Plainwell Community Schools

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PART 1 - GENERAL

1.01 WORK INCLUDED: DISTRICT TECHNOLOGY RENOVATIONS

A. Plainwell Community Schools (Owner) is seeking bids for purchase and installation electronic card access, paging systems and installation services. Proposed systems shall be configured and installed to service Owner's multiple instructional facilities, and as described herein.

B. Project: DISTRICT TECHNOLOGY RENOVAITONS

Owner: Plainwell Community Schools
600 School Drive
Plainwell, Michigan 49080

C. Designer: Communications by Design, Inc.

D. Sites of Work:

1. Plainwell Middle School
720 Brigham Street
Plainwell, Michigan 49080

1.02 GENERAL DESCRIPTION OF PROJECT SEQUENCE

A. Sequences and dates specified herein are for information only and indicate the plan and intent of the Owner. Actual dates shall be established based on final award of project.

B. Sequence of operations shall be established by the Contractor within the guidelines established by the Owner as required to meet schedules.

C. Schedule:

1. Request for Bid Distributed: September 29, 2023

2. Pre-Bid Meeting: October 11, 2023 at 11:00am

3. Intent to Bids Due: October 12, 2023 by 5:00pm

4. Question and Clarification Deadline: October 13, 2023 by 5:00pm

5. Public Bids Due: October 19, 2023 at 8:00am

1.03 TYPES OF BIDS

A. Bids shall be submitted in total and with required detail for each item bid and as is required herein and include all portions of the work identified for the individual bid package as specified herein. Bids shall be made on unaltered bid forms as included herein. Bidder shall fill in all blank spaces and the bid shall be signed by a legal officer or agent authorized to bind the bidder to a contract.

1.04 PRE-BID CONFERENCE

A. A pre-bid conference will be held. A discussion of the project and review of bid documents will be followed by a site review and an opportunity to ask questions. Attendance is highly encouraged for all contractors interested in bidding on any components or portions of this project. Attendance at the pre-bid conference will be a factor considered during evaluation of bids.

B. Time: 11:00am on October 11, 2023

C. Location: Plainwell Community Schools Administration Building
Board Room
600 School Drive
Plainwell, Michigan 49080

D. Any drawings identified in the table of contents herein will be distributed and reviewed at this conference.

E. Physical building inspections of sites of work will be provided for at this time.

1.05 TIME AND PLACE OF BID RECEPTION

A. Physically sealed bids for the base bid work will be received at the district office and read aloud at a public opening. Bids arriving after the appointed time as determined by the Owner's representative conducting the public opening, shall be returned unopened. Bids will be accepted beginning forty-eight (48) hours prior to the appointed opening time provided they are in sealed packages and addressed as specified herein.

B. Bid Receipt Deadline: October 19, 2023 at 8:00am

C. Location: Plainwell Community Schools Administration Building
Board Room
600 School Drive
Plainwell, Michigan 49080

D. Faxed or electronically delivered bids will not be accepted.

1.06 EXAMINATION AND PROCUREMENT OF DOCUMENTS

A. Specifications and any relevant Drawings may be obtained from the Technology Designer. Contractors may obtain copies by documented request to Communications by Design, Attn: Rebecca Szilagy. Requests may be made by:

1. Writing – 4101 Sparks Drive, Grand Rapids, Michigan 49546

2. Email – rszilagy@cbdconsulting.com

1.07 BID SECURITY

A. Bid security equal to five percent (5%) of the total bid amount, must accompany each base bid in accordance with the Instruction to Bidders.

B. Bid security shall be either a Bid Bond issued by a company licensed in the State of Michigan to furnish bid security or Certified Check made payable to the Owner.

1.08 PERFORMANCE BOND COVERAGE

A. Selected Contractor(s) will be required to provide a performance bond and payment bond in an amount equal to one hundred percent (100%) of the bid amount including any accepted alternates at the Owner's discretion. Such bonds shall be issued by surety licensed by the State of Michigan and acceptable to the Owner.

1.09 OWNER'S RIGHT TO REJECT BIDS

A. The Owner reserves the right to reject any and/or all bids. The Owner reserves the right to accept a bid, or portion thereof by issuance of a valid purchase order within ninety (90) calendar days following the bid opening. No bids may be withdrawn during this time without the specific approval of the Owner.

B. Withdrawal of any Bids after the opening time without specific approval by Owner may result in forfeiture of required bid security by Bidder.

1.10 DEFINITIONS

A. "Owner" is intended to mean Plainwell Community Schools, a general powers school district.

B. For purposes of this project, the terms "Architect", "Engineer" and "Designer" are used synonymously to refer to Communications by Design, Inc., a Michigan Corporation.

C. The term "Bidder" refers to any organization properly and accurately submitting a complete "Intent to Bid Form" prior to the required time

specified herein and subsequently properly submitting completed set of bid documents as specified herein.

D. The term “Contractor” herein is a reference to the firm(s) eventually selected by the Owner to provide the intended system(s), or any portion thereof, and fulfill the terms of the contract.

E. The term Contract is a reference to the collective set of documents, drawings, diagrams, Owner’s Purchase Order, Addenda, and all other materials as provided for herein defining arrangement between Owner and Contractor.

F. The term Addenda (or Addendum) are that portion of the Contract consisting of modifications, amendments, deletions, or substitutions to the contract documents issued prior to the execution of the Contract.

END OF SECTION

SECTION 00 40 00
BID FORMS

Intent to Bid Form

Complete and submit the following form if you have interest or intend to submit a Bid for this project. Unaltered and completed forms must be received on or before 5:00 PM on October 12, 2023. Only bidders returning a completed "Intent to Bid Form" will directly be notified of required addenda.

Company Information

Name: _____

Address Line1: _____

Address Line2: _____

City, State and Zip Code _____

Primary Contact Information

Name: _____

Phone No.: _____

Fax. No.: _____

E-Mail Address: _____

Portions of the bid for which you will be responding:

☐ Section 27 51 16 - Public Address System

☐ Section 28 13 00 Building Access System

Submit unaltered and completed form to:

Rebecca Szilagy
Communications by Design, Inc.
rszilagy@cbdconsulting.com

SEALED BID LABEL

Separate, or fold over, the label on the line below, and affix to the exterior of sealed container so information is clearly visible for Bid Submission. Ensure label is attached in a manner to prevent accidental removal or defacement. Label shall serve as sole identification for sealed bid at submission.

BID TO: Plainwell Community Schools
Attention: Matthew Montange
600 School Drive
Plainwell, Michigan 49080

BID FROM: _____

_____

_____

PROJECT: DISTRICT TECHNOLOGY RENOVATIONS
TECHNOLOGY BID #3014

INCLUDING ADDENDA: Addendum No._____Dated_____
Addendum No._____Dated_____

DUE: October 19, 2023 at 8:00am

BID FORM

BID TO: Plainwell Community Schools
Attention: Matthew Montange
600 School Drive
Plainwell, Michigan 49080

BID FROM: _____

_____

_____

PROJECT: DISTRICT TECHNOLOGY RENOVATIONS
TECHNOLOGY BID #3014

The undersigned, having familiarized themselves with all local conditions affecting the cost of work, and having examined the site and all applicable Bidding Documents herein, and herein referenced, including, but not limited to, all addenda issued thereto, hereby propose to furnish all labor, material, equipment, applicable taxes, and services required for proper completion of each of the following categories of this project for the sum of:

Bid Category _____ Title_____

_____Dollars ($_____).
Said amount written above constituting the Base Bid

Bid Category _____ Title_____

_____Dollars ($_____).
Said amount written above constituting the Base Bid

TAXES:
Bid sum includes all applicable taxes.

ALLOWANCES:
Base bid includes all applicable allowance cost(s) as set forth herein.

COST OF BONDS:
Bid sum includes cost of furnishing a Performance Bond and Labor and Material Payment Bond, each in the amount of one hundred percent (100%) of the bid.

ACKNOWLEDGEMENT OF ADDENDA:
The following addenda have been received, are hereby acknowledged, and their execution is included in both base bid and alternate bids herein.

Addendum No._____Dated_____ Addendum No._____Dated_____

ALTERNATES:
Based bid amount may be increased or decreased in accordance with each of the following alternate bids as may be selected, following procedures stated herein. Voluntary Alternates shown below are identified and described in detail on appropriate attachment(s) as referenced herein.

Voluntary Alternate A: _____

Voluntary Alternate B: _____

Voluntary Alternate C: _____

Voluntary Alternate D: _____

Voluntary Alternate E: _____

PRINCIPAL SUBCONTRACTORS
As required herein, the following Subcontractors are proposed to be used for this project:

Legal Name:_____Work Proposed_____

Legal Name:_____Work Proposed_____

BID SECURITY:
Accompanying this Bid, as required herein, is a bid security in the form of Certified Check/Cashier's Check/Bidder's Bond in the amount of:

_____ Dollars ($_____),
payable to the Owner, which it is agreed, shall be retained as liquidated damages, not as a penalty, by the Owner, if the undersigned fails to execute the Contract in conformity with the form of Contract incorporated and referenced herein and fails to furnish specified bonds within ten (10) days after date of issuance of a Letter of Intent to the undersigned.

If awarded the Contract, the undersigned agrees to commence work within ten (10) calendar days after date of issuance of a Purchase Order, which shall be considered as the notice to proceed, and agrees to complete the work in accordance with the schedule herein.

FAMILIAL DISCLOSURE:
Accompanying this Bid, as required herein, is a legally executed and notarized Michigan Familial Disclosure Statement.

EXCEPTIONS:
Bidder takes no exception to terms, conditions, specifications and/or any other requirements herein unless expressly noted, and specifically identified as provided for herein on unaltered Contract Exception form accompanying this Bid.

SIGNATORY AUTHORITY:
The undersigned certifies they are an authorized agent of the bidding entity, and legally able to bind the bidding entity to the terms, conditions and responsibilities of this, and all referenced bid documents. Furthermore, the undersigned acknowledges an understanding that non-compliance of this authority or any other bidding requirements may result in

forfeiture of bid security, dismissal of consideration of bid submitted, and/or personal liability against the signatory.

AGREEMENT:

The undersigned agree(s) to provide the post-bid information required within ten (10) days after notification of a Letter of Intent and to execute an agreement for work covered by this Bid on the Owner's standard Purchase Order for which terms and conditions are expanded to include all Bidding Documents and subsequent addenda issued thereto.

In submitting this bid, it is understood that the Owner reserves the right to reject any or all bids. It is further agreed that this bid is binding for a period of Ninety (90) days from the opening thereof.

Respectfully submitted,

Date: _____

Firm Name: _____

By: _____

Signed: _____

Title: _____

Official Address: _____

_____

Telephone Number: _____

Fax Number: _____

Primary Contact Email Address: _____

(If Corporation, affix Seal)

Michigan Familial Relationship Disclosure Statement

In accordance with Section 1267 of Michigan Revised School Code this sworn and notarized statement of an authorized representative, discloses any familial relationship between the owner and/or any employee of the Bidder, and any member of the project Owner's governing Board(s) or Superintendent(s).

If any conflict of interest is discovered subsequent to submission of bid, written disclosure shall be submitted to the project Owner within seven (7) days of discovery. The project Owner reserves the right to immediately terminate any contract with Bidder upon notification of a conflict of interest. Upon such termination, the project Owner shall compensate Bidder only for the value of any goods or services provided to the Owner prior to such termination as determined by Designer.

(Check only one Box Below)

☐ It is hereby acknowledged and certified by Bidder that no familial relationship exists between the owner or any employee of the Bidder and any member of the project Owner's governing Board(s) or Superintendent(s).

☐ A familial relationship exists between the owner or an employee of the Bidder and a member of the project Owner's governing Board(s) or Superintendent(s). The person(s) and the relationship(s) are as follows:

Bidder	***Board or Superintendent***
_____	_____
_____	_____
_____	_____
_____	_____

Bidder Authorized Representative:

Bidder: _____

Representative's Signature: _____

Print or Type Name: _____

Representative's Title: _____

Subscribed and sworn this _____ day of _____, 2023.

In the County of _____ State of _____

By _____ Seal or Stamp:
Notary Public Signature

My commission expires on: _____

IRAN LINKED BUSINESS AFFIDAVIT

All Bids shall be accompanied by a sworn statement disclosing any Iran Linked Business relationship that exists within the owners, including its officers, directors, and employees.

The undersigned, owner or authorized officer of _____ (bidder), pursuant to Michigan Public Act No. 517 of 2012, the "Iran Linked Business" requirement provided in the Plainwell Community Schools Proposals hereby represents and warrants that the bidder, including its officers, directors and employees, is not an "Iran Linked Business" within the meaning of the applicable Public Act, and that in the event bidder is awarded a contract as a result of this RFB, the bidder will not become an "Iran Linked Business" at any time during the course of performing under the contract. The bidder further acknowledges that any person who is found to have submitted a false certification is responsible for a civil penalty of not more than $250,000.00 or 2 times the amount of the contract or proposed contract for which the false certification was made, whichever is greater, the cost of the District investigation, and reasonable attorney fees, in addition to the fine. Moreover, any person who submitted a false certification shall be ineligible to bid on future Requests for Bids for three (3) years from the date that it is determined that the person has submitted the false certification.

There is not an "Iran Linked Business" that exists within the bidder and/or owner, officers, directors and employees.

Bidder:

_____
[Company Name]

_____
[Signature]

_____
[Title]

Notary:

This instrument was acknowledged before me, a Notary Public in and for

_____ County, on this

_____ day of _____, 20_____.

_____
[Notary Public Signature]

My Commission expires: _____

Acting in the County of: _____

REFERENCES

Customer name: _____
Address: _____
City/State/Zip: _____
Contact name: _____
Contact title: _____
Phone: _____
E-mail: _____
Scope of project: _____
_____
_____
Date of completion: _____

Customer name: _____
Address: _____
City/State/Zip: _____
Contact name: _____
Contact title: _____
Phone: _____
E-mail: _____
Scope of project: _____
_____
_____
Date of completion: _____

Customer name: _____
Address: _____
City/State/Zip: _____
Contact name: _____
Contact title: _____
Phone: _____
E-mail: _____
Scope of project: _____
_____
_____
Date of completion: _____

CONTRACT EXCEPTIONS

Check one Box

☐ Bidder takes no exception to, and agrees to comply with all sections, terms, conditions and/or requirements of the Contract Documents.

☐ Bidder proposes the following exceptions to the Contract Documents:

Paragraph Number	***Explanation***
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

NOTE:
Exception(s) to any bid sections, terms, conditions and/or requirements deemed excessive for any reason by the Owner and/or Designer may result in disqualification of Bid.

SCHEDULE OF VALUES/BID FORM

(Bidder may submit version of only this form with slight variation. All information in this form is required for each division/category of work being bid. Submit a completed separate form for each division/category of work clearly delineating on the form the division/category of work for that form. Form submitted must materially match below both in content and format. Electronic version of this form for each project section/division/category being bid is required with bid package as Microsoft Excel compatible spreadsheet on a USB drive. Failure to provide appropriate and complete SCHEDULE OF VALUES for each division/category of work, as determined by the Owner and/or Designer, may result in disqualification of Bid.)

Bidder: _____ Bid Division:27 51 16

ID	*Qty*	*Part Number*	*Mfg and Description*	*Unit Cost*	*Unit Labor Cost*	*Total Proposed Cost*
			PROJECT MANAGEMENT			
			TRAINING			
			BONDS AND INSURANCE			
			GRAND TOTAL (Must match base bid)			

SCHEDULE OF VALUES/BID FORM

(Bidder may submit version of only this form with slight variation. All information in this form is required for each division/category of work being bid. Submit a completed separate form for each division/category of work clearly delineating on the form the division/category of work for that form. Form submitted must materially match below both in content and format. Electronic version of this form for each project section/division/category being bid is required with bid package as Microsoft Excel compatible spreadsheet on a USB drive. Failure to provide appropriate and complete SCHEDULE OF VALUES for each division/category of work, as determined by the Owner and/or Designer, may result in disqualification of Bid.)

Bidder: _____ Bid Division:28 13 00

ID	*Qty*	*Part Number*	*Mfg and Description*	*Unit Cost*	*Unit Labor Cost*	*Total Proposed Cost*
			PROJECT MANAGEMENT			
			TRAINING			
			BONDS AND INSURANCE			
			GRAND TOTAL (Must match base bid)			

END OF SECTION

SECTION 00 21 13
INSTRUCTIONS TO BIDDERS

PART 1 - GENERAL

1.01 OWNERSHIP

A. Bidders prepare and provide bids without any cost to the Owner and/or Designer. Once opened, bids become the sole property of the Owner. Bidders have no claim to, or ownership of bids opened. Bids become subject to all legal statutes including, if applicable, United States and Michigan Freedom of Information Acts and related laws.

1.02 COMPLIANCE

A. This document establishes the primary system(s) design configuration. The Bidder's bid response shall include all services, supplies, components, and equipment required to provide a complete turnkey system(s) which meets or exceeds all specifications for each given bid item being proposed.

B. Owner prefers to enter into a contract with a single bidder for all materials for completion of this project but shall consider combinations of portions of bids from various bidders. The Owner reserves the right to award portions of the project to multiple bidders who will be required to cooperate with one another in order to complete the work.

C. By their response, Bidders agree to comply with all sections, terms, conditions and/or requirements of the contract documents except as expressly noted, and specifically identified by paragraph number on the unaltered Contract Exceptions Bid Form. Exceptions to any bid sections, terms, conditions and/or requirements deemed excessive by the Owner and/or Bid Coordinator may disqualify Bid.

D. In compliance with the Freedom of Information Act (FOIA), the Owner shall make bid documents available for public review after issuance of purchase order to the successful bidder/s.

E. In connection with the execution of this Contract, Contractor and any Subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, age, or national origin.

F. Negligence in preparation, improper preparation, errors in, or omissions from Bids shall not relieve Bidder from fulfillment of any and all obligations and requirements of the Contract Documents.

G. All Bid documents and worksheets must be completed in detail and submitted together on time.

H. All documents constituting the entire present agreement shall be construed in accordance with and governed by the laws of the State of Michigan.

I. Designer shall have authority for interpretation of Contract Documents. In the event terms, provisions or any other portion of the Contract Documents is/are in dispute, Designer shall have full and final authority to interpret the Contract Documents, and such interpretation shall be final and binding.

J. In the event of a conflict between any terms or conditions in any of the documents comprising the entire present Agreement, the terms and conditions set forth in this document shall take precedence.

1.03 NOTICE AND RESPONSE

A. Upon notification of Bidder being considered as a finalist, the Bidder shall provide to the Owner and Designer, within 48 hours, a current "Dunn and Bradstreet Supplier Evaluation Report" and other documentation as may be required of finalists herein and as requested by Owner and/or Bid Coordinator.

B. Bidder shall provide timely response to all requests from Designer and/or Owner regarding clarification and/or elaboration concerning, but not limited to its Bid as may be deemed relevant by the Owner and/or Designer.

1.04 PROTECTION AND SAFETY

A. Contractor shall continuously maintain adequate protection of all Work from damage and shall protect the Owner's property from injury or loss arising in connection with the execution of the Contract. Contractor shall make good any such damage, injury, or loss, except such as may be directly caused by agents or employees of the Owner. The Contractor shall adequately protect adjacent property as required by law, by the Contract Documents, or as otherwise required, to cause no damage to them during the execution of the Contract. This requirement shall also apply to structures above and below ground as conditions of the site require.

B. Contractor shall be solely responsible for, and have control over means, methods, techniques, sequences, and procedures for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the contract. Contractor shall take all necessary precautions for the safety of employees and visitors on the site of the Project and shall comply with applicable provisions of federal, state, and municipal safety laws and building codes to prevent accidents or injury to persons on, about, or adjacent to the premises where the Work is being performed. Contractor shall erect and properly maintain at all times, as required by the conditions and

progress of the Work, all necessary safeguards for the protection of workers and the community.

C. Contractor shall vigorously defend any and all suits that may be brought against the Owner by any person and/or entity, whether in the employ of the Contractor or not, for damage to property, and/or injury or death to persons alleged or claimed to have been caused by or through the performance of work.

1.05 DRAWINGS DIAGRAMS AND ILLUSTRATIONS

A. Drawings, Diagrams, and Illustrations are diagrammatic in nature and indicate general arrangement and nature of systems and work included.

B. Floor plan drawings are provided to assist the contractor in preparing documentation and reports as required herein.

PART 2 - MATERIALS

2.01 VOLUNTARY ALTERNATES AND SUBSTITUTION OF SPECIFIED PRODUCTS

A. This Request for Bid describes a particular implementation. All Bids must provide pricing on the "base bid" as described herein. Voluntary alternatives providing comparable functionality with significant cost reduction and/or performance enhancement may be proposed. Voluntary alternatives are encouraged but must be identified as "Voluntary Alternates" and detailed on unaltered Bid Forms contained herein. Voluntary Alternates may be further detailed and/or explained in attachments to the unaltered Bid Forms contained herein. Exceptions to the Request for Bid specifications must be clearly noted and explained for each Voluntary Alternate proposed.

B. No substitutions of specified products may be made without specific prior authorization by Designer and Owner. Individual bid divisions herein contain particular information related to acceptable manufacturer and product requirements.

C. Trade-in, equipment/license exchanges or other return allowances may be provided as a voluntary alternate. Trade-in, exchange, or other return equipment allowances shall not be included in base bid amount.

PART 3 - EXECUTION

3.01 EXAMINATION OF DOCUMENTS AND SITE

A. Bidders shall carefully examine the Contract Documents and the construction site to obtain first-hand knowledge of existing conditions and requirements. No plea of ignorance of conditions that exist, or any other relevant matter

concerning work to be performed in the execution of work will be accepted as justification for failure to fulfill every detail of all requirements as described herein.

3.02 QUESTIONS, INTERPRETATIONS AND ADDENDA

A. Any bidder finding discrepancies between Drawings, Specifications and/or Bid Documents, or be in doubt as to the exact meaning of any provision or detail shall notify the Designer at once, and before the deadline for Questions and Clarifications. The Designer may then, at their option, issue Addenda clarifying same. The Designer is not responsible for oral instructions, or Bidder's/Contractor's misinterpretations of Drawings, Specifications and/or Bid Documents.

B. The Designer reserves the right to issue Addenda at any time up to thirty-six (36) hours prior to the scheduled bid opening. All such addenda shall become, upon issuance, an inseparable part of the Specification/Contract Documents. Each bidder shall incorporate within their bid all costs for items listed in any/all Addenda and shall acknowledge receipt and identifying number of each Addendum on the Bid Form and on the outside of the sealed bid container.

C. Addenda will be forwarded to each bidder who has received a copy of the Bidding Documents and has submitted "Intent to Bid Form".

3.03 BID SECURITY, BONDS, AND INSURANCE

A. Bid Security, Performance and Payment Bonds are required on this project.

1. Bid security equal to five percent (5%) of the bid amount must accompany each bid in accordance with the Instruction to Bidders.

a. Bid security shall be either a Bid Bond issued by a company licensed in the State of Michigan to furnish bid security or Certified Check made payable to the Owner.

B. The selected Contractor will be required to provide a performance bond and a payment bond each in an amount equal to one hundred percent (100%) of the bid amount including any accepted alternates at the Owner's discretion.

1. The surety of the performance bond shall remain in effect until all acceptances and final contract close-out requirements herein have been executed by the Owner.

C. Contractor shall provide, prior to beginning any work at the sites, certificate of insurance for delivery to Owner indicating all required insurance coverage is in force.

1. Workers' Compensation and Employer's Liability Insurance

    a. Coverage A – Statutory

    b. Coverage B - $1,000,000 Per Accident

2. Broad Form Comprehensive General Liability Insurance (including – Premises, Elevators, Contractor's Protective Liability, Contractual, Products & Completed Operations – including Broad Form Extensions).

    a. Each Occurrence - $1,000,000

    b. General Aggregate - $2,000,000

    c. Products & Completed Operation Aggregate - $2,000,000

    d. Personal Injury & Advertising Injury - $1,000,000

    e. Fire Legal - $100,000

3. Sub-contractors Operations, Products – Completed Operations and Contractual Liabilities, plus such excess coverage as may be appropriate for the limits listed.

4. Comprehensive Automobile Liability Insurance (owned, hired, and non-owned automobiles).

    a. Bodily - $1,000,000 each Person and $1,000,000 each Occurrence

    b. Property Damage - $1,000,000

5. Furnish Owner with Contingent Liability Insurance Policy with coverage and liability limits the same as for Public Liability Insurance specified herein. Designate on policy as assured, only the Owner.

6. Furnish Owner with Contingent Property Damage Insurance Policy with coverage and liability limits the same as for Property Damage specified herein. Designate on policy as assured, only the Owner.

7. Policies shall include notification clause requiring ninety (90) days written notice to Owner in the event of policy cancellation, expiration, non-renewal, coverage reduction or other material change.

8. Contractor shall not commence work under the Contract until after all insurance required herein as been obtained and certificates for such are approved by Owner.

D. All such bonds and/or insurance shall be issued by surety licensed by the State of Michigan and acceptable to the Owner.

1. Insurance certificate(s) shall be signed by insurance agent licensed in the state of Michigan or a representative of the insurance company.

E. Contractor agrees to indemnify and hold harmless the Owner and Designer, including their agents and employees, from and against all claims, damages, losses and expenses, including, but not limited to, attorney fees arising out of, or resulting from the performance of the work to the fullest extent allowed by law on a comparison basis of fault.

3.04 MODIFICATION AND WITHDRAWAL

A. Bids may be withdrawn and/or changed any time prior to the deadline for submission of bids. Bids may not be withdrawn or changed thereafter and shall be deemed a form offer continuing for ninety (90) calendar days. Bids receive after the deadline for submission will be returned unopened at the Owner's discretion.

B. Withdrawal of any Bid after the opening time without specific approval by Owner may result in forfeiture of required bid security by Bidder.

3.05 CODES, ORDINANCES, REGULATIONS AND RELATED

A. All labor and materials shall be furnished and installed in strict accordance with the latest applicable codes, ordinances and regulations of any governing body having jurisdiction over this project.

B. In the event the quality of labor and materials required by the Drawings and Specifications herein exceeds requirements of current applicable codes, ordinances and regulations, the Drawings and Specifications shall take precedence.

C. In the event the quality of labor and materials required by current applicable codes, ordinances and regulations having jurisdiction over this project exceeds that of the Drawings and Specifications herein, the applicable codes, ordinances and regulations shall take precedence.

D. The Contractor shall give all notices and comply with all codes, laws, ordinances, rules, and regulations of any authority having jurisdiction, which bears on the performance of its work. This compliance includes, but is not limited to, the Michigan School Safety Initiative (PA129, PA130, PA131 and PA138) if applicable to work being performed.

E. The Contractor shall pay for all licenses, permits, taxes, and fees required for this project; and shall comply with all federal, state, local and Owner's codes, laws, ordinances, regulations, and other requirements applicable to the work specified at no additional cost to the Owner. Contractor shall submit copies of all approved certificates and approvals to the Owner upon receipt.

3.06 SUB-CONTRACTOR AND MATERIAL SUPPLIER

A. The successful Bidder shall submit to the Owner and Designer a complete list of all sub-contractors and all material suppliers proposed to engage on the work. Sub-contracts shall not be awarded until after they have been approved by the Designer and Owner.

B. Finalist bidders may be required to submit additional details related to sub-contractors and suppliers within forty-eight (48) hours after the bid opening.

C. Names of any principal sub-contractors must be listed on the Bid Form.

D. All contracts made by the successful Bidder with Subcontractors shall be covered by the terms and conditions herein. The successful Bidder shall see to it that Subcontractors are fully informed in regard to these terms and conditions and shall bind all subcontractors to the same terms and conditions. Failure to do so will absolve the Owner from any liability for additional cost due to subcontractor claims for additional cost, time, or any claim(s) for additional cost by subcontractor(s).

3.07 BID RESPONSE FORMAT

A. Bidder shall provide complete Bid copies in two formats as described herein.

1. One (1) Hard copy format responses shall be in a bound tabulated format. Each response shall have tab indicators for each section.

2. One (1) Electronic copy format responses shall be submitted on a USB Drive, readable by a standard Microsoft Windows 10 workstation. Electronic media shall contain separate folders to organize response documentation as described herein. Files submitted electronically shall be ***Adobe Acrobat*** "PDF" format (SCHEDULE OF VALUES is additionally required to be on the disk in the appropriate folder as an ***Excel*** compatible spreadsheet and as described herein).

B. All Bid Response formats shall be clearly externally marked to include, but not be limited to:

1. Bidder identification.

2. Project Owner identification.

3. Project name.

4. Bid submission date.

C. Bid Responses shall include an index containing copies/PDF of a complete index of documents comprising Bid Response. Responses shall include, but not be limited to the following tabbed/folder sections:

1. Section 1 – Forms, which shall contain copies/PDF files of all required and completed bid forms.

   a. BID FORM

   b. Michigan Familial Relationship Disclosure Statement

   c. REFERENCES

   d. CONTRACT EXCEPTIONS

   e. SCHEDULE(s) OF VALUES

   f. BID BOND

2. Section 2 – Overview, which shall contain copies/PDF files of cover letter and/or executive overview.

3. Section 3 – Submittals, which shall contain copies/PDF files of all required and voluntary submittals.

4. Section 4 – Appendices, which shall contain copies/PDF files of other reference materials Bidder wishes to or is required to submit.

3.08 AWARD OF CONTRACT

A. The material proposed to be used for the completion of work, and the competency, solvency and responsibility of bidders will receive due consideration before award of contract. In the reception of bids for this work, the Owner incurs no obligation to accept the lowest, or any bid submitted. The right to accept or reject any and all bids or portion thereof is reserved by the Owner. The Owner reserves the right to require testimonial, accounting or legal documents pertaining to the solvency of a Contractor, or any other decision factor the Owner deems appropriate, prior to award of contract.

