

Mona Shores Public Schools High School Video Surveillance Upgrades

Norton Shores, MI



Owner:

Mona Shores Public Schools
121 Randall Road
Muskegon, MI 49441



Design Professional:

People Driven Technology, Inc
6300 Venture Hills Blvd SW
Byron Center, MI 49315
Phone: (616) 264-6700
Website: www.peopledriven.com



Construction Manager:

Triangle Associates, Inc
3769 Three Mile Road NW
Grand Rapids, MI 49534
Phone: (616) 453-3950
Website: www.triangle-inc.com

PROJECT MANUAL

Bid Package: 01

December 14, 2023



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PROJECT: High School Video Surveillance Upgrades

BID PACKAGE: 01

DESIGN PROFESSIONAL: People Driven Technology, Inc.

CONSTRUCTION MANAGER: Triangle Associates, Inc.

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DRAWING INDEX PREPARED BY PEOPLE DRIVEN TECHNOLOGY, INC.- DATED DECEMBER 5, 2023



Advertisement for Bids

OWNER: Mona Shores Public Schools

PROJECT: High School Video Surveillance Upgrades

BID PACKAGE: 01

DESIGN PROFESSIONAL: People Driven Technology, Inc.

CONSTRUCTION MANAGER: Triangle Associates, Inc.

December 14, 2023

TO: Potential Contractors

SUBJECT: ADVERTISEMENT FOR BIDS

The Owner is soliciting proposals for qualified bidders to perform work on various portions of the project. Triangle Associates, Inc. is the Construction Manager for the Owner under an Adviser Agreement. Specialty contractors are being solicited at this time for the following:

Security System
Technology
Data & Video Cabling

PROPOSALS ARE DUE

All proposals are due on Tuesday, January 2, 2024, at 1 PM the (Due Date) at Ross Park Elementary Administration Office located at 121 Randall Rd., Norton Shores, MI 49441. All proposals received on or before the Due Date will be publicly opened shortly after 1 PM. A Post Bid Interview for the low bidder will follow immediately at 2 PM.

PRE-BID MEETING

A pre-bid meeting for this bid package will be held on Thursday, December 21, 2023, at 3 PM at Mona Shores High School located at 1121 Seminole Road, Norton Shores, Michigan 49441. All bidders are encouraged to visit the jobsite. Site examinations are available after the meeting.

Prevailing wages do not apply to this project.

Payment and Performance Bonds are Required.

BID DOCUMENT AVAILABILITY

Bid documents will be available for electronic download through Triangle's project management software SmartBid. Upon bid invitation a hyperlink will be provided to access project documents. All addenda will be uploaded through SmartBid and notifications will be sent to all prospective bidders.

Bidders shall be responsible for ALL documents and cost of printing and shipping of plans/specs associated with Bid Package #01 found on the SmartBid.

Refer to the Instructions to Bidders in the Project Manual for complete bidding information.



Instructions to Bidders

OWNER: Mona Shores Public Schools

PROJECT: High School Video Surveillance Upgrades

BID PACKAGE: 01

DESIGN PROFESSIONAL: People Driven Technology, Inc.

CONSTRUCTION MANAGER: Triangle Associates, Inc.

PREPARATION OF BIDS

- A. Proposals shall be made on the Proposal Forms provided by Triangle Associates, Inc. that are included in the Project Manual. Each proposal should clearly indicate the Work Category being submitted. Separate proposals are required for each Work Category. Combined proposals will be considered provided that each Work Category is individually quoted.
- B. Proposals shall be signed with name and title typed below the signature. Where the Bidder is a corporation, proposals must be signed with the legal name of the corporation followed by the name of the state of incorporation, the legal signature of an officer authorized to bind the corporation to a contract, and sealed with their corporate seal.
- C. The Bidder must satisfy themselves of the accuracy of the Work items in the Bid documents by examination of the site and review of the plans and specifications including addenda. After Proposals have been submitted, the Owner or Construction Manager is not responsible for any misunderstanding concerning the quantities of work, conditions, or nature of the work to be done.
- D. The Bidder is responsible for inspecting the site and for reading and being thoroughly familiar with the Bid Documents. The failure or omission of the Bidder to do any of the foregoing shall in no way relieve any Bidder from any obligation in respect to his Proposal.

BID SUBMITTAL

- A. All proposals shall be submitted within sealed, opaque envelopes in duplicate (2).
- B. Clearly identify on the cover of the envelope with the following information:
 - 1) Project name, bid package number, and work category quoted
 - 2) Name and address of Bidder
- C. Proposals are to be deposited at the Mona Shores Administration Office located at 121 Randall Rd., Norton Shores, MI 49441 on or before Tuesday, January 2, 2024, at 1 PM.
- D. Proposals will be publicly opened. The Owner shall neither consider nor accept any Proposal received after the Due Date. All Proposals shall remain firm and may not be withdrawn for ninety (90) days after the Due Date.
- E. Telephone, electronic mail and/or facsimile proposals will not be accepted.
- F. Bidder Requests for Information ("RFI") shall be submitted to the office of the Construction Manager, Triangle Associates, Inc., at 3769 Three Mile Road NW, Grand Rapids, MI 49534. E-mail Jack Wallen/Heather Shatara at Jackw@triangle-inc.com/Heathers@triangle-inc.com.

BASIS OF SELECTION

- A. Bidders must include all labor rates, unit cost items, Proposal breakdowns, and all mandatory alternatives as listed in the specifications, as shown on the drawings, as listed in the Work Category descriptions, or as listed on the Proposal Form. Failure to comply with any requested information may be cause for rejection of the Proposal.
- B. In the event of a discrepancy between the written prices quoted on the Proposal Form and those quoted in figures, the words shall control. The prices are to include the furnishing of all labor, materials, equipment, tools, management, supervision, insurance, taxes, and all other services necessary and proper for the completion of the work in accordance with all requirements of the contract documents.
- C. The Owner reserves the right to accept or reject all or any portion of a bid, and is not bound to accept the low bid. A bid may be rejected, if not accompanied by a required bid security or by other data required by the Bidding Documents, or which is in any way incomplete or irregular. The Owner shall have the right to waive informalities or irregularities in a bid received, and to accept a bid which, in the judgment of the Owner is in their best interest.
- D. Bidders may be required to attend a post-bid interview at 2 PM, January 2, 2024.
- E. Each Bidder shall be prepared to present evidence of experience, qualifications, and financial ability to carry out the terms of the contract by completing Triangle's Contractor/Supplier Qualification Statement and submitting it to Triangle within 24 hours of the Due Date or no later than time of post-bid interview. A copy of the qualification form is provided herein as part of Triangle Associates, Inc. Forms and is also available on Triangle's website.
- F. Successful Bidders shall be awarded on the basis of 1) compliance with requested schedule, 2) lowest responsive proposal, and/or 3) in the best interest of the Owner

SPECIAL BIDDER INSTRUCTIONS

- A. Approved substitutes will be considered provided prior approval is received. (See section 01631 for complete description.)
- B. Each Proposal should include Michigan Sales & Use Tax. Bidders are to include all other applicable use taxes and other federal, state and local taxes, as may be applicable.
- C. Combined Proposals will be considered for **multiple Work Categories**. The following rules pertaining to bidder instructions, as well as subsequent contract administration, shall apply.
 - 1. Separate proposals are required for each Work Category. Combined Work Category proposals will be considered provided each Work Category is individually quoted.

INTERPRETATION OF DOCUMENTS

- A. Should the Bidder find omissions or discrepancies in the Bid documents, the Bidder should notify Triangle at once so the Design Professional may issue an addendum.
- B. Every request for an interpretation shall be made in writing, addressed and forwarded to Triangle. Unless modified or clarified by written notice or addenda, the Bid Documents remain in force.
- C. No oral interpretations shall be offered to the Bidder as to the meaning of any part of the Bid documents. Every request for an interpretation shall be made in writing and addressed and

forwarded to Triangle. Unless modified or clarified by written notice or addenda, the contract documents remain in force.

MODIFICATION AND WITHDRAWAL OF PROPOSAL

- A. Bidders may withdraw their Proposal at any time prior to the Due Date, but may not resubmit them. No Proposals may be withdrawn or modified, and shall remain firm for a period of ninety (90) days following the Due Date.

CONTRACT TIME

- A. All Bidders submitting Proposals shall be responsible for providing all materials, equipment and labor necessary to maintain job progress to achieve specific dates of partial and substantial completion as noted in Triangle's *Preliminary Project Schedule* to be issued by addendum and considered to be a part of the Bid Documents.. Specific milestone dates of substantial completion are as follows:

1. Contract Award	January 9, 2024
2. Begin Construction	April 2024
3. Contract Completion	August 2024

BONDING

- A. Each Proposal shall be accompanied by Bid Security, in the form of a Bid Bond, certified check or money order, in the amount of not less than five percent (5%) of the Bidders Base Bid. If a Bid Bond is posted, it shall be from a surety qualified to do business in the State of Michigan. The attorney-in-fact who executes the Bid Bond on behalf of the surety shall attach to the Bid Bond a certified, current copy of its Power of Attorney. In the event a certified check or money order is submitted, it shall be made payable to the Owner and the Owner is not responsible for any interest earned thereon. The amount of the Bid Security shall be forfeited to the Owner as liquidated damages, and not as penalty, in the event the Bidder fails to enter into the awarded contract with the Owner, or fail to furnish such performance and payment bonds and insurance certificates required under the Bidding Documents.
- B. The successful Bidder shall provide a Performance Bond and Payment Bond each with limits of 100% of the contract sum. Bonds shall name the Owner as obligee. Bonds shall be secured from surety bond companies licensed to underwrite within the State of Michigan, shall be included on the United States Department of Treasury's most recent Listing of Certified Surety Companies (Circular 570), and shall currently hold a rating of A- or better from the A.M. Best Company. Both form and substance shall be subject to the review and approval of the Owner and Construction Manager. When requested, Bidders shall indicate the name and address of their bonding company and agent. Bidders shall include the cost of Performance Bond and Payment Bond in their base bid.

INSURANCE

- A. Successful Bidders are responsible for the deductible to any claim by them against the Owner's Builders Risk Policy. The deductible for the Owner's Builders Risk is five thousand dollars (\$5,000.00)

CONTRACTOR AGREEMENT

- A. The form of agreement shall be AIA Document A132 - 2009 Edition *Standard Form of Agreement Between Owner and Contractor*, which is included for reference. The successful Bidder shall

execute the agreement within seven (7) days following its receipt of the agreement from the Owner (the "Agreement")

- B. The scope of each contract shall be defined by the various Work Category Descriptions as published unless otherwise modified in the Agreement. No other exclusions or prior modifications will be acknowledged whereby the Agreement shall finalize and therefore supersedes any previous exclusions or modifications identified in the submitted Proposal Form.

GENERAL

- A. The Bid documents contain the provisions required for the construction of the Project. Information obtained from an officer, agent, or employee of the Owner or any other person shall not affect the risks or obligations assumed by the successful Bidder or relieve him from fulfilling any of the conditions of the Agreement.
- B. The successful Bidder shall comply with all applicable laws, ordinances, and the rules and regulations of all governing authorities having jurisdiction over the construction of the project, and all policies, procedures, rules, and regulations of the Owner and Construction Manager.
- C. The successful Bidder shall comply with any special safety provisions required by the Owner, Triangle Associates, Inc., and Design Professional.
- D. Reference Supplemental Conditions, Section 00800, subparagraph 11.1 for Contractor's Liability Insurance Requirements.
- E. Reference Division 1, Section 01631, Product Substitutions for proposed substitutions.
- F. Insurance Policy Types and Limits required by owner to be procured/maintained by successful Bidder.
- G. Approved Substitutes will be considered provided they are submitted to and approved by the Design Professional and Construction Manager prior to the Due Date. In order to be considered, Substitution Request Forms must be submitted to the Design Professional and Construction Manager no later than December 21, 2023. A copy of the Substitution Request Form is included in Specification Section 01631- Product Substitutions.

END OF SECTION



WORK CATEGORY DESCRIPTIONS

Work Category Number: GENERAL ITEMS FOR ALL WORK CATEGORIES

Work Category Name: GENERAL ITEMS FOR ALL WORK CATEGORIES

Project: Mona Shores Public Schools - High School Video Surveillance Upgrades

Bid Package: 01

Design Professional: People Driven Technology, Inc.

Construction Manager: Triangle Associates, Inc.

The following work category descriptions shall contractually define the scope of work of all trade contracts. Refer to the Instructions to Bidders for conditions which are related to all contractors.

Work Included

Technical Specification Sections:

- Division 00 Procurement and Contracting Requirements
- Division 01 Tower General Requirements
- Division 01 Triangle Associates' General Requirements (See Triangle Front Ends)

Specific Items of Construction:

Technical specification references within the Work Category Descriptions shall expressly imply the assignment of all obligations and the entire scope of work within that technical specification unless so modified and superseded by the Work Category Descriptions. Note that unless noted otherwise, all Work Category Descriptions are including but not limited to all means, methods, furnish, installation, supply, take delivery of, quantify, proper storage, and coordination of all work with all other work categories. The scope of each work category shall include all of the work and contract requirements outlined in Division 1 complete. Further, each scope includes all bid requirements, contract documents, general and supplemental conditions and general requirements.

- 1 Coordinate delivery of material, storage and dispensation areas with Triangle's Site Superintendent prior to scheduling delivery to the project site. All delivery of materials to the site must be coordinated in order to facilitate timely installation. Laydown areas will be established as directed by the superintendent.
- 2 Provide continuous coordination with interfacing construction trades as required to complete construction activities of this work category as directed by Triangle's Site Superintendent.
- 3 The use of tobacco products, E-Cigarettes, and Vaping will not be permitted on the project site. Failure to comply with this policy will be considered grounds for removal of any violators from the site.
- 4 Each work category is to provide its own layout and engineering required for work of its category as defined in Section 010510. Multiple control points will be provided by Construction Manager.
- 5 Provide all labor, equipment, tools, hardware and miscellaneous materials necessary to receive, unload, inventory, protect, store and install work of each category including construction materials supplied by other work categories required to be installed under each work category.
- 6 This contractor will acknowledge and adhere to the construction schedule and sequencing. This may include an increase in manpower, material and equipment (including expediting & overtime costs) in order to maintain construction progress as directed by Triangle. All contractors are required to meet the updated progress schedules, with multiple crews if necessary and anticipate any and all possible weather conditions.
- 7 Multiple mobilizations may be required by each work category to meet the dynamic construction schedule and project sequencing requirements. Mobilizations will be at the discretion and direction of the Triangle's site superintendent.
- 8 Each work category is to perform its own cleanup, recycling and legal disposal of construction debris and hazardous waste related to its work category on a daily basis or as directed by Triangle.
- 9 Full compliance with all safety regulations and requirements of OSHA, local and State authorities and Triangle is mandatory. Failure to comply may result in the removal of contractor from the project site. Each contractor will be required to file their jobsite specific safety plan with Triangle prior to starting work onsite.



WORK CATEGORY DESCRIPTIONS

Work Category Number: GENERAL ITEMS FOR ALL WORK CATEGORIES

Work Category Name: GENERAL ITEMS FOR ALL WORK CATEGORIES

- 10 Contractor(s) will supply their own tools and equipment to perform their scope of work. All tools and equipment will be tagged or labeled with the appropriate company's name.
- 11 There will be no "General Contractor" on this project; any references to the general contractor, construction manager, Owner, and other assignments in the contract documents are hereby superseded by these work category descriptions and will be completed by the respective trade contractors assigned that work.
- 12 All contractors are responsible for the entire set of plans and specifications including schedules, tables, work categories, drawings, and notes.
- 13 Allowances are not intended to cover any work specified by drawings, specifications, or work category descriptions. Allowances will be used only at the direction of the CM for unspecified work, unless noted otherwise. Contractors will be required to furnish time sheets to the superintendent daily for verification and invoice backup for all material costs.
- 14 It is the responsibility of each contractor to guard against the possibility of damage to adjacent or existing utilities, equipment and facilities. Attention must be given to private/personal property on and off the project site and damage to any of the items listed above will be the responsibility of this contractor.
- 15 Due to the close proximity of existing buildings and enclosed structures, all motorized equipment must have scrubbers installed on exhaust piping.
- 16 All motorized equipment operating within the interior of a building must have scrubbers installed on exhaust piping.
- 17 Third-party testing and inspections will be covered by the Owner. All contractors are expected to cooperate with the testing agent and assist the CM in scheduling with the testing agency as required. The materials inspector will have the authority to reject concrete and asphalt at the truck that fails testing.
- 18 All contractors shall provide Triangle with a scheduled list of activities, associated durations, and anticipated manpower for each activity within 2 weeks of contract award. Triangle's overall preliminary schedule included in these project documents shall be referenced throughout the development of this information. The Construction Manager will then detail the overall project schedule for daily project compliance. NOTE: The information required above from the contractors will be used for Triangle's review. All durations detailed in the preliminary project schedule supersede any of the provided contractor information.
- 19 The owner has the right to first refusal for all items. In addition to items noted on the drawings, the owner has already earmarked several items for salvage.
- 20 All Contractors are responsible for protecting surrounding areas, surfaces, materials, and other work as required to complete scope per the project documents.
- 21 Hard Hats, High Visibility clothing and all MIOSHA safety standards to be maintained and executed throughout the entire project.
- 22 All Contractors are required to attend the JSA/HAS weekly safety meetings as directed by the onsite Superintendent.
- 23 All Contractors are required to supply background checks for all employees who will be onsite, prior to starting any scope of work.
- 24 During construction – provide adequate crew sizes to maintain project schedule.

END OF GENERAL ITEMS FOR ALL WORK CATEGORIES



WORK CATEGORY DESCRIPTIONS

Work Category Number: 270

Work Category Name: NETWORK INFRASTRUCTURE

Project: Mona Shores Public Schools - High School Video Surveillance Upgrades

Bid Package: 01

Design Professional: People Driven Technology, Inc.

Construction Manager: Triangle Associates, Inc.

The following work category descriptions shall contractually define the scope of work of all trade contracts. Refer to the Instructions to Bidders for conditions which are related to all contractors.

The below section details the specific specification sections and items of work to be included and excluded by each bidding contractor. The executed contract agreement will include the below information only modified by those items discussed during the post bid interview and executed. If the below work category description assigns work not typically performed by the specific trade bidding the work, it is still the responsibility of the bidder to include means in their base bid to include completion of the assigned work. As stated above, beyond the specific assignment of work in the below work categories, all contractors are responsible for all other contractual requirements, including, but not limited to the complete project documents, general conditions, supplementary conditions, special conditions, and Division 1 general requirements.

Work Included

Technical Specification Sections:

- Division 00 Procurement and Contracting Requirements
- Division 01 Triangle Associates' General Requirements (See Triangle Front Ends)
- 27 0000 Low Voltage Infrastructure and Associated Equipment (On Drawing Set)

Specific Items of Construction:

- 1 Contractor responsible for ALL horizontal network infrastructure cabling and associated pathways/rough ins. This includes all category cabling and low voltage copper cabling (i.e. 18AWG2C cabling). Contractor responsible for patch panels as required in the Tech Rooms to support this project.
- 2 Procure, install, and configure wireless point to point and point to multi-point devices as identified and specified within the drawings.
- 3 Perform all demo associated with existing analog cameras as shown on the drawing set. This includes the removal of their associated coaxial and power cabling, power supplies, and the encoders. All equipment shall be removed in its entirety.
- 4 Contractor is responsible for pulling/filing all required low voltage cabling permits and project completion is contingent upon the passing of related inspections.
- 5 Contractor is responsible for relocating existing copper data cabling as indicated in the Drawing Set Camera Schedule.
- 6 Firestopping, J-Hooks, conduit, concealment of exposed cabling, and all other associated rough-ins and pathways are required by this Contractor to furnish a code-compliant cabling installation.
- 7 Device-side and patch-side patch cables are the responsibility of this Contractor.
- 8 All requirements set forth by the Drawing set including the Division 27 0000 Specifications Section, labeling details (specifically for data cables, biscuit jacks, patch panels, etc.), and "General Notes - Cabling" section shall be adhered to by this Contractor. This Contractor is not responsible for the installation, configuration, or programming of any cameras or network video recorders (NVRs).
- 9 Contractor is responsible for providing a lift capable of 30ft vertical extension for exterior cameras.
- 10 Contractor shall consider this a "phased" project - Cabling at new locations with minimal impact to student learning can commence as soon as the authority having jurisdiction has provided tentative approval of the project.



WORK CATEGORY DESCRIPTIONS

Work Category Number: 270

Work Category Name: NETWORK INFRASTRUCTURE

Work Excluded

- 1 Exclude any work pertaining to the procurement and installation of cameras, their mounts, accessories, and aiming/programming/configuration.
- 2 Exclude any work pertaining to the configuration of the Video Surveillance software.
- 3 Exclude any work related to demo of the IP Cameras.

END OF WORK CATEGORY 270



WORK CATEGORY DESCRIPTIONS
Work Category Number: 282
Work Category Name: SECURITY CAMERAS

Project: Mona Shores Public Schools - High School Video Surveillance Upgrades
Bid Package: 01
Design Professional: People Driven Technology, Inc.
Construction Manager: Triangle Associates, Inc.

The following work category descriptions shall contractually define the scope of work of all trade contracts. Refer to the Instructions to Bidders for conditions which are related to all contractors.

The below section details the specific specification sections and items of work to be included and excluded by each bidding contractor. The executed contract agreement will include the below information only modified by those items discussed during the post bid interview and executed. If the below work category description assigns work not typically performed by the specific trade bidding the work, it is still the responsibility of the bidder to include means in their base bid to include completion of the assigned work. As stated above, beyond the specific assignment of work in the below work categories, all contractors are responsible for all other contractual requirements, including, but not limited to the complete project documents, general conditions, supplementary conditions, special conditions, and Division 1 general requirements.

Work Included

Technical Specification Sections:

- Division 00 Procurement and Contracting Requirements
- Division 01 Triangle Associates' General Requirements (See Triangle Front Ends)
- 28 2000 Video Surveillance (On Drawing Set)

Specific Items of Construction:

- 1 Contractor responsible for the demolition of all existing IP Cameras as identified on the drawing set demolition plan.
- 2 Contractor responsible for installation of Owner Provided cameras & network video recorders (NVRs). Owner provided equipment includes mounts, accessories, IR Illuminators, and PoE Injectors. Consumables and material required to complete the installation (e.g. sealant for exterior cameras, fasteners, flex conduit, backboxes for hanging, etc.) are the responsibility of this contractor. Contractor shall hold a project allowance of at least \$4,000 to cover the consumables and miscellaneous material noted above in their base bid.
- 3 Contractor responsible for the aiming, IP'ing, configuration, and complete setup of all cameras and NVRs as a part of this project. See camera schedule in drawing set for all cameras, NVRs, and equipment that is included in this scope.
- 4 Contractor is responsible for the remapping of all High School cameras onto new Avigilon ACC maps.
- 5 Contractor is responsible for the load-balancing of all District Wide cameras across the new NVRs and existing NVR4X Premium.
- 6 Contractor is responsible for applying Owner-provided failover licensing to the District's ACC system and configuring all District cameras (408 cameras) for failover across the new NVRs and existing NVR4X Premium. All cameras must have a primary and secondary failover target at minimum.
- 7 Awarded Contractor will be provided the camera aiming design and SDT file to assist in aiming and configuration settings.
- 8 Contractor shall be held to all requirements set forth in the Drawing Set, including but not limited to the Division 28 2000 Specifications, Camera and NVR schedules, camera labeling details, and "General Notes - Cameras" section. This contractor will not be held to fulfilling anything labeled or identified under the 27 0000 category.
- 9 Contractor shall include documentation of items required within the Drawing Set under Division 28 2000 Specifications "Contractor Minimum Requirements" with the bid submission.



