated in the project schedule. All other mechanical units must be ordered and delivered to site for installation during each phase as shown on the construction schedule.
- 5-2. Division 26 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.
- 5-3. 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.

- 5-4. Provide complete demolition and removal from site of all piping, plumbing fixtures, mechanical units, boilers, and chillers as shown on mechanical and plumbing drawings. This contractor is responsible to provide their own dumpsters and recycling for these demolished materials. Demolition of existing housekeeping pads left following demolition of existing equipment will be performed by Contract A-01: Demolition. Provide protection of adjacent floors and finishes during demolition of mechanical and plumbing fixtures, equipment, pipe, etc.
- 5-5. Fill in all depressions to match adjacent existing grade. Fill shall be clean common compactable fill or select material.
- 5-6. Temporary maintenance standby labor such as for temporary water, temporary power, temporary light and the like where required due to this Contractor's work is to be included within the Contract Price.
- 5-7. Excavation and backfill for underground mechanical/plumbing work is the responsibility of this Contractor. Soil types shall be in accordance with Del Dot standard specifications.
- 5-8. Provide equipment bases and/or housekeeping pads.
- 5-9. Provide permits.
- 5-10. Provide pipe and duct insulation.
- 5-11. Penetrations through wall, floors, etc. including cutting, patching and fire safing. Patch all penetrations through walls left after demolition of existing pipe. Patch is to provide smoke seal through wall.
- 5-12. Provide daily cleanup and fine cleaning.
- 5-13. All guarantees and warranties to begin at the substantial completion of the entire project. Maintain equipment prior to substantial completion.
- 5-14. Hoisting, rigging and scaffolding.
- 5-15. Provide a direct digital control system for HVAC.
- 5-16. Ductwork, flex duct, grilles and diffusers.
- 5-17. Provide louvers and vents related to HVAC operations.
- 5-18. Coordinate damper size, location and type of damper with architectural drawings.

- 5-19. Temporary heat and ventilation installation, maintenance and removal. Refer to Division 1, Specification Section 015123 - TEMPORARY HEAT AND VENTILATION, for specific scope.
- 5-20. Provide roof curbs for new mechanical equipment.
- 5-21. Provide access panels.
- 5-22. As-built drawings.
- 5-23. Provide pricing for all alternates as described in Section 012300-Alternates.
- 5-24. Provide a \$20,000 allowance to be used at the discretion of the Construction Manager.
- 5-25. Provide pricing for all alternates as described in Section 012300-Alternates.
- 5-26. **Removal, storage and re-installation of existing ceiling mounted HVAC grilles, diffusers and units scheduled to remain. (ADDENDUM NO. 1)**
- 5-27. **Installation of all roof top equipment shall be done after hours and/or weekends. Contractor to include multi-mobilization as required by the phasing schedule. (ADDENDUM NO. 1)**
- 5-28. **Contractor is responsible for keeping the existing system in service during phased construction. Maintain all existing mechanical services in use at all times unless written permission is received from the owner to temporarily interrupt any such services permanently reconnect all services disrupted by the alteration and demolition work. (ADDENDUM NO. 1)**
- 5-29. **Contractor is required to evaluate the existing systems performance. Existing deficiencies are to be reported immediately to the Construction Manager prior to any work on existing systems to remain in service. (ADDENDUM NO. 1)**
- 5-30. **Contractor to include after-hours and/or weekend work for the shutdown and restart of equipment associated with the electrical building shut down scheduled to occur during Summer 2016. (ADDENDUM NO. 1)**
- 5-31. **Demolish & dispose of the Cooling Tower concrete slab and enclosure as indicated on drawing M 8.3, Mechanical Demolition note MD-7. Contractor shall backfill the area where the slab was removed with topsoil. Provide grass seed and straw for stabilization. (ADDENDUM NO. 1)**
- 5-32. **Contractor shall remove & store sprinkler concealed head caps and escutcheons prior**

**to ceiling demolition. Reinstall concealed caps and escutcheons after installation of new ceilings. (ADDENDUM NO. 1)**

- 5-33. **Relocate sprinkler piping in Rooms 100H-1 & 100H-8 as noted on Dwg. M 8.14. (ADDENDUM NO. 1)**
- 5-34. **All wall and floor penetrations to facilitate mechanical work are at the responsibility of this contractor, and are not specifically called out. For typical brick and CMU wall penetration details, including lintel guidelines, see Structural Plan S2.1. (ADDENDUM NO. 1)**
- 5-35. **Reference Mechanical Drawings, General Mechanical Note 3. The Structural Steel & Miscellaneous Metals contractor will perform removal and re-work of existing joist cross bracing to facilitate duct routing as detailed on structural drawing S2.1 detail 8. (ADDENDUM NO. 1)**
- 5-36. **The refrigerant piping systems for all split system DX cooling systems shall be designed and approved by a licensed PE under guidance from the manufacturer – as well as all required components, double-suction risers, hot gas bypass circuits, etc. All components and piping required for specified operation shall be at the responsibility of this contractor. (ADDENDUM NO. 1)**

**CONTRACT NO. A-06 – TESTING 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	Procurement and Contract Requirements
Division 1	General Requirements
Division 22	Plumbing
Division 23	Heating, Ventilating, and Air-Conditioning (HVAC)
Division 26	Electrical

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

- 6-1. Provide complete testing and balancing services for the project.
- 6-2. Provide signed and sealed test report by a certified engineer. Report is due prior to New Castle county final inspection.
- 6-3. Provide rough balancing after each phase of work and final balancing during phase 8 of the project.
- 6-4. Provide water and air testing and balancing.
- 6-5. Provide coordination of central mechanical plant commissioning with the equipment supplier and installer.
- 6-6. Contractor shall prepare, at a minimum, a preliminary balance report for the New Castle County Final Inspection.
- 6-7. Provide pricing for all alternates as described in Section 012300-Alternates.
- 6-8. Provide complete signed and sealed testing report prior to substantial completion and final inspection as required by county Licensing and Inspections.
- 6-9. Provide daily testing and deficiency reports to the Construction Manager and Mechanical Contractor.

CONTRACT NO. A-07 - ELECTRICAL

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
<b>Section 031000</b>	<b>Concrete Forming and Accessories (ADD#1)</b>
<b>Section 032000</b>	<b>Concrete Reinforcing (ADD#1)</b>
<b>Section 033000</b>	<b>Cast-in-Place Concrete (ADD#1)</b>
<b>Section 078400</b>	<b>Firestopping (ADD#1)</b>
<b>Section 079005</b>	<b>Joint Sealers (ADD#1)</b>
<b>Section 083100</b>	<b>Access Doors and Panels (ADD#1)</b>
Division 22	Plumbing
Division 23	Heating, Ventilating, and Air-Conditioning (HVAC)
Division 26	Electrical

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

- 7-1. Provide a complete electrical system as indicated on the drawings, schedules and in the specifications.
- 7-2. Divisions 22 and 23 of the specifications should be reviewed as they relate 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.
- 7-3. Provide demolition of existing electrical systems as shown in the project documents. This contractor is responsible to provide their own dumpsters and recycling for these demolished materials. Prior to commencement of electrical demolition, provide EDiS written verification that all lines to be demolished have been de-energized and are ready for removal. Provide protection of adjacent floors and finishes during demolition of existing electrical equipment, conduit, etc.
- 7-4. Excavation and backfill for underground electrical work as required below is the responsibility of this Contractor. Soil types shall be in accordance with Del DOT standard specifications.
- 7-5. Temporary electric installation, maintenance and removal. Refer to Division 1, Specification Section 015113 - TEMPORARY ELECTRIC, for specific scope.

- 7-6. Rough in and final connection and related work for equipment provided under other contracts (i.e. kitchen, elevators, HVAC, sprinkler, motorized doors, etc.)
- 7-7. Provide permits and inspections.
- 7-8. Penetrations through wall, floors, etc. including cutting, patching and fire safing. Patch all penetrations through walls left after demolition of existing pipe. Patch is to provide smoke seal through wall.
- 7-9. Testing.
- 7-10. Provide daily cleanup and fine cleaning.
- 7-11. All guarantees and warranties to begin at the substantial completion of the entire project. Maintain equipment prior to substantial completion.
- 7-12. Hoisting, rigging and scaffolding.
- 7-13. Provide all primary service work, including all utility company related costs/fees for this work.
- 7-14. Provide modifications and additions to the existing 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.
- 7-15. Provide heat tracing.
- 7-16. Provide modifications and additions to existing special systems (CCTV, sound, public address, security, and time clock). Security system modifications to be provided by Advantech through the allowance specified in this section. Provide voice and data modifications by a state approved vendor.
- 7-17. Grounding of building columns and interior spaces as required.
- 7-18. Provide tele/data system modifications and additions as shown in the project documents including boxes, conduit, and cabling.
- 7-19. As-built drawings.
- 7-20. 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 Carpentry & General Works Contractor.

