

DISTRICT TRANSPORTATION UPGRADES

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*Technology Request for Bid*



**KENTWOOD**  
PUBLIC SCHOOLS

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NOT USED

END OF SECTION

SECTION 00 11 16  
INVITATION TO BID

PART 1 - GENERAL

1.01 WORK INCLUDED: DISTRICT TRANSPORTATION UPGRADES

A. Kentwood Public Schools (Owner) is seeking bids for purchase and installation of new district routing technology as well as new video monitoring and recording systems for buses. Proposed systems shall be configured and installed to service Owner's buses, and as described herein.

B. Project: DISTRICT TRANSPORTATION UPGRADES

C. Owner: Kentwood Public Schools  
5820 Eastern SE  
Kentwood, Michigan 49508

D. Designer: Communications by Design, Inc.

E. Sites of Work:

1. Kentwood Public Schools - Transportation Center  
6150 Valley Lane Drive SE  
Kentwood, Michigan 49508

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: June 30, 2023
2. Pre-Bid Meeting: July 12, 2023 at 10:30am
3. Intent to Bids Due: July 13, 2023 by 5:00pm
4. Question and Clarification Deadline: July 14, 2023 by 5:00pm
5. Public Bids Due: July 24, 2023 at 9:00am

1.03 TYPES OF BIDS

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

#### 1.04 PRE-BID CONFERENCE

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

1.05 Time: July 12, 2023 at 10:30am

1.06 Location: Kentwood Public Schools  
Technology Office (Located in East Kentwood Freshman Campus)  
Door D, 6170 Valley Ln. Dr. SE  
Kentwood, MI 49508

#### 1.07 TIME AND PLACE OF BID RECEPTION

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

B. Bid Receipt Deadline: July 24, 2023 at 9:00am

C. Bid Opening Location:  
Kentwood Public Schools - Administration Building  
5820 Eastern Avenue SE  
Kentwood, MI 49508

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

#### 1.08 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 SE Grand Rapids, MI 49546

2. Email – [rszilagy@cbdconsulting.com](mailto:rszilagy@cbdconsulting.com)

#### 1.09 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.

#### 1.10 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.

#### 1.11 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.

#### 1.12 DEFINITIONS

- A. "Owner" is intended to mean Kentwood 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 July 13, 2023. Only bidders returning a completed "Intent to Bid Form" will be notified of required addenda.

### Company Information

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

Address Line1: \_\_\_\_\_

Address Line2: \_\_\_\_\_

City, State and Zip Code \_\_\_\_\_

### Primary Contact Information

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

Phone No.: \_\_\_\_\_

Fax. No.: \_\_\_\_\_

E-Mail Address: \_\_\_\_\_

Portions of the bid which you will be responding:

☐ 28 20 01 Video Monitoring System – Transportation

Submit unaltered and completed form to:

Rebecca Szilagy

Communications by Design, Inc.

[rszilagy@cbdconsulting.com](mailto:rszilagy@cbdconsulting.com)

SEALED BID LABEL

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

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BID TO: Kentwood Public Schools  
Attention: Mr. Todd Bell  
5820 Eastern Ave SE  
Kentwood, Michigan 49508

BID FROM: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PROJECT: DISTRICT TRANSPORTATION UPGRADES  
TECHNOLOGY BID #3015

INCLUDING Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_  
ADDENDA: Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

DUE: 9:00am on July 24, 2023

## BID FORM

BID TO: Kentwood Public Schools  
Attention: Mr. Todd Bell  
5820 Eastern Ave SE  
Kentwood, Michigan 49508

BID FROM: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PROJECT: DISTRICT TRANSPORTATION UPGRADES  
TECHNOLOGY BID #3015

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

Bid Category: 28 20 01 Title: Bus Video Monitoring

\_\_\_\_\_ Dollars (\$\_\_\_\_\_).  
Said amount written above constituting the Base Bid

### **TAXES:**

Bid sum includes all applicable taxes.