WORK CATEGORY DESCRIPTIONS
Work Category Number: 282
Work Category Name: SECURITY CAMERAS

- 10 At the conclusion of this project, Contractor shall be required to provide a District upgrade from their current ACC7 system to Unity 8. All licensing has been provided by Owner to facilitate this work. Contractor shall provide the system upgrade and confirm all ACC7 settings and configurations are carried over to Unity 8.
- 11 Provide exterior lift as required to extend to 30 ft. for installation of cameras as noted on Camera Schedule.
- 12 Contractor shall consider this to be a "phased" project, with racking and configuration of servers able to commence as early as Spring Break.

Work Excluded

- 1 Exclude demolition of existing analog cameras and associated cabling. Coordination with the Contractor responsible for cabling will be required to minimize downtime of the video surveillance system.
- 2 Exclude any procurement of cameras, Avigilon mounts, power supplies, network video recorders (NVRs), and system licenses.
- 3 Exclude all copper cabling (CAT6 and 18AWG/2C cabling).
- 4 Exclude all network infrastructure work (i.e. patch panels, wireless point to point and point to multipoint devices)
- 5 Exclude the provision of patch cables. Patch cables shall be provided by Contractor 270 and handed over to this Contractor at time of camera install.

END OF WORK CATEGORY 282



Proposal Form
Mona Shores Public Schools
High School Video Surveillance Upgrades
BP #01

To: Mona Shores Public Schools
Ross Park Elementary School
Administration Office
121 Randall Rd.
Norton Shores, MI 49441

ATTN: Rob Jonker, Director of Finance

Due Date: Tuesday, January 2, 2024, at 1 PM

(Bidder's Company Name)

hereinafter called "Bidder", does hereby agree to construct the following scope of work at the prices stated below.

WORK CATEGORY # and TITLE

ADDENDA

The Bidder acknowledges receipt of the following addenda and has included those provisions in the fixed price:

Addendum # , dated Addendum # , dated

TOTAL BASE BID INCLUDING PAYMENT AND PERFORMANCE BONDS

\$ (in figures)

(written in words) Dollars

COMBINED WORK CATEGORIES:

As an alternative to the individual proposals referenced herein, this Bidder hereby proposes the following Combined WORK CATEGORIES for the following combined prices:

WORK CATEGORY NUMBERS AND TITLES:

TOTAL COMBINED PROJECT BID INCLUDING PAYMENT AND PERFORMANCE BOND: \$

VOLUNTARY ALTERNATES

Voluntary alternates are encouraged and will be considered provided all effects and related costs are incorporated herein. Provide a brief description below with a more detailed description, product brochures, and other qualifying documentation attached.

1. _____
Brief description with attached detail

ADD/DEDUCT _____ Dollars \$ _____

2. _____
Brief description with attached detail

ADD/DEDUCT _____ Dollars \$ _____

3. _____
Brief description with attached detail

ADD/DEDUCT _____ Dollars \$ _____

PROPOSAL QUALIFICATIONS/CLARIFICATIONS

CHANGE ORDER WORK

For revisions to the contract (exclusive of alternates & contract unit prices), the contractor agrees to the following mark-ups for overhead and profit:

- a. Direct Labor _____% (maximum 10%)
- b. Direct Material _____% (maximum 10%)
- c. Subcontracted Work _____% (maximum 05%)
- d. Equipment Rental _____% (maximum 05%)

PROJECT SCHEDULE

The contractor has reviewed the overall project schedule and the special coordination, sequencing, restrictions and scheduling of their individual work category and does hereby accept and will commit all resources necessary to meet these schedules or otherwise commits to following schedule modifications:

FAMILIAL RELATIONSHIP DISCLOSURE:

I hereby disclose any familial relationship that exists between the owner or any employee of _____ (Company Name) and any member of the board, intermediate school board, or board of directors, or the superintendent of Mona Shores Public Schools.

IRAN ECONOMIC SANCTIONS ACT:

As required by the State of Michigan Public Act 517, I hereby certify that

_____ (Company Name)

_____ (is or is not) an Iran linked business.

Authorized Signature (applies to Familial Relationship Disclosure and Iran Economic Sanctions Act):

(Contractor)

Notary Public

State of Michigan

County of _____

This aforementioned familial disclosure and Iran Economic Sanctions Act was acknowledged before me on the _____ day

of _____, 2024, by _____

_____, Notary Public
_____, County, Michigan

My Commission Expires: _____

Acting in the County of: _____

RESPECTFULLY SUBMITTED BY

Company: _____
(Legal name)

which is organized and exists under the laws of the State of Michigan as "a Corporation",

"a Partnership", "a Limited Liability Company", "an Individual". (Circle one).

Address: _____

Phone Number: _____ Mobile Number: _____

Email address: _____

Check all that apply: DBE WBE MBE MLBE (Micro Local Business Enterprise)

The undersigned hereby attests that this proposal is in compliance with all related bidding/contract documents.

Authorized Signature: _____

Date: _____

Name & Title: _____

Show seal below if contractor is a corporation.

If different from above, please provide primary contact information

Name _____

Phone _____

Email _____

**CONTRACTOR
LABOR RATE BACKUP SHEET**

- A. The following rates, once accepted by the owner will be applied to bulletins, directives, field orders and subsequent contract modifications.
- B. This cost should not include overhead or profit
- C. The hourly rate should include all taxes, insurance and fringes.

Project Name: High School Video Surveillance Upgrades

Owner: Mona Shores Public Schools

Design Professional: People Driven Technology, Inc.

Submitting Contractor: _____

Date: _____

Trade Classification: _____ **Hourly Rate:** \$_____/hour

Trade Classification: _____ **Hourly Rate:** \$_____/hour

Trade Classification: _____ **Hourly Rate:** \$_____/hour

Trade Classification: _____ **Hourly Rate:** \$_____/hour

Trade Classification: _____ **Hourly Rate:** \$_____/hour

Trade Classification: _____ **Hourly Rate:** \$_____/hour

Trade Classification: _____ **Hourly Rate:** \$_____/hour



Contractor/Supplier Qualification Statement

Original Company Qualification & Annual Renewal

All documents must be submitted via e-mail (preferred), mail or hand delivery. Triangle must have this form and financials on record prior to any bid award but no later than the time of the post bid. Please note: There will also be a project specific one page update required for all bids.

For questions on the Qualification Statement please contact: **Jack Wallen** E-Mail: jackw@triangle-inc.com
Phone: **(616) 453-3950**

Submit **Qualification Statements, including Financials, with Attachments** to:
E-mail (Preferred): qualifications@triangle-inc.com
Triangle Associates, Inc.
3769 Three Mile Rd., NW
Grand Rapids, MI 49534

General Information and Corporate History

Organization Name: _____
Prepared by (Name/Title): _____
E-mail Address: _____
Phone Number/Fax Number: _____
Address: _____

Type of work performed (work category/scope): _____

Percent of work normally performed by your own forces (not subcontracted): _____

1. How many years has your organization been in business as a contractor/supplier? _____
2. How many years has your organization been in business under its present name? _____
3. Under what other names has your organization operated? _____

4. Organization structure and principals:

Type of organization: Corporation Partnership Individual Other _____

DBE WBE Certified DBE/WBE

Union: Yes No

If yes, what trades are you signatory with? _____

Total number of staff employed by organization: Office _____ Field _____

Is your organization in compliance with EEO requirements? Yes No

Do you have a Dept. of Civil Rights Cert. of Awardability? Yes No

A. If your organization is a corporation, please list the following:

Date of incorporation: _____

State of incorporation: _____

President's name: _____

Vice President's name(s): _____

Secretary's name: _____

Treasurer's name: _____

B. If your organization is a partnership, please list the following:

Date of organization: _____

Type of partnership: _____

Name(s) of general partners: _____

C. If your organization is individually owned, please list the following:

Date of organization: _____

Name of owner: _____

5. List the trade categories in which your organization is legally qualified to do business and indicate registration or license number, if applicable.

Trade category: _____

Registration: _____

License #: _____

6. List jurisdictions in which your organization's partnership or trade name is filed.

7. Has your firm ever work for Triangle Associates, Inc. before? Yes No

If so, please list projects completed within the last five (5) years (if more space is needed please attach detail).

8. Claims and suits (if yes to any of the questions below, please attach details and label as **Attachment 'A'**)

Has your organization ever failed to complete any work awarded to it? Yes No

Are there any judgments, claims, arbitration or mediation proceedings, or suits pending or outstanding against your organization or its officer(s)? Yes No

Has your organization filed any lawsuits or requested arbitration or mediation with regard to construction contracts within the last five years? Yes No

Has any officer or principal of your organization ever been an officer or principal of another organization when it failed to complete a construction contract? Yes No

Has any officer or principal of your organization ever been an officer or principal of another organization when it declared or filed for bankruptcy? _____

9. Attach a listing of construction projects your organization has in progress, providing the name of the project, owner, architect, general contractor/construction manager, contract amount, percent complete and scheduled completion date. **(Label as Attachment 'B')**

10. What is the total dollar value of work currently under contract? \$ _____

What is the completed value to date? \$ _____

11. Attach a listing of construction projects your organization has completed in the past five years. Include the same information requested in item 9 with actual completion dates. **(Label as Attachment 'C')**

12. What was the average annual amount of construction work performed during the past five (5) years?
\$ _____

13. Attach a listing of the construction experience and present commitments of the key individuals of the organization that may be assigned to projects you are awarded including project manager and any field supervision **(Label as Attachment 'D')**

14. List four (4) CM/GC and trade/supplier references (name, address & phone number):

CM(s)/GC(s)

Trade(s)/Supplier(s)

Financial Criteria

15. Bank reference (Name, address, phone number & primary contact person):

Available balance on line of credit AS OF THE DATE OF THE FINANCIALS YOU SUBMITTED ABOVE.

16. Bonding (Name of Surety, address, phone number & primary contact person):

17. Bonding capacity (Please attach a letter from your bonding company stating limits):

Single Project: \$ _____ Aggregate: \$ _____
Value of Work Currently Bonded: \$ _____

18. Insurance company (Name, address, phone number):

Agency/Contact/Phone Number: _____

Provide a certificate of insurance indentifying expiration date and current limits of coverage.

19. CPA firm (Name & phone number):

20. **Under separate cover**, please submit complete financial statements for the previous fiscal year (audited statements if available). If statements are more than six (6) months old, please include your most recent internally prepared year-to-date financial statements. **Financial statements MUST be submitted - All information will be kept strictly confidential. This financial information must be mailed, e-mailed or hand delivered directly to Director of Finance at Triangle Associates, Inc. (e-mail: financials@triangle-inc.com)**

21. Is the submitted financial statement for the organization named on page one? Yes No

If not, what is the relationship between organizations?

22. Will the organization whose financial statement is being submitted act as a guarantor of the contract for construction? Yes No

Safety

23. List your workers compensation experience modifier for the last three (3) years:

EMR 20 _____ EMR 20 _____ EMR 20 _____

24. Does your organization have a written OSHA compliant safety policy? Yes No

25. Will your organization comply with and enforce Triangle and the owner's safe and drug-free work place? Yes No

26. Will you provide a project specific safety plan for project's that you are awarded? Yes No

27. If awarded work, will your organization provide assurance you will do everything in your power to assure work will proceed in a timely manner and completed as outlined in the contract documents?

Yes No

28. Are you a participant in the ABC STEP Program and at what level?

Yes No

Level _____

Certification

I do hereby certify the information provided in this statement and the separately submitted financial statements to be true in their entirety. I also certify that the information is sufficiently complete so as not to be misleading. ***I understand that Triangle Associates, Inc. and/or the Owner of any project may reject our proposal and/or bid if the contractor/supplier qualifications are found to be unacceptable. Last, it is understood that inaccurate data may be grounds to reject our bid proposal.***

Company Name: _____

By: _____

Title: _____

Signature: _____ Date: _____

Subscribed and sworn before me this _____ day of _____

Notary Public: _____

My Commission Expires: _____

SWORN STATEMENT

PAY REQUEST: _____
DATE: _____

That the following is a complete statement of each contractor, subcontractor, supplier, and laborer, for which laborer the payment of wages or fringe benefits and withholdings is due but unpaid, and for which laborer the payment of fringe benefits and withholdings is earned but unpaid, with whom has contracted for performance under the contract with the owner or lessee thereof, and that the amounts due to the persons as of the date hereof are correctly and fully set forth opposite their names.

State of: _____)
 County of: _____)

_____, being duly sworn, deposes and says:

That _____ is the contractor for an improvement

That (he)(she) has not employed or procured material from, contracted or subcontracted with, any person or persons, firms, or corporations other than those below-mentioned, and owes no monies for the construction of said buildings or improvements other than the sums set forth hereinafter.

to the following described real property situated in the city of _____,
 County of _____, Michigan, described as follows:

That (he)(she) makes the foregoing statement as the contractor or as agent of the contractor for the purpose of representing to the owner or lessee of the aforementioned premises and his or her agents and the mortgagee and title insurance company that the aforementioned property is free from claims of construction liens, except as specifically set forth below.

	VENDOR/SUBCONTRACTOR:	DESCRIPTION	ORIGINAL CONTRACT AMOUNT	ADJUSTED CONTRACT AMOUNT	PREVIOUS PAYMENTS	AMOUNT OF THIS REQUEST	TOTAL RETENTION WITHHELD	BALANCE TO COMPLETE	AMTS OWED FROM PREV. APPLICATIONS
1								0.00	
2								0.00	
3								0.00	
4								0.00	
5								0.00	
6								0.00	
7								0.00	
8									
9									
10									
11									
12									
13									
14									
15			0.00	0.00	0.00	0.00	0.00	0.00	0.00
	TOTALS							0.00	

WARNING TO OWNER: AN OWNER OR LESSEE OF THE ABOVE-DESCRIBED PROPERTY MAY NOT RELY ON THIS SWORN STATEMENT TO AVOID THE CLAIM OF A SUBCONTRACTOR, SUPPLIER, OR LABORER WHO HAS PROVIDED A NOTICE OF FURNISHING OR A LABORER WHO MAY PROVIDE A NOTICE OF FURNISHING PURSUANT TO SECTION 109 OF THE CONSTRUCTION LIEN ACT TO THE DESIGNEE OR TO THE OWNER OR LESSEE IF THE DESIGNEE IS NOT NAMED OR HAS DIED.

WARNING TO DEPENDENT: A PERSON WHO, WITH INTENT TO DEFRAUD, GIVES A FALSE SWORN STATEMENT IS SUBJECT TO CRIMINAL PENALTIES AS PROVIDED IN SECTION 110 OF THE CONSTRUCTION LIEN ACT, ACT No. 497 OF THE PUBLIC ACTS OF 1980, AS AMENDED, BEING SECTION 570.1110 OF THE MICHIGAN COMPILED LAWS.

Subscribed and sworn to before me this _____ day of _____, _____

 DEPONENT DATE:

by _____
 Notary Public

My commission expires: _____

BACK CHARGE NOTIFICATION

TRIANGLE ASSOCIATES, INC.

3769 THREE MILE ROAD
GRAND RAPIDS, MI 49534

DISTRIBUTION:

- OWNER
- ARCHITECT
- CONTRACTOR
- ACCOUNTING
- FIELD

PROJECT:

BACK CHARGE NOTIFICATION #:

CONTRACTOR:

DATE OF ISSUANCE:

OWNER:

TRIANGLE JOB NO.:

FILE CODE:

REVISION NO.:

In order to expedite the work and avoid or minimize delays in the work which may affect the contract time, the Contractor is hereby notified that the following work is being performed on their behalf as described below.

Description and Location:

Attachments:

METHOD OF DETERMINING CHANGE IN THE CONTRACT:

CONTRACT SUM \$ _____

- FIXED
- ESTIMATE
- MAXIMUM
- TIME AND MATERIAL

CONTRACT TIME _____ DAYS

- FIXED
- ESTIMATE
- MAXIMUM

Note: If it is determined that the above work is not a part of the original contract requirements, the contractor will not be back charged. Prior to a credit be taken on the Contractor's account, a final itemization of all costs will be submitted for inclusion into a Change Order.

TRIANGLE ASSOCIATES, INC.:

BY _____

Date _____

CONSTRUCTION CHANGE AUTHORIZATION

TRIANGLE ASSOCIATES, INC.

3769 THREE MILE ROAD NW
GRAND RAPIDS, MI 49534

DISTRIBUTION:

- OWNER
- ARCHITECT
- CONTRACTOR
- ACCOUNTING
- FIELD

PROJECT: _____ CONSTRUCTION CHANGE AUTHORIZATION NO.: _____
CONTRACTOR: _____ DATE OF ISSUANCE: _____
OWNER: _____ TRIANGLE JOB NO.: _____
FILE CODE: _____
REVISION NO.: _____

In order to expedite the work and avoid or minimize delays in the work which may affect the contract sum or contract time, the Contractor is hereby authorized to proceed with the following modifications to the contract as described below.

Description and Location:

Attachments:

METHOD OF DETERMINING CHANGE IN THE CONTRACT:

CONTRACT SUM \$ _____
 FIXED
 ESTIMATE
 MAXIMUM
 TIME AND MATERIAL

CONTRACT TIME _____ DAYS
 FIXED
 ESTIMATE
 MAXIMUM

Note: If it is determined that the above work is part of the original contract requirements, the contractor will not be entitled to an extra. Prior to payment for all extras, a final itemization of all costs must be submitted for approval and inclusion into a Change Order.

TRIANGLE ASSOCIATES, INC.:

BY _____

Date _____

CONTRACTOR:

BY _____

Date _____

ARCHITECT:

BY _____

Date _____

OWNER:

BY _____

Date _____

PARTIAL UNCONDITIONAL WAIVER OF LIEN

I/we have a contract with **Triangle Associates, Inc.** to provide (Subcontractor) for the improvement to the property described as: **(Job Name)** and hereby waive my/our construction lien to the amount of \$(Dollar Amount) for labor/materials provided through (Date).

This waiver, together with all previous waivers, if any does cover all amounts due to me/us for contract improvements provided through the date shown above:

STATEMENT OF ACCOUNT:		Signed on:_____
Contract Price	\$_____	_____
Previously Paid	\$_____	by:_____
This Payment	\$_____	address_____
Total Amount Due	\$_____	_____

DO NOT SIGN BLANK OR INCOMPLETE FORMS. RETAIN A COPY.

Please sign and return to:
Triangle Associates, Inc., 3769 Three Mile Road NW,
Grand Rapids, MI 49534

FULL UNCONDITIONAL WAIVER OF LIEN

My/Our contract with Triangle Associates, Inc. to provide (Work Description) is completed. Work for the following contract divisions:

(Sub # - Trade)

for the improvement to the property described as:

(Job Name)

having been fully paid and satisfied, all my/our construction lien rights against such property are hereby waived and released.

Signed on: _____

by: _____

Address: _____

Telephone: _____

DO NOT SIGN BLANK OR INCOMPLETE FORMS. RETAIN A COPY.

SECTION 00700 - A.I.A. GENERAL CONDITIONS

1. The **General Conditions of the Contract for Construction** (American Institute of Architects Document A232 - 2019 Edition, Articles 1 through 15 inclusive) is hereby made part of Contract Documents to same extent as if bound herein.
2. AIA Document A232 may be examined or obtained at the office of the Construction Manager. Copies of this document may be purchased from:

Architects' Bookstore - Beaubien House
553 E. Jefferson
Detroit, Michigan 48226
(313) 965-1400

3. AIA Document A232 is modified by the SUPPLEMENTARY CONDITIONS (immediately following).

END OF SECTION 00700

SECTION 00800 - 2019 EDITION SUPPLEMENTARY CONDITIONS

INTENT AND SCOPE: The following supplements change, delete from or add to the General Conditions of the Contract for Construction, AIA Document A232 - 2019 Edition. Where any Article, Paragraph, Subparagraph or Clause of AIA Document A232 is changed, deleted or added to by these supplements, the unaltered provision of that Article, Paragraph, Subparagraph or Clause shall remain in effect.

1.2 Correlation and Intent of the Contract Documents

1.2.4 Add this subparagraph as follows:

1.2.4. Should there be any conflict(s) between or within Drawings and/or Specifications which are not resolved in writing by the Architect prior to receipt of bids, that which requires the highest degree of performance quality, quantity, strength, finish, completion, complexity, sophistication, cost, etc., will be required and shall be provided at no increase in Contract amount. All such conflicts must be referred to Architect immediately upon discovery."

2.1 Owner: Amend subparagraph 2.1.1 as follows:

2.1.1. Add the following sentence: "The Owner of this Project is Mona Shores Public Schools. Wherever the term Owner appears in the Contract Documents, it shall refer to Mona Shores Public Schools."

2.2 Information and services required of the Owner

2.2.3. Add this sentence to the end of this subparagraph: "No legal description of the site is required. The Owner and Construction Manager assume no responsibility or liability for conclusions drawn from such information which relates to construction means, methods, techniques or productivity. Interpretations or questions regarding the information furnished shall be directed to the originator."

3.4 Labor and Materials: Add subparagraph 3.4.4 and 3.4.5 as follows:

3.4.4. Contractor shall not permit sale or use of alcoholic beverages, illegal drugs or controlled substances--all as defined by laws of the State where the Project is located--on or about the Project site, nor shall he allow any person under the influence of any of these to remain on the premises."

3.4.5. Not later than 10 days from the Contract Date, the contractor shall provide a list showing the name of the manufacturer proposed to be used for each of the principal products called for in the Specifications, and where applicable, the name of the installing subcontractor. If a substitution is being proposed, the procedures outlined in Specification Section 01630 must be followed."

3.6 Taxes: Add subparagraph 3.6.2 as follows:

3.6.2. Contractor shall pay all Michigan and Federal Taxes levied on his business, income, or property, and he shall make all contributions for Social Security and other wage or payroll taxes. Contractor shall be solely responsible for such payments and shall indemnify Owner and hold him harmless for any assessment and payment of same."

- 3.7 **Permits, Fees, Notices, and Compliance with Laws:** To the end of subparagraph 3.7.1., add the following:

"No general building permit is required by the Construction Manager."

- 3.9 **Superintendent:** To the end of subparagraph 3.9.1., add the following:

"The Superintendent shall be satisfactory to the Construction Manager and the Owner, and shall not be changed except with the consent of the Construction Manager and the Owner unless the Superintendent proves to be unsatisfactory or ceases to be in the contractor's employ."

- 3.10 **Contractor's Construction Schedules:** Delete subparagraph 3.10.1 in its entirety and insert the following:

"3.10.1. The Construction Manager shall provide overall scheduling and coordination for the entire project. All Contractors shall acknowledge the Construction Manager's right to establish and set up, or subsequently modify, the sequencing and scheduling of all Work on this project for the earliest completion and/or benefit to the Owner. Refer to the Proposal Section for further scheduling requirements."

