

# QUOTE DOCUMENTS

EUGENE SCHOOL DISTRICT 4J  
BUENA VISTA SPANISH IMMERSION  
ELEMENTARY SCHOOL  
ELECTRICAL DISTRIBUTION SYSTEM UPGRADE

CIP #420.780.040



SYSTEMS WEST ENGINEERS, INC.

411 High Street  
Eugene, Oregon 97401-2427  
541.342.7210  
[systemswestengineers.com](http://systemswestengineers.com)



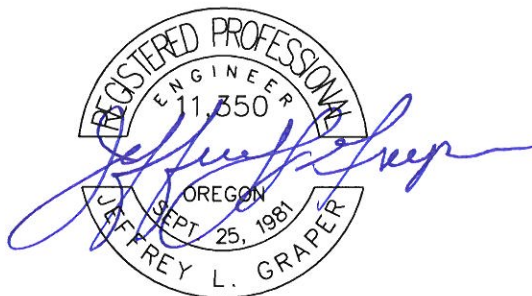
MAY 1, 2014  
M028.02

## QUOTE DOCUMENTS

### Buena Vista Spanish Immersion Elementary School Electrical Distribution System Upgrade

CIP #420.780.040

EUGENE PUBLIC SCHOOLS  
SCHOOL DISTRICT 4J  
EUGENE, OREGON



**May 1, 2014**

**SYSTEMS WEST ENGINEERS, INC.**

411 High Street  
Eugene, Oregon 97401  
Phone: (541) 342-7210  
Fax: (541) 342-7220

**M028.02**

**TABLE OF CONTENTS  
BUENA VISTA ELECTRICAL UPGRADE  
PROJECT #420.780.040**

<b>INTRODUCTION PAGES</b>	<b>PAGES</b>
Table of Contents	1
 <b>QUOTATION DOCUMENTS</b>	
00 00 10 Request for Quotations	1
00 00 20 Quotation Requirements	3
00 03 00Q Quotation Form	3
 <b>SPECIFICATIONS</b>	
00 11 00 Summary of Work	4
00 11 00A Notification Statement for Contractors Form	1
00 11 00B Materials Statement Form	1
 <b>CONTRACT DOCUMENTS</b>	
Attachment A - Construction Contractor Agreement Terms and Conditions with Performance And Payment Bond	7
00 73 43 Prevailing Wage Rates	1
 <b>DIVISION 26 - ELECTRICAL</b>	
Section 26 01 26 Submittals and Shop Drawings	2
Section 26 05 00 Common Work Results for Electrical	2
Section 26 05 01 Electrical Demolition	2
Section 26 05 19 Low Voltage Electrical Power Conductors and Cables	3
Section 26 05 26 Grounding and Bonding for Electrical Systems	2
Section 26 05 29 Hangers and Supports for Electrical Systems	2
Section 26 05 33 Raceways and Boxes for Electrical Systems	4
Section 26 05 53 Identification for Electrical Systems	2
Section 26 06 20 Schedules for Low Voltage Electrical Distribution	12
Section 26 24 13 Switchboards	2
Section 26 24 16 Panelboards	3
Section 26 28 16 Overcurrent Protective Devices	2
 <b>ASBESTOS MAPS</b>	 12

## REQUEST FOR QUOTATIONS

### DOCUMENT 00 00 10

Sealed Quotes will be received by Kathi Hernandez, Purchasing Services, for Buena Vista Electrical Upgrade Project until 2:00 pm, 20 May 2014, at the Eugene School District Facilities Management Office, 715 West Fourth, Eugene, Oregon 97402.

Briefly, the work is described as an electrical upgrade project.

Beginning 01 May 2014, Prime Bidders, Sub-bidders and Suppliers may obtain bidding documents at the following hyperlink: <http://4j.lane.edu/bids/buonavista-electrical-upgrade/>

**Hard copies are not provided by the School District.**

**It shall be the responsibility of all Prime Bidders, Sub-bidders, and Suppliers to obtain Bidding Documents and any and all Addenda from the hyperlink.**

All quotations must be submitted on the form provided and enclosed in a sealed envelope marked:

Buena Vista Elementary Electrical Upgrade Project

A mandatory pre-quote conference and walk-through has been scheduled for 08 May 2014, 10:00 am. The location of the conference will be Buena Vista Elementary School, 1500 Queens Way, Eugene, Oregon. Check-in at the front office.

No Quote for a construction contract will be received or considered unless the Contractor is registered with the Construction Contractors Board or licensed by the State Landscape Contractors Board at the time the bid is made as required by ORS 671.530. A license to work with asbestos-containing materials under ORS 468A.720 is not required for this Project.

For every bid \$100,000 or greater, all Contractors and Subcontractors shall have a public works bond, in the amount of \$30,000, filed with the Construction Contractors' Board (CCB), before starting work on the project, unless exempt.

Each Quote shall contain a statement indicating whether the Quoter is a "resident quoter", as defined in ORS 279A.120.

Each Quote shall contain a statement that the "Contractor agrees to be bound by and comply with the provisions of ORS 279C.800 to 279C.870 regarding payment of Prevailing Wages, with the exception of deleting the following: [279C.810 Exemptions; rules.(2).(a) ]".

Contractor shall certify nondiscrimination in obtaining required subcontractors, in accordance with ORS 279A.110.

Each Quote shall be accompanied by a surety bond, cashier's check, or certified check executed in favor of Eugene School District 4J in an amount equal to ten percent (10%) of the amount of the Bid.

The successful Quoter will be required to furnish a Performance bond and Labor and Materials Payment bond each in the full amount of the contract price. Certificates of Insurance as described in the Terms and Conditions will be required.

School District 4J reserves the right to reject any and all proposals received as a result of this request for Quotations and select the Quote which appears to be in the best interest of the District.

Date: 01 May 2014

By: Kathi Hernandez, Facilities Management Assistant

# QUOTATION REQUIREMENTS—DOCUMENT 00 00 20

## PART 1 GENERAL

### 1.1. GENERAL INFORMATION

- A. The term “quoter” shall refer to the firm or individual submitting a quote or quotation.
- B. Quoters are encouraged to visit the site(s) to become familiar with existing conditions. The Owner is not responsible and shall not bear financial burden for oversights made by the Quoter for failure to inspect sites prior to submitting a quote.
- C. In all cases, persons wishing to examine the area of work must sign in at the school office prior to visiting the work area. Prior to leaving the school, sign-out at the office is required.
- D. If access is required at times when the school office is not staffed, contact the Facilities Office, 541-790-7400, for assistance.
- E. The Owner is excise tax exempt. "Goods used hereon are for the exclusive use of this School District." Excise exemption No. 93 740074 F.

### 1.2. QUOTE PROCEDURES

- A. Quotes are to be submitted in one copy on the forms provided.
- B. Quoters shall certify to non-collusion practices on the form included as part of the Quote Form, to be submitted with the Quote Form.
  - 1. A Non-Collusion Affidavit is required for any contract awarded pursuant to the quote. According to the Oregon Public Contracts and Purchasing Laws, a public contracting agency may reject any or all quotes upon a finding of the agency that it is in the public interest to do so (ORS 279C.395). This agency finds that it is in the public interest to require the completion of this affidavit by potential contractors.
  - 2. The Non-Collusion Affidavit must be executed by the member, officer or employee of the quoter who makes the final decision on prices and the amount quoted in the quote.
  - 3. Quote rigging and other efforts to restrain competition, and the making of false sworn statements in connection with the submission of quotes are unlawful and may be subject to criminal prosecution. The person who signs the Affidavit should examine it carefully before signing and assure himself or herself that each statement is true and accurate, making diligent inquiry, as necessary, of all other persons employed by or associated with the quoter with responsibilities for the preparation, approval or submission of the quote.
  - 4. In the case of a quote submitted by a joint venture, each party to the venture must be identified in the quote documents, and an Affidavit must be submitted separately on behalf of each party.
  - 5. The term "complementary quote" as used in the Affidavit has the meaning commonly associated with the term in the quoting process, and includes the knowing submission of quotes higher than the quote of another firm, any intentionally high or noncompetitive quote, and any other form of quote submitted for the purpose of giving a false appearance of competition.
  - 6. Failure to file an Affidavit in compliance with these instructions will result in disqualification of the quote.
- C. Quoters shall certify to non-discrimination in employment practices on the form, included as part of the Quote Form, to be submitted with the Quote Form. By submitting its quote, the Quoter certifies conformance to the applicable federal acts, executive orders, and Oregon statutes and regulations concerning affirmative action toward equal employment opportunities. All information and reports required by the federal or Oregon state governments having responsibility for the enforcement of such laws shall be supplied to the Owner in compliance with such acts, regulation, and orders.
- D. Quoter shall indicate, on the Quote Form where provided, the quoter status as a "resident" or "non-resident" in accordance with ORS 279A.120 and ORS 279C.365.
- E. A Quote may not be withdrawn or canceled by the Quoter following the time and date designated for the receipt of quotes to the expiration of a 60 day period. The Quote for that sixty days is irrevocable and each Quoter so agrees in submitting a Quote.

### **1.3. PERFORMANCE BOND AND PAYMENT BOND**

- A. The successful Quoter shall be required to provide the Owner with a Performance Bond and Labor and Material Payment Bond **each** in an amount equal to one hundred (100%) of the contract sum. The Surety Company shall meet requirements as specified in the Supplementary Conditions.
- B. The Labor and Material Payment Bond shall contain a clause specifically guaranteeing payment of all sums of money withheld from employees and payable to the Internal Revenue Service; and all contributions or amounts due to the State of Oregon from the General Contractor or subcontractor incurred in the performance of this contract.
- C. The Bond shall be fully executed, payable to the Owner.
- D. The cost of these bonds shall be included in the Quote.
- E. The successful Quoter will be provided with contract forms through the Architect. These forms shall be executed and delivered to the Owner, along with Performance Bond and Labor and Material Payment Bond, within ten (10) days after receiving forms.

### **1.4. ADMINISTRATIVE RULES**

- A. All quoters are required to comply with the provisions of Oregon Revised Statutes and 4J Board Policy. Attention is directed to ORS 244, Government Ethics; ORS 279A and 279C, Public Contracting Code; Oregon Administrative Rules, Chapter 137, Divisions 46, 48 and 49; and 4J Board Policy DJC.

### **1.5. PROTEST OF QUOTE**

- A. Protests of quote specifications or contract terms shall be presented to the Owner in writing five (5) calendar days prior to quote opening. Such protest or request for change shall include the reason for protest or request, and any proposed changes to specifications or terms. No protest against award because of the content of quote specifications or contract terms shall be considered after the deadline established for submitting such protest.

### **1.6. PROTEST OF AWARD**

- A. Any actual quoter or proposer who is adversely affected by the Owner's notice of award of the contract to another quoter or proposer on the same solicitation shall have seventy-two (72) hours from the notice of award to submit to the Owner, a written protest of the notice of award. In order to be an adversely affected or aggrieved quoter or proposer with a right to submit a written protest, a quoter or proposer must itself claim to be eligible for award of the contract as the lowest responsible quoter or best proposer and must be next in line for award.

### **1.7. FINAL AWARD**

- A. The written notice of award of the contract shall constitute a final decision of the Owner to award the contract if no written protest of the notice of award is filed with the Owner within the designated time.

### **1.8. CONTRACTOR'S MARK UP FOR CHANGE ORDER WORK**

- A. The allowance for the combined overhead and profit included in the total net cost to the Owner shall be based as follows:
  - 1. For the Contractor, for Work performed by the Contractor's own forces, 15 percent of the cost.
  - 2. For the Contractor, for Work performed by the Contractor's Subcontractor, 10 percent of the amount due the Subcontractor.
  - 3. For each Subcontractor or Sub-subcontractor involved, for Work performed by that Subcontractor's or Sub-subcontractor's own forces, 10 percent of the cost.
  - 4. Total overhead and profit shall not exceed 25% of the base cost of the work (base cost being defined as the cost of the work without markups.)
  - 5. Itemize costs to include breakdown for materials and labor, overhead and profit.
  - 6. A change to the work providing a net CREDIT to the Owner shall include a credit for overhead and profit based on the following schedule:
    - a. For the Contractor, 5 percent of the Cost to be credited.
    - b. For each Subcontractor, 5 percent of the Cost to be credited.

- c. For each Sub-subcontractor, 5 percent of the cost to be credited.
- d. In order to facilitate checking of quotations for extras or credits, all proposals, except those so minor that their propriety can be seen by inspection, shall be accompanied by a complete itemization of costs including Subcontractor and Contractor overhead and profit as applicable.

END OF QUOTE REQUIREMENTS

**QUOTATION FORM**

**DOCUMENT 00 03 00Q**

**Quotation for:** Buena Vista Elementary Electrical Upgrade Project

**CIP Number:** 420.780.040

Submitted to: Facilities Management Office  
Eugene School District No. 4J  
715 West Fourth Avenue  
Eugene, Oregon 97402

Due Date: 20 May 2014  
Time: 2:00 pm

From: \_\_\_\_\_  
(Company Name)

The undersigned proposes to furnish all material, equipment, and labor required for the complete project, and to perform all work in strict accordance with the Contract Documents for the lump sum price indicated below.

**BASE QUOTE:**

Quote Amount: \_\_\_\_\_ \$ \_\_\_\_\_  
(Words) (Figures)

The undersigned agrees, if awarded the Contract, to substantially complete all Base Quote work on or before the dates specified in Section 00 11 00.

This is a Prevailing Wage Rate project. The undersigned agrees, if awarded the contract, to comply with the provisions of Oregon Revised Statutes 279C.800 through 279C.870 pertaining to the payment of prevailing rates of wage, with the exception of deleting the following: [ 279C.810 Exemptions ; rules.(2).(a) ].

The undersigned agrees, if awarded the Contract, to execute and deliver to the Owner within ten (10) working days after receiving contract forms, an Agreement and a satisfactory Performance Bond and a Labor and Material Payment Bond, if required elsewhere in the solicitation, each in an amount equal to 100 percent (100%) of the Contract Sum.

The undersigned has received addenda numbers \_\_\_\_\_ to \_\_\_\_\_ inclusive and has included their provisions in the above Quote amount.

By submitting this Quote, the Quoter certifies that the Quoter:

- a) has available the appropriate financial, material, equipment, facility and personnel resources and expertise, or the ability to obtain the resources and expertise, necessary to meet all contractual responsibilities;
- b) has a satisfactory record of past performance;
- c) has a satisfactory record of integrity, and is not disqualified under ORS 279C.440;
- d) is qualified legally to contract with the Owner; and
- e) will promptly supply all necessary information in connection with any inquiry the Owner may make concerning the responsibility of the Quoter. Prior to award of a Contract, the Quoter shall submit appropriate documentation to allow the Owner to determine whether or not the Quoter is "responsible" according to the above criteria.

Contractor warrants that Contractor has a Qualifying Employee Drug-Testing program and will require each subcontractor providing labor for the project to do the same.

The undersigned has visited the site to become familiar with conditions under which the Work is to be performed and has correlated the Quoter's personal observations with the requirements of the proposed Contract Documents.

The undersigned certifies that the Quoter is a \_\_\_\_\_ Quoter under ORS. ("Resident" or "Non-resident", to be filled in by Quoter).

Names of Firm: \_\_\_\_\_ TIN#: \_\_\_\_\_

Street Address: \_\_\_\_\_  
(City) (State) (Zip)

Telephone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_ E-Mail: \_\_\_\_\_

Signed By: \_\_\_\_\_ Printed Name: \_\_\_\_\_  
(Signature of Authorized Official. If Firm is a partnership, one of the partners must sign quote).

Official Capacity: \_\_\_\_\_ CCB # \_\_\_\_\_

If corporation, attest: \_\_\_\_\_ Date: \_\_\_\_\_  
(Secretary of Corporation)

SEAL (If Corporation) \_\_\_\_\_ Corporation  
\_\_\_\_\_ Partnership  
\_\_\_\_\_ Individual



**QUOTATION FORM**

**DOCUMENT 00 03 00Q**

**NON-DISCRIMINATION REQUIREMENT**

Contractor certifies that the Contractor has not discriminated against minorities, women or emerging small business enterprises in obtaining any required subcontracts.

The Contractor agrees not to discriminate against any client, employee or applicant for employment or for services, because of race, color, religion, sex, national origin, physical or mental handicap, sexual orientation or age unless based upon bona fide occupational qualifications, and that they are otherwise in compliance with all federal, state and local laws prohibiting discrimination, with regard to, but not limited to, the following: Employment upgrading, demotion or transfer; Recruitment or recruitment advertising; Layoffs or termination; Rates of pay or other forms of compensation; Selection for training; Rendition of services. It is further understood that any vendor who is in violation of this clause shall be barred forthwith from receiving awards of any purchase order from the School District, unless a satisfactory showing is made that discriminatory practices have terminated and that a recurrence of such acts is unlikely.

BY \_\_\_\_\_ (Company or Firm Officer) \_\_\_\_\_ (Type or Print Name)

**QUOTATION FORM**

**DOCUMENT 00 03 00Q**

**NON-COLLUSION AFFIDAVIT**

STATE OF \_\_\_\_\_

County of \_\_\_\_\_

I state that I am \_\_\_\_\_ of \_\_\_\_\_ and that  
(Title) (Name of Firm)

I am authorized to make this affidavit on behalf of my firm, and its owners, directors, and officers. I am the person responsible in my firm for the price(s) and the amount of this Quote.

I state that:

- (1) The price(s) and amount of this Quote have been arrived at independently and without consultation, communication or agreement with any other contractor, Quoter or potential Quoter, except as disclosed on the attached appendix.
- (2) That neither the price(s) nor the amount of this Quote, and neither the approximate price(s) nor approximate amount of this Quote, have been disclosed to any other firm or person who is a Quoter or potential Quoter, and they will not be disclosed before Quote opening.
- (3) No attempt has been made or will be made to induce any firm or person to refrain from Quoting on this contract, or to submit a Quote higher than this Quote, or to submit any intentionally high or noncompetitive Quote or other form of complementary Quote.
- (4) The Quote of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or noncompetitive Quote.

(5) \_\_\_\_\_, its affiliates, subsidiaries, officers,  
(Name of my Firm)

directors and employees are not currently under investigation by any governmental agency and have not in the last four years been convicted of or found liable for any act prohibited by State or Federal law in any jurisdiction, involving conspiracy or collusion with respect to Quoting on any public contract, except as described on the attached appendix.