B. Owner reserves the right to select individual components from schedule of values independent of installation as may be determined in Owners best interest. Selected bidder may be required to install selected components provided by others.

C. Issuance of a Purchase Order by Owner in response to a valid bid shall be a Notice to Proceed, and shall become part of, but not limited to, all terms, conditions, and requirements herein. Notice to Proceed shall have the full effect of contract award, and shall make all terms, conditions, requirements,

and responsibilities of Bidder binding upon issuance. Notice to Proceed, once issued, shall become an inseparable part of the contract documents herein, and constitute both Bidder and Owner's acceptance of contract.

3.09 TIME, SCHEDULES, PROJECT MANAGEMENT, MEETINGS AND PLANS

A. Time is of the essence on this project. Award of contracts for this project will be contingent on the bidder's agreement to complete the work on or before the contract completion date stated herein.

B. All Contractors will commence work in such a manner and at such a time as to expeditiously interface with the work of other Contractors and will pursue the project diligently to completion. All Contractors will work in a cooperative manner with Owner and other Contractors.

C. Contractor shall appoint an overall Project Manager acceptable to Owner, with skills and experience deemed appropriate by the Owner for the scope and size of the project. Project Manager shall be responsible for the scheduling of all Contractor resources and attending all project meetings. Upon notification of Bidder being considered a finalist, the Bidder shall submit professional resume of proposed Project Manager within forty-eight (48) hours.

1. Project meetings shall be conducted at Owner's selected and identified location weekly and at Owner's and/or Designer's discretion.

2. Within five (5) days of Notice to Proceed (issuance of a Purchase Order by the Owner), Contractor's Project Manager shall provide to the Owner a critical flow path in the form of a "Gantt Chart" (or equivalent) indicating the proposed sequence of events and approximate beginning and completion dates in accordance with, compliance to, and coordinated with requirements herein.

3. Changes of the Project Manager during the project shall not be acceptable without prior written approval from the Owner.

4. It is the responsibility of the Contractor's Project Manager to schedule work, work out issues, ensure that all required products and services are delivered according to schedule and attend to any other matters required by the Owner in the interest of professional and timely completion of the project.

5. The appointed Project Manager, or a designee acceptable to the Owner, shall be in attendance of all project meetings throughout the term of the project. Failure to do so may be considered a material breach of contract.

6. After a ten (10) business day notice, the Owner reserves the right to request a new Project Manager, when it appears that, in the Owner's sole

discretion, the Project Manager is not fulfilling the full responsibilities of the position. Failure by Contractor to provide adequate Project Manager meeting requirements of the Owner, may result in Contract termination.

3.10 CHANGES IN THE WORK

A. No changes in work with the effect of either increasing or decreasing in the project value shall be made without specific and prior authorization by the Owner and Designer.

B. Owner, without invalidating the contract and without notice to any surety, may at any time order extra work or make changes by altering, adding to or deducting from the work, the Contract Sum being adjusted accordingly. All such work shall be authorized by a written Change Order approved by Owner and Contract Designer. Upon receipt of such an order Contractor shall promptly proceed with the work involved. All such work shall be executed under the conditions of the original Contract. Owner authorized change order(s) may be issued at any time prior to Contract close out.

C. When so directed, Contractor shall promptly submit an itemized estimate and a unit price for performing or deleting such extra or changed work as may be contemplated. Any extensions or reductions of the contract time associated with extra or changed work shall be identified at the time Contractor submits such documentation.

D. At the Owner's discretion, adjustments in the Contract Sum shall be determined by one or more of the following methods:

1. By mutual acceptance of a lump sum cost, including overhead and profit, itemized and supported by sufficient substantiating data to permit evaluation.

2. By unit prices stated in the Contract Documents including, but not limited to, Schedule of Values.

3. By unit prices mutually agreed upon.

3.11 PAYMENT REQUESTS AND PAYMENTS

A. Contractor's invoices shall be submitted monthly in correlation with the Project Schedule indicating percentage of work completed.

B. All contract and change order invoices shall be sent directly to Contract Designer.

C. A 10% retainage shall be held back on all payment requests, including, but not limited to hardware, software, change orders and services, until final

completion and close out of the project or project phase as determined by Owner and Designer.

D. Contractors are required to submit all invoices on approved AIA Payment Request Forms or other billing format pre-approved by Contract Designer. Each AIA Payment Request Form shall be accompanied by a properly completed, executed, and notarized Waiver of Lien which shall be in a format and contain verbiage approved by Owner.

E. The Contract Designer and Owner shall process payment requests on a monthly schedule and in accordance with their respective established processes and procedures. Payments will be made by the Owner based only on AIA Request Forms having been previously certified, audited and approved by Contract Designer and accompanied by acceptable Waiver of Lien.

END OF SECTION

SECTION 00 65 00
CONTRACT CLOSE OUT

PART 1 - GENERAL

1.01 WORK INCLUDED

A. Provide an orderly and efficient transfer of the completed work to Owner.

B. Details affecting work of this Section includes but is not limited to all other Sections herein and all related Contract Documents.

C. Activities relative to Contract close-out are described in, but not limited to, this and other Sections of this document.

1.02 SUBSTANTIAL COMPLETION

A. "Substantial Completion" shall be defined as:

1. All responsibilities of Contractor for all provisions and requirements of all divisions and sections of complete Contract herein, and as amended, are properly and fully completed, or properly, accurately, and acceptably provisioned for.

2. All systems, equipment, facilities, services, programming and/or components required by all divisions and sections of complete Contract are fully operational, acceptable, and useful to the Owner for their intended purposes.

B. Prior to requesting inspection by Designer to certify Substantial Completion, Contractor shall use adequate means to assure the Work is completed in accordance with the specified requirements and is ready for such inspection.

PART 2 - MATERIALS

2.01 NOT USED FOR THIS SECTION

PART 3 - EXECUTION

3.01 PROCEDURES

A. Contractor shall submit a written request to Designer indicating they have achieved Substantial Completion of Work.

B. Within a reasonable time after receipt of the request, Designer will inspect Work to determine status of completion.

C. Should Designer determine the Work is not substantially complete:

1. Designer promptly will so notify Contractor, in writing giving reasons therefore and providing sufficient details to allow Contractor to make corrective actions.

2. Contractor shall then expeditiously remedy the deficiencies and notify Designer in writing when ready for re-inspection.

3. Designer will re-inspect the Work.

4. Excessive re-inspections of Work may result in fees being assessed Contractor.

D. Should Designer concur the Work is substantially complete:

1. Designer will prepare a letter of Substantial Completion.

2. Designer will submit the letter to Owner and Contractor.

3. Contract shall be deemed “Closed Out” for retainage purposes.

4. Final Acceptance of the system shall be deemed complete.

END OF SECTION

SECTION 27 51 16
PUBLIC ADDRESS & PROGRAM SYSTEM

PART 1 - GENERAL

1.01 DESCRIPTION OF PROJECT

A. Work described in this specification section pertains to a Public Address System component upgrade at the Plainwell Community Schools new natatorium/fieldhouse. Work shall include, but not be limited to public address head end equipment, amplifier(s), cabling, and/or speakers, interface units and all other components and services required for a full and operational system.

B. Contractor shall propose a system to be installed and connected to the owner's existing infrastructure where possible and replace existing infrastructure if it is inadequate to perform the specified functions.

C. All head-end equipment shall be installed to the Middle School Main Distribution Frame (MDF).

D. The Contractor shall design, engineer, configure, supply, connect, test, document, train Owner representatives and warrant a fully operational and compliant system, complete and with full functionality as specified herein.

E. Contractor shall coordinate their installation with other communication systems, contractors, Designer and the Owner as is appropriate.

1.02 WARRANTY

A. Complete installation shall be fully functional and free from defect and/or failure for a period of three (3) years. Any replacement, upgrade or fix, including labor for any non-conforming or non-operational part of the system shall be fixed and/or replaced at no cost to the Owner.

1. Owner shall be provided full operation of system functions and features during the complete warranty period incurring absolutely no costs during that time.

B. Manufacturer's warranty shall be provided for all components of the system.

1. Any paperwork and/or submittals required by individual manufacturers for compliance with the standard and/or applicable extended warranty programs shall be provided and submitted for approval by the Contractor.

2. Contractor shall submit all paperwork, apply for warranty or extended warranty certification, and provide a Certificate of Warranty or Extended

Warranty as may be applicable from the manufacturer prior to project closeout.

C. On site services provided under the warranty shall be performed by personnel or representatives of Contractor as herein defined and located within physical proximity to provide response levels deemed acceptable to Owner.

D. Contractor shall provide the following response times for all malfunctioning equipment:

1. Four (4) hours or less for matters that render twenty percent (20%) or more of the system users unable to maintain normal productivity.

2. Two (2) business days for matters not meeting the above criteria.

3. Response time shall be measured from the time Contractor is notified by Owner to the time work is begun to resolve the matter.

E. Bidder shall provide current monthly maintenance/service contract pricing for recommended programs for all equipment following the specified and included period as additional information. This information will be considered by Owner and Designer as part of the bid evaluation process.

F. System Warranty shall commence on date of substantial completion as certified by Designer and provided for herein. Delivery to work site of materials, connection of circuits, turn-up of system, physical removal from packaging, issuance of Contractor documents including, but not limited to invoices and/or packing slips, or any event or documentation, not specifically provided for herein, shall have no effect on Warranty or System Acceptance by Owner and/or Designer.

1.03 STORAGE OF MATERIALS

A. All materials shall be secured when not in use by the Contractor.

B. It shall be the Contractor's responsibility to secure all equipment including material to be installed as part of the contract. No changes shall be made to the contract due to loss or theft of equipment and/or materials not officially accepted by the Owner.

C. Formal receipt of the materials shall not be completed by the Owner until completion of project closeout. The Contractor shall be responsible for all equipment until time of closeout as provided for herein.

1.04 SUBMITTALS

A. Submittals shall consist of, but not be limited to, technical cut sheets and detailed information pamphlets on all components of the system to be installed. All cut sheets and submittals shall be distinctly marked to highlight the actual part number of the item being submitted for approval with Bid Proposals.

B. Shop drawings and diagrams shall be submitted by Bidder for approval by Designer with Bid Proposals.

    1. Shop drawings and diagrams shall show all data relating to structural, electrical, wiring, cross connect, interconnect, equipment arrangement/layout, and any other information deemed significant by the Designer.

    2. No work constituting final installation shall be commenced until after approval of shop drawings by Designer.

C. Contractor shall provide proof of manufacturer support by photocopy of certification and letter of support from major component manufacturers for this specific project with Bid Proposals.

D. Equipment or material installed for this project that does not have an approved submittal associated with it, will be removed and replaced with acceptable equipment or material as defined by the Designer. All replacement costs including, but not limited to material and labor, shall be the sole responsibility of the Contractor.

    1. The Owner and/or Designer may notify Contractor of any offending situations under this provision allowing Contractor up to forty-eight (48) hours to correct the situation prior to taking other corrective action.

    2. The Owner reserves the right to replace unapproved materials and deduct the costs of doing so as defined herein from any amounts that may be due, or become due Contractor.

E. The Contractor shall submit within five (5) calendar days after the Notice to Proceed, a schedule that reflects the sequence of activities of the contractor's approach to the execution of and completion of the work. The schedule shall be broken into work areas to provide for a clear identification of the planned progress of the work. Included in the schedule will be a list of tasks with list of deliverables and the percentage of work completed. This schedule shall coincide with progress payments applications dates and projected amounts. All durations shown will be in working days. The timeframe described in the Contractor's Schedule shall represent the Contractor's plan for organizing, directing, managing, controlling, staffing and executing the work required by the Contract Documents. Owner will rely on such schedules to coordinate and

otherwise plan related work of Owner personnel, other separate contractors, or the Owner's routine daily work.

1.05 REFERENCE SPECIFICATIONS

A. All work, products, and materials shall conform with the following standards as applicable for the intended use:

1. EIA/TIA Commercial and Administration Standards

2. NEC

3. IEEE 802

4. IETF RFCs

5. FCC Emissions Ratings

6. UL

7. MOSHA Safety Standards

1.06 CONTRACTOR

A. The Contractor shall accept complete responsibility for the installation, certification and support of the system. Contractor shall be an authorized vendor of all major components.

B. All work shall be performed and supervised by Project Managers, Engineers and/or Technicians who are qualified to install Voice Communication System and perform related tests as recommended by the manufacturer and in accordance with the manufacturer's best practices and methods.

C. Project Managers, Engineers and Technicians employed on this project shall be properly and fully trained and qualified by the manufacturer on the installation and testing of the equipment and systems to be installed.

D. The Contractor shall be Q-SYS Level Two and Control 201 certified

E. The Contractor shall have a proven track record in Public Address System configuration and installation. This must be shown by the inclusion of references of at least three (3) projects involving the installation of similar systems completed by the Contractor in the prior two (2) years on unaltered forms with the sealed Bid Proposal as provided herein.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Manufacturer of major components of the included Public Address / Paging system shall be known and leading entity in the relevant communications field, and shall have been designing, manufacturing and installing similar systems for a period of no less than three (3) years.

1. Acceptable Manufacturers

a. ATLASIED

b. BOGEN

c. CAREHAWK/DUKANE

d. Q-SYS

e. TELECOR

f. VALCOM

g. Or Equal

B. System manufacturer shall support a centralized management software instance to collectively and centrally manage all speakers and all buildings throughout the scope of the project.

2.02 Supply most current version of all products provided.

A. Prior and/or old versions of products, unless specifically approved and documented by Designer and/or Owner shall not be acceptable.

B. In cases where a newer version of hardware or software is available at the time of installation, Contractor shall request clarification from Designer on which version is to be used.

2.03 Furnish only new, first-class quality materials and equipment.

2.04 PUBLIC ADDRESS AND PROGRAM SYSTEM

A. A fully compliant public address and program system shall be configured and installed to service Owner's worksites listed herein. Each facility shall be capable of independent administration of all program functions and meet or exceed all functional and performance requirements as established herein.

B. Administration access to <u>all</u> system functions shall be by both computer via a web browser across the Owner's existing data network and by telephone from the Owner's system provided by others and shall be protected by unique and secure log on.

C. System administrator shall be capable of complete system back-up and full system restoration from a previously saved configuration.

D. In the event of a power failure, complete system shall automatically re-initialize and "become active" to the last configuration in use with no human intervention.

E. Contractor shall supply new speakers in locations identified on provided diagrams and as specified herein.

F. CENTRAL CONTROLLER

1. Contractor shall integrate new paging speakers with existing paging infrastructure.

2. Contractor shall integrate new speakers zones into existing Q-SYS 110F system. Contractors shall fully configure existing system, including all licensing, labor and programming to allow connection to each identified zone and to existing Plainwell Middle School all call zone.

3. Contractor shall provide and install necessary amplifiers to support the following new speaker zones.

    a. Fieldhouse

    b. Natatorium

    c. All other speaker locations in new addition

4. Contractor shall supply two (2) speech amplifier(s) for supplied speaker lines.

    a. Amplifiers shall meet or exceed the following requirements:

        1. Powersoft – Mezzo 322 AD or equivalent

        2. AES67 and Dante networking capability

        3. Gigabit Ethernet

        4. Two (2) channels

        5. 160W per channel @ 25V

    b. Feedback elimination precautions or system features shall be employed to suppress any audio coupling between and audio source and nearby speaker.

c. All building-based equipment shall be installed in IT closet locations.

d. Gain control of alarms and announcements shall be individually configurable to different volume levels.

e. Amplifiers provided shall include internal overload and shutdown protection.

f. Amplifiers provided shall have anti-clipping protection.

g. The unit shall operate from standard owner supplied 110 VAC power outlets within six feet (6') of required rack mounting in normal ambient climatic conditions for office communication closets.

G. INTERIOR RECESSED (2x2) CEILING SPEAKER

1. Acceptable Manufacturer(s)

   a. ATLASIED

   b. BOGEN

   c. QUAM

   d. VALCOM

   e. Or Equal.

1. Interior Speakers shall be provided in classrooms, corridors and/or other common public areas of the facility as identified on provided drawings and as provided for herein. See locations as identified on drawings as **S1**.

   1. Final speaker placement shall be adjusted as needed for appropriate audio intelligibility, volume levels and ceiling obstructions and/or conditions and shall remain the responsibility of the Contractor.

2. Speakers shall provide balanced intelligible sound that is free of distortion, free from noise and evenly dispersed.

3. Ceiling Grid Mounted 2'x2' high-efficiency speaker.

4. Maximum power – 15 watts @ 8-ohm

5. SPL @ 1W/1M – 94 dB

6. 8" main cone with secondary high-frequency cone

7. Front accessible volume control

8. 70V/25V, 4-watt transformer (4,2,1,0.5, 0.25) taps: selected by rotary switch.

9. Seismic attachment points

10. Bright white color.

11. Frequency response – 80 Hz – 20 kHz

12. Speaker baffles shall be installed with hardware matching the color of the baffle. Baffle color shall match finished ceiling color.

13. Where necessary, Contractor shall supply any necessary T bracket or support rail crossbar for a fully finished installation.

14. All baffles shall be flush against the ceiling and enclosures shall be fully supported. All recessed speakers shall include an integral back box.

15. All devices, including but not limited to, amplifiers, brackets, baffles, and Control Unit shall be mounted square and plumb and as recommended by the manufacturer and required by Owner and Architect.

16. Each speaker shall be connected to central equipment using approved and appropriate media.

17. All speaker cabling shall be installed using manufacturer-recommended media and installation practices.

18. Each speaker shall be volume adjustable at installation to accommodate specific acoustical properties of the intended coverage area.

19. Coordinate final placement of speakers with Designer and/or Architect.

    1. Area of coverage will be such that calls will be clearly audible in the operating area and surrounding space.

20. Contractor shall include all parts and accessories for a fully functional and securely installed system using manufacturer and industry best practices.

H. INTERIOR SURFACE MOUNT SPEAKER

1. Acceptable Manufacturer(s)

    a. ATLASIED

    b. BOGEN

    c. QUAM

d. VALCOM

e. Or Equal.

2. Interior Speakers – Surface Mount shall be provided in classrooms, corridors and/or other common public areas of the facility as identified on provided drawings and as provided for herein. See locations as identified on drawings as **S2**.

    a. Final speaker placement shall be adjusted as needed for appropriate audio intelligibility, volume levels and ceiling obstructions and/or conditions and shall remain the responsibility of the Contractor.

3. Speakers shall provide balanced intelligible sound that is free of distortion, free from noise and evenly dispersed.

4. 8" main cone with secondary high-frequency cone

5. Front accessible volume control

6. 70V/25V, 4-watt transformer (4,2,1,0.5, 0.25) taps: selected by rotary switch.

7. Seismic attachment points

8. Bright white color with appropriate, square, color matched back box.

9. Frequency response – 80 Hz – 20 kHz

10. All devices, including but not limited to, amplifiers, brackets, baffles, and Control Unit shall be mounted square and plumb and as recommended by the manufacturer and required by Owner and Architect.

11. Each speaker shall be connected to central equipment using approved and appropriate media.

12. All speaker cabling shall be installed using manufacturer-recommended media and installation practices.

13. Each speaker shall be volume adjusted at installation to accommodate specific acoustical properties of the intended coverage area.

14. Coordinate final placement of speakers with Designer and/or Architect.

    a. Area of coverage will be such that calls will be clearly audible in the operating area and surrounding space.

15. Contractor shall include all parts and accessories for a fully functional and securely installed system using manufacturer and industry best practices.

I. INTERIOR PAGING HORN

1. Acceptable Manufacturer(s)

   a. ATLASIED

   b. BOGEN

   c. QUAM

   d. VALCOM

   e. Or Equal.

2. Interior paging horn devices shall be provided in common public areas of the facility as identified on provided drawings and as provided for herein. See locations as identified on drawings as **S3**.

   a. Final speaker placement shall be adjusted as needed for appropriate audio intelligibility, volume levels and ceiling obstructions and/or conditions and shall remain the responsibility of the Contractor.

3. Speakers shall be fully enclosed in a provided vandal-resistant surface mount box with heavy gauge steel.

4. Speakers shall provide balanced intelligible sound that is free of distortion, free from noise and evenly dispersed.

5. 3.5” Speaker Element with .75” voice coil.

6. Audio output – 108 dB @ 4’

7. Signal/noise ratio: -70db

8. 70V/25V, 4-watt transformer (4,2,1,0.5, 0.25) taps: selected by rotary switch.

9. Seismic attachment points

10. Bright white color.

11. Frequency response – 400 Hz – 10 kHz

12. All devices, including but not limited to, amplifiers, brackets, baffles, and Control Unit shall be mounted square and plumb and as recommended by the manufacturer and required by Owner and Architect.

13. Each speaker shall be connected to central equipment using approved and appropriate media.

14. All speaker cabling shall be installed using manufacturer-recommended media and installation practices.

15. Each speaker shall be volume adjusted at installation to accommodate specific acoustical properties of the intended coverage area.

16. Coordinate final placement of speakers with Designer and/or Architect.

    a. Area of coverage will be such that calls will be clearly audible in the operating area and surrounding space.

17. Contractor shall include all parts and accessories for a fully functional and securely installed system using manufacturer and industry best practices.

18. Example: Valcom V-9880

J. EXTERIOR PAGING HORN

1. Acceptable Manufacturer(s)

    a. ATLASIED

    b. BOGEN

    c. QUAM

    d. VALCOM

    e. Or Equal.

2. Exterior paging horn devices shall be provided in common public areas of the facility as identified on provided drawings and as provided for herein. See locations as identified on drawings as **S4**.

    a. Final speaker placement shall be adjusted as needed for appropriate audio intelligibility, volume levels and ceiling obstructions and/or conditions and shall remain the responsibility of the Contractor.

3. Weather-proof exterior horns shall be provided and installed.

4. Horns shall meet or exceed the following requirements:

a. Weatherproof

b. Tilt and swivel base for easy positioning

c. 15 watts continuous

d. Frequency response of 225Hz – 14 kHz.

e. Output rating of 121 dB @ 4’ with 15-watt input at 1000 Hz

f. Each speaker shall be connected to central equipment with approved and appropriate media using established and approved pathways to provide for system wide broadcast and/or zone-specific broadcast.

g. Exterior speakers are new and will require cabling to support connectivity to new system. Contractor shall supply all materials and labor to discreetly connect exterior speaker zone to supplied paging system for independent addressability.

5. Final placement of exterior horns shall be carefully coordinated with Designer and Architect.

6. Example: Valcom V-1036C

K. LED STROBE/VISUAL INDICATORS

1. LED Strobe/Visual Indicators shall be installed in the following locations (with quantity). See included technology drawings for locations and quantities, strobe devices are indicated by the **ST** symbol :

   a. Natatorium – Four (4)

   b. Fieldhouse – Four (4)

2. System shall be capable of providing a bright and visible indicator when paging system is engaged. Indicator shall be blue in color.

3. Indicators shall be installed and integrated into Public Address System for consistent and reliable operation.

4. Device shall flash 1-3 times at the initiation of a page, and then remain illuminated throughout the duration of the address. Power for the device is the responsibility of the Contractor.

5. Contractor shall supply all parts, accessories and labor for a fully functional system.

6. In locations where multiple devices are installed in the same area, all strobe devices shall be synchronized.

L. COMPONENT INTERCONNECTION

1. All wiring not installed in conduit shall be plenum type cable and shall be so identified with continuous marking.

2. No wiring installed shall be visible unless specifically and individually approved by Owner and Designer.

3. The wiring color shall remain the same throughout the system. Colors used for coding shall be as directed by the system manufacturer, Owner and Architect.

4. Wire shall be copper.

M. Owner shall provide adequate ethernet ports in the designated MDF and IDF locations for the connection of all devices required for system operation. Contractor shall remain responsible for all connection to switches, including, but not limited to patch cables at both the closet and device location. All patch cable colors must be coordinated with Owner to match Owner site standards.

2.05 ALLOWANCES

A. Contractor shall include allowances for equipment and/or other contract service reimbursements as required below in base bid lump sum amount(s). Equipment and/or contract services shall be provided and sourced at Owner's discretion and convenience with full cooperation by Contractor and paid for from successful bidder's contract in the amount(s) provided for herein. Any allowance amount proving to be excessive for the intended equipment and/or contract services shall be credited to the Owner against contract payment requests.

1. Allowance shall be made in the amount of $3,000.00 for contract services related to Owner directed infrastructure upgrades, installation and configuration.

PART 3 - EXECUTION

3.01 PREPARATION

A. Contractor shall conduct detailed walk-through examination verifying equipment and material locations as well as mounting and placement requirements prior to commencement of other installation activities.

B. Contractor shall ensure all submittals and shop drawings have been provided to, and approval has been obtained from Designer prior to commencement of any final installation activities.

3.02 INSTALLATION

A. Contractor shall be familiar with the environment where work will be done as specified herein.

B. Work Areas shall be cleaned at the end of each day. All debris shall be cleared, removed and disposed of in an approved container for the site. All equipment and tools shall be removed from common areas and stored in approved, secure storage locations. Any work that may impede the general use of the space and cannot be removed shall be flagged and cordoned off by the Contractor prior to their departure.

C. All equipment and materials shall be installed in a neat and workmanlike manner. Best practices installation principles shall be used throughout the project.

D. The Contractor shall furnish, set in place, and install all equipment necessary for a fully compliant and operational system as specified herein. The installation process includes, but is not limited to the following:

1. Inventory receipt of all components and equipment.

2. Storage of all equipment and components until such time those items are installed according to the specifications.

3. Transport equipment to the Owner's installation location(s).

4. Assemble, install, configure and test all equipment and components, maintaining accurate inventory records and status documents and discarding packaging.

5. Collect all information necessary to accurately program all sets and/or system devices to the Owner's intended use and need.

6. Complete end user and system administrator training programs as specified herein.

7. Work shall be performed to meet local codes and industry standards, including, but not limited to:

a. Adequate gas tube protection for outside plant cable connections.

b. Grounding and Bonding.

8. Work includes extending cable bundles, as required, to Owner identified equipment installation locations at all locations.

9. Owner will provide contractor with permanent asset tags for each system component that exceeds $100.00 in value. Equipment installed in wiring closets will have district asset tags installed in a prominent location. Assets installed in public areas, such as staff desktop devices, will have asset tags installed in discreet but consistent area of each asset.

    a. Asset number, device/component description, serial number, make, model, part-number, site, room number/name and any other critical asset information shall be recorded for Owner.

E. Contractor shall program all bells, alerts and schedules into the system to support initial operations. No Owner programming shall be required for successful system cut over in any building.

F. Worksites include the following:

1. Plainwell Community Schools – Natatorium/Fieldhouse

G. It shall be the responsibility of the Contractor to repair or replace any damage done to the structure of finishes in the building by the Contractor. If in the course of work, Contractor damages, marks or misplaces any surfaces or access plates/panels the Contractor shall repair and/or replace the surface, plate or panel to the original condition.

1. Final determination as to the damage condition and/or repair/replacement fitness of any surface, plate or panel shall be the sole responsibility of the Designer.

2. The building and work area shall be returned to its original condition prior to final sign off of the project.

H. Following installation and prior to final acceptance of the system, Contractor shall conduct follow-up interviews with Owner identified administrators and staff to review system functionality, suitability and confirm feature and program fitness for Owner applications.

1. Follow-up interviews shall be fully documented by Contractor and submitted to Owner for approval.

I. Contractor shall collect, consolidate and otherwise prepare for shipping or disposal Owner’s existing telecommunications system components, including, but not limited to stations, processors, cards, options, and application servers in a manner acceptable to, and consistent with, Owner’s intended disposition of the items.

3.03 TESTING

A. In an effort to ensure a smooth cut-over to the new system Contractor shall submit to a thorough testing process as defined herein prior to cut-over. Testing shall include, but not be limited to the following:

1. 100% of all speakers

2. Paging and Public Address programming

B. Prior to requesting testing by Designer, the Contractor shall use adequate means to assure the Work is completed in accordance with the specified requirements, meets the owner's specific application requirements and is ready for functionality and integrity testing.

C. PROCEDURES

1. Prior to system cut-over, Contractor shall submit a written request to Designer indicating they have completed full and final configuration of the system, and are ready to have system integrity and functionality tested.

2. Within reasonable time after receipt of request, Designer will provide a test schedule and coordinate testing date(s) with Owner and Contractor.

3. Should Designer determine the Work is not acceptably configured or not of adequate integrity:

a. Designer promptly will so notify Contractor, giving reasons therefore and providing sufficient details to allow Contractor to make corrective actions.

b. Contractor shall then expeditiously remedy the deficiencies and notify Designer in writing when ready for re-testing.

c. Designer will schedule re-test of the Work.

d. Excessive re-testing of Work may result in fees being assessed Contractor.

4. Should Designer and Owner concur the Work is configured properly, and system integrity is as required:

a. Designer will review Contractors detailed cut-over plan, and upon finding it acceptable issue a memorandum of Testing Completion to Owner and Contractor after which system cut-over can proceed.

