Technology Request for Bid



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DIVISION 00 – BIDDING & CONTRACT REQUIREMENTS

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File/Name Description

Not Used

END OF SECTION

SECTION 00 11 16 INVITATION TO BID

PART 1 - GENERAL

1.01 WORK INCLUDED: SECURITY SYSTEM RENOVATIONS

A. Grand Ledge Public Schools (Owner) is seeking bids for new and renovations to existing video monitoring and card access, associated equipment and installation services. Proposed systems shall be configured and installed to service Owner's buildings across multiple instructional facilities, and as described herein.

B. Project: SECURITY SYSTEM RENOVATIONS

C. Owner: Grand Ledge Public Schools

220 Lamson Street

Grand Ledge, Michigan 48837

D. Designer: Communications by Design, Inc.

E. Sites of Work:

 Beagle Middle School 600 South Street Grand Ledge, Michigan 48837

- Delta Center Elementary 305 South Canal Road Lansing, Michigan 48917
- 3. Delta Mills Early Childhood Center 6816 Delta River Drive Lansing, Michigan 48906
- Grand Ledge High School
 820 Spring Street
 Grand Ledge, Michigan 48837
- Hayes Intermediate School 12620 Nixon Road Grand Ledge, Michigan 48837
- Holbrook Elementary
 5 Jones Street
 Grand Ledge, Michigan 48837

- Neff Early Childhood Center
 950 Jenne Street
 Grand Ledge, Michigan 48837
- 8. Sawdon Administration Building 220 Lamson Street Grand Ledge, Michigan 48837
- 9. Wacousta Elementary 9135 Herbison Road Eagle, Michigan 48822
- 10. Willow Ridge Elementary12840 Nixon RoadGrand Ledge, Michigan 48837
- Grand Ledge Transportation/Operations
 Nixon Rd
 Grand Ledge, Michigan 48837

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: Out on January 02, 2023
- 2. Pre-Bid Meeting: January 05, 2024 at 2:00 PM
- 3. Intent to Bids Due: January 10, 2024 by 5:00pm
- 4. Question and Clarification Deadline: January 10, 2024 by 5:00pm
- 5. Public Bids Due: January 24, 2024 at 2:00 PM

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 <u>highly encouraged</u> for all contractors interested in bidding on any components or portions of this project. Attendance at the pre-bid conference may be a factor considered during evaluation of bids.

B. Time: January 5, 2024 at 2:00pm

C. Location: Grand Ledge Public Schools

Sawdon Administration Building

220 Lamson Street

Grand Ledge, Michigan 48837

- D. Any appendix documents identified in the table of contents herein will be distributed and reviewed at this conference.
- E. Physical building inspections of sites of work may 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 fortyeight (48) hours prior to the appointed opening time provided they are in sealed packages and addressed as specified herein.

B. Bid Receipt Deadline: January 24, 2024 at 2:00 PM

C. Bid Opening Location: Grand Ledge Public Schools

Sawdon Administration Building

220 Lamson Street

Grand Ledge, Michigan 48837

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 <u>rszilagy@cbdconsulting.com</u>

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 Grand Ledge Public 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 January 10, 2024. Only bidders returning a completed "Intent to Bid Form" will directly be notified of required addenda.

<u>Company Information</u> Name:				
Address Line1:				
Address Line2:				
City, State and Zip Code				
<u>Primary Contact Information</u> Name:				
Phone No.:				
Fax. No.:				
E-Mail Address:				
Portions of the bid for which you will be responding:				
□ Sec	ction 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. Insure label is attached in a manner to prevent accidental removal or defacement. Label shall serve as sole identification for sealed bid at submission.

Grand Ledge Public Schools	
Attention: Mr. Mark Deschaine	
220 Lamson Street	
Grand Ledge, Michigan 48837	
SECURITY SYSTEM RENOVATIONS	
TECHNOLOGY BID #3027	
Addendum NoDated	
January 24 2024 at 2:00 PM	
	Attention: Mr. Mark Deschaine 220 Lamson Street Grand Ledge, Michigan 48837 SECURITY SYSTEM RENOVATIONS TECHNOLOGY BID #3027 Addendum No Dated Addendum No Dated Addendum No Dated

BID FORM

BID TO:	Grand Ledge Public Schools Attention: Mr. Mark Deschaine 220 Lamson Street Grand Ledge, Michigan 48837		
BID FROM:			
PROJECT:	SECURITY SYSTEM RENOVATIONS TECHNOLOGY BID #3027		
work, and having exam referenced, including, b labor, material, equipm	ag familiarized themselves with all local conditions affecting the cost of ined the site and all applicable Bidding Documents herein, and herein but not limited to, all addenda issued thereto, hereby propose to furnish all ent, applicable taxes and services required for proper completion of each ries of this project for the sum of:		
	Title		
Said amount written above cons			
TAXES: Bid sum includes all ap ALLOWANCES:			
COST OF BONDS: Bid sum includes cost of	of furnishing a Performance Bond and Labor and Material Payment Bond, one hundred percent (100%) of the bid.		
The following addenda	MENT OF ADDENDA: have been received, are hereby acknowledged, and their execution is id and alternate bids herein.		
Addendum No	DatedDated		
alternate bids as may be	be increased or decreased in accordance with each of the following e selected, following procedures stated herein. Voluntary Alternates shown d 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		_
Voluntary Alternate F		_
PRINCIPAL SUBCO	NTRACTORS	
As required herein, the fo	llowing Subcontractors are proposed to be used for this project:	
Legal Name:	Work Proposed	_
Legal Name:	Work Proposed	_
	as required herein, is a bid security in the form of Certified idder's Bond in the amount of:	
	Dollars (\$)	,
penalty, by the Owner, if form of Contract incorpor	Dollars (\$) ich it is agreed, shall be retained as liquidated damages, not as a the undersigned fails to execute the Contract in conformity with the ated and referenced herein and fails to furnish specified bonds within 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:

(If Corporation, affix Seal)

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.

Resp	Respectfully submitted,				
Date:					
Firm Name:					
By:					
Signed:					
Title:					
Official Address:					
Telephone Number:					
Primary Contact Email Address:					

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 herby acknowledged and certified by Bidder that <u>no</u> 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				
In the County of State of	of			
Ву	Seal or Stamp:			
Notary Public Signature				
My commission expires on:				

REFERENCES

Fxwrp hutpip h=# bbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbb					
Dgguhvv######	#ddddddddddddddddddddddddddddddddddddd				
FW/2/volvn2]ls##					
Frowdfwtpdph#					
Frqwdfwhildon###					
Skrojh # ## #					
H (p d]b### #					
Vfrsh#r#sunhfw#					
# # #					
# # #					
Gown#ri#Erpsobwirq=#					
#					
#					
Fxwrphu#poph#					
Dgguhvv######					
F1w 2/wolvh2 1s###					
Frqwdfw#pdph#					
Frqwdfwhildor####					
Skrojh # ## #					
H (p d]b### #					
Vfrsh#r#sunhfw#					
# # #					
# # #					
Gown#r#Erpsobwarq#					
#					
#					
Fxwrphutpolph#					
Dgguhvv######					
F1w 2/wolkh2]1s###					
Frqwdfw#pdph#					
Frqwdfwhildor####					
Skrqh####################################					
H (p d l = ### #					
Vfrsh#r#sunhfw#					
# # #	#ddddddddddddddddddddddddddddddddddddd				
# # #					
GoMn#ri#Erpsbnwlrq#					

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	aph 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. Form submitted must materially match below both in content and format. Electronic version of this form is required with bid package as Microsoft Excel compatible spreadsheet on provided USB drive for each project section being bid. Failure to provide appropriate and complete SCHEDULE OF VALUES, as determined by the Owner and/or Designer, may result in disqualification of Bid.)

Bidder:	Bid Division: 281300
-	

				Unit	Unit Labor	Total
ID	Q ty	Part Number	Mfg and Description	Cost	Cost	Proposed Cost
12	2.3	1 the i tuntoei	nig wa Description	Cost	Cost	110poseu cost
			Labor Rate for add work (hourly)			
			Travel/Trip charge for add work			
			Annual labor rate increase %			
			Material Net Cost Mark-up %			
			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 <u>not</u> 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 WITHDRAWL

- 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 subcontractors 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 a 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 28 13 00 BUILDING ACCESS SYSTEM

PART 1 - GENERAL

1.01 DESCRIPTION OF PROJECT

- A. Work described in this specification section pertains to upgrade or replacement of organization wide access control system. Owner's existing system is based on an S2 Systems configuration that has been for multiple years. Current system documentation is provided in relevant appendices contained herein.
- B. Over the past several years, work has been conducted on the S2 based system by a single contractor. During this time, Contractor has had the responsibility to verify and/or enforce consistent standards of installation, connection or workmanship. The Owner desires that a single contractor continue to be engaged to maintain standards and the installation, connectivity and workmanship across the system in the district. This may, or may not, involve new software systems based on the bids received in this process.
- C. Contractor shall advise, coordinate and work cooperatively with Owner representatives and/or owner's designee related to any installation or special security provisions.
- 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 contractors, Designer and the Owner as is appropriate.

1.02 WARRANTY

- A. Complete installation of any system components and/or system modifications shall be free from defect and/or failure due to workmanship for a period of one (1) year. 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.
- 3. Contractor shall provide all services under the manufacturer warranty that the manufacturer warranty provides for, including, but not limited to labor, components, shipping and replacement material coordination with manufacturer.
- 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. 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. 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 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 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.

1.07 CONTRACT TERM PRICING

A. Owner intends to work exclusively with awarded Contractor during a three (3) year contract period related to additions, changes and/or system modifications. All such work that is not applicable to the warranty specified herein shall be conducted at rates and pricing consistent with that provided for and documented herein.

- 1. Such work shall be conducted in a professional and expeditious manner consistent with best practices and industry norms.
- 2. Hourly rates, including travel charges, shall remain fixed for the term of the contract except as provided for herein.
- B. Contractors shall provide a consistent mark-up from net costs for all materials and products supplied to Owner as part of any contract work for the Owner's benefit.
- C. Owner may, at its sole discretion, direct Designer to conduct an audit of Contractor costs, labor accounting, and mark-ups to verify compliance with contract provisions.
 - 1. In the event of any such audit, as directed by the Owner, Contractor shall fully comply with Designer requests for original cost documentation as the basis for pricing to the Owner as well as original time accounting documentation for the basis of labor pricing.
 - 2. Any such audit may only be ordered by the Owner if pricing being provided is not deemed consistent, or the Owner has reason to believe pricing from the contract is not being provided as required for in the cost plus model of this contract.
 - 3. Any such audit will be provided for the Owner without any labor or material cost to the Owner and to the satisfaction of the Owner.
 - 4. Any audit findings resulting in incorrect carges being found will result in the following contract adjustments:
 - a. For any overcharges found, the Contractor shall provide full reimbursement payment within two (2) weeks of the final audit findings being published. Such payment shall include full amount of the overpayment identified and an additional one percent (1%) per month from the date of overpayment charges.
 - b. For any undercharges found, the Owner shall provide full additional "catch-up" payment within four (4) weeks of the final audit findings being published.
- D. Owner reserves the right, with input from Designer and Contractor, to select other model(s) of materials, products, and/or equipment at their sole discretion, at any point during the contract term. Any such model change, being from the same or replacement product family, shall be accommodated by Contractor and provided at the same mark-up rates as similar and/or prior models as proposed under this contract.