I state that \_\_\_\_\_ understands and acknowledges that the  
(Name of my Firm)  
above representations are material and important, and will be relied on by School District No. 4J in awarding the contract(s) for which this Quote is submitted. I understand and my firm understands that any misstatement in this affidavit is and shall be treated as fraudulent concealment from School District No. 4J of the true facts relating to the submission of Quotes for this contract.

\_\_\_\_\_  
(Authorized Signature)

Sworn to and subscribed before me this  
\_\_\_\_\_ day of \_\_\_\_\_, 2014

\_\_\_\_\_  
(Notary Public for Oregon)

My Commission Expires: \_\_\_\_\_

**END OF QUOTATION FORM**

## SUMMARY OF WORK – SECTION 00 11 00

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Identification: Project consists of school-wide electrical upgrade at Buena Vista Elementary.
  - 1. Project Location: 1500 Queens Way, Eugene, OR 97401
  - 2. Owner: Eugene School District 4J, 715 West Fourth Avenue, Eugene, OR 97402.
- B. Architect Identification: The Contract Documents, dated 01 May 2014, were prepared for Project by Jeffrey L. Graper, Systems West Engineers.
- C. Project Manager: Bruce Foster has been appointed by Owner to serve as Project Coordinator.

#### 1.3 CONTRACT

- A. Project will be constructed under a general construction contract.
  - 1. Construction Contractor Agreement

#### 1.4 WORK SEQUENCE

- A. Do not commence Work until after execution of Agreement and receipt of Notice-to-Proceed from Owner.
- B. Perform work in order to achieve Substantial Completion by 31 July 2014.
- C. Achieve Final Completion within seven (7) days following the date of Substantial Completion.

#### 1.5 USE OF PREMISES

- A. Work Area Access: Buildings will be occupied during work. Access to the work area will be available on a week-day basis from approximately 7:00 am to 4:00 pm. Coordinate all other work hour schedules with Owner so as not to interfere with Owner's use of the building.
- B. Limit use of the premises to construction activities in areas indicated; allow for Owner occupancy and use by the public, subject to approval by a District Safety Specialist.
- C. Site Access: Maintain drives and building entrances and exits clear and protected at all times to Owner's, employees, and public access and for use by emergency personnel. Do not use these areas for parking or storage. Schedule deliveries to minimize space and time requirements for storage of materials at site.

- D. Parking: Contractor may use existing parking areas as indicated on Drawings.
- E. Contractor Staging Areas: Limit staging to areas indicated on Drawings.
- F. Construction Operations: Limited to areas indicated on Drawings.

#### 1.6 WORK UNDER SEPERATE CONTRACTS

- A. Separate Contract: Owner **will award** a separate contract for performance of certain construction operations at Project site. Those operations will be conducted simultaneously with work under this Contract. This contract **includes** the following:
  - 1. Buena Vista Exterior Door Replacement: A separate contract **will be awarded**.
- B. Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract.

#### 1.7 FUTURE WORK

#### 1.8 PRODUCTS ORDERED IN ADVANCE

#### 1.9 OWNER-FURNISHED PRODUCTS

- A. Owner will furnish main switchboard and panelboard interiors. The Work includes providing support systems to receive Owner's equipment.
  - 1. Owner will arrange for and deliver Shop Drawings, Product Data, and Samples to Contractor.
  - 2. Contractor will arrange to pick-up owner furnished products at 715 W. 4<sup>th</sup> Ave., Eugene, OR.
  - 3. Contractor shall review Shop Drawings, Product Data, and Samples and return them to Architect noting discrepancies or anticipated problems in use of product.
  - 4. Contractor is responsible for protecting Owner-furnished items from damage during storage and handling, including damage from exposure to the elements.
  - 5. If Owner-furnished items are damaged as a result of Contractor's operations, Contractor shall repair or replace them.

#### 1.10 MISCELLANEOUS PROVISIONS

##### A. DRUG AND ALCOHOL POLICY

- 1. The possession, use, or distribution of illicit drugs and alcohol on school premises is prohibited. Prescription medications brought to the project site shall be in the original container bearing the name of the drug, the name of the physician and the prescribed dosage.

##### B. USE OF TOBACCO PRODUCTS

- 1. Smoking and the other use of tobacco products is prohibited on all school district property pursuant to OAR 581-021-0110.

##### C. SAFETY REQUIREMENTS

- 1. Safety must not be sacrificed for the sake of productivity or expedience. Safety of students, staff, and the public is critical. Take all reasonable precautions to prevent endangerment or injury. Advise and coordinate operations with the school office.

2. All contractors who perform work on District property, and their employees, are expected to know the District's expectations for safe work and to adhere to those expectations.
3. Contractor's are to adhere to the regulations of Oregon OSHA for all projects within the School District.

D. GENERAL SAFE WORK PRACTICES

1. Students, public and school staff shall not be put at risk by the activities of contractors or their employees.
2. Safe vehicle operation rules are to be followed at all times. These include positioning vehicles to minimize the necessity of backing and providing a "spotter", someone who will make sure that people do not run into the path of a vehicle when driving on a playground or field that is occupied by students.
3. Tools shall never be left out when an unsecured work area is vacated.
4. Ladders and scaffolding will be taken down when an unsecured work area is vacated.
5. Open holes and other tripping hazards shall be fenced or barricaded when an unsecured work area is vacated.
6. Operations resulting in vapors, emissions or flying objects shall be conducted in such a way as to prevent exposure to any unprotected parties or property.
7. "Secured Work Area" is defined as an area having a perimeter cyclone fence at least 6 feet in height, with gates which close and lock so that no casual entrance is possible by unauthorized adults or children.
8. Contractor to follow all OR-OSHA rules for Confined Spaces, where applicable.

E. COMMUNICATIONS REGARDING UNSAFE PRACTICES

1. Upon perceiving a problem, the District will immediately communicate the concern to the Contractor or Contractor's representative on the work site.
2. If agreement on correction of unsafe conditions cannot be reached, the concerns of the District shall prevail and safety concerns shall be addressed in accordance with the District requirements.

F. ELECTRICAL PANELS - LOCKOUT/TAGOUT

1. Contractor shall implement a Lockout/Tag-out program for his employees who take equipment out of service or place equipment back into service. Contractor shall review the District's Energy Control Program prior to commencing work. Rules applying to this procedure are Oregon Occupational Safety and Health Code OAR 437, Division 2, Subdivision J, General Environmental Controls Lockout/Tag-out (1919.147), or latest edition.

G. POTENTIALLY HAZARDOUS PRODUCTS

1. The District attempts to maintain a safe and healthy environment for students and staff. The Contractor is therefore required to follow District guidelines controlling the use of potentially hazardous products and to use these products in a safe manner. Guidelines include the use of materials (adhesives, coatings, carpeting, etc.) which are known to emit little or no airborne pollutants.
2. MSDS information is required for all potentially hazardous products. The Project Manager and a District Safety Specialist will review these and determine what, if any, mitigation procedures will be required.
3. Contractor is to maintain and post copies of all MSDS information at the project site and adhere to the required controls.
4. Contractor is to ensure that work area by students and teachers is restricted. The District will provide signage appropriate for this purpose. The Contractor is to construct and

maintain appropriate barriers. This shall include provision of physical separation barriers between “construction” and “occupied” spaces.

5. Contractor to adopt means of maintaining the construction space in negative air pressure in relation to occupied spaces.
6. Where there is a new or existing ventilation system in an affected space, the system shall be adjusted to provide the maximum amount of outside air possible with the system.
7. Efforts shall be made to install and operate new ventilation systems as soon in the construction process as practical.

#### H. ASBESTOS CONTAINING MATERIALS WARNING

1. Asbestos containing materials are known to exist in areas of the Work. The Contractor shall not, in any way, disturb materials which are known to contain asbestos, assumed to contain asbestos, or otherwise have not been tested and confirmed to be asbestos free.
2. Where access to concealed spaces is required, or it is necessary to disturb building materials such as for drilling of holes, cutting, etc., notify the Owner so that proper investigation and/or removal procedures are followed.
3. Prior to commencing Work, the Contractor shall meet with the District Safety Specialist and review the Owner’s Asbestos Management Plan for the locations of asbestos-containing materials and/or materials assumed to contain asbestos. After reviewing the Owner’s Asbestos Management Plan, the Contractor is required to sign Form 01100A, Asbestos-containing Materials Notification Statement, provided at the end of this Section.
4. Contractor must not install any asbestos-containing materials when performing the Work of this project. At the completion of the Work, Contractor will be required to furnish a statement stating that no asbestos-containing materials were installed during the course of the Work. Refer to Sample Form 01100B at the end of this Section

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

PART 4 - SCHEDULE OF PRODUCTS ORDERED IN ADVANCE

PART 5 - ASBESTOS FORMS

**Form 00 11 00A**

**ASBESTOS-CONTAINING MATERIALS NOTIFICATION STATEMENT  
FOR CONTRACTORS**

This form must be completed and signed by the Contractor prior to beginning work in any Eugene School District 4J building.

The presence of known and assumed asbestos containing materials is documented in the AHERA Management Plan for each building. Copies of the AHERA Management Plan are available in the main office of each building and in the Facilities Management Office at 715 West Fourth Avenue, Eugene, Oregon. The District Asbestos Specialist must be informed of the Contractor's activities in each building prior to the start of work so that the Contractor can be informed on how to use the AHERA Management Plan and to determine if any asbestos-containing materials are likely to be impacted by the work of the Contractor.

The Contractor is responsible for notifying all employees and subcontractors of the presence of asbestos in the building. The Contractor shall not disturb known or assumed asbestos-containing materials. If the Contractor discovers suspected asbestos-containing materials that have not been identified, the Contractor must stop any work impacting the suspected materials and notify the District Asbestos Specialist so that the material can be sampled. Any asbestos-containing materials that must be removed to allow the Contractor to complete the Contractor's work will be removed by the District under separate contract. If the Contractor disturbs asbestos-containing materials, the Contractor will be responsible for the cost of the cleanup and decontamination..

I \_\_\_\_\_,                      Representing \_\_\_\_\_,  
(Print Name of Representative)                      (Business Name)

have been notified of the location of the AHERA Management Plan and agree to avoid impacting all known or assumed asbestos-containing materials in the performance of the Work.

\_\_\_\_\_  
Signature of Representative

\_\_\_\_\_  
Date

\_\_\_\_\_  
Work Site

\_\_\_\_\_  
CIP #

**Form 00 11 00B**

The Environmental Protection Agency (AHERA) rules require the School District obtain a signed statement from the Site Superintendent that, to the best of his/her knowledge, no asbestos-containing building materials were installed during the Work. Therefore, the following statement must be submitted on the Contractors letterhead prior to Project Closeout.

**SAMPLE FORM**

(To be submitted on the Contractor's letterhead)

**ASBESTOS-CONTAINING MATERIALS STATEMENT**

EUGENE SCHOOL DISTRICT 4J

---

(Name of Project and CIP Number)

We the undersigned, (Name of Company), hereby warrant that to the best of our knowledge all materials furnished for the above referenced project contain 0% asbestos.

---

(Name of Construction Company)

---

(Signature and Date)

---

Printed Name

---

Job Title

END OF SECTION 00 11 00



**ATTACHMENT A**  
**CONSTRUCTION CONTRACTOR AGREEMENT TERMS & CONDITIONS**  
**with PERFORMANCE BOND AND PAYMENT BOND AND PREVAILING WAGES**  
4/16/2013

This Construction Contractor Agreement between the DISTRICT and the CONTRACTOR includes the following terms, conditions, and provisions:

- 1. DECLARATION OF INDEPENDENT CONTRACTOR:** CONTRACTOR declares that CONTRACTOR has complied with all federal, state, and local laws regarding business permits, registrations, certificates, and licenses that may be required to carry out the work to be performed under this agreement. The CONTRACTOR represents that the CONTRACTOR qualifies as an independent CONTRACTOR as evidenced by agreement to the conditions of this contract. The CONTRACTOR represents that all the information in the agreement is true and the DISTRICT may contact individuals and corporations to verify this information. The DISTRICT relies upon the representation of the CONTRACTOR. In the event the CONTRACTOR is determined not to be an independent CONTRACTOR for the purpose of providing these services to the DISTRICT, then the CONTRACTOR will reimburse the DISTRICT's full costs and damages associated with or in any way related to this determination.
- 2. CONTRACTORS' REGISTRATION:** The CONTRACTOR and each Subcontractor shall be registered, prior to the commencement of the Work, and maintain, for the duration of the Project, a registration with the Oregon State Construction CONTRACTORS' Board.
- 3. RESPONSIBILITY TEST:** CONTRACTOR certifies that the contractor: a) has available the appropriate financial, material, equipment, facility and personnel resources and expertise, or the ability to obtain the resources and expertise, necessary to meet all contractual responsibilities; b) has a satisfactory record of past performance; c) has a satisfactory record of integrity, is not disqualified under ORS 279C.440; and d) is qualified legally to contract with the Owner.
- 4. PERMITS, FEES AND NOTICES:** The OWNER will pay the plan check fee, building permit fee, and systems development charges directly to the authority having jurisdiction. The CONTRACTOR shall comply with and give notices required by laws, ordinances, rules, regulations and lawful orders of public authorities bearing on performance of the work of this contract. The CONTRACTOR shall secure and pay for all other permits, fees and inspections necessary for the proper execution and completion of the Contract, which are legally required when bids are received or negotiations concluded. The CONTRACTOR shall pick up permits and call for inspections through final inspection, as required by the City Building Department.
- 5. USE OF SITE:** Check in daily with the school or facility office personnel and the building custodian to coordinate construction activities with the ongoing activities at the building.
- 6. SMOKING, DRUG AND ALCOHOL POLICIES:** Smoking and the other use of tobacco products is prohibited on all school district property pursuant to OAR 581-021-0110. District Policy prohibits the possession, use or distribution of illicit drugs and alcohol on school premises. Anyone under the treatment of a physician who must bring prescription medications to the workplace shall carry the medicines in the original container bearing the name of the drug, the name of the physician and the prescribed dosage. The CONTRACTOR is required to demonstrate that an employee drug testing program is in place.
- 7. POTENTIALLY HAZARDOUS PRODUCTS:** The District attempts to maintain a safe and healthy environment for students and staff. The Contractor is therefore required to follow District guidelines controlling the use of potentially hazardous products and to use these products in a safe manner.  
  
MSDS information is required for all potentially hazardous products. The Project Manager and a District Safety Specialist will review these and determine what, if any, mitigation procedures will be required. Contractor is to maintain and post copies of all MSDS information at the project site and adhere to the required controls.  
  
Contractor is to ensure that work area access by students and teachers is restricted. The District will provide signage appropriate for this purpose. The contractor is to construct and maintain appropriate barriers.
- 8. ASBESTOS CONTAINING MATERIALS:** Prior to commencing work on-site, the CONTRACTOR shall contact the District Asbestos Specialist, to review the Asbestos Management Plan for the site where the work will be performed. The CONTRACTOR shall not, in any way, disturb materials which are known to contain asbestos, assumed to contain asbestos, or otherwise have not been tested and confirmed to be asbestos free. The DISTRICT will investigate and test for asbestos containing materials and, if required, remove such materials as required for the Work. CONTRACTOR is required to sign an Asbestos Containing Materials Notification Statement as supplied by DISTRICT prior to commencing Work. The CONTRACTOR shall use no asbestos-containing materials in the Work and shall so certify.
- 9. SAFETY REQUIREMENTS:** Safety must not be sacrificed for the sake of productivity or expedience. Safety of students, staff, and the public is critical. All CONTRACTORS who perform work on District property, and their employees, are expected to know the DISTRICT's expectations for safe work and to adhere to those expectations. CONTRACTOR shall adhere to the regulations of Oregon OSHA for all projects within the School District.

**10. ELECTRICAL LOCKOUT/TAGOUT:** Contractor shall implement a Lockout/Tagout program for employees who take equipment out of service or place equipment back into service after repair. Contractor shall review the District's Energy Control Program prior to commencing work. Rules applying to this procedure are Oregon Occupational Safety and Health Code OAR 437-002-0140, General Environmental Controls Lockout/Tagout (1919.147), or latest version.

**ARC FLASH – ELECTRICAL SAFETY:** Contractor shall comply with NFPA 70E (Electrical Safety in the Workplace), current edition. Contractor shall comply with Oregon OSHA 1910.137 (Personal Protective Equipment). The Contractor shall review with the School District Project Manager the 'Eugene School District Electrical Safety Program' before any work commences. The Contractor shall comply with all 'Arc Flash' and 'Electrical Safety' protocols referenced in any and all NFPA, OSHA, OROSHA, NEC, NESC, UL, IBC, IFC and ANSI documents (current editions).

**11. CONFINED SPACE REQUIREMENTS:** If work requires entering underground fuel storage tanks, utility tunnels, sewer vaults (where septic systems are located) or fireboxes on boilers, a permit and special training is required, when necessary under OAR 437-002-0140.

**12. HOLD HARMLESS AND INDEMNIFICATION:** To the fullest extent of the law, the Contractor will defend, indemnify, hold harmless and reimburse the Eugene School District 4J (including its officers, board members, agents, and employees) from all claims, demands, suits, actions, penalties, and damage expenses, for liability of any kind including attorney's fees. To the extent that death or bodily injury to persons or damage to property arises out of the fault of the Contractor, the Contractor's indemnity obligation exists only to the extent that the death or bodily injury to persons or damage to property arises out of the fault of the Contractor, or the fault of the Contractor's agents, representatives or subcontractors, contributed to or caused such damage, whether or not such incidents are contributed to or caused in any part by Eugene School District 4J.

**13. INSURANCE:** The Contractor shall maintain in force for the duration of this agreement, the following:

**General Insurance:** The Contractor shall maintain in force for the duration of this agreement a Umbrella Insurance Policy with the limits not less than \$5,000,000, a Commercial General Liability, Automobile Liability (owned, non-owned and hired) Insurance policy(s) written on an occurrence basis with limits not less than \$1,000,000 per occurrence and \$2,000,000 in the aggregated naming the District, its employees, officials and agents as an additional insured as respects to work or services performed under this agreement. This insurance will be primary to any insurance the District may carry on its own. If the District requires Professional Liability coverage, the terms, conditions, and limits must be approved by the District's Risk Manager.

**Workers' Compensation:** The CONTRACTOR shall provide and maintain workers' compensation coverage for its employees, officers, agents, or partners as required by applicable workers' compensation laws.

**Equipment and Material:** The CONTRACTOR shall be responsible for any loss, damage, or destruction of its own property, equipment, and materials used in connection with the work.