3.04 DOCUMENTATION

A. Contractor shall, throughout the completion of the project, provide Owner a file storage system that shall include all necessary equipment (file drawers, folders, dividers, etc.), to contain all as-built drawings, owner's manuals of all equipment installed, warranty and maintenance information and other information the Contractor, Designer and/or Owner deem necessary.
B. Contractor shall be responsible for providing thorough, timely documentation on all hardware, software. Documentation shall include, but not be limited to:
   1. Equipment description.
   2. Equipment make.
   3. Model number.
   4. Software release.
   5. Date installed.
   6. Manufacturer's warranty.
   7. Maintenance contract terms.
   8. Verification of maintenance contract engagement.
   9. Telephone numbers for service and support.
   10. Detailed technical support and service procedure instructions.
   11. All product (hardware and software) manuals and manufacturer supplied documentation, including, but not limited to owner manuals, system administrator manuals and configuration guides. Where number of duplicate copies for particular manual or documentation item could be reasonably considered excessive, Contractor shall request direction from Owner and Designer.
   12. Photocopy of original invoice listing make and model for all components and equipment from individual manufacturer(s), distribution source(s), or authorized agent(s) to establish manufacturer warranty start date for potential use after end of contract warranty provisions.
   13. As built drawings for each building.
   14. Dial Plan Report.
   15. Complete inventory of installed station hardware and system software. Hardware inventory shall include set type (model number), Ethernet MAC address, station serial number, extension number, station user's name,

location, software groups (including call pick-up, intercom, class of service, speed call, etc.).

3.05 TRAINING

A. Training shall be conducted at the Owner's discretion and at times and places convenient to Owner personnel. Prior to any training being conducted, Contractor shall provide Owner and Designer with detailed training syllabus and schedule for proposed training event. Compliant syllabus and schedule shall be provided at least ninety-six 96 hours in advance. Owner reserves the right to postpone training if syllabus and/or schedule submitted are deemed inadequate. Training shall not be conducted until such time a syllabus and schedule submitted by Contractor are found to be acceptable to Owner.

3.06 SCHEDULE, MEETINGS AND PLANS

A. Planned sequence of operations shall be established by the Contractor within the guidelines established by the Owner, as required herein and as required to meet schedules.

B. Schedule

1. Post bid Interviews: Week of September 23, 2023

2. Contractor Chosen: Week of October 15, 2023

3. Work Commences: January 1, 2024 – as construction allows

4. Substantial Completion of Project: June 1, 2024

5. Project Close-out: July 1, 2024

C. All work shall be coordinated with Owner's construction manager on site.

D. Planned sequence of operations shall be established by the Contractor within the guidelines established by the Owner, as required herein and as required to meet schedules.

E. All work shall be coordinated with Owner's construction manager on site.

F. Project progress meetings shall be held, but not limited to, weekly at a site and time identified as convenient for Owner and as required herein. Meetings will be attended as required herein.

END OF SECTION

SECTION 28 13 00
BUILDING ACCESS SYSTEM

PART 1 - GENERAL

1.01 DESCRIPTION OF PROJECT

A. Work described in this specification section pertains to the installation of new access control system equipment in the new Plainwell Community Schools Natatorium and Field House addition.

B. Contractor shall advise, coordinate, and work cooperatively with Owner representatives and/or owner's designee related to any installation or special security provisions.

C. The Contractor shall design, engineer, configure, supply, connect, test, document, train Owner representatives and warrant a fully operational and compliant system, complete and with full functionality as specified herein.

D. Contractor shall coordinate their installation with other contractors, Designer and the Owner as is appropriate.

1.02 WARRANTY

A. Complete installation shall be free from defect and/or failure for a period of three (3) years. Any replacement, upgrade, or fix, including labor for any non-conforming or non-operational part of the system shall be fixed and/or replaced at no cost to the Owner.

B. Manufacturer's warranty shall be provided for all components of the system.

1. Any documents and/or submittals required by individual manufacturers for compliance with the standard and/or applicable extended warranty programs shall be provided and submitted for approval by the Contractor.

2. Contractor shall submit all documents, apply for warranty or extended warranty certification, and provide a Certificate of Warranty or Extended Warranty as may be applicable from the manufacturer prior to project closeout.

C. On site services provided under the warranty shall be performed by personnel or representatives of Contractor as herein defined and located within physical proximity to provide response levels deemed acceptable to Owner.

D. Contractor shall provide the following response times for all malfunctioning equipment:

1. Eight (8) hours or less for matters that render twenty percent (20%) or more of the system unable to maintain normal functionality.

2. Two (2) business days for matters not meeting the above criteria.

3. Response time shall be measured from the time Contractor is notified by Owner to the time work is begun to resolve the matter.

E. To facilitate continued satisfactory operation during warranty period, Contractor shall provide the following warranty services at least once each year during the warranty term:

1. Review of all central server and/or processor logs and files to address errors and/or system anomalies to ensure continued compliance with manufacturer recommended best practices.

2. Application of latest versions of all applicable manufacturer firmware, software upgrades/updates and any manufacture recommended patches and/or system fixes across the entire system, including, but not limited to all hardware components as well as server(s), to maintain the system in the most current configuration recommended by manufacturers.

3. Ensure all Owner documentation and record documents are updated with current and accurate information including, but not limited to equipment/material locations, specific system component hardware models, serial numbers, Software and firmware versions, installation locations, settings, compliance level with district standards of installation, configuration, workmanship, and Server configuration parameters.

4. Functional testing of each system component across the entire enterprise system to ensure all components are functional at manufacturer documented levels.

F. Bidder shall provide current annual maintenance contract pricing for recommended maintenance programs for all equipment following the specified and included period as a Voluntary Alternate. This information will be considered by Owner and Designer as part of the bid evaluation process.

G. System Warranty shall commence on date of substantial completion as certified by Designer and provided for herein. Delivery to work site of materials, physical removal from packaging, issuance of Contractor documents including, but not limited to invoices and/or packing slips, or any event or documentation, not specifically provided for herein, shall have no effect on Warranty or System Acceptance by Owner and/or Designer.

1.03 STORAGE OF MATERIALS

A. All materials shall be secured when not in use by the Contractor.

B. It shall be the Contractor's responsibility to secure all equipment including material to be installed as part of the contract. No changes shall be made to the contract due to loss or theft of equipment and/or materials not officially accepted by the Owner.

C. Formal receipt of the materials shall not be completed by the Owner until completion of project closeout. The Contractor shall be responsible for all equipment until time of closeout as provided for herein.

1.04 SUBMITTALS

A. Submittals shall consist of, but not be limited to, technical cut sheets and detailed information pamphlets on all components of the system to be installed. All cut sheets and submittals shall be distinctly marked to highlight the actual part number of the item being submitted for approval with Bid Proposals.

B. Shop drawings and diagrams shall be submitted by Bidder for approval by Designer with Bid Proposals.

1. Shop drawings and diagrams shall show all data relating to structural, electrical, wiring, cross connect, interconnect, equipment arrangement/layout, and any other information deemed significant by the Designer.

2. No work constituting final installation shall be commenced until after approval of shop drawings by Designer.

C. Contractor shall provide proof of manufacturer support by photocopy of certification and letter of support from major component manufacturers for this specific project with Bid Proposals.

D. Equipment or material installed for this project that does not have an approved submittal associated with it, will be removed, and replaced with acceptable equipment or material as defined by the Designer. All replacement costs including, but not limited to material and labor, shall be the sole responsibility of the Contractor.

1. The Owner and/or Designer may notify Contractor of any offending situations under this provision allowing Contractor up to forty-eight (48) hours to correct the situation prior to taking other corrective action.

2. The Owner reserves the right to replace unapproved materials and deduct the costs of doing so as defined herein from any amounts that may be due, or become due Contractor.

E. The Contractor shall submit within ten (10) calendar days after the Notice to Proceed, a schedule that reflects the sequence of activities of the contractor's

approach to the execution of and completion of the work. The schedule shall be broken into work areas to provide for a clear identification of the planned progress of the work. Included in the schedule will be a list of tasks with list of deliverables and the percentage of work completed. This schedule shall coincide with progress payments applications dates and projected amounts. All durations shown will be in working days. The timeframe described in the Contractor's Schedule shall represent the Contractor's plan for organizing, directing, managing, controlling, staffing, and executing the work required by the Contract Documents. Owner will rely on such schedules to coordinate and otherwise plan related work of Owner personnel, other separate contractors, or the Owner’s routine daily work.

1.05 REFERENCE SPECIFICATIONS

A. All work, products, and materials shall conform with the following standards as applicable for the intended use:

1. IEEE

2. EIA/TIA Commercial and Administration Standards

3. NEC

4. FCC – All Applicable Rules and Regulations

5. UL

6. MIOSHA Safety Standards

1.06 CONTRACTOR

A. The Contractor shall accept complete responsibility for the installation, certification, and support of the system. Contractor shall be an authorized vendor of all major components.

B. All work shall be performed and supervised by Project Managers, Engineers and/or Technicians who are qualified to install system and perform related tests as recommended by the manufacturer and in accordance with the manufacturer’s best practices and methods.

C. Contractor shall comply with Owner’s policies related to background checks for any personnel who work on the project.

D. Project Managers, Engineers and Technicians employed on this project shall be properly and fully trained and qualified by the manufacturer on the installation and testing of the equipment and systems to be installed.

E. The Contractor shall have a proven track record in security system configuration and installation. This must be shown by the inclusion of references of at least three (3) projects involving the installation of similar systems completed by the Contractor in the prior two (2) years on unaltered forms with the sealed Bid Proposal as provided herein. Bid Proposal Form(s) may be duplicated as required in order to provide adequate space to list required number of reference installations for each division Bidder is responding to.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Acceptable Manufacturers (In alphabetical order):

1. ACRE/VANDERBILT

2. MERCURY

2.02 Supply most current version of all products provided.

A. Manufacturer shall have five (5) years of experience and history manufacturing similar products to those specified.

B. Proposed components shall have been field tested and proven in actual use.

C. Prior and/or old versions of products, unless specifically approved and documented by Designer and/or Owner shall not be acceptable.

D. In cases where a newer version of hardware or software is available at the time of installation, Contractor shall request clarification from Designer on which version is to be used.

2.03 Furnish only new, first-class quality materials and equipment.

2.04 System shall be comprised of interoperable components including, but not limited to, controller, credential sensors and management software integrated into a common working system.

2.05 System administrator shall be capable of complete system back-up and full system restoration from a previously saved configuration.

2.06 System shall be of a distributed processing design with a fully distributed database including, but not limited to time, date, valid codes, access levels and related data so that each Controller makes access control decisions for that location. If communications with central station equipment is lost, all transactions shall be buffered until the restoration of a connection to the central station.

2.07 In the event of a power failure, complete system shall automatically re-initialize and "become active" to the last configuration in use with no human intervention.

2.08 Contractor shall be responsible for final and working system. Use of existing components and materials provided by others during new construction shall be integral to system configuration and cost-effective installation. Bidders are encouraged to use all compatible and working components in system solution.

2.09 CENTRAL MANAGEMENT SOFTWARE

A. Central management software shall meet or exceed the following:

1. Contractor shall provide and fully configure all necessary licensing for existing Vanderbilt SMS door access system for all provided equipment. Licensing shall be valid for the term of the warranty.

2. Contractor shall fully configure Vanderbilt SMS door access software to Owner requirements for a fully functional system.

3. Contractor shall provide all necessary licensing and labor to upgrade entire Vanderbilt SMS door access software to the latest version to allow the usage of Mercury hardware.

4. System shall provide for Owner definition of access groups, schedules and door groups that can be combined by Owner's system administrator into combinations of access policies for users.

2.10 CONTROLLERS

A. In general, Contractor shall provide and install the appropriate number of controllers and I/O monitoring/control expansion interfaces as needed to handle the number of card readers, locking devices, door status devices, and alarm inputs provided for herein and in the included appendices or a fully integrated, functional, and operational system.

1. Mercury based hardware to support multiple software vendor's systems. Proprietary hardware will not be favorably considered.

B. Contractor shall provide Door Controller(s) as needed which shall provide, but not be limited to:

1. Support a wide range of reader technologies, including OSDP, Wiegand, NFC, Bluetooth, and biometric.

2. 802.3at compliant 10/100/1000 PoE+ Ethernet port.

3. Two (2) inputs for credential readers.

4. Two (2) outputs for door interface hardware.

5. Door controllers shall be installed in IT closet locations and be enclosed in an appropriate tamper proof enclosure.

6. Contractor shall supply all necessary expansion boards for all provided devices as identified in provided door schedule.

7. Contractor shall supply all necessary power supplies for door controller devices.

8. Product shall be Mercury LP series.

2.11 CREDENTIAL READERS

A. Where indicated on drawings, credential readers (CR) shall be provided that meet or exceed the following requirements:

1. HID R40 SE Smart Card Reader

2. Read Contractor supplied credentials.

3. DC powered from associated Controller.

4. Response time for passage requests of 800ms.

5. Sealed weatherproof shell enclosure rated for outdoor operation.

6. Surface mounted on exterior surface of structure.

7. LED or other type of visual indicator indicating request status.

8. Audible status indicator upon user prompt.

9. Range of four inches (4”).

B. See provided door schedule for quantities and locations.

C. Contractor shall supply mullion mount device where applicable.

2.12 POWER SUPPLIES

A. Contractor shall supply and integrate all necessary power supply devices to properly power all door hardware provided on door schedule. Power supply devices shall be centralized in IT closet locations. Contractor shall supply all materials and labor to connect power supplies to door hardware as necessary.

2.13 COMPONENT INTERCONNECTION

A. All wiring not installed in conduit shall be plenum type cable and shall be so identified with continuous marking.

B. Wiring color shall remain the same throughout the system. Colors used for coding shall be as directed by the system manufacturer, Owner, and Designer.

C. Wire shall be copper.

2.14 ALLOWANCES

A. Contractor shall include allowances for equipment and/or other contract service reimbursements as required below in base bid lump sum amount(s). Equipment and/or contract services shall be provided and sourced at Owner's discretion and convenience with full cooperation by Contractor and paid for from successful bidder's contract in the amount(s) provided for herein. Any allowance amount proving to be excessive for the intended equipment and/or contract services shall be credited to the Owner against contract payment requests.

1. Allowance shall be made in the amount of $5,000.00 for contract services related to supply, installation and connection of related Owner provided hardware.

PART 3 - EXECUTION

3.01 PREPARATION

A. Contractor shall conduct detailed walk-through examination with Designer and Owner verifying equipment and material locations as well as mounting and placement requirements prior to commencement of other installation activities.

B. Contractor shall insure all submittals and shop drawings have been provided to, and approval has been obtained from Designer prior to commencement of any final installation activities.

3.02 INSTALLATION

A. ELECTRONIC DOOR HARDWARE INSTALLATION

1. 12v PoE low voltage strikes will be provided by others as part of Section 08700 work and shall be integrated into the Credential Readers installation by Contractor where indicated on drawings and as specified herein.

a. Security Contractor shall supply necessary manufacturer supported cable to connect strike to Contractor supplied Credential Readers.

b. Security Contractor shall be responsible for installation and integration of cabling in pathways in door frames provided by Others.

c. Security Contractor shall be responsible for connecting and integrating any voltage regulation hardware (Smart Pac) if identified in door schedule.

2. 24v electric latch retraction door exit devices will be provided by Others as part of the Section 08700 work and shall be integrated with credential reader installation by Contractor where identified on drawings and as specified herein.

   a. Security Contractor shall supply necessary manufacturer supported cable to connect latch retraction device to Contractor Credential Readers.

   b. Security Contractor shall be responsible for installation and integration of cabling in pathways in door frames provided by Others.

   c. Security Contractor shall be responsible for the sizing and supply of necessary 24V power supplies to support powered door hardware as indicated on door schedule.

   d. Security Contractor shall be responsible for the mounting and configuration of necessary 24V power supplies to power door hardware indicated on door schedule. Contractor will work collaboratively with electrical contractor to safely connect provided power supplies.

3. Door sets of 1 will operate as follows:

   a. Security Contractor to integrate card reader and door controller with provided electric strike. Door will be unlocked in the event of a successful card read.

   b. Security Contractor to supply all necessary cabling and installation for a fully functional system.

4. Door sets of 2 will operate as follows:

   a. Security Contractor to integrate card reader and door controller with either electric strikes or electric latch retraction devices where applicable. In the event of a successful card read, both doors should unlock.

5. Door sets of 4 will operate as follows:

a. Security Contractor to integrate card reader and door controller with provided electric strike or latch retraction hardware. Door 1, closest to card reader, will be integrated with provided card reader and will unlock in the event of a successful card read.

b. Security Contractor to integrate card reader and door controller with provided electric strike or latch retraction hardware. Doors 2-4 will be operable to unlock on a schedule. Security Contractor shall supply necessary expansion boards and all necessary cabling and accessories for a fully functional system for each set of doors.

6. All door strike and latch retraction cables shall of a sufficient length to be neatly routed by Contractor, to a location suitable to reach Credential Reader and/or power supply for door(s).

7. Provided Credential Readers shall be integrated with door handicap operators where applicable. Contractor shall supply all labor and accessories to integrate Credential reader with handicap operators for a safe and fully functional system. Contractor shall work collaboratively with handicap operator installers to verify the following functionality:

   a. External operator buttons shall only be functional in the event of a successful card read or remote door unlatch. Door operator motor should only be operable in the event of a successful card read.

   b. Internal operator buttons shall be functional at all times, the door should unlock automatically.

   c. Security Contractor to supply all hardware necessary including accessories and installation to enable this capability.

8. Provided Credential Readers shall be integrated with mag hold opens provided by others.

   a. Mag hold open devices identified on drawings will be integrated into building access control system. Mag hold opens shall be capable of scheduled to be disengaged in on a schedule. Security Contractor shall supply necessary equipment to integrate mag hold open devices where applicable.

   b. When doors are in a locked state, mag hold opens shall be de-energized.

B. Contractor shall be familiar with the environment where work will be done as specified herein and make every reasonable effort to minimize interference with Owner's or other contractor's activities.

C. Work Areas shall be cleaned at the end of each day. All debris shall be cleared, removed, and disposed of in an approved container for the site. All equipment and tools shall be removed from common areas and stored in approved, secure storage locations. Any work that may impede the general use of the space and/or other contractor's work and cannot be removed shall be flagged and cordoned off by the Contractor prior to their departure.

D. All equipment and materials shall be installed in a neat and workmanlike manner. Best practices installation principles shall be used throughout the project.

E. The Contractor shall furnish, set in place, and install all equipment necessary for a fully compliant and operational system as specified herein. The installation process includes, but is not limited to the following:

1. Inventory receipt of all components and equipment.

2. Storage of all equipment and components until such time those items are installed according to the specifications.

3. Transport equipment to the Owner's installation location(s).

4. Assemble, install, configure, and test all equipment and components, maintaining accurate inventory records and status documents and discarding packaging.

5. Collect all information necessary to accurately program all system devices to the Owner's intended use and need.

6. Label all system devices as may be appropriate and required by Owner and Designer.

7. Complete end user and system administrator training programs as specified herein.

8. Work shall be performed to meet local codes and industry standards including proper grounding and bonding of installed equipment.

F. Worksites include the following:

1. Plainwell Community Schools – Natatorium/Fieldhouse

G. It shall be the responsibility of the Contractor to repair or replace any damage done to the structure of finishes in the building by the Contractor. If in the course of work, Contractor damages, marks, or misplaces any surfaces or access plates/panels the Contractor shall repair and/or replace the surface, plate, or panel to the original condition.

1. Final determination as to the damage condition and/or repair/replacement fitness of any surface, plate or panel shall be the sole responsibility of the Designer.

2. The building and work area shall be returned to its original condition prior to final sign off of the project.

H. Following installation and system "turn-up", but prior to final acceptance of the system, Contractor shall conduct follow-up interviews with Owner identified administrators and staff to review system functionality, suitability and confirm feature and program fitness for Owner applications.

1. Follow-up interviews shall be fully documented by Contractor and submitted to Owner for approval.

3.03 TESTING

A. In an effort to ensure a smooth "turn-up" of the new system Contractor shall submit to a thorough testing process as defined herein prior to cut-over.

B. Prior to requesting testing by Designer, the Contractor shall use adequate means to assure the Work is completed in accordance with the specified requirements, meets the owner's specific application requirements and is ready for functionality and integrity testing.

C. Testing Procedures

1. Prior to system "turn-up", Contractor shall submit a written request to Designer indicating they have completed full and final configuration of the system and are ready to have system integrity and functionality tested.

2. Within reasonable time after receipt of request, Designer will provide a test schedule and coordinate testing date(s) with Owner and Contractor.

3. Should Designer determine the Work is not acceptably configured or not of adequate integrity:

a. Designer promptly will so notify Contractor, giving reasons therefore and providing sufficient details to allow Contractor to make corrective actions.

b. Contractor shall then expeditiously remedy the deficiencies and notify Designer in writing when ready for re-testing.

c. Designer will schedule re-test of the Work.

d. Excessive re-testing of Work may result in fees being assessed Contractor.

4. Should Designer and Owner concur the Work is configured properly and system integrity is as required:

    a. Designer will review Contractors detailed “turn-up” plan, and upon finding it acceptable issue a memorandum of Testing Completion to Owner and Contractor after which system “turn-up” can proceed.

DOCUMENTATION

D. Contractor shall, throughout the completion of the project, provide Owner a file storage system that shall include all necessary equipment, including if reasonably required, file drawers, folders, dividers, etcetera, to contain all as-built drawings, owner’s manuals of all equipment installed, warranty and maintenance information and other information the Contractor, Designer and/or Owner deem necessary. Documentation shall also be provided in a digital format in file formats and on media as specified by Owner and/or Designer.

E. Contractor shall be responsible for providing thorough, timely documentation on all hardware, software. Documentation shall include, but not be limited to:

    1. Equipment description.

    2. Equipment make.

    3. Model number.

    4. Software release.

    5. Date installed.

    6. Manufacturer's warranty.

    7. Maintenance contract terms.

    8. Verification of maintenance contract engagement.

    9. Telephone numbers for service and support.

    10. Detailed technical support and service procedure instructions.

    11. All product (hardware and software) manuals and manufacturer supplied documentation, including, but not limited to owner manuals, system administrator manuals and configuration guides. Where number of duplicate copies for particular manual or documentation item could be reasonably considered excessive, Contractor shall request direction from Owner and Designer.

12. Photocopy of original invoice listing make and model for all components and equipment from individual manufacturer(s), distribution source(s), or authorized agent(s) to establish manufacturer warranty start date for potential use after end of contract warranty provisions.

13. CAD as built drawings for each building.

14. System Configuration Report.

15. Complete inventory of installed hardware and system software. Hardware inventory shall include, but not be limited to, model numbers, serial number, physical installation location and software/firmware options.

3.04 TRAINING

A. Training shall be conducted at the Owner's discretion and at times and places convenient to Owner personnel. Prior to any training being conducted, Contractor shall provide Owner and Designer with detailed training syllabus and schedule for proposed training event. Compliant syllabus and schedule shall be provided at least ninety-six 96 hours in advance. Owner reserves the right to postpone training if syllabus and/or schedule submitted are deemed inadequate. Training shall not be conducted until such time a syllabus and schedule submitted by Contractor are found to be acceptable to Owner.

3.05 SCHEDULE, MEETINGS AND PLANS

A. Schedule

1. Post bid Interviews: Week of September 23, 2023

2. Contractor Chosen: Week of October 15, 2023

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5. Project Close-out: July 1, 2024

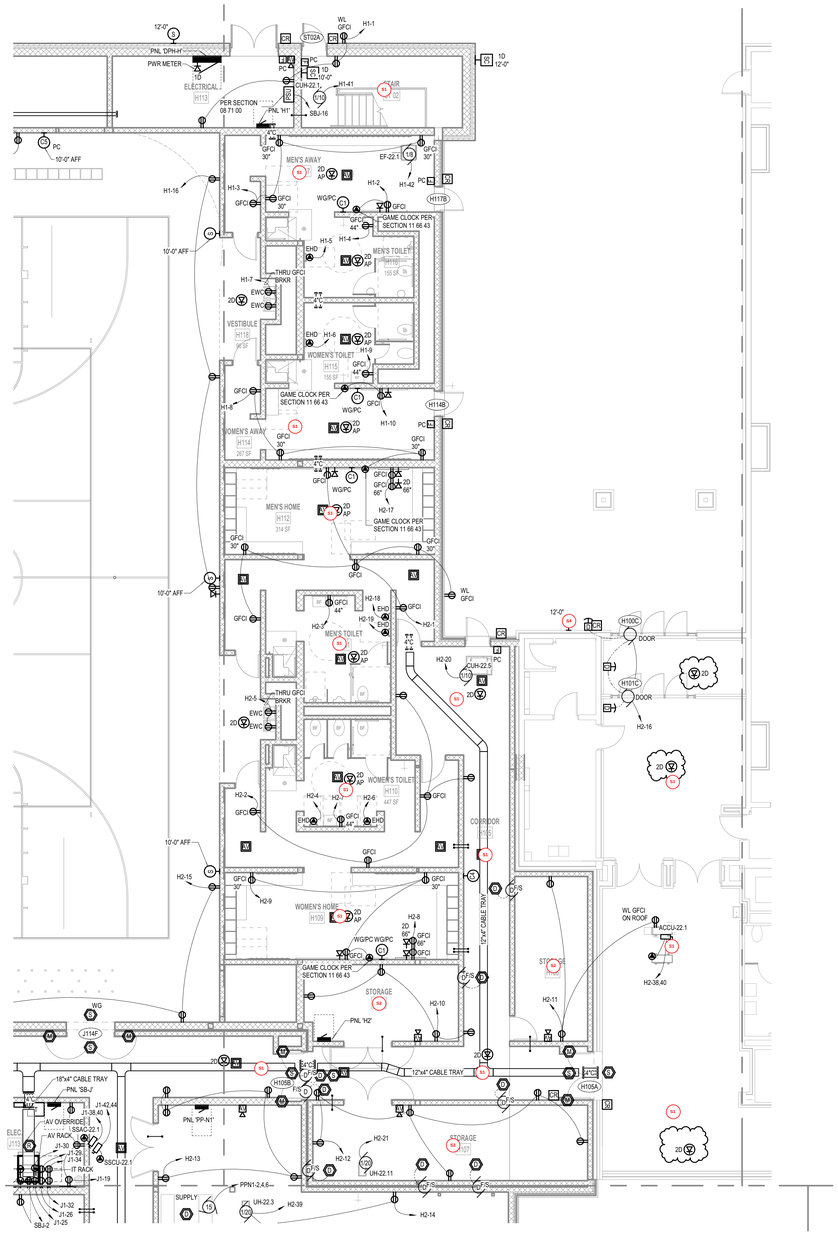
B. Planned sequence of operations shall be established by the Contractor within the guidelines established by the Owner, as required herein and as required to meet schedules.

C. All work shall be coordinated with Owner's construction manager on site.

D. Project progress meetings shall be held, but not limited to, weekly at a site and time identified as convenient for Owner and as required herein. Meetings will be attended as required herein.