- 7-21. Provide pricing for all alternates as described in Section 012300-Alternates.
- 7-22. Provide a \$15,000 allowance to be used at the discretion of the Construction Manager.
- 7-23. Provide a \$15,000 allowance to be used for security system modifications by Advantech Inc.
- 7-24. Provide a \$50,000 allowance to reorganize and modify existing above-ceiling electrical wiring to bring existing conditions to current code. This work will be tracked on a time and material basis to be utilized against this allowance.
- 7-25. **Temporarily suspend, disconnect, and safe off any ceiling & soffit mounted light fixtures, electrical, fire alarm and specialty systems devices & components as required to facilitate the ceiling & soffit replacement. Owner shall remove and reinstall all ceiling mounted Projectors and Routers.(ADDENDUM NO. 1)**
- 7-26. **Contractor shall establish and maintain temporary electric to the fire alarm & security systems while replacing the Main Distribution Panel with Switchboard No. 1. (ADDENDUM NO. 1)**
- 7-27. **Contractor shall install, maintain and remove temporary illuminated directional exit signs with battery back up at each temporary partition in coordination with the Phasing Plan & Schedule. Reference Phasing Plan PH-1 & PH-2 for location of temporary partitions. (ADDENDUM NO. 1).**
- 7-28. **Contractor shall remove and dispose of all ceiling mounted televisions and mounting devices. (ADDENDUM NO. 1)**
- 7-29. **Existing and New systems are required to be operational during phased construction. The existing main switchboard scheduled to be demolished will remain in service during Phases 1 through 9. Contractor to provide temporary connections / terminations / raceways and components from the new electrical panel boards to the existing main switchboard. The new switchboard SWBD-1 will be installed during Phase 10, Summer 2016. Contractor shall disconnect the temporary connections from the old switchboard, refeed & terminate into the new switchboard SWBD-1. (ADDENDUM NO. 1)**

END OF SECTION

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SECTION 012300 - ALTERNATES

1. GENERAL PROVISIONS

- A. The general provisions of the Contract, including the Conditions of the Contract (General, Supplementary and other conditions, if any) and Division 1 as appropriate, apply to the Work specified in this Section.
- B. Refer to provisions in AIA Document A232 – 2009 Edition, GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION, CONSTRUCTION MANAGER AS ADVISOR EDITION, for requirements in addition to those specified in Division 1.
- C. For work being constructed under separate prime contracts, provisions of this Section apply to each contract being bid.

2. BASE BID

- A. The Base Bid shall consist of all work shown or specified in the Contract Documents, exclusive of any Additive Alternates specified herein.
- B. The Base Bid shall include all work in any Subtractive Alternates specified herein.

3. ALTERNATES

- A. State in the Bid Form the amount to be added to the Base Bid for each Alternate specified.
- B. See Section 002113 - INSTRUCTIONS TO BIDDERS for related information.
- C. The description of Alternates contained herein is in summary form. Detailed requirements for materials and execution shall be as specified in other sections and as shown on drawings.

Alternate No. 1: Second Shift Work

- a. Base Bid: All work is to be performed on First Shift between the hours of 7:00 AM and 3:30 PM.
- b. Alternate: Includes, but is not limited to, performing all Phase 2 through ~~10~~ 9 work on Second Shift, between the hours of 2:30 PM and 11:00 PM. Phases 1 and ~~11~~ 10 will be performed on First Shift. **(ADD#1)**

Alternate No. 2: Lobby Upgrades

- a. Base Bid: No work is required.
- b. Alternate: Includes, but is not limited to, adding walls and doors across the corridors in the main lobby.

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Alternate No. 3: Main Building Fascia Repairs

- a. Base Bid: No work is required.
- b. Alternate: Includes, but is not limited to, repairing the fascia along the exterior of the **main** building. (ADD#1)

Alternate No. 4: Annex Building Fascia Repairs (ADD#1)

- a. Base Bid: No work is required.
- b. Alternate: Includes, but is not limited to, repairing the fascia along the exterior of the **Annex** building.

Alternate No. 5: Annex Roof Top Unit (ADD#1)

- a. Base Bid: No work is required.
- b. Alternate: Includes, but is not limited to, replacing the existing roof top unit on the **Annex** building with a new roof top unit.

Alternate No. 6: Annex Server Room Upgrades (ADD#1)

- a. Base Bid: No work is required.
- b. Alternate: Includes, but is not limited to, replacing the existing air conditioning unit serving the server room of the **Annex** building with a new split-system HVAC unit. Also, includes installation of a new concrete pad, fence and bollards.

Alternate No. 7: Room 100X Cub Care Partition (ADD#1)

- a. Base Bid: No work is required.
- b. Alternate: Includes, but is not limited to, installation of a new metal stud and drywall partition.

END OF SECTION

**RED CLAY CONSOLIDATED SCHOOL DISTRICT  
BRANDYWINE SPRINGS SCHOOL - HVAC RENOVATIONS  
PROJECT MASTER SCHEDULE**

ID	Task Name	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	2015												2016				
								Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
1	<b>PRECONSTRUCTION ACTIVITIES</b>	<b>76 days</b>	<b>Fri 4/17/15</b>	<b>Mon 8/3/15</b>	<b>Fri 4/17/15</b>	NA																		
2	OMB Data Services Submission	1 day	Fri 4/17/15	Fri 4/17/15	Fri 4/17/15	Fri 4/17/15																		
3	Advertise My Marketplace	1 day	Fri 5/1/15	Fri 5/1/15	Fri 5/1/15	Fri 5/1/15	2FS+9 days																	
4	1st Bid Advertisement	1 day	Fri 5/1/15	Fri 5/1/15	Fri 5/1/15	Fri 5/1/15	2FS+9 days																	
5	2nd Bid Advertisement	1 day	Mon 5/4/15	Mon 5/4/15	Mon 5/4/15	Mon 5/4/15	4																	
6	Pre Bid Meeting	1 day	Thu 5/7/15	Thu 5/7/15	Thu 5/7/15	Thu 5/7/15	5FS+2 days																	
7	Bidding Period	15 days	Thu 5/7/15	Wed 5/27/15	Thu 5/7/15	NA	6FS-1 day																	
8	Bid Opening @4:00 PM @ Brandywine Springs School	0 days	Wed 5/27/15	Wed 5/27/15	NA	NA	7																	
9	Bid Review and Recommendation to Owner	5 days	Thu 5/28/15	Wed 6/3/15	NA	NA	8																	
10	RCCSD Issues Letters of Intent	2 days	Thu 6/4/15	Fri 6/5/15	NA	NA	9																	
11	RCCSD Board Approval	0 days	Wed 6/17/15	Wed 6/17/15	NA	NA																		
12	Award Contracts	7 days	Thu 6/18/15	Fri 6/26/15	NA	NA	11FS+1 day																	
13	Permit Application	5 days	Mon 6/8/15	Fri 6/12/15	NA	NA	10																	
14	Submittals / Order Equipment	40 days	Mon 6/8/15	Mon 8/3/15	NA	NA	10																	
15	Last Day of School for Students	0 days	Fri 6/5/15	Fri 6/5/15	NA	NA																		
16	<b>CONSTRUCTION</b>	<b>324 days</b>	<b>Fri 6/5/15</b>	<b>Fri 9/9/16</b>	<b>NA</b>	<b>NA</b>																		
17	<b>PHASE 1 - Summer 2015</b>	<b>68 days</b>	<b>Fri 6/5/15</b>	<b>Thu 9/10/15</b>	<b>NA</b>	<b>NA</b>																		
18	<b>Phase 1 - Electrical Work</b>	<b>60 days</b>	<b>Fri 6/5/15</b>	<b>Fri 8/28/15</b>	<b>NA</b>	<b>NA</b>																		
19	Field Verify Existing Electrical	5 days	Fri 6/5/15	Thu 6/11/15	NA	NA	15																	
20	Submittals / Order New Switchboards and Panels	20 days	Fri 6/12/15	Fri 7/10/15	NA	NA	19																	
21	Roughin Electrical from New Panelboards to Boiler Room	30 days	Mon 7/13/15	Fri 8/21/15	NA	NA	20																	
22	Install Temporary 208V Service for New Equipment	5 days	Mon 8/24/15	Fri 8/28/15	NA	NA	21																	
23	<b>Phase 1A - Cafeteria</b>	<b>57 days</b>	<b>Mon 6/8/15</b>	<b>Wed 8/26/15</b>	<b>NA</b>	<b>NA</b>																		
24	Field Verify and Order Ductwork	0 days	Mon 6/8/15	Mon 6/8/15	NA	NA	15																	
25	RCCSD Moves Furniture	2 days	Mon 6/8/15	Tue 6/9/15	NA	NA	15FS+1 day																	
26	Mobilize	3 days	Wed 6/17/15	Fri 6/19/15	NA	NA	11																	
27	Tie-up Existing Lights & Safe-Off Electric	2 days	Mon 6/22/15	Tue 6/23/15	NA	NA	26																	
28	Demo Exposed Ductwork	3 days	Wed 6/24/15	Fri 6/26/15	NA	NA	27																	
29	Demo & Remove Existing Acoustical Ceiling	2 days	Mon 6/29/15	Tue 6/30/15	NA	NA	28																	
30	Install Ceiling Grid	3 days	Wed 7/1/15	Mon 7/6/15	NA	NA	29																	
31	Re-install Existing Lights	2 days	Tue 7/7/15	Wed 7/8/15	NA	NA	30																	
32	Above Ceiling Inspections - Electrical & NCC	1 day	Thu 7/9/15	Thu 7/9/15	NA	NA	31																	
33	Install New Ductwork in Cafeteria	3 days	Fri 7/10/15	Tue 7/14/15	NA	NA	32																	
34	Install Ceiling Tiles	2 days	Wed 7/15/15	Thu 7/16/15	NA	NA	33																	
35	Temporary Connection of Existing Ducts to New Ducts	2 days	Wed 7/15/15	Thu 7/16/15	NA	NA	33																	
36	Paint New Ductwork	3 days	Fri 7/17/15	Tue 7/21/15	NA	NA	35																	
37	A/E Prepares Punchlist	1 day	Wed 7/22/15	Wed 7/22/15	NA	NA	36																	
38	Contractors Correct Punchlist	3 days	Thu 7/23/15	Mon 7/27/15	NA	NA	37																	
39	Final Cleaning	1 day	Tue 7/28/15	Tue 7/28/15	NA	NA	38																	
40	Turnover Cafeteria to Owner	0 days	Tue 7/28/15	Tue 7/28/15	NA	NA	39																	
41	Install Roof Curb for RTU-1	2 days	Fri 7/17/15	Mon 7/20/15	NA	NA	35																	
42	Receive RTU-1	0 days	Mon 8/3/15	Mon 8/3/15	NA	NA	14																	
43	Set RTU-1	1 day	Tue 8/4/15	Tue 8/4/15	NA	NA	42																	
44	Demo Existing Ductwork and HP's in Mezzanine	3 days	Wed 8/5/15	Fri 8/7/15	NA	NA	43																	

