### **ALLOWANCES:**

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

### **COST OF BONDS:**

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

### **ACKNOWLEDGEMENT OF ADDENDA:**

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

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_ Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

**ALTERNATES:**

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

Required Alternate (Exterior Cameras): \_\_\_\_\_

Required Alternate (5 year warranty): \_\_\_\_\_

Voluntary Alternate B \_\_\_\_\_

Voluntary Alternate C \_\_\_\_\_

Voluntary Alternate D \_\_\_\_\_

Voluntary Alternate E \_\_\_\_\_

**PRINCIPAL SUBCONTRACTORS**

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

Legal Name: \_\_\_\_\_ Work Proposed \_\_\_\_\_

Legal Name: \_\_\_\_\_ Work Proposed \_\_\_\_\_

Legal Name: \_\_\_\_\_ Work Proposed \_\_\_\_\_

**BID SECURITY:**

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

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_),

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

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

**FAMILIAL DISCLOSURE:**

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

**EXCEPTIONS:**

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

**SIGNATORY AUTHORITY:**

The undersigned certifies they are an authorized agent of the bidding entity, and legally able to bind the bidding entity to the terms, conditions and responsibilities of this, and all

referenced bid documents. Furthermore, the undersigned acknowledges an understanding that non-compliance of this authority or any other bidding requirements may result in forfeiture of bid security, dismissal of consideration of bid submitted, and/or personal liability against the signatory.

**AGREEMENT:**

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

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

Respectfully submitted,

Date: \_\_\_\_\_

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

By: \_\_\_\_\_

Signed: \_\_\_\_\_

Title: \_\_\_\_\_

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

\_\_\_\_\_

Telephone Number: \_\_\_\_\_

Primary Contact Email Address: \_\_\_\_\_

*(If Corporation, affix Seal)*

**Michigan Familial Relationship Disclosure Statement**

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

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

*(Check only one Box Below)*

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

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

***Bidder***

***Board or Superintendent***

_____	_____
_____	_____
_____	_____
_____	_____

**Bidder Authorized Representative:**

Bidder: \_\_\_\_\_

Representative's Signature: \_\_\_\_\_

Print or Type Name: \_\_\_\_\_

Representative's Title: \_\_\_\_\_

Subscribed and sworn this \_\_\_\_\_ day of \_\_\_\_\_, 2023.

In the County of \_\_\_\_\_ State of \_\_\_\_\_

By \_\_\_\_\_  
Notary Public Signature

Seal or Stamp:

My commission expires on: \_\_\_\_\_

## **IRAN LINKED BUSINESS AFFIDAVIT**

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

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

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

### **Bidder**

\_\_\_\_\_  
[Company Name]

\_\_\_\_\_  
[Signature]

\_\_\_\_\_  
[Title]

This instrument was acknowledged before me, a Notary Public,

in and for \_\_\_\_\_ County,

\_\_\_\_\_ on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_,

\_\_\_\_\_  
[Notary Public Signature]

My Commission expires: \_\_\_\_\_

Acting in the County of: \_\_\_\_\_

## **REFERENCES**

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

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

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



## **CONTRACT EXCEPTIONS**

*Check one Box*

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

☐ Bidder proposes the following exceptions to the Contract Documents:

<i><b>Paragraph Number</b></i>	<i><b>Explanation</b></i>
<hr/>	<hr/>
<hr/>	<hr/>
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**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 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: 28 20 01

[illegible]

END OF SECTION

SECTION 00 21 13  
INSTRUCTIONS TO BIDDERS

PART 1 - GENERAL

1.01 OWNERSHIP

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

1.02 COMPLIANCE

- A. This document establishes the primary system(s) design configuration. The Bidder's bid response shall include all services, supplies, components and equipment required to provide a complete turnkey system(s) which meets or exceeds all specifications for each given bid item being proposed.
- B. Owner prefers to enter into a contract with a single bidder for all materials for completion of this project, but shall consider combinations of portions of bids from various bidders. The Owner reserves the right to award portions of the project to multiple bidders who will be required to cooperate with one another in order to complete the work.
- C. By their response, Bidders agree to comply with all sections, terms, conditions and/or requirements of the contract documents except as expressly noted, and specifically identified by paragraph number on the unaltered Contract Exceptions Bid Form. Exceptions to any bid sections, terms, conditions and/or requirements deemed excessive by the Owner and/or Bid Coordinator may disqualify Bid.
- D. In compliance with the Freedom of Information Act (FOIA), the Owner shall make bid documents available for public review after issuance of purchase order to the successful bidder/s.
- E. In connection with the execution of this Contract, Contractor and any Subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, age, or national origin.
- F. Negligence in preparation, improper preparation, errors in, or omissions from Bids shall not relieve Bidder from fulfillment of any and all obligations and requirements of the Contract Documents.