E. The Owner shall have the right prior to the end of the anticipated three year duration of this contract to extend the contract for an additional period of three (3) years at its sole discretion. Any such extension shall be determined by the Owner and communicated to Contractor after 30 months of satisfactory contract execution by the Contractor. Upon receipt of notification from Owner of contract extension, Contractor agrees that all terms and conditions of the original 36 months of contract shall be extended for an additional 36 months.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Acceptable Manufacturers (In alphabetical order):
 - 1. AiPhone
 - 2. Axis
 - 3. Bosch
 - 4. General Electric
 - 5. HID
 - 6. Honeywell
 - 7. IDenticard
 - 8. Mercury
 - 9. S2 Systems
 - 10. Or equal
- 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. See schedule(s) and reference files for additional detail.

2.09 CENTRAL MANAGEMENT SOFTWARE

- A. Central management software shall meet or exceed the following:
 - 1. Accessed from a standard Personal Computer Server provided by Owner. Owner preference will be to provide a combination of physical and virtual servers on existing system and resource needs.
 - 2. Capable of being fully administered from any web browser attached to the network to view alarm notifications.
 - 3. Administration access shall be protected by unique and secure log on (User ID and Password).
 - 4. Update Controller(s) in real-time for changes including, but not limited to adding and deleting access levels, adding and deleting card holders and deactivating card holders.
 - 5. Provide badge creation enabling Owner to create customized photo identification credentials. System shall be compatible with both real-time video camera to capture images, or with images taken with a standard digital camera and saved in a standard picture format.
 - 6. Provide communication to credential readers, each with individual associated door interface hardware. See associated schedules herein.

- 7. System reporting shall include, but not be limited to:
 - a. Access through entrance doors.
 - b. Attempted access per entrance.
- Systems providing integration with Video Monitoring System and/or Intrusion Detection System as specified herein shall be favorably considered.
- 9. Contractor shall have final responsibility for system compatibility and compliance with Owner standards. Where system integration issues may exist with identified materials, Contractor shall promptly inform Designer of concerns and obtain direction from Designer and Owner.

2.10 CONTROLLER

- A. All new and/or replacement door controllers shall be generic industry standard Mercury (or equal) hardware. No manufacturer specific (non-open) hardware will be considered.
- B. An adequate number of controllers to support the quantity of credential readers shall be provided.
- C. The following controllers shall be included in the base bid amounts including all labor and materials necessary to complete the Owner's installation requirements:
 - 1. Ten (10) Mercury LP1502 Door Controllers.
 - 2. Four (4) Mercury MR62e PoE IP Door Controllers.
- D. Door Controller(s) shall provide, but not be limited to:
 - 1. Capable of supporting multiple types and styles of credential readers.
 - 2. Two (2) inputs for credential readers.
 - 3. Two (2) outputs for door interface hardware.
 - 4. On-board battery backup to ensure a minimum of thirty (30) minutes of system functionality in the case of commercial power failure.
 - a. In the event Ethernet PoE based controllers are to be supplied, and are sufficient to power all door devices required for operation, Owner PoE device UPS will provide 30 minute required power back-up.

2.11 CREDENTIALS

- A. Three hundred (300) credentials shall be provided.
- B. Credentials shall be International Electronics/HID Corporation iCLASS.

2.12 CREDENTIAL READERS

- A. The following Credential Readers shall be provided:
 - 1. Twenty (20) HID RP40 MultiClass SE Readers
 - 2. Eight (8) HID RP10 MultiClass SE Readers
- B. Credential Readers shall be provided that meet or exceed the following requirements:
 - 1. Read the specified Credentials as provided for herein.
 - 2. DC powered from associated Controller.
 - 3. Response time for passage requests of 800ms.
 - 4. Sealed weatherproof shell enclosure rated for outdoor operation.
 - 5. Surface mounted on exterior of structure and completely and properly weather sealed.
 - 6. LED or other type of visual indicator indicating request status.
 - 7. Audible status indicator upon user prompt.
 - 8. Range of four inches (4").

2.13 DOOR INTERFACE HARDWARE (ELECTRIC LOCKS)

- A. Door Interface Hardware shall meet or exceed the following:
 - 1. End-of-line resistors terminated at the controller to protect against surges generated by activation of electric door strikes.
 - 2. Power supplies meeting or exceeding the door hardware manufacturer requirements.
 - 3. Power supplies shall come equipped with appropriate contact closure(s) to accept system commands.
 - 4. Preference will be given to configurations that integrate Door interface hardware Devices (electric locks) with PoE based door controllers and eliminate the necessity for additional power sources.

B. See associated schedule(s) herein for location and quantity.

2.14 DOOR POSITION INDICATORS (Contacts)

- A. The following Door Position Indicators (DPI) shall be provided:
 - 1. Thirty (30) Bosch ISN-CSD70-W or equal

2.15 ELECTRIC STRIKES

- A. The following Electric Strikes shall be provided:
 - 1. Sixteen (16) Low current Trine 4850 PoE friendly device (or equal)
 - 2. Twelve (12) Low current Trine 4100 PoE friendly devices (or equal)
- B. Electric Strikes shall meet or exceed the following requirments:
 - 1. Support for both 12 and 24 volt operation
 - 2. Rated for over 1,000,000 life cycles
 - 3. Tested for over 1,500 pounds of holding force
 - 4. ANSI/BHMA Grade 1 compliant

2.16 REQUEST TO EXIT (REX) DEVICES

- A. Twenty (20) REX Devices shall be provided in the base bid.
- B. Each door controlled by the system shall be equipped with PIR REX device.
 - 1. Bosch DS160 Series or equal
- C. Devices not included integral to door hardware shall be mounted on the overhead door casing.
- D. Devices shall provide three (3) beam configurations and include appropriate contact closure for system signaling.
- E. Devices shall operate on DC power and include appropriate dedicated filtered and electronically regulated power supply. Preference will be given to configurations that integrate REX Devices with PoE based door controllers and eliminate the necessity for additional power sources.

2.17 IP DOOR STATIONS

A. The following IP Door Stations shall be provided:

- 1. Two (2) AiPhone IX-DV SIP compliant PoE or equal door stations
- 2. Two (2) AiPhone IX-MV7-HB SIP compliant PoE or equal desk stations
- B. IP Door Stations shall meet or exceed the following requirements:
 - 1. Fully SIP compliant and interoperable with Avaya IP Office Call Control
 - 2. 802.3at PoE+ compliance
 - 3. 1.2Megapixel color camera
 - 4. Weather and vandal resistant enclosure
 - 5. Multiple contact outputs
 - 6. Multiple contact inputs
 - 7. Seven (7) inch color screen at desk station
 - 8. Integrated handset at desk station

2.18 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.

2.19 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 \$50,000.00 for contract services related to supply, reconfiguration, replacement, installation and connection of related hardware during the contract period.

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. 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.
- 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/or other contractor's work 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 as provided for by product manufacturers and commonly accepted industry standards 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 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.
- E. Worksites include the following:
- F. Worksites include the following:
 - Beagle Middle School
 600 South Street
 Grand Ledge, Michigan 48837
 - Delta Center Elementary
 305 South Canal Road
 Lansing, Michigan 48917
 - 3. Delta Mills Early Childhood Center 6816 Delta River Drive Lansing, Michigan 48906
 - 4. Grand Ledge High School 820 Spring Street Grand Ledge, Michigan 48837
 - Hayes Intermediate School
 12620 Nixon Road
 Grand Ledge, Michigan 48837
 - Holbrook Elementary
 5 Jones Street
 Grand Ledge, Michigan 48837
 - Neff Early Childhood Center
 950 Jenne Street
 Grand Ledge, Michigan 48837
 - Sawdon Administration Building 220 Lamson Street Grand Ledge, Michigan 48837
 - Wacousta Elementary
 9135 Herbison Road
 Eagle, Michigan 48822

- 10. Willow Ridge Elementary12840 Nixon RoadGrand Ledge, Michigan 48837
- Grand Ledge Transportation/Operations
 Nixon Rd
 Grand Ledge, Michigan 48837
- 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 insure 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 and/or Owner, 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 and/or Owner 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.

3.04 DOCUMENTATION

- A. Documentation shall also be provided in a digital format in file formats and on media as specified by Owner and/or Designer.
- 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. 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.

3.05 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.
- B. Contractor shall provide training for the Owner designated system operators(s). Owner shall designate up to six (6) system operators to be trained. Training shall be a minimum of one (1), four (4) hour session(s) in length, at the convenience of the Owner personnel, and of sufficient duration to satisfactorily complete training on all system administration functions including, but not limited to:
 - 1. Basic credential and user adds, changes and management.
 - 2. Creation of, review of, communication of and response to system alerts.
 - 3. Review of system alerts, logs and monitoring of configuration parameters including, but not limited to, configuration changes and device status.
- C. Contractor shall provide training for the Owner designated system administrator(s). Owner shall designate up to four (4) administrators to be trained. Training shall be a minimum of one (1), four (4) hour session(s) in

length, at the convenience of the Owner personnel, and of sufficient duration to satisfactorily complete training on all system administration functions including, but not limited to:

- 1. Basic trouble shooting of the installed system and components including diagnostic and problem resolution actions.
- 2. System back-up and restore functions and procedures for all system parameters and configurations.
- 3. Review of system alerts, logs and monitoring of configuration parameters including, but not limited to, configuration changes and device status.

3.06 SCHEDULE, MEETINGS AND PLANS

A. Schedule

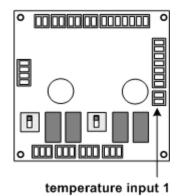
- 1. Final Vendor Presentations: January 30 February 01, 2024
- 2. Contractor Chosen: February 12, 2024
- 3. Work Commences: March 2024
- 4. Substantial Completion of Project: February 2027
- 5. Project Close-out: February 2027
- B. Planed sequence of operations shall be established by the Contractor 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

BE 1

IP Address:	10.97.101.11	Subnet Mask:		255.255.255.0	Gateway:	10.97.101.1	Firmware Version
Unique Identifier	: 2E0000001FA04927	Configuration P	rotected:	No	Available Slots:		
Slot Blade Type	•		Resource	e Details		Associated	Portal
1 MicroNo 2-pin i	ode Access Sect	ion	reader 1:	: RDR BE Elevat	or 2 1st Floor	BE Elevato	r 2 1st Floor
1 2 3			reader 2:	: RDR BE Elevat	or 2 2nd Floor	BE Elevato	r 2 2nd Floor
	ader 1		input 1:				
_	ader 2		input 2:				
			input 3:				
			input 4:				
			output 1:	Output BE Elev	ator 2 1st Floor	BE Elevato	r 2 1st Floor
3-pin	outputs		output 2:	Output BE Elev	ator 2 2nd Floor	BE Elevato	r 2 2nd Floor
Serial Num	ber: 65535		output 3:				
Firmware \	ersion: 28		output 4:				

2 MicroNode Temperature Section



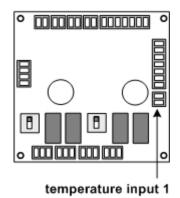
temp 1:

Serial Number: 65535 Firmware Version: 28

BE 2

IP Address:	10.97.101.12	Subnet Mask:	255.255.255.0	Gateway:	10.97.101.1	Firmware Version	
Unique Identifi	er: B300000019BA2027	Configuration Protected:	No	Available Slots:			
Slot Blade Ty	rpe		Resource Detai	ils	Associate	ed Portal	
	Node Access Secti	reader 1: BE 01 Reader BE 01 E Main			Main		
-	3 4		reader 2: BE 02	2 Reader	BE 02 SE	Ξ	
		input 1: BE 02 (Contact	BE 02 SE			
	reader 1 — B		input 2: BE 01 ADA Input				
			input 3: BE Aiphone				
		input 4: BE Unlock Button					
٠ 📖 ه			output 1: BE 01	Strike	BE 01 E	Main	
1 3-pi	2 3 4 n outputs		output 2: BE 01	ADA Output			
Serial Nu	umber: 65535		output 3: BE 02	! Strike	BE 02 SE	≣	
Firmware	e Version: 28		output 4:				

2 MicroNode Temperature Section

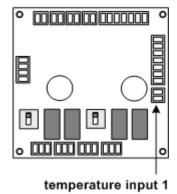


Serial Number: 65535 Firmware Version: 28 temp 1:

BE 3

IP Address:	10.97.101.13	Subnet Mask:	255.255.255.0	Gateway:	10.97.101.1	Firmware Version:	
Unique Identifier:	830000021030227	Configuration Protected:	No	Available Slots:			
Slot Blade Type			Resource D	etails	Associate	ed Portal	
1 MicroNo 2-pin is	ode Access Sect	reader 1: Bl	E 03 Reader	BE 03 SV	BE 03 SW		
1 2 3	-	reader 2: Bl	∃ 04 Reader	BE 04 W			
		input 1: BE	03 Contact	BE 03 SW			
	ader 1 — Black	input 2: BE	04 Contact	BE 04 W	BE 04 W		
			input 3:				
			input 4: ema	ail test			
			output 1: BE	E 03 Strike	BE 03 SV	v	
3-pin	outputs		output 2:				
Serial Num	ber: 65535		output 3: BE	E 04 Strike	BE 04 W		
Firmware V	ersion: 28		output 4:				

2 MicroNode Temperature Section

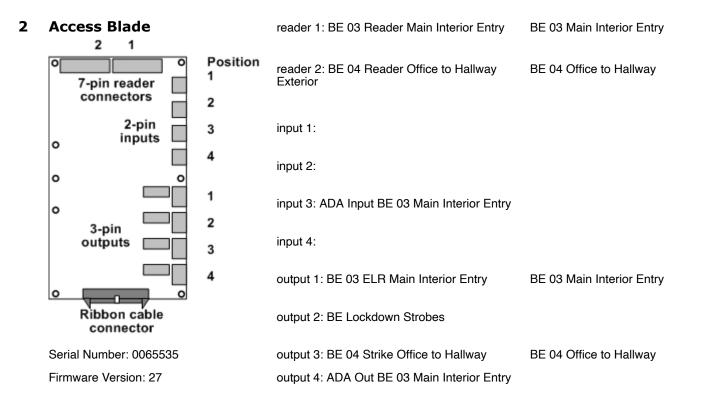


Serial Number: 65535 Firmware Version: 28 temp 1:

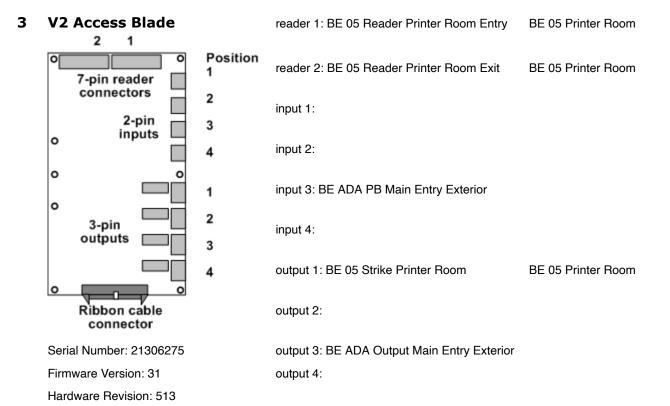
BE 4

IP A	ddress:	10.97.101.14	Subne	et Mask:	255.255.255.0	Gateway:	10.97.101.1	Firmware Version
Uniq	ue Identifier	: 00004C3FD3	964953 Config	guration Protected:	No	Available S	lots:	
Slot	Blade Type)		Resource Details			Associated Portal	
1	Access 2	Blade 1		reader 1: BE 01 Re	eader Main Exte	rior Entry	BE 01 Main Exteri	ior Entry
	7-pin reader connectors		Position 1	reader 2: BE 02 Re to Office	eader Main Entr <u>y</u>	y Vestibule	BE 02 Main Entry Office	Vestibule to
	2-pir	2-pin inputs	3	input 1: BE 01 Cor	ntact Main Exteri	or Entry	BE 01 Main Exteri	ior Entry
	0		4	input 2: BE 01 RTE	E Main Exterior E	Entry	BE 01 Main Exteri	ior Entry
	0		1 2	input 3: BE 01 AiP Entry	hone Input Main	Exterior		
	3-p outp		3	input 4: BE Lockdo	own Input PB			
	•		4	output 1: BE 01 EL	R Main Exterior	Entry	BE 01 Main Exteri	ior Entry
		oon cable nnector		output 2:				
	Serial Num	ber: 0041		output 3: BE 02 St Office	rike Main Entry \	Vestibule to	BE 02 Main Entry Office	Vestibule to
	Firmware \	/ersion: 26		output 4:				

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V2 Access Blade reader 1: BE 06 Reader Back Office Entry BE 06 Back Office Position reader 2: BE 06 Reader Back Office Exit BE 06 Back Office 7-pin reader connectors input 1: 2-pin inputs 0 input 2: 0 input 3: 0 2 3-pin outputs input 4: 3 output 1: BE 06 Strike Back Office BE 06 Back Office Ribbon cable output 2: connector Serial Number: 21306290 output 3: Firmware Version: 31 output 4: Hardware Revision: 513

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BE 08 Choir - Band Exterior

Appendix A

5 **V2** Access Blade reader 1: BE 07 Reader Choir - Band Interior BE 07 Choir - Band Interior 1 Position reader 2: BE 08 Reader Choir - Band Exterior BE 08 Choir - Band Exterior 7-pin reader connectors 2 input 1: 2-pin 3 inputs 0 input 2: 0 input 3: BE 08 Contact Choir - Band Exterior BE 08 Choir - Band Exterior 0 3-pin input 4: BE 08 RTE Choir - Band Exterior BE 08 Choir - Band Exterior outputs 3 BE 07 Choir - Band Interior output 1: BE 07 Strike Choir - Band Interior Ribbon cable output 2: connector

output 4:

output 3: BE 08 ELR Choir - Band Exterior

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Serial Number: 21304507

Firmware Version: 31

Hardware Revision: 513

6 **V2** Access Blade reader 1: BE 09 Reader Boys Locker Room BE 09 Boys Locker Room Position reader 2: BE 10 Reader South Bus Loop BE 10 South Bus Loop 7-pin reader connectors 2 input 1: BE 09 Contact Boys Locker Room BE 09 Boys Locker Room 2-pin inputs 0 input 2: BE 09 RTE Boys Locker Room BE 09 Boys Locker Room 0 input 3: BE 10 Contact South Bus Loop BE 10 South Bus Loop 0 2 3-pin input 4: BE 10 RTE South Bus Loop BE 10 South Bus Loop outputs output 1: BE 09 Strike Boys Locker Room BE 09 Boys Locker Room Ribbon cable output 2: connector Serial Number: 21306293 output 3: BE 10 ELR South Bus Loop BE 10 South Bus Loop Firmware Version: 31 output 4: Hardware Revision: 513

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V2 Access Blade reader 1: BE 11 Reader West Bus Loop BE 11 West Bus Loop Position reader 2: BE 04 Reader Office to Hallway BE 04 Office to Hallway 7-pin reader Interior connectors 2 2-pin input 1: BE 11 Contact West Bus Loop BE 11 West Bus Loop 3 inputs 0 input 2: BE 11 RTE West Bus Loop BE 11 West Bus Loop 0 input 3: 0 3-pin outputs input 4: 3 output 1: BE 11 ELR West Bus Loop BE 11 West Bus Loop Ribbon cable output 2: connector Serial Number: 2130799 output 3: Firmware Version: 31 output 4:

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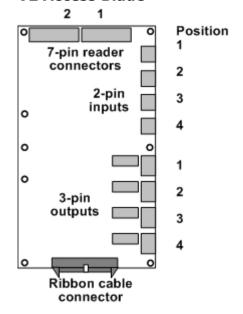
Hardware Revision: 513

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BE 5

Address:	10.97.101.15		Subnet Mask:		255.255.255.0	Gateway:	10.97.101.1	Firmware Version
nique Identifier:	00001442FC1	40F08	Configuration I	Protected:	No	Available Slots:	4, 5, 6, 7	
ot Blade Type			R	Resource D	etails		Associated	Portal
V2 Acce	ess Blade 1		re	eader 1: BE	Elevator 1st Flo	or Reader	BE Elevator	r 1st Floor
	o o o o o o o o o o o o o o o o o o o		tion re	eader 2: BE	Elevator 2nd Fl	oor Reader	BE Elevator	2nd Floor
conr	connectors 2-pin inputs	2	ir	nput 1:				
0		4	ir	nput 2:				
0		1	ir	nput 3:				
3-p outp		2	ir	nput 4:				
	_=	4	0	utput 1: BE	Elevator Trigge	r 1st Floor	BE Elevator	r 1st Floor
	on cable nnector		0	utput 2: BE	Elevator Trigge	r 2nd Floor	BE Elevator	2nd Floor
Serial Num	ber: 21335482		0	utput 3: BE	Elevator Trigge	r 3rd Floor	BE Elevator	3rd Floor
Firmware V	ersion: 31		0	utput 4:				
Hardware F	Revision: 513							

2 V2 Access Blade



Serial Number: 21331965

Firmware Version: 31 Hardware Revision: 513 reader 1: BE Elevator 3rd Floor Reader

BE Elevator 3rd Floor

reader 2: BE B103B Reader

BE B103B

input 1:

input 2:

input 3: BE B103B DSM BE B103B

input 4: BE B103B RTE BE B103B

output 1:

output 2: BE B100A ELR

BE B100A

output 3: BE B103B Latch Retractor

BE B103B

output 4:

3	Access Blade		reader 1: BE B100B Reader	BE B100B
	7-pin reader	Position 1	reader 2: BE A100A Reader	BE A100A
	connectors 2-pin	2	input 1: BE B100B DSM	BE B100B
	o inputs	4	input 2: BE B100B RTE	BE B100B
	•	1	input 3: BE B100B ADA Input	
	3-pin	2	input 4:	
	outputs	3	output 1: BE B100B ELR	BE B100B
	Ribbon cable connector		output 2: BE B100B ADA Output	
	Serial Number: 001326		output 3: BE A100A ELR	BE A100A
	Firmware Version: 27		output 4:	

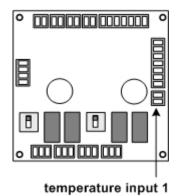
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CO 1