**SECTION 03 30 00**  
**CAST-IN-PLACE CONCRETE**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Joint devices associated with concrete work.
- B. Miscellaneous concrete elements, including equipment pads.
- C. Concrete curing.

**1.02 REFERENCE STANDARDS**

- A. ACI 117 - Standard Specifications for Tolerances for Concrete Construction and Materials; American Concrete Institute International.
- B. ACI 211.1 - Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete; American Concrete Institute International.
- C. ACI 301 - Specifications for Structural Concrete; American Concrete Institute International.
- D. ACI 302.1R - Guide for Concrete Floor and Slab Construction; American Concrete Institute International.
- E. ACI 304R - Guide for Measuring, Mixing, Transporting, and Placing Concrete; American Concrete Institute International.
- F. ACI 305R - Hot Weather Concreting; American Concrete Institute International.
- G. ACI 306R - Cold Weather Concreting; American Concrete Institute International.
- H. ACI 308R - Guide to Curing Concrete; American Concrete Institute International.
- I. ACI 318 - Building Code Requirements for Structural Concrete and Commentary; American Concrete Institute International.
- J. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete.
- K. ASTM C33/C33M - Standard Specification for Concrete Aggregates.
- L. ASTM C39/C39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
- M. ASTM C150/C150M - Standard Specification for Portland Cement.
- N. ASTM C881/C881M - Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete.
- O. ASTM C1059/C1059M - Standard Specification for Latex Agents for Bonding Fresh to Hardened Concrete.

**1.03 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements and installation instructions.
- C. Mix Design: Submit proposed concrete mix design.

**1.04 QUALITY ASSURANCE**

- A. Perform work of this section in accordance with ACI 301 and ACI 318.
- B. Follow recommendations of ACI 305R when concreting during hot weather.
- C. Follow recommendations of ACI 306R when concreting during cold weather.

### **1.05 WARRANTY**

- A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.

## **PART 2 PRODUCTS**

### **2.01 FORMWORK**

- A. Comply with requirements of Section 03 10 00.

### **2.02 REINFORCEMENT**

- A. Comply with requirements of Section 03 20 00.

### **2.03 CONCRETE MATERIALS**

- A. Cement: ASTM C150, Type I - Normal Portland type.
- B. Fine and Coarse Aggregates: ASTM C 33.

### **2.04 ADMIXTURES**

- A. Do not use chemicals that will result in soluble chloride ions in excess of 0.1 percent by weight of cement.

### **2.05 BONDING AND JOINTING PRODUCTS**

- A. Latex Bonding Agent: Non-redispersable acrylic latex, complying with ASTM C1059/C1059M, Type II.
  - 1. Products:
    - a. Kaufman Products Inc.; SureBond: [www.kaufmanproducts.net](http://www.kaufmanproducts.net).
    - b. SpecChem, LLC; Strong Bond Acrylic Bonder: [www.specchemllc.com](http://www.specchemllc.com).
    - c. W.R. Meadows, Inc.; ACRY-LOK-: [www.wrmeadows.com](http://www.wrmeadows.com).
    - d. Substitutions: See Section 01 60 00 - Product Requirements.
- B. Epoxy Bonding System:
- C. Slab Isolation Joint Filler: 1/2 inch thick, height equal to slab thickness, with removable top section that will form 1/2 inch deep sealant pocket after removal.

### **2.06 CONCRETE MIX DESIGN**

- A. Proportioning Normal Weight Concrete: Comply with ACI 211.1 recommendations.
- B. Admixtures: Add acceptable admixtures as recommended in ACI 211.1 and at rates recommended or required by manufacturer.
- C. Normal Weight Concrete:
  - 1. Compressive Strength, when tested in accordance with ASTM C39/C39M at 28 days: 3,000 pounds per square inch.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify lines, levels, and dimensions before proceeding with work of this section.

### **3.02 PREPARATION**

- A. Verify that forms are clean and free of rust before applying release agent.
- B. Coordinate placement of embedded items with erection of concrete formwork and placement of form accessories.
- C. Where new concrete is to be bonded to previously placed concrete, prepare existing surface by cleaning with steel brush and applying bonding agent in accordance with manufacturer's instructions.
  - 1. Use epoxy bonding system for bonding to damp surfaces, for structural load-bearing applications, and where curing under humid conditions is required.

2. Use latex bonding agent only for non-load-bearing applications.
- D. Where new concrete with integral waterproofing is to be bonded to previously placed concrete, prepare surfaces to be treated in accordance with waterproofing manufacturer's instructions. Saturate cold joint surface with clean water, and remove excess water before application of coat of waterproofing admixture slurry. Apply slurry coat uniformly with semi-stiff bristle brush at rate recommended by waterproofing manufacturer.
- E. In locations where new concrete is doweled to existing work, drill holes in existing concrete, insert steel dowels and pack solid with non-shrink grout.

### **3.03 PLACING CONCRETE**

- A. Place concrete in accordance with ACI 304R.

### **3.04 SLAB JOINTING**

- A. Locate joints as indicated on the drawings.
- B. Anchor joint fillers and devices to prevent movement during concrete placement.
- C. Isolation Joints: Use preformed joint filler with removable top section for joint sealant, total height equal to thickness of slab, set flush with top of slab.

### **3.05 FLOOR FLATNESS AND LEVELNESS TOLERANCES**

- A. Maximum Variation of Surface Flatness:
  1. Exposed Concrete Floors: 1/4 inch in 10 ft.
  2. Under Seamless Resilient Flooring: 1/4 inch in 10 ft.
  3. Under Carpeting: 1/4 inch in 10 ft.
- B. Correct the slab surface if tolerances are less than specified.
- C. Correct defects by grinding or by removal and replacement of the defective work. Areas requiring corrective work will be identified. Re-measure corrected areas by the same process.

### **3.06 CONCRETE FINISHING**

- A. Exposed Form Finish: Rub down or chip off and smooth fins or other raised areas 1/4 inch or more in height. Provide finish as follows:
  1. Smooth Rubbed Finish: Wet concrete and rub with carborundum brick or other abrasive, not more than 24 hours after form removal.
- B. Concrete Slabs: Finish to requirements of ACI 302.1R, and as follows:
  1. Other Surfaces to Be Left Exposed: "Steel trowel" as described in ACI 302.1R, minimizing burnish marks and other appearance defects.