- 3.12 **Shop Drawings, Product Data and Samples:** Delete subparagraphs 3.12.5 and 3.12.9 in their entirety and replace with the following:

"3.12.5. The Contractor shall review, approve in writing, and submit through the Construction Manager with reasonable promptness and in such sequence as to cause no delay in the Work or in the Work of any separate Contractor, all Shop Drawings, Product Data and Samples required by the Contract Documents. Shop Drawings, Product Data and Samples shall be properly identified as specified or as the Construction Manager may require. At the time of submission, the Contractor shall inform the Construction Manager in writing of any deviation in the Shop Drawings, Product Data or Samples from the requirements of the Contract Documents."

"3.12.9. The Contractor shall make any corrections required by the Construction Manager or Architect/Engineer and shall resubmit the required number of corrected copies of Shop Drawings, Product Data or New Samples until approved. The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data or Samples, to revisions other than those requested by the Construction Manager or Architect/Engineer or previous submittals."

Add subparagraph 3.12.11 as follows:

"3.12.11. Owner will provide shop drawings to Contractors for all fabricated materials, specialty items, pre-purchased equipment, etc. which will (may) be furnished by the Owner for installation by the Contractors. Contractors must give the Owner at least thirty (30) days notice prior to the time the drawings will be required."

- 3.15 **Cleaning Up**

3.15.2. If the Contractor fails to clean up as provided in the contract documents, the Construction Manager may do so and the cost thereof shall be charged to the Contractor.

Add the following subparagraphs:

"3.15.3. The Contractor shall also clean all glass surfaces installed by him and leave the work area "broom clean" or its equivalent except as otherwise specified."

3.15.4. The Construction Manager shall cleanup all undefinable debris and prorate the cost of such cleanup to the Contractor in proportion to the manpower employed during the time period."

3.15.5. The Contractor shall cleanup and remove from the Site all waste materials, rubbish and debris resulting from his own operations at such frequencies as required by the Construction Manager. All costs related to cleanup such as dumpster charges, etc. shall be paid for by the Contractor unless agreements are made to the contrary."

3.18 **Indemnification:**

Add subparagraph 3.18.3 as follows:

3.18.3. The Contractors further agree to bring no claim for negligence, indemnity or otherwise against the Architect, the Construction Manager, or their employees, agents, or consultants which arises out of the performance or failure to perform professional services with respect to investigation, detection, abatement, replacement or removal of products, materials, or processes containing asbestos, or which arises out of the disposal, discharge, escape, release, or saturation of smoke, vapors, soot, fumes, toxic chemicals, liquids, gases, waste, acids, alkalis, or any other material, irritant, contamination, or pollutant in or into the atmosphere, or on, onto, upon, in or into the surface or subsurface of soil, land, water, waterways, or watercourses, tangible or intangible objects or matter, whether or not sudden and accidental."

4.1 **Architect and Construction Manager:** Amend subparagraph 4.1.1 as follows:

4.1.1. Add the following sentence: "The Lead Architect is People Driven Technology, Inc."

4.1.2. Triangle Associates, Inc. of Grand Rapids, Michigan is the Construction Manager. Wherever the term Construction Manager appears in the Contract Documents, it shall refer to Triangle Associates, Inc."

7.2 **Change Orders:** Add new subparagraph 7.2.2 as follows:

7.2.2. **Bulletins**

7.2.2.1. Change Order will generally be preceded by issuance of a Bulletin.

7.2.2.2. A Bulletin is a document (written and/or graphic) which describes a proposed Change in the Work and which is issued to a Contractor for purpose of obtaining his proposal for changes(s) of Contract Sum and/or Contract Time should such proposed Change in the Work by authorized by Change Order.

7.2.2.3. Contractor shall submit his proposal on or before due date stated on Bulletin. If no due date is stated, it shall be two weeks (14 calendar days) following date of issue.

7.2.2.4. If no quotation is received by the due date for a Bulletin which is presumed to add to the Contract Sum, proposed Change in the Work will be considered to be "No Cost" change, or cost estimate of the Construction Manager will be used, and Contractor shall, upon written instruction from the Construction Manager, proceed to execute the Change in the Work with no change of Contract sum, or at cost figure estimated by the Construction."

- 7.3 **Construction Change Directives.** Delete subparagraph 7.3.3.3 in its entirety and insert the following in its place:

“7.3.3.3 By Cost and a Percentage Fee for Overhead and Profit, Cost shall be limited to the following: cost of materials, including Use and Sales Tax, Michigan Business Tax, and cost of delivery; cost of labor directly involved in the work, excluding supervision, including Social Security, Federal and State Unemployment Tax, and Fringe Benefits under collective bargaining agreements; Worker’s Compensation Insurance, Bond Premiums; and rental value of power tools and equipment. The Maximum Percentage Fee for Overhead and Profit shall be ten percent (10%) of net costs. The maximum amount of five percent (5%) for Overhead and Profit will be allowed for work performed by Subcontractors.”

Add new paragraph 7.3.10 as follows:

“7.3.11. Should concealed conditions encountered in the performance of the Work below the surface of the ground, or should concealed or unknown conditions in an existing structure be at variance with the conditions indicated by the Drawings, Specifications, or Owner-furnished information, or should unknown physical conditions below the surface of the ground, or should concealed or unknown conditions in an existing structure of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Contract, be encountered, the Contract Sum shall be adjusted as agreed upon by the Parties by Change Order upon claim by either party, made within twenty-one (21) calendar days after the first observance of the conditions, provided such conditions affect other than construction means, methods, techniques or productivity.”

- 9.3 **Applications for Payment.** Add the following sentence to 9.3.1 at the end of this subparagraph:

“9.3.1. Before submitting an application for payment to the Construction Manager, the Contractor should review a draft copy of his request for payment with the Construction Manager’s project staff. The Construction Manager will assemble the Application with similar applications from other Contractors on the project into a combined project Application for Payment.”

- 11.1 Add subparagraphs as follows:

“11.1.5. **Contractor’s and Subcontractor’s Liability Insurance.**

“11.1.6. The Contractor shall not commence work until he has obtained such insurance as is required under any Employee Benefits Act in force at the place of building, and all insurance required by the Contract Documents, Construction Manager uses ‘Jones’ to track and establish insurance compliance with the contract terms. Contractor will not be allowed to begin work until registration with Jones is completed and a compliant certificate of insurance has been received; nor shall the Contractor allow any Subcontractor to commence work on his subcontract until all similar insurance required of the Subcontractor has been obtained and approved.

“The Insurance required shall be:

1. Worker’s Compensation policy including Employer’s Liability.
2. Comprehensive General Liability policy including coverage of liability for:
 - Premises and Operations;
 - Elevators;

- σ Independent Contractors;
 - σ Products;
 - σ Completed Operations for one year after substantial completion;
 - σ Broad Form Property Damage coverage on an occurrence basis, including explosion, collapse and underground hazards;
 - σ Contractual, as applicable to the Contractor's obligations under the Indemnification Agreement contained in the Contract; and
 - σ Personal Injury.
3. Comprehensive Automobile Liability policy including coverage for owned, non-owned, leased and hired automobiles, and property damage on an occurrence basis.

"The insurance shall be carried with companies authorized to do business in Michigan and acceptable to the Construction Manager and Owner. It shall remain in force for the duration of the contract and shall provide coverage as follows:

a. Commercial General Liability

1. Bodily Injury + Property Damage	\$1,000,000	Each Occurrence (Incl. Completed Operations – 3 years from final completion)
2. Aggregate	\$2,000,000 \$2,000,000 \$1,000,000	Gen. Agg. (must apply separately to each project) Products & Completed Operations Aggregate (Combined Single Limits) Personal/Advertising Injury
3. Pollution Legal Liability	\$2,000,000	Per occurrence, if claims made, for 2 Years following final acceptance by Owner, or through warranty period, whichever is longer

b. Comprehensive Automobile Liability

Bodily Injury & Property Damage	\$1,000,000	Each Occurrence (Combined Single Limits)
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c. Workers Compensation	\$500,000 \$500,000 \$500,000	Employer's Liability (Each Accident) Disease—Policy Limit Disease—Each Employee
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d. Umbrella Coverage	\$2,000,000	Per Occurrence & Aggregate
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e. Professional Liability for design	\$2,000,000	Per occurrence & Aggregate
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4. "Triangle Associates, Inc. and the owner, Mona Shores Public Schools must be named as additional insureds on the General Liability and automobile policies and such coverage shall remain through the period completed operations is required for the Project. Acceptable ISO Additional Insured form(s) using any one of the three following options: (1) CG 20 10 11 85; (2) CG 20 10 10 01 and CG 20 37 10 01; or (3) CG 20 10 07 04 and CG 20 37 07 04 or the ISO equivalent using 1985, 2001 or 2004 edition language. The 2013 edition language will not be accepted. Triangle, People Driven Technology, Inc. and The Jones Agency, Inc. shall be listed as certificate holders on all policies. The Project name must be listed under the description. The above-mentioned policies shall be written on a

comprehensive form to include hired and non-owned vehicles and Subcontractor's policies will be primary and non-contributory. In the event Subcontractor provides design services of any type or kind, as reflected in the Scope of Work on Attachment A, Subcontractor shall provide the Professional Liability insurance provided above."

5. The above-mentioned policies shall contain an endorsement for Waiver of Subrogation. Waiver of Subrogation applies in favor of Triangle Associates, Inc. with respects to Commercial General Liability, Automobile Liability and Workers' Compensation, as permitted by law. Coverage needs to be primary and non-contributory.
6. "Triangle Associates, Inc. must be given thirty (30) days notice of cancellation, and the words 'endeavor to' and 'but failure to. . .(through end of sentence)' must be deleted from the cancellation wording."

15 **Claims and Disputes:** Add new subparagraph 15.1.1.1. as follows:

"15.1.1.1. All disputes or other matters in question arising out of, or relating to this Agreement, shall be submitted by the Contractor in writing to the Construction Manager. The Construction Manager will render a decision within reasonable time. Matters involving an interpretation of the requirements of the Drawings and Specifications will be forwarded by the Construction Manager to the Architect/Engineer whose interpretation will be included in the Construction Manager's decision.

15 **Additional Changes.** Add these subparagraphs as follows:

"15.5. **Equal Opportunity**

"15.5.1. All prospective Contractors, their subcontractors and suppliers must be in compliance with the directives and guidelines of the Contract Compliance Division of the Michigan Department of Civil Rights.

"15.5.2. All Contractors performing work for the Project shall be subject to review by the Contract Compliance Division of the Michigan Department of Civil Rights to determine his compliance and acceptability. The Contractor shall submit a "Certificate of Awardability" for the State of Michigan, Department of Civil Rights upon award of the contract.

"15.5.3. The Contractor further agrees that every subcontract entered into for the performance of this Contract will contain a provision as herein specified, binding upon each Subcontractor. Breach of this covenant may be regarded as material breach of this Contract.

"15.6. **Michigan Right-To-Know Law**

"15.6.1. All Contractors must conform to the provisions of the Michigan Right-To-Know Law, 1986 PA 80, which requires employers to:

- a. develop a communication program designed to safeguard the handling of hazardous chemicals through labeling of chemical containers and development and availability of Material Safety Data Sheets;
- b. provide training for employees who work with these chemicals; and
- c. develop a written hazard communications program.

"15.6.2. The law also provides for specific employee rights. These include:

- a. the right to be notified (by employer or contractor posting) of the location of Material Safety Data Sheets (MSDS).
- b. the right to be notified (by employer or contractor posting) of new or revised MSDS no later than five (5) working days after receipt; and
- c. the right to request copies of MSDS from their employers.

15.6.3. Provisions of Michigan's Right-To-Know Law may be found in those sections of the Michigan Occupational Safety and Health Act (MIOSHA) which contain Right-To-Know provisions and the Federal Hazard Community Standard which is part of the MIOSHA Right-To-Know Law through adoption."

END OF SECTION 00800

SECTION 01010 - SUMMARY OF WORK

1 GENERAL

1.1 RELATED DOCUMENTS

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

1. **Project:** High School Video Surveillance Upgrades
2. **Governmental Jurisdiction:** County: Muskegon
3. **Owner:** Mona Shores Public Schools
4. **Lead Architect:** People Driven Technology, Inc.
5. **Consulting Manager:** Triangle Associates, Inc.
3769 Three Mile Road NW
Grand Rapids, Michigan 49534
Telephone: (616) 453-3950
FAX: (616) 453-5952
Representative: Jack Wallen, Project Manager

1.2 CONSTRUCTION MANAGER

- A. Triangle Associates, Inc. is the Construction Manager. Wherever the term Construction Manager appears in the Contract Documents, it shall refer to Triangle Associates, Inc.
- B. Triangle's Contract with the Owner is a modified AIA C132 - 2019 Agreement for a Construction Manager / Adviser. As such, all Contractors are advised that Triangle is not the General Contractor, Construction Manager/Constructor, nor Construction Manager/Builder; and will not be self-performing any Trade Work. As CM/Advisor, Triangle will be the Owners' Agent, as delineated herein. All Contractors shall be prime Contractors under direct contract with the Owner; not the Construction Manager/Advisor. All payments will be administered by the Construction Manager, but paid directly by the Owner.
- C. The Contractors and his Subcontractors shall agree to and accept the same responsibility and follow the same terms of the Conditions of the Contract as the Construction Manager for the work for which he is under contract.

1.3 PROJECT DESCRIPTION

Video Surveillance Upgrades to the Mona Shores High School

1.4 LABOR, MATERIALS, TAXES AND WORKMANSHIP

- A. Unless otherwise specified in these Contract Documents, all materials and workmanship shall be new and of the best grade of their respective kind for the purpose.

- B. Unless otherwise specifically provided in the Contract Documents, the Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, transportation, and other facilities and services necessary for the proper execution and completion of the Work.
- C. The Contractor shall at all times enforce strict discipline and good order among his employees and shall not employ any unfit person or anyone not skilled in the task assigned to him.
- D. The Contractor shall pay all sales, consumer, use and other similar taxes for the Work or portions thereof provided by the Contractor which are legally enacted at the time bids or proposals are received, whether or not yet effective. This project is not tax exempt from state sales tax.

1.5 CRITICAL PHASING AND STAGES OF CONSTRUCTION

- A. **Introduction.** Due to the necessity for certain areas in service to remain in operation through the life of the project, critical phasing and critical stages of construction have been established herein for the project. It is extremely important that the "Critical Phasing and Stages of Construction" requirements be understood and complied with. The Construction Manager shall coordinate detailed critical phasing and sequencing and scheduling with the Owner's representative. The Construction Manager shall provide overall scheduling and coordination for the entire project. All Contractors shall acknowledge the construction Manager's right to establish and set up, or subsequently modify, the sequencing and scheduling of all Work on this project for the earliest completion and/or benefit to the Owner. All Contractors shall expedite the ordering and delivering of materials and equipment, etc. to meet these critical phasing and staging requirements and to make every effort possible to minimize disruption of normal building usage.
- B. **Bid Schedules**
 - 1. The preliminary construction schedule narrative included in the Contract Documents represents the general order and time frames for work to be followed by the Construction Manager in coordinating the project. The Contractors are to assume that their work will be coordinated in a manner consistent with industry practice, and the efficient coordination of all other trades.
 - 2. Please note that although the schedule defines the planned order of construction, Bidders should not assume that any assurance is given or implied as to the calendar dates associated with completion of the work of a particular contract.
 - 3. All Contractors and Subcontractors recognize and shall accept modifications to the schedule which are reasonable, in the opinion of the Construction Manager, for the general interest of the project as a result of allowable time extensions (formally or informally approved) in any contract, and such modifications are inherent to the construction process and shall not qualify as a basis for extra compensation from the Construction Manager or Owner.
 - 4. The Contractor, in submitting a proposal for the work of a particular work category, agrees to commit the necessary resources to complete the work activities of that work category, within a time span not greater than the planned duration. Work included within a work category, but not specifically defined by a particular work activity, is to be accomplished in a reasonable manner in conjunction with other work of the work category, and in such a way as to avoid complication of or to delay the work of other Contractors.

1.6 PROJECT SEQUENCING

- A. **General Sequencing.** The overall project sequencing is tentatively indicated within the Preliminary Construction Schedule Narrative.
- B. **Restrictive Sequencing and Scheduling.** More restrictive sequencing to coordinate the Owner's on-going operations and/or for the coordination of the various trades shall be spelled out by the Work Category Descriptions or as otherwise directed by the Project Manager. All Contractors agree to cooperate and alter their operations to maintain these more specified restrictions and sequences of the work.
- C. **Specific Project Requirements.** The following are critical phasing and staging requirements for the project:
 - 1. Contract Award See Instructions to Bidders
 - 2. Begin Construction See Instructions to Bidders
 - 3. Contract Completion See Instructions to Bidders
- D. **Mutual Cooperation.** Mutual cooperation between the Owner, the Architect, the Construction Manager, and the Contractors to coordinate these construction and building operation requirements is anticipated and expected.

1.7 USE OF SITE

- A. Contractor shall limit his use of the premises for his work and for storage to allow for (i) work by other Contractors, (ii) Owner occupancy, (iii) public use.
- B. Limitations on site usage as well as specified requirements that impact site utilization are indicated on the drawings and by other contract documents. In addition to these limitations and requirements, the Construction Manager will administer allocation of available space equitably among entities needing both access and space so as to produce the best overall efficiency in performance as the total work of the project. Schedule deliveries so as to minimize space and time requirements for storage of materials and equipment on site.
- C. Contractor shall assume full responsibility for the protection and safekeeping of products under his contract that are stored on the site.
- D. Move any stored products, under Contractor's control, which interfere with operations of the Owner or separate Contractor.
- E. Obtain and pay for the use of additional storage or work areas needed for operations.

1.8 OWNER'S RIGHT TO OCCUPY

The Owner, at his election, may from time to time occupy any parts of the project as the work in connection therewith is completed to such a degree as will, in the opinion of the Owner, permit their use for the purposes for which they are intended. The Owner will, prior to any such partial occupancy, give notice to the Construction Manager thereof and such occupancy shall be based upon the following:

- A. The warranty periods shall not begin to run until substantial completion of the entire project, unless noted otherwise.
- B. Such occupancy shall not constitute an acceptance of work not performed in accordance with the Contract Documents or relieve Contractors of liability to perform any work required by their Contract but not completed at the time of occupancy.
- C. Contractors shall be relieved of all maintenance costs on the units or parts occupied under this agreement.

- D. Owner shall assume the risk of loss with respect to any unit or part occupied under the terms of this agreement.
- E. The Contractor shall not be required to furnish heat, light and water or other such services used in the units or parts occupied without proper remuneration thereof.

END OF SECTION 01010

SECTION 01020 – ALLOWANCES

I. SCHEDULE OF ALLOWANCES

A. N/A

END OF SECTION 01020

SECTION 01026 – UNIT PRICES

1 GENERAL

1.1 ADMINISTRATIVE AND PROCEDURAL REQUIREMENTS

- A. A unit is an amount proposed by bidders and stated on their proposal as a price per unit of measurement for materials or services that will be added to or deducted from the contract sum by change order in the event the estimated quantities of work required by the contract documents are increased or decreased.
- B. Unit prices, at the option of the Construction Manager, will be used for alternations, additions, deletions, and deductions from the specified work. These prices are intended to cover all costs to the Owner per unit of work in place, in accordance with the contract documents including all materials, labor, equipment and services, tools, expendables, overhead and profit, estimating, engineering, drafting, coordination, layout and blueprinting. State sales and use tax are to be included in the unit prices.
- C. Refer to individual specification sections for construction activities that require the establishment of unit prices. Methods of measurement and payment for unit prices are specified in those sections. If methods of measurement are not specified, review with the construction manager prior to proceeding. Do not proceed without the construction manager's approval regardless of whether or not the methods of measurement are specified.

1.2 SCHEDULE

- A. A "Unit Price Schedule" is included at the end of this section. Work categories referenced in the schedule contain requirements for materials and methods described under each unit price.
- B. The Owner and Construction Manager reserve the right to reject the contractor's measurement of work in place that involves use of established unit prices and to have this work measured by an independent surveyor acceptable to the contractor at the Owner's expense.

2 PRODUCT (not applicable)

3 EXECUTION

3.1 SCHEDULE OF UNIT PRICES

End of section 01026

SECTION 01027 - APPLICATIONS FOR PAYMENT

1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

This Section specifies administrative and procedural requirements governing the Contractor's Applications for Payment shall apply to all Contractors. The Construction Manager, as advisor to the Owner, will review and certify each Contractor's Application for Payment and will forward copies to the Architect for their review and certification. All payments will be issued by the Owner.

1.3 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by the Construction Manager and paid for by the Owner. The initial Application for Payment, the Application for Payment at time of Substantial Completion, and the final Application for Payment involves additional requirements.
- B. **Payment Application Times:** Each progress payment date is as indicated in the Agreement. The period of construction Work covered by each Application for Payment is the period indicated in the Agreement.
- C. **Payment Application Forms:** Use AIA Document G702 and Continuation Sheets G703 as the form for Application for Payment.
- D. **Retainage:** Ten percent of each certified payment shall be withheld until the Contractor's job is fifty percent complete after which time additional retainage will be zero. The final five percent of the Contract price will be paid within 30 days after issuance of the Final Certificate of Substantial Completion and Punch List items and record drawings have been fully completed to satisfaction of Architect.
- E. **Application Preparation:** Complete every entry on the form, including notarization and execution by person authorized to sign legal documents on behalf of the Contractor. Incomplete applications will be returned without action.
 1. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions have been made.
 2. Include amounts of Change Orders and Construction Change Directives executed prior to the last day of the construction period covered by the application.
 3. Submit log for materials in storage that are subsequently taken out of storage and installed in Project. Log shall include materials being added to storage, taken out of storage, and balance of inventory in storage.
- F. **Transmittal:** Submit 1 executed copy of each Application for Payment to the Construction Manager complete with waivers of lien, sworn statements, and similar attachments.
 1. Contractors shall submit Applications for Payment via Procore.

- G. **Waivers of Mechanics Lien:** With each Application for Payment submit waivers of mechanics liens from subcontractors or sub-subcontractors and suppliers for the construction period covered by the previous application.
1. Also with each application for payment, submit PARTIAL CONDITIONAL WAIVERS OF LIEN, properly executed by Contractor.
 2. Beginning with second application for payment and for succeeding requests for payment, furnish PARTIAL UNCONDITIONAL WAIVERS OF LIEN, properly executed for materials, labor and services included in previous payment. This will apply to suppliers and subcontractors who have and/or have not filed, NOTICE OF FURNISHINGS, properly executed for materials, labor and services included in previous payments.
 3. If lien or sworn statement of account of lien under procedures of Mechanics' Lien Law is filed, amounts due subcontractor, supplier or material supplier (party who filed said lien or sworn statement) as disclosed by sworn statements, whether due to become due, shall be withheld from Contractor's monthly payment until such time as matter has been clarified.
 4. At time of final application for payment, submit FULL UNCONDITIONAL WAIVERS OF LIEN, properly executed by Contractor, and each subcontractor or material supplier, for full payment of Contract price.
 5. **Waiver Forms:** Submit waivers of lien on forms, and executed in manner, established by the State of Michigan.
- H. **Initial Application for Payment:** Administrative actions and submittals that must precede or coincide with submittal of the first Application for Payment include the following:
1. List of subcontractors, principal suppliers, and fabricators.
 2. Schedule of Values.
 3. Contractor's Construction Schedule (preliminary if not final).
 4. Submittal Schedule (preliminary if not final).
 5. List of Contractor's staff assignments.
 6. Copies of building permits.
 7. Copies of authorizations and licenses from governing authorities for performance of the Work.
 8. Report of pre-construction meeting.
 9. Certificates of insurance and insurance policies.
 10. Performance and payment bonds.
 11. Data needed to acquire Owner's insurance.
- I. **Application for Payment at Substantial Completion:** Following issuance of the Certificate of Substantial Completion, submit an Application for Payment. This application shall reflect any Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work. Administrative actions and submittals that shall coincide with this application include:
1. Occupancy permits and similar approvals.
 2. Warranties (guarantees) and maintenance agreements.
 3. Test/adjust/balance records.
 4. Maintenance instructions.
 5. Start-up performance reports.
 6. Change-over information related to Owner's occupancy, use, operation and maintenance.
 7. Final cleaning.
 8. Application for reduction of retainage, and consent of surety.
 9. List of incomplete Work, recognized as exceptions to Architect's Certificate of Substantial Completion.