IP Address:	10.97.100.31	Subnet Mask:	255.255.255.0	Gateway:	10.97.100.1	Firmware Versior
Unique Identifier:	B600000019C0ED27	Configuration Protected:	No	Available Slots:		
Slot Blade Type			Resource Deta	ils	Associated	d Portal
1 MicroNo 2-pin in	de Access Section	on	reader 1: SA 08	3 Reader	SA 08 W N	Main KP
1 2 3	•		reader 2: SA Te	ech Reader	SA Tech	
	der 1	input 1: SA Tec	h Contact	SA Tech		
	der 2		input 2: SA 08 REX		SA 08 W Main KP	
le rea			input 3: SA Tech REX		SA Tech	
			input 4: SA 08	Contact	SA 08 W N	Main KP
		output 1: SA 08 Strike		SA 08 W Main KP		
3-pin o	utputs		output 2:			
Serial Numb	er: 65535		output 3: SA Te	ch Strike	SA Tech	
Firmware Ve	ersion: 28		output 4:			

2 MicroNode Temperature Section

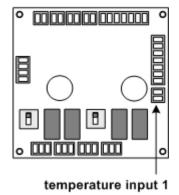


Serial Number: 65535 Firmware Version: 28 temp 1:

CO 2

	-								
IP A	ddress:	10.97.100.32	Subnet Mask:	255.255.255.0	Gateway:	10.97.100.1	Firmware Version		
Unic	jue Identifier:	F40000019085E27	Configuration Protected	: No	Available Slots:				
Slot	Blade Type			Resource Details		Associa	ted Portal		
1 MicroNode Access Section 2-pin inputs				reader 1: SA 12 F	Reader	SA 12			
	1 2 3	•		reader 2:					
				input 1: SA 12 Co	ontact	SA 12			
		der 1 — ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐		input 2: SA 12 RE	ΞX	SA 12			
				input 3: SA 12 Do	oor Release				
				input 4: SA 08 Do	oor Release				
	。ШШ			output 1: SA 12 L	atch Retractor	SA 12			
	1 2 3-pin o	3 4 utputs		output 2:					
	Serial Numb	er: 123		output 3:					
	Firmware Ve	ersion: 28		output 4:					

2 MicroNode Temperature Section



temp 1:

Serial Number: 123 Firmware Version: 28

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CO 3

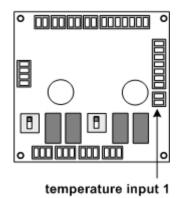
Firmware Version: 29

IP Address:	10.97.100.33	Subnet Mask:	255.255.255.0	Gateway:	10.97.100.1	Firmware Version	
Unique Identifi	er: 340000003218D827	Configuration Protected:	No	Available Slots:			
Slot Blade Ty	rpe		Resource Deta	ails	Associate	ed Portal	
	Node Access Sect	ion	reader 1: SA 4	reader 1: SA 4 Reader SA Door 4			
	2 3 4		reader 2:				
			input 1:				
	reader 1 — B	input 2: SA 4 ADA Input					
			input 3:				
		input 4:	input 4:				
ا ا ا			output 1:				
1 3-pi	2 3 4 n outputs		output 2: SA 4	ADA Output			
Serial N	umber: 523		output 3: SA 4	Strike	SA Door	4	

output 4:

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2 MicroNode Temperature Section

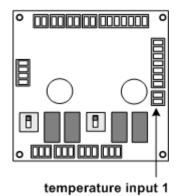


Serial Number: 523 Firmware Version: 29 temp 1:

DC 1

IP Address:	10.97.102.11	Subnet Mask:	255.255.255.0	Gateway:	10.97.102.1	Firmware Versior	
Unique Identifier:	1A00000019BB7D27	Configuration Protected:	No	Available Slots:			
Slot Blade Type		R	esource Details		Associate	ed Portal	
1 MicroNo 2-pin in	de Access Secti	on re	ader 1: DC 01 Re	eader	DC 01 W	DC 01 W Main KP	
1 2 3	-	re	ader 2: DC 02 Re	eader	DC 02 W	'N	
	der 1	in	put 1: DC ADA In	put DC 01			
lo	der 2	in	put 2: DC 02 Cor	ntact *	DC 02 W	'N	
		in	put 3: DC Aiphon	e			
		in	put 4: DC 01 Cor	ntact *	DC 01 W	Main KP	
		Ol	utput 1: DC 01 St	rike	DC 01 W	Main KP	
3-pin o	outputs	OL	utput 2: DC ADA	Output DC 01			
Serial Numb	per: 65535	OL	utput 3: DC 02 St	rike	DC 02 W	'N	
Firmware Ve	ersion: 28	OL	utput 4:				

2 MicroNode Temperature Section



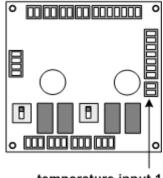
temp 1:

Serial Number: 65535 Firmware Version: 28

DC 2

IP A	ddress:	10.97.102.12	Subnet Mask:	255.255.255.0	Gateway:	10.97.102.1	Firmware Version	
Unio	ue Identifier:	920000001D884527	Configuration Protected:	No	Available Slots:			
Slot	Slot Blade Type		Resource Deta	ails	Associate	ed Portal		
1	MicroNo 2-pin in	de Access Sect	reader 1: DC (3 Reader	DC 03 E	N		
	1 2 3		reader 2: DC 0	05 Reader	DC 05 S	E		
					input 1: DC 05 REX ****		DC 05 SE	
	reader 1 —			input 2: DC 05	input 2: DC 05 Contact****		E	
				input 3: DC 03	REX ***	DC 03 E	N	
				input 4: DC 03 Contact ****		DC 03 E	N	
			output 1: DC 0	3 Strike	DC 03 E	N		
	3-pin o	outputs		output 2:				
	Serial Numb	per: 5670		output 3: DC 0	05 Strike	DC 05 S	E	
	Firmware Ve	ersion: 28		output 4:				

2 MicroNode Temperature Section



temperature input 1
Serial Number: 5670

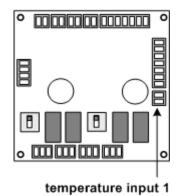
Firmware Version: 28

temp 1:

DC 3

IP A	ddress:	10.97.102.13	Subnet Mask:	255.255.255.0	Gateway:	10.97.102.1	Firmware Versior
Unique Identifier:		4A0000002B50CB27	Configuration Protected:	No	Available Slots:		
Slot	Blade Type			Resource De	tails	Associated	d Portal
1	MicroNo 2-pin in	de Access Section	on	reader 1: DC	10 Reader	DC 10 SW	,
	1 2 3	•		reader 2: DC	11 Reader	DC 11 WS	
				input 1: DC 1	0 Contact	DC 10 SW	,
	_	der 1 — ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	input 2:				
				input 3: DC 1	1 Contact	DC 11 WS	
				input 4: DC Lockdown			
				output 1: DC	10 Strike	DC 10 SW	,
	3-pin o	outputs		output 2:			
	Serial Numb	per: 13		output 3: DC	11 Strike	DC 11 WS	
	Firmware Ve	ersion: 29		output 4:			

2 MicroNode Temperature Section



Serial Number: 13

Firmware Version: 29

temp 1:

DC 4

DC 4	r								
IP A	ddress:	10.97.102.14		Subnet Mask:		255.255.255.0	Gateway:	10.97.102.1	Firmware Version
Uniq	ue Identifier:	00004C3FD3	95F4D2	Configuration P	rotected:	No	Available Slots:	5, 6, 7	
Slot	Slot Blade Type				Resourc	e Details		Associated Portal	
1	1 Access Blade 2 1				reader 1	: DC B105A Rea	der	DC B105A	
	7-pin reader connectors 2-pin inputs		Posit 1	ion	reader 2	: DC B105F Rea	der	DC B105	F
			2		input 1: I	DC B105A Conta	act	DC B105	A
			4		input 2: I	DC B105B Conta	act		
	0		1		input 3: I	DC B105C Conta	act		
	3-pi outp		2		input 4: I	DC B105D Conta	act		
	_	_=	4		output 1:	: DC B105A ELR		DC B105	A
		on cable nector			output 2:	:			
	Serial Numb	per: 001292			output 3:	: DC B105F ELR		DC B105	F
	Firmware Ve	ersion: 27			output 4	:			

2	Access Blade		reader 1: DC C101D Reader	DC C101D
	7-pin reader	Position 1	reader 2: DC C102A Reader	DC C102A
	connectors 2-pin	2	input 1: DC Lockdown PB	
	o inputs	4	input 2:	
		1	input 3: DC C102A ADA Input	
	3-pin outputs	2	input 4: DC B105F DSM	DC B105F
		4	output 1: DC C101D ELR	DC C101D
	Ribbon cable connector		output 2: DC Lockdown Strobes	
	Serial Number: 001151		output 3: DC C102A Strike	DC C102A
	Firmware Version: 27		output 4: DC C102A ADA Output	

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3	Access Blade		reader 1: DC C102B Reader (entry)	DC C102B
	7-pin reader	Position 1	reader 2: DC C102B Reader (exit)	DC C102B
	connectors 2-pin	2	input 1: DC C102B ADA Input	
	o inputs	4	input 2: DC C101D ADA Input	
		1	input 3:	
	3-pin outputs	2	input 4:	
		4	output 1: DC C102B Strike	DC C102B
	Ribbon cable connector		output 2: DC C102B ADA Output	
	Serial Number: 002153		output 3: DC C101D ADA Output	DC C101D
	Firmware Version: 27		output 4:	

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4 **Access Blade** reader 1: DC B110A Reader **DC B110A** Position reader 2: 7-pin reader connectors 2 DC B110A input 1: DC B110A Contact 2-pin 3 inputs 0 input 2: 0 input 3: 0 2 3-pin input 4: outputs output 1: DC B110A Strike DC B110A Ribbon cable output 2: connector Serial Number: 005454 output 3: Firmware Version: 27 output 4:

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DM 1

. ויוכ	L								
IP A	ddress:	10.97.109.11		Subnet Mask:	2	255.255.255.0	Gateway:	10.97.109.1	Firmware Versic
Uniq	ue Identifier:	0000F45EABE	EC9AEA	Configuration Protec	ted: 1	No	Available Slots:	4, 5, 6, 7	
Slot	Blade Type				Reso	urce Details		Associated P	ortal
1	Access E	Blade 1			reade	er 1: DM 05 Rea	ader	DM 05	
	o O O O O O O O O O O O O O O O O O O O		Positi 1	on	reade	er 2: DM 04 Rea	ader	DM 04	
	connectors [2-pin inputs [2		input	1: DM 05 Conta	act	DM 05	
			4		input	2: DM 05 REX		DM 05	
	0		1		input	3: DM 04 Conta	act	DM 04	
	o 3-pi outpi		2		input	4: DM 04 REX		DM 04	
			4		outpu	t 1: DM 05 Ret	ractor	DM 05	
		on cable nector			outpu	rt 2:			
	Serial Numb	er: 002201			outpu	t 3: DM 04 Ret	ractor	DM 04	
	Firmware Ve	ersion: 27			outpu	ıt 4:			

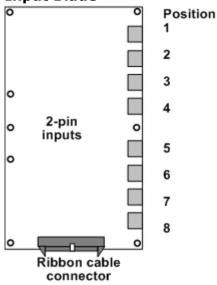
2 **Access Blade** reader 1: DM 01 Reader DM 01 2 1 Position reader 2: 7-pin reader connectors 2 input 1: DM 01 Contact DM 01 2-pin inputs 3 0 input 2: DM 01 REX DM 01 0 input 3: 1 0 2 3-pin input 4: outputs 3 output 1: DM 01 Retractor DM 01 Ribbon cable output 2: connector Serial Number: 002142 output 3:

output 4:

Grand Ledge Public Schools

Firmware Version: 27





Serial Number: 009

Firmware Version: 27

input 1: DM Aiphone

input 2:

input 3:

input 4:

input 5:

input 6:

input 7:

input 8:

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HA 1

ПАТ									
IP A	ddress:	10.97.107.11		Subnet Mask:		255.255.255.0	Gateway:	10.97.107.1	Firmware Version
Uniq	ue Identifier:	0000606405FF	AB68	Configuration F	rotected:	No	Available Slots:	5, 6, 7	
Slot	Blade Type				Resource	e Details		Associate	ed Portal
1	Access B	Blade 1			reader 1:	HA 01 Reader		HA 01 W	Main KP
	7-pin reader		Posi 1	tion	reader 2:	HA 03 Reader		HA 03 EI	N
	connectors 2-pin	2		input 1: H	HA 01 Contact		HA 01 W	Main KP	
	o inputs		4		input 2: H	HA Aiphone			
	0		1		input 3: H	IA 03 Contact		HA 03 EI	N
	o 3-pi outpi		2		input 4: H	HA Lockdown			
			3 4		output 1:	HA 01 Strike		HA 01 W	Main KP
		on cable nector			output 2:				
	Serial Numb	er: 001518			output 3:	HA 03 Strike		HA 03 E	N
	Firmware Ve	ersion: 27			output 4:				

2	Access Blade		reader 1: HA 11 Reader	HA 11 E
	7-pin reader	Position 1	reader 2: HA 08 Reader	HA 08 E KP
	connectors 2-pin	3	input 1: HA 08 REX **	HA 08 E KP
	o inputs	4	input 2: HA 08 Contact **	HA 08 E KP
		1	input 3: HA 11 REX **	HA 11 E
	3-pin outputs	2	input 4: HA 11 Contact **	HA 11 E
		4	output 1: HA 11 Strike	HA 11 E
	Ribbon cable connector		output 2:	
	Serial Number: 001640		output 3: HA 08 Strike	HA 08 E KP
	Firmware Version: 27		output 4:	

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3 **Access Blade** reader 1: HA 17 Reader **HA 17 WS** Position reader 2: 7-pin reader connectors 2 input 1: HA 17 Contact **HA 17 WS** 2-pin inputs 0 input 2: HA MS Aiphone input Door 3 0 input 3: 2 3-pin input 4: outputs 3 **HA 17 WS** output 1: HA 17 Strike Ribbon cable output 2: connector Serial Number: 00562 output 3: Firmware Version: 27 output 4:

42 of 109

4	Access Blade 2 1		reader 1: HA 02 Reader	HA 02
	o o o o o o o o o o o o o o o o o o o	Position 1	reader 2: HA 19 Reader	HA 19
	connectors 2-pin	2	input 1: HA 02 Contact	HA 02
	o inputs	3 4	input 2:	
	°	1	input 3: HM 19 Contact	HA 19
	3-pin outputs	2	input 4:	
		3	output 1: HA 02 Strike	HA 02
	Ribbon cable connector		output 2:	
	Serial Number: 001424		output 3: HA 19 Strike	HA 19
	Firmware Version: 27		output 4:	

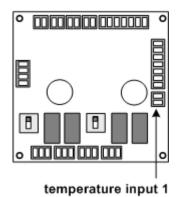
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HB 1

IP Address:	10.97.103.11	Subnet Mask:	255.255.255	0 Gateway:	10.97.103.1	Firmware Versior
Unique Identifier:	B20000002C3AB627	Configuration Protect	cted: No	Available Slots:		
Slot Blade Type		Re	esource Details		Associated	l Portal
1 MicroNo 2-pin in	de Access Section	on rea	ader 1: HB 15 Read	er	HB 15	
1 2 3	-	rea	ader 2: RDR HB Ele	vator 2nd Floor	HB Elevato	or 2nd Floor
	der 1 ☐	inp	out 1: HB 15 Contac	t	HB 15	
	der 2	inp	out 2: HB 15 REX		HB 15	
le crea		inp	out 3:			
		inp	out 4: HB Aiphone			
		ou	tput 1: HB 15 Strike	•	HB 15	
3-pin o	outputs	ou	tput 2: Output HB E	levator 2nd Floor	HB Elevato	or 2nd Floor
Serial Numb	oer: 220	ou	tput 3:			
Firmware Ve	ersion: 29	ou	tput 4:			

2 MicroNode Temperature Section



temp 1:

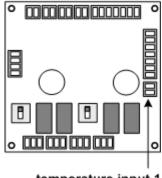
Serial Number: 220 Firmware Version: 29

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HB 2

IP Address:	10.97.103.14	Subnet Mask:	255.255.255.0	Gateway:	10.97.103.1	Firmware Version
Unique Identifier:	3F0000002C300727	Configuration Protected:	No	Available Slots:		
Slot Blade Type			Resource Det	ails	Associate	ed Portal
1 MicroNo 2-pin in	de Access Secti	reader 1: HB	01 Reader	HB 01 Ma	ain	
1 2 3	•		reader 2: HB	12 Reader	HB 12	
°	der 1	input 1: HB 14 Contact				
	reader 1 — B		input 2: HB 0	1 Contact	HB 01 Ma	ain
Freat			input 3: HB 0	I REX	HB 01 Ma	ain
			input 4: HB 14	4 REX		
			output 1: HB (01 Retractor	HB 01 Ma	ain
3-pin o	utputs		output 2:			
Serial Numb	er: 312		output 3: HB	12 Strike	HB 12	
Firmware Ve	ersion: 29		output 4:			

2 MicroNode Temperature Section



temperature input 1

Serial Number: 312 Firmware Version: 29 temp 1:

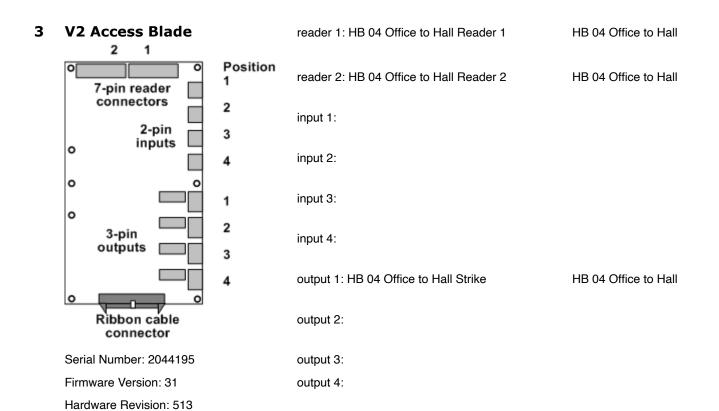
HB 3

						_		
IP Address: 10.9		10.97.103.15	Su	bnet Mask:	255.255.255.0	Gateway:	10.97.103.1	Firmware Version
Uniq	Unique Identifier: 00004006A0F46		166E6 Cc	onfiguration Protected:	No	Available Slots:		
Slot	t Blade Type		Resource Details	Resource Details			Associated Portal	
1	V2 Acces	ss Blade 1		reader 1: HB 01 I	Main Exterior Ent	try Reader	HB 01 Main I	Exterior Entry
	7-pin	7-pin reader	Positio 1	n reader 2: HB 02 I	Main Interior Entr	ry Reader	HB 02 main	Interior Entry
	connector		2	input 1: HB 01 Ma	ain Exterior Entry	/ ADA PB		
	0	2-pin inputs	3 4	input 2: HB 01 M	ain Exterior Entry	AiPhone Input		
	0		1	input 3: HB 02 Ma	ain Interior Entry	ADA PB		
	o 3-pi outpi		2	input 4:				
	outpo		3	output 1: HB 01 N	∥ain Evterior Ent	ry Retractor	HR 01 Main I	Exterior Entry
	•		4	output 1.11D 011	Main Extendi Ent	ry rictiaciói	TID OT Main	Exterior Entry
		on cable nector		output 2: HB 01 N	Main Exterior Ent	ry ADA Trigger		
	Serial Number: 2052119			output 3: HB 02 N	Main Interior Entr	y Retractor	HB 02 main	Interior Entry
Firmware Version: 31			output 4: HB 02 N	Main Interior Entr	y ADA Trigger			
	Hardware Revision: 513							

2 **V2 Access Blade** reader 1: HB 03 Vestibule to Office reader HB 03 Vestibule to Office Position reader 2: HB 06 Hallway Office Reader (Entry) HB 06 Hallway Office 7-pin reader connectors 2 input 1: 2-pin inputs 0 input 2: HB Lockdown PB 0 input 3: 2 3-pin input 4: outputs 3 output 1: HB 03 Vestibule to Office Strike HB 03 Vestibule to Office Ribbon cable output 2: HB Strobe 0 connector Serial Number: 2044631 output 3: HB 06 Hallway to Office Strike HB 06 Hallway Office Firmware Version: 31 output 4:

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Hardware Revision: 513



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V2 Access Blade reader 1: HB 05 Back Office Reader 1 HB 05 Back Office 2 Position reader 2: HB 05 Back Office Reaer 2 HB 05 Back Office 1 7-pin reader connectors input 1: 2-pin 3 inputs 0 input 2: 0 input 3: 0 3-pin input 4: outputs output 1: HB 05 Back Office Strike HB 05 Back Office Ribbon cable output 2: connector Serial Number: 2044494 output 3: Firmware Version: 31 output 4:

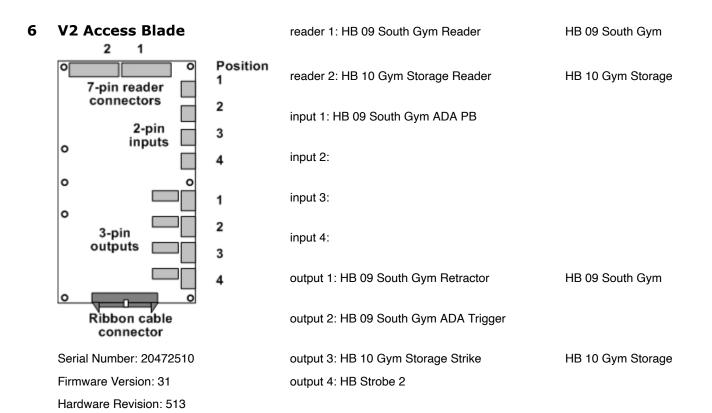
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Hardware Revision: 513

5 **V2 Access Blade** reader 1: HB 07 North East Stairs Reader HB 07 North East Stairs Position reader 2: HB 08 North Gym Reader HB 08 North Gym 7-pin reader connectors 2 input 1: 2-pin inputs 0 input 2: 0 input 3: HB 08 North Gym ADA PB 0 2 3-pin input 4: outputs 3 output 1: HB 07 North East Stairs Strike HB 07 North East Stairs Ribbon cable output 2: HB Strobe 1 connector Serial Number: 204464 output 3: HB 08 North Gym Retractor HB 08 North Gym Firmware Version: 31 output 4: HB 08 North Gym ADA Trigger