### **3.07 CURING AND PROTECTION**

- A. Comply with requirements of ACI 308R. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
  1. Normal concrete: Not less than 7 days.

### **3.08 FIELD QUALITY CONTROL**

- A. An independent testing agency will perform field quality control tests, as specified in Section 01 40 00.
- B. Provide free access to concrete operations at project site and cooperate with appointed firm.
- C. Take one additional test cylinder during cold weather concreting, cured on job site under same conditions as concrete it represents.

**3.09 DEFECTIVE CONCRETE**

- A. Test Results: The testing agency shall report test results in writing to Architect and Contractor within 24 hours of test.
- B. Defective Concrete: Concrete not conforming to required lines, details, dimensions, tolerances or specified requirements.
- C. Repair or replacement of defective concrete will be determined by the Architect. The cost of additional testing shall be borne by Contractor when defective concrete is identified.
- D. Do not patch, fill, touch-up, repair, or replace exposed concrete except upon express direction of Architect for each individual area.

**3.10 PROTECTION**

- A. Do not permit traffic over unprotected concrete floor surface until fully cured.

**END OF SECTION**

## **SECTION 23 62 13**

### **PACKAGED AIR-COOLED REFRIGERANT COMPRESSOR AND CONDENSER UNITS**

#### **PART 1 GENERAL**

##### **1.01 SECTION INCLUDES**

- A. Condensing unit package.
- B. Charge of refrigerant and oil.
- C. Controls and control connections.
- D. Refrigerant piping connections.
- E. Motor starters.
- F. Electrical power connections.

##### **1.02 RELATED REQUIREMENTS**

- A. Section 22 05 13 - Common Motor Requirements for Plumbing Equipment.
- B. Section 22 05 48 - Vibration and Seismic Controls for Plumbing Piping and Equipment: Placement of vibration isolators.
- C. Section 23 05 13 - Motor Requirements for HVAC and Plumbing Equip.
- D. Section 23 23 00 - Refrigerant Piping.
- E. Section 23 73 13 - Modular Indoor Central-Station Air-Handling Units.
- F. Section 23 09 93 - Sequence of Operations for HVAC Controls.
- G. Section 26 27 17 - Equipment Wiring: Electrical characteristics and wiring connections.

##### **1.03 REFERENCE STANDARDS**

- A. AHRI 210/240 - Standard for Performance Rating of Unitary Air Conditioning and Air-Source Heat Pump Equipment; Air-Conditioning, Heating, and Refrigeration Institute.
- B. ASHRAE Std 15 - Safety Standard for Refrigeration Systems; American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.; 2013 (ANSI/ASHRAE Std 15).
- C. ASHRAE Std 23.1 - Methods of Testing for Rating Positive Displacement Refrigerant Compressors and Condensing Units; American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc..
- D. ASHRAE Std 90.1 - Energy Standard for Buildings Except Low-Rise Residential Buildings; American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.; 2013 (ANSI/ASHRAE/IESNA Std 90).
- E. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum); National Electrical Manufacturers Association.

##### **1.04 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide rated capacities, weights specialties and accessories, electrical nameplate data, and wiring diagrams. Include equipment served by condensing units in submittal, or submit at same time, to ensure capacities are complementary.
- C. Shop Drawings: Indicate components, assembly, dimensions, weights and loadings, required clearances, and location and size of field connections. Include schematic layouts showing condensing units, cooling coils, refrigerant piping, and accessories required for complete system.
- D. Design Data: Indicate pipe and equipment sizing.

- E. Manufacturer's Instructions: Submit manufacturer's complete installation instructions.
- F. Operation and Maintenance Data: Include start-up instructions, maintenance instructions, parts lists, controls, and accessories.
- G. Warranty: Submit manufacturer's warranty and ensure forms have been filled out in Owner's name and registered with manufacturer.
- H. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
  - 1. See Section 01 60 00 - Product Requirements, for additional provisions.
  - 2. Extra Lubricating Oil: One complete change.

#### **1.05 QUALITY ASSURANCE**

- A. Products Requiring Electrical Connection: Listed and classified by Underwriters Laboratories Inc. as suitable for the purpose specified and indicated.

#### **1.06 DELIVERY, STORAGE, AND HANDLING**

- A. Comply with manufacturer's installation instructions for rigging, unloading, and transporting units.

#### **1.07 WARRANTY**

- A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
- B. Provide a five year warranty to include coverage for refrigerant compressors.

### **PART 2 PRODUCTS**

#### **2.01 MANUFACTURERS**

- A. Trane Inc: [www.trane.com](http://www.trane.com).
- B. York International Corporation / Johnson Controls: [www.york.com](http://www.york.com).
- C. Daikin / McQuay.
- D. Substitutions: See Section 01 60 00 - Product Requirements.

#### **2.02 MANUFACTURED UNITS**

- A. Units: Self-contained, packaged, factory assembled and pre-wired units suitable for outdoor use consisting of cabinet, compressors, condensing coil and fans, integral sub-cooling coil, controls, liquid receiver, wind deflector, and screens.
- B. Construction and Ratings: In accordance with AHRI 210/240. Test in accordance with ASHRAE Std 23.
- C. Performance Ratings: Energy Efficiency Rating (EER) and Coefficient of Performance (COP) not less than prescribed by ASHRAE Std 90.1.

#### **2.03 CASING**

- A. House components in welded steel frame with galvanized steel panels with weather resistant, baked enamel finish.
- B. Mount starters, disconnects, and controls in weatherproof panel provided with full opening access doors. Provide mechanical interlock to disconnect power when door is opened.
- C. Provide removable access doors or panels with quick fasteners and piano hinges.

#### **2.04 CONDENSER COILS**

- A. Coils: Aluminum fins mechanically bonded to seamless copper tubing. Provide sub-cooling circuits. Air test under water to 425 psig, and vacuum dehydrate. Seal with holding charge of nitrogen.

## 2.05 FANS AND MOTORS

- A. Vertical discharge direct driven propeller type condenser fans with fan guard on discharge. Equip with roller or ball bearings with grease fittings extended to outside of casing.
- B. Weatherproof motors suitable for outdoor use, single phase permanent split capacitor or 3 phase, with permanent lubricated ball bearings and built in current and thermal overload protection. Refer to Section 23 05 13.

## 2.06 COMPRESSORS

- A. Compressor: Semi-hermetic reciprocating type.
- B. Mounting: Statically and dynamically balance rotating parts and mount on spring vibration isolators. Internally isolate hermetic units on springs. Refer to Section 22 05 48.
- C. Lubrication System: Reversible, positive displacement oil pump with oil charging valve, oil level sight glass, and magnetic plug or strainer.
- D. Motor: Constant speed 1800 rpm suction gas cooled with electronic sensor and winding over temperature protection, designed for across-the-line starting. Refer to Section 22 05 13. Furnish with starter.
- E. Capacity Reduction Equipment: Suction valve unloaders, with lifting mechanism operated by electrically actuated solenoid valve, with unloaded compressor start; controlled from suction pressure.
- F. Sump Oil Heater: Evaporates refrigerant returning to sump during shut down. Energize heater continuously when compressor is not operating.

## 2.07 REFRIGERANT CIRCUIT

- A. Provide each unit with one refrigerant circuit, or multiple circuits as indicated on drawings, factory supplied and piped. Refer to Section 23 23 00.
- B. For each refrigerant circuit, provide:
  - 1. Filter dryer replaceable core type.
  - 2. Liquid line sight glass and moisture indicator.
  - 3. Thermal expansion valve for maximum operating pressure.
  - 4. Insulated suction line.
  - 5. Suction and liquid line service valves and gage ports.
  - 6. Liquid line solenoid valve.
  - 7. Charging valve.
  - 8. Discharge line check valve.
  - 9. Compressor discharge service valve.
  - 10. Condenser pressure relief valve.
- C. For heat pump units, provide reversing valve, suction line accumulator, discharge muffler, flow control check valve, and solid-state defrost control utilizing thermistors.

## 2.08 CONTROLS

- A. On unit, mount weatherproof steel control panel, NEMA 250, containing power and control wiring, molded case disconnect switch, factory wired with single point power connection. Factory mount disconnect switch on unit under provisions of Section 26 27 17.
- B. For each compressor, provide across-the-line starter, non-recycling compressor overload, starter relay, and control power transformer or terminal for controls power. Provide manual reset current overload protection. For each condenser fan, provide across-the-line starter with starter relay.
- C. Provide safety controls arranged so any one will shut down machine:
  - 1. High discharge pressure switch (manual reset) for each compressor.