**Course of Construction:** The CONTRACTOR shall maintain an all-risk policy covering the replacement cost of the Work during the course of construction. The policy shall include the interests of the Owner and the Architect. The amount of insurance shall equal the completed value of the contract.

**Property Insurance:** The CONTRACTOR shall purchase from and maintain in a company or companies authorized to do business in the jurisdiction in which the Project is located, property insurance on an "all risk" policy form, including builder's risk/installation floater, whichever is appropriate, in the amount of the initial Contract Sum, plus the value of subsequent modifications and the cost of materials supplied by others, comprising the total value of the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made as provided in The Contract Documents or until no person or entity other than the Owner has an insurable interest in the property required by this paragraph to be covered, whichever is later. The insurance shall include interests of the Owner, Architect and CONTRACTOR, Subcontractors, and sub-subcontractors in the Project.

**Evidence of Coverage:** Evidence of the above coverages issued by a company satisfactory to the District shall be provided to the District by way of a certificate of insurance before any work or services commence. A 30-day notice of cancellation or material change in coverage clause shall be included. It is the Contractor's obligation to provide the 30 days notice if not done so by the Contractor's insurance company(s). Failure to maintain the proper insurance shall be grounds for immediate termination of this Agreement.

**Subcontractors:** The CONTRACTOR shall require all Subcontractors to provide and maintain general liability, auto liability, professional liability (as applicable), and workers' compensation insurance with coverage equivalent to those required of the general CONTRACTOR in this contract. The CONTRACTOR shall require certificates of insurance from all subcontractors as evidence of coverage.

**Exception or Waivers:** Any exception or waiver of these requirements shall be subject to review and approval from the DISTRICT's Risk Manager.

**14. PERFORMANCE BOND AND PAYMENT BOND:** The Contractor shall furnish a Performance bond and a Labor and Materials Payment bond covering faithful performance of the Contract and payment of obligations arising there under. Bonds are to be obtained through a company that is on the US Government Treasury list for approved sureties and/or approved by School District 4J's Risk Manager. The cost of the Bond shall be included in the Contract Sum. The amount of each bond shall be equal to 100 percent of the Contract Sum. Submit on AIA Document A312, latest edition.

The Contractor shall deliver the required bonds to the Owner with the executed Agreement. The Contractor shall require the Attorney-in-fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of their power of attorney.

**15. OWNERSHIP OF WORK PRODUCT:** All work products of the CONTRACTOR, which result from this contract, shall be the exclusive property of the DISTRICT and shall be delivered to the DISTRICT upon completion of the work or termination of this contract, except as otherwise agreed in writing.

**16. EQUIPMENT, TOOLS, MATERIALS, OR SUPPLIES:** CONTRACTOR shall supply, at CONTRACTOR's sole expense, all equipment, tools, materials and/or supplies to accomplish the services agreed upon. The CONTRACTOR shall be responsible for any loss, damage, or destruction of its own property, equipment, and materials used in conjunction with the work.

**17. REIMBURSEMENT OF EXPENSES:** The DISTRICT shall not be liable to CONTRACTOR for any expenses paid or incurred by the CONTRACTOR unless previously agreed to in writing.

**18. FRINGE BENEFITS:** Because CONTRACTOR is engaged in CONTRACTOR's own independently established business, CONTRACTOR is not eligible for, and shall not participate in, any employee pension, health, or other fringe benefit plan, of the DISTRICT.

**19. HOURS OF LABOR:** No person shall be employed for more than ten hours in any one day, or 40 hours in any one week, except in the cases of necessity, emergency, or where the public policy absolutely requires it, and in such cases the person so employed shall be paid at least time and a half of the regular pay for all time worked.

- a. For all overtime in excess of eight hours a day or 40 hours in any one week when the work week is five consecutive days, Monday through Friday; or
- b. For all overtime in excess of 10 hours a day or 40 hours in any one week when the work week is four consecutive days, Monday through Friday; and
- c. For all work performed on Saturday and on any legal holiday specified in ORS 279C.540.

The Contractor shall give notice to employees who work on a public contract in writing, either at the time of hire or before commencement of work on the contract, or by posting a notice in a location frequented by employees of the number of hours per day and days per week the employees may be required to work.

**20. PAYMENT OF LABORERS AND MATERIALMEN, CONTRIBUTIONS TO INDUSTRIAL ACCIDENT FUND, LIENS AND WITHHOLDING TAXES:** The Contractor shall: (1) Make payment promptly, as due, to all persons supplying to such contractor labor or material for the prosecution of the Work provided for in such contract. (2) Pay all contributions or amounts due the Industrial Accident Fund from such contractor or subcontractor incurred in the performance of the contract. (3) Not permit any lien or claim to be filed or prosecuted against the state, county, school district, municipality, municipal corporation or subdivision thereof, on account of any labor or material furnished. (4) Pay to the Department of Revenue all sums withheld from employees pursuant to ORS 316.167.

**21. PAYMENT FOR MEDICAL CARE AND PROVIDING WORKERS' COMPENSATION:** The CONTRACTOR shall promptly, as due, make payment to any person, co-partnership, association or corporation, furnishing medical, surgical and hospital care or other needed care and attention, incident to sickness or injury, to the employees of such CONTRACTOR, of all sums which the CONTRACTOR agrees to pay for such services and all moneys and sums which the CONTRACTOR collected or deducted from the wages of employees pursuant to any law, contract or agreement for the purpose of providing or paying for such service. All employers working under this contract are subject employers and must comply with ORS 656.017.

**22. PAYMENT OF CLAIMS BY PUBLIC OFFICERS:** If the CONTRACTOR fails, neglects or refuses to make prompt payment of any claim for labor or services furnished to the CONTRACTOR or a Subcontractor by any person in connection with the public contract as such claim becomes due, the proper officer or officers representing the DISTRICT may pay such claim to the person furnishing the labor or services and charge the amount of the payment against funds due or to become due the CONTRACTOR by reason of such contract. The payment of a claim in this manner shall not relieve the CONTRACTOR or the CONTRACTOR's surety from obligation with respect to any unpaid claims.

**23. FEDERAL, STATE, AND LOCAL PAYROLL TAXES:** Neither federal, nor state, nor local income tax nor payroll tax of any kind shall be collected, withheld or paid by the DISTRICT on behalf of the CONTRACTOR or of employees of the CONTRACTOR. CONTRACTOR shall not be treated as an employee with respect to the services performed hereunder for federal or state tax purposes.

**24. PREVAILING WAGE RATES:** Each worker in each trade or occupation employed in the performance of this Contract either by the CONTRACTOR or subcontractor or other person doing or contracting to do the whole or any part of the Work on the Contract must be paid the higher of the applicable state or federal prevailing rate of wage.

- a. The existing Oregon prevailing rate of wage in effect at the time the specifications are first advertised for bid solicitations is the applicable rate.

(USE THE PARAGRAPH ABOVE OR THE PARAGRAPHS FOR QSCB IN RED BELOW, BUT NOT BOTH)

The existing BOLI and Davis-Bacon prevailing rates of wage in effect at the time the specifications are first advertised for bid solicitations is the applicable rate.

This Project is funded by the federally sponsored "Qualified School Construction Bond", and subject to the provisions of the wage rates listed under the federal Davis-Bacon Act, OR the Oregon Bureau of Labor and Industries; whichever wage rate is greater. Contractors shall display two posters, one of which pertains to "Employee Rights Under the Davis-Bacon Act", with the other pertaining to "Whistleblower Protection"; both of which shall be posted at the project site at all times until the completion of the project. Posters are available from District project manager. Photos verifying that the posters were displayed on the Project site shall be submitted as part of the closeout requirements.

Should Davis-Bacon wage rates prevail, certifications as prescribed under Subsection c .1-.6 listed below are acceptable in lieu of Davis Bacon certifications.

- b. The Owner shall pay to the Commissioner of the Bureau of Labor and Industries a fee equal to one tenth of one percent (.001) of the contract price, but no less than \$250 nor more than \$7,500, regardless of the contract price; the fee shall be paid upon completion of contract documents between Owner and Contractor; the fee shall be delivered to the commissioner at the following address: Prevailing Wage Rate Unit, #1045, Bureau of Labor and Industries, 800 NE Oregon Street, Portland, OR 97232.

- c. Certification of rate or wage by Contractor or Subcontractor (ORS 279C.845):

.1 The contractor or the contractor's surety and every subcontractor or the subcontractor's surety shall file certified statements with the public agency in writing, on a form prescribed by the Commissioner of the Bureau of Labor and Industries, certifying the hourly rate of wage paid each worker whom the contractor or the subcontractor has employed upon the public works, and further certifying that no worker employed upon the public works has been paid less than the higher of the applicable state or federal prevailing rate of wage or less than the minimum hourly rate of wage specified in the contract. The certificate and statement shall be verified by the oath of the contractor or the contractor's surety or subcontractor or the subcontractor's surety that the contractor or subcontractor has read the statement and certificate and knows the contents thereof and that the same is true to the contractor or subcontractor's knowledge. The certified statements shall set out accurately and completely the payroll records for the prior week, including the name and address of each worker, the worker's correct classification, rate of pay, daily and weekly number of hours worked, deductions made, and actual wages paid.

.2 If the Contractor does not file certified payroll as required (at least once per month) the Owner will withhold 25% of the amounts due the Contractor, in addition to any other required retainage.

.3 If a first-tier Subcontractor does not file certified payroll reports as required, the prime Contractor shall withhold 25% of amounts due the first-tier Subcontractor.

.4 Each certified statement required by subsection (1) of this section shall be delivered or mailed by the contractor or subcontractor to the public contracting agency. Certified statements shall be submitted to the public contracting agency once a month by the fifth business day of the following month, for each week workers are employed. Information submitted on certified statements may be used only to ensure compliance with the provisions of ORS 279C.800 to 279C.870.

.5 Each contractor or subcontractor shall preserve the certified statements for a period of three years from the date of completion of the contract.

.6 Certified statements received by a public agency are public records subject to the provisions of ORS 192.410 to 192.505. As such, they must be made available upon request.

- d. For every bid \$100,000 or greater, all Contractors and Subcontractors shall have a public works bond, in the amount of \$30,000, filed with the Construction Contractors' Board (CCB), before starting work on the project, unless exempt.
  - e. Contractor shall include in every subcontract a provision requiring their Subcontractors to have a public works bond filed with the CCB before starting work on the project, unless exempt. Contractors shall verify that all of their subcontractors have filed a public works bond with the CCB.
- 25. SUBCONTRACTORS:** The CONTRACTOR shall include in any subcontract for property or services entered into by the CONTRACTOR and Subcontractor, including a material supplier, for the purpose of performing a construction contract:
- a. A payment clause that obligates the CONTRACTOR to pay the Subcontractor for satisfactory performance under its subcontract within 10 days out of such amounts as are paid to the CONTRACTOR by the DISTRICT under such contract; and
  - b. An interest penalty clause that obligates the CONTRACTOR to pay to the Subcontractor an interest penalty on amounts due in the case of each payment not made in accordance with the payment clause included in the subcontract pursuant to the above paragraph for the period beginning on the day after the required Payment date and ending on the date on which payment of the amount due is made; computed at the rate specified in ORS 279C.580.
- 26. PROJECT CLOSEOUT:** When the Work is determined to be complete:
- a. Return all keys to DISTRICT Representative.
  - b. Where warranties are required, submit original warranty certificates and indicate dates of coverage.
  - c. Submit any operation and maintenance information required by technical specifications.
  - d. Submit any as-built drawings or other as-built documentation required by technical specifications.
  - e. Where a building permit is required, submit documentation of Building Department inspection and acceptance.
  - f. Final payment will be authorized after all project closeout tasks have been completed and the work is determined to be acceptable by the DISTRICT Project Manager.
- 27. NON-DISCRIMINATION:** The CONTRACTOR, by signing this agreement certifies that the CONTRACTOR has not discriminated against minorities, women or emerging small business enterprises in obtaining any required subcontracts.
- The CONTRACTOR agrees not to discriminate against any client, employee or applicant for employment or for services, because of race, color, religion, sex, national origin, physical or mental handicap, sexual orientation or age unless based upon bona fide occupational qualifications, and that they are otherwise in compliance with all federal, state and local laws prohibiting discrimination, with regard to, but not limited to, the following: Employment upgrading, demotion or transfer; Recruitment or recruitment advertising; Layoffs or termination; Rates of pay or other forms of compensation; Selection for training; Rendition of services. It is further understood that any vendor who is in violation of this clause shall be barred forthwith from receiving awards of any purchase order from the School District, unless a satisfactory showing is made that discriminatory practices have terminated and that a recurrence of such acts is unlikely.
- 28. FOREIGN CONTRACTORS:** In the event this Contract is awarded to a contractor not domiciled in or registered to do business in the State of Oregon and the contract price exceeds \$10,000.00, the CONTRACTOR shall promptly report to the Department of Revenue the total price, terms of payment, length of contract, and such other information as the Department of Revenue may require before final payment can be received on the public contract. The DISTRICT will satisfy itself that the requirement of this subsection has been complied with before it issues a Final Payment.
- 29. TERMINATION WITH CAUSE:** With reasonable cause, either party may terminate this agreement effective immediately upon the giving of written notice of termination for cause. Reasonable cause shall include:
- a. Material violation of this agreement.
  - b. Any act exposing the other party to liability to others for personal injury or property damage.
- 30. REMEDIES:** In the event of a termination of this contract by the DISTRICT, because of a breach by CONTRACTOR, the DISTRICT may complete the work either by itself or by contract with other persons, or any combination thereof. CONTRACTOR shall be liable to the DISTRICT for any costs or losses incurred by the DISTRICT arising out of or related to the breach, including costs incurred in selecting other CONTRACTORS, time delay losses, attorney fees, and the like, less the remaining unpaid balance of the consideration until DISTRICT's costs and losses have been determined, at which time the DISTRICT may offset any such amount due CONTRACTOR against costs and losses incurred by DISTRICT.

- 31. TERMINATION OR SUSPENSION OF CONTRACT FOR CONVENIENCE:** Any contract may be terminated, or temporarily suspended, by the DISTRICT in the event that the project is permanently abandoned, or deferred, as determined in the sole discretion of the DISTRICT. The DISTRICT may terminate, or suspend, any contract in whole or in part whenever the DISTRICT determines, in its sole discretion, that such action is in the DISTRICT's best interest. Whenever any contract is terminated, or suspended in accordance with this paragraph, the CONTRACTOR shall be entitled to payment for actual work performed at contract prices for completed items of work. An equitable adjustment in any contract price for partially completed items of work will be made, but such adjustment shall not include provisions for loss of anticipated profit on deleted or uncompleted work. For suspended work, the CONTRACTOR will be entitled to five percent (5%) per year of the value of the work suspended, only if ultimately completed, and reasonable re-mobilization costs, if applicable. Termination or suspension of any contract by the DISTRICT at any time during the term for convenience, shall not constitute a breach of any contract by the DISTRICT.
- 32. ASSIGNMENT:** CONTRACTOR shall not assign this contract, in whole or in part, or any right or obligation hereunder, without the DISTRICT's prior written approval.
- 33. NO AUTHORITY TO BIND CLIENT:** CONTRACTOR has no authority to bind or obligate the other or to enter into contracts or agreements on behalf of the DISTRICT. This agreement does not create a partnership, joint venture or agency between the parties.
- 34. NON-WAIVER:** The failure of either party to exercise any of its rights under this agreement for a breach thereof, shall not be deemed to be a waiver of such rights or a waiver of any subsequent breach.
- 35. NOTICES:** Any notice given in connection with this agreement shall be given in writing and shall be delivered either by hand to the signing party or by regular and certified mail to the party at the party's address stated herein.
- 36. CHOICE OF LAW:** Any dispute under this agreement or related to this agreement shall be decided in accordance with the laws of the State of Oregon.
- 37. ATTORNEY'S FEES:** In the event of any action to enforce or interpret this contract, the prevailing party shall be entitled to recover from the losing party reasonable attorney fees incurred in the proceeding, as set by the court, at trial, upon appeal, or upon review.
- 38. ENTIRE AGREEMENT:** This is the entire agreement of the parties, and supersedes any prior agreement.
- 39. SEVERABILITY:** If any part of this agreement shall be held unenforceable, the rest of this agreement will nevertheless remain in full force and effect.
- 40. AMENDMENTS:** This agreement may be supplemented, amended, or revised only in writing by agreement of the parties.
- 41. CONTRACTOR'S MARK UP FOR CHANGE ORDER WORK:** The allowance for the combined overhead and profit included in the total net cost to the Owner shall be based as follows:
- a. The maximum allowable hourly wage rate for Changes to the Work shall be the appropriate Base Wage Rate plus Fringe Rate as listed for each occupation in the Prevailing Wage Rate for Public Works Contracts in Oregon manual issued by the Oregon Bureau of Labor and Industries (the current issue in effect on the date the quote is first advertised and/or a quote is first requested); multiplied by 1.20. An amount for Overhead and Profit may be added in accordance with section b through f below.
  - b. For the Contractor, for Work performed by the Contractor's Subcontractor, 10 percent of the amount due the Subcontractor.
  - c. For each Subcontractor or Sub-subcontractor involved, for Work performed by that Subcontractor's or Sub-subcontractor's own forces, 10 percent of the cost.
  - d. Total overhead and profit shall not exceed 25% of the base cost of the work (base cost being defined as the cost of the work without markups.)
  - e. Itemize costs to include breakdown for materials and labor, overhead and profit.
  - f. A change to the work providing a net CREDIT to the Owner shall include a credit for overhead and profit based on the following schedule:
    1. For the Contractor, 5 percent of the Cost to be credited.
    2. For each Subcontractor, 5 percent of the Cost to be credited.
    3. For each Sub-subcontractor, 5 percent of the Cost to be credited.
    4. In order to facilitate checking of quotations for extras or credits, all proposals, except those so minor that their propriety can be seen by inspection, shall be accompanied by a complete itemization of costs including Subcontractor and Contractor overhead and profit as applicable.

**42. APPLICATION FOR PAYMENT:** Submit payment request on invoice customarily used by Contractor. Identify 5% retainage to be carried until the project is determined to be complete.