- G. All Bid documents and worksheets must be completed in detail and submitted together on time.
- H. All documents constituting the entire present agreement shall be construed in accordance with and governed by the laws of the State of Michigan.
- I. Designer shall have authority for interpretation of Contract Documents. In the event terms, provisions or any other portion of the Contract Documents is/are in dispute, Designer shall have full and final authority to interpret the Contract Documents, and such interpretation shall be final and binding.
- J. In the event of a conflict between any terms or conditions in any of the documents comprising the entire present Agreement, the terms and conditions set forth in this document shall take precedence.

#### 1.03 NOTICE AND RESPONSE

- A. Upon notification of Bidder being considered as a finalist, the Bidder shall provide to the Owner and Designer, within 48 hours, a current “Dunn and Bradstreet Supplier Evaluation Report” and other documentation as may be required of finalists herein and as requested by Owner and/or Bid Coordinator.
- B. Bidder shall provide timely response to all requests from Designer and/or Owner regarding clarification and/or elaboration concerning, but not limited to its Bid as may be deemed relevant by the Owner and/or Designer.

#### 1.04 PROTECTION AND SAFETY

- A. Contractor shall continuously maintain adequate protection of all Work from damage and shall protect the Owner’s property from injury or loss arising in connection with the execution of the Contract. Contractor shall make good any such damage, injury or loss, except such as may be directly caused by agents or employees of the Owner. The Contractor shall adequately protect adjacent property as required by law, by the Contract Documents, or as otherwise required, to cause no damage to them during the execution of the Contract. This requirement shall also apply to structures above and below ground as conditions of the site require.
- B. Contractor shall be solely responsible for, and have control over means, methods, techniques, sequences and procedures for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the contract. Contractor shall take all necessary precautions for the safety of employees and visitors on the site of the Project and shall comply with applicable provisions of federal, state, and municipal safety laws and building codes to prevent accidents or injury to persons on, about, or adjacent to the premises where the Work is being performed. Contractor shall erect and properly maintain at all times, as required by the conditions and

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

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

#### 1.05 DRAWINGS DIAGRAMS AND ILLUSTRATIONS

- A. Drawings, Diagrams and Illustrations are diagrammatic in nature and indicate general arrangement and nature of systems and work included.
- B. Floor plan drawings are provided to assist the contractor in preparing documentation and reports as required herein.

### PART 2 - MATERIALS

#### 2.01 VOLUNTARY ALTERNATES AND SUBSTITUTION OF SPECIFIED PRODUCTS

- A. This Request for Bid describes a particular implementation. All Bids must provide pricing on the “base bid” as described herein. Voluntary alternatives providing comparable functionality with significant cost reduction and/or performance enhancement may be proposed. Voluntary alternatives are encouraged, but must be identified as “Voluntary Alternates” and detailed on unaltered Bid Forms contained herein. Voluntary Alternates may be further detailed and/or explained in attachments to the unaltered Bid Forms contained herein. Exceptions to the Request for Bid specifications must be clearly noted and explained for each Voluntary Alternate proposed.
- B. No substitutions of specified products may be made without specific prior authorization by Designer and Owner. Individual bid divisions herein contain particular information related to acceptable manufacturer and product requirements.
- C. Trade-in, equipment/license exchanges or other return allowances may be provided as a voluntary alternate. Trade-in, exchange or other return equipment allowances shall not be included in base bid amount.

### PART 3 - EXECUTION

#### 3.01 EXAMINATION OF DOCUMENTS AND SITE

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

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

### 3.02 QUESTIONS, INTERPRETATIONS AND ADDENDA

- A. Any bidder finding discrepancies between Drawings, Specifications and/or Bid Documents, or be in doubt as to the exact meaning of any provision or detail shall notify the Designer at once, and before the deadline for Questions and Clarifications. The Designer may then, at their option, issue Addenda clarifying same. The Designer is not responsible for oral instructions, or Bidder's/Contractor's misinterpretations of Drawings, Specifications and/or Bid Documents.
- B. 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 has been obtained and certificates for such are approved by Owner.
- D. All such bonds and/or insurance shall be issued by surety licensed by the State of Michigan and acceptable to the Owner.
1. Insurance certificate(s) shall be signed by insurance agent licensed in the state of Michigan or a representative of the insurance company.



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

#### 3.04 MODIFICATION AND WITHDRAWAL

- A. Bids may be withdrawn and/or changed any time prior to the deadline for submission of bids. Bids may not be withdrawn or changed thereafter and shall be deemed a firm offer continuing for ninety (90) calendar days. Bids received after the deadline for submission will be returned unopened at the Owner's discretion.
- B. Withdrawal of any Bid after the opening time without specific approval by Owner may result in forfeiture of required bid security by Bidder.