2. Low suction pressure switch ( automatic reset) for each compressor.
  3. Oil Pressure switch (manual reset).
- D. Provide the following operating controls:
1. One minute off timer prevents compressor from short cycling.
  2. Periodic pump-out timer to pump down on high evaporator refrigerant pressure.
  3. Low ambient temperature controls.
  4. Hot gas bypass sized for minimum compressor loading on one compressor only, bypasses hot refrigerant gas to evaporator.
  5. Lead-lag switch to alternate compressor operation.
  6. Low ambient thermostat to lock out compressor at low ambient temperatures.
- E. Provide controls to permit operation down to 40 degrees F ambient temperature.
- F. Gages: Pre-piped for suction and discharge refrigerant pressures and oil pressure for each compressor.
- G. For multiple units, provide remote mounted sequence panel to allow operation with lead-lag switching and time delay timer.

### **PART 3 EXECUTION**

#### **3.01 INSTALLATION**

- A. Install in accordance with manufacturer's installation instructions.
- B. Complete structural, mechanical, and electrical connections in accordance with manufacturer's installation instructions.
- C. Provide for connection to electrical service. Refer to Section 26 27 17.
- D. Install units on vibration isolation. Refer to Section 23 05 48.
- E. Provide connection to refrigeration piping system and evaporators. Refer to Section 23 23 00. Comply with ASHRAE Std 15.

#### **3.02 SYSTEM STARTUP**

- A. Supply initial charge of refrigerant and oil for each refrigeration system. Replace losses of oil or refrigerant prior to end of correction period.
- B. Charge system with refrigerant and test entire system for leaks after completion of installation. Repair leaks, put system into operation, and test equipment performance.
- C. Shut-down system if initial start-up and testing takes place in winter and machines are to remain inoperative. Repeat start-up and testing operation at beginning of first cooling season.
- D. Provide cooling season start-up, and winter season shut-down for first year of operation.
- E. Inspect and test for refrigerant leaks every 4 months during first year of operation.

**END OF SECTION**

## **SECTION 23 81 24**

### **COMPUTER ROOM AIR CONDITIONERS - FLOOR OR WALL MOUNTED**

#### **PART 1 GENERAL**

##### **1.01 SECTION INCLUDES**

- A. Air conditioning units.
- B. Controls and control panels.

##### **1.02 RELATED REQUIREMENTS**

##### **1.03 REFERENCE STANDARDS**

- A. ASME BPVC-VIII-1 - Boiler and Pressure Vessel Code, Section VIII, Division 1 - Rules for Construction of Pressure Vessels; The American Society of Mechanical Engineers.

##### **1.04 PERFORMANCE REQUIREMENTS**

- A. See Schedule on Drawings

##### **1.05 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide for manufactured products and assemblies. Indicate water, drain, refrigeration, rough-in connections, and electrical characteristics and connection requirements.
- C. Shop Drawings: Indicate manufactured products and assemblies. Indicate water, drain, refrigeration, rough-in connections, and electrical characteristics and connection requirements.
- D. Manufacturer's Instructions: Indicate assembly, support details, connection requirements, and include start-up instructions.
- E. Operation and Maintenance Data: Include manufacturer's descriptive literature, operating instructions, installation instructions, and maintenance and repair data.
- F. Warranty: Submit manufacturer's warranty and ensure forms have been filled out in Owner's name and registered with manufacturer.
- G. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
  - 1. See Section 01 60 00 - Product Requirements, for additional provisions.
  - 2. Extra Filters: One set for each individual unit.

##### **1.06 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Company specializing in manufacturing the type of products specified in this section, with minimum three years of documented experience.
- B. Installer Qualifications: Company specializing in performing the work of this section with minimum 5 years of experience.
- C. The system shall be factory-tested before shipment. Testing shall include, but shall not be limited to: Quality Control Checks, "HiPot" Test (two times rated voltage plus 1000 volts, per NRTL agency requirements) and Metering Calibration Tests. The manufacturer shall be ISO 9001 certified.
- D. Products Requiring Electrical Connection: Listed and classified by Underwriters Laboratories Inc. as suitable for the purpose specified and indicated.

##### **1.07 WARRANTY**

- A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
- B. Warranty: Include coverage of entire unit. Coverage shall include parts and labor for one full year from date of substantial completion as approved and dictated by the Architect/Engineer.

- C. Warranty: Include coverage of compressor. Coverage shall include parts and labor for years 2 through 5 from date of substantial completion as approved and dictate by the Architect/Engineer.

## **PART 2 PRODUCTS**

### **2.01 MANUFACTURERS**

- A. Liebert Corporation; Model DataMate: [www.liebert.com](http://www.liebert.com).
- B. Substitutions: See Section 01 60 00 - Product Requirements.

### **2.02 AIR CONDITIONING UNITS**

- A. Description: Packaged, air cooled, factory assembled, pre-wired and pre-piped, wall or floor mounted unit, consisting of cabinet, fans, filters, humidifier, and controls.
- B. Assembly: Up-flow air delivery, in draw-through or blow-through configuration.
- C. Energy Efficiency:
  - 1. Air-Cooled Unit:
    - a. Seasonal Coefficient of Performance: 2.62.

### **2.03 CABINET AND FRAME**

- A. The cabinet and chassis shall be constructed of heavy gauge, painted furniture steel. The cabinet shall be designed for easy installation and service access from the front only.

### **2.04 EVAPORATOR FANS AND MOTORS**

- A. The air distribution system shall be constructed with a quiet, direct-drive fan assembly equipped with multiple double-inlet blowers, self-aligning sleeve bearings and lifetime lubrication. Fan motor(s) shall be permanent-split capacitor, high efficiency type, equipped with two speeds for air flow modulation. Dehumidification shall utilize the lower fan speed.

### **2.05 COMPRESSORS**

### **2.06 EVAPORATOR COILS**

- A. The evaporator section shall include an evaporator coil, thermostatic expansion valve and filter drier.
- B. The evaporator coil shall be constructed of copper tubes and aluminum fins. An externally equalized thermostatic expansion valve shall control refrigerant flow. The evaporator coil shall be factory-charged with R-407C refrigerant and sealed. The coil shall be provided with a galvanized steel drain pan.

### **2.07 CONDENSERS**

- A. Condensing unit components shall include a condenser coil, a direct-drive propeller-type fan, a scroll compressor, high-pressure switch, receiver and head pressure control valve, hot gas bypass system and liquid line solenoid valve. A hot gas bypass system shall be provided to reduce compressor cycling and improve operation under low-load conditions.
- B. All components shall be factory-assembled, charged with R-407C refrigerant and sealed. No internal piping, brazing, dehydration or charging shall be required. Condensing unit shall be designed for 95°F (35°C) ambient and be capable of operation to -30°F (-34.4°C).
- C. The condenser coil shall be constructed of copper tubes and aluminum fins.
- D. The condensing unit shall be designed to operate at a sound level less than 58dBA.

### **2.08 FILTERS**

- A. Air filter shall be a cleanable polypropylene monofilament type over expanded aluminum with aluminum frame. It shall be easily removable from the front of the system by means of quarter-turn fasteners and shall not require system shutdown for service.

## 2.09 HUMIDIFIER

## 2.10 ELECTRICAL PANEL

## 2.11 MICROPROCESSOR CONTROL SYSTEM

- A. The control system shall be microprocessor-based, factory-wired into the system and tested prior to shipment. The wall-mounted control enclosure shall include a 2-line by 16-character LCD providing continuous display of operating status and alarm condition. An 8-key membrane keypad for setpoint/ program control, fan speed selection and unit On/Off shall be located below the display. The control display shall be field-wired to the control board using 4-conductor field-supplied thermostat wire.
- B. Temperature and humidity sensors shall be located in the wall box, which shall be capable of being located up to 300 ft (91.4m) from the evaporator unit.
- C. Monitoring
  - 1. The LCD shall provide On/Off indication, operating mode indication (cooling, heating, humidifying, dehumidifying), fan speed indication and current day, time, temperature and humidity (if applicable) indication. The monitoring system shall be capable of relaying unit operating parameters and alarms to the monitoring system.
  - 2. Control Setpoint Parameters
    - a. Temperature Setpoint: 65-85°F (18 to 29°C)
    - b. Temperature Sensitivity: 1 to 9.9°F (1 to 5°C)
- D. Compressor Short-Cycle Control: The control system shall prevent compressor short-cycling by a 3-minute timer from compressor stop to the next start.
- E. Common Alarm and Remote On/Off: A common alarm relay shall provide a contact closure to a remote alarm device. Two (2) terminals shall also be provided for remote On/Off control. Individual alarms shall be "enabled" or "disabled" from reporting to the common alarm.
- F. Setback Control: The control shall be user-configurable to use a manual setpoint control or a programmable, time-based setback control. The setback control shall be based on a 5 day/2 day programmed weekly schedule with capability of accepting two events per program day.
- G. Temperature Calibration: The control shall include the capabilities to calibrate the temperature and humidity sensors and adjust the sensor response delay time from 10 to 90 seconds. The control shall be capable of displaying temperature values in °F or °C.
- H. System Auto Restart: For startup after power failure, the system shall provide automatic restart with a programmable (up to 9.9 minutes in 6-second increments) time delay. Programming can be performed either at the wall-mounted controller or from the central, site-monitoring system.
- I. Alarms
  - 1. Unit Alarm: The control system shall monitor unit operation and activate an audible and visual alarm in the event of the following factory preset alarm conditions:
    - a. High Temperature (max 90°F, 32.2°C)
    - b. Low Temperature (min 35°F, 1.7°C)
    - c. High Humidity (max 85% RH)
    - d. Low Humidity (min 15% RH)
    - e. High Water Alarm - Lockout Unit Operation
    - f. High Head Pressure
    - g. Loss of Power
    - h. Compressor Short Cycle
  - 2. Custom Alarms (2x). User-customized text can be entered for the two (2) custom alarms.
    - a. Water Detected
    - b. Custom Alarm (1)
    - c. Custom Alarm (2)