**43. DEBARMENT CERTIFICATION:** The contractor/Vendor certifies that the Contractor is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in this Contract by any Federal department or agency. If requested by the Eugene 4J School District, the Contractor shall complete a Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion form. Any such form completed by the Contractor for this Contract shall be incorporated into this Contract by reference

END OF TERMS AND CONDITIONS

**CONSTRUCTION CONTRACTOR AGREEMENT**  
**LANE COUNTY SCHOOL DISTRICT 4J**  
**715 West Fourth Avenue**  
**Eugene, Oregon 97402**

This Agreement is hereby made between the Lane County School District 4J, hereinafter DISTRICT, and CONTRACTOR, according to the following terms, conditions and provisions:

1. CONTRACTOR is identified as follows:

Firm Name: \_\_\_\_\_

Contractor's Representative: \_\_\_\_\_

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

City/State/ZIP: \_\_\_\_\_ Email: \_\_\_\_\_

Business Telephone: \_\_\_\_\_ FAX: \_\_\_\_\_

Social Security Number: \_\_\_\_\_ or Federal Employer ID:

Type of Entity:      Sole Proprietorship    Partnership    Corporation

2. SERVICES TO BE PROVIDED (Include scope of work, schedule and other provisions including supplies, materials, equipment or services, as applicable):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. DISTRICT'S REPRESENTATIVE: \_\_\_\_\_

4. FINGERPRINTING REQUIREMENTS: Do services to be provided include potential for direct, unsupervised contact with students?      Yes    No

If yes, has CONTRACTOR been fingerprinted?      Yes    No

5. DATE AND DURATION: This agreement shall be effective commencing on \_\_\_\_\_ and extending through \_\_\_\_\_, unless otherwise terminated or extended.

6. PAYMENT: The DISTRICT shall pay the CONTRACTOR the agreed sum of \$\_\_\_\_\_ for work described herein.

7. CONTRACTOR REQUIREMENTS: The CONTRACTOR agrees to perform the work or services as described in this Agreement in accordance with the Terms and Conditions of this Agreement (ATTACHMENT A) and Drawings and Specifications listed below:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

8. CONTRACTOR is an Independent Contractor within the meaning of ORS 670.600 and is not an employee of the DISTRICT.

9. SIGNATURES: It is so agreed this \_\_\_\_\_ day of \_\_\_\_\_.

\_\_\_\_\_  
CONTRACTOR

\_\_\_\_\_  
Date

\_\_\_\_\_  
DISTRICT

\_\_\_\_\_  
Date



DOCUMENT 00 73 43

PREVAILING WAGE RATES

PART 1 GENERAL

The Prevailing Wage Rates dated January 1, 2014, including any subsequent corrections or amendments issued by the Oregon Bureau of Labor and Industries, are included as a portion of the Contract Documents by reference. Copies are available for review at the office of Facilities Management, School District 4J, and can be viewed on line at [www.boli.state.or.us](http://www.boli.state.or.us). Click on Prevailing Wages, then PWR Rate Publications, and then Prevailing Wage Rates for Public Works Contracts in Oregon (subject only to state law).

END OF DOCUMENT 00 73 43

SUBMITTALS AND SHOP DRAWINGS

**PART 1 - GENERAL**

1.01 REQUIREMENTS

- A. Refer to General Divisions for submittal requirements and procedures.

1.02 DEFINITIONS

- A. **Manufacturer's Product Data:** Manufacturer's product data consist of one or more levels of manufacturer's information as described below and as requested in the submittal schedule. The three levels of information include: manufacturer's list, manufacturer's catalog data, and manufacturer's technical and engineering data.
  - 1. **Manufacturer's List:** Manufacturer's list shall include a typewritten list of manufacturer's name, sizes and model or catalog numbers, referenced to the specification section.
  - 2. **Manufacturer's Catalog Data:** Manufacturer's catalog data shall include standard catalog information marked to indicate specific equipment proposed and point of operation, if appropriate. Include installation instructions.
  - 3. **Manufacturer's Technical and Engineering Data:** Manufacturer's technical and engineering data shall include materials, dimensions, details, installation instructions, weights, capacities, illustrations, wiring diagrams, control diagrams, piping diagrams, connection diagrams, performance data (including performance curves), mix design, and any other information required for a complete and thorough evaluation of the equipment or items specified, and to verify compliance with specifications. Control diagrams or control schematics, where specified and required by the submittal schedule, shall include a detailed schematic of the proposed control modifications and their interface with existing control equipment, where appropriate, and a manufacturer and model number listing of all proposed control components shown on the control schematic.
- B. **Shop Drawings:** Shop Drawings are construction drawings of items manufactured specifically for this project. Shop Drawings include dimensions, construction details, weights, and additional information to identify the physical features of the system or piece of equipment.
- C. **Samples:** Samples illustrate functional characteristics of the product with integral parts and attachment devices. Samples shall allow evaluation of full range of manufacturer's standard colors, textures, and patterns.
- D. **Certificates, Test Data or Other Information:** Requirements for certificates, test data, or other information will be listed under referenced specification sections.

1.03 SUBMITTALS REQUIRED

- A. **Product Evaluation Data.** The submittal schedule for product evaluation data is as indicated below. Each item requiring a submittal is given the following code:
  - 1. Manufacturer's list
  - 2. Manufacturer's catalog data
  - 3. Manufacturer's technical and engineering data

4. Shop Drawings
5. Samples
6. Certificates
7. Test data
8. Worker's qualifications
9. See individual sections for special requirements

1.04 SUBMITTAL SCHEDULE

<u>Division 26 – Electrical</u>	<u>Codes</u>
Section 26 24 16 - Panelboards	2,3
Section 26 28 16 - Overcurrent Protective Devices	1

**PART 2 - PRODUCTS**

2.01 THIS PART NOT USED

**PART 3 - EXECUTION**

3.01 THIS PART NOT USED

END OF SECTION

SECTION 26 05 00

COMMON WORK RESULTS FOR ELECTRICAL

**PART 1 - GENERAL**

1.01 CONTRACT DOCUMENTS

- A. The Contract Documents are complementary. What is required by any one, as affects this Division, shall be as binding as if repeated herein.
- B. Separation of this Division from other Contract Documents shall not be construed as complete segregation of the Work.
- C. Particular attention is called to Advertisement For Bids, Instructions to Bidders, Supplemental Instructions to Bidders, General Conditions, Supplemental General Conditions, Drawings and Specifications, and modifications incorporated in the documents before execution of the Agreement.

1.02 SCOPE OF WORK

- A. General: Provide and install complete and satisfactorily operating electrical systems as specified in this Division, as shown on Drawings, as required, and as reasonably intended. Work generally includes, but is not limited to electrical distribution, lighting, devices, wiring systems and control systems.
- B. Omissions: Omission of expressed reference to any item of labor or material necessary for the proper execution of the work shall not relieve responsibility from providing such additional labor or material.

1.03 EXAMINATION OF SITE

- A. Examine Site of Work before making Bid and ascertain all related physical conditions.
- B. Field verify scale dimensions shown since exact locations, distances and levels will be governed by actual field conditions.
- C. Owner will not be responsible for any loss or unanticipated costs which may be suffered by the successful Bidder as a result of such Bidder's failure to fully inform himself in advance in regard to all conditions pertaining to the Work and character of the Work.

1.04 COORDINATION OF TRADES

- A. Check Drawings of other trades to avert possible installation conflicts. Should major changes from original Drawings be necessary to resolve such conflicts, notify Architect and secure written approval and agreement on necessary adjustments before installation is started.
- B. Check equipment connections and equipment locations on the job for coordination with other Divisions equipment and connections, structure, and the like.

1.05 MINOR DEVIATIONS

- A. Make minor changes in equipment connections and equipment locations as directed or required before rough-in without extra cost.

1.06 SUBSTITUTIONS

- A. Equal material of other manufacturer may be used following Architect's approval of a written request submitted at least 7 working days prior to prebid date.

1.07 RECORD DRAWINGS

- A. Maintain a marked set of prints at job site at all times. Show all changes from contract drawings, whether visible or concealed. Dimension accurately from building lines, floor or curb elevations. Show exact location, elevation, and size of conduit, access panel and doors, and all other information pertinent to the work.
- B. At project completion, submit marked set to Architect for approval.

1.08 WARRANTY

- A. Warrant all work, materials, and equipment for one year.

**PART 2 - PRODUCTS**

2.01 THIS PART NOT USED

**PART 3 - EXECUTION**

3.01 THIS PART NOT USED

END OF SECTION

SECTION 26 05 01

ELECTRICAL DEMOLITION

**PART 1 - GENERAL**

1.01 SCOPE

- A. It is the intent of these documents to provide the necessary information and adjustments to the electrical system required to meet Code, and accommodate installation of the new work.
- B. Contractor shall coordinate with the Owner so that work can be scheduled not to interrupt operations, normal activities, building access, access to different areas. The Owner will cooperate to the best of their ability to assist in a coordinated schedule, but will remain the final authority as to time of work permitted.

1.02 EXISTING CONDITIONS

- A. The locations of existing utilities and equipment are shown in an approximate way only and have not been independently verified by the Owner or its representative. The Contractor shall determine the exact location of all existing utilities before commencing work, and agrees to be fully responsible for any and all damages which might be occasioned by the Contractor's failure to exactly locate and preserve any and all utilities and equipment. Replace damaged items with new material to match existing. Promptly notify Owner if utilities are found which are not shown on the drawings.

**PART 2 - PRODUCTS**

2.01 MATERIALS

- A. All materials accumulated during the demolition process are the Owner's property and shall be removed from the job site as directed by the Owner.

**PART 3 - EXECUTION**

3.01 DEMOLITION

- A. Remove all existing electrical equipment and devices and associated wiring for items scheduled for remodeling, relocation, or demolition unless specifically shown as retained or relocated on the Drawings.
- B. Maintain electrical continuity of all existing systems. Remove or relocate electrical boxes, conduit, wiring, equipment, fixtures, etc. as may be encountered in removed or remodeled areas in the existing construction affected by this work. Wiring which serves usable existing outlets shall be removed and restored clear of the construction or demolition. If existing junction boxes will be made inaccessible, or if abandoned outlets serve as feed through boxes for other existing electrical equipment which is being retained, new conduit and wire shall be provided to bypass the abandoned outlets. If existing conduits pass through partitions or ceiling which are being removed or remodeled, new conduit and wire shall be provided to reroute clear of the construction or demolition and maintain service to the existing load.

- C. Extend circuiting and devices in all existing walls to be furred out.
- D. Existing electrical outlets and light fixtures are denoted by dotted or dashed lines. Verify exact location of existing electrical outlets and light fixtures in the field. Only partial existing electrical shown. Locations of items shown on the Drawings as existing are partially based on as-built and other drawings which may contain errors. The contractor shall verify the accuracy of the information shown prior to bidding and provide such labor and material as is necessary to accomplish the intent of the contract documents.
- E. Remove all abandoned wiring to leave site clean.
- F. Keep outages to occupied areas to a minimum and prearrange all outages with the Owner's representative. Requests for outages shall state the specific dates and hours and the maximum durations, with the outages kept to these specific dates and hours and the maximum durations. This Contractor will be liable for any damages resulting from unscheduled outages or for those not confined to the preapproved times. Outages shall take place at times when the facility is not in operation or occupied by non-essential personnel. Include all costs for overtime labor as necessary to maintain electrical services in the initial bid proposal. Temporary wiring and facilities, if used, shall be removed and the site left clean before final acceptance. Requests for outages must be submitted at least (5) days prior to intended shutdown time.
- G. No circuit breaker or disconnects shall be turned off without prior approval from Owner. Coordinate with the Owner's representative responsible for the area or equipment affected for any electrical interruptions which affect the operation of the remaining portions of the facility.
- H. Verify with the General Contractor a location for storage of materials, supplies, tools, rubbish, etc. prior to start of work.

END OF SECTION

LOW VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

**PART 1 – GENERAL**

1.01 WORK INCLUDED

- A. Wires and Cables
- B. Wire Connections

1.02 REFERENCE STANDARDS

- A. National Fire Protection Association (NFPA).  
NFPA 70 National Electrical Code

1.03 DELIVERY, STORAGE AND HANDLING

- A. Deliver new wire to Site in new standard coils or reels with approved tag denoting length, wire size, insulation type and manufacturer's name.
- B. Protect from weather and damage during storage and handling.

**PART 2 - PRODUCTS**

2.01 CONDUCTOR AND CABLE MATERIALS

- A. Building Wiring: 98 percent conductivity copper, 600 volt insulation, stranded. Type THHN for interior dry and damp locations. Type THWN or XHHW for wet and exterior locations.
- B. Branch Circuit Wiring: Conductors smaller than No. 12 AWG for power system branch circuits not permitted.
- C. Motor control wires shall be No. 14 minimum.
- D. Wire for special areas shall be as specified on the Drawings.

2.02 TWIST-ON CONNECTOR

- A. UL pressure-type, solderless, insulated, wound spring grip twist on connector.
- B. Solderless pressure connectors for terminals, taps, and splices.

2.03 COMPRESSION ADAPTER

- A. For terminating a single aluminum wire into mechanical connectors, such as a circuit breaker or set screw lugs. Burndy "Hyplug" Type AYP, or approved equal by Anderson, Illsco, Kearney, Mac-Adapt, T&B.



2.04 TERMINAL, CRIMP-ON

- A. Flat, fork tongue, self-insulating.
- B. For connection of stranded wire to screw terminals.
- C. T & B "Sta-Kon," or approved equal.

**PART 3 - EXECUTION**

3.01 CONDUCTOR AND CABLE INSTALLATION

- A. Make conductor length for parallel feeders identical.
- B. Lace or clip groups of feeder conductors at distribution centers, pullboxes, and wireways.
- C. Provide copper grounding conductors and straps. A ground wire shall be pulled through conduits and used as the equipment grounding conductor.
- D. Install wire and cable in code conforming raceway.
- E. Use wire pulling lubricant for pulling No. 4 AWG and larger wire. UL approved type only.
- F. Install wire in conduit runs after concrete and masonry work is complete and after moisture is swabbed from conduits.
- G. Splice only in accessible junction or outlet boxes. Splice in feeders and services not permitted. Splices or taps in branch circuits permitted only in junction boxes where circuits divide.
- H. Color code conductors to designate neutral, phase, and ground as follows:

CONDUCTOR	120/208 OR	277/480
	120/240	
Phase A	Black	Brown
Phase B	Red	Orange
Phase C	Blue	Yellow
Neutral	White	Gray
Ground	Green	Green
Switchlegs	Pink or Tan	Pink or Tan
Travelers	Purple	Purple
Fire Alarm	Red	
Intercom/Clock/Bell	Grey	
Security	Orange	
HVAC Control	Green	
Data/Telecom	White (CAT6)	

- I. Wires shall be factory color coded by integral pigmentation. Colored plastic tape permitted on No. 6 and larger where integral pigmentation impractical. Apply tape in spiral half-lap over exposed portions in manholes, boxes, panels, switchboards and other enclosures.

- J. All circuit conductors shall be identified with circuit number at all terminals, intermediate outlets, disconnect switches, circuit breakers, motor control centers, etc. Both ends of a given conductor shall be identified alike.
- K. DO NOT install wires of different voltage systems in same raceway, box, gutter or other enclosure.
- L. Radius of cable bends shall not be less than 10 times the outer diameter of the cable.

### 3.02 CONNECTIONS AND SPLICES

- A. Follow manufacturer's instructions using manufacturers recommended tools.
- B. Stripping Insulation: Carefully strip, avoid nicking conductor. No "ringing."
- C. Design: Connectors shall be designed and approved for the purpose used. Connectors between aluminum and copper shall be listed "AL/CU" for the purpose of preventing electrolytic action.
- D. Bare Connectors and Conductor Free Ends: Wrap with insulating rubber or friction tape to equivalent insulation of wire.
- E. Ground Continuity to Metallic Surfaces: Remove any paint coating and polish surface beneath connection.
- F. Copper conductors may be terminated in any approved compression or mechanical connector, including set screws.
- G. No splices or taps permitted in feeder or branch circuit terminating in a single outlet.
- H. Branch circuit splices and taps in junction and outlet boxes: Twist-on connectors.
- I. Conductor and cable copper shall not be reduced at the terminal for making connections.
- J. Slack shall be left at equipment, pullboxes, or outlet boxes to allow for a neat termination.

END OF SECTION

GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

**PART 1 – GENERAL**

1.01 WORK INCLUDED

- A. Electric and power system grounding.
- B. Communication system grounding.

1.02 REQUIREMENTS OF REGULATORY AGENCIES

- A. Provide grounds in accordance with National Electrical Code and additional requirements as required herein.
- B. NEC references below are based on the 2011 edition.

**PART 2 - PRODUCTS**

2.01 GROUNDING CONDUCTORS

- A. Size: Grounding Electrode Conductor: Table 250-66. Equipment grounding conductor: Table 250-122.
- B. Material: Copper.
- C. Protection: Conductors not in raceway or concealed shall be insulated. Provide conduit where shown or required for physical protection.
- D. Bonding Jumpers: Same requirements.

**PART 3 - EXECUTION**

3.01 POWER SYSTEM GROUNDING

- A. Circuit Grounding: Install grounding bushings, studs, and jumpers at distribution centers, pullboxes, motor control centers, panelboards, and junction boxes.
- B. Ground Connections: Clean surfaces thoroughly before applying ground lugs or clamps. If surface is coated, the coating must be removed down to the bare metal. After the coating has been removed, apply a noncorrosive approved compound to cleaned surface and install lugs or clamps. Where galvanizing is removed from metal, it shall be painted or touched up.
- C. Conduit Systems:
  - 1. Ground all metallic conduit systems.
  - 2. Non-metallic conduit systems shall contain a grounding conductor.
  - 3. Conduit provided for mechanical protection containing only a grounding conductor, bond to that conductor at the entrance and exit from the conduit.

- D. Feeders and Branch Circuits: Install green grounding conductors with feeders and branch circuits as follows:
1. Feeders.
  2. Circuits serving preparation and kitchen equipment.
  3. Receptacle outlets.
  4. Directly connected laboratory equipment.
  5. Motors and motor controllers.
  6. Fixed equipment and appliances.
  7. Items of equipment where the final connection is made with flexible metal conduit shall have a grounding wire.
  8. Additional locations and systems as shown.
- E. Boxes, Cabinets, Enclosures, and Panelboards:
1. Bond the grounding wires to each pullbox, junction box, outlet box, cabinets, and other enclosures through which the ground wires pass (except for special grounding systems for intensive care units and other critical units shown).
  2. Provide lugs in each box and enclosure for ground wire termination.
  3. Provide ground bars in panelboards, bolted to the housing, with sufficient lugs for terminating the ground wires.

END OF SECTION

HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

**PART 1 – GENERAL**

1.01 WORK INCLUDED

- A. Raceway Supports.