#### 3.05 CODES, ORDINANCES, REGULATIONS AND RELATED

- A. All labor and materials shall be furnished and installed in strict accordance with the latest applicable codes, ordinances and regulations of any governing body having jurisdiction over this project.
- B. In the event the quality of labor and materials required by the Drawings and Specifications herein exceeds requirements of current applicable codes, ordinances and regulations, the Drawings and Specifications shall take precedence.
- C. In the event the quality of labor and materials required by current applicable codes, ordinances and regulations having jurisdiction over this project exceeds that of the Drawings and Specifications herein, the applicable codes, ordinances and regulations shall take precedence.
- D. The Contractor shall give all notices and comply with all codes, laws, ordinances, rules and regulations of any authority having jurisdiction, which bears on the performance of its work. This compliance includes, but is not limited to, the Michigan School Safety Initiative (PA129, PA130, PA131 and PA138) if applicable to work being performed.
- E. The Contractor shall pay for all licenses, permits, taxes, and fees required for this project; and shall comply with all federal, state, local and Owner's codes, laws, ordinances, regulations and other requirements applicable to the work specified at no additional cost to the Owner. Contractor shall submit copies of all approved certificates and approvals to the Owner upon receipt.

#### 3.06 SUB-CONTRACTOR AND MATERIAL SUPPLIER

- A. The successful Bidder shall submit to the Owner and Designer a complete list of all sub-contractors and all material suppliers proposed to engage on the work. Sub-contracts shall not be awarded until after they have been approved by the Designer and Owner.
- B. Finalist bidders may be required to submit additional details related to sub-contractors and suppliers within forty-eight (48) hours after the bid opening.
- C. Names of any principal sub-contractors must be listed on the Bid Form.
- D. All contracts made by the successful Bidder with Subcontractors shall be covered by the terms and conditions herein. The successful Bidder shall see to it that Subcontractors are fully informed in regard to these terms and conditions, and shall bind all subcontractors to the same terms and conditions. Failure to do so will absolve the Owner from any liability for additional cost due to subcontractor claims for additional cost, time or any claim(s) for additional cost by subcontractor(s).

### 3.07 BID RESPONSE FORMAT

- A. Bidder shall provide complete Bid copies in two formats as described herein.
  - 1. One (1) Hard copy format responses shall be in a bound tabulated format. Each response shall have tab indicators for each section.
  - 2. One (1) Electronic copy format responses shall be submitted on a USB Drive, readable by a standard Microsoft Windows 10 workstation. Electronic media shall contain separate folders to organize response documentation as described herein. Files submitted electronically shall be **Adobe Acrobat** "PDF" format (SCHEDULE OF VALUES is additionally required to be on the disk in the appropriate folder as 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. Iranian Linked Business Affidavit
  - d. REFERENCES
  - e. CONTRACT EXCEPTIONS
  - f. SCHEDULE(s) OF VALUES
  - g. 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 20 01  
VIDEO MONITORING SYSTEM - TRANSPORTATION

PART 1 - GENERAL

1.01 DESCRIPTION OF PROJECT

- A. Work described in this specification section pertains to a Video Monitoring and Recording System upgrade for Kentwood Public Schools Transportation fleet.
- B. Owner intends to add video monitoring and recording systems to many existing and/or new vehicles that do not yet have a system.
- C. Owner intends cameras installed to provide for monitoring and recording both within the buses and possibly outside on or near the swing arm as indicated and described herein.
- D. Contractor shall propose a system to be deployed using industry standard and current technology.
- E. Proposed configuration shall provide for cameras that record all content during the time the bus is in use and upload all content to an Owner provided Genetec server for full integration with Owners' existing building video monitoring system each time the bus returns to the transportation center.
- F. Contractor shall advise, coordinate and work cooperatively with Owner representatives or owner's designee related to any configuration changes required and/or proposed for Owner's existing Ethernet infrastructure (VLAN configuration, QoS mapping, routing, Firewall security provisions etc.).
- G. The Contractor shall design, engineer, configure, supply, connect, test, document, train Owner representatives and warrant a fully operational video monitoring system, complete and with full functionality as specified herein.
- H. Contractor shall coordinate their installation with other contractors, Designer and the Owner as is appropriate.