END OF SECTION

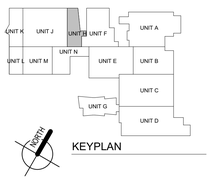
Appendix A



NORTH

UNIT 'H' FIRST FLOOR POWER & COMMUNICATIONS PLAN

1/8" = 1'-0"



KEYPLAN

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POOL & GYM ADDITION

PLAINWELL COMMUNITY SCHOOLS

PLAINWELL, MICHIGAN

ISSUANCES

E2.1H

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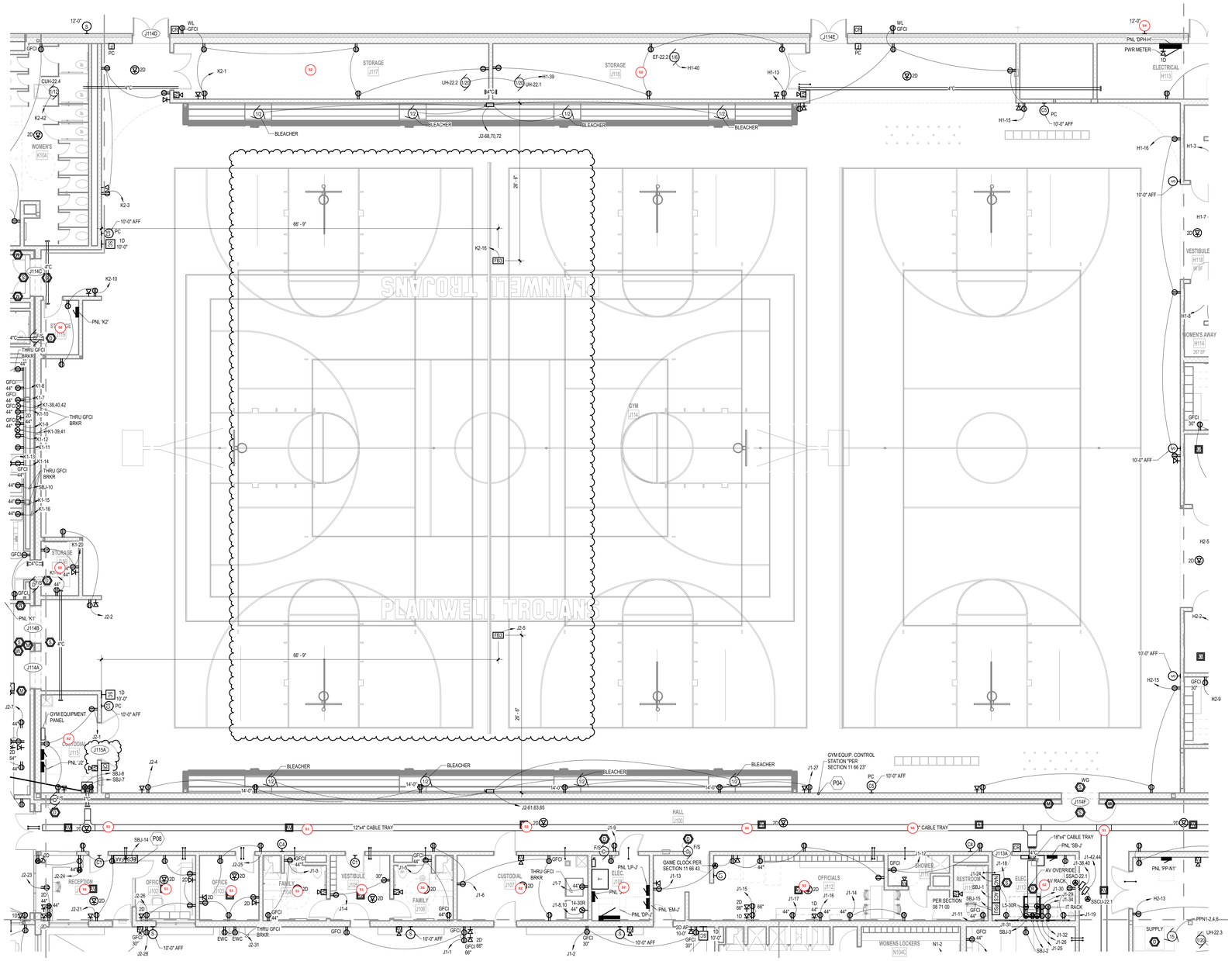
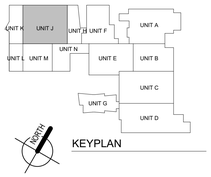
Appendix A



NORTH

UNIT 'J' FIRST FLOOR POWER & COMMUNICATIONS PLAN

1/8" = 1'-0"



NORTH

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POOL & GYM ADDITION

PLAINWELL COMMUNITY SCHOOLS

PLAINWELL, MICHIGAN

ISSUANCES

E2.1J

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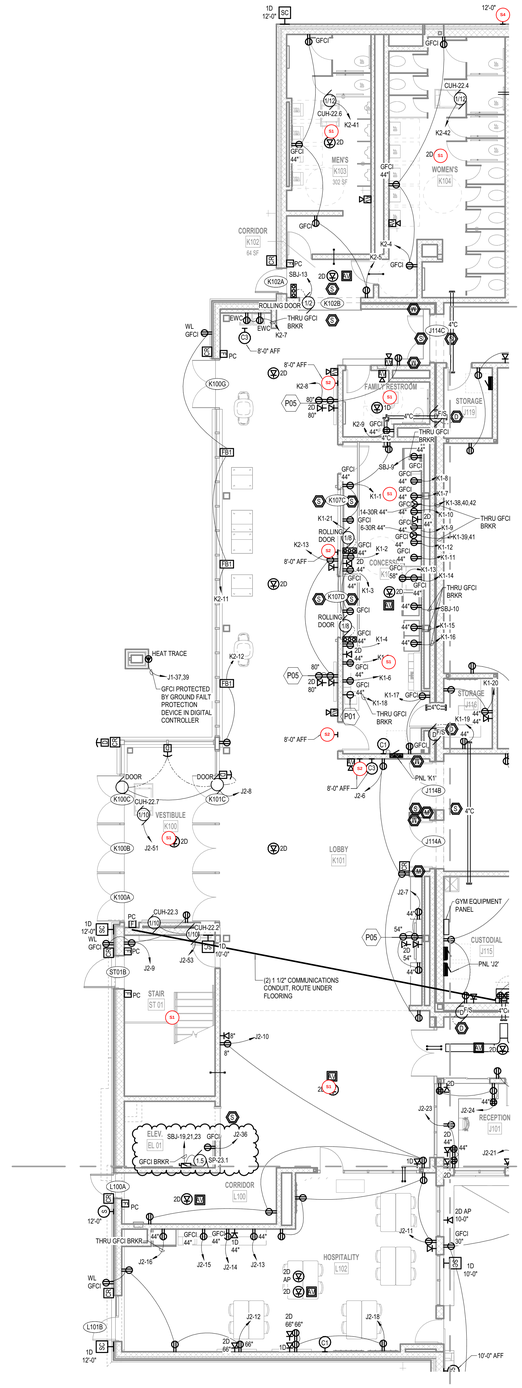
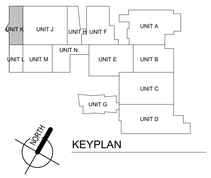
Appendix A



NORTH

UNIT 'K' FIRST FLOOR POWER & COMMUNICATIONS PLAN

1/8" = 1'-0"



NORTH

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POOL & GYM ADDITION

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ISSUANCES

E2.1K

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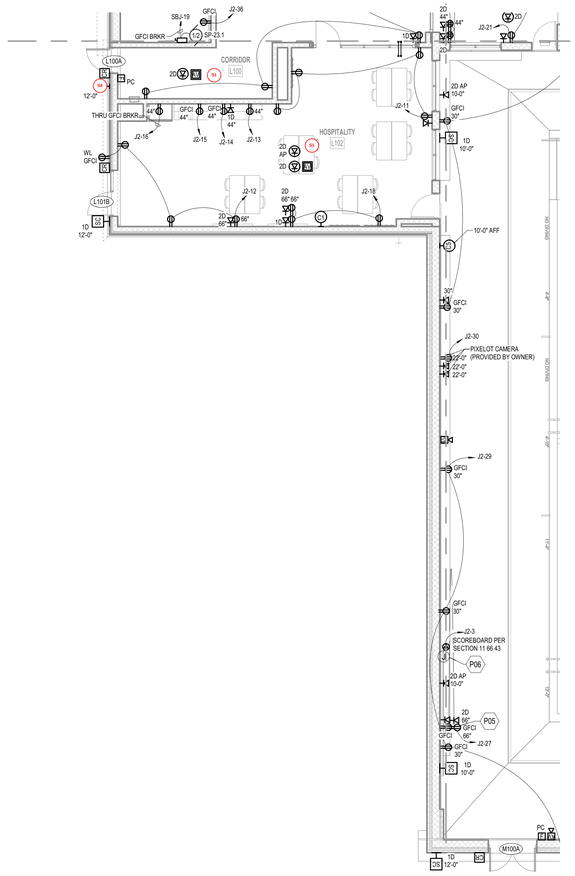
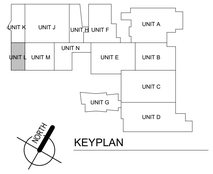
Appendix A



NORTH

UNIT 'L' FIRST FLOOR POWER & COMMUNICATIONS PLAN

1/8" = 1'-0"



NORTH

KEYPLAN

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POOL & GYM ADDITION

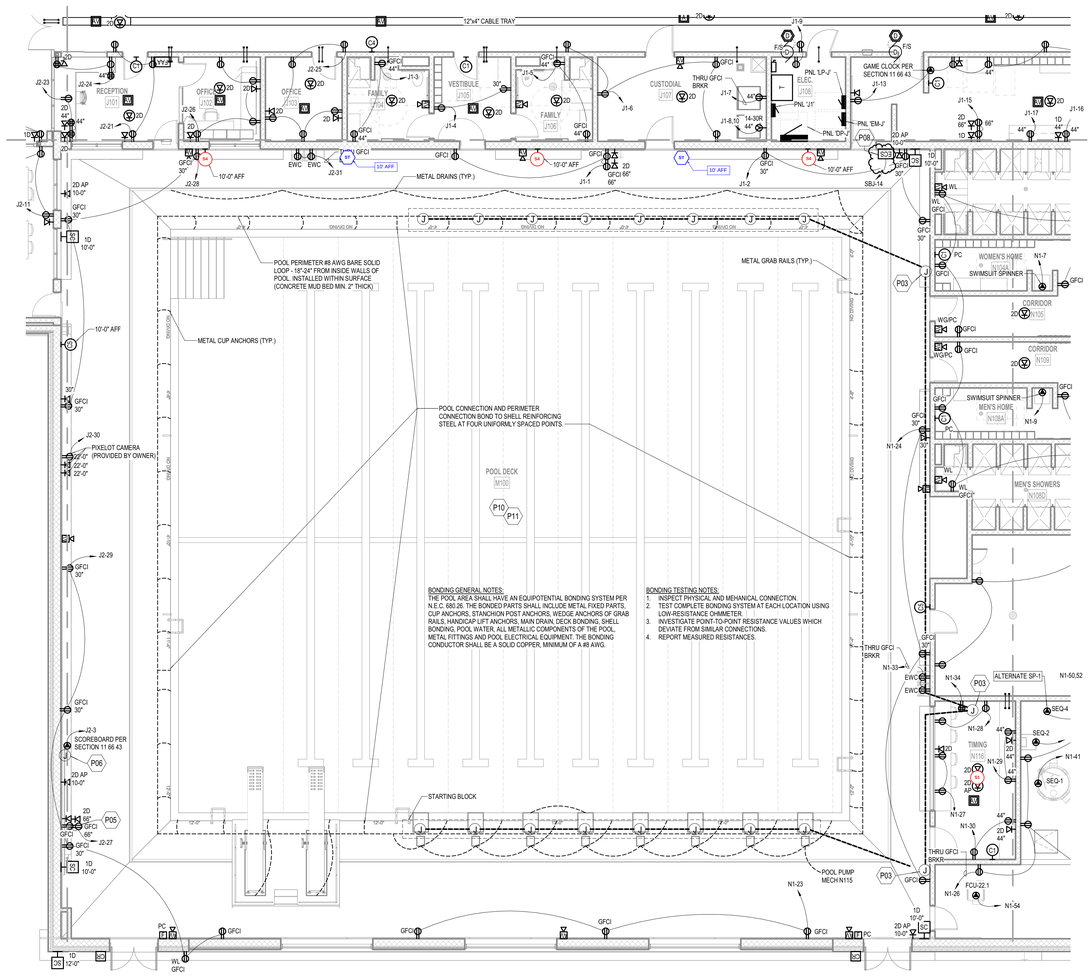
PLAINWELL COMMUNITY SCHOOLS

PLAINWELL, MICHIGAN

ISSUANCES

E2.1L

Appendix A



NORTH

UNIT 'M' FIRST FLOOR POWER & COMMUNICATIONS PLAN

1/8" = 1'-0"

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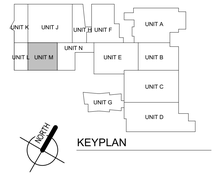
POOL & GYM ADDITION

PLAINWELL COMMUNITY SCHOOLS

PLAINWELL, MICHIGAN

ISSUANCES



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KEYPLAN

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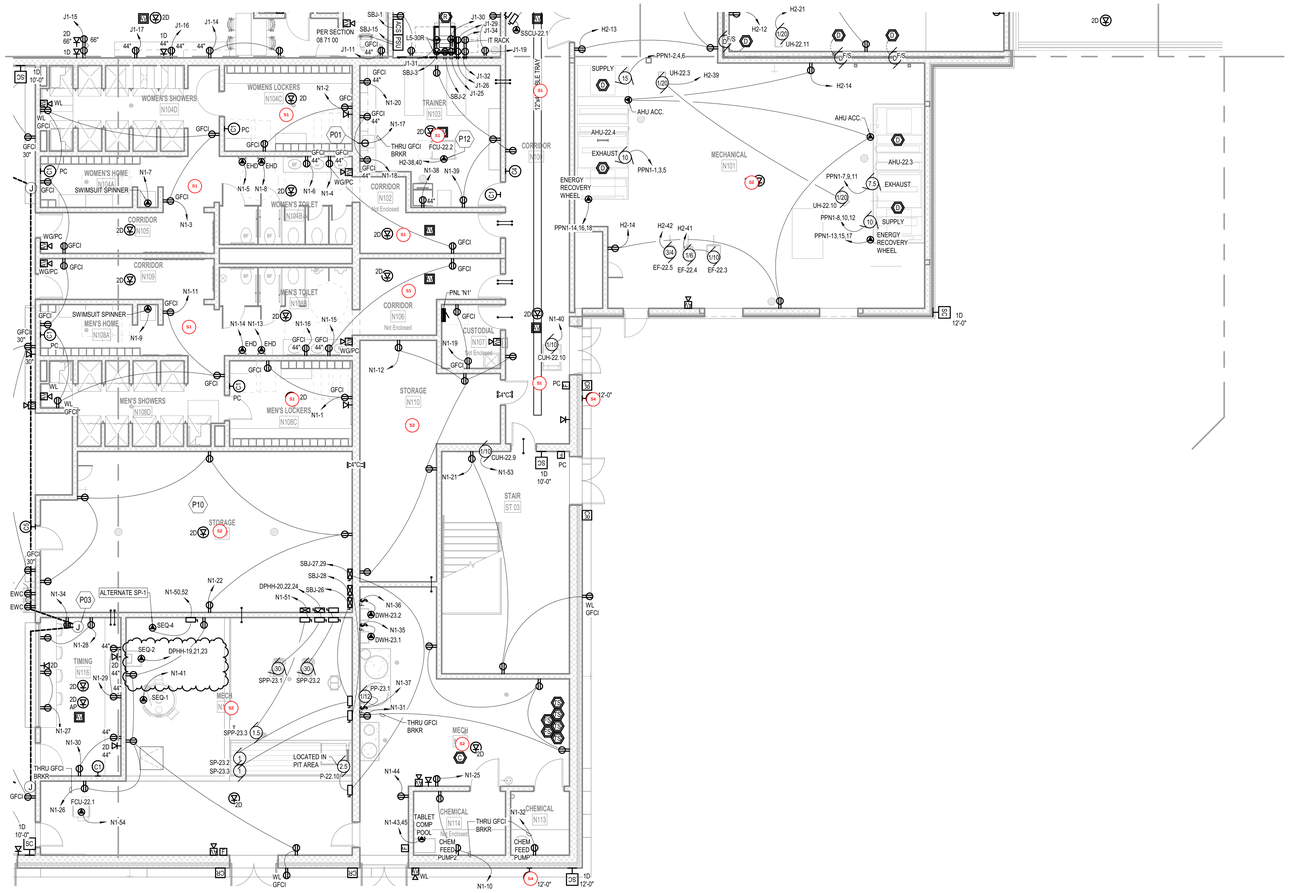
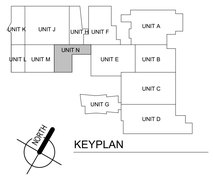
Appendix A



NORTH

UNIT 'N' FIRST FLOOR POWER & COMMUNICATIONS PLAN

1/8" = 1'-0"



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POOL & GYM ADDITION

PLAINWELL COMMUNITY SCHOOLS

PLAINWELL, MICHIGAN

E2.1N

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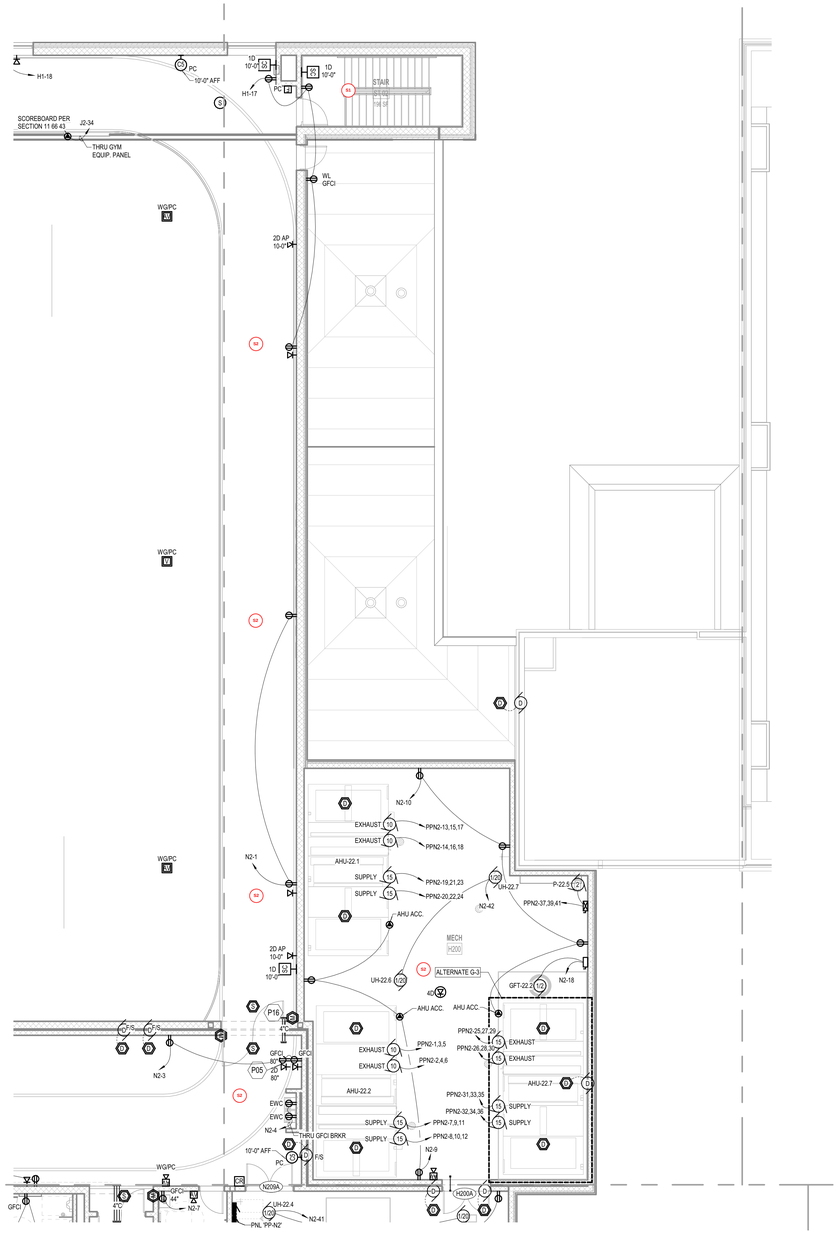
Appendix A



NORTH

UNIT 'H' SECOND FLOOR POWER & COMMUNICATIONS PLAN

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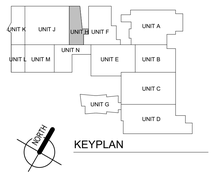

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POOL & GYM ADDITION

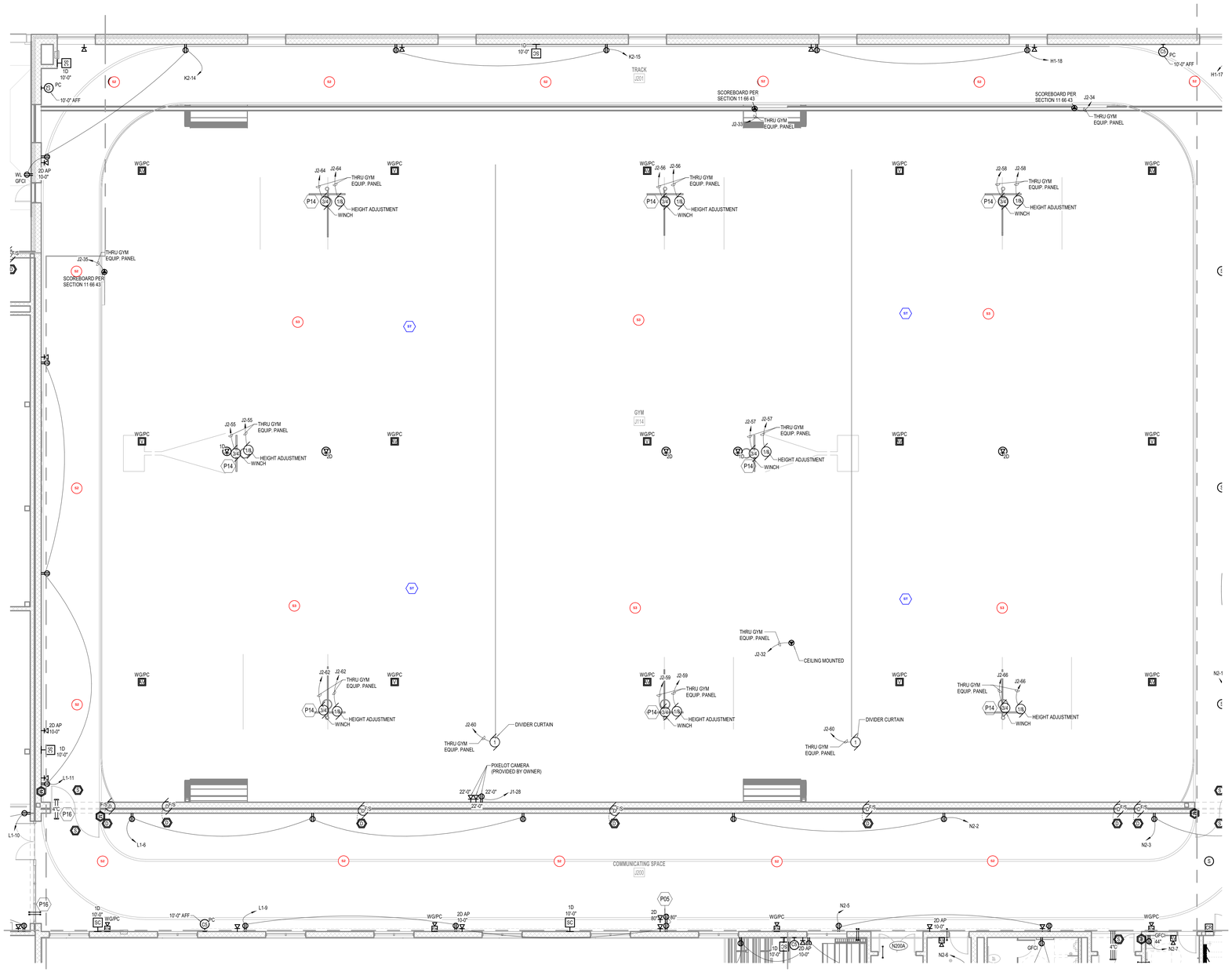
PLAINWELL COMMUNITY SCHOOLS

PLAINWELL, MICHIGAN

ISSUANCES

E2.2H

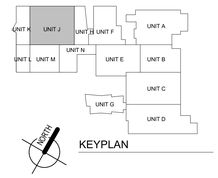
Appendix A



NORTH

UNIT 'J' SECOND FLOOR POWER & COMMUNICATIONS PLAN

1/8" = 1'-0"



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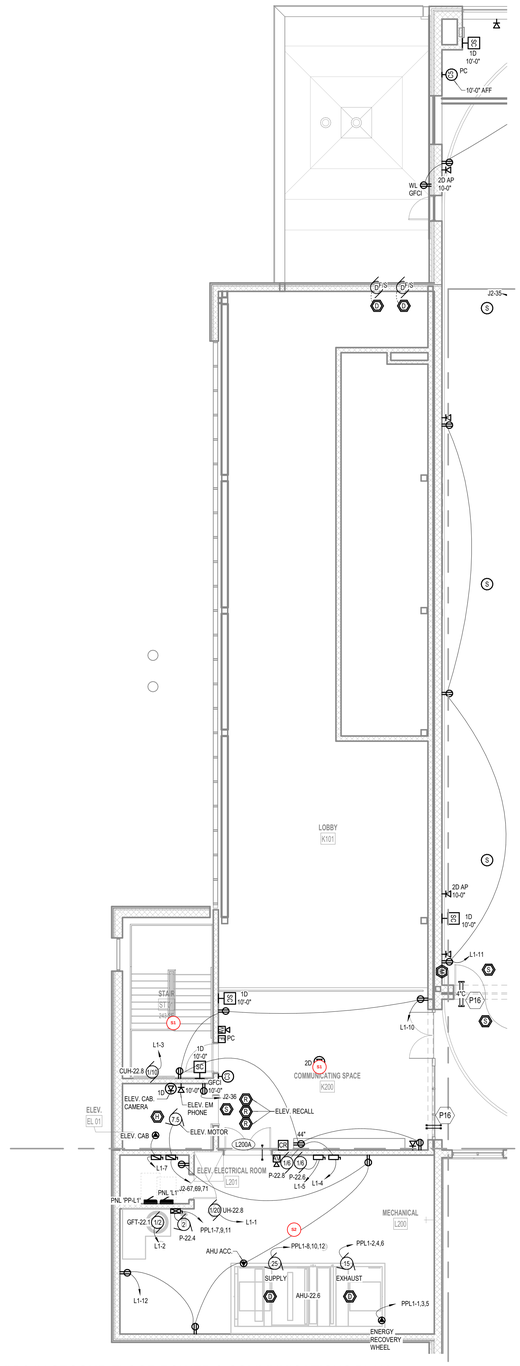
POOL & GYM ADDITION

PLAINWELL COMMUNITY SCHOOLS

PLAINWELL, MICHIGAN

ISSUANCES

Appendix A



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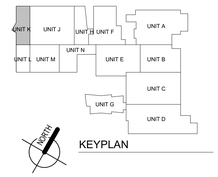
UNIT 'K' & 'L' SECOND FLOOR POWER & COMMUNICATIONS PLAN

1/8" = 1'-0"



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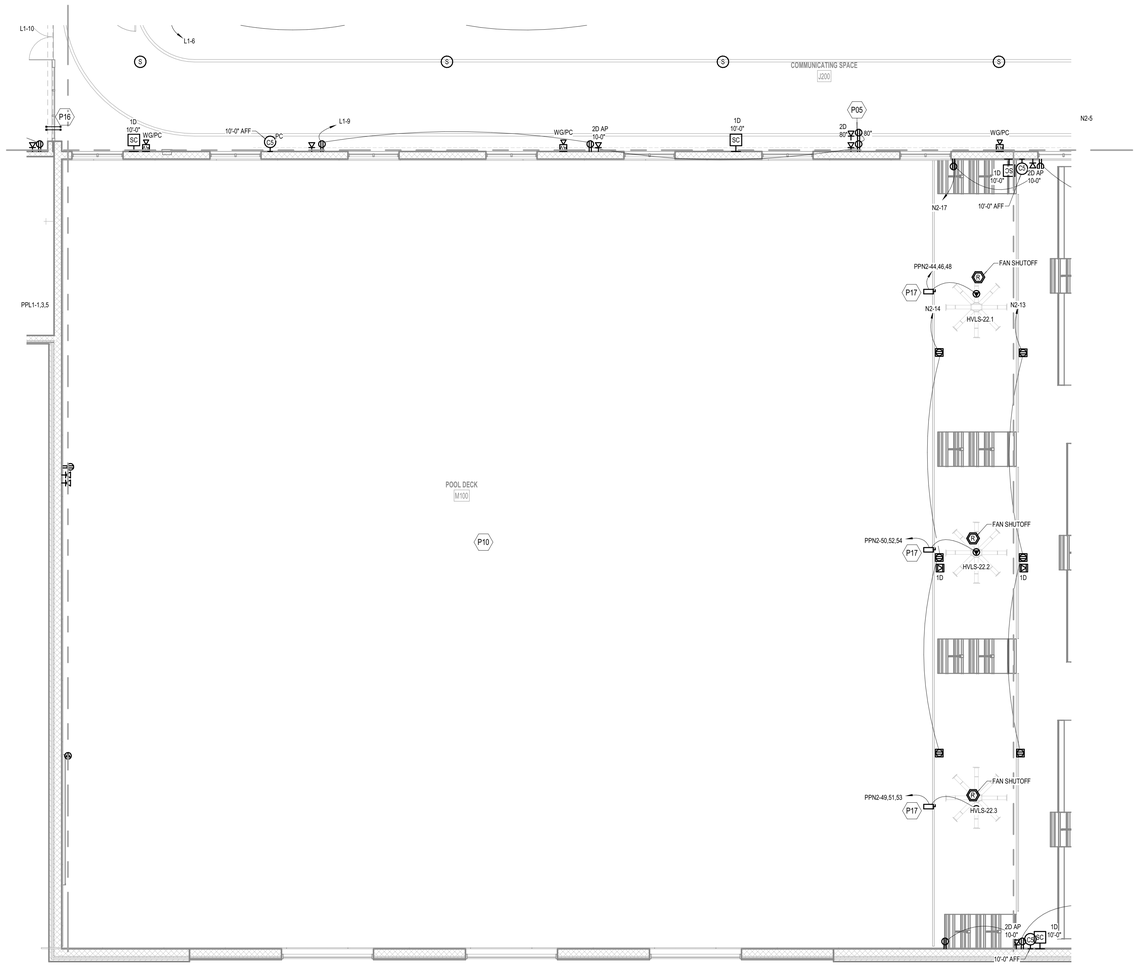
POOL & GYM ADDITION

PLAINWELL COMMUNITY SCHOOLS

PLAINWELL, MICHIGAN

ISSUANCES

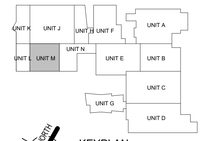
Appendix A



NORTH

UNIT 'M' SECOND FLOOR POWER & COMMUNICATIONS PLAN

1/8" = 1'-0"



NORTH

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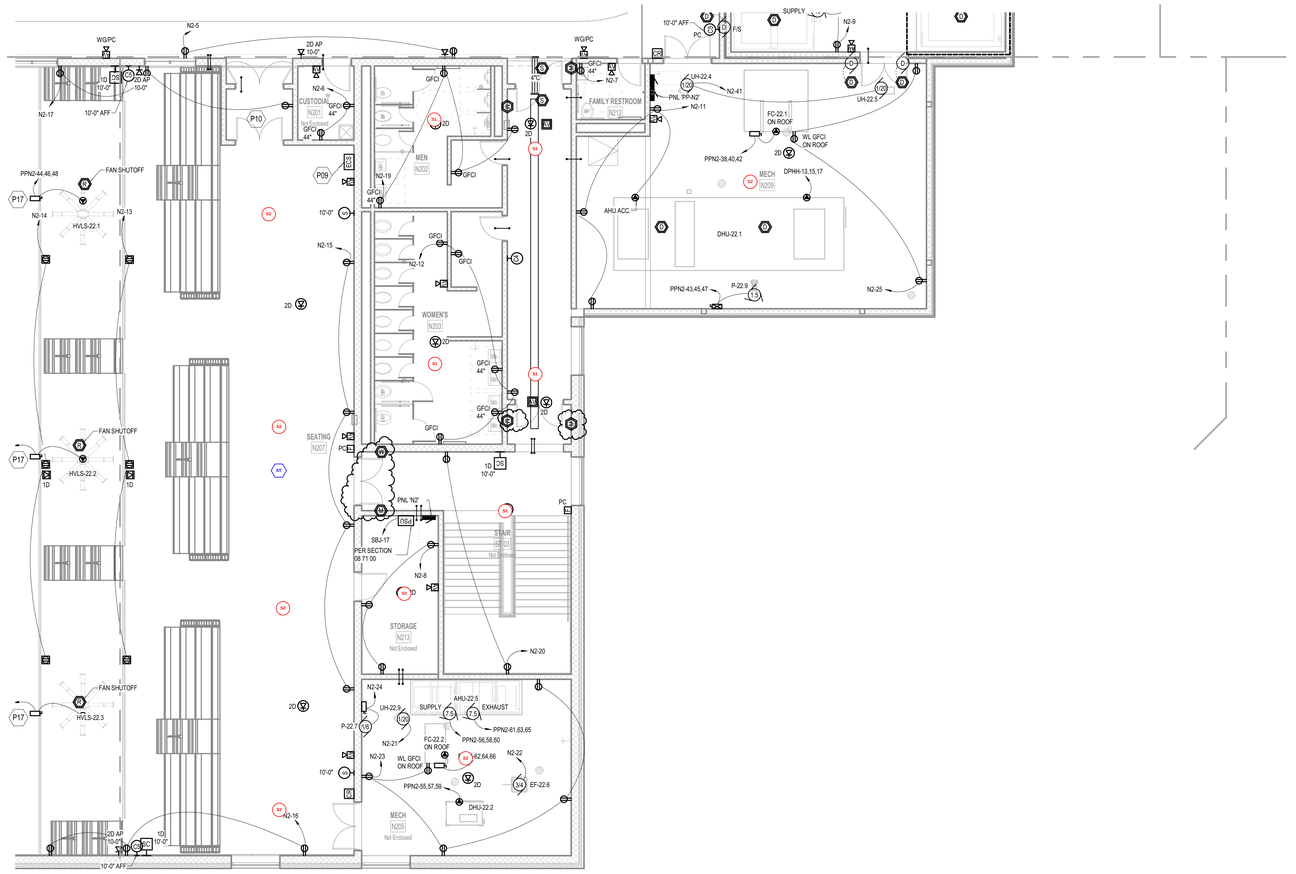
POOL & GYM ADDITION

PLAINWELL COMMUNITY SCHOOLS

PLAINWELL, MICHIGAN

ISSUANCES

Appendix A



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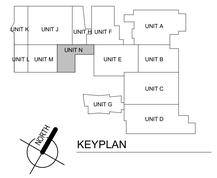
UNIT 'N' SECOND FLOOR POWER & COMMUNICATIONS PLAN

1/8" = 1'-0"



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POOL & GYM ADDITION

PLAINWELL COMMUNITY SCHOOLS

PLAINWELL, MICHIGAN

ISSUANCES

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SECTION 08 71 00 – DOOR HARDWARE
(BULLETIN 010)

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes:
   1. Mechanical and electrified door hardware.
   2. Electronic access control system components.