3. Alarm Controls: Each alarm (unit and custom) shall be individually enabled or disabled (except for high head pressure and high water in condensate pan) and can be programmed for a time delay of 0 to 255 seconds of continuous alarm condition to be recognized as an alarm. Each alarm shall also be enabled or disabled to activate the common alarm (except high head pressure and high water in condensate pan).
4. Audible Alarm: The audible alarm shall annunciate at the LCD wall box any alarm that is enabled by the operator.
5. Common Alarm: A programmable common alarm shall be provided to interface user selected alarms with a remote alarm device.
6. Remote Monitoring: All alarms shall be communicated to the Manufacturer site monitoring system (if applicable) with the following information: date and time of occurrence, unit number and present temperature and humidity.

## **2.12 SHIP-LOOSE ACCESSORIES**

- A. Remote Sensors: The unit shall be supplied with remote temperature and humidity sensors. The sensors shall be connected to the unit by a 30 ft. (9m) shielded cable.
- B. Refrigerant Line Sets: Pre-charged refrigerant line sets shall be provided by Manufacturer in proper lengths for application. Line set length shall be (15 ft. [4.5m]) (30 ft. [9m]) not to exceed 45 ft. (13.5m) in total length.
- C. Refrigerant Line Sweat Adapter Kit: Provide a sweat adapter kit to permit field brazing of refrigerant line connections for application to split systems.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that wall is ready to receive work and opening dimensions are as instructed by the manufacturer.
- B. Verify that proper power supply is available and of the correct characteristics.

### **3.02 INSTALLATION**

- A. Install in accordance with manufacturer's instructions.
- B. Piping Connections: Install and connect devices furnished by manufacturer but not specified to be factory mounted. Furnish copy of manufacturer's piping connection diagram submittal to piping contractor.
- C. Drain Water Piping: Connect drains to air conditioning unit. Provide pitch and trap as shown as well as per manufacturer's instructions and local codes require.

### **3.03 FIELD QUALITY CONTROL**

- A. Provide the services of the manufacturer's field representative to start and adjust systems and equipment and instruct operating personnel. Manufacturer shall provide documentation on authorized manufacturer's representative letterhead that the units are installed and properly operating per specified and manufacturer instructions and requirements.
- B. Manufacturer's field representative shall startup air conditioning unit in accordance with manufacturer's startup instructions. Test controls and demonstrate compliance with requirements.

### **3.04 SYSTEM STARTUP**

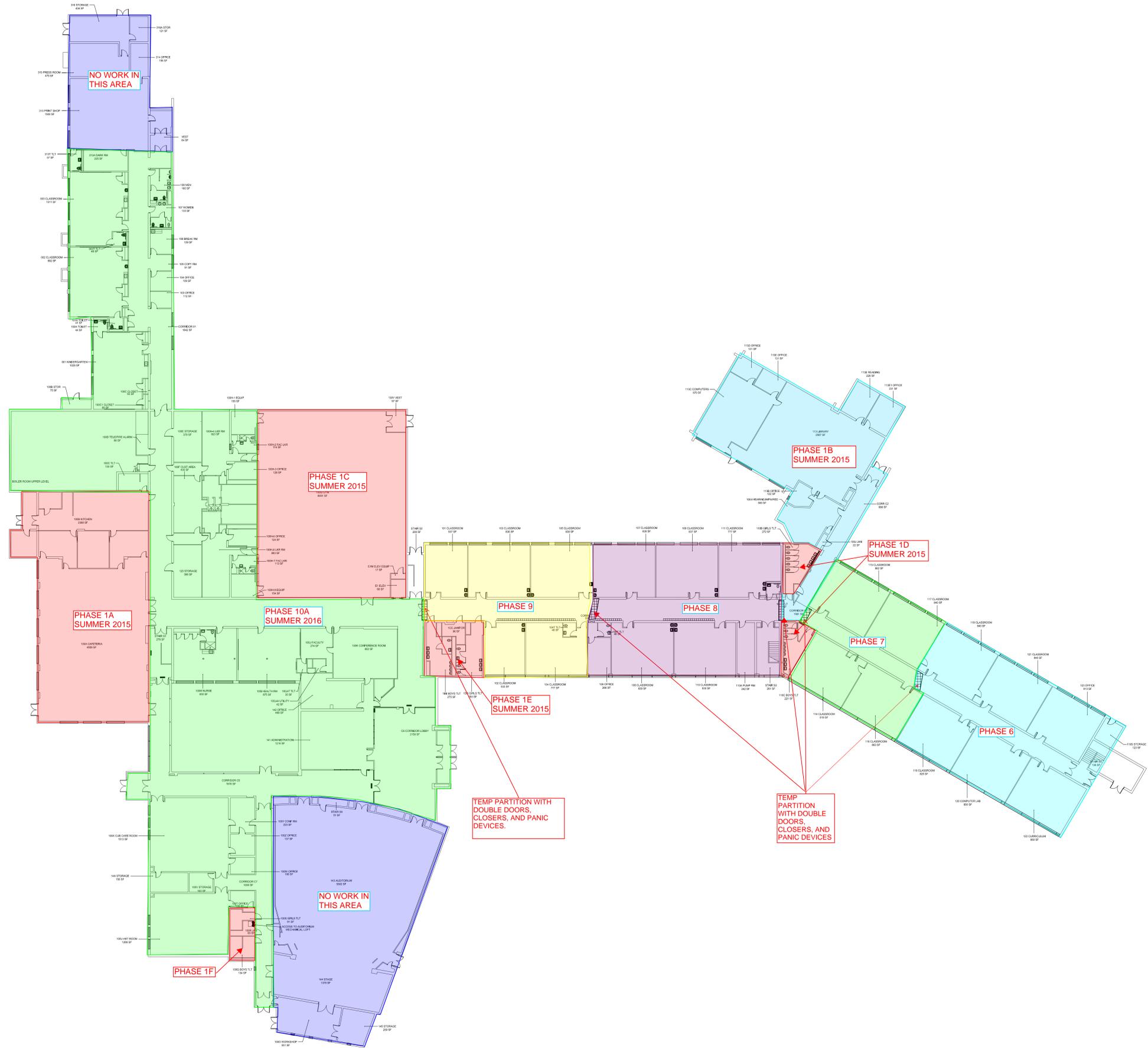
- A. Prepare and start systems. Set initial temperature and humidity set points.