J. **Final Payment Application:** Administrative actions and submittals which must precede or coincide with submittal of the final payment Application for Payment include the following:

1. Completion of Project Closeout requirements.
2. Completion of items specified for completion after Substantial Completion.
3. Assurance that unsettled claims will be settled.
4. Assurance that Work not complete and accepted will be completed without undue delay.
5. Transmittal of required Project construction records to Owner.
6. Certified property survey.
7. Proof that taxes, fees and similar obligations have been paid.
8. Removal of temporary facilities and services.
9. Removal of surplus materials, rubbish and similar elements.
10. Change of door locks to Owner's access.

END OF SECTION 01027

SECTION 01030 - ALTERNATES

1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

This Section specifies administrative and procedural requirements for Alternates.

- A. **Definition:** An Alternate is an amount proposed by Bidders and stated on the Bid Form for certain construction activities defined in the Bidding Requirements that may be added to or deducted from Base Bid amount if the Owner decides to accept corresponding change in either the amount of construction to be completed, or in the products, materials, equipment, systems or installation methods described in Contract Documents.
- B. **Coordination:** Coordinate related Work and modify or adjust adjacent Work as necessary to ensure that Work affected by each accepted Alternate is complete and fully integrated into the project.
- C. **Notification:** Immediately following the award of the Contract, prepare and distribute to each party involved, notification of the status of each Alternate. Indicate whether Alternates have been accepted, rejected or deferred for consideration at later date. Include complete description of negotiated modifications to Alternates.
- D. **Schedule:** "Schedule of Alternates" is included at the end of this Section. Specification Sections referenced in the Schedule contain requirements for materials and methods necessary to achieve the Work described under each Alternate.

2 PRODUCTS (Not Applicable).

3 EXECUTION

3.1 SCHEDULE OF ALTERNATES (as noted on proposal form and described below)

- A. N/A

END OF SECTION 01030

SECTION 01035 - MODIFICATION PROCEDURES

1 GENERAL

1.1 RELATED DOCUMENTS

Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specifications, apply to this section.

1.2 SUMMARY

- A. This section specifies administrative and procedural requirements for handling and processing Contract modifications.
- B. **Related Sections:** The following sections contain requirements that relate to this section:
 - 1. Division 1 Section "Submittals" for requirements for the Contractor's Construction Schedule.
 - 2. Division 1 Section "Application for Payment" for administrative procedures governing applications for payment.

1.3 MINOR CHANGES IN THE WORK

Supplemental instructions authorizing minor changes in the Work, not involving an adjustment to the Contract Sum or Contract Time, will be issued by the Architect on AIA Form G714, Construction Change Directive, and the cost will be listed as -0-.

1.4 CHANGE ORDER PROPOSAL REQUESTS

- A. **Owner-Initiated Proposal Requests:** Proposed changes in the Work that will require adjustment to the contract Sum or Contract Time will be issued by the Architect, with detailed description of the proposed change and supplemental or revised Drawings and Specifications, if necessary.
 - 1. Proposal requests issued by the Architect are for information only. Do not consider them an instruction either to stop work in progress or to execute the proposed change.
 - 2. Within 14 days of receipt of the proposal request, submit to the Construction Manager for the Architect's and Owner's review an estimate of costs necessary to execute the proposed change.
 - a. Include list of quantities of products to be purchased and unit costs, along with the total amount of purchases to be made.
 - b. Indicate applicable taxes, delivery charges, equipment rental.
 - c. Include statement indicating the effect the proposed change in the Work will have on the Contract Time.
- B. **Contractor-Initiated Change Order Proposal Requests:** When latent or other unforeseen conditions require modifications to the Contract, the Contractors may propose changes by submitting requests for change to the Construction Manager.
 - 1. Include statement outlining the reasons for the change and the effect of the change on the Work. Provide complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and Contract Time.

2. Include list of quantities of products to be purchased and unit costs along with the total amount of purchases to be made. Where requested, furnish survey data to substantiate quantities.
 3. Indicate applicable taxes, delivery charges, and equipment rental.
- C. **Proposal Request Form:** Submit proposals using Architect's Bulletin Form for Change Order Proposal Requests.
- D. **Bulletins:**
1. Change Orders will be preceded by issuance of Bulletins.
 2. Bulletins are documents (written and/or graphic) which describe proposed Change in the Work and which are issued to Contractor for purpose of obtaining his proposal for change(s) of Contract Sum and/or Contract Time should such proposed Change in the Work be authorized by Change Order.
 3. Contractor shall submit his proposal on or before due date stated on Bulletin. If no due date is stated, it shall be 2 weeks (14 calendar days) following date of issue.
 4. Submit Labor Rate Backup Sheet (included at the end of this Section) for each specific trade with proposal, but no later than the time when first change is executed for that trade.

1.5 CONSTRUCTION CHANGE DIRECTIVE

- A. **Construction Change Directive:** When the Owner, Architect, Construction Manager and Contractor are not in total agreement on the terms of the Change Order Proposal Request, the Architect may issue Construction Change Directive on AIA Form G714, instructing the Contractor to proceed with change in the Work for subsequent inclusion in the Change Order. The Construction Change Directive will contain complete description of the change in the Work and designate the method to be followed to determine change in the Contract Sum or Contract Time.
- B. **Documentation:** Maintain detailed records on time and material basis of work required by the Construction Change Directive. After completion of the change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

1.6 CHANGE ORDER PROCEDURES

Upon the Owner's approval of Change Order Proposal Request, the Construction Manager will issue the Change Order for signatures of the Owner, Architect, Construction Manager and Contractor on AIA Form G701 CMA as provided in the Conditions of the Contract.

END OF SECTION 01035

CONSTRUCTION**CHANGE****AUTHORIZATION**

DISTRIBUTION

:

**TRIANGLE ASSOCIATES, INC.
3769 THREE MILE ROAD NW
GRAND RAPIDS, MI 49534**

-
- OWNER
-
-
- ARCHITECT
-
-
- CONTRACTOR
-
-
- ACCOUNTING
-
-
- FIELD

PROJECT:

CONSTRUCTION CHANGE AUTHORIZATION
NO.:

CONTRACTOR:

DATE OF ISSUANCE:

OWNER:

TRIANGLE JOB NO.:

FILE CODE:

REVISION NO.:

In order to expedite the work and avoid or minimize delays in the work which may affect the contract sum or contract time, the Contractor is hereby authorized to proceed with the following modifications to the contract as described below.

Description and Location:

Attachments:

METHOD OF DETERMINING CHANGE IN THE CONTRACT:

CONTRACT SUM \$ _____

-
- FIXED
-
-
- ESTIMATE
-
-
- MAXIMUM
-
-
- TIME AND MATERIAL

CONTRACT TIME _____ DAYS

-
- FIXED
-
-
- ESTIMATE
-
-
- MAXIMUM

Note: If it is determined that the above work is part of the original contract requirements, the contractor will not be entitled to an extra. Prior to payment for all extras, a final itemization of all costs must be submitted for approval and inclusion into a Change Order.

TRIANGLE ASSOCIATES, INC.:

CONTRACTOR:

BY _____

BY _____

Date _____

Date _____

ARCHITECT:

OWNER:

BY _____

BY _____

Date _____

Date _____

**CONTRACTOR
LABOR RATE BACKUP SHEET**

- A. The following information must be supplied whenever trade is included in pricing contract modification for the first time on the project. Succeeding changes may reference this backup.
- B. The following rate, once accepted by the Owner will be applied to Bulletins, Directives, Field Orders and subsequent Contract Modifications.
- C. This cost should not include overhead or profit (which are included on the modification recap sheet), but should be the direct cost of labor only.

To: Triangle Associates
3769 Three Mile Road NW
Grand Rapids, MI 49534

Project Name: _____

Owner: _____

Architect: _____

Submitting Contractor: _____

Date: _____

Trade: _____ **Union Local:** _____

1. **Hourly Rate:** \$ _____ /Hour

2. **Payroll Taxes and Insurance (% times Item 1):**

FICA	_____ %	\$ _____	/Hour
S.U.I.T. (State Unempl.)	_____ %	\$ _____	/Hour
F.U.T. (Fed Unempl.)	_____ %	\$ _____	/Hour
Workers Compensation	_____ %	\$ _____	/Hour
Other _____	_____ %	\$ _____	/Hour
Other _____	_____ %	\$ _____	/Hour
Total Taxes		\$ _____	/Hour

3. **Fringes:**

_____	_____ %	\$ _____	/Hour
_____	_____ %	\$ _____	/Hour
_____	_____ %	\$ _____	/Hour
Total Fringes		\$ _____	/Hour

4. **Other:**

_____	_____ %	\$ _____	/Hour
_____	_____ %	\$ _____	/Hour
_____	_____ %	\$ _____	/Hour
Total Other		\$ _____	/Hour

TOTAL BASE & FRINGES: \$ _____ /Hour

SECTION 01040 - PROJECT COORDINATION

1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section specifies administrative and supervisory requirements necessary for Project coordination including, but not necessarily limited to:
 - 1. Coordination.
 - 2. Administrative and supervisory personnel.
 - 3. General installation provisions.
 - 4. Cleaning and protection.
- B. Requirements for the Contractor's Construction Schedule are included in Section "Submittals".

1.3 COORDINATION

- A. **Coordination:** Contractors shall coordinate construction activities included under various Sections of these Specifications to assure efficient and orderly installation of each part of the Work. Contractors shall coordinate construction operations included under different Sections of the Specifications that are dependent upon each other for proper installation, connection, and operation.
 - 1. Where installation of one part of the Work is dependent on installation of other components, either before or after its own installation, schedule construction activities in the sequence required to obtain the best results.
 - 2. Where availability of space is limited, coordinate installation of different components to assure maximum accessibility for required maintenance, service and repair.
 - 3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Where necessary, prepare memoranda for distribution to each party involved outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings. Prepare similar memoranda for the Construction Manager and other Contractors where coordination of their Work is required.
- C. **Administrative Procedures:** The Construction Manager shall coordinate the scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of schedules.
 - 2. Coordinate installation and removal of temporary facilities by Contractors.
 - 3. Processing of submittals.
 - 4. Progress meetings.
 - 5. Coordinate project close-out activities.
- D. **Conservation:** Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.

1.4 SUBMITTALS

- A. **Coordination Drawings:** Contractors shall prepare and submit coordination Drawings where close and careful coordination is required for installation of products and materials fabricated off-site by separate entities and where limited space availability necessitates maximum utilization of space for efficient installation of different components.
 - 1. Show the interrelationship of components shown on separate Shop Drawings.
 - 2. Indicate required installation sequences.
 - 3. Comply with requirements contained in Section "Submittals."
 - 4. Refer to Division 26 Section "Basic Electrical Requirements" for specific coordination Drawing requirements for electrical installations.
- B. **Staff Names:** Within 15 days of Notice to Proceed, submit list of the Contractor's principal staff assignments, including the Project Manager and Foreman, their duties and responsibilities and listing their addresses and telephone numbers.

2 PRODUCTS (Not Applicable)

3 EXECUTION

3.1 GENERAL INSTALLATION PROVISIONS

- A. **Inspection of Conditions:** The Installer of each major component shall inspect both the substrate and conditions under which Work is to be performed. Do not proceed until unsatisfactory conditions have been corrected in an acceptable manner.
- B. **Manufacturer's Instructions:** Comply with manufacturer's installation instructions and recommendations to the extent that those instructions and recommendations are more explicit or stringent than requirements contained in Contract Documents.
- C. Inspect materials or equipment immediately upon delivery and again prior to installation. Reject damaged and defective items.
- D. Provide attachment and connection devices and methods necessary for securing Work. Secure Work true to line and level. Allow for expansion and building movement.
- E. **Visual Effects:** Provide uniform joint widths in exposed Work. Arrange joints in exposed Work to obtain the best visual effect. Refer questionable choices to the Architect for final decision.
- F. Recheck measurements and dimensions before starting each installation.
- G. Install each component during weather conditions and Project status that will ensure the best possible results. Isolate each part of the completed construction from incompatible material as necessary to prevent deterioration.
- H. Coordinate temporary enclosures with required inspections and tests, to minimize the necessity of uncovering completed construction for that purpose.
- I. **Mounting Heights:** Where mounting heights are not indicated, install individual components at standard mounting heights recognized within the industry for the particular application indicated. Refer questionable mounting height decisions to the Architect for final decision.

3.2 PROTECTION

- A. During handling and installation, Contractors shall clean and protect construction in progress and adjoining materials in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- B. Clean and maintain completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- C. **Limiting Exposures:** Each Contractor shall supervise their construction activities to ensure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period. Where applicable, such exposures include, but are not limited to, the following:
 - 1. Excessive static or dynamic loading.
 - 2. Excessively high or low temperatures.
 - 3. Thermal shock.
 - 4. Excessively high or low humidity.
 - 5. Air contamination or pollution.
 - 6. Water or ice.
 - 7. Solvents.
 - 8. Chemicals.
 - 9. Heavy traffic.
 - 10. Soiling and staining.
 - 11. Rodent and insect infestation.
 - 12. Electrical current.
 - 13. Improper lubrication,
 - 14. Contact between incompatible materials.
 - 15. Destructive testing.
 - 16. Unprotected storage.
 - 17. Improper shipping or handling.
 - 18. Theft.
 - 19. Vandalism.

END OF SECTION 01040

SECTION 01041 - CLEANING AND DEBRIS CONTROL

1 GENERAL

1.1 RELATED DOCUMENTS

Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specifications, apply to this section.

1.2 SUMMARY

This section specifies administrative and procedural requirements for periodic and final clean up and debris control.

1.3 RESPONSIBILITIES

- A. The Construction Manager shall be responsible for the following items of cleaning and debris control:
 - 1. Oversee cleaning and ensure that the building and grounds are maintained free from accumulations of waste materials, rubbish, and debris.
 - 2. The Construction Manager may, from time to time, schedule joint trade clean-up times in which all Contractors shall provide labor, in proportion to the manpower employed during the time period, to clean up all identifiable and undefinable debris.
 - 3. If Contractors fail to maintain the site, the Construction Manager may arrange for clean up of all undefinable debris and prorate the cost of such removal to the Contractors in proportion to the manpower employed during the time period. Such proration will be billed directly to the Owner for subsequent future reduction in Contractor's payments.

- B. Each Contractor shall be responsible for the following items of cleaning and debris control:
 - 1. Clean up all waste materials, rubbish and debris resulting from his own operations at such frequencies as required by the Construction Manager.
 - 2. Place waste materials, rubbish and debris outside the building in trash containers. If the Contractor utilized the trash container supplied by the Construction Manager, such use will be charged as identified in Work Category Descriptions.
 - 3. Remove grease, dust, dirt, stains, labels, fingerprints, and other foreign materials from interior and exterior surfaces of fixtures, hardware, glass, and equipment furnished as a part of his contract.
 - 4. Repair, patch, and touchup marred surfaces to match adjacent finished damaged by his own operations.
 - 5. Leave all work areas in a "broom clean" condition at the completion of their work.
 - 6. Participate in joint clean up as requested by the Construction Manager.

END SECTION 01041

SECTION 01045 - CUTTING AND PATCHING

1 GENERAL

1.1 RELATED DOCUMENTS

Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specifications, apply to this section.

1.2 SUMMARY

- A. This section specifies administrative and procedural requirements for periodic and final clean up and debris control.
- B. Refer to other sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work. Requirements of this section apply to mechanical and electrical installations. Refer to Division 21 through 23 and Division 26 sections for other requirements and limitations applicable to cutting and patching mechanical and electrical installations.

1.3 SUBMITTALS

- A. **Cutting and Patching Proposal:** Where approval of procedures for cutting and patching is required, before proceeding Contractors shall submit proposal describing procedures well in advance of the time cutting and patching will be performed and request approval from the Construction Manager to proceed. Include the following information, as applicable, in the proposal:
 - 1. Describe the extent of cutting and patching required and how it is to be performed; indicate why it cannot be avoided.
 - 2. Describe anticipated results in terms of changes to existing construction; include changes to structural elements and operating components as well as changes in the buildings appearance and other significant visual elements.
 - 3. List products to be used and firms or entities that will perform the work.
 - 4. Indicate dates when cutting and patching is to be performed.
 - 5. List utilities that will be disturbed or affected, including those that will be relocated and those that will be temporarily out of service. Indicate how long service will be disrupted.
 - 6. Where cutting and patching involves addition of reinforcement to structural elements, submit details and engineering calculations to show how reinforcement is integrated with the original structure.
 - 7. Approval by the Construction Manager to proceed with cutting and patching does not waive the Construction Manager's right to later require complete removal and replacement of part of the work found to be unsatisfactory.

1.4 QUALITY ASSURANCE

- A. **Requirements for Structural Work:** Do not cut and patch structural elements in a manner that would reduce the load-carrying capacity or load-deflection ratio. Obtain approval for the cutting and patching proposal before cutting and patching the following structural elements:
 - 1. Foundation construction.
 - 2. Bearing and retaining walls.
 - 3. Structural concrete.

4. Structural steel.
5. Lintels.
6. Structural decking.
7. Stair systems.
8. Miscellaneous structural metals.
9. Exterior curtain wall construction.
10. Equipment supports.
11. Piping, ductwork, vessels and equipment.

B. **Operational and Safety Limitations:** Do not cut and patch operating elements or safety related components in manner that would result in reducing their capacity to perform as intended, or result in increased maintenance or decreased operational life or safety. Obtain approval of the cutting and patching proposal before cutting and patching the following operating elements or safety related systems:

1. Shoring, bracing, and sheeting.
2. Primary operational systems and equipment.
3. Air or smoke barriers.
4. Water, moisture, or vapor barriers.
5. Membranes and flashings.
6. Fire protection systems.
7. Noise and vibration control elements and systems.
8. Control systems.
9. Communication systems.
10. Conveying systems.
11. Electrical wiring systems.

C. **Visual Requirements:** Do not cut and patch construction exposed on the exterior or in occupied spaces, in a manner that would, in the Construction Manager's and Architect's opinion, reduce the building's aesthetic qualities, or result in visual evidence of cutting and patching. Remove and replace work cut and patched in visually unsatisfactory manner.

1.5 SEQUENCING AND SCHEDULING

Coordinate cutting, patching, repairing, redecorating, and related work necessary for incorporating work into existing or new construction. Cutting shall be done by Contractors requiring same. Patching shall be done by finish Contractors (masonry, gypsum board, painting, ceiling, concrete, flooring, etc.) assigned by the Construction Manager.

2 PRODUCTS

2.1 MATERIALS

Each Contractor shall use materials that are identical to existing materials. If identical materials are not available or cannot be used where exposed surfaces are involved, use materials that match existing adjacent surfaces to the fullest extent possible with regard to visual effect. Use materials whose installed performance will equal or surpass that of existing materials.

3 EXECUTION

3.1 INSPECTION

Before cutting existing surfaces, each Contractor shall examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed. Take corrective action before proceeding if unsafe or unsatisfactory conditions are encountered.

3.2 PREPARATION

- A. **Temporary Support:** Provide temporary support of work to be cut.
- B. **Protection:** Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of the Project that might be exposed during cutting and patching operations.
- C. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Take all precautions necessary to avoid cutting existing pipe, conduit or ductwork serving the building but scheduled to be removed or relocated until provisions have been made to bypass them.

3.3 PERFORMANCE

- A. **General:** Each Contractor shall employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay. Cut existing construction to provide for installation of other components or performance of other construction activities and the subsequent fitting and patching required to restore surfaces to the original condition.
- B. **Cutting:** Cut existing construction using methods least likely to damage elements to be retained or adjoining construction. Where possible review proposed procedures with the original installer. Comply with the original installer's recommendations.
 - 1. In general, where cutting is required, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut holes and slots neatly to size required with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Cut through concrete and masonry using cutting machine such as carborundum saw or diamond core drill.
 - 4. Comply with requirements of applicable sections of Division 32 where cutting and patching requires excavating and backfilling.
 - 5. Bypass utility services such as pipe or conduit before cutting where services are shown or required to be removed, relocated or abandoned. Cut off pipe or conduit in walls or partitions to be removed. Cap, valve or plug and seal the remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after bypassing and cutting.
- C. **Patching:** Patch with durable seams that are as invisible as possible. Comply with specified tolerances.
 - 1. Where feasible, inspect and test patched areas to demonstrate integrity of the installation.
 - 2. Restore exposed finished or patched areas and extend finish restoration into retained adjoining construction in manner that will eliminate evidence of patching and refinishing.

3.4 CLEANING

Each Contractor shall thoroughly clean areas and spaces where cutting and patching is performed or used as access. Remove completely paint, mortar, oils, putty and items of similar nature. Thoroughly clean piping, conduit and similar features before painting or other finishing is applied. Restore damaged pipe covering to its original condition.

END OF SECTION 01045

SECTION 01050 - FIELD ENGINEERING

1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

General: This Section specifies administrative and procedural requirements for field engineering services, including, but not necessarily limited to, the following:

Land survey Work.

1.3 SUBMITTALS

- A. **Certificates:** Submit certificate signed by the Land Surveyor or Professional Engineer certifying that the location and elevation of improvements comply with the Contract Documents.
- B. **Final Property Survey:** Submit 10 hard copies and 1 electronic copy of the final property survey.
- C. **Project Record Documents:** Submit record of Work performed and record survey data as required under provisions of Sections "Submittals" and "Project Closeout".

1.4 QUALITY ASSURANCE

Surveyor: Engage Land Surveyor registered in the State where the project is located to perform land surveying services required.

2 PRODUCTS (Not Applicable)

3 EXECUTION

3.1 EXAMINATION

- A. The Owner will identify existing control points and property line corner stakes.
- B. Verify layout information shown on the Drawings, in relation to the property survey and existing benchmarks before proceeding to layout the Work. Locate and protect existing benchmarks and control points. Preserve permanent reference points during construction.
 - 1. Do not change or relocate benchmarks or control points without prior written approval from the Construction Manager. Promptly report lost or destroyed reference points, or requirements to relocate reference points because of necessary changes in grades or locations.
 - 2. Promptly replace lost or destroyed project control points. Base replacements on the original survey control points.

- C. Establish and maintain minimum of 2 permanent benchmarks on each site, referenced to data established by survey control points.

Record benchmark locations, with horizontal and vertical data, on Project Record Documents.

3.2 PERFORMANCE

- A. Working from lines and levels established by the property survey, establish benchmarks and markers to set lines and levels at each story of construction and elsewhere as needed to properly locate each element of the Project. Calculate and measure required dimensions within indicated or recognized tolerances. Do not scale Drawings to determine dimensions.