B. Section excludes:
   1. Windows
   2. Cabinets (casework), including locks in cabinets
   3. Signage
   4. Toilet accessories
   5. Overhead doors

C. Related Sections:
   1. Division 01 Section “Alternates” for alternates affecting this section.
   2. Division 06 Section “Rough Carpentry”
   3. Division 06 Section "Finish Carpentry”
   4. Division 07 Section “Joint Sealants” for sealant requirements applicable to threshold installation specified in this section.
   5. Division 08 Sections:
      a. “Metal Doors and Frames”
      b. “Flush Wood Doors”
      c. “Stile and Rail Wood Doors”
      d. “Interior Aluminum Doors and Frames”
      e. "Aluminum-Framed Entrances and Storefronts"
   6. Division 26 “Electrical” sections for connections to electrical power system and for low-voltage wiring.
   7. Division 28 “Electronic Safety and Security” sections for coordination with other components of electronic access control system and fire alarm system.

1.2 REFERENCES

A. UL, LLC
   1. UL 10B - Fire Test of Door Assemblies
   2. UL 10C - Positive Pressure Test of Fire Door Assemblies
   3. UL 1784 - Air Leakage Tests of Door Assemblies
   4. UL 305 - Panic Hardware

B. DHI - Door and Hardware Institute
   1. Sequence and Format for the Hardware Schedule
   2. Recommended Locations for Builders Hardware
   3. Keying Systems and Nomenclature
   4. Installation Guide for Doors and Hardware

C. NFPA – National Fire Protection Association
   1. NFPA 70 – National Electric Code

2. NFPA 80 – 2016 Edition – Standard for Fire Doors and Other Opening Protectives
3. NFPA 101 – Life Safety Code
4. NFPA 105 – Smoke and Draft Control Door Assemblies
5. NFPA 252 – Fire Tests of Door Assemblies

D. ANSI - American National Standards Institute

1. ANSI A117.1 – 2017 Edition – Accessible and Usable Buildings and Facilities
2. ANSI/BHMA A156.1 - A156.29, and ANSI/BHMA A156.31 - Standards for Hardware and Specialties
3. ANSI/BHMA A156.28 - Recommended Practices for Keying Systems
4. ANSI/WDMA I.S. 1A - Interior Architectural Wood Flush Doors
5. ANSI/SDI A250.8 - Standard Steel Doors and Frames

1.3 SUBMITTALS

A. General:

1. Submit in accordance with Conditions of Contract and Division 01 Submittal Procedures.
2. Prior to forwarding submittal:
   a. Comply with procedures for verifying existing door and frame compatibility for new hardware, as specified in PART 3, “EXAMINATION” article, herein.
   b. Review drawings and Sections from related trades to verify compatibility with specified hardware.
   c. Highlight, encircle, or otherwise specifically identify on submittals: deviations from Contract Documents, issues of incompatibility or other issues which may detrimentally affect the Work.

B. Action Submittals:

1. Product Data: Submit technical product data for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements.
2. Riser and Wiring Diagrams: After final approval of hardware schedule, submit details of electrified door hardware, indicating:
   a. Wiring Diagrams: For power, signal, and control wiring and including:
      1) Details of interface of electrified door hardware and building safety and security systems.
      2) Schematic diagram of systems that interface with electrified door hardware.
      3) Point-to-point wiring.
      4) Risers.
3. Samples for Verification: If requested by Architect, submit production sample of requested door hardware unit in finish indicated and tagged with full description for coordination with schedule.
   a. Samples will be returned to supplier. Units that are acceptable to Architect may, after final check of operations, be incorporated into Work, within limitations of key coordination requirements.
4. Door Hardware Schedule:
   a. Submit concurrent with submissions of Product Data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate fabrication of other work critical in Project construction schedule.

b. Submit under direct supervision of a Door Hardware Institute (DHI) certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) with hardware sets in vertical format as illustrated by Sequence of Format for the Hardware Schedule published by DHI.

c. Indicate complete designations of each item required for each opening, include:

1) Door Index: door number, heading number, and Architect's hardware set number.

2) Quantity, type, style, function, size, and finish of each hardware item.

3) Name and manufacturer of each item.

4) Fastenings and other pertinent information.

5) Location of each hardware set cross-referenced to indications on Drawings.

6) Explanation of all abbreviations, symbols, and codes contained in schedule.

7) Mounting locations for hardware.

8) Door and frame sizes and materials.

9) Degree of door swing and handing.

10) Operational Description of openings with electrified hardware covering egress, ingress (access), and fire/smoke alarm connections.

5. Key Schedule:

a. After Keying Conference, provide keying schedule that includes levels of keying, explanations of key system's function, key symbols used, and door numbers controlled.

b. Use ANSI/BHMA A156.28 "Recommended Practices for Keying Systems" as guideline for nomenclature, definitions, and approach for selecting optimal keying system.

c. Provide 3 copies of keying schedule for review prepared and detailed in accordance with referenced DHI publication. Include schematic keying diagram and index each key to unique door designations.

d. Index keying schedule by door number, keyset, hardware heading number, cross keying instructions, and special key stamping instructions.

e. Provide one complete bitting list of key cuts and one key system schematic illustrating system usage and expansion. Forward bitting list, key cuts and key system schematic directly to Owner, by means as directed by Owner.

f. Prepare key schedule by or under supervision of supplier, detailing Owner's final keying instructions for locks.

C. Informational Submittals:

1. Provide Qualification Data for Supplier, Installer and Architectural Hardware Consultant.

2. Provide Product Data:

a. Certify that door hardware approved for use on types and sizes of labeled fire-rated doors complies with listed fire-rated door assemblies.

b. Include warranties for specified door hardware.

D. Closeout Submittals:

1. Operations and Maintenance Data: Provide in accordance with Division 01 and include:

a. Complete information on care, maintenance, and adjustment; data on repair and replacement parts, and information on preservation of finishes.

b. Catalog pages for each product.

c. Final approved hardware schedule edited to reflect conditions as installed.

d. Final keying schedule

e. Copy of warranties including appropriate reference numbers for manufacturers to identify project.

f. As-installed wiring diagrams for each opening connected to power, both low voltage and 110 volts.

1.4 QUALITY ASSURANCE

A. Qualifications and Responsibilities:

1. Supplier: Recognized architectural hardware supplier with a minimum of 5 years documented experience supplying both mechanical and electromechanical door hardware similar in quantity, type, and quality to that indicated for this Project. Supplier to be recognized as a factory direct distributor by the manufacturer of the primary materials with a warehousing facility in the Project's vicinity. Supplier to have on staff, a certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) available to Owner, Architect, and Contractor, at reasonable times during the Work for consultation.
2. Installer: Qualified tradesperson skilled in the application of commercial grade hardware with experience installing door hardware similar in quantity, type, and quality as indicated for this Project.
3. Architectural Hardware Consultant: Person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project and meets these requirements:
    a. For door hardware: DHI certified AHC or DHC.
    b. Can provide installation and technical data to Architect and other related subcontractors.
    c. Can inspect and verify components are in working order upon completion of installation.
    d. Capable of producing wiring diagram and coordinating installation of electrified hardware with Architect and electrical engineers.
4. Single Source Responsibility: Obtain each type of door hardware from single manufacturer.

B. Certifications:

1. Fire-Rated Door Openings:
    a. Provide door hardware for fire-rated openings that complies with NFPA 80 and requirements of authorities having jurisdiction.
    b. Provide only items of door hardware that are listed products tested by UL LLC, Intertek Testing Services, or other testing and inspecting organizations acceptable to authorities having jurisdiction for use on types and sizes of doors indicated, based on testing at positive pressure and according to NFPA 252 or UL 10C and in compliance with requirements of fire-rated door and door frame labels.
2. Smoke and Draft Control Door Assemblies:
    a. Provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105
    b. Comply with the maximum air leakage of 0.3 cfm/sq. ft. (3 cu. m per minute/sq. m) at tested pressure differential of 0.3-inch wg (75 Pa) of water.
3. Electrified Door Hardware
    a. Listed and labeled as defined in NFPA 70, Article 100, by testing agency acceptable to authorities having jurisdiction.
4. Accessibility Requirements:

a. Comply with governing accessibility regulations cited in “REFERENCES” article 087100, 1.02.D3 herein for door hardware on doors in an accessible route. This project must comply with all Federal Americans with Disability Act regulations and all Local Accessibility Regulations.

C. Pre-Installation Meetings

1. Keying Conference

a. Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including:

1) Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.

2) Preliminary key system schematic diagram.

3) Requirements for key control system.

4) Requirements for access control.

5) Address for delivery of keys.

2. Pre-installation Conference

a. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.

b. Inspect and discuss preparatory work performed by other trades.

c. Inspect and discuss electrical roughing-in for electrified door hardware.

d. Review sequence of operation for each type of electrified door hardware.

e. Review required testing, inspecting, and certifying procedures.

f. Review questions or concerns related to proper installation and adjustment of door hardware.

3. Electrified Hardware Coordination Conference:

a. Prior to ordering electrified hardware, schedule and hold meeting to coordinate door hardware with security, electrical, doors and frames, and other related suppliers.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up for hardware delivered to Project site. Promptly replace products damaged during shipping.

B. Tag each item or package separately with identification coordinated with final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package. Deliver each article of hardware in manufacturer’s original packaging.

C. Maintain manufacturer-recommended environmental conditions throughout storage and installation periods.

D. Provide secure lock-up for door hardware delivered to Project. Control handling and installation of hardware items so that completion of Work will not be delayed by hardware losses both before and after installation.

E. Handle hardware in manner to avoid damage, marring, or scratching. Correct, replace or repair products damaged during Work. Protect products against malfunction due to paint, solvent, cleanser, or any chemical agent.

F. Deliver keys to manufacturer of key control system for subsequent delivery to Owner.

1.6 COORDINATION

A. Coordinate layout and installation of floor-recessed door hardware with floor construction. Cast anchoring inserts into concrete.

B. Installation Templates: Distribute for doors, frames, and other work specified to be factory or shop prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.

C. Security: Coordinate installation of door hardware, keying, and access control with Owner's security consultant.

D. Electrical System Roughing-In: Coordinate layout and installation of electrified door hardware with connections to power supplies and building safety and security systems.

E. Existing Openings: Where existing doors, frames and/or hardware are to remain, field verify existing functions, conditions and preparations and coordinate to suit opening conditions and to provide proper door operation.

1.7 WARRANTY

A. Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within published warranty period.

1. Warranty does not cover damage or faulty operation due to improper installation, improper use or abuse.
2. Warranty Period: Beginning from date of Substantial Completion, for durations indicated in manufacturer’s published listings.
    a. Mechanical Warranty
        1) Locks
            a) Schlage L Series: 3 years
        2) Exit Devices
            a) Von Duprin: 3 years
        3) Closers
            a) LCN 4000 Series: 30 years
        4) Automatic Operators
            a) LCN: 2 years
    b. Electrical Warranty
        1) Locks
            a) Schlage: 1 year
        2) Exit Devices
            a) Von Duprin: 1 year

1.8 MAINTENANCE

A. Furnish complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.

B. Turn over unused materials to Owner for maintenance purposes.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. The Owner requires use of certain products for their unique characteristics and project suitability to ensure continuity of existing and future performance and maintenance standards. After investigating available product offerings, the Awarding Authority has elected to prepare proprietary specifications. These products are specified with the notation: “No Substitute.”

1. Where “No Substitute” is noted, submittals and substitution requests for other products will not be considered.

B. Approval of manufacturers and/or products other than those listed as “Scheduled Manufacturer” or “Acceptable Manufacturers” in the individual article for the product category shall be in accordance with QUALITY ASSURANCE article, herein.

C. Approval of products from manufacturers indicated in “Acceptable Manufacturers” is contingent upon those products providing all functions and features and meeting all requirements of scheduled manufacturer’s product.

D. Where specified hardware is not adaptable to finished shape or size of members requiring hardware, furnish suitable types having same operation and quality as type specified, subject to Architect's approval.

2.2 MATERIALS

A. Fabrication

1. Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. provide screws according to manufacturer’s recognized installation standards for application intended.
2. Finish exposed screws to match hardware finish, or, if exposed in surfaces of other work, to match finish of this other work including prepared for paint surfaces to receive painted finish.
3. Provide concealed fasteners wherever possible for hardware units exposed when door is closed. Coordinate with “Metal Doors and Frames”, “Flush Wood Doors”, “Stile and Rail Wood Doors” to ensure proper reinforcements. Advise the Architect where visible fasteners, such as thru bolts, are required.

B. Provide screws, bolts, expansion shields, drop plates and other devices necessary for hardware installation.

1. Where fasteners are exposed to view: Finish to match adjacent door hardware material.

2.3 HINGES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
   a. Ives 5BB series
2. Acceptable Manufacturers and Products:
   a. Hager BB1191/1279 series
   b. McKinney TB series
   c. Stanley FBB series

B. Requirements:

1. Provide hinges conforming to ANSI/BHMA A156.1.
2. Provide five knuckle, ball bearing hinges.
3. 1-3/4 inch thick doors, up to and including 36 inches (914 mm) wide:
   a. Exterior: Standard weight, bronze or stainless steel, 4-1/2 inches (114 mm) high
   b. Interior: Standard weight, steel, 4-1/2 inches (114 mm) high
4. 1-3/4 inch (44 mm) thick doors over 36 inches (914 mm) wide:
   a. Exterior: Heavy weight, bronze/stainless steel, 5 inches (127 mm) high
   b. Interior: Heavy weight, steel, 5 inches (127 mm) high
5. 2 inches or thicker doors:
   a. Exterior: Heavy weight, bronze or stainless steel, 5 inches (127 mm) high
   b. Interior: Heavy weight, steel, 5 inches (127 mm) high
6. Adjust hinge width for door, frame, and wall conditions to allow proper degree of opening.

7. Provide three hinges per door leaf for doors 90 inches (2286 mm) or less in height, and one additional hinge for each 30 inches (762 mm) of additional door height.
8. Where new hinges are specified for existing doors or existing frames, provide new hinges of identical size to hinge preparation present in existing door or existing frame.
9. Hinge Pins: Except as otherwise indicated, provide hinge pins as follows:
    a. Steel Hinges: Steel pins
    b. Non-Ferrous Hinges: Stainless steel pins
    c. Out-Swinging Exterior Doors: Non-removable pins
    d. Out-Swinging Interior Lockable Doors: Non-removable pins
    e. Interior Non-lockable Doors: Non-rising pins
10. Provide hinges with electrified options as scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware. Locate electric hinge at second hinge from bottom or nearest to electrified locking component. Provide mortar guard for each electrified hinge specified.

2.4 CONTINUOUS HINGES

A. Manufacturers:
    1. Scheduled Manufacturer:
        a. Ives
    2. Acceptable Manufacturers:
        a. Select
        b. Hager
        c. Pemko

B. Requirements:
    1. Provide aluminum geared continuous hinges conforming to ANSI/BHMA A156.26, Grade 1.
    2. Provide aluminum geared continuous hinges, where specified in the hardware sets, fabricated from 6063-T6 aluminum.
    3. Provide split nylon bearings at each hinge knuckle for quiet, smooth, self-lubricating operation.
    4. Provide hinges capable of supporting door weights up to 450 pounds, and successfully tested for 1,500,000 cycles.
    5. On fire-rated doors, provide aluminum geared continuous hinges classified for use on rated doors by testing agency acceptable to authority having jurisdiction.
    6. Provide aluminum geared continuous hinges with electrified option scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware.
    7. Provide hinges 1 inch (25 mm) shorter in length than nominal height of door, unless otherwise noted or door details require shorter length and with symmetrical hole pattern.

2.5 ELECTRIC POWER TRANSFER

A. Manufacturers:
    1. Scheduled Manufacturer and Product:
        a. Von Duprin EPT-10
    2. Acceptable Manufacturers and Products:
        a. No Substitute

B. Requirements:

1. Provide power transfer with electrified options as scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware.
2. Locate electric power transfer per manufacturer's template and UL requirements, unless interference with operation of door or other hardware items.

2.6 FLUSH BOLTS

A. Manufacturers:
   1. Scheduled Manufacturer:
      a. Ives
   2. Acceptable Manufacturers:
      a. Trimco
      b. Rockwood

B. Requirements:
   1. Provide automatic, constant latching, and manual flush bolts with forged bronze or stainless-steel face plates, extruded brass levers, and with wrought brass guides and strikes. Provide 12 inch (305 mm) steel or brass rods at doors up to 90 inches (2286 mm) in height. For doors over 90 inches (2286 mm) in height increase top rods by 6 inches (152 mm) for each additional 6 inches (152 mm) of door height. Provide dust-proof strikes at each bottom flush bolt.

2.7 COORDINATORS

A. Manufacturers:
   1. Scheduled Manufacturer:
      a. Ives
   2. Acceptable Manufacturers:
      a. Trimco
      b. Rockwood

B. Requirements:
   1. Where pairs of doors are equipped with automatic flush bolts, an astragal, or other hardware that requires synchronized closing of the doors, provide bar-type coordinating device, surface applied to underside of stop at frame head.
   2. Provide filler bar of correct length for unit to span entire width of opening, and appropriate brackets for parallel arm door closers, surface vertical rod exit device strikes, or other stop mounted hardware. Factory-prepared coordinators for vertical rod devices as specified.

2.8 MORTISE LOCKS

A. Manufacturers and Products:
   1. Scheduled Manufacturer and Product:
      a. Schlage L9000 series
   2. Acceptable Manufacturers and Products:
      a. No Substitute

B. Requirements:
   1. Provide mortise locks conforming to ANSI/BHMA A156.13 Series 1000, Grade 1, and UL Listed for 3-hour fire doors.
   2. Indicators: Where specified, provide indicator window measuring a minimum 2-inch x 1/2 inch with 180-degree visibility. Provide messages color-coded with full text and/or symbols, as scheduled, for easy visibility.

3. Provide locks manufactured from heavy gauge steel, containing components of steel with a zinc dichromate plating for corrosion resistance.
4. Provide lock case that is multi-function and field reversible for handing without opening case. Cylinders: Refer to “KEYING” article, herein.
5. Provide locks with standard 2-3/4 inches (70 mm) backset with full 3/4 inch (19 mm) throw stainless steel mechanical anti-friction latchbolt. Provide deadbolt with full 1-inch (25 mm) throw, constructed of stainless steel.
6. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.
7. Provide electrified options as scheduled in the hardware sets. Where scheduled, provide switches and sensors integrated into the locks and latches. Provide motor based electrified locksets that comply with the following requirements:
    a. Universal input voltage – single chassis accepts 12 or 24VDC to allow for changes in the field without changing lock chassis.
    b. Fail Safe/Fail Secure – changing mode between electrically locked (fail safe) and electrically unlocked (fail secure) is field selectable without opening the lock case
    c. Low maximum current draw – maximum 0.4 amps to allow for multiple locks on a single power supply.
    d. Low holding current – maximum 0.01 amps to produce minimal heat, eliminate “hot levers” in electrically locked applications, and to provide reliable operation in wood doors that provide minimal ventilation and air flow.
    e. Connections – provide quick-connect Molex system standard.
8. Lever Trim: Solid brass, bronze, or stainless steel, cast or forged in design specified, with wrought roses and external lever spring cages. Provide thru-bolted levers with 2-piece spindles.
    a. Provide levers with vandal resistant technology for use at heavy traffic or abusive applications.
    b. Lever Design: 17A.

2.9 EXIT DEVICES

A. Manufacturers and Products:
    1. Scheduled Manufacturer and Product:
        a. Von Duprin 98/35A series
    2. Acceptable Manufacturers and Products:
        a. No Substitute

B. Requirements:
    1. Provide exit devices tested to ANSI/BHMA A156.3 Grade 1 and UL listed for Panic Exit or Fire Exit Hardware.
    2. Cylinders: Refer to “KEYING” article, herein.
    3. Provide smooth touchpad type exit devices, fabricated of brass, bronze, stainless steel, or aluminum, plated to standard architectural finishes to match balance of door hardware.
    4. Touchpad must extend a minimum of one half of door width. No plastic inserts are allowed in touchpads.
    5. Provide exit devices with deadlatching feature for security and for future addition of alarm kits and/or other electrified requirements.
    6. Provide exit devices with weather resistant components that can withstand harsh conditions of various climates and corrosive cleaners used in outdoor pool environments.
    7. Provide flush end caps for exit devices.

8. Provide exit devices with manufacturer's approved strikes.
9. Provide exit devices cut to door width and height. Install exit devices at height recommended by exit device manufacturer, allowable by governing building codes, and approved by Architect.
10. Mount mechanism case flush on face of doors or provide spacers to fill gaps behind devices. Where glass trim or molding projects off face of door, provide glass bead kits.
11. Provide cylinder or hex-key dogging as specified at non fire-rated openings.
12. Removable Mullions: 2 inches (51 mm) x 3 inches (76 mm) steel tube. Where scheduled as keyed removable mullion, provide type that can be removed by use of a keyed cylinder, which is self-locking when re-installed.
13. Provide factory drilled weep holes for exit devices used in full exterior application, highly corrosive areas, and where noted in hardware sets.
14. Provide electrified options as scheduled.
15. Top latch mounting: double- or single-tab mount for steel doors, face mount for aluminum doors eliminating requirement of tabs, and double tab mount for wood doors.
16. Provide exit devices with optional trim designs to match other lever and pull designs used on the project.
17. Special Options:
    a. Concealed Vertical Cable Exit Devices: provide cable-actuated concealed vertical latch system in two-point for non-rated or fire rated wood doors up to a 90 minute rating and less bottom latch (LBL) configuration for non-rated or fire rated wood doors up to 20 minute rating. Vertical rods not permitted.
        1) Cable: Stainless steel with abrasive resistant coating. Conduit and core wire ends snap into latch and center slides without use of tools.
        2) Wood Door Prep: Maximum 1 inch x 1.1875 inch x 3.875 inches top latch pocket and 1 inch x 1.1875 inch x 5 inches bottom latch pocket which does not require the use of a metal wrap or edge for non-rated or fire rated wood doors up to a 45 minute rating.
        3) Latchbolts and Blocking Cams: Manufactured from sintered metal low carbon copper- infiltrated steel, with molybdenum disulfide low friction coating.
        4) Top Latchbolt: Minimum 0.38 inch (10 mm) and greater than $90^{\text{-degree}}$ engagement with strike to prevent door and frame separation under high static load.
        5) Bottom Latchbolt: Minimum of 0.44-inch (11 mm) engagement with strike.
        6) Product Cycle Life: 1,000,000 cycles.
        7) Latch Operation: Top and bottom latch operate independently of each other. Top latch fully engages top strike even when bottom latch is compromised. Separate trigger mechanisms not permitted.
        8) Latch release does not require separate trigger mechanism.
        9) Cable and latching system characteristics:
            a) Installed independently of exit device installation, and capable of functioning on door prior to device and trim installation.
            b) Connected to exit device at single point in steel and aluminum doors, and two points for top and bottom latches in wood doors.
            c) Bottom latch height adjusted, from single point for steel and aluminum doors and two points for wood doors, after system is installed and connected to exit device, while door is hanging

d) Bottom latch position altered up and down minimum of 2 inches (51 mm) in steel and aluminum doors without additional adjustment. Bottom latch deadlocks in every adjustment position in wood doors.

e) Top and bottom latches in steel and aluminum doors and top latch in wood doors may be removed while door is hanging.

2.10 ELECTRIC STRIKES

A. Manufacturers and Products:
   1. Scheduled Manufacturer and Product:
      a. Von Duprin 6000 series.
   2. Acceptable Manufacturers and Products:
      a. No Substitute

B. Requirements:
   1. Provide electric strikes designed for use with type of locks shown at each opening.
   2. Provide electric strikes UL Listed as burglary resistant that are tested to a minimum endurance test of 1,000,000 cycles.
   3. Where required, provide electric strikes UL Listed for fire doors and frames.
   4. Provide transformers and rectifiers for each strike as required. Verify voltage with electrical contractor.

2.11 POWER SUPPLIES

A. Manufacturers and Products:
   1. Scheduled Manufacturer and Product:
      a. Schlage/Von Duprin PS900 series
   2. Acceptable Manufacturers and Products:
      a. No Substitute

B. Requirements:
   1. Provide power supplies approved by manufacturer of supplied electrified hardware.
   2. Provide appropriate quantity of power supplies necessary for proper operation of electrified locking components as recommended by manufacturer of electrified locking components with consideration for each electrified component using power supply, location of power supply, and approved wiring diagrams. Locate power supplies as directed by Architect.
   3. Provide regulated and filtered 24 VDC power supply, and UL class 2 listed.
   4. Provide power supplies with the following features:
      a. 12/24 VDC Output, field selectable.
      b. Class 2 Rated power limited output.
      c. Universal 120-240 VAC input.
      d. Low voltage DC, regulated and filtered.
      e. Polarized connector for distribution boards.
      f. Fused primary input.
      g. AC input and DC output monitoring circuit w/LED indicators.
      h. Cover mounted AC Input indication.
      i. Tested and certified to meet UL294.
      j. NEMA 1 enclosure.
      k. Hinged cover w/lock down screws.

l. High voltage protective cover.

2.12 CYLINDERS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:

a. Schlage SFIC (Temporary Construction Core Only as indicated in hardware sets)

2. Acceptable Manufacturers and Products:

a. No Substitute

B. Requirements:

1. Provide SFIC cylinders w/temporary construction core only as indicated in hardware sets compliant with ANSI/BHMA A156.5; latest revision; cylinder face finished to match lockset; manufacturer's series as indicated. Refer to "KEYING" article, herein.

2.13 KEYING

A. **Provide temporary construction cores as indicated in the hardware sets. Final keying and cores shall be provided by Owner.**

B. Requirements:

1. Construction Keying:

a. Replaceable Construction Cores.

1) Provide temporary construction cores replaceable by permanent cores, furnished in accordance with the following requirements.

a) 3 construction control keys

b) 12 construction change (day) keys.

2) Owner or Owner's Representative will replace temporary construction cores with permanent cores.

2.14 DOOR CLOSERS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:

a. LCN 4040XP series

2. Acceptable Manufacturers and Products:

a. No Substitute

B. Requirements:

1. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory. ISO 9000 certify closers. Stamp units with date of manufacture code.