1.02 WARRANTY

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

1. System integrator or local vendor warranty, without underlying manufacturer's warranty/extended warranty will not be considered an acceptable base bid.
  2. 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.
  3. Contractor shall submit all documents, apply for warranty or extended warranty certification, and provide a Certificate of Warranty or Extended Warranty as may be applicable from the manufacturer prior to project closeout.
- C. On site services provided under the warranty shall be performed by personnel or representatives of Contractor as herein defined and located within physical proximity to provide response levels deemed acceptable to Owner and without additional charge for any offending components.
- D. Contractor shall provide the following response times for all malfunctioning equipment:
1. Twenty-four (24) hours or less for matters that render twenty percent (20%) or more of a bus 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. Warranty program shall include, but not be limited to, annual cleaning and focus of all installed cameras, annual software revision compliance to latest currently supported level and/or patch maintenance, repair or replacement of non-functional components, and annual system component inspection and report.
- F. System Warranty shall commence on date of acceptance by Owner. 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.
- G. Bidder shall provide current annual maintenance contract pricing for recommended maintenance programs for all equipment following the specified and included period as a Mandatory Alternate. This information will be considered by Owner and Designer as part of the bid evaluation process.

## H. MANDATORY ALTERNATE

1. Bidder shall provide alternate to include 5-year warranty for which all terms and conditions shall remain the same, but the term is 5 years rather than the base bid term of 3 years.

### 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.
- B. Shop drawings and diagrams shall be submitted by Bidder for approval by Designer with Bid.
  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.
- 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. EIA/TIA Commercial and Administration Standards
  2. NEC
  3. IEEE 802
  4. IETF RFCs
  5. FCC – All Applicable Rules and Regulations
  6. UL
  7. MOSHA Safety Standards

#### 1.06 CONTRACTOR

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

- B. All work shall be performed and supervised by Project Managers, Engineers and/or Technicians who are qualified to install 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 video monitoring 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 as provided herein. Bid Form(s) may be duplicated as required in order to provide adequate space to list required number of reference installations for each division Bidder is responding to.

## PART 2 - PRODUCTS

### 2.01 MANUFACTURERS

- A. Acceptable Manufacturers (In alphabetical order):

- 1. AXIS
- 2. GENETEC

### 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 fully interoperable components including, but not limited to, camera licenses, centrally located server(s), vehicle storage systems, WiFi transmission equipment, cameras, camera mounting brackets and housings, patch cords and all other necessary components integrated into a common working system.

## 2.05 CENTRAL SERVER AND SOFTWARE

- A. Contractor ruggedized all-in-one vehicle monitoring appliance for initial collection of on-board video and other information prior to offload to Owner provided Genetec server system.
- B. One (1) server shall be provided on each bus location identified on provided Appendix A (Bus Type A, B and C) and as specified herein. All buses identified on Appendix A will receive a new server and appropriate licensing including locations identified where existing cameras are to be used.
  - 1. Acceptable Manufacturer
    - a. GENETEC
      - 1. Streamvault SVR-300A
  - 2. Device shall meet or exceed the following requirements:
    - a. Intel Core i5-7500T
    - b. 16GB DDR4 Memory
    - c. 1 x 256 GB M.2 SSD OS Drive
    - d. 1TB SSD Storage Drive
    - e. Externally accessible Contractor shall supply all parts and labor for a fully functional system.
    - f. Anti-vibration kit
    - g. Wi-Fi Module
    - h. GPS Module
    - i. Two (2) front accessible SIM slots.
- C. Central configuration server shall be Owner provided Genetec server. Such server provided by Owner, shall be hardware only and shall be configured and licensed by Contractor to provide for video and audio upload from each bus as it connects to an Owner provided bus terminal-based Wi-Fi system. All uploaded video and audio shall be centrally stored on this server for a period of 30 days and shall be accessible simultaneously by up to sixteen (16) authorized users on demand.
  - 1. Physical components of bus terminal WiFi communication system for wireless communication on individual buses shall be provided and installed by Contractor and configured in such a manner that all buses

equipped with the system upload all new video and audio files from wherever they may be parked in the terminal facility as soon as they return to the facility.

2. The Owner will be responsible for adequate WiFi coverage and AP installation on the physical transportation terminal to support the mobile equipment provided by Contractor on each individual bus. The Owner also maintains a private fiber optic network that connects the transportation center to the data center.

D. Playback by any authorized user shall provide for, but not be limited to:

1. All cameras playing simultaneously in one “screen” or view on a playback computer.
2. Date and time of the recording overlayed on the video of each recording.
3. Overhead flashing light status overlayed on the video playback of the “doghouse” and exterior camera recordings.
4. Ability to pair any individual audio with a unified playback.