Advise the Construction Manager of marked lines and levels provided for their use.

- B. **Surveyor's Log:** Maintain surveyor's log of control and other survey Work. Make this log available for reference.
 - 1. Record deviations from required lines and levels, and advise the Construction Manager when deviations that exceed indicated or recognized tolerances are detected. On Project Record Drawings, record deviations that are accepted and not corrected.
 - 2. On completion of foundation walls, major site improvements, and other Work requiring field engineering services, prepare certified survey showing dimensions, locations, angles and elevations of construction and sitework.
- C. **Site Improvements:** Locate and lay out site improvements, including pavements, stakes for grading, fill and topsoil placement, utility slopes and invert elevations by instrumentation and similar appropriate means.
- D. **Building Lines and Levels:** Locate and lay out batter boards for structures, building foundations, column grids and locations, floor levels and control lines.
- E. **Existing Utilities:** Furnish information necessary to adjust, move or relocate existing structures, utility poles, lines, services or other appurtenances located in, or affected by construction. Coordinate with local authorities having jurisdiction.
- F. **Final Property Survey:** Before Substantial Completion, prepare final property survey showing significant features (real property) for the Project. Include on the survey certification, signed by the Surveyor, to the effect that principal metes, bounds, lines and levels of the Project are accurately positioned as shown on the survey.

END OF SECTION 01050

SECTION 01051 - LAYOUT

1 GENERAL

1.1 RELATED DOCUMENTS

Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specifications, apply to this section.

1.2 SUMMARY

This section specifies Contractor work relating to the layout and installation of their work.

2 PRODUCTS (NOT APPLICABLE)

3 EXECUTION

3.1 GENERAL LAYOUT PROVISIONS

- A. Under the supervision and with the assistance of the Construction Manager, each Contractor will be responsible for the layout of his particular portion of the work. Checking of layout and any assistance provided by the Construction Manager shall in no way be construed to relieve the Contractors of their responsibilities for layout dimensions, tolerances, and accuracy of their work as set forth in the Contract Documents.
- B. Each Contractor shall carefully protect monuments, stakes, and benchmarks. If destroyed or disturbed by the Contractor or his employees, the cost of replacing them shall be charged against the Contractor and shall be deducted from the Contractor's contract amount.
- C. Except as otherwise noted, each Contractor shall obtain his own field measurements and establish lines, grades levels, and measurements shown on the drawings, and reconcile all measurements and conditions shown on the drawings with existing conditions at the site from the site survey provided and building corner indications and ground floor elevation designated by the Construction Manager.
- D. Before custom fabricating any materials, the Contractor shall verify all dimensions of any existing and new work and shall be responsible for their accuracy. Any differences found shall be submitted to the Architect through the Construction Manager for consideration before proceeding with the work. No extra compensation will be permitted because of differences between actual dimensions and measurements indicated on the project drawings.
- E. **Existing Utilities and Equipment:** The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities and other construction.

Prior to construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer and water service piping.

END OF SECTION 01051

SECTION 01095 - REFERENCE STANDARDS AND DEFINITIONS

1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 DEFINITIONS

- A. **General:** Basic Contract definitions are included in the Conditions of the Contract.
- B. **Indicated:** The term "indicated" refers to graphic representations, notes or schedules on the Drawings, or other Paragraphs or Schedules in the Specifications, and similar requirements in the Contract Documents. Where terms such as "shown," "noted," "scheduled," and "specified" are used, it is to help the reader locate the reference; no limitation on location is intended.
- C. **Directed:** Terms such as "directed," "requested," "authorized," "selected," "approved," "required," and "permitted" mean "directed by the Construction Manager," "requested by the Construction Manager," and similar phrases.
- D. **Approve:** The term "approved," where used in conjunction with the Construction Manager's or Architect's action on the Contractor's submittals, applications, and requests, is limited to the Construction Manager's or Architect's duties and responsibilities as stated in the Conditions of the Contract.
- E. **Regulation:** The term "Regulations" includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the Work.
- F. **Furnish:** The term "furnish" is used to mean "supply and deliver to the Project site, ready for unloading, unpacking, assembly, installation, and similar operations."
- G. **Install:** The term "install" is used to describe operations at project site including the actual "unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations."
- H. **Provide:** The term "provide" means "to furnish and install, complete and ready for the intended use."
- I. **Installer:** An "Installer" is the Contractor or an entity engaged by the Contractor, either as an employee, subcontractor, or contractor of lower tier for performance of particular construction activity, including installation, erection, application, and similar operations. Installers are required to be experienced in the operations they are engaged to perform.
 - 1. The term "experienced," when used with the term "Installer," means having minimum of five previous projects similar in size and scope to this Project, being familiar with the special requirements indicated, and having complied with requirements of the authority having jurisdiction.
 - 2. **Trades:** Use of titles such as "carpentry" is not intended to imply that certain construction activities must be performed by accredited or unionized individuals of corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to trades persons of the corresponding generic name.

3. **Assignment of Specialists:** Certain Sections of the Specifications require that specific construction activities shall be performed by specialists who are recognized experts in the operations to be performed. The specialists must be engaged for those activities, and assignments are requirements over which the Contractor has no choice or option. Nevertheless, the ultimate responsibility for fulfilling Contract requirements remains with the Contractor. This requirement shall not be interpreted to conflict with enforcement of building codes and similar regulations governing the Work. It is also not intended to interfere with local trade union jurisdictional settlements and similar conventions.
- L. **Project Site** is the space available to the Contractor for performance of construction activities, either exclusively or in conjunction with others performing other work as part of the Project. The extent of the Project Site is shown on the Drawings and may or may not be identical with the description of the land on which the Project is to be built.
- M. **Testing Laboratories:** "Testing laboratory" is an independent entity engaged to perform specific inspections or tests, either at the Project Site or elsewhere, and to report on and, if required, to interpret results of those inspections or tests.

END OF SECTION 01095

SECTION 01200 - PROJECT MEETINGS

1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section specifies administrative and procedural requirements for project meetings including but not limited to:

Pre-Construction Conference.
Coordination Meetings.
Progress Meetings.

B. Construction schedules are specified in another Division 1 Section.

1.3 PRE-CONSTRUCTION CONFERENCES

A. The Construction Manager will schedule Pre-Construction Conference and organizational meeting at the Project site or other convenient location prior to commencement of specific construction activities as determined by the Construction Manager. The meeting will be conducted to review responsibilities and personnel assignments of the various Contractors and to review installation procedures and sequencing.

B. **Attendees:** The Construction Manager will conduct all jobsite meetings with optional attendance by the Owner, Architect and their consultants. The Contractors and their superintendents and major subcontractors shall each be represented at the conference by persons familiar with and authorized to conclude matters relating to the Work.

1.4 COORDINATION MEETINGS

A. The Construction Manager will conduct periodic Project Coordination Meetings from time to time as may be required. Project Coordination Meetings are in addition to specific meetings held for other purposes, such as regular progress meetings and special pre-installation meetings.

B. The Construction Manager will request Contractors' representation at each meeting by every party currently involved in coordination or planning for the construction activities involved.

C. The Construction Manager will record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting.

1.5 MONTHLY PROGRESS MEETINGS

A. The Construction Manager will conduct Progress Meetings at the Project site at monthly intervals or every other week. The Owner and Architect will be in attendance

on scheduled meeting dates. The dates of meetings will be coordinated with the preparation of the payment request.

- B. **Attendees:** In addition to representatives of the Owner and Architect, Contractors, subcontractors, suppliers or other entity concerned with current progress or involved in planning, coordination or performance of future activities shall be represented at these meetings by persons familiar with the Project and authorized to conclude matters relating to progress.
- C. **Agenda:** The Construction Manager will review and approve minutes of the previous progress meeting and review other items of significance that could affect progress. Items of significance that could affect progress include such topics as:
 - 1. Current construction schedule.
 - 2. Critical Work sequencing.
 - 3. Designation of responsible personnel.
 - 4. Procedures for processing field decisions and Change Orders.
 - 5. Procedures for processing Applications for Payment.
 - 6. Distribution of Contract Document Revisions.
 - 7. Submittal of Shop Drawings, Product Data and Samples.
 - 8. Preparation of record documents.
 - 9. Use of the premises.
 - 10. Office, Work and storage areas.
 - 11. Equipment deliveries and priorities.
 - 12. Safety procedures.
 - 13. First aid.
 - 14. Security.
 - 15. Housekeeping.
 - 16. Working hours.
- D. **Reporting:** No later than 7 days after each progress meeting date, The Construction Manager will distribute copies of minutes of the meeting to each party present and to other parties who should have been present.

END OF SECTION 01200

SECTION 01300 - SUBMITTALS

1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for submittals required for performance of the Work, including;
1. Construction Manager's construction schedule.
 2. Submittal schedule. (Refer to Sample Schedule at end of this Section.)
 3. Shop Drawings.
 4. Product Data.
 5. Samples.
- B. **Administrative Submittals:** Refer to other Division-1 Sections and other Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to:
1. Permits.
 2. Applications for payment.
 3. Performance and payment bonds.
 4. Insurance certificates.
 5. List of Subcontractors.
- C. The Schedule of Values submittal is included in Section "Applications for Payment."
- D. Inspection and test reports are included in Section "Quality Control Services."

1.3 SUBMITTAL PROCEDURES

- A. **Coordination:** Each Contractor shall prepare a schedule of submittals coordinated with Construction Manager's construction schedule. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals and related activities that require sequential activity.
 2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination. The Construction Manager reserves the right to withhold action on submittal requiring coordination with other submittals until related submittals are received.
 3. **Processing:** Allow sufficient review time so that installation will not be delayed as the result of the time required to process submittals, including time for resubmittals.
 - a. Allow 2 weeks for initial review by Construction Manager. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. The Construction Manager will promptly advise the Contractor when submittal being processed must be delayed for coordination.
 - b. If an intermediate submittal is necessary, process the same as the initial submittal.

- c. Allow an additional 2 weeks for review and reprocessing of each submittal by the Architect.
 - d. No extension of Contract Time will be authorized because of failure to transmit submittals to the Construction Manager sufficiently in advance of the Work to permit processing.
- B. Submittal Preparation for Shop Drawings, Product Data, or Samples:** Place permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.
- 1. Provide space approximately 4 inches by 5 inches on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the action taken.
 - 2. Include the following information on the label for processing and recording action taken.
 - a. Project name.
 - b. Date.
 - c. Name of Architect and Architect's project number.
 - d. Name of Construction Manager and Construction Manager's project number.
 - e. Name of Contractor.
 - f. Name and address of supplier.
 - g. Name of manufacturer.
 - h. Number and title of appropriate Specification Section.
 - i. Drawing number and detail references, as appropriate.

C. Submittal Transmittal:

- 1. Package each submittal appropriately for transmittal and handling. Transmit each submittal from Contractor to Construction Manager using transmittal form. Submittals received from sources other than the Contractor will be returned without action.
- 2. Each submittal shall be for one (1) Specification Section Number. No multiple submittals per each transmittal.
- 3. On the transmittal, record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements including minor variations and limitations. Include Contractor's certification that information complies with Contract Document requirements.
- 4. **Submit to:**

Triangle Associates, Inc.
3769 Three Mile Road NW
Grand Rapids, MI 49534

1.4 CONSTRUCTION MANAGER'S CONSTRUCTION SCHEDULE

- A. Bar-Chart Schedule:** The Construction Manager shall prepare a fully developed, horizontal bar-chart type Contractor's construction schedule including the following information:
- 1. Each Contractor shall notify the Construction Manager of time commitments for performing critical elements of the Work from parties involved. Each element on the schedule will be coordinated with other construction activities; include minor elements involved in the sequence of the Work. Show each activity in proper sequence. Indicate graphically sequences necessary for completion of related portions of the Work.
 - 2. The Construction Manager will detail separate time bars for each significant construction activity.

3. A summary schedule to show data for the entire construction period.
- B. **Work Stages:** Important stages of construction for each major portion of the Work, including testing and installation will be indicated.
- C. **Distribution:** Following response to the initial submittal, the Construction Manager will print and distribute copies to the Architect, Owner, Contractors, and other parties required to comply with scheduled dates. Copies will be posted in the Project meeting room and temporary field office.
- D. **Schedule Updating:** The schedule will be periodically revised after meetings or activities where revisions have been recognized or made. The Contract Manager will issue the updated schedule concurrently with report of such meetings.

1.5 SUBMITTAL SCHEDULE

- A. Concurrent with the development and acceptance of the Contractor's construction schedule input, each Contractor shall prepare a complete schedule of submittals for the inclusion by the Construction Manager into a total project submittal schedule.
1. Coordinate submittal schedule with the Construction Manager's construction schedule.
 2. Prepare the schedule in chronological order; include submittals required during the first 90 days of construction. Provide the following information:
 - a. Scheduled date for the first submittal.
 - b. Related Section number.
 - c. Submittal category.
 - d. Name of Contractor.
 - e. Description of the part of the Work covered.
 - f. Scheduled date for resubmittal
 - g. Scheduled date the Contract Manager's final release or approval.
- B. **Distribution:** Following response to initial submittal, the Construction Manager will print and distribute copies to the Architect, Owner, Contractors, and other parties required to comply with submittal dates indicated. Copies will be posted in the Project meeting room and field office.

1.6 SHOP DRAWINGS

- A. Contractors shall submit newly prepared information drawn to accurate scale. Indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not considered Shop Drawings.
- B. Shop Drawings include fabrication and installation drawings, setting diagrams, schedules, patterns, templates and similar drawings. Include the following information:
1. Dimensions
 2. Identification of products and materials included.
 3. Compliance with specified standards.
 4. Notation of coordination requirements.
 5. Notation of dimensions established by field measurement.
 6. **Sheet Size:** Except for templates, patterns and similar full-size Drawings, submit Shop Drawings on sheets at least 8 1/2 inches by 11 inches but no larger than 30 inches by 42 inches.

7. **Quantity:** Submit 1 electronic copy of shop drawings for the Construction Manager's and Architect's review; one electronic copy of shop drawings will be returned.
8. **Additional Prints:** Contractor shall be responsible for providing additional shop drawings as required for proper distribution for performance of construction. One of the shop drawings shall be marked-up and maintained as "Record Document".
9. Do not use Shop Drawings for fabricating materials without an appropriate final stamp indicating action taken in connection with construction.

1.7 PRODUCT DATA

Contractors shall collect Product Data into single submittal for each element of construction or system. Product Data includes printed information such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams and performance curves. Where Product Data must be specially prepared because standard printed data is not suitable for use, submit as "Shop Drawings."

1. Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products, some of which are not required, mark copies to indicate the applicable information. Include the following information:
 - a. Manufacturer's printed recommendations.
 - b. Compliance with recognized trade association standards.
 - c. Compliance with recognized testing agency standards.
 - d. Application of testing agency labels and seals.
 - e. Notation of dimensions verified by field measurement.
 - f. Notation of coordination requirements.
2. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.
3. **Submittals:** Submit 1 electronic copy of each required submittal. The Construction Manager and Architect will retain 2 electronic copies, give 1 electronic copy to Owner, and will return one electronic copy marked with action taken and corrections or modifications required. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.
4. **Distribution:** Furnish copies of final submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal forms.
 - a. Do not proceed with installation until an applicable copy of Product Data applicable is in the installer's possession.
 - b. Do not permit use of unmarked copies of Product Data in connection with construction.

1.8 SAMPLES

- A. Contractors shall submit full-size, samples of the material or product proposed. Samples include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture and pattern.
 1. Package samples in the manner specified to facilitate review of qualities indicated. Prepare Samples to match the Architect's Sample. Include the following:
 - a. Generic description of the Sample.

- b. Sample source.
 - c. Product name or name of manufacturer.
 - d. Compliance with recognized standards.
 - e. Availability and delivery time.
2. Submit Samples for review of kind, color, pattern, and texture, for final check of these characteristics with other elements, and for comparison of these characteristics between the final submittal and the actual component as delivered and installed.
 3. **Preliminary Submittals:** Where Samples are for selection of color, pattern, texture or similar characteristics from range of standard choices, submit full set of choices for the material or product. Preliminary submittals will be reviewed and returned with the Architect's mark indicating selection and other action.
 4. **Submittals:** Except for Samples illustrating assembly details, workmanship, fabrication techniques, connections, operation and similar characteristics, submit 3 sets; 1 will be returned marked with the action taken.
 5. Maintain sets of Samples, as returned, at the Project site, for quality comparisons throughout the course of construction.
 - a. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.
 - b. Sample sets may be used to obtain final acceptance of the construction associated with each set.
- B. **Distribution of Samples:** Prepare and distribute additional sets to subcontractors, manufacturers, fabricators, suppliers, installers, and others as required for performance of the Work. Show distribution on transmittal forms.

1.9 CONTRACT MANAGER'S AND ARCHITECT'S ACTION

- A. Except for submittals for record, information or similar purposes, where action and return is required or requested, the Contract Manager and Architect will review each submittal, mark to indicate action taken, and return promptly.
- B. **Action Stamp:** The Contract Manager and Architect will stamp each submittal with uniform, self-explanatory action stamp. The stamp will be appropriately marked, as follows, to indicate the action taken:
 1. **Final Unrestricted Release:** Where submittals are marked "Reviewed", that part of the Work covered by the submittal may precede provided it complies with requirements of the Contract Documents; final acceptance will depend upon that compliance.
 2. **Final-But-Restricted Release:** When submittals are marked "Reviewed as Noted", that part of the Work covered by the submittal may precede provided it complies with notations or corrections on the submittal and requirements of the Contract Documents; final acceptance will depend on that compliance.
 3. **Returned for Resubmittal:** When submittal is marked "Revise and Resubmit", do not proceed with that part of the Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare new submittal in accordance with the notations; resubmit without delay. Repeat if necessary to obtain different action mark.

Do not permit submittals marked "Not Approved, Revise and Resubmit" to be used at the Project site, or where Work is in progress.

END OF SECTION 01300

SECTION 01310 – SEQUENCE AND SCHEDULING OF THE WORK

1 GENERAL

- 1.1** The work shall proceed at such rate as will ensure meeting the specified Milestone Dates & Durations and dates for Substantial Completion and Final Completion. By execution of the Contract, the Subcontractor represents he has analyzed the work, the materials and methods involved, the systems of the building, availability of qualified mechanics and unskilled labor, restrictions of the site, constraints imposed, his own work load and capacity to perform the work and agrees that the specified dates are reasonable considering the existing conditions prevailing in the locality of the work, including weather conditions, and other factors, with reasonable allowance for variations from average or ideal conditions.
- 1.2** The Milestone Dates and the Bid Schedule provided at the end of this section are part of the Contract Documents. A Project Schedule will be prepared by the Construction Manager based on the Subcontractor's input after Contract Award. Special requirements shall be brought to the attention of the Construction Manager. While rearrangement of activity sequences may occur after contract award, all Milestone Durations shall remain in effect and all bidders shall accept the date.

2 CRITICAL PATH METHOD SCHEDULE

- 2.1** This Project's schedule shall be monitored by the Construction Manager. The purpose is to assist the Contractor in completing the work on time and as a means for the Construction Manager to monitor progress of the Subcontractors.
- 2.2** The Contractor shall meet with the Construction Manager after award to review the Schedule attached to this Specification Section. Before this meeting the Contractor shall meet with each subcontractor and supplier to prepare detailed plans for performing the work.
- 2.3** Upon receipt of Contractor's review comments, the Construction Manager will prepare and issue the Project Master Schedule. The schedule may be issued as a network or bar chart and will include a printout of scheduled activities and their associated start and finish dates. The Construction Manager will incorporate the Contractor's comments provided they do not affect milestone dates of Substantial and Final Completion and provided they are consistent with the coordination requirements of other Contractors.
- 2.4** The Construction will utilize the Project Master Schedule to plan and coordinate all construction activities of the Contractors. All Contractors are to complete all work in accordance with the detailed Project Master Schedule issued by the Construction Manager.

3 UPDATE AND MODIFICATIONS TO THE CONSTRUCTION SCHEDULE

- 3.1** If, during the progress of the work, the Contractor determines he will not be able to complete this work in the time allotted, he must notify the Construction Manger within five (5) days after publication of the Construction Manager's updated Project Schedule. Adjustments may be made to accommodate the Contractor if written notification is given to the Construction Manager, the adjustment is within the stated milestone dates, and the Construction Manager approved the adjustment after reviewing its impact on other Contractors. Otherwise, the Construction Manager's Project Master Schedule shall be deemed acceptable by all parties and becomes a contractual requirement for the Contractor.
- 3.2** The Construction Manager will hold periodic schedule "update" meetings at the job site. The Construction Manager and each Contractor are to provide the services of a qualified representative at each meeting. Contractors are to provide necessary scheduling

information and manpower commitments at these meetings. The Construction Manager will update the detailed Project Master Schedule and prepare progress reports accordingly. Each Contractor shall be responsible to be familiar with this schedule, how it affects or modifies his operations, and how it affects his coordination with activities of other Contractors.

- 3.3** Periodic progress meetings will be held at the job site. Field Supervisors from all Contractors who are working on-site are to attend all progress meetings. The Contractor shall prepare a short interval schedule, generally covering three-week periods, to coordinate the detailed activities of subcontractors and suppliers. The short interval schedule shall be prepared in bar chart form and submitted 24 hours prior to the job progress meetings, or as required by the Construction Manager.

4 ADJUSTMENT OF SUBCONTRACTOR'S EFFORT

- 4.1** Whenever it becomes apparent from the review of progress in relation to the Project Schedule that the Contractor may not achieve Milestone dates or dates for Substantial Completion or Final Completion, as required by the Contract Documents, or that the Contractor is performing his work in a manner which is inconsistent with the Project Schedule and which may prevent other subcontractors or the Construction Manager from achieving their Milestone dates or dates for Substantial Completion or Final Completion, then the Contractor shall, within three (3) days of receipt of written notice from the Construction Manager, and at no additional cost to the Owner, commence and implement such actions as may be necessary to assure completion by such dates, including but not limited to, the following:

- A. The Contractor shall increase its manpower and provide additional equipment and temporary facilities.
- B. The Contractor shall increase the number of working hours per shift, add shifts, or increase the number of working days per week.
- C. The Contractor shall take such measures as may be necessary to expedite delivery of equipment and materials.
- D. The Contractor shall reschedule his activities to achieve maximum practical concurrence of activities.

- 4.2** If the Contractor fails to take such actions as may be necessary to assure achievement of Milestone dates or dates of Substantial Completion or Final Completion or to bring his work into conformance with the Project Schedule so as to assure that other subcontractors and the Construction Manager can start their work on schedule and can meet their Milestone dates or dates of Substantial or final Completion, then the Construction Manager may, without prejudicing any of its or the Owner's rights under the Contract, proceed with one or more of the following courses of action:

- A. Issue a Notice of Default and Direction to Cure.
- B. Take over those aspects of the work which are behind schedule, or portions thereof, as the Construction Manager may, at its sole discretion, deem appropriate and deduct by Change Order all costs of performing such work from the Contract Sum.
- C. Withhold payment in accordance with the provisions of Paragraph 9.5, Payments Withheld, of the General Conditions.
- D. Terminate the Contract in accordance with the provisions of Paragraph 14.2, Termination by the Owner.