**PART 2 - PRODUCTS**

2.01 RACEWAY SUPPORTS

- A. Single Runs: Steel rod hangers, galvanized single hole conduit straps, or ring bolt type hangers with specialty spring clips. Plumbers perforated tape or "J-nails" not acceptable.
- B. Multiple Runs: Conduit rack with 25 percent spare capacity. Maximum width per manufacturer's recommendations.
- C. Vertical Runs: Channel support with conduit fittings.
- D. All hardware such as inserts, straps, bolts, nuts, screws and washers shall be galvanized or cadmium-plated steel.

2.02 ANCHOR METHODS

- A. Hollow Masonry and Framed Walls: Toggle bolts or spider type expansion anchors.
- B. Solid Masonry: Lead expansion anchors or preset inserts.
- C. Metal Surfaces: Machine screws, bolts, or welded studs.
- D. Wood Surfaces: Wood screws.
- E. Concrete Surfaces: Self-drilling anchors or powder-driven studs.

**PART 3 - EXECUTION**

3.01 INSTALLATION

- A. Layout to maintain headroom, neat mechanical appearance, and to support equipment loads required.
- B. Exact location and spacing between supports per manufacturer's recommendations and NEC requirements as minimum.
- C. Conduit shall be installed in such a manner as to prevent the collection of trapped condensation. All runs of conduit shall be arranged so as to be devoid of traps wherever possible.

- D. Conduit risers exposed in wire shafts shall be supported at each floor level by means of approved U-clamp hangers.

END OF SECTION

## SECTION 26 05 33

### RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

#### **PART 1 – GENERAL**

##### 1.01 WORK INCLUDED

- A. Conduit, Tubing, and Fittings
- B. Flexible Conduit
- C. Electrical boxes and fittings as required for a complete installation

##### 1.02 REFERENCE STANDARDS

- A. National Fire Protection Association (NFPA).
  - 1. NFPA 70 National Electrical Code--Chapter 3

#### **PART 2 - PRODUCTS**

##### 2.01 MATERIALS AND COMPONENTS

- A. Conduit and Tubing: Galvanized steel rigid threaded conduit, electrical metallic tubing, intermediate metallic conduit, Schedule 40 PVC.
- B. Flexible Conduit: Steel armor, flexible plastic jacketed type with liquidtight connectors (liquidtight flexible metallic conduit).
- C. Fittings:
  - 1. General: Approved for purpose. Water, concrete tight where required.
  - 2. Galvanized Rigid Steel Conduit (GRC): Threaded - no pressure type. Bushings with factory insulated throat.
  - 3. Electrical Metallic Tubing (EMT): Connectors and couplings to be case steel. Preinsulated connectors and couplings shall be compression, setscrew type. All connectors shall have insulated throats.
  - 4. Flexible Metallic Conduit: Clamp type, galvanized malleable iron with insulated throat.
  - 5. Liquidtight Flexible Metallic Conduit: Continuous copper ground in core; approved watertight.
- D. Expansion Joints: Offset or sliding type with bending straps and clamps. Approved for purpose.

##### 2.02 TYPE

- A. Utilize GRC or IMC in concrete with concrete-tight connectors or exterior with watertight connectors.
- B. Utilize electrical metallic tubing concealed in interior spaces or exposed in unfinished, interior where not subject to physical damage.

- C. Utilize surface metal raceways for exposed runs in finished areas. Paint to match wall finish.
- D. Make connections to motors and equipment with flexible metallic conduit or liquidtight flexible metallic conduit. Use liquidtight type in damp locations. Minimum size 1/2-inch for motor connections. Use 3/8-inch only for fixture and control wiring. Provide sufficient length of flexible conduit to avoid transmission of vibration. Sizes not noted on the Drawings shall be as required by the NEC.
- E. Utilize schedule 40 PVC with rigid steel elbows and risers under slab or underground.

### 2.03 OUTLET BOXES

- A. Minimum Box: 4-inch box, 1-1/2-inches deep. Provide raised covers on bracket surface mounted outlets, plaster rings on flush outlets.
- B. Provide galvanized steel interior outlet wiring boxes, of the type, shape and size, including depth of box, to suit each respective location and installation; constructed with stamped knockouts in back and sides, and with threaded holes with screws for securing box covers or wiring devices.
- C. Provide outlet box accessories as required for each installation, including mounting brackets, wallboard hangers, extension rings, fixture studs, cable clamps and metal straps for supporting outlet boxes, compatible with outlet boxes being used and meeting requirements of individual wiring situations. Choice of accessories is Installer's option.
- D. Outlet Box Plate Covers:
  1. Flush Mounting: Bevelled, pressure formed, type 302 stainless steel, match device installed.
  2. Surface Mounting: Bevelled, steel, pressure formed.

### 2.04 WEATHERPROOF OUTLET BOXES

- A. Provide corrosion-resistant cast metal weatherproof outlet wiring boxes, of the type, shape and size, including depth of box, with threaded conduit ends, cast metal face plate with spring-hinged waterproof cap suitably configured for each application, including face plate gasket and corrosion proof fasteners.
- B. Weatherproof boxes to be constructed to have smooth sides, gray finish.
- C. Boxes used in contact with soil shall be cast iron alloy with gasketed screw cover and water-tight hubs.
- D. Weatherproof Plates: Cast metal, gasketed, for switches and receptacles provide spring loaded doors.

### 2.05 WEATHERPROOF JUNCTION AND PULL BOXES

- A. Provide galvanized sheet steel junction and pull boxes, with screw-on covers; of the type, shape and size, to suit each respective location and installation; with welded seams and equipped with stainless steel nuts, bolts, screws and washers.



## 2.06 PULLBOXES

- A. Pullboxes and Junction Boxes: Sheet metal (indoors) or cast metal (exterior or damp locations) construction, conforming to National Electrical Code, with screw-on cover.
- B. Flush Mounted Pullboxes: Provide overlapping covers with flush-head retaining screws, finished in light gray enamel.
- C. Box volumes shall meet NEC for size and number of entering conduits.

## PART 3 - EXECUTION

### 3.01 RACEWAY INSTALLATION

- A. Install conduit concealed in all areas excluding mechanical and electrical rooms, connections to motors, connections to surface cabinets, underfloor spaces, and above suspended ceilings.
- B. For exposed runs, attach surface mounted conduit with clamps.
- C. Coordinate installation of conduit in masonry work.
- D. Install conduit free from dents and bruises. Plug ends to prevent entry of dirt or moisture.
- E. Clean out conduit before installation of conductor.
- F. Alter conduit routing to avoid structural obstructions, minimizing crossovers. Bends and offsets shall be avoided where possible, but when necessary shall be made with an approved hickey or conduit bending machine. The use of a pipe tee or a vise for bending conduit will not be permitted.
- G. Provide UL approved expansion fittings complete with grounding jumpers where conduits cross building expansion joints and for long runs where conduit expansion may be excessive. Provide bends or offsets in conduit adjacent to building expansion joints where conduit is installed above suspended ceilings.
- H. Route all exposed conduits parallel or perpendicular to building lines.
- I. Allow minimum of 6 inches clearance at flues, steam pipes, and heat sources.
- J. Vertical Runs: Straight and plumb.
- K. Raceways Running in Groups: Run at same relative elevation, properly spaced and supported.
- L. Dissimilar Metals: Avoid contact with pipe runs of other systems.
- M. Lengths and Bends: Maximum number of bends in any run shall be the equivalent of four quarter bends (360 degrees total). Maximum length of any run shall be 300 feet, less 50 feet for each equivalent quarter bend. Junction and pull boxes shall be provided to maintain these limits.
- N. Provide waterproof seal for all exterior wall and underground raceway penetrations.

- O. All empty raceways shall be provided with pull string or #12 conductor.

### 3.02 BOX INSTALLATION

- A. Locate outlet boxes flush in areas other than mechanical rooms, electrical rooms, and above suspended ceilings.
- B. For boxes mounted in exterior walls make sure that there is insulation behind outlet boxes to prevent condensation in boxes.
- C. Coordinate location and mounting heights with built-in units. Adjust outlet mounting height to agree with required location for equipment served.
- D. Locate pullboxes and junction boxes above suspended ceilings or in electrical rooms, utility rooms, or storage areas.
- E. Support: Secure boxes independent of entering conduits, by attaching directly to structure with bar hanger, blocking or flat side bracket.
- F. Identify each junction and pullbox with system description including branch circuit numbers of enclosed circuits.
- G. Conduit shall be securely fastened to all sheet metal outlet, junction, and pullboxes with galvanized locknuts, and bushing.

END OF SECTION

IDENTIFICATION FOR ELECTRICAL SYSTEMS

**PART 1 – GENERAL**

1.01 WORK INCLUDED

- A. Permanent Identification of all electrical system components

1.02 REQUIREMENTS OF REGULATORY AGENCIES

- A. Identification shall conform to the latest edition of the National Electrical Code (NEC), Articles 110-21 and as a minimum requirement.

**PART 2 – PRODUCTS**

2.01 MATERIALS

- A. Laminated Plastic:
  - 1. Three layer, black front and back with white core.
  - 2. Engraved through outer layer to show white characters on black background.
  - 3. Beveled edges.
  - 4. Other colors as specified.
- B. Panelboard Directory Card: Fiberboard neatly typed for newly installed panels. Circuit changes to existing panels shall be noted on the directory card by hand printing in ink. When more than five changes have been made on the directory card, a new card shall be typed.

**PART 3 – EXECUTION**

3.01 ITEMS TO BE IDENTIFIED

- A. Motor starters, power panels, lighting panels and the disconnecting devices contained therein.
- B. Disconnecting devices that are located in the area and not part of the items listed in 3.01 (A).
- C. Control panels, starters, pushbutton stations, pilot lights and other control devices.
- D. Transformers.
- E. Remote control devices.
- F. Conductors at both device and terminal strip terminations for control and instrumentation cables and conductors.
- G. Other items as specified or noted.

### 3.02 USE OF NAMEPLATES AND TAGS

- A. Panel designations, as described in paragraph 3.04 (A), and disconnecting devices in motor control centers shall be identified by nameplates that are engraved or etched. Nameplates that are engraved or etched shall have a black background with white letters. Letters for panel designations shall be a minimum of 1/2 inch high and letters for disconnect devices, mentioned in this paragraph, shall be smaller than the panel designation but have a minimum height of 3/8 inch.
- B. Disconnect devices in lighting panels and power panels shall be identified on the panelboard directory card.
- C. All wiring shall be identified with self-laminating, machine made thermal transfer labels.

### 3.03 APPLYING NAMEPLATES AND TAGS

- A. Nameplates that are engraved or etched, shall be attached with screws.
- B. Panelboard directory cards shall be placed in holders, provided for this purpose, located inside the panel doors.

### 3.04 IDENTIFICATION ON NAMEPLATES AND TAGS

- A. The voltage designation shall also be shown on the nameplate.
- B. Nameplates for disconnecting devices contained in panels and motor control centers shall show the equipment name and location by floor and column number. Voltage designation shall not be included when the voltage is the same as for the panel or motor control center.
- C. Nameplates on disconnect devices located in the area but not part of a panel or motor control center shall have the equipment name, power source identification, and voltage designation. Nameplates for disconnect devices located remotely from the equipment shall also show the equipment location by floor and column number.
- D. Nameplates on items listed in paragraph 3.01 (C) shall have the equipment name while the individual switches and lights shall have the function (such as start, stop, on, off, etc.).
- E. Panelboard directory cards shall list the circuit numbers and show the equipment name and location supplied by the circuits. Equipment locations shall be shown by floor and column numbers or by room numbers.

END OF SECTION

SECTION 26 06 20

SCHEDULES FOR LOW VOLTAGE ELECTRICAL DISTRIBUTION

(E) PANEL	A	SCHEDULE
SERVICE: 120/208	VOLTS	3 ∅ 4 WIRE
CAPACITY: 225	AMP BUS	10000 SCA AVAIL
225	AMP LUGS	
FED FROM:	SEMI-FLUSH MOUNTED	

DESCRIPTION	LOAD (AMP)	BREAKER (AMP/POLE)	CIRCUIT AND PHASE	BREAKER (AMP/POLE)	LOAD (AMP)	DESCRIPTION
L.Rm #1	10.0	20/1	1A   2A	20/1	10.0	L.MainFloor
L. Rm#1	10.0	20/1	3B   4B	20/1	10.0	L.MainFloor
L. Rm#3	10.0	20/1	5C   6C	20/1	10.0	L.MainFloor
L.Rm#3	10.0	20/1	7A   8A	20/1	10.0	L.Passage
L. Rm#5	10.0	20/1	9B   10B	20/1	10.0	STAGE LITES
L. Rm #5	10.0	20/1	11C   12C	20/1	10.0	Stage&Outside
L. Rm #7	10.0	20/1	13A   14A	20/1	10.0	Photo Cell
L. Rm #7	10.0	20/1	15B   16B	20/1	10.0	STAGE LITES
R.Rm #2	10.0	20/1	17C   18C	20/1	10.0	LIFT POWER
R. Rm #4	10.0	20/1	19A   20A	20/1	10.0	SPARE
L. Rms 1&3	10.0	20/1	21B   22B	20/1	10.0	SPARE
FireHornHall	10.0	20/1	23C   24C	20/1	10.0	STAGE LITES
R. Rms 10 & 12	10.0	20/1	25A   26A	20/1	10.0	SPARE
R. Rm #10	10.0	20/1	27B   28B	20/1	10.0	SPARE
R. Rm #12	10.0	20/1	29C   30C	20/1	10.0	SPARE
R. Rm Study	10.0	20/1	31A   32A	20/1	10.0	SPARE
SPARE	0.0	20/1	33B   34B	20/1	10.0	SPARE
SPARE	0.0	20/1	35C   36C	20/1	10.0	SPARE

RECONNECT ALL EXISTING CIRCUITS TO REMAIN.

SUMMARY:

AMP LOAD	A	B	C
-----	-----	-----	-----
CONNECTED	120.0	110.0	110.0
DEMAND	120.0	110.0	110.0
DEMAND LOAD			120.0
SPARE LOAD			18.0
CONT LOAD			7.5
			-----
TOTAL LOAD			145.5
GROWTH			14.6
			-----
DESIGN LOAD			160.1

(E) PANEL	AA	SCHEDULE
SERVICE: 120/208	VOLTS	3 ∅ 4 WIRE
CAPACITY: 225	AMP BUS	10000 SCA AVAIL
225	AMP LUGS	
FED FROM:		FLUSH MOUNTED

DESCRIPTION	LOAD (AMP)	BREAKER (AMP/POLE)	CIRCUIT AND PHASE	BREAKER (AMP/POLE)	LOAD (AMP)	DESCRIPTION
L. Rm 10	5.0	20/1	1A   2A	20/1	5.0	L.Rm 10
L. Rm 12	5.0	20/1	3B   4B	20/1	5.0	L.Rm 12
L. Rm 9	5.0	20/1	5C   6C	20/1	5.0	L.Rm 9
L.Rm 11	5.0	20/1	7A   8A	20/1	5.0	L. Rm 11
L.Restrooms	5.0	20/1	9B   10B	20/1	5.0	L.StudyRmEEnd
L.StudyRmWest	5.0	20/1	11C   12C	20/1	5.0	L.Outside
FireHornOutside	5.0	20/1	13A   14A	20/1	5.0	FireHornHall
ExhstFanWStud	5.0	20/1	15B   16B	20/1	5.0	ExhaustFanEStud
SPARE	0.0	20/1	17C   18C	20/1	0.0	SPARE
SPARE	0.0	20/1	19A   20A	20/1	0.0	SPARE
SPARE	0.0	20/1	21B   22B	20/1	0.0	SPARE
SPARE	0.0	20/1	23C   24C	20/1	0.0	SPARE
SPARE	0.0	20/1	25A   26A	20/1	0.0	SPARE
SPARE	0.0	20/1	27B   28B	20/1	0.0	SPARE
SPARE	0.0	20/1	29C   30C	20/1	0.0	SPARE

RECONNECT ALL EXISTING CIRCUITS TO REMAIN.

SUMMARY:

AMP LOAD	A	B	C
-----	-----	-----	-----
CONNECTED	30.0	30.0	20.0
DEMAND	30.0	30.0	20.0
DEMAND LOAD			30.0
SPARE LOAD			4.5
CONT LOAD			5.8
TOTAL LOAD			40.3
GROWTH			4.0
DESIGN LOAD			44.4

(E) PANEL	B	SCHEDULE
SERVICE: 120/208	VOLTS	3 ∅ 4 WIRE
CAPACITY: 225	AMP BUS	10000 SCA AVAIL
225	AMP LUGS	
FED FROM:	SEMI-FLUSH MOUNTED	

DESCRIPTION	LOAD (AMP)	BREAKER (AMP/POLE)	CIRCUIT AND PHASE	BREAKER (AMP/POLE)	LOAD (AMP)	DESCRIPTION
L.Principal Offi	5.0	20/1	1A   2A	20/1	5.0	L. Reception
L.Hallway	5.0	20/1	3B   4B	20/1	5.0	L. Reception
L.Health Rm	5.0	20/1	5C   6C	20/1	5.0	L.Library
L.NorthHall	5.0	20/1	7A   8A	20/1	5.0	L.Library
L.Supply Rm.	5.0	20/1	9B   10B	20/1	5.0	L.Library
L.EastHall	5.0	20/1	11C   12C	20/1	5.0	L.Outside play rm
L.Boys/Girl RR	5.0	20/1	13A   14A	20/1	5.0	L.Outside play rm
L.FloodParking	5.0	20/1	15B   16B	20/1	5.0	L.Walkway
L.FloodParking	5.0	20/1	17C   18C	20/1	5.0	L. Flood
R. Office	5.0	20/1	19A   20A	20/1	5.0	R. Principal
R. Break Room	5.0	20/1	21B   22B	20/1	5.0	R. Teteher
R. Office Room	5.0	20/1	23C   24C	20/1	5.0	R. Library
Ceiling Heat Entry	5.0	20/1	25A   26A	20/1	5.0	R. Health
R.(clean)off.Furn	5.0	20/1	27B   28B	20/1	5.0	SPARE
R.Principal	5.0	20/1	29C   30C	20/2	10.0	Base Board Htr.
R.Waiting Area	5.0	20/1	31A   32A		10.0	
Range	5.0	20/1	33B   34B	20/1	5.0	R. Staff
Range	5.0	20/1	35C   36C	20/1	0.0	SPARE
Instant hot staff	5.0	20/1	37A   38A	20/1	0.0	SPARE
Hand Dryer Boys	5.0	20/1	39B   40B	20/1	0.0	SPARE
Hand Dryer Girls	5.0	20/1	41C   42C	20/1	5.0	Door Control
...						...