2. Provide door closers with fully hydraulic, full rack and pinion action with high strength cast iron cylinder, and full complement bearings at shaft.

3. Cylinder Body: 1-1/2-inch (38 mm) diameter piston with 5/8-inch (16 mm) diameter double heat-treated pinion journal. QR code with a direct link to maintenance instructions.

4. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.

5. Spring Power: Continuously adjustable over full range of closer sizes, and providing reduced opening force as required by accessibility codes and standards. Provide snap-on cover clip, with plastic covers, that secures cover to spring tube.

6. Hydraulic Regulation: By tamper-proof, non-critical valves, with separate adjustment for latch speed, general speed, and backcheck. Provide graphically labelled instructions on

the closer body adjacent to each adjustment valve. Provide positive stop on reg valve that prevents reg screw from being backed out.

7. Provide closers with solid forged steel main arms and factory assembled heavy-duty forged forearms for parallel arm closers.
8. Pressure Relief Valve (PRV) Technology: Not permitted.
9. Finish for Closer Cylinders, Arms, Adapter Plates, and Metal Covers: Powder coating finish which has been certified to exceed 100 hours salt spray testing as described in ANSI Standard A156.4 and ASTM B117 or has special rust inhibitor (SRI).
10. Provide special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.
11. Install closers on wood doors with through bolts or sex-bolts.

2.15 ELECTRO-MECHANICAL CLOSER/HOLDERS

A. Manufacturers and Products:
   1. Scheduled Manufacturer and Product:
      a. LCN 4310ME/4410ME series
   2. Acceptable Manufacturers and Products:
      a. No Substitute

B. Requirements:
   1. Provide single-point or multi-point hold-open electro-mechanical closer/holders as specified. Coordinate voltage requirements and provide transformer if necessary.
   2. Provide multi-point electro-mechanical closer/holders with swing free arms.
   3. Provide closer/holders that function as full rack and pinion door closer when current is interrupted or continuous hold-open is not engaged.
   4. Provide door closers with fully hydraulic, full rack and pinion action with high strength cylinder and full complement bearings at shaft.
   5. Cylinder Body: **1-1/2-inch (38 mm)** diameter with **5/8-inch (16 mm)** diameter double heat-treated pinion journal.
   6. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
   7. Spring Power: Continuously adjustable over full range of closer sizes, and providing reduced opening force as required by accessibility codes and standards.
   8. Hydraulic Regulation: By tamper-proof, non-critical valves, with separate adjustment for latch speed, general speed, and backcheck.
   9. Pressure Relief Valve (PRV) Technology: Not permitted.
   10. Provide special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.

2.16 ELECTRO-HYDRAULIC AUTOMATIC OPERATORS

A. Manufacturers and Products:
   1. Scheduled Manufacturer and Product:
      a. LCN 4600 series
   2. Acceptable Manufacturers and Products:
      a. No Substitute

B. Requirements:

1. Provide low energy automatic operator units with hydraulic closer complying with ANSI/BHMA A156.19.
2. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
3. Provide units with conventional door closer opening and closing forces unless power operator motor is activated. Provide door closer assembly with adjustable spring size, back-check, and opening and closing speed adjustment valves to control door
4. Provide units with on/off switch for manual operation, motor start up delay, vestibule interface delay, electric lock delay, and door hold open delay.
5. Provide drop plates, brackets, and adapters for arms as required for details.
6. Provide hard-wired actuator switches and receivers for operation as specified.
7. Provide weather-resistant actuators at exterior applications.
8. Provide key switches with LED's, recommended and approved by manufacturer of automatic operator as required for function described in operation description of hardware group below. Cylinders: Refer to "KEYING" article, herein.
9. Provide complete assemblies of controls, switches, power supplies, relays, and parts/material recommended and approved by manufacturer of automatic operator for each individual leaf. Actuators control both doors simultaneously at pairs. Sequence operation of exterior and vestibule doors with automatic operators to allow ingress or egress through both sets of openings as directed by Architect. Locate actuators, key switches, and other controls as directed by Architect.
10. Provide units with vestibule inputs that allow sequencing operation of two units, and SPDT relay for interfacing with latching or locking devices.

2.17 DOOR TRIM

A. Manufacturers:
   1. Scheduled Manufacturer:
      a. Ives.
   2. Acceptable Manufacturers:
      a. Trimco
      b. Rockwood

B. Requirements:
   1. Provide push plates, push bars, pull plates, pulls, and hands-free reversible door pulls with diameter and length as scheduled.

2.18 PROTECTION PLATES

A. Manufacturers:
   1. Scheduled Manufacturer:
      a. Ives
   2. Acceptable Manufacturers:
      a. Trimco
      b. Rockwood

B. Requirements:
   1. Provide protection plates with a minimum of 0.050 inch (1 mm) thick, beveled four edges as scheduled. Furnish with sheet metal or wood screws, finished to match plates.

2. Sizes plates 2 inches (51 mm) less width of door on single doors, pairs of doors with a mullion, and doors with edge guards. Size plates 1 inch (25 mm) less width of door on pairs without a mullion or edge guards.
3. At fire rated doors, provide protection plates over 16 inches high with UL label.

2.19 OVERHEAD STOPS AND OVERHEAD STOP/HOLDERS

A. Manufacturers:
   1. Scheduled Manufacturers:
      a. Glynn-Johnson
   2. Acceptable Manufacturers:
      a. No Substitute

B. Requirements:
   1. Provide overhead stop at any door where conditions do not allow for a wall stop or floor stop presents tripping hazard.
   2. Provide friction type at doors without closer and positive type at doors with closer.
   3. Install door holders on wood doors with through bolts or sex-bolts.

2.20 DOOR STOPS AND HOLDERS

A. Manufacturers:
   1. Scheduled Manufacturer:
      a. Ives
   2. Acceptable Manufacturers:
      a. Trimco
      b. Rockwood

B. Provide door stops at each door leaf:
   1. Provide wall stops wherever possible. Provide concave type where lockset has a push button of thumbturn.
   2. Where a wall stop cannot be used, provide universal floor stops.
   3. Where wall or floor stop cannot be used, provide overhead stop.
   4. Provide roller bumper where doors open into each other, and overhead stop cannot be used.

2.21 THRESHOLDS, SEALS, DOOR SWEEPS, AUTOMATIC DOOR BOTTOMS, AND GASKETING

A. Manufacturers:
   1. Scheduled Manufacturer:
      a. Zero International
   2. Acceptable Manufacturers:
      a. National Guard
      b. Reese
      c. Pemko

B. Requirements:
   1. Provide thresholds, weather-stripping, and gasketing systems as specified and per architectural details. Match finish of other items.
   2. Smoke- and Draft-Control Door Assemblies: Where smoke- and draft-control door assemblies are required, provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.

3. Provide door sweeps, seals, astragals, and auto door bottoms only of type where resilient or flexible seal strip is easily replaceable and readily available.
4. Size thresholds 1/2 inch (13 mm) high by 5 inches (127 mm) wide by door width unless otherwise specified in the hardware sets or detailed in the drawings.

2.22 SILENCERS

A. Manufacturers:
   1. Scheduled Manufacturer:
      a. Ives
   2. Acceptable Manufacturers:
      a. Trimco
      b. Rockwood

B. Requirements:
   1. Provide "push-in" type silencers for hollow metal or wood frames.
   2. Provide one silencer per 30 inches (762 mm) of height on each single frame, and two for each pair frame.
   3. Omit where gasketing is specified.

2.23 MAGNETIC HOLDERS

A. Manufacturers:
   1. Scheduled Manufacturer:
      a. LCN
   2. Acceptable Manufacturers:
      a. No Substitute

B. Requirements:
   1. Provide wall or floor mounted electromagnetic door release as specified with minimum of 25 pounds of holding force. Coordinate projection of holder and armature with other hardware and wall conditions to ensure that door sits parallel to wall when fully open. Connect magnetic holders on fire-rated doors into the fire control panel for fail-safe operation.

2.24 FINISHES

A. Finish: BHMA 626/652 (US26D); except:
   1. Aluminum Geared Continuous Hinges: BHMA 628 (US28)
   2. Offset Pulls: BHMA 630-316 (US32D-316)
   3. Protection Plates: BHMA 630 (US32D)
   4. Overhead Stops and Holders: BHMA 630 (US32D)
   5. Door Closers: Powder Coat to Match
   6. Weatherstripping: Clear Anodized Aluminum
   7. Thresholds: Mill Finish Aluminum

PART 3 - EXECUTION

3.1 EXAMINATION

A. Prior to installation of hardware, examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance. Verify doors, frames, and walls have been properly reinforced for hardware installation.

B. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.

C. Submit a list of deficiencies in writing and proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Mount door hardware units at heights to comply with the following, unless otherwise indicated or required to comply with governing regulations.

1. Standard Steel Doors and Frames: ANSI/SDI A250.8.
2. Custom Steel Doors and Frames: HMMA 831.
3. Interior Architectural Wood Flush Doors: ANSI/WDMA I.S. 1A
4. Installation Guide for Doors and Hardware: DHI TDH-007-20

B. Install door hardware in accordance with NFPA 80, NFPA 101 and provide post-install inspection, testing as specified in section 1.03.E unless otherwise required to comply with governing regulations.

C. Install each hardware item in compliance with manufacturer's instructions and recommendations, using only fasteners provided by manufacturer.

D. Do not install surface mounted items until finishes have been completed on substrate. Protect all installed hardware during painting.

E. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.

F. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.

G. Install operating parts so they move freely and smoothly without binding, sticking, or excessive clearance.

H. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than quantity recommended by manufacturer for application indicated.

I. Lock Cylinders:

1. Install construction cores to secure building and areas during construction period.
2. Construction cores shall be replaced with permanent cores as indicated in by Owner.

J. Wiring: Coordinate with Division 26, ELECTRICAL and Division 28 ELECTRONIC SAFETY AND SECURITY sections for:

1. Conduit, junction boxes and wire pulls.
2. Connections to and from power supplies to electrified hardware.
3. Connections to fire/smoke alarm system and smoke evacuation system.
4. Connection of wire to door position switches and wire runs to central room or area, as directed by Architect.
5. Connections to panel interface modules, controllers, and gateways.
6. Testing and labeling wires with Architect's opening number.

K. Key Control System: Tag keys and place them on markers and hooks in key control system cabinet, as determined by final keying schedule.

L. Door Closers: Mount closers on room side of corridor doors, inside of exterior doors, and stair side of stairway doors from corridors. Mount closers so they are not visible in corridors, lobbies and other public spaces unless approved by Architect.

M. Closer/Holders: Mount closer/holders on room side of corridor doors, inside of exterior doors, and stair side of stairway doors.

N. Power Supplies: Locate power supplies as indicated or, if not indicated, above accessible ceilings or in equipment room, or alternate location as directed by Architect.

O. Thresholds: Set thresholds in full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants."

P. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they may impede traffic or present tripping hazard.

Q. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.

R. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.

S. Door Bottoms and Sweeps: Apply to bottom of door, forming seal with threshold when door is closed.

3.3 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

1. Electric Strikes: Adjust horizontal and vertical alignment of keeper to properly engage lock bolt.
2. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.

B. Occupancy Adjustment: Approximately three to six months after date of Substantial Completion, examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors and door hardware.

3.4 CLEANING AND PROTECTION

A. Clean adjacent surfaces soiled by door hardware installation.

B. Clean operating items per manufacturer’s instructions to restore proper function and finish.

C. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Substantial Completion.

3.5 DOOR HARDWARE SCHEDULE

A. The intent of the hardware specification is to specify the hardware for interior and exterior doors, and to establish a type, continuity, and standard of quality. However, it is the door hardware supplier’s responsibility to thoroughly review existing conditions, schedules, specifications, drawings, and other Contract Documents to verify the suitability of the hardware specified.

B. Discrepancies, conflicting hardware, and missing items are to be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application.

C. Hardware items are referenced in the following hardware schedule. Refer to the above specifications for special features, options, cylinders/keying, and other requirements.

D. Hardware Sets:

Hardware Group No. 01
For use on Door #(s):
J102A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112HD		628	IVE
1	EA	OFFICE/ENTRY LOCK	L9050BDC 17A 09-544		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	WALL STOP	WS33(X)		626	IVE

Hardware Group No. 02
For use on Door #(s):
J103A N103A ~~J112A~~
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	OFFICE/ENTRY LOCK	L9050BDC 17A 09-544 L283-711		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP RW/PA - PULL-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS33(X)		626	IVE
3	EA	SILENCER	SR64		GRY	IVE

NOTE:
1) PROVIDE 8" KICK PLATE AT DOORS WITH 10" BOTTOM RAIL.
Hardware Group No. 03
For use on Door #(s):
J112A L106A L109A L110A N102A N106A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112HD		628	IVE
1	EA	OFFICE/ENTRY LOCK	L9050BDC 17A 09-544 L283-711		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP RW/PA SRI - PULL-SIDE		689	LCN
1	EA	WALL STOP	WS33(X)		626	IVE

Hardware Group No. 04
For use on Door #(s):
J101B ~~L103B~~ ~~N116A~~
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112HD		628	IVE
1	EA	OFFICE/ENTRY LOCK	L9050BDC 17A 09-544 L283-711		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP RW/PA SRI - PULL-SIDE		689	LCN
1	EA	WALL STOP/HOLDER	WS45(X)		626	IVE

Hardware Group No. 05
For use on Door #(s):
J113A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER			FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5			652	IVE
1	EA	STOREROOM LOCK	L9080BDC 17A			626	SCH
~~1~~	~~EA~~	~~OFFICE/ENTRY LOCK~~	~~L9050BDC 17A 09-544 L283-711~~			~~626~~	~~SCH~~
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER			626	B/O
1	EA	ELECTRIC STRIKE	6211 FSE			630	VON
1	EA	SURFACE CLOSER	4040XP RW/PA - PULL-SIDE			689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS			630	IVE
1	EA	WALL STOP	WS33(X)			626	IVE
3	EA	SILENCER	SR64			GRY	IVE
1	EA	CARD READER	PROVIDED BY SECURITY CONTRACTOR				
1	EA	POWER SUPPLY	PS902 - COORDINATE POWER SUPPLY REQUIREMENTS W/SECURITY PROVIDER				VON

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOOR NORMALLY CLOSED AND LOCKED. PRESENTING A VALID CREDENTIAL TO THE READER WILL MOMENTARILY UNLOCK THE ELECTRIC STRIKE ALLOWING ACCESS. DOOR TO REMAIN LOCKED UPON LOSS OF POWER. FREE EGRESS AT ALL TIMES.

Hardware Group No. 06

For use on Door #(s):

J101A N108C N116A ~~L103A~~

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112HD		628	IVE
1	EA	OFFICE/ENTRY LOCK	L9050BDC 17A 09-544 L283-711		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	OH STOP	100S		630	GLY
1	EA	SURFACE CLOSER	4040XP RW/PA SRI ST-1630 - PULL-SIDE		689	LCN
1	EA	TOP JAMB MTG PLATE	4040XP-18TJ SRI		689	LCN

Hardware Group No. 07

For use on Door #(s):

H114A H117A ~~H109A~~ ~~H110A~~ ~~H111A~~ ~~H112A~~

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	OFFICE/ENTRY LOCK	L9050BDC 17A 09-544 L283-711		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP RW/PA - PUSH-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP/HOLDER	WS45(X)		626	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 08

For use on Door #(s):

N104C ~~N103A~~ ~~N107A~~

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112XY ~~112HD~~		628	IVE
1	EA	OFFICE/ENTRY LOCK	L9050BDC 17A 09-544 L283-711		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP RW/PA SRI - PUSH-SIDE		689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 SRI (AS REQ'D)		689	LCN
1	EA	WALL STOP	WS33(X)		626	IVE

Hardware Group No. 09**- Not Used**
For use on Door #(s):
~~L102A~~
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112HD		628	IVE
1	EA	OFFICE/ENTRY LOCK	L9050BDC 17A 09-544 L283-711		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP SCUSH SRI		689	LCN
1	EA	CUSH SHOE SUPPORT	4040XP-30 SRI (AS REQ'D)		689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 SRI (AS REQ'D)		689	LCN

Hardware Group No. 10
For use on Door #(s):
K107A K107B
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 5 X 4.5		652	IVE
1	EA	OFFICE/ENTRY LOCK	L9050BDC 17A 09-544 L283-711		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP RW/PA - PULL-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS33(X)		626	IVE
1	EA	GASKETING	488S		BK	ZER

Hardware Group No. 11
For use on Door #(s):
K106A N212A ~~N201A~~
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	CORRIDOR LOCK	L9456BDC 17A 09-544 L283-722		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP RW/PA - PULL-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS33(X)		626	IVE
1	EA	GASKETING	488S		BK	ZER

Hardware Group No. 12
For use on Door #(s):
J104A J106A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112HD		628	IVE
1	EA	CORRIDOR LOCK	L9456BDC 17A 09-544 L283-722		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP RW/PA SRI - PULL-SIDE		689	LCN
1	EA	WALL STOP	WS33(X)		626	IVE

Hardware Group No. 13- Not Used
For use on Door #(s):
~~L104A~~
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112HD		628	IVE
1	EA	CORRIDOR LOCK	L9456BDC 17A 09-544 L283-722		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	OH STOP	100S		630	GLY
1	EA	SURFACE CLOSER	4040XP RW/PA SRI - PULL-SIDE		689	LCN
1	EA	TOP JAMB MTG PLATE	4040XP-18TJ SRI		689	LCN

Hardware Group No. 14
For use on Door #(s):
J110A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112HD		628	IVE
~~3~~	~~EA~~	~~HINGE~~	~~5BB1HW 4.5 X 4.5 NRP~~		~~652~~	~~IVE~~
1	EA	CORRIDOR LOCK	L9456BDC 17A 09-544 L283-722		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP RW/PA - PUSH-SIDE		689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 SRI (AS REQ'D)		689	LCN
~~1~~	~~EA~~	~~KICK PLATE~~	~~8400 10" X 2" LDW B-CS~~		~~630~~	~~IVE~~
1	EA	WALL STOP	WS33(X)		626	IVE
~~1~~	~~EA~~	~~GASKETING~~	~~488S~~		~~BK~~	~~ZER~~

Hardware Group No. 15
For use on Door #(s):
J111A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112HD		628	IVE
~~3~~	~~EA~~	~~HINGE~~	~~5BB1HW 4.5 X 4.5 NRP~~		~~630~~	~~IVE~~
1	EA	CORRIDOR LOCK	L9456BDC 17A 09-544 L283-722		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP SCUSH SRI		689	LCN
1	EA	CUSH SHOE SUPPORT	4040XP-30 SRI (AS REQ'D)		689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 SRI (AS REQ'D)		689	LCN
~~1~~	~~EA~~	~~KICK PLATE~~	~~8400 10" X 2" LDW B-CS~~		~~630~~	~~IVE~~
~~1~~	~~EA~~	~~GASKETING~~	~~488S~~		~~BK~~	~~ZER~~

Hardware Group No. 16

For use on Door #(s):
L107A L108A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112HD		628	IVE
1	EA	CORRIDOR LOCK	L9456BDC 17A 09-544 L283-722		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP SCUSH SRI		689	LCN
1	EA	CUSH SHOE SUPPORT	4040XP-30 SRI (AS REQ'D)		689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 SRI (AS REQ'D)		689	LCN

Hardware Group No. 17
For use on Door #(s):
J201A J201B L200B
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112HD		628	IVE
1	EA	DBL CYL STORE W/DB	L9466HD 17A		626	SCH
2	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	OH STOP	100S		630	GLY
1	EA	SURFACE CLOSER	4040XP EDA		689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)		689	LCN
1	EA	DOOR SWEEP (W/DRIP CAP)	8198AA		AA	ZER
1	EA	THRESHOLD	566A		A	ZER
			WEATHERSTRIPPING BY DOOR/FRAME MFG.			

NOTES:
1) DOOR/FRAME SHALL BE PREPPED FOR DOOR CONTACT.
Hardware Group No. 18
For use on Door #(s):
K103A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	CLASSROOM LOCK	L9070BDC 17A		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP RW/PA - PULL-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS33(X)		626	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 19
For use on Door #(s):
J105B
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112HD		628	IVE
1	EA	CLASSROOM LOCK	L9070BDC 17A		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	OH STOP	100S		630	GLY
1	EA	SURFACE CLOSER	4040XP RW/PA SRI ST-1630 - PULL-SIDE		689	LCN
1	EA	TOP JAMB MTG PLATE	4040XP-18TJ SRI		689	LCN

Hardware Group No. 20
For use on Door #(s):
K104A ~~K105A~~
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	CLASSROOM LOCK	L9070BDC 17A		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP RW/PA - PUSH-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS33(X)		626	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 21
For use on Door #(s):
N202A N203A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	CLASSROOM LOCK	L9070BDC 17A		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP RW/PA - PULL-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS33(X)		626	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 22
For use on Door #(s):
L111A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	STOREROOM LOCK	L9080BDC 17A		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP RW/PA - PULL-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS33(X)		626	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 23
For use on Door #(s):
N115A **N117A** **N213A**
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
~~1~~	~~EA~~	~~CONT. HINGE~~	~~112HD~~		~~628~~	~~IVE~~
1	EA	CONT. HINGE	224HD		628	IVE
1	EA	STOREROOM LOCK	L9080BDC 17A		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	OH STOP	100S		630	GLY
1	EA	SURFACE CLOSER	4040XP RW/PA SRI ST-1630 - PULL-SIDE		689	LCN
~~1~~	~~EA~~	~~WALL STOP~~	~~WS33(X)~~		~~626~~	~~IVE~~
1	EA	TOP JAMB MTG PLATE	4040XP-18TJ SRI		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	GASKETING	488S		BK	ZER
			~~RATED SEALS BY DOOR/FRAME MANUFACTURER~~			

Hardware Group No. 24 - Not Used
For use on Door #(s):
~~N117A~~
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112HD		628	IVE
1	EA	CONST LATCHING BOLT	FB51P		630	IVE
1	EA	DUST PROOF STRIKE	DP2		626	IVE
1	EA	STOREROOM LOCK	L9080BDC 17A		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	COORDINATOR	COR X FL		628	IVE
1	EA	OH STOP	100S		630	GLY
1	EA	SURFACE CLOSER	4040XP RW/PA SRI - PULL-SIDE		689	LCN
1	EA	SURFACE CLOSER	4040XP RW/PA SRI ST-1630 - PULL-SIDE		689	LCN
1	EA	TOP JAMB MTG PLATE	4040XP-18TJ SRI		689	LCN
1	EA	WALL STOP	WS33(X)		626	IVE
			RATED SEALS BY DOOR/FRAME MANUFACTURER			

Hardware Group No. 25
For use on Door #(s):
N110A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
~~1~~	~~EA~~	~~CONT. HINGE~~	~~224HD~~		~~628~~	~~IVE~~
1	EA	STOREROOM LOCK	L9080BDC 17A		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP ~~SCUSH~~ RW/PA TBWMS – PUSH-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
~~1~~	~~EA~~	~~WALL STOP~~	~~WS33(X)~~		~~626~~	~~IVE~~
1	EA	GASKETING	488S		BK	ZER
~~1~~	~~EA~~	~~SILENCER~~	~~SR64~~		~~GRY~~	~~IVE~~

Hardware Group No. 26

For use on Door #(s):
H107A H108A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
6	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	CONST LATCHING BOLT	FB51P		630	IVE
1	EA	DUST PROOF STRIKE	DP2		626	IVE
1	EA	STOREROOM LOCK	L9080BDC 17A		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	**EA**	**COORDINATOR**	**COR X FL**		**628**	**IVE**
2	**EA**	**MOUNTING BRACKET**	**MB (AS REQ'D)**		**689**	**IVE**
2	EA	SURFACE CLOSER	4040XP RW/PA - PUSH-SIDE		689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS		630	IVE
2	EA	WALL STOP	WS33(X)		626	IVE
~~**1**~~	~~**EA**~~	~~**GASKETING**~~	~~**488S**~~	~~**BK**~~	~~**ZER**~~	
1	**EA**	**MEETING STILE**	**8217S**		**BK**	**ZER**

Hardware Group No. 27
For use on Door #(s):
J108A ~~**J109A**~~ ~~**L201A**~~
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	STOREROOM LOCK	L9080BDC 17A		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP SCUSH **TBWMS**		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 28- **Not Used**
For use on Door #(s):
~~**N204A**~~
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	224HD		628	IVE
1	EA	STOREROOM LOCK	L9080BDC 17A		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP SCUSH TBWMS		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 29
For use on Door #(s):
J117A **J118A**
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
6	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	CONST LATCHING BOLT	FB51P		630	IVE
1	EA	DUST PROOF STRIKE	DP2		626	IVE
1	EA	STOREROOM LOCK	L9080BDC 17A		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	COORDINATOR	COR X FL		628	IVE
2	EA	OH STOP	100S		630	GLY
2	EA	SURFACE CLOSER	4040XP RW/PA ST-1630 - PULL-SIDE		689	LCN
2	EA	TOP JAMB MTG PLATE	4040XP-18TJ		689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS		630	IVE
1	EA	GASKETING	488S		BK	ZER
1	EA	MEETING STILE	8217S		BK	ZER

Hardware Group No. 30
For use on Door #(s):
J107A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
~~1~~	~~EA~~	~~CONT. HINGE~~	~~112HD~~		~~628~~	~~IVE~~
1	EA	CONT. HINGE	224HD		628	IVE
1	EA	INSTITUTION LOCK	L9082BDC 17A		626	SCH
2	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	OH STOP	100S		630	GLY
1	EA	SURFACE CLOSER	4040XP RW/PA SRI ST-1630 - PULL-SIDE		689	LCN
1	EA	TOP JAMB MTG PLATE	4040XP-18TJ SRI		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	GASKETING	488S		BK	ZER
			~~RATED SEALS BY DOOR/FRAME MANUFACTURER~~			

Hardware Group No. 31
For use on Door #(s):
N113A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
~~1~~	~~EA~~	~~CONT. HINGE~~	~~112HD~~		~~628~~	~~IVE~~
1	EA	CONT. HINGE	224HD		628	IVE
1	EA	STOREROOM LOCK	L9080BDC 17A		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP EDA SRI		689	LCN
~~1~~	~~EA~~	~~BLADE STOP SPACER~~	~~4040XP-61 SRI (AS REQ'D)~~		~~689~~	~~LCN~~
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS33(X)		626	IVE
1	EA	GASKETING	488S		BK	ZER
			~~RATED SEALS BY DOOR/FRAME MANUFACTURER~~			

Hardware Group No. 32
For use on Door #(s):

L201A ~~J116A~~

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	STOREROOM LOCK	L9080BDC 17A		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP SCUSH TBWMS		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	GASKETING	488S		BK	ZER

Hardware Group No. 33

For use on Door #(s):

~~J115A~~ N101A ~~J118A~~

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
6	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	CONST LATCHING BOLT	FB51P		630	IVE
1	EA	DUST PROOF STRIKE	DP2		626	IVE
1	EA	STOREROOM LOCK	L9080BDC 17A		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	COORDINATOR	COR X FL		628	IVE
2	EA	MOUNTING BRACKET	MB (AS REQ'D)		689	IVE
2	EA	SURFACE CLOSER	4040XP SCUSH TBWMS		689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS		630	IVE
1	EA	GASKETING	488S		BK	ZER
1	EA	MEETING STILE	8217S		BK	ZER

Hardware Group No. 34

For use on Door #(s):

N114A

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
~~1~~	~~EA~~	~~CONT. HINGE~~	~~112HD~~		~~628~~	~~IVE~~
1	EA	CONT. HINGE	224HD		628	IVE
1	EA	STOREROOM LOCK	L9080BDC 17A		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP SCUSH SRI		689	LCN
~~1~~	~~EA~~	~~CUSH SHOE SUPPORT~~	~~4040XP-30 SRI (AS REQ'D)~~		~~689~~	~~LCN~~
~~1~~	~~EA~~	~~BLADE STOP SPACER~~	~~4040XP-61 SRI (AS REQ'D)~~		~~689~~	~~LCN~~
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	GASKETING	488S		BK	ZER
			~~RATED SEALS BY DOOR/FRAME MANUFACTURER~~			

Hardware Group No. 35

For use on Door #(s):

N205A

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER			FINISH	MFR
~~6~~	~~EA~~	~~HINGE~~	~~5BB1HW 4.5 X 4.5~~			~~652~~	~~IVE~~
1	EA	CONT. HINGE	224HD			628	IVE
1	EA	CONT. HINGE	224HD EPT			628	IVE
1	EA	POWER TRANSFER	EPT10		✓	689	VON
1	EA	CONST LATCHING BOLT	FB51P			630	IVE
1	EA	DUST PROOF STRIKE	DP2			626	IVE
1	EA	EU MORTISE LOCK	L9092BDCEU 17A		✓	626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER			626	B/O
~~1~~	~~EA~~	~~OH STOP~~	~~100S~~			~~630~~	~~GLY~~
1	EA	COORDINATOR	COR X FL			628	IVE
2	EA	MOUNTING BRACKET	MB (AS REQ'D)			689	IVE
1	EA	SURFACE CLOSER	4040XP EDA SRI ~~RW/PA ST-1630 TBWMS – PULL-SIDE~~			689	LCN
1	EA	SURFACE CLOSER	4040XP SCUSH SRI ~~RW/PA TBWMS – PULL-SIDE~~			689	LCN
~~1~~	~~EA~~	~~TOP JAMB MTG PLATE~~	~~4040XP 18TJ~~			~~689~~	~~LCN~~
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS			630	IVE
1	EA	WALL STOP	WS33(X)			626	IVE
1	EA	GASKETING	488S			BK	ZER
1	EA	ASTRAGAL	383AA			AA	ZER
1	EA	CARD READER	PROVIDED BY SECURITY CONTRACTOR		✓		
1	EA	POWER SUPPLY	PS902 - COORDINATE POWER SUPPLY REQUIREMENTS W/SECURITY PROVIDER		✓		VON

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOORS NORMALLY CLOSED AND LOCKED. PRESENTING A VALID CREDENTIAL TO THE READER WILL MOMENTARILY UNLOCK THE TRIM ALLOWING ACCESS. DOORS TO REMAIN LOCKED UPON LOSS OF POWER OR ACTIVATION OF THE FIRE ALARM. FREE EGRESS AT ALL TIMES.
Hardware Group No. 36
For use on Door #(s):
~~H200A~~ J115A L200A N209A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER			FINISH	MFR
6	EA	HINGE	5BB1HW 4.5 X 4.5 NRP			652	IVE
1	EA	POWER TRANSFER	EPT10			689	VON
1	EA	CONST LATCHING BOLT	FB51P			630	IVE
1	EA	DUST PROOF STRIKE	DP2			626	IVE
1	EA	EU MORTISE LOCK	L9092BDCEU 17A			626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER			626	B/O
1	EA	COORDINATOR	COR X FL			628	IVE
2	EA	MOUNTING BRACKET	MB (AS REQ'D)			689	IVE
2	EA	SURFACE CLOSER	4040XP SCUSH **TBWMS**			689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS			630	IVE
1	EA	GASKETING	488S			BK	ZER
1	EA	ASTRAGAL	383AA			AA	ZER
1	EA	CARD READER	PROVIDED BY SECURITY CONTRACTOR				
1	EA	POWER SUPPLY	PS902 - COORDINATE POWER SUPPLY REQUIREMENTS W/SECURITY PROVIDER				VON

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOORS NORMALLY CLOSED AND LOCKED. PRESENTING A VALID CREDENTIAL TO THE READER WILL MOMENTARILY UNLOCK THE TRIM ALLOWING ACCESS. DOORS TO REMAIN LOCKED UPON LOSS OF POWER OR ACTIVATION OF THE FIRE ALARM. FREE EGRESS AT ALL TIMES.