5 ADMINISTRATIVE SUBMITTALS

- 5.1** Administrative submittals shall be submitted in accordance with the following:

1. **Signed Contract Agreement: Seven (7) days after receipt.**
2. **Certificate of Insurance: Seven (7) days after receipt of Notice to Proceed.**

3. Contractor safety program: Prior to start of construction.
4. List of Subcontractor's staff assignments and phone numbers: 14 days after Notice to Proceed.
5. Schedule of Values: 21 days after receipt of Notice to Proceed.
6. Submittal Register: 14 days after receipt of Notice to Proceed.

6 BID SCHEDULE

- 6.1** A bar chart schedule will be issued no later than by addendum to illustrate how the foregoing Milestone Dates are integrated with preceding and succeeding activities in the overall Project Master Schedule.
- 6.2** The Bid Schedule is provided to assist Subcontractors in estimating manpower, materials, and equipment requirements when preparing bid proposals.
- 6.3** The Bid Schedule is subtitled for clarity and to note major phases in construction. Subtitles listed in the Bid Schedule are as follows:
 1. Submittals & Approvals
 2. Fabrication & Deliveries
 3. Site Work
 4. Concrete Foundations
 5. Structural Steel
 6. Building Envelope
 7. Connection Zone
 8. Mechanical/Electrical Rough-In
 9. Interior Finishes
 10. Final Sitework/Landscaping
 11. Substantial Completion
- 6.4** Submittal processing lists activities which graphically show the approval process for critical items which may adversely impact construction.
- 6.5** Fabrication and delivery lists long lead activities. Durations for these activities are arrived at from historical data available to the Construction Manager.

END

OF

SECTION

01310

SECTION 01400 - QUALITY CONTROL SERVICES

1 GENERAL

1.1 RELATED DOCUMENTS

Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specifications, apply to this section.

1.2 SUMMARY

- A. This section specifies administrative and procedural requirements for quality control services.
- B. Quality control services include inspections and tests and related actions including reports, performed by independent agencies, governing authorities, and the Contractors. They do not include contract enforcement activities performed by the Construction Manager or the Architect.
- C. Inspection and testing services are required to verify compliance with requirements specified or indicated. These services do not relieve the Contractor of responsibility for compliance with Contract Document requirements.

1.3 RESPONSIBILITIES

- A. **Construction Manager's Responsibility:** The Construction Manager is responsible for scheduling times for inspections, tests, taking samples, and similar activities.
- B. **Contractor's Responsibility:**
 - 1. Each Contractor is responsible to coordinate the sequence of their activities to accommodate required testing services with a minimum of delay and to avoid the necessity of removing and replacing construction to accommodate inspections and tests.
 - 2. Contractors shall notify the Construction Manager three (3) days in advance of tests and inspections required for their work.
 - 3. Failure of the Contractor to provide quality control in accordance with this specification may result in the replacement of the work at the Contractor's expense.
- C. **Testing and Inspection Agency Responsibility:**
 - 1. All work (materials and installation procedures) as indicated in specifications, shall be tested and inspected by an independent testing and inspection agency, approved by the Architect/Engineer to provide the quality control requirements in accordance with these specifications. Results of these tests and inspections when performed in accordance with these specifications will not be disputed by either party.
 - 2. Perform all testing and inspection of the work in accordance with these specifications. Furnish qualified personnel and sufficient equipment in a timely manner when required by the Construction Manager and/or Architect/Engineer to perform all testing and inspection in accordance with these specifications. The inspection and testing agency and its representatives are not authorized to revoke,

alter, relax, enlarge or release any requirements of the contract documents nor to approve or accept any portion of work.

3. Work will be checked by representatives of the testing agencies as it progresses, but failure to detect any defective work or product will not in any way prevent later rejection when such defect is discovered, nor will it obligate the Owner to final acceptance. When it appears that the work or product furnished is in non-conformance with the contract documents, the representative of the testing agency will direct the attention of the Construction Manager, Architect/Engineer and Contractor to such non-conformance.
- D. **Architect/Engineer Authority:** The Architect/Engineer may order from time to time additional tests and inspections beyond those required if, in his opinion, the subject work may not be meeting specification. The cost for these tests and inspections shall be borne by the Contractor. The Architect/Engineer, with the Construction Manager's consent, may terminate the testing and inspection agency. The Architect/Engineer may perform quality control tests and inspections.

1.4 SUBMITTALS

The independent testing agency shall submit a certified, written report of each inspection or test to the Architect and Construction Manager. Written reports of each inspection, test or similar service shall include, but are not limited to:

- A. Date of issue.
- B. Project title and number.
- C. Name, address and telephone number of the testing agency.
- D. Dates and locations of samples and tests or inspections.
- E. Names of individuals making the inspection or test.
- F. Designation of the work and test method.
- G. Identification of the product and specification section.
- H. Complete inspection or test data.
- I. Test results and an interpretation of the test results.
- J. Ambient conditions at the time of sample-taking and testing.
- K. Comments or professional opinion as to whether inspected or tested work complies with the contract document requirements.
- L. Name and signature of laboratory inspector.
- M. Recommendations on retesting.

1.5 QUALITY ASSURANCE

Qualification for Service Agencies: Inspection and testing service agencies, including independent testing laboratories shall be prequalified by complying with "Recommended Requirements for Independent Laboratory Qualification" by the American Council of Independent Laboratories and which specialize in the types of inspections and tests to be performed.

END OF SECTION 01400

SECTION 01500 - TEMPORARY FACILITIES

1 GENERAL

1.1 RELATED DOCUMENTS

Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specifications, apply to this section.

1.2 SUMMARY

- A. This section specifies requirements for temporary services and facilities including construction and support facilities, security and protection.
- B. Temporary utilities required are included in section 01510.
- C. Temporary barriers and fencing required are included in section 01520.

1.3 QUALITY ASSURANCE

- A. **Regulations:** Comply with industry standards and applicable laws and regulations of authorities having jurisdiction including but not limited to:
 - 1. Building code requirements.
 - 2. Health and safety regulations.
 - 3. Utility company regulations.
 - 4. Police, fire department, and rescue squad rules.
 - 5. Environmental protection regulations.
- B. **Inspections:** Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.

1.4 PROJECT CONDITIONS

Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Take necessary fire prevention measures. Do not overload facilities or permit them to interfere with progress. Do not allow hazardous, dangerous or unsanitary conditions or public nuisances to develop or persist on the site.

2 PRODUCTS (SEE VARIOUS SECTIONS FOR COMPATIBLE MATERIALS)

3 EXECUTION

3.1 TEMPORARY FIELD OFFICE AND STORAGE FACILITY

- A. The Construction Manager shall maintain a temporary field office at the site equipped with telephone, fax, plan desk and plan files properly heated and illuminated for his, the Architect's and the Owner's exclusive use.
- B. Each Contractor shall provide his own office. Temporary offices shall be arranged to avoid interfering with construction, and the location shall be approved by the Construction Manager.

- C. Each Contractor shall use the area designated by the Construction Manager for storage of materials, etc., but shall confine this area to a minimum within contract limits as shown on the plans. Storage beyond this area will not be permitted. Roof areas shall NOT be used for the storage of windows, removals, debris or any other construction items. Storage on the site is very limited, and Contractors shall provide for the bulk of materials remote from the site.
- D. Each Contractor shall provide suitable and sufficiently enclosed and covered spaces with raised flooring to protect materials and equipment from damage by weather or construction work.
- E. Temporary structures and shed shall be arranged to avoid interfering with construction. The location shall be approved by the Construction Manager.
- F. Upon completion of the work, or sooner if so directed by the Construction Manager, each Contractor shall remove his temporary structures and sheds and remove all debris and rubbish and place the area in a clean and orderly condition.
- G. Contractors accept full risk for security and protection for using such lay-down or storage areas.

3.2 HOISTING AND SCAFFOLDING

- A. All hoisting required in the performance of each Contractor will be provided by that Contractor.
- B. Each Contractor shall provide his own scaffolding that shall be in accordance with all OSHA safety requirements.

3.3 SECURITY

The services of a watchman will not be provided by either the Owner or the Construction Manager. Each Contractor shall be responsible for and make good any loss not covered by the Owner's Builder's Risk Insurance.

3.4 ACCESS ROADS AND PARKING AREAS

Due to the limited space available, there will be limited on-site parking. Each Contractor shall arrange for site parking with the Construction Manager.

3.5 SPECIAL CONTROLS

- A. **Work included:** The work covered by this section of the specifications pertains to special controls.
- B. **Limiting Exposures of Work:** Each Contractor shall supervise performance of the work in such a manner and by such means which will ensure that none of the work, whether completed or in progress, will be subjected to harmful, dangerous, damaging or otherwise deleterious exposure during the construction period. Such exposures include, where applicable, but not by way of limitation the following:
1. Excessive static or dynamic loading.
 2. Excessive internal or external pressures.
 3. Excessively high or low temperatures.
 4. Thermal shock.
 5. Excessively high or low humidity.
 6. Air contamination or pollution
 7. Water or ice.
 8. Solvents.
 9. Chemicals.
 10. Light.
 11. Puncture.
 12. Abrasion.
 13. Heavy traffic.
 14. Soil.
 15. Bacteria.
 16. Insect infestation.
 17. Combustion.
 18. Electrical current.
 19. High speed operation, improper lubrication, unusual wear or other misuse.
 20. Incompatible interface.
 21. Destructive testing.
 22. Misalignment.
 23. Excessive weathering.
 24. Unprotected storage.
 25. Improper shipping or handling
 26. Theft
 27. Vandalism
- C. **Special Controls Descriptions**

Related work: The Contractor shall conduct his work in a manner to prevent air, water, and noise pollution by establishing adequate controls during the construction operations. All controls shall be in accordance with the applicable laws of the State of Michigan.

1. **Air pollution:** The open burning of combustible wastes from clearing and grubbing operations and of waste construction materials will not be permitted. The Contractors shall dispose of all such wastes at sanitary landfill(s) licensed by the Michigan Department of Natural Resources.
2. **Noise pollution:** The Contractor shall exercise judgment in the conduct of operations which by nature result in excessive noise. All such operations shall take place during reasonable daylight periods that are defined as 7:00 am through 6:00 pm unless otherwise stated in the governing municipal ordinance or authorized by the Owner.

3. Construction debris: All construction debris shall be removed from the construction site(s) at regular intervals and disposed of at sanitary landfill(s) licensed by the Michigan Department of Natural Resources.
4. Housekeeping: The project work areas shall be maintained in a neat and clean condition. All debris and waste materials shall be removed from work areas on a daily basis.

3.6 SMOKING POLICY

Smoking is not permitted at this job site.

3.7 PROJECT IDENTIFICATION AND TEMPORARY SIGNS

Work under this heading will be a separate work category intended to provide project identification and other signs necessary to inform the public and person seeking entrance to the project, direct construction traffic, or to protect the public from dangers inherent in construction activities.

END OF SECTION 01500

SECTION 01510 - TEMPORARY UTILITIES

1 GENERAL

1.1 RELATED DOCUMENTS

Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specifications, apply to this section.

1.2 SUMMARY

This section specifies requirements and responsibilities for temporary utility services and installation.

2 PRODUCTS

3 EXECUTION

3.1 TEMPORARY ELECTRICAL POWER AND LIGHTING

- A. The temporary electrical power and lighting will be installed by and electrical Contractor. The Owner shall pay for all power consumed for the temporary electrical service.
- B. All Contractors shall obtain the power for their temporary electric requirements from the existing power sources available on the site. All necessary lugs, transformers, disconnect switches, fuses, cable, posts, ground fault interrupters, etc., required for connection to the power source and distribution, including wires, cable, supports, etc., shall be provided by the Contractor, all as coordinated and approved by the Construction Manager. The Owner shall pay for all power consumed for the temporary electrical service. Electric heaters will not be allowed for heating temporary trailers and offices.
- C. The building electrical contractor shall maintain temporary lighting and outlets for temporary power in each of the building areas as follows:
 - 1. **Service**
 - a. Provide and install to each building site one 200 ampere, 3-phase, 480-volt service complete with one 112.5 KVA transformer 480/208/120-volt, 3-phase, 4-wire.
 - b. One additional 3-phase, 4-wire, 200-ampere, 40-circuit panel will be provided and installed for the trailer yard. This panel shall be equipped with fifteen 120-volt, 20-ampere breakers for the convenience outlets and lighting.
 - 2. **Lighting and Power**
 - a. Temporary lighting in all the areas shall be kept and maintained at a minimum of 10-foot candles.
 - b. 110-volt, 20-ampere receptacles are to be distributed throughout the project at intervals of one outlet per 3000 square feet.
- D. Overtime work requiring standby electricians shall be at the expense of the Contractor requiring the same. Installation of temporary electrical power and lighting shall be as scheduled by the Construction Manager.

- E. Electric welder machines will not be allowed to be used without the express permission and approval of the Construction Manager and Owner. The Contractor would have to pay for all equipment and materials required to provide the distribution and power supply if permission were granted to use electric welders, all as coordinated and approved by the Construction Manager.
- F. All temporary electrical installations shall be in compliance with the latest National Electrical Code or OSHA whichever is more stringent.

3.2 TEMPORARY HEAT

After the temporary building is enclosed, all equipment and labor for temporary heat shall be furnished by the building mechanical Contractor. Energy will be supplied by the Owner when the heating equipment is connected to the existing power system.

3.3 COLD WEATHER PROTECTION

Prior to building enclosure, each Contractor shall provide the temporary heat and protection necessary to allow his work to continue during cold weather. The building shall be considered to be enclosed when the exterior walls, roofing and temporary closures to all wall and roof openings are in place.

3.4 TEMPORARY TELEPHONE SERVICE

- A. Each Contractor will provide temporary job site telephone service as required at his own expense.
- B. Telephone number for summoning aid, such as the police department, the fire department, physicians, ambulances, and rescue squads from outside sources shall be conspicuously posted by the Construction Manager at the site of the work.

3.5 TEMPORARY WATER SUPPLY

The site mechanical Contractor shall furnish, install and maintain a temporary water supply system. A minimum of two (2) hose bibs shall be provided and located as directed by the Construction Manager at each job. All other water supplies and distribution systems will be furnished and installed by the Contractor requiring the same.

3.6 TEMPORARY TOILET FACILITIES

The Construction Manager shall provide and maintain by separate work category adequate toilet facilities in a clean and sanitary condition for the use of all Contractors. The use of chemical toilet facilities will be permitted.

3.7 FIRST AID

The Contractor shall provide a completely equipped first-aid kit which shall be readily accessible at all times and shall be provided and maintained at the site of the work in a clean and orderly condition. The required number of employees who have been properly instructed shall be designated to be in charge of first aid work. At least one such employee shall be available at all times that the work is in progress.

3.8 TEMPORARY FIRE PROTECTION

- A. Each Contractor shall be responsible for temporary fire protection related to his own work.
- B. The work category 061, general carpentry Contractor, shall furnish fire extinguishers in accordance with OSHA as required for each building unless noted otherwise in Work Category Descriptions. Each Contractor shall furnish fire extinguishers in accordance with OSHA requirements when his work requires additional extinguishers.

END OF SECTION 01510

SECTION 01520 - TEMPORARY BARRIERS AND FENCING

1 GENERAL

1.1 RELATED DOCUMENTS

Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specifications, apply to this section.

1.2 SUMMARY

This section specifies requirements and responsibilities for temporary barriers and fences as may be shown on the drawing or as may be required.

2 PRODUCTS (SEE VARIOUS SECTIONS FOR COMPATIBLE MATERIALS)

3 EXECUTION

3.1 GENERAL

- A. Each Contractor is responsible for the maintenance and replacement (when removed) of all temporary barricades, traffic control, and traffic lights. In addition, each Contractor shall be responsible for installation of temporary barricades in accordance with MIOSHA requirements at openings created by that Contractor.
- B. Each Contractor shall provide and maintain proper shoring and bracing for existing underground utilities, sewers, and building foundations encountered during his excavation work, to protect them from collapse or other type of damage until such time as they are to be removed, incorporated into the new work, or can be properly backfilled upon completion of new work.
- C. Each Contractor shall remove all temporary barriers and enclosures at the completion of their use as directed by the Construction Manager.

3.2 TEMPORARY SITE CONSTRUCTION

- A. **Temporary Fence:** The earthwork Contractor unless noted otherwise in the Work Category Descriptions shall provide and maintain all temporary fencing and gates where shown on the drawings.
 1. **Enclosure Fence:** When excavation begins, install enclosure fence with lockable entrance gates. Locate where indicated or enclose the entire site or the portion determined sufficient to accommodate construction operations. Install in a manner that will prevent people, dogs, and other animals from easily entering the site except by the entrance gates.
 2. Provide open-mesh, chain-link fencing with posts set in a compacted mixture of gravel and earth.
- B. **Vehicular and Pedestrian Traffic Control:** The earthwork Contractor unless noted otherwise in the Work Category Descriptions shall be responsible for providing, installing, and maintaining vehicular and pedestrian traffic control signs, lights, and barricades in conjunction with construction operations. Vehicular traffic control measures shall be in accordance with the Michigan Manual of Uniform Traffic Control Devices.

1. No street or roadway may be closed to traffic without prior written permission of the governing body having jurisdiction over the street or roadway.
 2. Existing traffic control signs which conflict with construction operations may be temporarily removed. The Contractor shall provide traffic control for the duration of the sign displacement. Signs shall be replaced in the proper location immediately after construction operations adjacent to the sign locations are completed.
- C. **Temporary Roads:** The earthwork Contractor shall construct and maintain temporary roads to adequately support the indicated loading and to withstand exposure to traffic during the construction period. Locate temporary paving for roads, storage areas and parking where the same permanent facilities will be located. Review proposed modifications to permanent paving with the Construction Manager.
1. **Paving:** Comply with Division 32 "Asphalt Concrete Paving" for construction and maintenance of temporary paving.
 - a. Coordinate temporary paving development with subgrade grading, compaction, installation and stabilization of subbase, and installation of base and finish courses of permanent paving.
 - b. Install temporary paving to minimize the need to rework the installations and to result in permanent roads and paved areas that are without damage or deterioration when occupied by the Owner.
 - c. Delay installation of the final course of permanent asphalt concrete paving until immediately before Substantial Completion. Coordinate with weather conditions to avoid unsatisfactory results.
 - d. Extend temporary paving in and around the construction area as necessary to accommodate delivery and storage of materials, equipment usage, administration and supervision.
 2. **Dust control:** The Contractor shall maintain all traveled areas in a safe, dust-free condition at all times. To accomplish this, the Contractor shall remove any tracked materials such as mud, dirt, etc. from construction and haul roads, furnish and apply chloride treatment to temporary roads, furnish and install temporary road patches or surfaces, or any approved methods or systems.
- D. **Temporary Protective Tree Barriers** shall be installed for each tree to remain as shown on the drawings and as follows:

Before the work of clearing and rough grading begins, necessary precautions shall be taken to prevent needless and avoidable injury during construction. Erect a protective barrier made of snow fence or chain link fencing with posts securely driven into the ground, placed at a radius of 15 feet from the center of the trunk. Storage of materials or parking of vehicles will not be allowed under trees. If any trees, marked or noted to remain, are permanently damaged, the Contractor shall pay the Owner the sum of a minimum of \$100.00 per inch of trunk caliper as liquidated damages per tree damage. Protective measures shall remain until final seeding.

3.3 TEMPORARY BARRIERS AND ENCLOSURES

- A. The Construction Manager, unless noted otherwise in the Work Category Descriptions, shall be responsible for providing all temporary barriers and enclosures as shown on the drawings or as may be required.

- B. **Temporary Enclosures:** Provide temporary enclosure for protection of construction in progress and completed from exposure, foul weather, other construction operations and similar activities.
1. Where heat is needed and the permanent building enclosure is not complete, provide temporary enclosures where there is no other provision for containment of heat. Coordinate enclosure with ventilating and material drying or curing requirements to avoid dangerous conditions and effects.
 2. Install tarpaulins securely with incombustible wood framing and other materials. Close openings of 25 square feet or less with plywood or similar materials.
 3. Close openings through floor or roof decks and horizontal surfaces with load-bearing wood-framed construction.
 4. Where temporary wood or plywood enclosure exceeds 100 square feet in area, use UL-labeled fire-retardant treated material for framing and main sheathing.
- C. **Weather Protection:** Comply with the following:
1. Weather protection will be considered as temporary enclosures , temporary heating, labor and services required to protect materials in storage, work in progress, and completed construction from damage or defacement due to unusually conditions of weather prior to the time that the building is completely and permanently enclosed (exterior construction--walls, doors, windows, louvers, roof, etc.--100% complete and weather tight).
 2. Provide and maintain weather protection that may be required by construction trades to protect work from damage during construction including but not limited to blocking, spacers, protective coverings, enclosures, heat, ventilation, etc. Maintain suitable environmental conditions 24 hours per day, 7 days per week, as necessary to fully meet contract requirements.

END OF SECTION 1520

SECTION 01600 - MATERIALS AND EQUIPMENT

1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements governing the Contractor's selection of products for use in the Project.
- B. The Contractor's Construction Schedule and the Schedule of Submittals are included under Section "Submittals."
- C. **Standards:** Refer to Section "Reference Standards and Definitions" for applicability of industry standards to products specified.

1.3 DEFINITIONS

Definitions used in this Article are not intended to change the meaning of other terms used in the Contract Documents, such as "specialties," "systems," "structure," "finishes," "accessories," and similar terms. Such terms are self-explanatory and have well-recognized meanings in the construction industry.

- A. "Products" are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent. "Named Products" are items identified by manufacturer's product name, including make or model designation, indicated in the manufacturer's published product literature, that is current as of the date of the Contract Documents.
- B. "Materials" are products that are substantially shaped, cut, worked, mixed, finished, refined or fabricated, processed, or installed to form part of the Work.
- C. "Equipment" is product with operational parts, whether motorized or manually operated, that requires service connections such as wiring or piping.

1.4 SUBMITTALS

- A. Coordinate the product list schedule with the Contractor's Construction Schedule and the Schedule of Submittals.
- B. **Form:** Prepare the product listing schedule with information on each item tabulated under the following column headings:
 - 1. Related Specification Section number.
 - 2. Generic name used in Contract Documents.
 - 3. Proprietary name, model number and similar designations.
 - 4. Manufacturer's name and address.
 - 5. Supplier's name and address.
 - 6. Installer's name and address.
 - 7. Projected delivery date, or time span of delivery period.
- C. **Initial Submittal:** Within 30 days after date of commencement of the Work, submit 1 electronic copy of an initial product list schedule. Provide written explanation for omissions of data, and for known variations from Contract requirements.

- D. **Completed Schedule:** Within 60 days after date of commencement of the Work, submit 1 electronic copy of the completed product list schedule. Provide written explanation for omissions of data, and for known variations from Contract requirements.
- E. **Architect's Action:** The Architect will respond in writing through the Construction Manager to the Contractor within 2 weeks of receipt of the completed product list schedule. No response within this time period constitutes no objection to listed manufacturers or products, but does not constitute waiver of the requirement that products comply with Contract Documents. The Architect's response will include a list of unacceptable product selections, containing brief explanation of reasons for this action.