RECONNECT ALL EXISTING CIRCUITS TO REMAIN.

SUMMARY:

AMP LOAD	A	B	C
-----	-----	-----	-----
CONNECTED	70.0	65.0	70.0
DEMAND	70.0	65.0	70.0
DEMAND LOAD			70.0
SPARE LOAD			10.5
CONT LOAD			12.9
TOTAL LOAD			93.4
GROWTH			9.3
DESIGN LOAD			102.8



(E) PANEL	C	SCHEDULE
SERVICE: 120/208	VOLTS	3 ∅ 4 WIRE
CAPACITY: 225	AMP BUS	10000 SCA AVAIL
225	AMP LUGS	
FED FROM:		FLUSH MOUNTED

DESCRIPTION	LOAD (AMP)	BREAKER (AMP/POLE)	CIRCUIT		LOAD (AMP)	DESCRIPTION
			AND PHASE	BREAKER (AMP/POLE)		
SpotLights	10.0	20/1	1A   2A	20/1	10.0	SpotLights
SpotLights	10.0	20/1	3B   4B	20/1	10.0	SpotLights
LghtsSofit	10.0	20/1	5C   6C	20/1	10.0	L. 1sr row multi
L. 2nd row multi.	10.0	20/1	7A   8A	20/1	10.0	L. 4th row multi.
L. 3rd row multi.	10.0	20/1	9B   10B	20/1	10.0	L. 5th row multi.
SPARE	0.0	20/1	11C   12C	20/2	10.0	Pop Corn
FireAlarm/Duct	10.0	20/1	13A   14A		10.0	
SPARE	0.0	20/1	15B   16B	20/1	10.0	Refrig. Kitchen
PE Offc Heater	10.0	20/1	17C   18C	20/1	10.0	R. Kitchen
R.S.wall-multiRm	10.0	20/1	19A   20A	20/1	10.0	R.N.wall-multi rm
L.Kitchen	10.0	20/1	21B   22B	20/1	10.0	L.Storage Rm
L.Kitchen	10.0	20/1	23C   24C	20/1	10.0	L.Kitch.over cntr
R.Play Rm	10.0	20/1	25A   26A	20/1	10.0	R.Kitchen Drain
R.Play Rm	10.0	20/1	27B   28B	20/1	10.0	R.N.wall-multi rm
L.last Rowplayrm	10.0	20/1	29C   30C	20/1	10.0	L. 4th play rm
L. 2nd row-play rm	10.0	20/1	31A   32A	20/1	10.0	L. 5th row multi.
L. 3rd row-play rm	10.0	20/1	33B   34B	20/1	10.0	L. 6th row multi.
Spare	0.0	20/1	35C   36C	20/1	10.0	R.kit Isle
Fire Horn-play rm	10.0	20/1	37A   38A	20/1	10.0	R.kit Isle
Fire Horn-play rm	10.0	20/1	39B   40B	20/1	10.0	R.Island
SPARE	0.0	20/1	41C   42C	20/1	10.0	R. under panel

RECONNECT ALL EXISTING CIRCUITS TO REMAIN.

SUMMARY:

AMP LOAD	A	B	C
-----	-----	-----	-----
CONNECTED	140.0	130.0	110.0
DEMAND	140.0	130.0	110.0
DEMAND LOAD			140.0
SPARE LOAD			21.0
CONT LOAD			24.2
			-----
TOTAL LOAD			185.2
GROWTH			18.5
			-----
DESIGN LOAD			203.7

(E) PANEL	D	SCHEDULE
SERVICE: 120/208	VOLTS	3 ∅ 4 WIRE
CAPACITY: 225	AMP BUS	10000 SCA AVAIL
225	AMP LUGS	
FED FROM:	SURFACE MOUNTED	

DESCRIPTION	LOAD (AMP)	BREAKER (AMP/POLE)	CIRCUIT AND PHASE	BREAKER (AMP/POLE)	LOAD (AMP)	DESCRIPTION
R.N.WallBoiler rm	5.0	20/1	1A   2A	20/1	5.0	E.Wall Boiler rm
SPARE	0.0	20/1	3B   4B	20/1	5.0	Sump Pump
UnitHtrN-Shall	5.0	20/1	5C   6C	20/1	5.0	Sump Pump
L.Tunnel	5.0	20/1	7A   8A	20/1	5.0	Ref. Plug
L. Tunnel	5.0	20/1	9B   10B	20/1	5.0	HW circ.pump
L.Bolier Rm	5.0	20/1	11C   12C	20/1	0.0	SPARE
Fire Alarm	5.0	20/1	13A   14A	20/1	5.0	Hall Relay
R.Hall	5.0	20/1	15B   16B	20/1	0.0	SPARE
IMC Compter	5.0	20/1	17C   18C	30/2	5.0	WH Boiler Rm
Milk Coolers	5.0	20/1	19A   20A		5.0	
Cntrlcirt Boiler	5.0	20/1	21B   22B	20/1	5.0	R.by Compr.
Boiler #1 Control	5.0	20/1	23C   24C	15/3	5.0	POP CORN
Boiler #1 Fan	5.0	20/1	25A   26A		5.0	
Boiler	5.0	20/1	27B   28B		5.0	
Cond.Pump N	5.0	15/3	29C   30C	20/3	5.0	OIL HEATER
	5.0		31A   32A		5.0	
	5.0		33B   34B		5.0	
Cond.Pump S	5.0	15/3	35C   36C	20/3	5.0	UH-Multi Rm
	5.0		37A   38A		5.0	
	5.0		39B   40B		5.0	
SPARE	0.0	20/1	41C   42C	20/1	0.0	SPARE

...  
**RECONNECT ALL EXISTING CIRCUITS TO REMAIN.**

**SUMMARY:**

AMP LOAD	A	B	C
-----	-----	-----	-----
CONNECTED	70.0	60.0	55.0
DEMAND	70.0	60.0	55.0
DEMAND LOAD			70.0
SPARE LOAD			10.5
CONT LOAD			5.8
			-----
TOTAL LOAD			86.3
GROWTH			8.6
			-----
DESIGN LOAD			95.0

(E) PANEL	DD	SCHEDULE
SERVICE: 120/208	VOLTS	3 ∅ 4 WIRE
CAPACITY: 125	AMP BUS	10000 SCA AVAIL
125	AMP LUGS	
FED FROM:	SURFACE MOUNTED	

DESCRIPTION	LOAD (AMP)	BREAKER (AMP/POLE)	CIRCUIT AND PHASE	BREAKER (AMP/POLE)	LOAD (AMP)	DESCRIPTION
L.IMC	10.0	20/1	1A   2A	20/1	10.0	R.IMC + WP 2
R. IMC twb	10.0	15/1	3B   4B	20/1	10.0	Sentinel Tank
R.IMC/Lgts	10.0	15/1	5C   6C	20/1	10.0	Rectifier
R.left of IMC	10.0	15/1	7A   8A	20/1	10.0	MDF
WaterHeater	20.0	30/2	9B   10B	30/3	10.0	DRYER
	20.0		11C   12C		10.0	
SPARE	0.0	20/1	13A   14A		10.0	
SPARE	0.0	20/1	15B   16B		10.0	
SPARE	0.0	20/1	17C   18C	20/1	0.0	SPARE
SPARE	0.0	20/1	19A   20A	20/3	10.0	Jonhson Cntrl
SPARE	0.0	20/1	21B   22B		10.0	
SPARE	0.0	20/1	23C   24C		10.0	

RECONNECT ALL EXISTING CIRCUITS TO REMAIN.

SUMMARY:

AMP LOAD	A	B	C
-----	-----	-----	-----
CONNECTED	60.0	70.0	60.0
DEMAND	60.0	70.0	60.0
DEMAND LOAD			70.0
SPARE LOAD			10.5
CONT LOAD			4.2
TOTAL LOAD			84.7
GROWTH			8.5
DESIGN LOAD			93.1

(E) PANEL	E	SCHEDULE
SERVICE: 120/208	VOLTS	3 ∅ 4 WIRE
CAPACITY: 100	AMP BUS	10000 SCA AVAIL
100	AMP LUGS	
FED FROM:	SURFACE MOUNTED	

DESCRIPTION	LOAD (AMP)	BREAKER (AMP/POLE)	CIRCUIT AND PHASE	BREAKER (AMP/POLE)	LOAD (AMP)	DESCRIPTION
L. Emerg Gym	5.0	20/1	1A   2A	20/1	5.0	N. Hall line
SPARE	0.0	20/1	3B   4B	20/1	5.0	L. North South
L. Café	5.0	20/1	5C   6C	20/1	5.0	SPARE
North wing Hall	5.0	20/1	7A   8A	20/1	5.0	L Outside Timeclock
SPARE	0.0	20/1	9B   10B	20/1	5.0	SPARE
Outside Pump	0.0	20/1	11C   12C	20/1	5.0	SPARE

RECONNECT ALL EXISTING CIRCUITS TO REMAIN.

SUMMARY:

AMP LOAD	A	B	C
-----	-----	-----	-----
CONNECTED	20.0	10.0	15.0
DEMAND	20.0	10.0	15.0
DEMAND LOAD			20.0
SPARE LOAD			3.0
CONT LOAD			0.8
			-----
TOTAL LOAD			23.8
GROWTH			2.4
			-----
DESIGN LOAD			26.2

(E) PANEL	F	SCHEDULE			
SERVICE: 120/208	VOLTS	3 ∅ 4 WIRE			
CAPACITY: 100	AMP BUS	10000 SCA AVAIL			
100	AMP LUGS				
FED FROM:	SURFACE MOUNTED				
CIRCUIT					
DESCRIPTION	LOAD (AMP)	BREAKER (AMP/POLE)	AND PHASE	BREAKER (AMP/POLE)	LOAD DESCRIPTION (AMP)
Unit Htr Rm 1&3	5.0	20/1	1A   2A	20/1	2.0 UnitHtrRm 2&4
Unit Htr Rm 5&7	5.0	20/1	3B   4B	20/1	2.0 UnitHtrRm 6&8
UnitHtrOfficeArea	5.0	20/1	5C   6C	20/1	2.0 FanGirls/Boysrr
UnitHtrLibrary	5.0	20/1	7A   8A	20/1	2.0 UnitHtrRm10&12
SPARE	5.0	20/1	9B   10B	20/1	2.0 UnitHtrRm9&11
SPARE	5.0	20/1	11C   12C	30/1	2.0 East rr Fans
RECONNECT ALL EXISTING CIRCUITS TO REMAIN.					
SUMMARY:					
AMP LOAD		A	B	C	
-----		-----	-----	-----	
CONNECTED		14.0	14.0	14.0	
DEMAND		14.0	14.0	14.0	
DEMAND LOAD				14.0	
SPARE LOAD				2.1	
CONT LOAD				3.5	
				-----	
TOTAL LOAD				19.6	
GROWTH				2.0	
				-----	
DESIGN LOAD				21.6	

(E) PANEL	G	SCHEDULE
SERVICE: 120/208	VOLTS	3 ∅ 4 WIRE
CAPACITY: 225	AMP BUS	10000 SCA AVAIL
225	AMP LUGS	
FED FROM:	SEMI-FLUSH MOUNTED	

DESCRIPTION	LOAD (AMP)	BREAKER (AMP/POLE)	CIRCUIT AND PHASE	BREAKER (AMP/POLE)	LOAD (AMP)	DESCRIPTION
L.Room #13	5.0	20/1	1A   2A	20/1	5.0	L.Rm#14
L.Room #13	5.0	20/1	3B   4B	20/1	5.0	L.Rm#14
Rest rooms	5.0	20/1	5C   6C	20/1	5.0	HndDryrs
L.Room #16 Boys	5.0	20/1	7A   8A	20/1	5.0	R.Rm#13 South
L.Room #16	5.0	20/1	9B   10B	20/1	5.0	R.Rm #14
R. Rm#13W&N	5.0	20/1	11C   12C	20/1	5.0	L.Rm #18
R.Rm #18	5.0	20/1	13A   14A	20/1	5.0	L.Rm #18
R.Rm#16 new wa	5.0	20/1	15B   16B	20/1	5.0	R. HndDryr girls
R.Rm#22 Outside	5.0	20/1	17C   18C	20/1	5.0	R.Rm #15 & #21
R.Rm#20	5.0	20/1	19A   20A	20/1	5.0	R. Rm #17 & 19
L.Rm #15	5.0	20/1	21B   22B	20/1	5.0	L.Rm#14 Rm17
L. Rm #15	5.0	20/1	23C   24C	20/1	5.0	L.Rm#14 Rm17
L.Rm#16 Rm19	5.0	20/1	25A   26A	20/1	5.0	L.Rm#21 Rm 21
L.Rm#16 Rm19	5.0	20/1	27B   28B	20/1	5.0	L.Rm#21 Rm 21
L.Rm#15 Rm20	5.0	20/1	29C   30C	20/1	5.0	L.Rm#17 Rm 22
L.Rm#15 Rm20	5.0	20/1	31A   32A	20/1	5.0	L.Rm#17 Rm 22

RECONNECT ALL EXISTING CIRCUITS TO REMAIN.

SUMMARY:

AMP LOAD	A	B	C
-----	-----	-----	-----
CONNECTED	60.0	50.0	50.0
DEMAND	60.0	50.0	50.0
DEMAND LOAD			60.0
SPARE LOAD			9.0
CONT LOAD			10.8
TOTAL LOAD			79.8
GROWTH			8.0
DESIGN LOAD			87.8

(E) PANEL	H	SCHEDULE				
SERVICE: 120/208	VOLTS	3 $\emptyset$ 4 WIRE				
CAPACITY: 100	AMP BUS	10000 SCA AVAIL				
100	AMP LUGS					
FED FROM:	SURFACE MOUNTED					
CIRCUIT						
DESCRIPTION	LOAD (AMP)	BREAKER (AMP/POLE)	AND PHASE	BREAKER (AMP/POLE)	LOAD (AMP)	DESCRIPTION
Heater rm #14	5.0	20/1	1A   2A	20/1	5.0	Heater rm #13
B&G Rest rm	5.0	20/1	3B   4B	20/1	5.0	Heater rm 16&18
Heater rm 20&22	5.0	20/1	5C   6C	20/1	5.0	Heater rm 15&17
SPARE	0.0	20/1	7A   8A	20/1	5.0	Heater rm 19&21
SPARE	0.0	20/1	9B   10B	20/1	5.0	Rm 23 plug strip
SPARE	0.0	20/1	11C   12C	20/1	5.0	Rm 23 wall heat
RECONNECT ALL EXISTING CIRCUITS TO REMAIN.						
SUMMARY:						
AMP LOAD		A	B	C		
-----		-----	-----	-----		
CONNECTED		15.0	15.0	15.0		
DEMAND		15.0	15.0	15.0		
DEMAND LOAD				15.0		
SPARE LOAD				2.3		
CONT LOAD				1.3		
				-----		
TOTAL LOAD				18.5		
GROWTH				1.9		
				-----		
DESIGN LOAD				20.4		

(E) PANEL	K	SCHEDULE
SERVICE: 120/208	VOLTS	3 ∅ 4 WIRE
CAPACITY: 225	AMP BUS	10000 SCA AVAIL
225	AMP LUGS	
FED FROM:	SEMI-FLUSH MOUNTED	

DESCRIPTION	LOAD (AMP)	BREAKER (AMP/POLE)	CIRCUIT AND PHASE	BREAKER (AMP/POLE)	LOAD (AMP)	DESCRIPTION
Booster Heater	9.0	30/3	1A   2A	20/1	9.0	HoodExh.Fan
	9.0		3B   4B	20/1	9.0	R.Top Mixer
	9.0		5C   6C	20/1	9.0	R.BottomMixer
Spare	0.0	15/3	7A   8A	15/3	9.0	FAN
	0.0		9B   10B		9.0	
	0.0		11C   12C		9.0	
Potato Peeler	9.0	15/3	13A   14A	50/3	9.0	OVEN
	9.0		15B   16B		9.0	
	9.0		17C   18C		9.0	
Oven	9.0	100/3	19A   20A	50/2	9.0	Freezer
	9.0		21B   22B		9.0	
	9.0		23C   24C	20/1	0.0	Spare
Range	9.0	90/3	25A   26A	30/3	18.0	DishWasher
	9.0		27B   28B		18.0	
	9.0		29C   30C		18.0	

RECONNECT ALL EXISTING CIRCUITS TO REMAIN.

SUMMARY:

AMP LOAD	A	B	C
-----	-----	-----	-----
CONNECTED	90.0	90.0	81.0
DEMAND	90.0	90.0	81.0
DEMAND LOAD			90.0
SPARE LOAD			13.5
CONT LOAD			9.8
TOTAL LOAD			113.3
GROWTH			11.3
DESIGN LOAD			124.6



SWITCHBOARDS

**PART 1 – GENERAL**

1.01 WORK INCLUDED

- A. Install Owner furnished switchboards incorporating switching and protective devices of the number, ratings and type shown and noted herein.

**PART 2 - PRODUCTS**

2.01 IDENTIFICATION

- A. General:
  - 1. Related work specified elsewhere: Identification, Section 16195.
  - 2. Nameplate Location: On switchboard exterior, visible from working space.
- B. Manufacturers Nameplates: Each vertical section to have a nameplate indicating manufacturer's name, switchboard type, ratings, bus bracing and factor order number.
- C. Switchboard Nameplate:
  - 1. Location: Switchboard top center.
  - 2. Wording: "SWITCHBOARD" \_\_\_\_\_". 3/8 inch high letters minimum.
- D. Service Disconnects:
  - 1. Same as Section 16195, except white letters on red background.
  - 2. Wording: "SERVICE DISCONNECT".
  - 3. Location: Adjacent to each switch or breaker that serves to disconnect the utility power source.
- E. Individual Switches and Breakers:
  - 1. Wording: Indicate Load served; "MOTOR CONTROL CENTER MCA", "PANEL BB", etc.
  - 2. Location: Adjacent to handle.

2.02 POWER ONE-LINE DIAGRAM

- A. Mount new print of diagram from Drawings at main distribution assembly, under clear plastic cover, set in metal frame.

**PART 3 - EXECUTION**

3.01 HOUSEKEEPING PAD

- A. Size: 3-1/2 inch high; length and width to match equipment, or slightly larger.
- B. Construction: Solid concrete. Form up with 2 x 4 lumber. Screed off top, trowel smooth. Dress top edge.
- C. Where switchboards are installed over a combustible floor, provide suitable non-combustible material on the floor under the equipment in conformance with NEC 384.