E. All equipment, configuration, connectivity and necessary materials and labor in order to provide a fully compliant and functional system.

## 2.06 BUS CAMERAS

- A. New camera systems shall be provided in each of the existing district buses not yet equipped with a system and as indicated in associated appendices herein.
- B. New cameras shall be provided in locations identified as an existing camera replacement or new buses.
- C. Each individual bus camera system shall have adequate internal storage to hold stored camera footage for a minimum of five (5) days.
- D. Contractor shall include all necessary interconnecting equipment including, but not limited to, any necessary video recorder, PoE Ethernet switches, power tamer, WiFi uplink bridge, cabling, and accessories for a fully functional system.
- E. Three (3) cameras shall be provided for each bus base configuration as specified in Appendix A (Type B and C Buses Only) and as specified herein. All power, cable, lenses, mounting hardware, storage and configuration shall be included. Cameras shall meet or exceed the following specified capabilities:

1. One (1) Passenger 360 Mobile Fisheye Interior Camera shall be provided on each bus (Axis M3057-PLVE Mk II or Equal)
  - a. 2016 x 2016 resolution, 30fps
  - b. Activity/motion detection
  - c. 0.1 lux minimum illumination at 1/30 IRE F1.6 (Color)
  - d. 0 lux with IR illumination (B/W)
  - e. H.265 Compression
  - f. Built-in microphone audio input with synchronized audio embedded in recording. G.711 and G.726 configurable compression.
  - g. Operating temperature range from -40 – 131 degrees Fahrenheit.
  - h. Internal image memory for motion-based buffering
  - i. Cameras shall be installed in mechanical flush mounted, integrated, tamper and impact resistant dome enclosure mount adapter to facilitate installation either directly on bus walls or to a bus ceiling. Domes shall also meet or exceeding the following requirements:
    1. Optically correct polycarbonate lower dome with light loss not greater than 11.5 f-stops.
    2. Puncture resistant with capability to withstand a pointed impact force of 35 foot-pounds without creating an internal depression greater than .2 inches.
    3. Impact resistant with capability to withstand repeated multiple blunt impact forces up to 100 foot-pounds.
2. Two (2) Passenger Interior Cameras shall be provided on each bus (Axis P3935-LR or Equal)
  - a. 110-degree horizontal viewing angle with lens options
  - b. Activity/motion detection
  - c. 0.06 lux minimum illumination at 30 IRE F2.0 (Color)
  - d. 0 lux with IR illumination (B/W)



- e. 1920 x 1080 Image Size (1080p Resolution)
  - f. H.265 Compression
  - g. Built-in microphone audio input with synchronized audio embedded in recording. G.711 and G.726 configurable compression.
  - h. 30fps Maximum Frame Rate at 1080p resolution
  - i. Operating temperature range from -20 – 130 degrees Fahrenheit.
  - j. On-board clock with battery and NTP support.
  - k. Internal image memory for motion-based buffering
  - l. Cameras shall be installed in mechanical flush mounted, integrated, tamper and impact resistant dome enclosure mount adapter to facilitate installation either directly on bus walls or to a bus ceiling. Domes shall also meet or exceeding the following requirements:
    - 1. Optically correct polycarbonate lower dome with light loss not greater than 11.5 f-stops.
    - 2. Puncture resistant with capability to withstand a pointed impact force of 35 foot-pounds without creating an internal depression greater than .2 inches.
    - 3. Impact resistant with capability to withstand repeated multiple blunt impact forces up to 100 foot-pounds.
3. **ADD ALTERNATE:**  
 Two (2) Exterior Swing Arm Cameras shall be provided on each bus identified in provided Appendix A (Type A, B and C). One camera looking forward, and one looking rearward (Axis P3925-LRE or Equal).
- a. 55-degree horizontal viewing angle
  - b. Activity/motion detection
  - c. IR illumination
  - d. 0.06 lux minimum illumination at 30 IRE F2.0 (Color)
  - e. 0 lux with IR illumination (B&W)