1.5 QUALITY ASSURANCE

- A. **Source Limitations:** To the fullest extent possible, provide products of the same kind, from single source.
- B. **Compatibility of Options:** When the Contractor is given the option of selecting between 2 or more products for use on the Project, the product selected shall be compatible with products previously selected, even if previously selected products were also options.
- C. **Nameplates:** Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products that will be exposed to view in occupied spaces or on the exterior.
 - 1. **Labels:** Locate required product labels and stamps on concealed surface or, where required for observation after installation, on an accessible surface that is not conspicuous.
 - 2. **Equipment Nameplates:** Provide permanent nameplate on each item of service-connected or power-operated equipment. Locate on an easily accessible surface that is inconspicuous in occupied spaces. The nameplate shall contain the following information and other essential operating data:
 - a. Name of product and manufacturer.
 - b. Model and serial number.
 - c. Capacity.
 - d. Speed.
 - e. Ratings.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

Deliver, store and handle products in accordance with the manufacturer's recommendations, using means and methods that will prevent damage, deterioration and loss, including theft.

- A. Schedule delivery to minimize long-term storage at the site and to prevent overcrowding of construction spaces.
- B. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft and other losses.
- C. Deliver products to the site in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting and installing.
- E. Inspect products upon delivery to ensure compliance with the Contract Documents, and to ensure that products are undamaged and properly protected.
- F. Store products at the site in manner that will facilitate inspection and measurement of quantity or counting of units.

- G. Store heavy materials away from the Project structure in manner that will not endanger the supporting construction.
- H. Store products subject to damage by the elements above ground, under cover in weathertight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.

2 PRODUCTS

2.1 PRODUCT SELECTION

- A. **General Product Requirements:** Provide products that comply with the Contract Documents, that are undamaged and unused at the time of installation.
 - 1. Provide products complete with all accessories, trim, finish, safety guards and other devices and details needed for complete installation and for the intended use and effect.
 - 2. **Standard Products:** Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.
- B. **Product Selection Procedures:** Product selection is governed by the Contract Documents and governing regulations, not by previous Project experience. Procedures governing product selection include the following:
 - 1. **Proprietary Specification Requirements:** Where only single product or manufacturer is named, provide the product indicated. No substitutions will be permitted.
 - 2. **Semiproprietary Specification Requirements:** Where two or more products or manufacturers are named, provide one of the products indicated. No substitutions will be permitted.
 - 3. **Descriptive Specification Requirements:** Where Specifications describe product or assembly, listing exact characteristics required, with or without use of brand or trade name, provide product or assembly that provides the characteristics and otherwise complies with Contract requirements.
 - 4. **Performance Specification Requirements:** Where Specifications require compliance with performance requirements, provide products that comply with these requirements, and are recommended by the manufacturer for the application indicated. General overall performance of product is implied where the product is specified for specific application.
 - 5. **Compliance with Standards, Codes and Regulations:** Where the Specifications only require compliance with an imposed code, standard or regulation, select product that complies with the standards, codes or regulations specified.

3 EXECUTION

3.1 MOVING MATERIALS

If at any time it becomes necessary to move materials temporarily located on site that are to enter into their final construction, the Contractor furnishing the materials shall, when so directed by the Construction Manager, move them to another location at his own expense.

3.2 SALVAGING OF MATERIALS

A. Salvaged materials or equipment shown on drawing or specified herein which are not to be reused shall become the property of the Owner and each Contractor shall deliver said items to the Owner's Salvage Yard. All items not specified to be salvaged for reuse or delivered to the Owner's Salvage Yard will be removed from the project site and disposed of legal.

B. Materials to be Salvaged

1. Salvage existing face bricks as required for patching new work.
2. Each Contractor shall deliver salvaged material to a location designated by the Construction Manager.

END OF SECTION 01600

SECTION 01631 - PRODUCT SUBSTITUTIONS

1 GENERAL

1.1 RELATED DOCUMENTS

Drawings and general provisions of the contract, including general and supplementary conditions and other Division 1 specification sections, apply to this section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for handling requests for substitutions made after award of the Contract.
- B. The Contractor's Construction Schedule and the Schedule of Submittals are included under Section "Submittals."
- C. **Standards:** Refer to Section "Definitions and Standards" for applicability of industry standards to products specified.
- D. Procedural requirements governing the Contractor's selection of products and product options are included under Section "Materials and Equipment."
- E. Substitutions requested by Bidders during the bidding period, and accepted prior to award of Contract, are considered as included in the Contract Documents and are governed by procedures specified in this specification section.

1.3 DEFINITIONS

- A. Definitions used in this Article are not intended to change or modify the meaning of other terms used in the Contract Documents.
- B. **Substitutions:** Requests for changes in products, materials, equipment, and methods of construction required by Contract Documents proposed by the Contractor before or after award of the Contract are considered requests for "substitutions." The following are not considered substitutions:
 - 1. Revisions to Contract Documents requested by the Owner or Architect.
 - 2. Specified options of products and construction methods included in Contract Documents.
 - 3. The Contractor's determination of and compliance with governing regulations and orders issued by governing authorities.

1.4 SUBMITTALS

Substitution Request Submittal: Requests for substitution shall be submitted through the Construction Manager and will be considered if received within 60 days after award of Contract. Requests received more than 60 days after award of Contract may be considered or rejected at the discretion of the Architect.

- A. Submit 1 electronic copy of each request for substitution for consideration on Substitution Request Form included in this Section.
- B. Identify the product, or the fabrication or installation method to be replaced in each request. Include related Specification Section and Drawing numbers. Provide complete documentation showing compliance with the requirements for substitutions, and the following information, as appropriate:

1. Product Data, including Drawings and descriptions of products, fabrication and installation procedures.
 2. Samples, where applicable or requested.
 3. Detailed comparison of significant qualities of the proposed substitution with those of the Work specified. Significant qualities may include elements such as size, weight, durability, performance and visual effect.
 4. Coordination information, including list of changes or modifications needed to other parts of the Work and to construction performed by the Owner and separate Contractors, that will become necessary to accommodate the proposed substitution.
 5. Statement indicating the substitution's effect on the Contractor's Construction Schedule compared to the schedule without approval of the substitution. Indicate the effect of the proposed substitution on overall Contract Time.
 6. Cost information, including proposal of the net change, if any in the Contract Sum.
 7. Certification by the Contractor that the substitution proposed is equal-to or better in every significant respect to that required by the Contract Documents, and that it will perform adequately in the application indicated. Include the Contractor's waiver of rights to additional payment or time, that may subsequently become necessary because of the failure of the substitution to perform adequately.
- C. **Architect's Action:** Within 2 weeks of receipt of the request, the Construction Manager will notify the Contractor of the Architect's acceptance or rejection of the proposed substitution. If decision on use of proposed substitute cannot be made or obtained within the time allocated, use the product specified by name. Acceptance will be in the form of Change Order or other documentation.

2 PRODUCTS

2.1 SUBSTITUTIONS

- A. **Conditions:** The Contractor's substitution request will be received and considered by the Architect when 1 or more of the following conditions are satisfied, as determined by the Architect; otherwise requests will be returned without action except to record noncompliance with these requirements.
1. Extensive revisions to Contract Documents are not required.
 2. Proposed changes are in keeping with the general intent of Contract Documents.
 3. The request is timely, fully documented and properly submitted.
 4. The specified product or method of construction cannot be provided within the Contract Time. The request will not be considered if the product or method cannot be provided as result of failure to pursue the Work promptly or coordinate activities properly.
 5. Substantial advantage is offered the Owner, in terms of cost, time, energy conservation or other considerations of merit, after deducting offsetting responsibilities the Owner may be required to bear. Additional responsibilities for the Owner may include additional compensation to the Architect for redesign and evaluation services, increased cost of other construction by the Owner or separate Contractors.
 6. The specified product or method of construction cannot be provided in manner that is compatible with other materials, and where the Contractor certifies that the substitution will overcome the incompatibility.
 7. The specified product or method of construction cannot be coordinated with other materials, and where the Contractor certifies that the proposed substitution can be coordinated.

8. Substitute material, device, item of equipment, etc. must fit within space or area allocated to it (as indicated on Drawings) and must be compatible with and adequately supported by existing or contemplated construction. Likewise, substitutes which require mechanical or electrical services must be fully compatible with respective services required by Contract Documents for specified product. If substitute material, device, item of equipment, etc. requires additional work (modification of new work in place, modification of new work not yet in place, work not originally required, modification of or additional mechanical or electrical services for substitute item, etc.) entire cost, including costs of additional Architectural and Engineering services required for substitution, shall be paid by Contractor. The burden of proof of the merit of the proposed substitution is upon the Contractor. The Architect's decision of acceptance or rejection of proposed substitution shall be final.
 9. If proposed change is not accepted, material, product or procedure named in Specifications or shown on Drawings must be provided.
 10. No claim regarding unsuitability or unavailability of material or equipment will be entertained unless such claims were made in writing, stating proposed alternate materials, and submitted with original bid. Further, no substitution of materials other than those agreed upon prior to signing of Contract will be permitted.
 11. The specified product or method of construction cannot provide warranty required by the Contract Documents and where the Contractor certifies that the proposed substitution provide the required warranty.
- B. The Contractor's submittal and Architect's acceptance of Shop Drawings, Product Data or Samples that relate to construction activities not complying with the Contract Documents does not constitute an acceptable or valid request for substitution, nor does it constitute approval.

END OF SECTION 01631

SUBSTITUTION REQUEST FORM

To: People Driven Technology, Inc.

Date: _____

Project: High School Video Surveillance Upgrades

Location: Norton Shores, MI

1. Undersigned requests following substitution from People Driven Technology, Inc. specified *(name specified product here)*

cited in Bid Documents *(include specification page and item number with Drawing number and component name and location)*

on: _____

to proposed: *(name product you are proposing here)*

2. Attached data includes product description, dimensions and dimensional tolerances, specifications, performance characteristics, drawings, test data, other technical and aesthetic information, terms of warranty or guarantee, etc. needed for People Driven Technology, Inc.'s evaluation with physical, functional, and technical deviation from specified product clearly noted.

3. How will Project benefit by substitution? _____

4. What effect will substitution have on Project schedule? _____

5. How will substitution affect incidental work of other trades? _____

6. Undersigned states that the following paragraphs, unless modified on attachments, are correct:

- a. Undersigned will pay for added costs associated with substitution including, but not limited to; construction costs including those directly associated with change; those costs indirectly incurred by other trades or contractors in order to accommodate change; and People Driven Technology, Inc.'s or other consultant's redesign fees. We agree that People Driven Technology, Inc.'s fees will be billed to us on an hourly basis for investigation and redesign as is necessary to determine acceptability of request.

- b. Undersigned further states that function, appearance, and quality of proposed substitution are equivalent or superior to specified item.

7. Requested by:

Firm: _____

Address: _____

Signature: _____

Printed Name: _____

Title: _____

People Driven Technology, Inc. Response:

_____ Accepted, subject to Owner approval

_____ Not Accepted

Signature: _____

Printed Name: _____

Date: _____

Remarks: _____

SECTION 01700 - PROJECT CLOSE-OUT

SECTION 01700 - PROJECT CLOSE-OUT

1 GENERAL

1.1 RELATED DOCUMENTS

Drawings and general provision of the contract, including general and supplementary conditions and other Division 1 specifications sections, apply to this section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for project close-out, including but not limited to:
 - 1. Inspection procedures.
 - 2. Project record document submittal.
 - 3. Operating and maintenance manual submittal.
 - 4. Submittal of warranties.
 - 5. Final cleaning.
- B. Close-out requirements for specific construction activities are included in the appropriate Sections in Divisions 2 through 48.

1.3 SUBSTANTIAL COMPLETION

- A. **Preliminary Procedures:** Before requesting inspection for certification of Substantial Completion, complete the following. List exceptions in the request.
 - 1. In the Application for Payment that coincides with, or first follows, the date Substantial Completion is claimed, show 100 percent completion for the portion of the Work claimed as substantially complete. Include supporting documentation for completion as indicated in these Contract Documents and statement showing an accounting of changes to the Contract Sum.
 - 2. Advise Construction Manager of pending insurance change-over requirements.
 - 3. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications and similar documents.
 - 4. Obtain and submit releases enabling the Owner unrestricted use of the Work and access to services and utilities; include occupancy permits, operating certificates and similar releases.
 - 5. Submit record drawings, maintenance manuals, final project photographs, damage or settlement survey, property survey, and similar final record information.
 - 6. Deliver tools, spare parts, extra stock, and similar items.
 - 7. Make final change-over of permanent locks and transmit keys to the Construction Manager. Advise the Construction Manager of change-over in security provisions.
 - 8. Complete start-up testing of systems, and instruction of the Owner's operating and maintenance personnel. Discontinue or change over and remove temporary facilities from the site, along with construction tools, mock-ups, and similar elements.
 - 9. Complete final clean up requirements, including touch-up painting. Touch-up, repair and restore marred exposed finishes.
- B. **Inspection Procedures:** On receipt of the Contractor's request for inspection, the Architect will either proceed with inspection or advise the Construction Manager of unfilled requirements.

1. Following the initial inspection, the Architect will either prepare the certificate of substantial completion or will advise the Construction Manager of work that must be performed before the certificate will be issued. The Architect will repeat the inspection when requested and when assured that the work has been substantially completed.
2. Results of the completed inspection will form the initial "punch list" for final acceptance.

1.4 FINAL ACCEPTANCE

- A. **Preliminary Procedures:** Before requesting final inspection for certification of final acceptance and final payment, complete the following. List exceptions in the request.
1. Submit the final payment request with releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.
 2. Submit an updated final statement, accounting for final additional changes to the Contract Sum.
 3. Submit certified copy of the Architect's final inspection list, stating that each item has been completed or otherwise resolved for acceptance, and the list has been endorsed and dated by the Architect.
 4. Submit final meter readings for utilities, measured record of stored fuel, and similar data as of the date of Substantial Completion, or when the Owner took possession of and responsibility for corresponding elements of the Work.
 5. Submit consent of surety to final payment.
 6. Submit final liquidated damages settlement statement.
 7. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
- B. **Reinspection Procedure:** The Architect will reinspect the Work upon receipt of the Construction Manager's notice that the work, including inspection list items from earlier inspections, has been completed, except items whose completion has been delayed because of circumstances acceptable to the Architect.
1. Upon completion of reinspection, the Architect will prepare certificate of final acceptance, or advise the Construction Manager of work that is incomplete or of obligations that have not been fulfilled but are required for final acceptance.
 2. If necessary, reinspection will be repeated.

1.5 RECORD DOCUMENT SUBMITTALS

- A. **General:** Do not use record documents for construction purposes; protect from deterioration and loss in secure, fire-resistive location; provide access to record documents for the Architect's reference during normal working hours.
- B. **Record Drawings:** Maintain clean, undamaged set of blue line white-prints of Contract Drawings and Shop Drawings. Mark the set to show the actual installation where the installation varies substantially from the Work as originally shown. Mark whichever drawing is most capable of showing conditions fully and accurately; where Shop Drawings are used, record cross-reference at the corresponding location on the Contract Drawings. Give particular attention to concealed elements that would be difficult to measure and record at later date.
1. Mark record sets with red erasable pencil; use other colors to distinguish between variations in separate categories of the Work.

2. Mark new information that is important to the Owner, but was not shown on Contract Drawings or Shop Drawings.
 3. Note related Change Order numbers where applicable.
 4. Organize record drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on the cover of each set.
 5. At the completion of the Contractor's work, submit to the Construction Manager two sets of blue line and one set of reproducible drawings and/or one set of drawings as directed by the Construction Manager showing all record drawing conditions.
- C. **Record Product Data:** Maintain 1 copy of each Product Data submittal. Mark these documents to show significant variations in actual Work performed in comparison with information submitted. Include variations in products delivered to the site, and from the manufacturer's installation instructions and recommendations. Give particular attention to concealed products and portions of the Work that cannot otherwise be readily discerned later by direct observation. Note related Change Orders and mark-up of record drawings and Specifications. Upon completion of mark-up, submit complete set of record Product Data to the Construction Manager for the Owner's records. Record product data can be in the form of hard or electronic copies.
- D. **Miscellaneous Record Submittals:** Refer to other Specification Sections for requirements of miscellaneous record-keeping and submittals in connection with actual performance of the Work. Immediately prior to the date or dates of Substantial Completion, complete miscellaneous records and place in good order, properly identified and bound or filed, ready for continued use and reference. Submit to the Construction Manager for the Owner's records.
- E. **Notarized Affidavits:**
1. Notarized affidavits which may be required for submission to appropriate District Field Office of Fire Marshal Division of Michigan Department of State Police governing project shall be submitted in form and content as required by Agency.
 2. Following information is required in notarized affidavits pertaining to interior finish materials.
 - a. Name of product.
 - b. Name and address of facility in which product was used.
 - c. An indication that product was tested by nationally recognized independent testing laboratory.
 - d. Name of testing laboratory.
 - e. Laboratory project or test number.
 - f. Date of test.
 - g. Test results.
 3. In addition, separate notarized affidavit must be received from installer of product indicating that product was installed as tested.
 4. Following is suggested format to use for affidavit. Affidavit must be signed and notarized:

AFFIDAVIT

This is to certify that, **(Name of Product)** which was or will be furnished to **(Company making Application of Product)** for **(Job or Project Name and Address)** is same in all respects in content, and specifications for mixing and/or application as specimen tested by **(Name of Laboratory)** on their project or test number **(Test Number)** dated **(Date of Test)**.

Flame Spread _____

Fuel Contributed _____

Smoke Developed _____

- F. **Maintenance Manuals:** Organize operating and maintenance data into suitable sets of manageable size. Bind properly indexed data in individual heavy-duty 2-inch, 3-ring vinyl-covered binders, with pocket folders for folded sheet information and provide one electronic copy of same. Mark appropriate identification on front and spine of each binder. Include the following types of information:
1. Emergency instructions.
 2. Spare parts list.
 3. Copies of warranties.
 4. Wiring diagrams.
 5. Recommended "turn around" cycles.
 6. Inspection procedures.
 7. Shop Drawings and Product Data.
 8. Fixture lamping schedule.
- G. **Spare Parts and Material Inventory:** Organize all spare parts and material inventory specified to be turned over to the Owner. Itemize each item including the following information:
1. Quantity submitted of each item.
 2. Date materials were submitted.
 3. Location and Owner's representative where material was received.
 4. Provide acknowledgment that the Owner has received the above materials.
- H. **Warranty and Guaranty:** Provide all product and labor warranties and guaranties as specified in the Technical Specifications. In addition, complete Construction Manager's standard material and labor warranty for the specified periods.

2 PRODUCTS (Not Applicable)

3 EXECUTION

3.1 CLOSEOUT PROCEDURES

- A. **Operating and Maintenance Instructions:** Arrange for each installer of equipment that requires regular maintenance to meet with the Owner's personnel to provide instruction in proper operation and maintenance. If installers are not experienced in procedures, provide instruction by manufacturer's representatives. Include detailed review of the following items:

1. Maintenance manuals.
 2. Record documents.
 3. Spare parts and materials.
 4. Tools.
 5. Lubricants.
 6. Fuels.
 7. Identification systems.
 8. Control sequences.
 9. Hazards.
 10. Cleaning.
 11. Warranties and bonds.
 12. Maintenance agreements and similar continuing commitments.
- B. As part of instruction for operating equipment, demonstrate the following procedures:
1. Start-up.
 2. Shutdown.
 3. Emergency operations.
 4. Noise and vibration adjustments.
 5. Safety procedures.
 6. Economy and efficiency adjustments.
 7. Effective energy utilization.
- C. At the conclusion of the Owner's instruction, provide to the Construction Manager an affidavit signed by the Owner's operator(s) that sufficient and satisfactory Operating and Maintenance Instructions have been provided, and that the Owner has fully accepted all responsibility for the operation and maintenance of the equipment.

3.2 FINAL CLEANING

- A. **General:** General cleaning during construction is required by the General Conditions and included in Section "Temporary Facilities".
- B. **Cleaning:** Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to the condition expected in normal, commercial building cleaning and maintenance program. Comply with manufacturer's instructions.

Complete the following cleaning operations:

1. Remove labels that are not permanent labels.
2. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compound and other substances that are noticeable vision obscuring materials. Replace chipped or broken glass and other damaged transparent materials.
3. Clean exposed exterior and interior hard-surfaced finishes to dust-free condition, free of stains, films and similar foreign substances. Restore reflective surfaces to their original reflective condition. Leave concrete floors broom clean. Vacuum carpeted surfaces.
4. Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication and other substances. Clean plumbing fixtures to sanitary condition. Clean light fixtures and lamps.

END OF SECTION 01700

**CONTRACT CLOSE-OUT
CHECK LIST**

PROJECT:

FILE NO.:

CONTRACT NO.:

CONTRACTOR:

ATTENTION:

This Contract Close-out Check List itemizes incomplete and/or corrective work which we, as Construction Managers, deem necessary to complete your contract. Itemized below are those items which, at this time, are known to be required to finalize your contract. Please note that the Architect may not have completed their Final Inspection or may not have issued all Final Punch Lists. Therefore, be it understood that the Check List may be incomplete, and fulfillment of this list in no way relieves the Contractor from your contractual responsibilities to satisfy the Architect and Owner's Final Punch List.

Contractors are to perform the Contract Close-out Check List within thirty (30) days. Any Contractor performing Punch List work is to notify the Construction Manager when they have scheduled for their Punch List work to begin, the date he comes onto the jobsite, and, once all work is complete, the Contractor shall return a copy of the Punch List showing specific dates when each item of work has been completed. After receipt of the above, the Construction Manager will schedule Final Inspection with the Architect.

Please note that Final Payment will not be released until the following work and contract documents are processed. Your responsibilities are checked as follows:

- 1. Completion of the Close-out Check List. _____
- 2. Completion of Architect's Final Punch List _____
- 3. Submission of As-Built Drawings _____
- 4. Submission of equipment Operating and Maintenance Manuals _____
- 5. Affidavit from the Owner's operator that sufficient and satisfactory training and operating instructions have been provided and stating their full acceptance of the operation and maintenance of the equipment _____
- 6. Release of Surety from Bonding Agency _____
- 7. Contractor's Affidavit and Waiver of Lien _____
- 8. Contractor's Warranty and Guaranties _____
- 9. Product and Equipment Warranty and Guaranties _____
- 10. Spare Parts and Material Inventory _____
- 11. Notarized affidavits pertaining to interior finishes _____
- 12. Other documents consisting of the following: _____

All items must be submitted to the Construction Manager. We will require transmittal copies for any items that were previously submitted directly to the Owner. If you have any questions, contact our Project Manager immediately.

**CONTRACT CLOSE-OUT
RETURN TRANSMITTAL
(Return to Triangle when all items are
complete)**

PROJECT:

FILE NUMBER:

CONTRACT NUMBER:

CONTRACTOR:

ATTENTION:

As noted on the Contract Close-out Check List, the following items must be submitted prior to the close-out of your contract and issuance of final payment. Please complete the following items and submit to Triangle Associates and/or the Owner (with copy of Owner's acknowledgment) prior to your application for final payment:

PUNCH LISTS:

	Date Submitted	Date
Completed		
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____

AS-BUILT DRAWINGS:

	Date Submitted To Owner
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____

SPECIAL WARRANTIES:

	Date Submitted To Owner
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____

OPERATING & PARTS LIST MANUAL:

Date Submitted
To Owner

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____

SPARE PARTS AND MATERIAL LEFT IN OWNER'S INVENTORY:

Quantity
Submitted

Date Submitted
To Owner

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____

The above signifies the completion of all final punch lists and submittals of all as-built drawings, operating and part lists manuals, and spare parts and material left in the Owner's inventory as required in my Contractor's Agreement. I also understand that receipt of final payment is dependent upon the satisfactory acceptance by the Construction Manager, Architect and the Owner of the completion of the above items.