### **3.05 SCHEDULES**

- A. See Drawings

**END OF SECTION**

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**FIRST FLOOR PHASING PLAN**  
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DESCRIPTION	DATE
ADDENDUM #1	

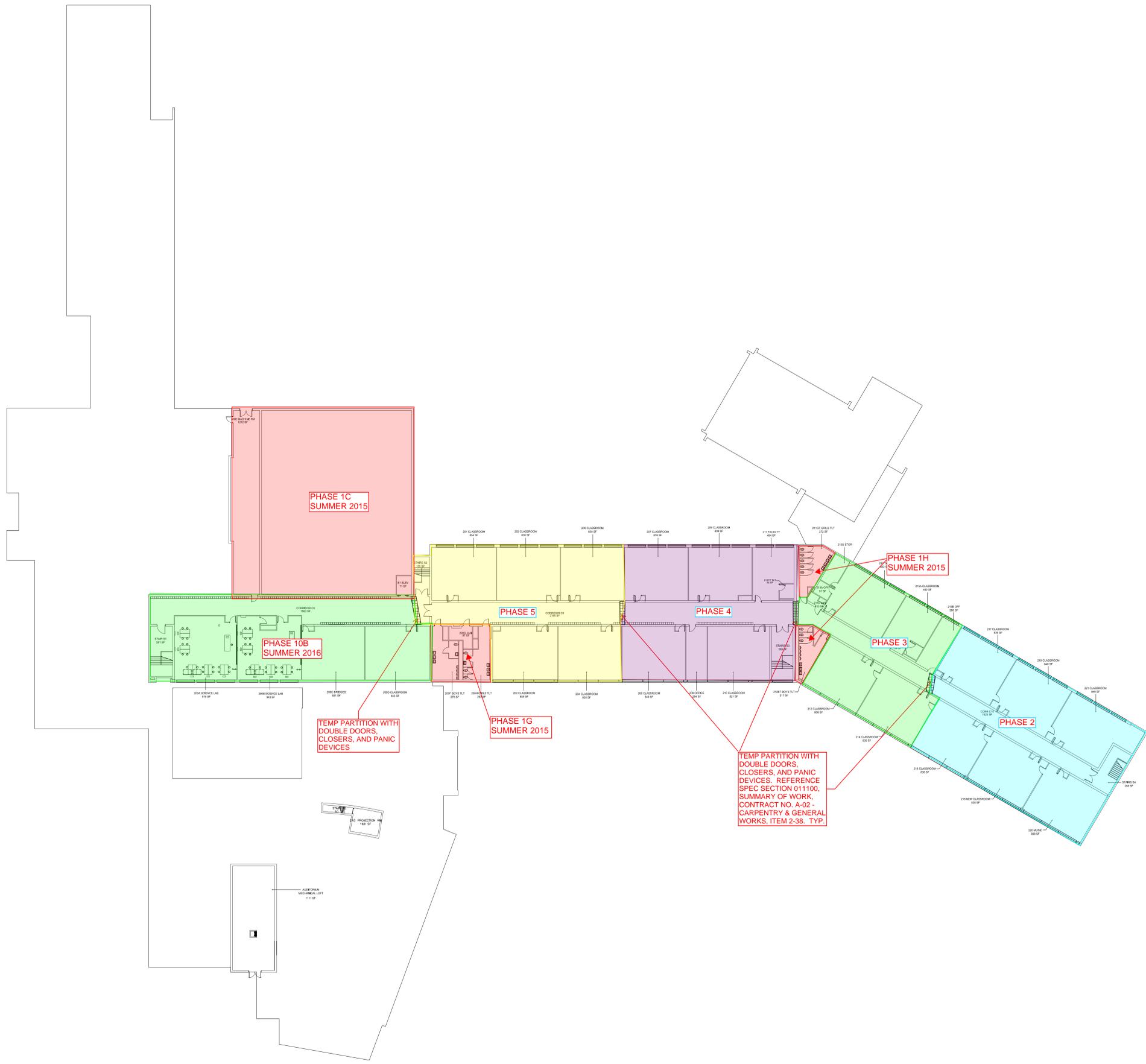
PROJECT: RED CLAY CONSOLIDATED SCHOOL DISTRICT  
HVAC RENOVATIONS  
BRANDYWINE SPRINGS SCHOOL

2916 DUNCAN ROAD  
WILMINGTON, DELAWARE 19808

SHEET TITLE: FIRST FLOOR PHASING PLAN

BID DOCUMENTS MAY 1, 2015	
DRAWN: HMS	CHK'D/DESIGNER: PRC
DISCIPLINE: A	SHEET NO.: PH-1
PROJECT NO.: 14037	

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**SECOND FLOOR PHASING PLAN**

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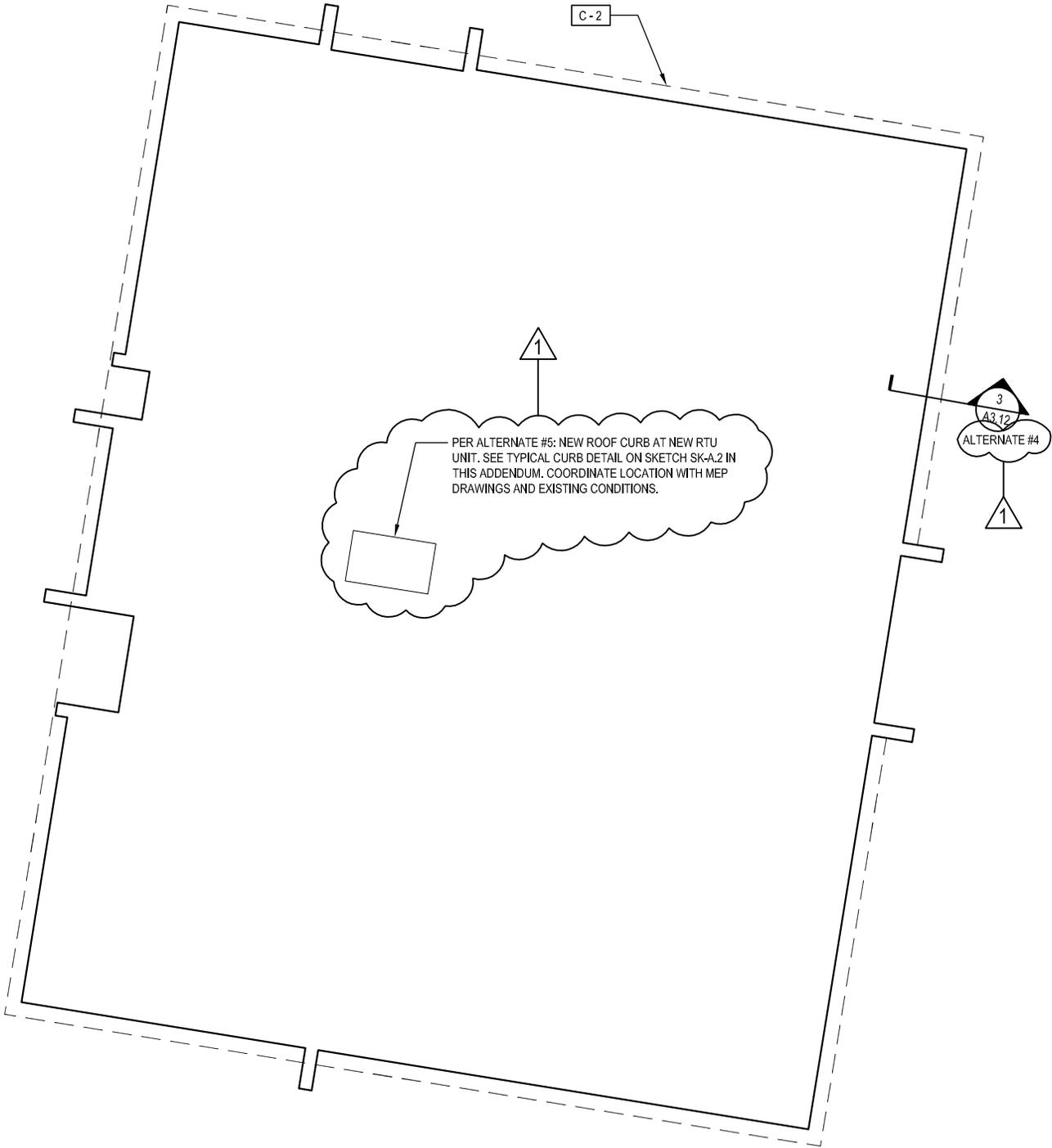
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DISCIPLINE: A	SHEET NO.: PH-2
PROJECT NO.: 14037	









1  
SK-A.1

# ROOF PLAN - ANNEX BUILDING

SCALE: 1/16" = 1'-0"

## CONSTRUCTION KEY NOTES

C-2

PER ALTERNATE #4: DASHED LINE AT ANNEX BUILDING ROOF INDICATES LOCATION OF EXISTING FASCIA PANELS TO REMAIN. PATCH AND PREP EXISTING SURFACE FOR INSTALLATION OF NEW VERTICAL VINYL SOFFIT PANELS OVER EXISTING SIMILAR TO FRONT ENTRY AREA. PAINT TO MATCH EXISTING. REFER TO DETAILS.

5/12/15  
DATE  
14037  
PROJECT NO.