- f. 1920 x 1080 Image Size (1080p Resolution)
- g. H.265 Compression
- h. 30fps Maximum Frame Rate at 1080p resolution
- i. Operating temperature range from -40 – 130 degrees Fahrenheit.
- j. Internal image memory for motion-based buffering
- k. On-board clock with battery and NTP support.
- l. Cameras shall be installed in mechanical flush mounted, integrated, tamper and impact resistant dome enclosure mount adapter to facilitate installation directly on bus exterior at, or near the stop swing arm location. Enclosures shall also meet or exceeding the following requirements:
  - 1. Optically correct polycarbonate or acrylic dome/cover with integral UV protection and light loss not greater than 11.5 f-stops.
  - 2. Puncture resistant with capability to withstand a pointed impact force of 35 foot-pounds without creating an internal depression greater than .2 inches.
  - 3. Impact resistant with capability to withstand repeated multiple blunt impact forces up to 100 foot-pounds.
  - 4. Dust and water protection based on IEC/EN60529 standard of IP66/67.
  - 5. All non-translucent components shall be of a color matching the exterior surface of the bus and as acceptable to Owner.
- F. Cameras shall properly and acceptably be powered by, communicate over and attach to, standard communications cables provided and installed by Contractor.
- G. Cameras shall conform to and/or support the following certifications, features, standards and/or protocols:
  - 1. Secure access incorporating user ID and password protection
  - 2. NTP
  - 3. SNMP

4. FCC Part 15 Subpart B Class B

5. Underwriters Laboratories Listed

- H. Each camera shall be connected to an appropriate license.
- I. Each camera shall include the warranty provisions for continual operation and support for the period described herein.
- J. All cameras and/or camera enclosures shall be firmly and securely mounted to finished surfaces as required and/or specified herein to maximize coverage and minimize tampering and environmental ingress potential.
- K. All cable shall be concealed and routed behind finished surfaces to minimize tampering potential.
- L. All installation processes and materials shall follow manufacturers recommended best practice standards.

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, view and placement requirements prior to commencement of other installation activities.
- B. Owner and Designer shall approve a written final installation plan provided by Contractor prior to commencement of installation activity.
- C. Contractor shall ensure all submittals and shop drawings have been provided to, and approval has been obtained from Designer prior to commencement of any final installation activities.

3.02 DEMOLITION

- A. Contractor shall completely remove and properly dispose of existing camera devices where applicable including all cabling, devices and accessories, with the exception of ALL system hard drive devices which shall be removed and provided to Owner for disposition.

3.03 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. Contractor shall coordinate all installation and connection with bus systems with both Owner and Owner's designated bus manufacturer and/or dealer for safe and appropriate compliance with manufacturer and/or dealer warranties.
- C. Work Areas shall be cleaned at the end of each day. All debris shall be cleared, removed and disposed of in an approved container for the site. All equipment and tools shall be removed from buses and common areas and stored in approved, secure storage locations. Any work that may impede the general use of the buses or space and/or other contractor's work and cannot be removed shall be flagged and cordoned off by the Contractor prior to their departure.
- D. All equipment and materials shall be installed in a neat and workmanlike manner. Best practices installation principles shall be used throughout the project.
- E. The Contractor shall furnish, set in place, and install all equipment necessary for a fully compliant and operational system as specified herein. The installation process includes, but is not limited to the following:
  - 1. Inventory receipt of all components and equipment.
  - 2. Storage of all equipment and components until such time those items are installed according to the specifications.
  - 3. Transport equipment to the Owner's installation location(s).
  - 4. Assemble, install, configure and test all equipment and components, maintaining accurate inventory records and status documents and discarding packaging.
  - 5. Carefully aim and focus each system camera to meet Owner's required views and focal points.
  - 6. Collect all information necessary to accurately program all system devices to the Owner's intended use and need.
  - 7. Label all system devices as may be appropriate and required by Owner and Designer.
  - 8. Complete end user and system administrator training programs as specified herein.
  - 9. Work shall be performed to meet local codes and industry standards including proper grounding and bonding of installed equipment.
- F. Sites of Work:

1. Kentwood Public Schools Transportation Center  
6150 Valley Lane Drive SE  
Kentwood, Michigan 49508

G. It shall be the responsibility of the Contractor to repair or replace any damage done to the structure and/or finishes in or on the buses and/or 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 buses and work areas shall be returned to 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 up to three 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.