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Hardware Revision: 513



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V2 Access Blade reader 1: HB 06 Hallway Office Reader (Exit) HB 06 Hallway Office 2 Position HB Elevator 1st Floor reader 2: RDR HB Elevator 1st Floor 1 7-pin reader connectors input 1: 2-pin 3 inputs 0 input 2: 0 input 3: 0 3-pin input 4: outputs 3 output 1: Output HB Elevator 1st Floor HB Elevator 1st Floor Ribbon cable output 2: connector Serial Number: 20472532 output 3: Firmware Version: 31 output 4:

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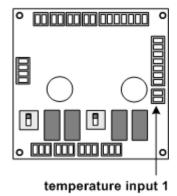
Hardware Revision: 513

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HS 1

пэт						
IP Address:	10.97.108.11	Subnet Mask:	255.255.255.0	Gateway:	10.97.108.1	Firmware Version
Unique Identifier:	D200000018FFED27	Configuration Protected:	No	Available Slots:		
Slot Blade Type			Resourc	e Details	Associated F	Portal
	MicroNode Access Section 2-pin inputs 1 2 3 4			:		
-				reader 2:		
	der 1 ☐	input 1:				
_	der 2		input 2:			
			input 3:			
			input 4:			
。 			output 1	:		
1 2 3-pin o	3 4 outputs		output 2	:		
Serial Numb	oer: 65535		output 3	:		
Firmware Ve	ersion: 28		output 4	:		

2 MicroNode Temperature Section

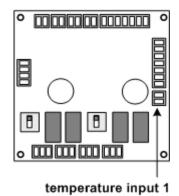


Serial Number: 65535 Firmware Version: 28 temp 1:

HS 2

IP Address:	10.97.108.12	Subnet Mask:	255.255.255.0	Gateway:	10.97.108.1	Firmware Version
Unique Identifie	er: 090000002B58C727	Configuration Protected:	No	Available Slots:		
Slot Blade Typ	ре	R	esource Details		Associa	ated Portal
	Node Access Secti	on re	reader 1: HS 14 Reader (ENTRY)		HS 14	
-	3 4	re	ader 2: HS 14 R	eader (EXIT)	HS 14	
	eader 1	in	put 1: HS 14 Cor	ntact *	HS 14	
	eader 2	in	put 2: HS AiPhor	ne Input D14		
		in	put 3:			
		in	input 4: Not Used			
。 —		OU	utput 1: HS 14 St	rike	HS 14	
1 3-pir	2 3 4 noutputs	Ol	utput 2:			
Serial Nu	mber: 185	OL	utput 3:			
Firmware	Version: 29	Ol	utput 4:			

2 MicroNode Temperature Section



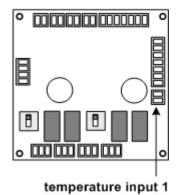
temp 1:

Serial Number: 185 Firmware Version: 29

HS 3

IP Address:	10.97.108.13	Subnet Mask:		255.255.255.0	Gateway:	10.97.108.1	Firmware Version
Unique Identifier:	F40000002B529527	Configuration Pr	otected:	No	Available Slots:		
Slot Blade Type			Resource	ce Details		Asso	ciated Portal
1 MicroNo 2-pin in	de Access Sect	ion	reader 1	I: HS 01 Reader	(ENTRY)	HS 0	1 Main
1 2 3	•		reader 2	2: HS 01 Reader	(EXIT)	HS 0	1 Main
	der 1 ☐		input 1:				
	der 2		input 2:	HS Alarm Panel	Monitor Input		
le Case			input 3:	HS 01 Contact *	****	HS 0	1 Main
			input 4:				
			output 1	: HS 01 Strike		HS 0	1 Main
3-pin o	outputs		output 2	2: HS Alarm Pand	el Arm/Disarm Oเ	ıtput	
Serial Numb	per: 109		output 3	3:			
Firmware Ve	ersion: 29		output 4	! :			

2 MicroNode Temperature Section



temp 1:

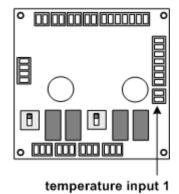
Serial Number: 109 Firmware Version: 29

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HS 4

IP Address:	10.97.108.14	Subnet Mask:	255.255.255.0	Gateway:	10.97.108.1	Firmware Version
Unique Identifier:	190000002BBA5C27	Configuration Protected	l: No	Available Slots:		
Slot Blade Type		R	esource Details		Associa	ated Portal
1 MicroNo 2-pin in	de Access Secti	on re	ader 1: HS Weigh	t Room Reader	HS Wei	ght Room
1 2 3	-	re	ader 2:			
		in	put 1: HS Weight	Room Contact	HS Wei	ght Room
l	der 1 — ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	in	put 2: HS Weight	Room REX	HS Wei	ght Room
F rea		in	put 3: HS Aiphone	•		
		in	put 4:			
		OL	utput 1: HS Weigh	t Room Strike	HS Wei	ght Room
1 2 3-pin o	utputs	Ol	utput 2:			
Serial Numb	per: 660	OL	utput 3:			
Firmware Ve	ersion: 29	OL	utput 4:			

2 MicroNode Temperature Section



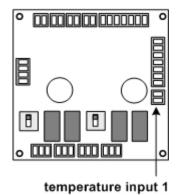
temp 1:

Serial Number: 660 Firmware Version: 29

HS 6

пэ о							
IP A	ddress:	10.97.108.16	Subnet Mask:	255.255.255.0	Gateway:	10.97.108.1	Firmware Version
Uniq	ue Identifier:	2B00000019A76C27	Configuration Protected:	No	Available Slots:		
Slot	Blade Type		Re	esource Details		Associa	ated Portal
1	MicroNo 2-pin in	de Access Secti	on re	ader 1: HS 27 Re	eader (ENTRY)	HS 24	
	1 2 3		re	ader 2: HS 27 Re	eader (EXIT)	HS 24	
		der 1	inį	out 1:			
		der 2	inį	out 2:			
	Frea C		inį	out 3:			
			inį	out 4: HS 27 Cor	ntacts ****	HS 24	
			OL	itput 1: HS 27 St	rike	HS 24	
	1 2 3-pin o	3 4 outputs	OL	itput 2:			
	Serial Numb	per: 5676	OL	itput 3:			
	Firmware Ve	ersion: 28	OL	itput 4:			

2 MicroNode Temperature Section



temp 1:

Serial Number: 5676 Firmware Version: 28

HS 7

Address: 10.97.108.	17 Subnet Ma	ask:	255.255.255.0	Gateway:	10.97.108.1	Firmware Version
ique Identifier: 0000F8369	BF9BE83 Configuration	tion Protected:	No	Available Slots:	4, 5, 6, 7	
ot Blade Type		Resource De	etails		Associated I	Portal
V2 Access Blade 2 1		reader 1: HS	06 Reader (EN	TRY)	HS 06 Pool	
7-pin reader	O Position 1	reader 2: HS	606 Reader (EXI	T)	HS 06 Pool	
connectors 2-pin	2 3	input 1: HS 0	06 Contact *		HS 06 Pool	
o inputs L	4	input 2:				
	1	input 3:				
3-pin outputs	2	input 4:				
	3 4	output 1: HS	06 Strike		HS 06 Pool	
Ribbon cable connector	o	output 2:				
Serial Number: 1928209	1	output 3:				
Firmware Version: 31		output 4:				
Hardware Revision: 513						

HS Elevator 2nd Floor

Appendix A

V2 Access Blade reader 1: HS Elevator 1st Floor Reader HS Elevator 1st Floor Position reader 2: HS Elevator 2nd Floor Reader HS Elevator 2nd Floor 7-pin reader connectors 2 input 1: 2-pin inputs 0 input 2: 0 input 3: 2 3-pin input 4: outputs 3 output 1: HS Elevator 1st Floor Trigger HS Elevator 1st Floor Ribbon cable output 2: connector

output 4:

output 3: HS Elevator 2nd Floor Trigger

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Serial Number: 1925625

Hardware Revision: 513

Firmware Version: 31

3 **V2 Access Blade** reader 1: HS Door 2 Reader (Entry) HS₂ 2 1 Position reader 2: HS Door 2 Reader (Exit) HS 2 7-pin reader connectors 2 input 1: 2-pin 3 inputs 0 input 2: 0 input 3: 0 2 3-pin outputs input 4: 3 output 1: HS Door 2 Strike HS₂ Ribbon cable output 2: connector Serial Number: 21334954 output 3:

output 4:

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Firmware Version: 31

Hardware Revision: 513

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HS FA 1

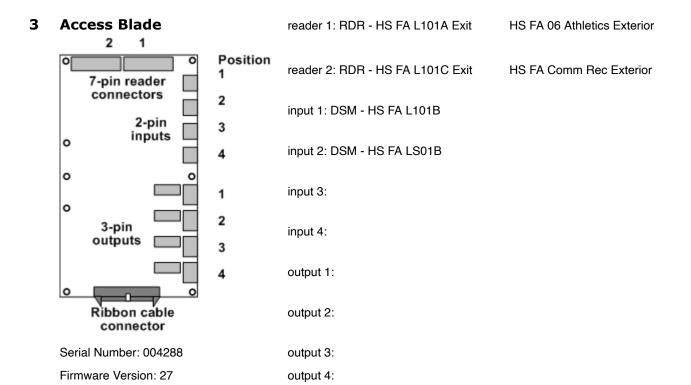
IP Ad	ddress:	10.97.108.19	Sub	onet Mask:	255.255.255.0	Gateway:	10.97.108.1	Firmware Version
Uniq	ue Identifier:	0000EC24B8F	10CF1 Cor	nfiguration Protected:	No	Available Slots:		
Slot	Blade Type			Resource Details		Associated	Portal	
1	Access B	Blade 1		reader 1: RDR - HS	S FA L101A Entry	y HS FA 06 /	Athletics Exter	ior
	7-pin reader		Position 1	reader 2: RDR - HS	FA L101D	HS FA Ath	etics Interior	
	connectors		2	input 1: DSM - HS I	FA L101A	HS FA 06 /	Athletics Exter	rior
	o 2-pin inputs		3 4	input 2: Aiphone In L101D	HS FA L101A -			
	0		1 2	input 3: ADA In HS	FA L101A - L10	1D		
	3-pi outpu		3	input 4:				
	•		4	output 1: ELR - HS	FA L101A	HS FA 06 /	Athletics Exter	ior
		on cable nector		output 2:				
	Serial Numb	er: 0065535		output 3: ELR - HS	FA L101D	HS FA Ath	etics Interior	
	Firmware Ve	ersion: 27		output 4: ADA Out L101D	HS FA L101A -			