Hardware Group No. 37
For use on Door #(s):
J107B
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
~~1~~	~~EA~~	~~CONT. HINGE~~	~~112HD~~		~~628~~	~~IVE~~
1	**EA**	**CONT. HINGE**	**224HD**		**628**	**IVE**
1	EA	STOREROOM LOCK	L9080BDC 17A		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP SCUSH SRI		689	LCN
~~1~~	~~EA~~	~~CUSH SHOE SUPPORT~~	~~4040XP-30 SRI (AS REQ'D)~~		~~689~~	~~LCN~~
~~1~~	~~EA~~	~~BLADE STOP SPACER~~	~~4040XP-61 SRI (AS REQ'D)~~		~~689~~	~~LCN~~
1	**EA**	**KICK PLATE**	**8400 10" X 2" LDW B-CS**		**630**	**IVE**
1	**EA**	**GASKETING**	**488S**		**BK**	**ZER**
			~~RATED SEALS BY DOOR/FRAME MANUFACTURER~~			

Hardware Group No. 38
For use on Door #(s):
N112A N115B
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112HD		628	IVE
2	EA	MANUAL FLUSH BOLT	FB458		626	IVE
1	EA	STOREROOM LOCK	LV9080HD 17A		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
2	EA	OH STOP	100S		630	GLY
1	EA	SURFACE CLOSER	4040XP EDA SRI		689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 SRI (AS REQ'D)		689	LCN
2	EA	DOOR SWEEP (W/DRIP CAP)	8198AA		AA	ZER
1	EA	THRESHOLD	566A		A	ZER
			WEATHERSTRIPPING BY DOOR/FRAME MFG.			

NOTES:
1) DOORS/FRAMES SHALL BE PREPPED FOR DOOR CONTACTS.

Hardware Group No. 39
For use on Door #(s):
J112B L102B N105A N109A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112HD		628	IVE
1	EA	INSTITUTION LOCK	L9082BDC 17A		626	SCH
2	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP RW/PA SRI - PULL-SIDE		689	LCN
1	EA	WALL STOP/HOLDER	WS45(X)		626	IVE

Hardware Group No. 40
For use on Door #(s):
J105A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112XY		628	IVE
1	EA	DBL CYL STORE W/DB	L9466BDC 17A		626	SCH
2	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP RW/PA SRI - PUSH-SIDE		689	LCN
1	EA	WALL STOP	WS33(X)		626	IVE

Hardware Group No. 41
For use on Door #(s):
H110A H111A ~~H109B~~ ~~H110B~~ ~~H112B~~ ~~H111B~~
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	INSTITUTION LOCK	L9082BDC 17A		626	SCH
2	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP RW/PA ~~TBWMS~~ - PUSH-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP/HOLDER	WS45(X)		626	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 42

For use on Door #(s):
H105A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER			FINISH	MFR
1	EA	CONT. HINGE	224HD			628	IVE
1	EA	CONT. HINGE	224HD EPT			628	IVE
1	EA	POWER TRANSFER	EPT10		✓	689	VON
1	EA	AUTO FLUSH BOLT	FB31P			630	IVE
1	EA	DUST PROOF STRIKE	DP2			626	IVE
1	EA	EU MORTISE LOCK	L9095BDCEU 17A		✓	626	SCH
2	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER			626	B/O
1	EA	COORDINATOR	COR X FL			628	IVE
2	EA	SURFACE CLOSER	4040XPT ~~TBWMS~~ - PULL-SIDE			689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS			630	IVE
2	EA	FIRE/LIFE WALL MAG	SEM7850 (COORDINATE VOLTAGE AS REQ'D)		✓	689	LCN
1	EA	GASKETING	488S			BK	ZER
1	EA	MEETING STILE	8217S			BK	ZER
2	EA	CARD READER	PROVIDED BY SECURITY CONTRACTOR		✓		
1	EA	POWER SUPPLY	PS902 - COORDINATE POWER SUPPLY REQUIREMENTS W/SECURITY PROVIDER		✓		VON

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOORS NORMALLY HELD OPEN BY MAGNETIC HOLD OPENS. MAGNETIC HOLD OPENS ARE WIRED TO THE FIRE ALARM SYSTEM. WHEN SYSTEM IS ACTIVATED, THE MAGNETS RELEASE, AND THE DOORS CLOSE AND LOCK. DOORS CAN ALSO BE MANUALLY RELEASED FROM THE MAGNETS.

WHEN DOORS ARE CLOSED AND LOCKED, PRESENTING A VALID CREDENTIAL TO EITHER READER WILL MOMENTARILY UNLOCK THE TRIM ALLOWING ACCESS. DOORS TO REMAIN LOCKED WITH LOSS OF POWER OR ACTIVATION OF THE FIRE ALARM. FREE EGRESS AT ALL TIMES.

Hardware Group No. 43
For use on Door #(s):
L106B L109B L110B
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER			FINISH	MFR
~~1~~	~~EA~~	~~CONT. HINGE~~	~~112HD~~			~~628~~	~~IVE~~
1	EA	CONT. HINGE	224HD			628	IVE
1	EA	INSTITUTION LOCK	L9082BDC 17A			626	SCH
2	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER			626	B/O
1	EA	SURFACE CLOSER	4040XP RW/PA SRI - PULL-SIDE			689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS			630	IVE
1	EA	FIRE/LIFE WALL MAG	SEM7850 (COORDINATE VOLTAGE AS REQ'D)		✓	689	LCN
1	EA	GASKETING	488S ~~RATED SEALS BY DOOR/FRAME MANUFACTURER~~			BK	ZER

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

THE WALL MAGNET SHALL BE WIRED TO THE FIRE ALARM PANEL THROUGH A SET OF NORMALLY-CLOSED, DRY CONTACTS (SUPPLIED BY THE FIRE ALARM CONTRACTOR).

DOOR NORMALLY HELD OPEN BY MAGNETIC HOLD OPEN. MAGNETIC HOLD OPEN IS WIRED TO THE FIRE ALARM SYSTEM. WHEN SYSTEM IS ACTIVATED, THE MAGNET RELEASES, AND THE DOOR CLOSES. DOOR CAN ALSO BE MANUALLY RELEASED FROM THE MAGNET.

Hardware Group No. 44
For use on Door #(s):
N115C
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
~~1~~	~~EA~~	~~CONT. HINGE~~	~~112HD~~		~~628~~	~~IVE~~
1	EA	CONT. HINGE	224HD		628	IVE
1	EA	INSTITUTION LOCK	L9082BDC 17A		626	SCH
2	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP SCUSH SRI ~~RW/PA – PUSH SIDE~~		689	LCN
~~1~~	~~EA~~	~~WALL STOP~~	~~WS33(X)~~		~~626~~	~~IVE~~
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	GASKETING	488S		BK	ZER
			~~RATED SEALS BY DOOR/FRAME MANUFACTURER~~			

Hardware Group No. 45
For use on Door #(s):
N202B ~~N208A~~
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
~~2~~	~~EA~~	~~CONT. HINGE~~	~~112HD~~		~~628~~	~~IVE~~
2	EA	CONT. HINGE	224HD		628	IVE
2	EA	DUMMY PUSH BAR	350-996-17		626	VON
2	EA	SURFACE CLOSER	4040XP SCUSH ~~EDA~~ SRI		689	LCN
~~2~~	~~EA~~	~~WALL STOP~~	~~WS33(X)~~		~~626~~	~~IVE~~
~~2~~	~~EA~~	~~BLADE STOP SPACER~~	~~4040XP-61 SRI (AS REQ'D)~~		~~689~~	~~LCN~~
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS		630	IVE
2	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 46
For use on Door #(s):
H101A H101B
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112HD		628	IVE
1	EA	DUMMY PUSH BAR	350		626	VON
1	EA	90 DEG OFFSET PULL	8190EZHD 12" O		630-316	IVE
~~1~~	~~EA~~	~~OH STOP~~	~~100S~~		~~630~~	~~GLY~~
~~1~~	~~EA~~	~~SURFACE CLOSER~~	~~4040XP EDA~~		~~689~~	~~LCN~~
1	EA	SURFACE CLOSER	4040XP SCUSH		689	LCN
1	EA	CUSH SHOE SUPPORT	4040XP-30 (AS REQ'D)		689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)		689	LCN
			WEATHERSTRIPPING BY DOOR/FRAME MFG.			

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING FRAME PREPARATIONS.

Hardware Group No. 47
For use on Door #(s):
K101A K101B
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112HD		628	IVE
2	EA	DUMMY PUSH BAR	350		626	VON
2	EA	90 DEG OFFSET PULL	8190EZHD 12" O		630-316	IVE
2	EA	OH STOP	100S		630	GLY
2	EA	SURFACE CLOSER	4040XP EDA		689	LCN
2	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)		689	LCN
			WEATHERSTRIPPING BY DOOR/FRAME MFG.			

Hardware Group No. 48
For use on Door #(s):
H101C
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112HD		628	IVE
1	EA	DUMMY PUSH BAR	350		626	VON
1	EA	90 DEG OFFSET PULL	8190EZHD 12" O		630-316	IVE
~~1~~	~~EA~~	~~OH STOP~~	~~100S~~		~~630~~	~~GLY~~
1	EA	OH STOP	90S - PROVIDE 100S IF EXISTING FRAME IS PREPPED FOR CONCEALED OVERHEAD STOP		630	GLY
1	EA	SURF. AUTO OPERATOR	4642 WMS		689	LCN
2	EA	ACTUATOR, JAMB MOUNT	8310-818T		630	LCN
2	EA	SURFACE MOUNT ~~FLUSH MOUNT~~ BOX	8310-819S ~~F~~			LCN
			WEATHERSTRIPPING BY DOOR/FRAME MFG.			

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING FRAME PREPARATIONS.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

BOTH ACTUATOR BUTTONS ARE ENABLED WHEN THE OPERATOR IS TURNED ON. PUSHING EITHER ENABLED ACTUATOR BUTTON WILL CAUSE THE AUTOMATIC OPERATOR TO MOMENTARILY OPEN THE DOOR. FREE EGRESS AT ALL TIMES. ~~(OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.~~

~~BOTH ACTUATOR BUTTONS ARE ENABLED WHEN THE OPERATOR IS TURNED ON. PUSHING EITHER ENABLED ACTUATOR BUTTON WILL CAUSE THE AUTOMATIC OPERATOR TO MOMENTARILY OPEN THE DOOR. FREE EGRESS AT ALL TIMES.)~~

Hardware Group No. 49
For use on Door #(s):
K101C
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER			FINISH	MFR
2	EA	CONT. HINGE	112HD			628	IVE
2	EA	DUMMY PUSH BAR	350			626	VON
2	EA	90 DEG OFFSET PULL	8190EZHD 12" O			630-316	IVE
2	EA	OH STOP	100S			630	GLY
1	EA	SURFACE CLOSER	4040XP EDA			689	LCN
1	EA	SURF. AUTO OPERATOR	4642 WMS		✓	689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)			689	LCN
2	EA	ACTUATOR, JAMB MOUNT	8310-818T		✓	630	LCN
2	EA	SURFACE MOUNT ~~FLUSH MOUNT~~ BOX	8310-819S ~~F~~				LCN
			WEATHERSTRIPPING BY DOOR/FRAME MFG.				

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

BOTH ACTUATOR BUTTONS ARE ENABLED WHEN THE OPERATOR IS TURNED ON. PUSHING EITHER ENABLED ACTUATOR BUTTON WILL CAUSE THE AUTOMATIC OPERATOR TO MOMENTARILY OPEN THE DOOR. FREE EGRESS AT ALL TIMES.
Hardware Group No. 50- Not Used
For use on Door #(s):
~~N206A~~
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112HD		628	IVE
2	EA	PANIC HARDWARE	9849-EO-LBL		626	VON
2	EA	SURFACE CLOSER	4040XP EDA SRI		689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 SRI (AS REQ'D)		689	LCN
2	EA	WALL STOP/HOLDER	WS45(X)		626	IVE

Hardware Group No. 51- Not Used
For use on Door #(s):
~~L101A~~
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	224HD		628	IVE
2	EA	PANIC HARDWARE	9849-L-17-LBL		626	VON
2	EA	SFIC RIM CYLINDER	80-116 (W/DISP CONST CORE)		626	SCH
2	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
2	EA	SURFACE CLOSER	4040XP EDA TBWMS		689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS		630	IVE
2	EA	WALL STOP/HOLDER	WS45(X)		626	IVE
2	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 52**- Not Used**
For use on Door #(s):
~~**N200B**~~
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112HD		628	IVE
1	EA	REMOVABLE MULLION	KR4954 STAB		689	VON
2	EA	PANIC HARDWARE	98-L-17		626	VON
1	EA	SFIC MORT. CYLINDER	80-110 (W/DISP CONST CORE)		626	SCH
2	EA	SFIC RIM CYLINDER	80-116 (W/DISP CONST CORE)		626	SCH
3	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
2	EA	SURFACE CLOSER	4040XP EDA SRI		689	LCN
2	EA	BLADE STOP SPACER	4040XP-61 SRI (AS REQ'D)		689	LCN
2	EA	WALL STOP	WS33(X)		626	IVE

Hardware Group No. 53
For use on Door #(s):
N200A ~~**N208B**~~
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
~~2~~	~~EA~~	~~CONT. HINGE~~	~~112HD~~		~~628~~	~~IVE~~
2	**EA**	**CONT. HINGE**	**224HD**		**628**	**IVE**
1	EA	**FIRE RATED** REMOVABLE MULLION	KR9954 STAB		689	VON
2	EA	**FIRE EXIT HARDWARE** ~~**PANIC HARDWARE**~~	98-L-F-17		626	VON
1	EA	SFIC MORT. CYLINDER	80-110 (W/DISP CONST CORE)		626	SCH
2	EA	SFIC RIM CYLINDER	80-116 (W/DISP CONST CORE)		626	SCH
3	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
2	EA	SURFACE CLOSER	4040XP SCUSH SRI		689	LCN
~~2~~	~~EA~~	~~CUSH SHOE SUPPORT~~	~~4040XP-30 SRI (AS REQ'D)~~		~~689~~	~~LCN~~
~~2~~	~~EA~~	~~BLADE STOP SPACER~~	~~4040XP-61 SRI (AS REQ'D)~~		~~689~~	~~LCN~~
2	**EA**	**KICK PLATE**	**8400 10" X 2" LDW B-CS**		**630**	**IVE**
1	**EA**	**GASKETING**	**488S**		**BK**	**ZER**
1	**EA**	**MEETING STILE**	**8217S**		**BK**	**ZER**
			~~**RATED SEALS BY DOOR/FRAME MANUFACTURER**~~			

Hardware Group No. 54
For use on Door #(s):
J100A J200A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112HD		628	IVE
1	EA	REMOVABLE MULLION	KR4954 STAB		689	VON
2	EA	PANIC HARDWARE	98-L-17		626	VON
1	EA	SFIC MORT. CYLINDER	80-110 (W/DISP CONST CORE)		626	SCH
2	EA	SFIC RIM CYLINDER	80-116 (W/DISP CONST CORE)		626	SCH
3	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
2	EA	SURFACE CLOSER	4040XP SCUSH		689	LCN
2	EA	CUSH SHOE SUPPORT	4040XP-30 (AS REQ'D)		689	LCN
2	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)		689	LCN

Hardware Group No. 55
For use on Door #(s):
ST01C ST02B
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	224HD		628	IVE
1	EA	FIRE EXIT HARDWARE	98-L-BE-F-17		626	VON
1	EA	SURFACE CLOSER	4040XP EDA ~~TBWMS~~		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS33(X)		626	IVE
1	EA	GASKETING	488S		BK	ZER

NOTE:
1) PROVIDE 8" KICK PLATE AT DOORS WITH 10" BOTTOM RAIL.
Hardware Group No. 56
For use on Door #(s):
ST03C ~~ST03B~~
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	224HD		628	IVE
2	EA	FIRE EXIT HARDWARE	9849-L-BE-F-17-LBL - AUXILIARY FIRE LATCH (AS REQ'D)		626	VON
2 ~~1~~	EA	SURFACE CLOSER	4040XP EDA ~~TBWMS~~		689	LCN
~~1~~	~~EA~~	~~SURFACE CLOSER~~	~~4040XP SCUSH TBWMS~~		~~689~~	~~LCN~~
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS		630	IVE
2	EA	FIRE/LIFE WALL MAG	SEM7850 (COORDINATE VOLTAGE AS REQ'D)		689	LCN
~~1~~	~~EA~~	~~WALL STOP~~	~~WS33(X)~~		~~626~~	~~IVE~~
1	EA	GASKETING	488S		BK	ZER
1	EA	MEETING STILE	8217S		BK	ZER

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

THE WALL MAGNETS SHALL BE WIRED TO THE FIRE ALARM PANEL THROUGH A SET OF NORMALLY-CLOSED, DRY CONTACTS (SUPPLIED BY THE FIRE ALARM CONTRACTOR).

DOORS NORMALLY HELD OPEN BY MAGNETIC HOLD OPENS. MAGNETIC HOLD OPENS ARE WIRED TO THE FIRE ALARM SYSTEM. WHEN SYSTEM IS ACTIVATED, THE MAGNETS RELEASE, AND THE DOORS CLOSE. DOORS CAN ALSO BE MANUALLY RELEASED FROM THE MAGNETS.
Hardware Group No. 57
For use on Door #(s):
L101C
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	224HD		628	IVE
1	EA	FIRE EXIT HARDWARE	98-L-BE-F-17		626	VON
1	EA	SURFACE CLOSER	4040XP EDA ~~TBWMS~~		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	FIRE/LIFE WALL MAG	SEM7850 (COORDINATE VOLTAGE AS REQ'D)		689	LCN
1	EA	GASKETING	488S		BK	ZER

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

THE WALL MAGNET SHALL BE WIRED TO THE FIRE ALARM PANEL THROUGH A SET OF NORMALLY-CLOSED, DRY CONTACTS (SUPPLIED BY THE FIRE ALARM CONTRACTOR).

DOOR NORMALLY HELD OPEN BY MAGNETIC HOLD OPEN. MAGNETIC HOLD OPEN IS WIRED TO THE FIRE ALARM SYSTEM. WHEN SYSTEM IS ACTIVATED, THE MAGNET RELEASES, AND THE DOOR CLOSES. DOOR CAN ALSO BE MANUALLY RELEASED FROM THE MAGNET.
Hardware Group No. 58
For use on Door #(s):
N204A ~~N200A~~
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	224HD		628	IVE
2	EA	FIRE EXIT HARDWARE	9849-EO-F-LBL - AUXILIARY FIRE LATCH (AS REQ'D)		626	VON
2	EA	SURFACE CLOSER	4040XP EDA ~~TBWMS~~		689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS		630	IVE
2	EA	FIRE/LIFE WALL MAG	SEM7850 (COORDINATE VOLTAGE AS REQ'D)		689	LCN
1	EA	GASKETING	488S		BK	ZER
1	EA	ASTRAGAL	PROVIDED BY DOOR SUPPLIER			

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

THE WALL MAGNETS SHALL BE WIRED TO THE FIRE ALARM PANEL THROUGH A SET OF NORMALLY-CLOSED, DRY CONTACTS (SUPPLIED BY THE FIRE ALARM CONTRACTOR).

DOORS NORMALLY HELD OPEN BY MAGNETIC HOLD OPENS. MAGNETIC HOLD OPENS ARE WIRED TO THE FIRE ALARM SYSTEM. WHEN SYSTEM IS ACTIVATED, THE MAGNETS RELEASE, AND THE DOORS CLOSE. DOORS CAN ALSO BE MANUALLY RELEASED FROM THE MAGNETS.
Hardware Group No. 59
For use on Door #(s):
H105B
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	224HD		628	IVE
2	EA	FIRE EXIT HARDWARE	9849-L-F-17-LBL - AUXILIARY FIRE LATCH (AS REQ'D)		626	VON
2	EA	SFIC RIM CYLINDER	80-116 (W/DISP CONST CORE)		626	SCH
2	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
2	EA	SURFACE CLOSER	4040XP EDA ~~TBWMS~~		689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS		630	IVE
2	EA	FIRE/LIFE WALL MAG	SEM7850 (COORDINATE VOLTAGE AS REQ'D)		689	LCN
1	EA	GASKETING	488S		BK	ZER
1	EA	MEETING STILE	8217S		BK	ZER

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

THE WALL MAGNETS SHALL BE WIRED TO THE FIRE ALARM PANEL THROUGH A SET OF NORMALLY-CLOSED, DRY CONTACTS (SUPPLIED BY THE FIRE ALARM CONTRACTOR).

DOORS NORMALLY HELD OPEN BY MAGNETIC HOLD OPENS. MAGNETIC HOLD OPENS ARE WIRED TO THE FIRE ALARM SYSTEM. WHEN SYSTEM IS ACTIVATED, THE MAGNETS RELEASE, AND THE DOORS CLOSE. DOORS CAN ALSO BE MANUALLY RELEASED FROM THE MAGNETS.

Hardware Group No. 60

For use on Door #(s):

J114B J114C J114F

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	224HD		628	IVE
2	**EA**	**CONT. HINGE**	**224XY** **- DOOR J114F ONLY**		**628**	**IVE**
1	EA	FIRE RATED REMOVABLE MULLION	KR9954 STAB		689	VON
2	EA	FIRE EXIT HARDWARE	98-L-F-17		626	VON
1	EA	SFIC MORT. CYLINDER	80-110 (W/DISP CONST CORE)		626	SCH
2	EA	RIM CYLINDER	BLANK CYLINDER		626	
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
2	EA	SURFACE CLOSER	4040XP EDA ~~TBWMS~~		689	LCN
2	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
2	EA	FIRE/LIFE WALL MAG	SEM7850 (COORDINATE VOLTAGE AS REQ'D)		689	LCN
1	EA	GASKETING	488S		BK	ZER
1	EA	MEETING STILE	8217S		BK	ZER

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

THE WALL MAGNETS SHALL BE WIRED TO THE FIRE ALARM PANEL THROUGH A SET OF NORMALLY-CLOSED, DRY CONTACTS (SUPPLIED BY THE FIRE ALARM CONTRACTOR).

MAGNETIC HOLD OPENS ARE CONTINUOUSLY ENERGIZED ALLOWING THE DOORS TO BE HELD OPEN UNDER NORMAL BUILDING CONDITIONS. WHEN THE FIRE ALARM IS ACTIVATED, POWER TO THE MAGNETIC HOLD OPENS IS DISCONNECTED CAUSING THE DOOR CLOSERS TO CLOSE THE DOORS. DOORS CAN ALSO BE MANUALLY RELEASED FROM THE MAGNETS.

Hardware Group No. 61

For use on Door #(s):
ST01A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER			FINISH	MFR
1	EA	CONT. HINGE	224HD			628	IVE
1	EA	FIRE EXIT HARDWARE	98-L-F-17			626	VON
1	EA	SFIC RIM CYLINDER	80-116 (W/DISP CONST CORE)			626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER			626	B/O
1	EA	SURFACE CLOSER	4040XP SCUSH ~~TBWMS~~			689	LCN
~~1~~	~~EA~~	~~KICK PLATE~~	~~8400 10" X 2" LDW B-CS~~			~~630~~	~~IVE~~
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS			630	IVE
1	EA	GASKETING	488S			BK	ZER

~~(NOTE:~~
~~1) PROVIDE 8" KICK PLATE AT DOORS WITH 10" BOTTOM RAIL.)~~

Hardware Group No. 62
For use on Door #(s):
J114A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER			FINISH	MFR
1	EA	CONT. HINGE	224HD			628	IVE
1	EA	CONT. HINGE	224HD EPT			628	IVE
1	EA	POWER TRANSFER	EPT10		✓	689	VON
1	EA	FIRE RATED REMOVABLE MULLION	KR9954 STAB			689	VON
1	EA	FIRE EXIT HARDWARE	98-L-DT-F-17			626	VON
1	EA	ELEC FIRE EXIT HARDWARE	QEL-98-L-NL-F-17		✓	626	VON
1	EA	SFIC MORT. CYLINDER	80-110 (W/DISP CONST CORE)			626	SCH
1	EA	SFIC RIM CYLINDER	80-116 (W/DISP CONST CORE)			626	SCH
2	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER			626	B/O
2	EA	SURFACE CLOSER	4040XP EDA ~~TBWMS~~			689	LCN
2	EA	KICK PLATE	8400 10" X 2" LDW B-CS			630	IVE
2	EA	FIRE/LIFE WALL MAG	SEM7850 (COORDINATE VOLTAGE AS REQ'D)		✓	689	LCN
1	EA	GASKETING	488S			BK	ZER
1	EA	MEETING STILE	8217S			BK	ZER
1	EA	CARD READER	PROVIDED BY SECURITY CONTRACTOR		✓		
1	EA	POWER SUPPLY	PS902 900-2RS-FA - COORDINATE POWER SUPPLY REQUIREMENTS W/SECURITY PROVIDER		✓		VON

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

THE WALL MAGNETS SHALL BE WIRED TO THE FIRE ALARM PANEL THROUGH A SET OF NORMALLY-CLOSED, DRY CONTACTS (SUPPLIED BY THE FIRE ALARM CONTRACTOR).

DOORS NORMALLY HELD OPEN BY MAGNETIC HOLD OPENS. MAGNETIC HOLD OPENS ARE WIRED TO THE FIRE ALARM SYSTEM. WHEN SYSTEM IS ACTIVATED, THE MAGNETS RELEASE, AND THE DOORS CLOSE AND LOCK. DOORS CAN ALSO BE MANUALLY RELEASED FROM THE MAGNETS.

WHEN DOORS ARE CLOSED AND LOCKED, PRESENTING A VALID CREDENTIAL TO THE READER WILL MOMENTARILY RETRACT THE PANIC DEVICE LATCH ALLOWING ACCESS. DOORS TO REMAIN LOCKED WITH LOSS OF POWER OR ACTIVATION OF THE FIRE ALARM. FREE EGRESS AT ALL TIMES.
Hardware Group No. 63
For use on Door #(s):
ST02A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER			FINISH	MFR
1	EA	CONT. HINGE	112HD			628	IVE
1	EA	PANIC HARDWARE	98-NL			626	VON
1	EA	SFIC RIM CYLINDER	80-159 (W/KEYED CONST CORE)			626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER			626	B/O
1	EA	ELECTRIC STRIKE	6300 FSE			630	VON
1	EA	OH STOP	100S			630	GLY
1	EA	SURFACE CLOSER	4040XP EDA			689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)			689	LCN
1	EA	DOOR SWEEP (W/DRIP CAP)	8198AA			AA	ZER
1	EA	THRESHOLD	566A			A	ZER
1	EA	CARD READER	PROVIDED BY SECURITY CONTRACTOR				
1	EA	POWER SUPPLY	PS902 - COORDINATE POWER SUPPLY REQUIREMENTS W/SECURITY PROVIDER WEATHERSTRIPPING BY DOOR/FRAME MFG.				VON

NOTES:
1) DOOR/FRAME SHALL BE PREPPED FOR DOOR CONTACT.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOOR NORMALLY CLOSED AND LOCKED. PRESENTING A VALID CREDENTIAL TO THE READER WILL MOMENTARILY UNLOCK THE ELECTRIC STRIKE ALLOWING ACCESS. DOOR TO REMAIN LOCKED UPON LOSS OF POWER. FREE EGRESS AT ALL TIMES.