### 3.04 TESTING

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

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

C. Testing Procedures

1. Prior to system “turn-up”, Contractor shall submit a written request to Designer indicating they have completed full and final configuration of the system, and are ready to have system integrity and functionality tested.
2. Within reasonable time after receipt of request, Designer will provide a test schedule and coordinate testing date(s) with Owner and Contractor.
3. Should Designer determine the Work is not acceptably configured or not of adequate integrity:

- a. Designer promptly will so notify Contractor, giving reasons therefore and providing sufficient details to allow Contractor to make corrective actions.
  - b. Contractor shall then expeditiously remedy the deficiencies and notify Designer in writing when ready for re-testing.
  - c. Designer will schedule re-test of the Work.
  - d. Excessive re-testing of Work may result in fees being assessed Contractor.
4. Should Designer and Owner concur the Work is configured properly and system integrity is as required:
  - a. Designer will review Contractors detailed “turn-up” plan, and upon finding it acceptable issue a memorandum of Testing Completion to Owner and Contractor after which system “turn-up” can proceed.

### 3.05 DOCUMENTATION

- A. Contractor shall, throughout the completion of the project, provide Owner as-built drawings, Owner manuals of all equipment installed, warranty and maintenance information and other information the Contractor, Designer and/or Owner deem necessary. Documentation shall also be provided in a digital format in file formats and on media as specified by Owner and/or Designer.
- 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 and Firmware release provided.
  5. Date installed.
  6. Manufacturer's warranty.
  7. Maintenance contract terms.
  8. Verification of maintenance contract engagement.

9. Telephone numbers for service and support.
10. Detailed technical support and service procedure instructions.
11. All product (hardware and software) manuals and manufacturer supplied documentation, including, but not limited to owner manuals, system administrator manuals and configuration guides. Where number of duplicate copies for particular manual or documentation item could be reasonably considered excessive, Contractor shall request direction from Owner and Designer.
12. Photocopy of original invoice listing make and model for all components and equipment from individual manufacturer(s), distribution source(s), or authorized agent(s) to establish manufacturer warranty start date for potential use after end of contract warranty provisions.
13. As built drawings/diagrams for each bus.
14. System Configuration Report.
15. Complete inventory of installed hardware and system software. Hardware inventory shall include, but not be limited to, camera types (model numbers), lens option, Ethernet MAC address, serial number, physical installation location and software/firmware options.

### 3.06 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 physical on-site training for the Owner designated system administrator(s). Owner shall designate up to Three (3) system administrators to be trained. Training shall be a minimum of two (2), 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. Add, remove and reconfigure cameras on system.
  2. Basic configuration and system administration of the installed system

3. Basic trouble shooting of the installed system and components including diagnostic and problem resolution actions.
  4. System back-up and restore functions and procedures for all system parameters and configurations.
  5. Review of system alerts, logs and monitoring of configuration parameters including, but not limited to, configuration changes and device status.
  6. System database updates and maintenance.
  7. Review standard system reports
- C. Contractor shall provide User/Operator Level Training for the Owner designated system operator(s). Owner shall designate up to ten (10) operators to be trained. Training shall be a minimum of one (1), two (2) hour sessions 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. View stored video from camera(s) identified to be of interest, from a range of time in history.
  2. Zoom stored video to better identify or better review visual details of portions of video of interest.
  3. Review historical video to watch a historical event such as damage to vehicle and vehicles not stopping for the bus as students embark/disembark.

### 3.07 SCHEDULE, MEETINGS AND PLANS

#### A. Schedule

1. Final Vendor Presentations: Week of August 21, 2023
2. Contractor Chosen: Week of September 11, 2023
3. Work Commences: October 1, 2023
4. Substantial Completion of Project: January 1, 2024
5. Project Close-out: February 28, 2024

- 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

## Kentwood Public Schools

### *Transportation Video Monitoring Appendix A - Bus Types*

<b>Bus Number</b>	<b>Type A - Reuse Existing Cameras</b>	<b>Type B - Existing Camera System Replacement</b>	<b>Type C - New Buses</b>
23	1		
24	1		
25	1		
26	1		
27	1		
28	1		
29			1
30			1
31			1
32			1
06-86		1	
08-94		1	
08-95		1	
08-96		1	
08-97		1	
09-88		1	
09-89	1		
09-90	1		
09-91		1	
09-92		1	
09-93		1	
13-01	1		
13-98	1		
13-99	1		

16-02		1	
16-03		1	
16-04		1	
16-05		1	
16-06		1	
16-07		1	
16-08		1	
16-09		1	
16-10		1	
16-11		1	
18-12		1	
18-14		1	
18-15		1	
18-16		1	
20-17	1		
20-18	1		
20-19	1		
20-20	1		
20-21	1		
20-22	1		
<b>TOTALS</b>	<b>17</b>	<b>23</b>	<b>4</b>