Contractor Signature

Name and Title (please print)

Date

**CONTRACT CLOSE-OUT
FULL CONDITIONAL WAIVER**

PROJECT:

TRADE:

TRADE CONTRACTOR:

We are in the process of finalizing your portion of the work for the above reference project. The first step toward accomplishing this is an agreement on the status of your contract including modifications and/or extras. Outlined below are our records of your contract status.

Within ten (10) days of receipt, please review the following amounts. If you agree with the amounts, sign and return this form. If you disagree with the amounts, please attach a complete explanation and return it with this form.

Note that late claims from either the Owner, other subcontractors, or Triangle Associates, Inc. may reduce the final payment amount. Triangle will notify you in writing of any such claims prior to release of final payment.

Final payment will not be made if this form has not been returned.

Original Contract:	\$
Changes:	\$
Revised Contract:	\$
Previously Paid:	\$
Due	\$

We understand that you have no unsettled claims against us or the Owner. By requesting final payment, you are acknowledging that you have no claims or are waiving all such claims. If there is an exception to this acknowledgment and waiver, you must submit the exception in writing when you return this letter.

The undersigned trade contractor hereby acknowledges that the above information is correct including (without limitation) the amount of final payment due, the amount of back charge (if any), the direction to deduct any such back charge from final payment, and the acknowledgment of no claims against the Owner and Triangle Associates.

ACCEPTED BY: _____
Contractor

BY: _____
Signature of Duly Authorized Representative

Date

WARRANTY

PROJECT: «Project_Name»

PROJECT #: «Job_Number»

The undersigned warrants that all work, materials and equipment under his contract is in accordance with the contract documents prepared by People Driven Technology, Inc. and that he will make good, without charge, all defects appearing in the work, materials and equipment which may arise within the period identified below.

WARRANTY DURATION:

2 Years

SUBSTANTIAL COMPLETION DATE:

(Actual date or "Per Triangle's Owner Executed Substantial Completion Certificate")

In addition, please note the Special Warranty Requirements (if applicable).

Contract For: «Number» - «Title»

Special Warranty Requirements:

Contractor: «Vendor»
«Vendor_Contact_Street»
«Vendor_City», «Vendor_State» «Vendor_Zip_Code»

By: _____
(Subcontractor Signature)

Date: _____

Please sign and return to:

TRIANGLE ASSOCIATES, INC., 3769 THREE MILE ROAD NW, GRAND RAPIDS, MI 49534

SECTION 01740 - WARRANTIES AND BONDS

1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section specifies general administrative and procedural requirements for warranties and bonds required by the Contract Documents, including manufacturers standard warranties on products and special warranties.
1. Refer to the General Conditions for terms of the Contractor's special warranty of workmanship and materials.
 2. General closeout requirements are included in Section "Project Closeout."
 3. Specific requirements for warranties for the Work and products and installations that are specified to be warranted, are included in the individual Sections of Divisions 2 through 48.
 4. Certifications and other commitments and agreements for continuing services to Owner are specified elsewhere in the Contract Documents.
- B. **Disclaimers and Limitations:** Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products, nor does it relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.

1.3 WARRANTY REQUIREMENTS

- A. **Related Damages and Losses:** When correcting warranted Work that has failed, remove and replace other Work that has been damaged as result of such failure or that must be removed and replaced to provide access for correction of warranted Work.
- B. **Reinstatement of Warranty:** When Work covered by warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
- C. **Replacement Cost:** Upon determination that Work covered by warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the Owner has benefited from use of the Work through portion of its anticipated useful service life.
- D. **Owner's Recourse:** Written warranties made to the Owner are in addition to implied warranties, and shall not limit the duties, obligations, rights and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which the Owner can enforce such other duties, obligations, rights, or remedies.
- E. The Owner reserves the right to refuse to accept Work for the Project where special warranty, certification, or similar commitment is required on such Work or part of the

Work, until evidence is presented that entities required to countersign such commitments are willing to do so.

1.4 SUBMITTALS

- A. Submit written warranties to the Architect prior to the date certified for Substantial Completion. If the Architect's Certificate of Substantial Completion designates commencement date for warranties other than the date of Substantial Completion for the Work, or designated portion of the Work, submit written warranties upon request of the Architect. When designated portion of the Work is completed and occupied or used by the Owner, by separate agreement with the Contractor during the construction period, submit properly executed warranties to the Architect within 15 days of completion of that designated portion of the Work.
- B. When special warranty is required to be executed by the Contractor, or the Contractor and subcontractor, supplier or manufacturer, prepare written document that contains appropriate terms and identification, ready for execution by the required parties. Submit draft to the Owner through the Architect for approval prior to final execution. Refer to individual Sections of Divisions 2 through 48 for specific content requirements, and particular requirements for submittal of special warranties.
- C. Bind warranties and bonds in heavy-duty, commercial quality, durable 3-ring vinyl covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2 inch by 11-inch paper.
 - 1. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide typed description of the product or installation, including the name of the product, and the name, address and telephone number of the installer.
 - 2. Identify each binder on the front and the spine with the typed or printed title "WARRANTIES AND BONDS, the Project title or name, and the name of the Contractor.
 - 3. When operating and maintenance manuals are required for warranted construction, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.
 - 4. Also provide 1 electronic copy of warranties and bonds.

END OF SECTION 01740

SECTION 01811 – INDOOR AIR QUALITY MANAGEMENT PLAN

1 GENERAL

- 1.1 MISSION STATEMENT:** “The intent of the Indoor Air Quality (IAQ) Plan is to prevent indoor air quality problems resulting from the construction / renovation process in order to help sustain the comfort and well-being of construction workers during the construction process, and also to protect the building's occupants during / after construction once the facility is occupied.”

1.2 Overview

- A. The intent of this Plan is to;
1. Minimize exposure of construction workers to air pollutants;
 2. Prevent air pollutants from collecting in building systems and on building materials; and prevent air pollutants caused by construction from migrating into occupied spaces.
- B. For the purposes of this Plan, air pollutants are defined as:
1. Particulates;
 2. Volatile organic compounds;
 3. Formaldehyde;
 4. Combustion emissions;
 5. Airborne bacteria and micro-organisms; and
 6. Airborne inorganic compounds, such as ozone (from electrical motors), metal fumes (from smoldering and welding), and ammonia and chlorine (from cleaning products).

1.3 Project Organization

- A. **Personnel and Responsibilities:** The following personnel will have primary responsibility for executing and monitoring the Construction IAQ Management Plan. Responsibilities are defined as the following:
1. Construction Manager
 - a. Overall responsibility for the execution of the plan.
 - b. Resolve disputes related to Plan execution and coordination.
 - c. Appoint the IAQ Representative
 2. IAQ Representative
 - a. Inform all construction personnel of the Construction IAQ Management Plan's goals and procedures. Provide opportunities for discussion and feedback to ensure that all construction personnel thoroughly understand the intent and detailed procedures of the Plan.
 - b. Regularly tour the jobsite to supervise and ensure Plan compliance.
 - c. Discuss ongoing measures to carry out the Plan at project coordination meetings and/or meetings organized to address Construction IAQ Management. Minutes shall be kept at these meetings for the Owner's records and for Plan documentation.
 - d. Ensure that criteria for warnings and corrective actions due to poor or failed compliance with the Plan are clearly understood by all affected parties.
 - e. Notify the Architect, in the IAQ Representative's opinion, the procedures and measures required to implement the Plan are not being adhered to.

- f. Generate and/or compile all Plan documentation.
3. Prime Contractor
- a. Carry out requirements of the Plan under the direction of the IAQ Representative.
 - b. Discuss measures to carry out the Plan at all meetings with the Construction Manager and with any other contractors performing work affected by the Plan.
 - c. Sequence work and use work methods that conform to the Plan requirements.
 - d. Assume financial responsibility for costs resulting from poor or failed compliance with the Plan.

1.4 Plan Documentation

- A. Primary copies of the documentation will be filed at the project site, with a copy stored at the office of the Construction Manager. Upon occupancy of the building (or earlier, if requested), the Owner will be provided with the following documentation package:
- 1. The approved Construction IAQ Management Plan
 - 2. Minutes of all meetings in which Construction IAQ issues were discussed.
 - 3. Deficiency reports showing corrective action taken and dates of both deficiency and corrective action.
 - 4. Copies of work orders and a work order log.
 - 5. Schedule of temporary use of building mechanical equipment.
 - 6. Schedule of filter change-outs showing location, time, and filter type, until acceptance of equipment by Owner.
 - 7. Cut sheets for all filtration media used.
 - 8. Copies of duct testing and cleaning reports (if performed).
 - 9. Job progress photographs will be taken on a weekly basis or as necessary during critical periods: (at least 18 clear progress photographs) evenly divided among several different occasions. Photographs will show implementation of various measures required by the Plan, and will be labeled to indicate the measure being shown. Photographs will have integral date stamps, and will be submitted in chronological order.

1.5 Referenced Standards

- A. SMACNA IAQ Guidelines for Occupied Buildings under Construction, 2008, Sheet Metal and Air Conditioning National Contractors Association (SMACNA). The overall intent and some detailed recommendation found in these Guidelines is the basis for the Plan, although the Guidelines are intended for use in occupied buildings.
- B. ANSI/ ASHRAE 52.2-1999; Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size. This defines the testing to establish the MERV rating of filters.
- C. General Specifications for the Cleaning of HVAC Systems, National Air Duct Cleaning Association, 1997, www.nadca.com (202-737-2926).5

1.6 Control Measures

A. HVAC Equipment and Ductwork

1. HVAC equipment and ductwork will be protected from dust and other pollutants via the following procedures:

- A. Sealing Ductwork and Air Handling Equipment.
- B. Openings into installed ductwork and air-handling equipment not in active use will be sealed using taped plastic, taped cardboard, or other reasonably airtight coverings. Sealing will occur prior to, or immediately upon installation of the ductwork or equipment. Regular walk-throughs will be conducted by the IAQ Representative to check for damaged or displaced coverings. Repair or replacement of damaged or displaced coverings will occur immediately upon discovery, at the direction of the IAQ Representative.
- C. Construction work that generates air pollution will be avoided where ductwork or air handling equipment is being installed. If visible air pollutants are present in a space where ductwork is to be installed, spot cleaning or other measures will be used to prevent ductwork or equipment contamination.

2. The use of mechanical systems during construction will be subject to the following control and protection measures:

- A. Exhaust and makeup air supply systems: when a system is operated during construction, its filters will be replaced upon completion.
- B. Central air systems will be subject to these provisions when operated during construction:

1. The central AHU will be protected with a temporary filter having a minimum rating of MERV 8 per ASHRAE 52.2-1999.
2. Distribution elements needing filters, including all return air ductwork, will be protected with temporary filters having a minimum rating of MERV 8 per ASHRAE 52.2-1999 unless otherwise noted below.
3. If used for prolonged periods, filters will be periodically inspected and replaced if dirty.
4. All components of the distribution on the return side will be protected, including but not limited to:
 - a. The portion of the ERU upstream of the central fan
 - b. Return vents, ducts and shafts
 - c. Heat pump intakes; and
 - d. Transfer ducts.

- C. Components of the distribution system on the supply side will typically not need protection except:

1. If portions of the supply system become contaminated, coarse filters will be applied to completely cover supply outlets, to prevent

the distribution of particulates into building spaces.

D. Filter Replacement and Tracking

1. MERV 8 filters used for ductwork protection will be replaced on an as- needed basis, as determined by the IAQ Representative.
2. Upon completion the MERV 8 filters used for ductwork protection will be discarded. New filters will be installed at all air handlers
3. A cut sheet for each type of temporary filter used will be filed and included in the final submittal.
4. A schedule of filter replacements (showing location, time, and filter type) will be recorded and included in the final Plan documentation.

E. Duct Cleaning

1. Duct cleaning will be considered a last resort measure in the event of a failure of other measures. If duct cleaning is needed:
2. The work will be done by experienced professionals skilled in the task, using specialized equipment and following the requirements of the General Specifications for the Cleaning of HVAC Systems referenced above.
3. If it is found that duct liner, ductwork, or equipment is too contaminated to be cleaned successfully, it will be replaced at no cost to the Owner.
4. If construction is still underway at the completion of cleaning, all openings required to be sealed per this Plan will be resealed as soon as possible after cleaning.
5. A log recording all duct cleaning that takes place during construction will be created, filed, and included in the final submittal.
6. The party creating the pollution will bear the cost of cleaning, if the polluting work was done in violation of the Plan and if the party was properly informed before the violation per the provisions of this Plan.

1.7 Source Control

- A. This Plan is predicated on the use of low-emission interior products which comply with the following VOC limit standards:
 1. See project plans dated December 5, 2023, and specifications dated December 14, 2023.
- B. Modifying Equipment Operation
- C. To reduce air pollution during construction:
 1. Electric equipment will be used instead of gasoline-powered equipment whenever practical.
 2. Bottled gas will be used in place of diesel fuel whenever practical.
 3. Exhaust from gasoline or diesel vehicles will be kept away from air intake pathways. If this is not possible, scrubbers must be installed on vehicle exhaust.
 4. Fuel-burning equipment will be cycled off during extended periods between uses.

D. Changing Work Practices

1. All construction workers will use work practices that reduce the generation and distribution of indoor air pollutants. The IAQ Representative will conduct orientation sessions with affected construction workers and supervisors. In these sessions, the IAQ Representative will review goals covering all aspects of the Plan, including HVAC protection, source control, pathway interruption, use of low-VOC products, housekeeping, and flush-out.

E. Local Temporary Exhaust

1. Where available, operable vents and windows will be opened to ventilate the building during application of interior finishes when weather conditions are suitable. Spaces with fixed glazing or no windows will be vented by localized temporary exhaust, as described below, or by using building mechanical systems (described above).
2. Any local regulations concerning the discharge of particulates will be adhered to.
3. Local temporary exhaust will be accomplished using fans, duct extensions, and filters.
4. Local temporary exhaust will not discharge near air intakes or other openings that lead into the building.
5. When necessary to control odors, special filtration media such as potassium permanganate or activated charcoal will be used.
6. Building louvers may be temporarily removed, or the installation of fixed windows delayed for the placement of exhaust ductwork

F. Covering or Sealing Sources of Pollution

1. The following rules apply to materials that emit air pollutants or odors:
2. Containers containing wet materials will be covered whenever they are not in active use.
3. Waste materials will be covered or sealed and regularly removed from the building.
4. Absorptive materials or materials with an odor will be covered while moved through the building.
5. Whenever possible, material containers will be disposed of with the covers on.
6. Enclosed tankers will be used for built-up roofing instead of open kettles.
7. Materials that require a surface coating to control pollutants or odors will be coated promptly.

1.8 Pathway Interruption

- A. Measures will be implemented to close or cover pathways between spaces through which pollutants could travel.
- B. Controlling Pollution at Entrances

- C. Measures will be taken to prevent pollutants from tracking into interior spaces by workers or equipment. These will include temporary walk-off mats and floor protection

1.9 Protection of Stored Materials

- A. Measures will be taken to minimize dust accumulation on material surfaces and the absorption of other pollutants by absorbent materials. The measures will include the following:

1. Materials will be handled and stored according to the manufacturer's recommendations.
2. Unwrapped absorbent materials will be shrink-wrapped if necessary.
3. Highly absorbent materials like duct liner, acoustic tile, carpeting, or insulation will be stored indoors in the original packaging, or covered and sealed.
4. Moderately porous materials like gypsum board will be stored indoors, wrapped or away from dust and materials prone to off-gas VOC's.
5. Framing lumber will be stored indoors whenever possible. If stored outdoors, the lumber will be (1) covered with a water proof covering, (2) stored off the ground, and (3) located away from standing water.
6. Dense material like glass, metal framing, ductwork and equipment will be covered and kept dry.
7. If condensation forms on cold material, care will be taken not to expose it to dust or other particles. If exposed to pollution, housekeeping measures will be used promptly to clean the material before installation.

- B. Protection of Materials During and After Installation

1. No materials intended for dry installation will be installed wet.
2. No materials will be stored in rooms containing air-handling equipment, other than materials intended for use there.
3. The IAQ Representative will determine appropriate measures to prevent water damage to materials not intended to be wet during construction, including temporary water barriers and/ or water stops.
4. Contractors are required to notify the IAQ Representative of any condition in which a material may be moisture damaged. The IAQ Representative will inspect the material and determine if it needs to be replaced.
5. Contractors who apply finishes without notifying the IAQ Representative of underlying water damage will be financially responsible for the cost of removing and replacing all affected materials, and of related work, including investigating for mold spores.

1.10 Preventing Contamination of Completed Work Areas

- A. When work is completed in an area, the area will be protected from pollutants generated in other parts of the building still under construction. One or more of the following methods of pathway interruption will be used:

1. Erecting barriers between completed areas and areas still under construction

2. Where present, doors and windows will be closed and locked between completed portions of the building and portions of the building still under construction. The closures will be further sealed with tape, plastic sheeting and/or sealant, if necessary.
3. Where there is no constructed barrier between the two portions of the building, a temporary barrier will be erected to close in the smaller of the two spaces. The edge of the temporary barrier will be taped continuously to ensure a tight seal, or even caulked. The temporary barrier will be erected to withstand pressure differentials between the two spaces. Elevators and stairways that open onto both completed areas and areas still under construction will have air lock vestibules at their entries to the floor to prevent the passage of dust and other contaminants by the stack effect.
4. After sealing the finished area off from the work area with a barrier, the work area will be depressurized using exhaust techniques described above.
5. The finished area will be pressurized in combination with de-pressurizing the work area. This will not be done when the finished area is undergoing flush-out.

1.11 Housekeeping

- A. The following housekeeping measures will be employed as part of the Plan: A regular housekeeping schedule will be instituted. Cleaning measures and frequency will be selected according to the pollutants generated in a space.
- B. Where applicable, dust will be suppressed by the use of low-odor wetting agents and sweeping compounds.
- C. Low-odor cleaning agents will be used.
- D. Spills of water or solvent will be cleaned up immediately.
- E. Attention will be given to cleaning hidden or hard-to-reach surfaces, such as wall cavities, tops of door, ledges, and behind water closets.

1.12 Sequencing Finish Applications

- A. Finish Applications
 1. The installation and application of finishes will be scheduled to prevent porous materials from acting as "sinks" for the storage and subsequent release of contaminants emitted from wet-applied finishes and other high off-gassing materials.

1.13 Procedures

- A. The following sequencing procedures will be coordinated by the IAQ Representative:
 1. Carpet and carpet tiles will be removed from their packaging 24 to 72 hours prior to their installation and stored in ventilated areas away from acoustical ceiling tiles (and away from spaces where ceiling tiles have been installed).
 2. Caulks, sealants, and joint fillers will be applied prior to installing carpets or acoustical ceiling tiles.
 3. Painting of interior walls, soffits, doors, frames, etc. (with the exception of touch-up work) will occur prior to installing carpets or acoustical ceiling

tiles.

4. Painted areas will be allowed a minimum 48 hour drying period before carpets or acoustical ceiling tiles are installed.
5. Where feasible, a primer coat of paint will be applied to gypsum wallboard prior to the application of caulks, sealants, and joint fillers.
6. Custom architectural millwork items will be finished off-site and delivered to the site after a minimum 48 hour curing period.
7. Fabric-covered systems furniture panels and upholstered furniture will be installed after all other finish work is complete, and after flush-out is complete.

1.14 Flush-Out

- A. After completing and cleaning the building, all mechanical systems that supply outside air will supply a total air volume of 14,000 cubic feet of outdoor air, while maintaining an internal temperature of at least 60 degrees Fahrenheit and a relative humidity no higher than 60%.
- B. Ventilation of the occupied spaces will begin a minimum of 48 hours prior to occupancy and continue for the duration of occupancy. Flush-out will continue until the 14,000 cubic foot requirement has been delivered to the space.
- C. Filters at central air handling units (AHU's) that are operated during flush-out: Prior to use, each AHU will be equipped with filters having a minimum rating of MERV 13 per ASHRAE 52.2-1999 (AHU's that have been operated during construction will already be so equipped per the above section "Use of Mechanical Systems during Construction").
 1. After flush-out, filters in those AHU's that supplied and exhausted 100% outside air will be inspected. If a significant accumulation of particulates has occurred, these filters will be replaced. (deleted space)
- D. When a completed section of the building is flushed out while construction continues elsewhere, it will be effectively separated from on-going construction- generated pollution in accordance with the requirements of "Pathway Interruption," above.
- E. Care will be taken to prevent pollution generated by construction dust, particulates or volatile chemicals from entering outside air intakes during flush-out.

1.15 Air Quality Testing

- A. The Owner's Representative will be responsible for coordinating and documenting the baseline IAQ testing after construction ends and prior to occupancy.
- B. After completing and cleaning the building, perform baseline IAQ testing prior to occupancy using testing protocols consistent with the United States Environmental Protection Agency Compendium of Methods for the Determination of Air Pollutants in Indoor Air.
- C. All testing will be conducted prior to occupancy, during normal occupied hours, with the building ventilation system operating on a normal schedule with an outside air flow rate of 14,000 cfm for the occupied mode for the duration of the air testing.
- D. All interior finishes will be installed prior to air testing.

- E. Sampling locations will be designated for each portion of the building served by a separate ventilation system; two sampling points per floor area including areas with the least ventilation and greatest presumed source strength.
- F. Air samples will be collected between 3 to 6 feet from the floor to represent the breathing zone of occupants over a 2-hour period.
- G. Testing will be performed and documented noting that the maximum contaminant concentrations listed below are not exceed. If the maximum contaminant concentrations are exceeded, additional flush-out with outside air will be performed at each sampling point where concentration limits are exceed. Retesting will be performed to document that concentration levels have been met.
 - 1. Formaldehyde 50 parts per billion
 - 2. Particulates (PM10) 50 micrograms per cubic meter
 - 3. Total Volatile Organic Compounds (TVOCs) 500 micrograms per cubic meter iv)
 - 4. 4-Phenylcyclohexene (4-PCH) 6.5 micrograms per cubic meter
 - 5. Carbon Monoxide (CO) 9 parts per million and no greater than 2 parts per million above outdoor levels

1.16 Communication Plan: Triangle will hold an initial meeting with each applicable contractor at the start of his or her on-site work and present each contractor with a copy of this IAQ Plan. We will review compliance as part of regularly scheduled contractor meetings and will hold each contractor accountable for adherence to the plan as required by the work of his/her respective trade.

1.17 Plan Manager: Triangle has designated the Project IAQ Representative (noted above) who will be responsible for inspecting the jobsite for compliance and leading IAQ meeting discussions during contractor meetings.

1.18 The Owner Representative: Will be present at the contractor meetings and will report any IAQ related issues. Issues presented are to be abated immediately following each meeting and verification submitted for distribution with the next meeting's minutes.

INDOOR AIR QUALITY MANAGEMENT PLAN ACKNOWLEDGMENT

(Signature of all contractors required prior to site mobilization)

By signing below, I acknowledge that I have read and understand the Construction IAQ Management Plan and will comply with the above guidelines that are applicable to my trade.

<u>Company/Trade</u>	<u>Name</u>	<u>Signature & Date</u>
_____	_____	_____