### 3.02 INSTALLATION

- A. Carefully align bus sections before bolting. Tighten with torque wrench.
- B. Level and securely fasten switchboards to housekeeping pads.
- C. Check all internal bus connections. Re-torque as required.
- D. Provide cable supports for cables entering switchboards from point of entry to respective circuit protective device.

END OF SECTION

## SECTION 26 24 16

### PANELBOARDS

#### **PART 1 – GENERAL**

##### 1.01 WORK INCLUDED

- A. Provide panelboards incorporating switching and protective devices of the number, rating and type specified herein and shown in Panel Schedules.
- B. Install Owner furnished panelboard interiors and box extensions as noted on drawings.

##### 1.02 REFERENCE STANDARDS

- A. American National Standards Institute (ANSI).
  - 1. 67 Panelboards (ANSI/UL 67).
  - 2. C37.20 Switchgear Assemblies Including Metal-Enclosed Bus (ANSI/IEE C37.20).
- B. Institute of Electrical and Electronics Engineers (IEEE).
  - 1. Std. 141-76 Electric Power Distribution for Industrial Plants.
  - 2. Std. 241-74 Electric Systems for Commercial Buildings.
- C. National Fire Protection Agency (NFPA).
  - 1. NFPA 70 National Electrical Code.
- D. Underwriters' Laboratory (UL).
  - 1. U.L. 67 Panelboards.
  - 2. U.L. 869 Service Disconnects.

##### 1.03 QUALITY ASSURANCE

- A. Coordination: Panelboard breakers shall be coordinated with feeder breakers in switchboard.
- B. Acceptable Manufacturers: Cutler-Hammer, Square D, Siemens. Panelboards shall be by the same manufacturer as Switchboards.

#### **PART 2 - PRODUCTS**

##### 2.01 CONSTRUCTION

- A. Box:
  - 1. Material: Galvanized code gauge steel.
  - 2. Size: 20-inch minimum width; 4-inch minimum gutter space on all sides.
  - 3. Mounting Studs: Minimum 4 interior.
  - 4. Knockouts: Individual knockouts by manufacturer or field-cut by Contractor. No concentric knockouts.
  - 5. Finish: Except for box, all exterior and interior steel surfaces properly cleaned and finished with industry standard gray baked enamel paint over a rust-inhibiting phosphatized primer coating approved by the paint manufacturer, except panelboards exposed in finished spaces shall have factory finish to match adjacent surfaces.

- B. Bussing:
1. Material: Copper.
  2. Tap Arrangement: Phase sequence type, permitting a two or three pole breaker to be installed at any location.
  3. Short Circuit Bracing: Fully rated, 14,000 amperes RMS symmetrical minimum for 240V AC Panels, and minimum 22,000 amperes RMS Symmetrical for 480V AC Panels, or as otherwise noted.
  4. Phase Bussing: Full height without reduction.
  5. Neutral Bussing:
    - a. Full size, unless otherwise noted.
    - b. Suitable lug for each outgoing feeder requiring a neutral connection.
  6. All bolts used to connect current-carrying parts together shall be accessible for tightening from the front of the panel.
  7. Wiring terminals: Compression or set screw type for copper conductors; bolted to bus.
- C. Trim:
1. Material: Code gauge steel.
  2. Flush Panels: 3/4-inch minimum overlap all around.
  3. Surface Panels: Same width and height as box.
  4. Mountable by screwdriver, without need for special tools.
  5. Tamper-proof: Trim shall not be removable with door closed. Adjustable indicating trim clamps shall be concealed inside door.
  6. Trim shall have piano hinge down one side and shall be openable by removing crews. Dead front cover shall not open with trim.
  7. Doors:
    - a. Shall cover all device handles, except panels having individual metal clad externally operable dead front units.
    - b. Hinges: Concealed, 5-knuckle, steel.
    - c. Over 48-inches in Height: Shall have auxiliary fasteners at top and bottom of door in addition to flush latch (3-point).
    - d. Latches:
      - i. Flush, not protruding beyond front of door.
      - ii. Spring-loaded door pull.
    - e. Locks: Equip latches with flush locks keyed alike.
- D. NEMA 1 unless otherwise noted or otherwise required per NEC for location installed.

## 2.02 CIRCUIT BREAKERS

- A. Main Breaker:
1. Where required, main breakers shall be individually mounted separate from branch breakers.
  2. Covered by a metal plate, except for the operating handle.
  3. Connection from the load side to the panel bus shall be bus bar. Insulated wire not permitted.
  4. Where used as service disconnect, breaker and panelboard shall be listed for use as service entrance equipment.
- B. Branch Breakers:
1. Connection to Bus: Bolt-on.
- C. Other requirements as noted elsewhere in these Specifications and as per NEC.

## **PART 3 – EXECUTION**

### **3.01 INSTALLATION**

- A. Provide mounting brackets, busbar drillings, and filler pieces for unused spaces.
- B. Prepare and affix typed directory to inside cover of panelboard indicating loads controlled by each circuit as required elsewhere in these Specifications.
- C. Provide panelboards flush in areas other than mechanical rooms, electrical rooms, and above removable ceilings.
- D. Conduit shall be securely fastened to all panelboards and sheet metal outlet, junction, and pull boxes with galvanized locknuts, and one bushing installed in accordance with standard practice. The full number of threads shall project through to permit the bushing to be drawn tight against the end of the conduit, after which the locknut shall be made up sufficiently tight to draw each into firm electrical contact with the box.
- E. Keys: Collect all panel keys. Combine all keys on one key ring and submit at time of substantial completion.
- F. Provide handle ties per NEC for breakers serving circuits with shared neutral conductors.

END OF SECTION

OVERCURRENT PROTECTIVE DEVICES

**PART 1 – GENERAL**

1.01 WORK INCLUDED

- A. Fuses
- B. Circuit Breakers

1.02 REFERENCE STANDARDS

- A. American National Standards Institute (ANSI).
  - 1. C37.16 Preferred Ratings, Related Requirements, and Application Recommendations for Low Voltage Power Circuit Breakers and AC Power Circuit Protectors.
  - 2. C37.17 Trip Devices for AC and General-Purpose DC Low-Voltage Power Circuit Breakers.
  - 3. C97.1 Low Voltage Cartridge Fuses 600 Volts or Less.
- B. Federal Specifications (FS).
  - 1. W-C-375B/GEN Circuit Breakers, Molded Case; Branch Circuit and Service, Federal Supply Classification (FSC) 5925.
  - 2. W-C-375/(1 through 20) Circuit Breakers, Molded Case, Branch Circuit and Service (FSC) 5925.
  - 3. W-F-1814 Fuse Cartridge, High Interrupting Capacity. (FSC) 5920.
- C. Institute of Electrical and Electronic Engineers, Inc. (IEEE).
  - 1. 20-73 Low Voltage AC Power Circuit Breakers Used in Enclosures (ANSI C37.13-73).
- D. National Electrical Manufacturer's Association (NEMA).
  - 1. FU-1 Low Voltage Cartridge Fuses.

1.03 APPLICABLE REGULATIONS

- A. Underwriters' Laboratories (UL).
  - 1. UL 489-72 Molded Case Circuit Breakers and Circuit Breaker Enclosures.
  - 2. UL 198 E Class R Fuses.
  - 3. UL 198.2 High Interrupting - Capacity Fuses, Current Limiting Type.
  - 4. UL 869 Service Disconnects.
- B. National Fire Protection Association (NFPA).
  - 1. NFPA 70 National Electrical Code.

**PART 2 - PRODUCTS**

2.01 FUSES

- A. Feeder, Branch Circuit and Service Entrance Fuses: 600 amperes and below, UL Class J or RK1 current limiting type, 600 volt 200,000 ampere interrupting capacity.

- B. Motor and Inductive Circuit Fuses: UL class RK5 time delay current limiting type, 600 volt, 200,000 ampere interrupting capacity.
- C. Control Circuit Fuses: UL Class J or R current, limiting type, 600V.

## 2.02 MOLDED CASE CIRCUIT BREAKERS

- A. Circuit Breakers:
  - 1. Connection to Bus: Bolt-on.
  - 2. Thermal-magnetic, molded case, with inverse time current overload and instantaneous magnetic tripping unless otherwise shown.
  - 3. Quick-make, quick-break, with tripped indication clearly shown by breaker handle taking a position between ON and OFF.
  - 4. Multi-pole breakers shall have a common internal trip. No handle ties between single pole breakers.
  - 5. Contacts: T-rated, for heavy duty switching applications.
  - 6. Breakers feeding convenience outlets shall have sensitive instantaneous trip settings of not more than 10 times the breaker trip rating to prevent repeated arcing shorts resulting from frayed appliance cords.
  - 7. Additions to existing panelboards and switchboards shall match or be compatible with existing.
  - 8. Provide handle ties per NEC for breakers serving circuits with shared neutral conductors.
  - 9. Where used as service disconnects, breakers shall be listed for use as service entrance equipment.

## PART 3 - EXECUTION

### 3.01 FUSE INSTALLATION

- A. Label each switch to indicate type and rating of fuse installed.
- B. All fuses shall be selected to provide selective system coordination.
- C. Provide 10% (3 minimum) spare fuses of each size and rating used.

### 3.02 CIRCUIT BREAKER INSTALLATION

- A. Label each breaker located in switchboard or separate enclosure to indicate load served.
- B. Adjust settings on breakers to operate properly under actual field conditions and to provide selective system coordination.
- C. Update directory in panelboards which have new breakers installed.

END OF SECTION

*MAPS OF  
ASBESTOS CONTAINING MATERIALS*



# MEADOWLARK ELEMENTARY SCHOOL

## ADDITIONS

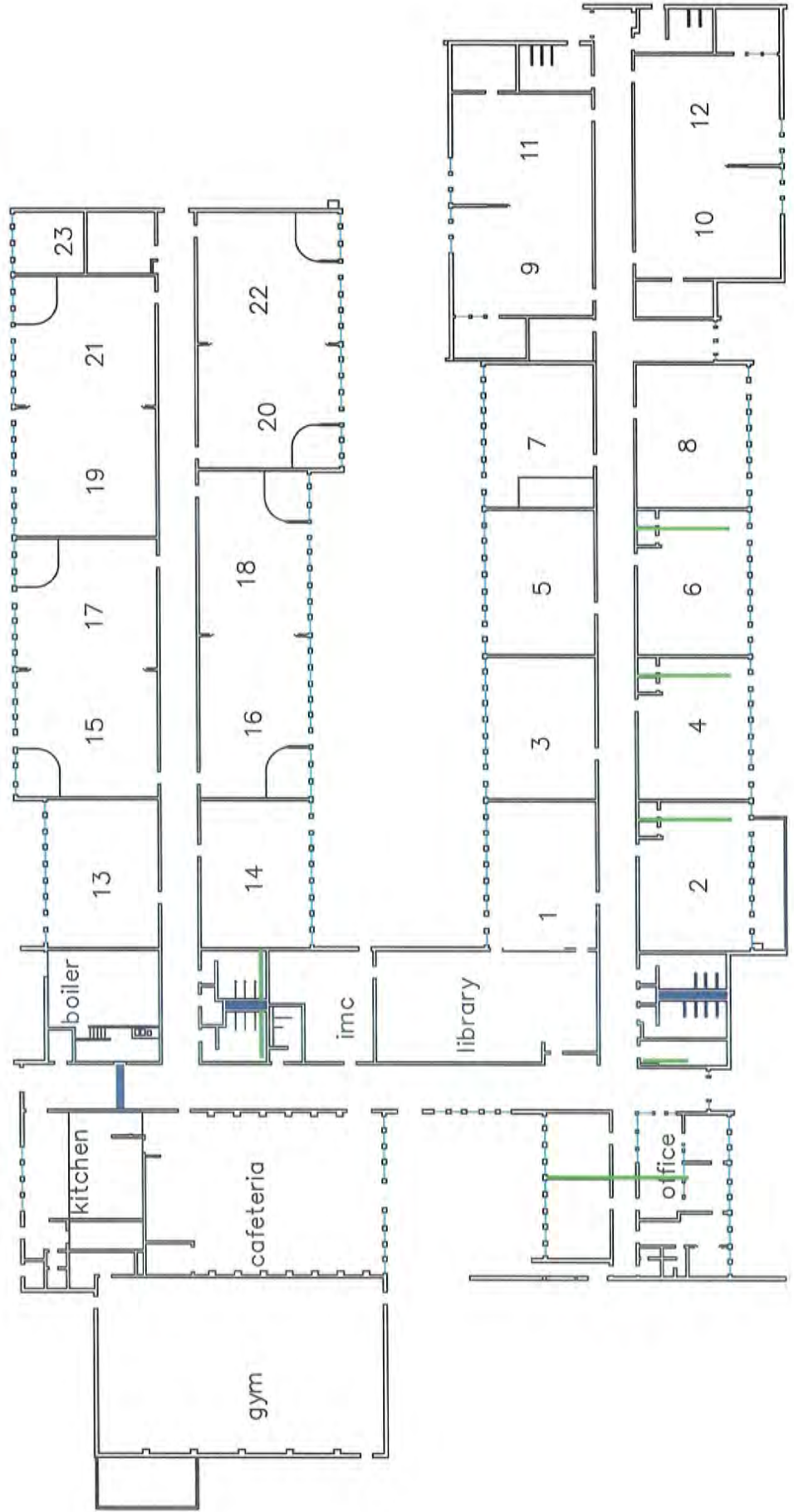
- Original Building.
- ▨ 1961 Addition #1.
- ▩ 1963 Addition #2.
- ▧ 1968 Addition #3.
- ▦ 1974 Addition #4.
- ▤ 1979 Addition #5.



MEADOWLARK ELEMENTARY SCHOOL

ASBESTOS CONTAINING TSI

- Asbestos pipe insulation above ceilings and in mechanical spaces.
- Asbestos pipe insulation in the slab or transite pipe.





# MEADOWLARK ELEMENTARY SCHOOL ASBESTOS CONTAINING CEILING MATERIALS

-  Asbestos sheetrock, Original Building.
-  Assumed ceiling tile mastic.
-  Assumed Transite.
-  Asbestos sheetrock removed this area 2005, see Section XVI



# MEADOWLARK ELEMENTARY SCHOOL ASBESTOS CONTAINING WALL MATERIALS

- Asbestos sheetrock, Original Building.
- Asbestos sheetrock, 1961 Addition #1.
- Asbestos sheetrock, 1963 Addition #2.
- Asbestos sheetrock, 1968 Additon #3.

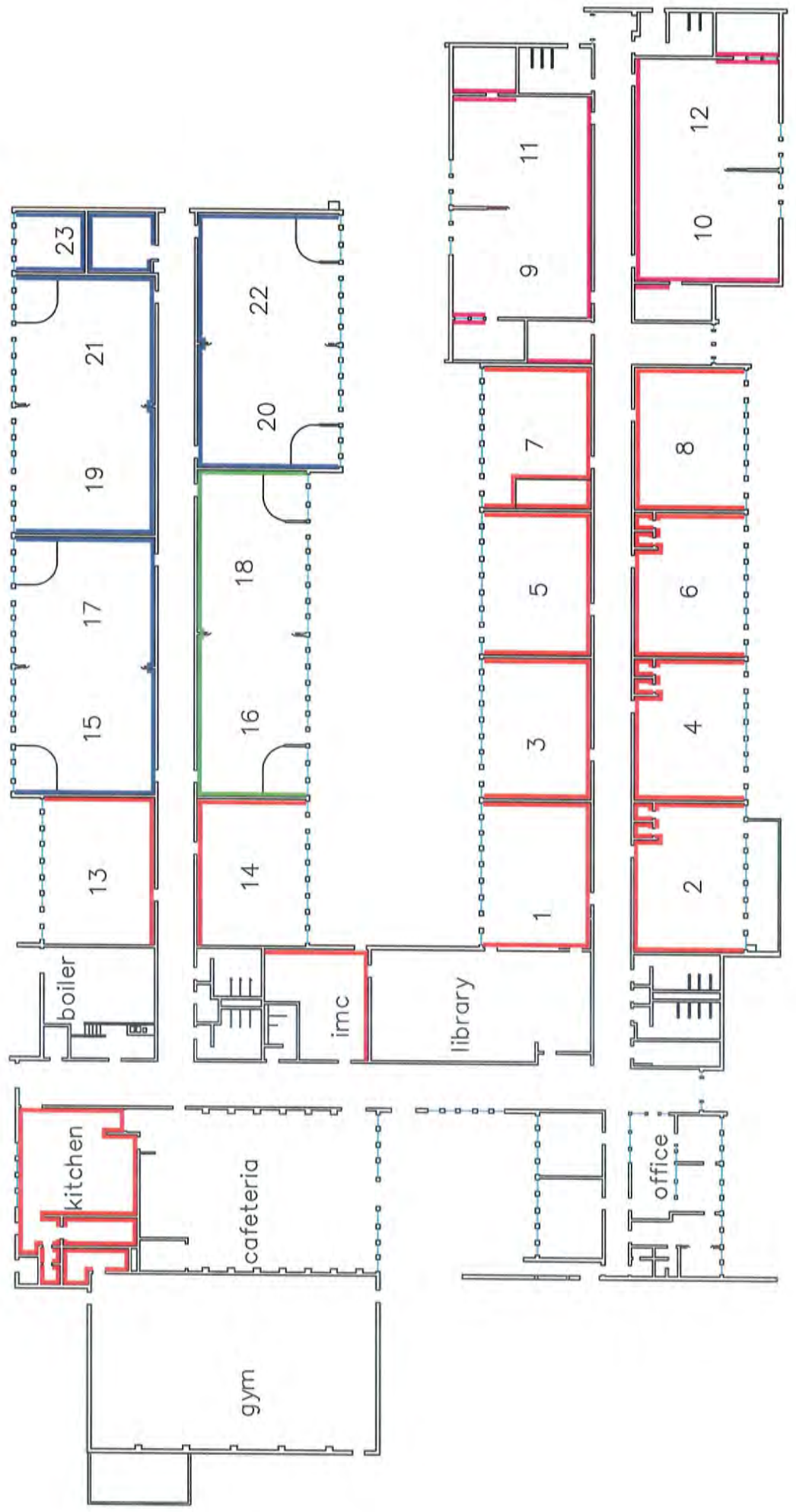
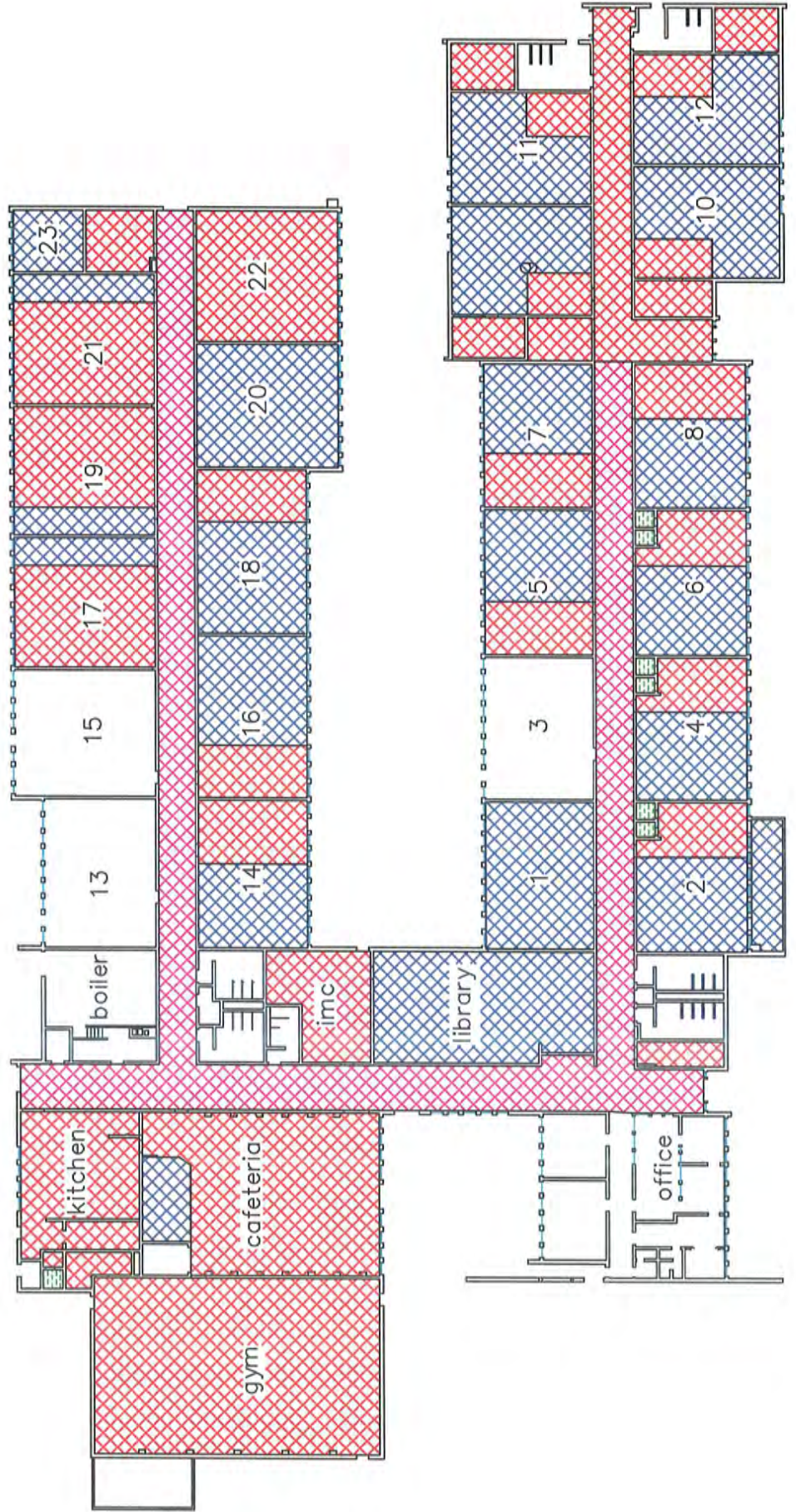