A3.12  
SHEET NO.  
SK-A.1

PROJECT:  
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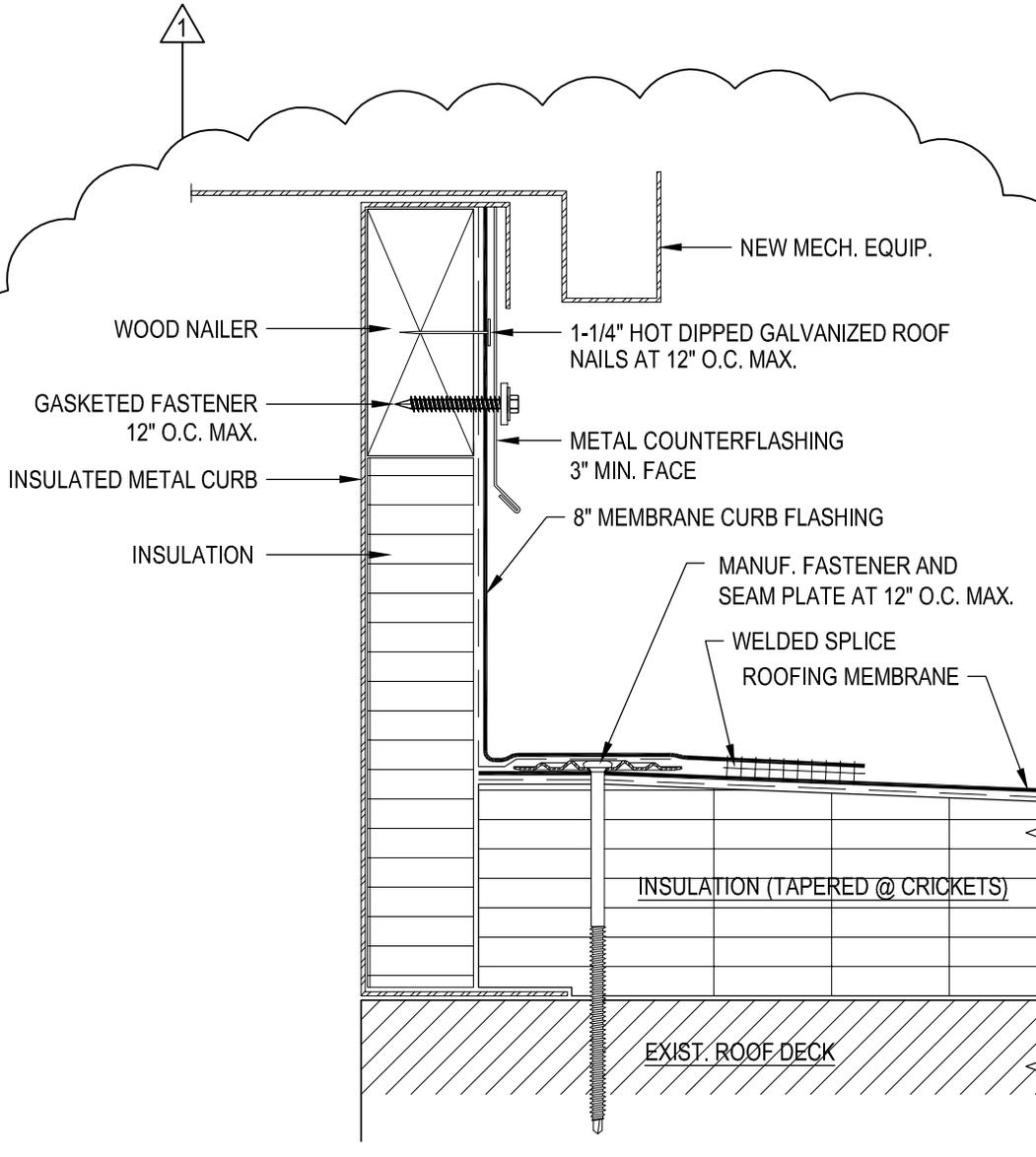
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# TYPICAL ROOF CURB DETAIL

1

SK-A.2

SCALE: 3" = 1'-0"

5/12/15	A3.12
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14037	SK-A.2
PROJECT NO.	

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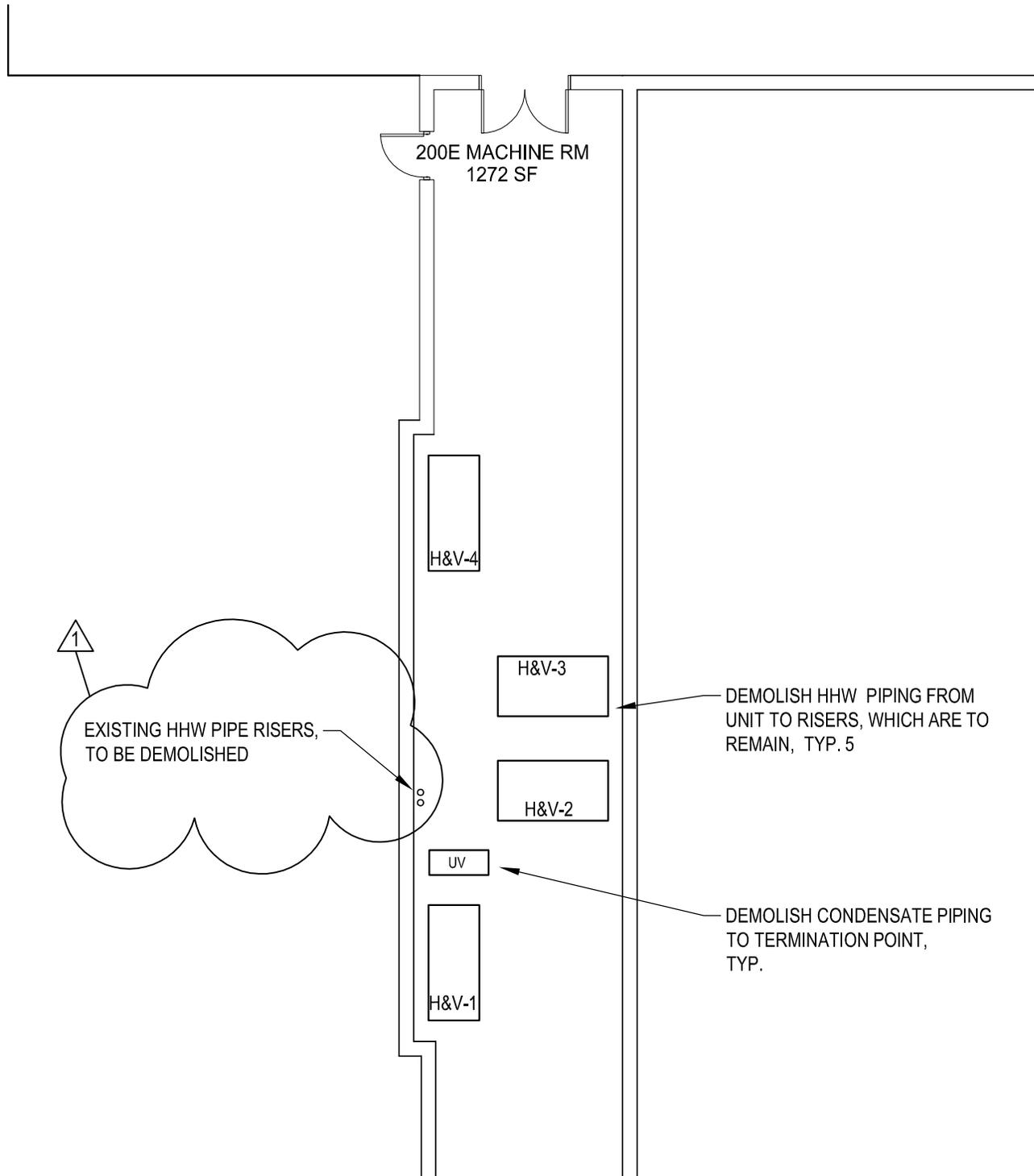
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# PARTIAL SECOND FLOOR HYDRONIC DEMO PLAN - AREA B

SCALE: 3/32" = 1'-0"

<p>5/12/15 DATE</p> <p>14037 PROJECT NO.</p>	<p>M8.10 SHEET NO.</p> <p>SK-M.1</p>	<p>PROJECT: <b>RED CLAY CONSOLIDATED SCHOOL DISTRICT HVAC RENOVATIONS BRANDYWINE SPRINGS SCHOOL</b> 2916 DUNCAN ROAD WILMINGTON, DELAWARE 19808</p>	<p><b>STUDIO JAED</b> ARCHITECTS ■ ENGINEERS ■ FACILITIES SOLUTIONS</p> <p><small>CORPORATE HEADQUARTERS 2500 WANKLE HILL ROAD, STE. 110 BOON, SC 29011 P: (803) 634-6552 F: (803) 634-4423</small></p> <p><small>WILMINGTON OFFICE 1000 MARKET STREET, SUITE 100 WILMINGTON, DE 19801 P: (302) 426-1100 F: (302) 426-1101</small></p> <p><small>Web: www.studiojaed.com E-Mail: info@studiojaed.com</small></p>	<p>REVISIONS: △ ADDENDUM #1</p>
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