2

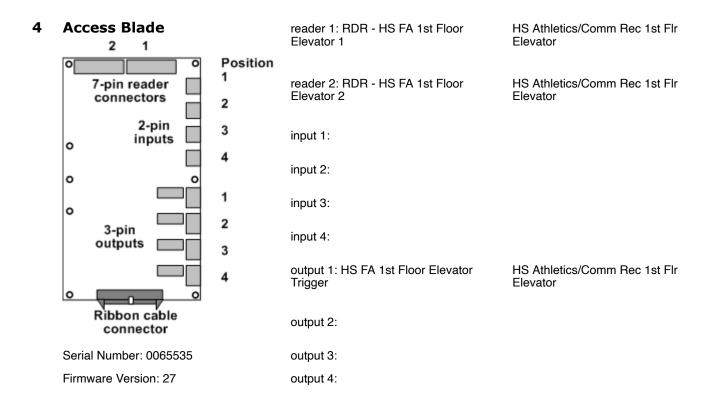
Appendix A

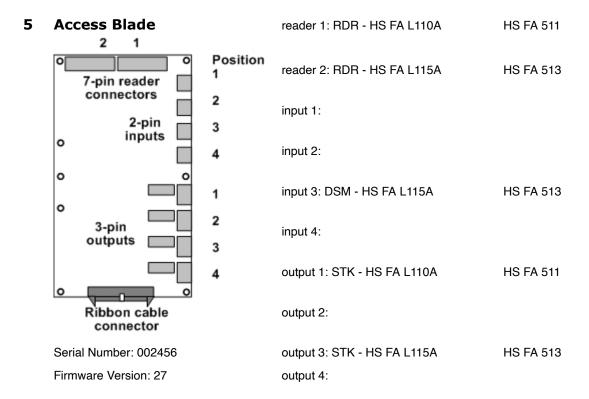
Access Blade reader 1: RDR - HS FA L101C Entry HS FA Comm Rec Exterior Position reader 2: RDR - HS FA L101F HS FA 06 Comm Rec Interior 7-pin reader connectors input 1: DSM - HS FA L101C HS FA Comm Rec Exterior 2 2-pin inputs input 2: Aiphone In HS FA L101C -0 L101F 0 input 3: ADA In HS FA L101C - L101F 2 input 4: 3-pin outputs 3 HS FA Comm Rec Exterior output 1: ELR - HS FA L101C output 2: ADA Out HS FA L101C -Ribbon cable L101F connector Serial Number: 002683 output 3: ELR - HS FA L101F HS FA 06 Comm Rec Interior Firmware Version: 27 output 4:

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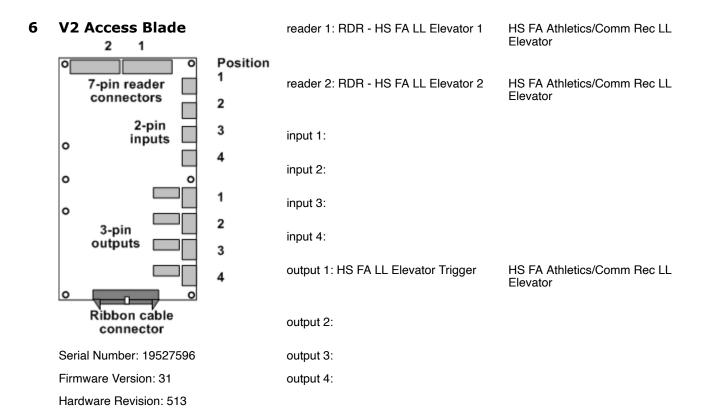


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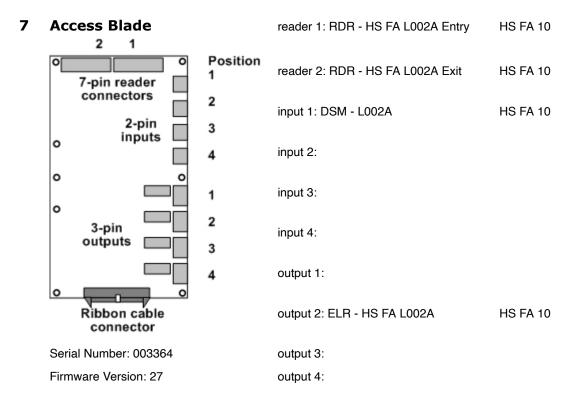




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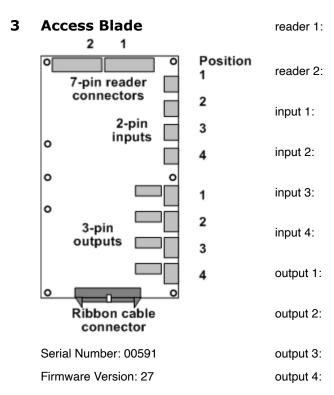
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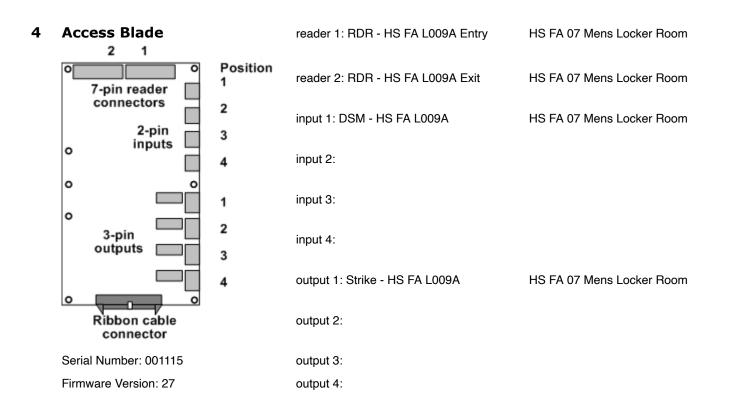
HS FA 2

IP A	ddress:	10.97.108.20	Su	bnet Mask:	255.255.255.0	Gateway:	10.97.108.1	Firmware Version
Unic	que Identifier:	0000F0B5D14	EE707 Co	nfiguration Protected:	No	Available Slots:	7	
Slot	Blade Type			Resource Details		Associa	ated Portal	
1	Access E	Blade 1		reader 1: RDR - I	HS FA L001B En	try HS FA	09	
		reader	Position 1	reader 2: RDR - I	HS FA L001B Ex	it HS FA	09	
	connectors 2-pin	2	input 1: DSM - H	S FA L001B	HS FA	09		
	0	inputs \square	4	input 2: ADA Inpu	ut - HS FA L001E	3 - D		
	0		1	input 3:				
	3-pi outp		2	input 4:				
	_	_=	4	output 1: LR - HS	FA L001B	HS FA	09	
		on cable nector		output 2: LR - HS	FA L001D	HS FA	L001D	
	Serial Numb	er: 00544		output 3:				
	Firmware Ve	ersion: 27		output 4: ADA Ou	utput - HS FA L00	01B - D		

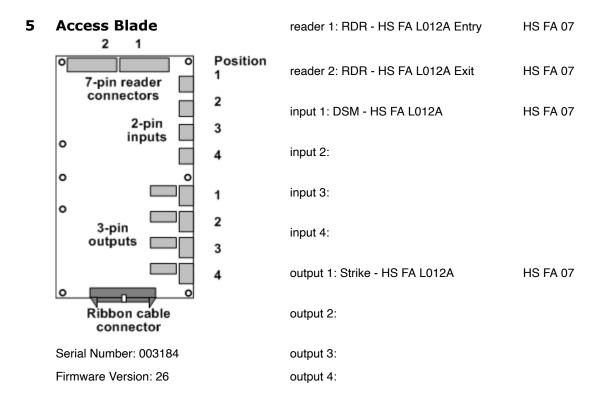
2 **Access Blade** reader 1: RDR - HS FA LS01A Entry HS FA 09 Weight Room 2 1 Position reader 2: RDR - HS FA LS01A Exit HS FA 09 Weight Room 7-pin reader connectors 2 input 1: DSM - HS FA LS01A HS FA 09 Weight Room 2-pin 3 inputs 0 input 2: 0 input 3: 0 2 3-pin input 4: outputs 3 output 1: Strike - HS FA LS01A HS FA 09 Weight Room Ribbon cable output 2: connector Serial Number: 00308 output 3: Firmware Version: 27 output 4:

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6 **Access Blade** reader 1: RDR - HS FA L018A Entry HS FA 08 Womens Locker Room 2 Position reader 2: RDR - HS FA L018A Exit HS FA 08 Womens Locker Room 7-pin reader connectors input 1: DSM - HS FA L018A HS FA 08 Womens Locker Room 2-pin inputs 0 input 2: 0 input 3: 0 2 3-pin outputs input 4: 3 output 1: Strike - HS FA L018A HS FA 08 Womens Locker Room Ribbon cable output 2: connector Serial Number: 001883 output 3: Firmware Version: 27 output 4:

Grand Ledge Public Schools

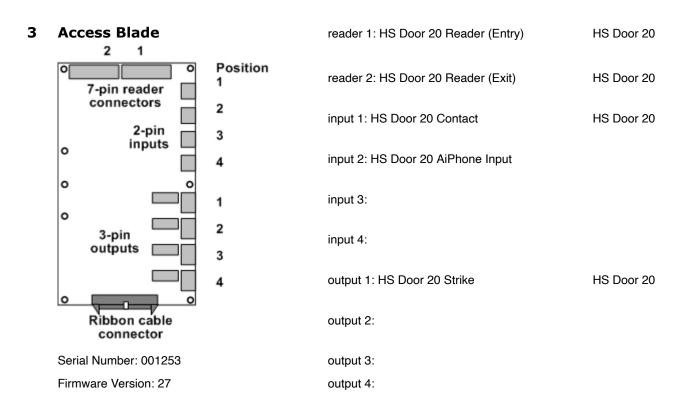
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HS NN 1 and 5

	iii z ana s								
IP A	ddress:	10.97.108.11		Subnet Mask:	:	255.255.255.0	Gateway:	10.97.108.1	Firmware Versior
Uniq	ue Identifier:	0000EC24B8F	53679	Configuration	Protected:	No	Available Slots:	4, 5, 6, 7	
Slot	Blade Type				Resource	Details		Associa	ted Portal
1	1 Access Blade 2 1				reader 1: H	HS Door 18 Read	der (Entry)	HS 18 F	Rec
	7-pin reader		Posi 1	tion	reader 2: H	HS Door 18 (Exit)	HS 18 F	Rec
connecto	ectors 2-pin	2		input 1: HS	S 18 Contact		HS 18 F	Rec	
	o inputs		4		input 2:				
	0		1		input 3:				
	o 3-pi outpi		2		input 4:				
			3 4		output 1: F	IS 18 Strike		HS 18 F	Rec
		on cable nector			output 2:				
	Serial Numb	er: 00159			output 3:				
	Firmware Ve	ersion: 27			output 4:				

2 **Access Blade** reader 1: HS Door 30-27 Reader (Entry) HS 27 2 1 Position reader 2: HS Door 30-27 (Exit) HS 27 7-pin reader connectors 2 input 1: HS 30 Contact HS 27 2-pin inputs 3 0 input 2: 0 input 3: 0 2 3-pin input 4: outputs 3 output 1: HS 30 Strike HS 27 Ribbon cable output 2: connector Serial Number: 001798 output 3: Firmware Version: 27 output 4:

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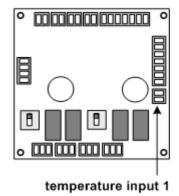


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NE 1

IP Address:	10.97.104.11	Subnet Mask:	255.255.255.0	Gateway:	10.97.104.1	Firmware Version	
Unique Identifier:	5500000019285D27	Configuration Protected:	No	Available Slots:			
Slot Blade Type			Resource De	etails	Associate	d Portal	
1 MicroNo 2-pin in	de Access Secti	reader 1: NE	01 Reader	NE 01 E N	Main KP		
1 2 3	-		reader 2: NE	12 Reader	NE 12 NE	:	
	ioo		input 1: NE (01 Contacts	NE 01 E N	Main KP	
<u> </u>	der 2		input 2: NE (01 REX	NE 01 E N	Main KP	
Freat				input 3: NE 12 Contact		NE 12 NE	
			input 4: NE 1	12 REX	NE 12 NE	<u> </u>	
			output 1: NE	01 Strike	NE 01 E N	Main KP	
1 2 3-pin o	utputs		output 2:				
Serial Numb	er: 124		output 3: NE	12 Strike	NE 12 NE		
Firmware Ve	ersion: 28		output 4:				