DIAGRAM #4

MEADOWLARK ELEMENTARY SCHOOL  
ASBESTOS CONTAINING FLOOR MATERIALS

- ☒ Assumed floor tile and mastic.
- ☒ Asbestos floor tile mastic under non-asbestos floor tile.
- ☒ Non-asbestos carpet mastic over asbestos floor tile/mastic.
- ☒ Assumed sheet vinyl.

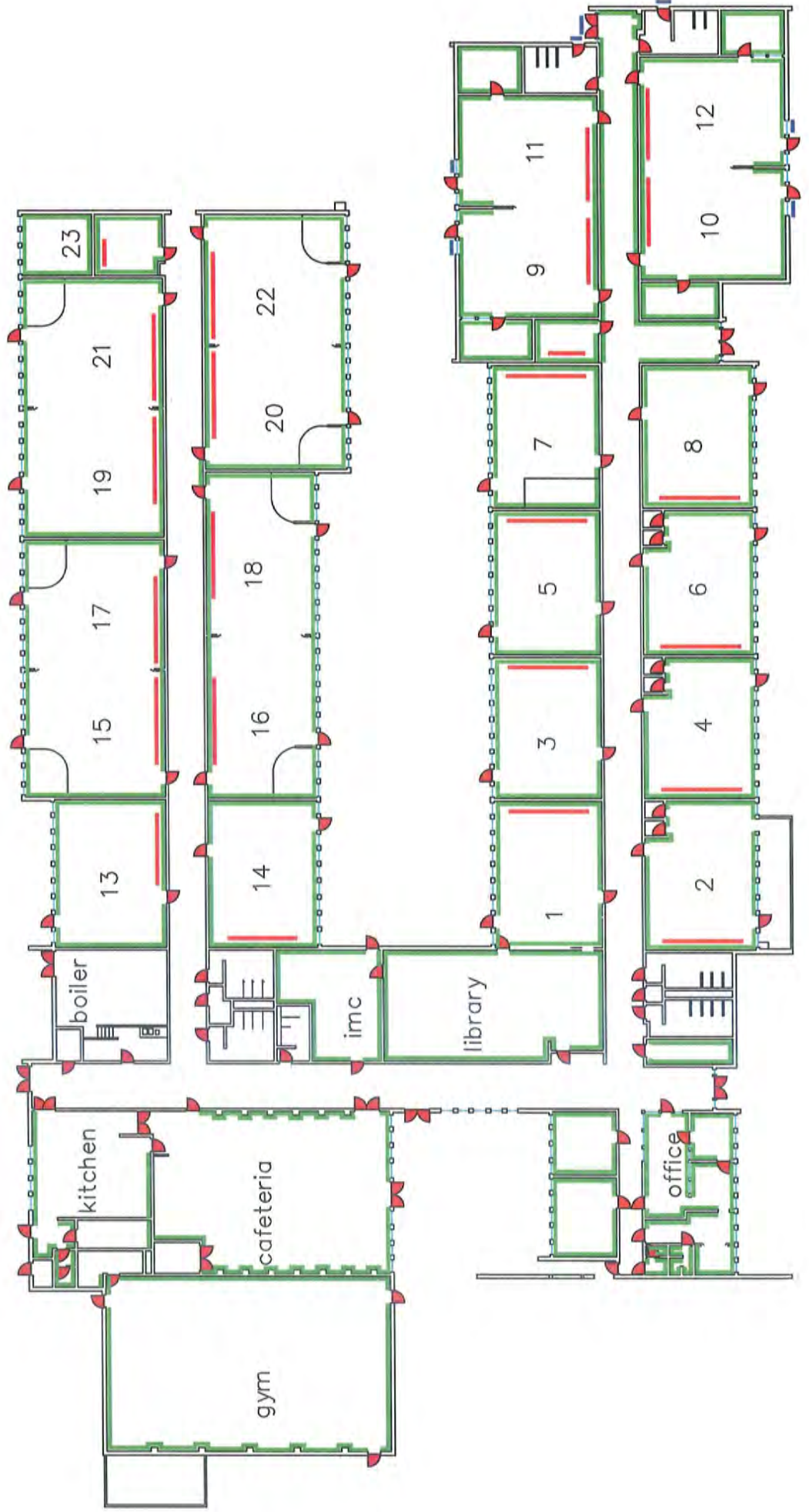







# MEADOWLARK ELEMENTARY SCHOOL

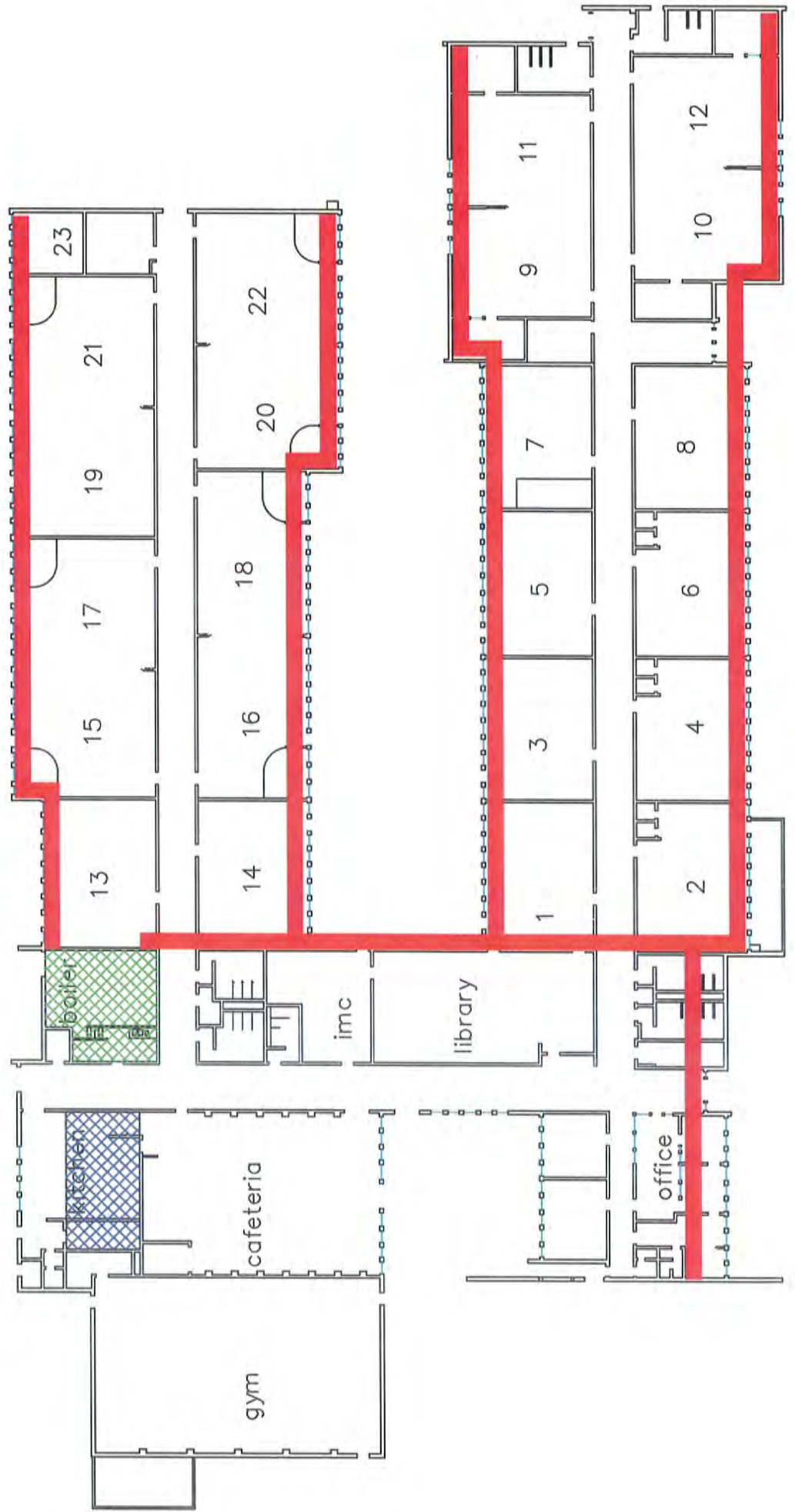
## MISCELLANEOUS ASBESTOS MATERIALS

- Assumed cove base mastic.
- Assumed cement asbestos board.
- ▴ Assumed fire doors.
- ⋯ Assumed window caulking.



MEADOWLARK ELEMENTARY SCHOOL  
NON-ASBESTOS CONTAINING TSI

-  All asbestos TSI was removed from the tunnels in 1996, see Section XVI.
-  All asbestos TSI was removed from the Boiler room in 1995, see Section XVI.
-  All asbestos TSI was removed from the mechanical room above the Kitchen in 1996, see Section XVI.





MEADOWLARK ELEMENTARY SCHOOL

NON-ASBESTOS CONTAINING CEILING MATERIALS

- ☒ Non-asbestos 12" X 12" ceiling tile, fissured & stippled, Original Building.
- ☒ Non-asbestos 12" X 12" ceiling tile, fissured and mastic, Original Building halls.
- ☒ Non-asbestos 12" X 12" ceiling tile, fissured & stippled, 1961 Addition #1.
- ☒ Non-asbestos 12" X 12" ceiling tile, fissured, 1961 Addition #1 halls.
- ☒ Non-asbestos 12" X 12" ceiling tile, fissured & stippled, 1963 Addition #2.
- ☒ Non-asbestos 12" X 12" ceiling tile, fissured, 1963 Addition #2 halls.
- ☒ Non-asbestos 12" X 12" ceiling tile, fissured & stippled, 1968 Addition #3.
- ☒ Non-asbestos 12" X 12" ceiling tile, fissured, 1968 Addition #3 hall.
- ☒ Non-asbestos sheetrock, Original Building.
- ☒ Non-asbestos sheetrock, 1979 Addition #5.

Note: The ceiling tile mastic and any other materials above the non-asbestos ceiling tile are assumed to be asbestos containing, see Diagram #2.

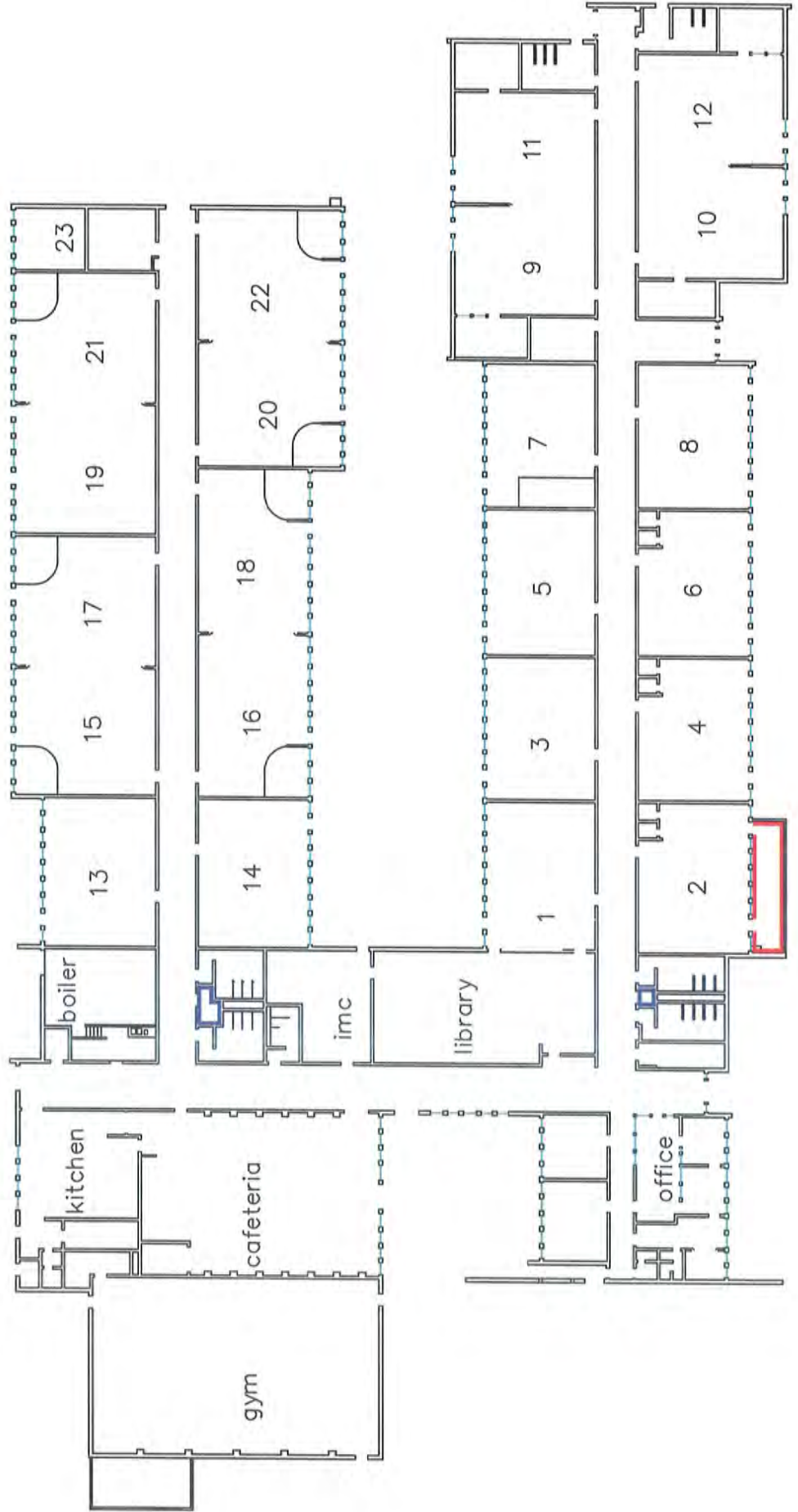









MEADOWLARK ELEMENTARY SCHOOL

NON-ASBESTOS CONTAINING WALL MATERIALS

- Non-asbestos sheetrock, Original Building.
- Non-asbestos sheetrock, 1979 Addition.
- Note: the sheetrock above the ceiling tile in room #18 has tested negative for asbestos.



MEADOWLARK ELEMENTARY SCHOOL  
NON-ASBESTOS CONTAINING FLOOR MATERIALS

-  Non-asbestos sheet vinyl.
-  Non-asbestos floor tile with asbestos containing mastic.
-  Non-asbestos carpet mastic over asbestos floor tile/mastic.
-  Non-asbestos floor tile and mastic.
-  Non-asbestos carpet mastic.





# MEADOWLARK ELEMENTARY SCHOOL

## MISCELLANEOUS NON-ASBESTOS MATERIALS

- Non-asbestos cove base mastic, halls.
- Non-asbestos vapor barrier under exterior siding, Original Building
- Non-asbestos vapor barrier under exterior siding, Original Building