Hardware Group No. 64
For use on Door #(s):
H100C
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER			FINISH	MFR
1	EA	CONT. HINGE	112HD			628	IVE
1	EA	PANIC HARDWARE	98-NL-OP-110MD			626	VON
1	EA	SFIC RIM CYLINDER	80-159 (W/KEYED CONST CORE)			626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER			626	B/O
1	EA	ELECTRIC STRIKE	6300 FSE		✓	630	VON
1	EA	90 DEG OFFSET PULL	8190EZHD 12" O			630-316	IVE
~~1~~	~~EA~~	~~OH STOP~~	~~100S~~			~~630~~	~~GLY~~
1	EA	OH STOP	90S - PROVIDE 100S IF EXISTING FRAME IS PREPPED FOR CONCEALED OVERHEAD STOP			630	GLY
1	EA	SURF. AUTO OPERATOR	4642 WMS		✓	689	LCN
2	EA	ACTUATOR, JAMB MOUNT	8310-818T		✓	630	LCN
2	EA	SURFACE MOUNT ~~FLUSH MOUNT~~ BOX	8310-819S ~~F~~				LCN
1	EA	DOOR SWEEP (W/DRIP CAP)	8198AA			AA	ZER
1	EA	THRESHOLD	566A			A	ZER
1	EA	CARD READER	PROVIDED BY SECURITY CONTRACTOR		✓		
1	EA	POWER SUPPLY	PS902 900-4RL - COORDINATE POWER SUPPLY REQUIREMENTS W/SECURITY PROVIDER WEATHERSTRIPPING BY DOOR/FRAME MFG.		✓		VON

NOTES:
1) DOOR/FRAME SHALL BE PREPPED FOR DOOR CONTACT.
2) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING FRAME PREPARATIONS.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOOR NORMALLY CLOSED AND LOCKED. PRESENTING A VALID CREDENTIAL TO THE READER WILL MOMENTARILY UNLOCK THE ELECTRIC STRIKE AND MOMENTARILY ENABLE THE EXTERIOR ACTUATOR BUTTON. PUSHING THE ENABLED EXTERIOR ACTUATOR BUTTON WILL CAUSE THE AUTOMATIC OPERATOR TO MOMENTARILY OPEN THE DOOR. THE INTERIOR ACTUATOR BUTTON TO BE ENABLED AT ALL TIMES. PUSHING THE INTERIOR ACTUATOR BUTTON WILL MOMENTARILY UNLOCK THE ELECTRIC STRIKE AND CAUSE THE AUTOMATIC OPERATOR TO MOMENTARILY OPEN THE DOOR. DOOR TO REMAIN LOCKED UPON LOSS OF POWER. FREE EGRESS AT ALL TIMES.

~~(NOTES:~~
~~1) DOOR/FRAME SHALL BE PREPPED FOR DOOR CONTACT.~~

~~OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.~~

~~DOOR NORMALLY CLOSED AND LOCKED. PRESENTING A VALID CREDENTIAL TO THE READER WILL MOMENTARILY UNLOCK THE ELECTRIC STRIKE AND MOMENTARILY ENABLE THE EXTERIOR ACTUATOR BUTTON. PUSHING THE ENABLED EXTERIOR ACTUATOR BUTTON WILL CAUSE THE AUTOMATIC OPERATOR TO MOMENTARILY OPEN THE DOOR. THE INTERIOR ACTUATOR BUTTON TO BE ENABLED AT ALL TIMES. PUSHING THE INTERIOR ACTUATOR BUTTON WILL MOMENTARILY UNLOCK THE ELECTRIC STRIKE AND CAUSE THE AUTOMATIC OPERATOR TO MOMENTARILY OPEN THE DOOR. DOOR TO REMAIN LOCKED UPON LOSS OF POWER. FREE EGRESS AT ALL TIMES.)~~

Hardware Group No. 65
For use on Door #(s):
ST03A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER			FINISH	MFR
1	EA	CONT. HINGE	112HD			628	IVE
1	EA	CONT. HINGE	112HD EPT			628	IVE
1	EA	POWER TRANSFER	EPT10		✓	689	VON
1	EA	REMOVABLE MULLION	KR4954 STAB			689	VON
1	EA	PANIC HARDWARE	98-DT			626	VON
1	EA	ELEC PANIC HARDWARE	HD-QEL-98-NL		✓	626	VON
1	EA	SFIC MORT. CYLINDER	80-110 (W/DISP CONST CORE)			626	SCH
1	EA	SFIC RIM CYLINDER	80-159 (W/KEYED CONST CORE)			626	SCH
2	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER			626	B/O
2	EA	OH STOP	100S			630	GLY
2	EA	SURFACE CLOSER	4040XP EDA			689	LCN
2	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)			689	LCN
1	EA	MULLION SEAL	8780N			BK	ZER
2	EA	DOOR SWEEP (W/DRIP CAP)	8198AA			AA	ZER
1	EA	THRESHOLD	566A			A	ZER
1	EA	CARD READER	PROVIDED BY SECURITY CONTRACTOR		✓		
1	EA	POWER SUPPLY	PS902 900-2RS - COORDINATE POWER SUPPLY REQUIREMENTS W/SECURITY PROVIDER WEATHERSTRIPPING BY DOOR/FRAME MFG.		✓		VON

NOTES:
1) DOORS/FRAMES SHALL BE PREPPED FOR DOOR CONTACTS.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOORS NORMALLY CLOSED AND LOCKED. PRESENTING A VALID CREDENTIAL TO THE READER WILL MOMENTARILY RETRACT THE PANIC DEVICE LATCH ALLOWING ACCESS. DOORS TO REMAIN LOCKED WITH LOSS OF POWER. FREE EGRESS AT ALL TIMES.
Hardware Group No. 66
For use on Door #(s):
K100C
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER			FINISH	MFR
2	EA	CONT. HINGE	112HD EPT			628	IVE
2	EA	POWER TRANSFER	EPT10		✓	689	VON
1	EA	REMOVABLE MULLION	KR4954 STAB			689	VON
1	EA	ELEC PANIC HARDWARE	HD-QEL-98-EO		✓	626	VON
1	EA	ELEC PANIC HARDWARE	HD-QEL-98-NL-OP-110MD		✓	626	VON
1	EA	SFIC MORT. CYLINDER	80-110 (W/DISP CONST CORE)			626	SCH
1	EA	SFIC RIM CYLINDER	80-159 (W/KEYED CONST CORE)			626	SCH
2	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER			626	B/O
2	EA	90 DEG OFFSET PULL	8190EZHD 12" O			630-316	IVE
2	EA	OH STOP	100S			630	GLY
1	EA	SURFACE CLOSER	4040XP EDA			689	LCN
1	EA	SURF. AUTO OPERATOR	4642 WMS		✓	689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)			689	LCN
2	EA	ACTUATOR, JAMB MOUNT	8310-818T		✓	630	LCN
2	EA	SURFACE MOUNT BOX	8310-819S				LCN
1	EA	MULLION SEAL	8780N			BK	ZER
2	EA	DOOR SWEEP (W/DRIP CAP)	8198AA			AA	ZER
1	EA	THRESHOLD	566A			A	ZER
1	EA	CARD READER	PROVIDED BY SECURITY CONTRACTOR		✓		
1	EA	POWER SUPPLY	PS906 900-4RL 900-4RL - COORDINATE POWER SUPPLY REQUIREMENTS W/SECURITY PROVIDER		✓		VON
			WEATHERSTRIPPING BY DOOR/FRAME MFG.				

NOTES:
1) DOORS/FRAMES SHALL BE PREPPED FOR DOOR CONTACTS.
2) POWER SUPPLY SHARED W/DOORS K100A AND K100B.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

UNLOCKED HOURS: DOORS ELECTRONICALLY DOGGED DOWN, THUS IN PUSH/PULL MODE. PUSHING EITHER AUTO OPERATOR ACTUATOR WILL SIGNAL AUTO OPERATOR TO MOMENTARILY OPEN THE ONE LEAF.

LOCKED HOURS: DOORS NORMALLY CLOSED AND LOCKED. PRESENTING A VALID CREDENTIAL TO THE READER WILL MOMENTARILY RETRACT THE PANIC DEVICE LATCH (ALLOWING ACCESS) AND ACTIVATE EXTERIOR AUTO OPERATOR ACTUATOR. PUSHING EXTERIOR AUTO OPERATOR ACTUATOR AT THIS TIME WILL SIGNAL AUTO OPERATOR TO MOMENTARILY OPEN ONE LEAF. PUSH INTERIOR ACTUATOR AT ANY TIME WILL MOMENTARILY RETRACT THE PANIC DEVICE LATCH AND SIGNAL AUTO OPERATOR TO MOMENTARILY OPEN ONE LEAF.

DOORS TO REMAIN LOCKED WITH LOSS OF POWER. FREE EGRESS AT ALL TIMES.
Hardware Group No. 67
For use on Door #(s):
K100A K100B
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112HD EPT		628	IVE
2	EA	POWER TRANSFER	EPT10		689	VON
1	EA	REMOVABLE MULLION	KR4954 STAB		689	VON
2	EA	ELEC PANIC HARDWARE	HD-QEL-98-EO		626	VON
1	EA	SFIC MORT. CYLINDER	80-110 (W/DISP CONST CORE)		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
2	EA	90 DEG OFFSET PULL	8190EZHD 12" O		630-316	IVE
2	EA	OH STOP	100S		630	GLY
2	EA	SURFACE CLOSER	4040XP EDA		689	LCN
2	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)		689	LCN
1	EA	MULLION SEAL	8780N		BK	ZER
2	EA	DOOR SWEEP (W/DRIP CAP)	8198AA		AA	ZER
1	EA	THRESHOLD	566A		A	ZER
			WEATHERSTRIPPING BY DOOR/FRAME MFG.			

NOTES:
1) DOORS/FRAMES SHALL BE PREPPED FOR DOOR CONTACTS.
2) POWER SUPPLY LISTED W/DOOR K100C.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

UNLOCKED HOURS: DOORS ELECTRONICALLY DOGGED DOWN, THUS IN PUSH/PULL MODE.

LOCKED HOURS: DOORS NORMALLY CLOSED AND LOCKED.

DOORS TO REMAIN LOCKED WITH LOSS OF POWER. FREE EGRESS AT ALL TIMES.
Hardware Group No. 68
For use on Door #(s):

~~H105C~~ H114B H117B K102A L100A L101B
L105A ST01B

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112HD		628	IVE
1	EA	ELEC PANIC HARDWARE	RX-98-EO-ALK (9-VOLT BATTERY)		626	VON
1	EA	SFIC MORT. CYLINDER	80-110 (W/DISP CONST CORE)		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	OH STOP	100S		630	GLY
1	EA	SURFACE CLOSER	4040XP EDA		689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)		689	LCN
1	EA	DOOR SWEEP (W/DRIP CAP)	8198AA		AA	ZER
1	EA	THRESHOLD	566A		A	ZER
			WEATHERSTRIPPING BY DOOR/FRAME MFG.			

NOTES:
1) DOOR/FRAME SHALL BE PREPPED FOR DOOR CONTACT.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOOR NORMALLY CLOSED AND LOCKED. WHEN TOUCH PAD IS DEPRESSED, EGRESS IS ALLOWED, BUT THE INTERNAL ALARM SOUNDS. THE ALARM CAN BE ARMED OR DISARMED BY A KEYED CYLINDER IN EXIT DEVICE COVER PLATE. THE DEVICE INCLUDES A DECAL READING "EMERGENCY EXIT ONLY. ALARM WILL SOUND".
Hardware Group No. 69
For use on Door #(s):
J114D
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112HD		628	IVE
1	EA	REMOVABLE MULLION	KR4954 STAB		689	VON
1	EA	ELEC PANIC HARDWARE	RX-98-EO-ALK (9-VOLT BATTERY)	✓	626	VON
1	EA	ELEC PANIC HARDWARE	RX-98-NL-OP-110MD-ALK (9-VOLT BATTERY)	✓	626	VON
3	EA	SFIC MORT. CYLINDER	80-110 (W/DISP CONST CORE)		626	SCH
1	EA	SFIC RIM CYLINDER	80-159 (W/KEYED CONST CORE)		626	SCH
4	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
2	EA	OH STOP	100S		630	GLY
2	EA	SURFACE CLOSER	4040XP EDA		689	LCN
2	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)		689	LCN
1	EA	MULLION SEAL	8780N		BK	ZER
2	EA	DOOR SWEEP (W/DRIP CAP)	8198AA		AA	ZER
1	EA	THRESHOLD	566A		A	ZER
			WEATHERSTRIPPING BY DOOR/FRAME MFG.			

NOTES:
1) DOORS/FRAMES SHALL BE PREPPED FOR DOOR CONTACTS.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOORS NORMALLY CLOSED AND LOCKED. WHEN TOUCH PAD IS DEPRESSED, EGRESS IS ALLOWED, BUT THE INTERNAL ALARM SOUNDS. THE ALARM CAN BE ARMED OR DISARMED BY A KEYED CYLINDER IN EXIT DEVICE COVER PLATE. THE DEVICE INCLUDES A DECAL READING "EMERGENCY EXIT ONLY. ALARM WILL SOUND".
Hardware Group No. 70
For use on Door #(s):
J114E K100G N100A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112HD		628	IVE
1	EA	REMOVABLE MULLION	KR4954 STAB		689	VON
2	EA	ELEC PANIC HARDWARE	RX-98-EO-ALK (9-VOLT BATTERY)	✓	626	VON
3	EA	SFIC MORT. CYLINDER	80-110 (W/DISP CONST CORE)		626	SCH
3	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
2	EA	OH STOP	100S		630	GLY
2	EA	SURFACE CLOSER	4040XP EDA		689	LCN
2	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)		689	LCN
1	EA	MULLION SEAL	8780N		BK	ZER
2	EA	DOOR SWEEP (W/DRIP CAP)	8198AA		AA	ZER
1	EA	THRESHOLD	566A		A	ZER
			WEATHERSTRIPPING BY DOOR/FRAME MFG.			

NOTES:
1) DOORS/FRAMES SHALL BE PREPPED FOR DOOR CONTACTS.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOORS NORMALLY CLOSED AND LOCKED. WHEN TOUCH PAD IS DEPRESSED, EGRESS IS ALLOWED, BUT THE INTERNAL ALARM SOUNDS. THE ALARM CAN BE ARMED OR DISARMED BY A KEYED CYLINDER IN EXIT DEVICE COVER PLATE. THE DEVICE INCLUDES A DECAL READING "EMERGENCY EXIT ONLY. ALARM WILL SOUND".
Hardware Group No. 71
For use on Door #(s):
M100A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112HD		628	IVE
1	EA	REMOVABLE MULLION	KR4954 STAB		689	VON
1	EA	ELEC PANIC HARDWARE	RX-98-EO-ALK (9-VOLT BATTERY)	✓	626	VON
1	EA	ELEC PANIC HARDWARE	RX-98-NL-OP-110MD-ALK (9-VOLT BATTERY)	✓	626	VON
3	EA	SFIC MORT. CYLINDER	80-110 (W/DISP CONST CORE)		626	SCH
1	EA	RIM CYLINDER	BLANK CYLINDER		626	
3	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
2	EA	OH STOP	100S		630	GLY
2	EA	SURFACE CLOSER	4040XP EDA SRI		689	LCN
2	EA	BLADE STOP SPACER	4040XP-61 SRI (AS REQ'D)		689	LCN
1	**EA**	**MULLION SEAL**	**8780N**		**BK**	**ZER**
2	EA	DOOR SWEEP (W/DRIP CAP)	8198AA		AA	ZER
1	EA	THRESHOLD	566A		A	ZER
			WEATHERSTRIPPING BY DOOR/FRAME MFG.			

NOTES:
1) DOORS/FRAMES SHALL BE PREPPED FOR DOOR CONTACTS.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOORS NORMALLY CLOSED AND LOCKED. WHEN TOUCH PAD IS DEPRESSED, EGRESS IS ALLOWED, BUT THE INTERNAL ALARM SOUNDS. THE ALARM CAN BE ARMED OR DISARMED BY A KEYED CYLINDER IN EXIT DEVICE COVER PLATE. THE DEVICE INCLUDES A DECAL READING "EMERGENCY EXIT ONLY. ALARM WILL SOUND".
Hardware Group No. 72
For use on Door #(s):
M100B
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112HD		628	IVE
1	EA	REMOVABLE MULLION	KR4954 STAB		689	VON
2	EA	ELEC PANIC HARDWARE	RX-98-EO-ALK (9-VOLT BATTERY)	✓	626	VON
3	EA	SFIC MORT. CYLINDER	80-110 (W/DISP CONST CORE)		626	SCH
3	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
2	EA	OH STOP	100S		630	GLY
2	EA	SURFACE CLOSER	4040XP EDA SRI		689	LCN
2	EA	BLADE STOP SPACER	4040XP-61 SRI (AS REQ'D)		689	LCN
1	**EA**	**MULLION SEAL**	**8780N**		**BK**	**ZER**
2	EA	DOOR SWEEP (W/DRIP CAP)	8198AA		AA	ZER
1	EA	THRESHOLD	566A		A	ZER
			WEATHERSTRIPPING BY DOOR/FRAME MFG.			

NOTES:
1) DOORS/FRAMES SHALL BE PREPPED FOR DOOR CONTACTS.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOORS NORMALLY CLOSED AND LOCKED. WHEN TOUCH PAD IS DEPRESSED, EGRESS IS ALLOWED, BUT THE INTERNAL ALARM SOUNDS. THE ALARM CAN BE ARMED OR DISARMED BY A KEYED CYLINDER IN EXIT DEVICE COVER PLATE. THE DEVICE INCLUDES A DECAL READING "EMERGENCY EXIT ONLY. ALARM WILL SOUND".
Hardware Group No. 73
For use on Door #(s):
H113A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112HD		628	IVE
2	EA	MANUAL FLUSH BOLT	FB458		626	IVE
1	EA	PANIC HARDWARE	LD-9875-NL		626	VON
1	EA	SFIC MORT CYLINDER	80-132 (W/KEYED CONST CORE)		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
2	EA	OH STOP	100S		630	GLY
1	EA	SURFACE CLOSER	4040XP EDA		689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)		689	LCN
2	EA	DOOR SWEEP (W/DRIP CAP)	8198AA		AA	ZER
1	EA	THRESHOLD	566A		A	ZER
			WEATHERSTRIPPING BY DOOR/FRAME MFG.			

NOTES:
1) DOOR/FRAME SHALL BE PREPPED FOR DOOR CONTACTS.

Hardware Group No. 74
For use on Door #(s):
H100A H100B
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112HD		628	IVE
1	EA	PANIC HARDWARE	98-EO		626	VON
1	EA	90 DEG OFFSET PULL	8190EZHD 12" O		630-316	IVE
~~1~~	~~EA~~	~~OH STOP~~	~~100S~~		~~630~~	~~GLY~~
~~1~~	~~EA~~	~~SURFACE CLOSER~~	~~4040XP EDA~~		~~689~~	~~LCN~~
1	EA	SURFACE CLOSER	4040XP SCUSH		689	LCN
1	EA	CUSH SHOE SUPPORT	4040XP-30 (AS REQ'D)		689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)		689	LCN
1	EA	DOOR SWEEP (W/DRIP CAP)	8198AA		AA	ZER
1	EA	THRESHOLD	566A		A	ZER
			WEATHERSTRIPPING BY DOOR/FRAME MFG.			

NOTES:
1) DOOR/FRAME SHALL BE PREPPED FOR DOOR CONTACT.
2) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING FRAME PREPARATIONS.-
~~(NOTES:~~
~~1) DOOR/FRAME SHALL BE PREPPED FOR DOOR CONTACT.)~~

Hardware Group No. 75
For use on Door #(s):
K102B K107C K107D ~~J200F~~ ~~J200G~~
Each to have:

QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR
		HARDWARE BY DOOR MANUFACTURER		

Hardware Group No. 76
For use on Door #(s):
EL01A EL01B

Each to have:

QTY	DESCRIPTION	CATALOG NUMBER		FINISH	MFR
		HARDWARE BY DOOR MANUFACTURER			
Hardware Group No. 77					
For use on Door #(s):					
H110B	**H111B**				
Each to have:					
QTY	**DESCRIPTION**	**CATALOG NUMBER**		**FINISH**	**MFR**
3 EA	**HINGE**	**5BB1HW 4.5 X 4.5**		**652**	**IVE**
1 EA	**OFFICE/ENTRY LOCK**	**L9050BDC 17A 09-544 L283-711**		**626**	**SCH**
1 EA	**SFIC PERMANENT CORE**	**FINAL KEYING AND CORE BY OWNER**		**626**	**B/O**
1 EA	**SURFACE CLOSER**	**4040XP RW/PA - PULL-SIDE**		**689**	**LCN**
1 EA	**KICK PLATE**	**8400 10" X 2" LDW B-CS**		**630**	**IVE**
1 EA	**WALL STOP/HOLDER**	**WS45(X)**		**626**	**IVE**
3 EA	**SILENCER**	**SR64**		**GRY**	**IVE**
Hardware Group No. 78					
For use on Door #(s):					
N100B					
Each to have:					
QTY	**DESCRIPTION**	**CATALOG NUMBER**		**FINISH**	**MFR**
3 EA	**HINGE**	**5BB1HW 4.5 X 4.5 NRP**		**652**	**IVE**
1 EA	**DBL CYL STORE W/DB**	**L9466BDC 17A**		**626**	**SCH**
2 EA	**SFIC PERMANENT CORE**	**FINAL KEYING AND CORE BY OWNER**		**626**	**B/O**
1 EA	**SURFACE CLOSER**	**4040XP RW/PA - PUSH-SIDE**		**689**	**LCN**
1 EA	**KICK PLATE**	**8400 10" X 2" LDW B-CS**		**630**	**IVE**
1 EA	**WALL STOP**	**WS33(X)**		**626**	**IVE**
1 EA	**GASKETING**	**488S**		**BK**	**ZER**
Hardware Group No. 79					
For use on Door #(s):					
H106	**J119A**	**N107A**	**N201A**		
Each to have:					
QTY	**DESCRIPTION**	**CATALOG NUMBER**		**FINISH**	**MFR**
3 EA	**HINGE**	**5BB1HW 4.5 X 4.5**		**652**	**IVE**
3 EA	**HINGE**	**5BB1HW 5 X 4.5 - DOOR N201A ONLY**		**652**	**IVE**
1 EA	**STOREROOM LOCK**	**L9080BDC 17A**		**626**	**SCH**
1 EA	**SFIC PERMANENT CORE**	**FINAL KEYING AND CORE BY OWNER**		**626**	**B/O**
1 EA	**SURFACE CLOSER**	**4040XP RW/PA - PULL-SIDE**		**689**	**LCN**
1 EA	**KICK PLATE**	**8400 10" X 2" LDW B-CS**		**630**	**IVE**
1 EA	**WALL STOP**	**WS33(X)**		**626**	**IVE**
1 EA	**GASKETING**	**488S**		**BK**	**ZER**
Hardware Group No. 80					
For use on Door #(s):					
J116A					
Each to have:					

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	STOREROOM LOCK	L9080BDC 17A		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	SURFACE CLOSER	4040XP RW/PA - PUSH-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS33(X)		626	IVE
1	EA	GASKETING	488S		BK	ZER

Hardware Group No. 81
For use on Door #(s):
N101B
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112HD		628	IVE
1	EA	STOREROOM LOCK	LV9080HD 17A		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	OH STOP	100S		630	GLY
1	EA	SURFACE CLOSER	4040XP EDA		689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)		689	LCN
1	EA	DOOR SWEEP (W/DRIP CAP)	8198AA		AA	ZER
1	EA	THRESHOLD	566A		A	ZER
			WEATHERSTRIPPING BY DOOR/FRAME MFG.			

NOTES:
1) DOOR/FRAME SHALL BE PREPPED FOR DOOR CONTACT.
Hardware Group No. 82
For use on Door #(s):
L102A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112HD		628	IVE
1	EA	PANIC HARDWARE	LD-98-L-2SI-17		626	VON
1	EA	SFIC RIM CYLINDER	80-116 (W/DISP CONST CORE)		626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER		626	B/O
1	EA	RIM CYL THUMBTURN	XB13-379		626	SCH
1	EA	SURFACE CLOSER	4040XP SCUSH SRI		689	LCN
1	EA	CUSH SHOE SUPPORT	4040XP-30 SRI (AS REQ'D)		689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 SRI (AS REQ'D)		689	LCN

Hardware Group No. 83
For use on Door #(s):
J200B J200C
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER			FINISH	MFR
2	EA	CONT. HINGE	224HD			628	IVE
2	EA	FIRE EXIT HARDWARE	9849-EO-F-LBL - AUXILIARY FIRE LATCH (AS REQ'D)			626	VON
2	EA	OH STOP	100S			630	GLY
2	EA	FIRE/LIFE CLOSER	4414ME B80G			689	LCN
2	EA	MOUNTING PLATE	4410ME-18G			689	LCN
1	EA	TRANSFORMER	4410ME-3210				LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS			630	IVE
1	EA	GASKETING	488S			BK	ZER
1	EA	ASTRAGAL	PROVIDED BY DOOR SUPPLIER				

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

THE FIRE LIFE SAFETY ELECTRONIC HOLD OPEN DOOR CLOSERS SHALL BE WIRED TO THE FIRE ALARM PANEL THROUGH A SET OF NORMALLY-CLOSED, DRY CONTACTS (SUPPLIED BY THE FIRE ALARM CONTRACTOR).

DOORS NORMALLY HELD OPEN BY FIRE LIFE SAFETY ELECTRONIC HOLD OPEN DOOR CLOSERS. FIRE LIFE SAFETY ELECTRONIC HOLD OPEN DOOR CLOSERS ARE WIRED TO THE FIRE ALARM SYSTEM. WHEN SYSTEM IS ACTIVATED, THE FIRE LIFE SAFETY ELECTRONIC HOLD OPEN DOOR CLOSERS RELEASE, AND THE DOORS CLOSE. DOORS CAN ALSO BE MANUALLY RELEASED FROM THE FIRE LIFE SAFETY ELECTRONIC HOLD OPEN DOOR CLOSERS.

Hardware Group No. 84

For use on Door #(s):

ST03B

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER			FINISH	MFR
2	EA	CONT. HINGE	224HD			628	IVE
2	EA	FIRE EXIT HARDWARE	9849-L-F-17-LBL - AUXILIARY FIRE LATCH (AS REQ'D)			626	VON
2	EA	SFIC RIM CYLINDER	80-116 (W/DISP CONST CORE)			626	SCH
2	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER			626	B/O
2	EA	SURFACE CLOSER	4040XP EDA SRI			689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS			630	IVE
2	EA	FIRE/LIFE WALL MAG	SEM7850 (COORDINATE VOLTAGE AS REQ'D)			689	LCN
1	EA	GASKETING	488S			BK	ZER
1	EA	MEETING STILE	8217S			BK	ZER

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

THE WALL MAGNETS SHALL BE WIRED TO THE FIRE ALARM PANEL THROUGH A SET OF NORMALLY-CLOSED, DRY CONTACTS (SUPPLIED BY THE FIRE ALARM CONTRACTOR).

DOORS NORMALLY HELD OPEN BY MAGNETIC HOLD OPENS. MAGNETIC HOLD OPENS ARE WIRED TO THE FIRE ALARM SYSTEM. WHEN SYSTEM IS ACTIVATED, THE MAGNETS RELEASE, AND THE DOORS CLOSE. DOORS CAN ALSO BE MANUALLY RELEASED FROM THE MAGNETS.

Hardware Group No.85

For use on Door #(s):

H200A

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER			FINISH	MFR
6	EA	HINGE	5BB1HW 4.5 X 4.5 NRP			652	IVE
1	EA	CONST LATCHING BOLT	FB51P			630	IVE
1	EA	DUST PROOF STRIKE	DP2			626	IVE
1	EA	PASSAGE SET	L9010 17A			626	SCH
1	EA	COORDINATOR	COR X FL			628	IVE
2	EA	MOUNTING BRACKET	MB (AS REQ'D)			689	IVE
2	EA	SURFACE CLOSER	4040XP SCUSH			689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS			630	IVE
1	EA	GASKETING	488S			BK	ZER
1	EA	ASTRAGAL	383AA			AA	ZER

Hardware Group No.86
For use on Door #(s):
H105C
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER			FINISH	MFR
1	EA	CONT. HINGE	224HD			628	IVE
1	EA	ELEC FIRE EXIT HARDWARE	RX-98-EO-F-ALK (9-VOLT BATTERY)		✓	626	VON
1	EA	SFIC MORT. CYLINDER	80-110 (W/DISP CONST CORE)			626	SCH
1	EA	SFIC PERMANENT CORE	FINAL KEYING AND CORE BY OWNER			626	B/O
1	EA	OH STOP	100S			630	GLY
1	EA	SURFACE CLOSER	4040XP EDA			689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS			630	IVE
1	EA	RAIN DRIP	142AA			AA	ZER
1	EA	GASKETING	429AA-S			AA	ZER
1	EA	DOOR SWEEP (W/DRIP CAP)	8198AA			AA	ZER
1	EA	THRESHOLD	566A			A	ZER

NOTES:
1) DOOR/FRAME SHALL BE PREPPED FOR DOOR CONTACT.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOOR NORMALLY CLOSED AND LOCKED. WHEN TOUCH PAD IS DEPRESSED, EGRESS IS ALLOWED, BUT THE INTERNAL ALARM SOUNDS. THE ALARM CAN BE ARMED OR DISARMED BY A KEYED CYLINDER IN EXIT DEVICE COVER PLATE. THE DEVICE INCLUDES A DECAL READING "EMERGENCY EXIT ONLY. ALARM WILL SOUND".

END OF SECTION