2 MicroNode Temperature Section



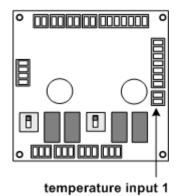
temp 1:

Serial Number: 124 Firmware Version: 28

NE 2

IP Address:	10.97.104.12	Subnet Mask:	055 055 055 0	Cataway	10.97.104.1	Firmurara Varaian
ir Address.	10.97.104.12	Subflet Mask.	255.255.255.0	Gateway:	10.97.104.1	Firmware Version
Unique Identifier:	1C0000002B531F27	Configuration Protected:	No	Available Slots:		
Slot Blade Type		Resource De	etails	Associated	d Portal	
1 MicroNo 2-pin in	de Access Secti	reader 1: NE	06 Reader	NE 06 SW	/ KP	
1 2 3	4		reader 2: NE	07 Reader	NE 07 NW	1
			input 1: NE 0	6 Contact	NE 06 SW	/ KP
_	der 1 — ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	input 2: NE 06 REX		NE 06 SW KP		
			input 3: NE 0	7 Contact	NE 07 NW	I
			input 4: NE 0	input 4: NE 07 REX		I
。 			output 1: NE	06 Strike	NE 06 SW	/ KP
1 2 3-pin o	3 4 outputs		output 2:			
Serial Numb	per: 40		output 3: NE	07 Strike	NE 07 NW	I
Firmware Ve	ersion: 29		output 4:			

2 MicroNode Temperature Section



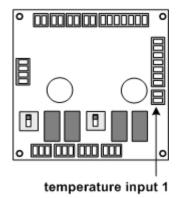
temp 1:

Serial Number: 40 Firmware Version: 29

NE 3

NE 3							
IP Address:	10.97.104.13	Subnet Mask:	255.255.255.0	Gateway:	10.97.104.1	Firmware Version	
Unique Identifier:	2A0000002FE40327	Configuration Protected:	No	Available Slots:			
Slot Blade Type			Resource Det	tails	Associated Portal		
1 MicroNode Access Section 2-pin inputs			reader 1: NE	02 Reader	NE 02 Do	oor	
1 2 3	•		reader 2:				
	reader 1 —		input 1: NE 02 DSM		NE 02 Door		
			input 2: NE 02 REX		NE 02 Door		
			input 3: NE U	nlock Button			
			input 4: NE Ai	iphone			
			output 1: NE (02 Strike	NE 02 Do	oor	
1 2 3-pin d	3 4 outputs		output 2:				
Serial Numb	per: 570		output 3:				
Firmware V	ersion: 29		output 4:				

2 MicroNode Temperature Section

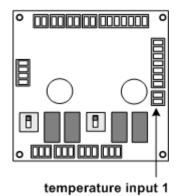


Serial Number: 570 Firmware Version: 29 temp 1:

OP 1

IP Address:		10.97.100.11	Subnet Mask:	255.255.255.0	Gateway:	10.97.100.1	Firmware Versior
Unique Identifier:		F4000001DA5B527	Configuration Protected:	No	Available Slots:		
Slot	Slot Blade Type		Resource Details		Associated Portal		
1 MicroNode Access Section 2-pin inputs		reader 1: OP 01 Reader		OP 01 M	OP 01 Main KP		
	1 2 3 4 o consider 1			reader 2: OP 08 Reader		OP 08 E KP	
			input 1: OP 08 Contact *		OP 08 E KP		
				input 2: OP 08 REX *		OP 08 E KP	
			input 3: OP 01 A	iPhone Input			
				input 4: OP 01 Contact		OP 01 Main KP	
	0 1 2 3 4 3-pin outputs		output 1: OP 01 Strike		OP 01 Main KP		
			output 2:				
	Serial Numb	er: 65535		output 3: OP 08	Strike	OP 08 E	KP
	Firmware Ve	ersion: 28		output 4:			

2 MicroNode Temperature Section



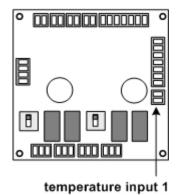
temp 1:

Serial Number: 65535 Firmware Version: 28

Spare 1

IP Address:	Subnet Mask:		Gateway:	Firmware Version: 174
Unique Identifier: D70000002C2CB127	Configuration Protected:	No	_	
Slot Blade Type			Resource Deta	ils Associated Portal
1 MicroNode Access Secti 2-pin inputs	on		reader 1:	
1 2 3 4			reader 2:	
reader 1			input 1:	
□dou 2			input 2:	
Feader 2			input 3:	
			input 4:	
			output 1:	
1 2 3 4 3-pin outputs			output 2:	
Serial Number: 99			output 3:	
Firmware Version: 29			output 4:	

2 MicroNode Temperature Section



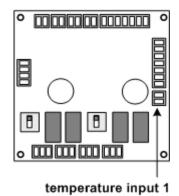
temp 1:

Serial Number: 99 Firmware Version: 29

WA 1

IP Address:	10.97.105.11	Subnet Mask:	255.255.255.0	Gateway:	10.97.105.1	Firmware Versior
Unique Identifier:	CD00000018FF8927	Configuration Protected:	No	Available Slots:		
Slot Blade Type		Resource Deta	Resource Details		Associated Portal	
1 MicroNode Access Section 2-pin inputs		reader 1: WA 01 Reader		WA 01 N I	WA 01 N Main KP	
	1 2 3 4 reader 1		reader 2: WA 03 Reader		WA 03	
			input 1: WA 01	Contact	WA 01 N Main KP	
			input 2: WA Aip	ohone		
			input 3: WA Un	llock Button		
			input 4: WA 03	Contact	WA 03	
			output 1: WA 0	1 Strike WA 01 N Ma		lain KP
3-pin o	1 2 3 4 3-pin outputs		output 2:			
Serial Numb	er: 65535		output 3: WA 0	3 Strike	WA 03	
Firmware Ve	ersion: 28		output 4:			

2 MicroNode Temperature Section



temp 1:

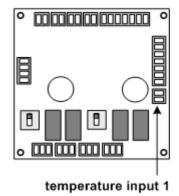
Serial Number: 65535 Firmware Version: 28

Grand Ledge Public Schools

WA 2

IP Address:	10.97.105.12	Subnet Mask:	255.255.255.0	Gateway:	10.97.105.1	Firmware Versior
Unique Identifier:	E100000019BBE027	Configuration Protected:	No	Available Slots:		
Slot Blade Type		Resource Det	Resource Details		Associated Portal	
1 MicroNode Access Section 2-pin inputs		reader 1: WA	reader 1: WA 14 Reader		WA 14 W Park KP	
-	1 2 3 4 reader 1 reader 2 reader 3 re		reader 2: WA 10 Reader		WA 10 S	
			input 1: WA 14 Contact		WA 14 W Park KP	
			input 2: WA 14	4 REX	WA 14 W F	Park KP
			input 3: WA 10 Contact		WA 10 S	
8	8		input 4: WA 10 REX		WA 10 S	
	o III III o 1 2 3 4 3-pin outputs		output 1: WA 14 Strike		WA 14 W Park KP	
3-pin o			output 2:			
Serial Numb	er: 5698		output 3: WA	10 Strike	WA 10 S	
Firmware Ve	ersion: 28		output 4:			

2 MicroNode Temperature Section



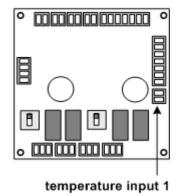
temp 1:

Serial Number: 5698 Firmware Version: 28

WR 1

IP Address:	10.97.106.11	Subnet Mask:	255.255.255.0	Gateway:	10.97.106.1	Firmware Versior
Unique Identifier:	AE00000018FC4F27	Configuration Protected:	No	Available Slots:		
Slot Blade Type		Resource Details		Associated Portal		
1 MicroNode Access Section 2-pin inputs		reader 1: WR 0	1 Reader	WR 01 SW N	/lain KP	
-	1 2 3 4 reader 1 reader 2 1 2 3 4 1 2 3 4 3-pin outputs		reader 2: WR 0	5 Reader	WR 05 WR 01 SW Main KP WR 05	
			input 1: WR 01	Contact		
_			input 2: WR Loc	ckdown		
			input 3: WR Aip	bhone		
			input 4: WR 05	Contact		
			output 1: WR 01 Strike		WR 01 SW Main KP	
3-pin o			output 2:			
Serial Numb	oer: 3792		output 3: WR 0	5 Strike	WR 05	
Firmware Ve	ersion: 28		output 4:			

2 MicroNode Temperature Section

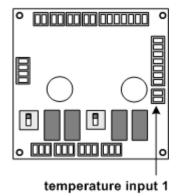


Serial Number: 3792 Firmware Version: 28 temp 1:

WR 2

IP Address:	10.97.106.12	Subnet Mask:	255 255 255 0	Cataway	10.07.106.1	Firmware Version	
ir Address.	10.97.100.12	Subilet Mask.	255.255.255.0	Gateway:	10.97.100.1	rimware version	
Unique Identifier:	750000001D893327	Configuration Protected:	No	Available Slots:			
Slot Blade Type		Resource De	Resource Details		d Portal		
1 MicroNode Access Section 2-pin inputs		reader 1: WF	reader 1: WR 03 Reader		WR 03 NW		
	1 2 3 4 reader 1		reader 2: WF	R 04 Reader	WR 04 N	WR 04 NE WR 03 NW	
			input 1: WR	03 REX	WR 03 N		
			input 2: WR 03 Contact		WR 03 N	WR 03 NW	
			input 3: WR	04 Contact	WR 04 NE		
			input 4: WR (input 4: WR 04 REX		≣	
<u> </u>			output 1: WR 03 Strike		WR 03 NW		
1 2 3 4 3-pin outputs		output 2:					
Serial Numb	er: 65535		output 3: WR	R 04 Strike	WR 04 N	Ξ	
Firmware Ve	ersion: 28		output 4:				

2 MicroNode Temperature Section



temp 1:

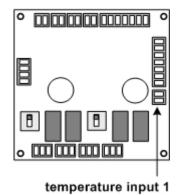
Serial Number: 65535 Firmware Version: 28

Grand Ledge Public Schools

WR 3

IP Address:	10.97.106.13	Subnet Mask:	255.255.255.0	Gateway:	10.97.106.1	Firmware Version	
Unique Identifier:	D60000003356C427	Configuration Protected:	No	Available Slots:			
Slot Blade Type		Resource De	Resource Details		d Portal		
1 MicroNode Access Section 2-pin inputs		reader 1: WF	reader 1: WR 07 Reader		WR 07 Receiving		
1 2 3	•		reader 2:				
° 0000	reader 1 reader 2 1 2 3 4 3-pin outputs Serial Number: 121		input 1: WR (input 1: WR 07 Contact		WR 07 Receiving	
			input 2: WR (07 REX	WR 07 Re	eceiving	
			input 3:				
			input 4:				
			output 1: WR	07 Mag	eceiving		
1 2 3-pin o			output 2:				
Serial Numb			output 3:				
Firmware Ve	ersion: 29		output 4:				

2 MicroNode Temperature Section



temp 1:

Serial Number: 121 Firmware Version: 29